April 1963

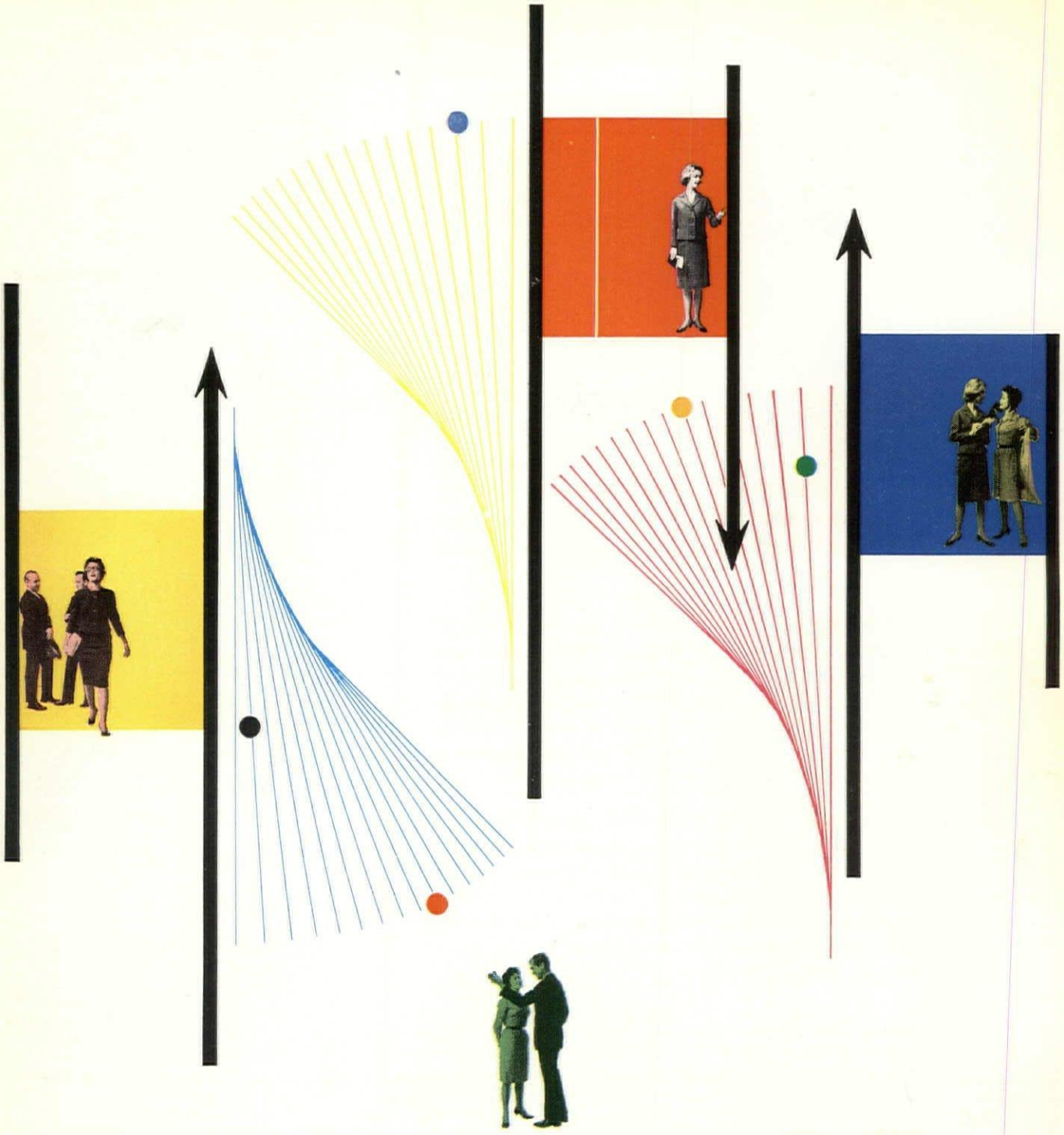
A·I·A

Journal

OF THE AMERICAN INSTITUTE OF ARCHITECTS

1963 AIA CONVENTION · MIAMI BEACH · MAY 5-9 · QUALITY IN ARCHITECTURE

SALT LAKE CITY'S SECOND-CENTURY PLAN · LUTES ON COMPREHENSIVE SERVICES



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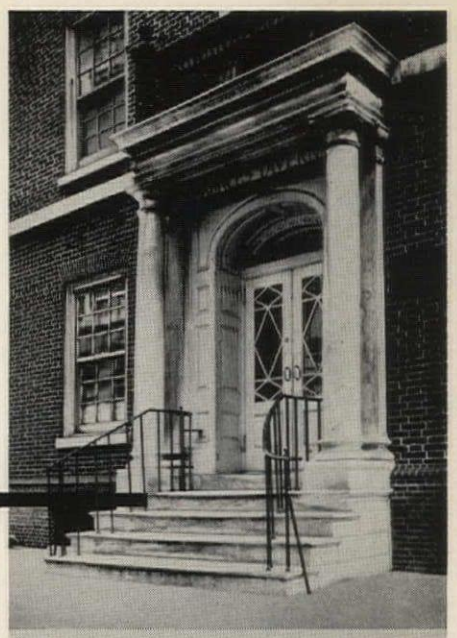

Fraunces Tavern, located at Broad and Pearl Streets in lower Manhattan, as it appears today. Erected in 1719, it was purchased in 1904 by the Sons of the Revolution in the State of New York.

George Washington stepped here

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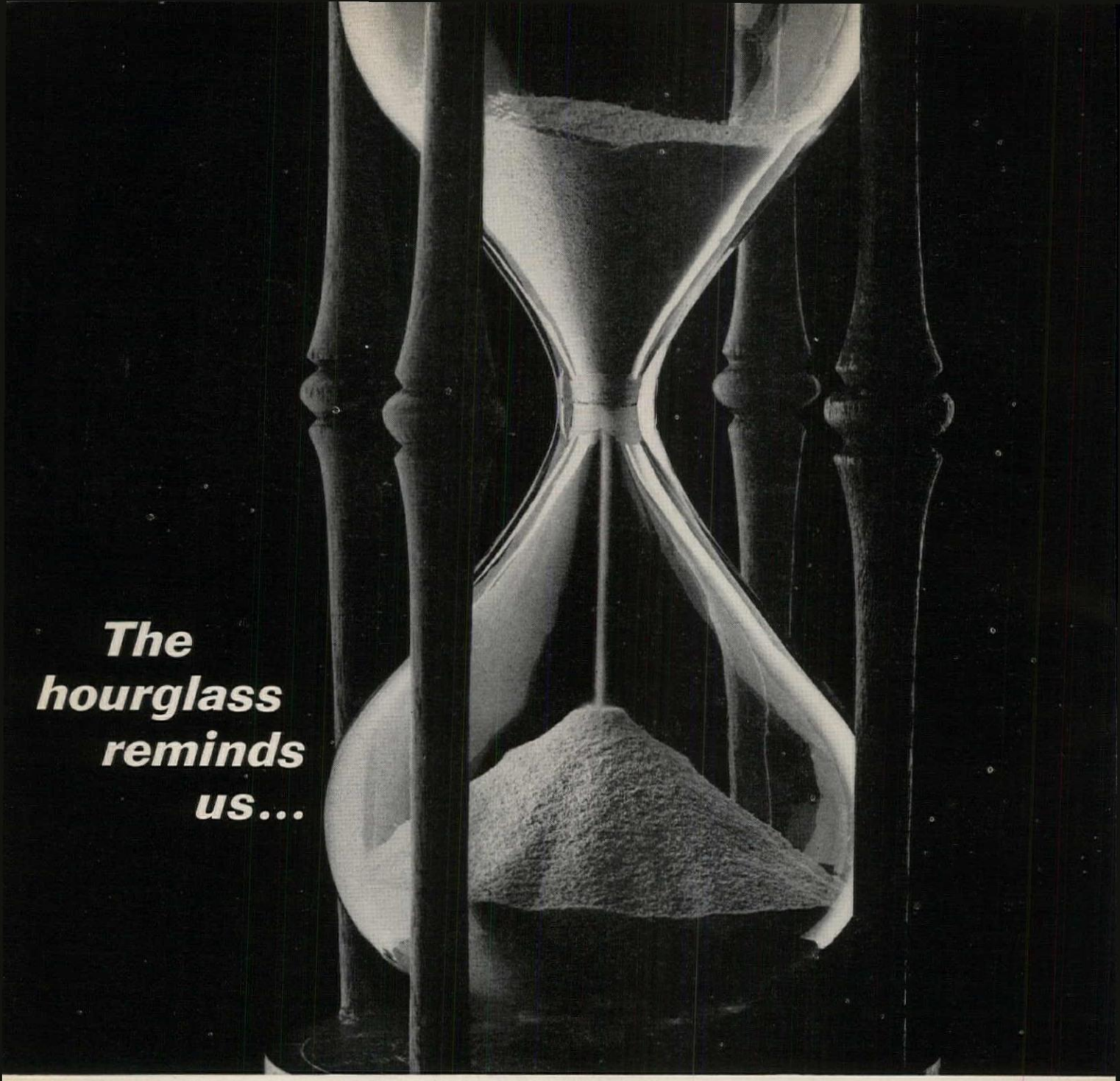

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Journal

VOLUME XXXIX, NO. 4 APRIL 1963

Cover: Symbol picked by Florida South Chapter welcomes Institute to Miami

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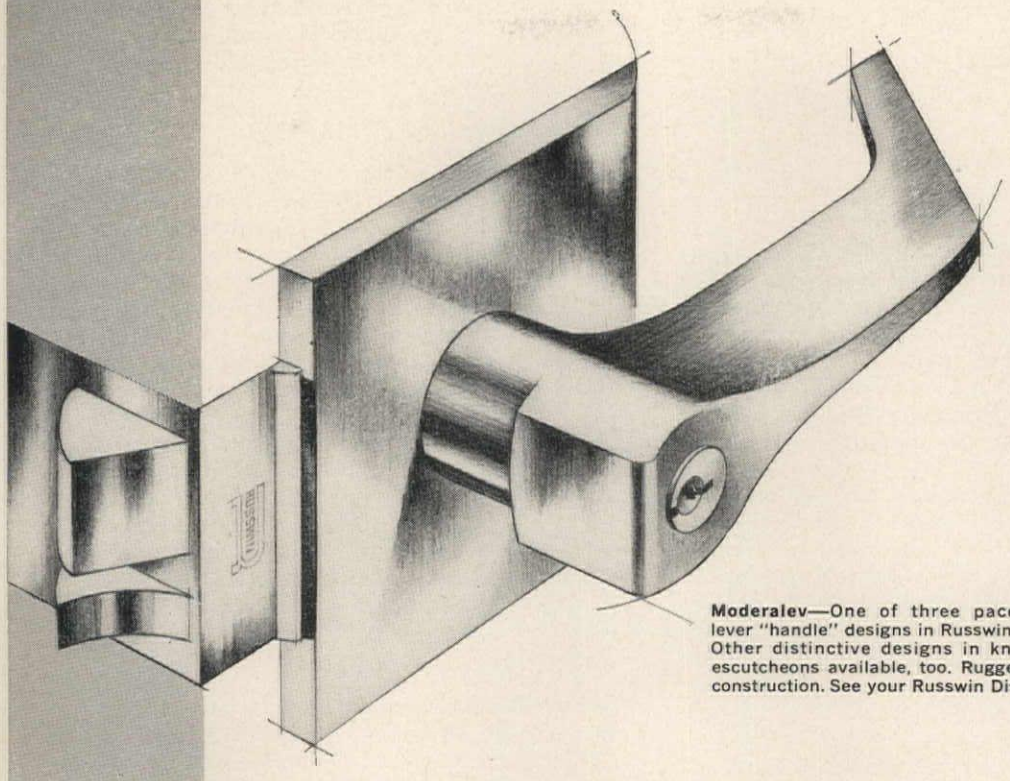

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Letters

Shelter and Survival (Cont'd)

EDITOR, *Journal of the AIA:*

"The Shelter Program" topic by Jan C. Rowan AIA in the December 1962 *Journal* was observed with such profound interest that I feel prompted to express my unbiased viewpoint on the architectural implications of the civil defense shelter program.

From a psychological and basic point of view, I am inclined to agree with "The Other Side of the Coin" by William H. Scheick AIA, appearing in the same issue.

Historically, from the earliest days of mankind, shelter has been constantly improved by adaptation of advanced methods of both structural and scientific technological principles to provide protection against various types of hazardous elements. Today, in this nuclear age, we are concerned with many serious problems in control of air and water pollution, floods, hurricanes, earthquakes, blasts, etc—and to a higher intensified degree than ever before affecting the public welfare.

In discussions with our professional colleagues and city planners, we often point out, and learn through research study, that a major objective in architecture is to create environments for man which is healthful and safe. The national shelter program in my opinion, stimulates a great sociological thinking underlying the need for protection against nuclear fallout radiation which would result from atomic war in the event of conflict in an international crisis.

It may be wise that the national shelter program is not viewed as an architectural absurdity, or as inimicable to creation of good environments in which civilization can develop better living standards. Perhaps we should concern ourselves with all latent vulnerable aspects to which we are possibly confronted today.

Prudential thinking may prove more expedient for collaboration to prevent public confusion and apathy, rather than to learn afterwards that basic theories of the shelter program could become compulsory in design of densely habitable structures by introduction of revised building code regulations on a national level. Full collaboration of all related professional groups and civic authorities could, without any doubt, reach a far step ahead for creating a better understanding of all environments beneficial for public health and safety.

ALBERT M. RUTTENBERG AIA
Milwaukee, Wis

More Plaudits for UD Series

EDITOR, *Journal of the AIA:*

I have just read "Historic Precedents in the Design of Cities" in the December *Journal* and "The Roots and Modern Concepts of Urban Design" in the February issue. These two articles constitute about the best and most relevant capsule history of city planning that a contemporary architect could have.

If the future articles in the urban design series maintain this level, the *Journal* will accomplish a real service.

ROBERT B. RILEY AIA
Editor, Potomac Valley Architect
Silver Spring, Md

EDITOR, *Journal of the AIA:*

Your recent articles on urban design by Paul Spreiregen deserve special commendation.

The articles dealing with the historical precedents give urban design as firm a footing in the past as architecture has, reminding us that urban design is not a new invention, but conceivably the mother of the arts, with architecture her most beloved son.

I believe it would be desirable to point out what urban design means to the architectural practitioner in "Anytown, USA," by publishing appropriate case studies of architect participation with community-wide design problems.

ROBERT TENNENBAUM
Urban Designer
Washington, DC

Editor's note: Such case studies will be included a little later in the series.

EDITOR, *Journal of the AIA:*

Paul D. Spreiregen makes a great contribution to the *Journal* and to urban design in his initial article, "Historic Precedents in the Design of Cities," which appeared in December, and his piece on the L'Enfant Plan, in the following issue. His sketches are brilliant.

Both he and the *Journal* deserve thanks from all of us concerned with urban design. I look forward with much increased anticipation to the ensuing articles in the UD series.

ROGER MONTGOMERY
Urban Design Specialist
Housing and Home Finance Agency
Washington, DC

Urban Geography and Architecture

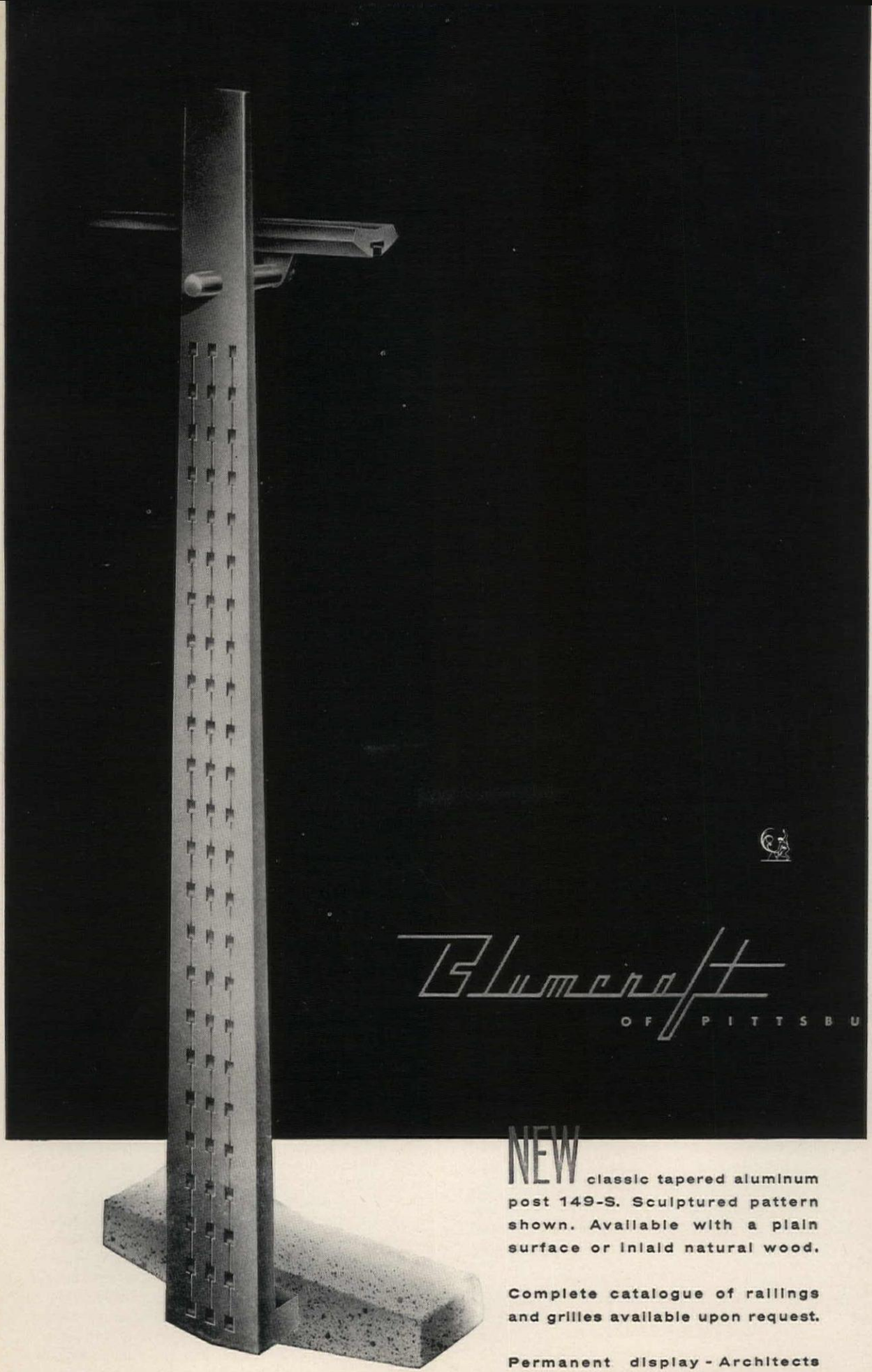
EDITOR, *Journal of the AIA:*

A copy of the December 1962 issue of the *AIA Journal,* with its emphasis on urban design, was recently placed on my desk. I was particularly interested in Matthew L. Rockwell's editorial column on "Urbanisms," the Donald C. Royse article on "Man's Use of Landform" and the two special articles on "Historic Precedents in the Design of Cities" and the Cranbrook Academy Seminar papers, "The Architect and the City."

Each of these has been placed in the active file for my course in Urban Geography. The direct use of material from the *AIA Journal* reveals a close liaison between the technical field of architecture and the things that interest today's school of human ecology geographers.

Corollary to these observations, I would suggest that geographers generally are becoming increasingly aware of the significance of Urban Geography—the study of cities and their problems—as a dominant factor in the stage and setting that man occupies. Increasingly, geography on the university level is being regarded as an analytical or critical study of man's

(Continued on p 10)



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use of earth's space. Probably the single most numerous new course introduced in the higher-education geography curriculum in the past several years has been a course in Urban Geography, man's use of urban space.

Further evidence of this trend may be found in the November 1962 issue of the *Professional Geographer*, a publication of the Association of American Geographers. The issue lists recent geography theses completed and in preparation for graduate degrees in the leading colleges and universities in the United States that offer graduate work in that field. In the list of PhD dissertations completed, eleven out of sixty dealt directly with some phase of Urban Geography; and of the PhD dissertations in preparation, twelve out of forty-four dealt with Urban Studies, ranging from an analysis of basic-nonbasic economic functions, or the special structure of retail activities, to urban functional areas and central business district relationships and changes and the competition of decentralization, sometimes referred to as the centrifugal and centripetal forces in urban dynamics. Urban blight and renewal, and general planning problems relative to the city beautiful and the city functional are also challenging to the urban geographer.

Architecture is constantly involved in these problems and these changes, and architects call upon the advice and experience of engineers, sociologists, political administrators and many other disciplines for opinion and consultation. It may not be generally known, because too few know what today's geographers do anyway, that the geographer and particularly the urban geographer *can* and *should* join this distinguished group of urban-study associates for mutual contribution to the cause and material value to be received.

WILLIS B. MERRIAM, PH D
Associate Professor of Geography
Washington State University
Pullman, Wash

February Finds Favor

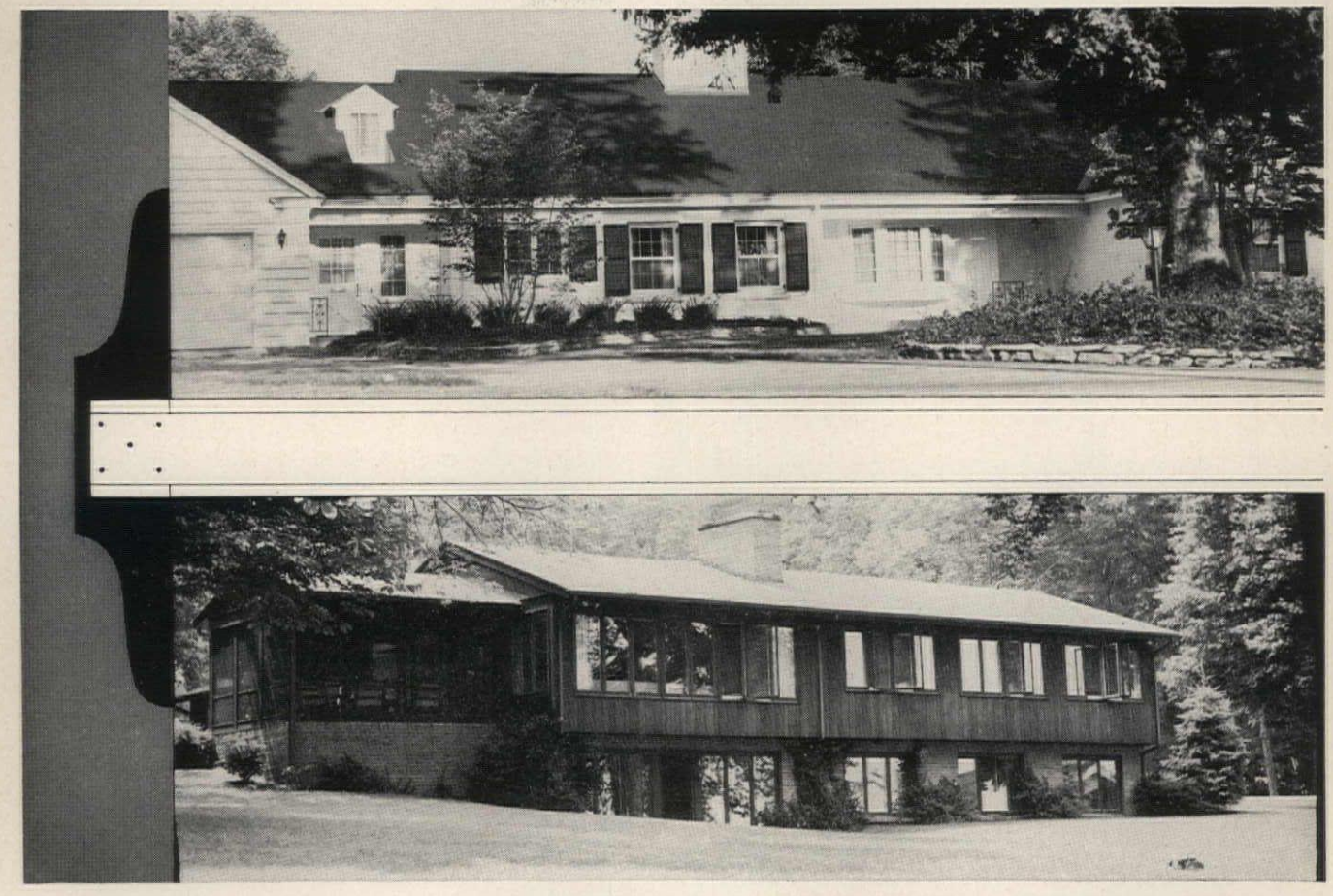
EDITOR, *Journal of the AIA:*

I know full well that I should have long since written you and on many an occasion on the appearances of your *Journal*. The February issue makes me so conscious of my dereliction that I take pen in hand forthwith.

I take pride and pleasure in recalling that it was I who brought you to the Octagon and set you out on a venture which is bringing to the public a magazine which is superior to any in the architectural field either here or abroad. You may remember that at one time we were envious of the English periodicals, and the positions are, in my opinion, now quite reversed.

"Notes on a French Horn" by our late beloved Henry Churchill are sheer delight. Martin Young's explanation of the bases of Mormon architecture are interesting and enlightening. The really good series on urban design is one of the best efforts on this timely subject, and there are other excellent articles including these on the architectural technical subjects.

EDMUND R. PURVES FAIA
Formerly Executive Director, AIA
Washington, DC



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URBANISMS

A regular column by our specialist on urban affairs, Matthew L. Rockwell, Director of Urban Programs

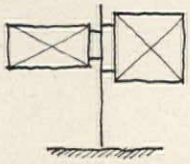
Cats and Dogs

A collection of miscellaneous thoughts with more relevance to cities than to the animal kingdom—or is there a difference?

The Butterfly Design

Last year one of the important steel companies sent their advertising representative to our office seeking a "project" around which they might build their forthcoming annual advertising program. "Something in the area of urban design," they thought might be apropos. Only after their people had left, discouraged by the enormity of the field, did I think of the perfect project.

On the shelf behind me is a two-inch ring binder prepared by the same steel company stuffed with standards of highway design signs. A few of the styles are: the simple span, the cantilever, the butterfly. On a trip to Cincinnati last year, I happened to see that city's new downtown freeway complex not yet open to the public but with paving and grading finished and with sign standards in place. The appearance was that of a grotesque forest—no more effective abatis could ward off lunar invaders!



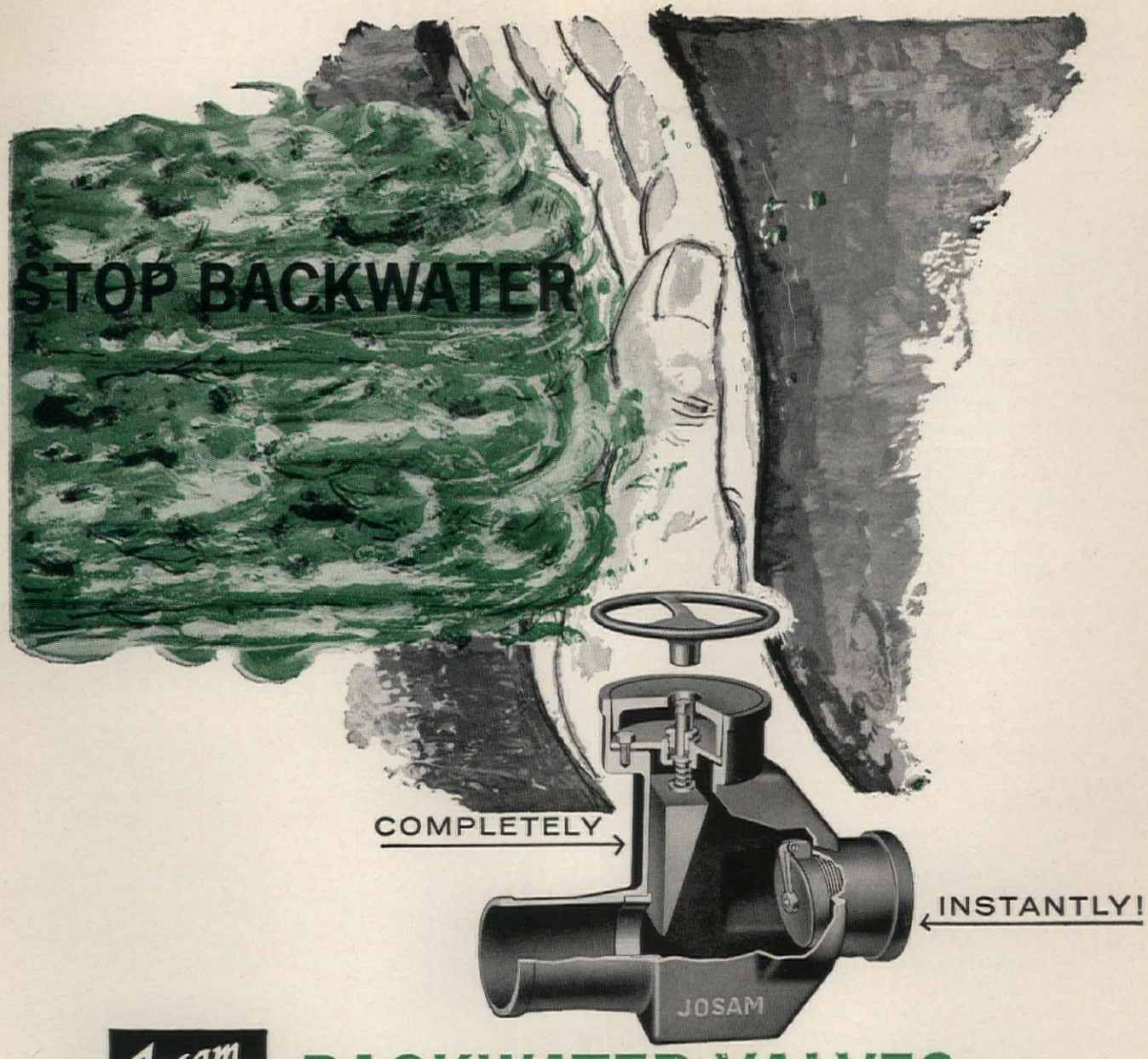
In an era when public consciousness has never been more sensitive to the intrusion of highway scars upon its environment, the steel sign industry could find no more worthwhile project than the promotion of signs which were minimal in offensiveness. (Or in steel—for example, not a single sign was designed for hanging on the face of a bridge.) Such a project might reduce the consumption of steel, true—but in view of the stalemated projects due to citizen opposition this course might in the long run work to a greater acceptance of the highway itself and thus a greater consumption over a period of time. What more positive contribution to our environment than an enlightened approach by industry to roadside, or streetside, "furniture?"

Urban Design: the AIP

Significant but preliminary statements on urban design are being made by a Committee of the American Institute of Planners for comment by the membership. Since these are only preliminary, they do *not* represent an official policy. They are quoted here only for better inter-professional exchange in those areas where mutual concern exists; we would appreciate any comment a reader would like to make:

Urban design is defined as attention to the perceptual elements of the urban environment. Urban

(Continued on p 14)



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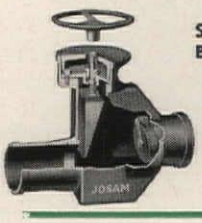

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design is devoted primarily, but not entirely, to the perception, through sight, of urban elements which are primarily three-dimensional, and fixed, but which may include moving objects. Urban design is focused primarily on esthetic, rather than total perceptual experience—ie, the kinds of experience that enhance and enrich daily life, rather than those which provide mundane information.

Among the key techniques needed to incorporate urban design proposals in a master plan are:

—An Urban Design Plan . . . illustrating the improvement by conscious design of the perceptual character of the urban environment . . .

—Methods to merge or incorporate the Design Plan recommendations into the Master Plan, as is the case at present with circulation and land-use elements.

And other quotes include:

. . . it would be hard to say how much (of the flight to the suburbs) has resulted from a dissatisfaction with the city's appearance, how much from a quest for more air, light, privacy and green lawns and how much from sociological attitudes. . . . one should not expect that urban areas will exhibit the integration and unity of particular works of art. In compensation for this lack of integration, cities can be counted on to offer a visual richness which can only result from many years of superimposed development.

Off the Shelf

Occasionally we receive publications which should be commented upon. Unfortunately these are often of interest more from a graphic than a content point of view. There are exceptions. They range from a jumbo-sized (20″ x 24″ and a collector's item!) Little Rock urban renewal report to the book-size ASPO Index of National Planning Conferences 1909-1961. While the first report is not available to the general public, there is a smaller-sized edition which is. It describes the plan which grew from the pioneer efforts of AIA chapter activity; the second is an invaluable compilation of planning subjects discussed over the years. As Marjorie Berger points out in its foreword, "pedestrian malls were discussed in 1910, and metropolitan government in 1925. In 1911, Frederick Law Olmstead declared that 'Land should be set apart from what might be called a suspense account; to be used for such public purposes as the future may bring forth.' "

Also there is Ed Bacon's recent production on Center City, Philadelphia, which is a classic treatment for an architectural approach to a central business district redesign. In the field of regional planning is "On Wedges and Corridors," the impressive general plan for the region of the Maryland-National Capital Park and Planning Commission. And then, to add further variety to this pot-pourri of urban communication, are two productions of a well-known gypsum company; the first is a lightweight but pleasant treatment entitled "Your Town and Ours," while the second is a very thoughtful technical report, "Development and Use of Land," which every architect should have. While directed primarily to the builder, its basic points dealing with the development of land are invaluable.

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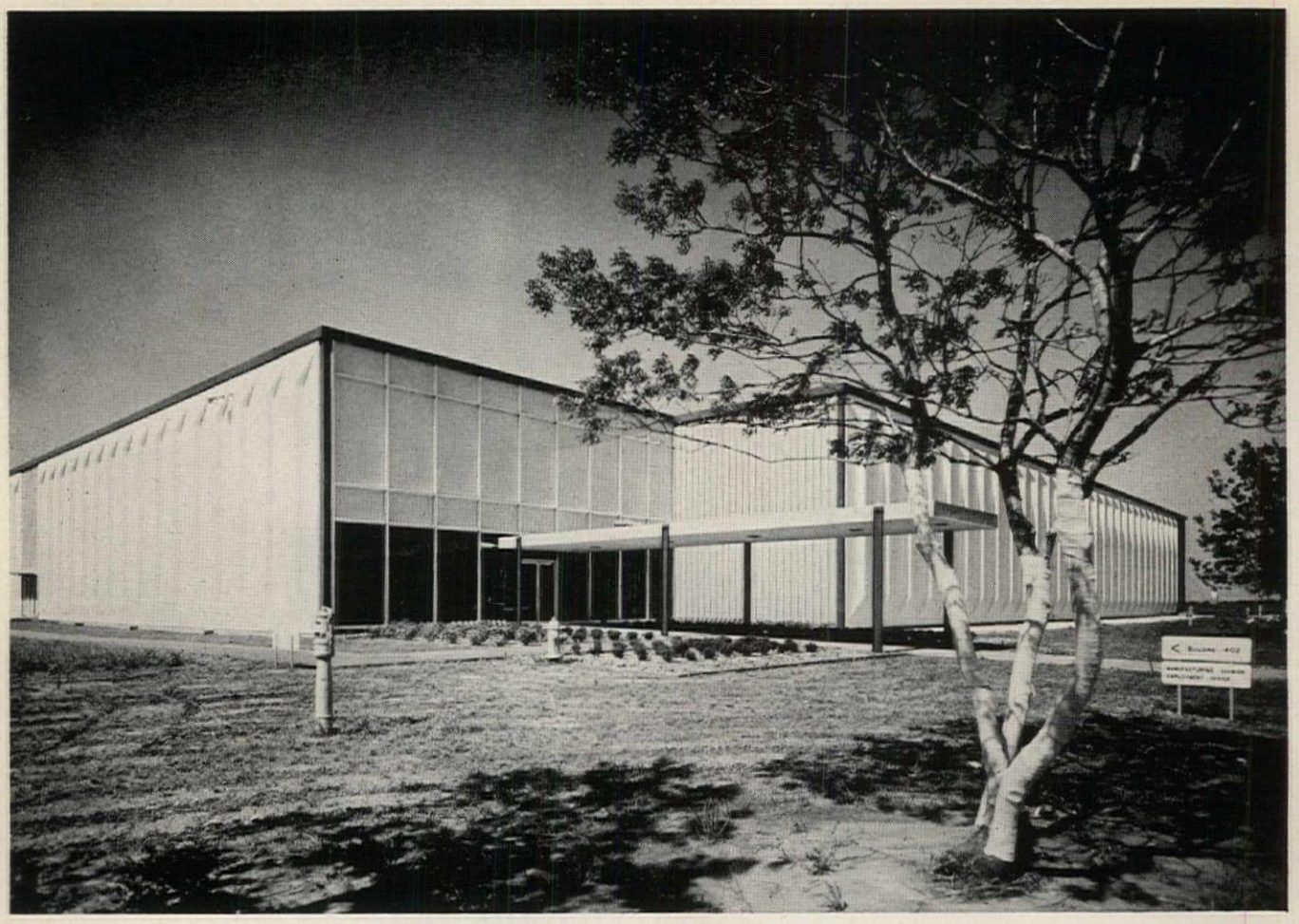

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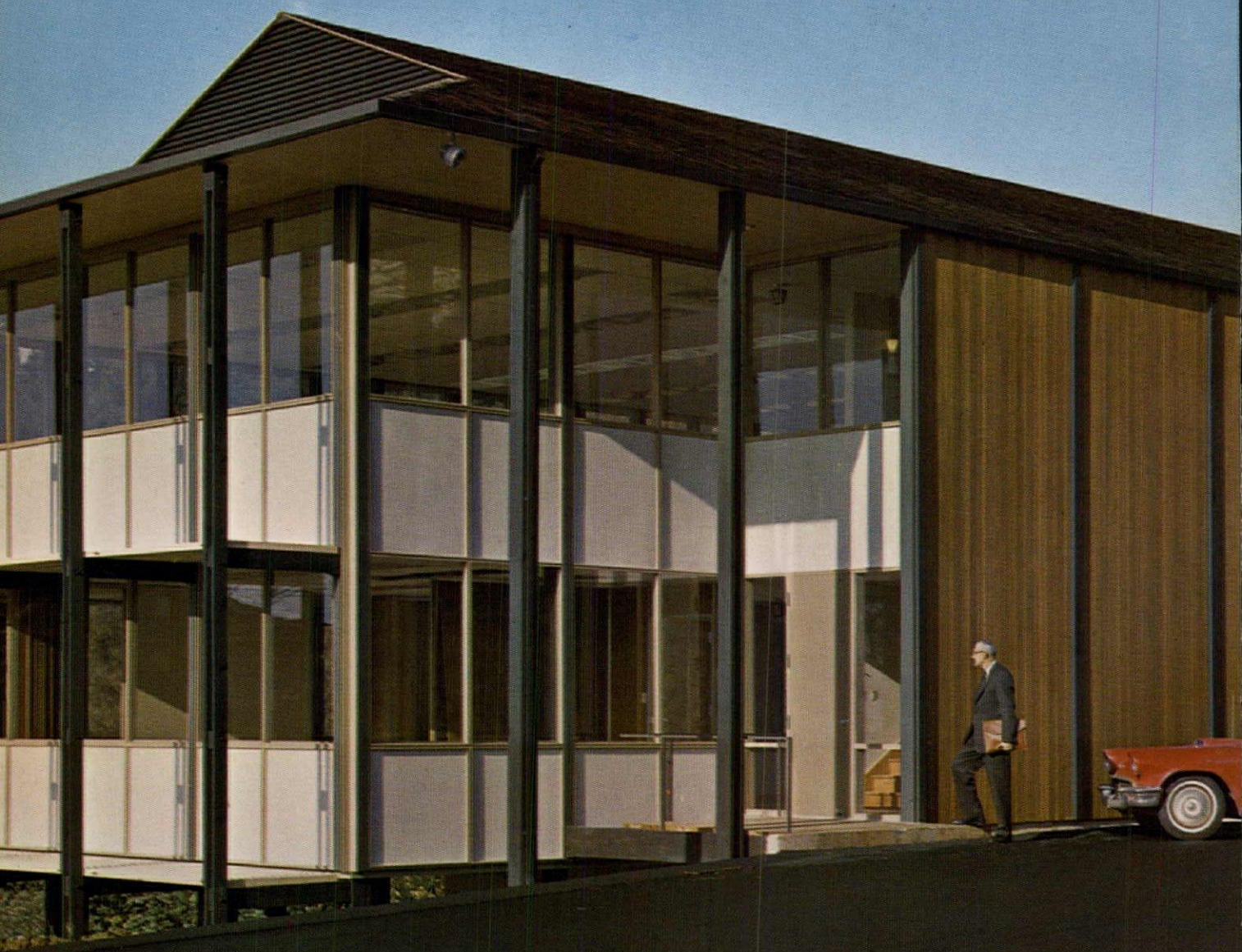

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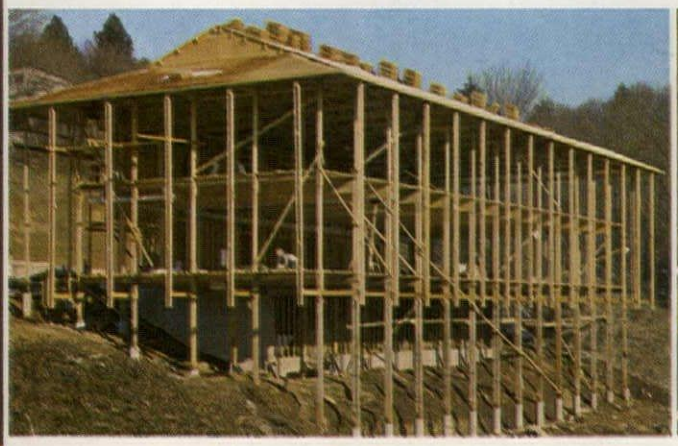

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MILL 10 WCLB 1500-f DOUG FIR — **West Coast Douglas Fir** 2″ x 6″ and 2″ x 8″ for roof trusses spanning 32′.

MILL 10 WCLB STD-FLG 126 b — **West Coast Hemlock** 2″ x 6″ tongue and groove heavy flooring used for **second floor** and **roof deck.**

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MILL 725 WCLB C&BTR — **Western Red Cedar** 1″ x 4″ tongue and groove **siding** with sawn surface applied to weather.

ARCHITECT: Lewis Crutcher, A.I.A.
Charles E. Johnson, A.I.A., Associate
STRUCTURAL ENGINEER: James G. Pierson

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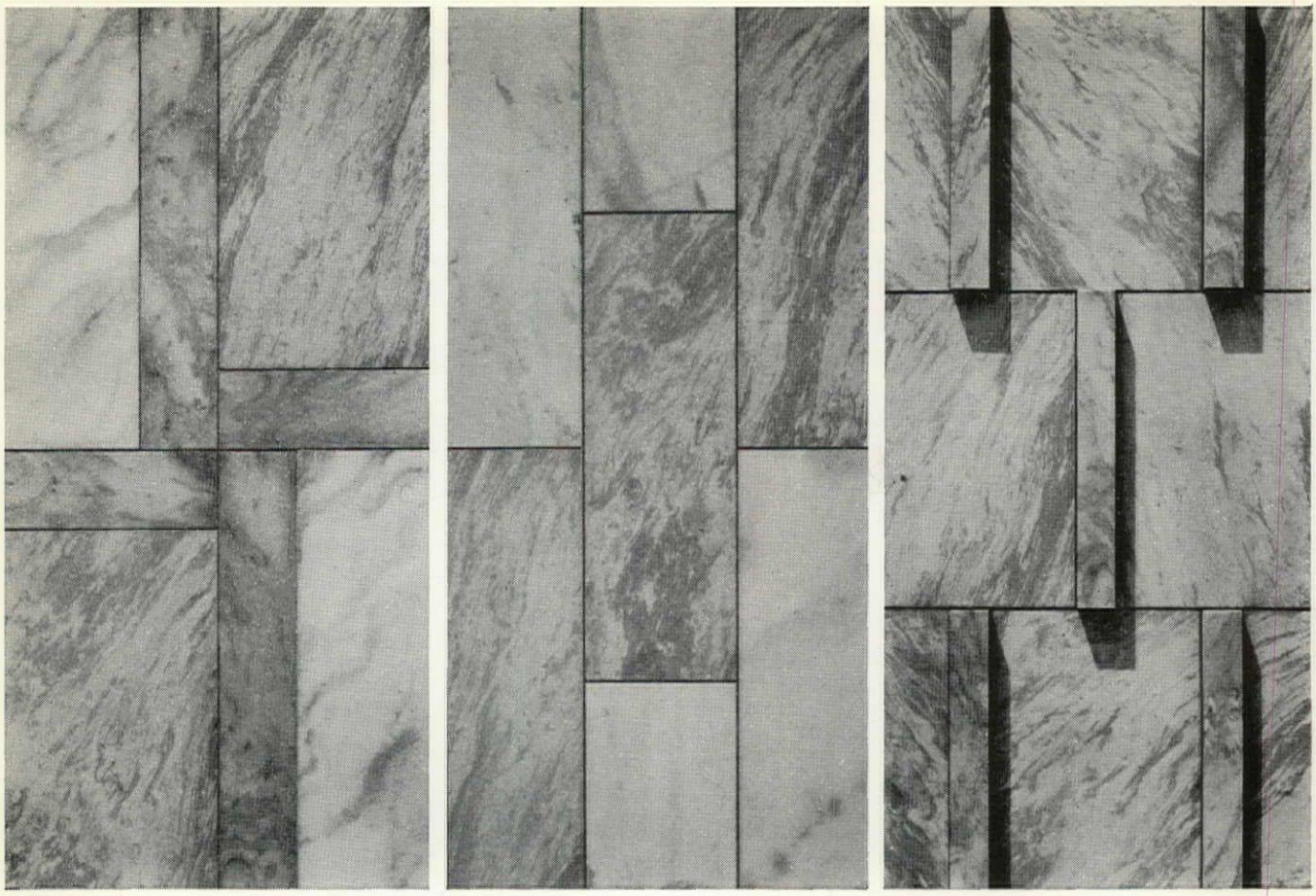

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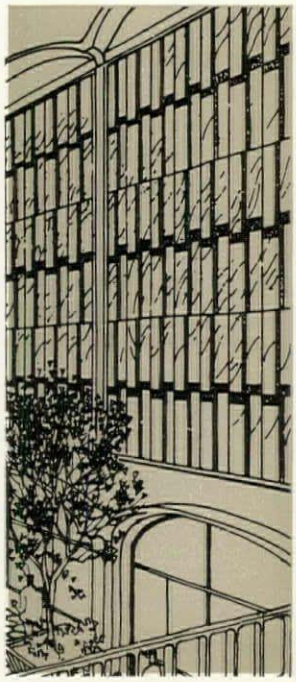

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A·I·A Journal

Salt Lake City

—*Its Second-Century Plan*

by **Robert H. Woody**

with a foreword by **Nelson W. Aldrich**

Executive Secretary,

Utah Chapter AIA

FOREWORD: The story of Downtown Salt Lake City's Second Century Plan is one of teamwork—a partnership by architect-citizens and businessman-citizens.

The idea grew out of several years of planning by Utah Chapter committees, concerned about the state of the central city. As interest mounted among the architects, a committee was appointed to ascertain whether there was sufficient concern among businessmen and retail leaders so that a joint approach could be taken towards a solution.

A surprisingly high degree of concern was found among the business community which then dictated a formal approach as described by Mr Woody.

The partnership has been eminently successful. Architects achieved their purpose of performing a worthwhile service for their community. Businessmen saw clearly the need for action to prevent a further decline of downtown as the retail, financial, cultural and governmental center of the metropolitan area.

A brief financing drive quickly brought the modest but necessary funds to pay essential costs such as engaging consultants, meeting office expenses and other items.

Throughout the entire study, businessmen and architects labored together. A designed program kept city and county planning agencies in touch with the activity. Interim reports were made verbally or in writing to many interested governmental and other groups.

Previous to the official public presentation, several previews were given to retail leaders, officials of financial institutions, government officials, restaurant operators and others. The public presentation was vigorously promoted and had outstanding support from the city's two daily newspapers as well as other media. Booths were established in the downtown area, manned by Jaycees and members of the League of Women Voters, where free tickets were distributed to the official presentation. Parking garages and terraces offered free parking for those attending the presentation. Newspaper advertisers used inserts publicizing the event and many business concerns used bulletin boards to announce the presentation and urge employees to attend. The big night saw Salt Lake City citizens out in mass, and hundreds had to be turned away for lack even of standing room.

Some groups of businessmen are now studying the possibilities of implementation. This is possible inasmuch as easy steps were suggested in achieving the plan's objectives.

One result of the partnership is a new and high respect by architects for the city's business citizens. Business leaders gave unstintingly of their time and the community's two daily newspapers gave the outstanding support that can come only from a conviction of the need for corrective action and a dedication to the ideal that the press should serve its city and its citizens.

And, on the side of the business leader and the individual citizen, the word architect has a new and brighter meaning. There is a new mutual respect, such as can only be earned.

To introduce the author in his own words: "As a reporter for *The Salt Lake Tribune,* I have become a sort of poet laureate for the Salt Lake Downtown Planning Association. My job: To document with words and photographs the mission of the Downtown Planning Association and the Development Plan Committee of the Utah Chapter AIA"

Salt Lake City

—*Its Second-Century Plan*

by **Robert H. Woody**

► If ever there was a planned city, Salt Lake City is it.

The Mormons had just arrived in the Great Salt Lake Valley when Brigham Young and his apostles set about laying out the town: "We walked from the north camp to about the center between two creeks when President Young waved his hand and said: 'Here is the forty acres for the Temple. The city can be laid out perfectly square, north and south, east and west,' " recalled the apostle Wilford Woodruff of the events in 1847.

Before the day was over, the Mormon leaders had designated street widths (eight rods or one hundred and thirty-two feet), set the width of sidewalks (twenty feet), established blocks of ten acres and lots of one and a quarter acres each, and pinpointed location of four public squares.

Now, the Utah Chapter of The American Institute of Architects has turned over to the community a plan and a model to guide Downtown growth in the "Second Century." Its thesis: Salt Lake City needs as vigorous planning in its second hundred years as it had when Brigham Young and his apostles went out for that walk in 1847.

Brigham Young's plan was not entirely spontaneous. Its basis was a plan drawn by Mormonism's founder, Joseph Smith. And with slight modification, it served Salt Lake City for years and put a permanent stamp on the city's character.

In an agricultural society, the plan worked splendidly—but not so in the mid-twentieth century. Brigham Young could not have anticipated the automobile and the suburbs that consumed the grain fields far more devastatingly and permanently than the crickets.

Time and change imposed terrible strains on Downtown Salt Lake City, historic heart of the community. These were not unlike those in many other American cities: Businesses and money went suburban; Downtown vacancies increased, and Downtown above the first and second floors became a vast ghost-town in all but the most important buildings; assessed valuation sagged.

Utah AIA members, well apprised of Downtown decay in other American cities, were quick to spot it in Salt Lake City. The result: creation of the "Second Century" plan.

The product is strictly "Made in Utah." While the creators examined other cities' plans and recruited an outside consultant, proposed solutions are tied to Salt Lake City. They revere the historic, acknowledge the present and reflect local aspirations for the future.

As plans go, there are no radical or bizarre proposals. More significant is how the Chapter went about its planning. For one thing, it created a broad base of community support. It made certain proposals that could be accomplished immediately. The architects' method could well serve as a primer for other AIA Chapters seeking to do similar good deeds:

- It suggested to the Downtown business community that a plan was needed, and asked for its counsel and support.
- Once the "go" signal was given, the Chapter made the businessmen part of the planning team.

The result was that the Chapter now has enthusiastic—almost devoted—Downtown support for the plan.

The architects first sounded out a few Downtown leaders—Mormon officials, publishers, investment executives. Did they see the benefit of planning? Would they support proposals for the Downtown's overhaul? The reply: yes.

Next, the architects rounded up sixty members of the Downtown community for a breakfast in-

Main Street about 1850

formation meeting. These were important people in entertainment, real estate, property development, transportation, car sales, department stores, executives and the Chamber of Commerce. They also brought in people from state, county and city planning and tourist agencies.

Dean L. Gustavson, past president of the Chapter, made the pitch:

He documented the city's present role as the state's capital, as the major population area of the state, as center for shopping, trade, distribution, business, finance and education, and as worldwide headquarters of the Mormon Church.

He painted an apocalyptic picture of a Downtown unattended. He painted a glowing picture of a Downtown given new life through creative planning.

Then he submitted the architects' proposition: The Chapter would donate 3,000 man-hours to create a model and a plan suggesting guidelines for new Downtown development if the assembled would generate public support.

Before the meeting was over, the sixty had organized themselves as the Downtown Planning Association, Inc, and appointed James E. Hogle, investment and brokerage man, as chairman. Mr Gustavson was named head of the Architects' Development Plan Committee.

From the ranks of the Downtown Planning Association were drafted three main committees—economics, land-use and structures, and transportation. Allied with them were several subcommittees—population, retail sales, floor space, new activities, projected building, significant structures, access, internal circulation, terminals and pedestrian circulation.

The new association rounded up a $35,000 treasury, and an office was set up in an empty room of the Salt Lake Chamber of Commerce.

Then the association recruited San Antonio consultant Sam B. Zisman for the yeasty stimulus of an outside point of view. They had encountered him on an inspection of Little Rock and Kansas City projects.

The architects committee and the Downtown Planning Association began their work in January. They studied Salt Lake City; they studied other cities. They solicited previous research; they did research on their own: What was the projected population growth? Who were planning new buildings? Designs? What was the retail core? The banking core? The entertainment core? What buildings were historically valuable? Architecturally valuable? (They discovered a genuine Louis Sullivan.) Economically valuable?

When the research was done, architects and Downtown community had had communion of the highest order. Together they had discovered the historic city and gained new understanding of the present city. They had exchanged hundreds of ideas. They had salved mutual apprehensions. ("You can't close off the Downtown to cars; you'll ruin us.")

The eight-man development team took the research findings and proposals and translated them into plan and model. Fellow Chapter members

also came to the Downtown planning office to give after-hours time.

When the job was done, Chapter members had contributed 6,800 professional hours—more than double the amount originally proposed. By estimate, their work, combined with that of the Downtown Planning Association, represented an investment of nearly a quarter of a million dollars. And the city had never been through such a vigorous planning shake-up since that day in 1847 when Brigham Young had said: "Here is the forty acres for the Temple. The city can be laid out perfectly square . . ."

Brigham Young's directives still stamp the city. And in planning the city anew, the architects found the twentieth century manifestations of those directives to hold as many problems as promises.

The wide streets, for example, were fine for making a U-turn with a team of oxen. But a modern pedestrian had better be light on his feet to span the ninety-foot traffic-way before the light commands "Don't Walk."

When tree-shaded homes occupied the front of the huge blocks, the rear areas were excellent for growing vegetables. But in the twentieth century, businesses turned their faces toward the peripheries of the blocks and neglected their rears. The result: Salt Lake City's block interiors are spacious but not very pretty.

Here's how Utah architects translated problems into solution:

The "Second Century" plan essentially has two parts—one involving steps that can be taken now at little cost and effort, and another involving steps that will take detailed planning and broad finance.

For the here and now, they have recommended that key streets in the downtown be lined with trees. (Some precocious institutions had already taken this step a couple of years ago.)

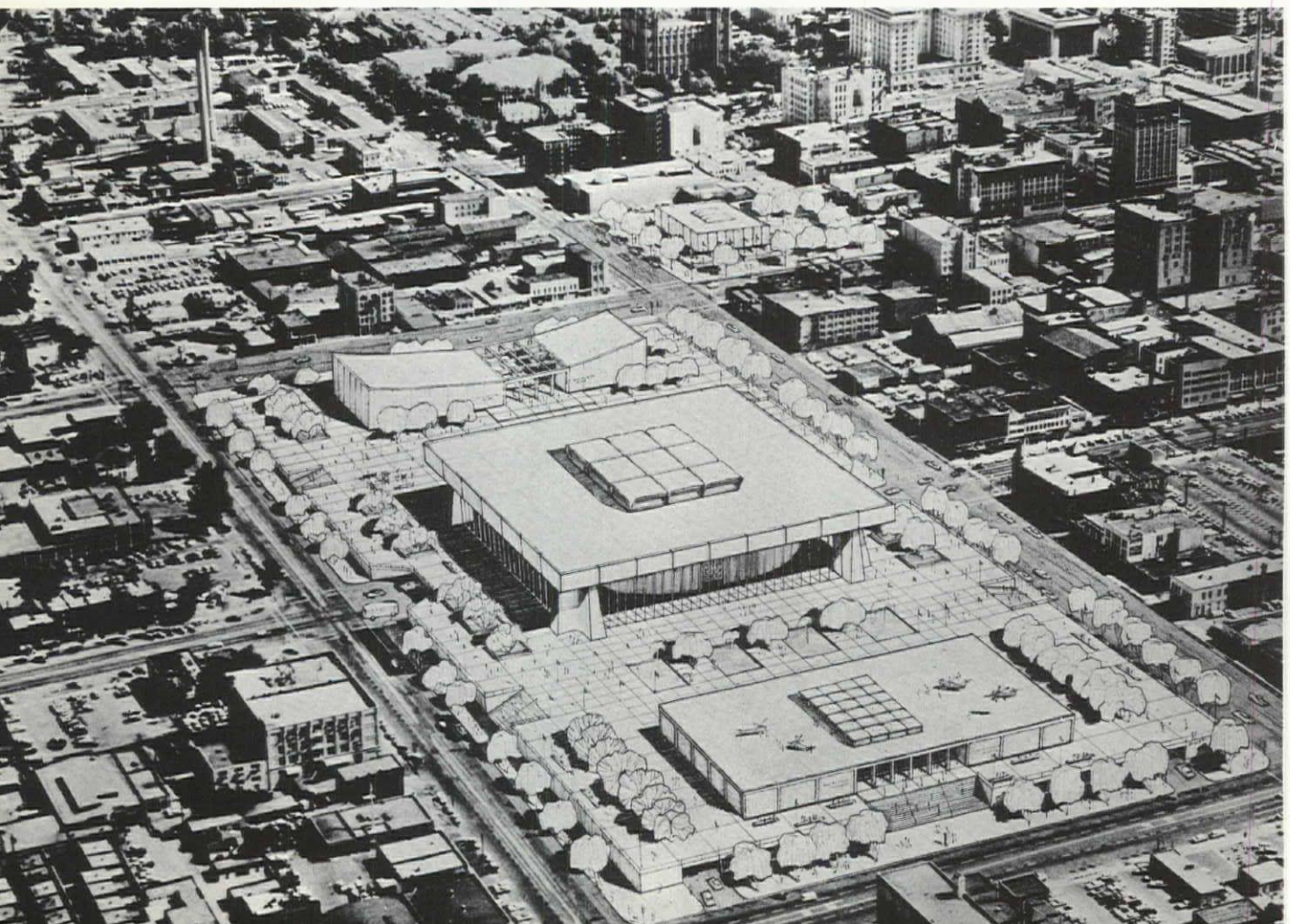
They also recommended that pedestrian "launching pads" be placed first at mid-block crossings, then at intersections. They would serve as pick-up and unloading points. More important, they would narrow the distance physically and psychologically that a person must cover to get to the other side of the street.

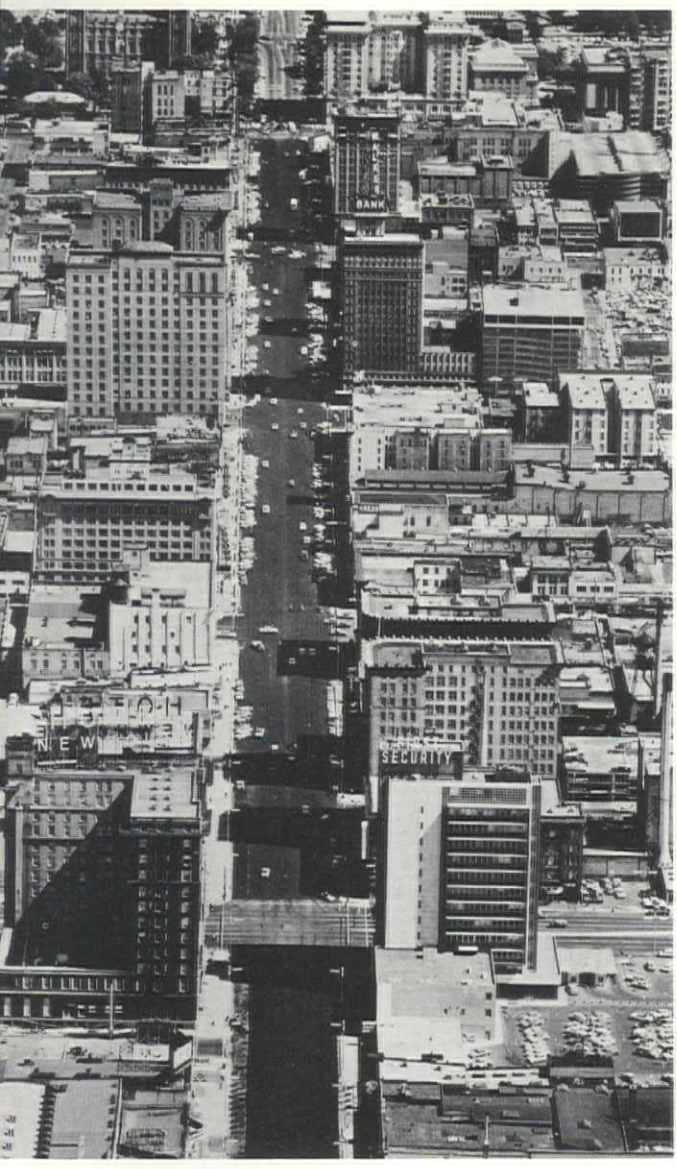
(The architects contended that the wide streets tended to isolate blocks from one another.)

As Downtown development matures, canopies will be put up over the launching pads for weather protection. Canopies and textured street markings also would be a signal to the auto driver to slow down or stop.

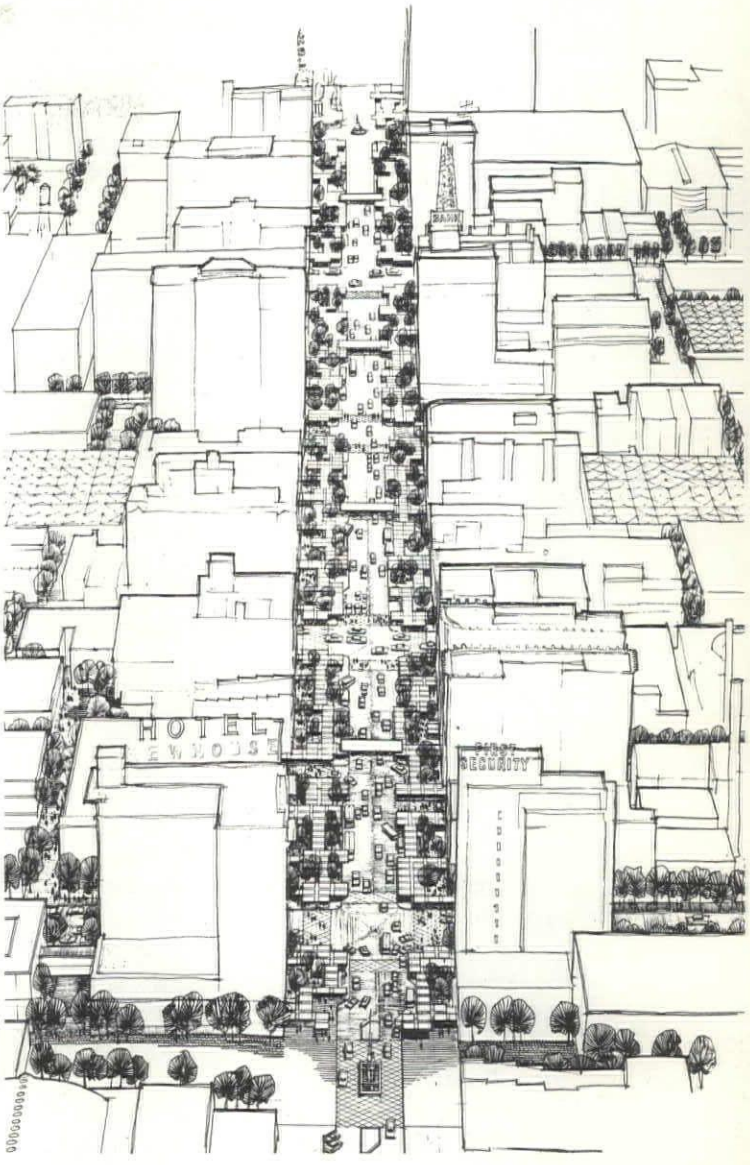
The evolutionary process would go even further on a four-block length of Main Street—backbone of the Downtown core. Sidewalks eventually would be widened to the launching pads. Main Street

Planners suggest that two blocks of West Side, which has been badly hit by decay, be assigned to development of convention-cultural center, including music hall and performing arts theater, and transportation center with heliport



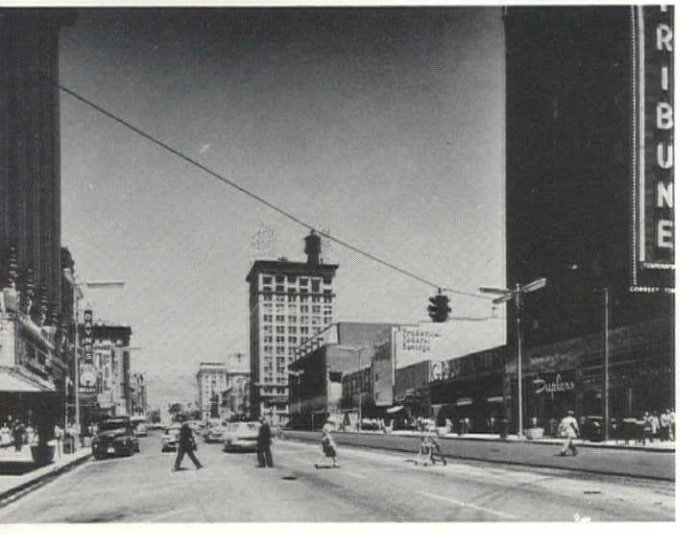


Main Street today . . .

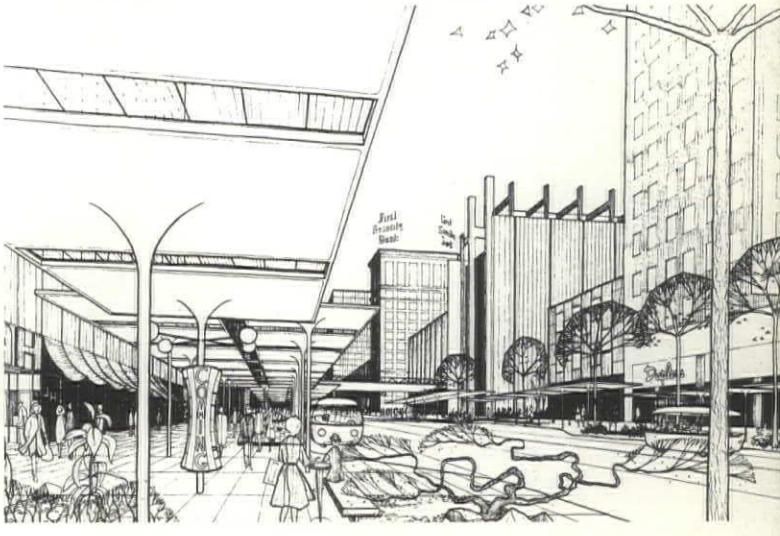


. . . and tomorrow

Backbone of Downtown looking north

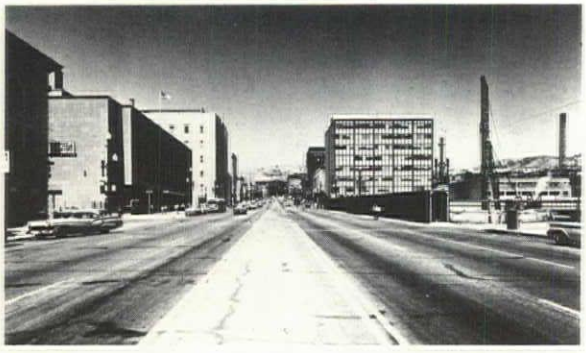


To come: tree plantings, widened sidewalks, canopies



Many blocks have large empty interiors

Overhead canopy creates pedestrian retreat



State Street looking north to Utah Capitol

Street would remain open to traffic

then would be a pedestrian's paradise. There would be fountains, trees and shrubbery. Exotic kiosks would announce events of moment and pleasure. Restaurants would move tables and chairs outside during summer. There would be activity day and night. Note: Salt Lake City's Main Street would not become a pedestrian mall —a solution suggested elsewhere. Vehicles would still have access to the narrowed street, but only for restricted purposes. Most transport would be by "shuttle bus"—a noiseless, fumeless, colorful cross between taxi and bus.

The shuttle bus system would be the key to uniting Salt Lake City's Downtown. One route would serve the "hard core" of Downtown. Other routes would serve more widespread points, eg, the State Capitol and offices to the north and the city-county offices and courts to the southeast.

The shuttle bus also would transport worker, businessman and shopper from peripheral parking lots into the Downtown core.

These parking lots would be located along boundaries of the Downtown core—Second East to the east and First West to the west. They would serve as "landing spots" for the thousands of drivers who come to the city to work and shop.

While the plan recognizes the need for improved public transit, it also acknowledges that the car is here to stay.

Here is where the wide streets will be an advantage. Already existing, these streets will serve as a "finger system"—a means of access at several points along the length of Downtown. These access streets would be tied to freeways on west and east.

As for the decaying block interiors, the planners have recommended that property owners work cooperatively to rehabilitate them as pedestrian retreats. One sample solution shows a block interior turned into an all-weather mall with an overhead canopy of glass. Rear entries of the stores open into the mall. There are benches and a children's playground. A porpoise frisks about in an open pool by the playground.

The remainder of the plan will take some public and private investment and commitment. This includes location of major buildings that require acquisition and razing of properties. The kind of finance needed will require support at the polls.

Among those projects: a convention-cultural center on the west side of the Downtown core (included would be a 15,000-seat auditorium, a music hall, a performing arts theater); a visitor center and transportation center with helicopter connections to the airport; an art museum, a merchandise mart. All would be located close to the Downtown —near restaurants, theaters, hotels and motels.

If the architects and Downtown Planning Association now estimate their work commitment at a quarter of a million dollars, it's not likely they'll let the project slip down the drain. With the business community committed spirit and heart to the proposals ("No one can say he wasn't consulted") realization of some aspects of the plan is pretty certain. And how many plans can make that claim? ◄

Architectural Horizons

by **R. Furneaux Jordan**

Is it true that our generation is stuck with a "dying culture and a half-baked architecture"? That's what this sharp-tongued British critic says in his provocative way

► Architecture is a social art. Even the poet and the painter are children of their time, but, in theory at least, they can withdraw to an ivory tower, there to create and work according to their whim. Not so the architect. Architecture may be "the mistress art," embracing all others in its scope, but the architect is less the master of his fate than any man. He works for others—his clients, and others work for him—craftsmen and labourers. He manipulates a human chain. Sir Christopher Wren, doubtless, might have designed St Paul's a little better or a little worse; what he could not do, at that particular moment in time and space, was to design, say, the cathedral at Salisbury, or the one at Liverpool, or at Coventry. Each of these four cathedrals—Salisbury, St Paul's, Liverpool, Coventry—each separated from the other by generations of fast-moving history, was each indubitably the product of its time, each the product of an entirely different set of circumstances—social, religious, political, economic, technical. Only when we grasp this fact, not as a historical generalization, but in its most detailed implications, can we understand the architecture of our own time, or indeed of any other time. Let us pause, therefore, to glance at the things which made these four cathedrals what they were, in the hope that we may thus better understand our own architecture. When we understand the life behind a building we understand the building, for architecture is the most dialectical of all man's artifacts.

The society that produced Bishop Poore's cathedral at Salisbury in the thirteenth century was that of European Christendom—hierarchical, sacerdotal and feudal. It was a society hell-bent upon cathedral building since this, in its own eyes, was to create the Kingdom of God upon Earth. Its technical *means* were primitive—spade, basket, barrow, block and pulley. Its actual technique, however, was the whole tremendous system of vaulting, of thrust and counter-thrust, as invented by Roman engineers a thousand years before, and then exploited by the master-masons of the Ile-de-France. Its craftsmanship was superb—that hand-to-eye craftsmanship of the illiterate peasant that vanished from this world with the passing of all golden ages.

The society that produced Wren's St Paul's was that of the Restoration—aristocratic, mercantile and Protestant. St Paul's was aristocratic in style —Baroque—and in skyline; it was mercantile in that it was paid for by city merchants and by livery companies and built for them. It was Protestant in that it had a bastard plan—never quite deciding whether to be a basilican church or a puritan preaching-house . . . in fact a perfect architectural statement about Cranmer's prayer-book. This was a society no longer concerned with a universal culture, but rather with fashion, with the snob culture of Baroque—with the differentiation, by means of that culture, of class from class; and with the creation of the courtly city of domes, steeples and boulevards. Its technical *means* were still primitive—Portland stone used only because it could reach London by sea. The actual technique, however, was now that of the age of Newton and Boyle; the dome may have been Baroque, but it needed a physicist to carry it so high above the chimney pots. Craftsmanship was now artisanship; the carver seldom designed, he obeyed the drawings of the Renaissance professional—"architect" was the word now used, the connoisseur who was, significantly, also an astronomer and a courtier.

The society that produced that huge Anglican white elephant at Liverpool was industrial, romantic, literate, conventional, Philistine, also pious, but not too pious—the tail end, in fact, of the

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Victorian era. The technical means that produced —or could have been used to produce—this cathedral, were those of a scientific age, but the whole point of the design, being sham romantic, was that it should spurn, or at least conceal, those means. Hence its basic falsity. Scott's cathedral had to dominate the Mersey skyline; it was paid for by shipowners and manufacturers. It was romantic not only because it came at the end of a century of stylistic revivals, but also because it was an architectural expression of a century of romantic literacy. For the artist, in a world of black and cruel industrialism—for figures as diverse as Blake or Ruskin—romanticism is divine discontent, also a flaming protest. For the industrialist himself, and for his wife and clerks, romanticism is the fulfilment of a lost dream, the satisfaction of a hunger, but all happily well within the bourgeois and Philistine convention. It had been industrialists who patronized Walter Scott and Tennyson, pre-Raphaelite painters and Gothic Revival architects. To recreate the lost world of the Middle Ages, but on Anglican terms, was a major nineteenth century achievement. It was the only dialectically correct answer to the schizophrenic dilemma of the Victorian era.

Coventry Cathedral is a very different kettle of fish. Between Salisbury and St Paul's lie 450 years; between St Paul's and Liverpool some 250; between Liverpool and Coventry barely 50. In terms of the tempo of historical change, these three different periods may be considered as being roughly equal. That, however, is not the point. Coventry, unlike the other three, is a freak product of a fragmented culture. Salisbury is one logical moment in a long development, a statement about an absolutely integrated culture, one in which all things worked together to a single end. St Paul's, it is true, is a statement about a society based upon agreed foundations, but also a society not innocent of deep religious and political differences. Liverpool is already only one pole of a divided world—a perfectly satisfactory statement for those concerned, that is for one class and one Church—emphatically not a universal statement about Life. In all the innumerable dichotomies of the nineteenth century—scepticism versus deism, science versus tradition, industrialism versus democracy—we see at Liverpool a thousand years of civilization already breaking up. As in some distant but exploded star the actual break-up, in human terms, seems slow, whereas in fact it is catastrophic. Now today we see how every creative act, every art, every artifact, every institution, every religion, is no more than one fragment flying centrifugally from that explosion. Ours is now a fragmented culture. Every fragment is either an expression of nostalgic regret for the shattered parent body, an obtuse denial that the explosion has ever taken place, or else some brave forlorn assertion that out of the death of the star some fair new planet can be born.

Coventry Cathedral does all these things at once. It thus unerringly fulfills the iron law that any piece of architecture is a precise statement about society. At the same time—just because of the architect's unerring obedience to his own *Zeitgeist*—it ends up as a freak, a monstrosity . . . for how on earth can one make a unified statement about a fragmented culture? Such a monstrosity can exist only as the fruit of an unnatural marriage. It was a shot-gun marriage. It was planned by the Luftwaffe and the Bomb Damage Commission. It was a marriage between the Modern Movement in Architecture and the Anglican Church as by Law Established. Now normally these two fragments of our fragmented culture are flying in opposite directions—the first, a brave forlorn statement about a brave new world; the second, a denial that the star has ever exploded. Around these two flying particles Basil Spence was asked to draw a ring.

"Expression of Its Age"

We are not here concerned with cathedral designing, but each of these four familiar cathedrals, spaced through time, can—like any other works of man—be dissected and examined to show how each was not just, according to the truism, "an expression of its age," but indeed a very precise result of every facet of the time and place which gave it birth. The reader may, from this point of view, analyze each for himself.

Every building we put up is, in some sense, the work of a single architect. An architecture, in another sense and more than any other art, is clean outside our control. Even if we would, we can no more build Georgian houses or Gothic churches than sparrows can live in warrens or rabbits in trees. It is not that we do not know how Georgian houses or Gothic churches were built. We know exactly how they were built. But they were each the product of a whole manner of life, of an attitude to God, built for and by—very nearly—a biological species to which we do not belong. Our architecture is *us*. If we hate it that is because we hate ourselves. Some birds, doubtless, build rather better nests than others. That is the most that is allowed us.

What then is the nature of this architecture of ours, and what is it that makes it so different from all the architectures there have ever been? It is different because it is technically different, also because it is socially different.

In the history of architecture there have been innumerable "styles"—although the men who

built them did not call them that—and also innumerable purposes and ways of life, which architecture has had to serve. There have, however, in the architecture of the Western World, been only two fundamental revolutions. Both were structural. The first was a revolution in form, the second in material *and* form. The first was the change from the trabeated to the arcuated; the second was the change from the lithic to the metallic.

For several millennia men could build in only one way, by putting slabs or beams—whether of stone or wood—on top of walls or columns. Dead load. The Greeks, for all their sophistication and refinement, had to build within this severe structural limitation. The Parthenon had only a timber roof. The Greeks could never have enclosed a large space for assembly. They were sculptors rather than engineers. They did not want to build vaulted halls; they would have liked to carve a temple out of one block of marble.

The Romans, as imperialists and administrators, invented the capital city. This called for an unheard of variety in building types—vast halls, arenas . . . and town-planning. The sappers of the legions had mastered the arch, the Roman architect then exploited it further as the vault and the dome. Not dead load now, but thrust, counterthrust and abutment. That was the revolution from the trabeated to the arcuated. It corresponds very precisely, almost mystically, to the expansion from the tiny city state of Hellas to the organization of a Mediterranean and European world from which, ultimately, could be carved both Islam and Christendom. That may not, *ipso facto,* have been a gain; it was certainly a revolution. And thereafter, for fifteen hundred years, Roman engineering was the basis of all styles—Byzantine, Romanesque, Gothic, Baroque—until the nineteenth century. Then came that second revolution, from the lithic to the metallic.

The first cast-iron bridge was built in Shropshire in 1775; the first steel-framed skyscraper in Chicago in 1890; the first complete reinforced concrete building in 1906. In a sense this metallic architecture was a reversion to trabeated building, for the beam—in the form of a girder—could now span and enclose a larger space than the Roman vault or Byzantine dome. Santa Sophia in Byzantium, wholly Roman in its engineering, had the largest unbroken floor area in the world . . . until the coming of the London railway-stations.

This sort of architecture not only used advanced technical means, it gloried in them. St Paul's, or Salisbury, had overcome the drawbacks of primitive means. Giles Scott at Liverpool had had to pretend to do so. But now, in 1897, Adolf Loos was proclaiming that "the engineers are our Hellenes," while Lloyd Wright, by 1901, was issuing panegyrics on "the Machine Age." The Bauhaus was founded in 1919, and Le Corbusier's "Vers une Architecture" was published in 1927. It was not merely, however, that these pioneers of the Modern Movement accepted the machine—which Morris had condemned a generation earlier; they regarded it as an inspiration. Their buildings could not *exist* without it—the lift, heating and ventilating plants, turbines. Their buildings could not be *built* without it—cranes, mixers, rolling mills, Bessemer furnaces. The logical conclusion was to manufacture the building itself. At St Paul's only the decorative ironwork and wood carving were made off the site; the situation could now be reversed. In the prefabricated steel components and wall panels of the first modern schools (Hertfordshire, 1945) that was what happened. The schools were made in factories and a new social situation —one created by the Butler Act—was solved in a way that would not otherwise have been possible. The schools were conceived and made seemly by the architect. They were virtually the product of a partnership between industry and the welfare state. Technically the thing had already been done, a hundred years earlier, but with iron instead of steel, at the Crystal Palace.

The contribution of Mies van der Rohe—once on the staff of the Bauhaus—has been to recognize and apply this principle of an "Architecture of the Machine Age" to universities or great office buildings. The Seagram Building, New York, is thus "monumental" in the historic sense, and is also a total product of an industrial society as, say, King's College Chapel was a total product of a craft society, each—*in its own context*—fulfilling those hackneyed but valid requirements of a great architecture—"firmness, commodity and delight."

False Architectural Witnesses

Thus, normally, runs the argument for modern architecture. It takes this form: "Great architecture expresses the age to which it belongs; ours is an industrialized, mechanized and scientific age; modern architecture, being all steel and concrete, is industrialized, mechanized and scientific; therefore ours is a great architecture: QED." And there, normally, at least for the architect, the argument is closed. He has proved what he wanted.

Quite frankly, however, it won't do. When we examine the argument there are too many holes in it. To start with, only the best or most vital monuments have survived the centuries to bear witness to the cultures that gave them birth. They are, therefore, false witnesses. Regency architecture did not express elegance. Only a little of it did; most of it was either a rural or urban slum. Roman architecture did not express majesty. Only

a little of it did; most of it was so badly built as to be physically dangerous. Modern architecture does not express either industrial precision or scientific hygiene. Only a little of it does; most of it forms the white collar slums of this plastic and banal age.

If, in fairness, we deal only with vital and typical monuments—man and his architecture at their best—the argument still doesn't work. True, all architecture, not just good architecture, expresses the age to which it belongs. Indeed, that is so true as to be hardly worth saying. It is the corollary, not the truism, that is important. A great culture —complete, integrated and consistent—will produce a great architecture of its own kind. (This may, in actual fact, be something as simple as rank upon rank of purple tents in the Arabian oasis—the whole thing geared to climate, religion, life, consistent and perfect within a tiny compass.) A lousy culture—fragmented, decadent, dying or amorphous—produces a lousy architecture.

Coventry Cathedral is a supreme effort by a number of brilliant and, perhaps, even inspired men, to do something they thought could be wonderful. It ends up as a monstrosity—or posterity will see it as such—because it is not only, and inevitably, no more than a collection of good ideas; it is a contradiction in terms. It is an assertion of spiritual unity in the midst of cultural chaos. Or, again, the remains of Imperial Rome impress us to this day, but only because of their structural ingenuity, courage and size; in all their original marble and gilt they must have been as vulgar as the emperors were beastly. They were an inspiration to Mussolini. The monuments on the Acropolis did, presumably, express the noblest Hellenic aspirations. We, however, nurtured in the myth of Byron's "fair Greece, sad relic" might well be shocked could we behold those monuments and all their sculptures enamelled and tinted. But then that, too, conforms to the theory—it is a statement scrawled across the pediment of the Parthenon, a statement about the nearness of Periclean Greece to the barbaric and Levantine womb from which she had come.

There was, in fact, no moment in the whole of history when architecture was ever what we imagine it to have been; certainly no moment when the old cities of the world were even remotely like the picture of them implanted in our touristically bred minds. Apart from anything else—slums, demolition, waste spaces—modern London is largely Victorian; Victorian London was mainly eighteenth century slums; Inigo Jones built his Palladian Banqueting House in a town of medieval gables . . . and so on. Of course there were the supreme moments in history, rare moments, when men built supremely well. The marvellous evidence of that stares us in the face—Periclean Greece, Angevin France, Tudor England—but there was always dross, always rubbish left over from other days, always dirt.

No, architecture is a mirror of its age all right, but real architecture—as distinct from guidebook pieces—is also as cruel as a mirror. And our age, of course, has not got a very pretty face. Few ages had. Perhaps the only moment when architecture was both the dominant art and a great art was somewhere between the tenth and the fifteenth century, when men were not only trying to build the House of God in every parish, but had geared their whole culture to that procedure. There was then an aristocracy—the patron; there was also a priesthood—the inspiration; and there was a peasantry—the craftsman. We have successively—if for good reasons—destroyed them all. Yeats used to think that there was an actual date—round about 1550—before which all was tense and right, after which everything slowly but surely disintegrated. Certainly there was once, long ago, an underlying transcendental agreement about all things. To recreate such an agreement we must first, as is well known, get ourselves crucified, then wait a thousand years. That is unlikely to happen. So, meanwhile, we must do the best we can with what we have got—a dying culture and a half-baked architecture.

This architecture—this architecture of the modern movement—has been denigrated as an "international style." There is no such thing as an international style; there is always an international style. Gothic was European, stemming from central France, but every country set its own unmistakable stamp upon it. Baroque was European, stemming from Rome, but every country set its unmistakable stamp upon it . . . and so on. Modern architecture, in a rather more complex world, has rather more complex origins, but the principle is the same. Structural revolutions, like religions or weapons, are too serious and too useful to remain behind frontiers.

The structural basis of the iron and steel revolution was discovered in England at the end of the eighteenth century, used on a large, but purely utilitarian, scale in the Railway Age, then applied to architecture in the roaring Chicago of the 'nineties. It was then enormously complicated and bedevilled by being crossed at birth with the Gothic Revival and, later, with Morris's Arts and Crafts Revival, Mies van der Rohe showed that steel and glass—without either adornment or any nostalgic reference to past styles—could be Art, if Art of a rather bleak and Mondrian type. Le Corbusier did the same with concrete, proclaiming also, in his *Ville Radieuse,* the basic proposition of modern town-planning as we now find it all over the world—building high, building living-

towers, not New York-wise from land greed, but high and widely spaced to allow the towers to stand in a green carpet of grass and trees. First the Swiss, in Maillart's bridges, then the Italians, as in Nervi's stadia, have played their usual rôle in engineering most delicately the principles of construction thrashed out in America and France.

The English, again, have played their usual rôle—taking a great architectural movement and turning it to their own social purposes, just as they once took the theme of the Italian palace and scaled it down to make middle-class Georgian housing. So now, the modern movement, founded in England's Railway Age, came back to this island to be used not so much as an Art—for England does not breed architectural "prima donnas"—but rather as a means for the solution of urgent social problems.

Our Fragmented Culture

These problems have been varied and complicated—fragments of this fragmented culture of ours. Some of them, such as our quite genuine vision of good town-planning, or on the other hand, a larger and more cut-throat commercial development than even Victorian *laisser-faire* could have conceived, have gone on side by side. This is to set up a tremendous strain in the body politic. Our town-planning legislation is the envy of the world. It is now breaking down. The authorities of our great cities break their own regulations every day . . . if only the applicant and his site are rich and important enough. (The Piccadilly enquiry achieved fame only because that was an occasion when neither authority nor developer were allowed to get away with it.) The cities are under enormous pressure—the pressure of iron economic laws—to permit commercial building where it is both socially undesirable and officially forbidden . . . and they surrender all along the line. In the suburbs and country our speculative builders' estates are, stylistically speaking, only the Edwardian garden city debased out of all recognition, and still—in spite of all planning controls—they devour what was once the fairest landscape in the world. So the rot goes on.

If, as has been said, the Middle Ages were a prolonged penance for the sins of the Roman Empire, then twentieth-century England has been something of a penance for the sins of the Victorian era. Almost all our problems—not least an excessive population—are a direct inheritance from the nineteenth century. Our sins, with a corresponding architecture, are mainly Victorian sins —commercial greed with all the ruthlessness that that implies. Our virtues, with their corresponding architecture, are mainly Victorian virtues—philanthropy now systematized in the form of a welfare state. Both sides of this rather dire medal—commerce and welfare—have now run their course in the 'fifties. On the debit side they have produced the landscape of the new industrial revolution—the sprawling landscape of the arterial road, of light industry and jerry-built houses—all as opposed to the old black cities of the first industrial revolution. It is a doubtful exchange. Anyway it had to happen; coal had concentrated, the internal combustion engine disperses.

On the credit side, in the now familiar story of the modern school, the new towns and the best of urban housing, lies the modern movement as the architect likes to imagine it. Indeed, it is not a discreditable story of an effort, but with—significantly—the diversion of the art of architecture to the solution of vast administrative problems; and with industrial techniques used not, as Mies and Corb' have used them, as media, but rather as a means towards architectural mass-production.

Now, in the 'sixties, the emphasis, but not the essential nature, of the story is changing. Fifteen years after the introduction of a Health Service we may be going to build some hospitals. This scientific age—through the typically Victorian philanthropic institution of Nuffield Research—has provided modern socialistic administration with the scientific means to build the greatest hospitals in history. Whether either administration or the artists are capable and worthy of the opportunity is an open question.

The school building era has run its course—it has been England's best contribution to the world's pool of architectural achievement. We are now founding universities at about the same density—geographically—as William the Conqueror built cathedrals. The relative proportion of theological and science students is reversed; also about 5,000 students correspond numerically to each hundred monks. Otherwise the parallel is not as overdrawn as it might at first seem.

If the hard cold wind of Truth, the stars and the depths of the sea, is to be our religion, as well it might be, then it must be an inspiration to a whole society. It must be understood, not hated, by the common man. The clear, clean architecture of glass, metal and marble is the architecture of this philosophy. And in the long run architecture is the greatest instrument of propaganda there has ever been. The medieval monasteries were universities. If our universities can also become—like those of the Middle Ages—repositories of Truth, then the universities—but not sham cathedrals—may just possibly become the core around which life can once again become a real and integrated culture. They may also produce a real architecture. That, indeed, is the only grain of hope in the whole story. ◄

Let's Move Ahead at Miami

by **Henry L. Wright FAIA**

President, The American Institute of Architects

In personally seeking your support of four significant proposals to be presented to delegates at the 1963 Convention in Miami, I would like to restate the philosophy I expressed when I took office last year. This has been to assume the responsibility of implementing long-range objectives, of coordinating and bringing into sharp focus those proposals introduced and promulgated by my predecessors. ■ These matters concerning 1) voting procedure, 2) judiciary procedure, 3) supplementary dues and 4) national headquarters are not "revolutionary" by any means. At least two of the items have been carefully studied and debated by the membership at large, by committees and by more than one Board. But there comes a time when a professional society, if it is to meet the challenge of this day and age, must act—and act in a professional way. ■ The Institute has taken giant steps these past few years in defining and carrying out its role as spokesman for architecture and its practitioners. Yet it can hardly afford the luxury of a backward glance; instead, it must continue to move forward, and these proposals for convention action will help it on its way. ■ I sincerely urge each of you to read the following summations of the business to be presented, to study the Official Notice of Convention Business which elaborates on these topics and was mailed to you in February and, finally, to reflect on what is best for the profession—which means, after all, what is best for you.

Right of Chapter President to Cast Votes for Absent Delegates

A serious situation faces the chair at our national conventions whenever chapter delegates are absent from a business session. In the case of Bylaw amendments, two-thirds of *all* votes *accredited to be cast* at the convention must be voted affirmatively by delegates at the session in order to secure passage. Our voting procedure must be updated lest we continue to handicap ourselves in future conventions.

This proposal suggests that if any accredited delegates are absent from a business session, the Chapter President (or his delegate from his Chapter) may cast the accredited votes of the absent delegates from his Chapter. Each Chapter, of course, must have at least one delegate on the floor in order to cast its votes, except as it may have given proxies *prior* to the meeting.

I urge your adoption of this measure, particularly since it would take effect immediately after passage on the floor at Miami.

Changes in Judiciary Procedure

As the Institute steadily grows in membership, so likewise does the volume of judiciary cases. It seems to the Board, therefore, that the need has arisen for the AIA to establish a stronger judicial branch, as it were, and this proposal does just that: it gives an enlarged Judiciary Committee more responsibility, *without* disturbing the *Regional*

Judiciary Committee functions, while continuing to recognize the Board as the "Supreme Court."

The Bylaw change you are asked to approve increases the Committee from three to five members, each serving a five-year term, with one member being replaced each year. Thus, this measure concentrates responsibility in men who have more experience and insures continuity to the Committee. But more than this, the proposal gives the national Committee authority not only to hear cases but to pass judgments and set penalties. As a last recourse, either party still has the right to appeal his case before the Board, which shall decide whether to hear the appeal.

I believe this Bylaw change both strengthens and expedites our judicial function and, at the same time, allows for the checks and balances we feel essential to our Institute government.

Continuation of Special Programs Financed by Supplementary Dues

A two-year trial of supplementary dues was authorized at the 1961 Philadelphia Convention. The Board has been faithful in fulfilling its obligation to the membership that all such dues shall be used for special projects—*not* for regular activities. To date these projects have included the series of *Journal* articles and the Regional Seminars on Comprehensive Services and on Urban Design, as well as smaller projects. Others are in preparation; each is carefully screened before being put into effect.

During the first year of the program's operation, the Board was conservative in its estimate of income from supplementary dues and allocated funds only to well-developed proposals. Thus, expenditures so far have been substantially less than receipts, and the balance has been carried forward for projects approved for 1963. With such an approach, members can rest assured that they are getting the most for their supplementary dues, which funds are, I would like to emphasize, kept completely separate from regular sources of income. To our knowledge, the membership agrees that revenue for new programs is needed.

The Board now proposes that one principle of the 1961 Bylaw needs modification to meet the only objection raised last year. This is a change in the method of computing the members' liability for supplementary dues.

Under the present arrangement, one AIA member could be liable for supplementary dues based on his firm's entire payroll. The Board recommends a significant modification to the effect that in any firm or partnership each AIA member principal will be responsible for supplementary dues in an amount proportional to his financial interest in the firm. He will *not* be responsible for a dues payment representing the interest of another principal who may or may not be an AIA member.

I am hopeful that the membership will endorse continuance of the supplementary dues program, which has had such an auspicious start, and that the Bylaw change will eliminate any inequity that now exists to insure a constantly improving and effective program. Such a vote is actually for the continuation of new activities requested by the membership.

New AIA Headquarters

Finally, I ask your support for a Bylaw change relating to mortgaging the real property of the Institute in order to plan and finance the erection of a new headquarters building. The sense of the 1962 Dallas Convention indicated that the membership agrees that a new building is needed. And I hasten to add that the proposed program requires no special assessments, fund-raising or increases in dues for realization of the goal.

To provide background information for those members not familiar with the existing national headquarters and as a review for the entire membership, illustrative material will be presented at Miami. Briefly, the present headquarters comprises the historic Octagon House, the garden and the Administration Building, surrounding the garden on the east and north. The site is in the heart of an area of high-value land between the White House and the State Department, largely occupied by government buildings.

Feasibility studies, which went to the membership in February in the Official Notice of Convention Business, showed that if more land were to be purchased, as some members have suggested, such action would demand equity requirements beyond the Institute's resources.

I stand emphatically with those members who believe that we *can* design and erect on the existing site a building which will insure the future needs of the Institute and which will be a credit to our profession. I likewise am convinced that a new structure can be designed in complete harmony with the Octagon House itself.

I am mindful that some members hold a view at variance with this thinking—a view which maintains that the Institute should acquire more land adjacent to the present site. But such a costly purchase would prevent our constructing a new building in the forseeable future.

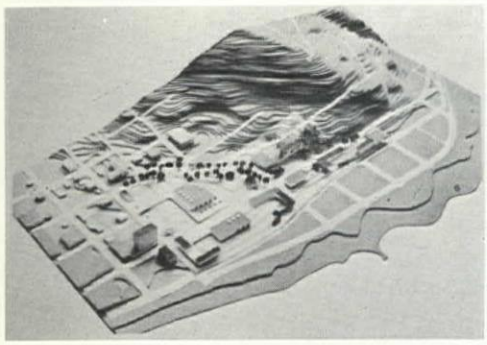
Thus, I offer the considered opinion of the Board that the construction of new facilities on existing property, as proposed, is the only sensible approach. It makes sense with respect to financing, timing, architectural desirability and efficiency of operations in accommodating the present and future needs of the Institute. ◄

Low rent housing, Springfield

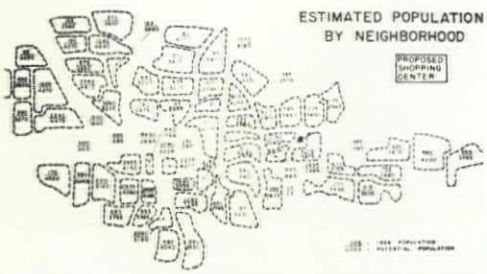
Techniques of Comprehensive Services

by **Donald H. Lutes AIA**

The brilliant presentation made by Donald Lutes at the Dallas Convention was adapted for the California Council AIA Convention last October, dealing with specific cases where his Springfield, Ore, firm has been engaged in varying degrees of comprehensive services. This is perhaps the best "how-to-do-it" article on this all-important topic that has yet appeared in the Journal



Site model, urban renewal, Coos Bay



Neighborhood population map, Eugene-Springfield

► When asked to prepare this paper, my partner said, "Are *we* practicing comprehensively?" I am sure this invitation would have been received in a similar manner in most offices, for many architects practice comprehensively now, but do not consider it anything special.

There are many architects who *wish* to practice traditionally, and each practitioner must decide if, and to what degree, he wishes to expand his services. It is, however, the obligation and opportunity of all professionals to learn about comprehensive service and the problems and rewards thereof.

Our office is both young and small. We have been organized for six years in a community of 20,000, and a metropolitan area of 100,000. There exist three other offices of our size, and ten of smaller size. We have a staff of eleven consisting of two partners (one of whom is a planner), three project managers (one of whom is a planner) and six draftsmen, including one planner. We also employ a secretary and a field coordinator.

Comprehensive services came as a natural extension of our philosophy of practice, inasmuch as we believe the future of architecture is concerned with total environment. Our practice was based on social concern and understanding of forces which shape environment, combining the two with knowledge of related fields. Comprehensive service began with public service based on this philosophy and then was used to expand client vision.

Our office was engaged to design a low rent housing development for the elderly and, in addition, was commissioned to work with the citizens' committee, developing information on population types, services available and needs for elderly housing. Besides the feasibility study, a survey of sites available throughout the

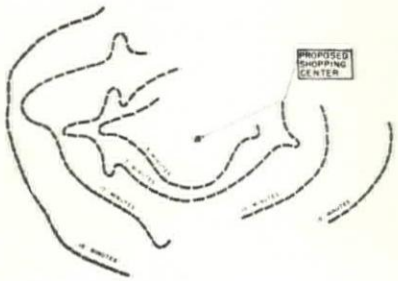
metropolitan area was conducted by our office, presenting these to the owner and committee for evaluation and selection. The value of these studies was proven when the project became embroiled in political controversy. The general knowledge and acceptance gained by the public through the feasibility studies assured the completion of the project, fulfilling a real social need.

Financial analysis can be the most important ingredient in any owner's development plan. Normally, outside consultants are employed by us to do this work. Such was the case in a small urban renewal project. Here, during development of the project plan and at all stages of its study, economic consultants were brought into the design process. These people determined potential salability of parcels of land, as well as providing advice on economic relationship of land uses. The project design went through extensive evolution and improvement because of this advice.

Ordinarily, location and site analysis for the small entrepreneur are done on a "seat of the pants" basis. As a result of conflicts with land-uses around this existing development, as well as access, egress and parking problems, a location and site analysis commission came to us from the developer of a new community shopping center. Analysis was made of locations within the region for community centers, examining the relationship of centers to existing and future neighborhood population, as well as to travel time from key population areas. Included in the study was a schematic analysis of the site, proposing sizes and locations of tenants, alternate uses of portions of the site, and recommendations on additional land to acquire for access. This study was followed by the commission to do the major building, which we hope will upgrade the developer's standards of architectural design as well as aid in obtaining satisfactory leases. It should be noted that this study was for a community center only, and we would seek consulting market analysts for a commercial operation on a larger scale.

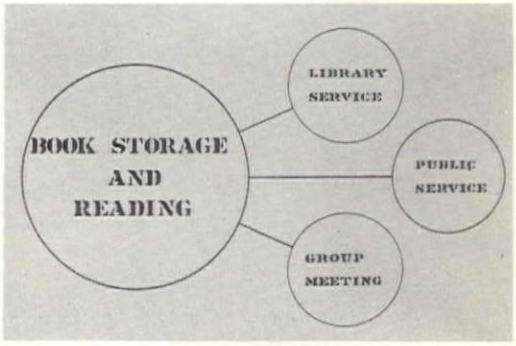
Many projects, whether they be residential, industrial or commercial, have land-use problems. With no attempt to get into the field of the realtor, our firm is often involved in the early stages of a project with land assembly. In a development for 400 units of married student housing, land which was dedicated for street right-of-way was traded to the owner for alternate rights-of-way, part of the site design. Then, various odd-shaped parcels were traded for street closures and sewer easements. The result was lower street cost to the owner, as well as saving the city $75,000 in bridge construction costs. This land assembly permitted the owner to better utilize the land through higher density and obtain a more satisfactory grouping of buildings.

On all projects, after investigation, programming and design, the architect knows more about the project than any other person involved with it. For this reason, we must be aware of the public relations uses of this knowledge. A small library is an example. The programming steps and site studies were carefully documented for the Library Board. These, in turn, were used in the explanation of the needs for a new library. Frequent news releases on the progress of the planning were made, reminding the public of the pending bond issue. The final presentation was made in model form and photographed for use at public meetings, assuring the passage of the bond issue and the ultimate construction of the building. Such service as this is not considered to be an extra service, only a reorientation of regular services to the particular public relations needs of the client.

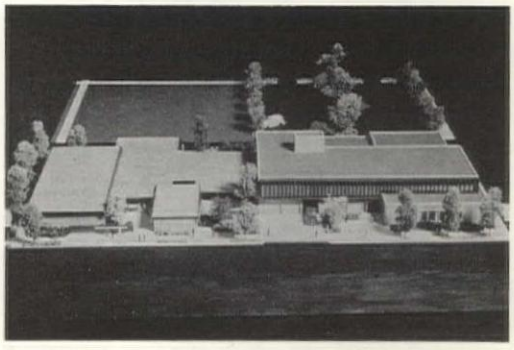


Travel-time map,
Eugene-Springfield

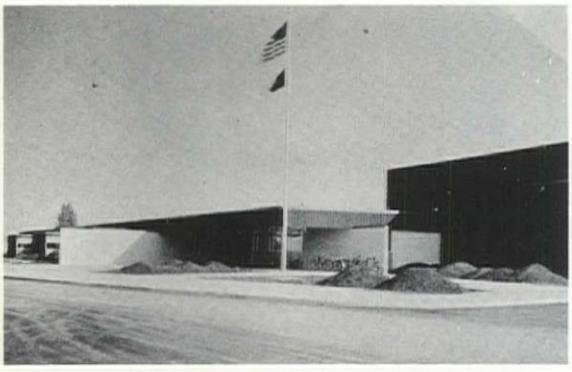
Westmoreland Village,
Eugene



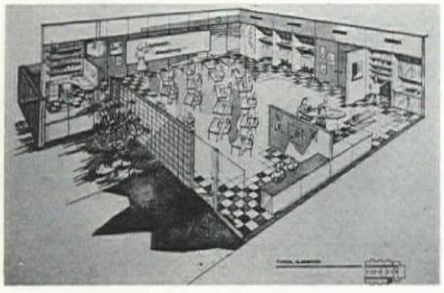
Space diagram, Public Library,
Springfield



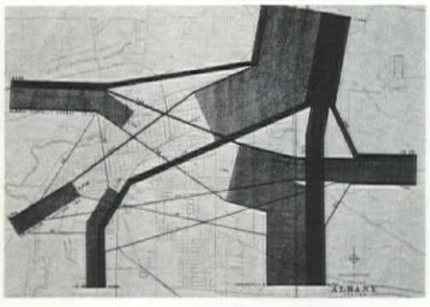
Model, Public Library,
Springfield



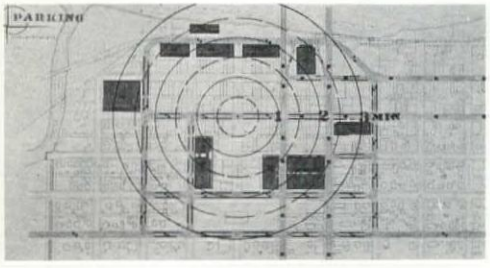
Guy L. Lee Elementary School, Springfield



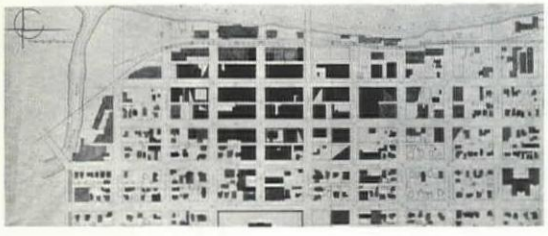
Classroom study, Lee School, Springfield



Traffic volume diagram, Albany, Ore



Central business district study, Albany



Central business district study, Albany

In design, planning and construction services, our practice follows traditional lines—with emphasis and expansion of some aspects. In the case of the design of an elementary school, the school district had realized its first bond issue defeat in a decade. Few changes had been made in the pattern of teaching over the years, but many were pending. There existed the need for updating the school district staff in their educational thinking and presenting to voters of the district an economical building.

Programming began by a thorough investigation of the good and bad aspects of the existing elementary buildings in the district. A teachers' and citizens' committee was formed to analyze educational methods. The operational problems brought about by new teaching devices and equipment were analyzed, cataloged and coordinated. As the program evolved into studies, these were presented in a form the teachers and the citizens could understand. Rough models were made to demonstrate the unique educational characteristics of the building and illustrate its economy. Cost estimates were made, breaking down component part costs to determine relative savings for the scheme being considered over buildings which the district had previously built. Finally, the findings of the committee and the designs of the architect were presented as preliminary plans in brochure form. This brochure became widely circulated as a public information tool prior to the successful vote on the bond issue.

The construction process was closely scrutinized by the architect's full-time field representative. Professional liability and responsibility to our clients require expanded supervision practices. Thus, an example of traditional planning and construction services with added emphasis on programming, operational design, cost estimating and supervision, the architect's follow-up service included a pamphlet explaining the new school to the children and their parents.

For most of the services which are considered supporting services under the comprehensive program, we retain consultants.

The provision of community planning services in our office, however, is perhaps the most unique aspect of our practice. Even though the architect may normally not be a city planner, he must be sufficiently conversant with the problems of the planner to at least keep his clients out of trouble. At best he can solve some of the problems of the city, too. Working on projects which include downtown redevelopment, land-use, parking and arterial studies for small communities, the architect's unique background for design, organization and presentation can go far in taking the statistical concerns of the planner and making them acceptable and understandable to the people.

Also, the architect must be sufficiently conversant with the mechanics of planning to properly represent his clients when zoning issues are involved. The architect cannot merely represent his client as an attorney would, but must show the worth of the proposal to the total physical community. Thus, we made a presentation for rezoning a parcel of land for a clinic, such rezoning being a logical terminus for an existing commercial area as well as providing an ideal site for the medical group.

Landscape and site-planning services are handled both in our office and by consultants. The total range of the landscape architect's capabilities are used, not just his services as a bush planter. The grading, drainage and topographic problems inherent in large-scale development require the knowledge of the landscape archi-

tect, as does the organization of plant materials. Such service is provided as a standard part of our contracts.

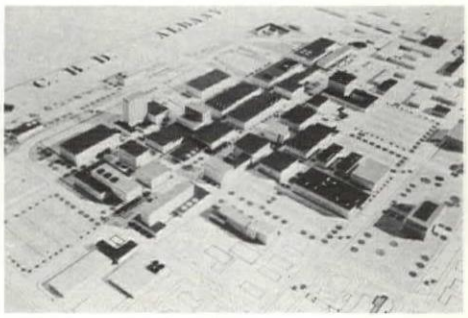
A standing list is maintained in our office of artists and sculptors who are capable of collaborating on architectural projects. We have found an initial reluctance to, then an astonishing acceptance of, the work of artists by commercial and public clients. No matter how lacking in artistic talent the owner may be, he logically turns to the architect for guidance in these matters, and the architect must be prepared. The artists' enthusiasm for incorporation of their work into architecture is boundless, and it remains only for this enthusiasm to be tapped.

On commissions which require utility and traffic analysis, understanding is required of the effect of these elements upon site planning and architectural solutions, and to work within the limitations of these problems. On a 150-unit housing development, the state highway department, the country road department, the soil conservation service, a county, a city, three power companies and two water service districts were all involved in the traffic and utilities. The resolution of this hodgepodge into a pleasing solution integrated with the community required far more patience than consultants. Here again, the architect's awareness of the problems, his ability to find sources of solutions, and patience in resolving issues can provide a comprehensive service without the necessity of leaving the office. In this case, the consulting services of civil engineers were widely used to solve the technical problems once the design and political ones were resolved.

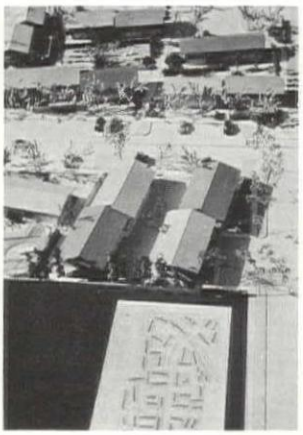
More and more, public and private clients are turning to the architect who is prepared and has broad scope as well as technical knowledge to conduct research studies on environmental design, which may or may not lead to actual architectural commissions. We recently completed such a pure research study, analyzing university dormitory policies as well as construction methods and cost alternates. Once, we had the opportunity of carrying a research project from beginning to end such as the downtown redevelopment proposal illustrated. Here, not only were we able to guide the committees drumming up interest in the study, but prepared the news releases and designed the theme, as well as planning the layout, utilizing artists, landscape architects and planners, and coordinating the activities of the city and the state highway department. The evaluation of this study, also prepared by us, for better or worse, has resulted in a lot of pedestrian-automobile separation experiments since 1957.

These have been examples of what the Institute likes to call comprehensive services. To some these services may be unique, to many they are probably old hat. For those who are already practicing in this manner, we must share ideas that will benefit all of us. For the balance, you may wish to practice comprehensively —but before deciding, let's talk about fees and such problems.

Our basic charging method is to raise fees based on the additional services provided. If at all possible, we determine the scope of extra services and incorporate them in the initial contract. Our standard services include programming, urban planning relationships, landscape design, engineering, acoustic analysis, cost estimates at each stage, arts and crafts coordination and promotional services, depending on form. Extra services include feasibility studies, research, financial analysis, site analysis and master planning. An alternate method which is frequently used is a per diem charge, with a maximum, for extra services.



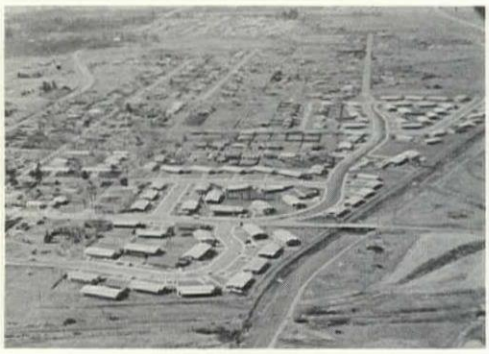
Business district study, Albany



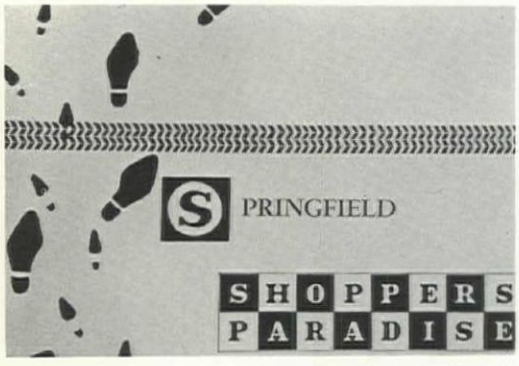
Model, Westmoreland Village, Eugene

Aerial view, Westmoreland Village, Eugene

Mark Sponenburgh sculpture, Springfield Public Library



Aerial photo, low rent housing, Springfield



Shopping experiment, Springfield, 1957

Shopping experiment, Springfield, 1957

Shopping experiment, Springfield, 1957

We must face some facts, however, in any discussion of fees. Clients frequently do not know the nature of the architect's basic service, and explaining comprehensive services is difficult. Our firm attempts to do this in a brochure which describes services available, both basic and comprehensive. By describing this type of service in detail, competition on the basis of fee is eliminated. We can, and do, compete with even the architectural "giants" on the basis of service.

I would not be candid if I did not admit that comprehensive service presents some problems. This type of service takes preparation and research time on the part of both principals and employees to acquire additional knowledge. Not everyone is prepared to offer this type of service and we learn rapidly the limitations of our formal training. Also, a particular type of temperament is required—lots of patience and the ability to work with people over an extended period. Still I believe the architect is better prepared to provide this service than any of the other design professions.

We must be careful not to practice other professions such as law, land sales and building contracting.

The responsibility (and probable liability) of this type of practice is appalling.

Good consultants are difficult to find and cost money.

We must be careful not to lose our professional status as advisors, particularly when we come in contact with the other environmental influencers—politicians, real estate operators and the public. Here we must continue as advisors but be willing to defend our advice on the public forum.

Extra service may detract from our basic service, but I do not agree that basic service must reach perfection before embarking on at least some aspects of comprehensive service. As important as knowledge in this area are enthusiasm and determination.

The rewards of comprehensive service are many. This type of practice broadens your scope, which in turn obtains commissions and insures repeat clients. In this type of service the control of the job by the architect is more complete and assures payment for such services as programming and operational design for which we are now indirectly responsible.

Comprehensive service insures client respect. No job is based on mere sketches, as each commission is on a solid basis: programming, basic to a good solution; economics, basic to getting it built; and public relations, basic to obtaining understanding of others.

Some package dealers cannot compete with comprehensive services as they do not know local planning problems and lack knowledge of local costs. On two occasions in our experience, we have built buildings in competition with package dealers, and in both provided a more complete building, better located, for the same cost as the package dealer.

To conclude, almost all projects can use some facet of comprehensive service. In some, only an awareness of the total picture through the architect's fully developed knowledge is needed. On other projects, all facets of service are employed utilizing a full range of consultants. In our brief experience, we have received commissions on the basis of comprehensive service and been able to do a better job through expanded knowledge.

There is no comparable excitement and creativity to that of involvement in decisions which affect environmental change. ◄

Commission on Public Affairs
Reginald Roberts FAIA, Chairman

Committee on International Relations
Robert W. Cutler FAIA, Chairman

UIA Working Commission on Housing

MADRID—OCTOBER 1962

by **Neil Connor AIA**

Director, Architectural Standards Division, Federal Housing Administration

► As Eric Pawley stated in his article on international relations in the September issue of the *Journal*, AIA has been relatively inactive on Working Commissions of the International Union of Architects. Reports of previous meetings of the Housing Commission held in Zagreb and Belgrade seem to indicate a strong influence of countries in the Eastern bloc. Governments of these countries have almost always sent members to the Housing Commission and, perhaps more important, have provided sufficient funds for necessary reports and exhibits.

The Western countries, on the other hand, with only association or private funds available, have not been able to send members or furnish material with regularity. The result is an appearance of domination of UIA by Communist countries. UIA, from the beginning, has assiduously avoided any political considerations in its work, but, with Eastern countries making major contributions, results have sometimes taken on political overtones. The host country usually provides for all expenses while attending meetings, and expenses of representatives are confined to their travel.

In Madrid an extremely full program was arranged and since the custom in Spain is to dine very late and there was no provision for rest at noon, everyone was thoroughly exhausted at the end of the week of meetings. Most of us averaged about five hours' sleep each night!

Working sessions were held at Spanish "AIA headquarters," the official College of Architects in Madrid, which, like the Octagon, is a pleasant place to meet. Except for an evening reception, all social events were held in other places. These gatherings included a magnificent lunch at the Ritz Hotel, given by the Upper Board of the College of Architects, and another lunch given by the Governors of the College at the Royal Club Puerta de Hierro, where the Kings of Spain formerly played golf. All events were worked out with great care, and our Spanish hosts could not have been more gracious.

A number of bus trips were arranged, enabling us to visit, in addition to main points of interest in and around Madrid, several housing districts. Time was allowed for tours of the Prado Museum, the royal palace, the Escorial and a most interesting visit to Toledo.

Executive Committee representative was J. P. Vouga of Switzerland, and the general representative to the Working Commission was Mme Sonia van Peborgh of France. Commission members and other attendees follow:

Members

Arthur Brunisch, West Germany
Neil Connor, US
Jean Dubuisson, France
José Fonseca, Spain
Jean Ginsberg, France
Ernest Groosman, The Netherlands
Nicolas di Martino, Algeria
Henri J. LeMeme, France
Jacek Nowicki, Poland
Bogdan Nestorovic, Yugoslavia
Horia Maicu, Rumania
Nunio Teotonia Pereira, Portugal

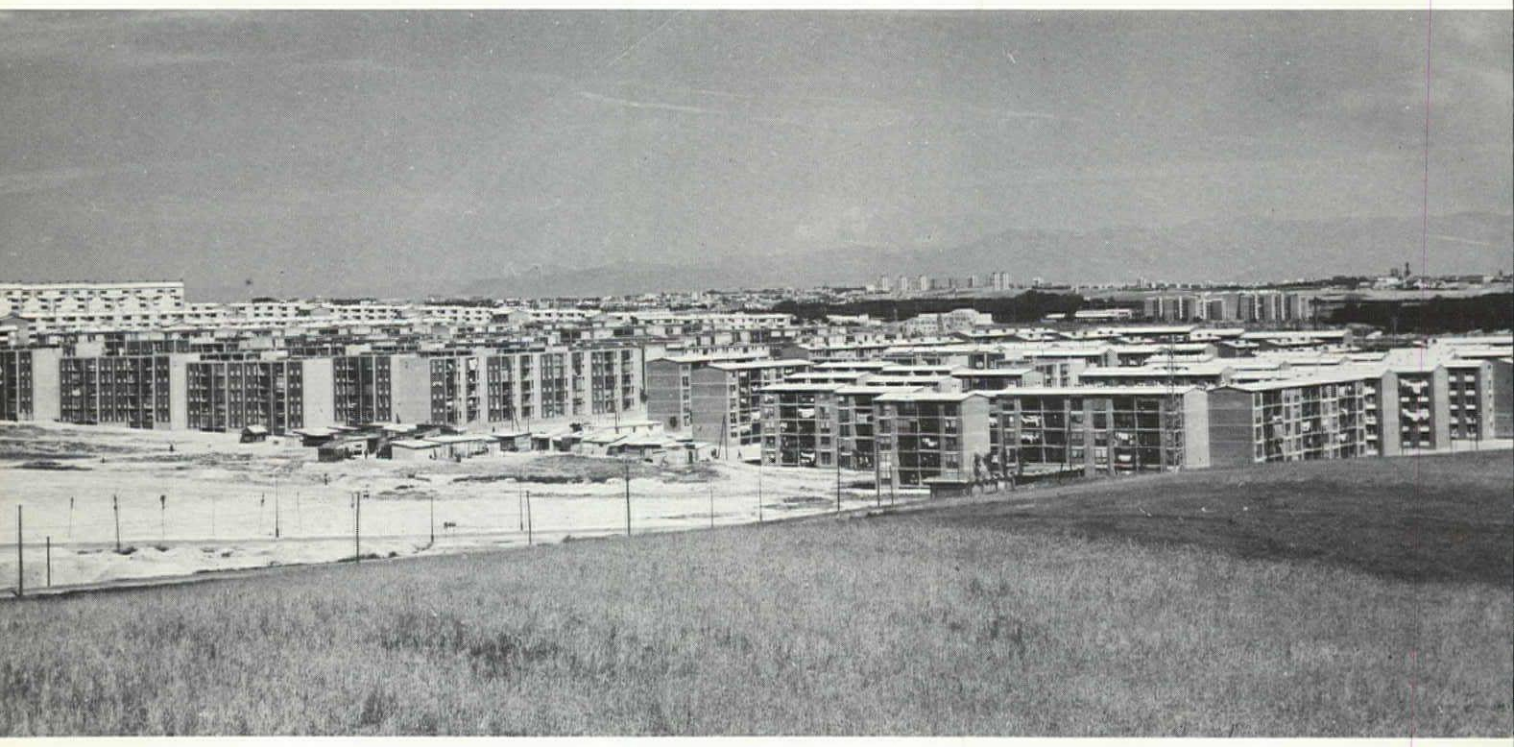
Observers and others

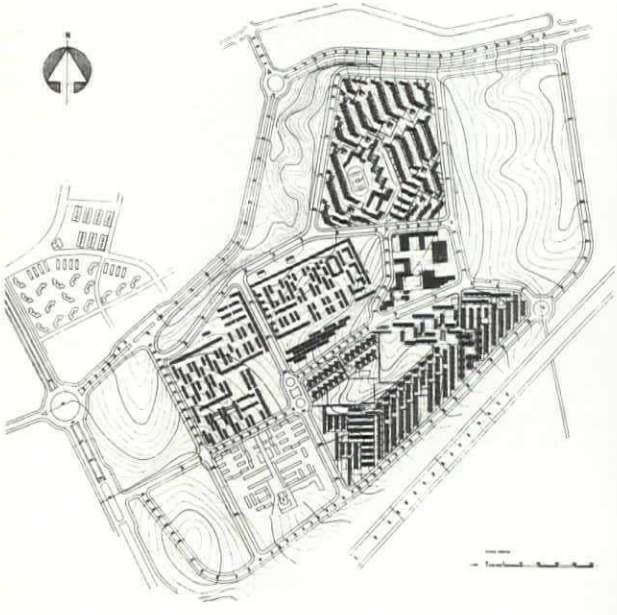
George Anthony Atkinson, England
Modesto Campos Salinas, Cuba
Stanos Molphesis, Greece
Hana Staskova, Czechoslovakia
Eugenio Aguinaga, Spain
Bernard Vouga, Switzerland
Nuno Portas, Portugal

French was the official language used at the working sessions and the order of business included a number of reports on liaison activities with various other groups such as the UN, International Council for Building Research (CIB), Federation of Housing and Planning, International Union of Family Organizations, European Committee on Coal and Steel, UIA Research Committee and UIA Urbanism Commission. In the case of all of the reports, the Housing Commission was brought up to date on activities of these organizations bearing on the work of the Commission. In addition, there were reports on definitions, on functions of housing and methods of accomplishment, and discussion concerning next meetings of the Congress in September in Havana and Mexico City.

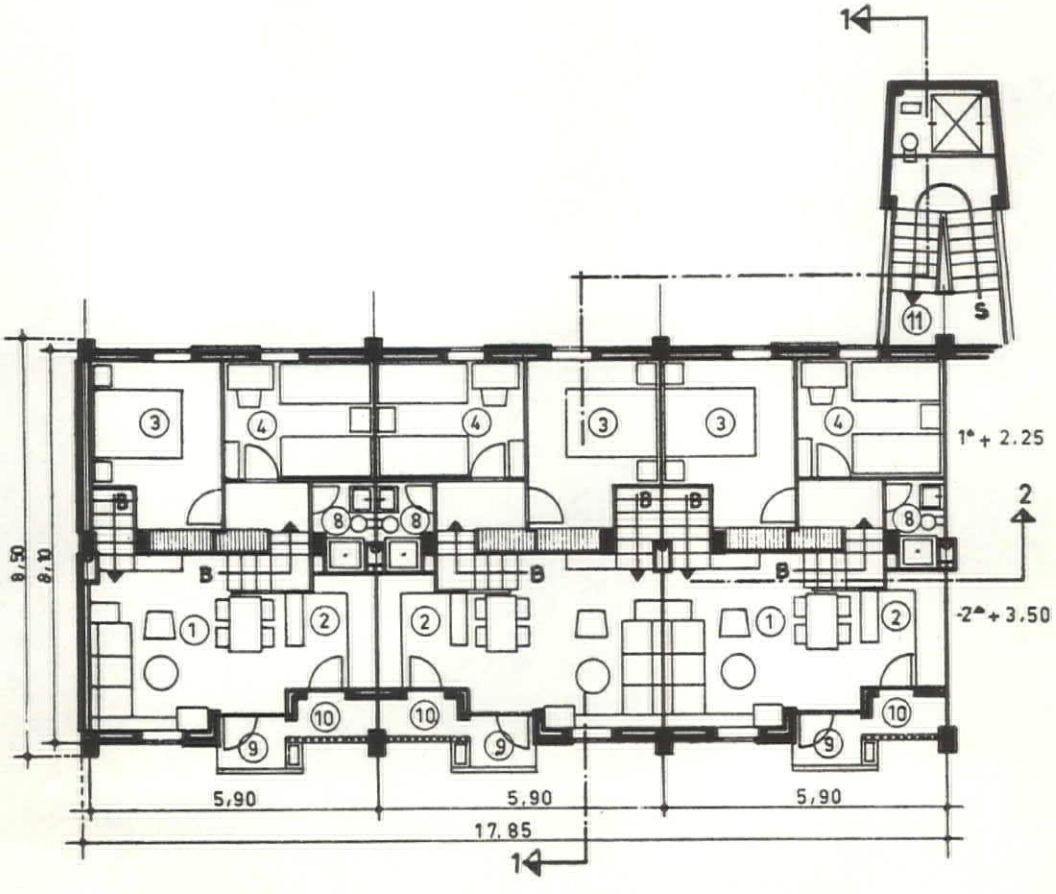
We were informed that 2000 architects from South America are expected in Havana. Having checked with the US Department of State, I announced that US policy would not permit any architects from the US to attend the Cuba meetings. This news came as

San Blas



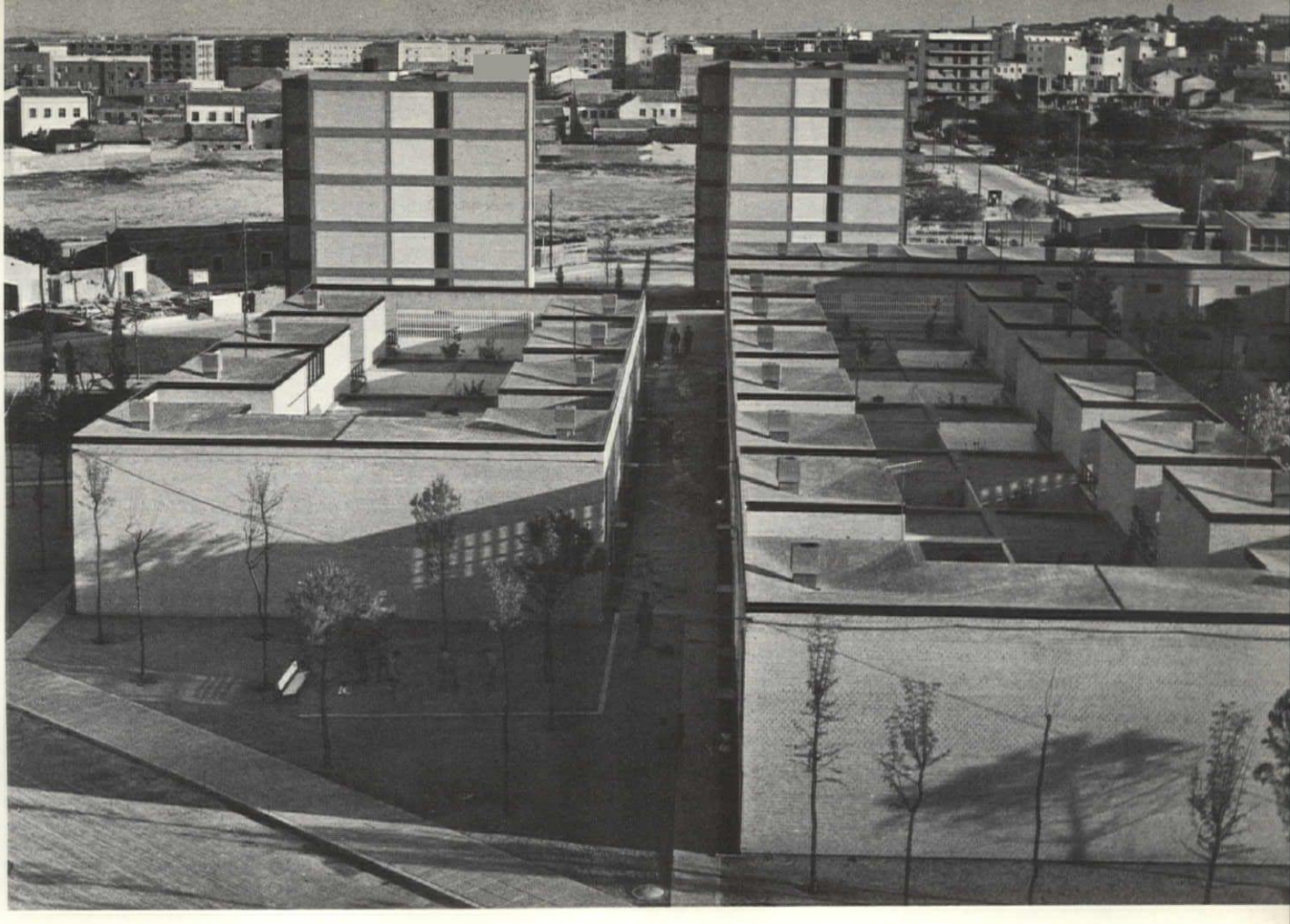


"Gran San Blas" is the work of a team of over a dozen architects of the Obra Sindical del Hogar. Largest project in Madrid, it will house over 30,000 persons. Typical units shown in plan and photo on this page are located in northern quarter of project (see site plan opposite.) Architects for this type of unit were Luis Gutierrez Soto, J. A. Corrales Gutierrez, Juleo Cano Laso, R. Vazquez Molezun. Photos: Antonio Verdugo

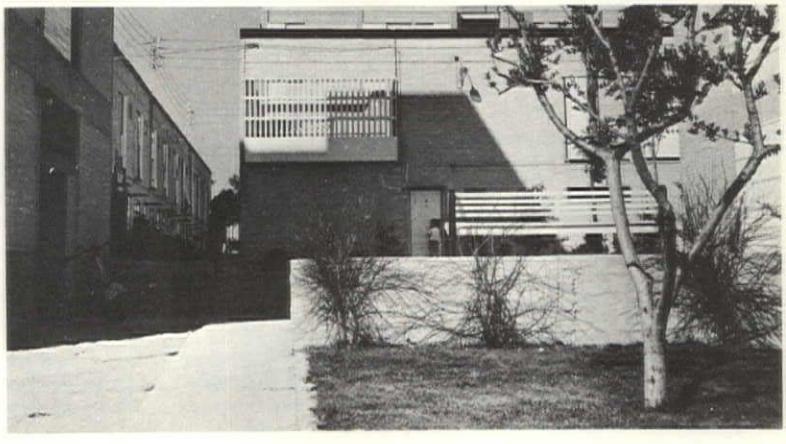


San Antonio de la Florida

High-rise apartments in Madrid, named after St Anthony's Chapel with Goya frescoes. Two thousand dwelling units, built under the direction of the Housing Institute. Photos: Antonio Verdugo



Caño Roto



Situated like San Blas on Madrid's suburban belt, Caño Roto is an experiment in intensive use of land. These row-houses are built on a partly "do-it-yourself" program. J.L. Iñiguez de Onzoño, A. Vazquez de Castro. Photos: José Rodriguez

a surprise to a number of those in attendance, but was perhaps better understood in light of events which took place later in the same month.

Despite the prospective nonattendance of US architects, there was considerable pressure to send a housing exhibit to Havana. Even if we could attend, I was at a loss as to ways to put an exhibit together and certainly, no exhibit at all would be better than a poor one. In any event, it is still possible to send something to Mexico City to illustrate recent US housing which, in volume at least, is far greater than in any other country. At present writing, it looks as though there would be no US exhibit in either city, because doing a good job would be quite expensive.

The same difficulty besets the US representative with respect to reports. To do an adequate job of answering the various questionnaires requires more than the resources of one member. Again, a sketchy report is probably less effective than none at all, compared with the reports of others who can call on government resources.

In connection with local meetings, at present the US is unable to furnish board, lodging and entertainment as is customarily arranged by other countries, so we do not invite the Commissions and they go to such places as Zagreb and Belgrade as well as Madrid. Of course, there are hundreds of similar US organizations, many with working committees, so that funds for reports, exhibits, entertainment, etc, would amount to quite a sum of money. The US government sends such groups as field hockey teams all over the world, but no means have been devised to solve the problem mentioned above.

Work of the Commission

Reports of Commission members occupied much of the working session time. For instance, Mr Vouga was charged with seeing that the UN Housing Committee receives abstracts of all UIA Housing Commission documents. A report was made concerning the International Council for Building Research meeting in London, attended by many architects.

The Commission was especially interested in activities concerning rental and family-income data compiled by the International Federation of Housing and Urbanization and Land Management. We were told that the International Union of Family Organizations was concerned in a study of reasons for residence changes by tenants and the psychological problems inherent in large projects. This led to exploration of characteristics of housing projects—what made certain ones desirable and others undesirable. A project consisting of construction, in five or six countries, of 400-unit housing projects in order to determine desirability of characteristics in relation to national preference will be put to the test. This project is expected to go forward in 1964.

There was a discussion by M Dubuisson, who had attended the Urbanism Commission meeting in Athens (described in Arch Winter's report, in the March *Journal*).

The UIA Research Committee, which had met in Moscow, indicated the importance of and necessity for close liaison with other research groups. A project started some time ago having to do with comparison of housing in various countries was discussed. Difficulties in such a comparison involve methods used by different countries as yardsticks. For example, some of the representatives felt that number of beds was the criterion. I pointed out the difficulties inherent in this system, and also that what might be considered amenities by some countries but necessities in the US, such as extra bathrooms, should be considered. Mr Vouga has devised a rating schedule of characteristics and asked for comments.

It was interesting to note that the organization and management of large projects loomed large in the discussion. This is becoming more and more the concern of architects in original design. There was considerable discussion on housing problems in developing countries—but the definition of a "developing country" presented some difficulties. Many people were thinking in terms of African countries, but changes in all countries seem to be so great that this turned out to be a very large field.

Last of all there was a talk on the Havana and Mexico City meetings. Since the US cannot apparently participate in Havana and no resources for exhibits have as yet been found, our participation will probably consist only of attendance of American architects in Mexico City.

Housing in Spain

The program included several tours of various housing projects around Madrid. One is most impressed by the enormous volume constructed in the past few years and also, in most cases, the attractiveness of the projects. Even in the extremely large projects, such as San Blas, there was considerable success in avoiding monotony. Advantage was taken of the terrain and very little cut or fill was in evidence.

Perhaps one of the most interesting features was incorporation of shopping centers into a number of projects. These centers, of course, attract large numbers of people, and these are apparently of interest to those who live above the stores. Squares and courtyards were much in evidence and although landscaping is difficult, due to the dry climate, surprisingly good results were observed.

One evening we visited the Ministry of Housing for an explanation of the national housing plan, to view some films and to see an exhibit of building materials. Use of plastics presented perhaps the most notable exhibit since they are commonly used for plumbing throughout the project. Other items of interest were electric panelboards which come completely assembled and look like printed circuits used in radios. In general, plumbing and electrical work seem far in advance of anything permitted in this country.

As can be seen in the photographs, some interesting planning experiments are being carried out. Caño Roto was quite charming even though it violates most of the acceptable rules in this country regarding distances between buildings, etc. Granted there is not the automobile problem; nevertheless it might be useful to study the intense use of site. We went into the unit pictured, and found it most pleasant with a small shaded courtyard on the ground floor and a sunny roof deck on the second. This project was built with a certain amount of self-help.

The high-rise buildings, in general, displayed considerable architectural variety. All dwellings must be designed by architects.

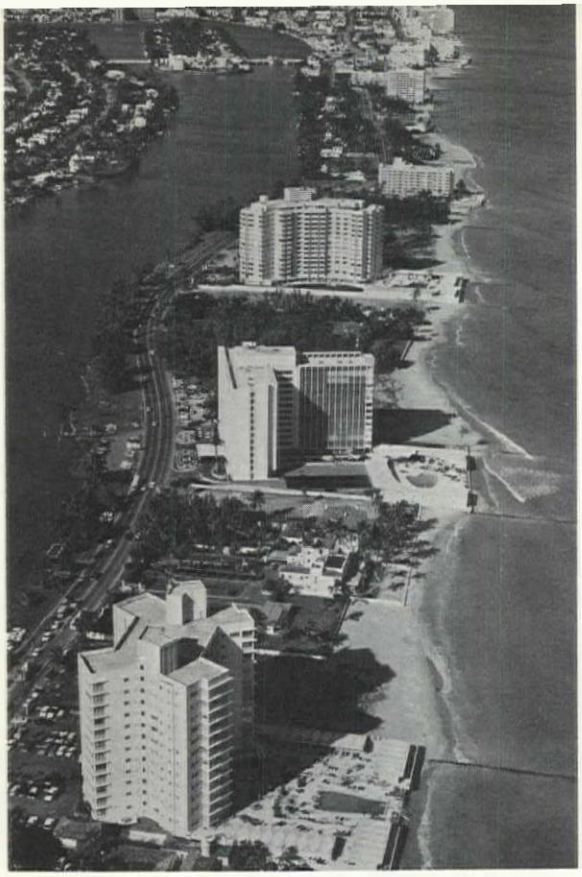
In conclusion, it would seem most desirable to continue active liaison with this committee even though the representative is at a distinct disadvantage compared to those from some other countries. Meanwhile, possibly funds may be found to prepare reports and exhibits. ◄

Miami—a Sequel

by **H. Samuel Krusé FAIA**

General Chairman, Host Chapter Committee
for the 1963 AIA Convention

MORE ON MIAMI AND MIAMI BEACH, SCENE OF THE 1963 CONVENTION



Chris Hansen

Miami Beach looking north.
Newest apartment-hotels
on Collins Avenue
in the old estate area.

► The Greater Miami that you will see at the 1963 AIA Convention is different from the old Miami, but just as magical. Many of the old landmarks are gone and one must seek the parts of old Miami that yet exist. Already buildings constructed after World War II are being razed to make way for new construction. Nothing seems to stay put for long.

There are no Tequestas in bunny-tailed breechcloths eating fish in thatch huts on the Miami River. One sees them now in the Museum of Science and Natural History, a building designed by the son of the man who helped Collins build the world's longest wooden bridge to Miami Beach. One rarely sees a Seminole, once the mainstay of the merchant's trade, for they stay close to their nearby Everglades reservations.

In the place of Fisher's small and intimate resort city for the fashionable few, there is the new Miami Beach, a string of sparkling hotels of every conceivable shape, size and color. Hardie's Casino is long gone, but the windbreak of pines Collins planted is still there, now shading beautiful Pinetree Drive. Elephants and automobiles are forbidden on Lincoln Road; it is now a pedestrian mall, landscaped and decorated in the lavish Miami Beach manner. Where gambling was free and open a decade ago, it can only be sneaked or legally done at the pari-mutuel tracks and frontons. Even B-girls and strippers are on the way out. But the blue-green water is not gone, neither the lush tropical verdure, the sky, the glamour. It is a tourist's heaven and the only city where several large conventions can be served simultaneously in style.

Americana Hotel, the headquarters for the 1963 AIA Convention, is one of twelve top-flight hotels along a 3,000-foot strip of oceanfront in beautiful Bal Harbour, one of the residential villages to spring up after World War II as a northward extension of Miami Beach. This stretch is one of the most glamorous of several groups of cooperating hotels serving the needs of large conventions.

Bal Harbour is a country club community, a picturesque paradise of tropical loveliness, where broad curved streets wind through a residential area, delightfully relaxing and impressively dignified. This is the way Mr Graham of Graham-Paige automobile fame wanted it to be when he bought and developed this part of the Beach. Here, also, is a small, but exclusive yacht basin in a beautiful park in which sits the Bal Harbour Yacht Club, an award-winning design by architect Al Parker. Yet, from this luxurious oasis of elegance and quiet, one is only minutes away from the glitter, the excitement and attractions of fabulous Miami Beach.

Brickell Point now belongs to the Elks. Only yesterday the old Brickell Mansion was razed; it was completely obscured from the river by apartment buildings of pink concrete bricks. The old rock pit, where the Seminoles stopped to slip modestly into trousers, white-man fashion, before bartering at Brickell's trading post, has long since been covered by the McAllister Hotel Coffee Shop. The Miami Beautification Committee is working hard to restore the Miami River to a stream of natural beauty and to replant trees downtown. There are fewer trees, but they are being planted again. Parking lot owners are learning that asphalt paving under a tropical sun can be unbearable. William Stanford's Halcyon Hotel is gone and Flagler's Royal Palm is now an asphalt-paved lot, but the Americana and the Fontainebleau rival their old luxury, if not their prestige.

Coral Gables isn't quite like Merrick wanted it, but its wide boulevards and beautiful landscaping keep it still a "Master Suburb." Pan American University is now called the University of Miami, with a campus in two parts: the North campus in old Coral Gables, the old Merrick-Spanish buildings still used; and the South campus, ten blocks away, vital, buildings new and different, students from every state and nation.

Coconut Grove retains much of its original charm. Grove citizens have inherited Commodore

Munroe's love for the Grove and his fighting spirit and will keep it that way. Their winding streets with overhanging trees, their vine-covered walls and village atmosphere are worth fighting for. It is still the mecca of the intelligentsia. Here live the retired military and college professors, the artists, musicians, scientists, Marjory Stoneman Douglas and others who have made their mark on the world. Much of the natural hammock vegetation is here preserved; more at adjacent Matheson's Hammock, now a park, where the family can picnic, swim and enjoy the natural tropical beauty. Dr Fairchild's collection of tropical plants is now a fully developed garden, the pride of Miami, the delight of the lover of tropical vegetation in its natural setting.

Vizcaya is now a museum and no longer overrun with wildlife. For a time, while civilization made progress down Brickell Avenue, there was no place for the deer, the raccoons and other wildlife to go except to James Deering's 160-acre, $8,000,000 estate; but that was fifteen years ago. Julia Fillmore Harris' unique, open-air school is gone; a cylindrical law office is now the attraction on this portion of Old Man Brickell's land. Brickell Avenue remains a beautiful thoroughfare and so is South Miami Avenue, especially when the royal poincianas are in bloom. The stately royal palms continue to shade Biscayne Boulevard, rustle in the tradewinds, sparkle in the sunlight.

Dinner Key, where Pan American Airways made Miami the "Gateway to South America," with their amphibian Flying Clippers, is now Miami City Hall; and the great hangar, the Dinner Key Auditorium, site of many an exhibition and convention. The Biscayne Bay Yacht Club annual Washington Day is now more chowder-party than regatta. Even in Commodore Munroe's last days there was evidence of this change. But the harbor still provides moorings for the Biscayne Bay Yacht Club and the Coast Guard, and has become Miami's largest public marina. Every conceivable type of boat can be found here, millionaire yachts to little boys' catboats with colored sails.

Pan Am now occupies the huge International Airport where one can board a jet to New York or Chicago and arrive in less time than it takes to drive from Miami to Key West. It's from the air that one can see Miami pushing out into the Everglades. There are the Everglades, and then Miami; there's no land between them. It's from the air that one sees industry. From the ground one sees hotels, homes, shops and tourist attractions, all fun in the sun. It's from the air one sees the rock mines, the cement plants, the clothing industry, the aviation and communications shops and plants, and aluminum products factories. At night one sees Miami as lights from the air. Colored lights, white lights, moving lights and blinking lights arranged in long strings, clumps and spots. Landing in Miami at night is like flying into the Milky Way.

The old Miami Docks are rotted and falling apart, but the port is second on the East Coast in number of passengers. A new port is being constructed in the Bay along Government Cut. When it is completed, the old dock area will become Miami's new cultural center.

But there is too much happening in Greater Miami to keep the average citizen from minding the past.

There is Metropolitan Government, which is just now showing a "master plan" for Greater Miami development. A brand-new government this one; one of the first in the country and not yet working smoothly. How could it? It takes time to weld twenty-six competitive municipalities and a county into a working entity. The problems are great, too. Where in the United States is there a city with a population of a million, where most of its waste is disposed into rural-type septic tanks, where a short time ago individual water systems were the rule and storm drainage confined to downtown? Where is there a city willing and able to receive and care for 150,000 Cuban refugees at a rate of 2,000 a week? Where has a village grown into a great city overnight smoothly and without error?

Fifty years ago architect Walter C. DeGarmo designed Central School for seven hundred eighty pupils from kindergarten through the grades. It was Miami's first public school. Today there are one hundred forty-three elementary schools, thirty-five junior high schools, sixteen high schools and one junior college, with five more under construction. Parochial schools and private schools have had similar growing pains. All schools are integrated in this far south city, done without fanfare, without unpleasantness.

Miami has many good places to eat. There is hardly a place where the food is not good. Food is American: American-American, Spanish-American, Chinese-American, etc. To have a gourmet's delight, a Frenchy-French meal, make a two-day prior reservation at Chez Leon. It's a dining room in a white frame residence in an old neighborhood in Miami; capacity about forty. One goes there strictly for food. For native fare one must be a guest at a native's home—well, one that passes for a native in Miami. Native fish, seasoned with native herbs and served with exotic tropical sauces, salads and fruits native to Miami are not commercially produced and served. A few home industries produce and package tropical goodies, but the production is small and the market smaller. It is

Bal Harbour Yacht Club: Alfred Browning Parker, architect. Photo: Ezra Stoller Associates

the knowing Miamian who buys these treats for his own consumption or to give to friends as gifts. Last November, Mrs Henry Wright received such a gift: potted alligator, really delicious.

Miami is fanned by the sea breezes blowing over the warm Gulf Stream which produces a natural airconditioning. Winters are warm in the daytime and cool at night, just as in the summertime. Daytime temperature in winter is in the seventies, in summer, it never exceeds ninety-five. The average number of days per year with temperatures between fifty and eighty degrees is 325. The months of May through October are wet months when most of the annual average fifty inches of rain falls. In the spring comes heavy rainfall, where the heavens open and dump tons of water all at once, followed by a pleasant summer with frequent thundershowers. In September, it rains almost every day. Rain in October is mostly at night, then the "dry season" follows when two inches per month is the average.

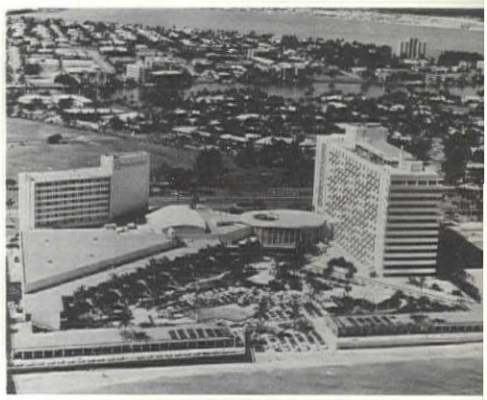
In such a climate one dresses informally in light clothing. It is not unusual to see men and women in shorts and shirts downtown. On the Beach just about anything can be worn, so long as it's decent; some people bring their furs and wear them in the airconditioned lobbies in the hotels, others sun themselves in bikinis. The knowing native lives in a house shaded by foliage, designed to let in the evening breezes carrying the fragrance of tropical blooms.

Miami is American and Cosmopolitan; Miami is big and little; it is good and bad; it does wise things and foolish. Over it all is a beautiful sky, streaked with airplanes and flocks of migrating birds, and mottled with white clouds, gold and purple at sunrise and sunset. At night the stars are bright and clear, and there's fragrance in the air. From the sky Miami looks good, day or night. From the ground the city is clean and clear and bright and the people are colorful individuals from everywhere. Miami is sunshine and bright flowers, exotic trees and birds, uninhibited people and diverse buildings, a city of opportunity and disappointments. It's enchanting, but you must see it to believe it. ◄

Chris Hansen

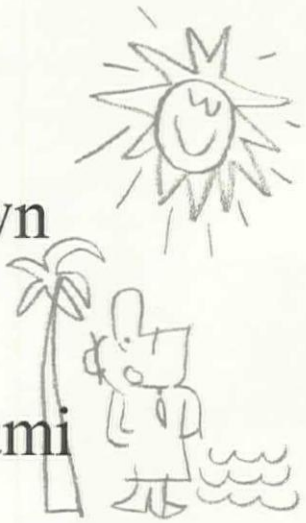
Lincoln Road Mall,
Miami Beach

Looking westerly
to Americana Hotel
from the ocean



Bal Harbour's hotel strip
looking northwesterly, with
Americana Hotel
pool deck area at left

Out on the Town in Miami



With **Sam Krusé** as Your Guide

► Architects and their consorts attending the Convention in Miami will be hard-pressed to decide how to spend the free time provided in the Convention program. This difficulty arises, not from a paucity of things to do and see, but because of the multiplicity of choices.

Some will find the free time an opportunity to purchase a container of their favorite beverage from Weinkles, Foremost or Domino and repair to their rooms for an evening of tippling and bibble-babble. Miami is notorious for cheap booze by the bottle, cash-and-carry of course, but even the real good stuff is inexpensive.

For the more aggressive architect, the free time is for feeding, frisking and funning. For these individuals this article might be helpful in allotting the available time for maximum coverage. Here are some tips.

The best of the quick-service, inexpensive eating is found at Wolfie's at Lincoln Mall and 21st Street and Collins Avenue, and at Pumperniks at 6700 Collins—all in Miami Beach. There are other similar restaurants, but if you are patronizing a fast-service beanery you won't want to spend an hour getting to the place. Those mentioned above are near the Americana Hotel, the Convention headquarters. The atmosphere is friendly, the waitresses big and cheerful, full of chatter and efficiency. All three places have large menus from which to select a wide variety of kosher style dishes, tremendous meat sandwiches, heavenly pastries, all served in gigantic proportions. Try a pastrami on a seeded onion roll followed by a Napoleon and coffee. That's a meal!

Those who crave the epicurean delights of true quality cuisine will find the following establishments the ultimate in dining experience:

Victor Bedoni's de Continental, 1045 95th St, Bay Harbor Island, where Vic Bedoni, a graduate of old-world cookery, features dishes concocted from a book of family heirloom recipes. There is a delightful patio, where you can dine under the stars, and a clever li'l hide-a-way bar and cocktail lounge.

Post and Paddock, 9650 E Bay Harbor Drive, Miami Beach, for roast prime ribs of beef, as tender as a virgin's heart, and anything from Cornish hens to old-fashioned beef stew.

Maxim's, on Harding Avenue in Surfside, is famous for lush decor and elegant atmosphere combined with incomparable cuisine.

Tony Sweet's, a French cuisine specialist at 9561 E Bay Harbor Drive, can make you happy with a well-rounded menu of lobsters (Maine and Danish), stone crabs, Rock Cornish hens, seafood delicacies, as well as steaks and chops.

The establishments just described are all within walking distance from Convention headquarters; don't forget to put money in your pocket before you leave the hotel.

For those who have cars or don't mind a short taxi ride, there are more:

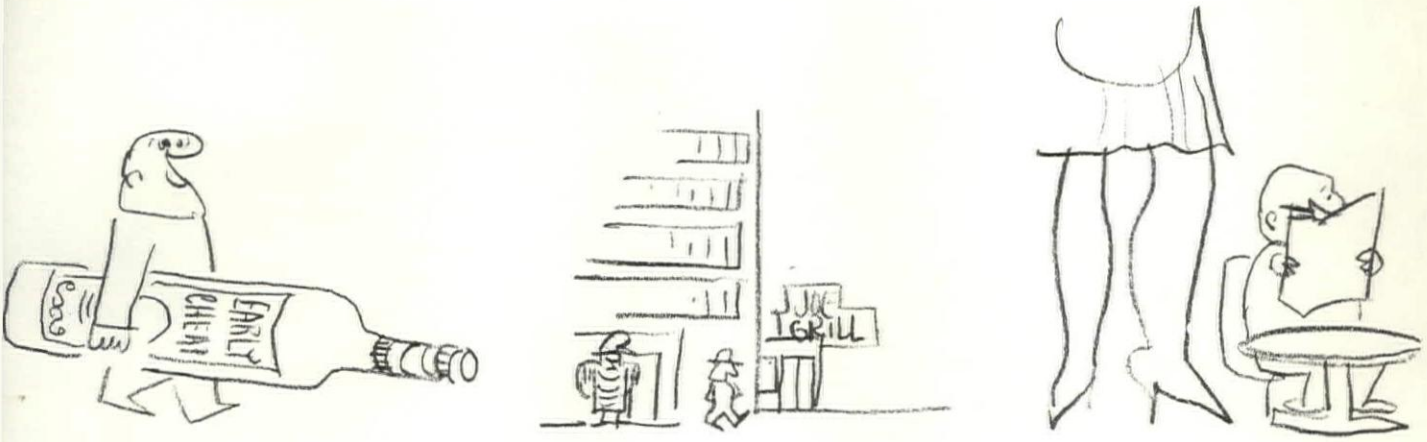
Le Parisien, for the connoisseurs of fine French cooking, at 474 41st St, Miami Beach, a *Holiday* magazine award winner. Closed on Wednesday, but that's the night you'll be going to a "Tropical Night Caper," the Host Chapter party.

Gatti, 1427 West Ave, Miami Beach, where the cuisine has a northern Italian accent, where soups are sublime and you must try sliced chicken a la Tetrazzini.

Embers, for steaks broiled over hickory fire, at 245 22nd St, Miami Beach, stacks the cordwood on the sidewalk by the door. It's not a steak house, but a restaurant, one of the finest. Better get a reservation before going.

Chandler's, located 220 21st St, Miami Beach, is a favorite for those who are looking for variety on the menu; and Joe's Stone Crabs for stone crabs, if Joe's is open in May. There are the Jardin Suisse at 23rd Street and Collins for Swiss-French cuisine; Kai-wong, 2008 Collins, and Fu Manchu, 325 71st St, for the best in Chinese and Polynesian food.

If you have the means to get there, there are some real experiences in store for the adventurer.



Tips on Where to Eat, Where to Go, What to See . . .

There's King Arthur's Court at Miami Springs Villas near the International Airport, tops for everything, and, at the same Villas, is the Japanese Steak House where steaks are prepared on a huge stone before your eyes. There are only three restaurants in the world where food is prepared and served as at the Japanese Steak House; the one at the Villas is the only one in America.

Mai Kai is Hawaiian and located on US 1 just north of Fort Lauderdale. This is fantastically glamorous in authentic Polynesian decor and is the showplace setting for native delicacies and exotic drinks. Tahitian entertainment at midnight is out of this world. So is the "Virgin Cocktail" at $5 served by a beautiful Oriental—but don't believe it! South Pacific on US 1 in Hallandale and Luau, 1755 79th St Causeway, are similar establishments and nearer Convention headquarters. Mai Kai is farther away and better and more expensive.

Chesapeake Seafood House at 3906 NW 36th St, Miami, near the airport, is nautical all over like a dump for defunct ships, but you can't beat it for seafood. Playboy Club is located on Biscayne Boulevard at NE 77th St, if you playing architects are members.

In the funning department a wide selection is offered. For the sportsmen La Gorce Country Club and several municipal courses offer golf for the visitor; there is fishing galore; water skiing and swimming, even shuffleboard and tennis are commonplace. For the sport, boxing at the Miami Beach Auditorium on Wednesdays is a staple, and the dogs are running at the Broward County Kennel Club, US 1 at Hallandale. Unfortunately, the Jai-alai frontons will not be open in May.

At Dade County Auditorium on May 5, "The Barber of Seville" will be given by the Opera Guild; on the same night at the Miami Beach Auditorium, Fabien Sevitsky will lead the University of Miami Orchestra in the opening of the summer concert series. Both events will feature national and international artists.

The Mirell Gallery and Valiente in Coconut Grove, Miami Museum of Modern Arts and University of Miami's Lowe Gallery in Coral Gables, the Art Center, Huber Gallery and James David Gallery in Miami Beach are small galleries, but show the best of local artistic talent as well as the best traveling shows. One goes to these places to see pictures and sculpture, not the buildings.

Some of the attractions, which are equally popular with the natives as with the visitors, are the Spanish Monastery, Musa Isle Indian Village, Miami Seaquarium, Miami Serpentarium, Monkey Jungle and Orchid Jungle.

The Spanish Monastery was constructed in Spain 300 years before Columbus discovered America and is an outstanding example of Romanesque architecture. William Randolph Hearst purchased it in 1925 and shipped it to this country in 10,751 crates. After World War II it was uncrated and reconstructed in a verdant tropical garden.

Sketches by Thomas E. Hutchens

Musa Isle is located on the Miami River. The Seminole Indian Village built there is authentic and complete with real Indians, but it has been badly commercialized over the past twenty-five years.

Miami Seaquarium is the world's largest tropical ocean aquarium having some 10,000 specimens. Porpoises dance, sing and play basketball under a golden Bucky Fuller geodesic dome.

The Monkey Jungle features swarms of monkeys living wild in a thick, tropical jungle. Caged people view them.

The Orchid Jungle is the world's largest outdoor orchid garden. Visitors to this fairyland of flowers travel trails through the jungle seeing orchids in their natural setting. There is a gallery of fabulous orchids to see, and every lady gets an orchid to wear.

For those who want to spend the post-Convention weekend visiting the sights, there are tours galore. A trip through Everglades National Park exposes the visitor to a vast tropical wilderness where land and water merge to form a natural wildlife haven of exotic beauty. Everything here is unusual: the plants, the colorful birds in profusion, the alligators and many other interesting animals.

There is historic Key West, with all the lore one could wish for, oozing out at you from every street of this fishing town. There are trips to Nassau on the SS Florida and SS Bahama Star. These trips are three-day cruises to Nassau and back—leave Friday morning, spend Saturday and Sunday in Nassau and return Sunday night to arrive at Miami, Monday morning. The ship is your hotel.

There's plenty to do and see in Miami. The Host Chapter is prepared to help you arrange for anything you want to do or see. ◄

Moderator Kelly

Sir Basil Pevsner

Rudolph Yasko

Anshen McCue

Huxtable Johansen

THE PROFESSIONAL PROGRAM

The Quest for Quality in Architecture

The Role of Architecture as an Art

Quality, that elusive element which spells the difference between what is truly architecture and what is merely building, will be explored at the Miami Convention by a cast of speakers who have devoted much of their lives to the question. Though none of the speakers is expected to come up with a universally acceptable definition of architectural quality, each will contribute his own special ideas and concepts to the discussion. The result could well be the stimulation of a more intensive "Quest for Quality in Architecture."

Burnham Kelly AIA, dean of Cornell University's College of Architecture, will act as permanent program moderator. Speakers at each session will continue as panelists in succeeding sessions to provide unity for the entire program. They are:

"What Is Quality?" Wednesday morning, May 8

Sir Basil Spence FRIBA, architect of Coventry Cathedral

Paul Rudolph AIA, chairman of Yale University's Department of Architecture

S. Robert Anshen FAIA, of Anshen & Allen, San Francisco

Dr Edward T. Hall, anthropologist, author of *The Silent Language*

"What (and Who) Influences Quality?" Thursday morning

Nikolaus Pevsner of England, editor of *The Architectural Review,* author of "An Outline of European Architecture"

Karel Yasko AIA, Assistant Commissioner of Design and Construction, General Services Administration

George McCue, art critic, *St Louis Post-Dispatch*

"The Attainment of Quality" Thursday afternoon

Ada Louis Huxtable, critic of art and architecture, frequent contributor to the *New York Times* and other publications

John M. Johansen AIA, of New Canaan, Conn

Wallace K. Harrison FAIA, of New York City

Planning of the professional program is being carried out by a committee of five AIA Directors: William W. Eshbach AIA, Robert M. Little FAIA, Charles M. Nes FAIA, Oswald H. Thorson AIA and Julius Sandstedt AIA.

Quest for Quality in Building Products

—See Them Here

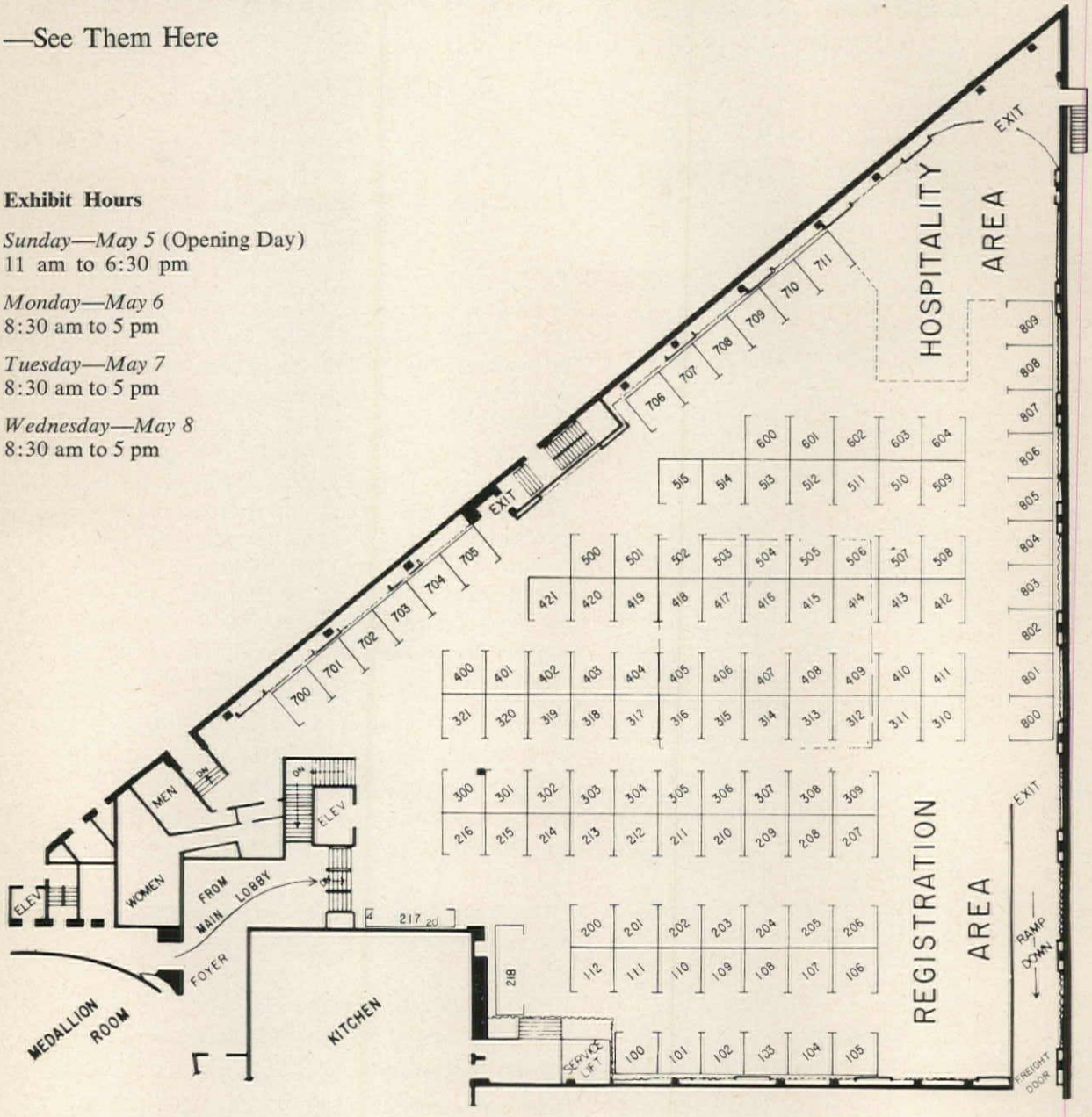
Exhibit Hours

Sunday—May 5 (Opening Day)
11 am to 6:30 pm

Monday—May 6
8:30 am to 5 pm

Tuesday—May 7
8:30 am to 5 pm

Wednesday—May 8
8:30 am to 5 pm



► In keeping with the over-all convention theme, the Producers' Council annual exhibition will be geared to the title, "Quest for Quality in Building Products—See Them Here." For information on who will be exhibiting and where, note the listing on the opposite page; and for a review of what you'll see, turn to the next page.

As a bonus for visiting the exhibition, you will be given the opportunity to win the Grand Prize—a 1963 automobile—as well as several valuable daily prizes. The basic requirements are: 1) You must have registered at the National AIA registration room; 2) You must have registered at an exhibit booth. (Naturally, you enhance your chance of winning 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 Grand Prize presentation to win. ◄

Exhibitors

Booth	*Exhibition*
513	ALUMINUM COMPANY OF AMERICA
414	AMELCO-AMERICAN ELUMIN CO
705	AMERICAN AIR FILTER CO *Herman Nelson Division*
303	AMERICAN GAS ASSOCIATION
304	AMERICAN GLASS MOSAICS
200	AMERICAN OLEAN TILE CO
207	AMERICAN-SAINT GOBAIN CORP
108	AMERICAN TELEPHONE & TELEGRAPH CO
514	ANDERSEN CORP
214	ARCHITECTURAL MANUFACTURING COMPANY OF AMERICA
504	ARMENTO ARCHITECTURAL ARTS
320	ARMSTRONG CORK CO
412	ARKETEX CERAMIC CORP
411	AZROCK FLOOR PRODUCTS
310	BETHLEHEM STEEL CO
421	BILCO CO
512	BRADLEY WASHFOUNTAIN CO
317	BRIDGEPORT BRASS CO *Hunter Douglas Division*
500	BUCKINGHAM-VIRGINIA SLATE CORP
217	CALORIC CORP
507	CECO STEEL PRODUCTS CORP
301	CELOTEX CORP
316	CHEMSTRAND CO
700	CLEARVIEW CORP
701	CONGOLEUM-NAIRN, INC
502	CONNOR LUMBER & LAND CO
805	CORNING GLASSWORKS
111	CRANE CO
505	DARYL PRODUCTS CORP
110	DAY-BRITE LIGHTING, INC
107	DOUGLAS FIR PLYWOOD ASSOCIATION
203	DOW CHEMICAL CO
218	DUPONT & CO
800	DWYER PRODUCTS CORP
707	EXIDE
408	FACADE, INC
511	FLEXICORE MANUFACTURERS ASSOCIATION
106	FLXIBLE CO
419	FOLLANSBEE STEEL CORP
409	FORMICA CORP
503	GLIDORAMA
307	B. F. GOODRICH CO
803	HAWS DRINKING FAUCET CO
603	HILLYARD CHEMICAL
604	HOLCOMB & HOKE MANUFACTURING CO, INC
802	HOUGH MANUFACTURING CORP
400	JOHNS-MANVILLE SALES CORP
300	JONES & LAUGHLIN STEEL CORP
420	JUST MANUFACTURING CO
602	KAISER ALUMINUM & CHEMICAL CORP
510	KAWNEER CO
213	KENTILE, INC
703	KNOLL ASSOCIATES, INC
101	KOPPERS CO, INC
201	LAMONT & RILEY, INC
209	LEAD INDUSTRIES ASSOCIATION, INC
313	LIBBEY-OWENS-FORD GLASS CO
706	LINE MATERIALS INDUSTRIES
600	W. R. MEADOWS, INC
309	MILLER CO
601	MILLS CO
806	MIRAWAL CO
403	MO-SAI INSTITUTE, INC
702	MOSAIC TILE CO
308	NATIONAL LUMBER MANUFACTURERS ASSOCIATION
809	NATIONAL STEEL PRODUCTS CO
404	NEW CASTLE PRODUCTS, INC
808	NORTHRUP ARCHITECTURAL SYSTEMS
407	PACIFIC SEALANTS *Division of Northrop*
211	PHILIP CAREY MANUFACTURING CO
215	PITTSBURGH PLATE GLASS CO
312	POTLATCH FORESTS, INC *Bradley-Southern Division*
413	RED CEDAR SHINGLE BUREAU
305	ROHM & HAAS CO
205	RUBEROID CO
315	RUSCO INDUSTRIES
410	STEELCRAFT MANUFACTURING CO
402	ST REGIS PAPER CO
204	STRUCTURAL CLAY PRODUCTS INSTITUTE
415	STYLON CORP
100	HALSEY W. TAYLOR MANUFACTURING CO
417	THOMPSON RAMO WOOLDRIDGE, INC *TAPCO Division*
509	TIMBER STRUCTURES, INC
212	THOMAS INDUSTRIES *Benjamin Division*
506	UNISTRUT PRODUCTS CO
105	US CERAMIC TILE CO
318	US PLYWOOD CORP
103	US STEEL CORP
515	UNIVERSAL-RUNDLE CORP
202	VERMONT MARBLE CO
709	WESTINGHOUSE ELECTRIC CORP
708	WESTINGHOUSE ELECTRIC CORP *Air Conditioning Division*
405	WEYERHAEUSER CO
804	WILKINSON CHUTES, INC
501	WOOD CONVERSION CO

What You Will See

AMERICAN OLEAN TILE COMPANY
Booth #200

Displaying a new line of ceramic mosaics, new glazed decorated tile and Murray quarry tile, with promotion aimed at the availability of the company's architectural design service for those products. Booth personnel: George W. Thorp III, Frank Jones, Wilford Burkhart.

AMERICAN TELEPHONE & TELEGRAPH COMPANY
Booths #108-09

Headliner will be a single-slot coin, all-glass "slimline" booth, available in stainless steel, architectural bronze or polished aluminum trim. Also on display: cutaways of underfloor and cellular floor concealed telephone wiring for commercial buildings; concealed facilities serving high-rise apartments; color photos and transparencies of present installations.

BRADLEY WASHFOUNTAIN COMPANY
Booth #512

To be featured: a stainless steel column shower, a stainless steel wall-saver shower, a Duo Washfountain and Bradley's new soap spray system. Manning the booth will be C. H. Berenger and John W. Holian.

FOLLANSBEE STEEL CORPORATION
Booth #419

Keynoter will be the thematic symbol of a circle, a triangle and a square, denoting form, function and color, set over blowups of significant Terne-roofed structures in the US and Canada. There will be six rectangular photos, 30″ x 42″ in size, set in the rear wall of the booth, with a circular photo, 42″ in diameter, set in each of the side partitions. Among the buildings to be shown will be Harry Weese & Associates' Arena Stage, Washington, DC; Ball, Craig, Short & Strong's Salada Tea Garden, Toronto; and Birkerts & Straub's Haley Funeral Home, Detroit.

B. F. GOODRICH COMPANY
Booth #307

Two new products, BFG flexible vinyl flashing and vinyl building panels, to be displayed. Personnel will include Donald R. Gray, Benjamin G. Ammons, Joseph M. Kime, John Lesser.

HILLYARD CHEMICAL COMPANY
Booth #603

Demonstrating the results of proper sealing and surface finishing, with approved products and treating techniques described in both long- and short-term specifications. Yours for the asking: maintenance manual for every floor you specify.

JONES & LAUGHLIN STEEL CORPORATION
Stainless and Strip Division
Booth #300

On display: a sliding door unit manufactured of corrosion-resistant J&L stainless steel by Carmel Steel Products of Downey, Calif. The booth will be attended by F. F. Goosmann and C. B. LeBon III.

KENTILE, INC
Booth #213

To be featured: the latest styles in resilient tile for floors and walls, with emphasis on a new trend in flooring—dimensional texture in both vinyl asbestos and solid vinyl tile. Booth personnel: J. T. Moore, W. G. Regin, P. E. Golden, J. Clegg.

LIBBEY-OWENS-FORD GLASS COMPANY
Booths #313-14

Emphasizing the over-all uses of the company's flat glass products rather than concentrating on specific items. Pictorial panels arranged in the mirrored booth will show Parallel-O-Grey and Parallel-O-Plate polished plate glass, Thermopane insulating glass and Vitrolux spandrel glass in actual installations. R. F. Snyder will head the booth personnel.

MILLS COMPANY
Booth #601

Displaying the new Forecast Series of movable partitions, the exhibit will demonstrate design variations, modular prefabrications and simplicity of erection and disassembly. Data to be presented: how movable partitions pay for themselves, including initial costs; movability records of former users; maintenance and utility access savings; and sound control tests. The booth will be attended by David O. Mills and Clyde Bennett.

MOSAIC TILE COMPANY
Booth #702

Products to be shown: glazed wall tile, glazed and unglazed ceramic mosaics, quarry tile and All-Tile bathroom accessories.

PITTSBURGH PLATE GLASS COMPANY
Booths #215-16

Carrying out the over-all convention theme of "quality," the booth will incorporate such products as Herculite K, Spandrelite, Twindow, Solargray, Solarbronze, Solex, Fomathane, metal curtain wall construction, High Fidelity mirrors and various other glasses and treatments. Booth personnel: E. A. Lundberg, R. W. Miller, W. H. Nimick, D. J. Dulkinys, C. I. Todd.

RUBEROID COMPANY
Booths #205-06

A display built around vinyl-asbestos floor tile, including Ruberoid's new Thru Chip in twelve colors as well as the other fifty-five colors in the line. Attending the booth: Julien Heppes, Rhys Stanger, Carl Resnikoff, Glen Gunderson, William Strout, Richard White, Seymour Zelnick.

THOMAS INDUSTRIES
Benjamin Division
Booth #212

Introducing a new concept in commercial lighting called Encore, based on the use of extra-high output lamps used in an indirect luminaire of extruded aluminum. Booth personnel will include Mike Flynn, Chuck Thomas, Del Wakeman, Tom Fuller, Claude Rollick.

VERMONT MARBLE COMPANY
Booth #202

On display: end uses of marble in commercial and residential building, such as stair treads, thin marble base, window stools and Markwa-thin marble tile, plus photos of major exterior and interior installations. Earl W. Richardson, John Pierce and Earl C. Richardson expect to be on hand.

WOOD CONVERSION COMPANY
Booth #501

Exhibiting new Lo-Tone mineral, acoustical, ventilating ceiling board and ceiling tile, in both regular noncombustible and UL fire-rated types, highlighted by a demonstration of a ventilating ceiling system. Booth personnel: F. S. Burgen, T. P. Wann, J. M. Babson, S. F. Warlick, K. C. Lindley, M. A. Nicholson.

Lobby, Great Valley Laboratories, Wyeth, Inc. Tile Contractor: Italian Marble Mosaic Co.

SEE BOOTH 200

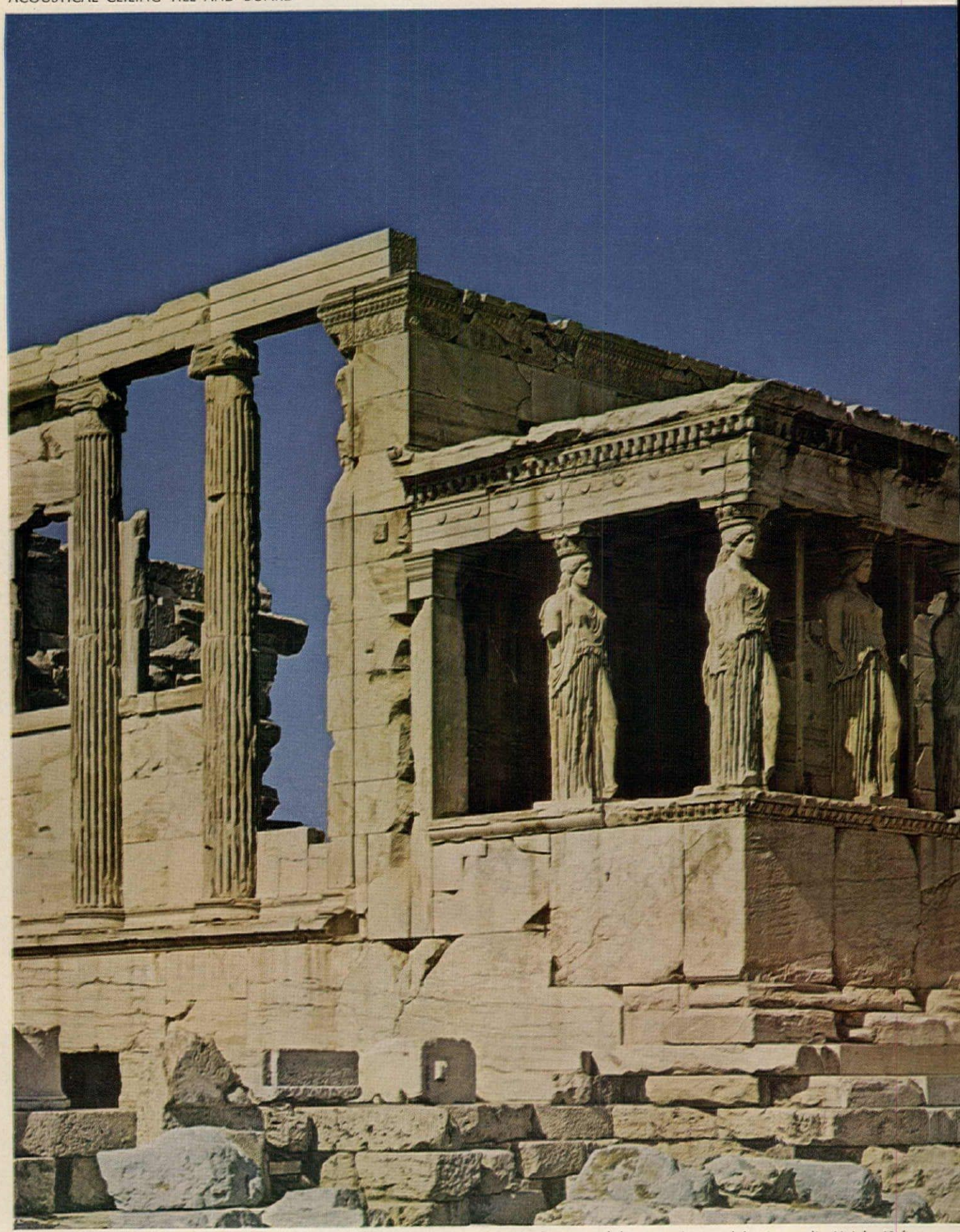
This dramatic lobby mural is executed in American Olean ceramic mosaic tile with sparkling highlights of glazed Accent* colors. American Olean's design staff can assist you in creating outstanding ceramic murals in keeping with the architect's design concepts. • For distinctive lobbies and corridors—for walls as well as floors—select from the wide range of pure, clear colors in the new Precedent line of ceramic mosaics. Send for full-color Booklet 561, showing new Precedent ceramic mosaics, the many handsome patterns available and striking illustrations of how effectively they can be used.

The lobby no one forgets

CERAMIC TILE
American Olean

*Trademark

AMERICAN OLEAN TILE COMPANY, 1768 CANNON AVE., LANSDALE, PA. • A SUBSIDIARY OF NATIONAL GYPSUM COMPANY



Porch of the Maidens, or the Caryatids, Erechtheum — facing the Parthenon and the central area of the Acropolis. Height 18 feet.

BEAUTY THAT ENDURES

Announcing dramatic new FISSURA tile and board for ceilings with a new depth of beauty

New Fissura acoustical ceiling tile and board captures the classic elegance and beauty of fissured travertine marble. This totally new Lo-Tone product from Wood Conversion Company has deeper fissures that give this striking pattern a new depth of beauty. Its white surface provides excellent light reflection.

New Fissura tile is available in 3/4" thickness with tongue and groove kerf, as well as in butt joint, kerf and rabbeted. This assures a completely level ceiling and eliminates the need for splines between the edges of the tiles. This new ceiling tile can be installed by all regular application methods — including adhesives, Salco staples and concealed "Z" systems.

The new Fissura tile is available in "rights" and "lefts." This permits patterns to be installed at right angles, or in line, as desired. The architect has complete freedom and flexibility of the ceiling design.

New Fissura is available in the following types of products: F/R tile and ceiling board, ventilating tile and board, vinyl coated ceiling board, attenuation factor (AF) tile, and standard mineral tile and board.

Find your local Lo-Tone Acoustical Contractor in the Yellow Pages, or write direct to: Wood Conversion Co., St. Paul 1, Minnesota.

LO-TONE®
"FISSURA"
MINERAL ACOUSTICAL CEILING TILE AND BOARD

Section of new FISSURA tile shown ACTUAL SIZE.

an inside story about the birth of an idea by Bradley Washfountain

cheaper by the half dozen

A revolution is underway in modern shower-room planning, and Bradley Column Showers are at the forefront. Why? Because Bradley Columns started the entire swing to *group* showers, proving they could serve up to six people at one time with only *one* set of plumbing connections — saving valuable space and cutting installation costs as much as 80%! Bradley Columns caught on fast because they also provided more design freedom; increased traffic flow; saved water and maintenance costs. (They were so successful that they prompted the development of four other Bradley Group Showers: Multi-Stalls, Wall-Savers, Modesty Modules and Panelons.) In short, Bradley Columns added up because their expenses *didn't*. And, today, they're saving money, space and time in modern buildings across the country — because architects know that showering is cheaper by the *half*-dozen. *Ask your Bradley representative for assistance on specific applications. And write for latest literature. Bradley Washfountain Co., 2377 West Michigan Street, Milwaukee 1, Wisconsin.*

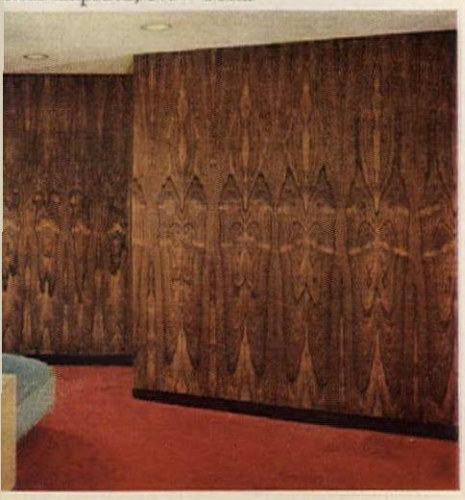
Bradley

SEE BOOTH 512

acious. WTIC Broadcast House lobby, The Travelers Broadcasting Service Corp., Hartford, Conn., paneled in Weldwood Algoma-made Architectural Blueprint-Matched Brazilian rosewood. *Architect:* Raymond Bowers, Fulmer & Bowers, Princeton, N. J. *Designer:* Alice Fenner, Inc.

Murals sliced from rosewood flitches

stive. Brazilian rosewood in a more spectacu- mood on the Weldwood Algoma-made Cus- m-Built paneling at the Arthur Murray School Dancing Headquarters in New York. *Architect:* orris Lapidus, New York.



Veneer men are artists. They size up a log segment (a flitch) and decide which of 5 slicing methods will yield the best figure and grain pattern. Brazilian rosewood is often "half-round" sliced – a rotary cut slightly across the growth rings. The results range from bold to spectacular.

The slices of each flitch are numbered and stacked in sequence. A "live" flitch sample goes to a Weldwood® showroom. Here you can select the exact graining and color you want. You can also decide how veneer sheets are to be matched on the manufactured panel. There are 10 standard methods. The paneling shown on this page gives you some idea of the range of effects possible with rosewood—only one of 56 different woods available for Weldwood Architectural Blueprint-Matched Custom-Made paneling. For more details, check the booklet in the coupon below. Better yet, talk to a Weldwood Architects' Service representative.

SEND FOR NEW DATA BOOKLET

AIAJ 4-63

United States Plywood, 55 West 44th Street, N. Y. 36, N. Y.

Please send me illustrated booklet and technical data on:

☐ Weldwood Architectural Grade Paneling, #2227, 28 pages

☐ Please have a Weldwood Architects' Service Representative call on me

Name.....

Firm.....

Address.....

City.....Zone.....State.....

WELDWOOD

REAL WOOD PANELING

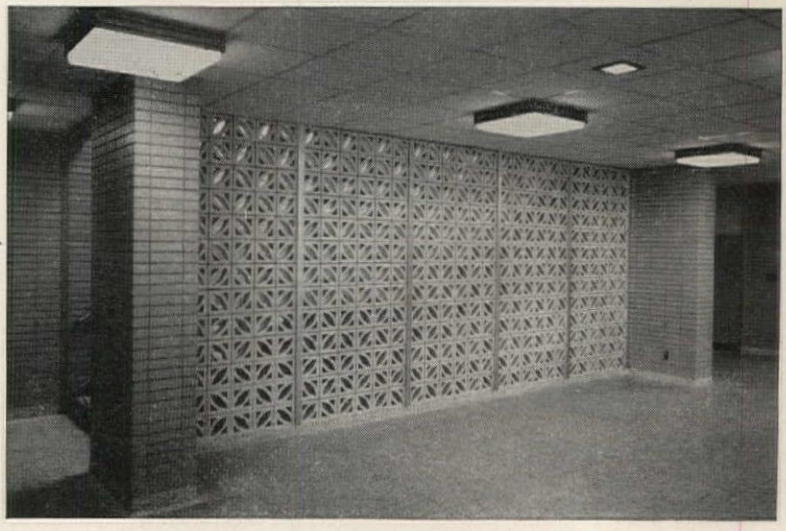
Product of United States Plywood

SEE BOOTH 318-39

WANTAGH HIGH SCHOOL ADDITION, *Wantagh, L.I., New York. George E. Tumey* — Architect. J. R. *Stevenson Corp.* — Builder. *Column facing is contoured architectural terra cotta units 17¾" x 23¾", in mottled russet. Perforated wall screening the stairway in lower photo is composed of white Ceramic Veneer grilles (Design No. FS-EE).*

Here!

And here!



Creative Problems Solved with Ceramic Veneer!

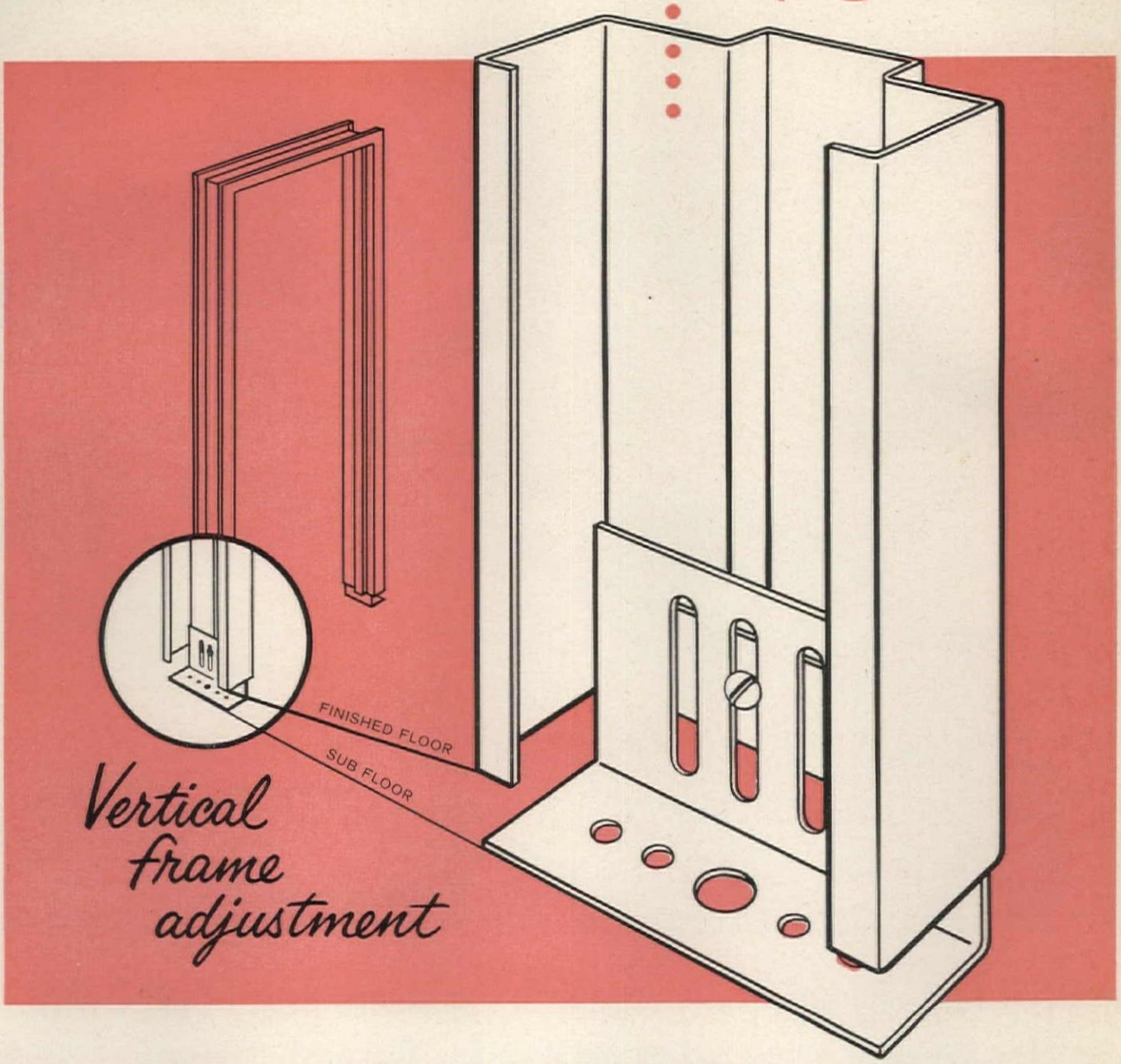
You'll never need to curb architectural expression if you keep the unrivalled versatility of Ceramic Veneer in mind. It enables you to select precisely the right color, texture and form. It offers you twelve distinctive grille designs for solar screens, perforated facades, or room dividers. Grilles can also be custom-made to your own design. In Ceramic Veneer you can specify polychrome panels, ornamental sculpture, or bas-relief. Units can be made large or small, for interiors or exteriors. Quality, appearance, permanence and low cost maintenance, are important advantages your client receives when you solve creative problems with Ceramic Veneer. Detailed information will be sent on request.

F S T C

FEDERAL SEABOARD TERRA COTTA CORPORATION

10 East 40th Street, New York 16, N.Y. • Plant at Perth Amboy, N.J.

steelcraft metal door frame idea no. 2 in a series



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This anchor will enable you to use a standard height frame, placed on a sub floor and permit height adjustment of up to 1⅜" to the finished floor.

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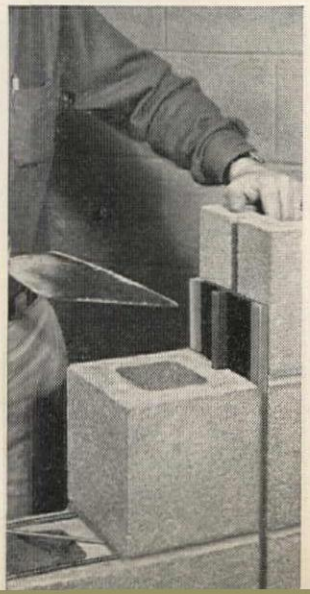

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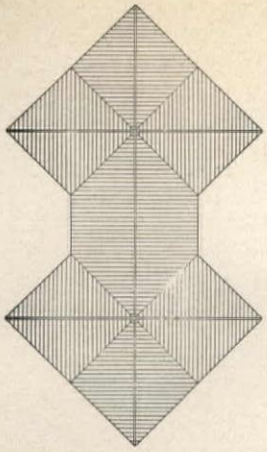

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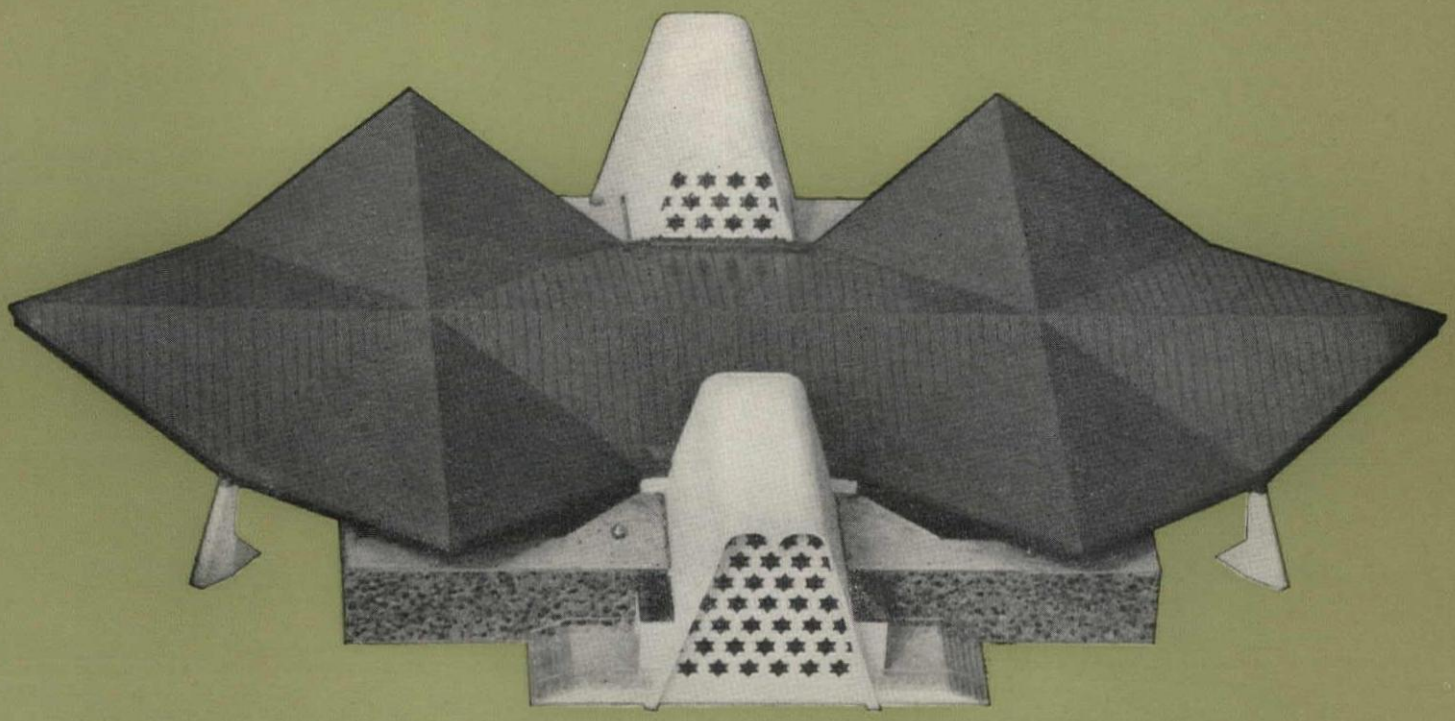

Beth-Torah Temple, North Miami Beach, Fla.—Architect: Philip Pearlman, North Miami Beach, Fla.—Roofer: Ideal Roofing Sheet Metal, Miami, Fla.

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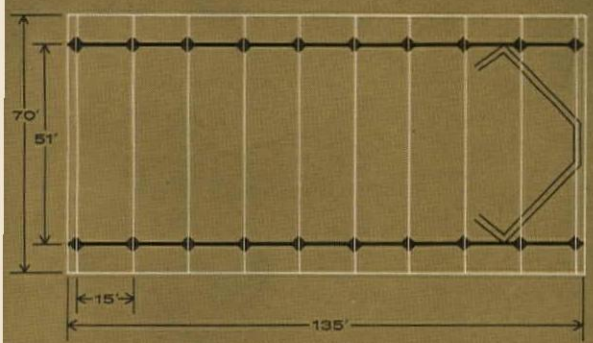

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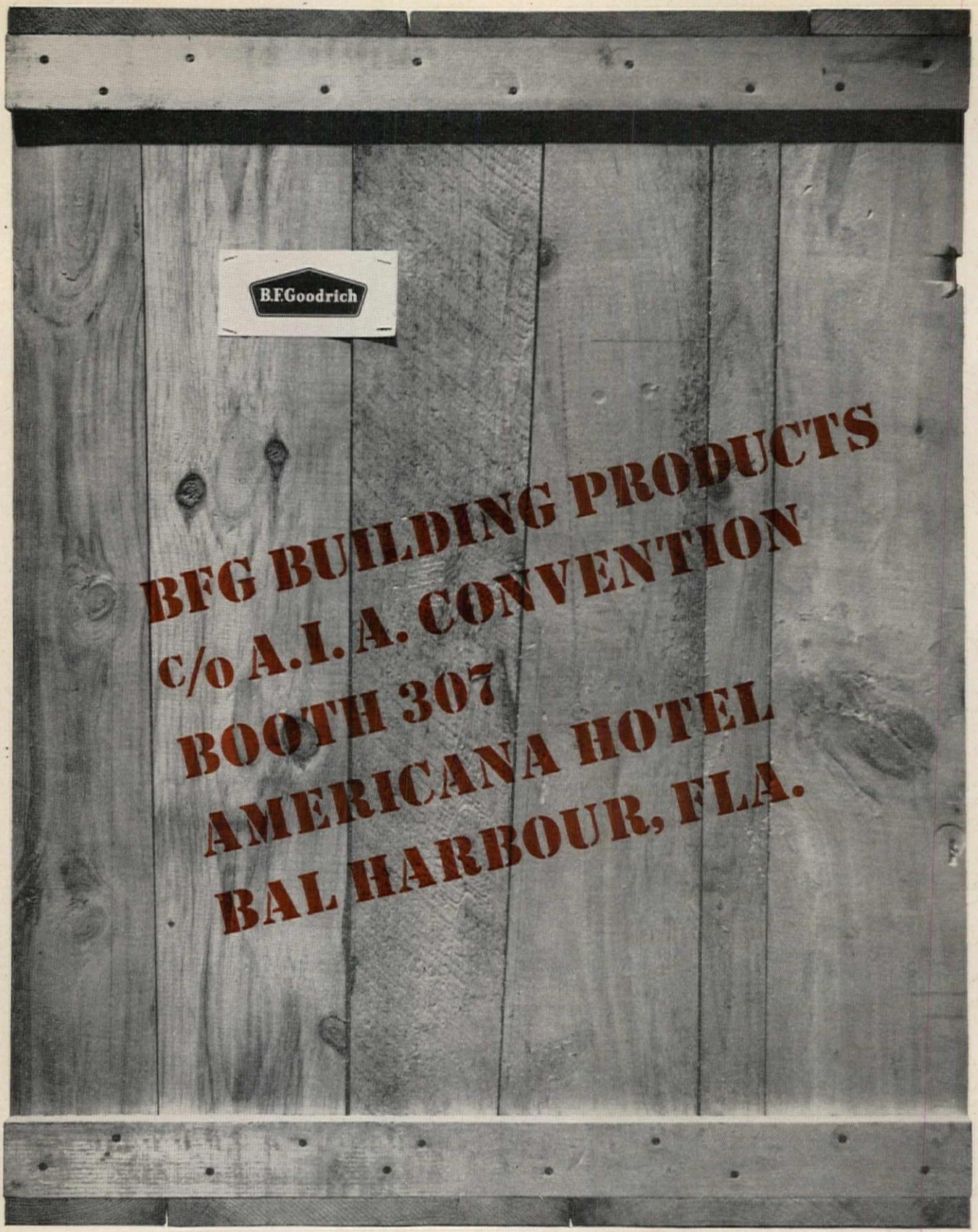

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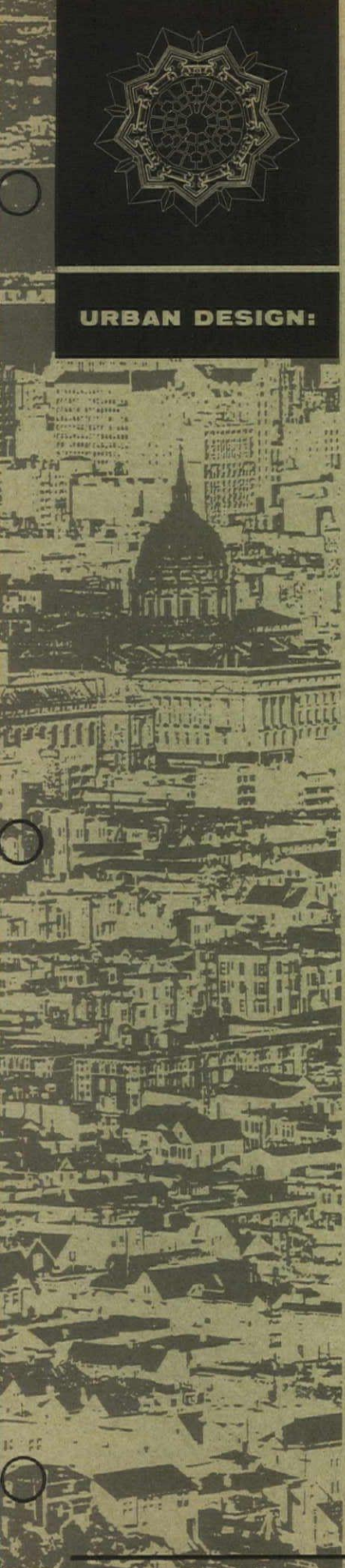


URBAN DESIGN: **THE ARCHITECTURE OF TOWNS AND CITIES**

THIRD IN A SERIES OF ARTICLES

THE PRACTICE OF URBAN DESIGN:

Guide Lines for the Visual Survey

The first two articles of this series presented a history of urban design in ancient and modern times. They demonstrated the diverse and often difficult circumstances in which urban design has been practiced, how past practice has affected current ideas, and how architects have poineered urban design. This third article begins to offer practical methods for extending the typical practice of architecture into the field of urban design.

Architectural design originates with an analysis of a building program and a building site; so does urban design, but on a larger scale. The present article offers a technique for noting and evaluating the assets and liabilities of the whole city as a site for many buildings. This is the starting point for creative urban design, furnishing the architect as urban designer with an approach for observing and appreciating the salient elements of the urban landscape.

These articles are prepared under the general direction of the Institute's Urban Design Committee. To act as special Advisers to the project, the Committee has designated the following members and other distinguished leaders for this purpose: Edmund N. Bacon AIA; Lester A. Collins; Vernon deMars AIA; Carl Feiss FAIA; E. H. Holmes; Francis D. Lethbridge AIA; and Roger Montgomery AIA. In addition, the thinking of others prominent in the field will be included by reference.

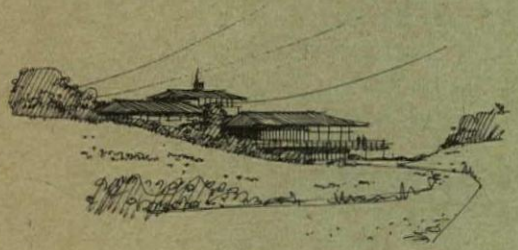
For this article, Edmund Bacon AIA has acted as Adviser. Footnotes will identify others who have contributed to this article.

This project has been approved by the Board of Directors of the Institute as a Supplementary Dues project. The articles have been written and illustrated by Paul D. Spreiregen as Project Head, and edited by Joseph Watterson FAIA.

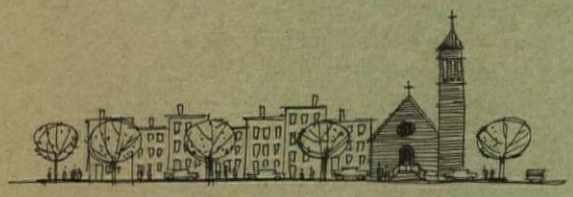
MATTHEW L. ROCKWELL AIA, AIP, *Director of Urban Programs*

THE PRACTICE OF URBAN DESIGN:

Guide Lines for the Visual Survey



In the country . . .



or in the city . . .

every work of architecture . . .

depends for its effect upon its surroundings

Architecture, Urban Design and the Image of the City

Every work of architecture depends upon its surroundings for the visual impression which it creates. Those surroundings are, increasingly, made up of other buildings. Thus, nearly every work of architecture is also a work of broader design—of urban design.

A building design, to an architect, is an adjustment of a myriad of technical and practical details, producing what he hopes will be a work of art. Success depends upon how masterful the architect is in controlling and manipulating these details. But, when all is said and done, the total impression is mainly determined by the relation of the building to its environment, whether urban or rural.

People's impressions of a building, a particular environment, or a whole city, are, of course, more than visual. Within the city lie many connotations, memories, experiences, smells, hopes, crowds, places, buildings, the drama of life and death, affecting each person according to his particular predilections.

From his environment each person constructs his own mental picture of the parts of the city in physical relationship to one another. The most essential parts of an individual's mental image, or map, overlap and complement those of his fellows. Hence we can assume a collective image-map or impressions-map of a city: a collective picture of what people extract from the physical reality of a city. That extracted picture is the image of the city.

Every work of architecture affects the details of someone's private image. Every work of urban design affects the details and often the whole of the collective image. The collective mental picture—the image of the city—is largely formed by many works of architecture seen in concert, or in chaos, but definitely seen together.

Thus, it is important that the architect have a knowledge of urban design. With the outlook from such a background, he can improve individual buildings as well as the entire urban scene.

Every experienced architect is aware that his buildings are seen differently from the way he himself sees them; a great architect controls and plays upon these differences of appreciation. A city, likewise, is obviously not seen by people as land-use, statistics, traffic volume, employment characteristics—although these are the facts of life of a city. Just what does the average person see?

Several years ago Professors Kevin Lynch and Gyorgy Kepes made a study of what people mentally extract from the physical reality of a city.* Their findings are a major contribution to an understanding of the image of a city—to architecture, which affects it in detail; and to urban design, which affects it on a large scale.

* Kevin Lynch, "The Image of the City," Cambridge, Mass: Harvard University and Technology Press, 1960

There are five elements intrinsic to the image of a city:

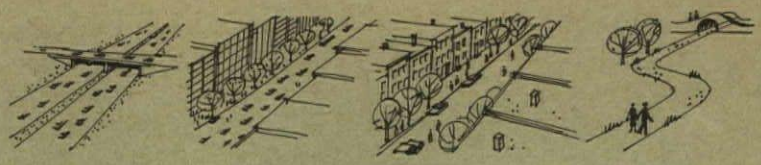
Paths
The major routes of movement. They also furnish important viewing points for architecture.

Districts
The sections of the city having a common form and activity. Buildings are obviously major components.

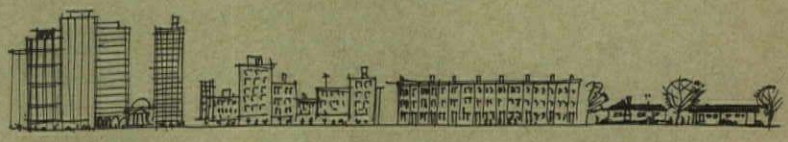
Edges
The termination of a district with another district, or with nature, or water. An edge may also function as a seam joining two districts. Architecture can articulate an edge.

Landmarks
The prominent physical objects which we can see at a distance or from numerous viewing points. Many works of architecture serve as landmarks, thus aiding our sense of orientation.

Nodes
The major hubs or centers of activity, of which groups of buildings are a major component. These are landmarks in the sense that they aid our sense of orientation, with the distinction that we use these groups of buildings purposefully.



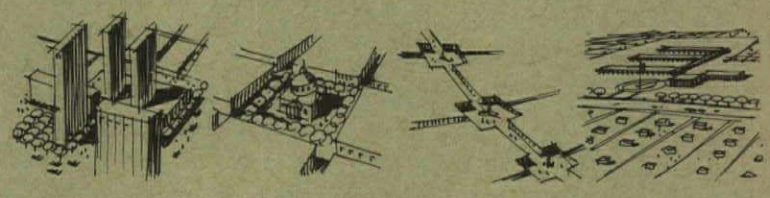
Paths



Districts

Edges

Landmarks

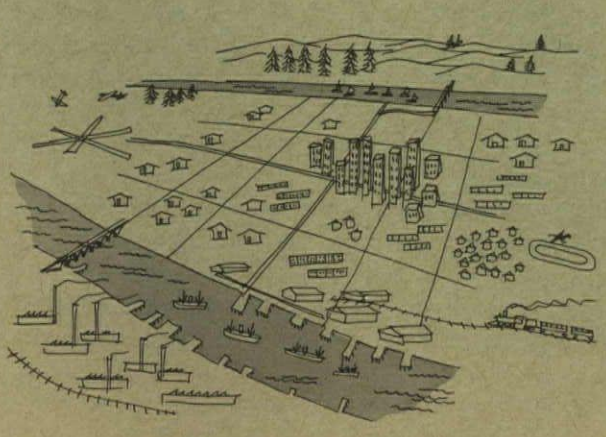


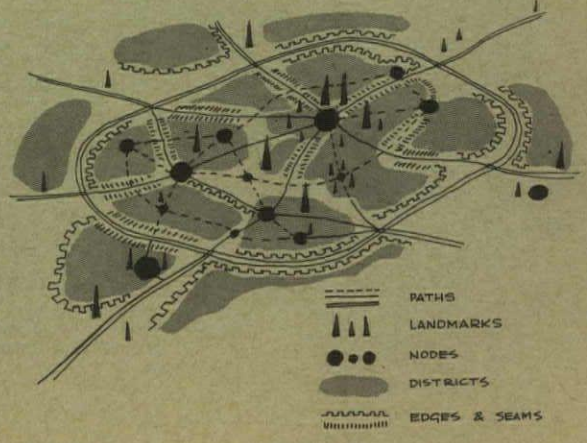
Nodes

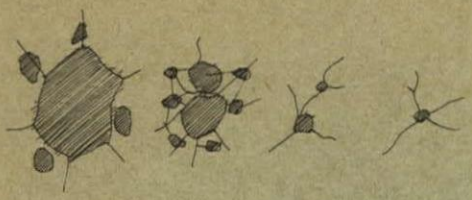
To test these five elements draw a sketch-map of your own city—or ask a non-architect to do it. The results should be first, a picture of the outstanding features of the city, largely in these five terms; and second, a map of a person's particular interests in a city.

A proper urban design survey of your city amounts to a thoughtful analysis of it in these terms, with some elaboration on its character, such as we offer next.

Two possible ways of representing the visual form of a city





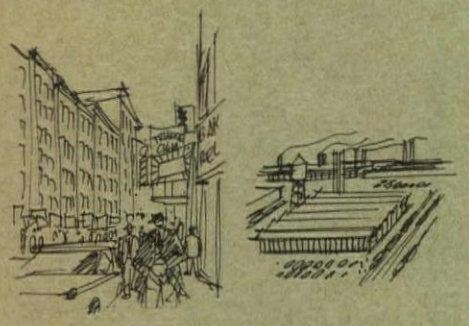


Size

Shape

Pattern

Density and grain



Dominant visible activity

Magnets and generators

The Character of Urban Form

Paths, landmarks, nodes, districts and edges are the skeletal elements of a city form. Upon that basic framework hangs a tapestry of embellishing characteristics which all together constitute the personality of a city. Suppose we think of urban form in the following way:

A city or town is generally thought of in terms of *size*—its population and physical extent.

Size is closely linked to *shape*—physical outline in horizontal plan form and vertical profile or contour.

Size and shape are qualified by *pattern*—the underlying geometry of city form.

Size, shape and pattern are further modified by *density*—the intensity of use of land by people and buildings.

Density is determined by urban *texture or grain*—the degree of homogeneity or heterogeneity of use by people or buildings.

We can usually identify the parts of a city by their *dominant visible activities*. Often, these activities are complementary, yet sometimes they are conflicting. It is important not to mistake complexity for conflict; complexity is the spice of urban life.

The bustling urban centers are *magnets* of the city. People are the *generators* which require magnets around which to rally. *Feeders* are the links and paths which connect the two.*

These areas of dominant visible activity exist in sequence as linked *accents*. The periodic occurrence of accents in sequence is rhythm.

The disposition of accents in sequence has, of course, visible manifestations. Thus, accents in a sequence produce a *modulation of visual intensity*—varying degrees of richness of visual experience.

Our use of the various parts of a city depends upon their degree of accessibility. Demands for accessibility produce channels of flow. Channels of flow vary in intensity, according to the time of day, week or season, and thereby establish *patterns of movement*.

Patterns of movement help define *districts* and act as links. Visible activity, road signs, store signs, building signs and symbolic objects are messages to us which convey purpose. They are *clues* to the organization of urban form.

The visual experience of a city is enriched by major *vistas*—views of large portions and major elements of the city, and of contrasting natural scenery.

We are highly conscious of the nature of *land surface* (generally thought of as topography). We are aware of going up, going down and the quality of the surface upon which we move. Natural landscape features form important borders or edges in cities. Two rivers form Pittsburgh. A lake forms the edge of Chicago.

Buildings are the immobile *masses* of a city. Arrangements of buildings form *patterns of mass*. Arrangements of buildings also form *urban spaces* which exist as *patterns of channels and reservoirs*.

Entrances to a city can be accented by *portals*, the doorways to a city or to a district in it.

Pauses or relaxations in an intense area are *oases*—places which induce repose. They are the passive accents which complement intense activity.

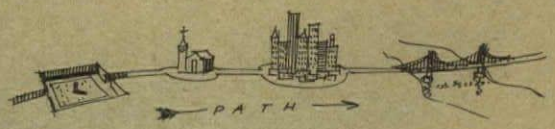
Districts in a city are characterized by a pervading *continuity* of use, purpose and appearance. Some districts are oriented to partic-

* Grady Clay, "Magnets, Generators, Feeders," AIA *Journal*, Mar 1961, pp 40-44

ular types of people or to particular age groups. A fine distinction can even be made between masculine and feminine districts.

Our knowledge of these visible phenomena, the presence of visible landmarks, pattern, shape, etc, imparts a sense of *orientation*—a sense of where we are and where things are in relation to us. A sense of orientation is basic to our understanding, familiarity and well-being in a city.

We are conscious of the *age* of a city and its parts, the newness and oldness in buildings and places. We must avoid the danger of equating oldness with decay, or newness with amenity. In his work, the urban designer must transcend time and relate all parts of the city to each other. A major objective of urban design is to relate different kinds of buildings, regardless of differences in architectural style, age or use.



Rhythmic sequence of accents

Topography

Non-physical aspects

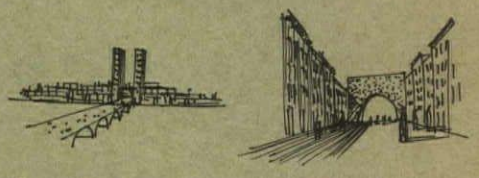
There are many *non-architectural* aspects of urban character: the New Year's Day parade in Philadelphia, the Rose Bowl parade in Los Angeles, Mardi Gras in New Orleans. These are a very large part of the image of a city and a large part of its personality. Architects can do much to improve the appearance and urban quality of cities by recognizing them and making better provision for them.

Building mass and urban space

Every city has a history, linking it to its origin, and present in the minds of its population. Visible signs of that history can constitute a major aspect of its appearance.

Architectural provision can be made for public ceremonies and events. In new areas the inclusion of some visible symbols of the old city's personality give continuity and character to the new.

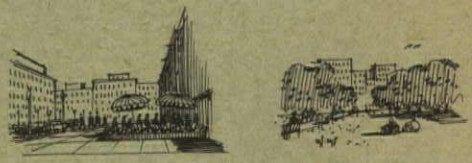
Every city has a particular purpose which should find expression in some visible architectural forms. Boston is a center of learning as well as commerce. New York is a center of culture as well as finance. Miami is a center of leisure. Pittsburgh is a center of steel production. Detroit is our automobile-manufacturing center. Architects are well equipped to develop these forms.



Portals

Cities are constantly changing. We build new parts to satisfy functional and cultural demands. Change often involves obsolescence. *Chaos, ugliness, urban nuisance, slums*—all these are natural manifestations of improper arrangements in city-form, many the result of change. Often such areas have potential for new usage. Often, too, some of them can be revived.

These aspects of city form are by no means definitive. The test of their validity is not their immutability, but rather the degree to which they stimulate the urban designer to enlarge such a category for himself. (Note that most of the elements mentioned here are elaborations upon the basic category of paths, landmarks, nodes, districts or edges.) *

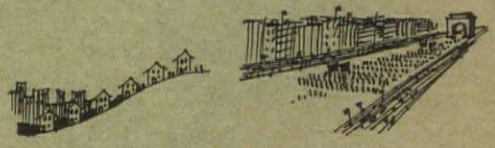


Oases

Application

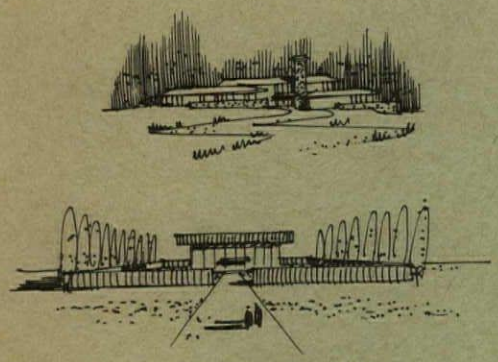
In making an urban design survey, many ideas for improvements will occur to the architect as urban designer.

Let us now see how these concepts of city form can be applied to the making of an urban design survey.

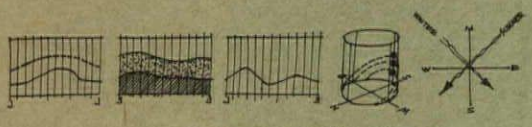


Non-architectural aspects

* For more elaborate discussion on these points, we suggest Gordon Cullen, "Townscape," London: The Architectural Press, 1961; Kevin Lynch, "Site Planning," Cambridge, Mass: MIT Press, 1962; John Ely Burchard, "The Urban Esthetic," Annals of the American Academy of Political and Social Sciences, Nov 1957



Naturalistic and formalistic relationships



Local climate: temperature, humidity; clear or cloudy days; precipitation; sun angles; winds

Form and character of terrain

Architectural forms in relation to terrain

Characteristic features of terrain

Nature in Relation to Architecture and Urban Form

Beauty, in architecture and in cities, is largely dependent upon their harmonious and artful relationship to nature.

Basically, there are two types of relationships: formalistic and naturalistic. In a formalistic relationship architectural and urban forms stand in sharp geometric contrast to nature. In a naturalistic relationship, architectural and urban forms reflect the forms of the natural surroundings. Both, of course, relate to nature, but in different ways: formalistic contrasts, naturalistic supplements. To be beautiful, either must be evolved from a sensitive appreciation of the forms and character of surrounding nature.

Since local climate determines much of the character and appearance of the landscape (and the cityscape), we should begin a survey of nature by noting the relevant characteristics of the climate:

- Seasonal temperature and humidity as averages and extremes. These indicate the periods of relative comfort, the extremes which must be ameliorated, and determine architectural and urban form.
- Number of clear, partly cloudy and fully cloudy days. This conditions the light which affects appearance and thus, design.
- Amount of precipitation—rain and snow.
- Angles of the sun in different seasons. These affect viewing conditions and thus, design. It is useful to make a simple three-dimensional model to study these angles.
- Prevailing seasonal winds—the direction and intensity of cold winter winds, gentle or severe fall and spring gusts, and cooling summer breezes. These, too, affect design.

This information can readily be obtained for your area from US Weather Bureau publications.

In looking at landscape we are searching for its character. As urban designers we observe the form of the terrain—flat, gently rolling, hilly, mountainous—in relation to the architecture and the cities which are set in it. A flat site may suggest either vertical architecture or assertive horizontals. A slightly hilly site may call for vertical architecture at the summits with a flow of cubes on the slopes, or may suggest a termination of architecture just below the crests. A steep hillside or valley may lend itself to terracing, with orientation to the sun.

In every case the urban designer must assess the qualities of the terrain and the emotions which they evoke. The addition, then, of architectural or urban forms to terrain involves a decision as to what further emotions can be aroused by the two in concert.

The prominent features of a landscape should be carefully noted—cliffs, mountain peaks, ranges of hills on the horizon, plateaus, rivers or lakes. These are accenting landscape features which can be employed actively as sites or passively as vistas, supplementing architectural and urban form. They can be used as major vista objectives from points within the city or as special sites for buildings.

Indigenous greenery should be assessed in terms of shape, size, character, practicability and seasonal change. An urban designer needs a working knowledge of the local flora and their suitability in various uses. A thickly foliated tree, formally shaped, might be proper for lining a road to shield the traveler from a low sun. A spreading shade tree of informal shape might be quite appropriate as a restful sitting place in the bustle of the city.

Characteristic details of the landscape should be considered for possible use as architectural and urban design embellishment: a native rock or gravel, a characteristic earth color, the form of local streams, characteristic stands of trees. The character of indigenous architecture should also be noted, particularly in older towns. These are the result of evolution, and may have achieved a maturity of relationship to their environment.

Certain areas of landscape should not be touched, but preserved in their natural state. A survey of the natural landscape may disclose areas which are better left as wilderness. These might well be chosen with relation to nearby cities and towns so that they are accessible as necessary complements to urban life, but not menaced by it.

Buildings and small towns can often be seen in their entirety in their framework of nature. As such, they are accents or counterpoints to their natural settings, elements of vitality in a setting of repose.

A larger town, however, can seldom be seen in its entirety, but only in part, from various viewing places. Here we have a one-to-one relationship, nature being less a setting than a major component of the whole scene—balancing the sight of the city rather than acting as a setting for it.

Raw nature is sometimes within large cities in the form of streams, rivers, shore lines, cliffs, etc. Here the city is the setting for nature. Nature, in this circumstance, becomes a foil or counterpoint to the urban surroundings.

Thus, we might regard a small town as an object in the embrace of nature, a larger town as being hand-in-hand with nature, and finally, the large city as assuming the role of nature and becoming the embracer.

A visual survey of nature in relation to architecture and urban design is twofold in scope: we first try to determine the character of the surrounding landscape to which our architectural and urban forms must respond esthetically and functionally; second, we evaluate the degree to which our existing architecture and cities enhance nature, giving gracious access to it, thus making it more useful to us. Throughout this process we search for assets and liabilities, preserving and enlarging upon the former, and correcting the latter.

Every work of architecture affects the natural landscape either positively or negatively; so does every structure and human settlement. Nature, in turn, as a setting for our constructions, is a visual framework to which all our constructions must respond. The study of a city in its relation to nature as outlined here is applicable in the creation of a new city in virgin terrain as well as an *existing* city.

Application

After having viewed your own city in this light, how would you evaluate it? Where are the strengths, where the failings? Can you find instances where a proper relation exists, but is obstructed by irrelevant architecture, or improper treatment? Are there potential vista points where the view is inadvertently blocked? Are there vista points which need screening or framing to be made more compelling? Put these observations into a simple sketch form—first the salient features of nature, then all the things that have been built into the landscape, evaluating the latter as achievements or errors.

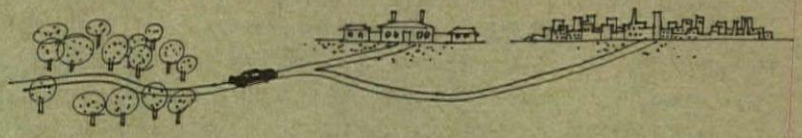
Certain trees identify the landscape

Classify local trees according to shape, size, foliage, hardiness and seasonal characteristics

The countryside should be readily accessible from the city

Natural areas should be contained within the city

Evaluate nature relative to the assets and liabilities of your town



Landscape, architecture and cities are presented to us as vistas along routes of movement

Routes of Movement, Architecture and Urban Form

Landscape, architecture and cities are seen as sequences as we travel along routes of movement. Routes of movement have profound effects on the appearance of the landscape through which they pass and upon the architecture and cities which they serve. In cities, they are a principal determinant of urban form. In making an urban design survey of the routes of your own city, you should begin with the area well beyond the city limits, far out in the country.

Routes of movement can determine the form of a city

The primary function of a highway is, of course, to allow traffic to move. But in relation to cities, a major functional aspect has been overlooked. That is the imageability of the highway—its clarity of form and direction to the user. Further, new highways often have very poor physical relationships to the areas they serve. This is a definite concern of good urban design.

Routes in Nature

Routes may traverse landscape in a number of ways

In the open landscape, existing and proposed routes should be examined and assessed with a view to how well they relate to the natural terrain. How artfully or awkwardly do routes traverse the landscape, revealing its prominent features? Are vistas taken advantage of, or ignored? Some vistas might well be presented with dramatic suddenness; others might be introduced gradually, or be seen only in part.

Are there dull areas which require embellishment? Perhaps the introduction of a curve or rows of trees and shrubs could give more visual interest. Are there obstructions to the enjoyment of the prominent natural features? Does the road itself and its road-furniture mar the landscape or add beauty to it?

The outlying routes of your city are the first introductions which approaching visitors receive, giving them their major impressions.

Chart the various routes, noting the character of the terrain and the adaptation of the roads to it, the artful dramatization of landscape features, the quality of added features, the accenting of the route, its faults and possibilities for improvement or correction.

Every new route should be examined and designed on these bases as a supplement to sound road engineering.

What is the quality of the furnishings of a route?

Approach Routes

Routes that present cities to us are approach routes. They must satisfy the visual requirement of presenting architecture and cities in their best light—and the functional requirement of making them clearly accessible. The two requirements go hand in hand. An approach route must inform us about and conduct us to the constructions they serve.

We can manipulate routes to produce many kinds of approach experiences. The route can reveal a city from afar at a particularly meaningful point—rounding a curve or passing over a hill, turning at a prominent bend, or upon emerging into an open expanse. Or we can see a city as a sequence of partial vistas, focusing on a dominant feature which recurs persistently.

Examine the approaches, existing and potential, to your town according to these considerations: Are there points along the approach route from which you can see the city as a whole? Can these points be dramatized? Are they obstructed by irrelevant foreground?

What are the accents along the approach route? Could more accents be created? Could portals be created to emphasize the entrances to the city?

What is the quality of approach route furniture—signs, railings, bridges, intersections? What can be done to improve their design?

How well do the approach routes connect to the internal routes and major centers of the city or town? Is the route clear and easily imageable, or does one become confused and lost?

The complexity of these considerations increases with the size of a city, but the principles remain the same. Basically they involve an informative and visually artful presentation of the city and its architecture, the whole time maintaining a sense of orientation for approaching people.

Orientation is simply a matter of place—knowing where you have been, where you are and where you are going.

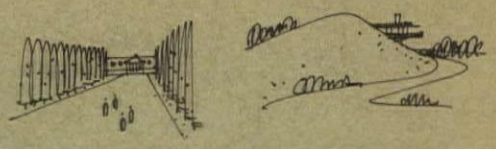
As the size of a city increases, this becomes more difficult. Landmarks become more important, and so should be given greater consideration, both in their location and in the design of the routes from which they are seen. A church steeple or a cluster of towers can be beacons for ushering people to a center.

Much of the problem concerns the deplorable ugliness common to the periphery of cities. Factories, dump yards and docks are part of the reality of a city, but should not necessarily be its front face. Even the handsome structures of pure and functional engineering —as attractive as they may be—should be seen in relation to the city in order that the significance of the city is not lost from sight.

The strength of character of the approach road itself can do much to maintain the sense of place (and thus, a sense of orientation), particularly where landmarks are obscured and where the route passes through a chaotic area.

How would you assess the quality of the approaches to the city in which you work, or for which you may propose urban design improvements? What is the quality of orientation along its major approach routes?

In a vast metropolis we can apply the same criteria, recognizing that the approach is signaled by informational signs, activity, symbols and a general increase in pace. It is further complicated by outlying dependencies and numerous interchanges and branches. All these are elements which people must correlate mentally, ever aware of the ultimate center which these outlying elements support. We must recognize, too, that the approach routes to a city are varied: roads, rails, the sea, rivers and the air, each with their individual vantage points. The road route is the most largely used, has the greatest effect on city form, and is the most amenable to design manipulation. Air, train and sea approach, on the other hand, have inherently greater potential for accent by portals—the air terminal, the train station, the ship wharf.

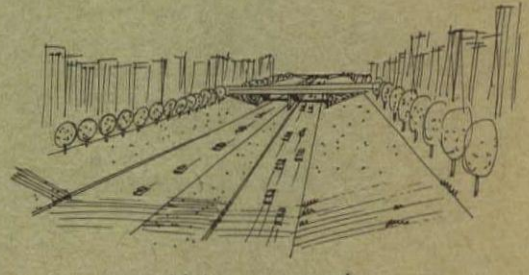


Routes can approach architecture or cities in many ways

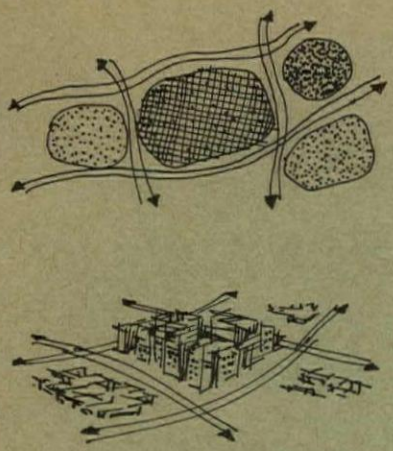
Modulating the approach by alignment, screening or portal

Recording the visual sequence of a route

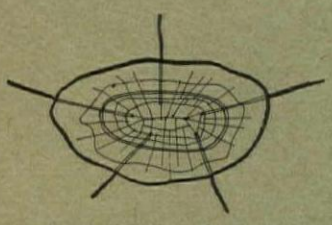
The foreground of a city should not block or distract



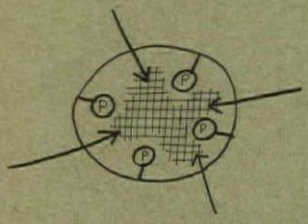
A clear route with its own strength of character aids orientation



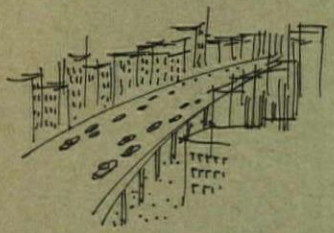
The design of a building, the form of a city and urban routes are inseparable



Every city has a hierarchy of routes. How clear is the system?

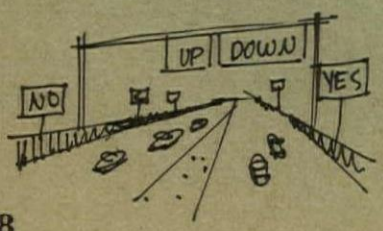


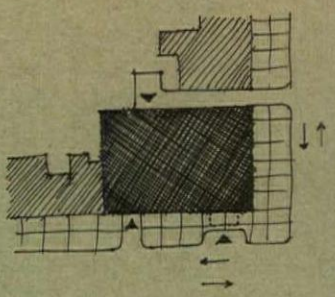
Expressway patterns must lead clearly to garages and local streets

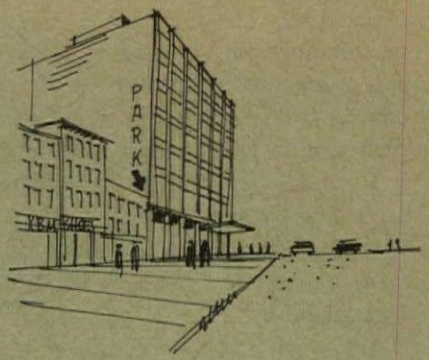


How does the city appear from an expressway?

What is the quality of detailing and the relation to abutting sites?







Routes in the City

Within the city the routes become a network which connects nodes, defines districts and brings people and services to buildings and districts. This network is a complex pattern serving different types of communication and thus different kinds of architecture and different types of city parts.

A single route in a network may serve several purposes, varying in its function according to the time of day or week. Often a route may bear conflicting movements: people who want to cross the street but who are confronted with a wall of traffic.

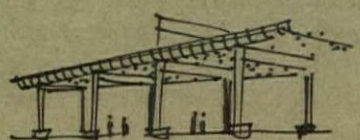
Most important in urban design is the profound effect of routes on architecture and city form. Routes of movement can dictate the location of building entrances, the way a building is primarily seen, the functional relations between buildings and districts, and the physical structure of a district.

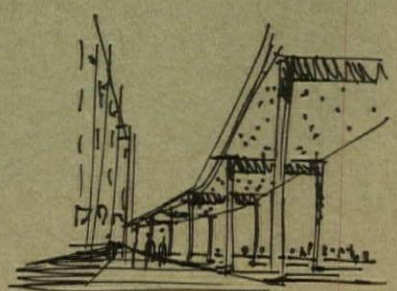
In surveying the effect of the various routes on a city it is best to classify them according to their function and then evaluate them in broad design terms—terms related to architecture and city form.

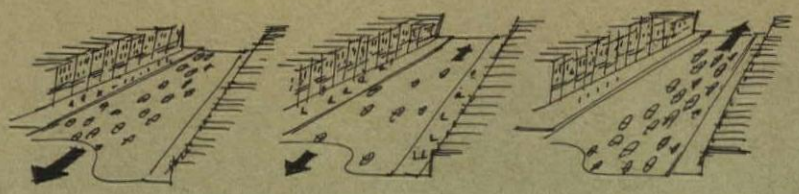
Expressways

The major in-city routes are automobile expressways or freeways. Their purpose is to connect with exterior highways and act as channels of access to the major parts of the city. They may connect directly to ultimate stopping places—major garages and parking areas. In preparing a visual survey, they should be judged (in addition to their basic functional purpose) according to 1) their appearance in the city; 2) the quality of their detailing; 3) the vistas of the city from them, particularly of prominent architectural and urban features; 4) their physical relationship with the areas through which they pass; 5) their imageability as a total pattern and their orientation; 6) their interconnection; and 7) their connection to the lesser streets which they feed.

How would you evaluate expressways in your own city? How can they be improved?







The functions of a route differ during the day: morning inrush; daily shopping; evening exodus

Surface Arteries

Many of the major routes through the city are surface arteries—high-volume traffic streets which carry buses and autos. They can be evaluated as follows: How well do they tie into the expressway pattern? Do they have a clearly discernible pattern? How well do they relate to the cityscape? Have they become impositions upon urban architecture and city form? Have they left building sites intact for architecture and urban districts, or have they slashed sites and dissected districts?

What are the street furnishings of the major surface streets? Can their design be improved? Can a program for improving signs and traffic furniture be started?

How well do the through arteries tie into the pattern of slower-speed local streets? How well do they tie into major garages and parking areas? How easy is it to find a garage near your destination and to get into and out of it?

How clearly are routes differentiated, how well do they tie together?

What kind of building sites are formed by surface arteries?

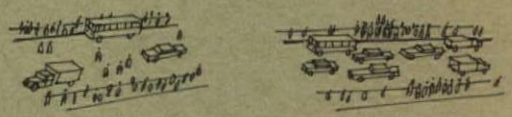
Local Streets

The through arteries serve an intricate network of small streets, along which cars, buses and delivery trucks stop and go. These streets carry a mixture of vehicles and people. In surveying them we should ask: Are vehicular and pedestrian movement in conflict with each other or do they aid one another? Where do they belong together, and where not? Are pedestrians forced to wait for long periods of time to cross streets or are pedestrians free to cross streets anywhere? Is safety achieved by the use of stoplights or by grade-separated pedestrian crossings?

Is the vehicular traffic strictly local or is much of it through traffic? Can this through traffic be relocated? How can existing small streets be protected against the intrusions of through traffic? What is the dimensional scale of the intimate local streets? How do they relate to the size of their districts? What are the networks of principally pedestrian movement in a district? Can these patterns be improved and strengthened?

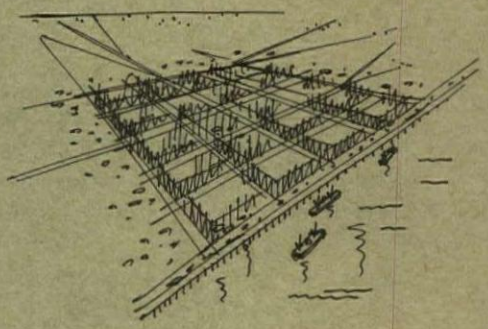
How would you evaluate all the routes of movement in your city —and their effects on its architecture? What suggestions occur to you for improvement of the existing pattern? What requirements should be demanded of proposed new routes of all sorts?

Do surface arteries reinforce or slash neighborhoods?



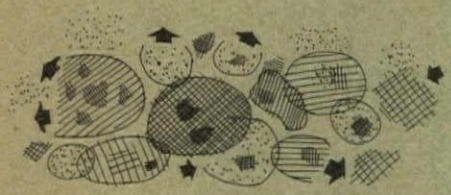
What kind of circulation operates on local streets: mixed or conflicting?

Is too much through traffic jeopardizing your local streets?

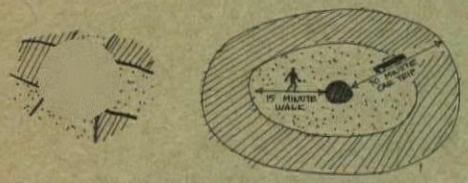


Some districts have unique unifying features

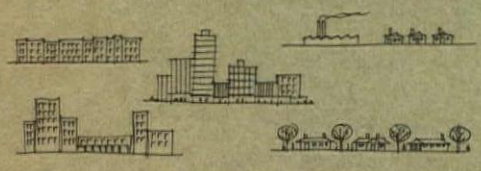
A small town may have only a few districts; a large city, very many



Districts may overlap, have unclear edges, may be changing



Patterns of routes help define district; scales of distance help determine its size



Strength of character—degree of identity—varies from one district to another

The Districts of a City

Every city consists of a series of parts which we refer to as districts or enclaves or sectors—or perhaps as quarters, precincts or areas. They are distinguishable in that they have dominant and pervasive characteristic features. Our mental images of cities consist, to a large extent, of the arrangement of these parts. Some are distinct, some overlap others, some are uniform, some are very complex. Almost all are in a process of change, which further affects their appearance and their size.

A very small town has at least several distinguishable areas; a metropolis can have fifty or a hundred.

The pattern of districts is closely related to the pattern of routes. The size of a district may be determined by the nature of the internal routes serving it. A commercial center, for example, can usually be traversed on foot or by a short cab ride. A residential section may often have local community facilities which can be reached on foot, although its gross size may be far beyond the limits of pedestrian traverse.

The districts of a city vary considerably in their "strength of character." Districts which do have very strong characters often develop identifying names—Wall Street, Georgetown, Beacon Hill, Greenwich Village, the Loop.

Other districts with less assertive character often bear names related to their historic origin: Market Street or Main Street; Foggy Bottom; Silver Spring; Brookline.

American cities, like most cities of the world, reflect their characteristics of culture, growth and development in an urban nomenclature. In the United States this nomenclature includes: "downtown," the original center; "uptown," the enlargement of the original center; "midtown," an offshoot of both; "Chinatown," and "Harlem," ethnic areas; "the other side of the tracks," characterizing poor residential areas in the shadow of factories; the waterfront; the outskirts.

Basically, there are two things to look for in discerning the various districts of a city: physical form and visible activity. For example, in a commercial center the types of buildings, the signs,

the demolition and construction activity, the crowds of rushing people, the cabs and buses, the parking facilities, all these identify the place for us. On the other hand, in a residential area we have the houses, their spacing, the trees, the milk wagons, the parked cars, the children playing, the occasional neighborhood stores and schools.

The sum impression of the individual parts and their relationships convey to us the existence of a particular district of a city—a part in relation to a whole.

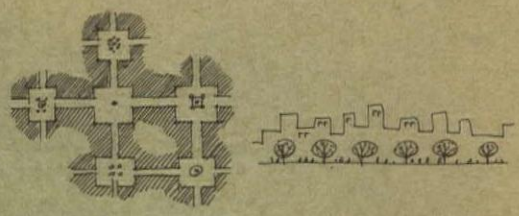
Few, if any, cities can be neatly compartmentalized in this way. The most prominent enclave may dissipate visually at its periphery. Most urban enclaves lack outstandingly prominent characteristics.

Further, complexity in an urban enclave should not be mistaken for confusion. Urban complexity—the intense intermixture of complementary activities—is one of the major reasons for cities. One must also be able to distinguish between uniformity which amounts to dullness and unifying architectural and landscape elements which constitute visual cohesiveness, especially in the face of great variety.

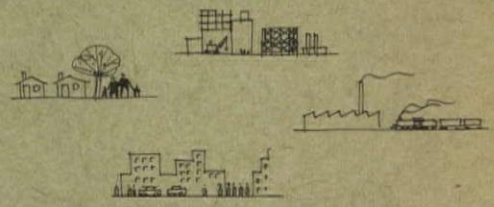
Thus, in identifying the constituent districts of the city we should distinguish all the parts and note their characteristics, note their sizes, note their problems, note the threats to them, note the way they are changing and, finally, try to distinguish emerging new enclaves. We should search for answers to the following:

- What are the principal component districts of the city? Where do they begin and end? What are their characteristics, physically and by activity? How clear, how evident are they?
- What is the size of a district?—its shape, its density, its texture, its landmarks, its space?
- Regarding their physical appearance, what are the characteristics of building forms, building density, signs, materials, greenery, topography, route-pattern, landmarks? What is the nature of the mixture of different building types?
- Regarding visible activity, what are the principal clues of the activity of an area?—the kinds of people, when and how they move about, traffic? What are the key visual elements—the things principally seen—which establish the character of a district?
- What are the threats to a district? What external elements, such as a through road, threaten the health and survival of a district? How is the district changing? Is it changing its position? Is an edge decaying? Is an edge advancing, perhaps into a peripheral district?
- Are there latent districts struggling to emerge, such as a new in-town residential section?
- Are there old districts, struggling for survival, such as a low-income in-town residential section?
- How do all these parts relate to each other and especially to the route patterns of the entire city?
- Finally, what are the areas in a city that cannot be classified easily, that lack cohesiveness of form and character? Are some of these targets for urban design work?

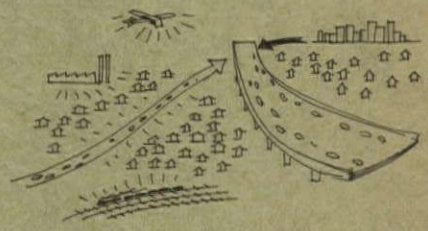
How would you depict your city as a series of districts or enclaves? What anatomical diagram can you construct? What is your diagnosis of health and decay in the form of your city?



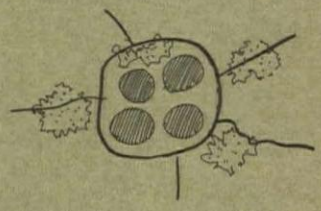
Regularly occurring elements give cohesiveness to urban form, allow greater diversity



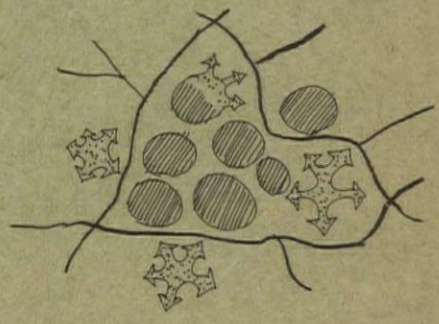
Identify sights that characterize the district



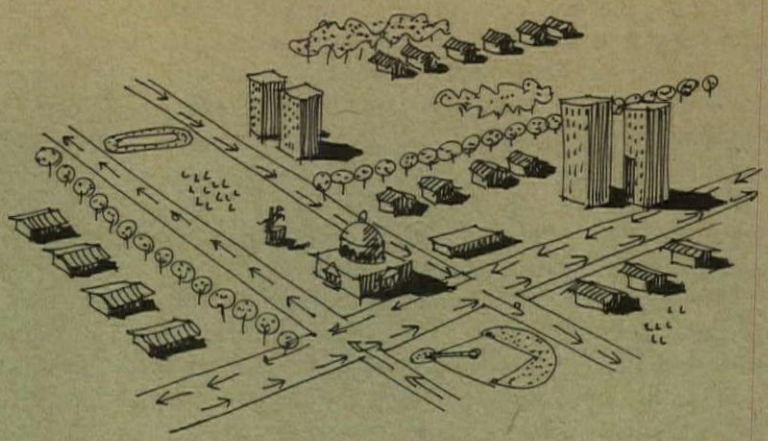
What are the blighting threats to a district?



Which districts are stable, which in transition?



Are there new districts struggling to emerge, old ones struggling to enlarge?



Discern the major component elements of a community

The Anatomy of a District

Having distinguished the separate parts of the city, it remains to go one step further and survey the parts individually—to diagnose the districts; the parts which constitute the whole. In surveying the visual aspects of a district enclave we should be asking:

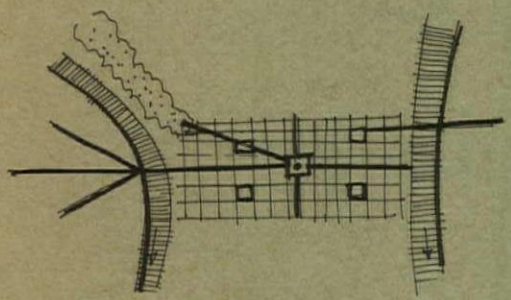
· What is the physical form of the place?—form and structure in three dimensions and in broad outline? What is the density and character of the buildings? What is the spacing of the buildings? How does it vary? What is the greenery of the place? How would you describe the paving, the signs, the night lighting? How uniform or how varied is the whole, or sections of it? Can a district be further dissected into meaningful places within it? What are these places like? What are the physical patterns of the place? What are the patterns and the linear and focal points of urban spaces within the district?

· What do people do there? How well does architecture and the district serve people? What are the natural groupings of different activities within the district? How does the activity pattern change according to the time of day, week or season? How lively are the central city areas? How does the local climate affect life in the areas? What are the detrimental aspects of the place?

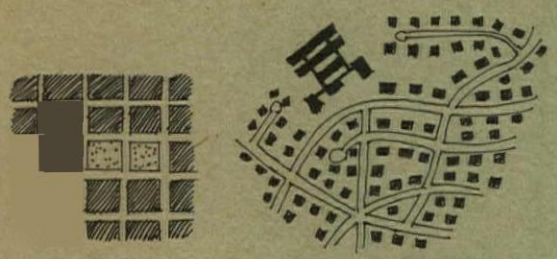
· What are the features of the district? What are the major hubs or nodes? What are the major landmarks? What are the major vistas? What are the major magnets, the major generators and the major feeders? In a busy center-city area, what are the oases, the places of repose? In a quiet residential section, what are the hubs, the places of community focus?

· What are the principal paths of movement in a district? How are they differentiated? How well do they serve the people there? How well do they connect to the larger network of paths? Are the actual physical dimensions of the paths adequate or excessive? How do they determine the physical limits of the district?

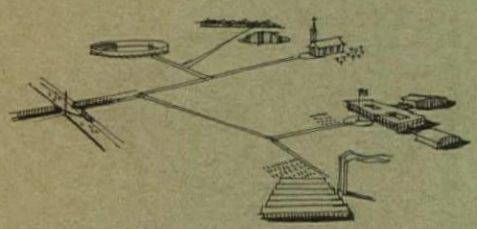
· What are the features of a district that go beyond the satisfactions of utilitarian function, that are in the realm of esthetics, that may be regarded as civic art? What are these places like? Are they lively or lifeless? How can they be made lively? Are they integral parts of the areas around them? Are they part of the life of the community, or are they mere inanimate symbols?



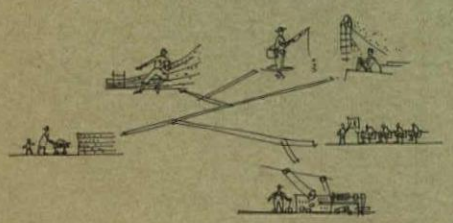
Search for form and structure in three dimensions and in broad outline



Physical pattern and arrangement of buildings and masses

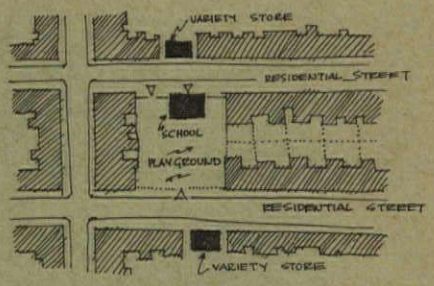


What are the major focal points of a town?



What goes on in them?

How lively is the city core at different times of the day and week?



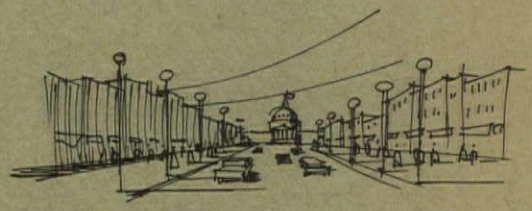
A very detailed analysis of a district can be helpful

· What are the intrusions and detrimental features of a district? What are the blighting features? Here again one must be careful to distinguish between enlivening intermixtures and truly harmful elements. How much traffic can be tolerated on a street before it is impaired? How little before it is dead?

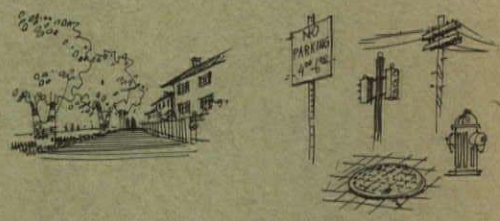
· How is the district changing, both in internal character and the adjustment of its periphery to change? Is there a direction of growth? In which direction is the center of gravity moving? Is the edge decaying? How can a decaying edge be invigorated? How can a district be stabilized?

· Finally, how can the emerging new districts—and some new features in them—be stimulated? What are the new elements of the city and its parts that are struggling to emerge? How may valid but marginal sectors be protected and possibly enlarged upon as part of the complementary complexity of the whole city?

· How would you analyze and depict the important districts in your city? What strengths do you discern, what weaknesses? What differences do you find between districts? Do you find significance in their relative positions and character? Can you now see the city as a large physical entity—a single urban form —as well as you see a complex building design as an architectural form?

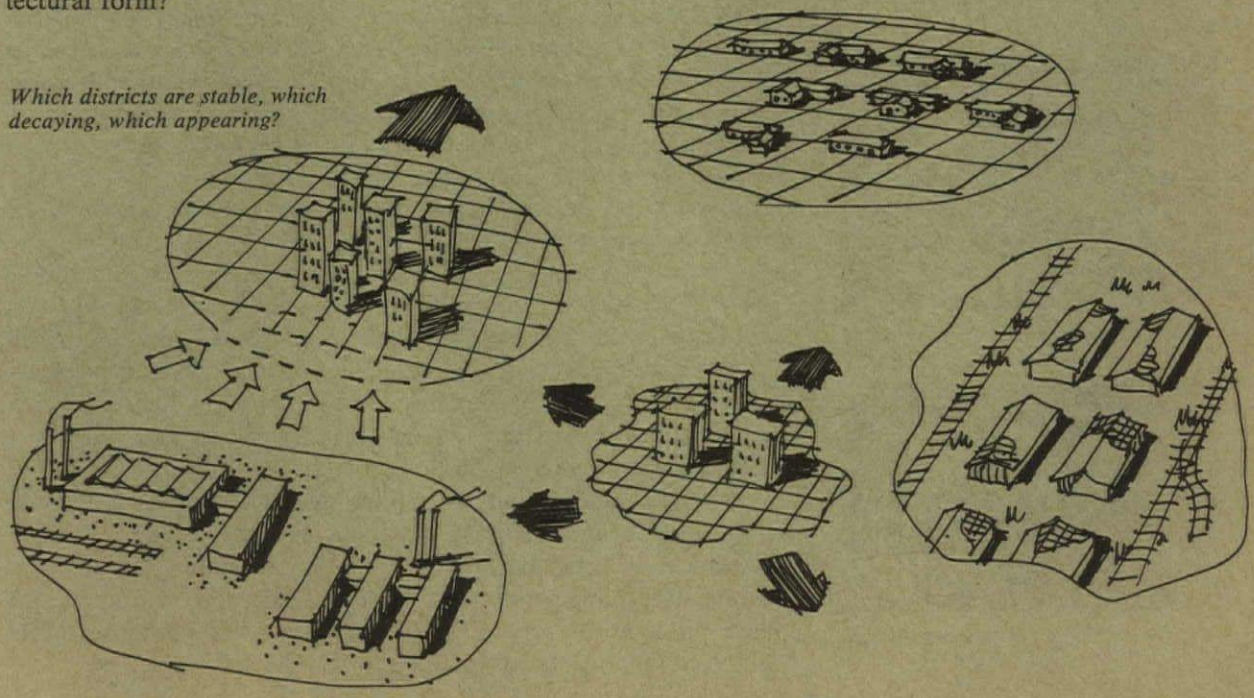


What are the major vistas of a district?



Consider the quality of details

Which districts are stable, which decaying, which appearing?



People and cars in conflict

Conclusion

A new expressway in an old city

A new building in a changing neighborhood

An old square slashed by traffic

An urban oasis

An urban design survey is an appraisal of the physical form of a city or town. As such it is a supplement to the more quantitative city planner's analysis. Ideally, the two should go hand in hand.

This article proposes that architects must involve themselves with the design and appearance of towns and cities in their entirety. As stated in the introduction, because of the very nature of his training and ability, the architect is particularly well qualified to extend the scope of architectural thinking to the urban scale—to the city in its entirety—in his broad practice.

While no one can deny the ever-pressing need for architectural design on an urban scale it remains to be seen whether we can in fact work effectively on this scale. It remains to be seen, too, just what the nature of architectural design on an urban scale really means. We also have to clarify the role of individual architects working at different levels—at various scales of practice. These considerations will be the subject of a special article in this series.

By no means is this article presented as a definitive work. It is intended as a beginning for you to enlarge and modify through actual application. Architects' opinions will, of course, vary considerably on which aspects should be stressed. Some will feel that certain aspects have been overstated and that others have been neglected. There will be variation between designers in their observations on a particular site. There will be some variation in the graphic or written descriptions of it, just as there are differences in design concepts for single buildings.

Perhaps the basic value of an urban design survey is that it can put all design concepts for individual buildings on a sounder basis—sounder because those concepts are better related to their physical environments.

That is the least benefit that can come from an enlarged attitude towards architectural practice—an urban design attitude. And it is not insignificant. But we firmly believe that it can be more. It will remain for the architectural profession to be among the leaders in the rebuilding of all our cities and towns along lines of design excellence. The beginning of that task lies in the enlargement of architectural thinking to urban design scope.

At this point in our discussion we have offered a twofold technique for understanding the physical form of a city: We have presented a systematic approach for comprehending urban form so that everything is put into a large and balanced picture; and we have purposefully proposed a picture which reflects those things in the city that have real meaning to our client—people. ◄

Commission on Architectural Design
Morris Ketchum Jr FAIA, Chairman

Committee on Religious Buildings
Kenneth E. Richardson AIA, Chairman

A Guide for Planning the Presbyterian Church

by **Anthony Ferrara AIA**

The seventh in the series of reports prepared by the AIA Committee on Religious Buildings intended to serve as guides for the architect faced with planning a building for a religious faith other than his own. Others will follow

The Presbyterian Church is one of a number of evangelical denominations which work together in harmony. It has its roots in the teachings of the early Reformation leaders such as Martin Luther, Zwingli, John Calvin, John Knox and others.

Calvin's primary associations were political. In the city of Geneva, he worked out into practical development his ideas of the rule of God on earth. Calvin became more widely known as an organizer and a statesman than as a theologian. He developed a representative system of government, through which not only the Church, but the city of Geneva, was ruled. The representatives of the people were "presbuteroi," or elders, and the Church became the Church of the Elders, or the Presbyterian Church. In the early sixteenth century, Calvin promoted civil liberty and democracy, and helped to break the power of the Pope and the kings, gave the people the beginnings of democratic government, and with this initiative helped to build the foundation of modern democracy and education.

John Knox, at first a priest, then a Protestant teacher and preacher, was imprisoned when the Castle of St Andrews was captured by the French, and served a year and a half as a galley slave. When released, he was, for a time, one of the royal chaplains to the king of England, but when Mary I came to the throne, Knox fled, to spend his time with Calvin in Geneva, where he helped to translate the Geneva edition of the Bible. Later he returned to Scotland as a reformer.

Although Knox had the vigor, decision and determination of Calvin, he had less of Calvin's intellectual depth and more of Luther's fiery zeal of leadership. Knox wrote the "First Book of Discipline" and a "Book of Common Order," and organized the first General Assembly of Scotland.

Knox developed a great national Presbyterian Church in Scotland. The country was divided into ten districts, and superintendents were appointed over each district, under the authority of a General Assembly. There were pastors, teachers who included the university faculty, ruling elders and deacons in each church. The deacons took charge of temporal affairs. The local church officers met in the kirk session; the presbytery, provincial synod and General Assembly formed the ascending series of official meetings. This was the first time a whole country was organized into a Presbyterian Church system.

The Presbyterian Church, under various names, spread into other countries. In England the Presbyterian idea of liberty became powerful enough to overthrow temporarily the monarchy, behead a king, and set up a Puritan Commonwealth under Oliver Cromwell. The beginnings of Presbyterianism in America are not so easily traced, for there was no Presbyterian colony, only groups of Presbyterians from different countries scattered along the Atlantic Coast.

Shortly after the northernmost province of Ireland, Ulster, had been settled by the Scotch, the English king began a persecution of these Ulster Protestants. The result was a great migration of them to the American colonies. With the coming of large numbers of these tenacious Scots-Irish, Presbyterianism was in America to stay.

Because it was a Church of new immigrants, the Presbyterian Church had great difficulties. The people were poor; the land was sparsely settled. "The cares of this world" were many, and the supply of ministers was woefully below the need. The temptation to accept good men to fill the need, despite their lack of training, was very great. For many years the Presbyterians had to decide whether it was wiser to have more ministers with inadequate training or to limp along with an inadequate number of ministers, but better trained. The decision was to use educated ministers.

Presbyterians claim, more than any other single group, to be responsible for the development and the success of the American Revolution. In numbers they were one of the most dominant national groups.

Their Church came out of the Revolution the strongest of all denominations. Its members had borne the brunt of the victorious war, and the Church had won battles for religious liberty in several of the colonies, notably in New York and New Jersey. Led by an educated ministry, it greatly benefited by the revival period known as the Great Awakening. Three factors probably kept the Presbyterian Church, however, from becoming the one great dominant Church:

- Its doctrines, carefully written, were expressed in scholastic, rather than in popular and practical language, and therefore, did not readily appeal to the multitudes.
- It insisted on a highly educated ministry and, therefore, could not secure enough ministers to reach the rapidly expanding new communities.
- It insisted on a representative form of government, with churches supervised and governed by the presbytery. This kept Congregationalist Puritans, who believed in the local self-government of each independent church, from joining in large numbers.

At the outbreak of the Civil War, the Church divided over the question of slavery and over the right of a state to secede from the Union. This brought into existence the Presbyterian Church in the USA, a northern branch. In recent years all Presbyterian Churches have been drawing closer to some kind of future union. In 1958 the Presbyterian Church in the USA and the United Presbyterian Church of North America merged to become The United Presbyterian Church in the United States of America.

Basic Beliefs

In 1536, when still in his twenty-seventh year, Calvin published the first edition of his famous "Institutes of the Christian Religion." It was the best statement of Protestant faith that had yet appeared, and at once marked the young author as a leader of the new movement. In the "Institutes" and in all of his writing, Calvin's main interest was in Jesus Christ as God come in human flesh. God's Truth, he believed, is not wordy speculation, but is Jesus Christ Himself.

Calvin's emphasis on God's grace led him to the doctrine of election—the belief that the Christian is able to choose God only because God has first irresistibly chosen him. Calvin thought of Christian living as free life in Christ. "We are not our own, but the Lord's," he said.

The Presbyterians list sixteen points of belief which are quoted in abridged form below. It is a liturgical church and has two major sacraments, the Holy Communion and Baptism. Their printed matter refers constantly to the "Reformed Faith"; by this they do not mean the entire Reformation but rather the faith that sprang from the reformed teachings of Calvin and Knox.

- They believe in and worship the ever-living God, who is a Spirit and the Father of our Spirits; infinite, eternal, and unchangeable in His being and perfections; the Lord Almighty, most just in all His ways, most glorious in holiness, unsearchable in wisdom and plenteous in mercy, full of love and compassion, and abundant in goodness and truth.
- They believe that God is revealed in nature, in history and in the heart of man. That He has made gracious and clearer revelation of Himself to men of God who spoke as they were moved by the Holy Spirit; and that Jesus Christ, the Word made flesh, is the brightness of the Father's glory and the express image of His person.
- They believe that the eternal, wise, holy and loving purpose of God embraces all events, so that while the freedom of man is not taken away nor is God the author of sin, yet in His providence He makes all things work together in the fulfillment of His sovereign design and the manifestation of His glory.
- They believe that God is the Creator, Upholder and Governor of all things; that He is above all His works and in them all; and that He made man in His own image and meet for fellowship with Him, free and able to choose between good and evil, and forever responsible to his Maker and Lord.
- They believe that our first parents, being tempted, chose evil, and so fell away from God and came under the power of sin, the penalty of which is eternal death. They confess that by reason of this disobedience, we and all men are born with a sinful nature, that we have broken God's law, and that no man can be saved but by His grace.
- They believe that God, out of His great love for the world, has given His only-begotten Son to be the Saviour of sinners, and in the gospel freely offers His all-sufficient salvation to all men. And we praise Him for the unspeakable grace wherein He has provided a way of eternal life for all mankind.
- They believe that God, from the beginning, in His own good pleasure, gave to His Son a people, an innumerable multitude, chosen in Christ unto holiness, service, and salvation. They believe that all who come to years of discretion can receive this salvation only through faith and repentance.
- They believe in and confess the Lord Jesus Christ, the only Mediator between God and man, who, being the Eternal Son of God, for us men and for our salvation became truly man, being conceived by the Holy Ghost and born of the Virgin Mary, without sin; unto us He has revealed the Father, by His word and spirit making known the perfect will of God.
- They believe that God pardons our sins and accepts us as righteous solely on the ground of the perfect obedience and sacrifice of Christ, received by faith alone; and that this saving faith is always accompanied by repentance, wherein we confess and forsake our sins with full purpose of, and endeavor after, a new obedience to God.
- They believe in the Holy Spirit, the Lord and giver of Life, who moves everywhere upon the hearts of men, to restrain them from evil and to incite them unto good, and whom the Father is ever willing to give unto all who ask Him.
- They believe that the Holy Spirit only is the author and source of the new birth. He is given unto us as the seal of sonship in Christ, keeps fellowship with us, helps us in our infirmities, purges our faults, and ever transforms us until we are in the likeness of Christ, in the glory of the life to come.
- They believe that in the life to come, the spirits of the just, at death made free from sin, enjoy immediate communion with God and the vision of His glory. They look for the resurrection in the last day, when those that sleep in Christ shall be fashioned in the likeness of the body of their Lord with whom they shall live and reign forever.
- They believe that the law of God, revealed in the Ten Commandments, and disclosed in the words of

Christ, is forever truth and equity, and no human work abides unless built on this foundation. They believe that God requires every man to do justly, love mercy, and walk humbly with his God. Only in this harmony with God's will shall be fulfilled the brotherhood of man.

• They believe in the Holy Universal Church, of which Christ is the only Head. They believe that in the Church Invisible are all the redeemed and the Church Visible embraces all who profess the true religion with their children. They receive in their communion all who confess and obey Christ as their divine Lord and Saviour. They receive the sacraments of Baptism and the Lord's Supper, together with the Word, as means of grace, made effectual only by the Holy Spirit.

• They believe that the Lord Jesus Christ will come again in majesty to judge the world and to separate the righteous and the wicked. The wicked shall receive the award of their sins, and the Lord will manifest His mercy in the salvation of His people and their entrance upon the full enjoyment of eternal life.

• They believe that it is their duty, as servants of Christ, to do good unto all men, to maintain the worship of God, to hallow the Lord's Day, to preserve the sanctity of the family, to uphold the just authority of the State, and so to live in all honesty, purity and charity, that their lives shall testify of Christ.

Church Government and Sequence of Authority

The Presbyterian Church has a representative form of government, in which the people elect representatives to rule for them; this is the form of government of the United States. As representatives were usually men chosen from among more experienced and more mature men, they were called "elders." The term "ruling elders" is normally used to distinguish them from "teaching elders," the latter being the ministers.

The Session: The session of a particular church consists of the pastor (or co-pastor) and the ruling elders in active service who are elected at congregational meetings which are held once a year, at which time every church member, in good standing, has a right to vote. The election system is what is known as the "rotary" system, according to which elders are elected. A ruling elder, having been elected to the session for consecutive terms aggregating six years, shall be ineligible to serve thereon for a further term until at least one year has elapsed from the expiration of the last term from which he was elected. A particular church may provide for a period of ineligibility after one full term.

The Presbytery: The presbytery is the governmental agency through which the individual churches of a district (most presbyteries include several counties) are united, supervised and controlled. The minister is a member of the presbytery, not of the particular church. He is responsible to the presbytery and removable only by the presbytery. A presbytery consists of all the ministers, in number not fewer than twelve and at least one ruling elder from each church, within a certain district which includes at least twelve churches. Every congregation that has two or more co-pastors, or a pastor and one or more associate pastors, has a right to be represented by ruling elders in numbers equal to the total number of its installed pastors and associate pastors.

The Synod: As the presbytery is a convocation of the ministers and elders of a certain district, the synod is a convocation of the ministers and elders of a larger district, including at least three presbyteries. As the presbyterial lines usually conform to county boundaries, the synodical lines generally conform to state lines, except in smaller or less-populated states. In smaller synods, all ministers are members, and each particular church sends one elder. The synod convenes once a year.

The synod has power to receive and issue all complaints and appeals from presbyteries, examine their minutes, and approve or censure the action of the presbyteries. Whenever a synod considers a case to affect the doctrine or the interpretation of the constitution of the Church, it states in its opinion its conclusion as to the facts of the case separately from its decision upon any question of the doctrine or the interpretation of the Constitution of the Church. The synod also elects to presbyteries and unites or divides those which were before elected, subject to the approval of the General Assembly. It also proposes to the General Assembly for its adoption such measures as may be of common advantage to the whole Church.

The General Assembly: Just as there are in the United States, the local, state, and national governments, so the Presbyterian Church has not only its presbyteries and synods, but also a national governing body. The supreme legislative, executive and judicial authority is the General Assembly, which meets once a year, normally in a different city each year, and usually in a different section of the country, for a session of seven days.

The General Assembly consists of equal delegations of ministers and ruling elders from each presbytery, in the following proportion: each presbytery consisting of not more than 8500 ministerial and communicant members elects one minister and one ruling elder; and each presbytery consisting of more than 8500 ministerial and communicant members elects one minister and one ruling elder for each additional 8500 ministerial and communicant members, or for each additional fractional number of ministerial and communicant members not less than 4250.

The General Assembly receives all appeals, complaints and references that affect the doctrine or the interpretation of the Constitution of the Church that are regularly brought before it from lower judicatories, and having first decided that a question of doctrine or the interpretation of the Constitution of the Church is involved, decides the case. The General Assembly also reviews and approves the records of every synod, making minute of exceptions; it gives its advice and instructions, in all cases submitted to it, in conformity with the Constitution of the Church; it constitutes the bond of union, peace, correspondence and mutual confidence among all their churches. To it also belongs the power of deciding in all controversies respecting doctrine and the interpretation of the Constitution of the Church. The General Assembly examines the work of the seven theological seminaries of the Church over which it has some supervision and of all similar agencies.

The General Council: The General Council consists of the Moderator of the General Assembly and his two nearest living predecessors and an additional twenty-three members drawn from the different Boards and at large within the Church. It is subject to the authority of the General Assembly, to which it reports each year, "supervises the

spiritual and material interests of the Boards and Agencies of the Church," brings their work into close coordination, prepares and submits to the Assembly, each year, the annual budget for benevolences, develops sound financial plans in the individual churches, including the Every Member Canvass and by education, guidance and supervision develops with the churches the highest possible practical and spiritual efficiency.

The General Council, subject to the authority of the General Assembly, makes also suitable provision for the discharge of such duties as promotion of Christian benevolence and stewardship throughout the Church, and the cultivation of sound methods of church finance, public relations, publicity, official publications, men's and women's organizations and the planning of long-range programs and strategy of the Church.

Buildings

Types of Buildings:

The Presbyterian Church is a liturgical church but aims towards the essential patterns of the early Christian Church, empowered with the freedom of new ideas and observances. Baptism takes place at a font, and Communion is served every other month in most churches, or it could be served on each Lord's Day, from the Communion Table. These complete the two sacraments.

There are no particular types of churches except a missionary church, which is supported, and a self-supporting church. As with most evangelical churches, the church is built to carry the religious message to every member of the family, except the very young. The building for religious education may be a part of the entire structure or a separate structure, and it does require a large area in proportion to the Sanctuary. The administrative area need not be very large inasmuch as the church needs only to provide office facilities to accommodate the needs of the particular church. Other administrative work is accomplished by the Presbytery. In the decoration of the interior of the Sanctuary, symbols may be used, although no sacred value is attached to them.

Mandatory Planning Requirements:

The Presbyterian Church is a Christian social church, and a social hall or fellowship hall is mandatory. This hall should be easily accessible to all other portions of the church plant, especially to kitchen and lavatory facilities. The kitchen must be designed so that no sound or odors will penetrate to the social hall to cause distraction from the speaker or program. This hall usually houses a stage which may be a simple speaker's platform or a completely equipped stage, depending upon the program of the church. The room should have a large screen to accommodate audio-visual education presentations.

Other Planning Considerations:

The Narthex is the main entrance to the Nave and it may be entered directly from the street or from a large church vestibule. In some well-designed Presbyterian churches, the Narthex connects with cloak rooms, with the Chapel Narthex and possibly with the church's reception room or parlor. The Narthex may also be used to connect the balance of the building.

The Nave is the area where the congregation is seated. Since no kneeling is required at pews, the spacing of the pews may be somewhat closer than if kneeling were a part of the worship. There are no mandatory rules with regard to proportion and shape of the Nave. The windowless Nave with subdued lighting and aura of mystery, is not popular. While some churches in-the-round have been designed, they are usually well fenestrated and natural light is well introduced into the Nave. A balcony in the Nave may be used where land is scarce or expensive and a greater seating capacity is required than may be provided on one floor. The pulpit and lectern, although part of the Chancel, are sometimes projected into the Nave and elevated for visibility.

The Chancel area may expose the symbol of Christian Faith, the Cross. There is no formal method of serving communion prescribed in the Constitution of the United Presbyterian Church in the United States of America, but it is common practice in most churches that Communion is served by the pastor to the elders from the Communion Table (which may be located on the floor of the Chancel or Nave). The elders, in turn, serve Communion to the seated congregation, at the pews. The Chancel floor is usually raised above the Nave floor to allow for better visibility on the part of the congregation. Some churches have both an Altar Table in the Chancel with the Christian symbol of the Cross on it, flanked by flower vases, and a Communion Table on the Nave floor. Since music is an important part of the Presbyterian Church worship, the position of the organ console and choir is of utmost importance. The choir has been installed on both sides of the Chancel. One side includes the organ console and space for the choir director. Some recent contemporary churches have installed the choir on one side of the Chancel with the organ console and choir director on the other—hidden from view by the back of a pulpit's sounding board. Others have completely removed the choir from the Chancel and placed it in a choir balcony, at the rear of the Nave and above the Narthex. The position of the organ console and choir is still a question that is being left to the ingenuity of the architect. The architect has to incorporate in his design such planning concepts as will significantly develop the role that music has to play in this denomination in the matter of sound, without distracting from the general function of the worship service. A choir rehearsal room with separate robing rooms and their lavatories should be strategically located so that the choir emerging from this room on Sunday morning will have easy access to the Chancel or to the Narthex for procession.

Where a Chapel is to be designed in conjunction with a church building, the Chapel should be accessible, either directly from the street with its own Narthex, or from the main Narthex or week-day entrance of the church. If the Chapel is to be used for weddings, there should be access to the Chancel end of the Chapel for the pastor and groom. The general design of the Chapel, while usually a miniature of the main church, has no choir area and should have a Chancel area of exquisite detail. In larger Chapels, an organ may be used, thus the Chancel area must accommodate the console of the organ and usually allows space for a soloist.

The area of religious education must provide facilities to care for persons from the nursery through adulthood. Care should be taken to insure that a

non-congested traffic pattern will prevail with regard to entrances and exits of the religious education area and Sanctuary area. Classrooms are proportioned for each age group: The nursery may have one or two rather large rooms with private child's lavatory, toy bins, etc; the primary department usually requires approximately three rather large rooms; the junior department, usually the larger group, requires slightly more room than the primary. The intermediate department is more in line with the primary department in number of persons to be accommodated; however, their teaching program is more in line with that of the junior department. The accommodations for young people vary greatly in proportion. Churches with large numbers of their young people attending college will require perhaps only one small room while, if this church is located in a college town, they may require several large areas. Basically a large number of Presbyterian young people attend college; thus, the general rule is that this is usually a very small class. Adults have classes which may be composed of all men, all women or mixed. Further, depending upon the program of the Church, there may be several small classes, or one large class. Since these adult classes are in session on Sunday morning only, the adults may utilize facilities of the church plant which are not in use at the particular hour—the pastor's office, church parlor, library, etc. Among the Presbyterian faith, the adults seem to prefer the Sunday morning Sanctuary service; thus, attendance at religious education classes is usually quite limited in number. The architect must be aware that some churches run nursery day school in their buildings. This means that the area of religious education has to be slanted in design for the accommodation of this service.

The church parlor or reception room, library, church office, pastor's office or study, assistant pastor's office, office of religious education, etc, should be easily accessible from the week-day entrance into the church. Of course, stairs, storage areas, lavatories, etc, must be strategically located to insure the proper function of the church plant. Mechanical rooms must be so placed and mechanical work so designed that there will be absolutely no mechanical sounds penetrating to the Sanctuary area.

Glossary

Altar: Originally an elevated structure on which sacrifices were offered, now used to designate the table used in connection with the worship service; the Communion Table.

Baptismal Font: A basin, a receptacle, in which water is contained for Baptism.

Ceremonial: System of ceremonies, rites, or formalities prescribed for or observed in any particular worship service.

Chancel: That portion of the church Sanctuary set apart for the clergy and sometimes the choir.

Chapel: A small place for worship in a larger building or in a building by itself.

Choir: That part of the Sanctuary reserved for the singers.

Choir Rail: The screen or rail in front of the first row in the choir.

Clergy Stalls: The seats for the ministers in the Chancel; also called "Sedilia."

Communion Table: The table used in the celebration of the Lord's Supper.

Dossal: A hanging fabric behind an Altar or Communion Table.

Fellowship Hall: A large room used for religious and social fellowship, for recreation and for dining.

Lectern: The reading desk from which the Scripture lessons are read at worship services.

Liturgical: Designates form of public worship and pertaining to the liturgy or Eucharistic service.

Narthex: The vestibule or closed-in porch across the building at rear of the Nave.

Nave: The part of the church in which the congregation is seated.

Parlor: A room of ample dimensions, informally furnished, for small social gatherings and meetings.

Pulpit: The desk in a church from which the sermon is delivered.

Reredos: The screen, or ornamental work, at the back of the Altar.

Sanctuary: Originally the part of the church where the Altar is placed. Now used to designate the worship room of a congregation, including the Narthex, Nave and Chancel. ◄

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Commission on Professional Practice
Willian W. Eshbach AIA, Chairman

Committee on Office Procedures
Daniel Schwartzman FAIA, Chairman

Recording Project Building Costs

by **Herbert P. Fifield AIA**

► In recent months, the Committee on Office Procedures has developed two simple forms for recording pertinent cost data on any project. The first of these forms, designed to record the "Architect's Cost of Services," was discussed by Terrell Harper in the March 1963 *Journal*.

The second form, for recording "Project Building Costs," is presented here. It will be noted that the two forms are parallel so that relationships between professional service costs and construction costs can be readily analyzed. This second form is largely self-explanatory; however, a note is made here about the space entitled "Cost Index at Bid Date." Here the name of the particular index used, the region covered and the actual numerical value of the index should be noted. The index may be one from the US Departments of Commerce or Labor, F. W. Dodge Corporation, *Engineering News-Record,* or some other commonly recognized index.

In preparing these forms, the objective has been simplicity consistent with adequacy and accuracy —to encourage speedy and timely execution, quick referral and ready understanding. A file of these forms, properly maintained, will give the practitioner a valuable and utilitarian reference system of costs experienced on projects completed to date.

The value of maintaining these records has multiple significance. Comparative values between projects may be quickly reviewed. By leaving anonymous the specific names and locations of projects, mutually helpful information may be exchanged between firms should this be desirable. Some practitioners may wish to combine the forms into a single reference sheet. However, the Committee on Office Procedures believes the information will be of greater ultimate use if the two categories of costs are separated.

No official use or general exchange of these forms, or of the information they should reflect, is proposed or contemplated by the Committee. They are offered only as a suggested form for reproduction intact or with *additional* information to suit the individual practitioner's wishes. The basic items in this proposed form should be included intact if it is to be useful for possible interchange of information. It is hoped that this type of form will be used by more and more architects in order that each will build a simple, easily referred-to file of completed project professional service and construction costs. The Committee will welcome constructive criticism, suggestions, or inquiries regarding these phases of practice. Address them to the Department of Professional Practice at the Octagon.

Project Building Cost Information

Intended for the personal records and information of the individual practitioner.

1 Project Name and Location .....

2 Project Type and Size .....

TYPE ..... STORIES ..... SQ FT ..... CU FT (SEE AIA DOC D-101)

3 Construction Cost of Project:

Division of work	Total Cost	% of Total Cost	Sq Ft Cost	Cu Ft Cost
a General Const				
b Plumbing				
c Fire Protection				
d H V and A C				
e Electrical				
f Vertical Transp				
g Site Developm't				
h Other ( )				
Totals		100%		

4 General Information:

a Construction Dates: Bid ..... Completion .....

b General Contractor: Name ..... Address .....

c Cost Index at Bid Date: Name ..... Region ..... Value .....

5 Notes:

a Refer to Project Files for job history.

b Cost of each division of work is related to % of total cost to facilitate comparison with other projects.

c Back of sheet may be used for diagrammatic sketches, pictures of project, and any other notations, eg, local market conditions, rating and performance of contractor, weather conditions, etc.

Book Reviews

Man-Made America: Chaos or Control? Christopher Tunnard & Boris Pushkarev. New Haven, Yale University Press, 1963. 470 pp illus 8″ x 11″ $15.00

Reviewed by Robert C. Weinberg AIA, AIP, for the *AIA Journal*

Christopher Tunnard, as Director of the graduate program of city planning at Yale, had been concerned with the question of the expanding urban core for a number of years prior to 1957 when a grant from the Rockefeller Foundation made it possible for him to enlist the cooperation of a group of researchers and writers to study various aspects of the subject. In association with Boris Pushkarev—presently a member of the staff of the New York Regional Plan Association—he has now put together the volume that appears under the above title. Not only Professor Tunnard's previously published books and articles on this side of the Atlantic, but also a special issue in 1950 of the *Architectural Review* (of London) form the introduction, as it were, to this valuable "inquiry into selected problems of design in the urbanized landscape."

The publication is handsome, compendious and informative; it pleads eloquently for informed design and control of our land; and it has a number of faults inherent in any "nonbook" that is the joint product of a number of minds, working over a period of years, and approaching their subject from different points of view. But, all in all, it is an important contribution to the urgent question besetting the world of today and tomorrow: how to prevent it from becoming more increasingly unplanned and chaotic. Whether in North America or in Europe, the problems are similar; their solution is possible, but is by no means certain unless we bestir ourselves. The authors tell who must do it, and how; and whatever may be said here about its format, as published, or of the shortcomings of some of its parts and sections, it is a volume that should be in the library of every architect, planner, landscape architect and public official who is in any way concerned with the widespread building operations that are going on today and will increase in size and number in the decades ahead of us. Much of it is addressed to the citizen and the layman as well.

The work consists of seven distinct parts, each bearing signs of its respective authorship; and one can only suppose that Part One and the Conclusion are Mr Tunnard's own. The intervening parts are quite different in content, approach and treatment; so different, in fact, that they do not hang together, and almost symbolically represent the chaos in our environment, which the book as a whole is aimed at correcting.

Part Two describes the *status quo* in our urban fringe and makes some suggestions for improving on it. It seems to be addressed to developers of residential areas, couched in terms easily understood but not too deep, and making rather generalized suggestions that are not new to architects and landscape architects, to say nothing of planners. It should be of considerable interest, however, to the average commercial builder.

Part Three is a brilliant treatise on the subject of freeway design that should be a valuable textbook for those who are concerned with this specific art at the professional level. It is carried out with a thoroughness and precision that is seldom seen in works of this sort produced outside of northern Europe.

Part Four deals with commerce and industry in our contemporary scene and is far less well put together. While its treatment of industrial location and design contains some good ideas, its discussion of commercial developments is rather on the weak side, and the writing throughout Part Four is distinctly below the standards set in the rest of the book.

Part Five, devoted to recreation, open space and regional conservation, rises to greater heights; and while one may question the necessity of including so detailed a study of recreation problems *per se*, the treatment of open space as a design problem is done with great skill and sensitivity, and the writing is on a high plane.

Part Six is a competent treatise on the subject of the preservation of historic and architectural landmarks, with its legal and economic ramifications. It is a workmanlike, well-illustrated summary of what has been accomplished here to date.

These five parts, sandwiched between Part One, "The Urbanized Landscape: An Esthetic for Man-Made America," and the Conclusion, "The Emergence of Form: Esthetics and Planning Shaping the Urban Region," are more like a suite of orchestral "pieces" than the related movements of a symphony. Their several themes are composed of different assumptions and reach conclusions that are not always in harmony with each other or with the volume's main thesis. But any one of them could stand alone as a booklet published under its own title and for a different group of readers. Perhaps, the publishers may some day do this, since the appeal of each of Parts Two to Six, inclusive, differs so widely. Yet, taken as a whole, they reinforce the argument of Part One and the Conclusion, and thus enrich Professor Tunnard's repeated and eloquent plea for better design of our rapidly urbanizing open spaces, and for their intelligent control, in line with modern technology and an inevitably increasing public understanding and good taste. Only by deliberate design can we be assured that the "mess that is man-made America shall not continue to desecrate our fair land."

This is the main concern of the study, and Professor Tunnard introduces it persuasively in Part One of the book, with a firm historic background, stating the case primarily in terms of esthetics and order. Outlining the elements of the "rural-urban" fringe, which had been so well-criticized a decade ago (by Tunnard, among others) in the British publication *Outrage*, he describes the characteristic chaos that pervades most of our recently constructed environment, which is a violation not only of natural but also of man-made beauty, a result largely of ignorance and apathy rather than of lack of know-how on the part of the builders of today. The cure cannot be found in a nostalgic longing for a re-created village square atmosphere; this sort of play-acting is out, and the zoning ordinances as well as preservation measures aimed at creating entire viable communities of Williamsburg-like "atmosphere," are merely an escape from reality—even though, as Part Six of the volume points out, we need not, therefore, throw out all of our historic heritage, wherever this can be

kept and intelligently made part of today's environment.

The format of the volume reveals the variety of thought and talent that has been put into it; the diagrams are beautifully and clearly presented; the maps are legible, no matter how small in scale; and historic pictures are well chosen for illustration; the photographs of "what is"—both bad and good—are unusually well taken, selected and reproduced. Some of the captions are not as intelligible as they might be; and I, for one, am as confused and dismayed by the irregular make-up of the pages, as I am by the outrageous sprawl of our semi-urbanized landscape that these pages criticize. One wonders whether the authors have deliberately symbolized the confusion and lack of harmony of our man-made America by having every page laid out in a different way, sometimes with photographs centered, some "bled," others half-way off the margin and others within it; sometimes omitting page numbers, which makes for hard reading and reference, and elsewhere leaving them clearly visible. The chaos of the layout echoes that of our landscape. Too bad. This need not have been so.

But to return to subject matter: in the Conclusion, Professor Tunnard briefly sums up the argument for the development of greater nationwide concern for the visual design of our environment—urban and rural as well as suburban, regional and national as well as local. The basic tasks involve calculating generalized optimum location patterns for centers of employment and social activity; designing and executing a co-ordinated regional transportation system; acquiring and designing a system of open space to outline and define urban development; directing and co-ordinating the location of utility extensions with reference to their economic and conservation aspects as well as those of practicality and expediency; and, finally, undertaking these tasks with such fiscal and legal land-use controls as will insure that the general image of the urban region will be established. To do this it is not only necessary to prevent violations of the ordinances we already have, but to direct positive planning toward new ends such as the preservation of continuity and the relationship of elements within any given pattern. Finally, quite simply, it means the enlistment of a greater number and variety of skilled professionals as well as more spending on environmental facilities, a national policy that can be justified both on cultural and economic grounds.

This is the heart of the argument; and, perhaps, we should not quarrel with the uneven insertion, between the introduction and conclusion, of a half-dozen treatises on certain aspects of the problem; for in no other volume that has appeared recently is so much ground covered, and so much of it covered well.

Zodiac #9. Bruno Alfieri, editor. New York, George Wittenborn, distributor. 211 pp illus 8¼″ x 10¾″ $9.00

Reviewed by Gudrun Huden for the *AIA Journal*

This issue in the semi-annual experiment of presenting current international thought and facts on architecture to an international audience of (presumably) professionals, unfortunately follows the tradition of most of the earlier "experiments." The failures to communicate well seem to lie mainly in the lack of editorial discipline and responsibility to the reader. For there is a point at which the endless typos, constipated syntax, totally inadequate division of (previous to succeeding) papers, headings and captioning, various dainty typesets on glossy paper requiring constant light and eye adjustments, add up to that degree of irritation which blocks out the content that "Zodiac" does have to offer. This high-priced publication is a hodge-podge—a string of unedited manuscripts slickly made up by someone who wasn't too interested in its being read.

Ironically, some of these pains are worth the reader's efforts and mention, including this bit of unintentional humor from Mr Hitchcock's informative analytical, though a bit dated (1960) essay on European skyscrapers. Hitchcock welcomes the sensitive discrimination in the German language between a *Hochhaus* (high building) and a *Wolkenkrätzer* (cloud scraper). The Umlaut, quite unnecessary, changes the meaning: For *Krätze* means "mange," but *kratzen* from which the . . . *kratzer* is derived simply means "to scratch" neither specifying cause nor effect.

Carlo Ragghianti's "Modern Architecture and Cubism" is the only essay appearing in the "English Summaries" at the end of the book, there are no others. The editors apparently assume that any reader masters at least a combination of two, and preferably three, of the following languages: Italian, French, German and English. One would have preferred if the sixteen-page Ragghianti translation could have been reduced to allow abstracts of point-summaries of some of the other papers. Giorgio Gentili's thirty-two-page essay on Britain's new towns and town centers is profusely illustrated—maps, photos, renderings and sections so well-chosen that these alone provide a tight story. True, most of these have been pictured before, but usually with the focus only on individual solutions.

The spread on Max Bill's work—beauty "from the spoon to the city"—is much appreciated. Margit Staaber's academic style is a bit cumbersome and disproportionately long-winded for this type of medium, and clashes with Max Bill's character. To him ideas become uninteresting as soon as they have proven their practicality.

Japan's Noburo Kawazoe provides a real thriller in his essay on "The City of the Future." The text and illustrations set forth the *Weltanschauung* and proposals for a new social order and society by the "Metabolism Group." Paraphrased for sensation: Work-cities will be built over the ocean giving the land a chance to return to its own ecological order, people can return to nature on their days off, ". . . anything as useless as art will be destined to disappear before long," ad terrorum. The utility towers (power, refuse, etc) will be the cityscape of tomorrow. On these people would hang their prefab-cages at marriage to be taken down if the union fails. The idea is right out of the bio-sociologist's slide case.

Definitely overpriced, "Zodiac 9" has much of interest, some of possible professional value. It is a handsome publication, and the architect who is so exasperated by its inadequacies as to banish it from his office will find it a useful reception-room status symbol.

Library Notes and Editor's Page will be found on pages 144 and 142

This Series is a Project Financed by Your Supplementary Dues

Comprehensive Architectural Practice

Colleges and Universities

by **Robert E. Alexander FAIA**

For colleges and universities, especially the mushrooming community colleges, comprehensive architectural services can fulfill pressing needs of clients

College enrollment will rise to 8,616,000 students by 1975, according to US Department of Health, Education and Welfare projections; the enrollment then will be about double that of 1963 and almost four times that of 1950. From all indications, a large portion of the increasing student population will be educated in community colleges that are yet to be built

The potential scope of an architect's services for a college or university varies according to many factors such as the size and age of the institution and the staff and other resources available through the institution itself or state agencies. A large state university located in a populous state, founding a new campus, may have the educational planning staff, space experts, program analysts and a wealth of operating experience so that the architect's role is confined to his traditional site planning and building design functions. However, it is assumed here that a small, new community college is to be built in a state where little or no pertinent experience is available and where no strongly staffed state agency is available.

Analysis, Promotional, Managerial Services

An architect's means of providing expanded services will also vary according to the size of his organization and the volume of work he produces in the subject category. A large office specializing in higher educational facilities may offer all services through employees or associates. Even the smallest office, however, can organize a group of consultants as a team specifically designed to deliver the highest quality, coordinated, comprehensive services outlined below. In areas where no "experts" are available, the problems are also simpler and the architect in even a two-man office can learn to handle most of the problems involved.

A community college

For purposes of illustration, it is assumed here that a committee of laymen has been appointed to found a community college. They are convinced of the need and desirability of the project, but they must translate their abstract enthusiasm into specific figures on need, use, cost, benefits, size, growth, orientation, etc, in order to proceed on a secure basis and to convince an electorate. The committee may engage an architect at this embryonic stage if the architect is prepared to offer educational, survey and community planning services.

The architect assembles and analyzes information on population and existing higher educational opportunities and use. He projects probable attendance estimates and recommends limits of the district. His educational consultant conducts a survey of indigenous community interests, job opportunities and aspirations. He outlines a potential curriculum and shows how it would relate to the economy of the district. He suggests certain aims and objectives.

The architect then estimates, in broad terms, the probable costs and timing of the institution before having planned any buildings. His economic consultant analyzes the tax resources and position of the community to support the project; his land planner reports on land and transportation availability in general terms.

Determination of feasibility

At this stage if the project appears feasible to the committee, an official Board of Trustees is formed. Their first act may be to select a President of the college who thereafter directs and takes the lead in educational planning. The architect, however, may still be called upon to provide staff experts in many fields including education.

Operational Program

The operating plan and organization of the institution will be determined by the President and the Board. The architect and his educational consultant may offer valuable advice for use in the analysis of the planning and design implications of an operational idea and in suggesting alternatives for consideration.

The operating plan will state how the aims, objectives and curriculum will be carried out. Will the institution be organized along vocational or academic discipline lines? What will be group size policy? What proportions of seminars and large lectures will be sought? How will TV be used? How will language classes be conducted? How will computing machines and teaching aids be used?

Decisions on such questions will determine faculty requirements, maintenance facilities, building forms and the cost and quality of education. The interplay between educator and architect at this early stage may benefit the project profoundly.

Establishment of basic philosophy

The basic philosophy of building design and open space relationships is determined by the Board, but the architect is best equipped to visualize the possibilities and the effect of such policy on human and operational relationships. The type, height, compactness, form and materials of construction can now be outlined. Housing relationships and functional grouping related to faculty, student courses, specialization and public use can be determined. Site, climate and soil requirements can be analyzed to determine how they may influence site selection and building design and costs. A policy determination of ultimate maximum growth will be required at this time.

Space requirements

Space requirements may be tailored to class size and number so that each student and faculty station is used efficiently. A student station that will be occupied one-third of the available time costs twice as much to the consumer as one used two-thirds of the time available. The architect, or his space-use consultant, can save many times the entire cost of his services by integrating the space program with the educational operating program plan.

The architect then may analyze various incremental development plans. Certain functions are essential before the college can

open. Complete buildings may be developed to ultimate requirements and used in the interim for a combination of uses. Time schedules for design, construction and payments must be adopted.

Site selection

The architect and his community planning consultant review possible sites as to location, service area, access, transportation, utilities, topography, costs, soil and esthetic features. The architect may test each suitable site against a schematic development plan based on the program. Comparable analyses of all the factors involved, rating each site, will help the Board to a rational, justifiable and secure decision.

Schedule of costs

From the space program and the incremental development plan, tested against a schematic site plan, the architect can develop a schedule of development costs. He should embrace in this the full costs of development including furnishings, technical services, inspection, tests, landscaping, utilities, roads, fund raising, etc. The development costs will usually run twenty-five per cent—or more—of the estimated building costs. A projection of a building cost index as well as contingency allowances should also be employed to avoid embarrassment to the Board and the architect. Coordinating the incremental schedule with the estimated growth of the institution, and leveling the curve of development, he may then prepare alternate financial plans based on bond issues, annual tax rate increases or fund raising campaigns. The plan may be modified by the resources of the community or political considerations.

Fund raising campaigns

Many architects also assist the Board in fund raising or bond campaigns, preparing special graphic material and publications and making personal appearances to answer questions at public meetings. Some architectural offices even maintain offset printing departments for the efficient conduct of their internal business and for better service to clients.

Operational Design Services

The educational purpose of an institution may be enhanced by a complete analysis of the problems of administration and maintenance that will be encountered in later years. Such a study by the architect may not only be of value to the college administration, but may also be of aid to the architect and his staff, helping to make the design of the general plan and the buildings themselves more realistic. Manufacturing "process charts" may seem incongruous in education, but the flow of students, faculty and paper, especially in a large institution, can be vital and might very well be planned in a manner similar to the flow of manufacturing production lines.

Equipment and furnishings

The architect can offer well-documented advice on equipment and furnishings as well as on purchasing policies and long-range maintenance policies. Few architects can offer sufficient personal experience or a laboratory of their own, but any architect can obtain information and reliable laboratory test reports for the benefit of his client. The architect's obligation is to become well informed and to develop the judgment which will make his advice valuable and therefore remunerative as he expands his services.

Building Design and Construction Services

The traditional building design services are well understood generally, but emphasis should be placed on the relatively new distinction between schematic and preliminary design, which was

developed for the security of the client and architect. Too few consulting engineers fully realize their responsibilities to join with the architect in the schematic concept and in developing a complete design during the preliminary stage.

Architect not a lawyer or educator

Services during bidding and contract letting bring to mind a common misinterpretation of comprehensive services. During this period especially the client tends to ask for—and the architect may tend to give—legal advice. In expanding his services, the architect must never profess to be a lawyer or an educator. There is a fine line to be drawn between advising on the law, for instance, and citing one's own case histories in similar cases or advising on construction or design "practices of the trade." There may be planning or design or cost implications in an educational proposal, but this does not convert an architect into an educator.

Post-construction services

Post-construction services are so seldom offered and carried out that they would appear to be expanded services and deserve special consideration. In the first place, the architect can provide a manual to the client for every building, on its completion, giving instructions on operation of equipment and maintenance of materials. On one campus these instructions, varying from building to building, were incorporated into a faculty and administration guide to the use of facilities. The collection of written guarantees and follow-up on all guarantee periods might very well be an established and valuable service performed for clients by the architect on every building he does.

Supporting Design Services

College campus planning often requires the special talents of urban planners and road and traffic designers; it always requires sanitary and utility design, landscape and site planning. Not only may fine artists be introduced for specific embellishment of projects, but often the advice of sculptors and painters may be integrated with the work of the architect's own design team in the development of the forms and colors of architectural components.

In some cases, consulting architects, who have a wealth of experience and knowledge in the special field of higher educational facilities, may be engaged. Their diverse experience and authoritative assurance may be so convincing to the Board that superior results are obtained.

Fundamentals, limits, objectives of architectural profession

A fundamental purpose of the architect's profession is to be of "ever-increasing service to society." The limits of his service are society's needs related to the development of man's environment. The architect can reach these limits of service if he attains three things:

1 Recognition of unfulfilled, related needs
2 Preparation for—or coordination of—competent services for fulfillment of these needs
3 His client's recognition of his ability to deliver and confidence in his organization

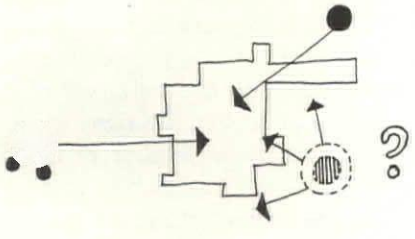
The Board and administration of a college will quickly recognize the value of comprehensive services, if they are convinced that the architect is prepared to handle such services effectively—and they will be found willing to pay for the services. The ultimate result should be better-satisfied clients and consumers and a better-served society.

This Series is a Project Financed by Your Supplementary Dues

Project Analysis Services for Community Colleges

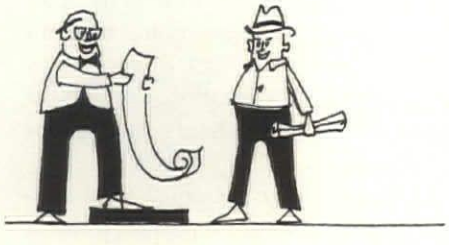
by **Eberle M. Smith FAIA**

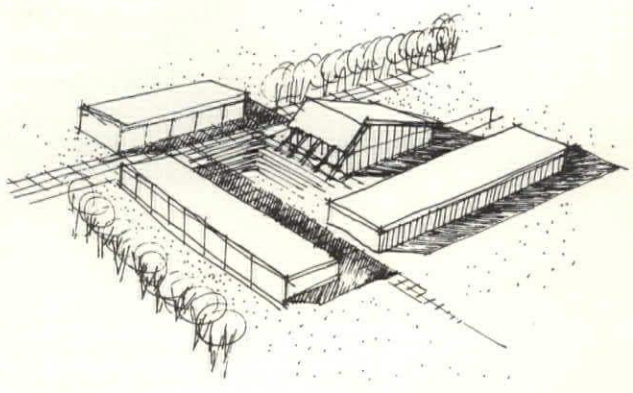
How comprehensive architectural services in the area of project analysis for community colleges are performed, and how these services may be augmented by promotional activities which support the building programs of clients



The community college is a relative newcomer to the American scene. In the simplest terms, a community college is an institution of higher learning offering programs beyond the high school level, but less than four years in length. Such colleges offer unusual opportunities for the architect to be of service in the areas of project analysis and promotional services because they grow out of the unique needs of the localities they serve, draw financial support from a number of different sources and usually must be planned in a series of steps according to the most immediate needs and the availability of funds.

For many youngsters, the community college bridges a difficult gap between high school and employment. Because it is a





local institution, easily accessible and inexpensive to attend, the community college enables and encourages youngsters to continue their education. The modern community college offers preparatory programs for high school graduates planning to transfer later to four-year colleges, terminal programs for those who do not plan to go further in college and continuing adult education.

The community college is responsive to local needs in that it furnishes terminal education in skills needed by local business and industry. It offers a very good bargain in education to the individual since operating expenses are largely met by various governmental agencies and tuition fees are generally low. It is within commuting range of the area it serves so that, in general, students incur no expense for board and room.

These are the usual steps to be taken in the development of a community college:

1 Determine the need for a community college
2 Determine the area to be served
3 Determine methods of financing initial, operational costs
4 Determine what is to be taught
5 Determine location and size of site
6 Develop the physical plant
7 Provide the staff and personnel to operate

As these steps are taken, the governing body of the community college will have to make decisions at each stage. Information must be presented so that these decisions can be made promptly and in an orderly manner; in this, the architect can be of inestimable aid to the governing boards of the colleges.

Ordinarily, the first step in establishing a community college is to determine the existence and degree of the need for it, based on projected school enrollments, the area to be served, local and state employment trends, courses of education not provided by existing schools in the area, and intellectual and cultural goals of the community. Determining the need is often the function of a study group, drawn from business and educational leaders of the locality, and brought into being by a realization that lack of technical training and education is denying opportunity to many individuals within the community and is creating a public burden of unemployment. Many high schools maintain records on their graduates; statistics of this type and school district enrollment projections based on the anticipated growth of the community furnish a sound basis for assessing the magnitude of the problem to be solved in a community college building program.

The study group may draw on a number of sources in order to develop a background and an improved understanding of community college experience in other localities. These sources may include state and Federal departments of education, schools of education in large universities, educational consultants and administrators at other community colleges.

Local and state employment trends may be established in consultation with local chambers of commerce, representatives of local industry, labor unions, employment agencies and governmental units concerned with welfare, social security and employment. In addition, community leaders and planners may be able to suggest

new goals which the community may wish to set in order to reach a better balance between industry, commerce, culture and the professions. As an example, the community might plan a hospital as part of its future growth and include nursing and pre-medicine in the curriculum of the college.

The size of the college community may be established according to three major considerations. First, of course, there must exist a socially and geographically integrated group which needs and wants a community college. Second, the area to be served must conform to the requirements of the enabling act of the state. Third, the area must have an adequate tax base in order to carry its share of the support of the community college. Such considerations are of material value in the selection of the site and in promoting the community college program.

Frequently, the architect first enters the picture at this stage. He may begin his services by assembling data from planning and statistical sources and incorporating these data into visual displays for presentation to various groups and to the general public. Such displays might well include graphic presentations of the locality, of the expected stages of growth, of the needs for a community college and of the benefits to be derived from it.

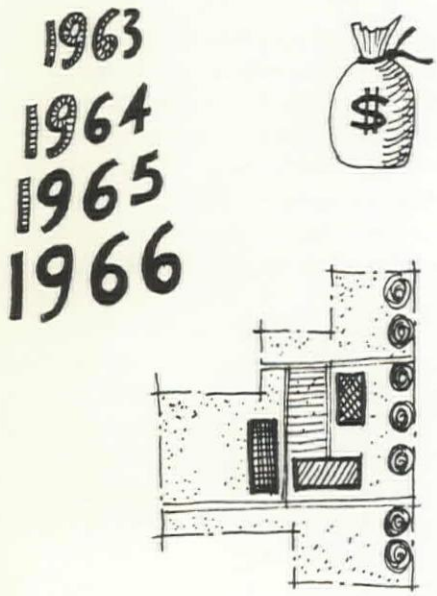
Before the college issue can be presented to the vote of the community, it is essential that the financing of the project be planned. The vote may come before final selection of the site. It may precede determination of the area to be served, since a negative vote in a given district may take that district out of the project. Nevertheless, the proposal presented to the voters must be realistic and adequate, in most cases, to finance the entire project. It is not easy to go back to the community for additional funds, particularly if the need arises from poor planning or lack of foresight in the initial request.

Among the possible sources of support are individual donors, local tax revenue, fees for tuition, state aid to education and Federal funds. Part of the architect's service is the development of a master plan and a construction schedule that will best take advantage of each of these sources. Usually, construction must take place in several stages, as funds become available year by year. Periodically, some units may be added and others may be expanded or converted to new uses as required by increases in enrollment and enlargement of the curriculum.

As an example, consider a proposed community college planned initially for 3000 students on a 150-acre site. Cost of the land is estimated at $600,000, and of the buildings, $9 million. An additional $400,000 is to be allowed for fees and preliminary work and for assembling the beginnings of a staff.

Assume the community has an assessed valuation of about $2 billion. If the property tax is increased by one mill, the annual tax revenue available to the college will amount to $2 million.

In addition, the state contributes, let us say, $200 per student toward operating expenses. Many states also contribute to capital expenditure, usually on some sort of a matching fund basis. The formulas for these funds vary widely from state to state. In this case, let us assume a formula that will provide from $40,000 to $150,000 in matching funds according to enrollment.



A Federal long-term, self-liquidating loan at low interest is presently available for construction of the student center, which is estimated to cost $500,000.

Operating costs are expected to be $600 per student. If $200 of this is covered by tuition and $200 is contributed by the state, there remains $200 per student which must be paid out of tax revenue.

The accompanying table shows how the cash position varies over the first few years. It will be noted that a bond issue of $7 million is adequate, and that of this amount over $5 million is available for reinvestment during the first year of construction. Conceivably, a smaller bond issue would serve the purpose, but a margin of safety is desirable to cover construction expenses accruing in 1965-66 prior to collection of taxes. As a result a reserve fund of slightly over $2 million is available in 1965 and this fund increases approximately $700,000 each year. At the same time the college will undertake $300,000 of new construction each year, so as to take full advantage of state aid.

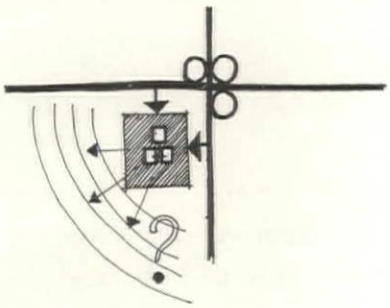
In this particular case no individual gifts or bequests have been included in the financing. These may have a profound effect on the financing, the design and construction sequence of the project, etc; a gift may include a site for the college or funds for a specific building.

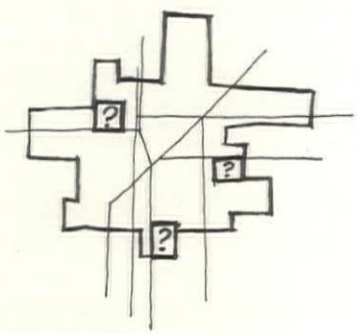
In order to qualify for state and Federal aid to construction, and often as a necessary preliminary to receiving a gift, the portions

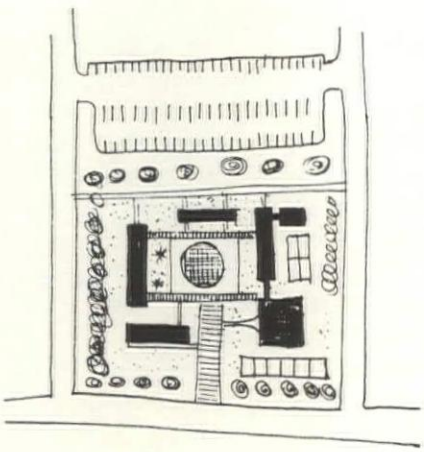
Capitalization and Expenditures of a Hypothetical Community College

YEAR	1963–64	1964–65	1965–66	1966–67
No of Students	0	0	1500	3000
Operating Costs	$ 400,000 (1)	$ 150,000	$ 900,000	$1,800,000
Construction Costs	600,000 (2)	4,500,000	4,500,000	300,000
Debt Amortization	—	550,000	550,000	550,000
Total Outlay	$1,000,000	$5,200,000	$5,950,000	$2,650,000
Tax Revenue	$2,000,000	$2,000,000	$2,000,000	$2,000,000
Tuition	—	—	300,000	600,000
State Aid for Operation	—	—	300,000	600,000
State Aid for Capital Expenditures	40,000	40,000	90,000	150,000
Federal Loan	500,000	—	—	—
Bond Issue	7,000,000	—	—	—
Total Funds Received	$9,540,000	$2,040,000	$2,690,000	$3,350,000
Total Unexpended Funds (3)	$8,540,000	$5,380,000	$2,120,000	$2,820,000

1) Fees and Preliminary Expense
2) Site Cost
3) Does not include earned interest







of the project for which the funds are intended must be studied and presented in detail with realistic cost estimates. To the architect these are still analysis and promotional services, but in completeness and refinement they go several steps beyond the analysis and general promotion of the program to the community that was previously described.

Some community colleges begin with the gift of a site; others must select one. Ideally, the site should be located close to the center of population of the area it serves, now and in the future. Nearly all of the students and faculty will probably use automobiles to reach the college; consequently access roads must be planned to meet the needs of this traffic without creating serious hazards or disturbances in the neighborhood.

Also a survey should be made of the site and the neighborhood to uncover any problems of sewers, storm drainage or essential utilities.

It is not always possible to find a sufficiently large piece of suitable land under single ownership. When land of various sizes, shapes and costs must be assembled into a workable site, it becomes the architect's problem to recommend the combination which represents the best compromise between price and suitability. In arriving at his conclusions, he must take into account not only the cost of purchasing the land but also those of grading, filling and developing the site. Nor should he omit to verify the present or proposed uses of adjacent land; for example, an airport is not a good neighbor for a community college.

Even though he is well qualified by education and experience to consider the interdependent factors of finance, real estate, community growth and planning, the architect will be well advised to make use of consultants and other resources within the community in order to insure that he has given proper consideration to all of the specific problems of the locality. Ignorance is no excuse for a bad recommendation.

There is one further aspect of the architect's service with respect to the planning of community colleges which deserves special mention; that is, his relationship with administration and staff. The current concept of the public elementary school has had more than a century to evolve. Community colleges are infants by comparison and their pattern is not set; each is a challenge and an opportunity to be met jointly by the educator and the architect. Much of the approach may be frankly experimental, and the architect may find it necessary to range far and wide to fit himself to perform an effective role in areas in which he has had no previous experience. The details must all be worked out in conferences with administration and staff. These conferences cannot be limited to the preliminary stages, since the staff will still be in the process of formation at this time. In fact, some conferences or seminars may be necessary when the first stages of construction are essentially complete in order to acquaint key personnel with the arrangement of the physical plant and the maintenance and operation of equipment.

By comparison with more traditional practice, the community college requires a much more active and continuing exchange of ideas between the architect and client.

This Series is a Project Financed by Your Supplementary Dues

Services for Promotional Ventures

by **John Stetson AIA**

The large number of buildings constructed each year that start out as promotional ventures offer a considerable opportunity to architects who would like to obtain more commissions in a wide variety of building types

Promotional opportunities

Almost every architect—at one time or another—has been approached by a promoter with an offer to include him in a venture if he will perform his services on a contingent basis. In many cases, the offer does not include an increased fee for the risk undertaken. Rarely is the architect to receive anything for his services should the project fail to develop. Conversely, the services the architect renders in such cases may not always represent everything they should.

Young practitioners, perhaps because of their understandable eagerness to be associated with a major project, are sometimes taken in by shrewd promoters seeking the most services for the least expenditure. On the other hand, untold thousands of legitimate opportunities exist for architects in the promotional field. The word "promoter" no longer necessarily carries a stigma. The legitimate promoter is apt to be a real estate broker or some other person closely associated with the selling of real property; and lawyers, accountants and contractors have found promotional ventures a lucrative means of augmenting their income.

Many architects are prepared for promotional project ventures

Most able architects have available, in their own offices and in their wide knowledge of design and construction, every weapon and all the necessary ammunition for successful forays into the promotional campaigns usually generated by real estate men or others. The man who eventually becomes the client in a promotional venture, the lending institutions and the buying public alike welcome the type of leadership a knowledgeable architect can provide.

Higher fees possible

Why are people willing to pay a greater price for the services of promoters than for basic architectural services that require more hours of work, more education and—in actuality—greater risk? Simple enough. The promoter makes money for his client in a manner he can more readily understand and in a much shorter time. Agreed that a well-designed building may well be a joy forever, in financial return, in permanence and in beauty. Yet only too many of our award-winning buildings are economic failures. Gone are the days when the wealthy supported the arts. Almost all of

today's clients are businessmen who are *often* ready to enjoy the beauty of good architecture, but who are *always* looking for the greatest financial return or the most economical use of every dollar they spend.

Services for promotional projects

What clients will require for success in promotional projects—that they themselves must furnish—can most often be categorically grouped under the major classification of "money." With this consideration taken care of, what then is required of the architect? What architects must know—and be prepared to furnish—if they are to become successful "promotional architects" is outlined on the last page of this article. The first requirement is a basic and current knowledge of the available properties in the area. Vacant lots and buildings not now producing incomes proportionate to their assessed valuations are the easiest to convert to ready cash. This does not mean that architects must now start selling real estate without a license; they will sell only ideas. The architect can find out the name of the owner of the likely property or building and quietly ascertain the current market price, then let his client make a direct offer when the right time arrives. Since no selling fee need be involved, here is the first opportunity the architect has to save some money for his client-to-be.

Knowledge of available properties

This first phase of the promotional effort can be all-important. Only too often, an architect has lost a commission because some real estate salesman sold the architect's client-to-be an existing building, rather than the vacant property he was directed to show and for which he was to arrange the purchase. For success in promotional ventures, a knowledge of the needs of the community, availability of mortgage financing, availability of tenants and marketability of properties is most important. Armed with such facts, a basic knowledge of economics and architectural ability, the architect who so chooses will be able to participate in promotional ventures successfully.

Architectural and economic research

Once the property has been chosen and its best use determined, architectural and economic research become necessary. These go hand-in-hand. Too much money spent on a building, either new or remodeled, can spell defeat for a promotional venture at the start. When it has been determined that there is reasonable assurance of success, the availability of financing becomes the next step. Rough sketches and specifications, together with a reasonably accurate cost estimate, will then be required in order to interest money lenders. Along with a comparative economic study of other buildings of this type, these things are all that are usually required by lenders. If several prospective tenants can also be produced, then the success of the financing program is almost a foregone conclusion.

Role of the buyer

Next comes the buyer. If there are as yet no prospective purchasers, this is the time to bring a broker into the picture. Amazing though it may seem, bankers, stock and investment brokers, lawyers and doctors, as well as real estate men, often perform this necessary function. Once a buyer is interested and persuaded to make a written agreement, then the venture can be put together in actuality.

There are a number of ways in which architects may receive their compensation from a promotional project. Because of the

Compensation for promotional services

increased scope of the services performed, much higher fees than those usually charged for architectural services are in order. Normally there is a fee for economic research, running upwards of one per cent of the cost of the venture. Assuming a finder's fee for the mortgage, decorator's fee, landscape fee, broker's commission, architectural and engineering fees, etc, it is conceivable for a client to pay fifteen per cent for services that will be rendered in a most disorderly manner. An architect can do more for the client, in a more orderly manner, and save him money; at the same time the architect can make a higher fee and—if he chooses—end up owning part of a going venture.

Some architects take all of their fee in cash in a venture of this sort; large firms, with several partners, may find it difficult to do otherwise. Smaller firms—and particularly individual practitioners—might do very well if they took only their expenses in cash and accepted a percentage of the venture as the major part of their compensation for the services rendered. Naturally this places limits on the percentage of the total annual office output that can be devoted to promotional ventures; and it delays the return. Some architects accept their entire fee as a percentage of ownership of projects. Compensation in the form of a percentage of ownership has the advantages of tax treatment as capital gains rather than straight income and of representing a share of a profitable venture, assuming the architect has been able to put together a successful venture. The buyer, client or owner (whatever he may be called) will probably be delighted to have his architect share in the ownership, thereby assuring himself of the utmost architectural effort to turn out a building that will be successful in both esthetics and economics.

Success in promotional fields

What are the architect's chances for success in the promotional building field? Based on the facts, he can't lose, particularly if he is any kind of salesman at all. Why? Here are some of the reasons: 1) The architect will show the client how to make money. 2) He will offer the client a complete deal. If the client makes money, then he will no doubt be happy to see the architect do the same. 3) The services of the architect will be far more comprehensive than the services offered by others now trying to invade this design field. 4) There will be a smaller number of promoters on any one project. 5) The architect is trained to perform many services on projects. 6) The architect has—or should have—the respect of mortgage bankers. Capital is always available for worthy projects. 7) The client would prefer to have the architect participate in promotional projects, in order to lower costs and get a better job. 8) Idea men, if they properly sell themselves and their products, always make money. Architects are idea men or they never would have become interested in their profession to begin with.

Advantages to architect and to the buyer

The services of the architect that have been described are attractive to the buyer. And they can be of great benefit to the architect over the years. "Promotion" is not necessarily an unmentionable word. An architect's approach to the subject, the methods he uses and the manner in which he conducts his activities will be the deciding factors as to how the word will be defined in a given case. Surely, an ethical architect need fear no stigma.

Outline of Promotional Architectural Services

I Services of the Architect

A Site and Use

1 Availability of land and/or building for project
2 Lowest acceptable cost
3 Best new use
  a Availability of tenants
  c Desirability to community
  d Tax advantages to investors
  e Economics of project
4 Zoning requirements

B Economic Survey

1 Study of similar projects in community
2 Study of economic indicators in community
3 Operational cost factors
4 Income potential
5 Chance for success

C Financing Survey

1 Availability of money for this type project
2 Costs of obtaining financing
3 Construction money
4 Interest rates and repayment plans
5 Obtaining tentative commitment

D Design of Building

1 Preliminaries (including outline specifications, etc, necessary for financing)
2 Working drawings and specifications
3 Taking of bids

E Administration of Construction

1 As architect
2 As agent for owner, or as owner
3 Continuing survey of means of reducing costs to obtain best economic picture

F Decorating and furnishing

G Landscaping

II Architect's Remuneration

A Flat fee or percentage fee to be paid as project proceeds

B Fee to be paid in lump sum at completion—and sale or lease—of project

C Fee paid partly in cash and partly as percentage of ownership of project

D Fee paid entirely in percentage of ownership of project

E What are tax advantages for architect of various types of remuneration?

Informed Electorate

► The 1962 Convention taught us two lessons: 1) means should be found to insure a full quorum for voting on Institute business; 2) the delegates need full information on official business far enough ahead for discussion in their Chapters.

The Board has acted to meet both of these requirements. The business session is scheduled all day Tuesday, May 7, early in the Convention calendar when attendance is highest. A Bylaw amendment is proposed that would empower the Chapter President, or his delegate, to cast votes for delegates absent from the floor. (See Official Notice of Convention Business.) This programming and voting procedure should insure the presence of a quorum.

Extensive preparation has taken place to inform the membership on impending Convention business in ample time for grass-roots discussion of the proposals.

First, the annual meeting of the Board was moved from January 1963 to the last week in November 1962. Proposals for Convention action were thereby approved and settled by the Board six weeks earlier than usual.

Next, work was begun immediately after the annual Board meeting to prepare the Official Notice of Convention Business to be mailed to all members by mid-February. This year's Notice will reach members four to six weeks earlier than usual.

This should insure time for Chapters to schedule at least one regular meeting before the Convention for debate of official business. It also allows time for Regional Directors to call meetings of Regional Councils for the same purpose.

The Official Notice also contains much fuller explanations of reasons for the Board's recommendations and reports on the use of the supplementary dues and the feasibility studies of the new headquarters. There is more to read than usual, but by the same token, much more information. Experience has shown that the membership reads the Official Notice more carefully than any other communication.

In this issue of the *Journal,* President Henry L. Wright FAIA has summarized the major proposals for the Convention.

The Board has acted to inform the electorate and hopes that delegates will come to Miami better prepared for this business session than they ever were before.

Administrative Change

M. Elliott Carroll (right), well-known to the membership as Head of the Department of State, Chapter and Student Affairs, was promoted to Director of the Division of Professional Services on February 2, 1963. Theodore W. Dominick (left), formerly head of that Division, has been named Head of the Department of Architectural-Building Information Services. The administrative change was made after the Executive Committee of the Board approved production of the third edition of the Building Products Register and Ted Dominick indicated his desire to devote all of his energies to the ABIS services. Both men are highly qualified for these assignments. WHS

Space Utilization on the College Campus

by **Roger Taylor**

Another in the series of papers presented at the seventh annual Workshop of the Council for the Advancement of Small Colleges. The author's firm, Taylor, Lieberfeld & Heldman, New York, specializes in long-range planning for colleges and universities. CASC will soon publish a report on the Workshop, which was held last year at MIT

► Up to a few years ago, no one paid very much attention to the use of space on a college campus. With the increasing influx of students, however, space utilization is on the tip of everyone's tongue. There have been magazine articles, studies, books, pamphlets and speeches on the subject. Nevertheless, I feel there are large gaps in the effectiveness of all this activity.

For one thing, space utilization is not simply a matter of analyzing the use of space in existing buildings. It should also include proper programming of any required new facilities to insure neither over- nor under-building for the future. It has been demonstrated that intensive analysis of use of existing facilities and the proper programming of that use can materially reduce the need for new construction. In fact, such an approach can result in reductions of as much as twenty per cent of the new space initially thought necessary.

A second point is that a great deal of study has been made of dormitory space, student unions, dining facilities, etc. Academic, research and administrative space on the other hand have been neglected. As far as academic space is concerned, literature in the field concerns itself almost exclusively with classroom and teaching laboratory space. On many campuses this represents a relatively small proportion of academic space. The many different types of auxiliary space have been largely ignored. I refer to areas such as those devoted to research, office, storage, preparation and many types of miscellaneous space found on a campus. One recent publication suggested that in the smaller colleges some fifty per cent more students could be accommodated without additional buildings. This statement was made solely on the basis of analysis of classroom and teaching laboratory space. It may be that fifty per cent more students can be accommodated in such spaces. But in most instances this implies additional space for faculty offices, storage areas, research facilities, and other space auxiliary to classrooms and teaching laboratories.

One final lack, I believe, in much of the thinking concerning space utilization is that while many colleges and universities have made analyses of their percentage of use of classrooms and teaching laboratories, they have stopped there. Only rarely has the resulting question—what can we do about it?—been attacked. It is one thing to see that room and student-station utilization is low; it is quite another to determine what can be done to improve them. What I propose to do is examine some of the ways in which utilization can be improved and some ways in which administrators can assure themselves that they are not building too much space for actual future needs.

One thing which is seldom recognized is that it is generally more difficult for the small college to make efficient use of its space than for the large institution. One example is the use of teaching laboratories. You may have only one or two sections of an advanced laboratory course, and as a result the room housing it shows very low utilization. If you are going to teach this course, however, you must have a laboratory. Large institutions with a multiplicity of sections for most courses, usually have this problem only to a minor degree.

Space Inventory

There are six basic steps which will insure optimum utilization of space on the campus. Every institution, in my judgment, should have a space inventory. This must show in detail what every building includes. It should be a record of each room in each building, showing its size, blackboard space, lighting facilities, number and type of student stations, number and type of laboratory benches, lockers, special equipment, etc. It should also include a set of up-to-date drawings of the floor layouts of each building on campus.

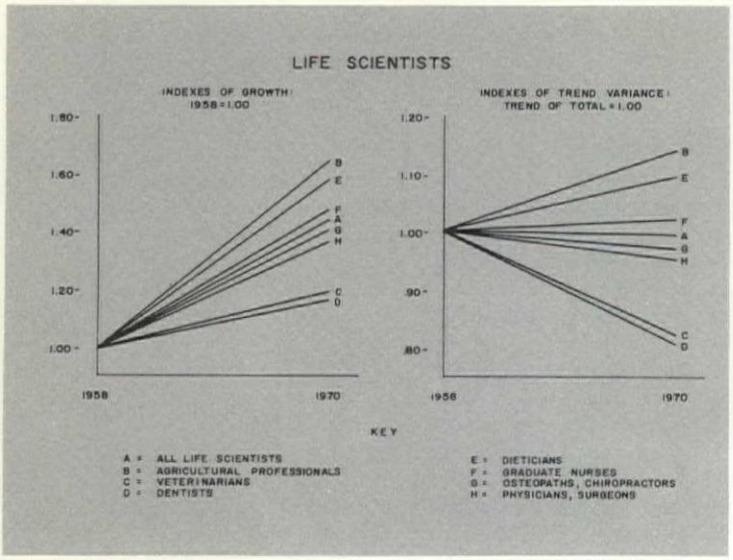
Objectives and procedures of departments involved must be thoroughly understood by those making the survey. They should understand what the departments teach and how, as well as any physical relationships with other departments or functions. Special attention should be given to research and other nonteaching activities and to the need for special purpose rooms, library, storage facilities, etc.

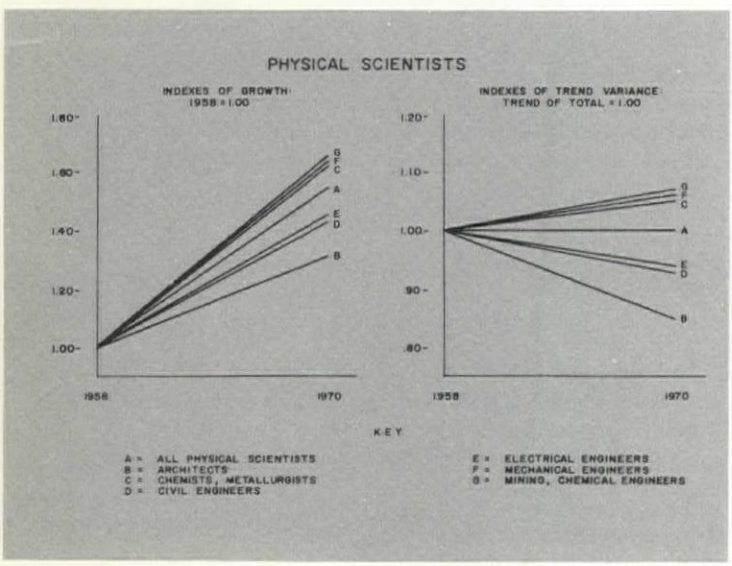
The second step involves projecting future enrollments to provide a statistical framework for planning. This step is critical to the entire analysis. It should include enrollments and registrations in detail in relation to curricula, as well as estimates of future size of administrative and service elements dependent on size of enrollment.

Although many may currently be able to accommodate additional students, this trend may be reversed by 1970 or 1975.

How many students a college expects to accommodate will depend on many factors peculiar to the individual institution. For example, in a church-affiliated college, it may depend on the amount of support which can be expected from the church in future years, or the number of faculty who can reasonably be expected to be assigned.

On the other hand, one critical factor may be population trends in the areas from which the college





Indexes of growth and trend variance, professional workers in physical science and life science occupational groups, 1958-1970 (note trend for architects)

draws its students. Financial considerations may be critical. Perhaps a college simply cannot afford to accept more than a given number of students.

Other factors may be dominant. For example, in one institution an important factor was the probable demand for various types of graduates who emerge from the institution. It was possible to break down the various professional and other types of activity into four major categories, and each of those into subgroups. This enabled us to get an increment of growth for various departments. Other factors may be involved. The relevance of any of them, though, has to be determined on the basis of the individual college's situation.

Work Load

In any case, projected future enrollment must be converted to what might be termed the "work load" to be imposed on physical facilities. This work load is the expected future number of registrants in each section of each course. It is this physical grouping of projected students at particular times that must be determined if space assignments are to have any validity. Of course, maximum section size must be based on policies of the particular institution. And policy-makers of the college must be aware of the direct effect section size has on amount of space required.

Third stage determines the amount of space required by work loads as projected. Instructional space on college and university campuses can be divided into scheduled and nonscheduled categories. Amount of scheduled space, classrooms and laboratories, varies with distribution of class meetings through the school day and week. Scheduling techniques used are critical here, since the number of classrooms and laboratories needed on any campus is the number needed at the most intensely scheduled hour.

For example, if 100 classes meet Monday, Wednesday and Friday at 10 AM and 60 classes at 9 AM, 100 rooms are needed to meet the requirements of the 160 sections. If 80 classes meet at each hour it is often possible to schedule so that only 80 rooms are required, and still accommodate 160 sections.

The problem, of course, is to equalize use of time and space without impairing latitude of student choice or changing the basic pattern of teaching activity. This can be accomplished in several ways after thorough study of the particular schedule involved.

One thing to be avoided is permitting departmental autonomy in use of buildings or groups of rooms. It is expensive and, in most cases, unnecessary. If such rooms are made available to a central scheduling agency for use by other departments, the need for additional classrooms can frequently be reduced substantially. With this in mind, it seems a shame that so many buildings are called "the chemistry building" or "history building." Someone once said that many space problems could be solved if college buildings were named only after deceased former presidents.

In the case of nonscheduled space, either the projected personnel or projected equipment should serve as the key to the amount of space required. For example, in research areas, inclusion of major items of equipment must be considered on an item-by-item basis. But more typical research space, involving laboratory benches, sinks, small centrifuges, etc, can be estimated as a function of the number of persons using the laboratory and the assignments of space within these areas.

I realize that many colleges may now be doing little or no research. However most authorities seem to agree that in future years, small colleges will be more and more active in research. This will become necessary, they say, if the small colleges are to be able to attract high-quality faculty personnel in competition with larger institutions which are more than willing to provide research space for faculty members. In addition, there is a trend toward more undergraduate research. This trend is likely to continue.

Data processing, duplicating areas and storage facilities can be determined on the basis of space needed by the equipment itself. Space can frequently be saved by centralization of service elements, such as in duplicating and reproduction installations. Such centralization is not always feasible, but should be explored.

Office Space

Finally, faculty offices should be programmed in similar detail on the basis of projected number of

faculty and agreed square-foot standards. Administrative offices should be considered a function of projected number of personnel and the equipment they use.

For almost all these areas unit standards can and should be developed. Only in this way can one be certain that new facilities, when all of the various rooms are totaled, will not include too many square feet for various elements.

Once all these space requirements have been related to probable future enrollments, staffing, etc, they should be totaled and correlated with existing facilities. This is the fourth step. At this point it should be determined what rooms are available for what purposes. In many instances rooms available for English, as I mentioned before, are not considered available for history, although no special equipment is required in either case. The capacity of teaching laboratories is frequently determined by number of lockers in the room. Utilization can frequently be increased substantially by adding more lockers.

Classes should be scheduled, of course, in rooms that have capacities reasonably close to the number of student stations required. A common characteristic of many colleges is that their classrooms have capacities far in excess of the size class that the faculty considers proper as a teaching unit. If space pressures are great, judicious expenditures for alterations can help. However caution is needed. It is easy for alterations to old buildings to accumulate to the point where they approximate the cost of new facilities. Nevertheless, addition of a few partitions often produces additional classrooms at far less than the cost of new construction.

New Facilities

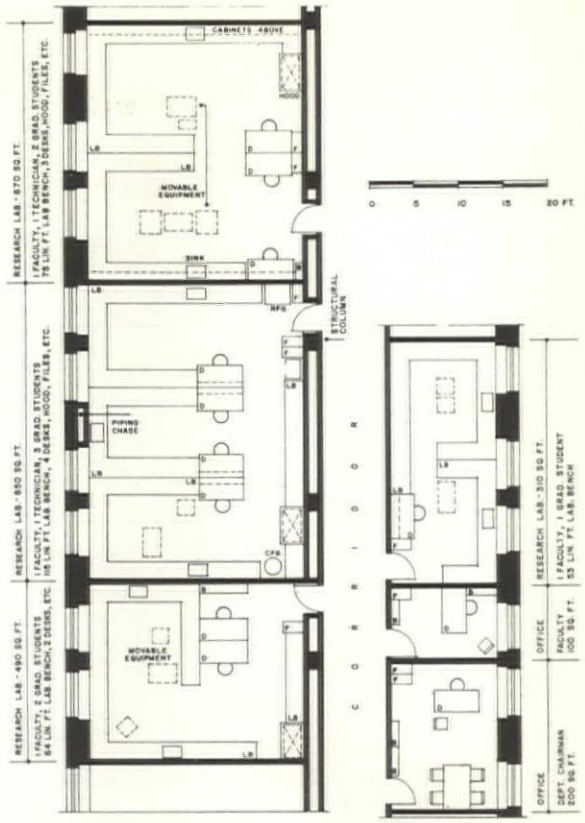
Once space is reassigned throughout the existing physical plant, there may still be a deficit of rooms to accommodate projected workloads. The deficit can be estimated in detail by adding space requirements projected for the future in relation to enrollment projections and any additions or expansions planned for teaching or research programs. Then the fifth step is indicated, that of programming in detail any additional facilities required.

Basis for programming the required new construction is number of rooms of various types still needed after scheduling those to remain in the present plant.

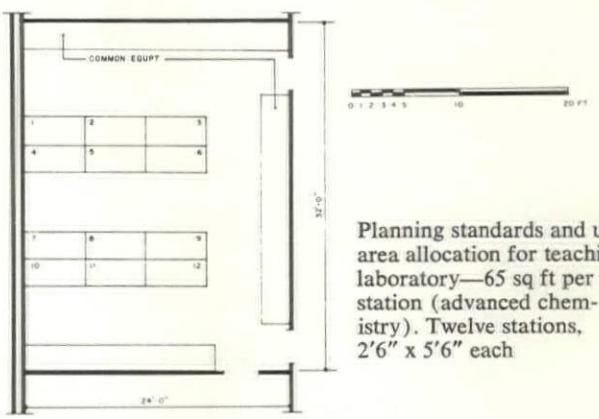
Depending on the specific situation and growth pattern, the new facilities may take the form of a multidepartment classroom building, a science or other specialized building, or a combination of many elements. At this stage the new buildings can be planned to avoid the inefficiencies found in college buildings constructed years ago. Classrooms should be tailored to section size. Offices should be arranged so that they are not as deep as the classrooms and laboratories.

It is important not to limit flexibility which is so necessary to a properly-planned building. Designing multipurpose laboratories, for example, is frequently possible. (This flexibility, usually an architectural problem, is not properly my province.)

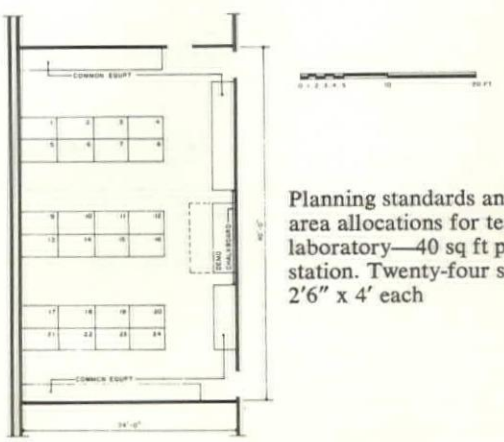
The final stage is the proper location of new construction in relation to other facilities on the campus. This can contribute greatly to efficiency. Requirements for new construction must often be modified by location of other interrelated elements. For example, placing a new science facility close enough to an existing classroom building for some of the



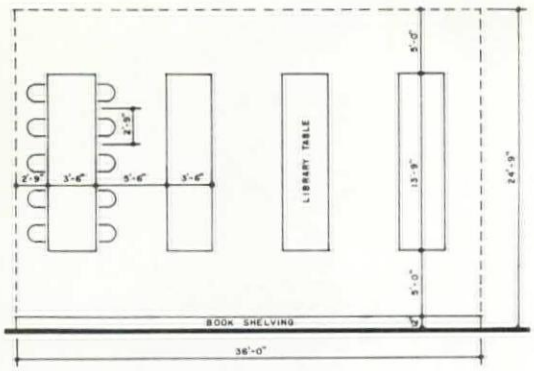
Typical offices and research laboratories. (Key—B—bookcase; D—desk; F—file; LB—lab bench; T—table)

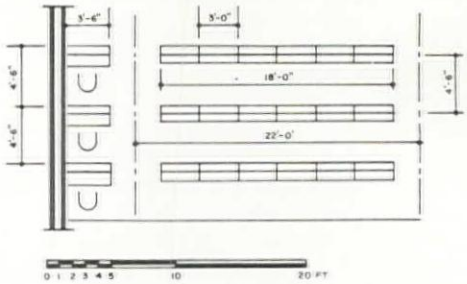


Planning standards and unit area allocation for teaching laboratory—65 sq ft per station (advanced chemistry). Twelve stations, 2′6″ x 5′6″ each

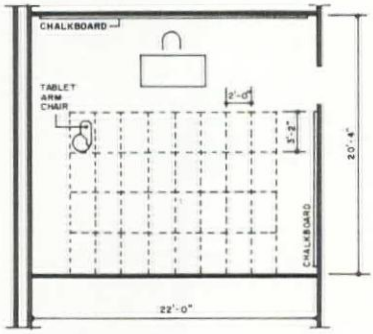


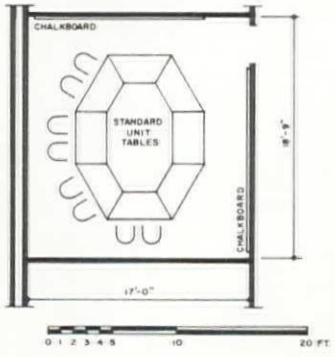
Planning standards and unit area allocations for teaching laboratory—40 sq ft per station. Twenty-four stations 2′6″ x 4′ each



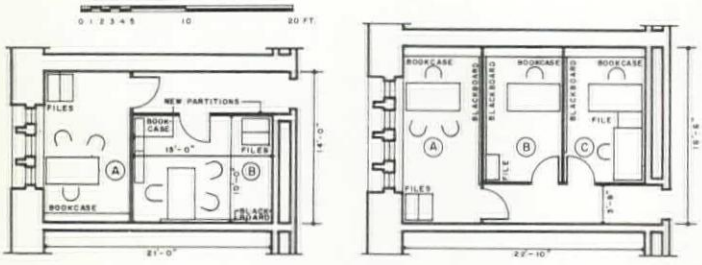


Planning standards for library space. Reading (left): tables seating ten require 22.3 sq ft of space per person. (Right) Individual carrels, 30 sq ft per person. Book stacks, allowing 12.5 books per sq ft





Top, typical classroom: 32 seats in 420 sq ft area; 14 sq ft per person. Directly above, typical seminar room—320 sq ft, or 20 sq ft per person



Possible arrangements for faculty offices spaces

existing classrooms to be used by science departments may make it possible to reduce the number of classrooms in the contemplated science building.

Campuswide planning is also advisable in location of auditorium facilities. Size and cost of auditoriums is so great that if a new building requiring an auditorium can be located near an existing one, large sums can be saved.

Other considerations may dominate these factors, of course. Site problems, esthetic considerations or other matters may make a purely functional decision impractical. However, a strictly practical approach should at least be given attention.

How to Save a Million

By this time it should be clear that efficient utilization of the present plant and determination of extent of need for new facilities are inextricably bound together. The latter is heavily dependent on the former. Amount of space required in a new building is frequently overstated because no systematic analysis of the potential of existing buildings has been made. One example comes to mind. On one campus a classroom building of 160,000 sq ft was thought necessary. A thorough analysis of all factors discussed above showed that 117,000 sq ft was sufficient for projected enrollment. This meant a saving of about 43,000 sq ft, or well over a million dollars.

It is not surprising that space estimates of new construction needed are often high. Nor does it reflect on the professional abilities of the officials who are usually involved in planning. As a rule, a dean or department head will not plan more than one new building in his entire career. Furthermore, those planning a building rarely have on the campus the necessary specialists with sufficient time to make a complete and systematic analysis of all phases of the problem.

What this picture does suggest, however, is that over the next twelve or fifteen years institutions can benefit substantially from a financial standpoint if, in one way or another, they undertake to make a really thorough analysis in depth, along the lines I have suggested.

Obviously, better space utilization will not solve all the problems of higher education during the next two decades. But since the solution to many of these other problems depends on availability of more funds, I believe it will help to a considerable degree. To what degree, depends on how far each institution is willing to go in taking a really hard look at the use of its existing physical plant and its future building requirements. ◄

AIA *School Plant Studies*

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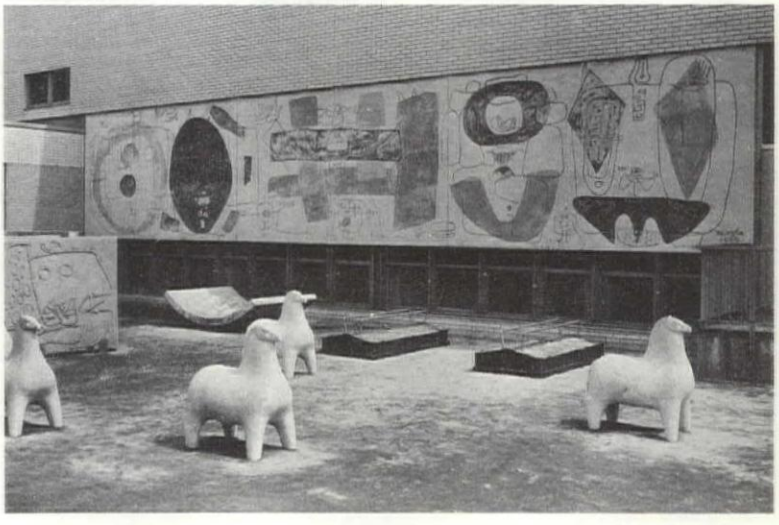
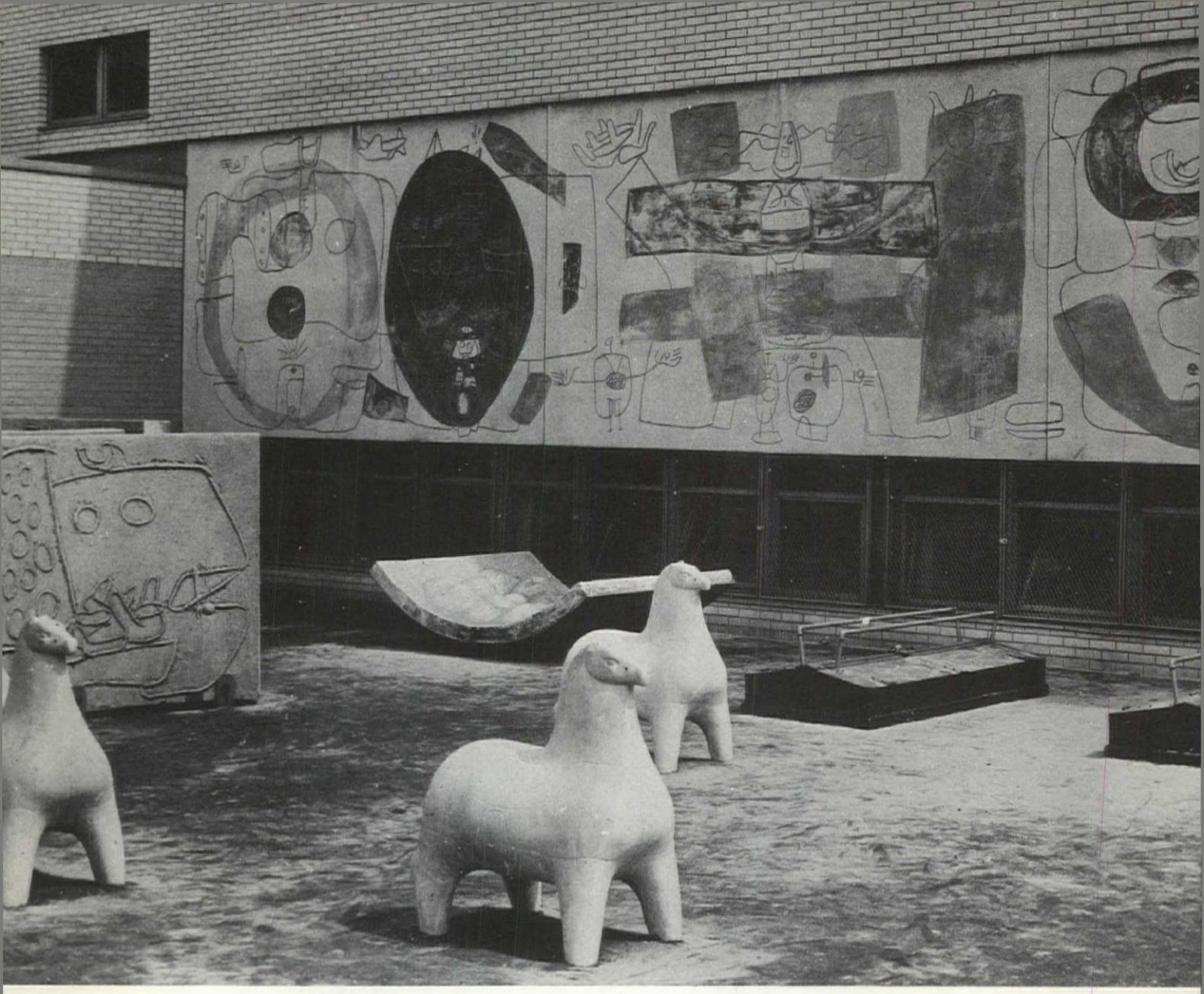
Art in Schools



by **Margaret H. Phillips**

Formerly Assistant to Technical Editor, AIA Journal

One of a series of papers prepared by members of the AIA Committee on School Buildings, and by selected specialists, to make laymen aware of school building problems and trends and to stimulate discussion. They are not intended to be definitive last words and carry only the authority of their respective authors. New subjects are being worked on and contributed articles are welcome. Reprints of these non-technical articles are widely distributed to educators and interested laymen. One copy of each current issue will be sent free of charge—additional copies 10¢ each.



Art in Schools

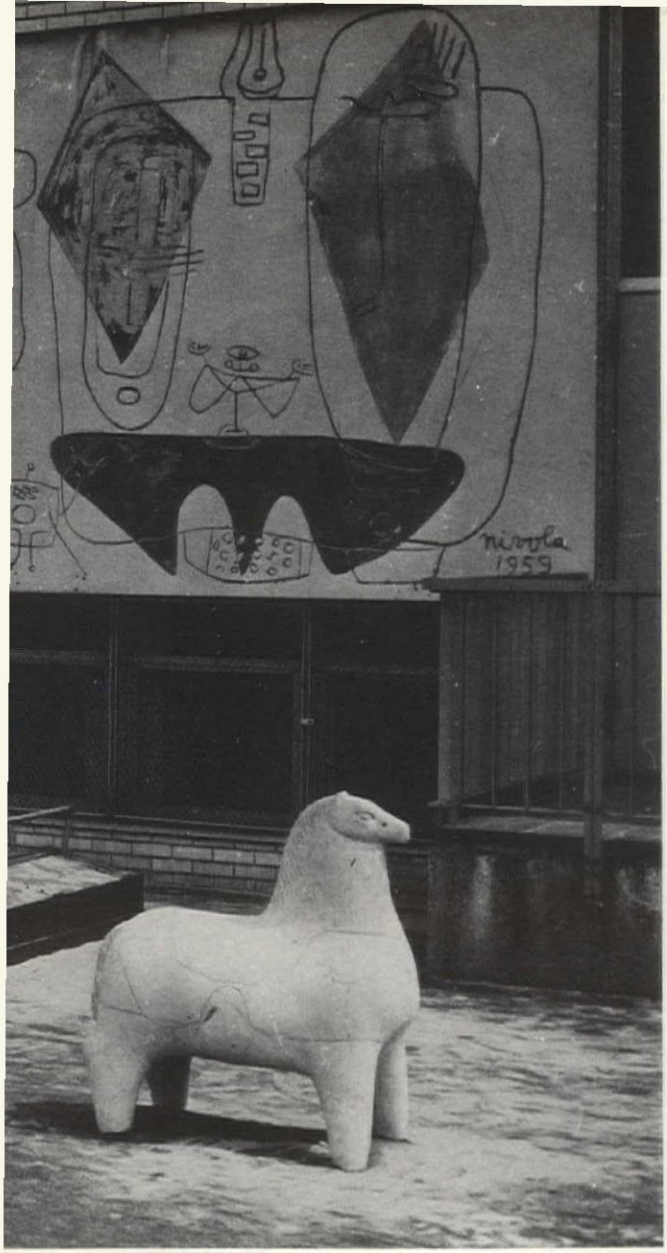
by **Margaret H. Phillips**

► Most parents and school administrators would agree that it is desirable to teach children about art, and that one good way to do it might be to include good paintings and sculpture in school buildings. They would probably readily accept a portable sculptured work donated to the school by a local benefactor and set it up in front of a convenient blank wall and point it out to visitors with great pride. But few of them would agree that art is a sufficiently Good Thing to set aside funds in a school budget for a commissioned work of art.

A favorite excuse for this attitude is of course the rumored great cost of original work. In the present scramble to raise funds to build enough schools and provide the best possible teachers for an expanding school population, any scheme to improve school environment may be quickly abandoned if it entails extra costs and cannot conclusively prove its educational value.

Happily, in the past few years, townspeople have begun to understand that beauty of a school is part of its utility. Colorful, sculptural structures and imaginative landscaping crop up in even the most remote rural areas. Architects and school administrators have introduced new and better lighting along with varying room sizes, shapes and arrangements which parallel modernization of educational programs. This sort of innovation is accepted by taxpayers because it obviously facilitates learning. But art and architecture have so long been separated in people's minds—buildings are to live in and paintings are to look at in museums—that art in a public building would be considered an extra, a "frill," something desirable but possible to postpone.

Encouraged perhaps by the European example of "one per cent for art" in new schools, and even provoked partly by a desire to keep up with richer neighboring schools, many communities have begun to wish for colorful murals, sculpture in playgrounds, courtyards and interiors, and even mobiles in entrance halls. Plans for these "frills" usually die in budget committees; consequently, most schools are bare of anything more artistic than a statue of the local Revolutionary War hero or a cannon left over from



PS 46, Brooklyn, NY. Mural and concrete horses by Costantino Nivola. Katz, Waisman, Blumenkranz, Stein & Weber, architects. Photo: Board of Education, City of NY

Kugeliloo School, Zurich. Sculptured birds soar from drinking fountain in this Swiss school. Photo: Elizabeth Pattee AIA, ASLA

the Civil War. Why should an administrator waste his time fighting for original works of art when leafy green plants have livened up dull areas well enough in the past? Why bother with controversy over a mere decoration when half of the parents will complain that it is incomprehensible and when it probably will cost ten times as much as something sensible?

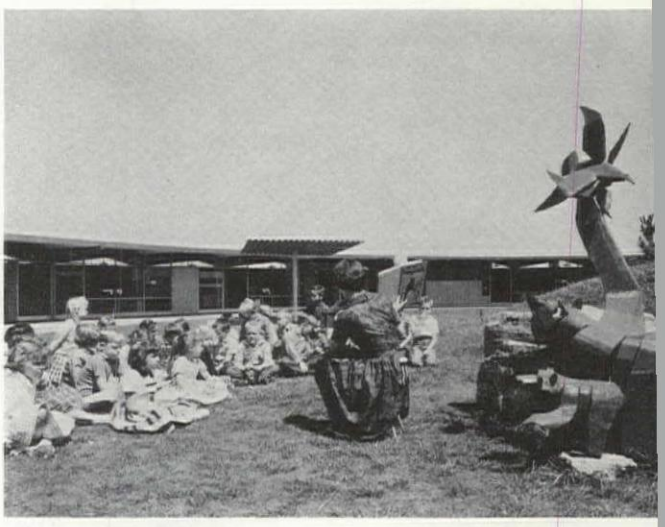
These are the problems faced by occasional strong-minded individuals on planning committees who will then try to make the others understand that a handsome but perhaps unconventional work of art has positive value apart from mere decoration. The point he must make is that children benefit by being brought up in a world of color and pleasing form—an environment with variety and enthusiasm built right in. The complaint that a lively mural would be distracting, leading children to dream rather than concentrate, is not really valid. Schools at the other extreme, with drab, totally "blah" rooms and halls done in eye-saving green and dirt-obscuring brown, may have produced well-informed young adults but not ones with original ideas. Distraction is perhaps essential to learning: a stimulating environment might help develop an imaginative approach to life rather than a methodical view of new problems.

Pictures in a book or an occasional rushed trip to a museum are not effective exposures to the light, color and individually meaningful forms of a painting. Understanding a work of art requires time to study it, people to discuss it with and other examples to compare it with. Parents usually do not bother to present their children to the world of art, so it is up to schools to do it for them, as it does in other areas of learning.

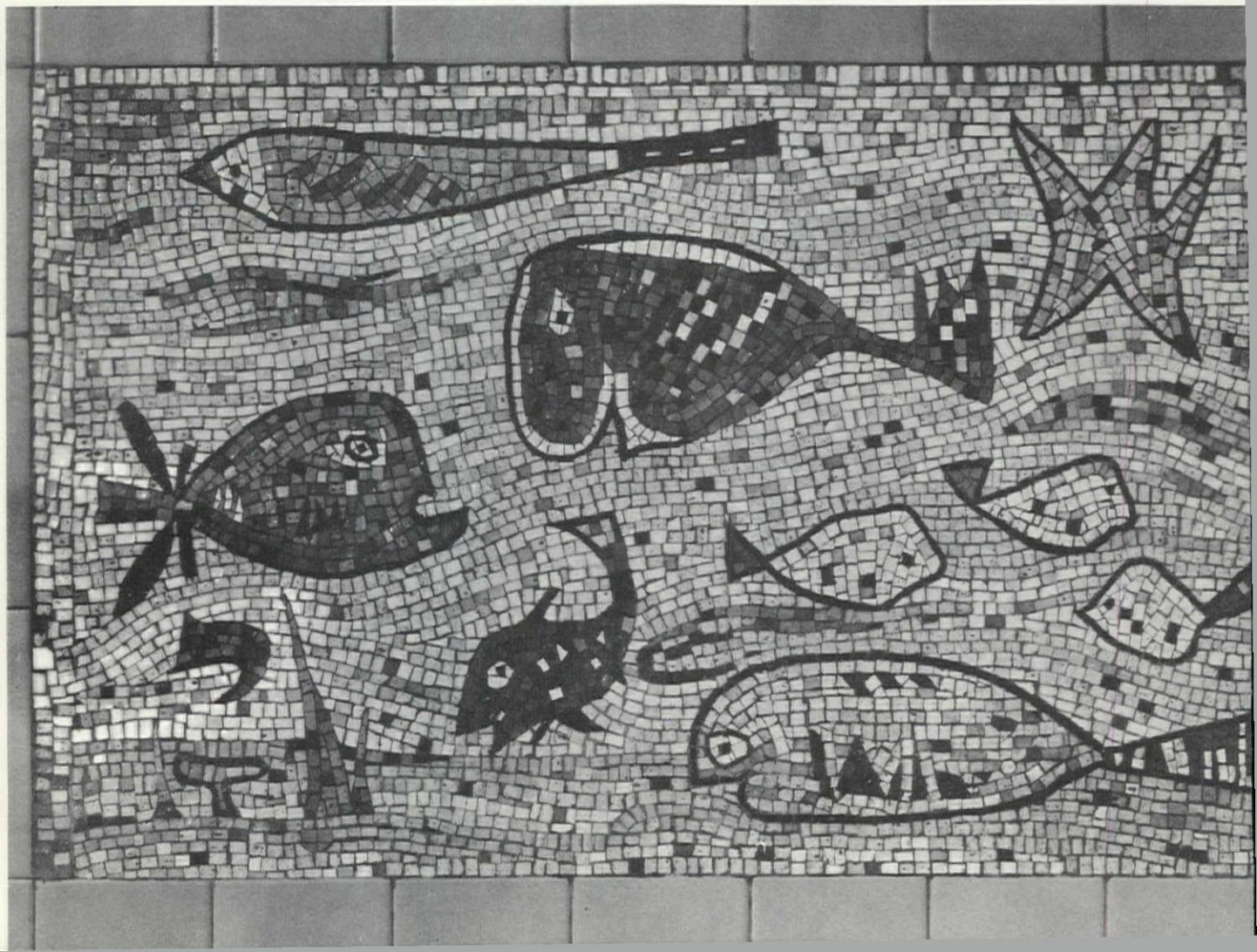
The few schools that have been able to include original art are most effective when the artist has interpreted and expressed the architect's conception of the school's function. Humor and lightheartedness are the most universal ingredients—the totem pole of Cascade View School, or Max Spivak's panels for PS 48, a New York school for children with cerebral palsy, which he describes:

"The panels are installed at strategic points, alongside the grab-bar that children use to get from class

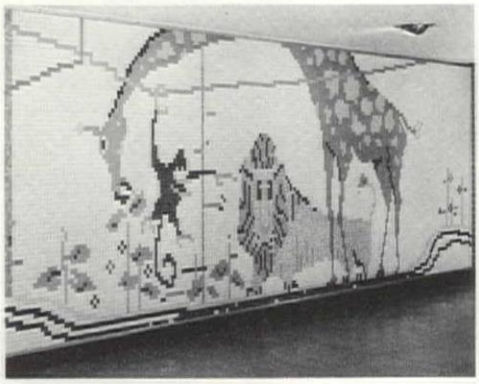
Left, Gwen Lux wire sculpture suggests flight. Aviation Trades High School, Queens, NY. Chapman, Evans & Delehanty, architects



Bears in this metal sculpture eavesdrop on storytime at Vista Mar Elementary in California, Mario J. Ciampi, architect. Photo: Karl H. Riek



Honest Injun totem pole in covered court at Cascade Elementary School, Seattle, carved by Chief White Eagle of Seattle. Ralph H. Burkhard, architect

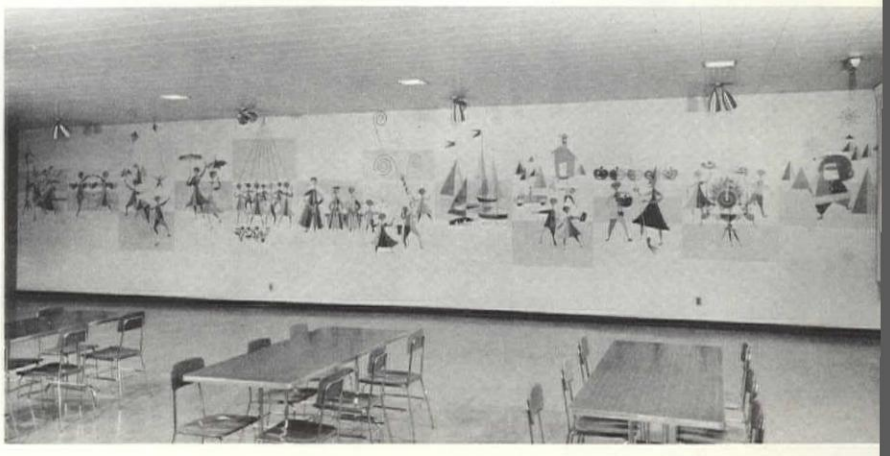


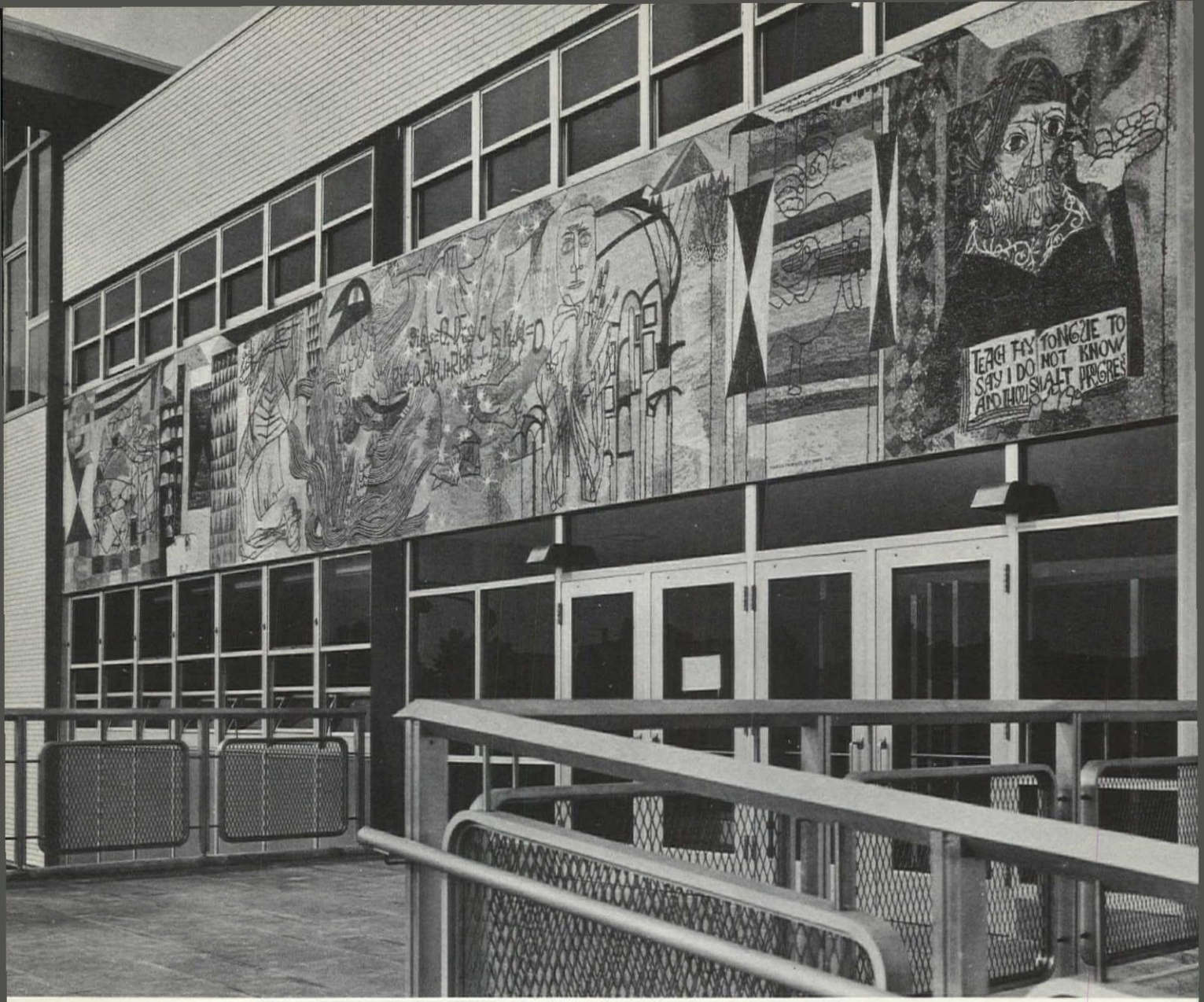
Wildlife-inspired ceramic tile murals in Texas and New York schools—above, jungle animals at Underwood Elementary School, Andrews, Texas, by Charles Lawrence; Caudill, Rowlett & Scott, architects. Photo: Mears

Fountain sculpture in court at William B. Ward Elementary, New Rochelle, NY, by Robert Cronbach. Sherwood, Mills & Smith, architects. Photo: Hank Shulman

Below and opposite, birds and fish at PS 48 (a school for cerebral palsied children) in New York City; Max Spivak, artist; Michael L. Radoslovich, architect

"The Twelve Months," mural showing all-season activities, was done on plastic by artist Martha Moody for Woodrow Wilson Elementary School, Wyandotte, Mich. Swanson Associates, architects; Pipsan Saarinen Swanson, interiors. Photo: Ransier-Anderson





Ben Shahn mural lends color and design interest to entrance, William E. Grady Vocational High School, Brooklyn NY. Katz, Waisman, Blumenkranz, Stein & Weber, architects. Photo: Board of Education, City of New York

to class. Good placement was important. The students stop, rest and look. They are not forced to crane uncomfortably at a mural. The bird and fish subject matter contributes humor and charm without any embarassing distortions."

The second most popular mood and the most dangerous is idealism. We all remember terribly overdone walls-ful of wide-eyed youths staring blankly, mindlessly into the unknown future. But two abstract sculptures by Gwen Lux and a mural by Ben Shahn manage to be stimulating and yet not trite. Other familiar moods are grace—in a fountain sculpture by Robert Cronbach and two fountains in Switzerland; and strength—reliefs by Costantino Nivola. It does not matter very much what style or mood is chosen, the most important qualities are imagination and character.

But the problem remains—how are these paid for? Budgeting schemes vary. The New York City Board of Education has for the past eight or ten years provided a specific and substantial amount for art work in new schools, and results have been excellent. The approach in most communities is much like that in Wyandotte, Mich. Martha Moody, artist, worked with Swanson Associates, architects, in designing the mural "Twelve Months" for Woodrow Wilson Elementary School. Pipsan Saarinen Swanson was responsible for interiors and saw to it that at least a minimum amount was provided in the budget for art; the mural was probably included in a package with other furnishings. The artist's sketches were enthusiastically received —muralist Moody's experience was that any opposition died as soon as "the enemy" saw renderings of proposed murals. "Good art need not be expensive," she writes, "and it is always worthwhile. It may be informative as well as decorative; for example, maps showing produce of different countries, or the evolution of animals, or how machines improve living—many themes come to mind that, if gaily executed, would intrigue young minds."

The art forms shown in all of these examples would be wonderful to live with—though it might take a little getting-used-to in some cases. Its dollar cost is sometimes high, but is paid for by enrichment of the children who have to go to school every day to learn about the world. If it helps them view their world as a colorful, exciting and stimulating place, the money is well spent. ◄

Report by the Special Committee on Education AIA

(FORMERLY THE THREE-MAN COMMISSION AIA)

Commissioned to isolate and identify the relationships required of the whole design process for man's environment, and to correlate these conclusions with educational processes

R. F. Hastings · S. C. Hollister, Chairman · G. H. Perkins
P. Will Jr, Past President · O. Grossi, Ex Officio · M. Perreault, Staff

The Commission on Education · Donald Q. Faragher FAIA, Chairman

Foreword

In August 1961 the Committee on Education recommended a commission be appointed to study and to identify the relationships required of the whole design process for man's environment, and to correlate these findings with educational processes. A Three-Man Commission, AIA, was approved by the Executive Committee of the Board of Directors, AIA, on September 15, 1961. The members, appointed in December 1961, consisted of Robert F. Hastings FAIA, S. C. Hollister FAAAS and G. Holmes Perkins FAIA, AIP.

APPOINTMENTS TO THREE-MAN COMMISSION AIA

Commission:
Robert F. Hastings FAIA
President, Smith, Hinchman & Grylls Associates, Inc, Detroit, Mich

S. C. Hollister FAAAS
Dean Emeritus, College of Engineering, Cornell University, Ithaca, NY

G. Holmes Perkins FAIA, AIP
Dean, School of Fine Arts, University of Pennsylvania, Philadelphia, Pa

Philip Will Jr FAIA
Past President, The American Institute of Architects, Washington, D.C.

Ex Officio: Olindo Grossi FAIA
President, ACSA; Dean, School of Architecture, Pratt Institute, New York, NY

AIA Staff: Maurice W. Perreault AIA
Head, Department of Education

The Commission began its work by reviewing comprehensively and assessing a half-decade of extracts from Board and Executive Committee minutes, committee reports and recommendations, and Institute publications on matters of professional practice and education in architecture.

It was noted that the Committee on the Profession report of 1960 emphasized the need for the architectural profession to reevaluate its future role in society. Due to the huge growth of urban communities, the total design process has become sufficiently broad and complex to justify a reexamination of the architectural profession's responsibilities, its relationship to the other design professions, and the adequacy of its education as now offered.

A new educational process suggests that the architectural profession as known today would gradually disappear, and would be reborn and emerge in the image of a new profession.

The Commission agreed at an early date to express its findings as a statement of goals. Further, that a period of research and development would be required for the detailing of its recommendations and to provide the directions and the terms for initiating progress towards the achievement of its goals.

Interested persons from many of the design professions have generously given to Commission members the benefit of their experiences and opinions. The Commission wishes to express its appreciation to the professionals representing education, engineering and architecture who contributed their observations at two special meetings of the Commission: Dr Earl J. McGrath, Columbia University; W. H. Wisely, Executive Secretary, ASCE; Donald King, ASCE; N. S. Hibshman, Executive Secretary, AIEE; R. Cross, Executive Secretary, ASH&AC; James H. Cantdahl, ASH&AC; E. P. Lang, AIIE; Obe Schier, II, ASME; James M. Hunter, FAIA; Vincent G. Kling, FAIA; Walter A. Netsch, Jr, AIA; Prof Lawrence B. Anderson, Massachusetts Institute of Technology; Prof William W. Caudill, Rice University; and Dean Samuel T. Hurst, University of Southern California. MWP

Contents

I Commission's Statement

The practice of architecture today is concerned with the whole activity of designing a complex man-made environment, especially in the urban areas. This concern is deepening and broadening as population increases and land-use is intensified. Many new factors needing attention reach well beyond the activities now carried on by the profession.

The primary function of the architectural profession has been the design of buildings. This traditional role must be broadened and the profession's practice must be re-defined to encompass those professional services necessary for the creation of environmental forms and spaces. The architectural profession must assume greater leadership responsibility for the creation of these environmental elements, for there is no other profession which has the prime responsibility or has dedicated itself so exclusively to major interests in this field.

Related professions such as engineering are principally concerned with many other areas; building design being of interest to only a small minority of the group. The trend of the engineering profession's attitudes, interests and education is being influenced more by the challenge of technology than the needs of the building field. There is no place in the engineering profession where responsibility for the building field is presently focused.

The architect now has the prime responsibility to see that the building field is served comprehensively by all the design professions. Heretofore, architects, engineers and others have performed these functions somewhat separately. A single group of professionals must be educated and qualified to assume central responsibility for the increasing present and future needs of the expanded urban planning concept.

Architects must take strong leadership in the realm of planning and design of environmental structures and the related spaces. Architects are not prepared today to fulfill these responsibilities. They must embark now on the reexamination and reorganization so urgently needed in education and the profession. It is essential to improve architectural education and to develop team members who are oriented towards these increasing responsibilities and whose education will encompass urban planning for the building of a humane environment required in the communities of the future.

As the problems of urban development deepen, there is urgent need for all practitioners to become aware of these changes and respond to them. They must join in the reexamination of the architectural profession's contribution to the design of environment.

Major alterations will be required in professional practice, professional registration and in education to prepare architects for this broadened role.

The architect of tomorrow must first be educated as a generalist. As such, he must have a thorough working knowledge of the principal design disciplines of architecture, urban planning, and structural, mechanical, electrical, and landscape design. This knowledge must be complemented by a more substantial background of general education, a broad and sympathetic understanding of the historic and contemporary contributions to the urban environment, including those of painters, sculptors, craftsmen and landscape architects; and an insight into principles of management, real estate, finance, law and construction methods. These will provide the foundation on which specialization may later be based.

To become this generalist, as determined by the broadened definition of the architect's role, additional years of college education will certainly be required. Graduate work will have to be provided for those desiring to perfect their major specialty or to develop further skills in architectural, structural, mechanical, electrical and landscape design, urban planning, and management techniques. The intent of a lengthened program leading to a first professional degree with a major in any one of these disciplines is to provide time for the development of a broader cultural base and a higher competence in the design areas. Under

no circumstances is it intended that the quality or depth in any one area be diminished.

Schools of architecture are the only schools whose teaching is concerned solely with the creation of the spaces in which we live. The schools of engineering are becoming increasingly concerned with other areas of education. Therefore, the schools of architecture must take the lead in educating designers of tomorrow's physical environment: by expanding and strengthening their curricula, by coordination with other colleges at their institutions, and by increased participation from the faculties of engineering, liberal arts, business administration and the fine arts.

The broadened concept of architectural education obviously requires new curricula expanded both in character and time. As a consequence, the number of academic years must also be increased without prejudicing the conclusions which individual educators may reach, there are a number of reasons in support of a two-degree program.

1 Students who pursue a professional degree will be superior in qualifications and more mature.

2 The time and energy of professional faculties will not be wasted on large numbers of students who demonstrate little talent in architecture.

3 Those students who find they are not equipped to become full-fledged professionals will still have an opportunity to graduate with an AB degree with an emphasis on architecture. They will also be equipped to work in related fields and will certainly be more sympathetic to the improvement of man's environment.

II Commission's Proposals

Introduction. The Commission's proposals are based on the following assumptions:

1 That the architect must be concerned with the total environmental design problem.

2 That the definition and concept of the architect, therefore, must be expanded and his role broadened to include more comprehensive design leadership.

a Architecture to be defined to include: architectural design, urban planning, landscape design, urban social-economic planning, administration and the fine arts.

b Engineering to be defined to include: mechanical, structural, electrical, illuminating, acoustical and others in building engineering.

3 That the design professions identified with architecture, and the design professions identified with building engineering, can no longer afford to be separated either during the educational process or in practice. Therefore, methods must be determined to activate understanding, cooperation, or in some, fusion among the design professions.

4 The architect must be provided with a working knowledge of the principal design disciplines, ie, as a generalist, and that he must be provided with an opportunity to develop a specialty in a major design discipline. Therefore, all design professionals should receive essentially the same pre-professional education and select a particular design specialty during professional education.

5 That adjustments must be made in professional practice, registration, professional society membership and education to meet these changes.

The methods for accomplishing the above objectives are matters for further research. It is recognized that additional background research is necessary to substantiate in detail the assumptions, proposals and recommendations contained in this report.

Approaches. As a guide only toward commencing the research, and not intended as a system of education, two approaches to education are suggested for investigation. The first refers to architecture as combining 2a and 2b above. The second refers to architecture and engineering each as defined in 2a and 2b above.

Approach One:

EDUCATION: The faculty of a school of architecture would be organized to award a bachelor degree after a prescribed pre-professional four-year program, and this would be followed by a professional degree granted in architecture. Following the undergraduate years, the professional education would consist of an additional two or three years. With a working knowledge of all the design disciplines, there would be an opportunity in this latter period to major in the area of greatest aptitude.

If desired, work towards a master's or second professional degree and organized internship in practice would provide opportunities for further developing skills in specialized areas.

PRACTICE: With regard to professional practice, graduate architects educated with a pre-professional and professional degree and having a working knowledge of the principal design disciplines and a major in one or more of these disciplines will, after a few years of practical experience, be able to select more intelligently the specialty for which they are best suited. They will proceed to develop this specialty through selected practice. All members of the design team would be these architectural generalists who, in addition, would possess a special competence in architectural design, structural design, mechanical design, electrical design or urban planning. The quality of professional service will be improved greatly. They would all be architects playing vitally important individual roles.

REGISTRATION: A professional degree(s) and organized internship in practice would be prerequisite for licensing; graduate architects, trained as indicated above, would write the same examination, become

registered as architects, and be extended membership in The American Institute of Architects.

Approach Two:

EDUCATION: The faculty of a school of architecture and the faculty of a school of (building) engineering would be reconstituted either as one faculty, or as a joint faculty to award a bachelor degree after a prescribed pre-professional four-year program, and this faculty would have both the mission and the power to grant two professional degrees: architecture and engineering. A joint faculty formed from the schools of arts, of architecture, building engineering and other schools would develop and operate a whole new school. A second professional degree and organized internship in practice would provide further development of skills in specialized areas.

PRACTICE: Graduates (educated as indicated above) would be eligible to practice either as architects or engineers according to the curriculum followed and the degree received. There would exist a design team of broader scope and sympathetic understanding of common aims and objectives; each profession would have a general knowledge of all design disciplines.

REGISTRATION: A professional degree(s) and organized internship in practice would be prerequisites for licensing. Because of their common educational base these graduates, when registered as either architects or engineers, would be extended affiliate membership in each other's professional societies.

It is recognized that either of the foregoing approaches will require many years to implement. Attitudes within the architectural, engineering, and planning professions will have to change. The term architectural design will have to take on a broader meaning—environmental design.

Architecture will include all the principal design disciplines. Professional societies will have to adjust their membership rules to accommodate these new concepts.

Registration laws will have to be modified.

The curricula of schools of architecture will have to be changed drastically (course content will have to be completely revised), and a whole new school of environmental design will have to be created.

To effect this procedure within universities, the faculties will have to work more closely and cross departmental lines. It may be necessary to create entirely new schools. Not all schools will be able to change nor is it intended to strive for uniformity. These are indicative of the numerous problems to be expected and ones which will be detailed in the next phase of development recommended by the Commission.

III Recommendation

1 To prepare architects for the broadened responsibility, we suggest that each of the two previously described educational programs be thoroughly detailed; each by a competent architectural educational consultant sympathetic to these programs and to the internship concept, to the end that detailed curricula, staffing specifications, course content, etc. be developed. If these consultants conclude that certain areas of education such as office practice, management, finance, specifications or construction supervision can best be taught in an organized internship program, they should include the details of such a program in their studies.

2 An internship program following the precedent of the medical profession is a fundamental necessity as preparation for independent practice as a registered architect or engineer. This is a unique problem in the profession where these is no matching program such as hospitals provide for doctors; responsibility should be divided between the schools and the profession for a compulsory internship program.

3 To educate the next generation of architects which will perforce assume the wider professional responsibilities of environmental design, The American Institute of Architects should encourage and assist a limited number of schools to undertake educational experiments based on these recommendations when developed and, furthermore, should urge its corporate membership, related professional societies, and all architectural and engineering firms to support such experimentation.

4 During the development of these projects and as the related problems of registration, accreditation and professional affiliation become defined, they will be presented for resolution under the leadership of the professional societies.

5 To implement the recommendations of the Commission, the Board of Directors in November 1962 approved the following:

a That the Special Committee on Education (Three-Man Commission) be continued and assigned responsibility for the guidance of the proposed program of research; and

b That a project staff be retained as follows:

1 A project head who will be responsible for coordinating the work, compiling background data on the profession's future needs, and preparing the final report; his employment to be for one year.

2 Three other full-time professionals for approximately eight months. Two of whom would study and develop in detail each of the two approaches outlined in this report and the third would study the special problems of the internship period; and

c That supporting funds in the amount of $92,000.00 for the salaries, expenses, etc, of the special staff (in b above) be solicited from foundations, The American Institute of Architects, architectural firms and from individual architects who have the future well-being of the profession at heart.

IV Appendix

Background Notes

by S. C. Hollister. The architectural profession has traditionally carried the prime responsibility for urban and suburban building of structures in which people live and work. Other professions are associated with the architect in this work, ie, the engineer in structural, mechanical, electrical and acoustical component design, and the contractor in the construction. Behind this team is a long train of suppliers of materials and parts.

Forecasts of population growth, based on present rates, indicate a doubling of present population in forty years, with eighty per cent of this growth in urban areas. There is thus a real urgency in the need to examine the architectural profession to answer the following questions:

1 Is the profession geared to cope effectively with a population expansion of this magnitude?

2 Is the team now engaged in the design of the urban environment the best and most efficient that can be had?

There is already much support for the view that the present team is too loose, too diverse in objectives, training and outlook to function with optimum unity of purpose. What should be done to bring about a more tightly knit and more unified team?

Certainly one possibility would be the reorganization of the objectives and training to be centered upon the complete environment rather than upon components thereof, as at present. This approach would require architects to be trained more deeply in engineering design, and engineers to be trained more deeply in architectural design, with urban environment in all its aspects as the design objective. Whether this be done in a school of architecture, or whether schools of architecture and engineering would combine to attack the problem of development of the urban environment along the line of new curricula, is a major question.

There are built into the present professional organizations concepts relating to rightful fields of activity of each, licensure of each with areas of exclusiveness and modes of practice, that cannot be modified rapidly, or without much cooperative study and action. Yet time is pressing for decisions; and the architects, as prime factors in the situation, must take the lead in seeking solutions. Because of the great urgency of the problem, and because there will not be a surplus of professionals to carry on the work required, it behooves all concerned with the problem to exert the greatest care in dealing fairly, openly and cooperatively amongst the involved professionals lest there be more retarding factors introduced than contrariwise.

Meetings between major groups of professionals must be sought.

Curriculum revisions at undergraduate and graduate levels for the professions must be explored cooperatively with contiguous educational units, operating in the greatest spirit of objectivity.

The doubling time of forty years must not be used up in talk and contemplation lest all professionals be found wanting in community service.

by R. F. Hastings. The profession must accept its broadened role. It must recognize that architecture is concerned with the design of man's total physical environment. Such a concept places the profession in a leadership position in numerous areas of environmental planning and design ranging from the broadest aspects of urban design through environmental structures to furniture—both urban and domestic.

The primary function of the architectural profession has been the design of buildings. This traditional role must be redefined to include all professional services (architectural, technical and managerial) required to create environmental structures. The architectural profession must assume full leadership responsibility for the creation of these environmental structures for there is no other profession as vitally concerned with this field.

In order to fulfill totally this primary role as the creator of environmental structures, the architect must also concern himself with numerous other areas of man's environment varying from the broader aspects of urban design to the fine arts, furniture, etc. He must be prepared to give skillful leadership in these areas in order to contribute to the success of man's total environment.

To prepare architects for this broadened role, major changes will be required in professional practice, education and professional registration.

Educationally, the future architect must have a far broader background in the liberal arts, a thorough working knowledge of the principal design disciplines (architectural, structural, mechanical and electrical) that contribute to the creation of environmental structures, a thorough grounding in management as related to real estate, finance, construction law and construction methods, and a broad knowledge of urban design, landscaping, fine arts, furnishings, etc. To accomplish this, added years of college training may be required.

The architect of tomorrow must first be a generalist with a working knowledge of the principal design disciplines, and, second, a specialist in one or more of these design disciplines. To become a generalist by this broadened definition of the architect's role will certainly require additional years of college training. Graduate work beyond this should be provided for those students desiring to perfect their principal design specialty or to develop further skills in urban planning, fine arts, landscaping, interiors, management, etc.

Since the schools of architecture are the only schools solely concerned with the creation of man's physical environment, and since the colleges of engineering are becoming increasingly concerned with other areas of education, the colleges of architecture must take the lead, calling on the colleges of engineering, liberal arts and fine arts, as necessary to train designers for tomorrow's environment.

Schools of architecture, working closely with other schools, where appropriate, should expand their curricula to include a broad background in liberal arts. a working knowledge of the principal design disci-

plines (architectural, structural, mechanical, electrical) that contribute to environmental structures and a thorough grounding in management required in connection with the creation of such structures. These generalists would graduate with a bachelor of architecture degree with a major in one or more of the design disciplines.

With regard to professional practice, graduate architects trained as indicated above and having a working knowledge of the principal design disciplines will, after a few years of practical training or after graduate work, be able to pursue intelligently the specialty for which they are best suited and proceed to develop further in this specialty. With all members of the design team being architectural generalists and also specialists in architectural design, structural design, mechanical design, electrical design, urban planning and management, the quality of professional service will be improved greatly. There will no longer be first- and second-class citizens on the design team. They will all be architects playing vitally important individual roles. They would all be eligible as corporate members of The American Institute of Architects.

With regard to professional registration, graduate architects trained as indicated above will all write the same examination and become registered as architects legally recognized as competent to create environmental structures.

It is recognized that the foregoing recommendations are revolutionary and will require many years to implement. Attitudes within the architectural and engineering profession will have to be changed. The term architectural design will have to take on a broader meaning—environmental design. The term architecture will include all of the principal disciplines that create this environmental design. Professional societies will have to adjust their membership rules to accommodate this new concept. Registration laws will have to be modified. The curricula of schools of architecture will have to be changed drastically. Schools within universities will have to work more closely with each other. The problems are numerous and great. The best of the schools and the professions will be required to carry out this program. However, this program must be carried out with adjustments where required if man's physical environment is to be changed to meet the pressing requirements that will be placed upon it in the future.

The obvious approach of not disturbing the status quo of the professions or the schools, except to encourage their mutual cooperation and understanding, is completely inadequate. One of the professions must take the lead. The architectural profession has already been told that it must take the lead in the solution of this problem.

by G. Holmes Perkins. The doubling of the population and the more than doubling of the geographic area of our metropolitan centers within the next generation places a grave responsibility upon the architect and his fellow professionals in planning, landscape architecture and engineering to see that each is fully prepared to render those professional services which will be demanded by society. These facts are self-evident.

Nearly all the growth will be of an urban character. Its impact upon nature and upon the remaining open spare can prove beneficent or tragic depending upon the ability of these design professions to create a salubrious and enchanting environment and upon their ability to demonstrate to the public that such an environment is attainable. If the architect is to take the lead in the comprehensive design of the new metropolis, he must recognize that this will require a basic reconsideration of his responsibility and training. Such a broadened concept of his role embracing as it would the design of the total urban environment —its buildings, its spaces, its street furniture, its public monuments and parks—would require both an alteration of the current concept of the architect and an alteration of his education.

The task is so large and so complex that only the most sympathetic understanding and cooperation among all of the design professions would be adequate. At the present moment there is something less than a totally sincere and coordinated effort among these professions. Education for each tends to be divorced from that of others with whom the closest cooperation will be required in practice. The architect with rare exceptions is not prepared for his larger role in civic design; the structural and mechanical engineer has little understanding of the creative design requirements which are essential if there is to be effective coordination with the architect; and the landscape architect is too often shouldered out of what should be a key role in the design of urban areas.

The profession of architecture is now required to define its intentions and to establish these by a statement of policy. This statement would require itemization, endorsement, and support of issues of registration and licensing, professional membership, professional attitudes and school accreditation.

There are obviously several recourses which will lead to a fuller and better understanding among designers as to their mutual contributions to the critical objectives of an urban environment to provide variety, contrast, beauty, as well as an efficient and socially desirable environment for all. Any of the educational alternatives proposed will first involve a basic change in the attitude of the profession. No conceivable alternative to the present system can be expected to spring fully-grown from the brow of Jove.

Educational experimentation will be required and it is reasonable to expect that more than one alternative should be tried. Out of these experiments there will be developed a general agreement as to the direction for the evolution of change in education. Initially, new steps will be taken by only a few schools and others would be expected to follow only after the validity of the programs are proven. The following two possible alternatives have been selected from several and should be viewed in this light.

The first of these would be the concept that the architect is responsible for all aspects of the design of buildings and of the spaces between them; that the architect must possess a working knowledge of all of the areas involved such as architectural and urban design, structural design, mechanical and electrical design.

This alternative assumes that the control of this curriculum with its options would lie with the faculty of architecture.

A second concept would be to maintain the present division of responsibilities for educating architectural designers in the schools of architecture and

structural, mechanical, and electrical designers in the schools of engineering but to modify the curricula so that each design discipline had a working knowledge of the other disciplines while being expert in his own discipline. Such training would culminate in the award of a degree as known today.

In engineering an emphasis upon building design in all of its aspects, including architectural design, would be required and the total course content would emphasize a creative design approach to engineering.

It is recognized that both the above concepts or almost any other alternative which could be reasonably offered would entail a solution of many serious problems. Almost any offering which would attempt to face up to the severe responsibilities of the future would have to be longer than the present minimum curriculum. A major lengthening of time would be required. No alternative will be satisfactory if the present course offerings are merely juggled or added to give greater depth in certain areas. A major revision of course content will be needed.

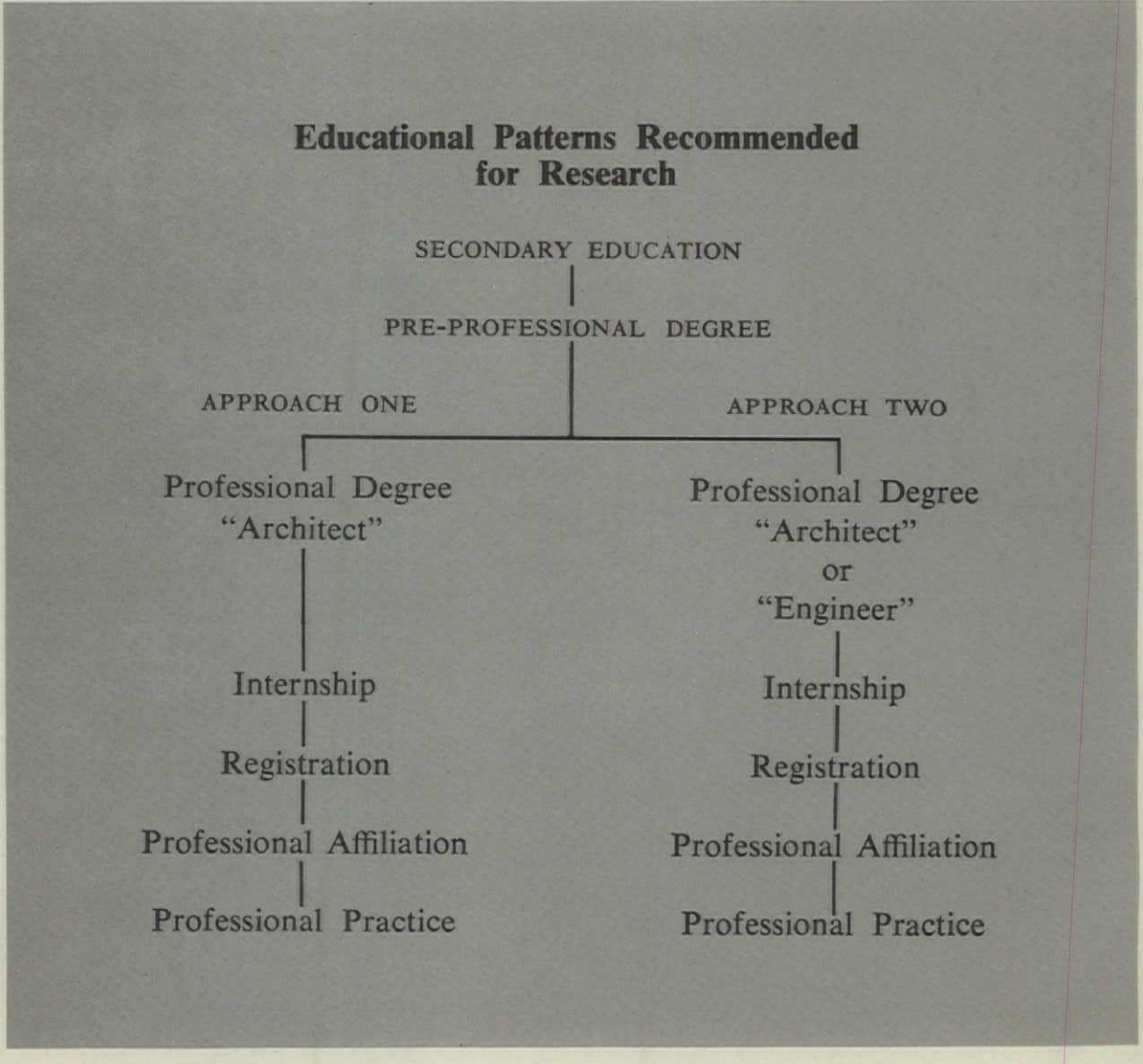
If either of the above concepts were accepted and put into force by the schools, certain problems will arise in relation to the appointment and promotion and qualifications of the faculty. If the control of these options were to rest with a faculty of architecture, those members of the faculty who did not hold architectural degrees would find that their professional status and their academic standing might be in some jeopardy.

The most important change, however, is the necessity for a new professional attitude among the architects in respect to their fellow professionals whom they elect in the future to give major attention to these technical specializations which are so vital to the creation of buildings and of the urban environment tomorrow. This changed professional attitude is required of educators as well as professionals and furthermore involves a more sympathetic and understanding view of the contributions of those who are not primarily architectural designers.

Specifically, the AIA must be prepared to admit all such graduates from experimental programs to corporate membership and the architectural registration boards prepared to accept them since each one of these alternatives involves a certain amount of experimentation with no firm assurance that each experiment will prove a success.

Summarily, there must be agreement within the architectural profession to assume its obligations and intention to embrace all aspects of the design environment, coordinate the design professions, and to point the direction for the future of professional practice.

Diagram



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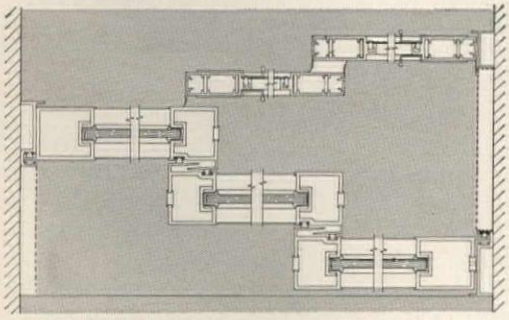

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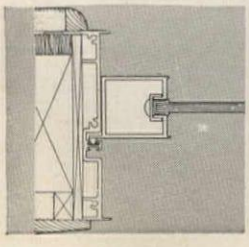

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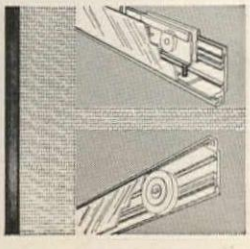

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May 5 to 9: AIA National Convention, Miami Beach

May 10 to 11: NCARB Convention, Miami Beach

June 9 to 19: AIA-ACSA Teachers Seminar, Cranbrook Academy of Art, Bloomfield Hills, Mich

June 23 to 26: ASLA Convention, Penn-Sheraton Hotel, Pittsburgh

AIA Statewide Conventions

April 19 to 20: New Mexico Chapter, Santa Fe

June 13 to 15: New Jersey Chapter, Essex and Sussex Hotel, Spring Lake, NJ

August 1 to 3: Michigan Society of Architects, Mackinac Island

Necrology

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FRID, VICTOR A., Hartford, Conn
HOPKINS, C. HAROLD, Balboa, Calif
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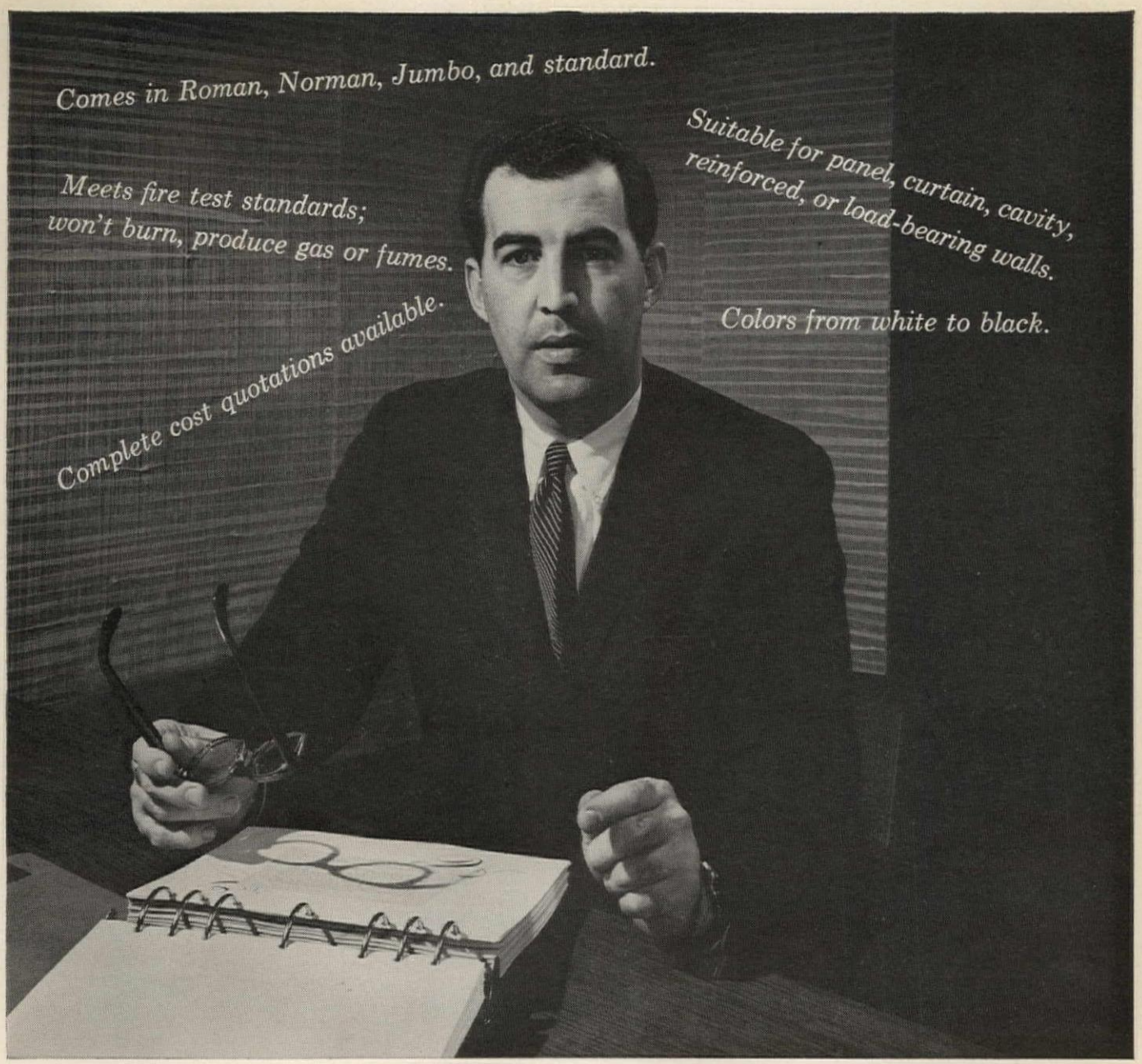

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* Readmission

The Classic Tradition

There seems to be a tendency on the part of architectural critics lately to decry the "new" Neo-classicism, as evidenced in the recent work of such architects as Stone, Yamasaki, Wong and others. Apparently anything which even remotely acknowledges a classical heritage, even if it's just a matter of a symmetrical plan, is suspect. That's rather silly, isn't it? Surely, if careful study reveals that a symmetrical plan is the logical solution, or if the nature and character of the building calls for a balanced and reposeful design, it would be arbitrarily forcing the issue to design it any other way.

Note this: ". . . most critics had assumed that Neo-classicism had been dealt a final and lasting death blow and that its resurrection was an impossibility. Having adroitly shed a few of its more blantant elements, it has now entered once more on the scene, to do battle with second, third or even fourth generation 'modern' architects. . . . To a considerable degree the resurrection of Neo-classicism is a direct outgrowth of an inherent limitation of the 'new' architecture of our century—its inability to develop a monumental expression." (David Gebhard, in *Artforum,* on the winning design for the Governor's Mansion for California.) The writer then goes on to question whether "a monumental architecture is compatible with the needs and above all the democratic ideals of American society." With this last point I take no issue; it would be a good discussion.

Perhaps we got off the track about a hundred and fifty years ago—about the time of the first uses of cast iron and power tools. We started running off in all directions at once—we ran wild with eclecticism and we cut loose with structural innovations (and we still are).

Perhaps that main track *is* the classic tradition. Looking back quickly over my shoulder, it would seem that all fine architecture of the past was created within the classic tradition. Mind you, I'm using those words "classic tradition" very broadly, but not loosely. For instance, I would put the work of Louis Sullivan within the classic tradition.

We were on a very definite track a hundred and fifty years ago—perhaps it was the main trunk of the tree. I had the temerity to write a book some years ago—which a few people must still be reading, for I get a little check from the publisher twice a year. In this book I said, "For a while it looked as though the Greek Revival might become the basis of a new and truly American style, for it became deeply rooted in the American mind and well adapted to American needs." And Burchard and Bush-Brown said in their "Architecture in America," "When they were permitted to do so, professional architects used Greek architectural elements, but applied them to modern practical plans. . . . The buildings . . . were not reproductions of whole Greek or Roman buildings; at most their porticoes or cornices were copies; but largely they should be regarded first in terms of their plans and sections, where the results were practical and graceful. . . . The vitality of Greek Revival design stemmed from a sure sense of architecture as a combination of use, construction and beauty, first of all in *spaces.*" (Italics mine.)

The classic tradition has taken a beating but it's far from dead.

Library Notes

Domus Dei

Peter Hammond in a book entitled "Liturgy and Architecture" (New York, Columbia University Press, 1961) makes the statement that the need today is for churches, not museums of religious art. He pleads for architecture to recover its "symbolic function" and for the form of the church to spring from its liturgical function.

No traditionalist is Mr Hammond, however; he views the task of the church architect as that of creating architectural forms which "embody the theological vision of the twentieth century as the characteristic forms of Gothic architecture expressed that of the twelfth." In fact, Mr Hammond declares that if one has to choose between an agnostic architect who "believes passionately in architectural honesty" and "who will stand no nonsense when architectural principles are at stake" and a member of the faith whose standards are less exacting, the former is "invariably to be preferred."

Mr Hammond is editor of a more recent book, "Towards a Church Architecture" (London, Architectural Press, 1962). Here he maintains that an architect who designs a school, a shopping center or a laboratory approaches the problem by asking basic questions concerning the activities to take place in the building and will try to understand the relationships and values which the building is to serve and articulate. The same architect, however, in designing a church, says Mr Hammond, may cause "architectural schizophrenia" if he does not give deep thought to theological, liturgical and practical church matters. There is no place for a romantic and sentimental approach; it has to be "radical functional analysis." Mr Hammond desires a "theological and liturgical renewal" in church design so that the building itself is essentially a "liturgical and pastoral tool." He concludes that while there are hundreds of new churches in all parts of the world, the majority of them are "glossy paperback editions of minor nineteenth-century classics."

This book, a cooperative study by architects and clergy of several denominations, is a result of discussions taking place within the New Churches Research Group in England, organized in 1957 to study church architecture, recognizing that the problems of contemporary church architecture are for the most part the problems of modern architecture in general. The primary aim of this book of essays by members of the Group is to have churchmen understand the approach of the "genuine" modern architect and to give the architect insight into the essential purpose and meaning of the church. No effort is made to reconcile the conflicting points of view evidenced in the essays by churchmen and architects alike. The purpose is to raise questions rather than to provide easy answers. If there can be good hospital architecture, good school architecture, then why not more good church architecture? Such does not come, declares this book, unless the architect understands the true purpose of the church.

In some ways closely related to this theme is that developed in Victor Fiddes' "The Architectural Re-

quirements of Protestant Worship" (Toronto, Ryerson Press, 1961). Mr Fiddes states that where most church building committees fail is through the inability to state clearly the logic of the building they want to erect and to inform the architect of the significance of worship. Since the architect is not a theologian, he has a right to expect a theological frame of reference within which to do his creative work.

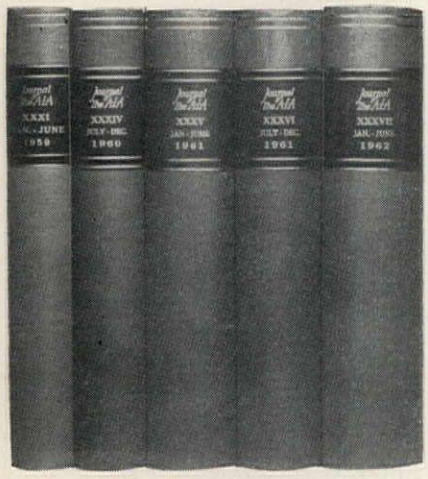
This book is an endeavor to relate the requirements of worship to modern architectural forms. In the final chapter the author cites six examples of recently constructed churches which seem to him to recognize the basic problems of design he has discussed in previous section of the book.

Less critical is Joseph Pichard in "Modern Church Architecture" (Translated by Ellen Callmann. New York, Orion Press, 1960). The 177 beautiful photographs present a panorama of modern church architecture. After briefly tracing the history of church architecture, Mr Pichard endeavors to show that over the past fifty years there has evolved a vital and new ecclesiastical architecture which was completely unexpected at the end of the last century. An interesting aspect of this development, contends the author, is that contemporary painters and sculptors have aided the architects so that the beauty and spirituality of the modern church is enhanced. Before we accuse our age of having become secularized, warns the author, we should examine the new church art and architecture of today. This book is such an endeavor as the author examines how artists and architects have responded to the twentieth century and its problems and how they have visualized the present day church.

Another recent book on the general subject is "Modern Church Architecture; A Guide to the Form and Spirit of 20th Century Religious Buildings" (New York, McGraw-Hill, 1962) by Albert Christ-Janer and Mary Mix Foley. Although the illustrations in this book are outstanding, some of the photographs never having been published before, it is a great deal more than a picturebook. Divided into three sections —Contemporary Catholic Architecture, Contemporary Protestant Architecture, and Monasteries and Seminaries—there are included statements by church leaders which serve to provide a relationship between theology and architecture. The authors have selected forty examples of contemporary religious architecture, including the works of such architects as Belluschi, Niemeyer, Saarinen, Breuer, Wright and Candela. The book is of value to the architect in that it portrays the manner in which contemporary form and structure have developed and are shaping church architecture today, at the same time giving him much useful information about the interdependence of architecture and liturgy. This book was reviewed in the November *Journal*, and readers are directed to Kenneth E. Richardson's incisive remarks.

"Making the Building Serve the Liturgy," edited by Gilbert Copes (London, Mowbray, 1962) claims that church members are the Church itself and that architecture effects profoundly their vision of the Church they are intended to be. The book is illustrated with plans that are suggestive of ways of making existing church structures adaptable to "liturgical renewal."

These books are available to corporate members on loan from the AIA Library. MEO



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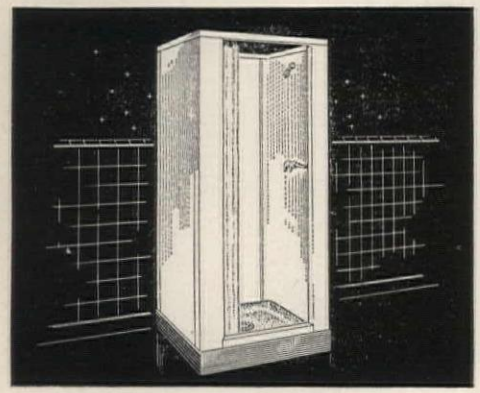

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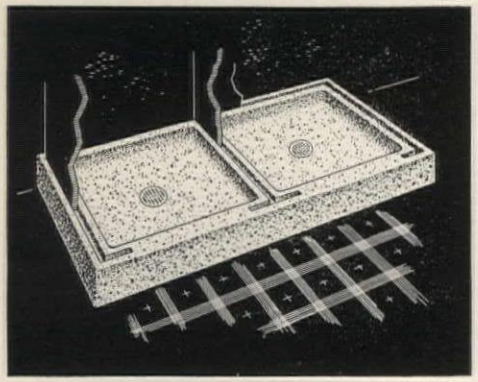

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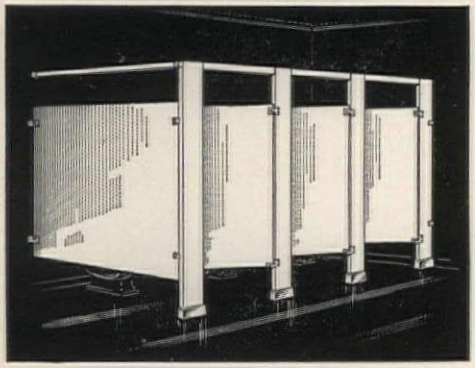

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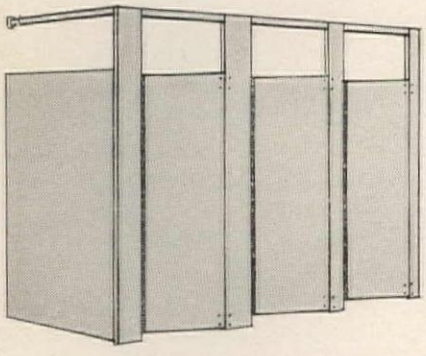

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by Wolf Von Eckardt, HON AIA

► "The pooh-poohing of America as a cultureless nation just bores the hell out of me," actor and art collector Vincent Price told a newsman recently. "The truth is that we're the most cultured nation in the world."

What prompted this statement was, of course, not the much-discussed recent rash of cultural centers all over our land, nor the statistics about symphony concerts, museum attendance or classical records and pocket books. Mr Price referred to the fact that Sears, Roebuck and Company now proudly offers the Vincent Price Collection, some 15,000 original lithographs, etchings, watercolors, drawings and paintings, at prices ranging from $10 to $3,000, in selected stores all over the country. "Art," says the announcement, "is meant for everyone and now can be bought by everyone—at Sears." And for $5 down in easy monthly instalments.

It sounded pretty exciting, so, eager to find confirmation of Mr Price's statement, we called our friendly neighborhood Sears store for further information. With a promptness the service department has not accustomed us to, a batch of press releases and an invitation to attend a preview opening of the local Vincent Price Collection display arrived the next morning. Sears obviously takes art more seriously than temperamental electric stoves.

The press kit hightened our anticipation of the opening. "All types of art from sixteenth and seventeenth century masters right through the day after tomorrow" are included in the collection, the releases informed us. Mr. Price, it seems, travelled widely on behalf of the mail-order house to assemble the collection personally, partly from among museum duplicates, partly from art galleries, individual collectors and schools, and partly from artists directly. "Unknowns," Mr Price is quoted to have said, "could be the 'masters of tomorrow.' "

Having majored in art at Yale and tied Edward G. Robinson in an ("honest") $64,000 TV quiz on art, he is in as good a position as any buff or expert to bet on the Picasso of the next generation. Price owns a notable collection himself, we are told, has lectured and written on art appreciation, is on any number of museum boards, and may also be addressed as Mr Commissioner of Indian Arts and Crafts for the Interior Department. He thus obviously was not chosen only for his screen appeal ("The Raven" with Peter Lorre is his most recent offering) to head the Sears, Roebuck art program.

"I fell financially in love with a work of art for the first time at the age of twelve," his biographical sketch quotes Mr Price. For five dollars down and a year to pay off, it seems, he bought a Rembrandt etching he still owns. Rembrandt etchings as well as Picassos and Chagalls are among the works he is currently offering at Sears.

But there was no Rembrandt or Picasso in our local store. And the Chagall litho was rather poorly handcolored and surprisingly unimpressive to start with. Among the more famous artists the press release had mentioned were only a nice Miró litho ($350), a couple of fairly striking Rouault lithos ($225 each) which the descriptive note, allegedly written by Mr Price himself, identified as a "Roualt," and a marvellous Piranesi etching of S Maria Maggiore ($200).

Nor, honesty compels us to report, did the "masters of tomorrow" rise above the kind of art you will duly admire at any neighborhood art club or a church fund-raising sale. No, it wasn't bad at all. But neither was it good. Perhaps, primed by the press kit, we expected too much. Perhaps the dingy surroundings of Sear's furniture department with its plastic covered love seats and hastily shoved-aside vacuum cleaners depressed us. Nor was there any rhyme or reason in the way these originals were hung. And the descriptive notes were not only all too often in error but also insipidly uninformative. We prefer to think that not Mr Price but Sear's advertising copywriter concocted them.

What's worse, the frames were uniformly hideous and made even the more noteworthy watercolors and old prints look like the *kitsch* displayed on dime store stationary counters. That elaborate mat with its gold foil all but spoiled the Piranesi.

The real trouble was, however, that this potpourri of originals was so dreadfully safe and innocuous. There was a modest nude, to be sure, and even an abstract piece or two. But what modern art was included was obviously chosen not because the artist had anything to say but because it would go well with the drapery. Mr Price, furthermore, was obviously cautioned, as television producers are, to avoid controversy or giving any possible offense to potential customers.

As in television we are "bringing art to the people," all right. But it is castrated art, carefully Hooper-rated so it will please but not challenge. We go along with Mr Price that pooh-poohing American culture is as boring as it is silly and unjustified. But popular culture will be safe in America only when, to use Mr Price's salty language, its sponsors have the guts to be unsafe.

That is why, despite our sincere hopes, we failed to fall in love with the Sears art program, financially or otherwise. ◄