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AIA Journal, Official magazine of The American Institute of Architects, published monthly at the Octagon, 1735 New York Ave. N.W., Washington, D.C. 20006. Telephone: 393-7050.

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Change of Address

Give Circulation Department both old and new addresses; allow six weeks.

Second class postage paid at Washington, D.C.

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VOL. XLIX, NO. 2

Comment & Opinion

Ah, Wilderness: When the governing council of the National Wilderness Society met in Maine last fall, a columnist for the *Boston Herald-Traveler* allowed as how this was, in essence, a tribute to Benton MacKaye, "father" of the Appalachian Trail system. It marked the first time that the society, founded by the conservationist from Shirley Center, Massachusetts, and of which he is honorary vice president, had met in the Northeast.

All of this has more than passing interest to the architectural profession, for it was in the October 1921 issue of the AIA JOURNAL that MacKaye initially proposed the plan of the trail in his article "The Appalachian Trail—an Experiment in Regional Planning."

The Appalachian Trail Conference, Inc., of Washington, D.C., in one of its leaflets explains: "Others had previously advanced suggestions of extensive trails in the New England states, but the conception of this supertrail was solely MacKaye's." And supertrail it is, extending from Maine's Mount Katahdin in Baxter Park to Georgia's Springer Mountain—2,000 miles of footpath in all.

"From this original trail, then," as newspaperman Bob Elliot pointed out, "the interest nationally has reached a dream—that doubtless will become reality, too—of a network of historic and cultural footpaths in all sections of the United States. Furthermore, family camping, as we know it and practice it presently, is another result of these earlier beginnings in wilderness appreciation by, first, such men as Thoreau and, later, by a few conservationists like Benton MacKaye."

It was not just a happenstance that the Appalachian Trail proposal should find its way into the pages of the JOURNAL in 1921. Back in those days the profession in general and the Institute in particular exhibited a deep concern

for conservation, or what we might term beautification in its broadest and possibly best sense—a concern that seemed to diminish as the years rolled on. Today, however, we find the same kind of dedication being translated into commitment. Two examples illustrate this point.

Four AIA chapters which make up the Lake Michigan Region Planning Council developed a scheme for the Indiana dunes area (AIAJ, Dec. '64), which attained its goal of bringing the comprehensive planning approach to the attention of the people of influence and the public. Undoubtedly this action helped to jell favorable legislation on the matter: the authorization of the Indiana Dunes National Lakeshore in the fall of 1966 and the agreement between the Department of the Interior and Inland Steel Company last October.

The agreement covers the 385-acre tract of land owned by the steel producer which comprises the major portion of the West Beach unit of the lakeshore. Under its terms, the government purchased a 90-acre tract for \$1.25 million with an 11-month option to acquire the remaining 295 acres.

Secretary of the Interior Stewart L. Udall praised Inland Steel offi-

General Articles

Complete listing 33

Departments

Newslines 8
Unfinished Business 30
Books 80
Calendar 98
Letters 100
Information Card 102

Cover

Learning the how and why of what man builds. Based on photo by National Education Association, Carl Purcell.

cials for their "sincere cooperative effort" in reaching agreement on final terms, pointing out that the tract is the largest single one in the lakeshore, is closest to the population centers of Chicago and Gary, and has a superb beach.

One disappointing note: The commission which will advise the Secretary on matters related to the area does not have an architect among its seven members.

The most recent, and surely the most meaningful, involvement of the profession in the field of conservation is represented by the work of the Potomac Planning Task Force (whose report was reviewed in AIAJ, Nov. '67), a multi-disciplinary commission including five architects, one of whom was chairman: Arthur Gould Odell Jr., FAIA, former Institute president.

"These 11 men gave their time, meeting monthly for over two years, sometimes oftener, for a full day, sometimes two," is the way an Interior spokesman put it.

An editorial in the *New York Times* for November 26 labeled it "a brilliant report on the Potomac River which has significance for many other areas similarly important for scenic, historical or ecological reasons." It also said:

"Careful planning, publicly held open spaces, scenic easements and rights-of-way, and sensitive private development can make the Potomac a superb 'urban amenity' for an increasingly crowded area. Or their absence can mean a distressing jumble and a water slum such as too much of the once magnificent Hudson has already become. What is true for the Potomac is true for other river valleys such as the Hudson, scenically unique islands such as Martha's Vineyard and many still developing metropolitan areas."

Referring to the task force's suggested Potomac Development Foundation, the *Times* editorial further said it "could serve as a model for planning and wise development of other subregions now victimized by rival political jurisdictions, private greeds, parochial preoccupations and a failure to understand the importance of that basic national resource: natural beauty."

Every architect would do well to buy a copy of the report not only for himself (\$5 postpaid from the Superintendent of Documents, Washington, D.C. 20402) but at least another for presentation to a local official.

ROBERT E. KOEHLER

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(See previous page)

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Newslines

President Seeks to Spur Model Cities, Housing

President Johnson in his State of the Union message last month asked Congress to appropriate the full \$1 billion it has authorized for the Model Cities program.

Mr. Johnson also called for "more housing—and more housing now." Said the President:

"We must call together the resources of industry and labor to start building 300,000 housing units for low- and middle-income families next year. That's three times more than last year.

"We must make it possible for thousands of families to become homeowners and not rent payers, and I propose for the consideration of this Congress a 10-year campaign to build 6 million new housing units for low- and middle-income families—6 million units in the next 10 years. We built 530,000 the last 10 years."

Last year Congress authorized for Model Cities \$662 million but appropriated less than half, \$312 million.

"This year I urge the Congress to honor my request for Model Cities funds to rebuild the centers of American cities by granting the full amount that you in the Congress authorized—\$1 billion," the President said.

Mr. Johnson also recommended programs to strengthen air pollution and conservation efforts. His mention of measures to spare the redwoods of California brought a surprisingly substantial and spon-

aneous burst of applause from the House chamber.

He spoke of the "despair and frustrated hopes in the cities where the fires of disorder burned last summer."

White House Names Panel; Urban Institute Underway

Brisk business ahead is predicted for the Institute of Urban Development, a nonprofit corporation now being organized in Washington, D.C., for the purpose of finding out what the problems of the American cities really are and how these problems can be solved.

Six persons named by the White House have volunteered to serve on a committee to draw up a charter for the corporation, select its president and a board of directors. The committee members are: Irwin Miller, board chairman of Cummins Engine Co.; Arjay Miller, president of the Ford Motor Co.; Kermit Gordon, president of the Brookings Institution and a former budget director; former White House adviser McGeorge Bundy, who is now president of the Ford Foundation; Professor Richard Neustadt of Harvard University; and lawyer Cyrus Vance, former Deputy Secretary of Defense.

The objectives of creating the Institute, started on a HUD grant, are:

1. To build a continuing analytical capability to study complex urban problems as a whole, including their relationship to federal, state and local institutions.

2. To gather the necessary data and conduct long-range studies based on that data.

3. To bring together a wide variety of disciplines: architects, administrators, builders, physical scientists, engineers, economists, sociologists, lawyers, political scientists, city planners and others, and focus their disciplines on urban problems.

4. To provide an independent and objective base from which to review and evaluate the nation's urban problems.

Future financing of the institute will not come from HUD. Funds will derive from contracts with various federal departments.

A professional staff of almost 100 will be employed, and it is expected that the institute will be in operation during the first half of the year.

AIA on Freeway Problems: Major Changes Overdue

The District of Columbia's controversial freeway issue has been tossed around so thoroughly for so many years that the basic question of its practicality has been diluted with arguments on class and race.

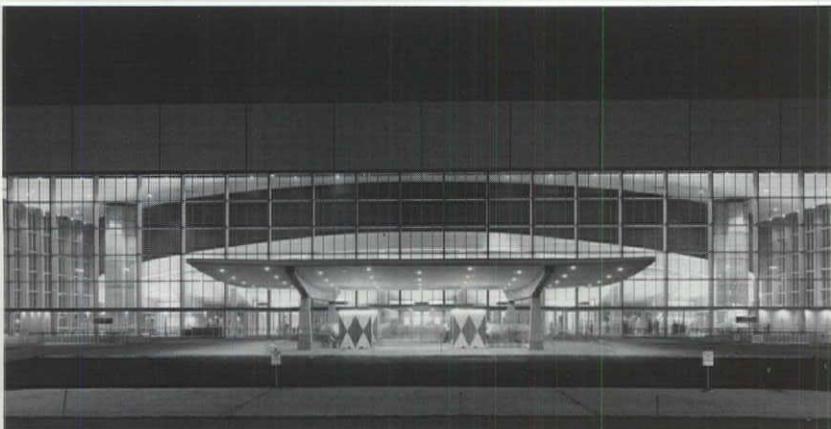
The AIA voiced its clear opinion on the subject when Nicholas Satterlee, FAIA, appeared before the Washington City Council and, on behalf of the Institute and the Washington Metropolitan Chapter AIA, expressed concern over the highway-planning and decision-making process in the District.

"We urge the council to start now to plan a balanced transportation system, one made up of many complementary parts. Such action implies that the headlong rush to get highways built must be temporarily delayed until the total transportation planning process has been accomplished."

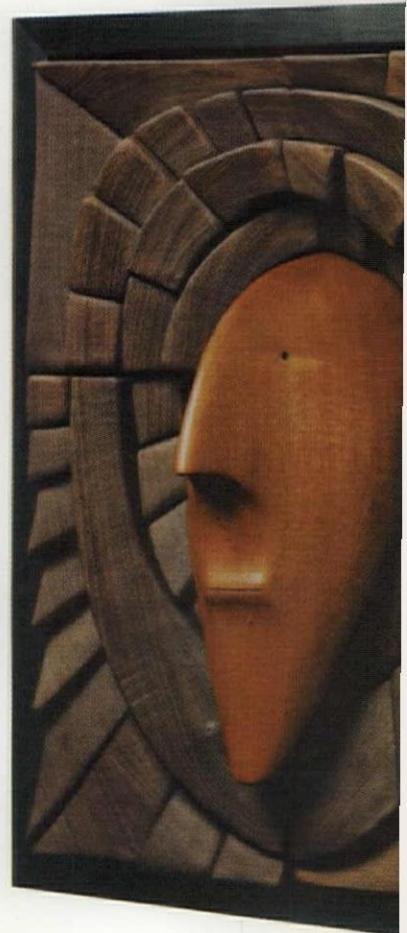
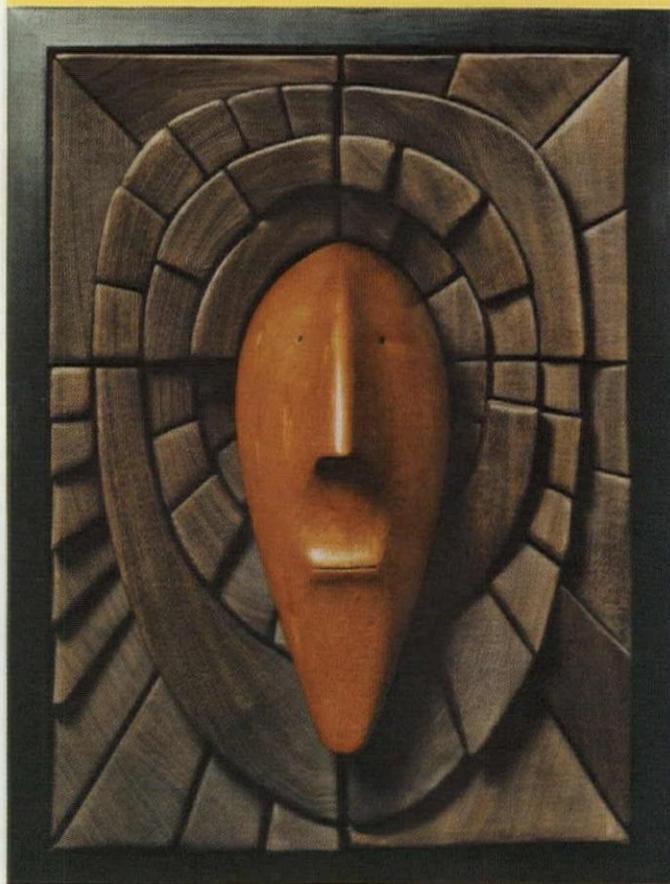
The District's transportation system, claimed Satterlee, is being developed as many independent parts rather than one integrated system. "The AIA," he said, "urges the council to 1) bring about a restudy of the District's transportation requirements and, specifically, the entire freeway plan with the aim of creating a balanced system, and 2) place a moratorium on funds allocated for detailed design and construction until such restudy is accomplished."

As a result of the AIA's stand,
Continued on page 10

Portland's the Place and the Time Is June 23-26



The occasion is the 100th AIA convention, and here's the Memorial Coliseum (Skidmore, Owings & Merrill), headquarters during first part of the two-city meetings. Next stop is Honolulu, with special workshops and a luau.



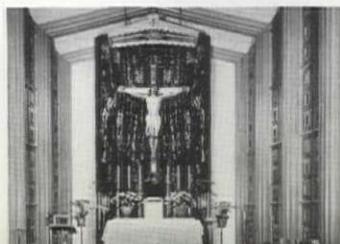
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DRINKING FOUNTAINS

Circle 253 on information card

Newslines from page 8

Council Chairman John W. Hechinger asked the Institute for its review of the highway budget and planning.

The AIA submitted its analysis, prepared by Grosvenor Chapman, FAIA, prior to a January meeting held by the Washington City Council, urging a three-part planning team: a decision team of city and federal agency representatives; a citizens' or community team of business and neighborhood representatives, and a design team of consulting highway and traffic engineers, architects, economists, sociologists etc.

In its report, the Institute noted that similar problems confront hundreds of other American cities and recommended that "the point of departure for any comprehensive remedy must be circulation systems." Nationally, the AIA noted, "a major change is overdue in the process used for selecting transportation corridors, in delineating their specific location and in executing their design."

The report pointed out that the planning team concept is applicable to any urban planning problem and has proved itself in Cincinnati, Baltimore, New York, Chicago and other cities.

At its January meeting, the Washington City Council voted to leave the old problem with the District's new mayor, Walter E. Washington, asking him to use the planning concept.

**Ice House Cometh Back
Like Chocolate Factory**

The firm that turned a block of old factories and warehouses into a plaza of shops and restaurants is now redesigning two Ice House buildings as part of this country's first total market complex.

The newest project of the San Francisco architectural firm of Wurster, Bernardi & Emmons is located on the city's historic north waterfront near Jackson Square. Built in 1914, the Ice House structures were once the largest cold storage and ice manufacturing facility in California. Now, after renovation is complete, the pair of buildings will provide over 200,000 square feet of space as part of the new International Market Center.

The exteriors, constructed of sandmold bricks and graced by arched windows and vertical inserts, will be kept in their present

Continued on page 12



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form to preserve the unique character of the Ice House, just as the firm has done with the award-winning chocolate factory structures in Ghirardelli Square (see AIA JOURNAL, July '66). Says the firm: "We are trying to retain the intrinsic qualities of the existing buildings without descending into architectural cliché."

A glass tower will be added, however, as a contrasting link to the Ice House and will extend the full length of what is now an alley. The tower entrance will be

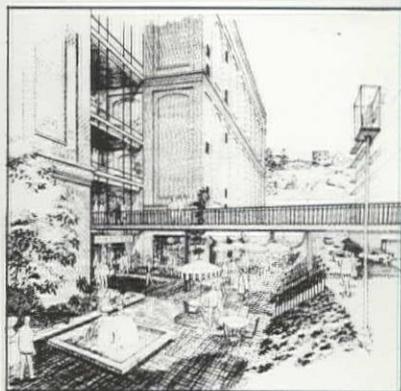
fronted by an extensively landscaped courtyard to be designed by the firm of Lawrence Halprin & Associates.

The renovation of the interior will provide tenant space devoted to contract and decorative showrooms. Included as adjacent units in the market center plan will be a home furnishings mart; an apparel mart; a decorative, commercial-institutional furnishings mart; transient trade show facilities and a 750-room hotel.

Other components, oriented toward the tourist trade, will be artists' and craftsmen's studios as

well as all types of service shops—cafes, boutiques, hairdressers, liquor and flower stores, etc. When finished late in 1969, the entire International Market Center will spread over eight square blocks.

The development is privately financed by the North Waterfront Associates, a corporation of prominent San Francisco business leaders, architects, engineers and builders. President of the group, Roger

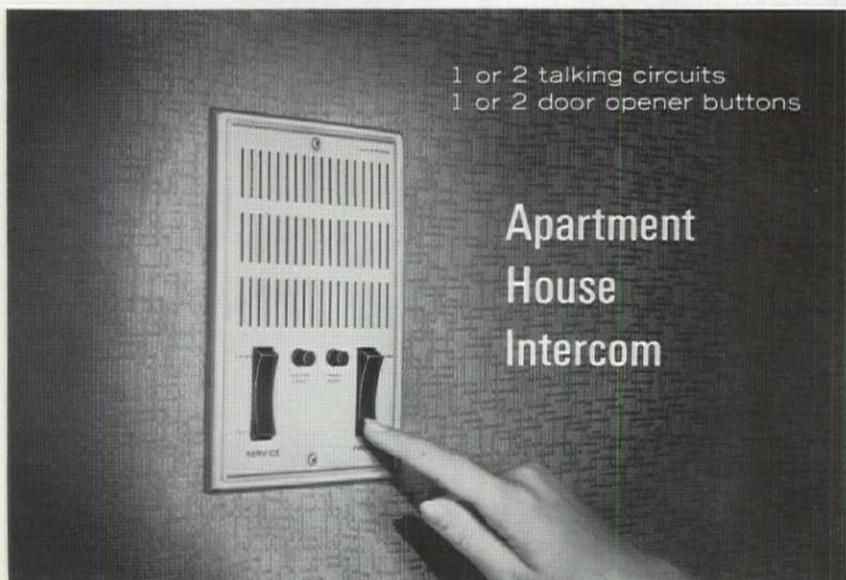


Ice House turned market center. For views of the Bay and Telegraph Hill, window arches were opened. Glass tower connects pair of buildings.

Lapham Jr., declared: "This is one of the major projects to be developed in the West. Joining together are the finest minds in marketing, planning and construction to make an unparalleled contribution to the city's beauty and economy." It is said that the complex will house the greatest concentration of home, commercial, institutional and decorative furnishings in the world.

The old San Franciscan charm that Wurster, Bernardi & Emmons strove to retain will be actively evident during business hours. Turn-of-the-century carts will ply the corridors dispensing coffee and croissants in the mornings and champagne in the evenings. Cable cars will shuttle people to the Ice

Continued on page 14



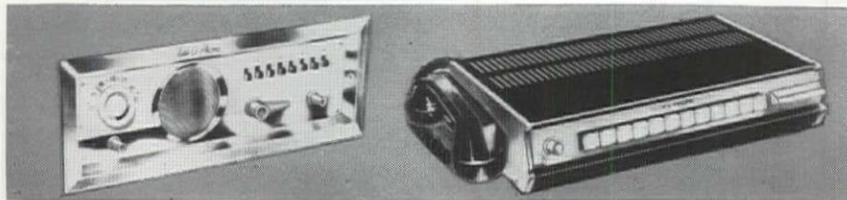
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Architect: Albert R. Merker, A.I.A.

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For details see SWEET'S Architectural File 1c/Po

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House from all major hotels, and an ice truck, circa 1925, will provide VIP limousine service.

The first portions of the new Ice House opened for business starting on January 29, the beginning of market week. The remainder of the brick buildings that compose the structure are slated for June 1968 completion.

Chinese Projects Blossom In California Cities

Two important projects are underway in California's Chinese communities: In San Francisco, a Chinese Cultural and Trade Center will be constructed on the site of the old Hall of Justice, now being demolished. In Sacramento, plans are completed for a new Chinatown on two blocks within the existing Chinatown area.

Purpose of the \$12 million Chinese center in San Francisco, to be completed in the fall of 1969, is to establish a place where Chinese and Western cultures can blend. It will have an 18-foot high exhibition hall for display of Chinese artifacts, a 500-seat auditorium for the performing arts and lecture rooms and offices for community uses.

Joe Yuey, Chinese civic leader, has pledged to donate half of his \$2 million Chinese art collection to the Chinese Culture Foundation of San Francisco for display in the center and to lend it the other half.

A 27-story hotel with Chinese motif will be erected on the site, edging on San Francisco's Chinatown. A Chinese style, 28-foot-wide pedestrian footbridge will link Chinatown and the center's entrance. A 460-car garage is part of the plan.

Of five proposals received for the privately financed center, the designs of Clement Chen & Associates and of Dartmouth Cherk were chosen. Cherk later joined John Carl Warnecke & Associates in detailing the basic design.

Sacramento's new Chinatown will be a residential/business district and a base for the many Chinese family associations in the area.

Robert Roche, deputy director for the Redevelopment Agency of the City of Sacramento, did the overall planning and parcelization of the project, consisting of 11 parcels. Estimated development cost of each runs from \$120,000 to almost \$3 million.

Continued on page 17



door control concealed in the head frame

In this new library building the architects equipped the doors with LCN Overhead Concealed Closers—2010 Series. The mechanism is completely out of sight. Even the Closer arm disappears when the doors are closed. Yet all the necessary control is there—with power to spare.

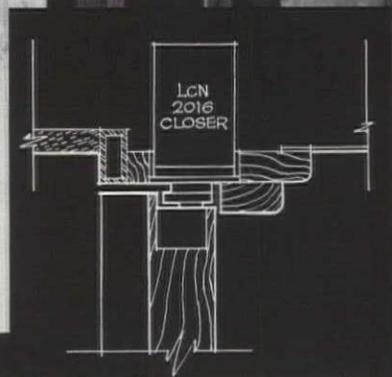
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A hundred years ago, all streets in the Chinatown area were elevated to protect buildings against flooding. The natural terrain of the ground level is therefore 10 feet lower than the sidewalks or street level. Access to the interior of Chinatown will be by stairways and ramps.

To be constructed at the lower level is an agency-financed mall with a Chinese garden, designed by Baronian & Danielson of Davis. Along the mall will be shops and restaurants, while offices and family association headquarters will be on the street—or second—and third levels.

Parking facilities for the no-garage new Chinatown will be provided on five nearby lots.

One of the proposed buildings of the development is a \$2.8 million, 13-story high rise for the elderly, designed by McGuire & Eatough of Sacramento. Confucius Church has proposed a 12-story high-rise for families in the low to moderate income group. Estimated cost is \$2.85 million; architect is Warren C. Wong, AIA, of Stockton, Calif. Two floors in each of these high risers are set aside for offices.

One of the requirements of the redevelopment agency is that all buildings must carry out the Oriental theme. Putting up a sign with a Far East flavor is not enough, the agency feels, to preserve an architecturally Chinese flavor.

Work on the new Chinatown will start in the spring.

Old Subway Kiosk Exits; New Entrances Enter Scene

Nobody really liked the kiosk on Broadway and 116th Street between Columbia University and Barnard College. It was greeted anxiously enough at the opening of the IRT line, but that was 64 years ago. Memories of any popularity it might have enjoyed faded through the years.

Main grief against the kiosk—familiar to thousands of students—was its location on the center mall of the street. To reach it to make a train often meant a dash through the steady stream of traffic. Too often, that dash meant an accident and serious injuries—in one case the death of a student.

So, in the end the old kiosk, which for all these years had opened its squeaky doors to rushing travelers, was nothing but a dirt-

Continued on page 20

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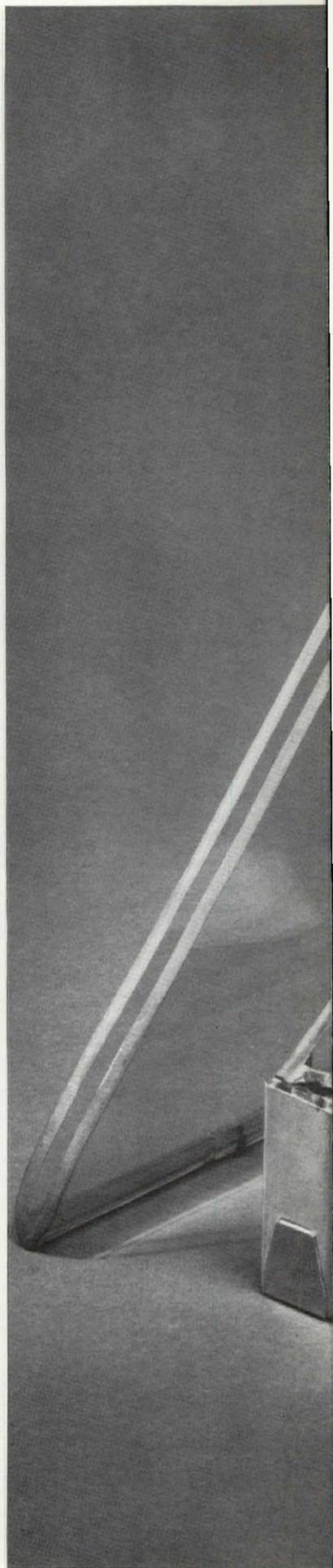
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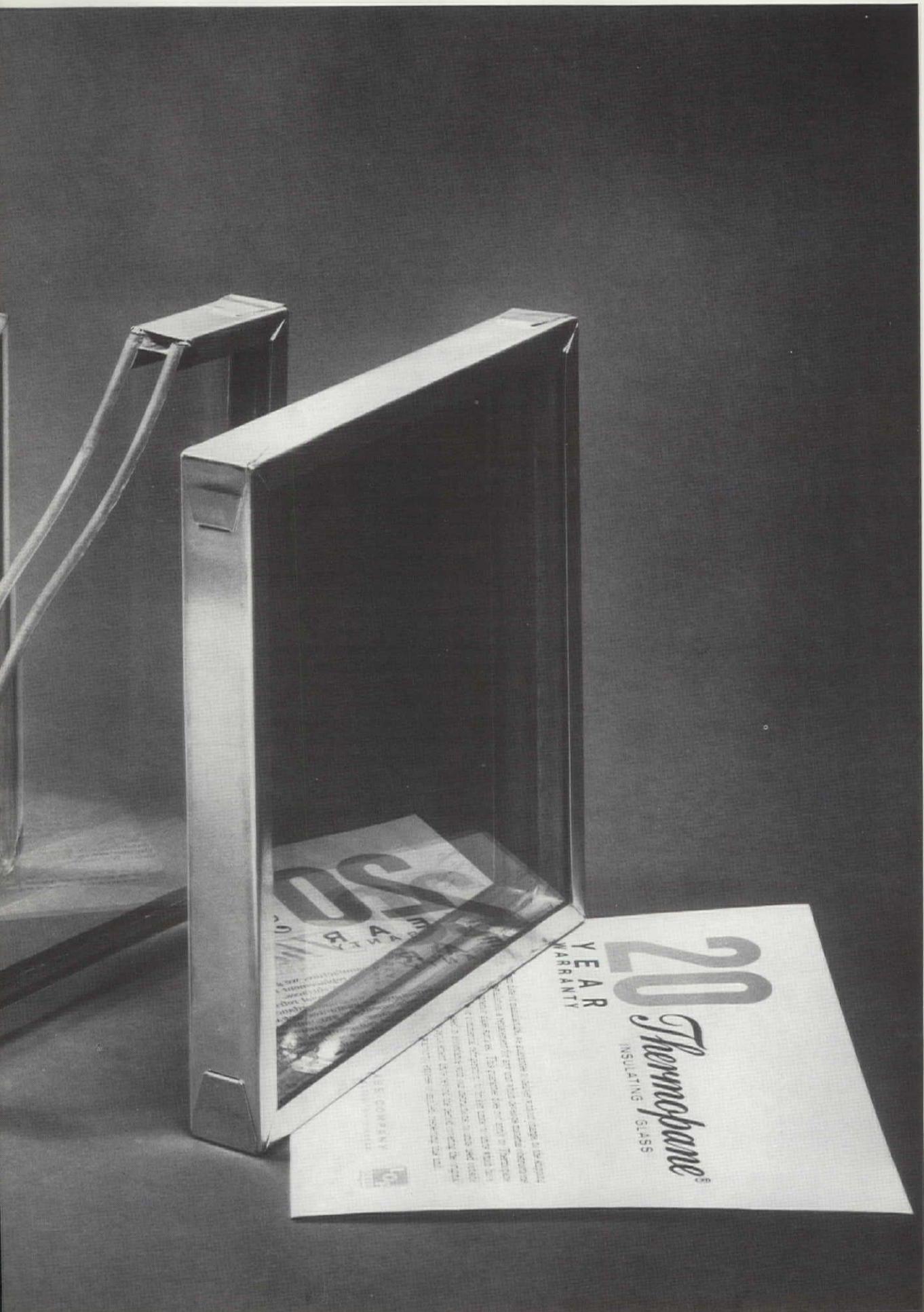
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collecting dangerspot, the target of Columbia officials and other community leaders in the area. Finally they zeroed in on it.

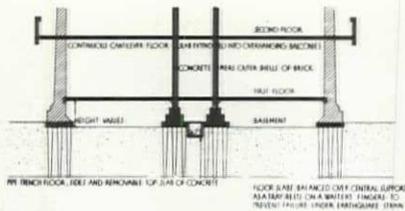
In place of the kiosk have been rooted an entrance on either side of the street, but not the usual New York subway iron or concrete kind. Columbia and Barnard each gave \$5,000 for the city to polish off its \$800,000 project with a reddish gray Stony Creek granite facing, the same material used in the base of buildings on the two campuses. Columbia officials worked with New York Transit Authority engineers in designing the entrances.

Nobody misses the old kiosk.

Tokyo's New Skyscraper Has Imperial-like Base

Up reaches Tokyo's DIC Building, 18 stories, into the sky to qualify as Japan's tallest building. Down it goes, too, a distance equal to one quarter of its height, to a mat base not unlike, in general principle, that of the Imperial Hotel.

Ebihara & Associates designed the skyscraper, named for Dainip-



Both floating, both flexible. The Imperial's mooring was soil on mud, that of the PIC Building, gravel.

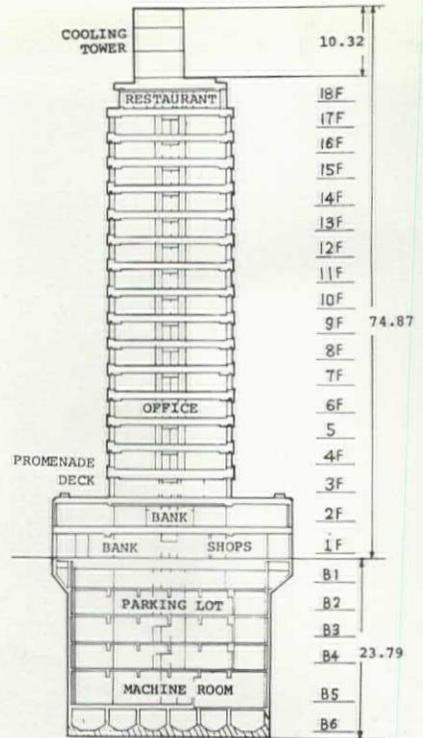
pon Ink & Chemical, Inc., the principal tenant. Its subterranean portion consists of five levels: one for machine rooms; three for parking a total of 120 cars; and one for a shopping arcade.

The first three floors form a broad base which houses banks and shops. From an open promenade deck on the third floor rises a slim shaft for office space and with a restaurant on the top floor.

The structure has flexible curtain walls of weathering high tensile-strength steel; floor slabs are of T-type precast concrete plates.

The dual problem of soft loam soil and earthquake hazard was solved by placing the foundation at a depth of 78 feet on a layer of gravel. The mat foundation supports a total load of 50,000 tons.

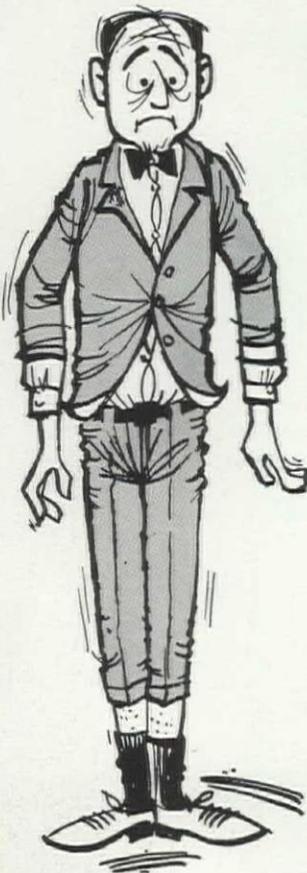
Frank Lloyd Wright let his struc-



ELEVATION

ture float on 60 feet of mud. The much taller DIC Building, needing a lower center of gravity, floats on Tokyo's gravel stratum.

Continued on page 24



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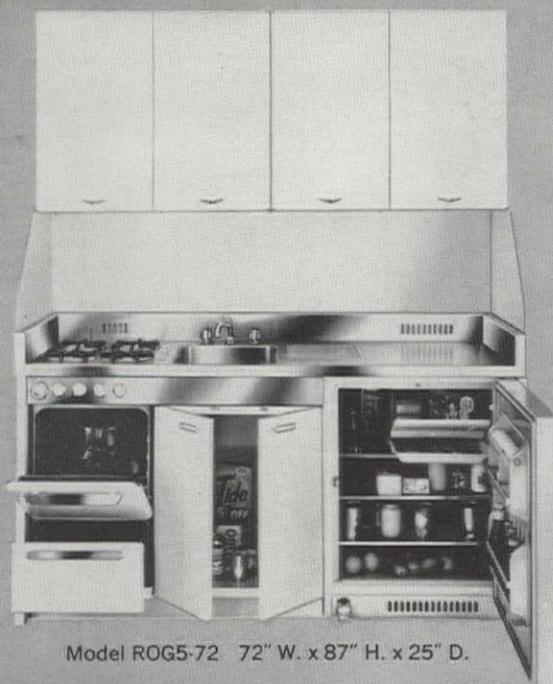
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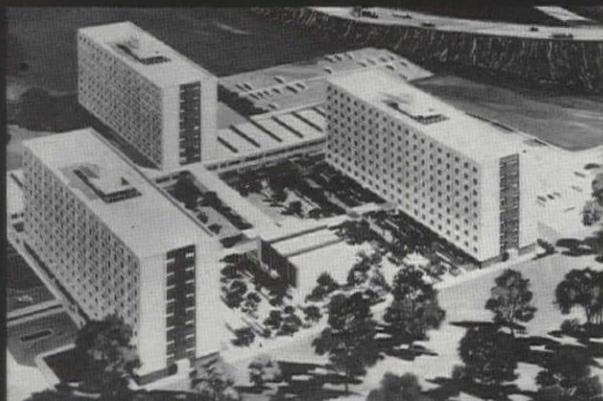


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ISABELLA HOUSE (Elderly Housing) N. Y.
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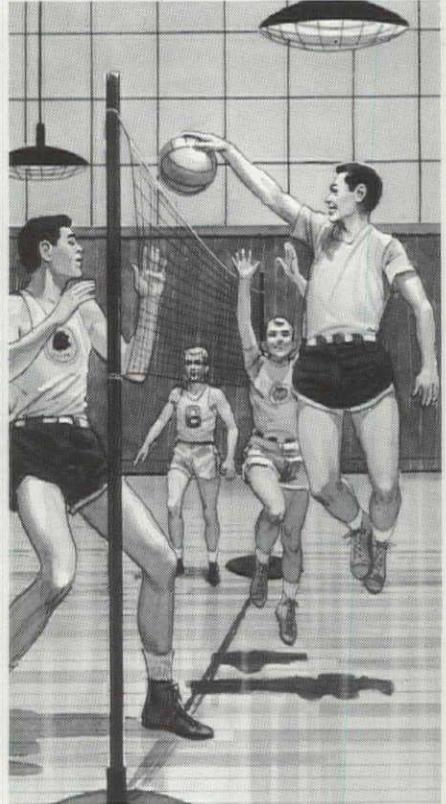
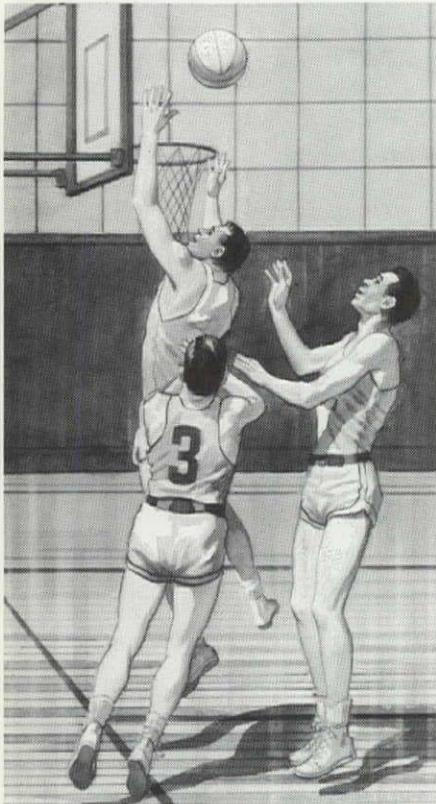
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EXCEPTION: Do not seal and finish wood floor until building is free of excessive construction moisture and the floor and atmosphere in the building are normal.

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Trophy Seal —	350 sq. ft. per gallon.
Trophy Finish —	500 sq. ft. per gallon.

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REFERENCES: Sweets Architectural File, section 13n

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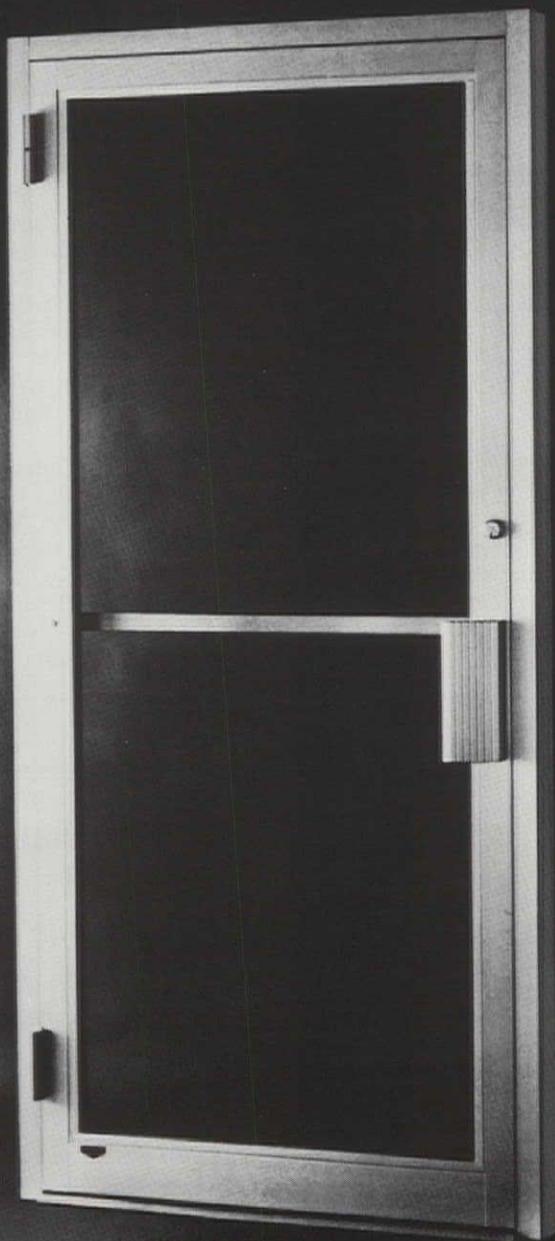
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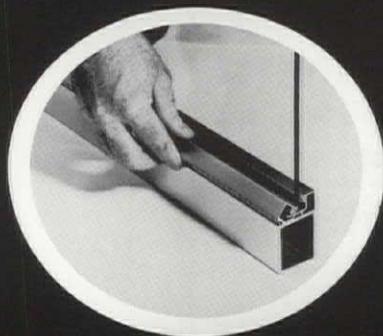
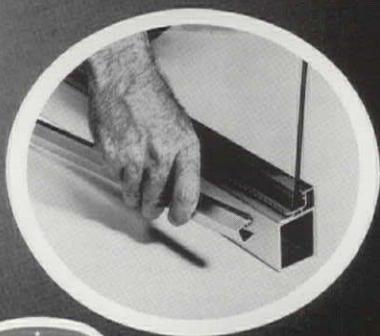


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Logue Named Chief Planner For Fort Lincoln Project

Urban renewal expert Edward J. Logue has been hired as chief planner for the Fort Lincoln development, the "new city" that will be built next year on Washington's National Training School site. The appointment has been made by the Redevelopment Land Agency.

Logue, a Boston University professor and formerly development administrator in New Haven and Boston, will be working with the capital's newly created staff committee, program advisory panel and interagency coordinating committee in an attempt to draw the \$19 million project to actualization. He has been awarded a \$295,000 contract to plan the development.

The 335-acre development located near the city's inner core will aspire toward a highly balanced community. It will contain 1,500 public-housing units, 2,200 moderate-rental apartments, 800 luxury dwellings, schools, playgrounds, shopping and civic centers.

Watterson Heads Federal Historic Building Unit

Joseph Watterson, FAIA, former editor of the AIA JOURNAL, has been appointed chief of the National Park Service's new division of historic architecture, recently created as part of the new Office of Archeology and Historic Preservation.

Watterson's division will be responsible for the restoration of hundreds of historic structures. It will also assume operation of the Historic American Buildings Survey, which records the national building art by means of measured drawings, photographs and written data for reference purposes.

Watterson assumes the new position from his former post of special assistant to Interior Secretary Stewart L. Udall.

Design of Two Worlds Is Topic in Aspen

Reyner Banham has been named program chairman for the 1968 International Design Conference in Aspen.

Banham, author of the book *Theory and Design in the Machine Age*, is currently a member of the teaching staff at London's Bartlett School of Architecture.

The June 16-22 conference will discuss European and American traditions in design, industrial design, architecture and planning.

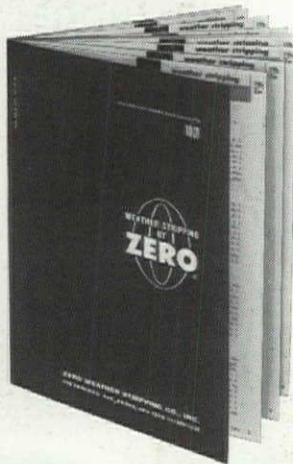
USC Offers Housewives Lectures on Architecture

A lecture series on architecture directed toward an audience of women is being presented for 10 weeks at the University of Southern California.

The lectures are sponsored by the Women's Architectural League, an auxiliary of the Southern California Chapter AIA, to stimulate greater public understanding of architecture.

Entitled "Architecture: The Language of Space, the Servant of Time and a Fine Art," the series will cover such subjects as the contemporary house, religious architecture in the Western world and the modern structures of Frank Lloyd Wright. *Continued on page 28*

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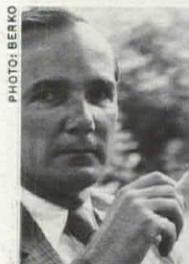
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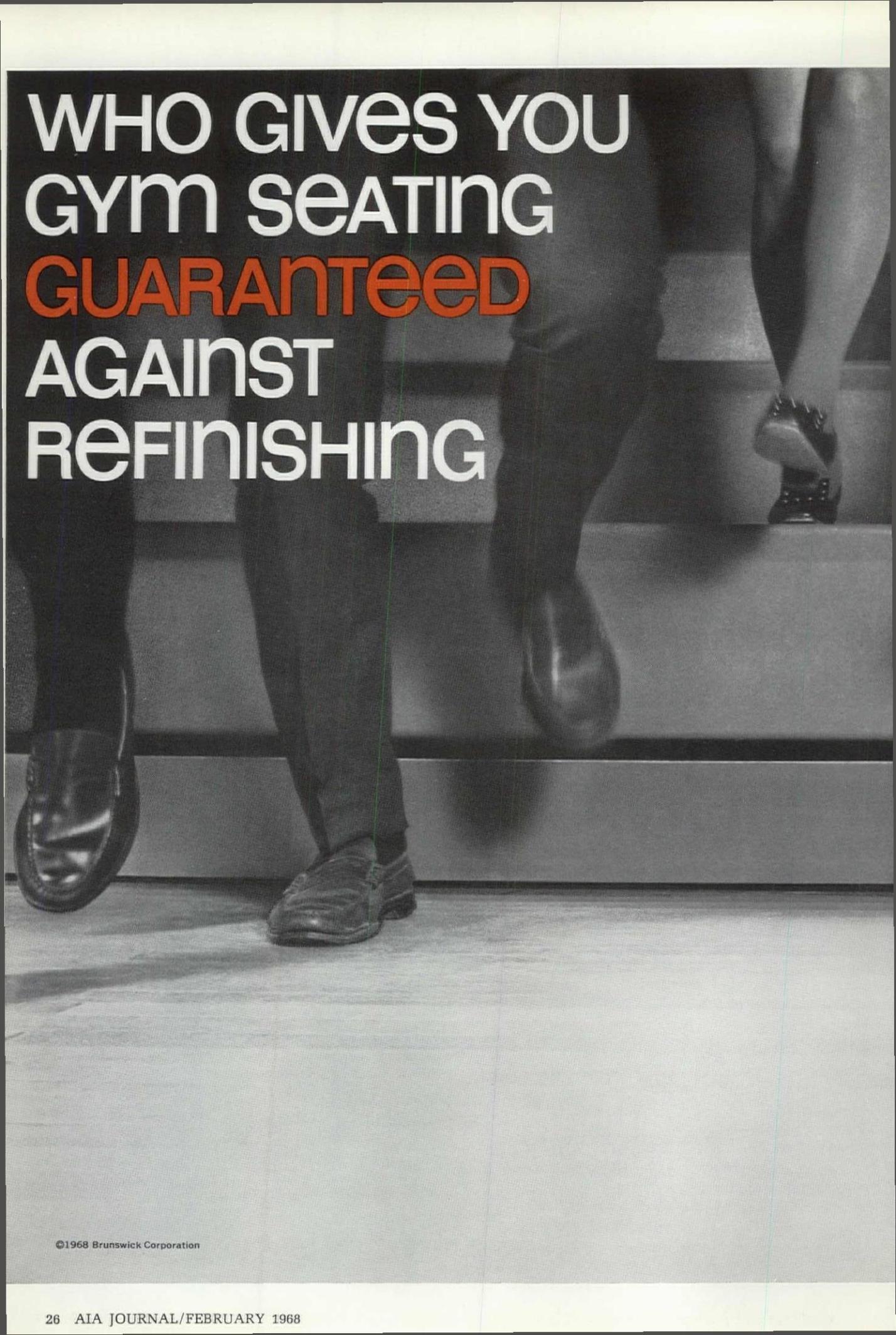
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Medical Facilities Topic Of Nationwide Seminars

A nationwide, year-long series of medical facilities seminars under the auspices of the Producers' Council has begun and until next December will continue its itinerary through 50 American cities where PC chapters are located.

The series is expected to draw approximately 10,000 architects, engineers and other personnel related to medical facilities. Its objective: to provide a forum for the

exchange of ideas and data among various groups involved in the planning, design and construction of hospitals as well as medical facilities of all types.

The one-day sessions open with a keynote speaker, an authority in the medical facilities field. Immediately following is open discussion between the audience and a panel consisting of the main speaker, an architect, an engineer, a hospital administrator and a hospital engineer.

An exposition with 18 companies and organizations participating and a film are featured.

Air/Urban Connection Topic at Conference

The relationship of air travel to urban transportation will be one of the new topics to be discussed at the third International Conference on Urban Transportation to be held March 11-12 in Pittsburgh.

More than 1,000 leading authorities on urban transportation are expected to attend the conference, which in two years has established itself, in the words of its chairman Thomas P. Jones, as "probably the most important meeting ground in the world for exchanging ideas on the transportation problems in our cities."

The program will emphasize various solutions to urban transit problems, including sessions which will analyze systems from a number of large cities in the US and abroad. Also featured is the presentation of the annual Urban Transportation Award.

GRA Conference in Miami To Premiate Designs

Architects are invited to submit projects for an exhibition "Creativity Is the Real Tradition," to be shown at the National Conference on Religious Architecture in Miami, April 27-May 3.

Sponsored by the Guild for Religious Architecture, the sessions will examine exhibited projects in light of how they meet, imaginatively and realistically, the religious needs of the age.

Submissions must be sent by March 15 to Kenneth Treister, AIA, Architectural Awards Chairman, 3139 Commodore Plaza, Coconut Grove, Fla. 33133.

A top award and merit citations, totaling no more than 10, will be made by a jury that includes Joseph Amisano, FAIA, of Atlanta and Victor Christ-Janer, AIA, of New Canaan, Conn.

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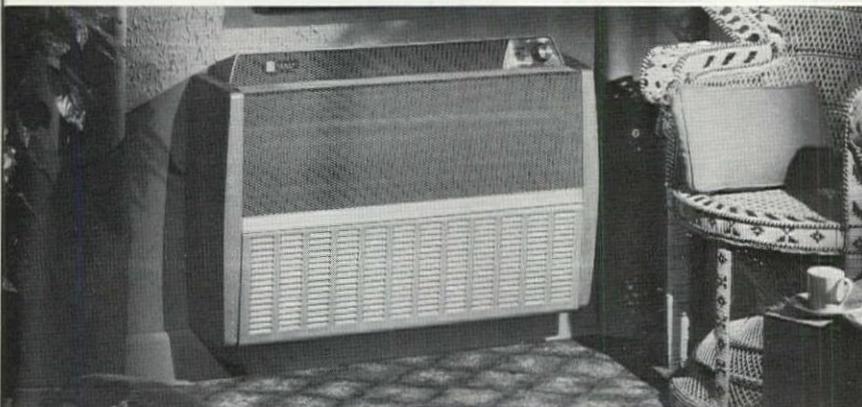
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S See Sweet's Architectural Catalog File, Section 29a/Te Temco, Inc. Dept. AIA-2, Nashville, Tenn. 37202

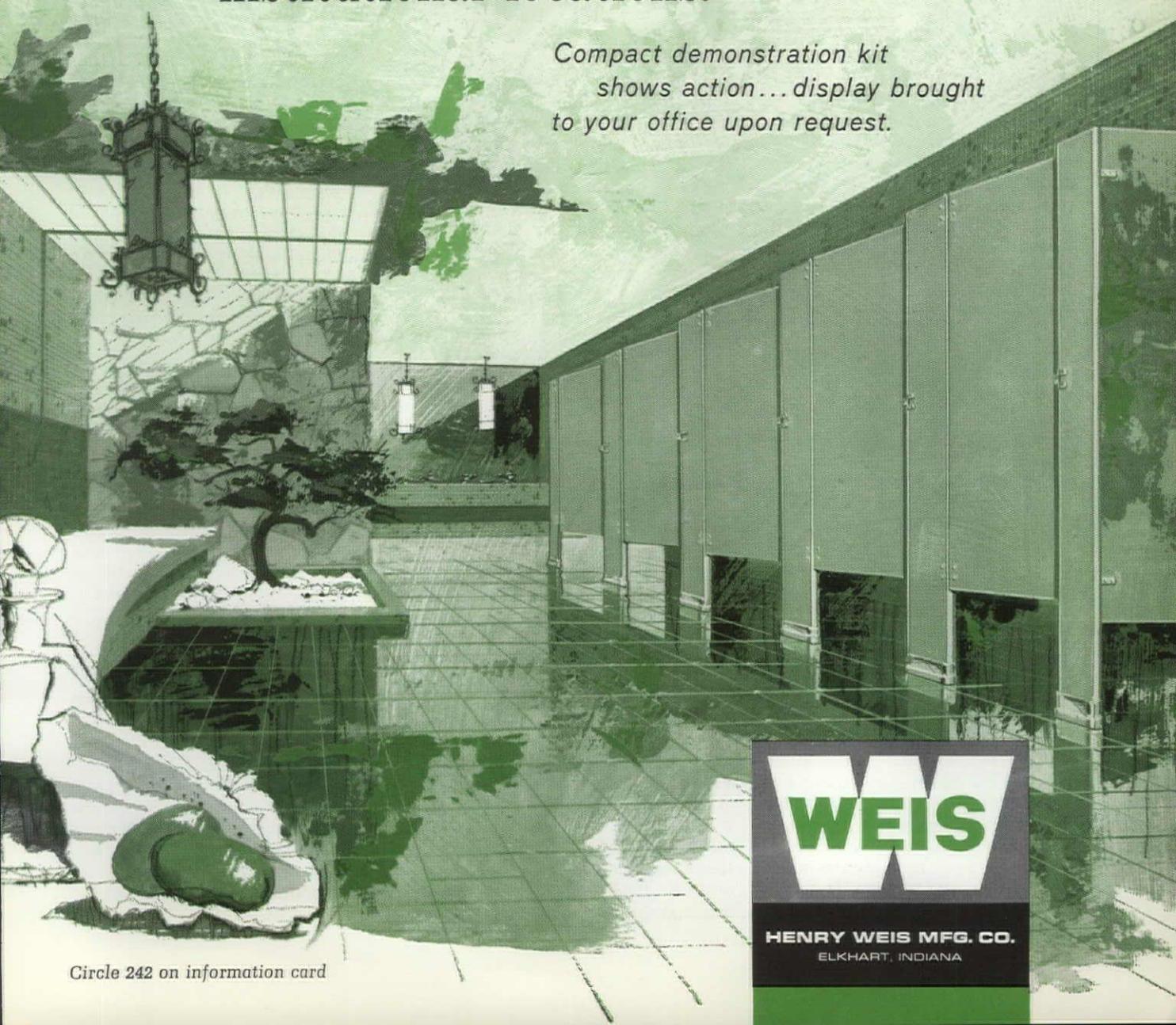
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UNFINISHED BUSINESS

BY ROBERT L. DURHAM, FAIA
Institute President

Let's Take the Cork out of the Bottle

At the three Grassroots meetings last month, I discussed with the state and chapter officers present one of the most important issues that will come up at the Institute's 1968 convention. Through this page of the AIA JOURNAL I hope to place it before the membership for sober, deliberate consideration.

The issue that the Portland convention must decide involves no less than the future of the architectural profession and the AIA. Specifically, your Board of Directors proposes an increase in regular dues beginning in 1969. When the board met in early December, the Council of Commissioners (made up of six board members) told the directors that there was a pent-up demand for Institute services from the profession, and that if this demand is not satisfied soon, architects will miss an opportunity to serve both their communities and themselves. It is time, Council Chairman Robert F. Hastings, FAIA, said, for us to remove the cork from the bottle and let some of this pent-up demand loose.

Your directors agreed and recognized that it would be impossible to undertake any significant portion of the new continuing activities without an increase in the AIA's income.

Supplemental dues, it is true, have been increased for 1968, but revenue from this source is used to support projects or experimental programs that are scheduled for *short-term*, specific accomplishment. The AIA's only means of paying for *continuing activities* is through revenue from *regular dues*. (I have asked the executive director to report to you next month in this same space, and to amplify on the same subject in April, on the kinds

of things our income is being allocated toward.)

Most architects know that the profession must greatly increase its capabilities if it is to be a vital force in the urban development that will take place in the next two or three decades. They know that the practice of architecture in our day is rapidly changing.

The AIA exists to help the profession meet its responsibilities—to discern change and attempt to guide it. Within the Institute, your directors are charged with defining the problems that the AIA must be concerned with, describing what we must do about them, how we must do it and how much it will cost.

The five commission chairmen and the Public Relations Committee chairman made full reports on the needs and potentialities of each of their respective fields. They did an amazingly creative job of presenting a picture of the new demands being made on architects and of the things the AIA must do to help its members meet these demands. Here are a few highlights.

In the field of public affairs, for example, Commission Chairman David N. Yerkes, FAIA, points out that in government great changes are taking place to which the profession must respond. The AIA must deal with the government as client, as overseer or regulator and as financier. In all three aspects, the federal government in recent years has completely changed the scope of our concern. Our legislative concerns are far broader and more important than ever before; the federal government is becoming a prime activator in the area of urban development.

The AIA must keep pace with these governmental changes. Our Government Relations and Urban Design Committees and staff are excellent but overburdened. They must be increased, and their ability to undertake new and expanded activities must be augmented. This will cost the Institute about \$35,000 a year in government relations, and it will require between \$70,000 and \$100,000 a year for continuing programs in the urban design field, according to Jules Gregory, chairman of the Commission on Architectural Design.

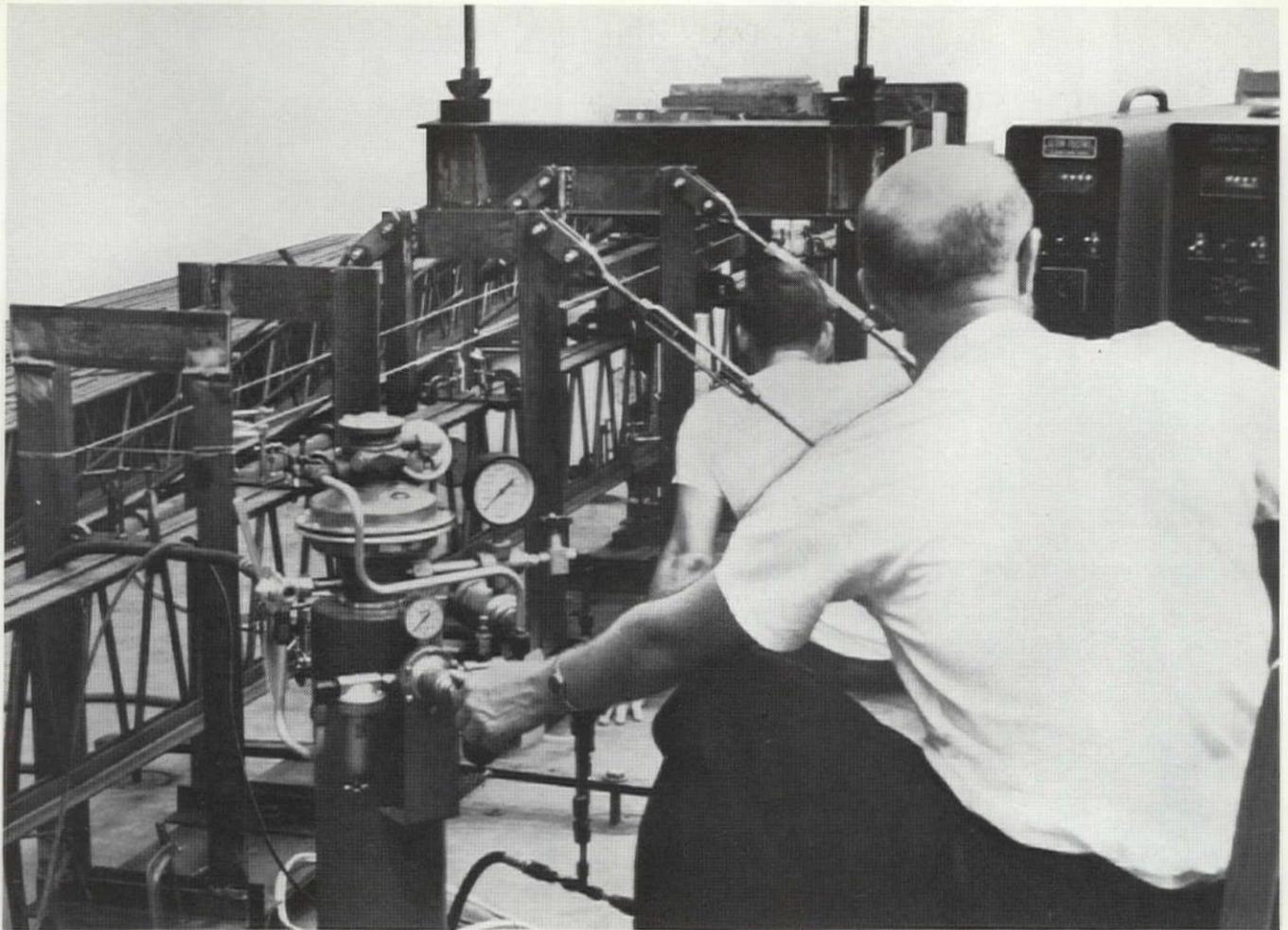
In education and research, Commission Chairman H. Samuel Krusé, FAIA, said that the AIA's own initiatives are resulting in great changes. The "Princeton Report" which we sponsored bears revolutionary implications for the future capabilities of the profession.

There is also a need for "continuing education" programs for practicing architects, and for training programs for architectural technicians. It will require an additional \$100,000 a year for the Institute to "seed" numerous education and research activities which promise to return the profession's investment many times over.

The decline in profitability of architectural practice and the potential efficiency of emerging techniques of practice have been defined. The Commission on Professional Practice, according to its chairman, Bernard Rothschild, FAIA, must answer this critical situation by providing many more aids to members in administrative and production office practice.

This year AIA public relations was reorganized as a policy-making

Continued on page 78



“Fact Finding Sessions” Investigate Behavior of Open Web Steel Joists

This is the engineering-research laboratory at the University of Kansas. In process is a study on the behavior of the compression chords in variously designed open web steel joists under concentrated and uniform loading.

The Steel Joist Institute sponsors “fact finding sessions” like this in a number of university laboratories throughout the country. New ideas in joist materials and design, such as high-strength steels and the various methods of bridging, are checked out thoroughly before governing design criteria are established for steel joist standards. Manu-

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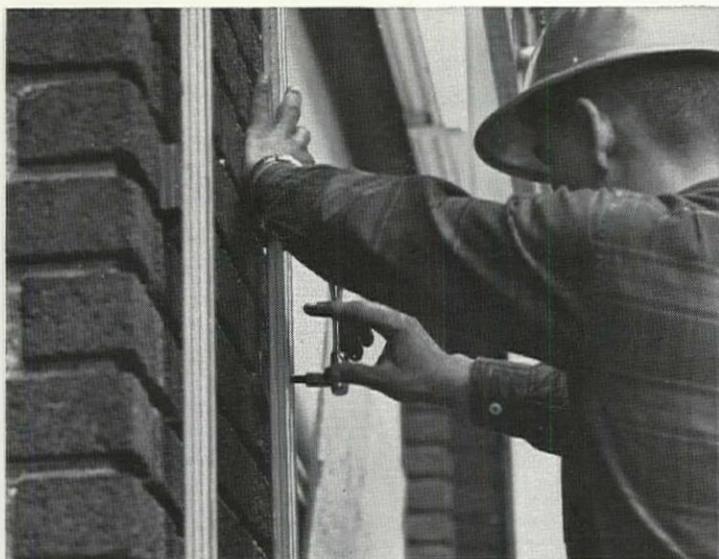
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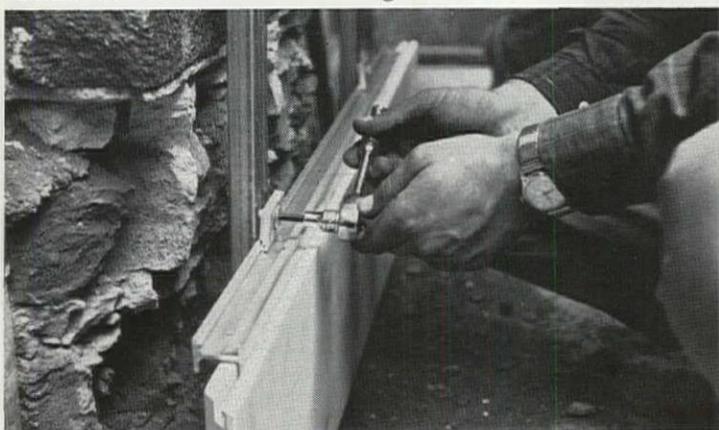
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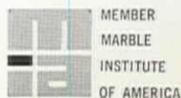
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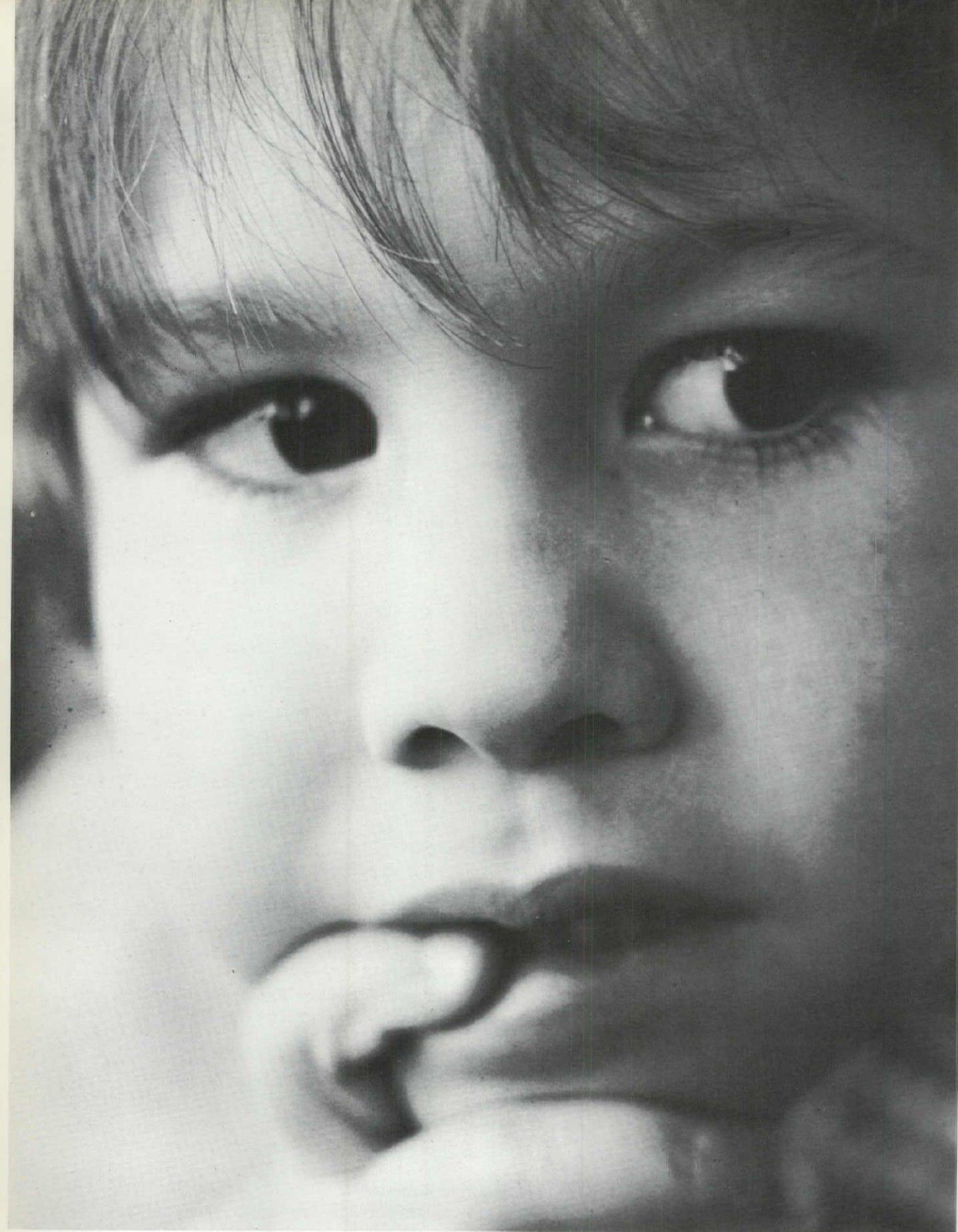
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Decision Maker 1985	34
An account of efforts at national and local levels to raise the visual literacy of America	
Iowa Landmarks	45
An architect turns artist to promote preservation	
To Recheck the American Dream	49
Designers and behaviorists join forces and approach environmental problems in a new way	
Idle Thoughts on a Florentine Excursion	58
An architect turns poet just for the fun of it	
Who Is the Urban Design Client?	59
The new breed among our public officials	
The Triad Theory: One Approach	62
Scaling the form/function/economy equilibrium	
Testing the Rainbow	70
Color evaluation made simple and accurate	
Fees and the GAO	74
The issue and where it stands at present	
A Solid Base for Chicago School	76
Glessner House—a monument to architecture	



DECISION

"It is senseless to try to cope anew with every generation of community leaders who reach maturity and positions of influence in an esthetically illiterate condition."

FROM A REPORT BY THE AIA TASK FORCE ON PRIMARY AND SECONDARY EDUCATION



building that works hard and says something worthy is no mere building; it is architecture. What it says can engage, ennoble, regenerate, console, surprise, thrill, fulfill, charm, disarm, assure or reassure. But what it has to say is transmitted rather than spoken, and this is a deserved distinction because it poignantly suggests, if communication is to occur, the necessity of a receiving apparatus. The senses form that means of reception.

All of the senses must be marshaled; sight just happens to be the most crucial. Indeed, William B. Tabler, FAIA, has said that "the best way to understand architecture is to look at it."

Looking. Seeing. Visually perceiving. For us Americans the question is: Can we? We are, at the moment, impoverished perceivers. This is the opinion of Arthur Rigolo, FAIA, chairman of the AIA Task Force on Elementary and Secondary Education. Even among the highly educated and highly placed, Rigolo finds all too frequently "this peculiar form of ignorance."

Rigolo and his task force and a number of AIA chapters and concerned educators across the nation have as their mission the uplifting of a people's ability to perceive and, in so doing, to receive the benefits of architectural communication.

In approach, their efforts vary. A project of the Northern California Chapter involves kindergarten through grade 6 and is social studies-oriented, while the Philadelphia Chapter's program is directed toward grades 7 through 12 and is art curriculum-oriented.

But all projects share the long view—all are directed toward the young, the inheritors of the countless environmental decisions facing this democratic nation over the decades of hurried building and rebuilding said to lie just ahead.

These oncoming decision makers (and they will make decisions even as ordinary citizens) must by some means be made aware of their environment, it is commonly contended.

Why? When so much in our environment is repelling to anyone owning, or more appropriately in our time, owned by, a modest measure of sensitivity, why not choose obliviousness over awareness?

One countering argument begins with the "public" nature of architecture. If someone wants to hang a bad picture on his wall, the contention goes, that's his business. But if he wants to hang a bad building out on the public street, that's another matter. The paraded artifact, in a formidable sense, is the business of everyone exposed to it; thus its creators must be "aware."

It is a winsome argument on first blush in spite of smug and meddlesome overtones. But it fails badly as implications of unworkability gather. No matter: It misses the crucial point.

The crucial point is that the architecture of buildings, towns and cities is not something to be policed but something to be delighted in, indeed to be celebrated. Perceiving and then "receiving"—looking and then "reading"—architecture makes life far the more worth living, and if this is not the overriding issue *then our culture has to be treacherously grim*. Environmental obli-

ousness might well, in our time, be the rational, balance-sheet choice, but can such a choice really be made so long as human life distills to occasional moments of joy?

The moments of joy the AIA task force hopes to seed are conceived in a sentient and not simply visual framework. Minutes of its first meeting reveal that the task force regards as its area of concern "man's built environment beyond just the esthetic and visual aspect. . . . We must aim at the improvement of man's environment, not just an appreciation of what architects do."

The minutes further suggest that it is possible "to describe and identify problems and formulate approaches to problem solving in such a way as to evoke interest in students and teachers alike . . . (and) that there should be no attempt to codify standards of 'good' and 'bad' but rather to approach the task from a problem-solution point of view."

Educators are sympathetic, interested and willing to help test ideas in environmental education, the task force has found. Interest within the educational community, to be sure, is the least of problems.

As a matter of fact, a rising level of environmental interest must be attributed to the community in general if popular press attention to the subject can be regarded as a faithful barometer. At the same time, misgivings are being felt as to the relevance of art education as traditionally presented.

How, for example, has conventional art education aided in making a value judgment on a proposal to redevelop the east end of one's town, or on the esthetic and environmental principles guiding that redevelopment?

On the other hand, are a different kind of education in art and an enriched kind of education in social studies viable routes toward the objectives of visual literacy and environmental awareness?

Frederick L. Langhorst, AIA, in an article dealing with this subject, asserted that design ideas can be imparted to even primary school youngsters. Explained Langhorst:

"From giving orientation lectures to beginning architectural students, I discovered some interesting possibilities for developing interest in design. These students at this point in their education are not very different from those slightly younger who are still in high school. What can be made interesting to them can be made interesting to this other, much more numerous group.

"Think what it could mean if everyone in his public schooling were to receive, in his social studies course, for example, some fundamental insights for seeing the reasons things get designed the way they do. Think how much more these young people would see and how much more satisfaction there would be in their lives from the increased understanding they could possess.

"The sharpening of viewpoints can even reach into the earlier years of primary school. A few years ago I had occasion to have four sessions with fourth, fifth and sixth graders in one of San Francisco's summer schools. I used the somewhat abbreviated outline from the college course and to everyone's delight, the children grasped the ideas very readily.

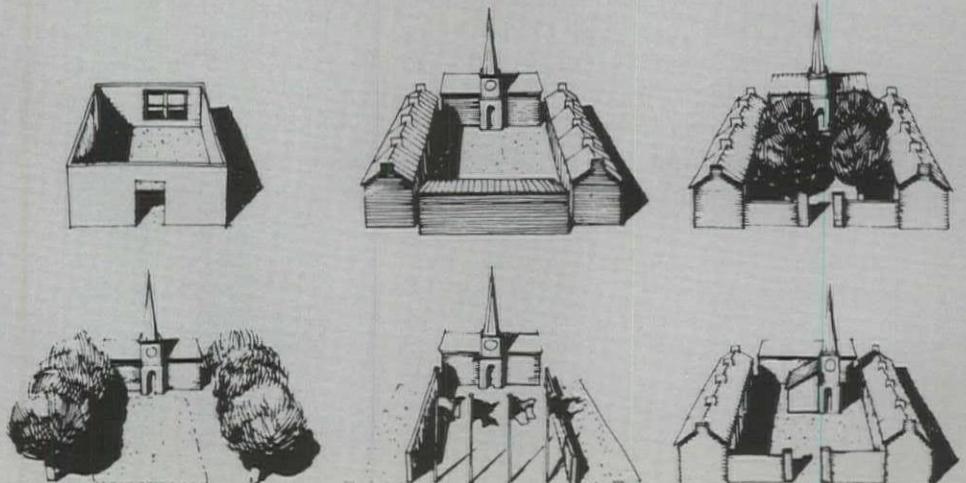
"One thing is certain, teaching in this field is possible on a very broad scale."

Many architects who have ventured into classrooms would agree, for they have regularly encountered there a high enthusiasm and genuinely deep interest in the "how" and "why" of what man builds.

There is, then, by all available indications, an encouraging level of interest within education, the community and the pupils themselves.

The harnessing of this interest—shaping environmental education—is not an easy design

Philadelphia classroom experiments— From left, relationship between an indoor and an outdoor space, an indoor and an outdoor "room." Next, experiment in the importance of position in abstract and environmental design. The black figures and the large square with opening are supplied the pupil and he is asked to compose a design. Then the black figures are made to symbolize something—furniture, perhaps, with the large square representing a room, or building types with the square seen as an urban area, and the pupil is asked to redesign with the newly introduced functional requirements in mind. At far right, a foldup experiment in making an outdoor space and observing it in model form. The model, by the way, is of the Carl Wackley Houses, designed by Oskar Stonorov, FAIA, in the mid-30s.



problem, however. The job, said the task force in a year-end report to the AIA Board of Directors, "is enormous and complex in nature and will not be accomplished by a crash program or surface treatment. There is a lack of criteria in this field. Knowledge is sparse and disorganized. There is general agreement as to the need but no knowledge on how to satisfy it. The whole subject needs research and development of the kind which is long-term, expert—and expensive."

Thus the current status of the art of environmental education assumes a split-axle configuration, with one wheel spinning along in an area of the responsibly doable, the other beginning to grind into an area of the unknown, to dig out the kind of information on which future programs can be based.

The task force sees among its functions the keeping of an alert watch for available federal and foundation funds, the development of guidelines for chapter use and the maintenance of liaison with educational groups. "Monitoring" is also key to its mission. This entails an awareness of research and experimental efforts that could have direct or indirect relevance to architecture's goals in primary and secondary education.

There are, for example, 20 educational laboratories scattered across the nation, all of them probing for ways to sharpen and enrich given areas of education. Their work is coordinated and funded by the Office of Education, Department of Health, Education and Welfare, under the Elementary and Secondary Education Act of 1965.

These laboratories carry enchanting names like CAREL, SWREL and CEMREL. What some of them are up to is even more engaging in terms of the primary/secondary educational objectives of the Institute and its components. CEMREL [Central Midwestern Regional Educational Laboratory], for example, has requested from the Office of Education several million dollars for a long-

term, in-depth program of research and curriculum development for esthetic education. The project, to be carried out at Ohio State University, would not be fully completed—it's long-range, remember—until 1973.

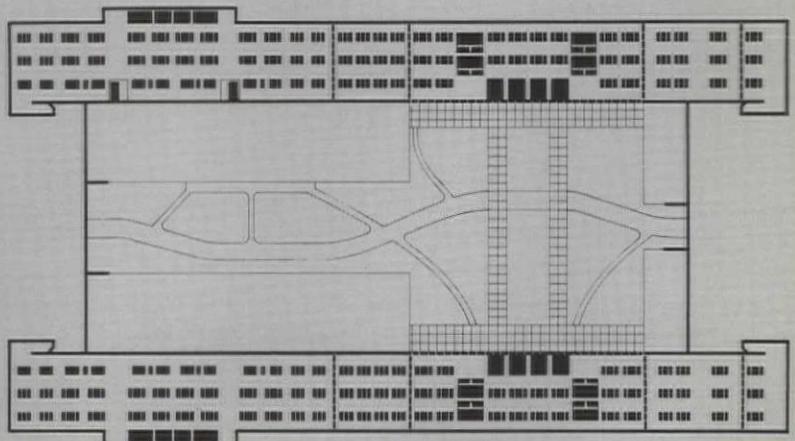
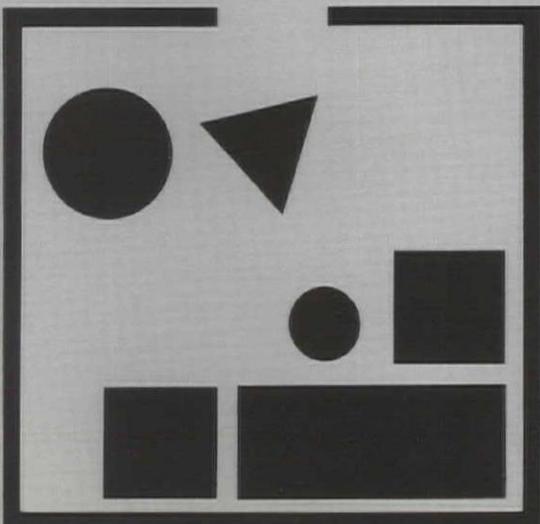
These laboratories concentrate on what might be called applied research. There is also another dozen or so that do pure educational research. "As you know," one research project director said, "there is tremendous excitement and energy in education."

The task force, then, in addition to working in a subject area that is hardly unfettered by the complex and the unknown, has to relate its efforts to a field characterized by restless dynamics and strenuous competition for the pupil's time. A fair understanding of what is going on in education is in itself demanding.

The task force feels it should be achieving more, nonetheless. In its report to the board—on its infant year of existence—it admitted to a feeling of "deep frustration because of the urgency of the matter on the one hand and the difficulty in getting off to a fast start and reasonably quick results on the other."

But the enormity of the problem the task force faces is so great as to dictate short doable steps while painstakingly planning for greater strides—the split axle configuration.

Interestingly, even some of the short doable steps are tentative and experimental in nature. The program of the Northern California Chapter is one such example. It was cautiously developed and it is expected to bear every mark of success.



But a chapter source warned against construing the program as a "model" one. "We think it is model but we regard it as a pilot project until it has been tried and tested. If it is emulated it should be with this in mind." (Reports on the projects of the Northern California and Philadelphia Chapters follow this overview article.)

A studied, measured approach, though handicapped by scant few dramatic results initially, is far more likely to be productive in the long run and far less likely to be misinterpreted by educators as self-serving salesmanship. Moreover, such an approach is commensurate with the long-range nature of the effort; filmstrips, brochures and the like might, to their credit, plant occasional seeds, but environmental and esthetic germination requires sustained follow-through.

If it is true that it takes the average architect years to develop an esthetic grasp, then no snap course can have meaningful influence on the school child.

However the field of education chooses to impart design (problem-solving) approaches, considerations and philosophies after the necessary experimental, testing and shakedown periods, it must come up with a meaningful program. It cannot fail if this country is to win the environmental richness it deserves.

"Where education fails," Rigolo has said, "democracy fails. Everyone has a hand in creating the environment. The environmental designer . . . does not have full authority to create the environment. The building client, the taxpayer, the public official and public opinion in general all have a bearing on the end result. The nonprofessional group is considerable. It is also not prepared to use this force wisely."

Such is the way things are. Today we encounter such slices of life as this (which may or may not be typical): A school board member, after considerable discussion of a new high school for which his district was going to seek bids, was asked about the board's evaluation of the building's esthetic merits. "The what?" he responded, appearing to be amused.

The esthetics? "Oh, nothing was said about that." Then, after a pause: "Now wait a minute, yes there was. A picture—a rendering?—was set up on a tripod. It had some nice colors and so forth and the fellows on the board thought it was really very nice."

Here was a member of a public body willing to insert in his community an important building without even stopping to ask what kind of contribution it might make to the visual environment. And none of his colleagues on the board was equipped, at least as he told the story, to make up for his deficiency. They, in fact, could perform no better!



Richard C. Hein, AIA, enjoys his model conversation with second graders at the Bahia Vista School in San Rafael. Below, a girl deeply immersed in her thoughts works in modeling clay to create a plastic form.



But the future *could* be different. Suppose by 1985 there was a significant body of Americans empathetic toward and even interested in design. Consider what the climate for design might be. The national culture might even ascend to the point where industrial designers in Detroit and elsewhere could be freed from the misguided, if not perverse, findings of market research.

"Always," to quote Langhorst again, "the evidence of any culture is that which is produced." If you search for an honest, humane and beautiful culture in what Americans produce, you won't, on balance, find it.

The probabilities are that there are enough Americans to design honest, humane and beautiful things; what is anguishing is that there are not enough to create the market and climate necessary for designers to function as they could and should. It is highly doubtful that a single car turned out by Detroit over the past two decades could be considered remotely designworthy. It is equally doubtful that a designworthy car, were it produced, would make a fender dent in the mass market.

The AIA task force, though humble in its assignment, is unmistakably sure of one thing: If the American, as Rigolo put it, "could be taught to 'read' the environment as well as he can read a newspaper, and if he could be made sensitive to what he saw, then, surely, he could become knowledgeable enough to demand, and he would then get, a better world."

The latter kind of reading ability will take some time to induce and it is for this reason that educational efforts in the primary grades are particularly noteworthy. These grades are considered by the Northern California Chapter to be the "more important—even if longer range—initial target."

The Northern California Chapter's efforts are aimed at "providing information, projects and experiences to make the child aware of his surroundings; of forms, colors, textures, light and shadow, of community, school and home, and the factors which influence their quality," according to the chapter's report. Although the program is to enrich and supplement social studies, it has the enthusiastic support of art teachers and of the school district's supervisor of art instruction.

In Baltimore, the art supervisor for the city schools, George F. Horn, inaugurated at the start of the school year a series of 16 environmental workshops for all interested teachers, not art instructors alone. The immediate purpose of the program, developed in cooperation with the Baltimore Chapter, "is to create a greater awareness of the visual aspects of the environment on the part of teachers who will then incorporate projects

into the art program that will focus the attention of the student on his environment."

Last month, less than 90 days after the start of the workshops, Horn was asked whether any results had filtered down to the children. "I can say that there has been feedback," he answered. "Even at this early date several teachers have reported field trips and classroom projects that have grown out of their experience in attending the workshop."

The Workshop Committee includes four Baltimore architects and two representatives of the city's Department of Education. "We are most optimistic about the outcome of this program which," said Horn, "not only deals with a timely facet of education, but represents an outstanding example of *school-community teamwork*."

Directly related to the workshop is a poster contest now underway throughout Baltimore. This is the first of two citywide programs aimed at the pupils but stemming from the workshops for the teachers.

Environmental education projects in a number of school systems evolved from a well-developed rapport between teachers and architects. While no inference should be drawn that such a rapport does not exist in Tacoma, the fact is that the program the Southwest Washington Chapter inspired in the schools there didn't exactly evolve from anything.

It was sparked; it was a reaction, a chapter report said, "to the constant self-pity within the profession, a self-pity over the lack of understanding by society of the architect's mission and goals."

Upper-echelon support was sought for a program designed for the third grade. The superintendent of schools was contacted and it was made clear that "we were not 'selling' our profession or creating a new subject but offering a very special aid in their existing program," according to the chapter report.

Here again, the effort was undertaken on a trial basis, "to see actually if there would be a value to all concerned."

Forty-minute "conversations" were set up with the third graders. The conversations were outlined—so much time for a compilation, with the pupils helping, of buildings they normally use, a discussion of the principles controlling shapes and characteristics of buildings, an exhibit of models and graphics and a question-and-answer period.

So successful were the structured presentations that they were filmed for the school district's closed television circuit, and school officials requested another conversation on "The Architect and Our Community."

Learned by the chapter in the first conversation, called "Meeting an Architect," were three

major lessons: 1) Graphics and models must show local buildings since identification is essential; 2) The question-and-answer period is most important because it is then that the youngsters "give the essential life to the conversation"; and 3) The architect must limit his vocabulary to third-grade minds, and this, it was found presented by far the greatest challenge.

In St. Louis, the AIA chapter neatly confined itself to a single project but one so designed as to have applicability to all 12 grades. The chapter developed a kit containing slides of historic St. Louis buildings but structured the text so that it can be adapted by teachers for any age level.

Among projects elsewhere in the nation are two more directed toward teachers. The Boston Architectural Center is developing Saturday morning classes for both primary and secondary teachers, and the New Jersey Society of Architects AIA will next summer hold a course for students and graduate students in the field of education.

The New Jersey architects made application for and received a \$3,500 grant for the summer program from the New Jersey State Council on the Arts. The society is also active with the New Jersey Art Education Association, particularly with its Curriculum Development Committee, hoping to have greater emphasis placed on environmental design in art education throughout the state.

Western High School in Washington, D. C., has an unusual, two-way program directed toward pupils interested in urban design on the one hand and pupils in general on the other.

Interestingly, it is a program that developed from pupil testing. Discovered were youngsters not known for achieving and yet possessing high abstract reasoning abilities and certain other attractive attributes. The education chairman of

What Is Ugly?

What is ugly? This is the theme for a poster project for Baltimore's junior and senior high school art students.

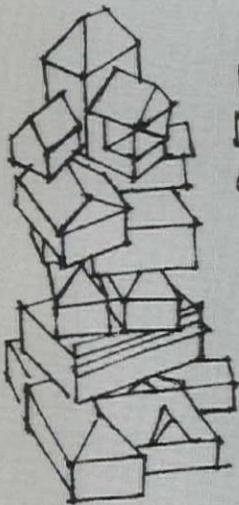
Says a background statement: "Baltimore, like other urban areas, is characterized by ugliness in much of its physical environment. Throughout history many cities have seemed to accept visual disorder as being an unavoidable part of urban living. Baltimore, however, is nationally known for its pioneering programs in the area of urban renewal. Today, many agencies, private and public, are actively engaged in improving the face of the city."

But to sustain the attack on ugliness it is first necessary to detect it, to spot the "factors or features that create ugliness and disorder," as a poster project description put it. What should the pupils look for?

Such things as "congested streets, deteriorated buildings, cluttered signs, trash, junkyards, examples of poor planning, pollution and bad design in general throughout the community."

the District of Columbia Congress of Parents and Teachers cast about for a subject area that would grip these youngsters. Urban design was chosen.

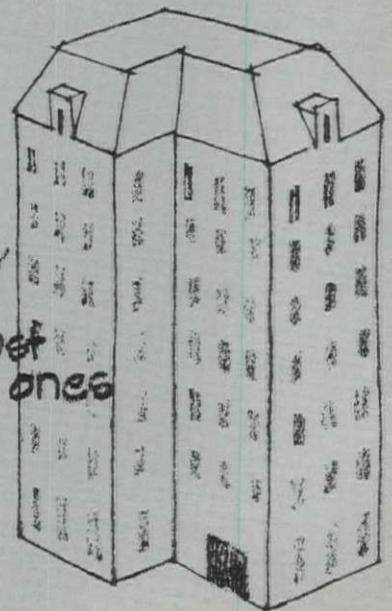
What has resulted is a "hard core" group of some 10 juniors and seniors, the study group. But



IT CAN ALSO BE DONE
BY STACKING OBJECTS
ON TOP OF EACH OTHER

of course you don't really
pile up short buildings
to make tall ones, you just
start out by making tall ones

but it's the same idea



Art from the book being prepared by Dr. June King McFee, noted art educator, with drawings, such as these, by architect Mike Pease of Boulder, Colorado. The project is being overseen by the AIA task force which has reviewed the first draft and will soon pass on a layout. Book is aimed at fourth graders.

many other pupils at the high school benefit from a lecture series—they attend on their teachers assessment of lecture subject relevance to what they are studying—that has brought some notable personages in the environmental and design fields.

The program is headed by Colden Florance, AIA. "Throughout," said Florance, "it is hoped to emphasize the function of urban design in welding diverse social, political and physical elements into an environment richly conducive to human growth, both individual and collective."

Other local projects might lack exactly parallel motives and objectives but do bear some of the fruit sought in the vineyards of the task force and its allies. The Toledo Chapter AIA conducts a design competition "to encourage young talent to become seriously interested in architecture as a career."

But the program happens to create a general interest in architecture, says James P. Zimmerman, design instructor at Libbey High School, adding: "I try to do this in class, but I feel this program probably does as much, or possibly more, than I can."

The New York Chapter AIA is participating in a program aimed at benefitting ghetto youngsters. It is one that combines classroom lectures and seminars with field trips to architects' offices and outstanding buildings in Manhattan. The "heart" of the program is "personal involvement with youth interested in training for the profession of architecture," but it is easy to imagine residue benefits for the youngster who decides on some other career.

T

he total effort in environmental education is three-way. It is so on both local and national levels.

Appealing to today's children, immediately and directly, is one way.

Addressing tomorrow's children through today's teachers is another. Reaching out to the children of all unfolding time through today's and tomorrow's experimentation is a third way.

Local efforts are three-way—some are directed toward children, others toward teachers, and all, in varying degrees, are inquiries whose findings will be shared with the future.

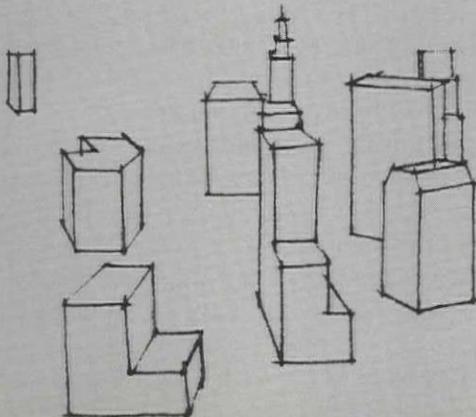
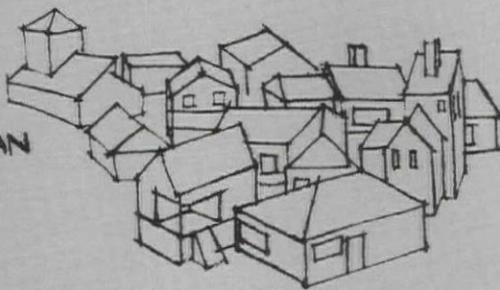
The three-way approach of the national task force is readily revealed by its two paramount projects. One is a book. It is aimed at *children*. The other is a national environmental conference now being planned. It will include *teachers*. It will conclude, its planners hope, with a proposal to the federal government to launch a far-reaching investigative study.

The book is being prepared by Dr. June King McFee, art educator, HEW consultant and director of the Institute for Community Art Studies at the University of Oregon. She is being assisted by a childhood education specialist, an architectural educator and two architects. Additionally, the task force is overseeing the project and has reviewed the first draft of the book. A suggested layout is to be examined soon.

The book too is experimental. Dr. McFee will initiate and supervise its testing in some 30 schools in various sections of the country.

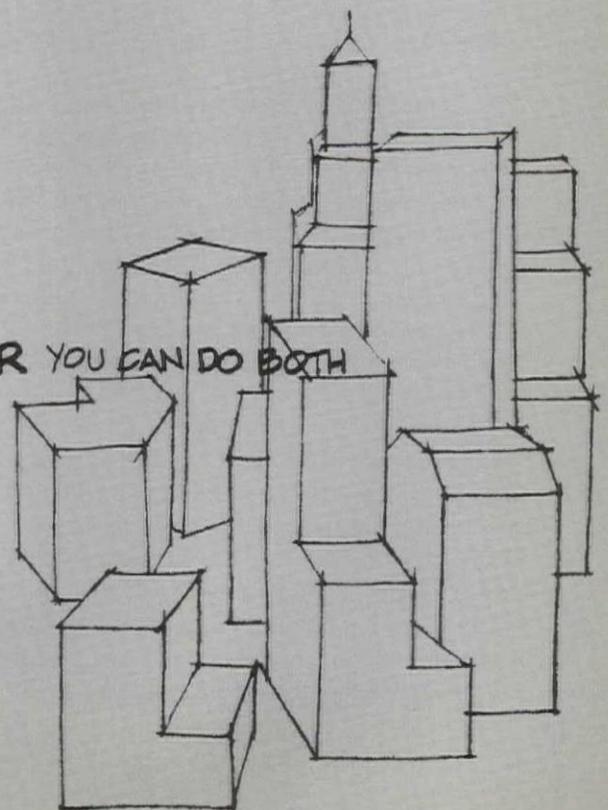
From the testing of "City Shapes" is expected to come, a description of the project points out,

O.K.
SO YOU CAN
MAKE
SPACES
SMALLER



OR YOU CAN MAKE BUILDINGS TALLER

OR YOU CAN DO BOTH



"new information, not only on the ideal form of a beginning workbook for elementary use but for the logical development of an appropriate curriculum in esthetic education for elementary students." The testing is included in a \$10,000 AIA appropriation toward the book.

The conference, to be held in Washington, D. C. in late winter or early spring, is to be interdisciplinary, involving architects, landscape architects, city planners, school system administrators, teachers, behavioral scientists and educational testing and research authorities, among others.

It is to be a working conference. Hopefully, the proposal to be submitted to the Office of Education, under its art and humanities program, will be a specific one. Hopefully, it will have far-reaching consequences.

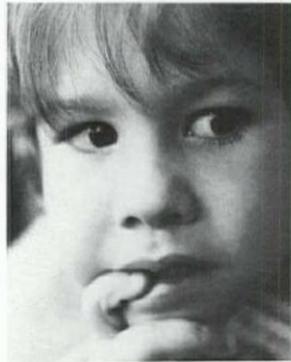
The proposal is expected to delineate the scope of the environmental education need and to state a methodology by which the problem can be

assaulted. It is also expected to recommend allocation of a sum of money to undertake a methodological case study. For the conference itself, the AIA allocation is \$5,800.

Another project the task force is setting in motion this month is the preparation of a bibliography at the University of Michigan. To be done under an AIA grant of \$2,500, the bibliography will include, besides books, available films and other teaching tools on the subject of the environment. It is to be completed by fall.

The social benefits of this work in environmental education will not be felt for some years to come, if indeed felt at all. But who knows? Maybe by 1985 the environmental and esthetic interest levels in America will be joyously higher.

Less useful but perhaps more intriguing is a bit of speculation that asks: What might the climate be today were these unselfish efforts in education launched 17 years ago?



Elementary/Secondary—Two Reports

. . . from Northern California

Architecture is an essential of the human environment, but in the one public school curriculum in which environmental factors are studied—social studies—there is little or nothing about architecture, and what little there is often is poorly presented or misrepresented. Yet social studies curricula offer an amazing number of opportunities for inclusion of material on architecture and the arts as the most important determinants of the quality of physical environment.

The Northern California Chapter's Public Education Committee has been preparing, for the past year, material on the environment for incorporation in the social studies curriculum of the State of California, and it will begin shortly to put this material to use in a pilot program at the Bahia Vista School in San Rafael. Initially, grades K through 6 will use the material; junior and high school curricula, now in preparation, will follow,

to be used in the same school district and in other nearby school areas.

Each committee member has had responsibility for a specific grade and has conferred with his faculty counterpart at Bahia Vista as to applicability and suitability of material. Each has prepared a program graded to the child's own sphere of interest and experience, and to the overall subject matter in social studies required for each grade by the state.

Since the state curriculum offers a wealth of opportunities for amplification and enhancement in the fields of the arts and the physical environment, the new material, provided by the committee, can be integrated into an existing course of study instead of requiring creation of a new course which would have to be wedged into an already crowded curriculum.

State boards do not, any more than teachers

themselves, look with favor on requests for new courses of study. What the committee is doing will enrich and vitalize a course which teachers are already teaching, and will help them to make it interesting and relevant in ways heretofore not possible for lack of easily assimilable material and workable method. But the Northern California program has the further advantage of providing a pattern which trained educators have established; since we are not educators, such a framework is important both for the work of the committee and for the acceptability of the material by teachers.

What the committee wants to accomplish is to make the child aware of his surroundings; of light, color, texture, forms; of community, school and home; and of the factors which influence their quality, through information, projects and experiences so that he can gradually build up a background for forming his own judgments, simple at first, more complex as he grows in experience and knowledge.

To accomplish this, we have assembled for each grade visual material (slides and books) for teacher and student; projects devised to give children direct experiences with design and planning; and field trips for study of both man-made and natural environments and of the processes which affect the environment.

We are exploring the use of easily connectable panels of lightweight material which children can put together to form a variety of spatial experiences: long, low space; narrow, high space; cubic space; spherical space; domed space, etc., so as to experience, in something akin to their own scale, not only the form itself but the progression of spaces and their relationship.

We were fortunate to have the interest and assistance from the start of Bruce Pinegar, supervisor of art curricula for the San Rafael school district, and to incorporate in our program his method of art instruction, using workshop-trained volunteer instructors to present the special material, with the classroom teacher continuing and implementing the program. Committee members will instruct the volunteers in workshops.

The program has a special validity for implementation because it is a simple program and it lends itself to local adaptation, leaning on local resources for its projects and direct experiences. While what we prepare in the way of written material may in time become teacher manuals, these will remain, we intend, background and guidance material rather than ends in themselves. The dynamic quality of enrichment with visual tools and actual experience is a necessary part of a curriculum in environmental awareness.

Other communities in the San Francisco Bay Area have requested the opportunity of using the

material, and after we have tested it in San Rafael and refined it on the basis of that feedback, we hope to increase the range of use so as to gain further insight into ways and means of producing a generation of environmentally aware citizens, eager to improve the environment and informed as to how to go about making it better.

. . . from Philadelphia

This is a program in both architecture and the man-made environment designed to become a part of the art program for the upper six grades of the Philadelphia school system.

Its aim is to provide the student with an increased awareness of his everyday environmental experience, an increased sense of civic responsibility through awareness of the part he can play in forming his physical environment, and aspiration through an awareness of the possibilities of responsible development.

This program is not conceived as training for a profession or skill, nor simple appreciation of the historical movements in architecture; rather, it is preparation for the common experiences and responsibilities of citizen-client inherent in the continuing development of our urban environment.

It approaches architecture and the built environment as a series of reasoned solutions to simple problems with which the pupil can directly associate.

There are to be five basic units. The first four will be directed at the intermediate schools. They will be a progression from basic introductory material through three levels of environmental scale: building spaces, building groups, and neighborhood and city. The fifth unit directed at the elective art program of the senior high schools will be designed to stand alone. It would develop the basic concepts covered in the first four units but in greater detail and complexity, enabling a more sophisticated development of selected exercises.

The material being developed to support this program is a series of exercise books—one for each of the first four teaching units—which, through individual discovery, would enable the student and the teacher to proceed to imaginative and timely classroom work suited to each individual classroom.

The exercises would provide an introduction to required communication skills, illustrations of demonstrable concepts through simple fold-up models, opportunities for discovery and increased awareness through subjective exercises, all supplemented by familiar photographs and illustrations and concisely written text.

The books are conceived as supporting mate-

Serving on the AIA Task Force on Elementary and Secondary Education along with Arthur Rigolo, FAIA, the chairman, are Edwin B. Cromwell, Little Rock, Arkansas, and Mrs. Elisabeth K. Thompson, Berkeley, California.

Corresponding members are Donlyn Lyndon, Cambridge, Massachusetts; Gordon N. Johnston, Tacoma, Washington; James T. Lendrum, Gainesville, Florida; and Derald M. West, Lake Geneva, Wisconsin.

The report of the Northern California Chapter's project was prepared by Mrs. Thompson. The report of the Philadelphia Chapter's project was prepared by Alan Levy, a former task force member.

The quotes of Frederick L. Langhorst, AIA, also of Berkeley, were taken from an article prepared by him and entitled "Crisis in Visual Education." It was published by "Image/4/Magazine," created by students of the School of Architecture, University of Texas, 1966.

The general article reporting on work of the task force and activities of AIA chapters and other groups in environmental and esthetic education was prepared by Neil E. Gallagher, associate editor.

rial for creative teaching and not as an end in themselves. The ways in which this material would actually be used, and the kind of changes which would improve its effectiveness, will hopefully develop out of a trial test program scheduled for the spring of 1968 in actual classroom situations. This will involve prior assistance and coordination with a committee of selected teachers.

The final format and context of this material will grow from this trial hopefully leading to final publication by late 1968 or early 1969.

Perhaps of greater interest to those outside Philadelphia is the way in which this opportunity for an initial thrust in this untried area developed and the support it has engendered.

To understand this properly, it is necessary to look back at the climate of cooperation which has existed between the art division of the Philadelphia schools and the planners and architects of the city.

This goes back to an exhibit held in 1950 through the cooperation of the art division, the city planning commission and local architects. Prominent in that effort were Jack Bookbinder, division head; Ed Bacon, planning commission director; and Oscar Stonorov, a Philadelphia architect.

This enthusiastically received exhibit led to other kinds of cooperation. Architects are regularly scheduled for school presentations, periodic exhibits of student projects have been discussed.

This naturally led to an invitation from the art division to the AIA chapter late in 1966 to assist in the preparation of the syllabus for secondary school art teachers, particularly aimed at including material on environmental design.

The ad hoc committee, after numerous discussions, presented an offer to develop a unified program on the man-made environment as a separate document and offered to share the cost in its development. The art division eagerly accepted the idea. What followed was the granting of \$7,500 from both the AIA chapter and the art division for a two-year program. A program was submitted to the Brunner Scholarship committee and a \$6,000 grant was approved in June of 1967. Another grant for the test publication for \$2,000 was received later from the Heinz Foundation of Pittsburgh, Pennsylvania.

The program has developed growing support and assistance and increasing cooperation from the art division.

This program has grown out of a dialogue between architects and teachers on a broad basis of cooperation. This study was not foreseen nor formally proposed during those many discussions, but the opportunity was always there and this was the key factor. □

IOWA LANDMARKS

Day by Day

Calendars are a dime a dozen, but there's one published in the Midwest that, architecturally, is worth writing home about.

For the ninth year in a row, the Home Federal Savings and Loan Association, which is located in downtown Des Moines, is featuring the sketches of a local architect, William J. Wagner, FAIA, in an attempt "to generate greater interest in the preservation of Iowa's remaining outposts



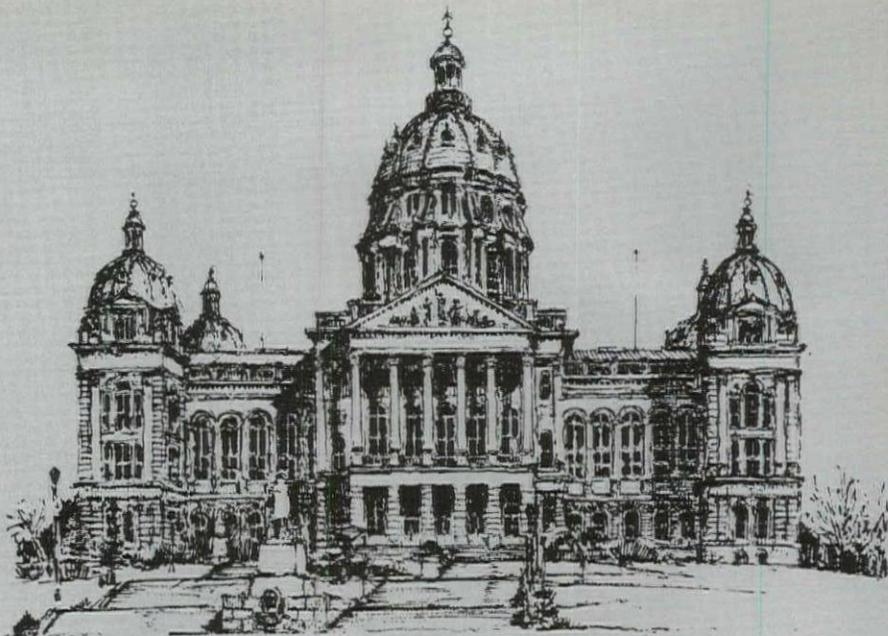
of history." Home Federal is housed in a building designed by Mies van der Rohe, FAIA, one of a half-dozen nationally

known architects whose work can be found in the state capital. Wagner's artistry is not limited to the calendar. A 200-page book, *Sixty Sketches of Iowa's Past & Present*, is just off the press. It includes a Louis Sullivan building—he has five in Iowa—Poweshiek County Bank, Grinnell.



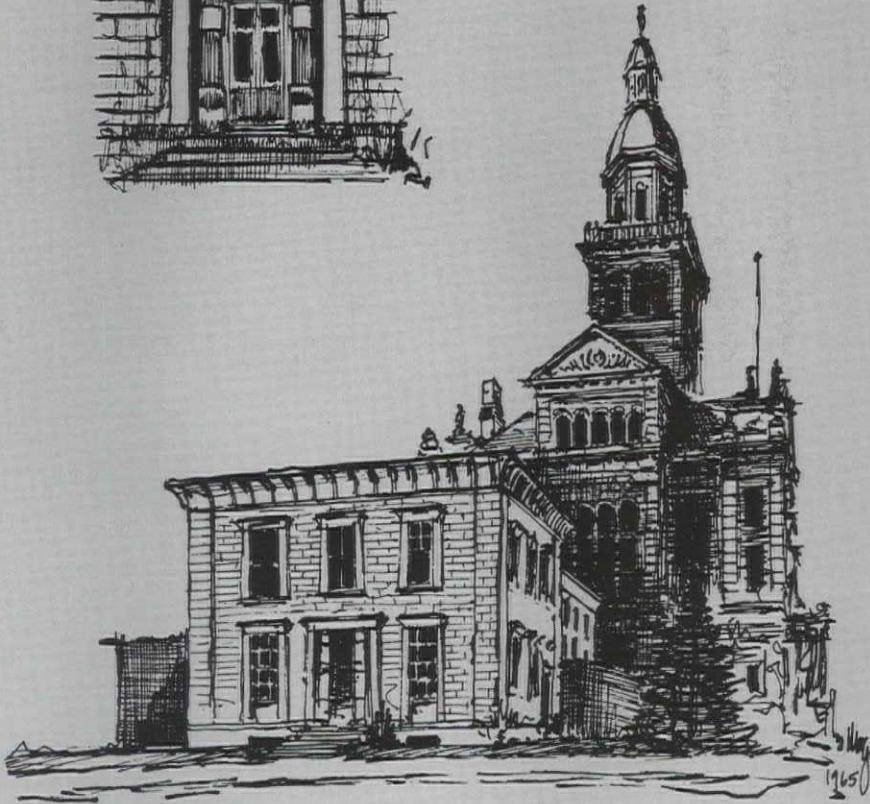
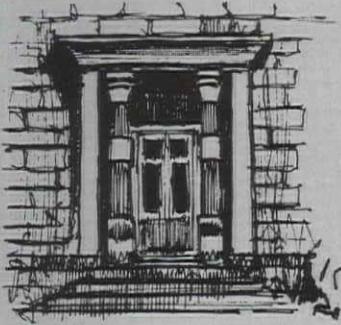
IOWA LANDMARKS

Some of the sketches found in the book, whose narrative for the most part is by Wagner himself, were originally reproduced on the calendars. The 1968 version, for example, features the State Capitol in Des Moines, the cornerstone being laid in 1871. Out of 14 plans submitted, the one prepared by Cochrane & Piquinard of Chicago was selected. The cost was supposed to be \$1.5 million, but a fire several years later resulted in extensive repair, bringing the total to \$3.33 million.



The Woodbury County Court House in Sioux City, which was first occupied in 1918, had a stormy history because of heated attacks on its so-called "radical innovations" in design. William L. Steele, a former draftsman in Sullivan's office, was the architect in association with the Chicago firm of Purcell & Elmslie.





Built in 1857, the Dubuque County Jail is the only remaining example of the Egyptian Revival style in the Midwest and one of the few in the entire country. The designer was John Francis Rague, whose credits include the old State Capitol in Iowa City.

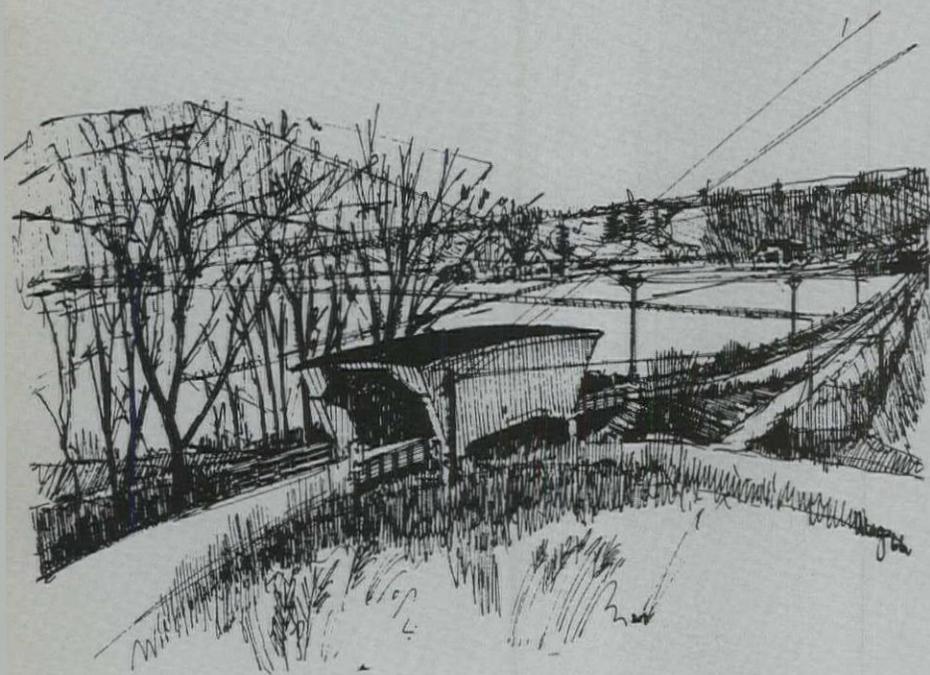
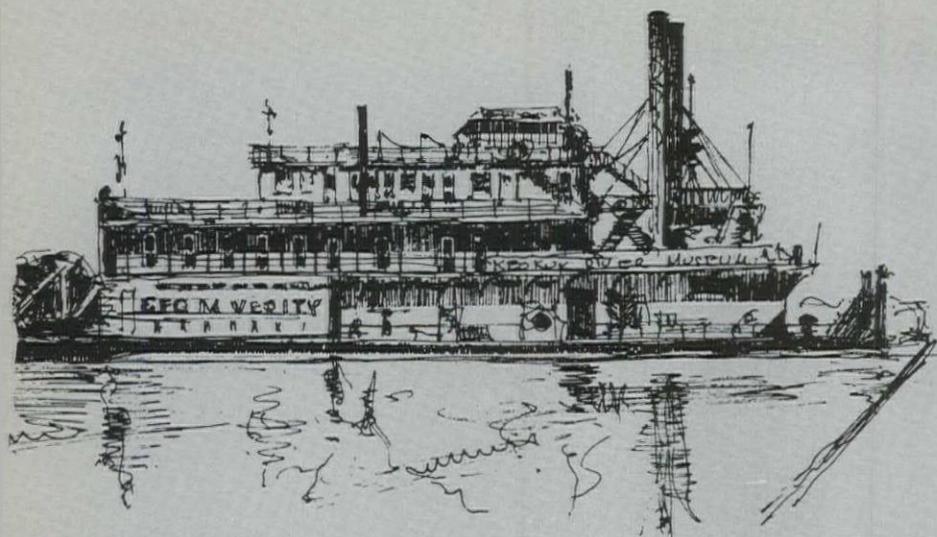


The Old Quaker Meeting House in West Branch (left), where Herbert Hoover worshipped, is the book's cover illustration.

Although it is still in good condition, Terrace Hill in Des Moines (right), a 20-room, mid-Victorian mansion, is silent except for the caretaker's steps. W. W. Boyington, who is best known for the Chicago Waterworks tower on N. Michigan Street, is believed to have been the architect.

IOWA LANDMARKS

The state's only riverboat museum—the Geo. M. Verity—is located in Keokuk, where it is operated by the Chamber of Commerce and the Lee County Historical Society. Constructed in 1927, she was a familiar sight on the Mississippi and later on the Ohio River until 1960 when its then owner, Armco Steel Corporation, offered her to the city.



The McBride Bridge is one of seven covered structures still standing in Madison County. Nestled between wooded hills, it was completed in 1871 to span the North River.



The Wiest (or Evergreen Roller) Mill at Fort Atkinson continues to be powered by two samson turbine water wheels except when low water necessitates a switch to electricity.

Yesterday's American dream is gone. Exploitation of our great human and natural resources has taken its unsettling toll.

We see at last that our homeland must respond to our needs.

The following two articles reflect the concern of The American Institute of Architects and its Committee on Urban Design for a totally inclusive process of design for an ailing America. The first deals with responsive environmental design; the second consists of a spontaneous dialogue focused on our need for responsive environmental decision making.

The commentary by David Miller stems from the first annual Conference on Socio-Physical Environment held in New York last May, which examined socio-physical design, a new field that combines the behavioral sciences and the design professions in an attempt to promote a more humane environment.

The dialogue which follows is excerpted from a major hearing on highways held before the Senate Public Works Committee in which the AIA participated as part of its continuing effort to seek wiser national goals and procedures for shaping the American environment. (The first formal Congressional gathering of such ideas was the subcommittee hearings before Senator Abraham Ribicoff on the urban crisis (AIA Journal, July '67). It was during the discussion on highways that Senator Edmund S. Muskie and John Fisher-Smith, AIA, happened into their inspired discourse on the need for more responsive American dreams for our time.

To Recheck the American Dream

BY DAVID C. MILLER

Architecture, like technology, has but a single purpose: to make the human environment more "responsive," to structure and equip space so as to maximize the options for everyone who makes use of that space at any given time. But how can it be determined whether and to what extent a particular environment actually does respond optimally to human needs? For that matter, can we inventory human environmental needs adequately, and can we in fact learn precisely how human beings respond to particular environments?

Environmental designers, behavioral scientists and humanists of all descriptions have always been more or less conscious of such questions and

The author: David C. Miller is director of Futures Studies at the Communication Service Corporation in San Francisco as well as being a member of a new growing, specialized group called "futurists."

issues, but these matters have for a long time—too long—remained in the background. Recently, they have begun to emerge as issues which must be dealt with.

Andrew F. Euston Jr., AIA, the Institute's director of Urban Design Programs, states the point this way:

"Our nation is rapidly amassing an accurate and compelling literature of alarm. The imagery of this literature is fantastic, but it is what one sees when one looks, being the very physical environment in which we Americans presently live out our lives. *God's Own Junkyard, The Other America, The Wasted Americans, The Silent Spring, Unsafe at Any Speed, Manchild in the Promised Land, Due to Circumstances Beyond Our Control*—the list grows. Meanwhile, we continue to build more of the imagery for more of this literature. A time has come for meaningful reform, recognizing, as our great writers do, the social consequences of the environment."

Technology is providing powerful new tools by means of which the environment can be bent to

our wills in countless ways. Behaviorists are for the first time able to begin dealing meaningfully with the complexities of environment/behavior interactions. Designers and behaviorists are beginning to knock on each others' doors.

But, points out Euston, "there are as yet few reasoned social policies to guide our massive investments in bricks and mortar," despite the fact that the Bureau of the Budget has instructed such federal departments as Housing and Urban Development; Transportation; Health, Education and Welfare; Labor; Commerce, and Interior to compile and structure their entire program of expenditures on a long-range basis.

Euston adds to that deficiency the great hazards of an "uncritical reliance upon the 'systems approach'—focused upon hardware to the exclusion of our deeper needs as human beings."

Why has it taken so long for designers and behaviorists to get together? And why has this new interest arisen on either side at this particular moment? Can these two broad fields interact to their mutual benefit and, if so, how? What can be said of the future of this field called "socio-physical design"?

This term, socio-physical design, was put forth by Euston in a recent paper prepared for presentation by the Institute before Senator Abraham Ribicoff's Senate Subcommittee on Executive Reorganization of the Government:

"In a letter addressed in March 1966 to Morris Ketchum, then AIA president, the state of the art of urban technology was described by William L. Hooper, Office of Science and Technology, Executive Office of the President. Dr. Hooper called for 'meaningful urban environment experimentation.' He pointed to a critical lack of 'solid proposals,' but added that 'once a program is underway, the possibility of doing something new and useful will tend to stimulate additional resources . . . (and) the interests of other people to come within the field.'

"Federal government," Euston continues, "has long delayed creation of the program called for by the President's adviser. More critical, however, is the fact that a flow of the 'other people' needed here is not being stimulated by any significant allocation of our national resources to this 'field.' One explanation for the lag perhaps lies in the circumstance that the field itself has had no name, which is why 'socio-physical design' is a term introduced here."

The need for socio-economic decision making, Euston states, is comparable to a similar need for socio-physical decision making—"decisions that combine the social sciences with the design processes that create our man-made environment. What this new term implies is a multidiscipline process—a process of teamwork for the building

of a humane environment truly suited to our humanity. Specifically, the need is to engage the work of the behavioral scientists with that of the environmental design professions."

While there certainly must be many reasons why designers and behaviorists have not previously joined forces, three factors are especially apparent. They are: the designer's client-centered discipline; the behaviorist's preoccupation with interpersonal behavior; and the distracting influences of deterministic thought.

The environmental designer has always found his wellsprings in the articulated needs of his clients. Clientele differs considerably from age to age—there must be a significant range between the demands of a pharaoh for a pyramid and the demands of IBM for a regional office. But at least one thread of continuity relates even such extremes as these: In most cases, the client arrives at the designer's door knowing that he requires a certain kind of facility and believing that he knows how he will use it. The designer's task is defined by both parties as that of helping the client frame a clearer, more complete expression of his requirements and then framing a physical design which is adequate to the requirements.

This fundamental designer-client relationship could explain why architects have been physically, rather than behaviorally, oriented. This is not to say that architects and others have failed to take into account as best they could the human requirements when planning their structures. But it may be that there has been no strong, constant pressure within the profession to think and speak in the abstractions of the behavioral sciences.

Which brings up the other side of the question. Why haven't the behaviorists been more concerned with environmental implications in their research? Again, the reasons undoubtedly are many and complex. One plausible speculation is offered by Robert Beck, New York University clinical psychologist and affiliate of the Regional Plan Association. Dr. Beck points out that Freud's pioneering work thoroughly dominated the perspectives of psycho-social scientists for many years and was, of course, centered on interpersonal relations, in contrast to personal/environmental relations.

Even when many behaviorists broke away from much of Freud's theory, the focus of their concern remained much as it had been. To date, no genius or school of research has emerged to give comparable emphasis to the personal/physical environmental ties. Behavioral scientists either have not cared to or have been unable to isolate independent variables upon which a body of environmental design theory could be built.

A third force possibly inhibiting cooperation between designers and behavioral scientists has

been the regrettable tendency of Western thinkers to incline toward determinism. Geographers, for instance, at the turn of this century propounded the idea that individual behavior and even characteristic national differences were to be explained in terms of climatic differences. In contemporary life, to cite another example, many view "Communist conspiracies" as *the* explanation for every socio-cultural failure or ill. Even fluoridation of local water supplies has not escaped this modern, all-inclusive tarbrush. In such thoughtways, there is expressed the strong desire for simplicities, a quest for *the* answer which at a single stroke will cut the Gordian knot and resolve all complexities with a single, lucid proposition.

To the extent that it has operated in the environmental design field, determinism may have hampered joint research between designers and behavioral scientists by asserting that either one aspect or the other is causative, while the other is essentially secondary and symptomatic. Attitudes like these obscure the complications of man-environmental interaction. They also offend natural professional sensitivities.

But whatever the historical causes were or might have been, it is time to press on and to inquire: If the chasm between these fields has been so great, why then is there now rising interest in bridging the gap, as evidenced in examples to be cited later?

Circumstances Alter Cases

Once again, the explanations must be complicated and none is generally accepted. One plausible, if not actual, proposition goes like this:

In recent years, environmental designers have increasingly found themselves working as members of teams and not always enjoying within those teams the commanding design positions they have traditionally occupied. Real estate consultants, entrepreneurs, financiers and representatives of public agencies have lately taken a much more firm and active hand in conceiving, designing and realizing projects. New roles, functions and responsibilities have emerged and, more often than not, it has been someone other than the designer who has acquired these new roles.

Developments in the housing field may have had a fundamental impact on the environmental design professions. Large tract developers approach their tasks much as General Electric approaches the production and marketing of consumer appliances. The extensive behavioral technology built into modern marketing and advertising methods has thus been brought to bear in the housing field. It is perhaps not coincidental that GE as well as other corporate giants have gotten into the housing development field and in

some cases have announced ambitious plans for manufacturing whole new towns.

Under these greatly changed and still rapidly changing circumstances, designers are striving to learn "where the action is" and how best to relate their own professions to it. Thus there is a powerful new impetus to reach out beyond the traditional limits of designing. To repeat, this rationale is totally unsupported by investigation (by the present author, at least) but may be one plausible explanation of why designers are now looking with fresh interest upon the work and ideas of the behavioral scientists.

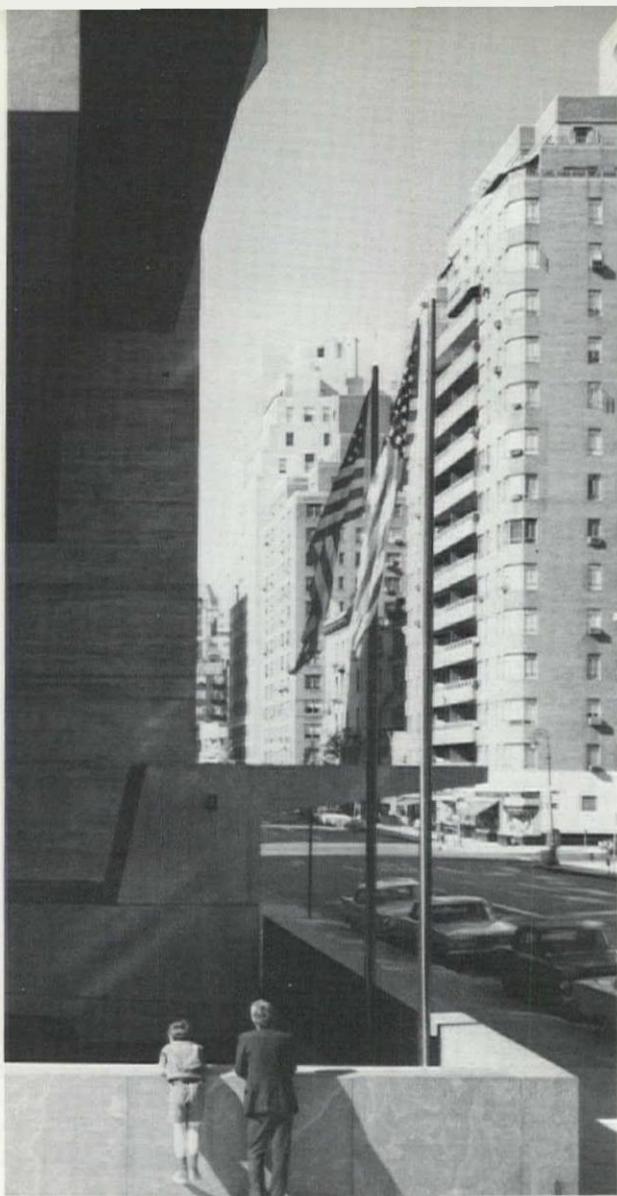
But what makes the behaviorists newly aware of environmental factors?

Euston submits that socio-physical design is, at present, critical. Evidence comes from numerous sources. "The McCone report on the Watts riots," he states, "stressed the significance of physical conditions there. Access was denied the citizen of Watts to basic urban functions such as facilities for health, employment and recreation. Neighborhood amenities were grossly inadequate. Housing and schools there materially contributed to personal failure and despair." Comparable studies have been reported on Boston, Baltimore and Harlem, he adds.

Besides this, several other things suggest themselves as possibilities of a new awareness of environment. For one, behavioral theory and technology have made impressive empirical progress recently. There may as yet still be no definitive theory of learning or of personality, and none in prospect. But psychologists, sociologists, anthropologists and others have developed a demonstrably powerful body of knowledge interrelating human behavior across an impressively wide spectrum. The soft sciences may not be able to explain *why* relationships exist, but more and more they can show *that* they do exist and can make useful predictions based upon them. Olaf Helmer of RAND Corporation has aptly titled this practical capability "social technology," as distinguished from the purer, more abstract theories of social science.

In passing, it must also be noted that the power of computers to handle vast quantities of information effectively is fundamental to the recent progress made in social technology. Previously, total inability to process information rapidly and in vast amounts was as severe a limitation upon behavioral technologists as it was on aerodynamic designers. This limit is rapidly being lifted.

Euston agrees. "There is . . . an emerging technology that is serving . . . more comprehensive values. It, too, is systems oriented, using as it can the pragmatic process and employing the tool of electronic data processing. Environmental designers and behaviorists have been engaging this



revolutionary methodology even as it is performing the production miracles of our national defense."

Equally important, the computer revolution has evoked innovative intellectual technologies as well—operations research, gaming, modeling and simulation, to name but a few. Using this new hardware and software, behavioral technologists can investigate burning social problems and come up with sensible proposals for resolving such problems. The most critical factor "for the future environment of human settlements," adds Euston, "will be the advancement of the larger, goal-oriented technology."

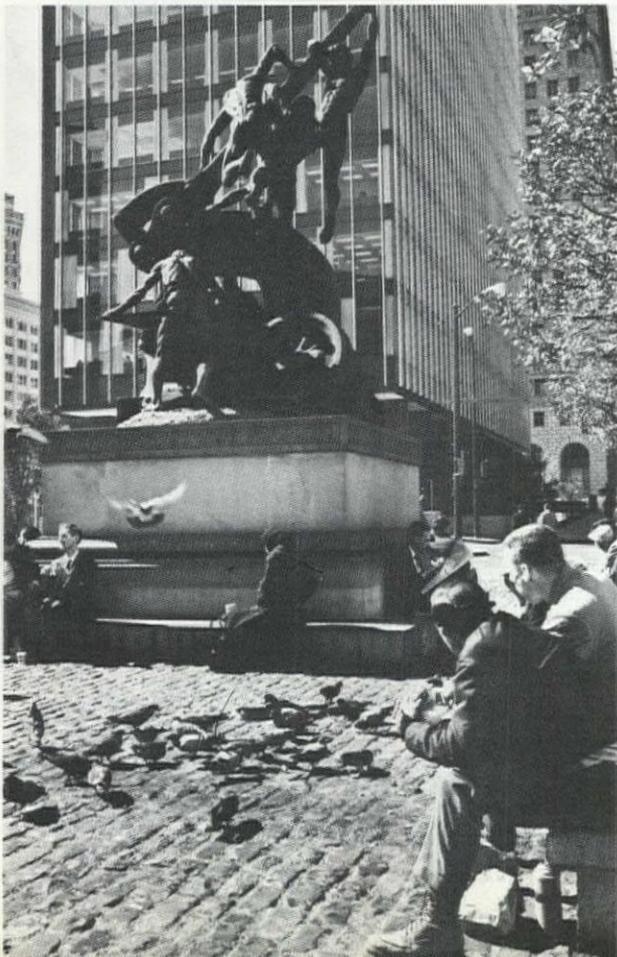
A particular aspect of behavioral technology is of special significance for environmental designers. It is that broad area variously labeled "human factors," "environmental psychology," "human engineering," etc. Evolving from the first primitive time-motion studies of a few decades ago, this field today finds its most sophisticated expression in the life-support systems of spacecraft. As yet, little spinoff from this field has occurred within the design of terrestrial environments, but the potential for such applications is both too obvious and too powerful to be ignored indefinitely.

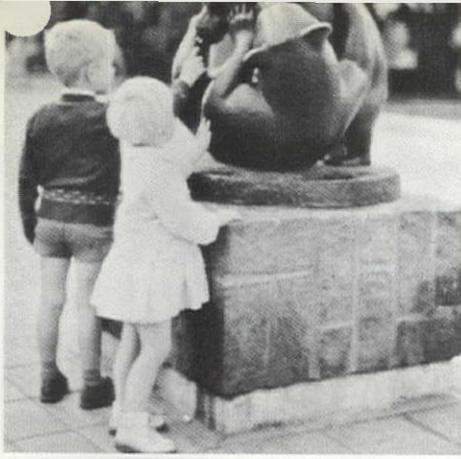
Present Priorities

In this new setting, things are beginning to happen. HUD boasts both an urban designer and a social scientist on its staff. For the first time in any Cabinet-level agency, these specialists have supporting staffs and direct access to the Secretary of the Department.

Project proposals in some instances also are beginning to reflect the new look. A case in point is a proposal submitted to HUD by a small town in Colorado. The town is too small to boast either a planning department or a municipal administrator. Yet in the proposal the town calls for an improvement project involving not only engineers and architects but educators, physicians, historians, sociologists and economists as well.

Examples like these are still relatively few and probably are more significant of what lies ahead than of what is happening now. Before designers and behavioral scientists can do much to help





each other, a common conceptual framework must be established in which all parties can work comfortably.

One such framework has been suggested by psychologist Dr. Beck, who was cited earlier. He calls for research to determine how man responds to different spatial organizations of the physical world and to different activity settings, i.e., work, play, study, etc.

A slightly different approach is taken by William Michelson, urban sociologist at the University of Toronto and the Ontario Institute for Studies in Education. Dr. Michelson advocates a long-term study of residents in four different residential environments. He wants to find out how certain environments attract or repel certain types of people. He would also investigate the differences between the lives people anticipate leading when they move into a new environment and the lives they actually end up leading there.

Dr. Michelson would investigate the extent to which given styles of living dominate given environmental settings. And he would study the problems of people who cannot or will not adjust themselves to the requirements of new environments. Methodologically, he would rely on projective games and time-activity budget studies.

Other designers and behavioral scientists have still other notions. The entire problem area is entering a stage of highly creative and constructive conceptual ferment. Not too much solid common ground will be gained, however, until some progress has been made in establishing mutually acceptable concepts—ways of characterizing aspects of the environment methodically. In part, at least, this may be a matter of translating existing behavioral concepts into terms which designers can comprehend—no mean task in itself! Perhaps models such as those set forth by Edward T. Hall in *The Silent Language* will be fruitful in this regard.

Euston elaborates on this imminent task. To treat environmental ills, he says, the "broadest range of interaction must be called upon between professions, . . . (and) an increased use of interdisciplinary teams—particularly those comprised of behavioral scientists and environmental de-

signers—must be brought about. This requires further that those within our federal establishment who are actively concerned for the future of livable human settlements must work to create new instrumentalities (that may) lead to a massive increase in the development of socio-physical technology, of the professional skills to apply this technology and of its application in tangible results."

And from Here?

What may the future hold? The field is so new and unformed that anything beyond the self-evident is treacherous. Euston cites the case stated—overstated, perhaps—by one personality theorist, Carl Rogers. "It is not upon the physical sciences that the future will depend. It is upon us who are trying to understand and deal with the interactions between human beings . . . who are trying to create helping relationships.' The finer point we must begin to understand here," Euston continues, "is that the act of building—and before that the deliberate acts of planning and design—constitute interactions between human beings. Building is a decision-making process based from the outset upon attitudes toward people."

Another speculation is that the trend which may hold the most overriding implications for socio-physical design is the continuing population explosion, with the attendant increase in urban densities. As we are forced to live our lives in closer and closer physical contact with each other, interpersonal pressures transmitted through and mediated by the physical environment must of necessity increase as well. These pressures are aided and abetted by the communications revolution which keeps us keenly aware of unrest throughout the world on a moment-by-moment basis.

Environmental problems which today are bothersome, miserable or only barely tolerable will be substantially escalated within the next several years. Traffic congestion on streets and highways can get only so bad before something drastic happens. Polluted air can become only so poisonous without causing a dramatic change in our civilization. The environment is deteriorating rapidly in

many ways, and some sort of "explosion" is a certain prospect if this trend is not reversed.

In this context, preventive environmental design becomes as urgent a priority as preventive medicine. We must learn how to bring our environment back under control and keep it there, and then find the will to do what must be done.

Beyond the preventive stage, we must learn the art of positively programming the total environment. Marshall McLuhan (who seems to have said everything at least once) suggests the time will come when the total environment will be consciously and deliberately arranged to serve as a single, vast teaching-learning machine. It is unlikely that this extreme will ever be reached, yet the suggestion has substance in it.

For too many decades, we have wasted our energies bemoaning the loss of freedom and individuality in the technological society, but we have not investigated many of the possibilities for new freedoms, new patterns of individuality which the technological environment implicitly extends us. We must learn what new behavioral patterns are possible and, of these, which are fulfilling. Then we must learn to program our environment so that each of us is kept constantly aware of the many exciting possibilities which we have never imagined. We must have many, many more buttons which will turn the world on for us, personally.

Finally, the potential impact of the image of giant digital computers must be alluded to once again. Computers are today's most striking examples of the totally responsive environment. The ease with which given patterns of organization can be created, examined, tinkered with, moved around and instantly wiped out when their usefulness is ended—the ease with which all this is accomplished in the computer is so staggering in its departure from tradition and in the new things it makes possible that the implications cannot long avoid seeping into the thoughtways of environmental designers.

True, computers deal only with abstract information in the form of small amounts of electrical energy so that their characteristics can never be directly copied in the physical world. But it is the *idea* represented by all this that is likely to make the impact in every field of design. Surely, this must be the motivation behind inexpensive paper and plastic houses, air-curtain walls, mobile homes, modular construction systems and a thousand other recent technological innovations in structural design.

If it is true that the single purpose of architecture is to make the physical environment more responsive, the emergence of socio-physical design may provide the tools we need to secure a responsive environment. □

TREATMENT

"In medicine, doctors have talked the public into paying for their workshops and research centers in the form of hospitals and clinics, in the name of mankind and charity. Have not the urban riots shown people yet that this is a form of 'cancer' that must be treated in physical architectural form with all the implications of social and economic study that proper architectural design is based on?"

This recently posed question answers itself, for clearly Americans have not been shown as yet what the many forms of the urban crisis mean. In the dialogue which follows a way is proposed by the chairman of the Institute's Committee on Urban Design, John Fisher-Smith, AIA, to find this meaning—a way that will require "rechecking the American Dream."*

Fisher-Smith: What we are saying from the point of view of the designer is that we have learned through our own experiences and maybe our own history and maybe from your history with highways (which we follow with great interest and concern) that when we are closeted, whoever we may be—architects, planners, landscape architects, engineers—with our client, we have certain common interests and certain divergent interests, and we have to solve these and come up with a solution to our problem: the client-designer relationship.

I think what we are trying to say to this committee is that when pub-

FOR THE AILING NATION

lic funds, public concerns, and city-wide and communitywide and regionwide concerns are involved, then this closet can't hold all these problems; we have to bring in some representative of the community and it becomes a three-cornered relationship.

Now, I think it is a political question as to how you create this new entity that you are referring to, but we see it as being for the moment created on a task force or a project basis until some other alternative provides itself. For instance, in the Bay region, if you had a concern

that was regional, you might nominate the Association of Bay Area Governments as a body responsive to the political arena in that area to deal with it; whereas in some other instance where you had, let's say, the basin of Lake Washington, you might have to put together a public client-sponsor who is not actually paying the bill but who is responsive to the needs of that area.

Muskie: I don't really expect you to come up with the answer which can be provided only by those knowledgeable in the field of political science.

Now, we do have ad hoc arrangements that have merged from time to time to provide this "representative," for lack of a better word at the moment; but is it your feeling that we need to find an institutional way to provide that representative?

It seems to me the ad hoc arrangements, because of their inadequacy, because of the fact that they don't always emerge, produce some of the problems.

Fisher-Smith: Personally, I have a great conviction, and I think there are many in Washington who really share this view and who are acting on it. The crisis we are confronting is, in effect, a regional crisis, and I think that during the next decade or so this country will have to find a way to provide limited regional governmental powers or authorities to solve its problems.

For instance, certain powers over land use in the regions that are lacking now make it extremely difficult for the provision in the 1962 Highway Transportation Act for metropolitan regional transportation plans to be carried out effectively. You have a well-financed and well-tooled highway planning process going ahead, and yet the "room in the hospital where the operation will be performed" still hasn't been named by the community or by the region. Is this room going to be agricultural, residential development or industrial? These options have to be decided at the regional level sooner or later.

Muskie: So that in your judgment there is need for a regional decision-making institution of some

* From a letter to John P. Eberhard, deputy director of the National Bureau of Standards' Institute of Applied Technology, written by Ralph K. Morrill, AIA, a partner in Environmental Research Associates of Auburn, Ala.



John Fisher-Smith making a point.

kind, representative, I take it, of the electorate and regionwide in its jurisdiction, in its perspectives, its responsibilities and in its authority?

It has been one of the most difficult things to create in the last 50 years of American government. We haven't really succeeded. Perhaps Nashville in Tennessee is one of the examples of considerable success. Dade County in Florida is another example, but you take two or three examples away and you are left, by and large, with the ad hoc arrangements to which you refer.

Let me ask you this. May I point out that one of the difficulties of the ad hoc arrangements—and I think it is implicit in what you have said—is that each project represents a different set of relationships, so that if you put together an ad hoc team to deal with a sewer problem, the same team isn't necessarily going to work effectively with a highway problem or with some other improvement project in the area. Is that not so?

Fisher-Smith: I think it is all one problem.

Muskie: It is all one problem but different people dealing with it.

Fisher-Smith: No, I don't think so. What I intended to say was that we will probably have to put together ad hoc arrangements until we devise one that sticks, but when you asked me if we put a different one together for the sewer and a different one for the highway, then I have to say it is all one problem.

In other words, each time we do it we will come closer to finding out what the problem area is. I think what we are saying is that the city boundary is not necessarily the problem area for the design of the freeways that go across the city and that the city boundary is equally not the geographic area for the discussion of water and sewerage problems and many other problems of the city. . . . We are starting to work on this: i.e., until you have a national attitude about how you want to solve your future problems, how can you solve the problem of an innercity core alone?

And so consequently whether you bisect that city core with a freeway or not has a heck of a lot to do with what is going on out in the hinterland; and where those people go (to find new housing) has a heck of a lot to do with whether you have provided any other alternatives.

Muskie: You say we ought to have a national attitude. Who should develop a national attitude?

Fisher-Smith: Well, I think we

are going to try and suggest a way in which a national attitude could be developed. Naturally it is a process that would have to be debated, possibly in a manner similar to this committee. We are going to try and structure some of the ingredients of what that debate might be, and I think it is very exciting to find that Urban America, Inc. is going down the same road.

The more of us who are going down this road, the sooner we will get there.

Muskie: Would you mind expanding on what you have in mind?

Fisher-Smith: Certainly. I think if you made a clipping study of the publications of the magazines and the newspapers during the last 10 years and the previous 10 years, you would find a rapid increase in honesty and concern for solutions to the problems of the living environment. That is one.

Two, we have mounted a massive highway program. We have, in effect, planned the entire nation in its urban areas and probably established the major grid structure of the spaces between, but we have not yet decided what we are going to do with the land.

Three, we are using up land in the state of California, for instance, at the rate of 375 acres per day to serve a population of 18 million. This is one of the richest agricultural areas in the world. With only three percent of the nation's farms we supply one-fourth of the nation's table foods and 43 percent of its fresh vegetables.

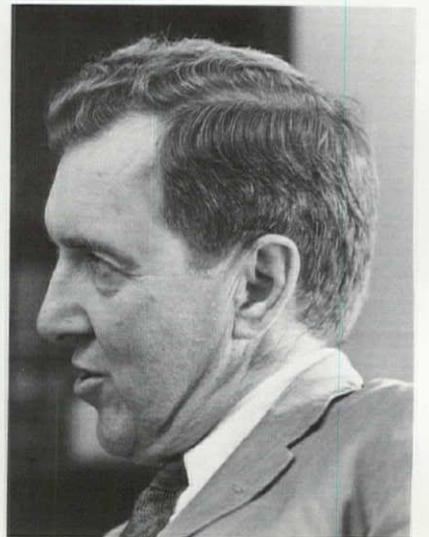
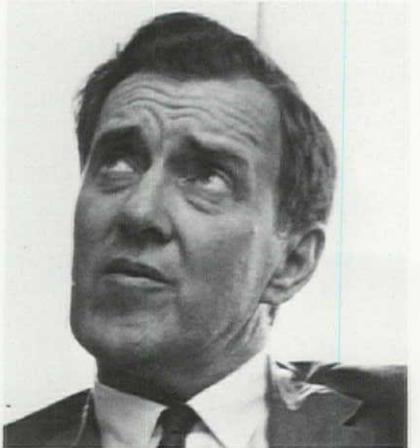
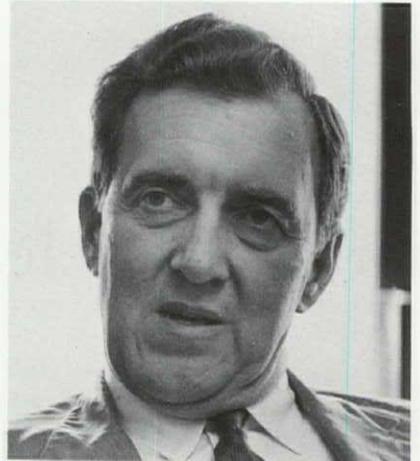
And yet as an example I was talking to J. R. James, who is the chief planner, Ministry of Housing and Local Government, in England. To support a population of 55 million they are only using 100 acres per day and they are actually increasing their agricultural output.

So the question I raise is how long can we continue to let it happen without mixing into what is happening?

Four, the obvious reason for the growth of the city in its present fashion is the fact that if you were a developer and you were looking for a place to put some money to develop a piece of land—to place some houses to sell on the market—where would you put it? You would put it near where there were transportation facilities, such as freeways, where people could get to and from work. You would put it near where there were shops, shopping centers. You would put it near an urban center, a place where there were universities, schools,



Senator Edmund S. Muskie, D-Maine.



colleges, where there were cultural activities and the like.

Consequently, we are letting this thing happen and it is happening the only way it can happen—of its own; and the question I think we have to face is what would happen if we set certain standards, let's even say minimum standards, of performance for the environment. They might even be somewhat arbitrary at first until we tried them out, but, for instance, why couldn't we establish that there be a minimum travel distance required to reach green space? Why couldn't we inventory the agricultural resources of a state and try to guess how much we should save for the future because we can build on slopes but we farm on the flat land? It is cheaper to build on the flat land. The farmer is forced out of business by taxation. The tax assessor says, "I am given no choice. I have to. Jones developed the property next door. Your taxes, my friend, are \$7,000 this year."

This happens in Sacramento County. The farmer can stay in business one year, perhaps two, and he is forced to sell. And he may have trouble finding a buyer because the next developer isn't yet ready to move. We call this leap-frogging suburban growth, and we all know about it but we are not doing anything.

Muskie: Go on. Who is to make these decisions because I think you have said, and these are almost your words, that this is happening and the only way it can conceivably happen (given the present forms of making decisions which lead to these results, or imply them at least) is that we have to have a different way of making decisions or of limiting the decisions or of inhibiting or directing or shaping.

What ways are there? What alternatives are there? What options are there?

Fisher-Smith: I think first of all we have to recheck the American dream. We have this fantastic American dream of, I don't know, Arcadia, where you live and meet, where you work, and the great free-ways connecting them to one another, and free choice and all these terrific things, but are we really achieving it?

We speak of problems with smog, noise, clutter, ugliness. Are we really delivering the American dream? If we bring a visitor here from overseas and we drive him down roadside strip USA, does he experience what it is that he heard about us in his own country?

In some ways he does. But in the physical way I don't think he does.

Muskie: I am not sure what he heard about us in his own country.

Fisher-Smith: I assume he heard our own image.

Muskie: If we know what that is.

Fisher-Smith: What I am saying is I think that we have to start a national debate to recheck our image and put these limits on it that we can work with: What shall be the right of a ghetto dweller to go out into the country this afternoon if he wishes, this Saturday afternoon, this Sunday morning?

How long shall it take him to get there? By what means shall he make it?

Now we are not doing this. We are just letting it go, and he ends up driving through miles and miles of suburbs, endless suburbs, and if you take your regional metropolitan transportation plans, they are projected out to 1980.

There won't be an edge. There won't be any edges. It will be one smear. So we have to predetermine certain rules of the game.

Muskie: Isn't this a way of putting it: During the past, relatively few, years, our whole thinking about these subjects has been motivated by a concept of unlimited resources—land, water, air—and now we are beginning to appreciate for the first time that they are limited, each of them?

As long as they were unlimited we could afford unlimited choices. Now that we know they are limited we realize that the choices are limited. So the question is one of who defines the choices and then who makes them.

Fisher-Smith: Okay. As to your question then, first we establish some national goals which should be extremely broad. Second, we have to start thinking of problems in toto rather than in pieces; and, for instance, in the case of the region, the cities and the counties and the communities have to be welded together into some kind of a regional concept team with some powers.

Should not a region have some power over the location of its open space plan? Is that not a regional concern? Some states have one region geographically. Some have 12. Maybe state powers can be extended into these regional authorities in a similar manner that the Bureau of Public Roads extends into the states with the power of the federal government going down into the locality with certain ground rules.

And in relation to leadership, there are a couple of other examples that might be helpful in terms of how you identify the public arm of this triumvirate: client, designer, public community.

One is in Cincinnati where the city was going through the traditional planning process and was deadlocked. In order to get the job done, they appointed an ad hoc group. This group represented the mayor's office, the planning commission, the business leaders, the downtown interests, the community at large; and these people had a communitywide public debate and the designers, who were the Baltimore architectural planning firm of Rogers, Taliaferro, Kostritsky & Lamb, kept reacting to each phase of the step.

The procedure was conceived by the city planning director and he drew up this ladder of decisions. Each time a decision was made, the designers went back to the drawing boards and graphically showed what the alternatives were for the next decision. You have made this decision; now this, this and this are remaining alternatives open to you from which to choose.

Now you can make your next decision, and the process was led down a reasonable route so that everyone involved said, "Well, I don't like everything about it, but we made our choice. It was the best thing we could do."

And I think what the designer says—and we are architects speaking to you—what the designer is saying is that those who have been trained in design can show you more alternatives than you dreamed existed. I think that is an important thing. This isn't horn-tooting. This has to do with a certain kind of a personality who has carved out that sort of existence for himself, and you will find it in some form in the aircraft business, in the engineering business, any design activity at all.

It is a personality thing, and I think the designer can be helpful to the decision maker before the traditional time when the "architect" is hired. There is a tendency to fluff over the architect, the planner, as being esthetes, whereas once you as a decision maker have made the decision about the location, the use, the budget and all these other program decisions, you have really finished the major design elements of the project.

Muskie: I think that is an excellent note on which to close this morning's hearing. □

Idle Thoughts on a Florentine Excursion

FRA LIMPO LIMPI
[Robert W. Schmertz, FAIA]

Firenze's a beautiful city,
It has the Uffizi and Pitti—
There are miles of Old Masters
And minor disasters
But hardly a one of them's witty.



With Sebastian I'm now well acquainted:
A guy who was shot at and sainted.
He had quite a harrow-
ing death by an arrow,
At least that's the way he was painted.



I admit I admire Botticelli
Who painted a lovely nude nelly.
She really looks swell
As she surfs on a shell,
Displaying a beautiful belly.

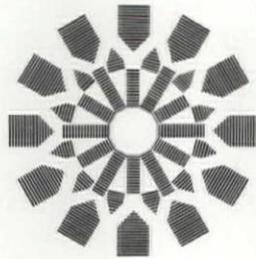
I examined each famous Madonna
Surrounded by Flora and Fauna,
Each with a Bambino
Molto bell' sucharino,
But to see any more I dowanna.

The beauty limned by Cimabue
Brings tears to my eyes, makes them dewey,
But a sharp second glance
Doesn't seem to enhance
When I find his perspective is screwy.



Verrocchio's "Boy with a Fish"
Fulfills every whimsical wish
For sweetness and joy—
What a lovely small boy!
As he stands on one foot in a dish.

Who Is the Urban Design Client?



BY WILLIAM L. SLAYTON

A former redevelopment head looks at urban design in terms of the public official and the architect's relation to the latter.

The direction in which city development is now going indicates that more and more urban design decisions are being made by public officials. We are entering the period where cities will exercise control and direction in this sphere. We can expect cities to be more sophisticated in developing urban design concepts and in creating mechanisms to use their developmental powers to produce them.

We can see evidence of this in looking at the development of urban renewal projects. In the early days of urban renewal—then known as urban redevelopment—great reliance was placed on the private developer and his designer to create designs for these major urban areas. Over the years, however, this emphasis shifted from

The author: Mr. Slayton, before becoming executive vice president of Urban America, Inc. in 1966, was commissioner of the Urban Renewal Administration. His article is adapted from the address given before the Cleveland Chapter AIA.

private to public. Today the leading cities in urban renewal are those where design is determined by a public official rather than a private developer, where it is a public decision rather than a private decision.

And the increasing interest of the public in design as such will create much greater concern

on the part of the public official for good urban design. When to this public concern is added federal assistance in urban beautification with the requirement that the public official prepare an urban beautification plan, then the public official is exposed even more to the issue of urban design.

And if one looks around the country, one can see the beginnings of a new breed of public clients in urban design. They are strong clients: clients with strong ideas on what they want produced. They are also sympathetic clients; they are sympathetic to urban design.

This new breed is represented by a Justin Herman in San Francisco, a Larry Cox in Norfolk, a Jay Nathan in New York, a John Searles in Syracuse, a Bob Pease in Pittsburgh, an Ed Bacon in Philadelphia. These design-oriented public clients grew up in the renewal program and are entering the city development field. They understand urban design; in fact, they demand good design.

And it is this kind of public client that offers us the hope of a new era in urban design: the design of our cities. It is this kind of client—the client with major developmental authority who is also sympathetic to urban design—that offers the greatest opportunity for producing good results.

I have emphasized the importance of the public official because we sometimes do not realize the magnitude of public construction. Many urban design elements are public elements. They are the streets, the signs that adorn the street, the lampposts, the fire hydrants, the sidewalks, the width of the sidewalks, the open spaces, the

small plazas, the small remnants of public land that go unused, the parks, the park equipment and, of course, the major public structures.

All these items are designed in the sense that somebody picked them from a catalog, had them designed, or designed them himself. Somebody had to select the design—with or without benefit of architect. And it is the public client who makes this decision. It is he who picks the designer, or fails to do so. It is this public client who gives the designer the program and establishes the framework within which the improvement is designed. The design will be only as good as the public client permits and also, of course, only as good as the designer's talent.

So our first order of business is to see that our public officials are sympathetic clients. Architects will be unable to change the design character of the urban environment unless they influence the design character of public officials. For they, as the clients, really make the design decisions. Where conscious urban design is sought, this is the first order of business.

And in addition to the public official being a sympathetic client, he must also have the understanding that his product—his lamppost, his street, his sign, his park—is but one item in a collection of objects that together produce the design of the street or the area. If these components are assembled with no concern for their relationship to each other, the result is a design jungle, not urban design.

I am saying that the city is going to be designed and, in fact, is being designed by the client: the public official. It is designed by the architect only to the extent that the public official allows him to design it.

Thus if we are to have good urban design, we must first develop a design consciousness on the part of the public official; and second, we must produce a new approach to the way cities use their developmental tools. We must break departmental autonomy over the selection of standard products unrelated to their environment. We must create a design for areas where public construction and public development play a major role. Such areas, of course, include every street in the city. Such areas, of course, include each urban renewal project, be it clearance or rehabilitation. Such areas include area surrounding every public building, every public structure.

The city needs a development head who is charged with creating design plans for such areas. Each component, regardless of departmental origin, must be compatible with that design plan.

This is a tall order but certainly not an impossible one. As I said earlier, there is increasing

interest—public interest—in urban design. There is also increasing interest in urban design by public officials. For example, the new department established by Mayor Richard J. Daley in Chicago is basically a developmental one. Although it does not control all public development it does exercise considerable design control. What's more, it is a sympathetic client in the field of urban design.

And the role of the architect in urban design should be discussed in terms of this kind of a public framework. The opportunity here for the architect is great indeed. But it means that the architect must adjust himself to a client somewhat different from the private client.

Actually the opportunity is greater with the public client than with the private client. The limitations are different. With the private client—unless he is the architect's concept of the perfect client, namely, one with an unlimited budget—the limitation is basically dollars, particularly in speculative building and in housing. In case of the public client, the opportunity for being able to do something more is greater. It is not always the test of dollars: It is the test of client acceptance.

The architect must recognize that in dealing with public clients he is dealing with a public function. He must know the restraints of the public development process, and he must recognize that the design produced must undergo the rigorous scrutiny of public debate. The architect must know the limits of the public official's developmental powers as well as knowing the developmental tools available to the public client.

Frequently I have been struck by the architect's lack of knowledge or just plain ignorance of what is possible in public development. I have seen local chapters of The American Institute of Architects create a design for a particular area and present a beautiful rendering to the city on a concept of how the area could be developed. Many of these plans have been completely unrealistic in terms of what it was possible for the city itself to control or produce. And, as a result, the architectural committee that spent so many hours preparing the rendering becomes critical of the city's lack of graciousness and understanding in accepting its proposal. The architect must know the extent of public developmental tools and aid the city in using them, and must help establish a public mechanism aimed at producing urban design.

Frequently, the architect does disservice to the public official who is trying to produce good urban design. The tendency of the architect is to be overly critical—privately, that is. Such criticism leaves the public official feeling that regardless of his effort, regardless of his attempts to

produce design, it always results in adverse reaction. In his criticism, the architect should distinguish between the design and the mechanism that produced it. Frequently, because he dislikes the design, he criticizes the system that produced it, thus discouraging a system aimed at cranking design into public development.

When I was urban renewal commissioner, I knew that a renewal design competition would produce criticism from the losers. They challenged the design selection process because they were unsuccessful competitors. If we have many such loser-critics in design competitions, we may well end up throwing out the baby with the bath water. The architect's hyperbolic criticism destroys his objective.

But what kind of relationship and what kind of mechanism can the architect establish, or help establish, to bring design into public development decisions? First, the architect must recognize that he must accept guidance from the designer responsible for the plan of the area. We shall not have urban design if each architect insists upon complete latitude within the zoning envelope to create as he sees fit. Not only must the product of each city department conform to an overall design but so must also the product of each architect.

An urban renewal area is a good example. We are just beginning to obtain some really sophisticated urban design plans, but their integrity cannot be maintained if the architect for each component is without constraint. Thus there must be some control over spacing of structures, over materials, over open spaces, both public and private, and there must be a limited number of major statements. We need architects who will design good—and I emphasize the word "good"—vernacular architecture. Each structure can't be a Taj Mahal. Each architect preparing an urban design plan would say "amen" to this, but each architect designing a component would evidence some reservations. Perhaps we in Urban America will give awards for good vernacular architecture.

And the architect must also recognize that it is the public official who makes the final design decision. It is a public decision; it cannot be delegated to the architect. This means that we also have a responsibility to educate the public client on urban design.

But the architect has an additional responsibility. He must translate public goals into a physical design. He must help the client articulate these objectives. And he must understand, and be sympathetic to, social as well as physical objectives. He must understand how a city works and the needs of its residents. In creating an urban environment for urban dwellers, he must

know their needs and desires. The creation of a mechanism to make this design process work requires that cities establish development departments with responsibility for urban design.

And I would suggest that you re-examine Burnham's design plans. Today there is a tendency to sneer at the City Beautiful plans from the early part of the century. This is a mistake. We should recognize that these plans, particularly Burnham's, reflected a sense of scale and esthetic perception absent today. Even though Burnham and his contemporaries were weak in knowledge of urban ecology and functional factors of city growth, they did have a high appreciation of, and a sensitivity to, a design image for the city. Daniel Burnham knew how to use parks, public buildings and major thoroughfares to create a design plan for the city. With these tools, it is amazing what he achieved. His Grant Park, his Wacker Drive, his Lakeshore Drive—these gave central Chicago its design character. If one looks today at the beautiful renderings of the Burnham plan, at the grand design of his parks and boulevards, one can only gasp in admiration at the great concept and be amazed at the extent of his success.

And today, we have much broader developmental tools than did Burnham. Sometimes I think we have forgotten how to use our open spaces, our public buildings, our streets as design tools.

And Burnham's client was a public client. It was his design vision that persuaded the public client to endorse and execute the design plan. It is this kind of vision, this concept of the grand design, that we seem to lack today.

So what is our change? The prescription for urban design is easy to state. We need coordinated development activities by the public official. We need a sympathetic client in the public official. We need the architect-designer who can design an area, not a collection of individual buildings. We need to respect the integrity of the plan. We need to understand the available powers and their limitation in designing urban areas.

This is the prescription. It doesn't sound all that difficult, but past experience has shown it not to be easy. On the public side, we are developing an awareness, mechanisms and public clients that fit this prescription. On the private side, I am not as sanguine. The role of the architect has been to ignore or give but lip service to urban design. He has been unwilling to accept his place, his somewhat subordinate role in an urban design plan. His ignorance of public procedures and powers and his shrill criticism have placed him in the role of impeder rather than participant.

The potential of the future is tremendous. Clearly, now is the time for the architect to become not only an urban designer but also a sympathetic client to urban design. □

The Triad Theory: One Approach

“Someday an entirely new architecture will emerge and, regardless of time, stay young. When this happens nothing will show in form which does not have a definite function or which does not derive from the strictest necessity.”

CARLO LODOLI, A PRIEST, C. 1750

BY WILLIAM W. CAUDILL, FAIA

Take a soda straw. That's my kind of architecture—the epitome of planned logic. Pared to the very essentials. Scaled and formed just right to do its job. Beautiful in its simplicity. What a pump!

Architecture? Not quite. But the soda straw and architecture can be measured with the same

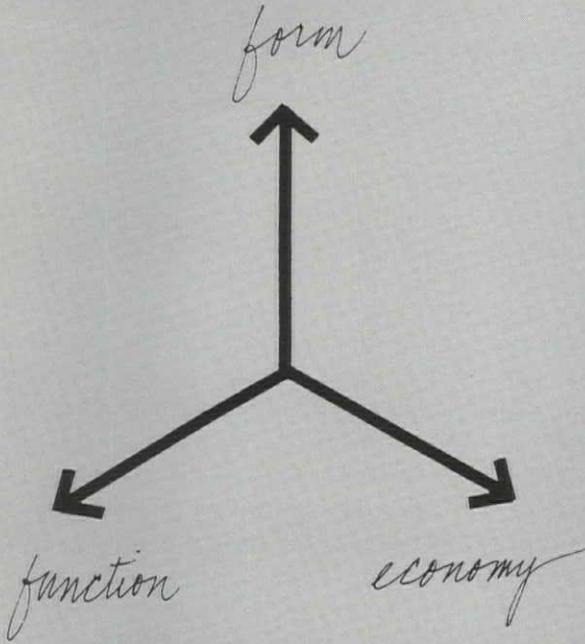
The author: Mr. Caudill is a principal in the Houston firm of Caudill Rowlett Scott and director of the School of Architecture at Rice University. Sketches are by Andrew Belschner.

yardstick. The simple straw has meaningful *form*; its *function* does what it is supposed to do; it has both monetary and visual *economy*.

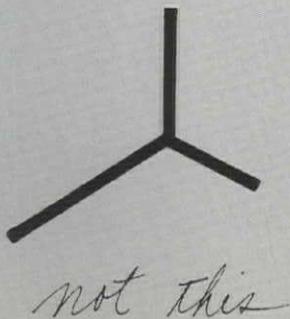
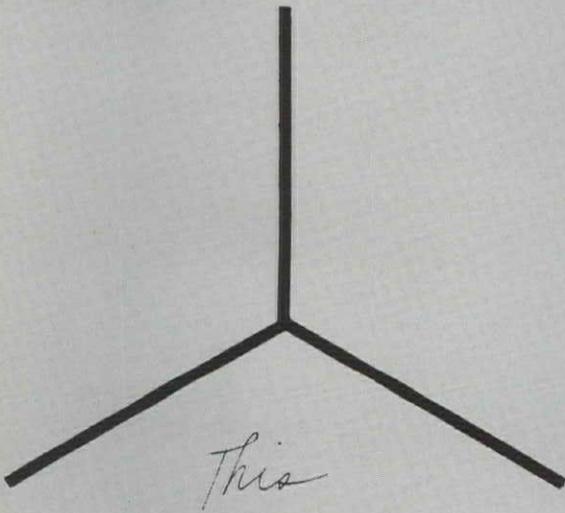
Now let me jump from the straw to the city. People who live in the city are primarily concerned with how the city works, how it looks and how much it costs to live there. The city, too, is shaped by the forces of function, form and economy and therefore the effectiveness can be measured by the same triad. It is my contention that any theory relating to architectural design touches the triad, whether the concern is for an entire city or for the smallest component of a building within the city. I'll go further: The consideration of function, form and economy relates to sculpture, to music, to painting, to literature and to poetry, but the implications of the triad are particularly significant in the architectural approach.

There is a basic difference between the architectural approach and the scientific approach. And the architectural approach also differs from the approach of the functionalists, the inside-out people, and certainly from the opposite approach of the outside-in people, the formalists. The true architectural approach is predominantly omnidirectional with a simultaneous consideration of function, form and economy. These others are predominantly linear. Something has to follow something else. Form doesn't necessarily have to

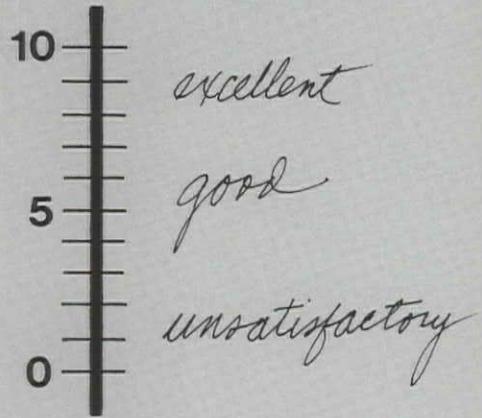
Function, form and economy make up the triad—an important consideration in the architectural approach. It requires continual attempts to equilibrate these forces which shape architecture. The approach is omnidirectional, not linear, and can be evaluated at all stages of the process. The evaluation depends upon how well an equilibrium is achieved.



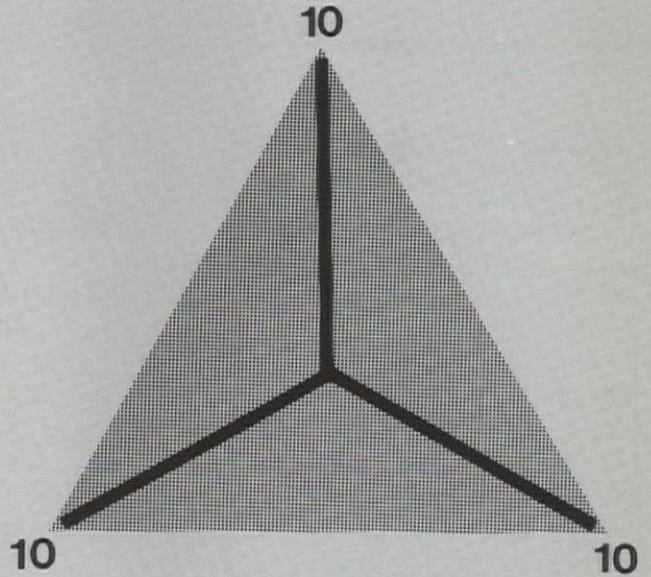
So to seek an equilibrium which will bring about a union of function, form, and economy is a prime concern. Equally important, however, is the quest for strength working toward making each element of the triad the greatest possible magnitude.



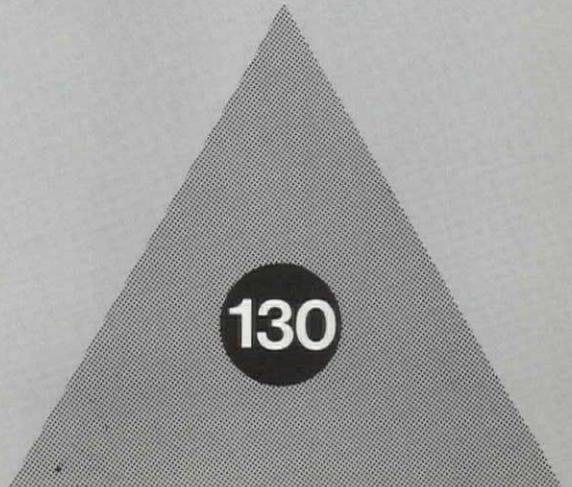
Strength is measured empirically by the following scale.



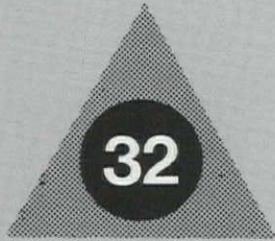
By triangulating the three forces of the greatest magnitude we get the "triangle of perfection."



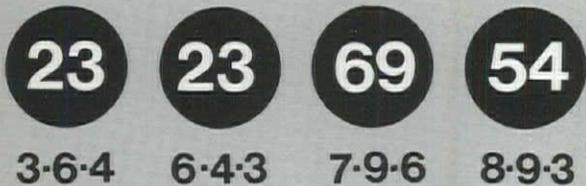
This 10-10-10 equilateral triangle has an area of 129.89.



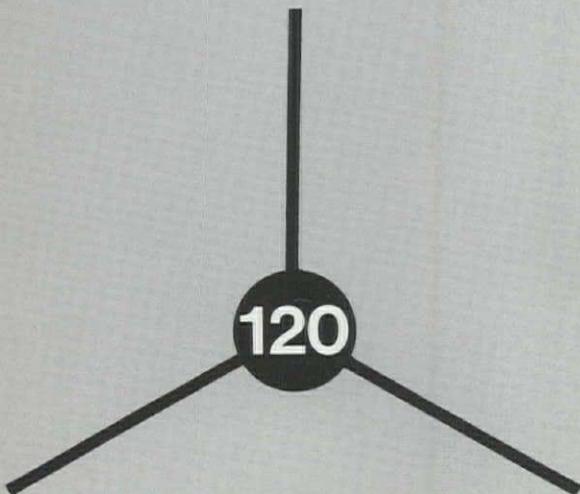
If we had used 5, represented on the value judgment scale as less than "good," the three forces would have been equilibrated, but the area of the triangle would have been much lower.



The areas of evaluative purposes are called "design quotients." They range from .01 for a 1-1-1 triangle to 130 for a 10-10-10 triangle.



In this imperfect world, nothing is perfect, but the quest for perfection is highly practical. Symbolically perfect architecture may be depicted in this way, having perfect balance and the greatest magnitudes for function, form and economy.



follow function as one car follows another on an assembly line. Nor does function have to follow form, as the formalists would like us to believe. Who cares what follows what? All that matters is that form and function end in a happy architectural union built on solid foundation of economy, economy in terms not necessarily those of the lending agency. This is the architectural approach.

But it really is not so simple. For centuries the philosophers have been wrestling with the mind-body problem, only two inseparable variables, and they are still fussing. So the architectural approach, which requires dealing with three inseparable variables simultaneously, is no simple task. In fact, not so long ago my partners and I fed into our IBM 113 computer what we thought was a reasonable input to help us evaluate design performance of buildings. Our friendly monster would have vomited 33,000 sheets had we not cut off its motor in time. The computer wasn't smart enough to see that it was rupturing the building foundation with the paper load. And only three variables behind this fiasco! But the architectural approach is really not that complicated either. A computer is not required. Stated in simple terms: *The architectural approach is a simultaneous process of equilibrating function, form and economy. The effectiveness of the architecture resulting from the approach, therefore, will depend upon the success of the equilibrium and the magnitude of each of the three forces.*

In our office we call this the Triad Theory. Architecture, like our daily life, must have inner equilibrium. Every man seeks an equilibrium of the mental, the physical and the spiritual. Too much emphasis on one may be a detriment to the other two. Yet there could be a balance among these three qualities within a disturbed person. The low magnitude of his mental capacity might well be equal in some respects to the poor condition of his deteriorated body and his declined spiritual outlook. And yet there would be equilibrium. But he would still be mentally disturbed with an inferior body and a dismal outlook. There must be more than balance. So it is with a building. There could be an equilibrium of function, form and economy in the very low magnitudes and the results might be a very inferior building, not even architecture. So the Triad Theory states that there must be both equilibrium and great magnitude. Perfect architecture concerns the forces of perfect function, perfect form and perfect economy brought into perfect equilibrium—where each force is of the greatest magnitude. But this never happens. There is no perfect architecture.

What about the Taj Mahal? Perfect? Magnifi-

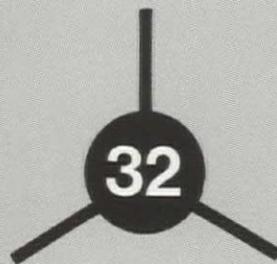
cent form, yes. As a monument to love, which has worldwide attraction, it functions exceedingly well. But from the standpoint of economy it was actually a contributing factor to the downfall of the great Moguls. Wright's Guggenheim Museum is a wonderful building, but because of its function, it is far from perfect. Many say it does not work as a museum; that it does not have the generic quality of a museum. It's still a great building. It's just not perfect. None are. Many of the industrial type buildings function like watch-works, cost very little, but their forms reek banality. Far from perfect. Although perfection is never reached, excellence may be achieved in the quest for perfection. The Triad Theory concerns the quest.

Since the architectural approach is omnidirectional, requiring none of the prerequisites of the linear approach, theoretically the effectiveness might well be measured at any stage of the design development. Function is not followed by form, then by economy. The logic behind form is function and economy brought into physical reality. Another way of putting it is that form is the visual shape of both function and economy. So form, function and economy are one. Architecture at any stage of development is a three-in-one thing. The three are always there anytime. All we have to do is to measure them.

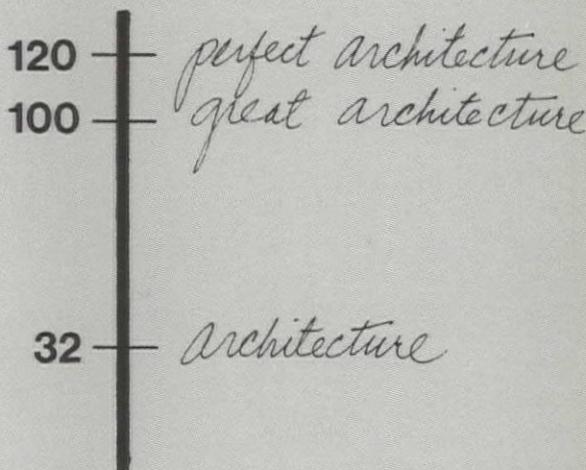
Years ago we developed a method which we called "quality profiles." More lately we have been using a computer-assist formula based on the Triad Theory which takes the "profiles" a step farther. We use it at all stages of building design from programming to the completed project on jobs ranging from a campus plan to a window sill. Empirical judgments are superimposed on a rather complicated formula which determines the *design quotient* [area of the "triangle of reality"], a number that at a glance gives: 1) a numerical value which considers both balance and magnitude of the three forces, and 2) a figure to use for comparative purposes. Generally a design board of no fewer than five or six people makes the judgments. It's the jury system, with systematic evaluation done on an individual basis, although each juror uses the same agreed upon set of questions. Several question sets have been developed for various categories such as individual buildings, campus plans, programming, interior design and details.

This brings up the question: Does value judgment have validity? Sure. Every jury of The American Institute of Architects makes use of value judgment. There is a chance for error. A person never experiences a pure fact or, for that matter, a pure value. Experience is a dynamic synthesis of facts and values. Can a physical experience be separated from the emotions? A

Now go back to the 5-5-5 triangle which has 32 (actually 32.47) as its area. For definitive purposes, the area of this triangle is designated as the "design quotient of the minimal triangle." Here is the symbol.



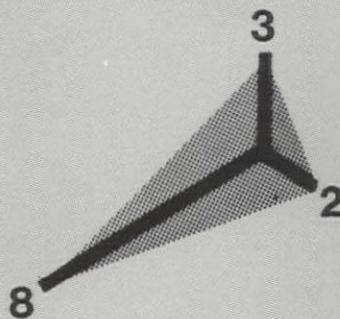
If one accepts the premise that there is no bad architecture, only architecture, then perhaps the numerical definition of architecture is simply 32. Anything below 32 is not architecture. Like 32 on the thermometer—the point of freezing—our design quotient of 32 marks the point of the beginning of architecture, the place where mere building stops and architecture emerges.



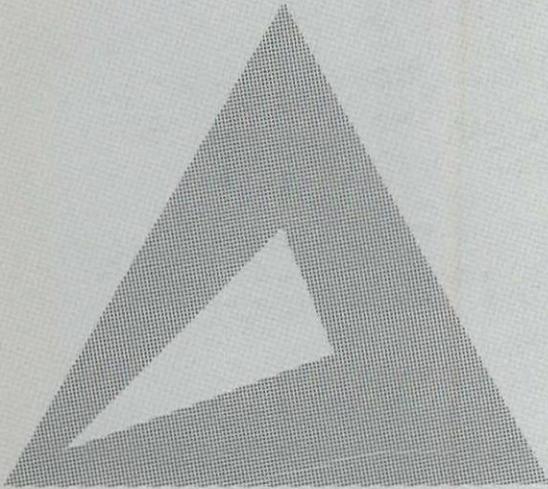
Now consider a hypothetical case. A building (or a component of a building), having reached the stage of design development, has been given the following evaluation:

function 8 form 3 economy 2

For ease of identification we shall call this situation the 8-3-2 case. Graphically it reads from the left clockwise in which function 8 is "8 o'clock," form 3 is "noon" and economy 2 is "4 o'clock." Triangulation of these forces gives us what we shall call the "triangle of reality."



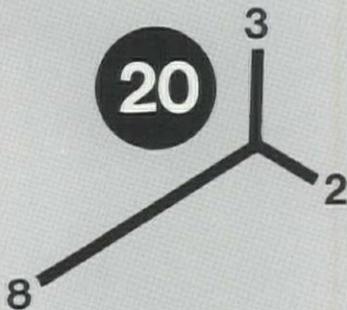
Compare this "real" case with perfection. Obviously it falls short. How much?



The design quotient obtained by calculating the area of the triangle of reality, in this case the 8-3-2 triangle, will give us a clue. The area is:

20

Since the numerical definition of architecture is 32-plus, the building with which we are concerned not only falls short of perfection; it falls short of architecture. The symbol for the evaluation is this:



Note the position of the design quotient. The location of the black dot containing the design quotient designates the trisector where the centroid of the triangle of reality will fall.

polarity exists between facts and value, and it takes a high degree of sophistication, which we don't have, to pull them apart. We are like the philosopher who said, "When we are learning we must babble a bit." So we babble. But since we have used this method of evaluation, design performance has improved. And that's the only reason for having the method. Why this improvement? Perhaps it is the Hawthorne effect.¹ In any case, evaluating design performance based on the Triad Theory is working for us.

Now back to the theory: What are the relations of function, form and economy? To start with, they are inseparable. Like mind and body, they can't be pulled apart. Function? It can't stand alone. Architecture is more than a machine. Form? It's more than sculpture. Economy? It's more than an investment. Separately such elements of the triad are nothing. Mies van der Rohe said, "Form by itself does not exist." Architectural form must be alive. Form must go beyond shape. Architecture does something, even if you can't see it doing it. A century ago Horatio Greenough said, "Beauty is the promise of function," implying that something has to happen. And then there is the old saw, "Beauty is as beauty does." In any case, a building is more than meets the eye. The basic hypothesis of the Triad Theory is that architecture must *do* something and *be* something. Function is the *do*. Form is the *be*. Each form must be what it is supposed to do. Form must have a generic quality relating to function. Now where does economy come in? Both form and function must be created from the principle of economy of means, visually and monetarily. Most of us readily admit that form is decided by function, but the truth is: So is function decided by form. If you are still not convinced of the inseparability of function, form and economy, consider these abstract thoughts: the function of form, the function of economy, the form of function, the form of economy, the economy of function and the economy of form. Try, if you will, to trisect the triad. You can't separate the three. One can talk about them separately. For terminology's sake let's delve into each of the elements of the triad separately.

First consider *function*. Right from the beginning, don't muddy the water by mixing emotional function with physical function. "Emotional function" was wedged into our vocabulary by the functionalists themselves when they thought they were losing out to the formalists, just like the formalists screamed "function fol-

¹ An experiment concerning the effect illumination has on work efficiency where workers produced more with both increased and decreased lighting simply because they knew they were involved in an experiment and were motivated accordingly.

lows form" when they were at war with the functionalists. Play it this way: Think of function as physical, as the *do*, and form as the *be*. Think of spirit as the subconsciousness of form and function as the consciousness of form.

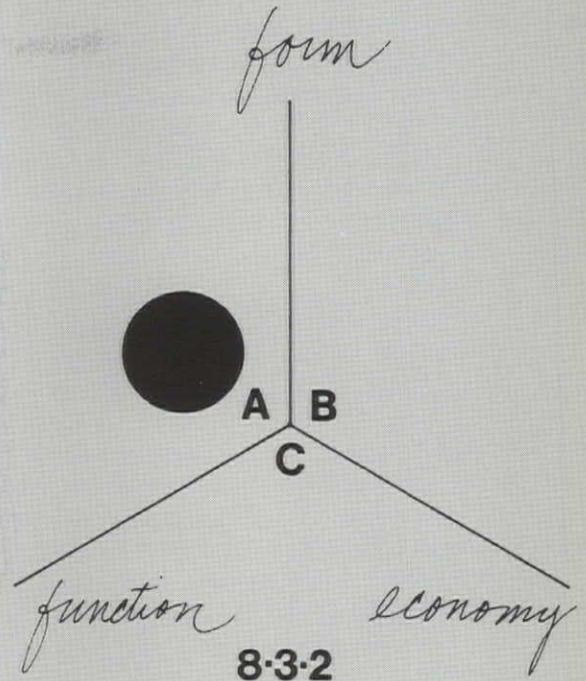
Function in the Triad Theory concerns the task—the way people move about to do the job they have to do. But function also can concern the task of the smallest detail, a door jamb, for example. That jamb must stop the door, keep out the weather and reinforce the concept of the total door—the "in and out" idea. It's reasonable, therefore, to say form should express its function with simple directness that leads to physical efficiency and visual clarity.

Function can be the inspiration for form. At the turn of the century "the new architecture" was to be functional: to be developed from accurate programming of practical demands. Nothing new. Francis Bacon, in 1620, said. "There should be a practical reason for all things." Although one of my philosopher friends has doubts that he really said this, Socrates around 400 B.C. is credited with saying, "Is a dung basket beautiful? Of course, and a golden shield is ugly, if one is well made for its special work and the other badly." One might conclude that function is everything.

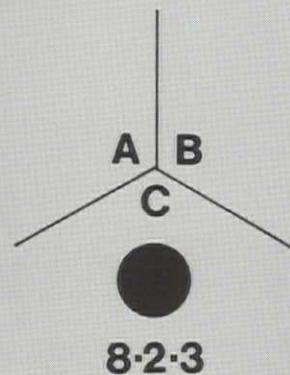
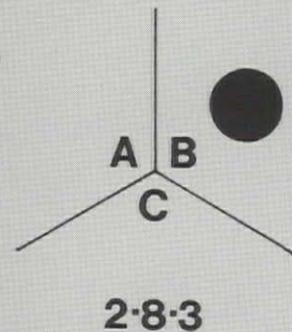
Hold it! Does everyone agree that physical function is all good? That there should be a practical reason for all things? No. The controversial American philosopher Peirce said, "True science is distinctively the study of useless things." More lately Edwin Muir said, "We are not entitled to condemn anything because it has no function; on the contrary, to be without function is to be free, to be rich." If he is talking about architecture, I could not disagree with him more. I am with Henri Matisse, who said, "No line can go wild; every line must have its function." I say no substantive architecture can go wild; every architectural form must have its function. Undisciplined forms, like pseudo-facades, archless arches, and fake columns, sometimes stir the emotions but palliate the intellect. Let's call the boxes they decorate something other than architecture. "Decorated people boxes" or "people playpens" might be good names. Architecture can be fun but not at the expense of validity. The validity of form is function. Function is the *do*.

Now consider *form*: That's the *be*. This of course is an oversimplification. The form of Beethoven's Fifth is the what-it-sounds like, although to a professional musician Beethoven's Fifth might be a visual form. The form of Tolstoy's *War and Peace* is what-it-reads like. But form is form, be it literature or architecture. *War and Peace* has much less power than Anna

For example if we label the trisectors with the letters A, B, C, the design quotient falls in Sector A.

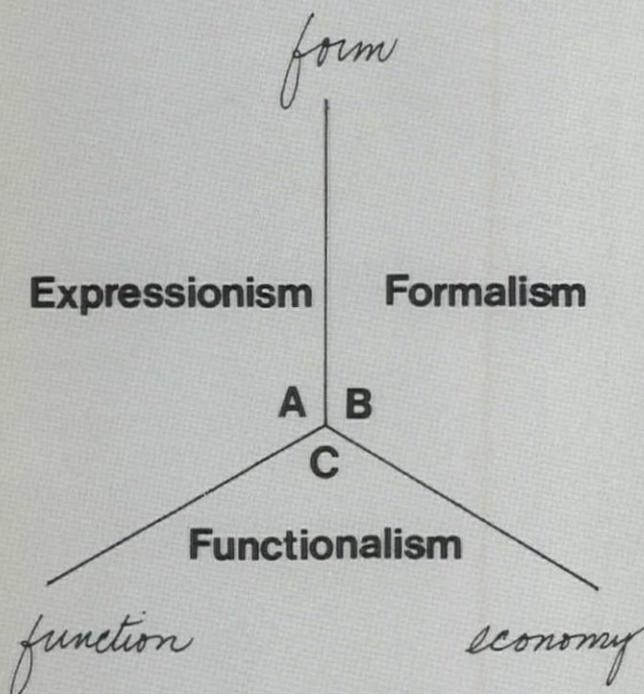


Had the triangle been 2-8-3 or 8-2-3 instead of 8-3-2 the centroid would have fallen in other sectors.

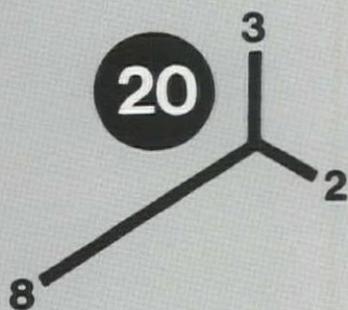


What is the significance of the centroid? If it occurs in Sector A, obviously economy falls a bit short of function and form. If it occurs in Sector B, function must be a bit short. And if the centroid is in Sector C, form must be short. If all three elements of the triad are equal or very close to being equal, the centroid will fall in the center.

Therefore, the location of the design quotient [the centroid of the triangle of reality] gives us another quality evaluation. If it occurs in Sector A there is a tendency toward expressionism without regard for objective reality of solving the client's cost problem, or else visual economy is needed. When the centroid is in Sector B, apparently function has been neglected and there is a tendency toward formalism. And when the design quotient indicator (centroid) is located in Sector C, apparently the formal considerations were slighted and there is a tendency toward functionalism. If it occurs in the center then there is a good balance.



Now reconsider the hypothetical case resulting in this evaluative symbol.



At a glance we can tell 1) by looking at the design quotient, the building falls short of being architecture since it is below 32; 2) by noticing that the centroid of the triangle of reality [the design quotient indicator] falls in Sector A, there is a tendency toward expressionism; and 3) by observing the magnitude of the elements of the triad we know that although function is very strong, the form and economy of the building have been sadly neglected.

Let's go from the hypothetical to the real. In our firm we have a group called the Design Board, whose job it is primarily to criticize and evaluate work that comes through the office. At each semiweekly meeting, there are open discussions on all aspects of the design; however, the evaluation is made individually and secretly by each of the five members. Prior to each meeting, the board agrees upon the evaluative criteria which usually consists of six questions each for function, form and economy.

Karenina or Kreutzer Sonata because of form differences, as Joyce Cary pointed out in *Art and Reality*. The reason for this is that *War and Peace* has such a broad coverage that it loses power and significance, like a building with three or four competing masses, all fighting for visual dominance. The Metropolitan Museum is a case in point. In other words, there are too many forms and no one form to dominate. *Kreutzer Sonata* has the greatest power of the three because there has been a meshing of all minor forms into one form. It's like the Seagram building—great unity. How could it be otherwise? There is only one form when viewed from Park Avenue.

Jean Ingres, in the early 1800s, said, "Form is the foundation and the condition of all things." Form is formed for reasons—reasons of space, of place, of task and of time. Form gives definition to space. It is the very shape of architecture—the building mass, the differentiated structure, the canopy over the main entrance or the door knob. Regardless of its size and place, form should reflect a purpose and respond to a task.

Form is not only the what-it-looks-like, but also what-it-feels-like. It's the *be*—the *who am I*. Form emotes. If not, form generates the emotion. Form houses the spirit. Eero Saarinen, like his father, was greatly concerned with the spirit of a building. But let's be careful about this spirit thing. According to Paul Kennon, a CRS associate who spent nearly seven years with the Saarinen organization, the spirit of the TWA form was not "flight" as some believe, but the spirit of "transportation." There's a difference. It never was meant to be a "bird-in-flight" thing. Ernst Fisher takes an opposite point of view: "Form is seen, rather like Plato's 'idea' as something primary in which matter strives to become absorbed—a spiritual principle of order that legislates over matter." The architect's quest for fresh forms is not for just new form or even a new spirit. The search is for intelligibility. Architectural form speaks but it's not noise. Form must make a statement, say something and be something, not babble without commitments. Form must have an idea. Without it form is meaningless. And meaningless form has no place in architecture. If architecture is ordered space for fulfilling human needs, then form is space conditioning. Form orders and regulates space.

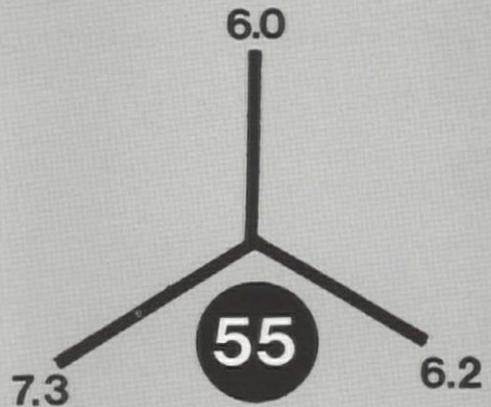
This brings us to the last element of the triad, *economy*. The first thing we think of when we think of economy is money, or the lack of it. But sometimes monetary restraints lead to visual restraints which lead to better architecture. Both kinds of economy concern the principle of maximum effect with minimum means. Leonard Bernstein was talking about economy when he

discussed Beethoven's Fifth Symphony: "I am amazed all over again at its simplicity, strength and rightness. And how economical the music is." In a lecture at Rice University, Louis I. Kahn, FAIA, said, "If the architecture is right, you wouldn't add to it or subtract from it." It is the kind of economy Louis Sullivan talked about when he said buildings are "beautiful in their nakedness." William Hogarth described this kind of economy in 1753 when he talked about, "Economy of forces as a kind of beauty." It concerns this statement from *Team 10 Primer*, "Logic, economy, structural clarity of architectural solutions are by themselves a source of poetic satisfaction." It's the same economic beauty as that of a great athlete or a graceful ballerina. It's the kind of economy that Pericles was talking about in 430 B.C. when he said, "We are lovers of beauty without extravagance." If you think of baroque as grotesque ornamentation, then economy has no relation to baroque, but I think there is a certain quality of economy in baroque spaces and plastic forms. If complexity is stretched far enough, it reaches simplicity. Simplicity and economy are synonymous, at times. There is an old French proverb contributed by Harvard's Jerry Soltan that says, "He who embraces too much holds little." That's economy. It is the kind of economy that a well-known art critic had in mind a few weeks ago when he said, "Rembrandt's 'Sketch of a Girl Sleeping' is tender, economical in line." Economy can give elegance through restraint, like a simply dressed woman in contrast to an overdressed one. Economy is the understated. It's the Gettysburg Address. It's Mies' "less is more," not "less is a bore."

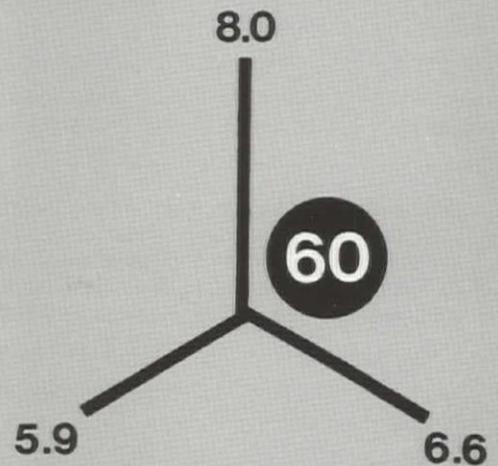
The economy relating to the "most for the money" cannot be taken lightly. Architecture does not exist until construction takes place, people move in, appreciate the forms and their spaces and evaluate the intended tasks. Paper and cardboard are not architecture. Only real buildings built by real money give reality to architecture. The economy part of the triad can make or break a project.

In summary, using the definitions as stated, architecture concerns itself with having a symtiotic state where function, form, and economy are intrinsically entwined—in essence, the three-in-one idea. The architectural approach is omnidirectional, not linear, and therefore can be evaluated at any stage. Whether or not architecture will reach maximum effectiveness depends upon how successful an equilibrium is accomplished and how great the magnitude is of each of the three forces. This is the Triad Theory. And the purpose of the Triad Theory is to give precision to the architectural approach. □

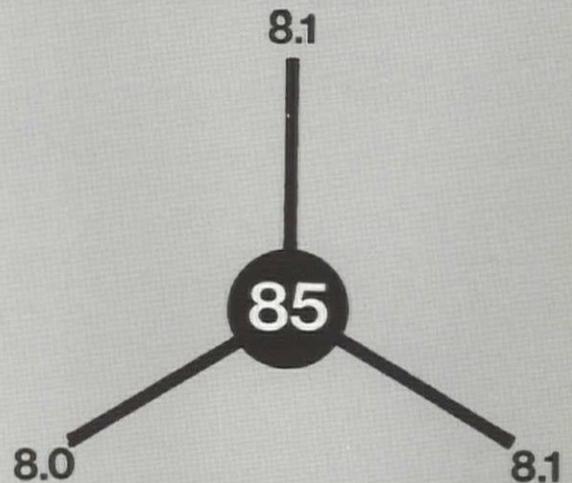
The following is the graphic analysis for the recently constructed Paul Klapper School in New York City. Note by the location of the design quotient there is a tendency toward functionalism.



The result of the board's evaluation of the Harvard University Graduate School of Education is shown by the following evaluative symbol. Here there is a tendency toward formalism.



A more balanced and a stronger resolution to an architectural problem apparently is the Jesse H. Jones Hall for the Performing Arts in Houston, which was given this evaluation by the board.



Buildings other than those of CRS are evaluated by the board simply to give us a comparison. We found that the design quotient for Wright's Guggenheim Museum was 87; for Saarinen's CBS Building, 96; and for SOM's Tennessee Gas Building and Mies' and Johnson's Seagram Building, 100 each. We hope the future will give us a 100 building or two.

Here's an inexpensive
simple method
that architects can use
in visual matching
of colors.

TESTING

BY ALEXANDER F. STYNE

Every architect is familiar with the problem that colors selected in his office may look totally different when they are taken outside and seen under that elusive thing called natural daylight.

It is elusive for a good reason. The color temperature of natural daylight on a bright sunny day may be as high as 7,500 degrees Kelvin.¹ On an overcast day the color temperature of the light may go down to about 4,500 degrees Kelvin.

The author: Mr. Styne, a consultant in North Miami, Florida, is a member of the American Institute of Interior Designers and the Industrial Designers' Society of America. Kenneth L. Kelly of the National Bureau of Standards assisted in preparation of the article.

There is a puzzling difference in the appearance of some colors under different lighting conditions, but the majority of people think that if they have chosen a color in "daylight" it really should represent a healthy selection.

Although the sun emits light containing the full spectrum, the light reaches us in different conditions: bright and sharply beamed on a clear day, diffused and partly filtered by layers of clouds or smog on others. Depending on time of day, season and geographic location, it penetrates the atmosphere at different angles and so reaches us modified again in its spectral composition. These are the reasons why the color temperature of daylight varies and colors look different on different days. Natural daylight proves to be an uncertain light source for the evaluation of color.

In passing, it should be mentioned that the Commission Internationale de l'Eclairage (CIE) has agreed on light sources for the testing of colors with satisfactory results for scientific purposes.

The architect must realize that the Kelvin temperature ratings of artificial light sources do not fully express their color rendering abilities but do provide an acceptable general guide. There are fluorescent lamps available that have

a color temperature fairly close to that of overcast daylight, or about 4,800 degrees Kelvin, but these fluorescent lamps do not necessarily produce precisely the same color rendition as daylight produces.

The composition of the phosphors excited by the electrical energy sent through the fluorescent tube varies considerably from one type to another.² Color temperatures in incandescent lamps may vary from 1,200 degrees to nearly 4,000 degrees Kelvin.

The dilemma of selecting colors in an office and later seeing them in daylight on a building or in its interiors has been a traumatic experience for many architects.

Another problem arises from the fact that colors are often evaluated in comparatively small samples and must be envisaged by the designer as applied in their full expanse and interacting with other colors. The problem of selecting from small samples for big areas cannot be solved in any other way than by the empirical method of imagining how the color will look in its full quantity.

The interaction of one color upon another can be tested in sample mock-ups—even in comparatively small mock-ups. It is best, of course, to allow in the design budget for the biggest possible color sampling of a mock-up condition. Such a sample mock-up can be viewed on different days and at different times of the day to evaluate its general and total effect in daylight. This method is used by some architects.

The question arises whether a testing condition can be established in the office for a less expensive and quicker evaluation of daylight and artificial light to avoid mistakes or disappointments. A few companies have produced artificial light sources corresponding to daylight as defined by the CIE and accepted by color experts.³ These artificial daylight sources permit color matching in industrial production so that a new batch of paint can be matched visually to the previous one or the color of one dye lot be checked visually against a standard sample.

THE RAINBOW

However, a standardized daylight source is of limited use to the architect because he must project colors as they will appear on the outside and inside of his building. Colors used inside a building must be more critically evaluated because the varieties of available light sources are many.

The interreflection of colors, obvious enough when buildings are seen within their setting of city or landscape, becomes more critical in interiors. This factor is as often overlooked in the selection of colors as is the light source. To arrive at valid color decisions, the best approach is to create testing conditions comparable to the lighting in the completed building.

A simple testing device can be had by making a cardboard box, approximately 24 x 24 inches and 12 inches deep, with one side open and with a hole in the top to permit a light source to be placed over it. The inside of the box should be painted a neutral light gray (N7/Munsell). This becomes a very inexpensive approximation of a more sophisticated tool: a light box, containing a variety of light sources likely to be used in the interior of buildings,⁴ or an industrial testing cabinet with a standard daylight source.⁵

After struggling for years with innumerable improvisations, we acquired the Model DK-15 light box. There are a sufficient number of incandescent and fluorescent sockets in the box, each wired to an appropriate switch, so that a quick test of the visual effect of different illuminants on color swatches can be made by the flick of a switch.

For more definite testing we have found it

helpful to be able to approximate the footcandle level to be used in the building. We increase the level of fluorescent lighting by using more than one lamp of the type planned, or decrease it by covering the fluorescent lamps partially with tape. One incandescent socket is on a 600W dimmer, so reducing the incandescent light is even simpler.

If we wish to test a complete scheme of wall and floor colors and furniture materials such as woods, leathers and fabrics, we obtain samples large enough to cover the inside walls of the light box and a piece of carpet to cover the entire bottom. This gives us a good approximation of the interreflection of light as it is bounced between walls and floor.

After checking the level of illumination in footcandles, we frequently have found that we

Correlated Color Temperature of Light Sources

Light Source	Degrees K
Sun at horizon through smoky air	1,000
Furnace at melting point of gold	1,336
Candle or kerosene lamp flame	1,900
Furnace at melting point of platinum	2,042
Carbon-filament lamp	2,100
Furnace at melting point of rhodium	2,233
Vacuum tungsten lamp or acetylene flame	2,360
Gas-filled tungsten lamp, 40-watt	2,760
60-watt	2,790
100-watt	2,860
1000-watt	3,000
Standard source A (representative of gas-filled tungsten lamps)	2,854
Photoflood lamp	3,400
"Warm White" fluorescent lamp	3,500
Electric arc, solid carbons	3,750
"Cool White" fluorescent lamp	4,500
Average noon sunlight	5,000
Standard source B (representative of noon sunlight)	4,870
"Daylight" fluorescent lamp	6,500
Heavily overcast sky	6,500
Standard source C (representative of average daylight)	6,770
Lightly overcast sky	7,500
Haze blue sky	9,000
Clear blue sky	25,000

¹ We are not concerned here with extreme conditions such as those measured by Kayatani and Donaldson who observed over 100,000 degrees Kelvin in blue-clear skies in Canada (*Illuminating Engineering*, June 1964).

² However, lamp manufacturers have agreed to adhere phosphor characteristics in the different types of fluorescent lamps so that they are comparable for practical purposes. A deluxe cool white lamp should have the same spectral composition whether manufactured by one company or another.

³ MacBeth Daylighting Corp., Duro-Test Corp., Verd-A-Ray Corp., Nu-Lite Division, El-Tronics, Inc.

⁴ General Electric Lighting Institute, Model DK-15.

⁵ MacBeth Corp. Examolite.

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Item	Percent Mixture	Percent All Areas	Color		Percent Reflectance
			Name	Notation	
Floor:					
Carpet	40%		pale greenish Yellow moderate Olive deep greenish Yellow	7.5Y 8/2 7.5Y 4/4 5.0Y 6/8	40%
	30%				
	30%				
Walls:					
Cherry Paneling	90%	50%	moderate yellowish Pink grayish yellowish Pink strong Brown	3.5YR 6/6 3.5YR 8/2 3.5YR 5/8	35%
	5%				
	5%				
	10%				
Walnut Trim			moderate reddish Brown	2.5YR 3/4	
Upholstery:					
Supported Vinyl	50%	3%	moderate reddish Brown	10.0R 4/4	12%
	50%	3%	moderate yellowish Green	2.5G 5/6	20%
Ceiling:					
Acoustical Tile		20%	White	7.5YR 9.5/1.5	80%
Table Tops:					
Parkwood Laminate		4%	Olive Green	10.0Y 3/2	6%

need to lower the light level in the box. The most surprising things happen to colors under dimmed-down incandescent light. We learned soon enough that our color choices were much more certain if we approximated the lighting level planned for a job.

Realizing that incandescent light by itself has a spectral composition in which red and yellow predominate, it is easy enough to understand that any blue will appear different in daylight than in incandescent light. This can be very simply observed. How quickly the blues, under dimmed incandescent light, become almost achromatic or gray is not so generally acknowledged. On the other hand, every good hostess knows that most colors containing red will be enhanced and look livelier and warmer under incandescent light of low intensity. But even here, a certain amount of caution is needed to arrive at an appealing color rendition. The trick of low lighting levels in elegant bars and restaurants has been abused to the detriment of the best color schemes and the most carefully gowned occupants.

That this is equally critical for the success of other space functions might be seen from this example: Imagine a room for which the requirements dictated a quiet, dignified and friendly atmosphere. The space is the reception room in a "carriage trade" physician's office. Bypassing anything that would have emphasized the "office character," we decided to use an adequate but low level of lighting, 30 footcandles,⁹ and an extremely quiet color scheme.

Our clients wanted to use walnut paneling for the walls. We rejected this because it would have made it impossible to accomplish adequate lighting without an unduly high amount of lighting contrast and resulting glare. If the owners had been amenable to an illuminated ceiling, the

use of polarizing diffuser panels could have produced a soft and glare-free lighting effect.

We decided on medium values with adequate reflecting properties: medium greens for the carpet, an almost white ceiling and, for the walls, cherry paneling trimmed with walnut. The upholstery colors were medium brown and medium green. The accompanying table shows the scheme described by Munsell notations, and the color names and reflectance values of the predominant materials defined by the National Bureau of Standards-Inter-Society Color Council.

In selecting the colors, we aimed at an average lighting level of approximately 30-35 footcandles; we found that we had to achieve at least this or the colors would become "muddy" or achromatic in appearance. We also found that when the lighting level was reduced to less than 30 footcandles, the reddish color of the cherry paneling would predominate too strongly over the yellow greens of the carpet and draperies (the latter would not receive enough yellow rays to reflect light).

It is not surprising that everyone of us enjoys a stage performance, be it an opera, musical comedy, nightclub act or a school play. We also enjoy a well-composed and beautifully lighted store window at night. This is true because theatrical lighting designers as well as display men are usually sensitive to, and versatile in, the use of light sources and the interreflection of colors. Many of them, without bothering about the physics of light or Kelvin ratings, have learned how light sources can be used to bring out the colors they wish to show, just as an artist can emphasize in a painting some features and leave out others to convey his idea to the viewer.

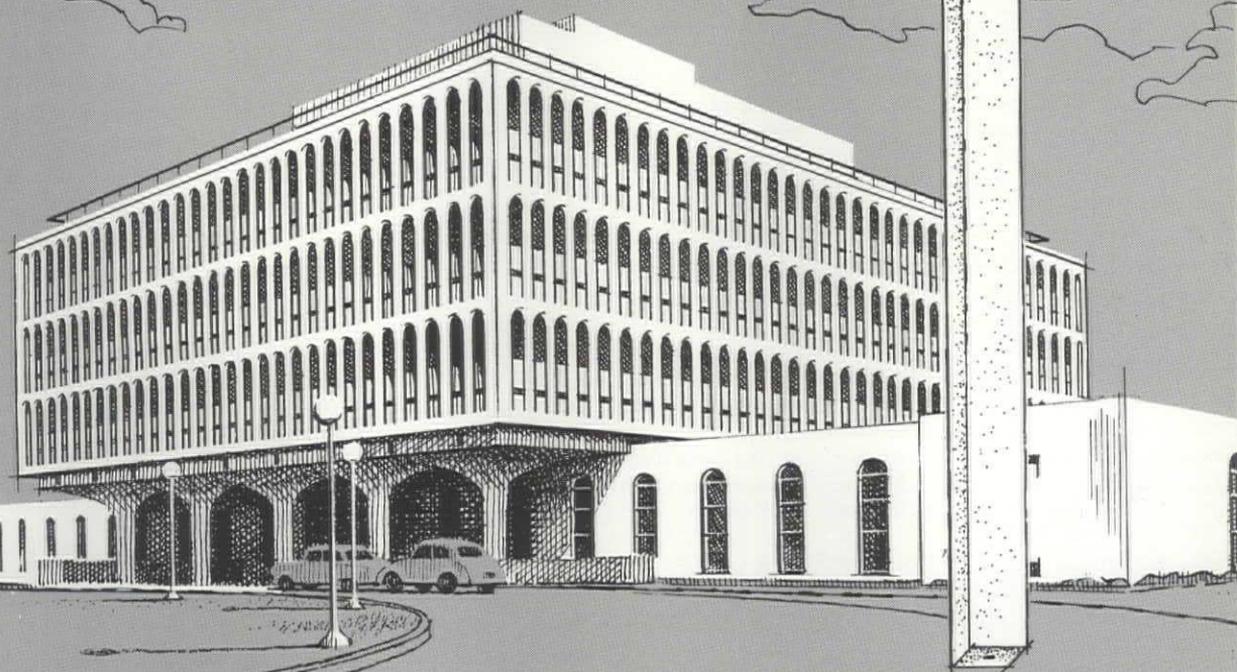
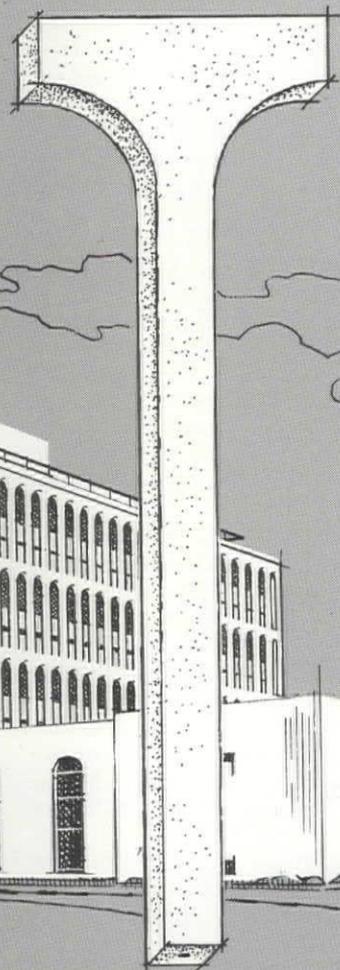
An architect can render the colors he has selected to be seen or to be guessed, to be emphasized or to be subdued, by coordinating light sources with the selected colors to make sure that they all contribute to the success of the architectural design concept. Although he cannot control the daylight conditions, he can consider the contributing interreflecting colors of the surroundings. If a building is to be erected among others within the confines of a cityscape, the architect's selection of colors and materials will be different than that for a building that will be surrounded by natural landscape.

Most architects are fully aware that colors play an important role that cannot be overlooked in the esthetic reception of a building. By simplifying the selection of colors, it is hoped that architects will use them to ever greater advantage. □

⁹ 30-35 footcandles [IES Lighting Handbook, 4th edition, 9-49 et seq.: currently recommended illumination levels].

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Fees and the GAO

The AIA, on record as objecting to Government Accounting Office proposals to select professionals on a price competition basis, has received support for its position from a Congressional subcommittee.

Last year, while the Institute and professional engineering societies were campaigning to abolish the traditional 6 percent ceiling on A-E fees for government construction projects, GAO recommended that professionals be required to submit price proposals as a factor to be considered in selecting a firm.

Elmer B. Staats, US comptroller general, maintains that architectural and engineering services come under the provision of PL 87-653 which would require that such proposals be solicited from interested firms.

The GAO recommendations, already criticized by the AIA and engineering organizations as inimical to the government's best interest, have now come under additional fire from the House Subcommittee on Government Activities.

In a letter to the Comptroller General, Congressman Jack Brooks of Texas, who heads the subcommittee, took direct issue with the GAO interpretation of present statutes governing federal procurement of architectural and engineering services.

The GAO report, recommending competitive negotiation, held that the arbitrary 6 percent limitation was intended to apply to all A-E contracts without regard to size of project or scope of services. But the Comptroller General recommended repeal of the "impractical and unsound" limitations.

The Brooks subcommittee said the intent of present legislation is clear: The 6 percent ceilings apply only to basic architectural and engineering services—production of designs, plans, drawings and specifications and that there is no prohibition against additional compensation for additional services. Furthermore, Brooks' subcommittee opposes eliminating the statutory limitations.

Noting, however, that the limitation could lead to inequities on

extremely small projects, or large jobs involving an unusual degree of complexity, the subcommittee offered to explore legislation to allow for higher fees in such cases.

Agency Approach Upheld: In an attempt to refute arguments that professionals should be required to submit price proposals prior to selection, Brooks' letter stated, "We believe the traditional agency approach reflects the best interests of the government."

PL 87-653, the statutory basis for GAO's recommendation of competitive bidding, states that proposals must "be solicited from the maximum number of qualified sources consistent with the nature of the supplies or services to be procured."

On this point, Brooks' letter noted that the procurement of architectural and engineering services is not an end in itself, nor, certainly, is it the most costly phase of the project.

"The quality and cost of the facilities the A-E designs are the true test of his capability," the subcommittee contended, "Thus it behooves the government to optimize in every way the chances of selecting the A-E who will design the best possible building . . . at the least possible cost."

"If the amount to be paid the A-E enters into the initial stage of the selection process . . . the chances of achieving this optimum result are compromised. As there is no available standard of performance at the time of selection, any reduction in the amount of the fee resulting from the type of 'competitive negotiation' you have in mind could as easily come out of the successful A-E's performance as out of his margin of profit."

"Furthermore, this approach openly discourages the more painstaking, careful and thorough A-E whose offer of higher quality services could be at the mercy of less responsible members of his profession."

NBS Reverses Ruling: One federal agency had already moved to initiate new policies governing procurement of facility design

services, presumably based on the GAO recommendations.

The first agency to adopt the GAO suggestion to solicit bids from interested architects and engineers was the National Bureau of Standards. Writing to the bureau's director in December, Institute President Robert L. Durham, FAIA, pointed out that pending action by Congress, the GAO recommendations are not binding on government agencies.

The president's letter cited comments of the Brooks subcommittee and urged that NBS reconsider its policy.

The bureau promptly replied that it had reconsidered the matter and would "no longer seek the services of architects and engineers on the basis of competitive negotiations"—a clear reversal of its previously announced directive.

Crystal Ball Gazing: What happens next is not entirely clear. The Comptroller General has stated that unless the 90th Congress acts to clarify existing legislation, he will stick by his guns and require priced proposals from A-E's if they wish to be considered for federal work.

GAO is empowered, and in fact required by law, to interpret legislation regarding government procurement—and feels that in this case, its interpretation is correct.

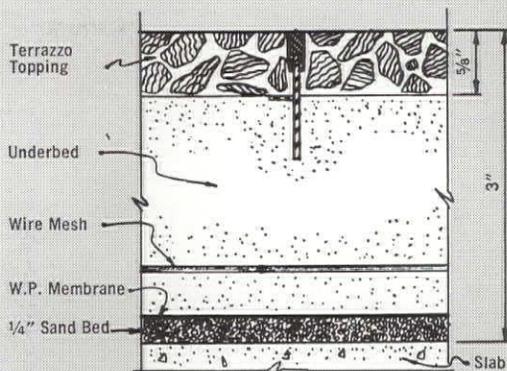
It is highly unlikely that the findings of the Brooks subcommittee will be considered action by Congress; rather, the likelihood is that Congressional hearings will be held, and that present statutes may be amended to spell out the lawmakers' intent.

Conceivably, the GAO position on both aspects of the fee controversy—the 6 percent limitation and the competitive negotiation requirement—could be upheld in such hearings. The professions expect existing agency selection procedures, based upon professional qualifications, will continue to prevail.

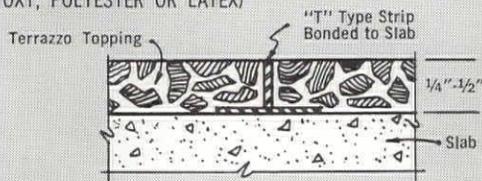
Whatever happens, it appears obvious that the hearings will result in a definite, win-or-lose outcome for the design professions. □

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A Solid Base for Chicago School

"For all its granite, this home is wonderfully elastic. You can squeeze as many as you want into it." Such was the comment of Chicago's late John J. Glessner, International Harvester founder, on the house designed for him in 1885 by H. H. Richardson.

Now, instead of an affluent Victorian family, the house shelters the Chicago School of Architecture Foundation and is well on its way to becoming a living museum of Chicago architecture dating from the late 19th century. (Glessner would be pleased; his will stipulated that the house be maintained "as a museum, library, gallery and educational institution including a school of design for legitimate architectural assemblages.")

The 35-room mansion housed the Glessner family comfortably in an urban setting. It turned its back on the noise and dirt of the street and faced a quiet courtyard. This acceptance of site conditions, and relating of the life within to the city without, really marked the beginning of functional planning.

Glessner left the house to the Chicago Chapter AIA; however, Depression economics prevented the chapter from accepting the bequest, which was then given to the Armour Institute of Technology (now IIT). Two years ago the house was offered for sale; a movement to preserve it, spearheaded by Philip Johnson, FAIA, ultimately resulted in creation of the Chicago School of Architecture Foundation which now owns and occupies it.

Restoration of the house by the

foundation has begun. Although the heating system is inoperable and the building needs refurbishing and repairs, it is structurally sound. Temporary plumbing connections have been installed and the main rooms have been painted. Volunteers spend Saturdays cleaning, removing debris, cutting grass and polishing woodwork.

The foundation has recently acquired, for its permanent collection of Chicago School artifacts, ornamental metal work from Louis Sullivan's 30 North LaSalle Building. "Segments of the past" from the Hyde Park-Kenwood renewal area, collected under the direction of Mrs. Leon Despres, may be seen in the house. Some of the original furnishings are being procured, but contributions are sought; for instance, additional Sullivan ornament, Frank Lloyd Wright windows and furniture from any years prior to 1920. Lighting fixtures and such pieces from significant or typical buildings through the years are wanted, for restoration as well as for exhibition.

A library of the work of the Chicago School architects is being collected. The foundation wants all architectural books and magazines, especially works on the beginning of the modern movement. There will be a photographic file in the library. Greatly needed are photographs of buildings now destroyed, or in original settings which have since been changed. Interior photos, even poor ones, are greatly desired.

The foundation is seeking origi-

nal drawings or blueprints from the offices of Chicago architects. Renderings, sketches, snapshots and all those tools by which architects got their buildings built can be most interesting to students of a phase of architectural history.

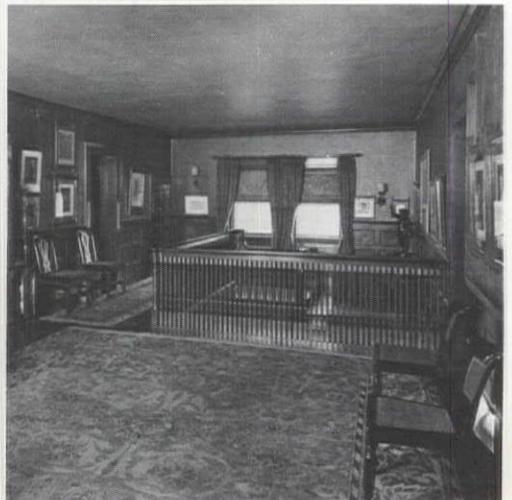
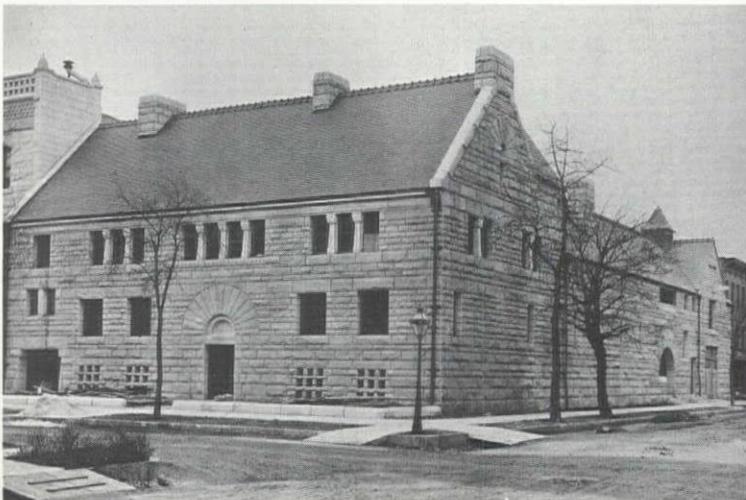
Exhibits, lectures and seminars on subjects immediate and related to the Chicago School and the architecture of Chicago will be sponsored by the foundation. Members of the staff will lecture both at Glessner House and at schools, civic meetings, clubs—wherever the significance of Chicago architecture will fall on receptive ears. Tours of Chicago architecture are now being arranged for any interested group.

The foundation will encourage, even undertake, research into subjects in the general field and will plan to publish works which warrant it. Even the most obscure study will be kept on file for future use. A small periodical is planned which, it is hoped, will grow into an interesting illustrated bulletin.

Glessner House, on 1800 South Prairie Avenue, is open to the public. Visitors are welcome daily by appointment.

To those interested in the activities of the foundation, memberships (students at \$5 a year, regular at \$10) are being offered. Members will receive the foundation newsletter and other mailings of periodic interest. Committees will be formed from the membership to carry on various phases of the work. Sustaining, corporate and life memberships are also available. □

Granite exterior of the Glessner House, without polychromy, is one of Richardson's finest. Drive under house is at left, then main entrance, servants' entrance and stable door. Interior was finished after Richardson's death.



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Unfinished Business from page 30

and management tool. Chairman Philip J. Meathe has completed opinion surveys among the profession's various publics to determine what our present assets and liabilities are and has developed a three-year master plan to solve the problems found. To implement this plan we must triple our present \$100,000 annual cost of public relations.

Thus the board had to consider the possibility of increasing regular dues, or else give a negative answer to the commissioners who had so brilliantly delineated the need for Institute growth. We took many things into consideration before making our decision.

Among them was the fact that the AIA has not increased its regular dues since 1950—when \$1 bought the goods and services it takes \$1.40 to buy now. For 17 years, the only means at the AIA's disposal to pay for new continuing activities and the inflation of costs of services has been the relatively small annual revenue increase coming from new membership increases and from sale of publications or from other miscellaneous sources.

We also considered the fact that many AIA chapters have in recent years substantially increased their dues. This indicates to us that architects are willing to provide the increased revenues that increased services require.

With all these things in mind, your directors gave an affirmative response to the commissioners by voting to ask the Portland convention to approve an increase in regular dues. The increase, which will not be effective until 1969, raises the regular dues from \$50 to \$75. They are now \$20 for a first-year member, \$30 for a second-year member, and \$50 after that, and would become \$25-\$50-\$75.

The increase will cost each member less than 50 cents a week but will yield the AIA an additional annual net income of about \$455,000. The board felt that this was the smallest increase that would provide for the Institute's needs.

This, then, is the decision that the delegates to the Portland convention will be asked to make: to approve an increase in regular dues that will not unduly burden any individual member, but which will enable the Institute to expand to meet responsibilities and opportunities.

I urge all members to consider this issue and join me in support of growth investment and progress. □

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Books

Design Coordination and Corporate Image. FHK Henrion and Alan Parkin. London: Studio Vista; New York: Reinhold, 1967. 208 pp. \$25.

Take a look at your stationery, mailing labels, statements, delivery notes, invoices, order forms, professional brochures and publications—in short, at anything visual which announces your office to the world. Its image, for better or worse, is affected by the appearance of all these things.

Have you established any standards of design? Is there a unity of style? Does the design you select project the image of you that you want the world to see and judge? A favorable awareness of your office, whether large or small, can be established and reinforced daily by such things as well-designed letterheads, and all to your financial profit.

Such is the thesis of this book, which claims that corporations, government departments, national organizations and professional offices do themselves unnecessary harm by an "uncoordinated visual presentation."

In the introduction the authors set forth a number of definitions, examine design criteria and indicate a general pattern of procedure. They also discuss the basic elements in design coordination and conclude that there is no simple recipe for success.

One single factor is present, however, in every successful program. Success was achieved only when the top executives took an active interest in design. "This interest," Henrion and Parkin report, "did not stop at appointing a de-

signhouse, Olivetti and IBM, for accolades are bestowed also upon an apple farmer in Sussex, England.

This can be a useful book for an architectural office. Henrion, an authority in the field of design coordination, is president of the Alliance Graphique Internationale and a member of two councils on design education. Parkin's area of study at Cambridge was mathematical logic, and he carried out a year's research into applications of logic to visual design. Formerly production editor of the *Architect's Journal*, he is now associated with Henrion Design Associates.

AIA 67. Philadelphia: American Institute of Architects, Philadelphia Chapter, 1967. 136 pp. \$5.

The Philadelphia Chapter annually publishes a yearbook, the purpose of which is to "provide a graphic record of the work of Philadelphia architects and to further a public understanding of the profession and practice of architecture."

The 1967 annual, now available from the chapter, includes buildings and projects by 32 architectural firms. There is also a representation of student work from three Philadelphia institutions and a section on the Northwest Philadelphia District Plan. The book notes the officers and committees of the chapter and gives a complete list of the membership.

Constructivism: Origins and Evolution. George Rickey. New York: George Braziller, 1967. 305 pp. \$15.

Constructivist art is built rather than cast or carved. It may be in a variety of materials—metals, plastic, glass, nylon—or in a combination of them. As Naum Gabo, one of the originators of the movement wrote, "In sculpture, as well as in technics, every material is good and worthy and useful, because every material has its own esthetic value."

Rickey's historical survey of this movement in 20th century art begins with the sculptor brothers in Moscow, Naum Gabo and Antoine Pevsner, who worked during the period of upheaval just after World War I. Rickey, a sculptor himself, traces the development of the movement from its beginnings to the present day. He sets forth an outline of events "to explain their continuity," and defines "the points of view of the masters" in order to provide a background for the work of the younger generation of art-

ists. It is their work that is the "true subject" of the book.

Constructivist painters and sculptors "build into space," as Gabo said. Through their constructions they enter into the sphere of architecture. This book is not concerned with the influence of constructivism on architecture, but it is necessary for the architectural philosopher to understand its theories and its impact in any assessment of modern architecture.

For those who want a concise and clear statement of constructivism and its relationships with modern architecture, there is an excellent essay by Arnold Whittick in the *Encyclopaedia of Modern Architecture* (AIA JOURNAL, May '65). This essay may be read as a preliminary note to this book.

Whittick says, "Perhaps the tenet of the constructivists that has most strongly survived in architectural thought is the identity of efficient construction with beauty, which is a variant of the theory that true and economical fitness for purpose results in beauty. It is a theory held by many noted architects and engineers."

There is an extensive bibliography which forms a valuable part of the book. It was prepared by Bernard Karpel, librarian of the Museum of Modern Art in New York. Karpel includes a section on "Special Fields: Architecture & Design, Painting & Sculpture." The book also contains a selected list of biographies of some of the younger artists important in the constructivist movement today.

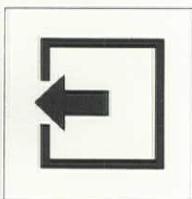
Princeton Architecture: A Pictorial History of Town and Campus. Constance M. Greiff, Mary W. Gibbons, Elizabeth G. C. Menzies, Princeton: Princeton University Press, 1967. 200 pp. \$12.50.

A historical and visual account of Princeton University and the town of Princeton is furnished in this handsome book.

In 1963 an exhibition was held in Princeton to celebrate the sesquicentennial of the town's charter. Some 400 photographs, paintings, prints and drawings were assembled to show the architectural heritage of one town. This book was developed out of the desire for a permanent record of that exhibition.

The book, however, is a great deal more than that. Careful attention has been paid to make the text and the captions as accurate as possible, and the authors have

Continued on page 83



signer in the first place, but continued in seeing that he got full cooperation from the firm, and that his recommendations, once approved, were correctly applied and maintained."

Thirty-seven examples of successful design coordination are illustrated, each with a case history. Don't think success is attributed only to big corporations like West-

gone back to original sources for verification. Also, Elizabeth Menzies' striking photographs are used where the original structure is now destroyed. The whole makes for more than the ordinary picture book, for the prose is interesting and the pictorial part of the book is striking.

The authors have revealed Princeton's history "in the palpable form of wood and brick." It is to their credit, too, that they chide both town and gown at their hesitancy in accepting the forms of modern architecture, stating, "Princeton's traditional conservatism still dominates, at least in the field of the visual arts. It remains to be seen whether Princeton will in fact move with the times or continue to seek refuge in outworn symbols and styles of the past."

Architecture in Greece: Annual Review. Orestis B. Doumanis, Editor and Publisher. Athens, 1967. 321 pp. \$15.

Doumanis, the publisher-editor of this new annual review of architecture in Greece, states in the introduction that in Greece there is a refusal to face the causes of underdevelopment in the economic and social structure and that with rare exceptions the same situation prevails regarding the solution of technical problems.

"Basic issues," he writes, "such as the preservation of the natural form of our environment, the planned growth of our cities and their equipment with all necessary public facilities, the housing question and the creation of comfortable living conditions in both old and new residential communities, the adherence to the architectural traditions of our country along with the propagation of new materials and methods of construction, the exploitation of the immense potential of Greece, such issues, fundamental to the future of our country, are being faced as the occasion arises, superficially, spasmodically and inconsistently."

As a result, Doumanis declares, there are disastrous results evident in the chaotic urban growth, unacceptable living conditions, serious housing problems and other social ills—and in a waste of talent of many architects. Therefore, he reasons, "it would have been absurd to expect any remarkable achievements in the fields of architecture and town planning."

Doumanis notes, however, that

there are exceptions. He seeks to encourage their presence by the presentation of them in an annual review. He hopes such a review will encourage other endeavors in the solution of technical, economic and social problems. At the same time, he seeks to inform those interested in Greece's future through the publication of various articles which endeavor to analyze basic Greek problems.

The review will give aid and assurance to the country's architectural schools by presenting the work of the schools, thus imparting to the public the importance of training architects to serve society.

Another aim of the review will be to publish the results of the more important architectural competitions. And, finally, it will present articles on the history of Greek architecture and town planning with the hope of "preserving the spirit that dominated its long and durable course." These are worthy aims, to be sure, and we wish the new publication a long and happy life.

This first annual has 10 sections on regional planning; town planning; housing; tourism; public health buildings; chapters from the history of Greek architecture and town planning; Greek architects and their work; architectural competitions; the education of architects; and architectural congresses.

There is an abundance of illustrative materials. The major articles are summarized in English, and the explanatory captions to the illustrations are in English and Greek. The structures Doumanis has chosen to include certainly appear to be a credit to a noble country whose architectural traditions are still the wonder of man.

Castles and the Churches of the Crusading Kingdom. T. S. R. Boase. London and New York: Oxford University Press, 1967. 121 pp. \$17.50.

The first guidebook to the Holy Land, Boase informs his reader, was written in 333 by a Bordeaux pilgrim. By 386 St. Jerome wrote of the many sightseers to Jerusalem who came to "behold with their eyes the things whereof they had read in books."

From the time the warriors of the First Crusade took Jerusalem in 1099, pilgrimages to the Holy Land took on even deeper significance. Detailed and descriptive accounts of the Holy Land, written for "spiritual edification," became nu-

Continued on page 86



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Books from page 83

merous. Very little was said about buildings, however, and archaeology as we know it was of no concern. Furthermore, writes Boase, the Crusaders destroyed ancient monuments with "unhesitating readiness," and "any claim of a site to particular sanctity at once led to its transformation into Romanesque or Gothic terms."

This is a detailed and interesting account of the buildings of the Crusaders who retained their hold on the Holy Land for nearly 200 years. Beginning with the Church of the Holy Sepulchre, Boase gives a scholarly and descriptive survey of the architecture of the Crusades. He includes the principality of Antioch and the counties of Edessa and Tripoli as dependencies of the Latin Kingdom of Jerusalem but omits the crusading history in Rhodes, Cyprus and Greece as being later in time and subject to different influences.

Castles and churches as Boase describes them impart to the reader something of his own enthusiasm for his subject. He has paid particular attention to travelers and the comments they have made over the centuries about the buildings of the Crusaders.

Boase, president of Magdalen College at Oxford and formerly director of the Cortauld Institute and editor of the *Oxford History of English Art*, is a true scholar but not a dry one. His book is ably supplemented by many beautiful colored photographs by Richard Cleave.

Saint Peter's: The Story of Saint Peter's Basilica in Rome. James Lees-Milne. Boston: Little, Brown & Co., 1967. 336 pp. \$15.

This beautiful book is the chronicle of a single structure, a building which is substance and at the same time symbol.

Lees-Milne, well-known architectural historian, believes that St. Peter's primary beauty is to be looked for in its historical context, and he has recorded its story over the past 1,900 years, beginning with an account of the humble fisherman, the apostle Peter, for whom the emperor Constantine named the first basilica.

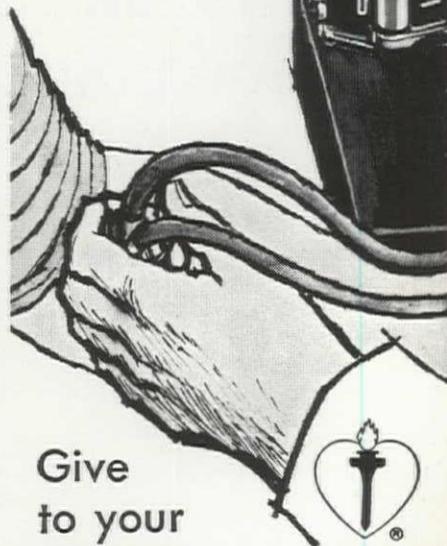
St. Peter's has undergone countless vicissitudes since that time; it has also witnessed awesome occasions. This book tells the complete story, and it reveals a great deal about the people who were

Continued on page 88

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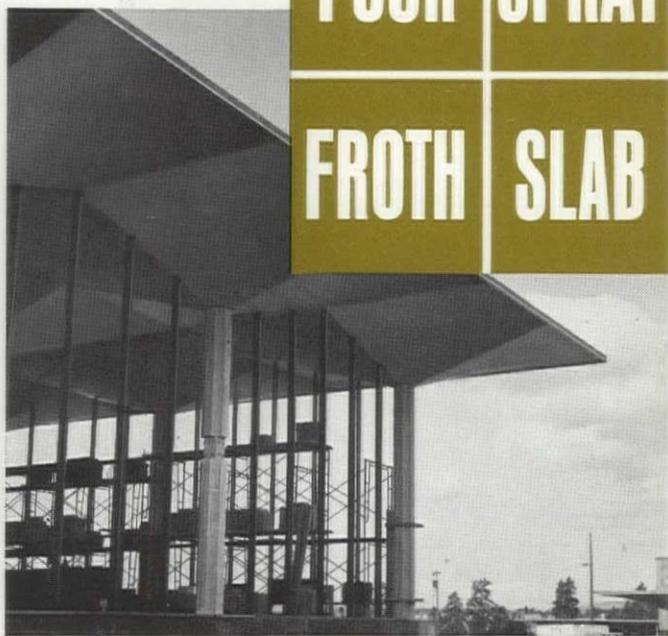
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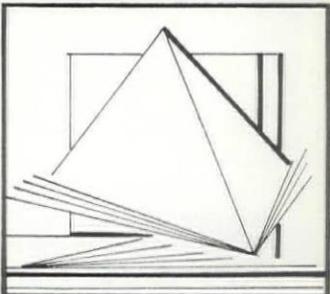
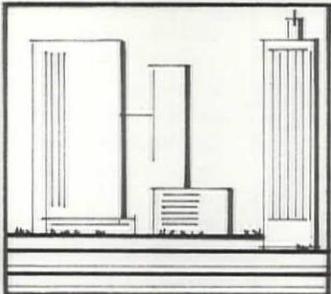
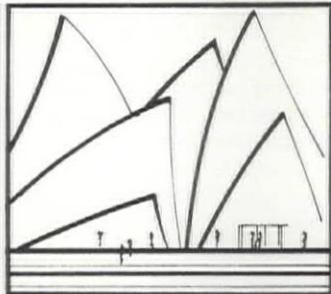
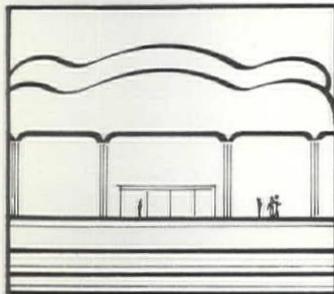
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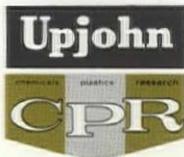


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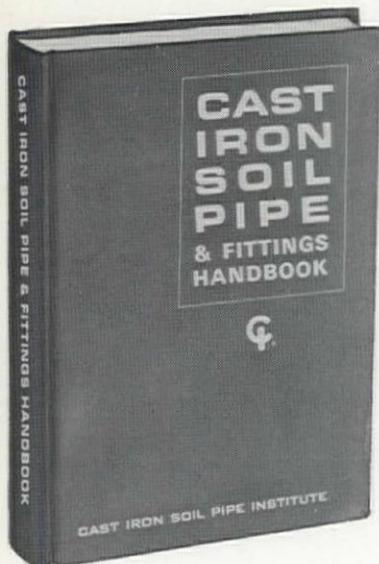
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Books from page 86

involved in its building: popes, artists and architects.

Lees-Milne says that if we look upon St. Peter's Basilica as a single, concerted work of art, we have to call it a gigantic failure. "Nearly every great architect of his generation had a 'go' at St. Peter's." But one by one they "dropped off the stage, thwarted, disillusioned, disappointed."

How then could such a structure ever be called successful? But for Catholic and non-Catholic alike it has a moving power. Its history, its symbolism and its "living continuity of Christian worship" in addition to its magnificent and priceless works of art, all contribute to its beauty and power. Lees-Milne has written about St. Peter's with deep respect and with scholarly insight and in facile prose that holds one's attention.

There is a profusion of illustrative material, many photographs in full color, and they all acclaim this singularly fascinating building.

Scandinavian Dental Schools: A Report on Three Schools in Denmark, Sweden and Finland. George E. Galayda. Detroit: Smith, Hinchman & Grylls Associates, no date. 28 pp. No price given.

While working on the design of a number of dental schools, the architectural firm of Smith, Hinchman & Grylls Associates conducted some research into an architectural environment that would reflect the demands of a new dental curriculum to meet tomorrow's needs and that would be flexible enough to withstand future pressures.

The firm was informed that a number of Scandinavian dental schools were of exceptional design, and so architect George E. Galayda and Dr. Dale F. Redig of the University of Iowa's School of Dentistry were sent to investigate. This is Galayda's report of the visit to three schools in Denmark, Sweden and Finland.

There are photographs and floor plans of each of the schools and a brief account of the architectural features. Galayda concludes that the concepts and the architecture were traditional and that the design did not embody those characteristics that would provide for future demands.

As he points out, dentistry is in a state of flux in the United States, and we are being pushed beyond traditional solutions to the design problem perhaps far more rapidly

than the Scandinavians. When a new dental school is contemplated, Galayda believes that the university and the architect must consider the changing needs and "spend the time, effort and money to produce and design a building that will withstand the stress of time" and still be "flexible enough to accommodate significant changes in dental education and practice."

With new prophylactic methods and with ever-increasing demands for dental care by more and more people, dental practice is bound to change and new methods evolve, thus demanding new answers to design problems. Smith, Hinchman & Grylls is to be congratulated on its efforts to seek the answers.

British Architecture and Its Background. John B. Nellist. London: Macmillan, 1967. 361 pp. \$15.

Nellist wrote this book for his students at Ashville College, Harrogate, England, where he teaches courses in the history of architecture and in art appreciation. The book includes, appropriately for student use, a glossary, bibliography, annotated reading lists, chronological tables and many photographs and drawings.

The emphasis of the book is on architecture in Great Britain, but the architectural development is viewed against a world background. Nellist sees the history of architecture as the history of man's ability to organize space, and he relates the manner in which the complexities of society are reflected in architecture.

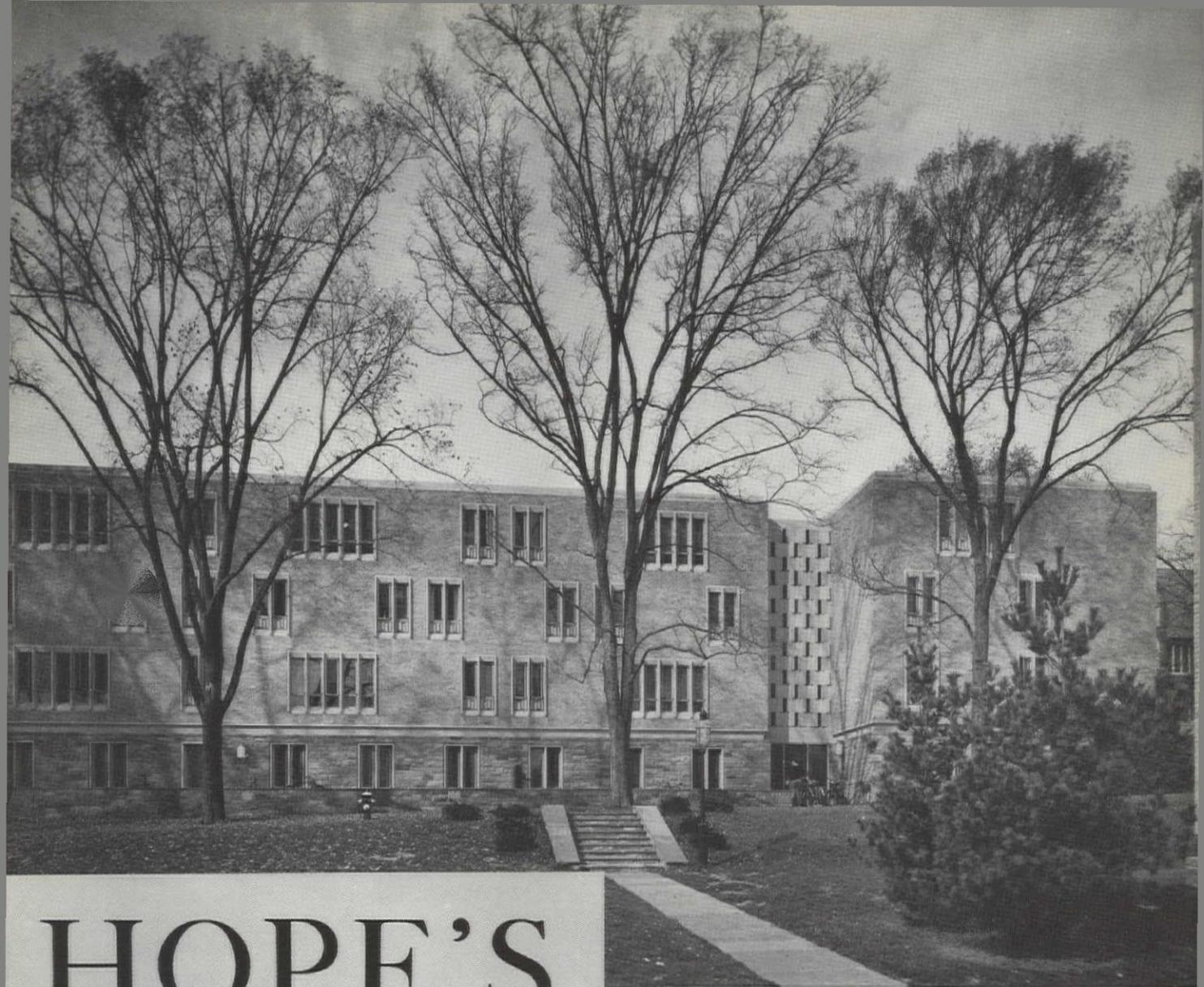
The fact that the book was written with young students in mind and that its stress is on British architecture should not deter the American architect from reading it. There are many interesting ideas in the book, the sections on architectural developments in the United States and on the modern movement in Europe and America being particularly provocative.

The Department of Housing and Urban Development. John B. Willmann. New York: Praeger, 1967. 207 pp. \$5.95.

Major United States Government departments and agencies will be considered in some depth in a forthcoming series by Praeger. By the time it is completed in 1970, it is anticipated there will be 100 books published.

This one, of more concern to architects than some of the departmental studies will probably be, is

Continued on page 94



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1968 In press

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AIA JOURNAL/FEBRUARY 1968 93

a survey of HUD, describing its origins, structure, present duties and responsibilities and its relationships with Congress and with housing lobbies. There are appendices which give the full text of the Model Cities legislation and federal grants-in-aid programs.

Willmann, the author, is real estate editor of the *Washington Post* and has served as president of the National Association of Real Estate Editors.

Thermal Performance of Buildings. J. F. van Straaten. New York: American Elsevier Publishing Co., 1967. 311 pp. \$13.

Van Straaten makes the statement that happy and well-fed people are less inclined to complain about working conditions than those who are dissatisfied and unhappy. Be that as it may, we have come to expect more of a building than a mere shelter.

The entire matter of thermal requirements in relation to comfort and health is complicated, and, as the author points out, involve both physiological and psychological

factors. Van Straaten has given the environment of buildings a great deal of thought, and his aim here is to help the architect avoid costly mistakes through the application of proven design principles pertaining to thermal and ventilation conditions.

Van Straaten is associated with the National Building Research Institute, South African Council for Scientific and Industrial Research, and most of his work has been based on warm weather conditions.

Downtown Revitalization: A Collection of Selected Writings from Professional Journals. Downtown Revitalization: An Annotated Listing of Selected Articles from Professional Journals. A New Look for Downtown: Ideas and Examples of Central Business District Improvement. Howard A. Schretter. Athens, Ga.: Institute of Community & Area Development, University of Georgia, 1967. 3 vols. No price given.

These three manuals, reproduced from typewritten copy, contain information of interest to those concerned with the development of the central business district.

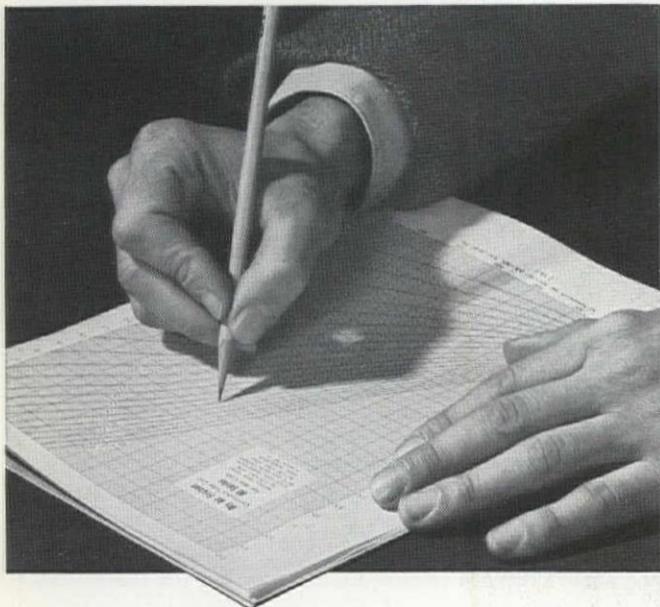
The manual containing selected writings from professional journals is a compilation of articles on the downtown, its problems and solutions. The arrangement of the material is in four parts: general, redevelopment, marketing and parking. Each article is preceded by a brief annotation in order that the reader may scan the contents rapidly before reading more selectively. The AIA JOURNAL is included among the periodicals from which Schretter has selected writings for the collection.

The second manual, which provides an annotated list of articles on downtown problems and potentials, has the subject arrangement as its companion. Again, the AIA JOURNAL is among the 13 magazines surveyed.

The third manual, *A New Look for Downtown*, presents some ideas and concrete examples for downtown improvement, suggesting a variety of ways the downtown can tackle its problems.

The author of the three volumes is research associate in geography at the University of Georgia's Institute of Community and Area Development. □

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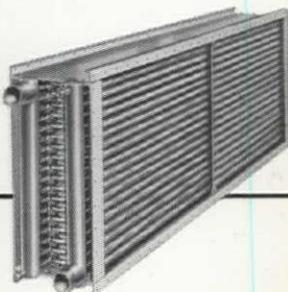
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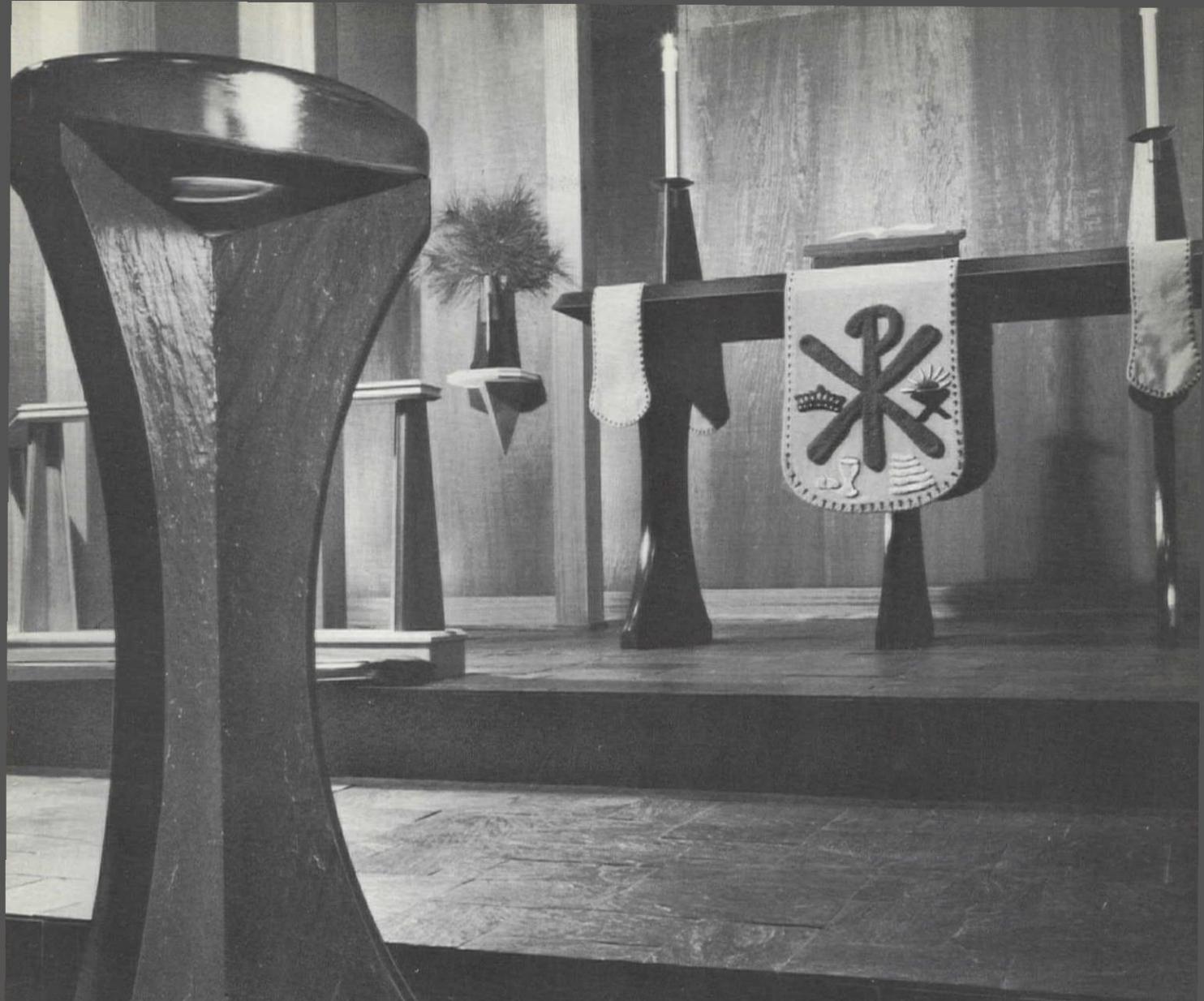


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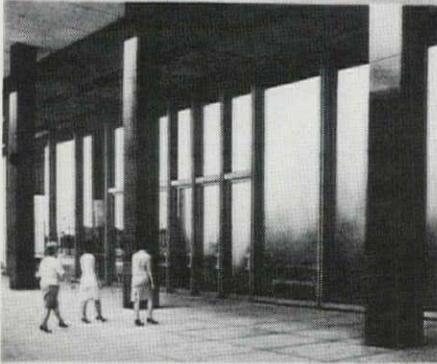
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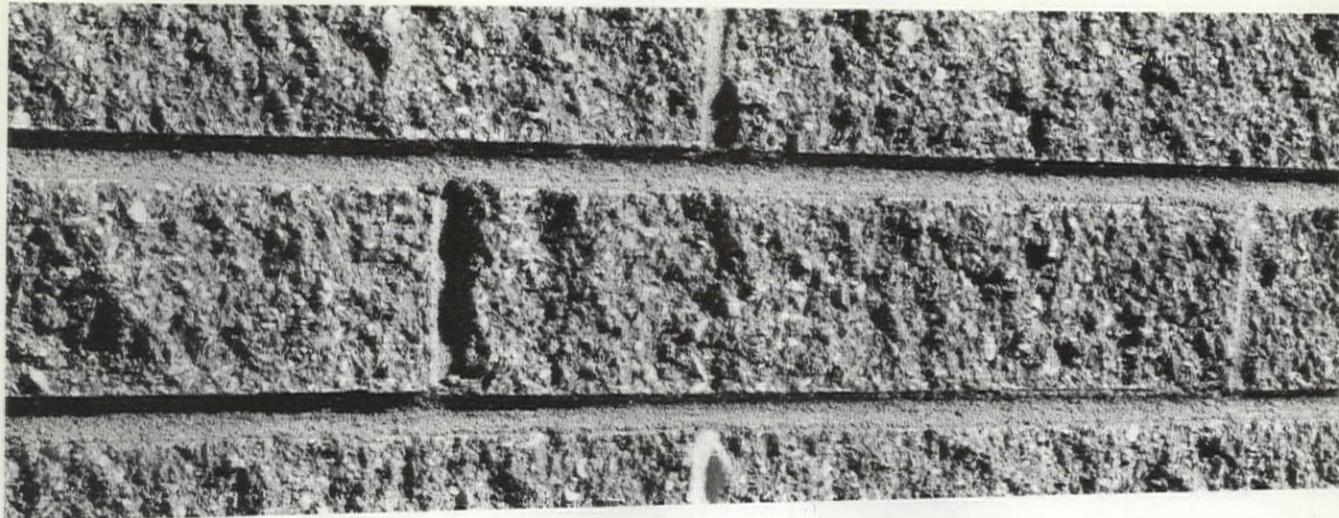


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Calendar

National

- Mar. 2-8:** American Concrete Institute Annual Convention, Statler Hilton Hotel, Los Angeles
- Mar. 10-15:** American Society of Photogrammetry and American Congress on Surveying & Mapping Annual Convention, Washington Hilton Hotel, Washington, D.C.
- Mar. 27-28:** Building Research Institute Conference on Totally Manufactured Building Modules, Conrad Hilton Hotel, Chicago
- Apr. 16-17:** American Society for Testing and Materials Seminar on Standardization, ASTM Headquarters, Philadelphia
- Apr. 22-24:** National Conference on Religious Architecture, Statler Hilton Plaza, Miami Beach, Fla.
- May 6-10:** Society of Plastics Engineers Annual Technical Conference, Americana Hotel, New York City
- May 7-9:** Consulting Engineers Council Annual Meeting, Statler Hilton Hotel, New York City
- June 23-29:** AIA Annual Convention, Portland Memorial Coliseum, Portland, Ore., and Ilikai Hotel, Honolulu (June 28-29)
- July 20-27:** Central Pennsylvania Festival of the Arts, Pennsylvania State University, University Park

AIA Regional and State Conventions

- Mar. 13-15:** Michigan Society of Architects, Hotel Ponchartrain, Detroit
- Mar. 30:** Pennsylvania State Association Seminar, Hershey Motor Lodge, Hershey, Pa.
- Apr. 4-6:** Middle Atlantic Region, Greenbrier Hotel, White Sulphur Spring, W. Va.

*AIA Committees and Related Meetings
(At the Octagon unless otherwise noted)*

- Mar. 6-8:** Honor Awards Jury
- Mar. 15-16:** Historic Buildings
- Mar. 18-20:** Executive Committee
- Mar. 20-21:** Reynolds Memorial Award Jury
- Apr. 22-24:** Board of Directors, Grove Park Inn, Asheville, N. C.
- May 16-17:** Administrative Committee

International

- May 20-24:** Inter-American Conference on Materials Technology, Convention Center, San Antonio, Tex.
- June 16-22:** International Design Conference, Aspen

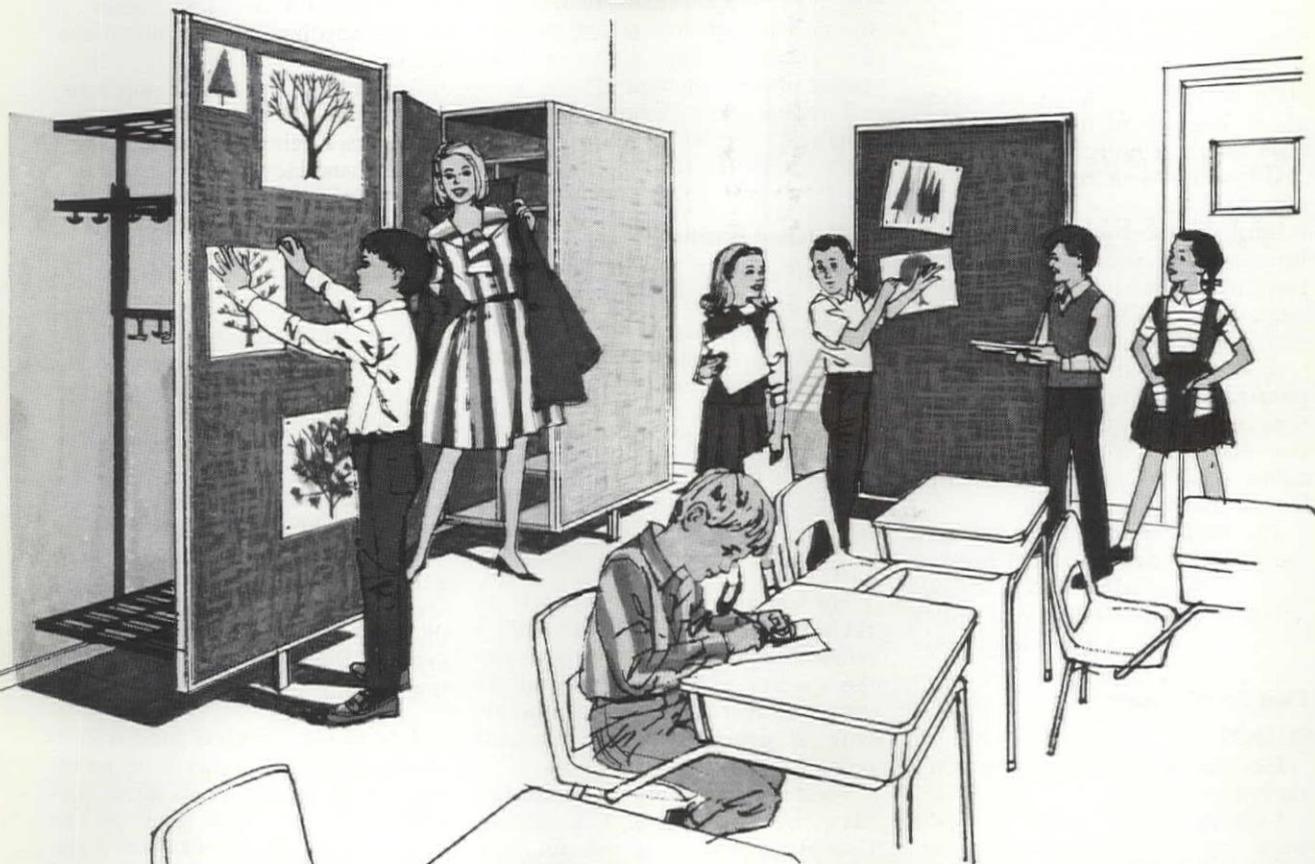
Awards Programs

- Guild for Religious Architecture Exhibition. Contact: Kenneth Treister, AIA, Awards Chairman, 3139 Commodore Plaza, Coconut Grove, Fla. 33133. Submissions due March 15.
- Liturgical Conference (preliminary plans and completed churches). Contact: Architectural Competition, 2900 Newton St. N.E., Washington, D.C. 20018. Submissions due May 1.

Tours

- Greek Settlements Through the Ages, July 6-13. Organized by the Athens Center of Ekistics. Applications must be sent to the ALFA Tourist and Travel Agency, 35 Voulis St., Athens 118, by May 6, with a deposit of \$52.50 (first-class hotel) or \$42.50 (third-class hotel). □

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Letters

The Profit Chase and Squeeze

EDITOR:

As the treasurer of an architectural firm, I read, without amazement, "The Not-So-Great Profit Chase" in the November issue.

Over the years I have had the opportunity to bring this subject before the Cleveland Chapter AIA and also have had individual talks with some local firms. I have always been amazed at the lack of basic business knowledge of many of the practitioners. The minimum fee structure as published by many state societies is an added example of the lack of business awareness within the profession.

It is quite apparent that the current profit squeeze will continue. A large number of firms may be forced out of business to the detriment of architecture. I believe it is incumbent that the Institute take a more active role in promoting:

- an educational campaign to emphasize the importance of the business aspects of professional practice as well as fostering business courses within the curriculum of the architectural schools
- a realistic fee structure on both the national and the local level.

SHELDON S. MANN
*Dalton-Dalton Associates
Cleveland, Ohio*

That Word "Beauty"

EDITOR:

Has "beauty" become a naughty six-letter word?

I am impressed by the fact that when we read descriptions of current contemporary architecture most writers refer to a building as being "dramatic," "exciting," "powerful," "unusual," "spectacular," "crisp and dignified," "an intellectual exercise," "a sprightly jumble of shapes," "clusters of angles and bits of cantilever," "abounding in symbology" or, if the structure is a particularly confusing example of the clumsy concrete school of design, as "displaying masterful and remarkable handling of materials, form and space."

It is obvious that these words and phrases are intended to impress on the reader's mind that there must be something wrong with him if he doesn't like what he sees. It seems significant to me, however, that nobody refers to these designs as beautiful. Nor do

they even infer that beauty should be any part of the consideration necessary to arrive at an intelligent appraisal of the quality of the architecture.

Why? Can it be because they aren't? And if they aren't, why is this so? Have architects and architectural critics concluded that beauty is no longer something to strive for? Has the fact that we are living in a confused time resulted in the production of such confused architecture that it has become incompatible with beauty? Or do the writers simply recognize the absence of beauty and consider that the phrases referred to are perhaps the kindest things they can say under the circumstances?

I repeat: Has "beauty" become a naughty six-letter word?

KENNETH C. BLACK, FAIA
Lansing, Mich.

Unfinished Business

EDITOR:

Bill Scheick's "Dialogue on Differences" in December just condensed my three years on the Institute board to one eloquent page. It's great but I bet you will still get some fiery retorts.

VICTOR C. GILBERTSON, FAIA
Minneapolis, Minn.

Praise from Down Under

EDITOR:

Having had occasion recently to review the JOURNAL for 1967, I must extend my compliments on the quality of its content and its great interest to me and undoubtedly to many others within and outside of the United States.

I send my warmest praise for the May issue (Official Convention Guide)—it was a wonderful production. And your section on Expo 67 in February also was a great credit to all of you.

R. S. GREIG
*Secretary, Royal Australian
Institute of Architects
Milson's Point, N.S.W.*

And from out West

EDITOR:

I have read Comment & Opinion for December and would like to add my voice in congratulating the JOURNAL on its wonderful performance. It's one of the most exciting magazines and just about the only one I read from cover to cover. Thank you for the fine job you are doing for all of us architects and all of those who are concerned with the physical environment.

KURT W. MEYER, AIA
Los Angeles, Calif.

Asides

Next Month: What's ahead for architects and architecture? While that question is being pondered by many in an off-the-cuff manner, it is being attacked in earnest by the Committee on the Future of the Profession. As a start, 13 architects and 10 nonarchitects assembled last year to consider the new concept of the creative process for man-made environment. A digest of their discussions runs the gamut from broad predictions to meaty, specific opinions on current trends.

March also features some interesting angles from a well-known photographer who suggests that the camera, whenever possible, should convey the architect's true statement; a column from the series in the *St. Louis Post-Dispatch* that won for its author the first AIA Architectural Critic's Citation; an interesting approach to renewal in Boston's Back Bay; and a review of a small art gallery's program that goes beyond its walls to produce architectural awareness.

The ACSA section leads off with an extensive look by a sociology professor at what his discipline can contribute to the architectural schools. A pictorial view of MIT students redesigning their labs and an examination of the Cal-Oregon experiment, a unique teaching method, conclude the section.

Salute to Our Printer: Judd & Detweiler, Inc., which has been printing the AIA JOURNAL since August 1962—the same date, by the way, when this writer joined the staff—has gotten its centennial year off to a good start with a publication that reviews the first 100 years. In the foreword, Board Chairman George E. Judd refers to "this most competitive field of communications (second in rate of failure to restaurants alone)."

Judd & Detweiler, whose birthday is November 2, says this about the JOURNAL: "Editorially stimulating with excellent presentation of content, the magazine presents a provocative, comprehensive view of the profession." R.E.K.

PHOTO & ART CREDITS: P. 8—Art Hupy; 33, 34—National Education Association, Carl Purcell; 52 (top, left)—Ezra Stoller; 52 (top, right)—Baltazar Korab; 52 (bottom), 53 (top, left)—from Lawrence Halprin: *Cities*, Reinhold Book Corporation, a subsidiary of Chapman-Reinhold, Inc., New York, 1963; 53 (right)—H. Armstrong Roberts; 55—Andrew F. Euston Jr., AIA; 58—Robert W. Schmetz, FAIA.