



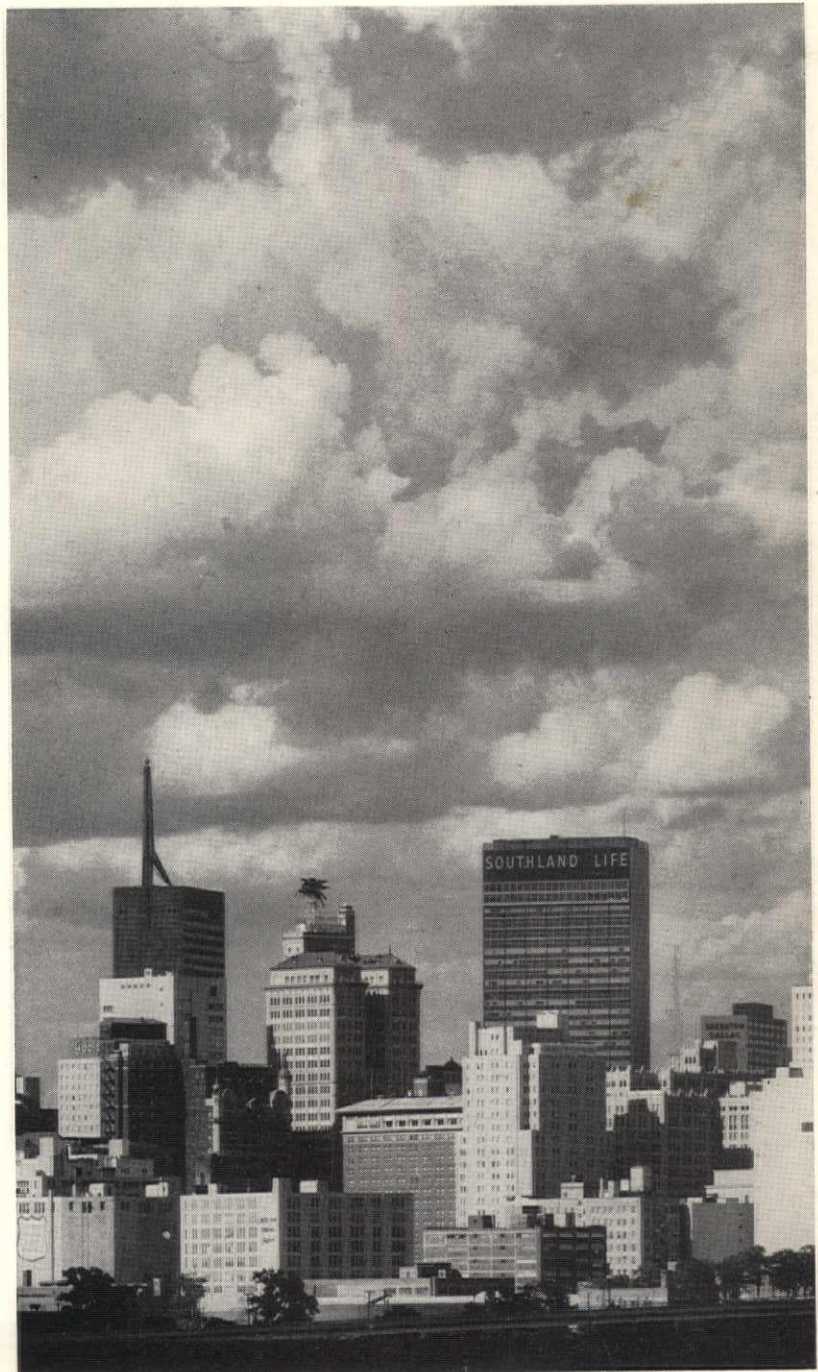
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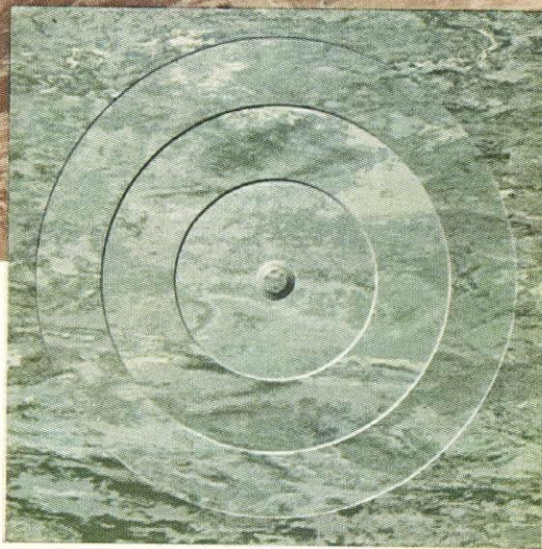
April 1962

Journal

OF THE AMERICAN INSTITUTE OF ARCHITECTS

1962 CONVENTION  
DALLAS, MAY 7-11  
A REPORT  
ON THE PROFESSION



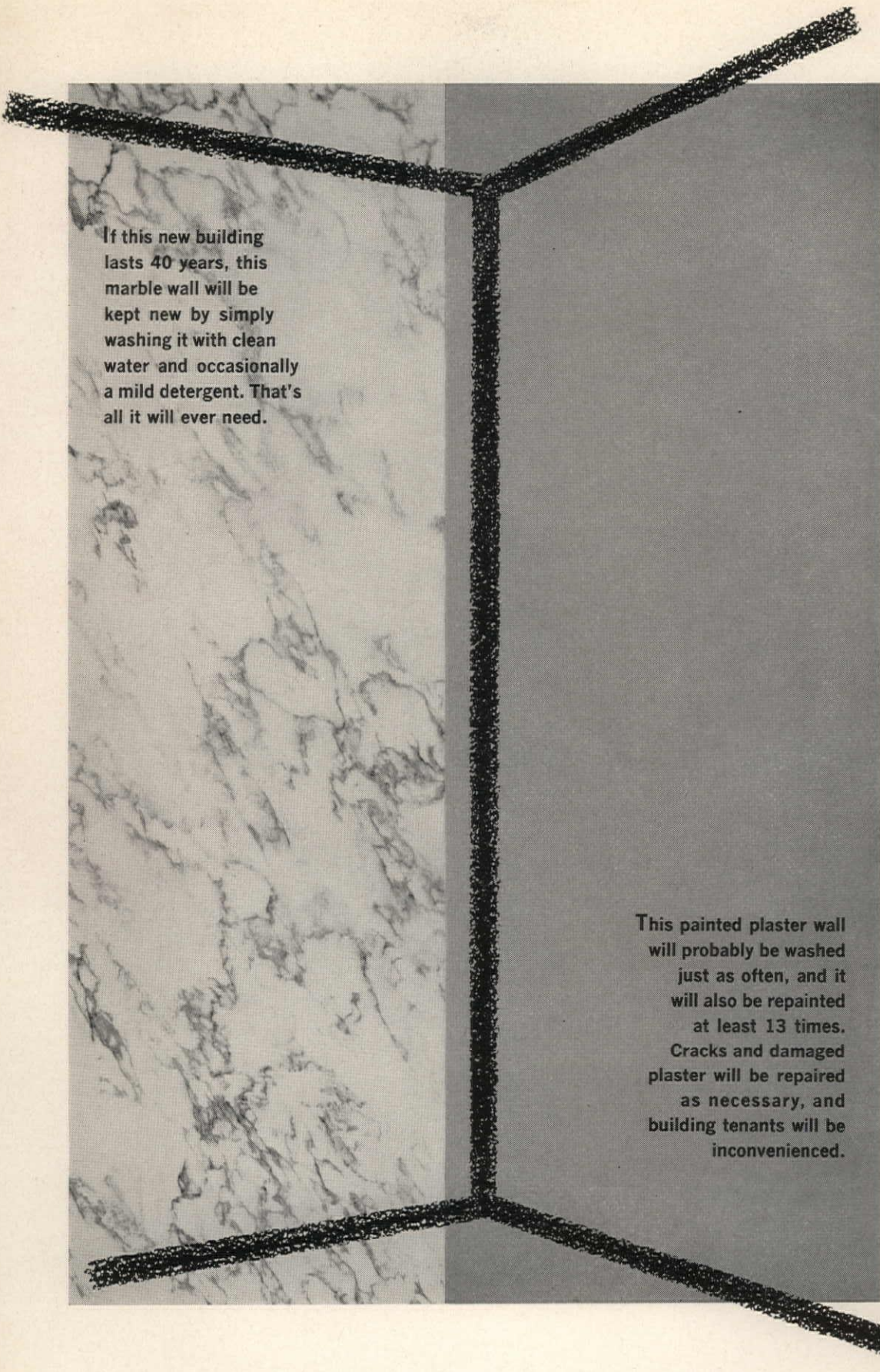


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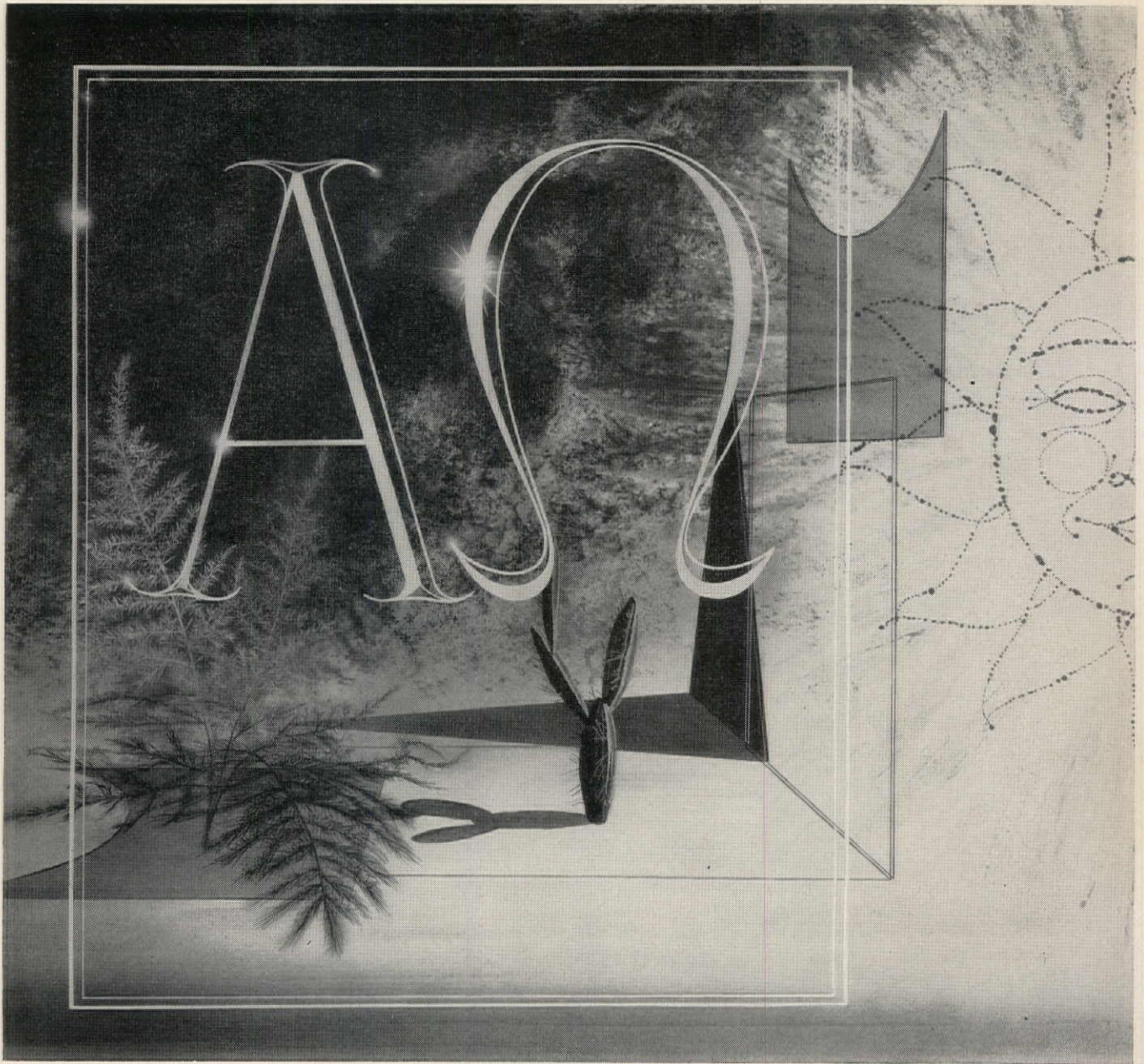


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*The Journal of the American Institute of Architects, official organ of the Institute, is published monthly at The Octagon, 1735 New York Avenue, N. W., Washington 6, D. C. Editor: Joseph Watterson, FAIA. Subscription in the United States, its possessions, and Canada, \$5 a year in advance; elsewhere \$6.50 a year. Chapter Associate members, \$2.50, Students, \$2.50, Members of Associations of allied professions, \$2.50 (by special group arrangement). Single copies 75¢. Copyright, 1962 by The American Institute of Architects. Second class postage paid at Washington, D. C. Change of Address: Notify The Octagon, giving both old and new addresses. Allow four weeks. Official address of the Institute as a N. Y. Corporation: 115 E. 40th Street, New York, N.Y. Printed in Washington, D. C. by Judd & Detweiler, Inc.*

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*Opinions expressed by contributors are not necessarily those of AIA*

VOLUME XXXVII, NO. 4

APRIL, 1962



- 8 Letters to the Editor
- 12 News
- 21 *David L. Eggers, AIA*: Astor-Cooper Square Urban Renewal Study
- 28 *Fred H. Bair, Jr, AIP*: Challenge of the Unexpected Obvious
- 35 The Latest Word on the FDR Memorial
- 85 *Albert Bush-Brown*: The Architect in the Community
- 136 *Wolf Von Eckardt, Hon AIA*: Allied Arts

#### THE CONVENTION

- 37 Dallas—1962 Convention City
- 43 1962 Building Products Exhibition at Dallas

#### THE PROFESSION

- 65 A Second Report on Your Profession  
*Prepared by the AIA Committee on the Profession*

#### THE INSTITUTE

- 89 AIA Councils—A Proposal by the Board of Directors
- 92 *Fred L. Markham, FAIA*: NCARB—The Examination Committee (Part II)
- 94 *William H. Scheick, AIA*: Introductions Are in Order
- 95 Library Notes
- 96 Book Reviews
- 100 The Editor's Page: Preservation and Conservation
- 120 Corporate Members
- 122 Calendar, Necrology
- 130 Disciplinary Action

#### TECHNICAL

- 101 *Dr-Ing Frei Otto and Peter Stromeyer*: Pneumatic Structures
- 112 *Philip W. Faulconer, AIA*: Architecture for Science and Technology

#### THE COVER

Bristling with spires and flying red horses by day, ablaze with neon at night, Dallas skyline welcomes Convention visitors. Gamon photo



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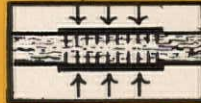
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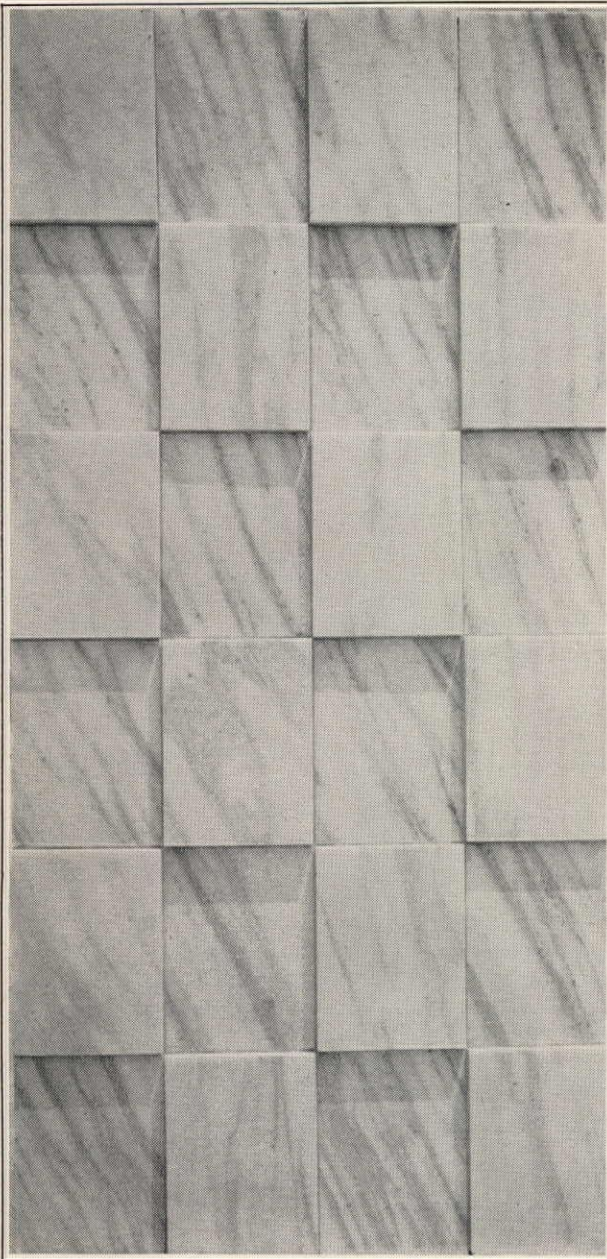


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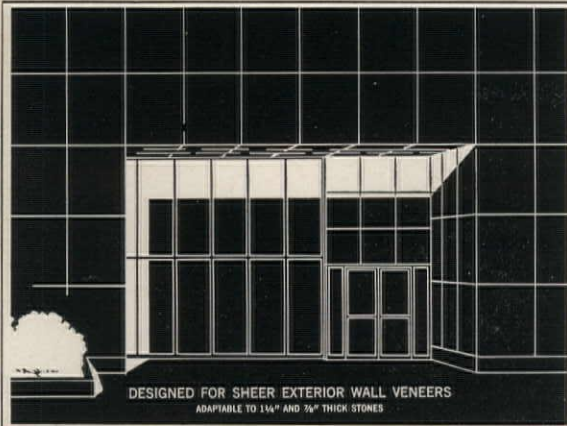
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(TYPICAL CONTINUOUS SUPPORT AND ANCHORING)

**SECTIONS AND ELEVATIONS SHOWING SUPPORT AND ANCHORING AT BOTTOM OF MARBLE**  
(APPLICABLE AT BASE AND AT CONNECTIONS WITH OTHER MATERIALS)

**EXTERIOR ANCHORS, SUPPORTS AND RELATED MATERIALS**

**METHODS OF SOFFIT CONSTRUCTION**

**AN EXAMPLE OF CONSTRUCTION ELIMINATING COSTLY BACK UP**

**KEY ELEVATION FOR EXTERNAL DETAILS**

**KEY ELEVATION FOR INTERIOR DETAILS**

**BASIC DESIGN AND INSTALLATION OF ANCHORS AND SUPPORTS FOR EXTERIOR MARBLE VENEERS**

**BASIC APPLICATION OF ANCHORING FOR INTERIOR MARBLE**

Labels in diagrams include: ALUM. BED MEMBER (INVERTED), RED MEMBER CLIP (ALUM.), SUPPORTING MEMBER (SIZES DETERMINED BY STRUCTURAL REQUIREMENTS), 1/4" TYPICAL, 1/2" N. C. 18 FLAT HEAD ALLEN BOLT, SUPPLEMENT AT SOFFITS, CONTINUOUS RED MEMBER, SOFFIT SUPPORT ADJACENT TO WALLS, RESILIENT TYP HEADER, POLYURETHANE OR FOAM, TYPICAL CAULKING AT VERTICAL JOINTS, WINDOW REVEALS (DEEP OR SHALLOW), HORIZONTAL JOINT TREATMENT, INTERNAL CORNERS, RIGID INSULATION, FINISH CHANNEL, GYP & PLASTER, ALUM. 1/2" MEMBER, ALUM. 1/2" CLIP, REINFORCING MEMBER (AT INTERSECTIONS), MARBLE VENEER, SIZES DETERMINED BY LOAD REQUIREMENTS, EXTERNAL CORNERS, MEMBER SIZE DETERMINED BY LOAD REQUIREMENTS, TYPICAL CONSTRUCTION ANCHORING AT VERTICAL JOINTS, CONTINUOUS SUPPORT AT BASE OR CLIP ANCHORING AT BOTTOM, INTERNAL CORNERS, DOOR JAMBS, THESE DETAILS SHOW INTERIOR ANCHORING AT VERTICAL JOINTS. SYSTEM MAY BE MODIFIED FOR GREATER FLEXIBILITY BY VERTICAL PLACEMENT OF SUPPORT MEMBERS, VERTICAL JOINTS, ALUM. 1/2" CLIP, 1/2" N. C. 18 FLAT HEAD ALLEN BOLT, ALUM. 1/2" CLIP, ALUM. 1/2" CLIP.

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# Letters

## Improving the City

EDITOR, *Journal of the AIA*:

I was tremendously impressed by the article by Robert L. Zion, "Some Impractical Ideas for the Improvement of Cities."

More important than the specific proposals he made was his basic point, the lack of imagination and insistence upon "practicality" which many architects and planners engage in which tends to stultify city development.

EDMUND N. BACON  
Philadelphia, Pa

## Who's Eligible?

EDITOR, *Journal of the AIA*:

Mr. Scheick's provocative piece, "New Thinking on Membership," in the January issue, impels me to comment on a corollary matter. I recognize and agree with the arguments for expanded membership to include all eligible architects. The only limitations I would set are implicit in the word "eligible." Mr Scheick's article indicated that if some younger members were on the "fringe of questionable practice," the AIA might "bring them up right." With this precept, too, I have no important quarrel. If the Institute catches them young I believe its influence will be beneficial. This is particularly true where chapters are active and meetings readily accessible — conditions which, unfortunately, do not always apply. My gripe is not about expanded membership, per se, or the newly licensed young practitioner. Indeed, attention to my subject matter might well reduce our numbers.

It seems to me that one prime function of the Institute should be to imply a warranty that clients can respect its members and employ them with confidence. This is not to say that performance should be guaranteed, but I believe acceptance for membership should indicate sufficient investigation to promise some degree of professional aptitude and attitude. Accordingly, it is my conviction that some chapters should make a sincere effort to clean house.

The code of ethics seems reasonably clear. While, as in all codes, certain regulations may be subject to interpretation, I think we all know the intent behind the semantics. What I have to say is not based upon hearsay, but upon facts. The limited scope of an individual prohibits generaliza-

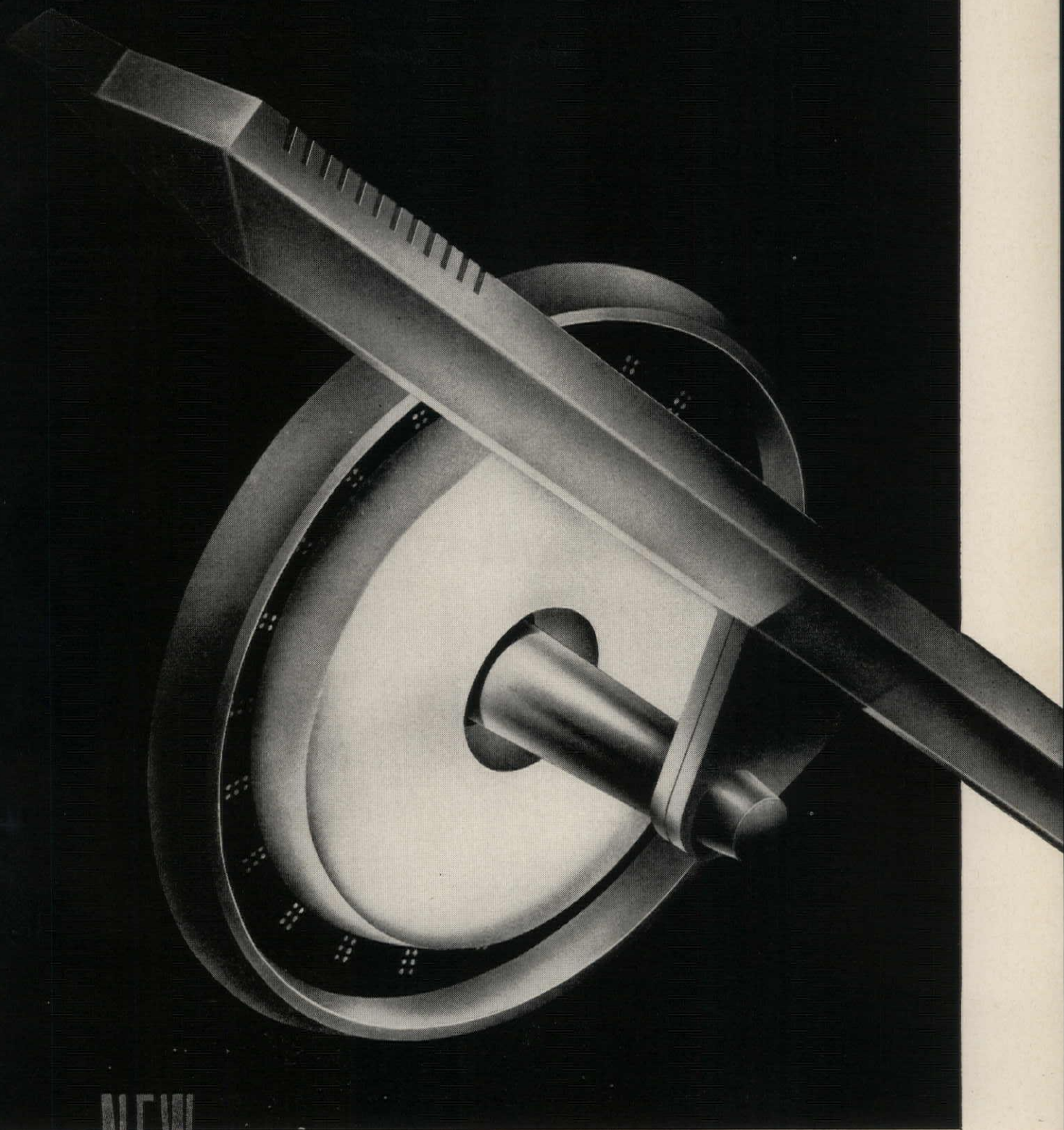
tion. However, an adequate sampling could, I think, constitute evidence of a widespread condition if the observations stem from a large metropolis.

There are many AIA members who conduct a Dr-Jekyll-and-Mr-Hyde sort of practice. The quality of service is proportionate to the fee. The fees usually bear no remote resemblance to the schedules recommended by their respective chapters. Accordingly, study of the problem is scanty, drawings are inadequate, detail drawings are omitted, specifications are sketchy and non-existent and engineering services are often furnished by the very subcontractors who will perform parts of the work. Construction supervision is superficial or omitted entirely, even when included in the contract for services. It is agreed that complete services are sometimes not required by clients. Whatever these limitation, I believe the architect should maintain a professional attitude, rendering the best service possible within the scope indicated. One primary function of a profession, as distinguished from a business, is the exercise of maximum potential in the interest of its clientele. I have no objection to a low fee if there is some good reason for it. It is my premise that, regardless of resultant profit or loss, once an architect has undertaken a commission he should do the best job of which he is capable.

We are all aware of some of the devices used to augment low fees. There are others, less obvious, extremely oblique and sometimes ingenious, employed by many architects who obtain work on the basis of low competitive fees. The virgin client accepts resultant shortcomings, extra costs and other ultimate troubles as necessary corollaries to a building experience. Architects who indulge in this type of practice are apt to become so conditioned that they are incapable of rendering adequate services even for a normal fee.

Let's scan a few other practices. We are discouraged from soliciting work but we know that most architects do. In fact, many architects employ contact men who do nothing else. Advertising is prohibited, but the separation between this and what might be considered public relations is less an iron curtain than a gossamer film. Important work is supposedly awarded on the basis of performance, but it is no secret that contributions in one form or another are more potent job-getters than architectural ability.

The tale could go on, but I believe the point has been made. We have established a code for ethical practice, but many of our members violate its provisions and no one tells them nay. Further, the incidence is not limited to isolated cases; also, there is wide knowledge of (*continued on page 10*)




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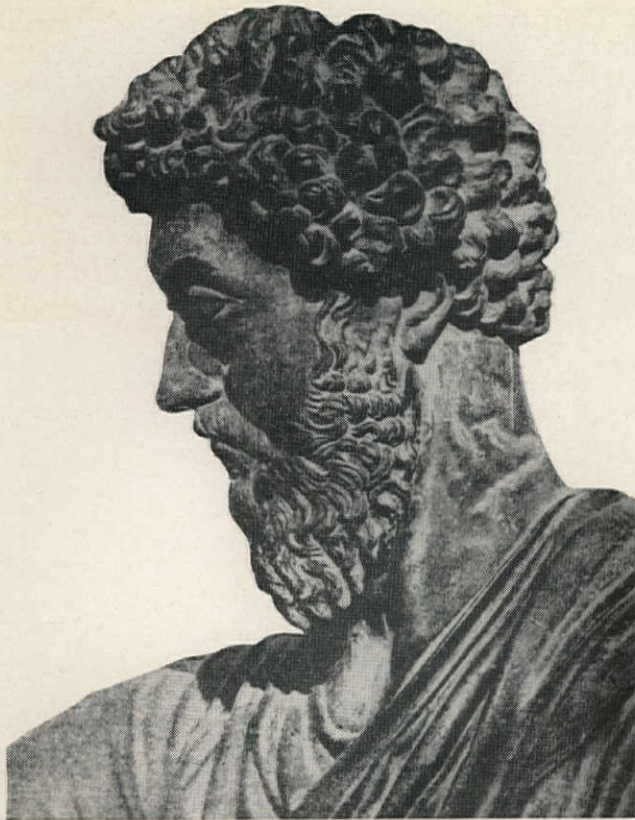
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**"Things that have a common quality  
ever quickly seek their kind."**

— Marcus Aurelius Antoninus

Too often the excelling quality of an architectural idea is lost in execution. To fulfill that quality, the architect must demand that every workman and every supplier achieve a common—a uniform—quality. Materials, too, are critical. If the architect has conceived curtain wall panels of uniform flatness and uniform color, then these must be provided in kind.

In order to meet that demand, the Quality Verification Council of the Porcelain Enamel Institute has undertaken a program of quality research and certification. The QV program provides for unannounced inspections by an independent consultant to verify the continuing capability of participating companies to meet the established QV standards.

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## Letters (Continued)

these conditions. Laymen have voiced some of the same complaints, based upon their own personal experiences. These people take the point of view that the AIA is an impractical, idealistic organization with a highly theoretical set of rules which are made to be broken. Returning to the question of expanding membership, it seems to me that either some method should be found to make our precepts meaningful, or we may as well establish a promiscuous policy and admit everyone who has a license.

MORTIMER E. FREEHOF, AIA  
New York City

(Both the Committee on the Profession and the Committee on Structure are well aware of the problems decried by Mr Freehof. One matter under study is revision of the standards of Professional Practice to include professional competence and fees adequate to produce competent services. Enforcement of ethics depends upon active use of our long-established judiciary system. It is effective for AIA members, but not for outsiders. The more architects there are outside the AIA, the greater the chance for undisciplined practitioners to give the profession a black eye.—WHS)

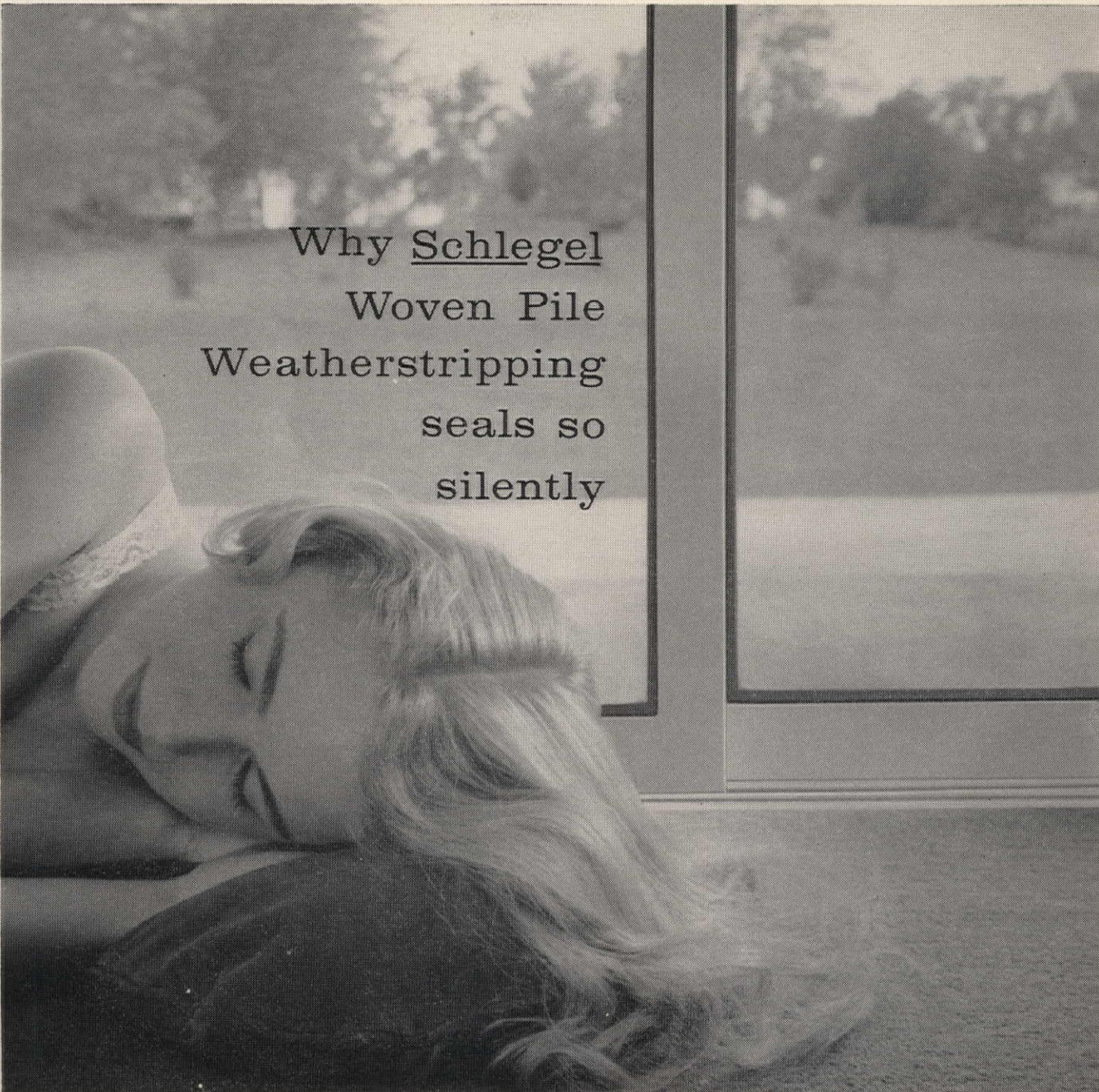
### A Space Is a Wall Is a Space

EDITOR, *Journal of the AIA*:

In his article, "Toward a More Dynamic Architecture," in the January number of the *AIA Journal*, Martin Bloom conceives of space as a continuum and perceives that particular architectural spaces, or space bodies as he calls them, are not arbitrarily separated by meaningless barriers, but create their own barriers. This suggests a further truth which is inherent in Mr Bloom's thinking: that these barriers—walls, windows, storage units, rocks, trees, bridges—are in themselves spaces, space being continuous through them as it is through all material bodies. Rightly conceived, these barriers do not divide the adjacent space bodies, though they may be thought of as defining them; they actually incorporate and extend the space bodies' separate purposes and functions in a continuous space relation.

Only so conceived will these so-called space barriers become in reality uniting and extending space forms, and have a vital significance in a dynamic architecture such as is conceived by Mr Bloom.

SILVIO ZANETTI  
Cambridge, Mass.



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# News

## In Washington

President Kennedy's plan to upgrade HHFA to a Department of Urban Affairs, with a Secretary holding Cabinet rank, had too many strikes against it for too many reasons when it went before the House in late February.

Supporters of the measure were disappointed, but presumably not surprised, when Republicans joined with Southern Democrats to defeat the plan. Unfortunately, political maneuvering probably was more to blame than any widely-held opposition to the measure itself.

Washington cartoonist Herblock wryly summed up thinking which helped kill the plan, for this

"Hmph — There's Nothing In Those Silos But People"



Herblock in the Washington Post

year at least. The measure's backers were not too pessimistic, since it is generally felt that the issue will come up again next year and will stand a better chance of passage next time around.

The Institute reiterated its official stand in support of the Urban Affairs Department, first taken in 1957, as the measure went to the House.

## Again, the FDR Memorial

As the Fine Arts Commission turned official thumbs down on the award-winning Pedersen and Tilney design for a Franklin D. Roosevelt Memorial (see page 35), the American Society of Landscape Architects announced its support of a "Memorial Park" in lieu of the controversial monument.

ASLA, one of thirteen national organizations serving on the Joint Committee on the National Capital, said it would support the twin bills (S 2501 and HR 7664) in Congress recommending the establishment of a formal garden, with fountains and statuary, in memory of the late President.

## AISC Awards

The American Institute of Steel Construction recently announced its Architectural Awards of Excellence Program for 1962. Awards will be presented for "outstanding esthetic design in structural steel" by American architects for buildings occupied or completed in 1961. The awards program is open to buildings of all classifications, and equal emphasis to buildings of all sizes and types. Entries may consist of a single building, or of a related group of buildings forming a single project. For further information, write to AISC, 101 Park Avenue, New York 17.

## California State Architect

California has announced a nationwide effort to recruit a new State Architect to succeed Anson Boyd, slated for retirement this spring.

The State Division of Architecture, administered by the State Architect, is responsible for about \$100 million in construction contracts each year. Selection of candidates will be made by a qualifications review committee and interview board, and final selection will be made after personal interviews with the Director of Public Works.

The announcement stated that candidates must have broad and extensive architectural administrative experience, and must be eligible for professional registration in California. Further information is available from John F. Fisher, Executive Officer, State Personnel Board, 801 Capitol Avenue, Sacramento 14.

## Indiana Dunes Conservation

The Lake Michigan Region Planning Committee, a joint committee of delegates from the Wisconsin, Chicago, Northern Indiana, and Western Michigan AIA Chapters, recently issued a statement favoring a "comprehensive plan approach" to development of the Lake Michigan shoreline, and in particular the Indiana Dunes area. Their statement read, in part, ". . . The Lake Michigan shoreline, within which the Indiana Dunes are included, is a symbol of a dynamic and tightly interrelated region of the United States . . . this region is of vitally increasing significance to the growth of the entire Midwest, and . . . this shoreline . . . is of such varied interest and of such (continued on page 14)



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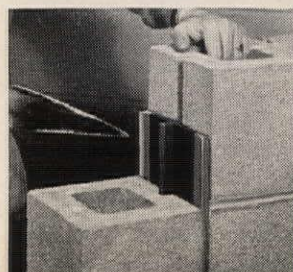
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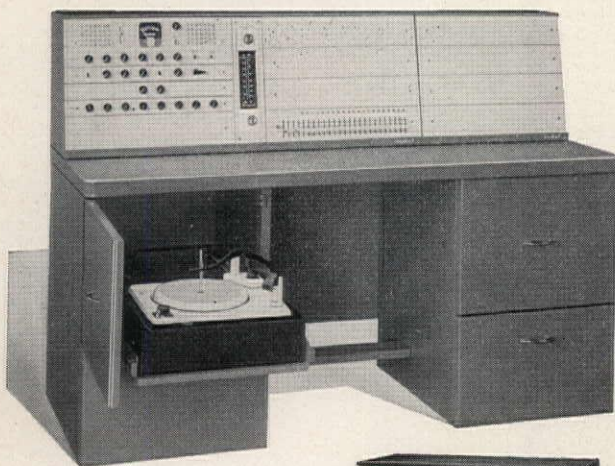
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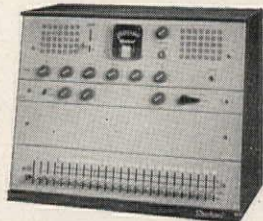
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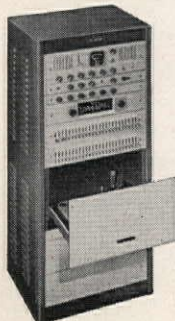


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## News (Continued)

character that continued development of this area has national significance and must be based upon an intensive, objective regional planning program which will bring proper land use to the fore as the determining factor for all future generations and for all time."

### **Reynolds Student Prize Winner**

A design for a "Warped Space Frame Component" won top honors and a \$5,000 prize for Texan Jon H. Starnes in the second annual Reynolds Aluminum competition for Architectural Students.

Announcement was made by the AIA which administers the program. The competition is sponsored by Reynolds Metals Company for the best design of a building component in aluminum.



Jon H. Starnes shows model of his warped space frame component to Philip D. Creer (left), director of University School of Architecture, and R. Gommel Roessner, chairman of school's Design Committee (at right)

Starnes, a fifth-year student at the University of Texas, will divide the \$5,000 prize with the school. He will receive the prize officially during the Dallas AIA convention.

The "warped space frame component" is a structural unit designed to span any structure with an overhead frame or roof.

The jury which selected Starnes' design for the top prize also singled out five other designs for certificates of merit.

### **AIP Honor Awards**

The American Institute of Planners has announced a group of awards to be made to metropolitan areas for outstanding achievements in civic betterment. Nominations must be received by April 15. For information contact Jury of Awards, AIP, 2400 Sixteenth Street NW, Washington, DC.



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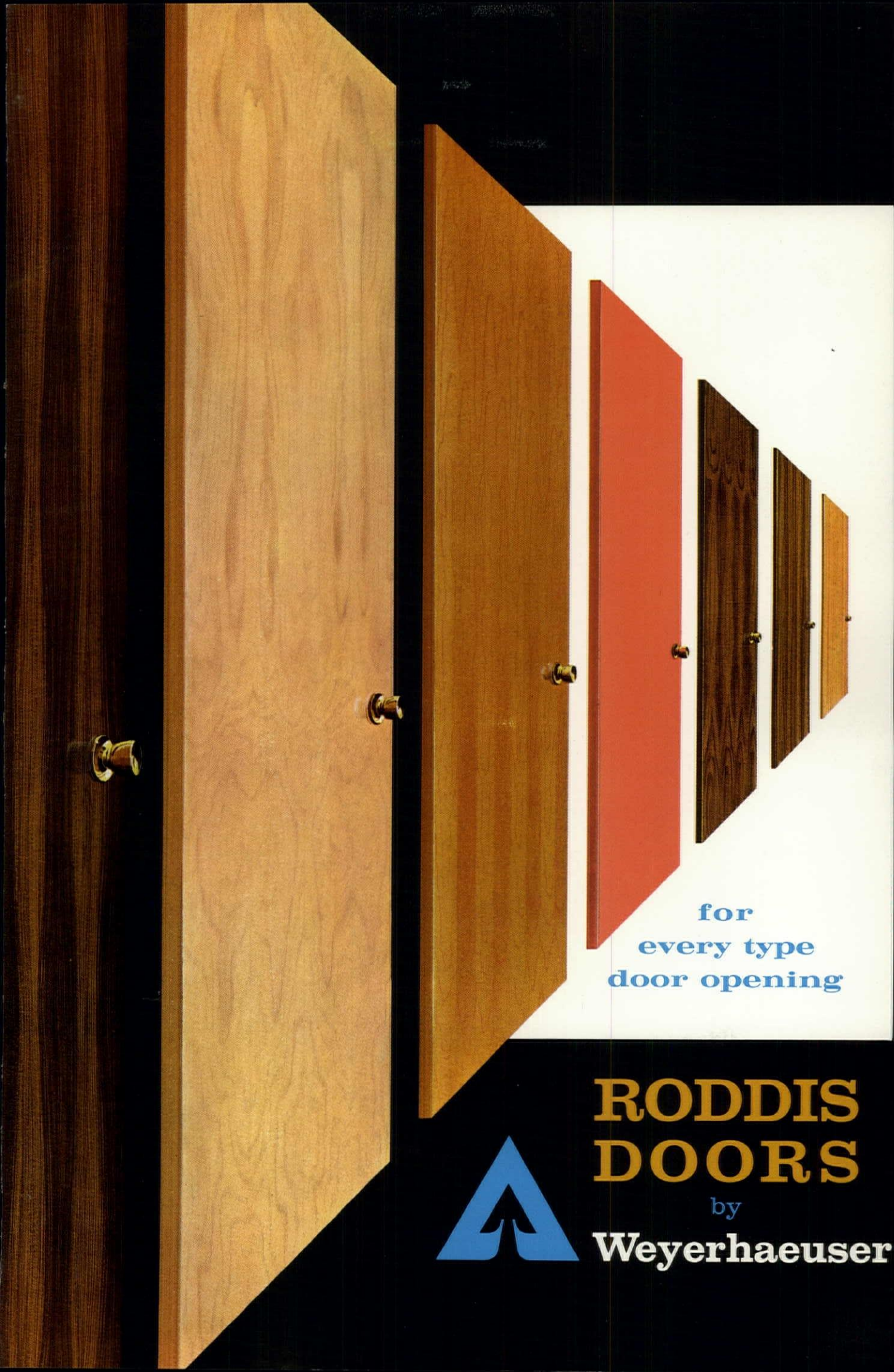
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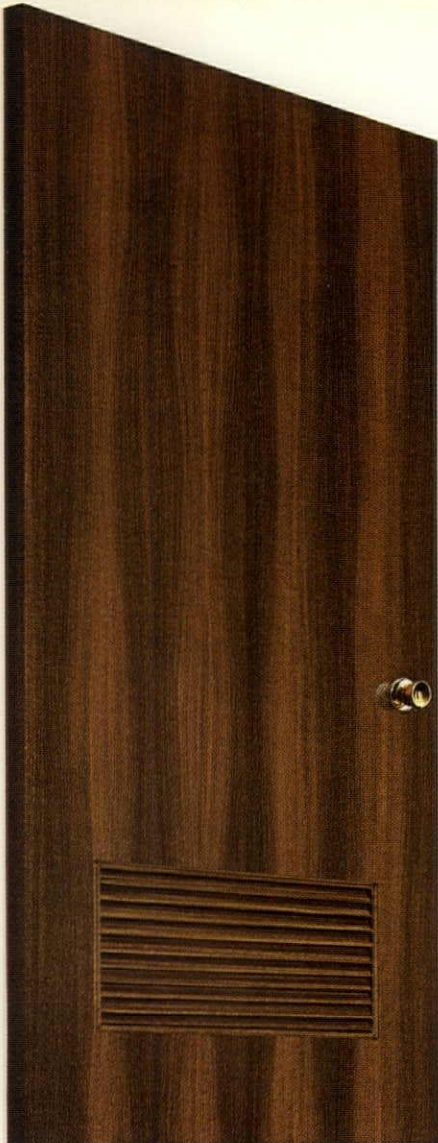


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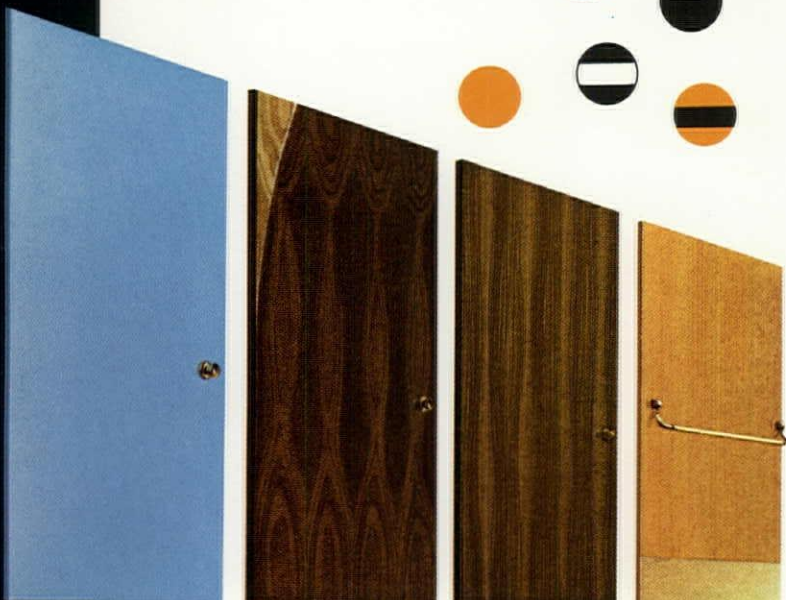
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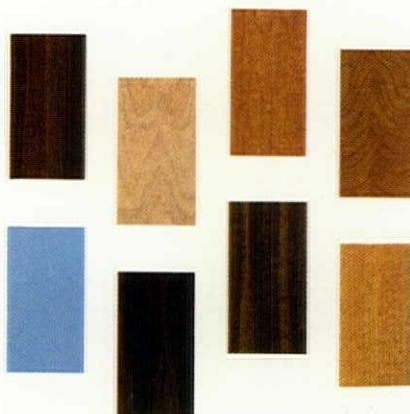


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A · I · A

Journal

# The Astor-Cooper Square Area Urban Renewal Study

## **Eggers and Higgins, Architects**

David L. Eggers, AIA, Partner-in-Charge

James L. Cady, Designer

► The Astor-Cooper Square Urban Renewal Study was designed by our office as a presentation for an exhibit held by the New York State Association of Architects, in connection with the Association's Convention in September of 1961 at Saranac Lake. The theme of the Convention was "Architects Participate in Urban Design."

It was most gratifying to us that many member architects, as well as the guest speakers themselves, were in favor of a more humanistic approach to urban renewal. This feeling was admirably expressed by the principal speaker, the Hon John V. Lindsay (Rep 17th Cong Dist, NYC), who is a sponsor of urban renewal legislation. Mr Lindsay said that there is now considerable evidence that the "sledgehammer approach to urban renewal, where entire districts have been obliterated" has been the wrong approach. "By some," he said, "it is already considered archaic. Spot renewal and neighborhood urban improvement is considered more sensible, as well as more humane."

For some time we, as architects located in New York City, have been concerned with the





→ Z Plan shows Eggers and Higgins' presentation for the exhibit. Renewal plans are superimposed over a city map. Elevations along bottom of plan indicate archi-

tectural character of buildings along Bowery-Third Avenue. This photo may be compared with aerial view of area (illustration on next page) for orientation

incredible scope of demolition operations to entire neighborhoods of the city. These operations have resulted in the destruction of usable property and the uprooting of long-established segments of the population. The persons thus displaced have been relocated to areas with which they have no particular identity and where, to put it mildly, they have no desire to be.

We have chosen the Astor-Cooper area for our Renewal Study because it has so far been fortunate enough to escape the "sledgehammer approach." Several years ago, a renewal plan, which would have levelled several blocks in the area, was proposed and then defeated with the assistance of a militant and vociferous neighborhood population.

### Basic Approach to the Study

The basic concept behind our Astor-Cooper Urban Renewal Study is to retain intact the ethnic, social, religious, cultural and economic fabric of the area—to rejuvenate, not to destroy. This is an urban *renewal* plan, not an urban *removal* plan.

Our design reflects, we feel, a completely humane and realistic method for saving this worthwhile neighborhood. Our basic approach has been one of improvement from within, as opposed to the simple expedient of tearing down and building anew.

It is our belief that urban renewal should create a climate for improvement, a stimulus to individual participation and, eventually, a neighborhood in which the inhabitants will be able to take a great deal of pride.

Our study envisages a comprehensive, long-range plan for block-by-block improvement of the area, carried out in large part by building owners, merchants, and residents. The plan will utilize the neighborhood's existing potentials; its space, its buildings, its people.

### The Neighborhood

The area encompassed by our Study is approximately fifteen blocks long by two and one-half blocks wide. It runs between 14th Street on the north and Houston Street on the south. East and west boundaries are defined by Second Avenue and Broadway respectively. Third Avenue (which becomes the Bowery south of Cooper Square) runs through the center of the district like a somewhat damaged spine.

Second Avenue is "Main Street" for the neighborhood; Broadway, while noisy and continually traffic jammed, is not important as a shopping center.

### The Neighbors

The area is a fascinating microcosm of New York City. Its inhabitants' ethnic backgrounds vary widely, as do their occupations. Included in the district are Jews, Puerto Ricans, Negroes, Italians, Chinese, and a large segment of the city's Slavic population.

An important—and fairly recent—aspect of the neighborhood has been the settlement there of many artists. After World War II, a number of ex-GIs, attracted by low-rental cold-water flats, lofts, and stores, moved there to study art at nearby Cooper Union and New York University.





Main east-west artery (right) is 14th St. Diagonal avenue is Bowery-Third. Largest building is former Wanamaker store—Cooper Union below and at left.

Most buildings above Bowery-Third are industrial and commercial, those below residential. Washington Square is visible at top. (Fairchild Aerial Surveys)



They remained, raised families, and were joined by other artists forced out of Greenwich Village by high rents. The city's artistic community has, in fact, shifted from Greenwich Village to the East Side, and is centered in the Astor-Cooper area. Cooper Union is, one might say, the artistic "heart" of the area. The artists take a lively interest in the neighborhood, which has derived a stimulating flavor from their presence.

Without quoting idealistic slogans, it can be said that this is one of the most congenial and well integrated districts in the city, one whose crime rate is low and whose juvenile delinquency problem is negligible. It is difficult to see what purpose would be served by the massive juggernaut of the type of urban renewal project practiced in other areas of the city.

### The Buildings

There are a few new, large, luxury apartment buildings on the boundary of the area (such as Stewart House on the old Wanamaker Store site) but, as they have little influence on the neighborhood, their presence does not figure significantly in our study.

The buildings west of Bowery-Third are mainly industrial, with old loft structures predominating. There are also many garages, filling stations and parking lots in this western district.

Most of the buildings along Bowery-Third Avenue are former residences built circa 1850. They are three or four-story brick structures with stores on the ground floor and rooms or apartments on the upper stories.

The side streets east of Bowery-Third are lined

with old- and new-law tenements, interspersed with meeting halls, homes for the aged, neighborhood clubs, synagogues, churches, and hundreds of shops and restaurants, catering to the ethnic groups living on the particular street.

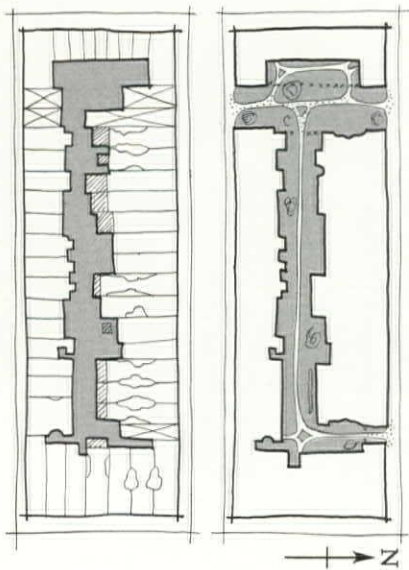
Apartments are, in large part, occupied by low-income families, and contain the bare minimum of conveniences and comforts. Floor plans include "dumbbell flats," floor-through, and railroad arrangements. Most floor-through apartments have been split into "improved" front and rear apartments, each having about one and one-half rooms, with small kitchens and baths. Some residents, mostly elderly people, still occupy undivided floor-throughs, usually consisting of two or three dark, ill-ventilated inside rooms, a kitchen with bath-sink in the rear room, and a toilet in a hall closet.

As a measure of the stability of the neighborhood, it is noted that apartments are often passed on to the next generation, which usually tries to make improvements.

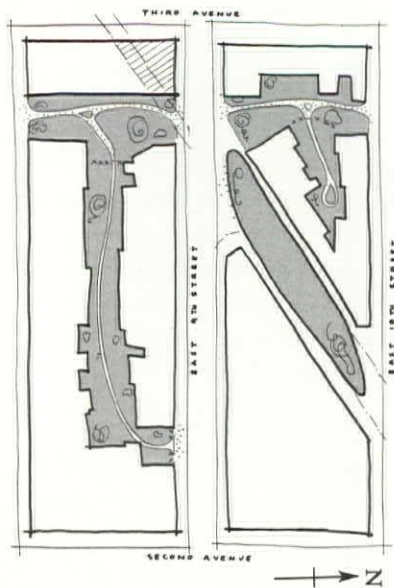
The artists have attacked their housing problems with characteristic zeal, ripping out partitions, old stoves, and other obstacles to free expression. The landlords haven't objected too strenuously. They are collecting rents on ancient buildings, some of which had stood vacant for years. The general policy seems to be one of laissez-faire, provided there is no foreseeable danger of building collapse.

### The Problem of Space

Our design is necessarily based on the New York City block, which was adopted in 1811 and



Above, public and private malls are created by removal of five tenements and alteration of eleven other buildings (plan at left shows existing situation; proposed solution at right). North-south mall serves as a city-maintained public park. Fenced areas are responsibility of building-owners. Below, Stuyvesant Place, closed to traffic between 9th and 10th, provides park space and enhances a group of fine old buildings facing the street, near St-Marks-in-the-Bouwerie



measures about 500 by 200 feet. The area's streets do not follow the gridiron plan exactly—some blocks are larger or smaller than a city block—some are bisected by vestigial remains of pre-1811 streets. A typical block is divided into two long rows of lots, with short rows at either end. A typical lot is seventeen to twenty feet wide and seventy-five to 100 feet deep.

The original block plan was based on two rows of connected houses, three or four stories in height, placed back-to-back. They were to be separated by an open strip running down the center of the block which would occupy about fifty percent of the land area. The open strip was to be divided into a series of private yards, so that the tenants would have some outdoor space to themselves.

Unfortunately, as the years went by, the houses were built in such a way that the lots are now seventy-five percent to one hundred percent covered. The few remaining areas have fallen into disuse or are cut into many tiny pieces, too small for effective use. Most are choked with rubbish.

Now the tenants no longer have shaded yards for their own use. Children have only the streets and sidewalks and a few paved playgrounds as space for play. Older residents must sit on front stoops or if they are fortunate, find a bench in a paved square. Central Park is a long way from the lower East Side. These are unnatural conditions.

Our designer, who lived in the area for several years while studying architecture and city planning at Cooper Union, has conceived the idea that the now-unrelated spaces within each block can be related—not only within but between blocks, so that continuous malls and yards will flow through the entire neighborhood. Each block contains a potential park—why not exploit this potential?

This idea has been used, on a modest scale, in privately developed areas, such as the block between Sullivan and McDougal Streets in Greenwich Village. There, however, the residents can afford to leave the city for vacations and weekends. The average citizen of the Astor-Cooper area does not enjoy the means to leave the city very often—he needs more living space the year around.

Our design will create breathing space and cleaner air. Connected walks will run inside the blocks through landscaped sitting areas and playgrounds. There will be sunlight and shade and changing vistas to refresh the spirit. The young and the old will be able to play, or relax or socialize as they please. Each block will be part of a whole, but will have its own character be-

cause it will be individually conceived and executed.

This concept, we believe, satisfies human needs. The individual is reassured by surroundings he knows—he is not cast into a new and alien environment.

### The Problem of Traffic

Traffic on the north-south avenues is two-way, and because of the industrial concentration west of Bowery-Third is largely commercial. Astor Place, where traffic crosses from several directions, is a masterpiece of urban confusion. A subway entrance stands on a lonely island at this intersection—the hapless subway patron must be possessed of extraordinary peripheral vision and the reflexes of a mongoose to reach the comparative safety of a sidewalk.

Our study provides for the closing off of the lower end of Fourth Avenue to create a campus for Cooper Union. Part of the Astor Place intersection is used to effect a landscaped area west of the Cooper Union Engineering Building—the subway entrance is located in this area.

This scheme would necessarily require a one-way northbound traffic flow on Bowery-Third, and a southbound flow on Fourth Avenue-Lafayette Street. Needless to say, the problem of traffic in the Astor-Cooper area cannot be considered apart from the grave city-wide traffic problem. Our study does, we believe, present a local solution, which would be a positive improvement to the neighborhood.

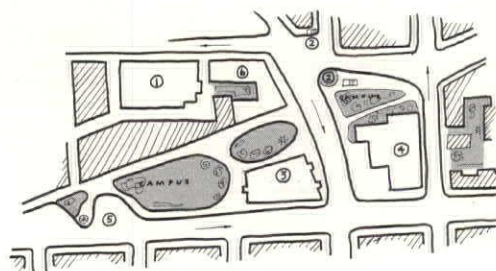
Our design also closes off certain vestigial (and now largely useless) streets. These include streets with such old and honoured names as Stuyvesant Place, Hall Place, Extra Place and Shinbone Alley. In each case, the street is returned to the use of the people—the effect on traffic would be negligible.

### The Problem of the Buildings

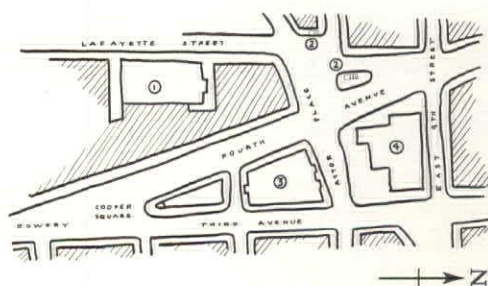
Our design does not include any wholesale area demolition. A few buildings are beyond repair and must be razed—portions of other buildings that cover more than seventy percent of their lots must be removed to effect the center malls shown on our design.

All improvements to existing buildings will be made under a prescribed plan. Fortunately, most of the existing buildings are of generally similar design, so that fairly standardized plan solutions can be applied. Existing commercial enterprises occupying ground floors will remain.

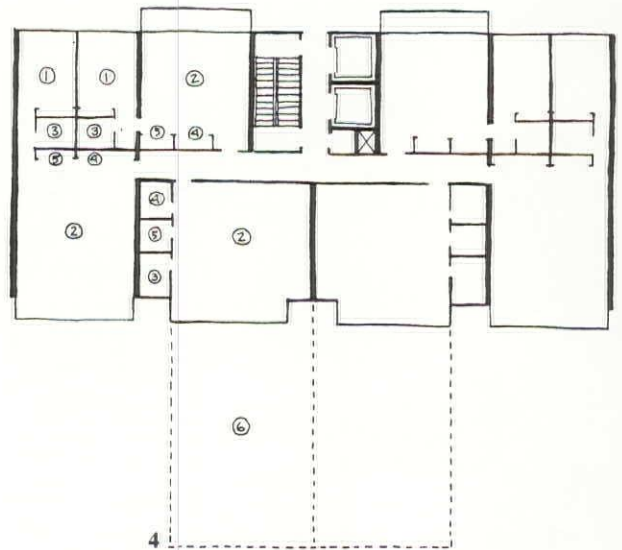
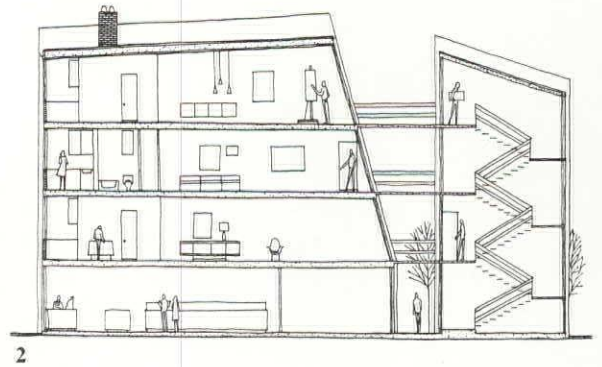
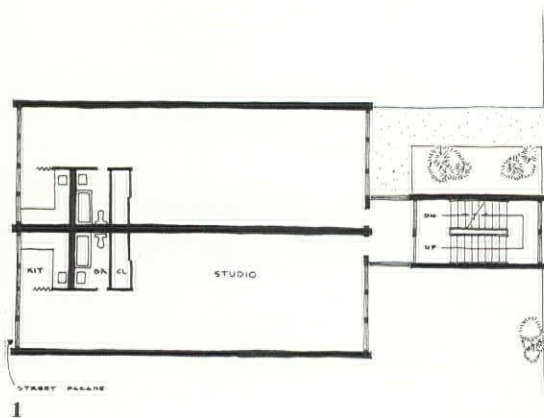
New buildings will be constructed on land that is now vacant—they will be of several types. Those placed side-by-side with older buildings will



Remedy for an unattractive feature and a traffic problem. Closing off lower end of Fourth Avenue and instituting one-way traffic on Lafayette and Bowery-Third creates pleasant campus for Cooper Union and eliminates a serious pedestrian hazard. (Lower plan shows existing situation, proposed solution at top)



- City Walk
- Private Path
- Fence
- Stuyvesant Place
- Bldg. to be altered
- Bldg. to be removed
- One-way Traffic
- ① Hebrew Aid Society
- ② Subway Ent.
- ③ Cooper Union
- ④ Cooper Union Eng. Bldg.
- ⑤ Proposed Bus Terminus
- ⑥ Proposed Student Dorm



3  
New building (Type A, illustrations 1, 2, 3) provides studio and living-space for artists. Large window areas face rear courts. Free-standing stair towers serve two or more buildings. Towers are glassed in for maximum natural light. Plan gives more space in main structure

harmonize with their surroundings. Those not adjacent to older buildings will have a fresh, contrasting character.

Decent living and working space for artists is an important consideration in our design, since we believe that the area will benefit if its artistic community remains. The artists have had a difficult time—in many cases they have been put out of lofts and stores, which were originally zoned for business and light industry, not for residence.

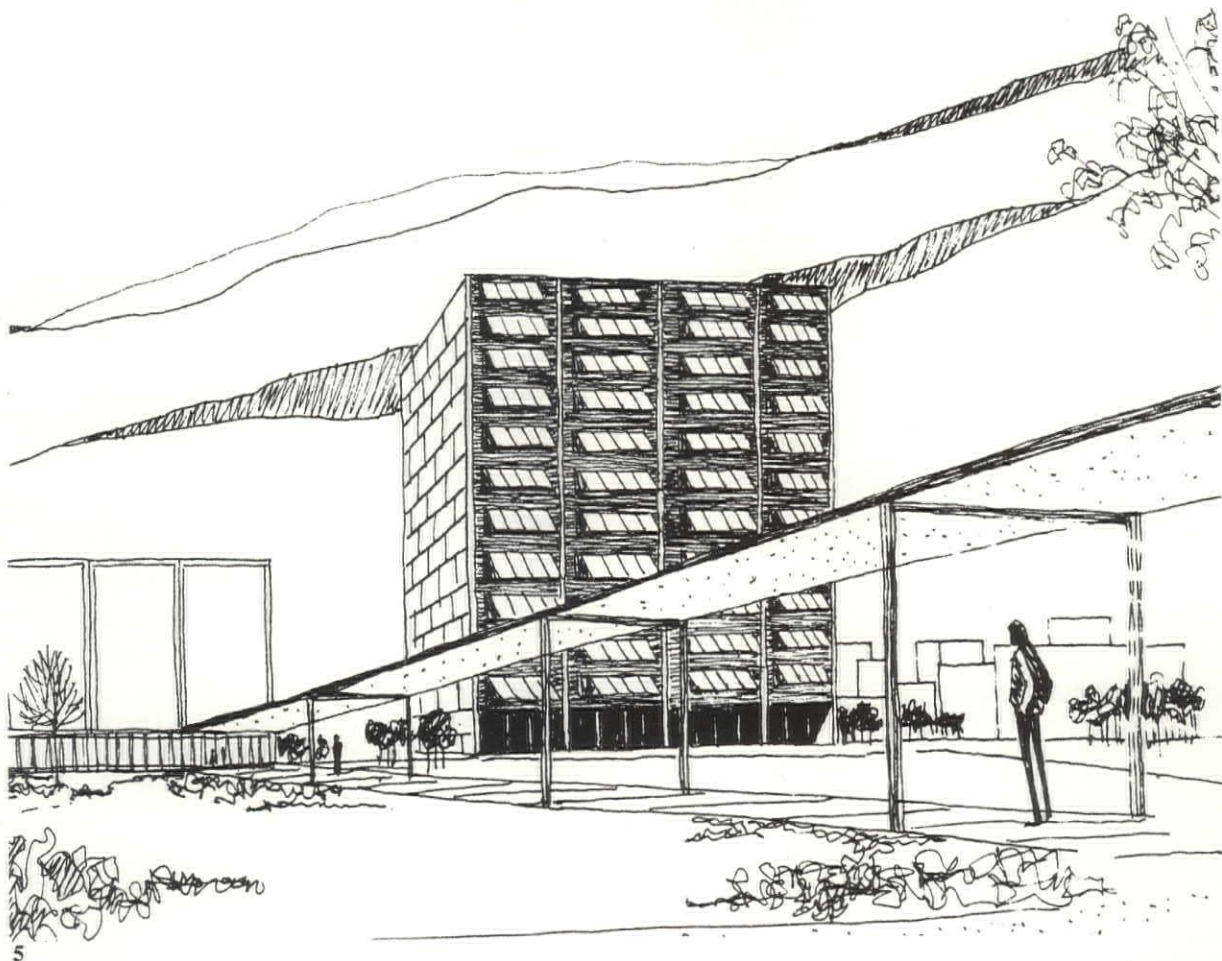
Our design provides two building types for the artists. Type A is designed to harmonize with neighboring adjacent buildings. It conforms to the general scale, form and materials of the existing buildings. Type B will occupy cleared block-fronts and will differ in form and function from the older buildings.

Both building types will have rentable store

or gallery space on their ground floors and will be of reinforced concrete construction with exposed slabs forming ceilings. Floor finishes will be asphalt tile. Partitions will be of concrete block, with a durable sprayed-on finish in toilets and corridors. Kitchens will be of pullman or built-in type. There will be large glass areas, facing north where possible. There will be no air-conditioning, custom cabinetry, or any other features that would build up construction costs beyond the limited means of the artists. The buildings will be heated by steam available from the New York Steam Company. This will eliminate expensive boiler space and maintenance costs from the buildings.

### Responsibility

We believe that our urban renewal plan, which depends so largely on using existing resources,



5  
Type B (illustrations 4 and 5) can be used by artists; contains store or gallery space (6) on first floor. Plan shows bedroom (1); studio-living

room (2); toilet (3); kitchen (4); storage (5). All construction, finishes and equipment have been kept simple as possible to hold down building costs

should be implemented to the greatest degree possible by building owners and their tenants and local businessmen.

It is beyond the scope of our study to establish a legal and administrative plan for seeing our design through. We would suggest, however, that the following general procedures would work well in the self-improvement enterprise our study is based on.

1 Over-all leadership, planning, and professional advice should be functions of the city. The city should delegate responsibilities and see to it that these responsibilities are met. This should include the enforcement of applicable health and safety standards in all renovation and new construction.

2 The individual building owners should have the primary responsibility for improving their properties, in accordance with the requirements of

the plan. The owners could look to the city for leadership and professional advice. They would in the long run, benefit financially from the improvement of the neighborhood.

3 Tenants, business groups and civic, charitable and religious organizations should participate in the execution of the plan. There are many ways these diverse elements could help—from financial contributions to actual assistance with the physical work.

Our study is still in sketch stage. Needless to say there are innumerable problems lying ahead in developing a plan of this scope.

None of our investigations, however, have swayed our conviction that the city will benefit more from urban renewal plans that preserve neighborhood relationships than from those that transplant whole segments of our population from familiar to strange surroundings. ◀

# The Challenge of the Unexpected

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This is  
another  
of the talks  
given  
on the panel  
"The Challenge  
of Urban Design"  
at the  
Central States  
AIA Conference  
in St Louis.  
Mr Bair  
is well-known  
as a writer  
and lecturer,  
and has offices  
in Auburndale, Florida,  
as a Consultant  
on Planning and Economic  
Development

► For almost twenty-five years I have worked in the fields of planning and development as a Federal, state, and city employee and as a private consultant, with big cities and little cities and rural areas, in the north, in the south, and in the west. This broad experience has been expensive to taxpayers all over the country. As a result of it, I have become increasingly confused.

Socrates was an expert at losing friends and influencing people. In one of the deflationary sessions which cost him his membership in the Athenian Civic Club he concluded by saying:

"Do you not see what advances this man has made? He did not know at first and he does not know now. But at first he thought that he knew, and answered confidently as if he knew, and had no difficulty. Now he has a difficulty, and neither knows nor fancies that he knows. Is he not better off in knowing his ignorance?"

Without a Socrates to guide and help me by kicking my feet out from under me, it has taken me a long time to achieve my present level of ignorance, and I still have a long way to go. Even so, my ignorance is in a healthy state of proliferation, and I would like to share some of it with you.

I admit to being a planner—whatever that is. But I am ignorant about the shape of things to come and about the shape of things as they ought to be.

I cannot predict with any useful degree of

# Obvious

by Fred H. Bair, Jr, AIP

accuracy what cities will be like in twenty or twenty-five years.

I am hesitant to venture a prescription as to what they *should* be like in twenty or twenty-five years.

I'm not sure what the ideal pattern for the city or suburb or subdivision should be right now. Worst of all, most damning of all, I am not even sure that there *is* an ideal pattern for a city or a suburb or a subdivision.

Earlier in my career, I was troubled with a great deal of certainty about all these things. This is no longer the case.

Now I know one thing with fearful assuredness: The unexpected obvious is going to happen (or has already happened but hasn't been noticed) and if something isn't done about it fast, it will gum things up.

Nationally, it is important to keep an eye on the fact that such planning as we do in the United States may be subject to change (with or without notice, depending on how good our intelligence system is), because of things which happen outside the United States. It is possible that we are headed in the direction of One World after all—and it may not be ours to dominate. On the international scene, if we do not plan well, we may have our planning done for us, with no problems about enabling legislation.

Locally—by which for the moment I mean in the United States—there are also some strong

reasons why planning is going to have to be faster on its feet, and is going to have to develop a longer reach.

Accelerating technology molds our cities. Our urban areas grow together to form a developmental and administrative nightmare. Our obsolescence rate increases, and we have not learned to handle obsolescence at the old rate. These things promise to continue to create crises regardless of whether we have moderate or fast population growth. If the growth is faster, there is more interaction among the problems and they reach critical mass sooner.

In the face of all this, we are still planning for the future as though yesterday's problems will be tomorrow's, and today's answers will do. There are still people in this country who will sell you a Master Plan for 1980, and there are still cities gullible enough to buy such plans, particularly if they can get the Federal government to put up two-thirds of the money.

We do not know what tomorrow's problems will be and we do not know what tomorrow's answers should be. As a humbling thought, I suggest that if planning had been more effective in the past (in terms of the old Master Plan concept which assumed that you worked out a long-range plan and stuck to it come hell or high water) we would have been worse off than we are. Much of our present trouble comes from sticking to principles and assumptions long after

they should have been discarded. It is true that these principles and assumptions were usually not coordinated in the form of a Master Plan. But it is doubtful that it is better to work toward the wrong objectives on an organized basis, whether this is done in accordance with something called a Master Plan for 19xx or not.

The kind of planning we need—and we need it badly—is going to have to be faster on its feet, and is going to have to develop a longer reach. I believe we will learn in the years ahead to work more intensively on plans scaled to our foresight, and to spend less time writing planning science-fiction about what we should work toward in twenty years. The five-year plan is probably at the outer limit and may be beyond it. Within even a five-year plan, there is going to have to be considerable adaptation to unforeseen circumstances.

### Exercises in Humility

Let me indicate what we are up against now by reviewing what we have been up against in the past. Accelerated change intensifies our problems, but they are generally the same kind of problems.

Come back with me to 1905. Looking ahead just after the turn of the century, we foresee rapid population growth, with a substantial part of that growth in rural areas. For cities, we seek high population densities with minimum walking distance to work and to places of business. We want a convenient admixture of shopping facilities in most residential areas, and densities justify this arrangement. The streetcar is the coming thing in mass transportation, and trolley lines may create spider-web patterns of growth outside city limits.

As lovers of beauty in theory, we want ornate parks and boulevards, but these are largely for decoration. We are not concerned about recreational facilities or programs because everybody manages to keep busy for long hours and play is frowned upon as frivolous.

In 1905 it has not yet been discovered that the pedestrian powers of children are limited to a quarter of a mile.

On the basis of our 1905 knowledge, attitudes and values, what kind of a Master Plan would we have drafted, and how long would it have had real validity?

If our 1905 planning for 1925 had been “appropriately implemented,” we would probably have created a worse mess than actually developed without any Master Plan. (For laymen, the term “appropriately implemented” is planning jargon which is too difficult to define in detail, but the general idea is that everybody turns to

and carries out the Plan without arguing about it.)

Now let us move to 1935. Everybody knows that we are now planning ahead for a mature economy in which population has almost reached its peak. Population will level off by 1950, and decline somewhat after that. Our most eminent economists and population specialists tell us so. We must plan for a higher proportion of old people, a lower proportion of children. How can we avoid overbuilding municipal facilities and utilities? Many of our cities are now in the process of providing certain improvements for the first time or of replacing obsolete installations. We must not scale these things wastefully, even though WPA and other Federal funds are available.

Stuart Chase writes an alarmed article concerning the major headaches to be anticipated in the mid-forties because of empty schools and unemployed teachers.

We see now the error of our past ways. We have jammed people into our cities, producing unhealthy concentrations which are the logical outgrowth of what we would have planned for in 1905. Newly-awakened social conscience introduces new facets in our planning, and we strive to get people out of the crowded slums into the sunny suburbs and beyond—to greenbelt towns, to subsistence farms where they can piece out small incomes with produce. New lots should be at least large enough to permit subsistence gardens.

We must clean up the jumbled chaos we permitted by allowing commercial and industrial uses to mix in residential areas. Obviously residential uses belong by themselves, segregated as to single-family, two-family and multiple-family, and carefully separated from commercial and industrial districts—well, at least industrial and commercial and multiple-family and two-family uses must be kept out of the better single-family districts.

Consider the damage which would have been done by an iron Master Plan for 1955 based on those principles. True, most of the mistakes which would have been planned for happened anyway. For example, we got urban sprawl, which in 1935 we called “getting people out to the sunny suburbs.” But the mistakes did not happen to as great a degree as they would have if we had had an “appropriately implemented” Master Plan, using the term in its classic sense.

One of the major problems is that even without formal planning, certain basic policies and assumptions continue to operate long after they should have been discarded. Having decided in the thirties that we were approaching maturity in our population growth, the expert’s club stuffed



and embalmed the myth and were governed by it as a sort of Jeremy Bentham Society. (Bentham was an English philosopher and jurist so revered by the members of his club that after his death he was stuffed and seated in a position of eminence in its meeting room).

### Poor Census Forecasting

Nationally, having been hit over the head with slow growth from 1930-40, we have tended to underestimate growth even since. A Bureau of the Census report in 1947 indicated in its highest estimates that we might reach the population we have reached in 1960 by 1970, but added a cautionary note: "While there is no immediate prospect that the United States will adopt a national program designed to maintain or increase the birth rate and hence to affect the future growth of population, it should be remembered that such programs are already in effect in Canada and several European countries."

Our home-coming heroes, by unremitting effort, had already solved the problem of maintaining and increasing the birth rate—and without Federal intervention.

We have not greatly improved our ability to make meaningful population forecasts, either nationally or locally. On the national level, in 1955 the Bureau of the Census issued illustrative projections of state and regional population, including 1960 estimates. Seven alternative sets of figures were derived. Taking the highest and lowest estimates from wherever they appeared among the alternates, and comparing them with actual 1960 figures, the 1955 report failed to bracket in actual 1960 performance for the US, two of the four major regions, six of the nine divisions, and thirty-two of the forty-nine continental states (counting DC). For states, twelve were under the range established by high and low estimates, and twenty were over.

I have been conducting research on some old Master Plans, and find that on the average, the estimates on amount of change in population in twenty years are off fifty percent without much choice as to direction. Some are high, some are low, and the ones which turned out closest were made by finger-in-the-wind techniques which are unlikely to have much validity if repeated.

This is enough about population prediction. We cannot as yet predict with any useful degree of accuracy. And although there are frequent refinements in techniques, population continues to go its own way without checking in with the prognosticators to see whether it is doing the right thing.

The moral here is that our planning should be of a kind which adopts itself to population facts as

they are, not as someone predicted they would be. We think now that the sixties will see another bumper crop of babies as the war babies begin their own production. We are currently maintaining a rather high birth rate, although it is receding somewhat. Bear in mind, however, that the primary factor in population growth in the years ahead is not how many women of childbearing age there are in the population but how many children they decide to have.

It is conceivable, if I may use the word, that with the population structure now developing, the period between 1965 and 1970 may see thirty million births—or may see only fifteen million, depending entirely upon the birth rate. This is a very wide range which may quite possibly be exceeded in either direction. So we can plan with assurance for continued population increase, and we can plan with somewhat less certainty for continuation of what we have loosely called the population explosion. But we should also be thinking about what we might do if the population explosion fails to ignite between the second and third stages and we do not get into orbit.

It is worth noting that the marriage rate (which we have come to conclude has some correlation with births) dropped during the minor recession of 1958 to the lowest point since 1932.

We would do well, on population and on other matters, to advance the science and art of planning to the point where we find out faster when we are planning for the wrong thing.

### Technology and the Shape of Things to Come

One of our principal errors in the past, aside from assuming that we knew what was going to happen to population, has been that we have ignored the effect of technology in making advance estimates of the situation, and of means to cope with it. Consider some elements which are already here, or could arrive on the scene very rapidly, which might well change the shape and physical organization of cities:

1 Advances in lighting and airconditioning, plus the prospect of television refinements, make it possible to do away with windows and still improve light, air, temperature and humidity control and view. This might make a considerable difference in the shape and organization of cities. For example, if my figures are right, 25,000 people could live comfortably, conveniently and economically in a building 500 feet in diameter and ten or fifteen stories high (or deep, if we are to be bothered by H-bombs). Such structures, located in a square mile of grounds for outdoor amenities, and with indoor facilities built in—schools and churches, stores and offices, hospitals,

libraries, fire and police stations, city hall, and so on—would give a population density about like that of New York City, if that is what we are after, without many of the problems of New York City which we could do without.

2 At the other end of the scale, the independent home appliance for sewage, garbage and trash disposal might eliminate much of the financial strain from urban sprawl—if low density is what we are after. There are more problems to sprawl than municipal costs, of course, and the way is clear to handling most of these, too. If we really want to, we can move origins close to destinations and remove a lot of the traffic-handling costs we have built up for ourselves. Commercial and industrial performance standards should make it possible to move many employment opportunities into residential neighborhoods. With widespread use of the visiphone with the built-in photostat, and some other combinations of planning techniques and physical devices, we can have all of the advantages of urban sprawl (which after all is highly thought of by the present customers) with most disadvantages removed.

3 With improvement of techniques in market analysis, automotive and pedestrian traffic studies, cost-benefit research and applied psychology (or if we cannot wait that long, with the application of a little common sense) we can do much to relieve the situation in central business districts.

### **What Belongs Downtown?**

The first question we should be asking ourselves about central business districts is: "What needs to be there?" If we can move those traffic generators out which contribute least to performance of central business district functions, we will have made a step toward reducing congestion and parking demand. Take City Hall.

Does it need to be in the heart of the central business district? Probably not. Miami is doing well with its City Hall moved clear out to Dinner Key, a long way from the central business district. Obviously City Hall generates a lot of traffic and contributes to parking problems if it is downtown. Are the benefits to downtown business resulting from central core locations of City Hall sufficient to offset the traffic and parking problems it creates? If so, if City Hall is a major magnet for people who go out from it to shop, one would assume that there would be some good stores immediately surrounding it. If not, it might be surrounded by pool halls, beer joints and other second-class commercial operations whose downtown location is also of doubtful necessity.

Would a parking garage on the present site of City Hall do more for downtown business than the

presence of City Hall? If so, by removing City Hall, congestion is decreased and added parking is provided without important loss to the drawing power of the center of the city.

City Hall is just one example, of course. A relatively simple analysis would probably turn up a number of other operations which no longer need to be downtown, which individually or collectively generate large amounts of traffic and add to parking problems, and which do not improve business downtown. Their absence would provide less traffic and more parking.

As to where these displaced operations should go, in most cities there is a ring of slums and blight around the central business district. If a city has a real redevelopment program going, it should be possible to clean up these slum areas and encourage removal to the redeveloped ring of many operations non-essential in the core area. They should, of course, be placed in compatible groupings, and on this zoning could push in the direction of the pull of natural attraction, protecting against undesirable intrusions. If City Hall were moved, it is likely that many lawyers would move. Downtown doctors, dentists, clinics, hospitals and related facilities do not need to be in the heart of the city. They could, with profit to the entire urban organism, be grafted in in place of diseased tissue removed in the pericardial area. And so on.

As another move toward improving the central business district, and removal of the scummy ring around this central fount of commerce and culture, a great many people who work downtown might be induced to live within easy walking distance of their jobs—if decent housing were available. As part of redevelopment around the central core, there is the possibility of high-rise apartments in park-like settings leading people to want to walk to work. If downtown workers in substantial numbers do not drive to their jobs, the traffic and parking situation would be further improved.

4 Consider now a type of mass transportation to which I believe the American public might move cheerfully forward. (They will not move back, cheerfully, reluctantly or at all to the bus.) I refer, of course, to monorail, which in terms of public acceptance stands about where the automobile did in 1905, and might make as much difference in the scheme of things as did the automobile, without the shattering influence on municipal costs. Monorail operates on a relatively inexpensive elevated structure requiring limited right-of-way. It does not conflict with surface traffic. It is flexible enough to handle rush-hour and slack-period loads. It moves fast and quietly on both long and short hauls. It offers the pos-

sibility of double-decked prime business frontage downtown.

Monorail fits admirably into the central business district pattern, and even into the pedestrian mall pattern, because it takes virtually no ground-surface area, provides uninterrupted view for passengers, does not hog traffic lines or block turning movements, does not require curb loading space, and does not interfere with pedestrian flow.

Several eminent traffic engineers have announced that monorail will not work in American cities, which of itself convinces me that it will. (One of these same gents wrote an article recently declaiming against the small foreign car because it does not burn enough gas to pay enough taxes to build enough roads.)

### The Immobile Mobile Home

5 Let us skip lightly now to the impact of the misnamed mobile home, which is actually (in my opinion) the forerunner of assembly-line quality housing. The wheels are vestigial remnants from house trailer days and perform little useful function, since the average mobile homeowner moves less often than a lot of project-housing dwellers and quite frequently sells his unit instead of moving it.

This year, about one mobile home unit will be produced for every ten non-farm single-family conventional housing units. In the past five years, about as many new mobile home dwellings were added to the housing supply as new units in multiple family dwellings, and about three times as many as new units in two-family dwellings.

Mobile homes seem likely to continue to evolve. Current models are mostly ten feet wide and average over fifty feet in length, giving an area of over 500 sq ft. I believe that twelve-foot wide units with increasing lengths will soon push average square footage over 600, and there are new models where two complementary units are brought together at the site to provide over 1,000 sq ft of house at a price of around \$10 per sq ft—including complete furnishings and appliances.

What is this kind of modern housing, produced by efficient assembly-line methods, and sold as a package with furniture included in the financing likely to do in a period when large numbers of new families are being formed and large numbers of older people are going into retirement? Conventional homebuilders view it with the enthusiasm shown by buggy-makers for the early automobile, housing statistics ignore it (producing a substantial underestimation of the new housing supply) and many planners either wish it would go away or encourage its location in areas where it does not belong, so that what has great

possibilities as a garden-apartment use becomes instead the slum trailer camp in a commercial or industrial area.

6 Automation in manufacturing is upon us, and likely to be much more so. This shoots holes in past (and present) notations on location of plants with respect to labor supply. It wrecks the economic base theory concerning the place of so-called "basic industry" in the economic pyramid. Certain Puritan economists feel loudly and in abstruse detail that if you ain't mining it, growing it, or putting it together, you are a parasite, and the number of parasites who can be supported is in direct proportion to the number of people in basic industry. For each hundred rugged basic industry types, a multiple is applied to determine how many parasitic school teachers, doctors, lawyers, government officials, filling station attendants, architects, sales and distribution personnel, bankers, garbage collectors and planners can be supported. Raise employment in the "basic industries" and you add times four or times six or times twelve of the rest of us. The number varies according to (a) who is doing the figuring or (b) who is being misquoted.

(Nothing much is likely to come of the multiplier theory, but it is an interesting example of how planners who know how to multiply are trying to catch up with situations which are long gone. You can make a good living at this if you are clever and have foundation support.)

I have become inordinately fond of an economic theory which I invented in a sort of Russian manner. As stated by Sir William Petty (in 1691) this theory is as follows: "As communities become more economically advanced, the numbers engaged in agriculture tend to decline relative to the numbers in manufacturing, which in turn decline relative to the number engaged in services."

The long and short of all this is that as the cybernetic production tape increasingly pushes the right buttons, fewer people are going to be messing with basic industries and an increasing number of us are going to become parasites, in the Puritan view.

It might be well to give some thought to the problem of the central industrial district. The industrial park, and other forms of outlying industrial location, in a way present the same kind of problem as the shopping center and other forms of outlying commercial location. There is one major difference, in my opinion. Not many people would be reluctant to see the central industrial district removed and put to some other use.

7 Generally speaking, in the fields of social and economic technology, there is a tremendous

lag. But by the generous use of jargon and numerology as a substitute for ideas, there has been some advance. We are able to work with our natural environment much more effectively than with our fellow humans, but we are learning to work better with our fellow humans. In economics, we are able to measure and understand and control much better than in the past. In law, we are perfecting or will devise more efficient tools (land-use timing controls, excess condemnation, performance standards for residential commercial and industrial uses in place of rigid zoning walls between them, slum clearance powers and new methods for regulating subdivision of land). We are fumbling toward more realistic methods of taxation and better organization.

We have rapidly increasing control of our physical environment, and we are making some advance in control of our social and economic environment. The means available now, in the near distance or along the rapidly broadening horizon, present a range of possibilities never before available. The challenge is more than ever before not how, but for what? Our great weakness has been, and continues to be, that we cannot make up our minds as to objectives. How do we decide what our major goals should be in such a way that the decisions stand up convincingly long enough to allow application of the means available? How do we develop a feedback system which tells us more rapidly when either the means or goals should be changed?

### **What's Good for Everybody**

Where does planning belong in government in the years ahead? In this I have firm views. There has been an inclination on the part of some planners to believe that there are four divisions of government—planning, legislative, executive, and judicial. The planning branch defines what is good for everybody. The legislative body passes laws to make it possible for everybody to get what is good for them, or to keep anybody from doing anything which is bad for him or for everybody. The executive body does all the routine work, and the judicial body decides that whatever the planners want done is legal. There is a stark simplicity about this which is very attractive.

But in the kind of governmental environment in which we find ourselves, and with the problems we face, planning is going to have to become a workhorse rather than Queen of the May. Planning should be the intelligence arm of the executive body, a function conducted with a trained staff reporting to the executive. It should keep a constant finger on the urban pulse, collecting, analyzing and reporting currently vital informa-

tion about what is happening to the city and its various parts. It should keep abreast of planning technology—the way other cities are meeting their problems.

The planning department should be responsible for the preparation and maintenance of the comprehensive plan. I do not see the comprehensive plan as a beautifully printed compendium, with forty-seven colored illustrations, with a title including the word "Tomorrow" and a letter signed by the Mayor including the phrase "This is our plan." Public relations is important, of course, and there should be public reporting, but I somehow get the feeling that we planners spend too much time preparing professional-looking publicity releases and splendid exhibits and not enough time on more basic parts of our jobs. If planning is well done, word of it will get around in the newspapers and on TV, and this kind of reporting, dripping constantly, wears away more stones.

I see the comprehensive plan as a series of elements always in the process of being fitted together, and usually in the process of being changed in lesser or greater detail as new needs or new information become available or as the city changes its objectives. In its border outlines, the plan is a statement that this is what we are trying to do, this is why we are trying to do it, and this is the way we propose to do it. Against this statement of objectives and measures, which should be adopted in principle by the legislative body, the executive body (including the planning department) should measure and fit and schedule programs of the line agencies of the city, and should exercise controls approved by the legislative body to insure that private actions do not upset the applecart.

This is not to say that plans should be changed on the basis of whimsey. Shorn of extra language, a statement of the National Resources Board in 1934 expresses my point better than I can: "Stubborn adherence to an outworn plan . . . is a mark of stupidity. Prudence dictates that reasonable stability should not be endangered by capricious or arbitrary shift of plans . . . but insists that policies must be promptly modified as emerging trends and new situations necessitate recasting."

The challenge ahead of us (and in fact behind us) is two-fold: We must learn to be alert to the implications of the unexpected obvious before it happens, or when it happens, or at worst not too long after it happens. And we must learn to fit applied logic (whether it be called planning or by some other name) into the working of government, so that governments—and the people to whom governments belong—make the most of change instead of being overwhelmed by it. ◀

# The Latest Word on the FDR Memorial

STATEMENT OF THE  
COMMISSION OF FINE ARTS

February 21, 1962

At the meeting of the Commission of Fine Arts held on February 20th and 21st, the members consulted with Messrs William F. Pedersen, architect, Joseph Wasserman, associate, Norman Hoberman, sculptor, and Pierce of Ammann and Whitney, engineers, regarding design and technical aspects of the proposed memorial to President Franklin Delano Roosevelt that had been selected by the Jury who reviewed the entries in the nationwide competition. The design consists of eight monumental steles, the highest rising to a height of 167 feet, made of concrete, and having extracts of President Roosevelt's speeches in bronze embedded in the surface of the steles. The monument would be placed in the midst of an area of 26½ acres in West Potomac Park.

When this site was chosen, general recognition was given to the significance of its location, since the proposed memorial would be of necessity closely related to the three great memorials in this area, the Jefferson and Lincoln Memorials and the Washington Monument. Public Law 86-214, approved September 1, 1959, provides that "The competition for the proposed memorial shall be carried out so as to insure that it will be harmonious as to location, design, and land use with the Washington Monument, the Jefferson Memorial, and the Lincoln Memorial."

The Commission is aware of positive qualities in the proposed design; those of great dramatic force and impact, of imaginative and stirring effects of light and shade, and the expression of much that is characteristic of our times.

The members of the Commission of Fine Arts, after careful consideration of the design, chosen by the Jury, for the proposed memorial to President Franklin Delano Roosevelt, agreed unanimously to withhold their approval, without prejudice, for the following reasons:

1 The design does not conform with the requirements of Public Law 86-214, which provides

that "the competition for the proposed memorial shall be carried out so as to insure that it will be harmonious as to location, design and land use, with the Washington Monument, the Jefferson Memorial and the Lincoln Memorial."

a As to "location," the design, by its great size and height, competes with rather than supplements the three memorials with which it is required to be "harmonious."

b As to "design," it is lacking in the repose, an essential element in memorial art, and the qualities of monumental permanence that are the essence of the three memorials with which it must by law conform.

2 Materials. The Commission questions the durability of the materials that are suggested for its execution.

The Commission of Fine Arts

David E. Finley, Chairman;  
Felix W. de Weldon, Peter Hurd,  
Douglas W. Orr, William G. Perry,  
Michael Rapuano, Ralph Walker

► With the above announcement, the Commission of Fine Arts dealt what may turn out to be a death-blow to the Pedersen-Tilney-Wasserman-Hoberman design which won the most important architectural competition in recent years. Although it has no legal authority, the Commission's moral influence is great. It may be considered highly doubtful that the Congress would approve a design which has been turned down by the Commission of Fine Arts.

What next? At the moment of writing, only one thing is certain, and that is that the FDR Memorial Commission will make a report to the Congress. What that report will contain will be decided by the Commission at its meeting on March seventh—too late for the *Journal* to carry the story in this issue. It can be said, however, that it is believed highly improbable that the Commission would consider any new action until it has made its report to the Congress.

It is interesting to know that at its first meeting to consider the design the Fine Arts Commission

was evenly divided on the decision, although the final announcement was that the decision was unanimous. In a statement to the *Washington Star*, former Attorney General Francis Biddle, chairman of the FDR Commission, said, "I can hardly think that this action of the Commission of Fine Arts is calculated to encourage the Government hereafter to rely on the best architects they can obtain to plan and build public buildings."

At its first meeting on the design, the Fine Arts Commission heard testimony from a number of "experts." Following are a few quotations from the transcript of the hearing:

WILLIAM F. PEDERSEN: (in response to a query about the suitability of concrete for a memorial) "We are not talking about raw, gray, naked concrete, but a very sophisticated concrete, if I may use that word, which would be made of a very white quartz aggregate, of white cement and white sand, and of extreme density, so the final product would be denser than marble or limestone. This surface would then be bush-hammered to give it the maximum sparkle and to hide whatever surface imperfections might have resulted from the building process."

PIETRO BELLUSCHI: "We all felt at the beginning when the site was selected that there was a danger, if this were not a properly designed monument, that it would be in conflict with the three other monuments—the Washington Monument and the Lincoln and Jefferson Memorials. This should be, in a sense, a landscape solution more than a monumental solution with columns and a heavy building."

"I think this design has solved that problem rather brilliantly . . . because it is a part of the landscape. The trees are an essential part of the solution. The steles are also changing and thin and transparent, and you can see the Potomac through the lagoon. So there is nothing in conflict with the other ones; it is light. If it were made too light, or so you would have to get to it to see it, then it would fail as a monument, since it is expected many more people will see it driving by than by going to it. Also it makes the best use of the peninsula as a park—you get the full visual impact from many ways and directions."

PHILIP JOHNSON: "I think this is a perfectly beautiful thing. I do not think it needs excuses or defenses of any kind. To me, it is the epitome of mid-century art. You cannot use the word 'architecture' because I get it mixed up with sculpture. It is both."

"I would like to start with the essence of a monument. I think we are in an age of great monuments. I think this is one. I think it is extraordinary that in a democracy, in a competition

under official rules, such a magnificent design could eventuate.

"Much more important than the matter of material, is the arrangement of space. It is an interior room, like all great architecture, an interior space, the interior of today surrounded by planes that move as you move. As far as I know, this has never been done before."

DOUGLAS HASKELL: (referring to a set of questions asked by Commission member Ralph Walker, which other speakers paid little attention to) "The first question was how this monument might enhance the reputation of Franklin D. Roosevelt. I think it is in this regard that the architects' success is extraordinary. This monument goes with the man in a most extraordinary way. Think of it in comparison with the Lincoln Memorial, which has been criticized as not showing Lincoln the log-splitter. But it does show the Lincoln of the perfect lapidary statement of his Gettysburg Address. The tight, rounded statement of the Address is mirrored in the Lincoln Memorial."

"As we all know, Roosevelt was a man who was greatly enamoured of nature, was in close contact with nature. This is supremely a monument which fits into nature, lives with nature, uses nature. These arcades . . . are vistas into nature. The sky is the roof. The vistas keep changing; the shadows keep changing the monument. The light of the sun keeps changing the monument. This is an extraordinary combination."

JOHN F. HARBESON: (speaking for the Council of the National Academy of Design, of which he is President) "In our opinion this design is not worthy to express the President who led this country in a great war, a war of even longer duration than the Civil War. To be such a leader in difficult times he had to understand the value of order, of organization."

"In our opinion, there is no order in this design; it is a disorganized agglomeration of ugly forms, slabs of different sizes and shapes; not a symbol of greatness."

"Franklin Roosevelt was elected President of this country for four terms. There is no symbolism of that. He advocated the four freedoms. There again is the figure four; there is no symbol of that sort. In fact, there is no symbolism that we can find in this project."

C. PAUL JENNEWEIN: (President of the National Sculpture Society) "I agree with Mr Harbeson. The Council of the National Sculpture Society unanimously agreed that this was a form of expression of a memorial that no one could agree with."

Thus the experts—and thus the decision. Watch these pages for further developments in the saga of the FDR Memorial! ◀

An aerial, black and white photograph of the Dallas skyline. The image is framed with rounded corners. A prominent dark, vertical, rounded rectangular shape is superimposed over the center of the image, containing white text. The skyline features several tall skyscrapers, including the Reunion Tower with its distinctive spire on the left and the Bank of America Tower on the right. In the foreground, a large, circular, domed structure, likely the Convention Center, is visible. The city extends to the horizon under a clear sky.

Welcome  
to  
Dallas  
The  
1962  
Convention  
City

**D**allas is bustling, Dallas is dynamic, Dallas is large and Dallas is new.

If the seashore has lost its interest, if the mountains are boring, if the forests are overpowering, then come to Dallas—where nature won't intrude (and we're airconditioned)!

Dallas traces its history to 1841 when John Neely Bryan set up a trading post on the banks of the Trinity and yet seventy-five percent of all the money ever spent on construction in Dallas has been spent since World War II.

The roots of Dallas' growth are embedded in a restless frontier spirit. The importance of the individual, his freedom to develop as and what he likes, the responsibility of making his own decisions, of solving his own problems, his vitality for aggressive competition and, perhaps, believing his own publicity, comprise the spirit that has shaped Dallas.

Economically this spirit has generated spiraling growth; culturally it has provided the desire and resources for an exciting and superb opera company, two stimulating but differently oriented museums, a major symphony orchestra, and a noteworthy theatre center. Visually, this same spirit has built a dynamic skyline that documents the vitality of the city.

Like San Gimignano, Dallas has always had spires prominent in its skyline. Beginning with county courthouses, buildings have sought identification at their highest level, with point silhouettes such as a French chateau turret, neon flying red horse, classical temple or sparkling weather-vane.

A hotel proposal by FLW also saw the value of a spire on the prairie. The tower and spire of the Republic Bank, once identified as a "unicorn crated for shipping," continues a tradition which adds considerable personality to the downtown, especially at night.

Dallas' night-time spectacular is not the result of a gambling resort or a Coney Island, but of aggressive banks and insurance companies. The spire of the Republic juts 135 feet above the parapet, is virtually sheathed in neon and cost a quarter of a million dollars. Not to be outdone, the Mercantile Bank ripped off its own impressive display and erected one taller, brighter and more spectacular than before. With the Love Field flight pattern limiting their aspirations, the Southland Life officials adroitly lit each of the thousands of windows in their forty-two-story tower with a fluorescent tube and subtly topped the extravaganza by spelling out "Southland Life" with seventeen-foot-high neon letters.

The particular esteem which banks enjoy in Dallas is reflected in its banking palaces. The thirty-six-story Republic National has what was the largest unobstructed banking room in the world. A comparison tower, taller of course, is planned for early construction. Two blocks away, the First National Bank has grandly razed its five-year-old five-million-dollar motor bank to build a completely new plant with a fifty-story tower. With such financial leadership we shall certainly produce our own de'Medici family in a glittering, curtain-walled Florence.

Within the tight central core of downtown Dallas, in the midst of its vertical audacity, is what is, perhaps, the city's most renowned institution, Neiman-Marcus. Despite its four enormous merchandising floors, it remains a collection of specialty shops stocking everything from Balenciaga gowns to sweat shirts honoring Bach and Beethoven and designed to help stamp out the Twist. A four-story ride on its escalator through dazzling hanging displays, is an exciting spatial experience. We hope that their new expansion program will be far enough along at Convention time for the barricade to be finished. Their last one was delightful—really marvelous—cast iron trees for columns, sumptuously decorated according to the season.

Dallas has several examples of work by out-of-town (!) architects. Edward Durell Stone designed for the Bruno Grafts a sophisticated town house, in a suburban Dallas setting. The central space measures forty by one-hundred feet and houses a formal indoor pool with the dining area like a floating lily pad. Mrs Graf is reported to have said that Ed built a monument to himself with her money!

Frank Lloyd Wright built a magnificent, horizontal, Texas-style castle for John Gillon. It is one of Wright's largest houses and seemingly built without a budget. And there is of course, the Wright-designed theatre center.

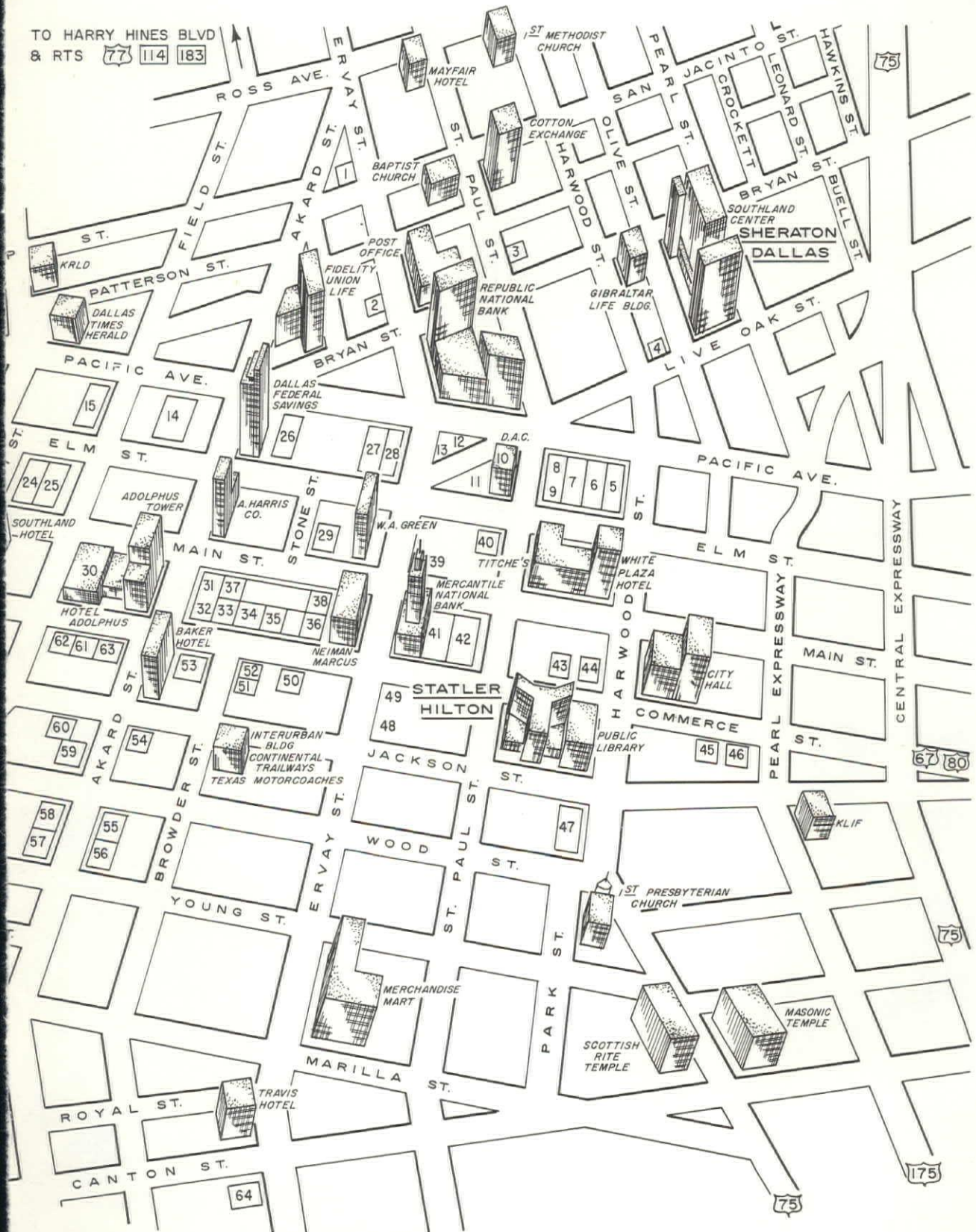
We have good local architects too, and we have prepared a guide book and are planning some interesting tours to prove it.

Dallas is not wholly without the forms that visitors to Texas might expect. The influence of our Spanish and Mexican beginnings is occasionally felt in our domestic architecture. One owner described his house as "what a California architect thinks a Mexican peon's house should look like after striking oil in Texas." On the other hand, there is a replica of Mount Vernon overlooking White Rock Lake, with eight times the volume—and all airconditioned!

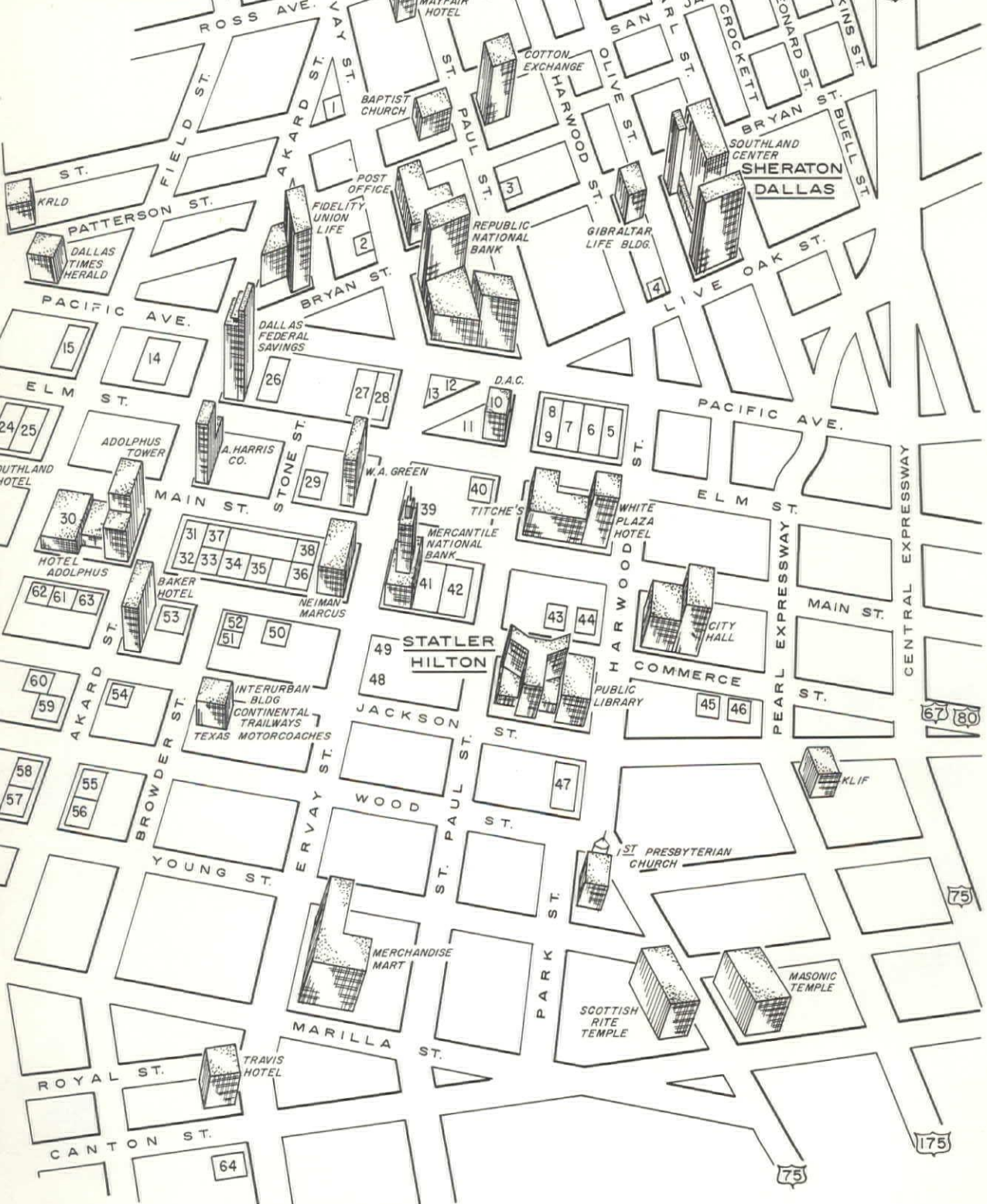




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TO HARRY HINES BLVD  
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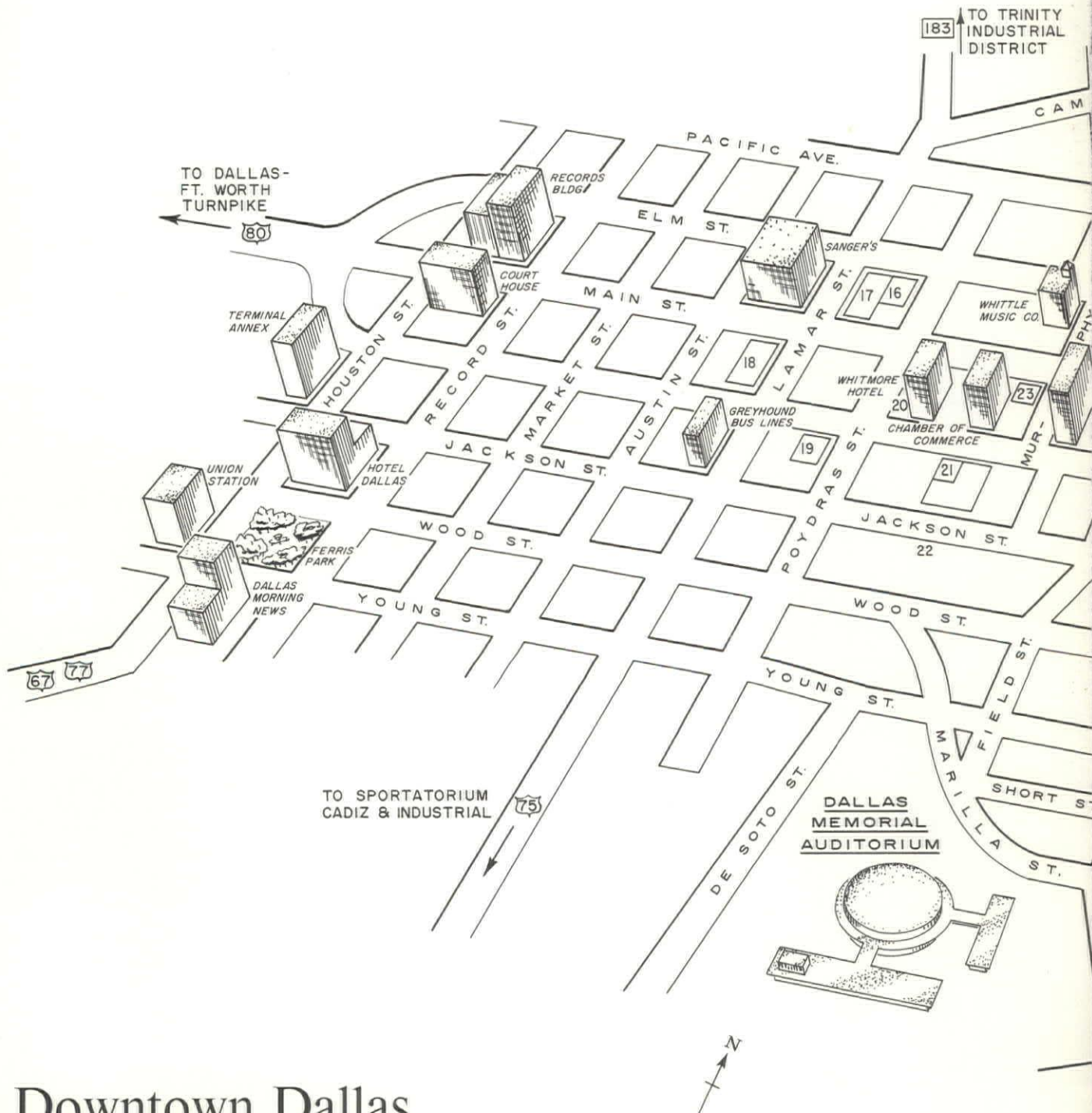
TO HARRY HINES BLVD  
& RTS 77 114 183

Bell Tel. Co 54  
 Black Angus 31  
 Brockle's Restaurant 64  
 Capri Theater 6  
 Carousel Club 62  
 Cattleman's Restaurant 4  
 Colony Club 63  
 Community Chest 56  
 Copper Cow 36  
 Corrigan Tower 8  
 Cullum & Boren 26  
 Dallas Mercantile Bldg 42  
 Dallas Power & Light 52  
 Davis Bldg 24  
 Dreyfuss & Son 39  
 Eatwell 30  
 Employers Insurance 57  
 Federal Reserve Bank 55

Filet Restaurant 12  
 First Natl Bank 25  
 First Natl Motor Bank 14  
 Forget-Me-Not Shop 28  
 Golden Pheasant Restaurant 33  
 Hoffman's Men's Wear 33  
 Horse Shoe Lounge 61  
 E. M. Kahn Dept Store 17  
 E. M. Kahn Co 38  
 Life Bldg 59  
 Lone Star Gas Co 47  
 M & M Leathercraft 48  
 Magicland 2  
 Mobil Bldg 32  
 Majestic Theater 5  
 Melody Shop 34  
 Mercantile Security Bldg 41  
 Mexico City Restaurant 13

Miller Bros Jewelry 10  
 Moore DeGrazier Co 59  
 National Bank of Commerce 16  
 Natl Bankers Life Bldg 49  
 211 N. Ervay Bldg 28  
 Oriental Cafe 23  
 Palace Theater 27  
 Phil's Delicatessen 2  
 Praetorian Bldg 29  
 Reserve Life Bldg 58  
 Reynolds Penland Dept Store 37  
 Rheinischerhof Restaurant 3  
 Ring & Brewer 11  
 Rio Grande Life Bldg 15  
 Rogers Factory Shoe Store 40  
 Gus Roos Co Rep. Bk.  
 Santa Fe Bldg 21  
 Shoe Center 34 and 29

Sigel's Liquors 7  
 Skeffington's Men's Wear 46  
 Steak House Unique 51  
 Tall Fashions 42  
 Texas Bank Bldg 18  
 Theater Lounge 60  
 Tower Petroleum Bldg 9  
 Tower Theater 7  
 Town & Country Restaurant 45  
 209 Browder Bldg 53  
 Turf Bar 35  
 Victor's Lounge 43  
 Volk's Department Store 40  
 WFAA Radio Station 22  
 Warehouse Liquors 44  
 Wholesale Merchant's Bldg 19  
 James K. Wilson Co 20  
 YMCA 1 Zoo Bar 50



# Downtown Dallas

Even though much of Dallas is on the rolling prairie there are several lakes and numerous watercourses which have been beautified as part of a not-inconsiderable park system. And one of these is the setting for Wright's theatre. The hardy, delicate-leaved mesquite, indigenous to the region and frequently mean and scrawny, has been displaced by the lush greenery of the Old South and although it requires much water to survive the Texas summers, water it gets and Dallas stays green.

Convention visitors who are not from the major merchandising areas will enjoy a couple of hours at the Decorative Center—a fashionable panorama including Knoll, Herman Miller, Kroll, Risom and Baker.

Aldredges' Book Store, McMurray's, and the Red Barn will appeal to the bibliophiles; for antique shops visit Sales Street which has now displaced Cedar Springs Road, at one time dubbed Rue du Petit Point; for a selection of Waxahatchie (Texas) Americana, try browsing the McKinney Avenue "antique" shops.

### **The Arts, Fine and Lively**

Dallas enthusiasm extends to its museums and art. The Dallas Museum of Fine Arts has had 35,000 visitors in one day. Its full slate of regional stimulants includes the Dallas County Show as well as the Texas Annual. The Dallas Museum of Contemporary Arts mounts provocative and penetrating exhibitions such as the recent "Art That Broke the Looking Glass" which traced the development of pictorial representation from the static sixteenth-century playing card, through the development of perspective, to the latest Picasso. Texas has produced many artists, several prominent, and some of them good. Their subjects range from Saints in the Wilderness to the one-eyed monsters of Hiram Williams. The Warner-Blessing Gallery has a large collection of authenticated pre-Columbian art.

Fair Park is a cultural melange of the most incompatible ingredients—all thriving. The austere Hall of State with its enormous sanctuary for the Great Texas Seal backs up to the Cotton Bowl, which has been filled at various times by the Longhorns, Billy Graham and the Dallas Symphony Orchestra. The Dallas Museum of Fine Arts is across the lagoon from the Midway Carnival, while the home of the Dallas Civic Opera relates to one corner of the Fair grounds as the livestock pavilion does to another. At the rear of the Fair grounds is the Texas Ranger Station—a log cabin built in 1935. For some wonderful barbecued ribs, you merely have to shake the fence behind the Ranger Station, to be served from a pit in the "unrehabilitated" area on the other side.

La Ville Varsovie, better known as Old Warsaw, has as good French food as you're likely to find and one of the best wine cellars around. Also famous for its food are the Zodiac Room at Neiman Marcus (open for lunch only); Arthurs, famous for steaks; Mr Peppys, who also serves French cooking.

Perhaps the most flamboyant restaurants are the Polynesian ones, ranging from the Port O'Call (reputedly possessing, in addition to its endless thirty-seventh-story view of suburbia on the prairie, the second-most-costly restaurant interior in the US) to the Luau at Love Field. Perhaps the most spectacular is LaTunisia, designed by the Marco Brothers of Disneyland and Six Flags fame. If its sheik's tent, the filmy baldacchino sparkling with tiny lights and the costumed serving girls are not enough, the towering doorman will be.

Every restaurant in Dallas serves baked potatoes, not only with steaks (most Texas beef is fattened in Kansas and Iowa), but with French, Italian, Polynesian and even with Greek souflaki, in addition to the rice. About the only places to escape the potatoes are the Mexican restaurants which deal in frijoles and tortillas instead. The Mexico City, El Chico and El Fenix are typical Mexican restaurants, Texas-style.

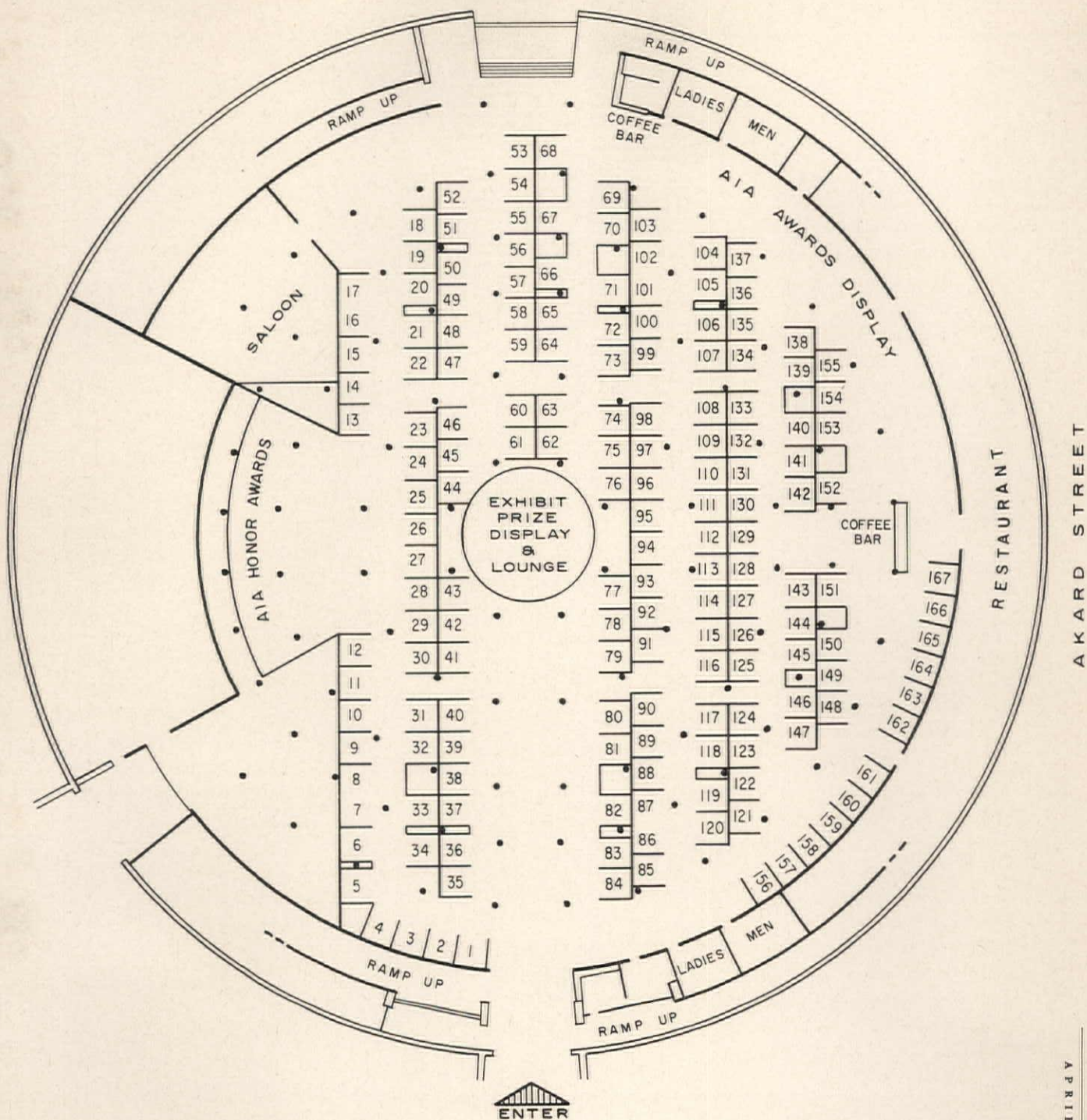
We have mentioned the Theatre Center of Mr Wright as architecture. Its activities, under the direction of Paul Baker, include semi-professional productions which are usually of high quality. Theatre-Three is the local off-Broadway-type offering.

The Metropolitan Opera Company will give seven performances in Dallas during the week of the Convention. Its presentations will include *Salome*, *Lucia*, *La Forza del Destino*, *Aida*, *Girl of the Golden West* and *Così Fan Tutte*.

The Dallas Zoo with very high-quality animals, especially the big monkey types, the Aquarium and the Museum of Natural History are available to those who enjoy nature in its many manifestations.

We hate to admit it but Convention visitors would enjoy a trip to Fort Worth. Philip Johnson's Amon Carter Museum of Western Art and Harwell Hamilton Harris's Greenwood Mausoleum are there, as well as a typical SOM bank. On the way is "Six Flags Over Texas," the Marco Brothers' Texas equivalent of Disneyland. One of our tours will take it in. Its Mexican gift shops will provide you with the souvenirs visitors should take back from Texas.

One thing we have not mentioned but which will greet you when you arrive and will stay with you until you leave and that is a warm-hearted Texas-size welcome. Paradoxically speaking, you will really get a kick out of Dallas! ◀



LEE STREETS DAWK A

APRIL 1962

## Booth Arrangement, Exhibits and Prizes

► A 1962 Falcon Sedan will be awarded as the Grand Prize at the Dallas Convention. In addition, a number of valuable daily prizes and four educational scholarships will be given. The scholarships, for general education in the amount of \$2,000 each, will go to any can-

didate whom the winners wish to designate.

If you are attending the Convention, be sure you fulfill these two requirements of eligibility for winning one of the prizes: You must have registered at the National AIA registration room; and

you must be registered at an exhibit booth. (Your chance of winning will be increased by registering at as many booths as possible.)

In addition to these requirements, corporate members must be present in the convention city at the time of the awards to win. ◀

# Exhibitors

## Booth Exhibition

- |     |   |     |   |     |  |
|-----|---|-----|---|-----|--|
| 160 | ACME BRICK CO                               | 21  | EXIDE   | 106 | NATURALITE   |
| 115 | ALLIED CHEMICAL CORP                        | 19  | FACADE, INC   | 6   | NEW CASTLE PRODUCTS, INC   |
| 100 | ALUMINUM PLUMBING<br>FIXTURE CORP           | 1   | THE FLXIBLE CO  | 34  | NORTHRUP ARCHITECTURAL<br>SYSTEMS                                |
| 72  | AMELCO                                      | 24  | FOLLANSBEE STEEL CORP                                   | 80  | NUTONE, INC  |
| 43  | AMERICAN AIR FILTER CO                      | 109 | GENERAL ELECTRIC CO<br><i>Appliance Division</i>        | 77  | PORTLAND CEMENT<br>ASSOCIATION                                   |
| 25  | AMERICAN GAS ASSOCIATION                    | 15  | GENERAL ELECTRIC CO<br><i>Outdoor Lighting Division</i> | 20  | POTLATCH FORESTS, INC  |
| 105 | AMERICAN INSTITUTE OF<br>STEEL CONSTRUCTION | 26  | GRANCO STEEL PRODUCTS CO                                | 161 | PANEL-LIFT DOOR CO   |
| 73  | AMERICAN LOCKER CO                          | 47  | HAWS DRINKING<br>FOUNTAIN CO                            | 39  | PITTSBURGH CORNING CORP  |
| 68  | AMERICAN OLEAN TILE CO                      | 71  | HILLYARD CHEMICAL CO                                    | 35  | PITTSBURGH PLATE GLASS CO  |
| 129 | AMERICAN-SAINT GOBAIN<br>CORP               | 103 | HOLCOMB & HOKE MFG. CO                                  | 154 | S. H. POMEROY CO   |
| 144 | AMERICAN TELEPHONE &<br>TELEGRAPH           | 48  | HOUGH MANUFACTURING CO                                  | 107 | RED CEDAR SHINGLE BUREAU   |
| 85  | ANDERSEN CORP                               | 10  | INDIANA LIMESTONE<br>INSTITUTE                          | 123 | KOOLSHADE CORP   |
| 44  | ARKETEX CERAMIC CORP                        | 57  | JAYLIS SALES  | 134 | RIGIDIZED METALS CORP  |
| 119 | ARMSTRONG CORK CO                           | 33  | JENN-AIR  | 136 | ROLSCREEN COMPANY  |
| 101 | ARVIN INDUSTRIES                            | 60  | JOHNS-MANVILLE  | 86  | ROTO-SWING DOOR CO   |
| 2   | AZROCK FLOOR PRODUCTS                       | 137 | INLAND STEEL PRODUCTS CO                                | 89  | SHOWER DOOR CORP   |
| 162 | BETHLEHEM STEEL CO                          | 108 | JUST MANUFACTURING CO                                   | 124 | ST. REGIS PAPER CO   |
| 104 | THE BILCO CO                                | 92  | KALMAN FLOOR CO   | 139 | STANLEY HARDWARE   |
| 70  | B. B. CHEMICAL CO                           | 13  | KAWNEER CO  | 135 | THE STEELCRAFT MFG. CO   |
| 27  | BRADLEY-WASHFOUNTAIN                        | 11  | KENTILE, INC  | 83  | STRUCTURAL CLAY PRODUCTS<br>INSTITUTE & FACING<br>TILE INSTITUTE |
| 91  | BRIDGEPORT BRASS CO                         | 37  | KNOLL ASSOCIATES  | 49  | HALSEY W. TAYLOR & CO  |
| 28  | BUCKINGHAM-VIRGINIA<br>SLATE CO             | 52  | KOHLER CO   | 75  | TECTUM CORP  |
| 76  | CALORIC APPLIANCE CORP                      | 146 | KOPPERS COMPANY, INC                                    | 56  | THERMO-ROOF  |
| 22  | PHILIP CAREY MFG. CO                        | 167 | LAMONT & RILEY  | 66  | THOMAS INDUSTRIES, INC   |
| 130 | CECO STEEL PRODUCTS CORP                    | 138 | LARSEN PRODUCTS   | 18  | TIMBER STRUCTURES, INC   |
| 12  | CELOTEX                                     | 58  | LEAD INDUSTRIES ASSN                                    | 53  | UNISTRUT PRODUCTS CO   |
| 94  | COLUMBUS COATED FABRICS<br>CORP             | 117 | LIBBEY-OWENS-FORD<br>GLASS CO                           | 95  | UNIT STRUCTURES  |
| 99  | CONGOLEUM-NAIRN                             | 153 | LINE MATERIALS INDUSTRIES                               | 41  | UNITED STATES CERAMIC<br>TILE                                    |
| 128 | CONNOR LAND & LUMBER CO                     | 66  | MARNAY DIV., PARTITIONER                                | 29  | U. S. PLYWOOD CORP   |
| 45  | CRANE CO                                    | 74  | MASTIC TILE DIVISION,<br>RUBEROID                       | 164 | UNITED STATES STEEL CORP   |
| 38  | DAY-BRITE LIGHTING, INC                     | 90  | W. R. MEADOWS, INC                                      | 152 | UNIVERSAL-RUNDLE   |
| 121 | DECATUR IRON & STEEL CO                     | 79  | THE MILLER CO   | 23  | VERMONT MARBLE CO  |
| 31  | DOW CHEMICAL CO                             | 7   | MIRAWAL   | 148 | WESTINGHOUSE ELECTRIC<br>CORP                                    |
| 142 | DOW CORNING CORP                            | 14  | MO-SAI INSTITUTE  | 5   | WEYERHAEUSER CO  |
| 78  | DOUGLAS FIR PLYWOOD ASSN                    | 64  | MOSAIC TILE CO  | 96  | WHEELING CORRUGATING CO  |
| 98  | DUKANE CORP                                 | 158 | NATIONAL ASSOCIATION<br>OF ELEVATOR CONTRACTORS         | 93  | WILKINSON CHUTES, INC  |
| 132 | E. I. DUPONT DE NEMOURS<br>& CO             | 69  | NATIONAL LUMBER<br>MANUFACTURERS<br>ASSOCIATION         | 150 | WOOD CONVERSION CO   |
| 16  | DWYER PRODUCTS CORP                         | 43  | NATIONAL STEEL<br>PRODUCTS CO                           |     |  |
| 159 | ENJAY CHEMICAL                              |     |   |     |  |

## Exhibit Hours

*Monday—May 7 (Opening Day)*  
9 am to 6 pm

*Tuesday—May 8*  
11 am to 6 pm

*Wednesday—May 9*  
11 am to 6 pm

*Thursday—May 10*  
11 am to 6 pm

# What You Will See

## AMERICAN LOCKER COMPANY, INC. Booth #73

On display: a complete new line of Coin-Lok Locker Checking Systems. Coin-operated locks security built and equipped with meters for sale or lease. Booth personnel: William D. Creighton, Robert W. Kenyon, John Bassinger, Donald Avil.

## AMERICAN OLEAN TILE COMPANY Booth #68

On display: A new line of silk-screen decorated tiles in a contemporary vein; Precedent ceramic mosaics; a new quarry tile product, Flashtile. Booth personnel: Walter Oates, George Thorp, Charles Sumner.

## AMERICAN-SAINT GOBAIN CORPORATION

Booth #129

A display built around four functions of flat glass: visual dynamics, heat and light balance, dynamic exteriors, and spaciousness. Booth personnel: T. P. Kruper, J. J. Pembroke, R. B. Wilcox, W. C. Dart.

## ARMSTRONG CORK COMPANY

Booths #119 and 120

Featured: Montina Vinyl Corlon, a new sheet vinyl flooring for commercial, institutional or residential areas. Also on display, lighted panels showing all of Armstrong's new floor and wall covering materials. Booth personnel: J. R. Hubbard, H. F. Swanger.

## BESTWALL GYPSUM COMPANY

Booths #2, 3 and 4

The ever-expanding use of gypsum drywall construction in high-rise buildings will be the theme of the display by Bestwall. "The Philadelphia Story: Another Chapter in the Use of Drywall in High-rise Construction," will show architectural renderings and actual samples of walls used in two major Philadelphia high-rise apartments.

## BRADLEY WASHFOUNTAIN COMPANY Booth #27

On display: stainless-steel wall-saver showers, a stainless-steel free standing column shower, and a Duo Washfountain. Booth personnel: C. H. Berenger, L. L. Prince, John Ray.

## BRIDGEPORT BRASS COMPANY

Booth #91

Flexalum Products, the Flexalum Method of Sun Control, the H/D Portiko for marquees, walkway covers, etc. Booth personnel, Doug Myers.

## DUKANE CORPORATION Commercial Sound Division

Booth #98

DuKane will feature "Depth of Line" in Sound and Communication Systems for Industry, Business, Institutions and Schools and the "Depth of Experience" and "Depth of Service" of its nationwide distributor organization. The booth will be attended by L. C. Klewin and G. P. Clancey.

## FACING TILE INSTITUTE

Booth #83

Quality-tested structural, glazed and unglazed facing tile.

Sound-absorbing, sound retarding "SCR acoustile." Colorful glazed brick.

## FOLLANSBEE STEEL CORPORATION

Booth #24

Booth background will illustrate a number of recently-applied and unusual Terne Roofing applications.

## JENN AIR PRODUCTS COMPANY, INC. Booth #33

On display: the Air Conditioned Range, a new idea in kitchen built-ins—a range-top and oven unit containing its own fume removal system. Booth personnel: William R. Metcalf, Eben Handy.

## MOSAIC TILE COMPANY

Booth #64

Products to be displayed: "Mini-Murals," 12x12" ceramic mosaic murals; new designs in Byzantine ceramic mosaics; new patterns in ceramic mosaics for areas where large scale is particularly appropriate. Booth personnel: Kenneth Gale, Robert Wilson, Davis Gomillion, Pat Riley.

## NATIONAL LUMBER MANUFACTURERS ASSOCIATION

Booth #69

To be featured, an exhibit promoting the use of wood in modern school construction, including pho-

tographs of recently-built wood schools from various regions.

## PHILIP CAREY

### MANUFACTURING COMPANY

Booth #22

Exhibits of much of Carey's complete line of building and construction products: roofing, Elastite highway products, roof coatings and emulsions, Thermo-Bord structural insulating panels, etc. New developments in roofing shingles, bathroom cabinets and range-hoods by Carey will be shown for first time. Booth personnel: P. D. Shea, W. E. Johnson, R. J. Trauscht, H. B. Johnson.

## STRUCTURAL CLAY PRODUCTS INSTITUTE

Booth #83

Protective Construction for school and community shelters. Superior strength of Reinforced Brick Masonry. First commercial application of high-bond mortar—Gas Pavilion, Seattle World's Fair.

Samples of "SCR veri-lite," lightweight structural units being developed by Structural Clay Products Research Foundation.

"SCR building panel."

## UNITED STATES PLYWOOD CORPORATION

Booths #29 and 30

Weldwood Movable Walls systems, Glasweld curtain-wall sandwich panels, Weldwood architectural paneling, Permagard, Prefinished Wall Paneling, the Weldwood Stay-Strate door, acoustical doors and Custom-Royal doors. Booth personnel: Ray La Cour, F. B. Peckham, W. W. Johnston, Robert Bauer.

## VERMONT MARBLE COMPANY

Booth #23

Featured, a carved marble plaque of the Great Seal of the United States. Large-size samples of American marbles, showing true color and markings. Booth personnel: Earl Richardson, John Rudin, A. T. Howe.

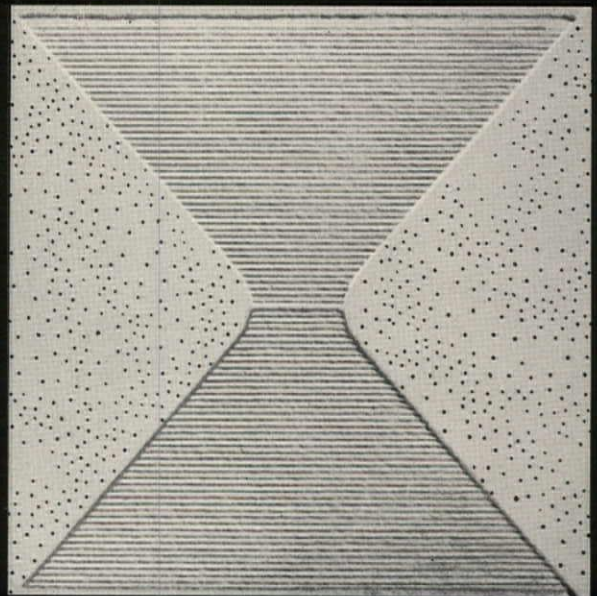
## WOOD CONVERSION COMPANY

Booth #150

Introducing Lo-Tone Ventilating Acoustical Tile, with an actual demonstration in an enclosed air-flow chamber. Also on display, Lo-Tone Fire-Rated Acoustical Ceiling Tile; Lay-In Panels. Booth personnel: Ed Berset, A. J. Crone, D. W. Young, F. S. Burgen, K. C. Lindley.



CONSTELLATION®



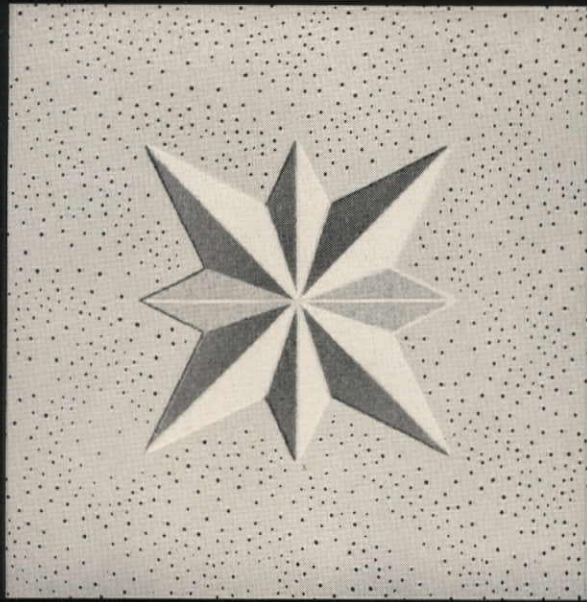
HOURLASS

# For worship or for work

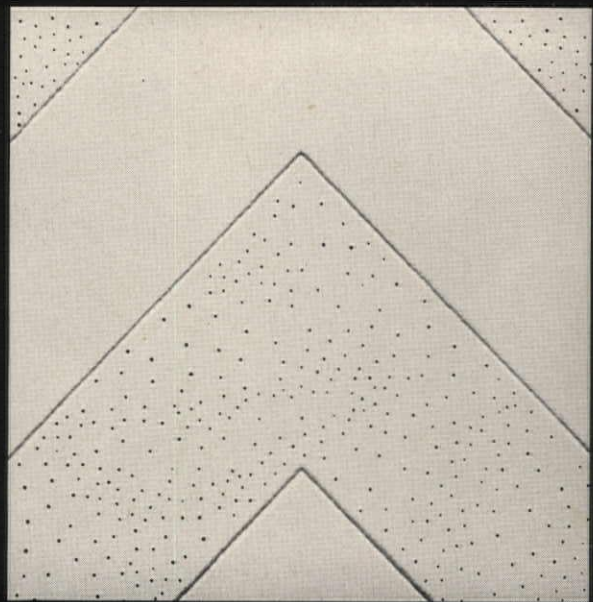


*Stained glass window in  
Cathedral Chalons-sur-Marne, France,  
admired since the twelfth century.*





ACCENT



INFINITY

# ....beauty that endures



For serenity in a church, for inconspicuous and subtle beauty in a library; for a wide range of architectural objectives, consider Lo-Tone Constellation mineral acoustical ceiling tile, embellished with our three sculptured patterns—Hourglass, Accent or Infinity. ■ These Lo-Tone mineral tiles, shown above, offer great design flexibility when used in combination. Or, any one of the sculptured patterns may be used alone, in highly interesting and attractive geometrical designs. Many such handsome Lo-Tone mineral ceilings may now be seen in churches, schools, hospitals,

apartments, and in sleek new office buildings. ■ The passing years won't dim the beauty of your Lo-Tone mineral ceilings, for these minerals endure in the way that the stained glass window endures. And Lo-Tone ceilings provide superior sound absorption, light reflection, and dimensional stability. ■ For an AIA Catalog showing the full line of Lo-Tone tiles and ceiling boards, regular and fire-rated, please write us. We can also send, free, an ingenious designer's kit containing tiny facsimile tile for experimentation. Address Wood Conversion Co., St. Paul 1, Minn.

*For enduring beauty, specify . . .*

**LO-TONE®** MINERAL ACOUSTICAL CEILING TILE



**SERIES 3000**

**BUILDING:** *Meigs Field Terminal, Chicago, Illinois*  
**ARCHITECT:** *Consoer & Morgan*  
**CONTRACTOR:** *Mercury Builders, Inc.*

More than 700 buildings all over the United States have Kawneer's 3000 Unit Wall. It is an excellent low-rise system. The weather-tightness of each proves that the principle of unit construction—with internal drainage—is successful in practice. Kawneer-trained wall and window contractors contribute to this successful performance by correctly installing the system.

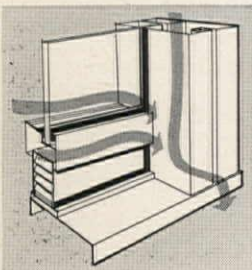


**SERIES 4100**

**BUILDING:** *Gibraltar Savings & Loan*  
**ARCHITECT:** *Victor Gruen Associates*  
**CONTRACTOR:** *William Simpson Construction Company*

This high-rise Unit System is being specified more and more by architects who had previously used window wall systems on high-rise construction. The reasons are simple: 4100 has the strength to weather the severe conditions that high-rise buildings are subjected to, and its internal drainage system assures weather-tightness. Installation by Kawneer Wall Systems Contractors or Kawneer's Contract Dept., itself, depending on the size and complexity of the job.

## Kawneer unit wall systems with I.D.\* are performance proved



Unit Wall Systems with internal drainage were pioneered and developed by Kawneer Company. The original concept (Series 3000 was the first to utilize I.D.\*) has proved so sound that no basic changes have been made since the origination of the idea seven years ago. Kawneer Unit Systems successfully solve the problems in metal curtain wall construction; thermal movement, stress and leakage.

When you design your next building, assure the integrity of the walls with a suitable Kawneer Unit System. For complete information call your Kawneer representative or write:

*\*INTERNAL DRAINAGE SYSTEMS in Kawneer Unit Walls collect any water that gets past the seals and into the walls, drains it down the verticals and out. Water does not get through the walls and into the building.*



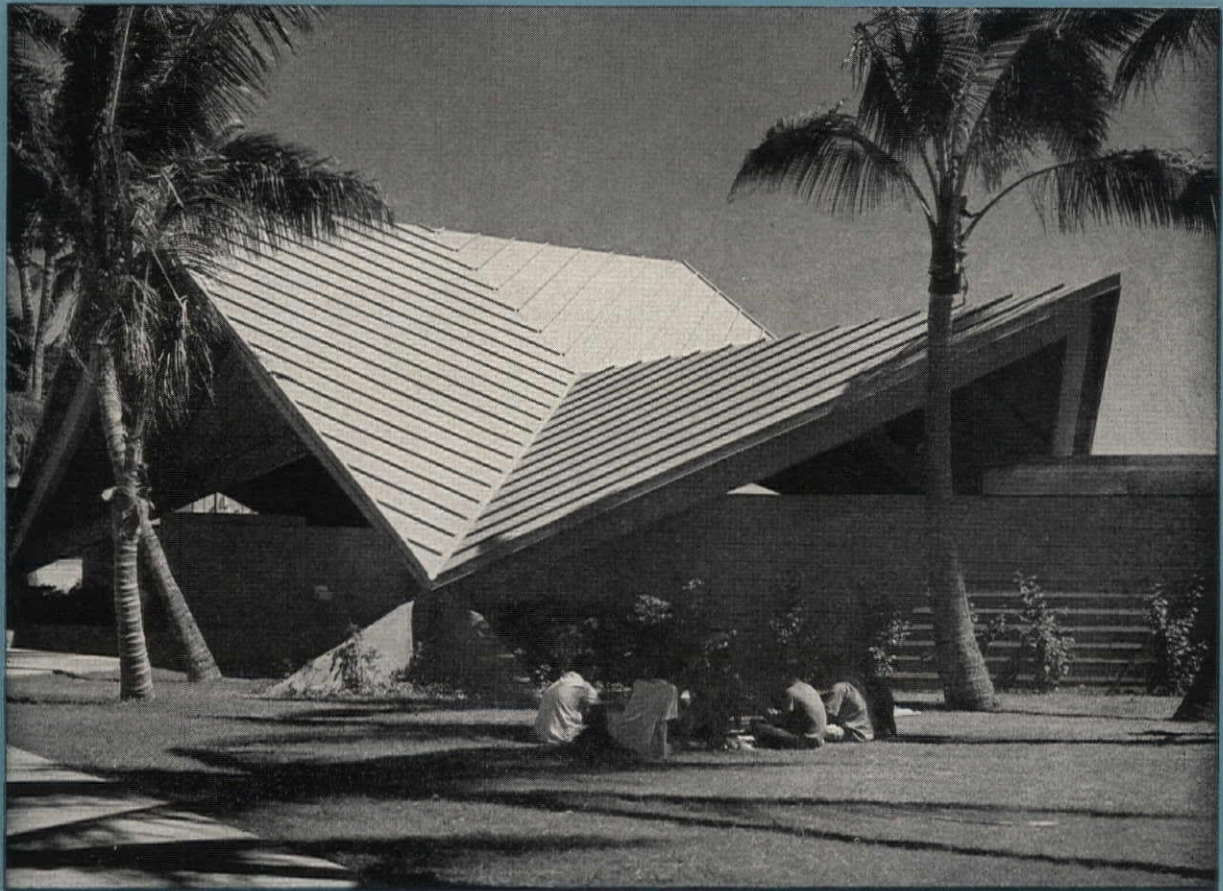
KAWNEER CO., Niles, Mich., Richmond, Calif. • KAWNEER CO., CANADA, LTD., Toronto, Canada



**FOLLANSBEE STEEL CORPORATION**  
Follansbee, West Virginia

## A TROPICAL (and topical) GLANCE AT TERNE . . .

*Architects throughout America are rediscovering this time-tested roofing metal, are finding it almost uniquely adapted to the special idiom of contemporary design. For terne allows form and color to become an integral part of the visually significant roof. But while this is its most notable characteristic, terne has various supplemental advantages in relationship to specific environments. As in subtropical and tropical climates, for example, where its reflectivity is such that a white terne roof will absorb less than twenty-five percent of solar heat. And terne is virtually immune to salt-water corrosion, is normally unaffected by winds of hurricane velocity. May we send you the substantiating evidence?*



**WAIKIKI BEACH CENTER, HONOLULU, HAWAII**

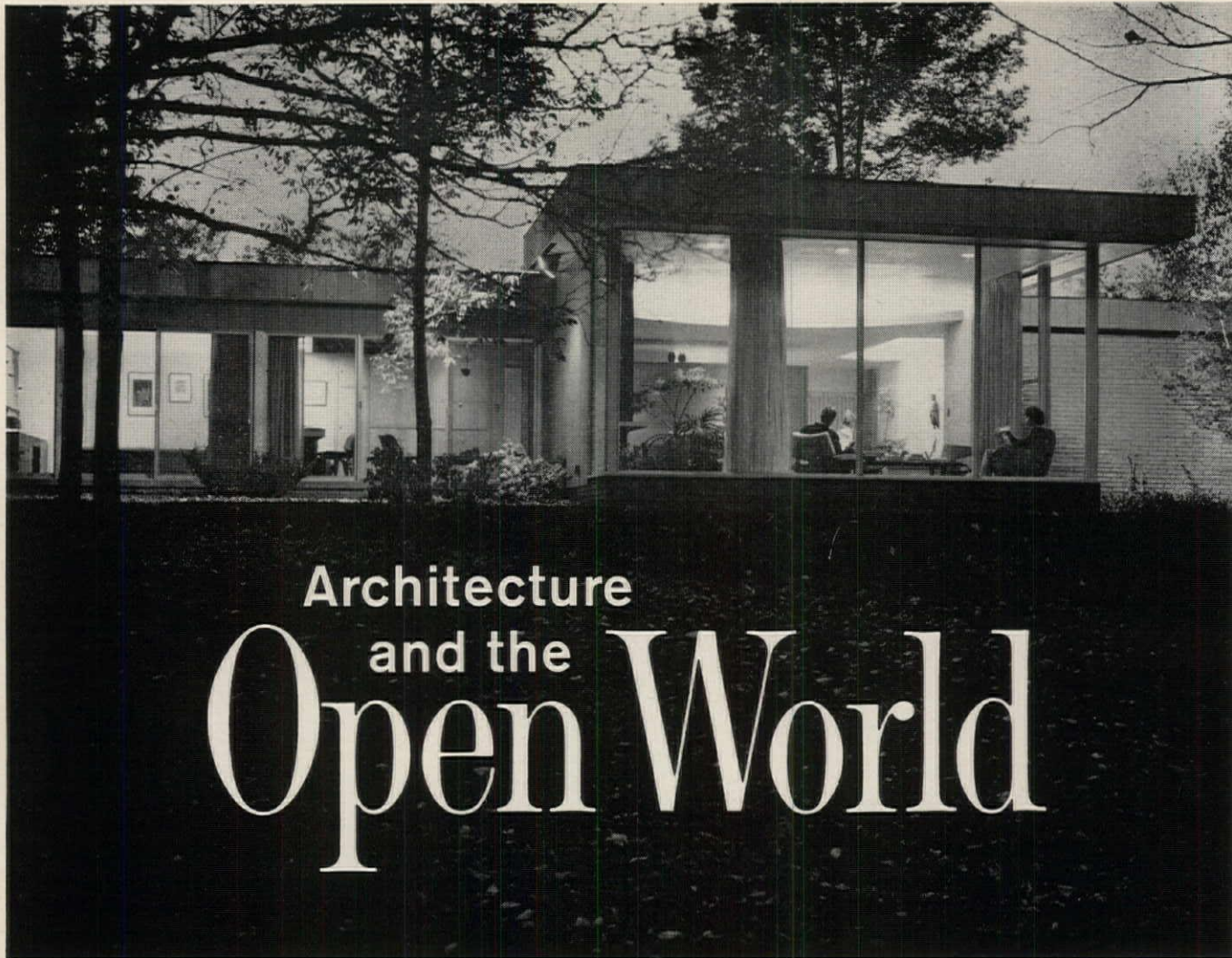
**Architect: Dennis & Slavsky, AIA**

**General Contractor: Nakakura Construction Company**

**Roofing Contractor: T. Arlta Plumbing & Sheet Metal Company**



*Follansbee is the world's pioneer producer of seamless terne roofing.*



# Architecture and the Open World

An "OPEN WORLD" home in Moreland Hills, Ohio. Architects: Rowley, Payer, Huffman, Leithold of Cleveland, Ohio

**History is built of straw and mud.**  
Of brick and stone. Wood and metal.  
And of glass.

As you leaf through the pages of time, you will find each chapter headed by the kind of structure in which men lived, loved and died.

For man's architecture has always been his attitude. An expression of his heritage and his hopes. His fears and his faith.

### A place to hide

Often his home, whether castle or hovel, was first and foremost a place to hide in.

The drawbridge, the lookout towers, the dwellings hacked out of high cliffs—these were things built not for a man's better living but so that his life would not be abruptly ended.

Even now, in 1962, much of the world is still in hiding. Behind closed doors, shuttered windows. Behind walls of stone and fear and ignorance.

### In America

How differently we live in America. Here the shutters have come off, the

walls have come down, and the love of liberty is expressed with eloquence everywhere. We live in freedom, and our houses show it. We work in freedom, and you can see it in our buildings. And the more strongly we feel about being free, the more clearly our architecture shows it. The more it turns to the one magic material that encloses without imprisoning. *Glass.*

### Glass makes the difference

Homes that once were only as wide as their walls now seem as big as all outdoors. Schoolrooms that once seemed more like cells now have a cheerful, open feeling of freedom. And today, instead of a few items stacked in a store window, the whole store is on display. Banks look

hospitable instead of hostile. Office buildings say "Come in" instead of "Keep out".

And inside, space seems much less encumbered than ever before. Light passes uninterrupted through translucent glass partitions. And big, wide ribbons of windows help keep the walls from closing in.

*This is architecture that encloses without imprisoning...this is comfort without confinement. This is the world of picture windows, daylight walls, sliding glass doors, curtain walls, visual store fronts. The world of Thermopane® Insulating Glass, Parallel-O-Plate® Glass, Heat Absorbing Plate Glass, Parallel-O-Grey® Plate Glass, Tuf-flex® Tempered Plate.*

This is the "Open World".

**Libbey·Owens·Ford**  
Toledo 2, Ohio

MADE IN U.S.A.



THE QUALITY MARK  
TO LOOK-FOR

# A Second Report on Your Profession

**A program of practical action to expand the role of the architect  
in the creation of buildings and their environment for a dynamic  
and restless society in the complex and changing world of today**

**F**rom the time of its appointment in November 1957, the work of the Committee on the Profession has been concentrated on the role of the architect in our time and in the future. During this period, the committee has been examining not only the role of the architect, but how he must prepare himself for this role. The committee has been involved with the broad principles of architectural education, registration, and practice. It is still deeply involved in these subjects and many others equally important to the future of the profession.

The first report of the Committee on the Profession was accepted by the Board of Directors of The American Institute of Architects in January, 1960. Subsequently, the report was presented to the membership in the *Journal* in June of that year. This first report was primarily concerned with basic concepts of architectural practice and the profession. Certain recommendations for further study were made. A number of the topics were afterwards assigned to appropriate committees of the Institute for their consideration and action. These committees have devoted time and energy to their topics and have accomplished a great deal. The first report has also served as a guide for some of the work of the Institute staff.

The work of the Committee on the Profession has gone forward since the publishing of the first report. While it has been continuously concerned with a number of subjects, the Committee assigned first priority to the basic concepts of the practice of architecture in our time, and to the professional and ethical considerations that relate to practice today. Study has been made of the expanding role of the architect and the necessity of expanding his services toward a more comprehensive practice if he is to fulfill the role. Particular attention has been paid to the role of the small office in the practice of expanded services. The present report is

An interim or progress report of the work in the fields of expanding services of the architect, comprehensive practice, and new Standards of Professional Practice by the Committee on the Profession, James M. Hunter, FAIA, Chairman, Robert E. Alexander, FAIA, Clinton Gamble, AIA, Robert F. Hastings, FAIA, Members, Herbert L. Beckwith, FAIA, Perry B. Johanson, FAIA, Vincent G. Kling, FAIA, Frank R. Slezak, AIA, Hugh A. Stubbins, FAIA, Philip Will, Jr., FAIA, Corresponding Members, William H. Scheick, AIA, Ex Officio Member

concerned only with the principles of comprehensive practice and new Standards of Professional Practice which will encourage comprehensive architectural services in situations where an expansion of the architect's basic or standard services seems needed or desirable. In the future, the Committee expects to report to the membership on its work in such fields as architectural registration and licensing, undergraduate and continuing education, and relationships with the other design professions.

An outline of comprehensive services is included in this report, along with a discussion of the concept and its relationships to the architect's standard services. A draft of the new Standards of Professional Practice is included. A positive program intended to inform the membership of various aspects of the architect's new role is presented. It is the hope of the Committee that the report will serve all of the members, not only as a source of information on the new role of the architect in our times, but as a source of inspiration as well.

### Expanded Services of the Architect

Many architectural firms, throughout the country, have found that they must expand their services beyond what was formerly thought to be the accepted area of architectural practice. These firms have taken action that seemed necessary to them in order to answer the demands and needs of society and their clients, and to combat the encroachments of "package dealer" businesses and others on the professional services of architects.

Some firms have found that they only needed to add one or more professionals in related design fields to their staffs, or retain them on a consulting basis. Other firms have expanded their staffs to include experts in a great number of fields, thereby enabling them to offer a more complete design service to prospective clients. Another method of accomplishing a similar result has been the pooling of resources of outside experts with the talents of the architectural firm to form the services. This sort of comprehensive service ranges, in present-day architectural offices, from the simplest combination of varied talents in the more usual sort of joint venture, to many forms of complex and complete ventures which may include even the assembly of land for a project and the financing of the project.

Large offices and small are facing the same challenges and the same threats from outside the profession. All architects, regardless of the size of their firms, have before them an opportunity, through the expanding of their services, to convert their firms to some degree of comprehensive practice. A large portion of the energies of the Committee on the Profession has been devoted to the kinds of service required in such a practice and the means of acquiring the necessary knowledge for accomplishing them.

Such comprehensive services must answer the demands of our society, while ensuring that the architect may act in a professional manner at all times, protect the interests of his client and the public, and discover ways to create a more satisfactory human environment.

*Large or small offices  
face the same challenge*



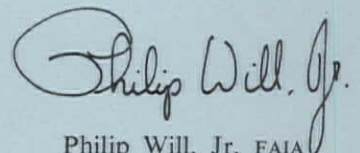
A Second  
Report  
on Your  
Profession

**For every AIA member, required reading:**

*These twenty pages are the beginning of an unprecedented program of professional education by the AIA. This is the introduction to a series of twelve Journal articles, beginning in June, dealing with comprehensive architectural services—a new concept of practice first stated by the Committee on the Profession two years ago and now a dominant topic of interest for the membership.*

*The objectives of the dynamic new concept are to increase our competence in design for today's society and improve our competitive position in today's economy.*

*The proposed changes are sweeping in their significance for every level of practice. They will be gradual and must be securely founded on new knowledge. The purpose of this year-long publication project is more than educational; we expect it to stimulate member response which will guide the formulation of policies for implementing this concept in 1963.*



Philip Will, Jr, FAIA  
President



**Standards  
of Professional Practice**

Even a casual evaluation of the proposed expanded services which an architect may wish to render in response to the apparent public demand will focus attention on the Standards of Professional Practice, the "Ethical Code" of the AIA.

Are such expanded services "professional?" Can an architect ethically practice in such a manner under our existing Standards of Practice and concepts of ethical behavior?

In the opinion of the Committee on the Profession, he *can* have a comprehensive practice *under our existing Standards*. Many offices already offer expanded services in some degree. Others have developed systems of practice that closely approach the total concept of comprehensive practice.

We *can* operate under our existing Standards of Practice. By this we do not mean that we *should* continue to operate under them or that it is *desirable* to do so. We feel it would be much better to revise this document not only to define our position but to eliminate any "guilt complex" we might feel about entering new areas of practice.

*Revision is necessary*

No one would make changes in a document which is the foundation of our professionalism and which has been with us for many years, unless he were motivated by very good reasons. The Committee on the Profession, after long and careful consideration, believes that revision is necessary for several reasons.

No document, no matter how well written, can hope to exist for a long period of time without being modified to meet the changing requirements of an evolving society. The Constitution of the United States has been modified twenty-two times in its history. And the legislative branch of our government, at all levels, spends a great deal of its time in the writing of new laws, and in changing older ones to keep them abreast of this evolving society.

Our Standards of Practice and the Mandatory Standards have already been changed a number of times. They have been interpreted innumerable times by our Boards of Directors during the course of their existence to adapt them to new conditions. This was necessary. Such interpretations, having accumulated to the point of creating a very unwieldy tool, make judicial action very difficult at the present time.

*Problems of "agency"*

The basic concept of "agency," which is an intrinsic part of our profession, is *implied* in the existing documents and its limits are *inferred* by custom. However, the principle of "agency" is not *stated* in our documents. We have put our trust in implication and inference. "Agency" has been always construed by the courts as "existing" and as limited by the "customs" of the profession, but responsibility, limitations of authority, and the consequences of acts done as "agent" should be clearly defined and definitely agreed upon between the architect and each one of his clients. The Committee urges each architect contemplating the expanding of his services to seek advice from his own legal counsel concerning the matter of "agency," to determine the legal problems involved and methods of clearly defining an agency position in all extraordinary problems of practice.

When we expand our services, we are changing the "customs" of the profession and hence creating an even greater gray area, subject to interpretation and confusion.

For these reasons, the Committee on the Profession feels that it would be wise for us to state clearly and definitely that agency does exist in the practice of architecture and to define the limits of the agency. Such a "Standards of Practice" document issued by the profession itself is certainly the first source of reference that any court would seek in interpreting just what the practice of architecture consists of. And the Committee feels it must be clear, definitive and complete.

Furthermore, we feel that any change in a document which so strongly affects the conduct of each of us and influences our daily lives and business affairs should be thoroughly studied, thoroughly understood, and thoroughly accepted by the profession.

Consequently, we have written numerous drafts of the Standards of Professional Practice. We have studied them, defined and distilled the language word by word, and submitted copies of the drafts to each of the Board Members, the officers, the various standing committees as appropriate, and to many individual members known to be interested, for their study. We have had the drafts reviewed by the Institute's legal counsel. We now feel that we have prepared a revised document adequate to our needs, easily administered, judicially enforceable, and free from legal embarrassment.

**Program  
for Action**

We have received permission from the Board to release this document to the membership by publication in the *Journal* so that every corporate member of the Institute will have ample opportunity to read it, to study it, and to submit his comments and criticisms as he sees fit. The Standards are printed, in their entirety, as a portion of the present report. We have asked the Board to formally present them to the membership, through convention action at the 1962 Dallas convention, for a year's study, so that they may be adopted in 1963, at which time they would become the new Standards of Practice of The American Institute of Architects.

Another portion of this report contains an outline of the Comprehensive Practice program, with a discussion of the expanded services of the architect.

Finally, there is an article by Dudley Hunt Jr, AIA, Senior Editor of *Architectural Record* and a practicing architect, who has been retained by the Institute to edit a series of articles on Comprehensive Practice under the title of the "The New Role of the Architect." These articles will be published in the *Journal* on a regular schedule. In addition to funds for publishing the article series, the Board has authorized and provided funds for seminars to be held in conjunction with the 1962 regional conventions. In these ways, the Committee on the Profession will endeavor to keep the membership informed on the principles of expanded services and help equip them for participation in this work.

# The Architect's Expanding Practice

**A discussion of comprehensive services that might be performed by architects for projects in which the basic services of schematics, design, production, and supervision are no longer adequate**

**T**raditionally, the architect as the "Master Builder" has been involved with the problem of giving instructions to his subordinates and to the building trades. In early times, drawings alone were adequate for this purpose, but as building procedures became more complex, it became necessary to supplement the drawings with written words—what we now call specifications.

As the client's problems became more complex, the need arose for other kinds of drawings and a greater number of drawings. In addition to the drawings from which the building would be constructed, there was a need for drawings to explain the building to the client. And the architect became more and more involved with problems of the client that had only indirect relationships with the building design and construction, that is, the architect became involved in such problems as the assembly of land for the building, its financing, and its operational problems. With increased complexity came the need for the architect to supplement his major activities with a great number of fringe activities which now related to the over-all problem, but which had not previously been part of the architect's traditional role.

During the years, ever-increasing demands have been made on the architect for more complete and broadened services. Yet the architect, in general, has not kept up with the demands. The architect, in many instances, has not met the growing needs for expanded services that would enable him to master the entire building process once again. Until he does—once again—become the "Master Builder" or "Master Planner," it is unlikely that he will be able to create the total design for human environment that he so often professes.

If the architectural profession is to meet the growing challenges of today's society, it must expand the present concepts of architectural practice far beyond what are presently called the basic services of the architect and which are limited essentially to the design and construction of the building itself. This does not mean that every individual architect or architectural firm must perform every service, but it does mean that the profession must provide, in some manner, the means of handling the whole

The Committee on the Profession believes that the role of the architect must expand in our time. If this is to happen, the services performed by the architect must also expand. The basic services must be improved and to them must be added additional services. The result must be a comprehensive practice, portions of which can be offered by individual architects and their firms in accordance with their interests and competence, to meet the demands of our society and the needs of their clients

job. It means that the profession must equip itself in some way to participate in the preparatory decisions that make building projects possible, to relate buildings to the total environment, and to carry projects through all of their phases, not merely through the basic building design, planning and construction phases.

Architects will have to get involved in certain analysis, promotional and managerial functions now often performed by others. They will have to offer services in operations programming and planning. They will be required to perform or coordinate a greater number of widely-varied supporting design and consulting services.

As agents of their clients, architects must be able to perform or arrange for and coordinate expanded services to their clients in a professional manner. Architects must be able to bring to bear on the problem the broad planning and organizational skills peculiar to the architectural profession, as well as the specialist skills of their employees and associates or those retained as consultants or collaborators.

**Basic Services of  
the Architect**

AIA Document B-131, "A Standard Form of Agreement Between Owner and Architect," outlines the basic services of the architect as follows:

- 1 Schematic Design Phase
- 2 Design Development Phase
- 3 Construction Documents Phase
- 4 Construction Phase

The document indicates the need for more attention to building programming by the inclusion of a programming phase as an extra service which would precede the four basic phases. Architects can certainly do a better job when they include the programming phase of a project as a part of their services than they can when they stick to the four basic phases. Through close study and analysis of the problems, the architect can surely better understand the philosophy, culture, purpose and needs of his client, as well as the statistical requirements of the projected building program. Through careful programming, the architect can more realistically develop the basic concepts of the environmental structure. The resulting design will more surely reflect the underlying needs of the client and make a contribution to the total community environment.

During the schematic design phase, the basic concept of the project is established. In this phase, the design is born. Its tone, atmosphere, scale and function are determined. The basic concept arrived at in this stage can only come from a sensitive, creative professional in sympathy with the needs of his client, the welfare of the community, and all of the related environmental, design, and construction disciplines.

In the design development phase, the creative idea born in the schematic design phase grows and develops into an integrated design which recognizes the limitations and possibilities of all of the design disciplines that impinge upon the final solution of the basic problem. It is during this phase that the architect, work-

*The design is born*

*Art, function and technology  
developed*

ing with urban planners, structural, mechanical, electrical, landscape architects and other consultants, properly relates the various aspects of building design to the total creative concept so as to develop a workable and unified whole.

Art, function and technology are developed in the design development phase to the point where the final preliminary design drawings, outline specifications and construction cost estimates for all trades are prepared for the owner's approval. It is in this phase that special mockups, testing, research and investigation by client and architect can be carried out so that both are thoroughly convinced that the design solution finally accepted best meets the needs of the client and the community.

After completing the design development phase, the project moves into the construction document phase where the consultants, designers, technicians, detailers, specification writers, estimators and others translate the design into detailed working drawings and specifications to instruct the construction contractors who bid on the project, and direct them in the detailed execution of the project. It is the architect's responsibility to prepare these construction documents as legal contracts which adhere rigidly to the approved preliminary design and to the preliminary construction cost estimates.

The architect's services during the construction phase include the taking and analyzing of bids, recommendations for construction awards, assisting in the drafting of construction contracts, checking of shop drawings, approval of materials, development of large-scale details as required, the issuance of certificates of payment, and other general administrative aspects of the construction program. This phase of service also includes actual field observation of the work of the contractors to assure the owner of compliance with the intent of the construction documents. It also includes final inspection of construction work, the obtaining of the necessary guarantees, etc, and assisting the owner in the final acceptance of the completed project.

### **Comprehensive Services of the Architect**

**T**he Committee on the Profession believes that the basic services, described above, no longer answer the needs of many of today's clients, since they do not include a number of services required in the over-all development of certain types of projects.

In many cases, additional services such as operations programming, land assembly, or financial programming are necessary if projects are to be built. If the architect chooses not to furnish such comprehensive services, there are others who will and who are doing so today. In the opinion of the Committee, such a state of affairs can only lead to the loss of his traditional position of leadership by the architect and his relegation to a position of secondary importance in the fields of building and environmental design.

# Comprehensive Architectural Services

A draft outline of expanded services performed by architects, with the assistance of the related professions, in order to create buildings and their environment through comprehensive practice

## I Project Analysis Services

A number of these services are more properly business functions, rather than professional. Many of them would be negotiated for the owner by the architect as the owner's agent. In such cases, the owner's interests must be closely guarded. For the architect to properly assist and serve his client in such areas, special training will be required leading to a broad background in real estate, finance, business, and taxation to supplement the architect's skills as an investigator, researcher, organizer, and coordinator.

### A Feasibility Studies

- 1 Need for Facility
- 2 Method of Accomplishment
- 3 Economic Requirements
- 4 Location Requirements
- 5 Personnel Requirements
- 6 Legal Considerations

### B Financial Analysis

- 1 Operational Financing
- 2 Capitalization of Project
- 3 Land Values and Availability
- 4 Taxes and Insurance Rates
- 5 Interim Financing
- 6 Long-Range Financing

### C Location and Site Analysis

- 1 Survey of Locations and Sites
- 2 Land Uses and Functions
- 3 Relationships to Surroundings
- 4 Relationships to Labor Force
- 5 Relationships to Raw Materials
- 6 Availability of Markets
- 7 Population Trends
- 8 Relationships to Transportation
- 9 Climatological Considerations
- 10 Legal Considerations

### D Operational Programming

- 1 Functional Requirements
- 2 Space Requirements
- 3 Equipment and Furnishings
- 4 Personnel Requirements
- 5 Financing Requirements
- 6 Organizational Requirements
- 7 Maintenance Requirements

### E Building Programming

- 1 Basic Philosophy
- 2 Site and Climatic Requirements
- 3 Space Requirements and Relationships
- 4 Occupancy Requirements
- 5 Budgeting
- 6 Financing
- 7 Design and Construction Scheduling

## II Promotional Services

In many cases, there exists a need for services in the actual assembly of land for projects, acquiring of financing, and other promotional activities required for projects to go ahead. Architects, with their own staffs, can accomplish many of these activities including preparation of promotional designs, drawings, brochures, and the like. As the agent of the owner, architects can also procure and coordinate the additional activities necessary for a complete service. In all such activities, the architect must maintain his professional status as the agent of the owner.

- A Real Estate and Land Assembly**
- B Financing of Projects**
- C Promotional Design and Planning**
- D Public Relations**
- E Communications**

## III Design and Planning Services

The operations to be performed in a building, such as production in an industrial building or sales in a shopping center, determine to some extent the architecture of the building. In order to maintain his control over all of the aspects of the design, the architect must prepare himself to perform or direct the operational design and planning, as well as the building design and planning phases. Reliable cost estimating is a necessity in both operational and building design and planning.

- A Operational Design and Planning**
  - 1 Operational Procedures
  - 2 Systems and Processes
  - 3 Functional Requirements
  - 4 Layout and Relationships
  - 5 Equipment and Furnishings
    - a Specifications and Purchasing
    - b Installation and Hookup
    - c Testing and Checking
    - d Maintenance and Upkeep
- B Building Design and Planning**
  - 1 Schematic Design
  - 2 Preliminary Estimates
  - 3 Design Development
  - 4 Outline Specifications
  - 5 Cost Estimating
  - 6 Working Drawings
  - 7 Specifications

## IV Construction Services

Architects may not—ethically—engage in building contracting. During the construction phases, the architect's position is that of agent of his client for bid or negotiated contracts, force account work, or other variations of the standard construction contracts.

- A Bids and Construction Contracts**
- B Supervision and Administration**
- C Job Cost Accounting**
- D Construction Management**
- E Post-Construction Services**

# Comprehensive Architectural Service

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Continued

## V Supporting Services

In working with the supporting services, the architect's role is one of collaboration with them so as to coordinate their activities into a comprehensive service leading to a unified result. While the architect may employ many of these professionals as members of his staff, a more normal arrangement of comprehensive services might include them as consultants to the architect. In either case, they are entitled to their professional status, and to the benefits and public acknowledgement earned by their contributions to the total effort.

### A Supporting Design Services

- 1 Engineering
- 2 Urban and Regional Planning
- 3 Landscape Architecture
- 4 Site Planning
- 5 Fine Arts and Crafts
- 6 Interior and Furnishings
- 7 Sanitary and Utility Planning
- 8 Roads and Traffic Design
- 9 Others—Acoustics, Lighting, etc

### B Special Consulting Services

- 1 Specific Building Types
- 2 Economics
- 3 Market Analysis
- 4 Merchandising Analysis
- 5 Law

## VI Related Services

A great need exists for services of architects in fields other than those directly concerned with individual building or environmental projects. The architect may actually perform such services or may direct or coordinate the activities.

### A Architectural Education

### B Industry Consultation

### C Research and Testing

### D Products Design

### E Architectural Graphics

### F Prefabricated Buildings



# THE STANDARDS OF PROFESSIONAL PRACTICE

(Preliminary Draft, December 1961)

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*The Bylaws of the Institute form the basis for all disciplinary actions taken under the Standards of Professional Practice, as follows:*

## **Chapter 14, Article 1, Section 1(c)**

Any deviation by a corporate member from any of the Standards of Professional Practice of the Institute or from any of the Rules of the Board supplemental thereto, or any action by him that is detrimental to the best interests of the profession and the Institute shall be deemed to be unprofessional conduct on his part, and he shall be subject to discipline by the Institute.

This Code is promulgated to maintain the highest ethical standards for the profession of architecture. It does not attempt to provide such all-inclusive standards that failure to specify some particular act indicates a tolerance thereof. The primary purpose of discipline under this Code is to protect the public and the profession and not to punish the person disciplined.

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# I

## OBLIGATIONS OF PRACTICE

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The profession of architecture calls for men of high cultural attainment, personal integrity, business acumen, creative ability and technical skills.

An architect's honesty of purpose must be above suspicion. He acts as agent for his client and is bound to protect the legitimate interests of his client. He acts as professional adviser to his client and his advice must be sound and unprejudiced. He is charged with the exercise of

impartial judgment in interpreting contractual agreements and his opinions must be fair and objective. He administers and coordinates the efforts of his professional associates and subordinates and his acts must be prudent and knowledgeable. He directs the work of contractors, their related crafts and skills, and his directions must be clear, concise and reasonable. He is engaged in a profession which bears grave legal and social responsibility to the public. These duties and respon-

sibilities cannot properly be discharged unless the architect's motives, conduct and abilities command respect and confidence.

The services of the architect are concerned with the total physical environment of man and are broad and inclusive. They may include any professional services provided or coordinated by the architect appropriate to the development of that environment, providing he maintains his professional relation of agent for his client.

The architect's services are rendered in order that the use of land and the development of projects shall be well suited to purpose, and the construction and equipment of buildings shall be soundly designed. His completed work must insure the health, welfare and safety of the client and the public and create an environment of beauty, orderliness and distinction.

**A** An architect's relation to his client is based upon the concept of agency and founded upon good faith and understanding. Before undertaking any commission he shall determine with his client the scope of the project, the nature and extent of the services he will perform and his compensation for them. In performing his services he shall maintain with his client an understanding of the project, its developing solutions and probable costs.

**B** In fulfilling the needs of his client, the architect shall also protect the public interest and the well-being of society.

**C** An architect may offer his services to anyone on the generally accepted basis of commission, fee, salary or royalty, as agent, consultant, adviser or assistant, provided that he rigidly maintains his professional integrity.

Subject to state laws and regulations, a member may practice as an employee of an individual, corporation, or non-professional organization provided his actions are in strict accordance with the ethical standards of the Institute.

**D** An architect shall not make use of services which may be accompanied by an obligation detrimental to the best interest of the client.

**E** An architect's communications, whether oral, written or graphic, shall be complete, definite and clear concerning his intentions.

**F** An architect shall guard the interests of his client and the rights of those whose contracts the architect administers. An architect shall condemn workmanship, services or materials which do not conform to the requirements of the contracts, but shall give every reasonable aid toward

a complete understanding of those contracts in order that mistakes may be avoided. He shall not call upon the contractors to provide work or to correct mistakes resulting from omissions or errors in the architect's services, without proper compensation to the contractors.

**G** An architect, in his investments and in his business relationships, shall be free from financial or personal interests which might tend to weaken or discredit his standing as an unprejudiced adviser and agent, or restrict his freedom to act in his client's best interests.

**H** An architect shall promote the interests of his professional organizations and do his full share of the work of those organizations. He shall contribute to the interchange of technical information and experience between architects, the design professions, and the building industry.

**I** By his own example, an architect shall inspire the loyalty and enthusiasm of his employees. He shall provide them with a desirable working environment, compensate them fairly and require them to render competent and efficient services.

**J** An architect shall encourage interest in the design professions, the professional development of those in training, and shall foster for himself and others a continuing education in the functions, duties and responsibilities of these professions, as well as the technical advancement of the science and art of environmental design.

**K** An architect shall recognize the contribution and the professional stature of the related professions and collaborate with them in order to create an optimum physical environment for society.

**L** An architect must seek opportunities to be of constructive service in civic affairs beyond the routine of his practice and give of himself to advance the health, safety, welfare, orderliness and beauty of his community.

**M** Finally, every architect shall contribute generously of his time and talents to foster justice, courtesy and sincerity in his profession, recognizing that as an architect he has moral obligations to society beyond codified law or business practices.

It is incumbent upon him in the conduct of his practice to maintain a completely professional attitude toward those he serves, toward those who assist him in his practice, toward his fellow architects and toward the members of other professions and the practitioners of other arts. He shall always respect the distinction between professional practice and nonprofessional enterprise.

## II

### MANDATORY STANDARDS OF PROFESSIONAL PRACTICE

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- 1 An architect shall render his professional services as agent for and counsellor to his client with undivided loyalty; consequently, he may accept compensation for his services only from his client.
- 2 An architect shall render professional services only after a prior and definite agreement with his client as to the extent of the services and compensation.
- 3 An architect shall perform those services he renders with such competence and adequacy that he properly serves the interests of the client and protects the public in matters of health, welfare, safety and beauty.
- 4 An architect shall base his compensation on the value of the services he agrees to render. He shall neither offer nor agree to perform his services for a compensation that will tend to jeopardize the adequacy or professional quality of those services, or the judgment, care and diligence necessary to properly discharge his responsibilities to his client and the public.
- 5 An architect shall not enter into competitive bidding against another architect on the basis of compensation. He shall not use donation or misleading information on cost as a device for obtaining a competitive advantage.
- 6 An architect shall not engage in building contracting. He shall not have a financial interest in contracting firms, products or vendors of building materials that might tend to compromise his loyalty to his client.
- 7 An architect shall provide responsible cost estimates to his client. When providing any cost information his statement shall be complete and reliable.
- 8 An architect shall not offer his services in a competition except as provided in the Institute's Competition Code.
- 9 An architect shall not injure falsely or maliciously the professional reputation, prospects or practice of another architect.
- 10 An architect shall not attempt to supplant another architect after definite steps have been taken by a client toward the latter's employment. An architect shall not undertake a commission for which he knows another architect has been employed until he has notified such other architect of the fact in writing and has conclusively determined that the original employment has been terminated.
- 11 An architect shall conform to the registration laws governing the practice of architecture in any state in which he practices.
- 12 An architect shall not engage a commission agent to solicit work on his behalf.
- 13 An architect shall not use paid advertising or indulge in self-laudatory, exaggerated or misleading publicity, nor shall he publicly endorse products or permit the use of his name to imply endorsement. He shall not solicit, nor permit others to solicit in his name, advertisements or other support toward the cost of any publication presenting his work.
- 14 An architect shall not act in a manner detrimental to the best interests of the profession.

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### CONCLUSION

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Since adherence to the principles herein enumerated is the obligation of every member of The American Institute of Architects, any deviation therefrom shall be subject to discipline in proportion to its seriousness.

The Board of Directors of The American Institute of Architects shall have sole power of interpreting these Standards of Professional Practice and its decisions shall be final subject to the provisions of the Bylaws.

# The New Role of the Architect

by **Dudley Hunt Jr, AIA**

*Senior Editor, Architectural Record*

Architects of today seem destined to practice their profession in a kind of world that has no parallel in history. It is a world composed of revolutionary advances in technology, of exploding population, of a degree of complexity never dreamed of before now. A world of speed, of great leaps ahead in knowledge and know-how. A world of expanding social problems and lagging social answers. A world that makes much of the specialist, while thumbing its nose at the generalist and calling him dilettante. A world in which the scientist is accepted and esteemed, but the artist has become estranged from his fellow man. A world in need of order, but seemingly doomed to fragmentation.

*The Challenge of Society*

In all the seeming confusion of the world of today, there are signs of hope and light. One of the brightest signs is the growing demand of society for someone who can bring order into human environment, who can fill it with beauty, who can cause it to function better, who can create an environment that will contribute to the well-being and advancement of the human race. The most eligible candidate for such a role is the architect. Imperfect though his preparation for the role may be, the architect is a member of the only profession concerned with total human environment. The architect is the only individual who, in any useful degree, possesses all of the elements of such a role—the education, the will, the orientation, the desire, and the knowledge. Of course, it would be less than truthful to say that the architect is completely prepared for such a role. But the rudiments are in him, as in no other, if he only cares enough to develop them.

*The Response of the Architect*

Society presents the challenge. Someone is needed who will take the responsibility for the design of human environment. Clients are demanding broader and more complete services for buildings and their environment. The opportunity for service exists. The challenges are directed first to the architect and his group of skilled and creative specialists. The opportunities are his, if he will accept them with the attendant responsibilities. If not, society will look elsewhere for the answers, for it will be served. There is an alternative for the architect. If he chooses

**Society needs a better environment and demands that the need be fulfilled. This is the role of the architect in our time**

not to involve himself in the creation of total human environment, the architect can retreat to some position of security from which he performs limited services, while others assume control of the over-all problems. Such a course is possible, but unlikely. Too many architects are deeply concerned with the entire show; too many firms have already begun working with the biggest problems.

**J**ust what is architecture? A definition is desperately needed for registration, legal and other reasons. It is equally important to any discussion of great and expanded roles for the architect in our time. Since everyone seems to be attempting it, perhaps one more try might do no harm.

The practice of architecture consists of the professional activities of architects required for the creation and construction of buildings and their environment. These activities include the consultation, analysis, and design necessary for the creation of buildings and their environment, the preparation of graphic and written documents that clearly show the intent of the design, and supervision of the construction to ensure that the intent of the design is fulfilled. The architect is responsible for the selection of the materials, equipment, and systems for buildings and their environment. The architect's services include the direction or coordination of the other professions and disciplines necessary for the accomplishment of the intended result—buildings and their environment that fulfill the needs they are intended to fulfill and contribute to health, welfare, safety, order and beauty in the community of men.

Individual architects are now performing, in greater or lesser degree, all of the services outlined in the definition. What may not be immediately apparent in the definition is that the accomplishment of buildings and their environment is a much more complex problem today than it was a few years ago. It is not enough, today, to conceive of a design, produce working drawings and specifications for it, and see it through construction. No

*"The architectural profession should assume responsibility for nothing less than the man-made environment, including the use of land, water, and air, an environment in harmony with the aspirations of man."*  
Philip Will Jr, FAIA

*"The architect is the shaper of the physical environment. He is the manipulator and moulder of space. The architect keeps the balance between the old and the new. The architect, finally, acts as the reconciler of technics and esthetics."*  
August Heckscher

*If Not the Architect, Then Who?*

*"The package dealer is in business solely for profit. His conflict of interest precludes professional service to his client. To him, design is secondary. If what he builds contributes to the community, it is a lucky accident."*

William H. Scheick, AIA

*Comprehensive Architectural Practice*

*"To meet the challenges of today's society, architects must expand their practices to include the preparatory planning that makes buildings possible and must carry the projects through all of their phases."*

Robert F. Hastings, FAIA

longer does the client walk through the architect's office door, with a piece of land, a building problem, and money to finance its solving. The more likely situation today is a client with a problem but with no land and little money. Or he is the owner of land and would like to see it developed. Or he is an investor or speculator. The architect's current role in the case of the client with a problem is likely to be (1) investigation of the client's problem, and as indicated by the research, advice on whether he should build or not and (2) if the decision is to build, the architect's next role will probably be that of getting the client and his problem together with land and money. If this sounds as if the architect is going to have to become involved with the client's problems before they become architectural problems, that is exactly the case. If it appears that the architect is going to have to become concerned with real estate and money, that also is so. And the architect is going to have to get involved in the programming and planning of the operation that goes into the building.

If the architect refuses to accept the role as described here, there are lots of others waiting for the chance. Some of these are already in serious competition with the architect. The package dealer. The industrial designer. Even people on whom the architect is dependent, if he is to offer complete services, such as the engineers and other consultants. It would be folly for the architect to consider that the competition offers only poor substitutes for the architect's own services. A few package dealers are very good indeed in their way. However, the architect possesses some valuable and necessary characteristics that no other can equal. The architect, as a professional acting as his client's agent, receiving compensation only from his client, effectively removes himself from any conflict of interest and can act purely in his client's behalf. This is a claim none of his competitors can substantiate. And the architect's historic role has been to take hold of a problem, organize it, bring the parts together into a unified whole, and cause the resulting structures and their surroundings to fulfill their purpose. No other can claim more than a specialized portion of this total process.

If the architectural profession accepts the big role being offered to it, certain additional services will have to be added to the basic or standard services. The profession must then develop, within itself, with the help of related professions and others, methods of handling the entire process of creation and construction. To put it another way, the profession will have to prepare itself for comprehensive practice in the area of buildings and their environment. One of the important elements of such a practice would be architectural analysis of feasibility, land, location, finance, and the like. The architect's work would involve him with promotional activities since many projects today are speculative or entrepreneurial in nature and public relations is a necessary tool for success in many others. The architect would find himself concerned with the nature of the operations to be performed in buildings, and would interest himself in operations programming and planning. He would play an increasingly important role in the construction industry as a consultant to manufacturers of build-

ing products. He would have much to do with architectural graphics, fine arts, crafts and a long list of other pursuits.

Of course, there are many ways to practice architecture under the comprehensive services concept, just as in the past. Some architects might choose to offer a wide variety of services with their own staff. Others might offer similar services with a smaller staff and outside consultants. Still others might specialize in limited building types, or in one or more phases of architecture such as building design or programming, offering their services as consultants to other firms. For many clients, particularly those with smaller or less complex projects, the basic or standard services might suffice. The small architectural office will survive under the comprehensive services system. It will continue to perform services on many of the buildings it now handles. At the same time, the small office will find its vistas opening up toward more complex and bigger work, if it prepares for it and builds a consulting force outside the firm. Or it can grow larger if that is indicated.

*Ethics and the Principle of Agency*

*"The agency concept seems to be the root of professionalism and the hallmark of the practice of medicine and law."*

James M. Hunter, FAIA

*Preparation for the New Role*

*"We must be very careful about selling the expanded services concepts to clients until we have prepared ourselves to provide them."*

Clinton Gamble, AIA

*The Image of the Architect*

*"The image of the architect could be that of the creative coordinator, the systems engineer of design, the environment shaper, the analyst and synthesizer, the profession of creative thought and imagery."*

Robert E. Alexander, FAIA

*The Task Ahead of the Profession*

Ethically, comprehensive services are possible for architects under the principle of agency, the principle which makes it possible for one person, the client in this case, to vest authority in another, the architect, to represent him in business transactions with a third party, e.g. a real estate broker or banker. Agency is based on a principle of the law of contracts. There are two legal maxims in this: "He who acts through another acts in person," and "A person who has the power in his own right to do a thing may do it through another."

Every facility available to the profession must be put to work toward the goal of educating practitioners now. And it will take many years and much work to evolve a type of architectural education leading to master planners and architectural specialists in the science, art, and administration of architecture. Similarly, there is much to be done in the fields of internship, continuing education, and cross-fertilization between architecture and the related fields.

Finally, if the architectural profession is to perform the great role sketched here, it must first determine what image it chooses to project for itself. Then, every effort must be expended to impress this image on the public. If architects are to fulfill the great role being offered to them as the creators of better human environment, the profession must make its choice now. Otherwise it inevitably will retreat to a lesser position. And if the larger role is chosen, it will be mandatory on the profession to prepare itself to perform the required comprehensive services with high skill, or at the very least, with competence.

**I**t would be foolhardy to underestimate the task that lies before the profession if it is to assume a position of leadership in the area of design for human environment. The problems are complex and interwoven. They cut across every level of the profession, affect every activity of the members of the profession. Many of the problems are related to the work of other professions and businesses, and will require close coordination of effort with

*The AIA Program of Action*

them. Every individual concerned with human environment is touched by the problems in some manner, in some degree. Each architect, of course, must have a vital concern in the program because each will be affected closely by the developments. The related professions will be affected, as will the draftsmen, detailers, and other employees of the architect. Without the support of such people, the program will have trouble succeeding.

The American Institute of Architects is taking positive steps to inform its membership, and others concerned, of the elements of the architect's role in expanded professional services. Further study is under way by the Committee on the Profession and by other committees of the Institute. The membership will be kept informed on progress of this work. At the present time, a number of projects relating to the over-all program are under way.

*Information for the Membership*

With this issue of the *Journal* begins a series of articles that will help to inform the membership of some of the fundamentals of expanded professional services. To be published at regular intervals over the next year, and possibly longer, the articles will cover such subjects as the principles and practice of comprehensive services, the role of the smaller office in such services, related principles of agency and professionalism, and relationships between the architect's basic or standard services and the expanded services concept. One installment will discuss the new Standards of Professional Practice and Mandatory Standards. Other articles will discuss feasibility studies and analysis of financing and real estate.

While some of the articles will be written by experts outside the profession, it is to be hoped that individual members who are knowledgeable in some of these fields will also contribute to the series. In time, it is intended that the articles become the core of a book on the new role of the architect. Such a book should be useful to architects and the related professions as a source of fundamentals on the subject. At some later date, the Institute intends to publish or encourage the publishing of other books dealing in depth with some of the major topics.

*Regional Convention Seminars*

During 1962, the Institute intends to urge the regional conventions to develop their programs around some phase of the new role of the architect. To assist the regions in this work, the Board of Directors of the Institute, on the recommendation of the Committee on the Profession, has allocated funds for providing speakers for day-long or half-day seminars on the subject at the regional conventions. The seminars would provide an opportunity for members to keep informed on the subject through the speakers and, perhaps more importantly, through question-and-answer sessions.

*Working Out Related Problems*

Many other things must take place, if a program as far-reaching as the present one is to succeed. There are searching questions to be asked of architectural education and of education of the related professions. There are problems of registration and licensing. Grave problems are faced in the area of relationships of architects with society, with engineers, with contractors, with clients, with all who contribute to the creation and construction of buildings and human environment. It will take a lot of conversation and a lot of doing. It will involve us all. It can be done.

Quotation Sources: Robert E. Alexander, "The Architect and Society", *Architectural Record*, July 1959, August Heckscher "The New Measure of the Architect", *Architectural Record*, September 1959.



# The Architect in the Community

by **Albert Bush-Brown**

*Associate Professor, Department of Architecture  
School of Architecture and Planning  
Massachusetts Institute of Technology*

**Professor Bush-Brown is alarmed that the architects of the US are doing so little to "man the barricades" against encroaching ugliness and public apathy toward design and planning matters which concern them**

► It is a pitiful thing to see architects' shingles out all along Main Street in town after town in the United States, but new buildings and rebuildings that declare no concern at all for the rudiments of town planning or good architecture, as if architects had no voice in what was done.

What would be said if towns permitted prostitutes, thieves, blackmailers and cut-throats to walk the streets unrestrained? What would be said if all the townspeople had goiters, running sores and bloated bodies? Obviously, we would conclude that the instruments for morality and legality, for nutrition and health had broken down. The aspect of Main Street makes the same indictment against the instruments for healthy environment.

Too few architects are manning the barricades against marauders in their towns. The profession's debility on this score reflects limited imaginations, ineffectiveness, or sheer laziness, if not all three.

Currently, it is considered to be a breach of professional ethics if an architect criticizes the work of a fellow architect. Regardless of whether that attitude is right or wrong, the responsibilities of the architect for criticism and education do not



end with his fellows' work. Too few are using the agencies available to them for educating their communities about town planning and architecture.

Our environment often fails of quality simply because no voice is raised in protest; no alternative is publicized; and Main Street and subdivisions undergo piecemeal, ordinary growth—to the economic and social (no need to mention esthetic) loss of everyone.

Architects must find a local forum. So little is known about their work that half the students in an architectural school such as MIT's transfer into architectural study late, after they have studied other things—usually elsewhere—and have hit upon architecture accidentally, often through a course in history or a trip abroad. At present, there is not a single book about the profession or education for it that ought to be recommended to students in high school or college; the existing ones are either effete antiques or remote from students' interests, when they are not totally misleading.

The absence of good information about the profession is the more lamentable because the name "architect" too readily calls forth images that are not in the profession's best interests. Popularly, the architect is thought to be a tweedy, arty, smooth, impractical and expensive sort of guy, and this image of an irresponsible snob—however far from describing Louis Kahn or Walter Netsch—is fulfilled just often enough to give the myth currency.

Those who do not enjoy that image and wish to dispel it can do so locally in many ways. The most obvious and the best is by building well. There has never been invented a better advertisement for good architecture than a fine building in a fine setting. But such opportunities are not occurring often enough, and one fine block does not make Main Street—nor (need I add this?) will it support an office very long. What is needed is to alert people with a social conscience to the physical conditions that sustain the good and healthy communal life. Towns must marshal their peoples' worries about how to get the best realized.

Here, the architect can be the greatest instru-

ment for education. To take the most difficult example first: a local architect may champion the best for his town by serving, himself, only as advisor. A notable instance of such action lies in the recent career of Pietro Belluschi. It is a record of education, not design. When his biography is finally written, it must say that through his advice (for the Foreign Buildings Overseas, for MIT, for several universities in the United States and Canada, and for numerous competitions), he enabled good firms to execute commissions with distinction. Indeed, several remarkable buildings owe their origins to one architect's sponsoring another. I think of the laudable work of The Architects' Collaborative at Brandeis University, where Harrison & Abramovitz, the co-ordinating architects, invited TAC's Benjamin Thompson to participate. I think of the way architect Alexander Cochran encouraged the congregation of his church in Baltimore to retain Pietro Belluschi, or architect Anderson Todd's help in bringing Mies to Houston. The tough business of getting and keeping business too often leads architects to be so competitive as to fail to serve their community's best interests.

But there are at least six other areas where architects singly and together in each community can educate people about the profession and the services it offers. One is the public library. It is a shocking disgrace to see what passes for architectural literature on the shelves of small town and city libraries. Where are the recent fine histories, the books of photographs, the professional journals? Where are exhibits of architectural drawings, architectural problems, architectural masterpieces? Even files of used journals from local offices would be better than what is available; gift subscriptions and books would be enormously helpful. Before he wonders further why architecture is so poorly understood, why his town looks and functions badly, why he is not consulted, each architect should review the literature in his local library.

Second, there is the local high-school. There, the misconceptions about architecture are rife. What should the guidance counsellor look for? Isn't talent in drawing most important? Why should the student know technology? Where can

students study? What jobs are available? How can students find out what an architect does? Such questions (I have heard them at seventy-two southern and western high-schools where I have lectured in the past two years) point to gross ignorance about architecture. The idea that architects are concerned with more than pretty pictures of "homes," that he may plan industries, universities, cities and regions, hardly occurs to any students or their advisors. I submit that architects have a job of education right in their local high-schools. If they exercise imagination, they will find allies in the history teachers, art teachers, guidance counsellors, shop teachers, even in science and civics teachers. If they will give lectures, help with exhibitions, sponsor suggestions for improving Main Street, invite students to visit their offices, then architects will enlighten whole generations of future clients.

Third, the local newspapers. Most of them carry nothing more architectural than notices of new buildings, occasional photographs of dedications, and real estate advertisements. What if the editor could be interested in running short accounts about zoning proposals, park preservation, traffic controls, urban renewal, noteworthy examples of good design? Over the years, I have greatly enjoyed writing letters to my local newspaper, throwing brickbats here and pinning roses there. The letters have never failed to provoke discussion, have even prevented some horrors from happening, although, I admit, they have not yet stopped an error that was already under construction. Too often, regrettably, I find to my dismay that my opposition is not a layman or client, but some architect!

Fourth, there are great opportunities for exhibiting educational drawings and photographs in shop-windows and banks. In Cambridge near Harvard, for example, one bank exhibits paintings by students and amateurs for a few weeks each fall; it regularly shows examples of good architectural design, which are studied by people who wait at the bus-stop. The Museum of Modern Art and the Smithsonian Institution distribute small exhibits which travel easily; they can be shown in the public market and banking ways. They are not being utilized.

Fifth, how long has it been since the local church lecture series, the Rotary meeting, the Kiwanis luncheon, or the PTA heard a rousing lecture about architecture? I admit, our architectural schools need to help students become more effective speakers and writers, but still, even an inarticulate architect armed with color slides and fired with enthusiasm for pedestrian shopping malls, or recreational parks, or zoning, or industrial belts, or even improving the signs and posts that litter our streets, can interest his town. Besides, one of the architect's best allies is the historian-critic; invite him to come over from the university; he has no commercial interest in pirating future commissions; he can serve the cause of good planning. I know from experience that speaking to such groups is not easy or pleasant (my own church called me last year one hour before the meeting because their expected speaker, a policewoman, could not get through the snowstorm; one Rotary group had its dessert and let the waitresses clear the table all around me as I tried to show the slides)—but they are the makers and shakers of the town. Architects must get to them, not just to obtain their business, but to explain what the town needs and to *teach them what business they ought to be taking to architects.*

Sixth, let's take an imaginative look at professional meetings. I have lectured and served on juries for city, state and regional meetings across the United States during the past six years; with rare exceptions, those meetings failed to help the architect in his community. Of course, photographers were there, and some garbling members of the Press, usually trained to a *House Ugly* taste and detailed to do a column for the Women's Page. Let's forget them for the moment because their coverage is transitory; and by all means let's forget, again for the moment, the social hours in hotel rooms, the ladies' tours, and the back-slapping exhibitors of bricks, rods, woods and gaskets, however necessary they are to financing the conventions. Let's focus on the big tent itself. Too often it is filled with events that push architecture aside. It is seldom arranged to inform assembled architects about the central problems of architecture today: town and regional planning, spatial

organization, structural systems, environmental control, and the role of art in architecture. Too often, the chief event is a jury's quick selection of award-winners from photographs (a procedure not accepted even in beauty contests!), or some headliner—a physicist, sociologist, judge or governor—who presumes to tell architects what business they ought to be about (and architects are curiously prone to listen). How much more effective architects' meetings can be has been shown by a few chapters recently who aggressively decided to make their meetings educational, set an important theme, attracted outstanding practitioners and lecturers from the profession, and worked hard to get information to their membership, as has been the tradition of the conferences at Banff sponsored by the Alberta Association of Architects and the University of Alberta during the past few years. Such meetings can do architecture a double service: Beyond educating architects, they can be instruments for educating the community. A meeting with good exhibits, even some ideal, unbuilt proposals for a local neighborhood, is an opportunity for getting the local bankers, school committee and retailers to see what architecture ought to be permitted to do. A good critic of architecture, speaking for better architecture, offers an occasion for architects to invite the local mayor, council, and all potential clients, to witness a discussion of the ambitions for our profession. When architects meet, their communities ought to be the better for it.

Finally, every town gets angry about something sometime. It may be the fouling of a Walden Pond, the loss of a Robie House, the degeneration of a Society Hill, and it may not be anything so clearly related to architecture, merely a citizenry aroused about corruption. Guided skillfully, such social momentum can be turned from its initial object toward a larger context. From a fight *against* a speculative subdivision, a battle *for* comprehensive planning can emerge. In my own summer village recently, the moving agency was a mammoth Florida-type marina, which threatened to invade our small waterway on the north side of Cape Cod. Villagers formed a Civic Association, promptly voted overwhelmingly to reject the marina, but soon were faced with a second proposal for a similar expansion. From the ensuing discussion, there emerged a long-range planning committee, with local architects on it, with authority to present a plan for the entire village, including answers to the problems of residential and commercial zoning, traffic and recreation. Architects can turn anger and worry to good account.

All these suggestions about the architect's responsibility to his community suggest that

he must face civic problems not singly but as a member of a profession composed of men who will cooperate because they share similar non-financial objectives. Admittedly, the architect tends more than most professionals to work singly. He is at once, or should be, an artist, a businessman, and a professional man. But it is in his latter capacity that cooperation must arrive, even among architects who normally compete for work, for without cooperation they are neglecting areas that are of interest to themselves and their local communities.

Let's put it this way: Are you helped if your library's only architectural fare is a copy of Banister Fletcher and a volume of John Ruskin? Are you likely to obtain many chances to improve your town if high-school students know about architecture only through occasional illustrations of the Pantheon in an Ancient History text, or if the guidance counsellor has only the commercial picture\* Richard Roth recently drew of your profession?

And before I let you go, reader, one more thrust: Sensitive men are beginning to feel very dismal about "the architect" in the United States, about his ability to design, about his ability to build well, about his ability to persuade his community to hunger for fine environment. For exactly the horrors that ruin our towns and cities have been designed by architects. Miserable offices, apartments, motels and stores—all designed by fully-licensed and professionally-respected architects—litter our cities and highways coast to coast; they testify to a low standard of practice that can only be labelled "speculative building," with all the indictments that label carries. How to promote the able architect, how to improve popular understanding of good design—and *not, at the same time, to promote the merchant of banalities or the irresponsible adventurer*—remains the continuing and important problem. How can a professional society, democratically embracing all qualified practitioners, endorse some of its members, repudiate or admonish others?

That is a sticky question. Unless it is answered in terms of architecture's best ideals, there is little hope for improving our towns.

While I have suggested various ways for developing public understanding locally, I am not alone in cringing at the thought that they may be energetically pursued, unfortunately most energetically pursued, by men who, seeming to help their communities, abuse that glorious name, "architect." ◀

\* "Your Future in Architecture," Richard Roth, R. Rosen Press, NY, 1960.

# AIA COUNCILS

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► It has been the traditional attitude of members of the architectural profession that an architect is not a specialist, that any good architect is a general practitioner and capable of designing any type of building. At the same time, many architects, through successful work in specialized fields, have found themselves receiving more and more commissions in those fields. Many have become "specialists" in spite of themselves; some have encouraged it.

With the increasing complexity of the practice of architecture today, many architects realize that their interest and their competence lie in the planning of certain building types and not in others. The Institute has long recognized this by the formation of a number of national committees devoted to special building types—schools, churches, hospitals, homebuilding, housing for the aging, etc. Membership on these committees is, of course, limited to members of the Institute.

Furthermore, the needs of society and the character of the architect's clients are changing rapidly. If such needs and changes are not recognized and anticipated by the profession, a void is created which may be filled by persons or organizations other than architects. The oft-mentioned package dealer arose to fill such a void, and the profession was not prepared to meet this challenge until 1962. So the nature and scope of the architect's services will be modified to meet the new obligations. It would also seem to follow that the character of architectural firms may need to change, and that our educational processes may also require modification.

As a part of this changing professional climate, the attention of the AIA Board was drawn at the last convention to problems in the field of industrial architecture where "package competition" has made significant inroads into this area of practice. A group of members practicing in the field of industrial architecture pointed out the need for a mechanism, other than a committee, to strengthen the position of the architectural profession with industrial clients.

In recognition of these considerations, the AIA Board of Directors appointed a Board Committee,

**The AIA Board of Directors proposes to  
put before the membership at the Dallas**

**Convention a Bylaw amendment permitting the  
creation of "Councils of the AIA," with  
interests and activities in the fields  
of the various specialized building types.**

**The following report has been prepared by  
the Journal staff in collaboration with  
the Board's Committee on Councils**

The Institute

**A Proposal  
by the Board of Directors**

the Committee on Councils, to make a study and recommendations. The Committee is composed of the following Directors: Reginald Roberts, Texas; George B. Mayer, Ohio; William W. Eshbach, Pennsylvania, Chairman.

In the course of its study, the Committee conferred with numerous members of AIA, some of whom initiated the suggestion that Bylaw mechanics be established whereby specialty councils could be authorized by the Board when appropriate.

### **The Purpose of Councils**

The American Institute of Architects is concerned with the complete cross-section of matters having to do with the profession of architecture and with the total climate within which architects and other related design professions conduct their practice.

There are times, however, when a particular aspect of practice or a particular building type requires a degree of attention, a depth of study and a scope and character of activity which is beyond the usual AIA committee approach. In such cases it is usually desirable to involve and to recognize interests outside of the profession but which are related to the profession or the construction industry.

The demand for some new technique, to accommodate the current and anticipated needs, is illustrated by the creation and success of the Church Architectural Guild which was founded some years ago. It was founded outside the AIA structure, but by AIA members in collaboration with others who felt the urgent need for such a specialty organization. This organization affords a device whereby all related interests are brought together and their attention focused on their common problems in church architecture.

As a separate entity such a Council or Guild enjoys a degree of latitude in such things as types of membership, fund-raising and so forth, which are precluded in the AIA structure as it now exists. In addition its activities cannot be supported within the financial limitations of the AIA.

The specialized nature of its endeavors do not justify the utilization of AIA dues, which are derived from a broad and multi-interested membership. It seems more appropriate to allow those who are concerned with such specialized activities to create their own organization and to contribute to these activities with their dues and their time in addition to their participation in AIA, as the broad-based and broad-interest parent organization.

The Council (or the Guild) type of organization can serve to bring together such people as the architect, the engineer, the real estate con-

sultant, the manufacturer of certain products or equipment (as the organ manufacturer in the Church Guild), specialty contractors, market analysts, professional estimators, industrial engineers, owner representatives (such as officials of a national church headquarters in the case of the Church Guild) and other people of special interest but who are appropriately related to a particular Council subject.

Through such Councils the architect meets and works with all related interests. The architect broadens his knowledge and contacts in the particular field. The other members get to know the architect, thereby developing a better understanding of his potential as the design and coordinating professional. Detailed and special problems receive the focused attention in considerable depth by all interested parties. The owner, the architect's client, is the ultimate benefactor of such endeavors. His needs are more accurately revealed, studied, understood and met. The position of the architectural profession in the specialized fields is thus strengthened by the Council's activities and by the participation of its architect members.

### **AIA Bylaw Change**

The Board's Committee on Councils has recommended to the Board of Directors that the AIA Bylaws be modified at the 1962 Convention so as to allow the Board after careful consideration to issue charters to such organizations, as Councils, which would be affiliates of the AIA.

The Committee prepared criteria which would have to be met before such a Council would be considered by the Board. They also developed principles of operation and control which such a Council would have to accept before the Board of Directors would issue a Charter.

The Board of Directors has accepted and approved the Committee's report and intends to submit the proposed Bylaws changes to the 1962 Convention for adoption.

### **Extracts from the Committee's Report**

#### *Criteria*

The Board's Committee on Councils endorses the creation of component organizations of the AIA, such as special purpose Councils, if and when a group of AIA members indicates the desire to foster such a component but provided they demonstrate to the Board's satisfaction:

- 1 That its objectives are consistent with those of AIA
- 2 That there is a need for such a component activity

- 3 That the Council accepts the principles of organization, operation and control as established by AIA (details are set forth in Committee's full report)
- 4 That the sponsors are capable of initiating and maintaining the component by means of adequate support from the AIA membership
- 5 That they have made adequate preliminary study and preparation to reasonably assure success
- 6 That financially the Council will be self-supporting within a reasonable period of time.

#### *Principles of Organization*

- 1 Each Council may have its own Board of Directors and officers; at least one officer must be an AIA member; a member of the AIA Board of Directors shall serve as an ex-officio member of the Council Board as liaison officer
- 2 A Council may establish its own Bylaws but they must be approved by the AIA Board
- 3 A Council must finance its own programs
- 4 The AIA Board may withdraw the Charter
- 5 Architect-members of Councils must be *limited to AIA members* in good standing
- 6 Membership in Councils may include Corporate, Associate, and Organization affiliates as defined in the Committee's report
- 7 All records of a Council must be available at all times to the Institute
- 8 Facilities of the Institute may be made available to the Council but shall be paid for at cost
- 9 Documents issued by a Council are to be available to the Institute for possible distribution to AIA members
- 10 Public relations activities shall be coordinated with those of AIA and shall promote the common professional interests of the Institute and of the Council, and shall not promote or advertise the interests or status of any individual

#### *Objective of Councils*

The objective of the formation of the Councils is to expand the activities and effectiveness of the AIA and the architectural profession and to advance the competence of professional services in specific fields of design. The Institute recognizes specific fields of practice and permits groups of AIA members or firms to organize into affiliate organizations to serve each group's specific professional needs.

#### **Comment by Committee**

The Committee on Councils feels that such component organizations will:

- 1 Provide the opportunity to broaden the contact, influence, and prestige of AIA and its individual members
- 2 Provide the mechanics for elevating the competence of the profession in many particular specialties of practice.
- 3 Serve to focus more adequately the profession's attention on matters of importance to a special segment of society

It must be noted that the impetus for the creation of a Council does not come from the Institute, but from a group of members. If, for example, the AIA Committee on Hospitals and Health or the Committee on Schools and Educational Facilities believe that their committee programs do the job properly for architects in their field of specialization, there should be no reason to form a Council. On the other hand, a group of members in a specific field of practice may initiate the consideration of a Council, and must assume responsibility for getting sufficient support among fellow practitioners to justify review and approval by the AIA Board. There are obviously several specialized building type design fields from which such Councils might grow, such as industrial buildings, religious buildings, shopping centers, office buildings, apartments, theaters and auditoriums, etc. There may also be existing organizations which might find it advantageous to become Councils of the AIA, if they met the qualifications.

It might ultimately be possible for the Institute to terminate certain committee activities and to eliminate related costs in those instances where a Council has been formed to undertake the study of subjects currently assigned to an AIA committee. Such funds saved could thus be reassigned to more broadly-based subjects of interest to the profession as a whole.

A fundamental consideration in this entire subject is the present potential for the formation of "splinter groups" within the architectural profession. As the profession grows, pressure for splintering will become greater. It would appear inevitable that such specialized groups will form anyway; it is far better that they be formed within the Institute than outside of it. For example, the number and variety of organizations in the field of engineering is well-known to architects.

In favoring the concept of "Councils of the AIA," the Board visualizes a strong AIA with practical provisions for recognizing the interests of various groups of members with specialized interests, for enabling them better to advance the cause of good architectural practice through the Councils, and for keeping these activities under the wing of the AIA and operating within and as part of the Institute. ◀



A. Reinhold Melander, President, Duluth, Minn; Chandler C. Cohagen, 1st Vice President, Billings, Mont; Paul W. Drake, 2d Vice President, Summit, NJ; A. John Brenner, Secretary, Phoenix, Ariz; C. J. Paderewski, San Diego; Earl L. Mathes, New Orleans; John E. Ramsay, Salisbury, NC; George F. Schatz, Cincinnati, Directors; Walter F. Martens, Past President, Charleston, WV

## The Examination Committee

by Fred L. Markham, FAIA

*(This is the second of two articles on the Examination Committee.)*

► In the initial approach to its assignment, the Examination Committee reviewed typical examinations from numerous State Boards. All questions in each division were studied. This review culminated in the publication of the first anthology of examination questions. The work emphasized the great need for a careful study of examination detail.

Question types most frequently encountered in the state examination included the following, not in the order of the frequency of their occurrence:

- 1 Questions requiring essay responses
- 2 Request that a tabulation of pertinent items be given
- 3 Problems requiring computational solutions
- 4 Request that drawings be prepared to demonstrate pertinent points
- 5 Programmed projects in Design and Site Planning
- 6 Objective type questions, including true, false, multiple choice, completion, etc

The strengths and weaknesses of each of these question forms are recognized by the Examination Committee. However, it is not committed to, nor does it categorically reject one type or form of examination question, but recommends that in the ultimate examination program, each particular type be utilized in its proper place.

Question types are known to vary in the time required for their composition, in the time required for the candidate to answer, and in the time required by the examiner to grade the responses.

The grading of different question types may also vary in the degree to which the judgment of one examiner may result in grades equivalent to

those which may be assigned by a second or third examiner.

The degree to which the judgment of an examiner may be uninfluenced by his personal idiosyncracies is a fair measure of its objectivity. Findings of an objective character are the raw material upon which a judgment of competence can be based. State Boards must exercise subjective judgment in the final evaluation of a candidate's competency, but this judgment should be founded upon the most comprehensive information available. Examinations are, perhaps, the most useful tool by which a candidate's qualifications may be evaluated.

Those who have written State Examinations in the past have demonstrated their ability in the use of the first five question types listed above. While much may be done to further improve the techniques inherent in these question forms, the Examination Committee has left such a study to the future.

A few examinations utilized objective type questions. The AIA Survey Commission strongly recommended that the NCARB make a careful investigation of the potential of this examination form. In response, the Examination Committee, with the concurrence of the Council Board, has devoted the majority of its time to this task. This work has been performed under the able guidance of the Educational Testing Service at Princeton.

The multiple-choice form is currently preferred in examination construction. This question type, based upon the candidate's ability in reading comprehension, may be designed to test his faculties of judgment, recall, analysis, discrimination, organization and his knowledge of specific facts.

An examination in Professional Administration was prepared and administered on an experimental basis to approximately 800 candidates in



1961. Results of this examination formed the background for a revised edition to be used in 1962. An examination in Building Equipment has been prepared and is currently being offered experimentally.

The following two questions, found to be defective in the initial Professional Administration examination and eliminated from the 1962 edition, offer an opportunity to demonstrate the process by which an examination is studied and improved.

The purpose of requiring a performance bond is:

- A To protect the contractor by guaranteeing that the owner will pay the contractor
- B To guarantee that the contractor will pay all workmen
- C To guarantee that the contractor will pay all subcontractors
- D To guarantee that the contractor will complete the job

Of 300 candidates whose scores were included in the analysis, 299 answered this question. 292 gave the correct option "D." Seven selected incorrect opinion "C." None selected opinion "A" or "B." Further analysis demonstrated that the seven who selected "C," showed ability below average in the total examination. The question was not discriminating (too easy).

Which of the following statements best applies to the cost-plus fee type of contract for the architect's services?

- A It should not be used, because it does not conform to accepted fee schedules.
- B It should be used when the work involves restoration of a historical building.
- C It should be used for projects where the extent of the construction work cannot readily be determined.
- D It should be used for projects where the architect's services are expected to be especially thorough and painstaking.

Of the 299 candidates who answered the question, five selected option "A," five option "B" (the option intended as correct by the question's author); 229 option "C," and sixty option "D." Analysis showed that while the five candidates selecting option "B" were above average in the total test, the 229 were average. This question was not discriminating (too difficult). A careful reading of the question will suggest why it was defective.

The performance of a third question which was found to be satisfactory will further illustrate the process. (Since this question has been retained in the current examination it is not given here.) Of the 294 candidates who answered this question, 174 (58%) selected the correct response, option

"B." Upon analysis it was found that these 174 were well above average ability in the total examination. While the thirty-one who selected option "A," and the fourteen who selected option "C" were well below the average, the seventy-five who selected option "D" were found near average. A careful study of this question showed that the incorrect responses may be traced to a lack of knowledge of accepted procedures.

The over-all examination, like the individual questions, is amenable to analysis. The reliability of the test is defined as its effectiveness in establishing a true comparative rating among the candidates taking the test. Statistical methods have been established over recent years which, from the test scores, can determine, with an acceptable degree of accuracy, whether the grades received are a fair indication of an individual's ability. The examination itself can be thus tested.

The advantages of the objective-type examination include the ability to evaluate a candidate's comprehension of a wide variety of subject matter in a comparatively short time period; a simple grading process which may be performed by a clerical staff or an electronic machine; the possibility of obtaining a thorough analysis of the results which measures the precision of the examination and evaluates the discriminating power of each individual question.

Of its difficulties, the extreme care and the amount of time required to prepare and prove such a series of questions is the most noteworthy. Review by a group of competent practitioners has been helpful in eliminating the most obvious inaccuracies. A building process, including repeated review, rewriting, administration of the examination and grading, followed by a careful analysis of the results is necessary to give the examination increased validity. Such a process is not feasible in a single state with semi-annual or annual examinations. On multi-state or a national scale it has possibilities.

Future tasks of the Committee include:

1 A study of the feasibility of expansion of the objective-type examination to other divisions and the writing of those examinations adjudged appropriate.

2 A careful study of the proper utilization and improvement of other question types and their adaptation to suitable examination divisions.

3 The organization of the total examination into a more effective instrument for furnishing personal information upon which the competence of a Candidate may be fairly judged. ◀

Examination Committee members, 1961-62: Fred L. Markham, Chairman, Utah; Harry E. Rodman, Co-chairman, NY; John E. Ramsay, NC; J. Woolson Brooks, Iowa; Casper F. Hegner, Colo; Franklin S. Bunch, Fla; Ken G. Miller, Kans; Robert A. Eyerman, Pa; Roger C. Kirchhoff (ex officio), Wis; Sherley W. Morgan (ex officio), NJ.

## Introductions Are in Order



Don Canty is a native Californian who attended Santa Clara University, then did graduate work in journalism at Northwestern. He began his career as a newspaperman, and became interested in architectural writing and criticism about eight years ago. Since then he has been associate editor of *Daily Pacific Builder*, the F. W. Dodge newspaper in San Francisco; editor of the *Book of Homes*, a magazine of Western residential architecture; executive assistant to the California Council, AIA, and editor of *Western Architect and Engineer*, the McGraw-Hill professional magazine which was combined with *Architectural Record* in December



Ken Landry attended Louisiana State University and received his BS in architecture from Tulane in 1949. Before coming to the Octagon, he was a partner in the Baton Rouge firm of Bodman, Murrell, Landry & Webb and president of the Baton Rouge AIA Chapter. He was also secretary treasurer of the Gulf States Regional Council of AIA and a member of the board of the Louisiana Architects Association, and served as chairman of the 1960 LAA convention and the 1961 LAA-Gulf States Region joint convention. He is a member of the Urban Land Institute, the American Institute of Planners, and the Louisiana Engineering Society

► Again it is my pleasure to introduce to the AIA membership two new members of the national headquarters staff. Donald Canty joined us on January 22. Kenneth C. Landry, who has been a part time consultant since early February, begins full time service on April 16th.

Don Canty is Head of the Department of Public Information and Assistant Editor of the *AIA Journal*. For two and one half years he was Editor of *Western Architect and Engineer*, and prior to that gained three years of experience in the affairs of the AIA under the tutelage of Mel Ferris as a member of the staff of the California Council of the AIA. Don has the combination of experience and talents we were looking for—in journalism, public relations and extensive association with the AIA and architects. We are highly pleased to add a West Coast man to our staff.

Ken Landry is head of the Department of Institute Relations, an assignment including extensive responsibilities in national and state legislation and industry relations. He is ideally trained for the job with twelve years' practice as a principal in an architectural firm, broad experience in AIA chapter and state activities and legislative work on the state "firing line." The southern accent is a welcome addition on the national scene.

The positions taken by these two new staff members are not additions to Octagon staff. Three vacancies were created in the Division of Public Affairs during the period December through February by the resignations of Mrs Polly Shackleton, Wolf Von Eckardt and Carl Barefoot to enter other work. The three positions on the staff were reorganized into two of greater responsibility for Canty and Landry.

With their appointments, I have continued my policy of building depth into our organization with relatively young men of proven experiences in professional practice and AIA affairs in other part of the country. Their appointment brings the headquarters staff to full strength for the vigorous programs now underway. W.H.S.

# Library Notes

## Dallas Architecture

There will be a guide book to Dallas architecture for convention goers. Before then, perhaps some would like to learn more about some of the buildings to be seen there. We have prepared this list of references which we hope may prove of some value.

### GENERAL

Booming Dallas is building fast and planning slow. Still to be learned: it takes more than a heap of buildings to make a city. Richard A. Miller. *Architectural Forum* 111:99-101 Aug 1959 il

### HISTORIC

Early Texas homes. Dorothy Bracken and M. W. Redway. Dallas, Southern Methodist University Press, 1956, p. 118-9 John Neely Bryan Cabin (reconstruction); p. 120-1 Judge William H. Hord House (reconstruction); p. 122-4 Berry Miller House: "Millermore"

### APARTMENT, 3525 TURTLE CREEK

Howard R. Meyer, arch  
The rise in apartments. *Architectural Forum* 109:108-9 Sept 1958 il plans

### CHILDREN'S CLINIC

Wiltshire and Fisher, arch  
*Architectural Record* 118:191-2 Aug 1955 il plan

### DALLAS MEMORIAL AUDITORIUM

George L. Dahl, arch-eng  
Dallas makes bid as convention center. *Architectural Record* 116:12 Dec 1954 il plan  
Cantilevers support dome of 204 ft radius. B. G. Anderson and A. D. Anderson. *Civil Engineering* 27:336-9 May 1957 il

Construction of the Dallas Memorial Auditorium. J. E. Rosenlund. *American Concrete Institute Journal* 29:329-39 Oct 1957

Dallas Memorial Auditorium [Lighting] L. E. Hamilton. *Illuminating Engineering* 53:627-9 Dec 1958 il

Case histories: design for optimum hearing; Lyceum Theater at Dallas Memorial Auditorium. *Progressive Architecture* 40:202-3 May 1959 il

### DALLAS STATLER-HILTON

William B. Tabler, arch  
New shape and structure, help Statler reduce hotel costs. *Architectural Forum* 100:136-43 June 1954 il plans

Luxury for transients in Texas. *Interiors* 115:92-3 March 1956 il

Dallas - Statler-Hilton: studied economy. *Architectural Forum* 104:128-31 April 1956 il plans

Story of the new Dallas Statler. *Architectural Record* 115:158-63 June 1954 il plans

### DALLAS TRADE MART

H. Berry and D. Speck, arch  
Compleat trade mart for Dallas. *Interiors* 118:10 April 1959 il  
Oasis amid showrooms. *Architectural Forum* 114:119 April 1961 il

### KALITA HUMPHREYS THEATER

Frank Lloyd Wright, arch  
Dallas theater. *Architectural Record* 123:168-9 May 1958 il plan

Christmas present for Dallas: a theater by Wright. *Progressive Architecture* 40:79 Dec 1959 il  
FLLW's Dallas theater. *Architectural Forum* 112:130-5 March 1960 il plans

Theater by Wright. *Architectural Record* 127:161-6 March 1960 il plan

### LOVE FIELD, TERMINAL BUILDING

Broad and Nelson, and Jack Corgan, arch  
Terminal building, Love Field airport. *Architectural Record* 128:180-2 Sept 1960 il plans

### NEIMAN-MARCUS STORE ADDITION

Dewitt & Swank, arch  
Eleanore LeMaire, int. designer  
Discreet expansion of a famous store. *Architectural Forum* 102:120-125 Feb 1955 il plans

### OAK CLIFF SAVINGS AND LOAN

Prinz & Brooks, arch  
Drive-in bank for the suburbs. *Architectural Forum* 104:156-7 Feb 1956 il plan

### PRAETORIAN MUTUAL LIFE

INSURANCE BUILDING  
Grayson Gill, Inc., arch  
Oldest Dallas office tower rebuilt from top down. *Architectural Forum* 114:89 Feb 1961 il

### REPUBLIC NATIONAL BANK AND OFFICE BUILDING

Harrison & Abramovitz and Gill & Harrell, arch  
New thinking on curtain walls and window sizes. *Architectural Forum* 99:108-11 Sept 1953 il plans

Republic national bank [under construction] *Architectural Record* 115:187-94 April 1954 il plans

New high in the skyline of Dallas. *Architectural Record* 117:147-54 Feb 1955 il plans

Schizophrenic building. *Architectural Forum* 102:126-8 Feb 1955 il

REPUBLIC SAVINGS & LOAN ASSO.  
Fisher & Jarvis, arch

What in the world is happening to banks? *Architectural Forum* 115:106-7 Oct. 1961 il plan

### RESIDENCE OF MR & MRS BRUNO GRAF

Edward D. Stone, arch  
Contrast in Texas. *Architectural Form* 109:82-7 July 1958 il plan

### RESIDENCE OF MR & MRS PATRICK HAGGERTY

O'Neil Ford, arch  
Contrast in Texas. *Architectural Forum* 109:82-7 July 1958 il plan

### SOUTHLAND CENTER

Welton Becket and Associates, arch  
Sheraton-Dallas. *Interiors* 118:68-75 June 1959 il plan

Blockbuster in Dallas; Southland Center's hotel and office towers have interlocking lobbies and convention facilities on the lower floors. *Architectural Forum* 111:94-98 Aug 1959 il plans

Office building and hotel combined. *Architectural Record* 126:141-6 Aug 1959 il plans

Southland Life Insurance Company. *Interiors* 119:113-15, 198 Sept 1959 il

Southland Center. Arts and Architecture 77:10-11 Aug 1960 il plans

### TEMPLE EMANU-EL

H. R. Meyer & M. M. Sandfield, arch  
High-domed temple in Texas. *Architectural Forum* 108:92-5 March 1958 il plan

### TEXAS INSTRUMENTS, INC., SEMI-CONDUCTOR BUILDING

O'Neil Ford and Richard Colley, arch; A. B. Swank & S. B. Zisman, assoc. arch

Advanced structure for flexibility. *Architectural Record* 124:238-41 Sept 1958 il plan

Factories planned for people. *Architectural Forum* 109:132-5 Oct 1958 il plan

### TRINITY LUTHERAN CHURCH

Koetter & Tharp, arch  
Texas architecture, 1961. *Texas Architect* 12:14-17 Jan 1962 G.E.P.

# Book Reviews

**American Architecture and other Writings.** Montgomery Schuyler, edited by William H. Jordy and Ralph Coe. Cambridge, Mass., Belknap Press (Harvard University), 1961. Two volumes illus. \$12.50

Reviewed for the *AIA Journal* by Sibyl Moholy-Nagy, Pratt Institute, Brooklyn, New York

A writer, seasoned by skepticism and experience, should know better than to accept a literary assignment which will be almost impossible to bring off. The trouble is that there is seductive magic in names and reputations. The combination of William Jordy's talent for scholarly analysis, and Montgomery Schuyler's reputation as America's first modern architectural critic, promised a rewarding investment. It turned out to be a great effort with rather doubtful results, symptomatic of our confused ideological climate and unsuited to a clearly-structured book report.

Professor Jordy and his collaborator preface the edited collection of Schuyler's architectural writing between 1870 and his death in 1914 with an introduction of eighty-nine pages, to which must be added a hundred and forty-eight footnotes, some running to thirty lines of tight non-pareil print. Essay by essay and almost building by building, the editors criticize Schuyler's criticism so that a critique of this introduction, which is the only original aspect of the whole publishing venture, amounts to a criticism of a criticism of a criticism.

William Jordy belongs to a new generation of art critics to whom the emotional enthusiasm of Cheny, Willenski and Meyer-Graefe has become suspect. His ideal is scientific objectivity that is never taken in by personal idiosyncrasies:

"No critical axioms, whether visual or logical, can eliminate the critic's ultimate responsibility always to appraise the quality of experience generated by form."

Since Schuyler's own form as a writer and his choice of subject matter ("much that is politely half-hearted, trivial, and sometimes prolix to boot," according to Jordy) are uneven, Jordy's integrity does not permit him the enthusiastic sup-

port a biographer must give to his hero to put him across to his readers. The best he can offer as vindication of Schuyler's historic misjudgments is a tortuous *ad hoc* apology:

"If the thoughtful journalistic critic is frequently compromised by the mediocrity of what he is given to evaluate, he is sometimes misled, when all of his critical tenets are realized, in an inferior production."

These critical tenets, according to Jordy, are "a threepart challenge. Does the critic possess an esthetic philosophy relevant to the creative production of his world? Does his philosophy lead him to the most creative artists and the most significant problems within his world? Finally—and crucial at revolutionary moments in the arts—can his philosophy embrace the new vision, the coming vision, and dare to transform itself in the process of discovery?"

Jordy concludes that Schuyler's criticism meets the first two challenges but not the third one, which sends the reader on a search for Schuyler's esthetic philosophy and a comprehension of the relationship to the top designers of his day. Among all the men then building in America, it was Leopold Eidlitz who exerted the most profound effect on Schuyler's thinking. Eidlitz, a better thinker than a designer, studded New York with medievalist churches and public buildings that have, mercifully, been torn down by now. According to Jordy, Eidlitz, like Schuyler, found his nurture in mid-nineteenth century medievalism, an observation which moves the author of the Introduction to one of his frequent paradoxes:

"Eidlitz' more pedantic imagination required for its *undeniable originality* the propping of an *eclecticism* which was at once both rather too literalistic and too bizarre. Hence the crudity and restlessness of his buildings." (The italics are mine.)

Describing his Emanu-El Synagogue as "a Saracenic version of Victorian Gothic," Jordy praises the structural-functional genius of Eidlitz, but invalidates this praise immediately with a report on the failure of the Gothic vaults in the assembly hall of the Capitol in

Albany, designed jointly by Eidlitz and Richardson, singled out by Schuyler as "perhaps the noblest monument of Gothic Revival in America," an exemplification of the Eidlitz credo that "Gothic is adequate to every expression. We search in vain for a single Gothic feature on the outside of that ugly pile in Albany, and we also search in vain for Schuyler's conviction that "mass should be compartmentalized in a hierarchy of space-enclosing shapes," Jordy hurries to explain the discrepancy between theory and fact with "Schuyler's critical neglect of plan and interior space. He ignored such problems as communication in planning, progressions in the shape and scale of rooms, the manipulation of interior light . . ." arriving finally at Schuyler's ultimate acceptance of another contradiction: "Twentieth-century Beaux-Arts Gothic as in Cram, Goodhue and Ferguson's St Thomas Church or Cass Gilbert's Woolworth Building," the latter of which Jordy judges as "among the finest of New York's skyscrapers." It takes this particular architectural taste to see in the Romanesque Revival of H. H. Richardson, which forms the other main complex of Schuyler's critical writing, "a quest for an original style through eclectic means." Schuyler in his young days saw in it "more nearly the American style than any that preceded it," admiring in Richardson's unexecuted All Saints Church in Albany the combination of the façade of Notre Dame with Romanesque elements, the motifs of the transept portals of Chartres interwoven with Romanesque arches, but objecting to the "dishonesty" of a false wood ceiling in a masonry structure. By 1911 Schuyler abhorred "Richardson's Romanesque [as] a perturbation, not an evolution," inferior to the Beaux Arts Academism of Richard Morris Hunt which he had abhorred before. Questioning Lewis Mumford's encomium that "Montgomery Schuyler never hauled down the flag," Jordy himself refutes his initial assertion that Schuyler possessed "an esthetic philosophy relevant to the creative production of his world."

"Selective quotation," reads the introduction, "has magnified our impression of his prescience. True, he never quite hauled down the flag; but the flag occasionally dipped, once or twice dragging to

the ground. . . . Schuyler strolling past buildings (or rather *photographs* of them) without troubling to examine plan or interior, appears in his lengthy essay on Hunt's entire career. . . . Given Schuyler's convictions, his laudatory comments are admittedly irresponsible . . . a reckless abandoning of his critical responsibilities. . . . What he really felt about Beaux Arts appeared, covertly and devastatingly, as an anonymous spoof in 1893."

Much of Schuyler's critical reputation in our own times rests on his Chicago reports from 1891 and 1894.

"It is a very good lesson," he wrote in 1894, "to see how the strictly architectural success of the commercial buildings is apt to be directly in proportion to the renunciation by the designer of conventional 'architecturesqueness,' and to their loyal acceptance at all points of the utilitarian conditions under which they are working."

If this sounds like praise today, it was damnation in the mind of Schuyler. Speaking of Boyington's soberly-decent Board of Trade, he makes his stand completely clear:

"It is impossible to ascribe to it any architectural merits unless a disregard for precedent is to be imputed for righteousness, whether it proceed from ignorance or contempt. . . . The mob of anarchists that demonstrated under its windows . . . was very ungrateful . . . for one would go far to find a more perfect expression of anarchy in architecture. . . . The structure cannot be expressed in terms of historical architecture, and for that reason the attempt to express it . . . has been foregone."

The Louis Sullivan whom Schuyler praised was not the author of "The Tall Office Building Esthetically Considered," but the "Saracenic" Sullivan of the Golden Door and the Auditorium interior whose "richness, intricacy and refinement of ornamentation amounted to a signature."

True, Schuyler preceded LeCorbusier by a generation in his consideration of bridges as architectural design. Yet he sees not structure but "Monumental Engineering," coming in spite of initial praise to what Jordy terms the "deplorable conclusion" that the "gawky Williamsburg Bridge" was esthetically superior to the Roeblings' masterpiece. And as if to clinch his case for "right reasoning and wrong conclusions [which]

especially merit attention," (*why?*) Jordy tells how Schuyler, in judging a competition for a Memorial Bridge over the Potomac in 1899, "after much thrashing about reluctantly concluded that none of the designs equalled a predecessor prepared in 1866. This was a fantastic but virile admixture of metal arches leaping between medieval towers and turrets in masonry, a bridge more akin to the Smithsonian Institution."

On page 84 the introduction finally has arrived at Schuyler's burial:

"With his resignation to the inevitability of what he deplored, Schuyler's criticism lost much of its early bite. . . . The polite world of the New York literateur smothered the critic Schuyler might have been. . . . What in the late nineteenth century may have seemed a progressive point of view appears in our own day inhibiting to the attainment of a mature critical position with which to appraise modern architecture."

We could not agree more, and would gladly receive it as absolution from having to read the following 550 pages of Schuyler's own writing, if there were not that concluding paragraph which jolts us with a last schizophrenic twist. Schuyler's critical abilities, characterized earlier as "attempts to make a literary eclecticism a responsible esthetic," are advertised as assuming new relevance and we are left with the final rhetorical question: "Could it be that the critic for a lost cause will become the prophet for a new one?"

It is this last sentence that deserves attention at this particular moment in architectural history. There is a growing tendency among American critics today to prove their independence from the European originators of twentieth-century architecture by praising what was despised less than a generation ago. Vast surveys of early, late and middling-Victorian architecture are clogging library shelves, praising the atrocity of Brussels Palais de Justice that made even our parents wince as "full of force and vitality . . . and an indefinable (sic) flavor of the monuments of the ancient civilizations of the East;" Ottawa's ogivemansardtudorkremelinesque Parliament for "variety of form, gusto of detail, urbanistic scale" (both H.-R. Hitchcock); or the unsurpassed ugliness of the Philadelphia Centennial Buildings from 1876 for "boldly-expressed

energies in tensile relationships" (Scully). We are called upon to save the Baths of Caracalla, disguised as a railroad station, on New York's Seventh Avenue, and a Greenwich Village courthouse abandoned long ago for its grotesque functional failure. If these same famous critics were asked to write in similar terms about the work of Bougureau, Landseer or George Gray Barnard, they would reject it as an insult to their critical sensibilities; yet it may be assumed that even the accommodating Mr Schuyler would have found it incompatible with his conscience to praise in one breath Eidlitz and Mies van der Rohe, The Pittsburgh Jail and the High Court at Chandigarh. The affectation of a handful of writers priding themselves on their broadmindedness, plays tragically into the hands of financiers and contractors who must see in it a new brief for eclecticism at its most reactionary. The special kind of sophistication that can praise the "daring ugliness" of McKim, Mead and White's Metropolitan Museum is shared by few, and it plays havoc with architectural education. Those who teach invest great effort into dramatizing the struggle that freed contemporary design from the literary stagecraft of Schuyler's heroes. When our students graduate, they know damn well what modern architecture is. It is dangerous and irresponsible to challenge their untried convictions with volume after volume of what Eidlitz, in blissful blindness to his own work, described as "the art of covering one thing with another thing to imitate a third thing, which, if genuine, would not be desirable."

**General Hospitals; Functional Studies on the Main Departments.** Bouwcentrum, Amsterdam, Elsevier Publishing Corp, 1961. 301 pp. 12" x 18¼"

Reviewed for the *AIA Journal* by E. Todd Wheeler, FAIA 1960-61 Chairman AIA Committee on Hospitals and Health

The most charitable thing to be said of this publication is that it tries hard and fails notably. By current standards in the United States it is a voluminous exploration and exposition of departmental plans according to hospital operating techniques which appear a generation outmoded. I am not at all sure this means we are superior

to the Dutch in our hospital methods though it does appear that we went through the cycle here represented at least twenty years ago. This could mean that we are in a spiral progression rather than a straight-line one and that our apparent advancement is therefore a relative if momentary regression.

I searched for a key to the book's failure and think I found it on page ten. As part of a discussion of waiting rooms for the outpatient department and after several paragraphs deploring the fact that the appointment system of scheduled patient admissions has not yet gained acceptance over the first-come-first-served system, there appears this cryptic and amazing statement—"Although there is everything to be said for a revision of this system it was decided not to take this into account when drawing up the attached plans, since in the Netherlands itself no attempts have ever been made to work out an 'appointment system.' In view of the fact that as a rule Netherlands hospital circles show little enthusiasm for modern methods of organization, it was not considered advisable to propose waiting rooms intended for a new system." If the authors are too timid to propose, even in print, an innovation (?) which they admit is desirable and which seems old stuff to us, how can we ever expect Dutch hospitals to change?

I fear this atmosphere permeates the whole book, in both form and substance.

Other specific examples are:

- anesthesia induction rooms required in surgery
- sub-sterilization rooms, quite elaborate, between each pair of operating rooms. No central sterilization space
- general lack of private toilets and showers for patient rooms (except in the infectious unit)
- common use of six-bed wards and a low percentage of private rooms, except in pediatrics (just the reverse of our position)
- exclusion of central tray food service as not considered practicable for the Netherlands
- emphasis on special diets kitchen
- estimates of 3.3 lbs of linen per bed per day as design load for laundry
- horizontally extended single cor-

ridor schemes predominant, with relatively few elevators provided

In form also the book, though polished, is by our graphic standards so old-fashioned as to be irritating to the point of frustration. Flow diagrams and graphic explanations are almost entirely missing. Floor plans in the text are sharp but generally not titled, bear no scale, no room sizes or names, no over-all dimensions, no compass point, and are universally explained by that abomination to understanding, the numbered and lettered reference schedule for all spaces and all equipment. Surely we have advanced beyond that pedantic device as a tool of communication! The plans of eight representative hospitals are at 1:500 which is about 1" = 42' and are identified similarly with reference figures too small to be read. There are *no* photographs or perspective drawings!

And, as always, we have the empirical approach, with no hint at hypotheses or developed theory.

Yet there are some highly compensating features worthy of note. The first is implied in the sub-title "Functional Studies on the Major Departments." Great credit should, I think, be given the group for its attempt to relate detailed function to corresponding plan elements. This is not just a listing of what should be provided but an effort to justify it, in part, by *explaining what is going on in the department*. The fact that the effort falls short of achievement is a matter of degree. We have yet to develop in this country a satisfactory, functional justification of the materials we publish as guides, standards or specifications, call them what you will.

Secondly, there is one section, surprisingly on Laundries, (pp 196 to 206) which as an exception is an almost perfect example of what is otherwise generally deficient, namely a functional description, quantitative estimates of load, a flow diagram, capacities of machines, detailed description of all elements and suggested plans of several sizes of laundries with equipment shown. How this little gem found its way into an otherwise leaden treasure chest is beyond me, but there it is and by contrast it sparkles.

Thirdly, at the end are floor plans of eight hospitals with accompanying analyses of floor areas

by departments. It is interesting to compare these figures with those of the 100 or so hospitals similarly analyzed by our own AIA Committee on Hospitals and Health. The Dutch plans show 500 to 600 sf/bed, for hospitals of 200 to 350 beds. (One example of 120 beds shows about 500 sf/bed). This is the range we would expect to find in our smaller hospitals and is somewhat higher than is common in 300-bed non-teaching hospitals.

And finally, on the credit side, each of the committees listed as being the authors of this text contains at least one architect.

A small ember of amusement glows from the typical plans for surgical suites, each of which contains a coffee room as standard provision. I should think it would be a hot chocolate room instead.

So I guess we must conclude we are different from the Dutch and if you want to see how much different we are, buy this book and wade through it.

**The Cathedral Builders.** Jean Gimpel. New York, Evergreen Profile Books, Grove Press, 1961. 192 pp illus. Paperbound, \$1.35

This is one of the best modern histories of the cathedral-building era this reviewer has seen. For fifty years, scholars have been trying to demolish the beliefs and legends about the Middle Ages that were passed out as "history" during the nineteenth century—the miraculous appearance of Gothic architecture in the thirteenth century; the self-flagellating fervor of the populace, harnessing themselves to carts and hauling the stones to the building site; the anonymity of the master masons who designed and built the cathedrals.

While criticizing the depredations of the eighteenth century and the restorations of the nineteenth century, the author defends Viollet-le-Duc, saying that if he had not worked so energetically, many of the buildings we admire so much would not be here today. "We reproach Viollet-le-Duc his excesses, but we must ask ourselves if the next century will not reproach our restorers of historic monuments for not having spent enough money on laboratory research to discover the cost of stone decay."

Attempting to remove the rigid style classification or differentiation

between Romanesque and Gothic, the author says, "There was no fundamental distinction between a Romanesque and a Gothic building, but there was an enormous difference between a church of the mid-eleventh century and one of the thirteenth century. The difference was the accumulated result of hundreds of little technical discoveries by ingenious architects and workers—the cathedral builders.

"There were no builders of Romanesque or Gothic cathedrals per se, no more than there were Romanesque or Gothic workshops. There were only some builders who created and others who copied them, relying on older techniques. This is important to emphasize. It is amazing to realize that for two hundred and fifty years, from the end of the thirteenth century to the beginning of the sixteenth . . . there was practically no progress made in construction technique."

M. Gimpel outlines the position of the clergy in the matter of church-building, especially the growing power of the cathedral chapter. He traces the growth of the monasteries, especially the Cluniac and Cistercian orders, and their function in the wide dissemination of building techniques. He draws an interesting parallel between the eleventh and twelfth centuries in western Europe and the nineteenth and twentieth centuries in America—first the expansion of settlers and the growth of the cities, then the growth of commerce, industry and finance under the system of freedom to work and free competition, and from that the emerging of a prosperous and powerful middle class.

There is a very interesting chapter on stonemasons, their practices and their wages, another on masons and sculptors and the beginnings of freemasonry. Although the idea of the artist as an individual separate and distinct from, and probably better than, the worker, did not fully develop until the Renaissance, M. Gimpel finds it emerging in the later Middle Ages, when he ceased to work his stone in situ, but took it to his workshop. "Having broken with the architect, the sculptor next dissociated himself from the theologian. Did he already consider himself better than the mortals around him? Was this the dawn of the Renaissance?"

The chapter on the architect leans heavily on the well-known notebook of Villard de Honne-

court, with many excerpts and reproductions from it. He stresses the Arabic sources of medieval, as well as later-Renaissance, knowledge of mathematics and the sciences. He also discusses the medieval use of plans, and the reasons for their disappearance today. The final chapters cover the engineering knowledge and construction techniques of the Middle Ages—which were considerably more advanced than we might suppose. J.W.

**The Best Remaining Seats, The Story of the Golden Age of the Movie Palace.** Ben M. Hall. New York, Clarkson N. Potter, Inc, 1961 266 pp. \$15.00

Reviewed for the *AIA Journal* by Henry Hope Reed, Jr, author of "The Golden City"

One of the curious aspects of today's outlook in the arts is the frequently-met-with disdain for the movie palaces of the 1920's. This is particularly true of the younger generation of architects. Insofar as is known they are not Manichaeans, but it may be that they refuse to disobey the well-known commandment of the panjandrums of the Modern Movement "Thou Shalt Not Love Ornament." In so doing they miss a great deal in life.

A glance on their part at "The Best Remaining Seats" would overcome their fear in disobeying the panjandrums. In Ben M. Hall they will find a most entertaining guide to the wonders of the movie palaces, their great stage shows, their impresarios, their Wurlitzer organs ("The Mighty Wurlitzer") and all the panoply of the buildings themselves.

What fun the architects of these palaces must have had! What excitement to watch the great auditoriums take on their revetment of ornament and polychromy! And not unimportant, the architects enjoyed a freedom unknown today in doing their designs. The inventions of a Thomas W. Lamb and a John Ebersson make the structural contrivances of many Modernists seem petty nonsense by comparison.

As we glance back at the American Renaissance from the heart of our present-day Glassvilles, the 1920's appear a Baroque decade, a decade worthy of Bernini, Borromini and the Bibienas. Not un-

important in judging the movie palaces is the fact that they came to be key embellishments in the American city, in this way underlining the contribution of the urban way of life. And they were extremely popular, for the simple reason that to enter one was to enter a world of magic, not only of the silver screen but of the glittering lobby, the grand staircase, the monumental and resplendant auditorium.

Fortunately many of them survive and with Ben Hall's encouragement we can explore them again and again. And were I so privileged I would see to it that every architectural student in the country made his or her pilgrimage to the nearest movie palace, for it would reveal to them the power which the architect commanded more than a generation ago. In any event "The Best Remaining Seats" offers a most delightful introduction to this neglected aspect of our architectural heritage.

One minor correction. On page 127 the caption in describing a bit of ornament from the old Roxy illustrated on the previous page makes use of the word "catafalque" when the author must mean "cartouche." But the reader will be too absorbed in the text and illustrations to care.

**Jefferson's Buildings at the University of Virginia.** Vol I, The Rotunda. William B. O'Neal. Charlottesville, The University of Virginia Press, 1960. 88 pp illus. 8¼" x 11". \$8.00

This volume is the first of three dealing with the original Jefferson buildings at the University of Virginia. With complete access to Jefferson's papers, the book includes much documentary material which has not been previously published; well-known drawings are reproduced with greater care and at larger scale than ever before.

Eighteen pages of text prepare the way for thirty-six pages of tabulation of documents, including correspondence, contracts and bills of materials having to do with the construction of the Rotunda.

The author is an associate professor in the School of Architecture at the University of Virginia, and from 1950 to 1959 was also Curator of the University Museum of Fine Arts. J.W.

# Editor's Page

## Preservation and Conservation

► Many a chapter has difficulty manning its Preservation Committee, and finding a man to serve as Preservation Officer. Sometimes the latter is an elderly, semi-retired member who, it is assumed, is interested in old things because he is ancient himself. And that's just about all that's done about it.

Out of the Institute's 137 chapters, however, there are many which have genuine, hard-working and devoted Preservation Committees and Officers. But "many" is far from "all."

If the Chapters only knew it, and if the members of the Institute only knew it, this matter of the preservation of historic buildings is one of the greatest tools the profession has for public service—which also means public relations. I am going to make a prediction, and I don't mind going 'way out on a limb: Within five years—and doubtless much sooner—this whole matter of the preservation, restoration and rehabilitation of qualified old buildings of historic or architectural value, local or national, is going to become one of the biggest things of the sixties. And the men and the organizations who direct and execute this work are going to be the heroes of the hour.

In nearly every city in the land, there are movements for the protection of old buildings—sometimes concerned with only one building, sometimes with all. Often these movements are sparked by the destruction of some well-known old building, not properly appreciated until too late. Sometimes they are started soon enough to be successful in saving the building.

Articles on the need for preservation in the newspapers—especially the Sunday supplements—and in the popular magazines, are an almost daily reminder, a warning, that a truly popular interest and concern is rising. Sitting in this Washington editorial office, I receive constantly in my mail reminders that this wave of public interest is rising, in the form of clippings, booklets, press releases, announcements and letters.

In years gone by, the initiative in matters of preservation was taken by clubwomen, historians and antiquarians. Today the lead is taken by civic groups, service clubs and locally prominent businessmen—people who realize that all traces of the past must not be wiped out, that here, as in Europe, old buildings must be maintained and preserved, to stand along with the new to tell the story of the growth of a city and of a nation.

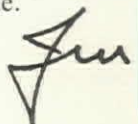
The American Institute of Architects, through its chapters, has the organization, the prestige and the qualified trained men to assume the leadership in this truly grass-roots movement. It is, after all, only another aspect of President Will's challenge to us to assume responsibility for "man's total environment." With architects everywhere turning their attention to urban renewal, the revitalization of central business districts and other urban problems dealing with the destruction and re-construction of great areas of buildings, it is imperative that the whole matter of the preservation of historic buildings be tied in with urban design. And who can do it but the architects?

As a matter of fact, I am really thinking in an even broader context. It is essentially a matter of *conservation*, and involves natural resources as well as man-made resources. The landscape architects, and many of the planners, are aware today of the need for conserving every square foot of available green-space within and near a city and the creation of new ones if possible—to say nothing of planning for the proper use and conservation of the nearby countryside.

Essential as highways, by-passes and interchanges are they simply *must* be stopped from usurping existing park areas or plowing through built-up areas containing buildings of rich regional significance, whether they be of architectural value or not. Many a delightful old neighborhood is composed of buildings of no architectural merit individually, yet the ensemble has a charm and interest which should be preserved not only for the delight of the inhabitants but as an example to future generations of a standard of quiet living which should not pass from this earth.

The battle between the highway engineers and the preservationists-conservationists has been going on for years, with the victory usually on the side of the highwaymen, for they can always plead utility and public necessity, whereas the other side can usually plead only "amenity" or some other abstraction. But amenity and such abstractions are as vital to a well-rounded human life as convenience and speed—to me, much more so.

I may seem to have switched from historic preservation to nature conservation. Not so. It is all one problem, and the architects and the planners must consider it so, and as an essential part of the problem of replanning and rebuilding our cities. And if the architects don't take the lead they will lose it to less qualified people.





# Pneumatic Structures

by Dr-Ing Frei Otto and Peter Stromeyer

This article originally appeared in German in *Deutsche Bauzeitung*, July, 1961, pages 518-527, published in Stuttgart by Deutsche Verlagsanstalt GmbH. It has been translated for the *AIA Journal* by Gudrun Huden

Designs based upon membranes expanded or supported by air pressure are finding more and more applications in many technical fields. They have become important not only for movable structures, but also for shell-type elements of permanent buildings.

These skins—stretched by gas or liquid pressure differences—are tensile structures, related to hanging roofs and suspension bridges. They permit structural solutions with little weight, and belong—as do tents (see *AIA Journal*, February and April 1961)—to the lightest of all methods in the field of lightweight building. These methods are gaining steadily in importance in comparison to the well-proved field of heavyweight construction.

## Early Developments

The most familiar pneumatically-stretched skins are sails, in which aerodynamic differences in pressure stretch the skin. Waterbags, warm-air and light-gas balloons, garden, fire and warm-air hoses, tires, rubber boats, balls and steam boilers, as well as high-pressure gasometers, all illustrate these developments.

As far as we know Lanchester in England made, in 1917, the first experimental use of air-supported tent skins to roof large areas. Lanchester, who died a few years ago and never was able to execute a single building, had, in his early sketches, solved the problem of air-locks. We introduced rope-supporting elements, and evolved several important laws of shape and form. Later Stevens tried to promote the idea in the United States.

The significant breakthrough into practical application was accomplished after the war in the United States by Bird, who by now has

erected a great number of pneumatic structures. The first of Bird's solutions dealt with radar domes for the northern air defense line of the American continent. Bird's successful and daring structures led many others to explore similar problems. Only a few teams, however, have attained recognition—Schjedahl, Irving, and US Rubber. In Europe the Stromeyer air-filled-hose-arch camping tents have been known for quite a long time. More recently, structures by Texair and Krupp have appeared.

In the field of pneumatic construction as an auxiliary structural element, Neff (US) used inflated balloons for form-work for concrete shells, while Buckminster Fuller used them for auxiliary rigging elements in rib shell domes. One of the authors worked on theory and foundations of this subject, 1958-1960 at the Washington University of St. Louis, Yale University and the "Hochschule für Gestaltung" at Ulm.

During recent years considerable research has been done by the "Entwicklungsstätte für den Leichtbau" in Berlin (Development Center for Lightweight Construction), sponsored by L. Stromeyer and Company, of Konstanz. This research has given the first opportunity to view this specialized field as a whole and answer many previously unresolved questions, so that today we have a considerable vocabulary of pneumatic types of construction. Collaborators in these efforts were the architects Koch (US), Frederick Miles, professor of architectural design, Univ of Illinois, and Wehrhahn (Berlin). The engineer Trostel, lecturer at Technical University of Berlin (Berlin) has been responsible for the mathematical theory.\*

\* A text on this subject will soon appear in Germany published by Ullstein-Verlag, Berlin.

## The Structure

The pneumatically-stretched skin differs in principle from structural forms which are not stabilized by pressure differences of gases or liquids. Pressure difference is the essential structural element. When a membrane is stretched between two supports even a small atmospheric pressure suffices to keep it suspended. A snow load of twenty psf will be carried by an atmospheric pressure of only 0.14 psi = 2.94" (water), without stressing the skin directly.

Here we are confronted with the rare case of a construction which quite clearly does not show strains on structural members under maximum loads. Practically speaking, there is no structural member, since the snow load is directly carried by atmospheric pressure. Thus, this air pressure is structure, the skin merely a separation layer.

In the case of the child's balloon, as with that of the pneumatically-stretched dome, interior pressure carries the membrane independent of radius of curvature. Calculations for membranes under interior pressure only are fairly simple—consideration of snow and wind loads, however, become difficult mathematical problems.

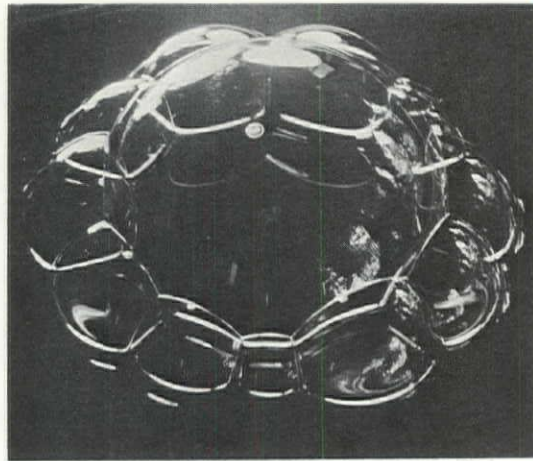
## Soap Bubbles

Soap bubbles are minimum areas. Looking closely at thin soap skins within a soap bubble agglomeration (figure 1), all exhibit the same membrane stresses. All skins stand at 120° angles to each other or normal to the next row of bordering surfaces. When variously-sized soap bubbles hang together, the interior atmospheric pressure differs in each one and the partition walls are bent.

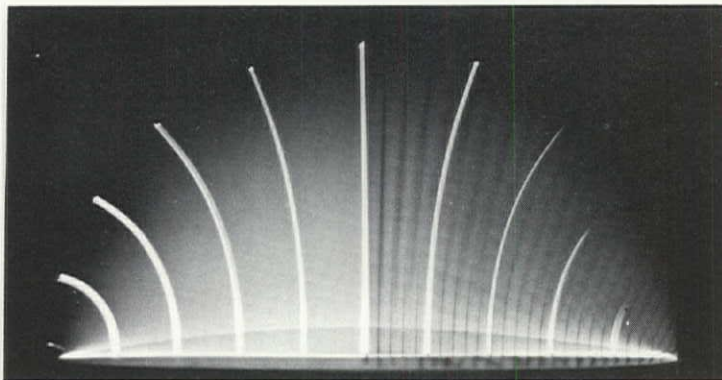
## Technical

## Spherical Domes

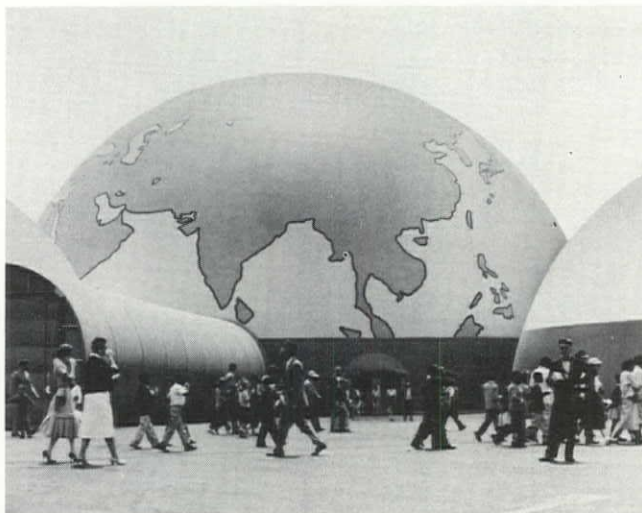
The spherical dome, too, is a minimum area. Under interior pressure and in non-weighted condition, it shows the same stresses in one direction at every point in the skin. Every soap bubble is a spherical dome—elastic rubber also arches to approximate dome shape (figure 2). Structural envelopes for major scientific instruments often demand three-quarter domes which



1 Several small soap bubbles surround a larger one. Study of soap bubbles for minimum areas is often most useful for design of pneumatically-stretched structures\*\*



2 Time exposure of rubber membrane over circular foundation during expansion from flat to half-dome. Lights on dome surface reveal travel



3 Exhibition complex built by Walter Bird. Four 90' domes surround larger half-dome, 150' diameter. Public entrances are revolving doors. Large equipment can be introduced through air-lock. Air pressure in inter-connecting pneumatic system kept constant by twelve blowers

The Development Center for Lightweight Construction (Berlin-Zehlendorf, Turksteinweg 5) were originators of projects and illustrations not otherwise credited.

require higher interior pressure than half-domes (figure 3) in order to stabilize them against wind forces. Due to the larger radius of curvature, shallow domes—compared with half-domes over same foundation and at same interior pressure—have greater membrane stresses. However, they generally require a smaller interior pressure for stabilization. Thus, determination of the most advantageous arching height requires considerable study. In the case of large spans—with their often-considerable membrane stresses—essential forces can be anchored through ropes or ropenets. This, for instance, permits application of thin, transparent plastic foils. (see illustration *AIA Journal* April 1961 p 116)

### Non-round Domes

Pneumatically-stressed domes may be inflated over foundations of various shapes. Particularly striking is the shape (figure 4) consisting of two connecting domes with soft saddle-form passage, developed for a large exhibition building in South America (figure 5).

### Vari-shaped Domes with Ropes

Ropes can be used to influence and divide the surface of a dome. They are able to transmit considerable forces and thus reduce tension in intervening membranes. Different shapes are possible over similar ground-plans (figure 6 and 7). In the project for an amphitheatre roof a higher round dome vaults the stage area, ropes keep roof over audience-seating low, giving a favorable acoustical form.

### Domes Over Square Foundations

Soap bubbles can even be vaulted over square ground layouts (figures 8 and 9), thus producing minimal areas with equal stresses at every surface point. At the highest point, the soap skin resembles a spherical section, nearer the corners it is bent in saddle form. As an experiment, this form was stabilized and elevation lines optically applied. Skins pneumatically stretched over triangular, square or multi-cornered foundations may achieve greater importance since the in-line placement of buildings is simplified. Frame-stretched skins with rectilinear edges can also form such shapes. Figure 10 shows a model for a pneumatically-stretched skin roofing for the cargo distribution center for a harbor.

### Square and Rectangular Domes with Ropes

In the project for an assembly hall (figure 11), a pneumatically-stretched skin covers an interior courtyard of a two-story office building. In order to keep the vaulting height down—for heating considerations—and to concentrate the major forces at four points, it is fixed by two ropes crossing each other. When a rectangular foundation is roofed with a pneumatically-stretched skin, cross-ropes are economical; but for improvement of interior design, acoustics, lighting and ventilation, a different rope direction may be indicated, as in the project for a festival hall (figure 12).

### Cylinders

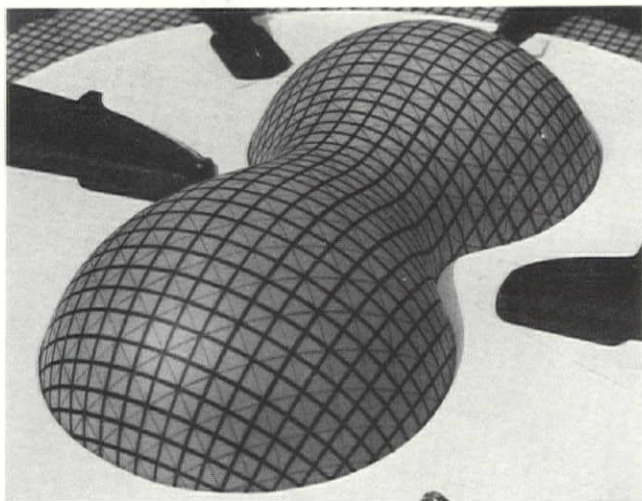
When cylindrical skins are not riveted at the ends, they transmit—due to interior pressure in ring direction—double the membrane stresses they carry in longitudinal direction. Examples are hoses, steam boilers and containers. Depending on amount of interior pressure, they exhibit more or less high resistance to bending. In measuring torsion resistance, it is possible to determine the shearing module of the major material used.

### Half-cylinders

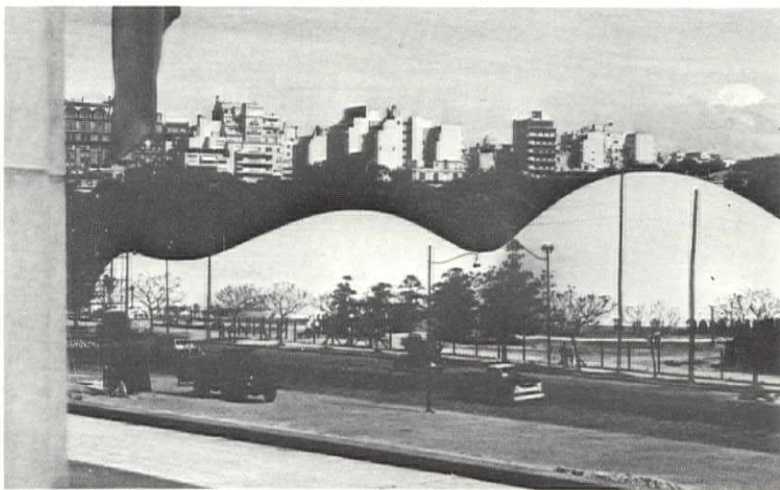
American and European firms have recently constructed a number of buildings in half-cylinder form—warehouses (figure 13) and shelters for winter structures and swimming pools (figure 14). Quite frequently these envelopes were merely anchored to the ground with water hoses. The ring stresses in the cylindrical portion are double those of the stresses in the quarter-sphere ends. The simplicity of cutting cylindrical skins is an important advantage.

### Spindle and Other Rotation Forms

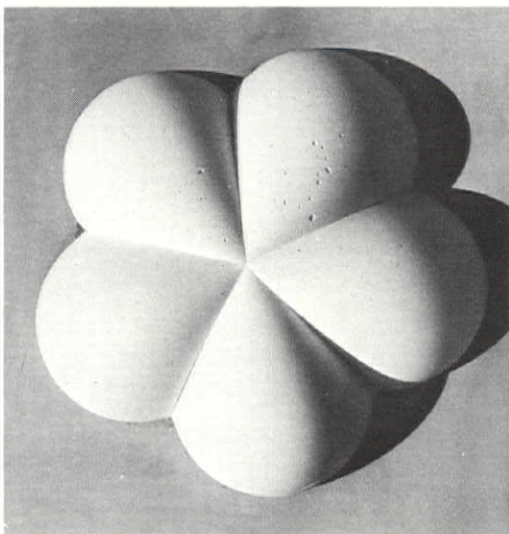
A soap skin can be stretched between two rigid rings—lacking interior pressure it takes the form of a catenoid; interior pressure added, it becomes a cylinder, which can be further swelled out to a thickened stick form (figure 15) until it reaches spherical shape. Differing rotation shapes are possible within strict limits of the laws of form. Noteworthy is the ellipsoid whose ring stresses grow harmonically—peak value is achieved at largest diameter. It is not possible to arrive at a rotation shape formed in the case of slim ellipsoids through



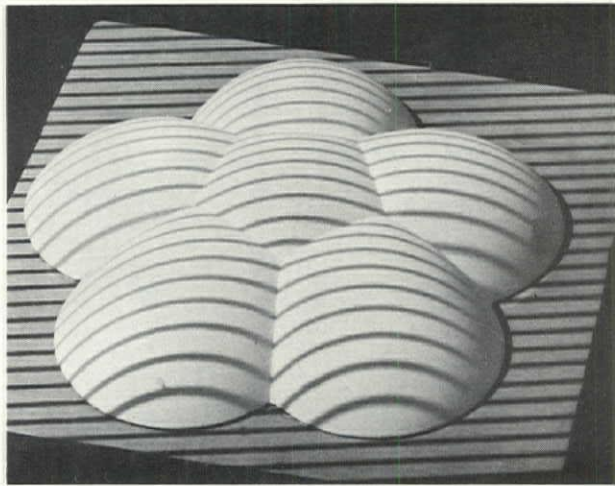
4 Model experiment with rubber membrane—marking lines are applied—being inflated on dumbbell-shaped foundation



5 Victor Lundy, AIA, designed large exhibition pavilion for AEC in shape of two domes with saddle-formed passage. Executed by Walter Bird, engineered by Fred Severud. 270' by 110', membrane has double walls. Inside, another independent pneumatic dome houses the atomic reactor



6 Test model of a pneumatically-stretched skin propped up by a net of five radial ropes



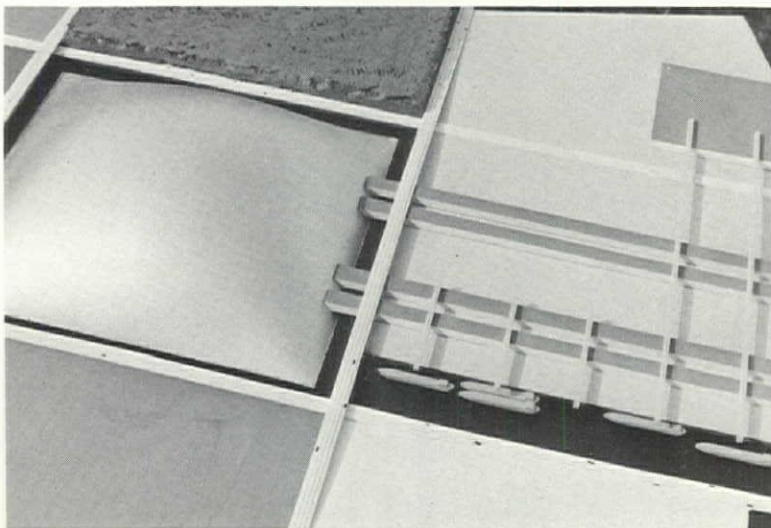
7 A different shape results—starting from same foundation as (6)—when rope direction is altered



8 View of a soap-bubble over square base



9 Photo (8) as seen from diagonal side of square



10 Project for the distribution center of a harbor—aluminum-vapor-treated stretched membrane, still translucent, over a square base

revolution of the small axis. The result is the form of a flattened sphere with folds at the line of the equator.

### Cones

A conical shape can be formed pneumatically. However, with strong interior pressure it shows no stresses at the cone's peak, and no resistance to attacking forces. The conical shape does achieve stability when the peak is slightly bellied. The conical skin serves as weather protection for sensitive bulk-pour-materials, such as grain, cement, sulphur and many others (figure 16).

### Pneumatic Skins with Inner Drainage

Of particular importance for practical application, pneumatically-stretched skins with inner drainage systems are the result of research undertaken by the Development Center for Lightweight Construction. By connecting membranes to the foundation at numerous points the total shape will be kept low—a requisite for greenhouses (figure 17) with their special heating needs. This decreases size of free span widths. Due to relatively small membrane stresses, it is possible to employ thin plastic foils or lattice foils. With larger spans, plastic foils are pressed against a rope net by air pressure, resulting in quite remarkable structural forms. In the case of large area roofing with transparent foils, inner spaces develop whose existence is hardly detectable with the camera, although clearly perceptible to the human eye. Here we are dealing with a particularly delicate type of lightweight construction. In the project for an exhibition and conference hall (figure 18), a flatter membrane structure envelops a large dome whose form is strongly affected by the provision for interior drainage at the edge. Since the membrane stresses of the dome are considerably higher than those of the lower areas with the inner drainage system, differing membrane thicknesses were chosen.

### Buildings with Interior Walls

Pneumatically-stretched structures may be partitioned at will with walls which are also membranes. For instance, when several soap bubbles meet, interior skins are formed. The effect of inner walls is similar to that of interior

drainage. Forces are transmitted along inner walls by lines into the roof skin which are cut off there and form hollows in the roof. Despite inner anchorage—with inner walls—drainage to the outside can be accomplished. It is not necessary that inner walls extend all the way to the foundation. They can be supported by ropes so that they are connected with the ground only at very few points (figures 19 and 20). Due to the influence of inner walls, almost infinite shapes of pneumatic structures are made possible.

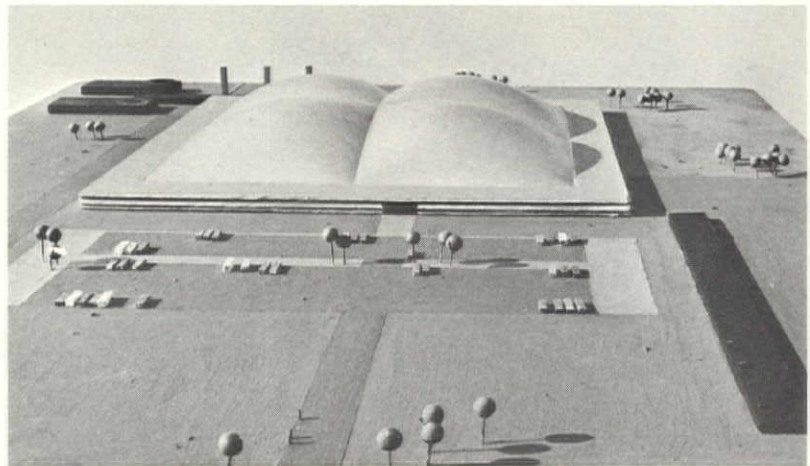
**With and Without Interior Pressure**

In the building forms shown so far, interior spaces were subjected to over-pressure, thus stretching the skin. In order to enter the interior, air-locks are required. The simplest air-lock is the revolving door. Double doors and membrane-fashioned air pockets are also used. Since interior pressure is generally small, no particular difficulties have arisen in forming these locks. These buildings are generally kept under a persistent internal pressure of 15-35 mm water column (3-7 psf) which is hardly noticeable even to sensitive individuals who enter these structures. Blowers provide constant air pressure, using very little energy. As a precautionary measure emergency-power-equipped blowers are set up, although it is well-known that even in the case of considerable leaks, a long time elapses before an envelope actually collapses, since enormous volumes have to be displaced. Through introduction of wind pressure, stabilization of domes is effected even with low velocity. Due to gravity differences of warm and cold air, larger domes remain standing in winter even without mechanically-produced air pressure.

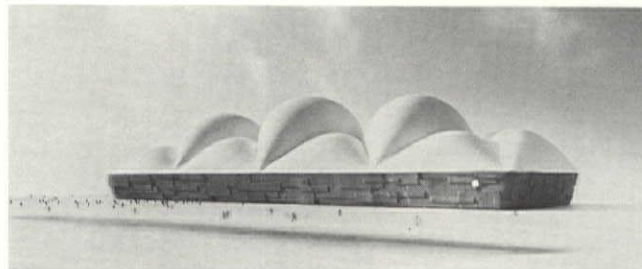
There are, however, a number of different kinds of structures whose interior spaces do not require higher pressure for support. Here we are dealing with inflated double skins, cushion-form shapes, which permit structural enveloping of spaces. Such cushion-type structures, of course, have the advantage of the unobstructed, free-entry interior, but the disadvantage of large surfaces. Generally, however, higher interior pressure does become necessary.

**Cushions with Border Ropes**

When two originally flat, square membranes are hermetically sealed and inflated, a typical "cushion"

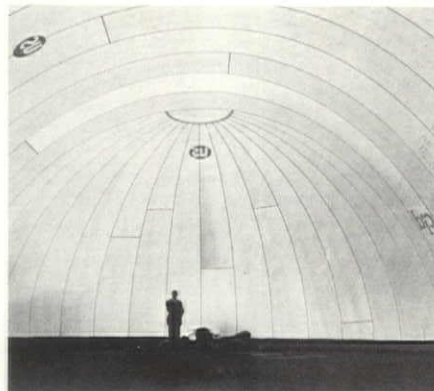


11 Project for assembly hall of industrial plant, vaulted by skin braced by two crossing ropes



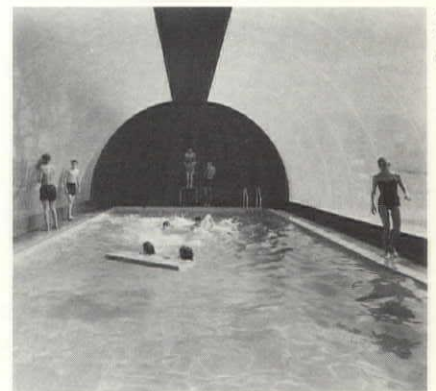
12 Pneumatically-stretched skin over long, rectangular foundation braced by transverse ropes. Model for festival-hall shows influence of ropes

US Rubber

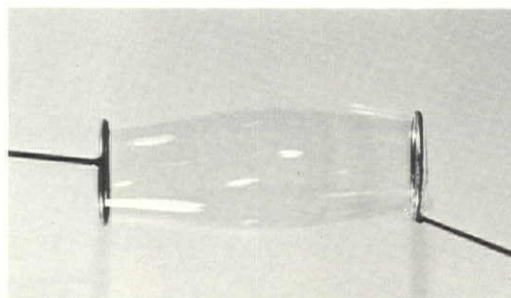


13 Interior of warehouse (US Rubber Co): a half-cylinder with quarter-sphere ends and water-hose ring base

Birdair

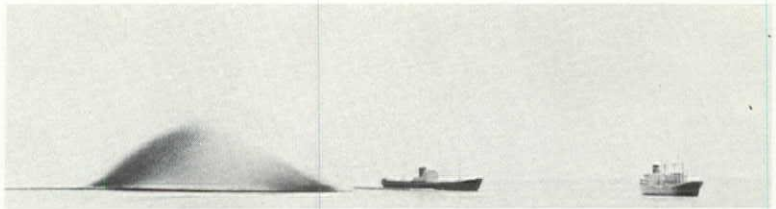


14 Birdair-built envelope over swimming-pool permits winter use. Cylinder skin is of transparent plastic foil

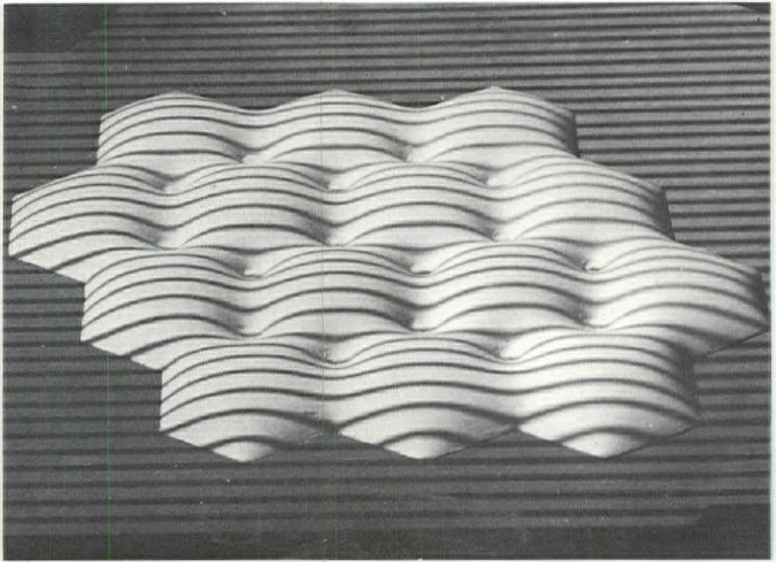


15 Closed soap-bubble between two rigid rings

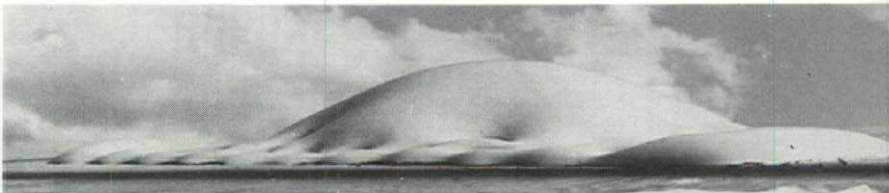
**16** Project for pneumatically-stretched conical skin as weather protection in shallow coastal waters



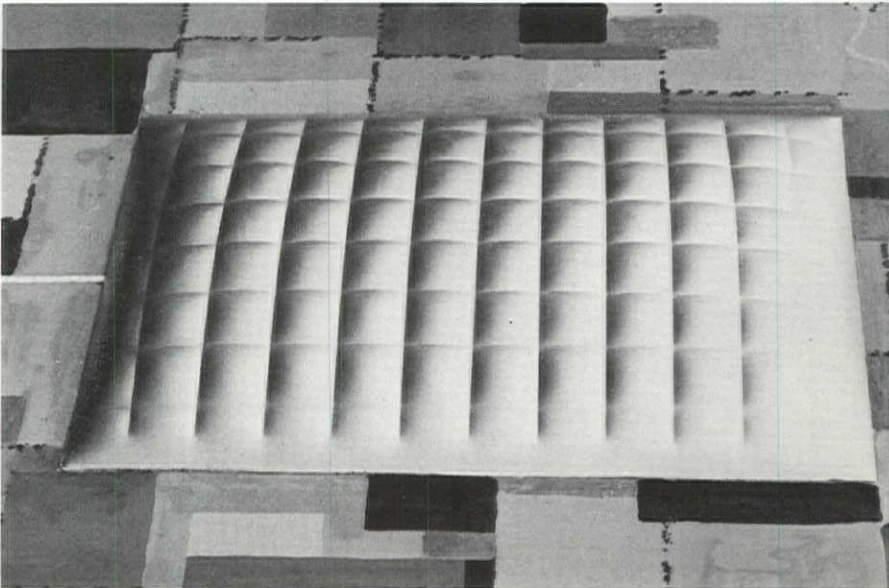
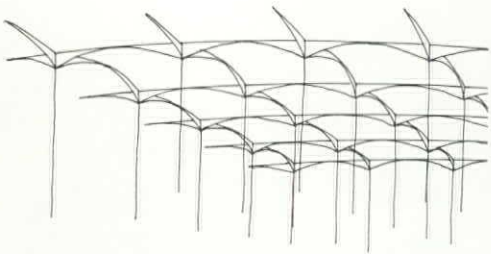
**17** Pneumatically-stretched skin with inner drainages on hexagonal principle. Optically-applied lines mark cuttings

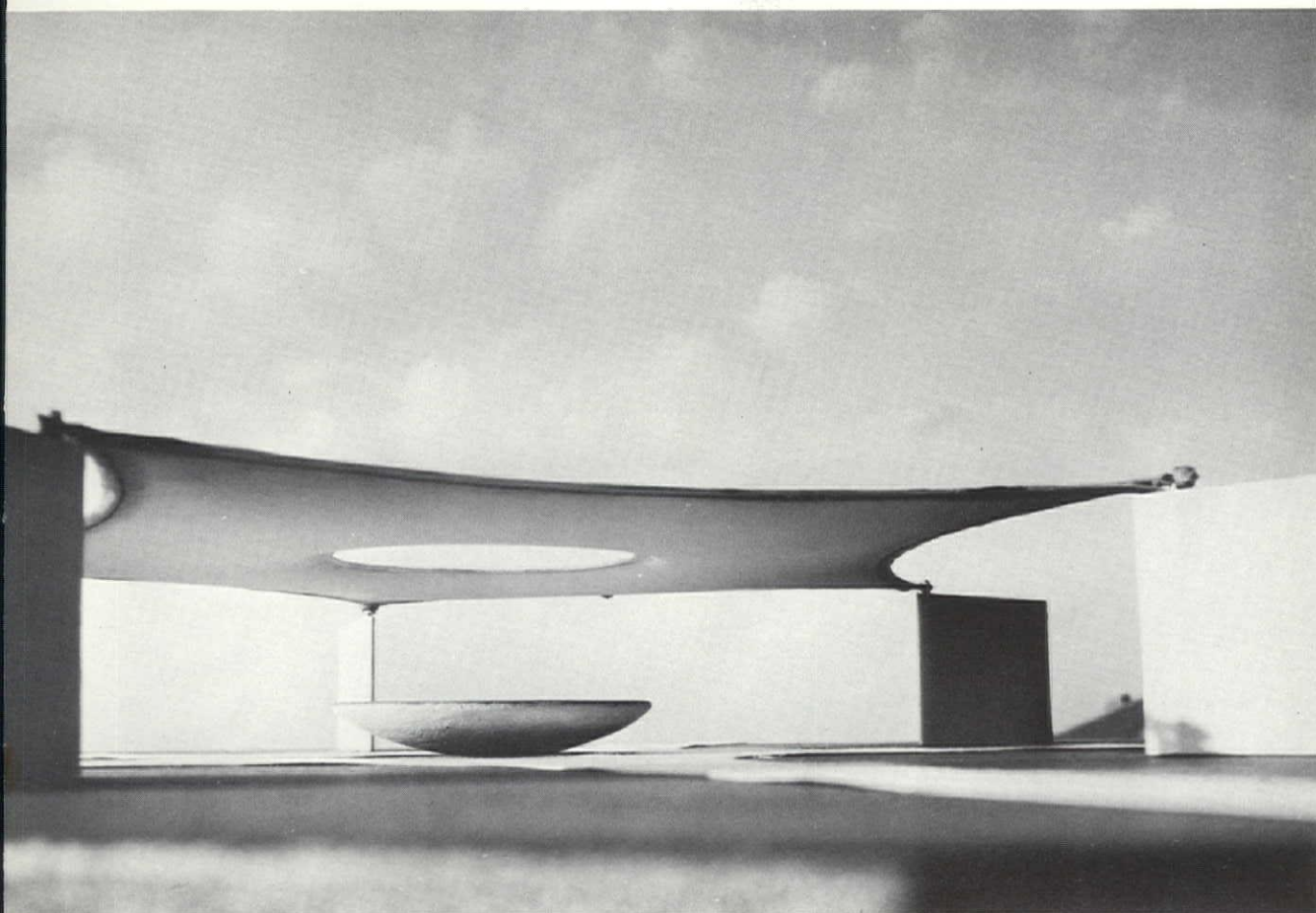


**18** Project by architects Addis, Kniffen and Childs, Yale University, for large exhibition and assembly hall in Chicago



**19, 20** Project for roofing large area whose interior walls are connected to the ground at many points. Interior walls are propped close to roof skin with ropes





results characterized by folds and great thickness. This shape is similar to a ball with four added and joined cones. When such a cushion is stretched it becomes flatter and thus more suitable as a construction component for roofs and walls. In the case of the triangular roof, a double membrane is bordered by ropes which are anchored in fixed abutments. A still flatter cushion form is achieved by contraction at the center (figure 21). Here the double membrane is not only bordered at the edge, but also at the edge of the center hole.

#### Cushions Between Arches and Circles

Double membranes may also be stretched between arches and circles. These are pressure-stressed, and must be strutted accordingly. Some strutting may be done through the membrane itself. Big-scale execution of a cushion-type structure (largest to date) can be found in the roof of the open-air theatre in Boston: a rope-edged cushion almost 200 feet in diameter is anchored to a heavyweight pressure ring (figure 22). This structure

lay directly in the path of a catastrophic hurricane in 1960. While the surrounding and partly attached buildings were seriously damaged, the roof survived the blast unharmed.

#### Cushions with Laminates

Flat cushions can be produced through lamination. Such laminates can be produced by direct connections of both membranes, by use of single ropes, or membrane walls. The Wingfoot Corporation has manufactured a sandwich-type building component which features a pair of airtight fabric membranes connected by woven-in threads of the same length. Air pressure added, the panels are almost rigid. Buckminster Fuller has joined these into dome structures (figure 23).

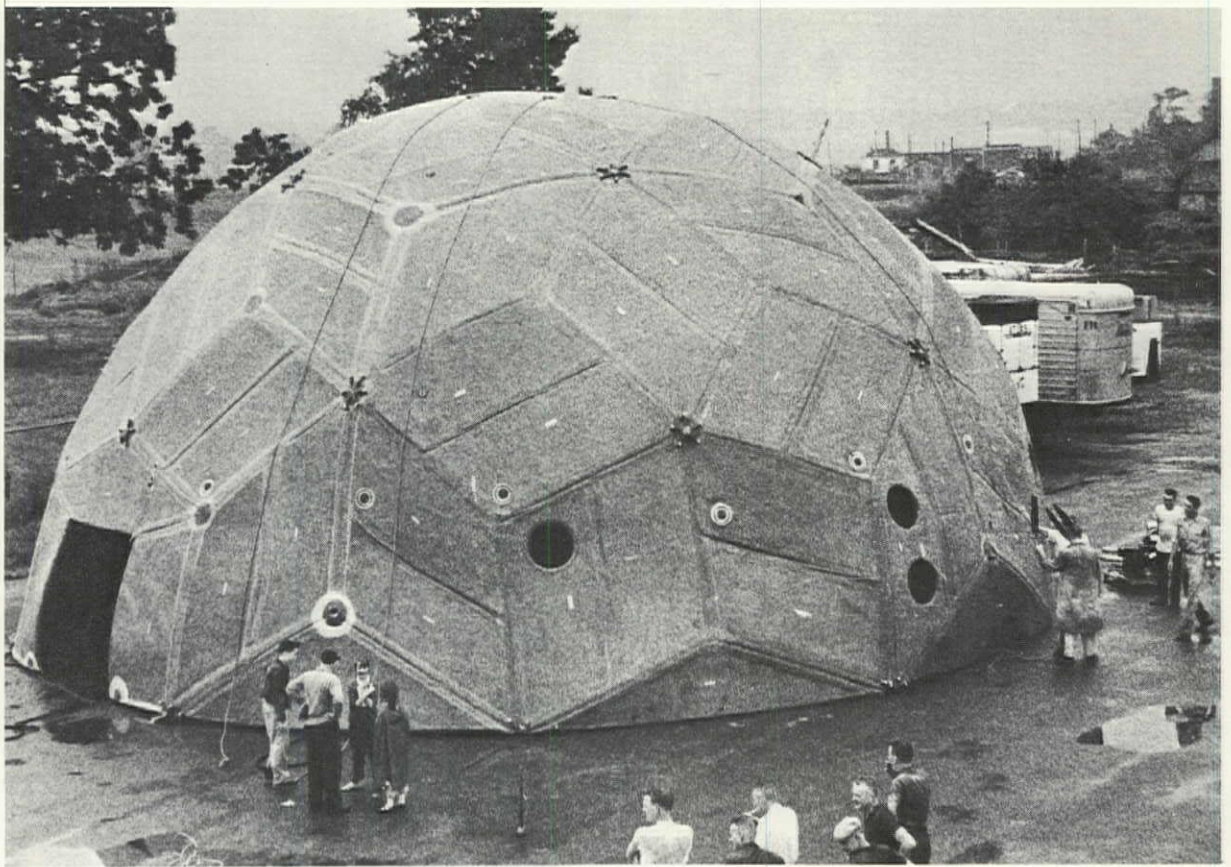
#### Composite Structures

Panel and skin components of the same unit may be structurally combined. For example, when pneumatically-stretched ball skins are put tightly side by side, these may form areas of hexagonal or square plan with intermediary

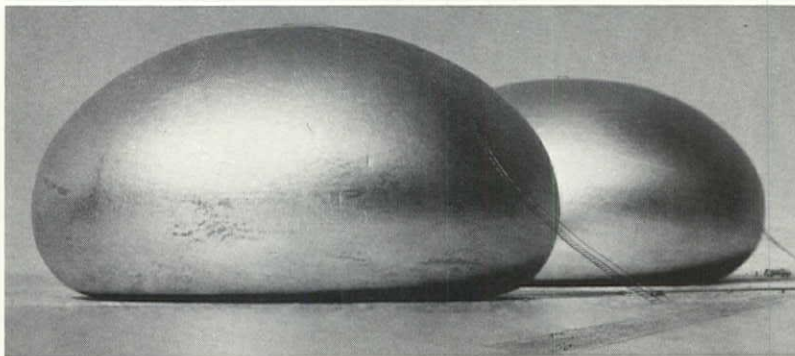
21 (Above) Five-cornered flat double membrane with center opening, border ropes. 22 (Below) In collaboration with Bird and engineer Paul Weidlinger, Carl Koch, AIA and Margret Ross roofed large open-air theater with nylon cushion



Hirsch



23 In collaboration with Berger Brothers, Buckminster Fuller has built sandwich construction geodesic domes. Individual members are pressure-stressed double membranes with numerous connections



24 Large flexible containers for liquids can be built today by placement on flattened surface

25 (Right) Project for a grain silo in which containers are hung from guyed steel pipe beams

walls. Components of pneumatically-stretched skins can be prefabricated and assembled—as brickwork is—into flat surfaces or vaults. By arranging rows of hoses, cylinder shells can result, as in the South American exhibition structure by Lundy.

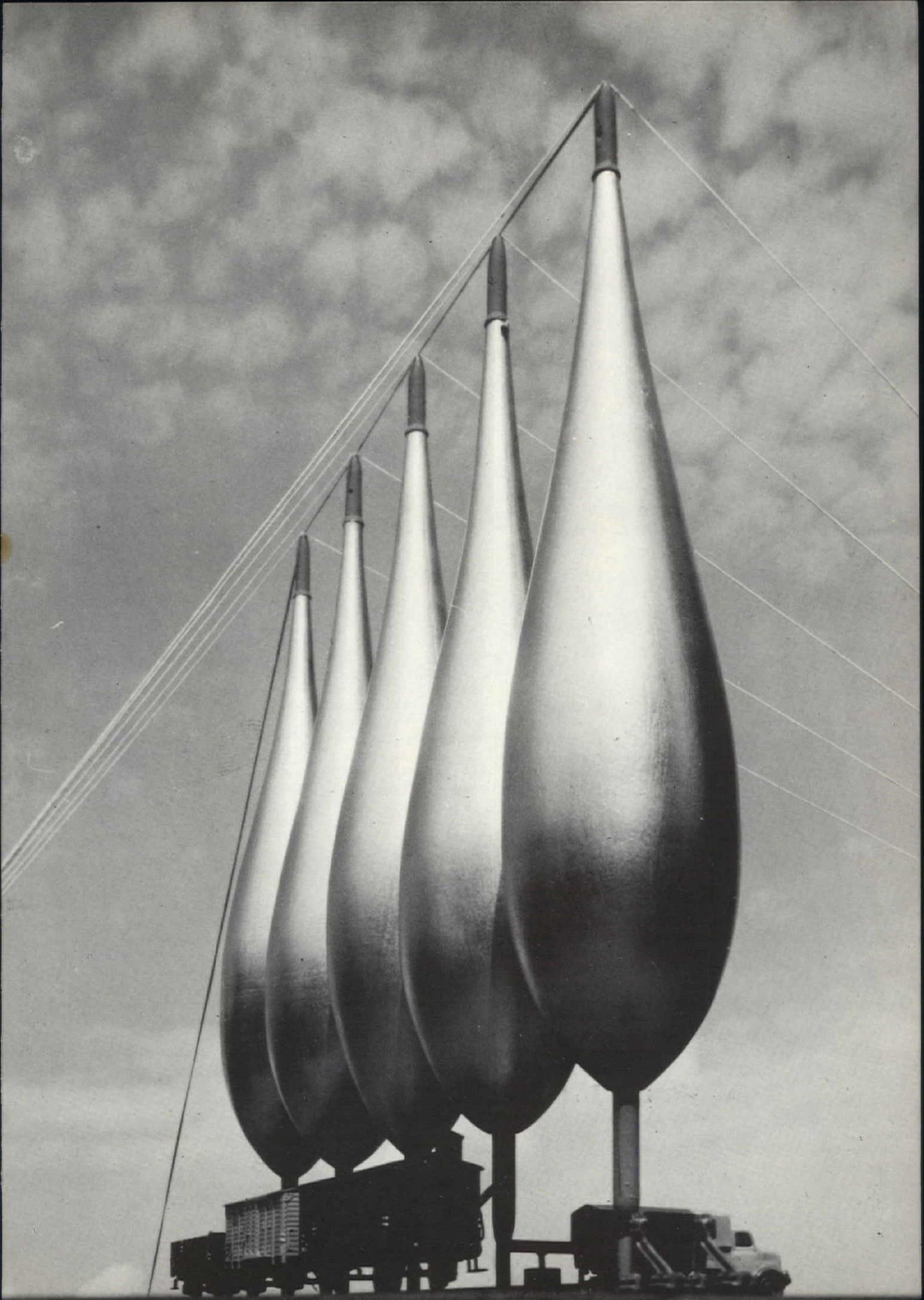
#### Containers for Liquids

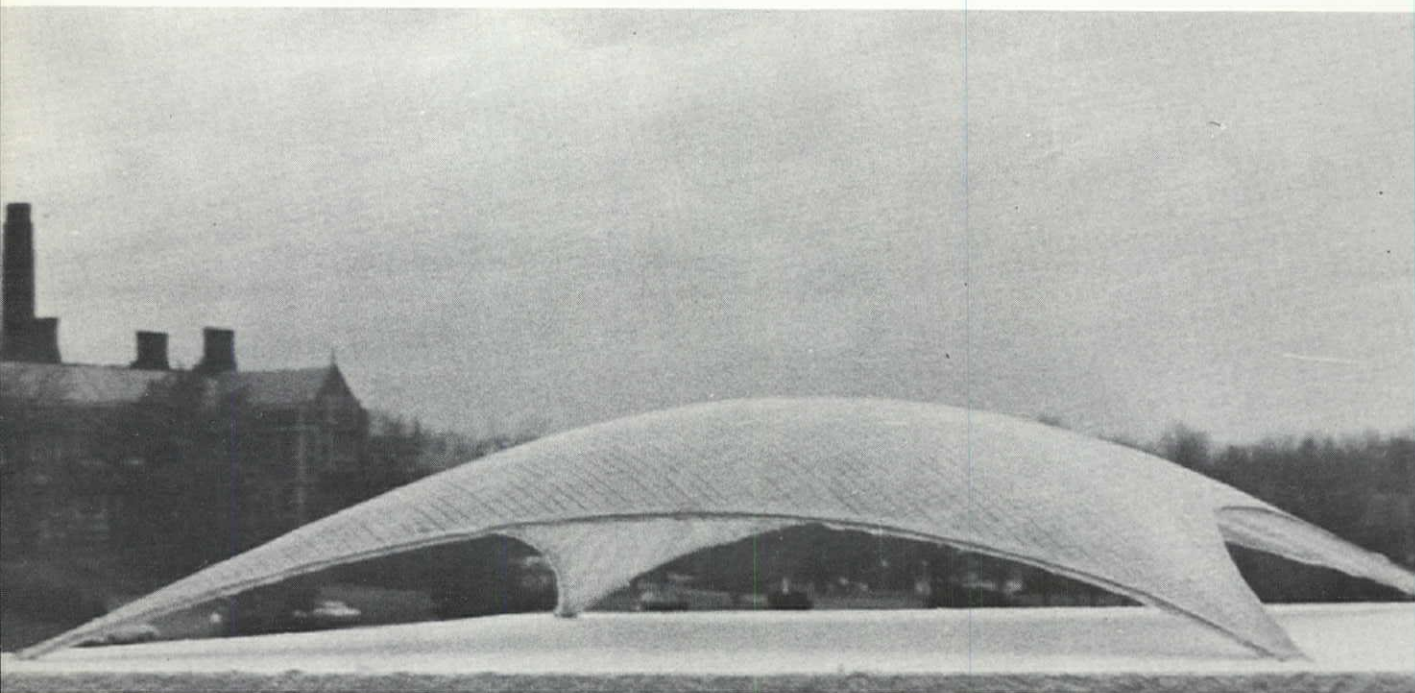
Another special field in this area is pneumatic construction of containers for liquids. These differ essentially from those stressed through gas pressure in that pressure is highest at lowest point of structure—due to weight of liquid—and thus at the highest point, or

peak, pressure is lowest or nil. In a condition of weightlessness, as when falling in a vacuum, a liquid drop has the shape of a ball. A liquid drop, such as mercury, resting on a flat surface, is deformed by its own weight. Small drops are ball-shaped, while larger ones are oblate. When the time comes that very strong, highly chemical-resistant membranes can be produced—possibly consisting of several layers of plastic fiber fabric with intermediary layers of plastics, metal foil layers and perhaps wire supports, and all this possesses a tensile strength of high order, then mammoth container structures

of flexible membranes will gain considerable importance (figure 24). A liquid container suspended at one point is shaped similarly to a drop about to fall. These practical shapes could be suspended from rods to form, for instance, cement or grain silos (figure 25). The material to be contained is blown in and later removed through the supported middle steel pipe. When the silos are not filled, the skin is tightly drawn to the middle beam through a series of automatic spring actions. The structure becomes really effective only when full. The fill height is visible from the outside, unless additional pres-







26 Model of a "sail shell" built by the architects Stoecker, Salomon and Scott in 1958 at Washington University, St. Louis. Such "sail shells" act favorably even with positive forces

sure exists which upholds the form even without liquids.

A number of projects have been studied for dams consisting of small-mesh ropes fitted with heavy-weight fabric on the principle of membranes stretched through liquid pressure. When such dams incline towards the water, the water pressure acts in an upward force stretching the membrane in both directions. Since anchorage is quite easy at great depth—even with very bad site conditions—and such a structure is only under tensile stresses and cannot buckle, economies in such an arrangement can hardly be surpassed and, due to the elimination of buckling danger, they are very safe. Sensitivity to willful destruction, such as bombing attacks, is great. However, beam dam walls are still more vulnerable. Cost estimates showed a fifty percent saving over comparable projects even when—for safety reasons—two independent membrane structures were erected side by side, so that one will automatically close if the other starts to leak. In areas of difficult access—for which numerous smaller structures are planned today—the membrane dam building method has the

advantage of mass prefabrication, particularly in the case of long and low dams consisting of single and joined segments. In the case of larger single structures—except for the foundation, of course—the actual construction can be done in a special shop with the greatest of care. As history teaches, with larger projects (at least at first) we will still build rigid structures, which, however, will act as liquid containers and at filled capacity will just be tensile-stressed and thus in no way be endangered through buckling.

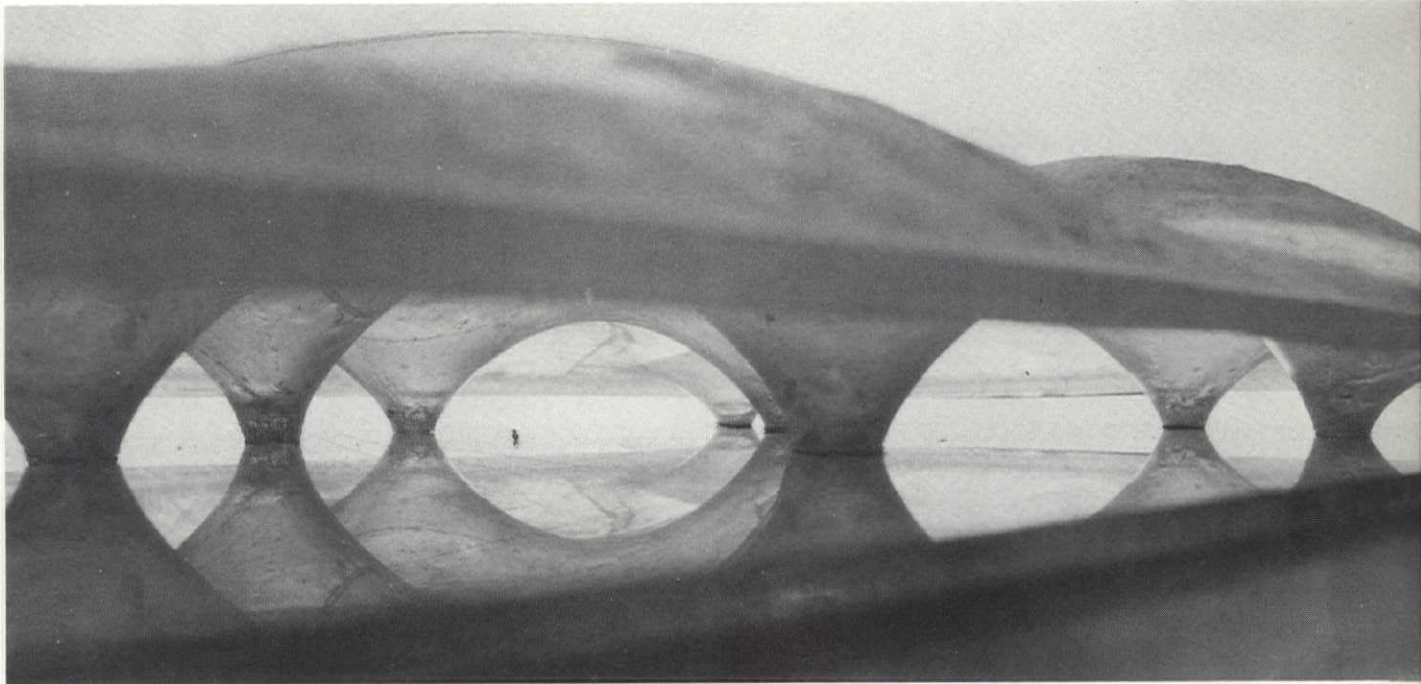
#### **Pneumatically-Stretched Skins Combined with Other Forms of Construction**

There are infinite possibilities for combining pneumatic construction with other forms of construction. Stability of pneumatic cylinders, for instance, is increased through guy wires. Should a guyed tower consist of separate chambers, automatic erection can be achieved through separate inflation. A pneumatically-stretched skin may be used as a support for a spatially buckled, pre-stretched membrane. In the case of bend-resistant rods, bending resistance can be increased

further by enveloping the rod with a cushion construction. Easy-to-bend pressure rods can be made bend-resistant with the help of pneumatic chambers. One fundamental principle of tensile-stressed construction also applies to pneumatic construction wherein tensile and bending forces should be concentrated as much as possible—contrary to pressure forces particularly suited for the bearing of large area forces. The animal and human body, for example, is a combination of bend-resistant and compression-resistant skeleton parts with tensile members such as tendons and skins, stabilized by the tissue or blood pressure.

#### **Sails**

Sails of ships and boats—due to pressure differences—often are heavily stressed membranes, which, given correct form, may be of great aerodynamic efficacy. As construction, sails are only effective if they have proper wind orientation. Since structures generally cannot be turned with the wind, we may have the impression at first that sails are of no importance to the building field. One can observe, however, that originally flat, loosely suspended tent roofs inflate under



27 Model of structure originally erected with pneumatically-stretched skin with inner supports, braced with polyesters, now acting as load-bearing shell structure

wind to high domes in balloon sail fashion. When you investigate which of the shell-supporting surface forms have proven most resistant against wind forces—as in buildings in tropical areas with strong winds—you will find that only pure sail forms can take economically great wind suction forces, such as those found in flat domes. It is extremely interesting to note that such “sail shells” generally act quite favorably even with positive forces such as snow loads. The sail form under wind pressure can be studied in wind tunnels under snow loads best with a scale model experiment. The resulting shell structures exhibit forms of great structural clarity (figure 26).

#### Braced Pneumatic Structures

In the 1930s, Wallace Neff, FAIA, started to spray rubber balloons with concrete. The balloon served as a form for non-deflecting load-bearing shell structures. This structural method, however, only very rarely manages to keep rubber deflection small enough—during the time it takes for the spray concrete to harden—to avoid formation of cracks and joints. Following this research, however, methods

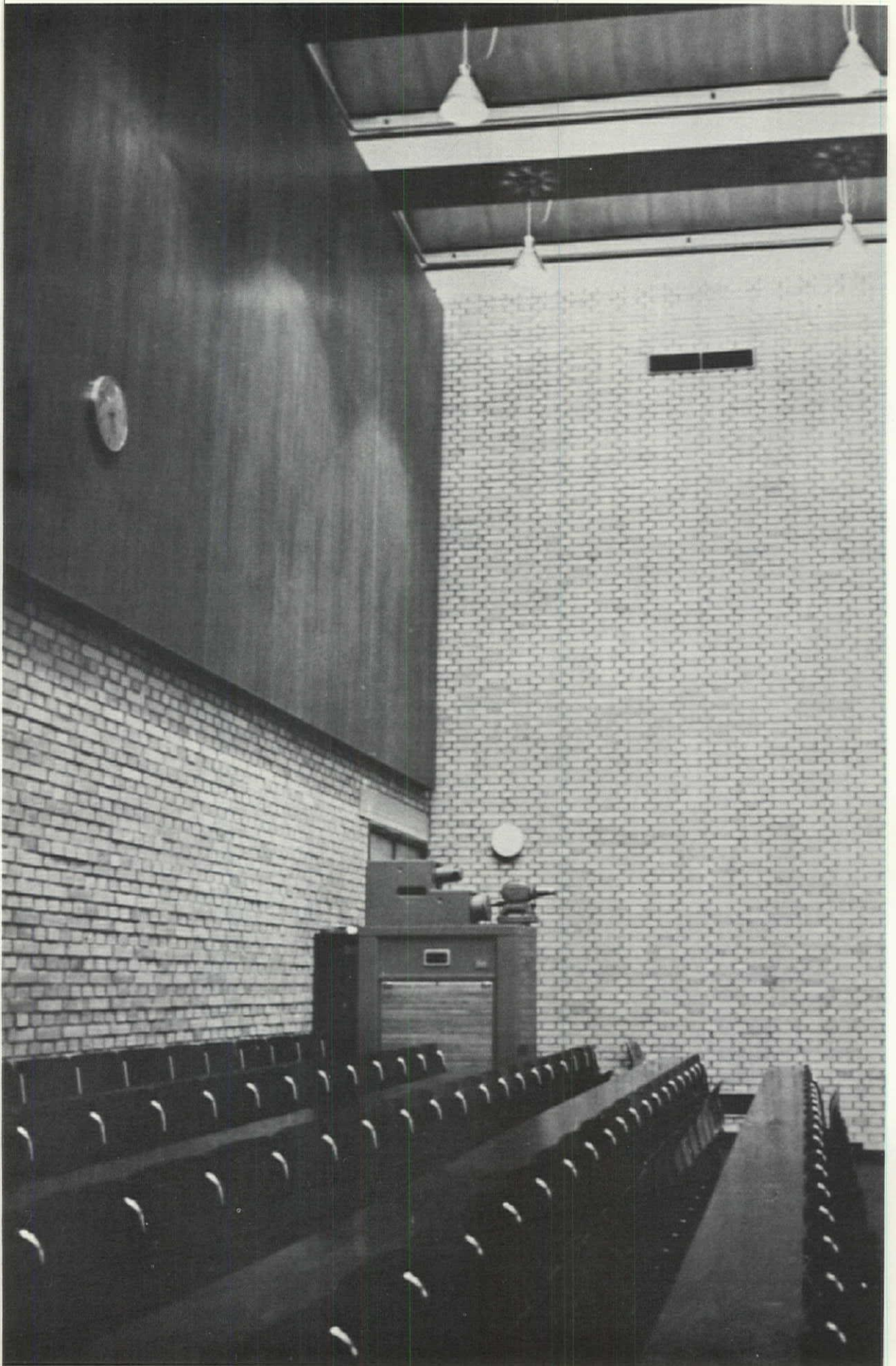
were investigated which show greater promise of successful bracing through spraying of plastics on stretched skins. As an example, it is possible to spray and brace the inside of a pneumatic structure—which will later also form the exterior surface of the building—with polyesters, or insulate it with special foam layers, independently of weather conditions outside. During summer and calm weather, large thermoplastic panels can be inflated to form load-bearing shell structures by blowing in hot air under increased pressure, or by inflation of plastic-layered skins within the setting time of cold-hardening resins, or rather through addition of a plastic catalyst to dry-harden in inflated condition. Of some importance is the inflation of soft metal foils, such as aluminum or copper foils, into load-bearing shell structures, which at small spans will remain standing without further support. With larger spans, however, additional bracing is required, which often is accomplished merely by coating with sprayable lightweight-insulation skins. Almost all pneumatic type structures can be braced—particularly those with points of inner drainage (figure 27).

#### Pneumatic Structures as Auxiliary Building Components

The erection of shell domes is often quite complicated. For the rigging of geodesic domes Buckminster Fuller has employed pneumatically-stretched balloons, in order to lift domes gently at the center. In this way successive attachment of more rings at the periphery is made possible. With great simplicity, Doernach used a balloon to bend a sandwich panel—consisting of aluminum surface foils—into a load-bearing shell structure.

#### The Future

We are only beginning to work with pneumatic structures today. One should not use them as novelties but wherever they can be an essential help in the solution of particular building task. They are tricky and one can avoid mistakes and failures only with great caution in design, fabrication and erection. The pneumatic structure, however, by virtue of its numerous possibilities for application considerably widens the field of building. It has great economic advantages over all other types of structures. ◀



Technical Physics Institute, Munich (see p. 114)

# Architecture for Science and Technology

by Philip W. Faulconer, AIA

This paper was originally presented at the Royal Institute for Engineering Sciences, Stockholm, September 1961, after a year's travel to universities and research establishments and discussion with architects and scientists

► The increasing responsibilities and prestige of science and technology in the world today are reflected in an accelerated building program. Where once a room would have been added, today a new building is projected. Where once a building would have been needed, today an entire institute or technical campus may be justified. Whole towns are being built around centers for nuclear research. Here is at once an opportunity and a challenge.

Such buildings are complex and expensive, deserving the most careful consideration. For instance, the buildings for a high-energy electronic accelerator may cost as much as the apparatus to be housed therein. New problems of radiation-hazards, noise, and extremes of temperature and pressure call for new materials and methods, or ingenious application of the tried-and-true. Frequent changes in size and function require the utmost flexibility in planning.

## The Problem

And yet such planning is often done in a gray area of isolation, misconception and prejudice. Around the world one sees the same costly mistakes repeated, while good solutions are not being shared. It is unfortunate that the technical world, justly proud of its scientific method, often rushes buildings into existence without allowing adequate study and evaluation of previous efforts elsewhere. It is difficult to say whether this situation is the cause or result of the general lack of contact between the scientific and architectural professions.

It is relatively easy to discuss structural considerations, heating, lighting or other measurable elements of building design. Solutions to these problems are readily accepted by the layman. It is more difficult to discuss the subjective aspects of design—coordination, flexible planning, comfort, convenience, or economy. (Initial cheapness alone seldom means economy.)

Building codes define minimum requirements for health and safety, such as sanitation, ventilation, illumination, fire protection and structure. However, when an agency attempts to arbitrate on comfort or appearance, it often runs into trouble. Consider the large government agency which dictates that "air-conditioning shall not be provided where requested for creature comfort alone," but permits it for computers and other devices which will only operate under controlled humidity and temperature. Presumably one caters to the machine because it simply would not work if abused, but expects men to be so dedicated as to work despite discomfort. But what of the efficiency of even the most dedicated men under adverse physical conditions? (It should be mentioned that the criteria referred to were written in the agency's air-conditioned headquarters.)

## Personal Preferences

Some features of a proposed building may be very logical and practical, but unpalatable to many possible occupants. The windowless laboratory, for example, provides maximum usable wall space, and facilitates control of lighting and temperature, but it is anathema

to most people. Even if the people for whom a laboratory is designed agree in their preference for such a feature, future occupants may have a different opinion.

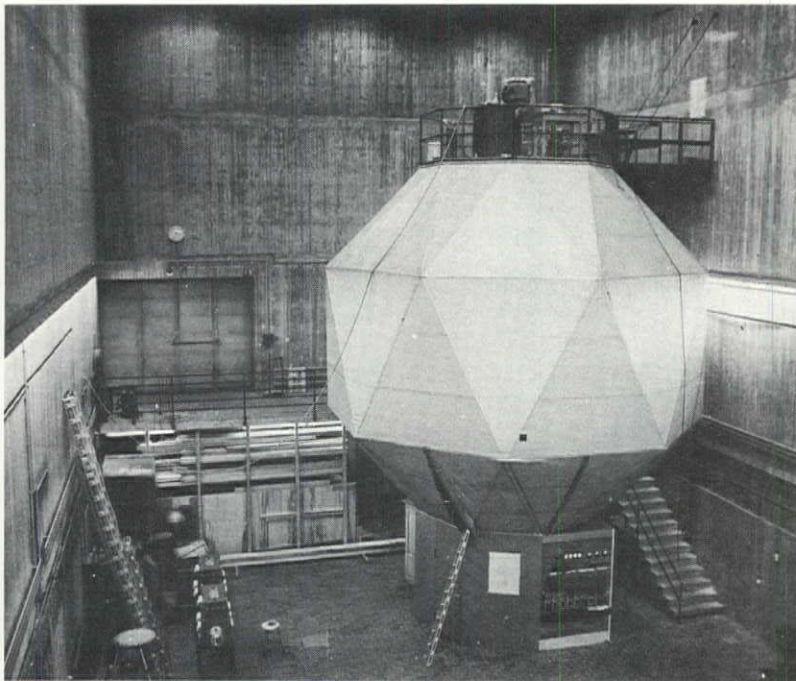
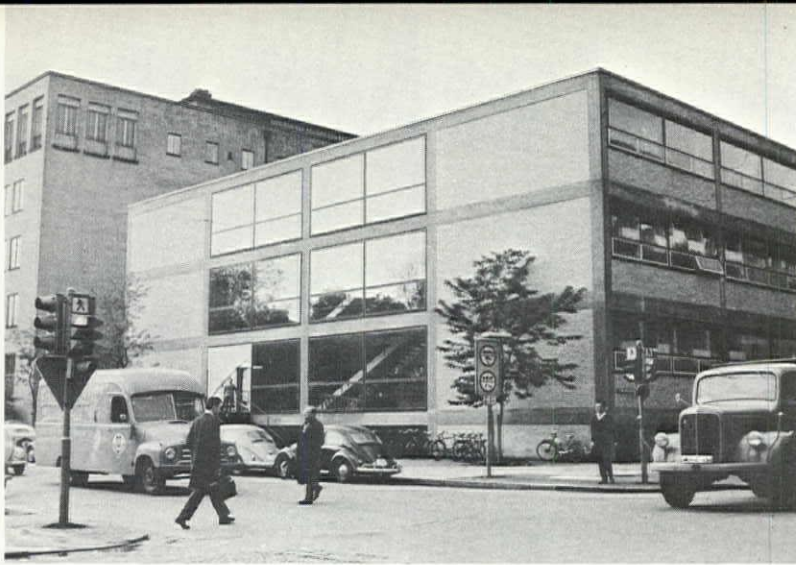
Personal preferences have far-reaching effects. Work may slow down and absenteeism increase because the occupants of a building are unhappy. Public approval necessary for a project may be withheld because people do not like its appearance. Building is a public act, depending for its success not only on the technical ability of the designer, but on his ability to make his project acceptable to the occupants and to the public. No matter who builds, how or where, the result is sure to be discussed by all who work in it or even see it in the distance. This tide of talk should be channeled between owners, occupants and designers of buildings.

## Need for Communication

The principal means of such communication is of course the journal. Consider the system of journals and reports available to the scientist—in approaching a scientific undertaking, one can readily locate reports of previous efforts, noting successes and failures, before moving ahead with one's own work. Any further developments are duly recorded as an extension of the total body of knowledge. Some comparable systematic and factual method of reporting is needed for the improvement of technical architecture. To treat architectural projects as isolated works of art, rather than as steps in an evolutionary process, is to deny ourselves the full potential of human ingenuity and experience.

With the exception of an occasional notable edition, architectural journals seem to be unable or unwilling to criticize and compare. All too often what is written tends to esthetic and philosophical jargon. Architectural photographs may be beautifully composed, yet give no idea of a building as it is normally seen and occupied. The best organized or most economical project may be unassuming in appearance; on the other hand a great artistic effect may even interfere with other values—as when arbitrary angularity or random arrangement hinders orderly extension of buildings.

Obviously a journal dependent on advertising revenue cannot be completely outspoken and unbiased. At the very least it must avoid adverse reference to specific ma-



Technical Physics Institute, Munich, Germany. Weber, Hart & Wiedemann, architects. Above, neutron accelerator. Top, entrance. Page 112, auditorium

materials or techniques. Yet where else is one to learn the advantages and limitations of the new plastics, pretensioned concrete, etc? Surely the worst kind of publicity arises from misapplication through lack of information. There is even less excuse for the hypersensitivity of the architect to anything except praise for his work. It is fatuous to pretend that architecture should be somehow immune to criticism. Certainly it is better for clients to understand the debatable nature of the art, than to be misled by glowing but empty absolutes. People often take for granted the successful architectural solution, but seize upon the failures to damn "the impractical architect." Both clients and architects will benefit from discussion of buildings as they really are, with due reference to their programmed intent and the

compromises that ultimately shaped them.

One way to encourage better reporting of planning experience would be through existing national and international organizations. Here exist the tools and experience for assembling and disseminating information. In view of the enormous building activity for science, would it not be appropriate to find some way to adapt the techniques and traditions of scientific reporting to treat architectural matters? The American Institute of Physics commissioned a book about physics laboratories,\* an excellent but isolated work. Why not occasional reports in its journal? The International Atomic Energy Agency has published a painstaking comparison of the atomic reactors of

\* See "References" at end of article.

the world. Why not a comparison of the very special buildings that serve them? If architects and scientists would discuss their mutual problems in articles for each other's journals, there would be greater understanding when they projected a building together.

### Planning Calls for Experience

The design of buildings becomes daily more complex, with fast-changing functions, new structural concepts, technical processes, and synthetic materials. The master builder of yesterday has been supplanted by the coordinating architect with a team of consultants. The architect assists the client in organizing his requirements into a program, then coordinates all the special talents needed to design and build. Quality must balance economy, special functions must not destroy flexibility. Each element must be accommodated, while respecting the over-all plan. A transformer-bank, elevator, or chimney, must be located according to definite legal and technical criteria—yet should not be permitted to jeopardize other features of the design. Codes and statutes govern safety and sanitation in buildings. If these are not observed, necessary permission to build can be denied to deficient plans, or last-minute compliance can be forced, with disastrous effects on design and budget.

### The Architect

To organize such considerations into a building design may be a once in a lifetime affair for the owners, but is the life work of the architect. The question is how to select this architect, and the best answer is on the basis of demonstrated ability on comparable projects. One can talk with former clients and visit buildings to observe their organization, function, attention to detail, and economy. Another consideration would be the architect's current work-load, and the amount of direct attention he and his consultants would give your project. The design fee is negotiable on a basis established by each local architectural organization. To expect an architect to bargain for his fee is to force him to reduce his services accordingly. Among reputable professional men, the fee being equal, one selects on a basis of appropriate experience and quality of work.

An architectural firm can be re-

tained to perform a complete service, from long-range plans and program-analysis to detailed building designs; or it can be called in only to design a specific building from a program prepared by the client's staff. A third approach is for an organization to develop its own complete department of architects and engineers.

The first arrangement has the advantage of being self-terminating, as fees are negotiated periodically or on a project basis, eliminating the problem of hiring, organizing and discharging special staff. The work could range from a single building to development of an entire campus. The Technical School at Eindhoven, Holland, the Sahlgrenska Hospital at Göteborg, Sweden, and many nuclear research centers are being developed in this way.

Sometimes, however, better continuity and closer interpretation of the occupants' needs may be achieved by appointment of staff planners to prepare the master plan for development, and the various building programs, and retention of architectural firms to design individual buildings. This also permits selection of appropriate architects for specialized buildings, or simultaneous employment of several architectural firms during periods of great growth. The University of California finds this best fulfills their complex planning problems. On the University staff is a state-wide planning office to prepare long-range master plan and budget. Each campus has its own office of architects and engineers, to prepare programs and interpret them to the designing architects. They also supervise modification of the buildings, and advise on their optimum use and maintenance.

The third arrangement has great possibilities for good or evil. At worst it leads to unimaginative or wasteful work by bureaucratic functionaries. On the other hand the complete architectural department, working always on new projects for the same organization, has the opportunity for maximum profit from experience. Sites developed by the United Kingdom Atomic Energy Agency demonstrate the value of this evolutionary approach.

### Order Versus Random

The basic principles of design for science buildings—order, flexibility, economy—would apply as well to most buildings. A degree

of order and regularity can make life easier by eliminating unnecessary tension and confusion. In a logically-planned environment one can find his way easily to parking, the entrance, office, library, toilet or storeroom. Design in even modules can eliminate wasteful cutting of materials, facilitate re-use of partitions and cabinets, and permit standardization of construction operations. Utilities and roads laid out in an orderly pattern are less likely to interfere with modification or expansion.

Unrelieved order, however, can be tiresome and unpleasant. The human delight in the unexpected or exceptional is demonstrated by the universal urge to collect unusually colored or shaped objects, or by the notice taken of hybrids and mutations of all sorts. In buildings, changes of scale, color, or arrangement, in addition to offering visual relief, become landmarks in otherwise monotonous surroundings. The wall in a contrasting color, or the little courtyard full of sun and plants, may be the saving grace in an otherwise "strictly business" atmosphere. A difficulty here, of course, is the unaccountable individual difference of taste and association. For any scheme there is always someone who does not like one of the colors. Then there is the type of manager who thinks that gray paint is somehow more economical than the more cheerful colors!

### Flexibility Versus Economy

Growth and change are fundamental human conditions which can be neither ignored nor eliminated. However, there are techniques of planning to accommodate changes with minimum cost or disruption of activity. Skillful generalization in the planning stage makes it unnecessary to spend time and energy trying to predict detailed future needs. Such details as the exact number of service outlets or the equipment and final layout of a machine shop, are subject to frequent change. Architect, builder, and ultimate occupant can all do their jobs better if the plans are made so they can accommodate any likely arrangement.

Care is needed however, to provide flexibility without unnecessary expense. For instance, it is costly and impractical to provide electric outlets or utility valves at very frequent intervals in every laboratory. But one can provide capacity in the mains for all probable de-

mand, with simple junction boxes and capped tees on the wires and pipes wherever outlets or valves might be needed later. Also, partitions designed to be demounted and reused become elaborate and expensive and require stocks of spare parts for maximum usefulness. This is only economical if there are frequent partition-changes in a building, as in a very large office building with numerous small offices. For the usual building of mixed offices and laboratories, it is cheaper in the long run to build conventional partitions, as most of them will never be modified. Where extensive rearrangement seems indicated, sometimes the activity is better moved to a different building, bringing in others who can use the original space as it is.

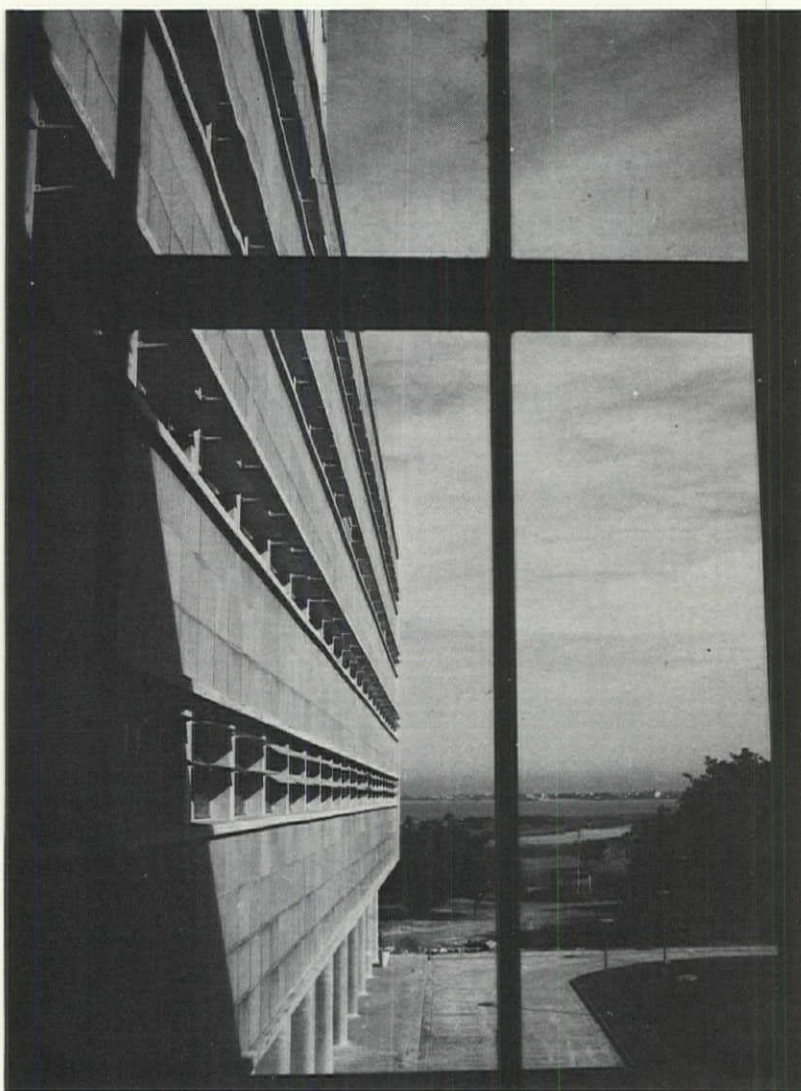
### Unpredictability, Adaptability

Unpredictability is an essential feature of research. To paraphrase, if the explorer really knew where he was going or what he would find, he would not have to go there. A building too special or too precious will be obsolete before it is occupied. The space built so it could only be used by one particular individual for very special work may never be used, because he may develop different requirements, or may transfer to another establishment. Generally, for laboratories as for industry, it is best to make buildings as normal as possible, simply doing nothing which would



Laboratory, Ispra Reactor Center, Italy. Carlo Rusconi-Clerici, architect

prevent their use for the anticipated purposes. Leave space for expansion of buildings, and provide spare conduits, utility tunnels, etc. Where special features are provided, they should be removable or so located that they can be ignored when no longer needed. For instance, a heavy press foundation should not project above floor level—thus the space is useful for other activities



Administration wing, Tata Institute for Fundamental Research (1960), Bombay. Holabird, Root & Burgee, architects. All photos by Philip W. Faulconer

if the press is removed or is never installed.

An excellent example of economy by allowance for change is the big new Culham Laboratory of the UK AEA, designed and constructed for a very large experimental apparatus and supporting functions. Although the original experiment was cancelled, work on the building continued uninterrupted, as it contained no special features which could not perform equally well for a whole family of other large experiments. Space had been allowed for the desired experiment, but the building had not been made too special, nor had detailed special fittings or service outlets, etc, been included in the basic building contract. These are usually better left until the operators move in and can make final decisions on the spot.

As Professor Maier-Leibnitz puts it—"Just make it simpler and a

little bit bigger." His elegantly-plain, workable Physics Institute in Munich proves his wisdom. Spaces have been very simply organized, and are adaptable to different uses. Even the stair-halls, slightly wider than usual, double as popular and natural meeting places.

#### No Place to Hide

There is no need to waste money covering up honest functional elements of a building. Stage-setting and self-deception produced effective palaces, but have no place in design for technology. Pipes, ventilators, tanks, are essential elements. All that is necessary is a sense of order and logic. For example, corridors need not be as high as adjoining laboratories, so the overhead space can be used for ducts, pipes and cables, easily accessible for modifications. Paint them dark and direct all light

downward where it is needed—and the utilities disappear. External utilities such as chimneys, cooling towers and water reservoirs can actually become objects of beauty, such as the graceful brick towers at Chester and Calder in England, or reservoirs which are located as reflecting basins in landscaping schemes.

In discussing relative economy it is necessary to consider the question of new materials and techniques. Generally it is better to rely on proved means, intelligently employed. Even for such new problems as radiation decontamination, conventional finishes are sometimes better than so-called strippable materials, which may be porous to radio-active contaminants, and may not strip when they should, but may peel spontaneously elsewhere. Here again, opinion is a large factor. Consider chemistry work-benches—for the same type of work there are strong regional preferences for teak, tile, lead, plastic or stainless steel.

#### The Facts of Life

When one is engaged in planning and design, various facts of life demand recognition—money, time and land are allocated by management, and subject to change. Responsible personnel will not necessarily agree with each other or with the designers. Legal and technical restrictions, natural limitations of weather, soil conditions or earthquakes will not be ignored. First-class materials or workmen may not be available. If duly allowed for, these are not obstacles to successful planning. If ignored, any could wreck a program.

#### References

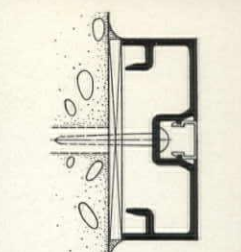
\* "Modern Physics Buildings: Design and Function" American Association of Physics Teachers, R Palmer & W. Rice, New York, Reinhold, 1961 324 pp

"Design of Research Laboratories" Report by Division for Architectural Studies, Nuffield Foundation, Oxford University Press, 1960 211 pp

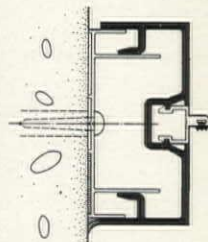
"Chemische und Biologische Laboratoria" W Schramm, Weinheim, Verlag Chemis, 1960 (2nd edition) 250 pp

Part II of this article, to appear in May, will be a portfolio of photographs selected from Mr Faulconer's extensive collection made during a world-wide study of research facilities. ◀

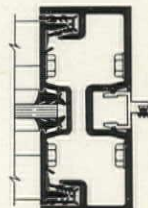




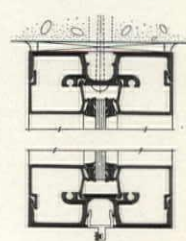
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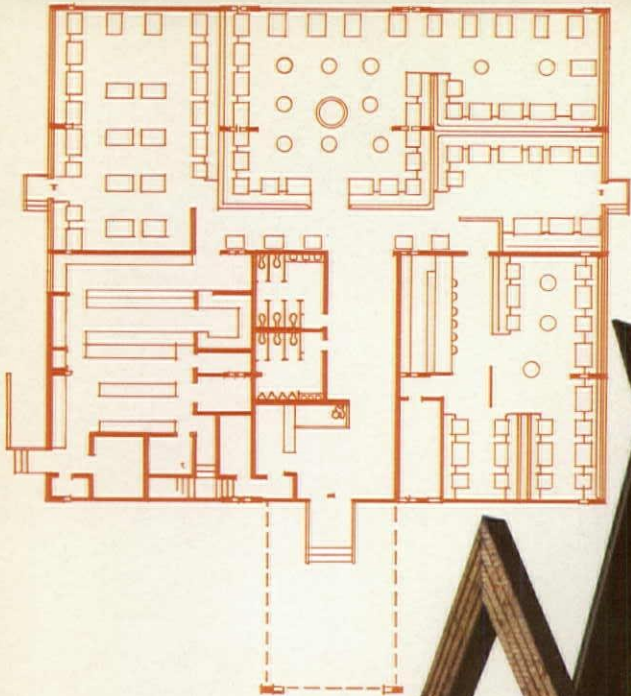
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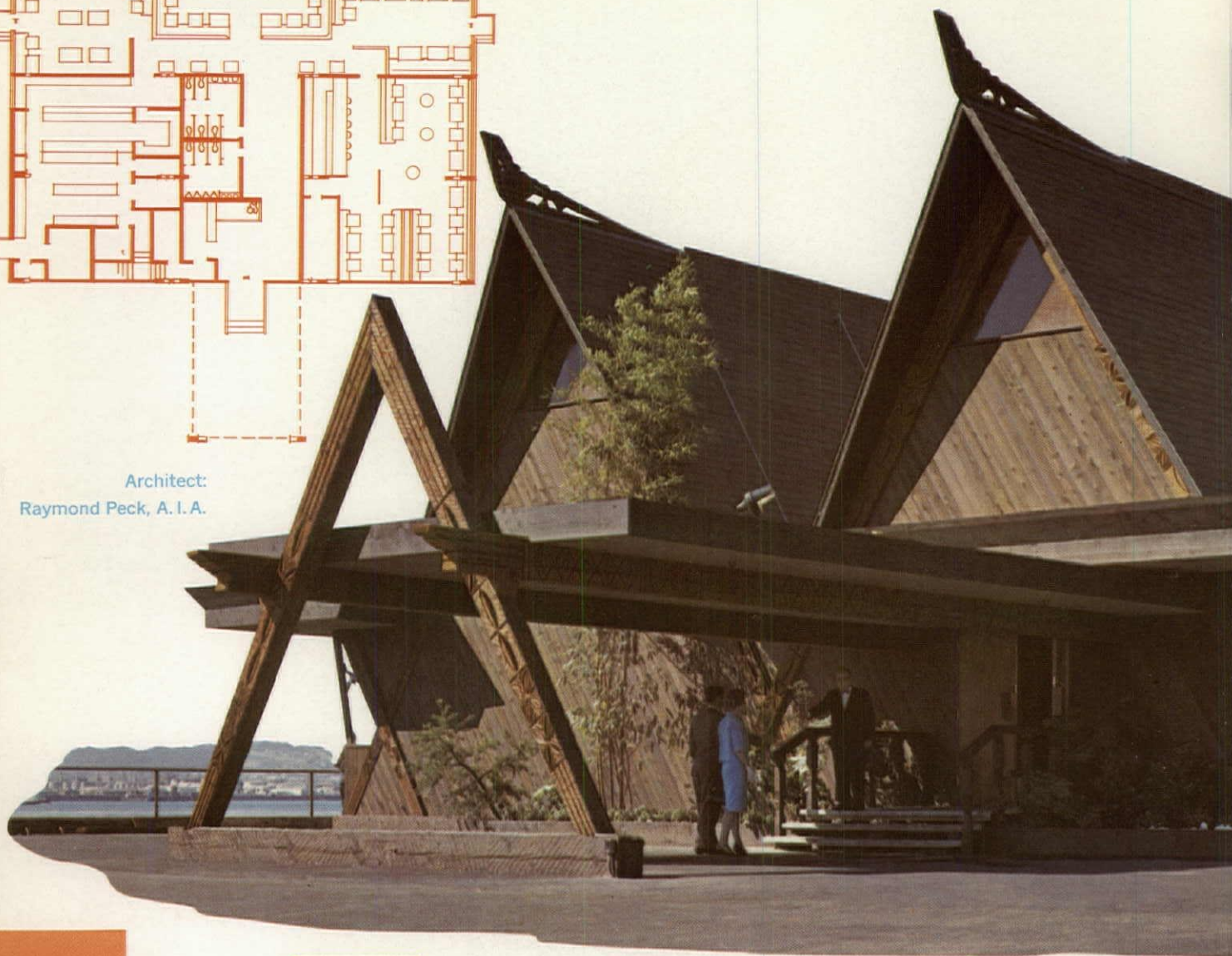
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Drennan, Odus Edgar, Jr  
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# Calendar

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**April 6-27:** Gold Medal Exhibition of the Building Arts, New York City

**April 21-28:** Historic Garden Week in Virginia

**April 24-26:** Building Research Institute Spring Conferences, Shoreham Hotel, Washington, DC

**April 28-May 13:** Maryland House and Garden Pilgrimage

**May 7-11:** AIA National Convention, Dallas, Texas

**May 19-25:** Royal Australian Institute of Architects, 1962 Convention, Sydney, Australia

**May 30-June 2:** 55th Annual Convention, Royal Architectural Institute of Canada, Vancouver

**June:** Twelfth Annual International Design Conference, Aspen, Colorado

**June 11-21:** ACSA-AIA Seminar on Architectural Education, Cranbrook Academy of Art, Birmingham, Michigan

**June 13-16:** Annual Meeting, National Society of Professional Engineers, French Lick Sheraton Hotel, French Lick, Indiana

**June 17-20:** American Society of Landscape Architects, Annual Convention, The Americana Hotel, Bal Harbour (Miami Beach), Florida

**July 10-13:** British Architects' Conference, Coventry, England

**July 14-August 24:** Thirteenth Annual Summer Architecture Workshop, Instituto Tecnológico de Monterrey, Mexico

**July 23-27:** Short Course on Residential Appraising, Purdue University, Lafayette, Indiana

**July 25-August 2:** UNESCO International Conference on Educational Buildings, London, England

## 1962 AIA Regional and State Society Conventions

**May 24-26:** Indiana Society of Architects, Indianapolis

**June 14-16:** New Jersey Society of Architects, Essex and Sussex Hotel, Spring Lake

**September 7-9:** Ohio Region, Aboard SS North America, Great Lakes

**September 27-29:** Western Mountain Region, Sun Valley, Idaho

**October:** Central States Region, Omaha, Nebraska

**October:** California Region, Monterey

**October 10-13:** New York Region, Whiteface Inn, Lake Placid, NY

**October 11-14:** Northwest Region, Ocean Lake, Oregon

**October 18-20:** Pennsylvania Region, Hotel Hershey, Hershey, Pennsylvania

**October 25-27:** South Atlantic Region, Atlanta

**November:** Texas Region, Houston

**November 8-10:** Florida Association of Architects, Hotel Soreno, St Petersburg

## 1962 UIA Committee Meetings

**April 24-29:** Practice of Architecture, Amsterdam, The Netherlands

**June:** Public Health, Tel-Aviv, Israel

**June 9-15:** Town Planning (Urbanism), Athens, Greece

**September 5-14:** Research, USSR

**September 16-25:** Training of the Architect, Czechoslovakia

**October:** Housing, Spain

**November:** Sport Constructions, Sao Paulo, Brazil

**December 16-17:** Organization, Paris, France

# Necrology

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According to notices received at the Octagon between January 6, 1962 and February 5, 1962

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DAVIS, JOHN EAYRES, SR, Birmingham, Ala

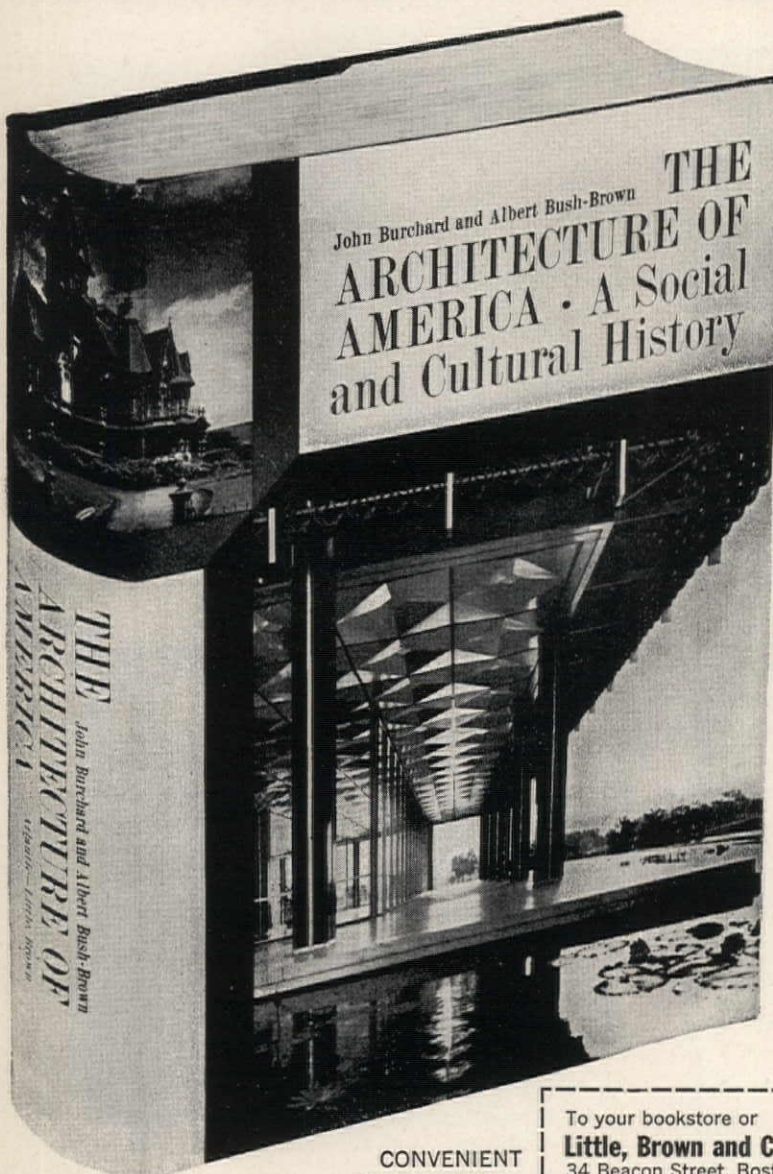
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HOFMEISTER, HENRY, Bronxville, NY  
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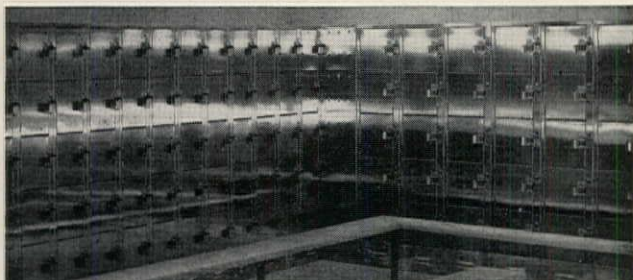
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OF ACTIONS TAKEN IN CASES OF  
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Disciplinary actions as shown in the following tabulation have been taken by the Board of Directors of the Institute at its January 15-19, 1962 meeting:

<i>Member</i>	<i>Violation</i>	<i>Penalty</i>
John Cullen Geselschap	Mandatory Rules	Termination of Membership
St Louis Chapter	No 6, 7, and 15	
Howard T. Musick	Mandatory Rules	Termination of Membership
St Louis Chapter	No 6, 7, 11 and 15	
James M. MacCammon	Mandatory Rule	Censure
Montana Chapter	No 14	

J. ROY CARROLL, JR, FAIA  
SECRETARY

### Mandatory Standards

**6 An Architect shall not render architectural services to nonprofessional enterprises connected with the building industry, except when**

**a He does not either directly or indirectly solicit orders for the said enterprises.**

**b He is paid by salary, fee or royalty for his architectural services and does not participate in any profits of the aforesaid enterprises which would influence his professional integrity.**

**7 An Architect shall not engage in building contracting.**

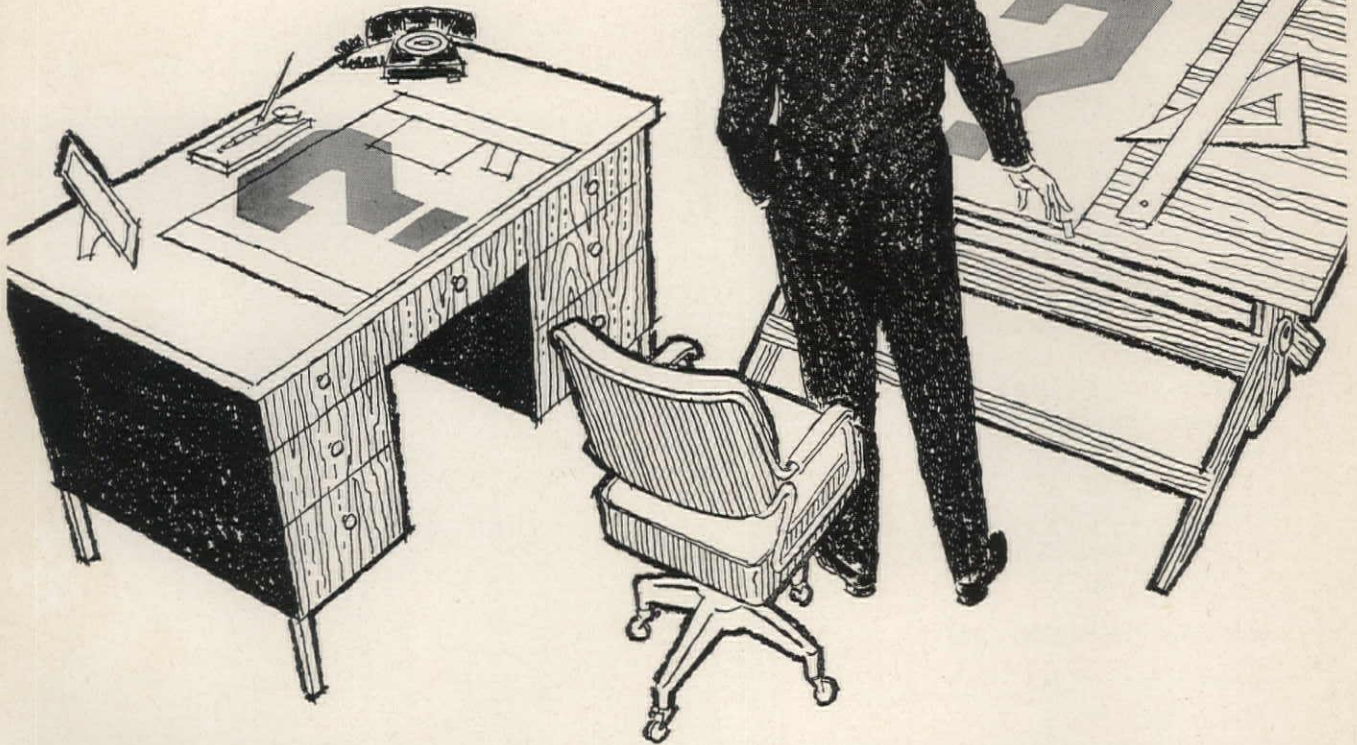
**11 An Architect in soliciting work shall not divide fees except with professionals related to building design, and those regularly employed or known to be associated with his office.**

**14 An Architect shall conform to the registration laws governing the practice of architecture in any state in which he practices and he shall observe the standards of practice established by the local Architect's professional body.**

**15 An Architect shall at no time act in a manner detrimental to the best interests of the profession.**



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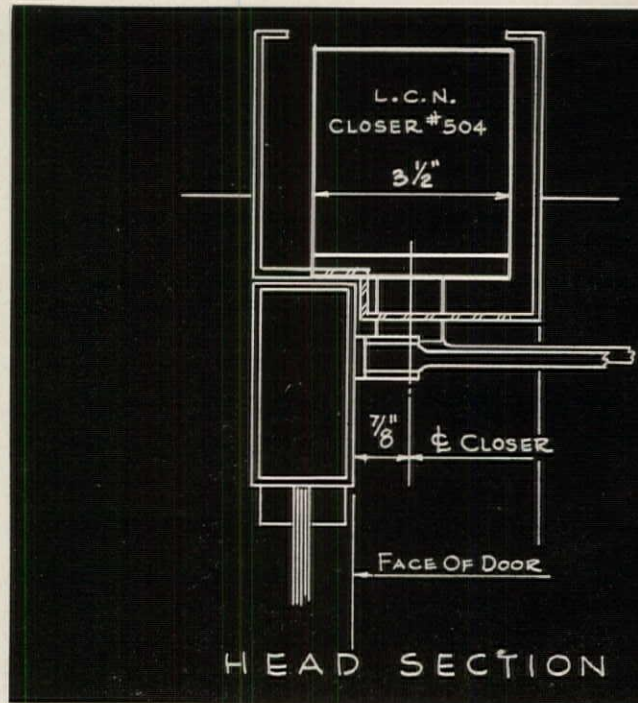
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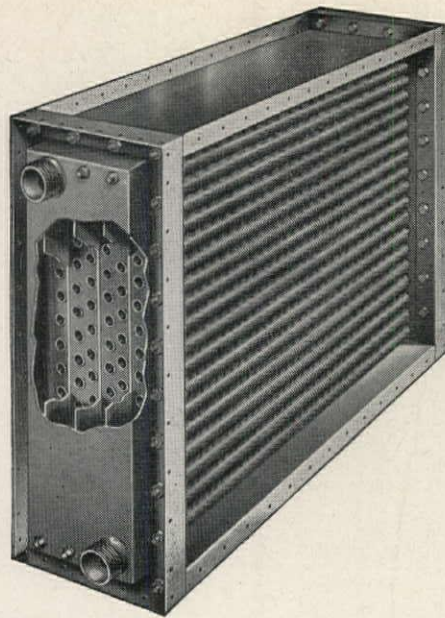
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## INDEX TO ADVERTISERS

Aerofin Corporation .....	134
<i>Richards &amp; Weiss, Inc</i>	
American Art Metals .....	117
<i>Lowe &amp; Stevens</i>	
American Locker Company .....	130
<i>Badger and Browning &amp; Parcher, Inc</i>	
American-Saint Gobain Corporation .....	50
<i>G. M. Basford Company</i>	
Automated Building Components, Inc .....	5
<i>E. J. Scheaffer and Associates</i>	
Bilco Company .....	53
<i>Bernard Cooper Advertising</i>	
Blumcraft of Pittsburgh .....	9
Carthage Marble Corporation .....	121
<i>McCormick-Armstrong Advertising</i>	
DuKane Corporation .....	56
<i>Connor Associates, Inc</i>	
Dur-O-Wal .....	13
<i>Roche, Rickard &amp; Cleary, Inc</i>	
Federal Seaboard Terra Cotta Corporation ..	15
<i>Persons Advertising, Inc</i>	
The Flxible Company .....	63
<i>Coleman Todd &amp; Associates</i>	
Follansbee Steel Corporation .....	59
<i>The Albert P. Hill Co., Inc</i>	
Georgia Marble Company .....	6-7
<i>Don Nixon Advertising</i>	
Goodwin Companies .....	123-128
<i>Nelson Advertising Company, Inc</i>	
Hillyard Chemical Company .....	58
<i>Bozell &amp; Jacobs, Inc</i>	
Inland Steel Products Company .....	61
<i>Hoffman, York, Paulson &amp; Gerlach, Inc</i>	
Josam Manufacturing Company .....	3rd Cover
<i>Allied Advertising Agency, Inc</i>	
Kawneer Company .....	48
<i>Fuller &amp; Smith &amp; Ross Inc</i>	
Kentile, Inc .....	2nd Cover
<i>Benton &amp; Bowles, Inc</i>	
LCN Closers, Inc .....	132-133
<i>Harris, Wilson and Walt, Inc</i>	
Libby.Owens.Ford Glass Company .....	60
<i>Fuller &amp; Smith &amp; Ross Inc</i>	
Little, Brown and Company .....	129
Marble Institute of America .....	1
<i>Chambers, Wiswell &amp; Moore, Inc</i>	
Modular Building Standards Association ....	64
Monarch Metal Weatherstrip Corporation ..	135
<i>Wm. John Upjohn Associates</i>	
The Mosaic Tile Company .....	51-52
<i>Farson, Huff &amp; Northlich, Inc</i>	
National Association of Dealers & Distributors	131
<i>Henry J. Kaufman &amp; Associates</i>	
Pittsburgh Plate Glass Company .....	2
<i>J. Walter Thompson Company</i>	
Porcelain Enamel Institute .....	10
<i>T. N. Palmer &amp; Company, Inc</i>	
Rauland Borg Corporation .....	14
<i>George Brodsky</i>	
Schlegel Manufacturing Company .....	11
<i>The Rumrill Company, Inc</i>	
Structural Clay Products Institute .....	57
<i>Henry J. Kaufman &amp; Associates</i>	
Trinity White Cement Company .....	16
<i>Harris, Wilson and Walt, Inc</i>	
United States Plywood Corporation .....	49
<i>Kenyon &amp; Eckhardt, Inc</i>	
West Coast Lumbermen's Association ...	118-119
<i>Cole &amp; Weber, Inc</i>	
Weyerhaeuser Company .....	17-20
<i>Cole &amp; Weber, Inc</i>	
Weyerhaeuser Company	
Rilco Engineered Wood Products Division	54-55
<i>Cole &amp; Weber, Inc</i>	
Wood Conversion Company .....	46-47
<i>Knox Reeves Advertising, Inc</i>	



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# Allied Arts

## Gung Yung Deen Wah

by Wolf Von Eckardt

► The celebration, the *New York Times* reported, was brief but noisy. There were clanging cymbals, dancing lions, bursting firecrackers and sweet-smelling incense. Presumably, although I have no direct evidence of this, everyone burst into the Flower Drum Song and the crowd, most of them in Chinese costume, did a snake dance between the parked cars and fruit carts, led by a burly policeman.

The climax at last. A crescendo of clanging cymbals and firecrackers. Lions at attention on their behinds. The crowd frozen into a lovely tableau with the cop in the center. The only motion is his swirling nightstick.

Tensely Manhattan Borough President Edward R. Dudley, perched high on a ladder, pulls the red silk cloth from the mysterious object which, to the *Times* man, seemed like "a lumpy sentry box."

The silk falls. The crowd cheers. The lions roar. More incense. More firecrackers. The cop (although, again, I have no evidence of this) lifts a slit-eyed, pigtailed little girl so she, too, can see.

The lumpy sentry box has turned into a pagoda—a dainty little Chinese temple right on the sidewalk on the corner of Pell and Mott Streets, Borough of Manhattan, City of New York. The heart of Chinatown.

Well, not *really* a pagoda, of course. But the top is pagoda-shaped. There is a lovingly hand-tooled, genuine replica of a pagoda-type roof, probably late Ming-T'ang-Ch'ing style, if there is such a thing. There are three tiers, painted green and yellow to resemble real, glazed tile. The frosted glass between the tiers gives off a friendly, fluorescent glow at night.

Over the door are four Chinese letters spelling "Gung Yung Deen Wah" which means "Public Electric Talker," according to James Y. Typond, chairman of the Committee for the Improvement of Chinatown, New York. There'll be eleven more pagoda-type telephone booths in his bailiwick, he explained.

The New York Telephone Company tells me that the idea of "localized outdoor telephone booths" is nothing new. In San Francisco's Chinatown they have been pagoda-capped for

two years. The first unconventional booth was erected at Asbury Park, NJ, in 1910. It was in the shape of a bell and I wonder why. More recently a booth resembling a pilothouse went up in Mystic, Connecticut. And at Waikiki Beach, I am told, you make your phone calls from a grass hut.

The prospect is intriguing. Jane Jacobs, rejoice! At last we shall break the square, glassy stranglehold of the international style and bring life, beauty, excitement and local character into our drab, monotonous city streets. At last we shall be able to tell Greenwich Village from Harlem, Chinatown from Yorkville, and Watertown, Mass from Watertown, Wis.

To preserve the German character of Yorkville, the area around New York's East 86th Street, the sidewalk phone booths should probably resemble Rhine castles with crenelated roofs. Bavarian Alpine huts might also do, except that they would be confused with Swiss or Austrian Alpine huts and those are needed in the Rocky Mountains.

Here in Washington's Georgetown the booths should, of course, be done in Federal or Georgian style. The telephone company might save money by using the same dies with which the Colonial Williamsburg booths are stamped out, or borrow the ones Howard Johnson's restaurants use for their turnpike establishments. Only the coloring might be changed slightly. The inscription should, of course, be "Ye Olde Chatter Boxe," in Olde-English lettering. Downtown in Washington something with a pediment and Corinthian columns would have to be devised to pass the Fine Arts Commission. Here the inscription should be in Latin, since the native gobbledegook may not be understood by visitors.

On Cape Cod we will need straw hatched little phone cabins. Southern California will undoubtedly want Spanish Missionary style and in New Mexico and Arizona adobe huts are in order.

The problem, as so often, is the Midwest. Perhaps, here log cabins should alternate with teepees. Or should one forget about shelter and simply hang the phone on a hitching post?

Lest AT&T gets its feelings hurt by such clumsy irony, let me add, however, that sidewalk telephones are a welcome convenience. I have always hated to have to fight my way into the cluttered back corners of crowded drug stores, if, indeed, I found a drugstore when I wanted to make a phone call. And it is a splendid idea, too, to give different booths in different localities a subtle, individual touch. The elegant gold finishes on the booths on New York's Fifth Avenue are a good example.

Let's just not carry Disneyland too far. ◀