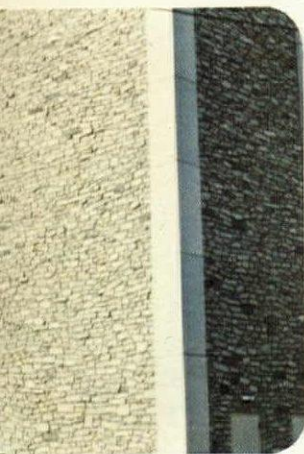
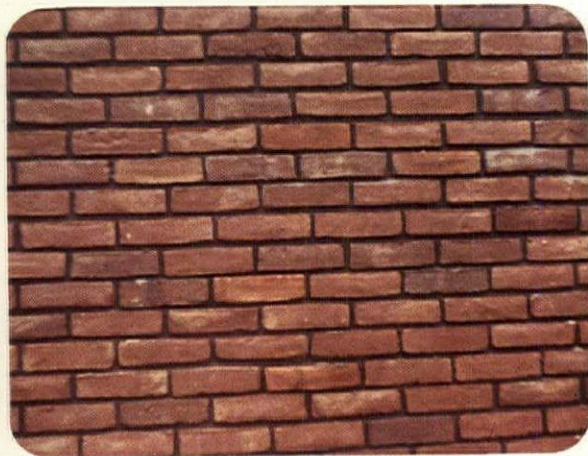
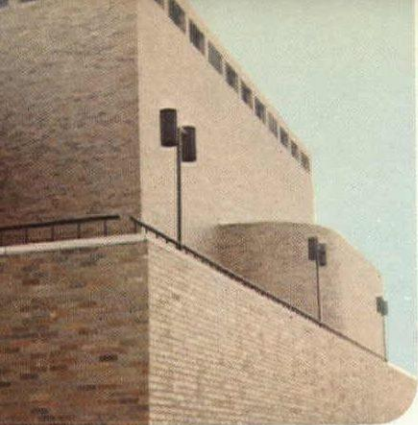


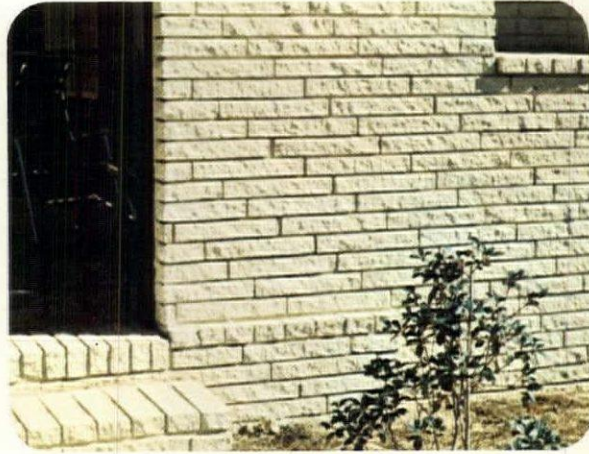
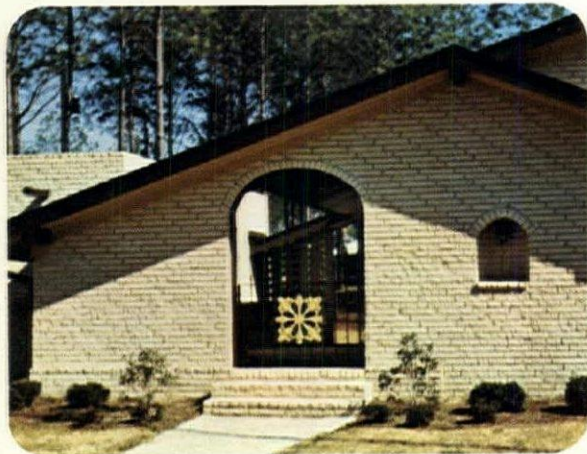
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Left: ITT TELECOMMUNICATIONS ADMINISTRATION AND RESEARCH BUILDING, Oak Brook, Ill. Architect: Fred H. Fraher. General Contractor: Del E. Webb Corporation. Dover Oildraulic passenger elevator installed by Dover Elevator Co.

Right, above: OHIO PRESBYTERIAN HOME, Columbus. Architects: Tully and Hobbs; Richard, Bauer and Moorhead. Built by John W. Galbreath & Co. for United Redevelopment Corp. Two Dover electric traction elevators installed by Dover Elevator Co., Columbus, Ohio.

Right, below: MISERICORDIA CONVALESCENT HOME, York, Pa. Architects: J. Alfred Hamme & Associates. General Contractor: L. M. Klunk & Sons, Inc. Dover Oildraulic elevator installed by York-Gregg Elevator Company.



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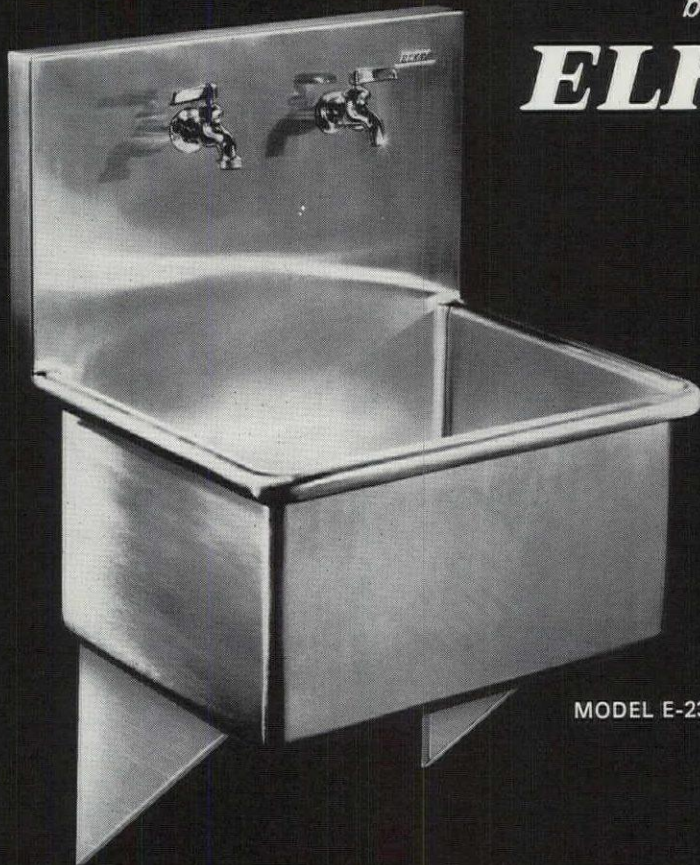
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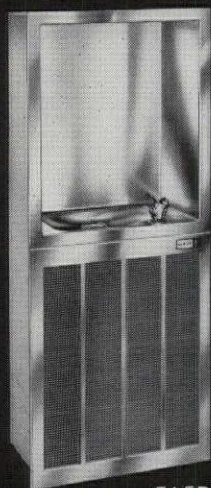
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Cover: Detail of stone brackets in dining room, from *The Imperial Hotel*. Photograph by author, Cary James, AIA.

Asides

Next Month: Demographic redirection from existing urban centers is a concept that appears to be fast gaining in viability. New towns are being proposed to meet population gains; experimentation is underway to mate these settlements with the fruits of modern technology. Neil Gallagher has assembled a conglomerate of well-informed opinion, all bearing on some kind of national settlement policy.

Also in January: A coherent design approach is proposed for a different kind of world, a world placing novel demands on the molder of forms; one of the four architect-members of the so-called Douglas Commission ascribes architectural relevance to its findings and recommendations; Edgar J. Kaiser reports on the National Housing Partnership, a response to President Johnson's charge that the private sector find ways to become involved in the creation of subsidized housing; and Bess Balchen returns from her native Norway with a story about Sonja Henie's leap from ice shows to art shows in the cultural center she has donated to her homeland.

Indexing the AIAJ: In response to the urgings of a number of readers, the JOURNAL Index is now being bound into the magazine itself. Heretofore, the Index has been available as a separate piece, as it will be for 1968 (see Information Card). But it will also appear in your December issue.

We did not do this in the past several years because of the mechanics involved and time problems—and we were reluctant to present the Index in the January issue of the following year. So we undertook a crash program to get it into the December magazine.

Sad Note from Berlin: The Associated Press reported that West Berlin's new National Gallery (AIAJ, July '68, p. 26) was defaced last month by nine swastikas applied with spray cans of paint. Some critics have tabbed the gallery the greatest work of Ludwig Mies van der Rohe, FAIA. R.E.K.

PHOTO & ART CREDITS: 41 first, second and third from above—Cary James, AIA; 41 below—Paul R. Hanna; 42-47—Shindo Akashi; 48—Paul R. Hanna; 66 above—George Lyons; 66 below, 67 above—Julius Shulman; 67 below—Milton Weinstock; 68 above—Fred Habit; 68 center—Art Hupy; 68 below—Julius Shulman; 82 left—J. Alexander Studio; 82 right—Dwain Faubion.

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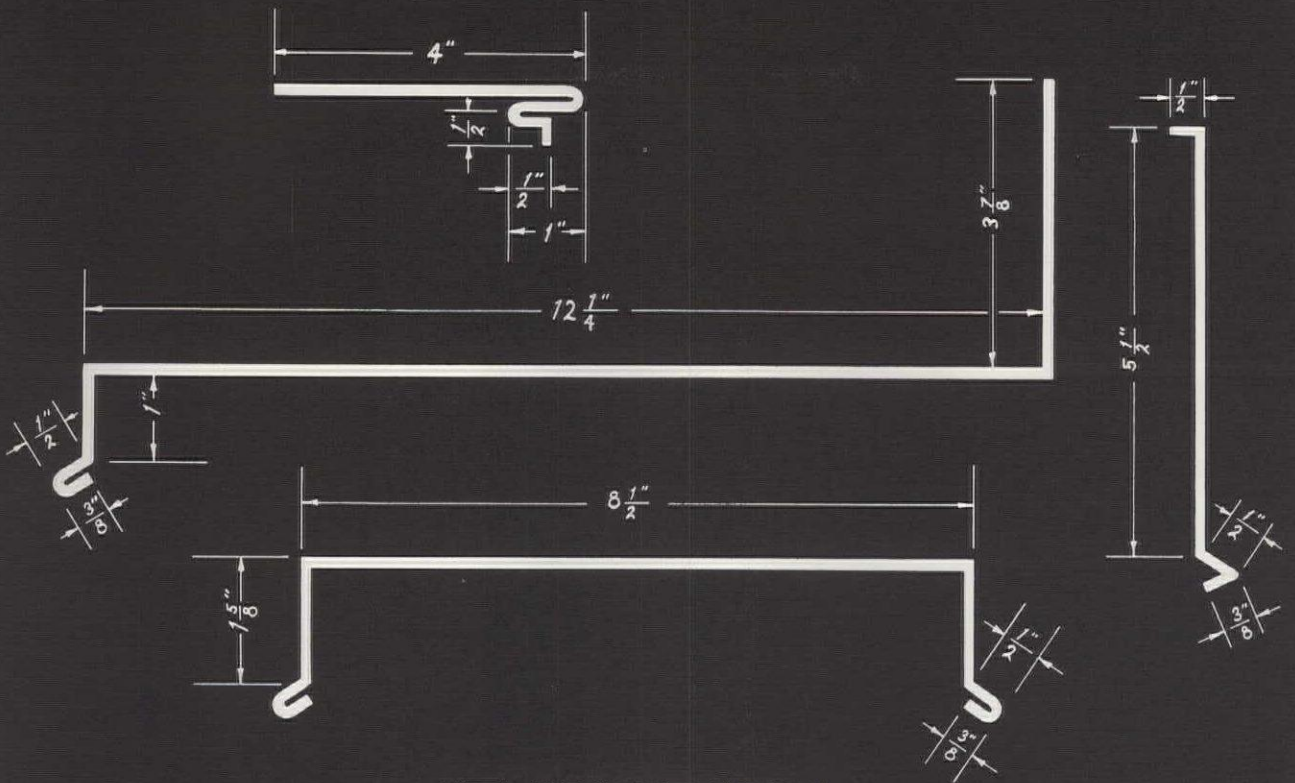
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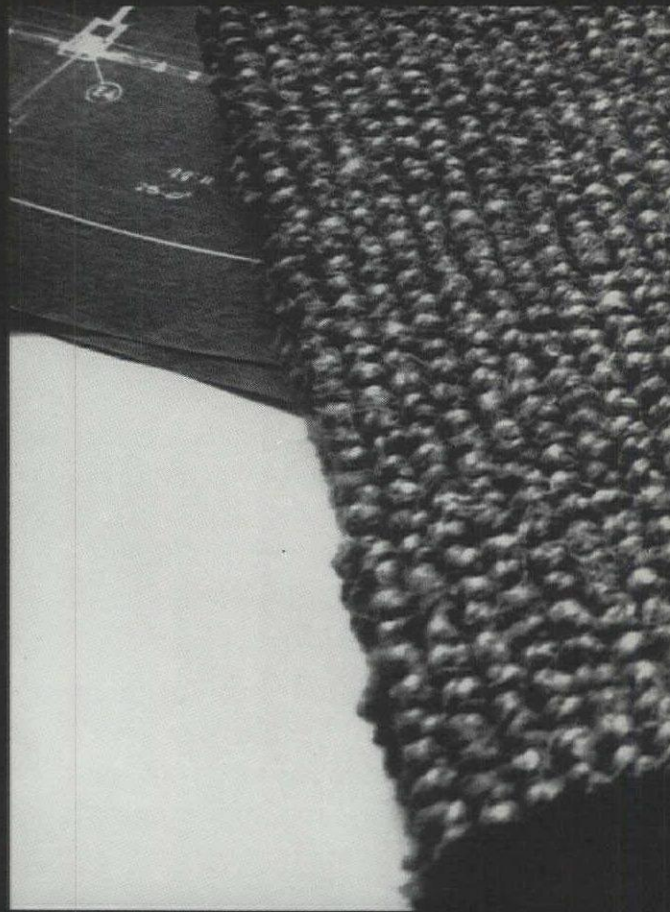
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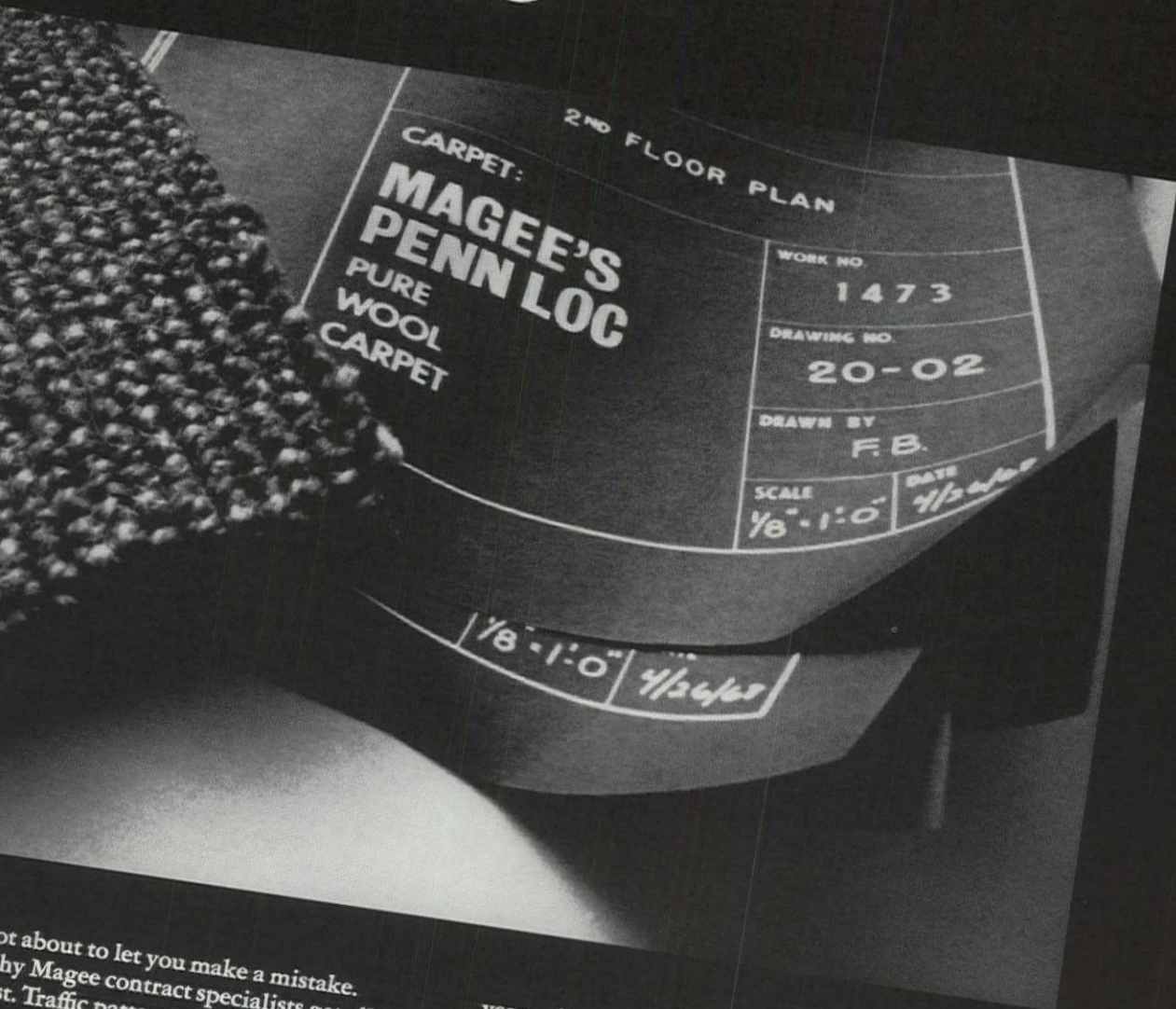


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Newslines

New Ways of Approaching Urban Problems Expected From Nixon Administration

"We have not," said candidate Nixon last fall, "seen the rebirth of a single major city. But we have seen proof of the failure of the old ways."

The new ways of President-elect Nixon are soon to be spelled out in his State of the Union and budget addresses to the Congress.

They will be ways, judging from his campaign statements, that will stress:

- **People**—"The problems of America's cities are the problems of its people; the hope of America's cities lies in . . . its people."

- **Economy**—"Because of massive and mounting federal deficits, we face today a fiscal crisis; and the plain fact is that the federal government today does not have the money to do the job in the cities by itself."

- **Jobs**—What government can do best "is to provide the incentives to get private resources and energies where the need is. What we need today is not more millions on welfare roles but more millions on payrolls."

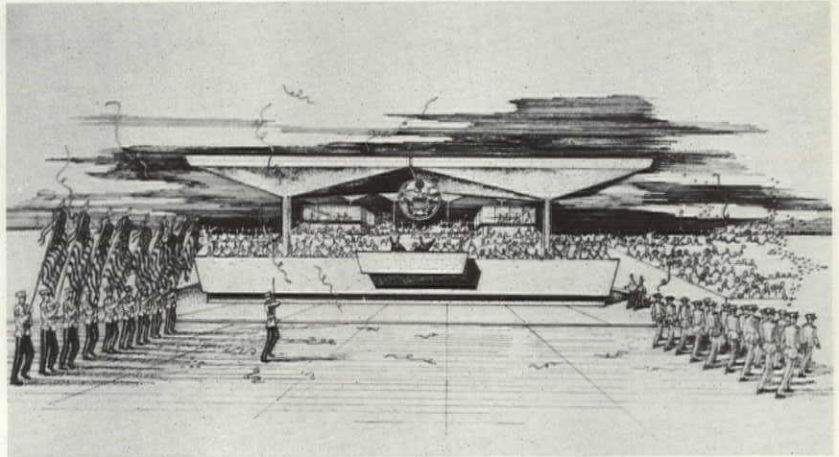
- **Housing**—Again "we should turn to where the resources are. Private enterprise built the cities of America, and given the necessary incentives, private enterprise can rebuild them."

- **New 'City'**—"When we look toward the year 2000, we see that the population of our cities will have doubled; this means we will need as much new city by then as we have old city today. That new city will be built, as the old city has been built in America, by Americans acting individually and by Americans acting together. But government has a role to play in the building of the new city."

Mr. Nixon declared following his election that the first and largest thrust of his administration would be to "bring the American people together."

In this purpose, those who had opposed his candidacy joined in wishing success for the new administration, one that would be "open to new ideas," promised President-elect Richard M. Nixon.

Among well-wishers was Hubert H. Humphrey who had what he called a Marshall Plan for Cities.



The Presidential Reviewing Stand for the 1969 Inaugural Parade, the competition-winning work of William Crandall Suite, AIA, Washington, D. C., with John A. White, Falls Church, Va., and Ronald Lee Johnson, Alexandria, Va.

LA Transit Scheme Loses; Mixed Returns Elsewhere

The nation's most ambitious transit plan—the \$2.5 billion rail/bus system of the Southern California Rapid Transit District—has been torpedoed by Los Angeles area voters.

While a transit proposal in Atlanta also failed at the polls, things in Washington, D.C., and New Jersey were looking up.

New Jersey voters approved a transportation bond issue that included \$200 million for improving commuter railroads to New York.

In the nation's capital, the Washington Metropolitan Area Transit Authority was expected to make a fresh attempt to get construction money from Congress after voters in five suburbs gave distinct approval to transit bond programs.

Favorable votes ranged from 62 percent in Prince George's County, Md., to 79 percent in Falls Church, Va. In all, \$207.5 million in bonds was authorized in the five communities, bringing the total sum available to \$323.5 million, plus \$150 million authorized by Congress.

The authorized federal money, however, has not been forthcoming from the House District Appropriations Subcommittee. It is being denied because of Congressional insistence that the city proceed first with a highway program.

Meanwhile, the National Capital Planning Commission was slated to wheel out its new highway plan. The question was whether it would satisfy Capitol Hill. Prospects of this appeared to be dim.

The favorable vote, on the other

hand, was regarded as perhaps helpful in convincing Congress of the serious interest among Washington area people in rapid transit.

Eighty-nine miles of rail transit and 300 miles of feeder bus service constitute the SCRTD proposal in Los Angeles. The ballot sought approval of a half-penny sales tax to finance the transit improvements. It received only 44.7 percent of the vote.

Faring even worse in at least one Atlanta area community was a \$337.6 million transit bond issue. There, only 36 percent of the voters approved.

Institute Undertakes Ad Campaign; Radio, TV Spot Materials Developed

For the first time in its 111-year history, the AIA will embark on a national advertising campaign, beginning early in 1969.

The campaign will combine paid advertising, for which the Institute through its dues increase has allocated some \$200,000 as a starter, with a radio-television "public service" effort.

In announcing the selection of New York's Doremus & Co. to handle the advertising account, AIA President George E. Kassabaum, FAIA, said the campaign is an indication of the serious concern of architects about the nation's urban and suburban problems.

Even *Advertising Age*, the industry's bible, took notice of the move, reporting that the Institute hopes to up the advertising ante to \$2 million

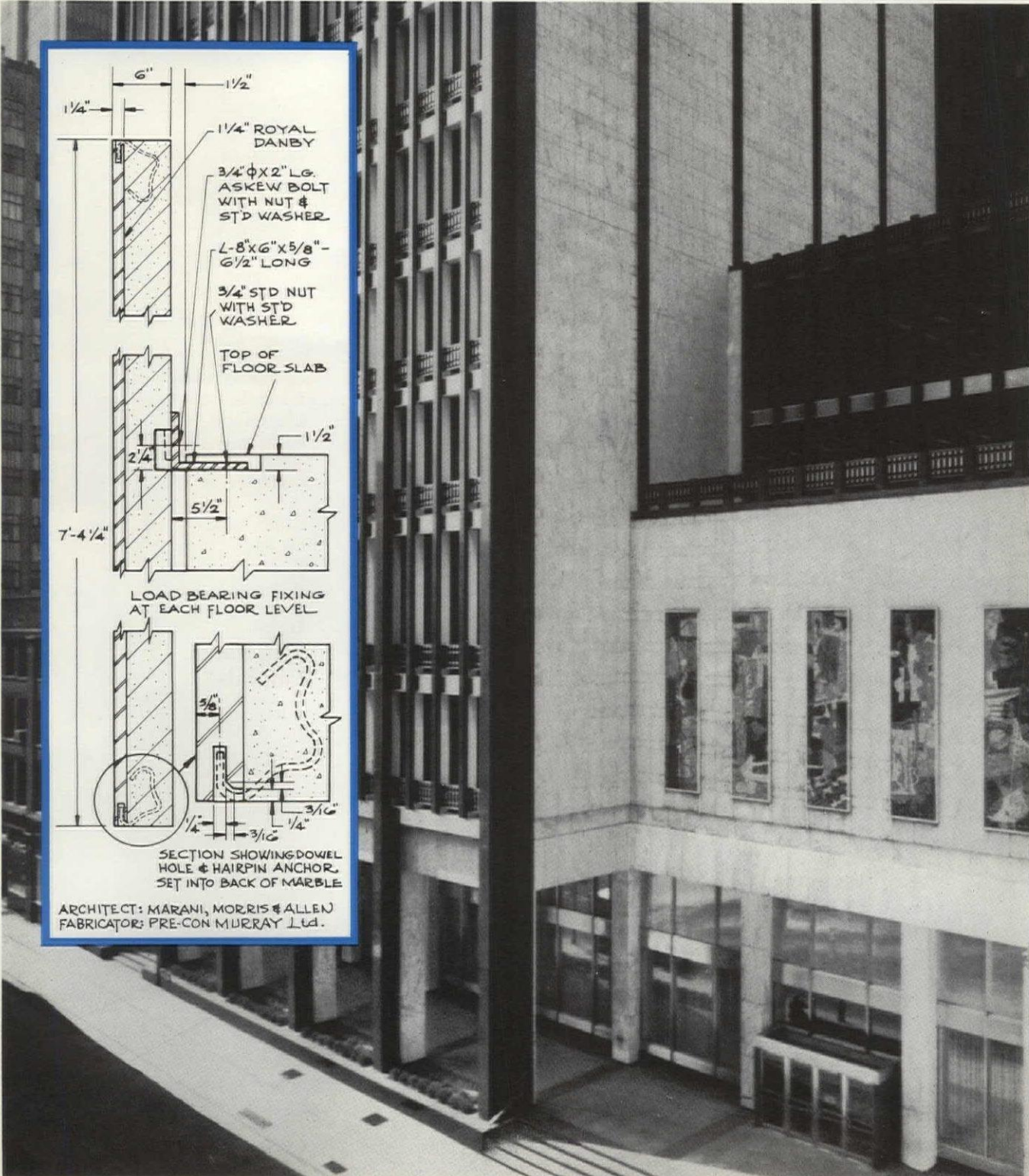
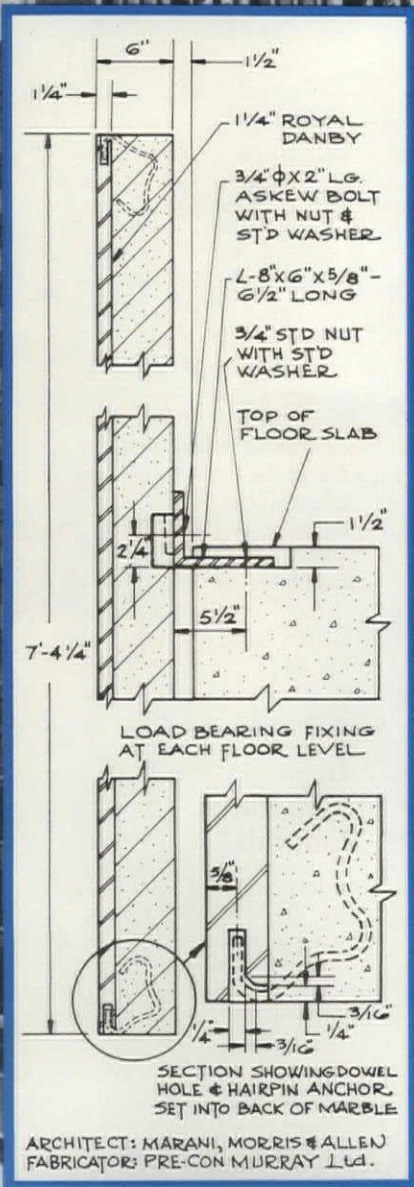
Continued on page 20

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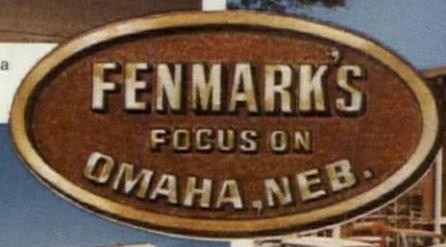
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St. Croix School - Omaha, Nebraska
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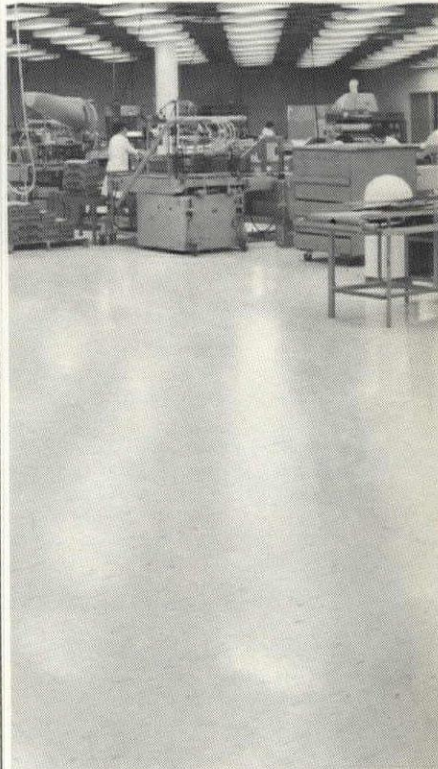
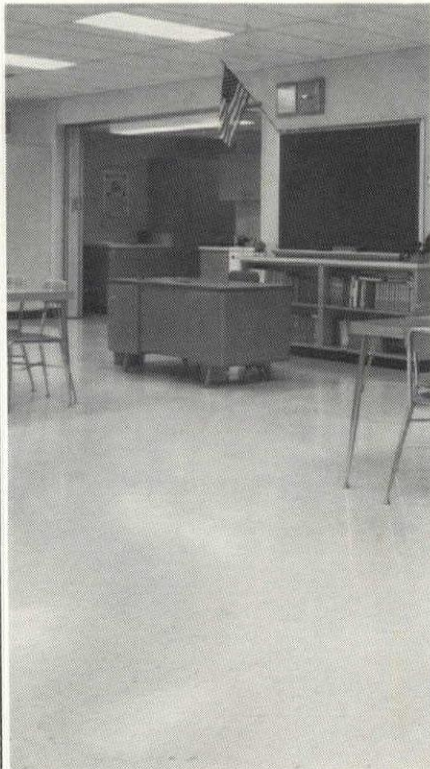
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TECHNICAL DATA—*Nonvolatile Matter:* 12.5%-13.5%; *Ash Content of NVM:* 3% maximum; *Refractive Index:* 20°C: 1.3616-1.3631; pH, 25°C: 9.0-10.0; *Sediment:* 0.05% maximum; *Odor:* non-objectionable at any time; *Alcohol Solubility:* clear;

Film Properties: film on black glass—clear; drying time at 25°C, 50% R.H.—20 minutes maximum; tackiness—none.

Test Results: U/L listed for "slip-resistance." Approved by Institutional Research Council. All test information is available on request.

APPLICATION: Onto a perfectly clean and dry floor apply two thin coats of Super Hil-Brite® carnauba wax with lambs-wool applicator or clean rayon mop. Allow first coat to dry thoroughly before applying second coat. Let wax cure over night. Then buff for added lustre.

AVAILABILITY AND COST—*Availability:* Marketed in all states and in over 20 foreign countries by direct manufacturer's representatives located in principal cities. Complete stock available in Hillyard Distribution Centers and Warehouses throughout the United States.

Cost: Approximate 0.3¢ (three tenths of a cent) per coat per square foot.

GUARANTEE: When applied in accordance with manufacturer's directions, it is guaranteed to meet all claims made for it. Any unsatisfactory performance should be reported to the St. Joseph Office and a review of the complaint will be promptly made by an authorized representative.

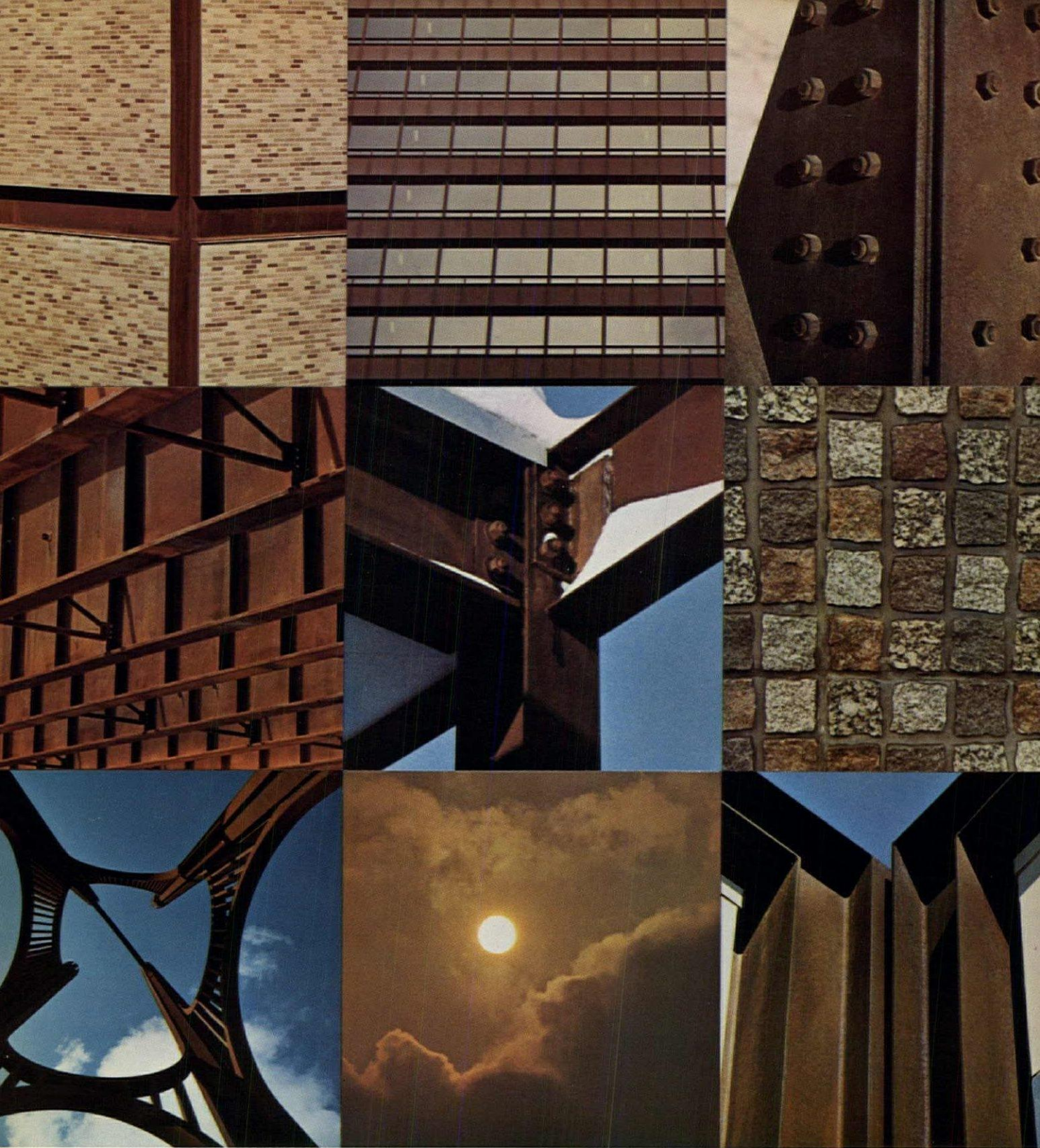
MAINTENANCE: Sweep daily with properly treated dust mop. When surfaces become soiled, mop with Hillyard Super Shine-All® neutral chemical cleaner, at proper cleaning dilution. After floor is dry, buff for added lustre.

REFERENCES: Sweet's Architectural Files.

A.I.A. File No. 11

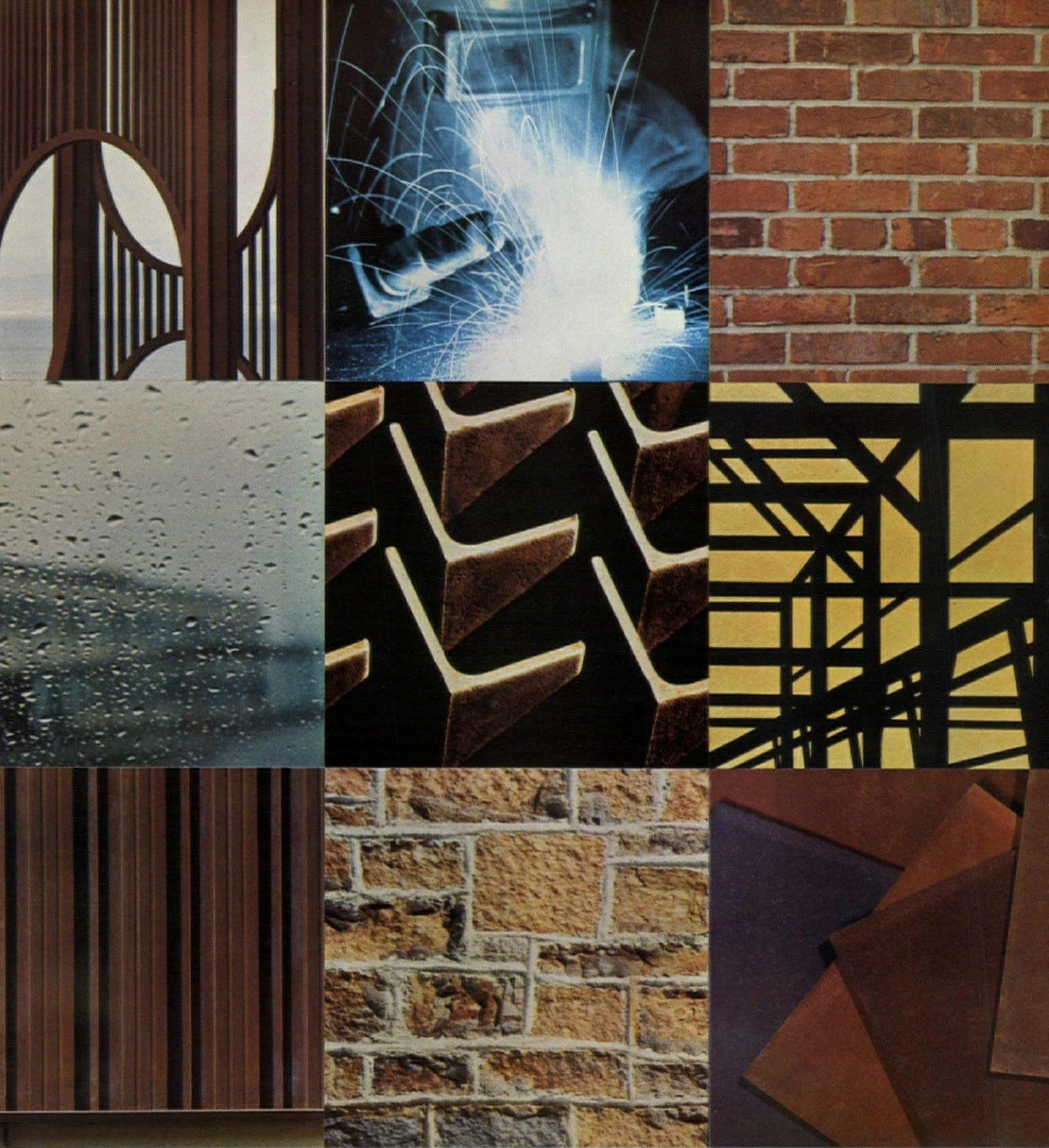
TECHNICAL SERVICES: Over 200 trained, professional, architectural consultants are located in and near principal cities. Write or call collect for our representative in your area. We will have him contact you immediately. He will recommend the proper, approved treatment for the floor you are specifying and supervise application procedures at job site.

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Project: Holiday Inn, Stevens Point, Wisconsin; Architect, Will Bond, Jr.; Acoustical Contractor, LaCrosse Acoustical Tile Co.

Newslines from page 12

some time in the future. AIA officials hastened to explain, however, that any additional funding would come from cooperative programs with major American industries.

The ads will not be based on the hard-sell approach of "hire an architect." Instead, they will focus on environmental ills facing the country and will spell out specific steps for improvement to be taken by citizens, organizations and the government at all levels.

While the media selection for the paid advertising was not available at presstime, it was indicated that several national magazines are being considered.

The public service phase of the campaign includes two 60-second color-film spot announcements which in late October were given to every TV station in the US. Live radio spots are available for AIA chapters to distribute to local outlets.

Prepared by Henry J. Kaufman & Associates, Washington, D.C., under the direction of Philip J. Meathe, AIA, the Institute's public relations chairman, the radio-TV spots zero in on highway planning and suburban sprawl.

Kaufman continues as the AIA's national PR counsel.

Air Rights School Projects In NYC Now at Seven

New York City's air rights program which combines school and housing uses is gaining momentum, the number of such projects having jumped from two to seven. A dozen other air rights proposals are in various stages of study.

The initial project in the program, administered by the New York City Educational Construction Fund, is underway in the Bronx: a 1,200-seat elementary school and a 400-unit middle income cooperative in the Bronx (see "New Dimensions in Air Rights," AIAJ, July '68, p. 39).

The second, in Manhattan—a 250-seat school and a 35-story tower with 200 apartments above—is on the drawing boards.

In another move, a pilot project to be financed by the Educational Facilities Laboratories under a \$22,500 self-administered program, will enable the fund to retain the services of architects and consultants in the development of new approaches to the design of joint-occupancy projects.

Continued on page 23

Circle 236 on information card



The number is Corbin 4726

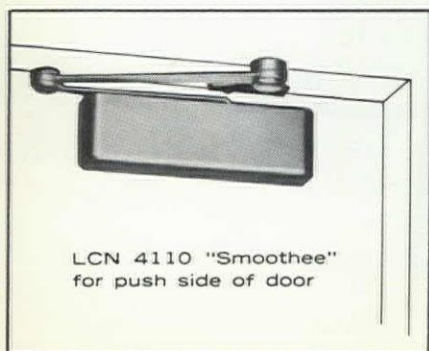
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PHOTO: Scott, Foresman & Company National Headquarters, Glenview, Illinois.
Architects: The Perkins & Will Partnership, Chicago.

Circle 301 on information card



Newslines from page 20

The fund, established by the 1966 State Legislature, is empowered to float bonds, build schools and sell or lease the air rights over them to the developers of housing or commercial office space or other revenue-producing uses.

Revenues from the sale of air rights and from annual payments in lieu of taxes will be used to retire the bonds. In many cases the city will obtain new schools at no cost to itself; in others, costs will be drastically reduced.

The fund, its legal structure and its advantages is the subject of *The Schoolhouse in the City*, a book just published by Frederick A. Praeger, Inc., in cooperation with EFL.

Kassabaum Stresses 'User' Before Panam Congress; Puerto Rican Is Elected

Building projects "developed by well-intentioned but remote persons deciding what was good for the people who would eventually use them" have resulted in "rejection rather than appreciation."

The president of The American Institute of Architects, George E. Kassabaum, FAIA, brought that message to the 12th Panamerican Congress of Architects in Bogota, Colombia, which elected Augusto Gautier, AIA, of Puerto Rico as its new president.

"Successful projects cannot be done 'for' someone else," Kassabaum declared. "They can only be done 'with' the help of the users. The architect is best qualified to understand this urban design requirement—and it is an essential understanding."

Kassabaum's remarks seemed to be particularly well received by the younger architects who attended the Oct. 7-11 sessions, which drew about 600 registrants, 200 of them non-Colombian. They were especially responsive to the "user" philosophy, reportedly a novel concept in Latin America.

The AIA contingent—15 delegates, 7 wives and several other guests—in turn had an opportunity to learn firsthand about the total involvement of their counterparts in the political system.

Land of High Esteem: The US delegation also became immediately aware of the high esteem enjoyed by Latin American practitioners who are, incidentally, called "Dr." as a title of respect.

Continued on page 26

add door control

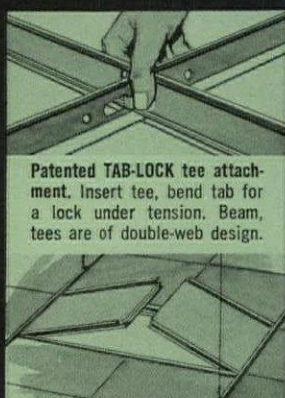
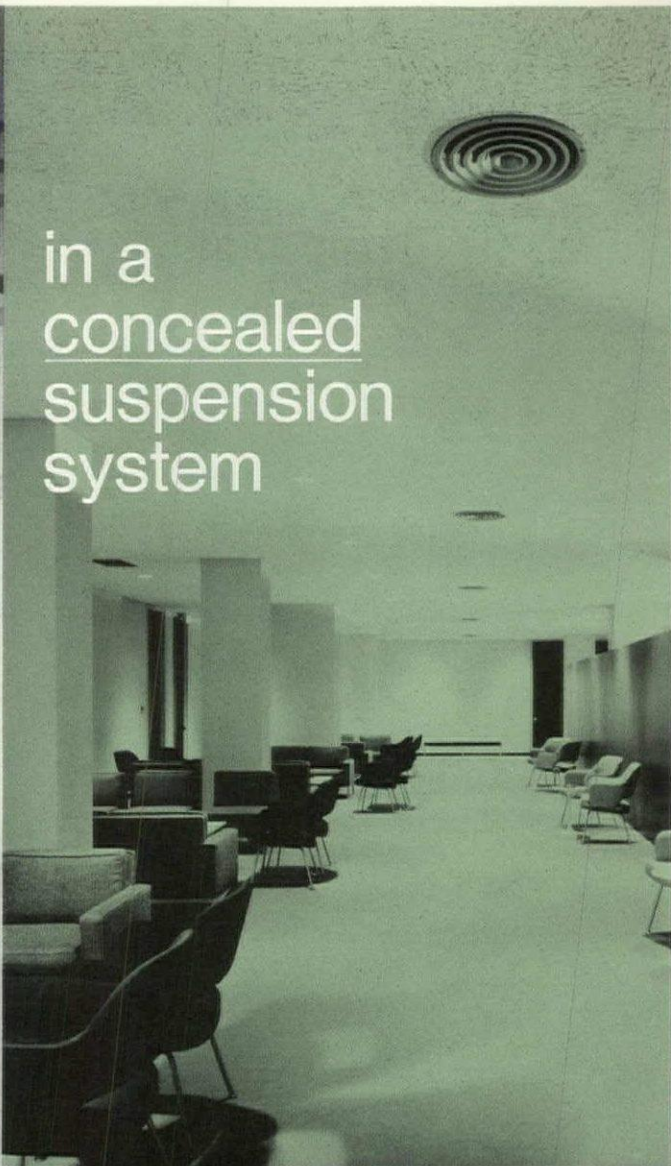
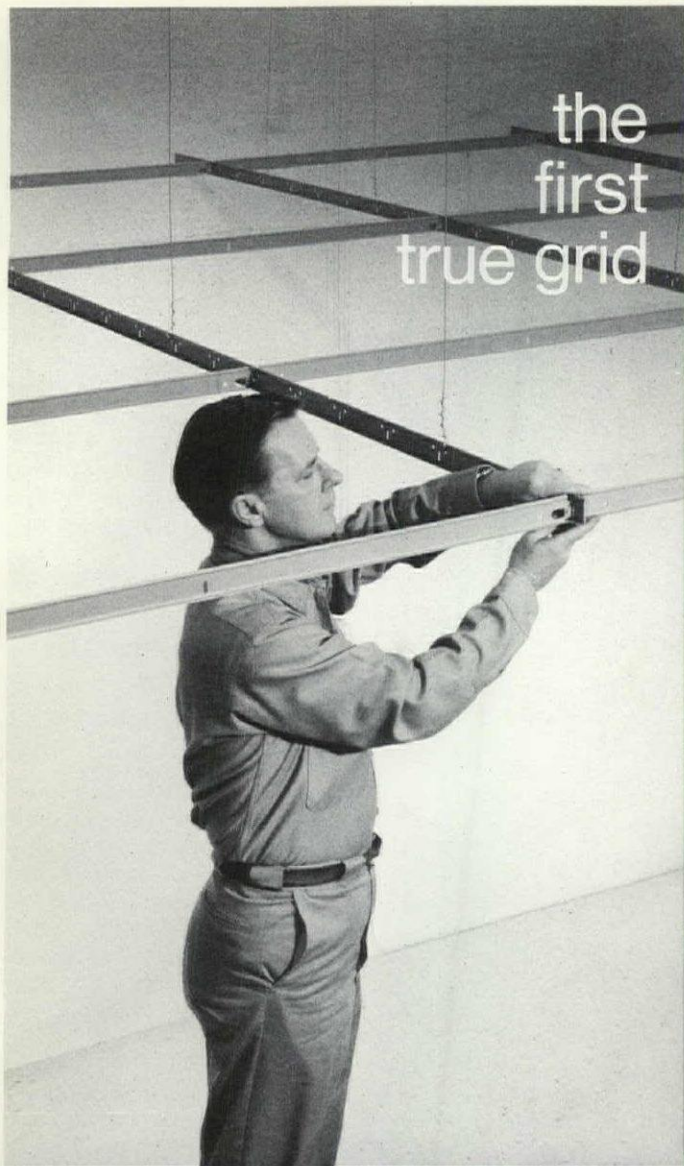


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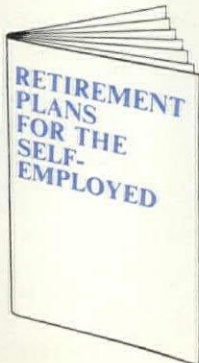
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AIA-12

Kassabaum told the gathering that the urban crisis differs from one nation to another in its intensity and degree of gravity, but that it springs from the same causes everywhere: "the confluence on the city in modern times of large numbers of poor, undereducated and usually unwanted people, together with the city's inability, and sometimes unwillingness, to assimilate or provide for them."

The AIA president reminded his listeners that in the United States it has been learned that "good urban design requires the complete integration of transportation with housing, schools, office buildings, parks and the life of the community." He said the multidisciplinary design concept team is "an excellent and exciting vehicle for achieving this integration."

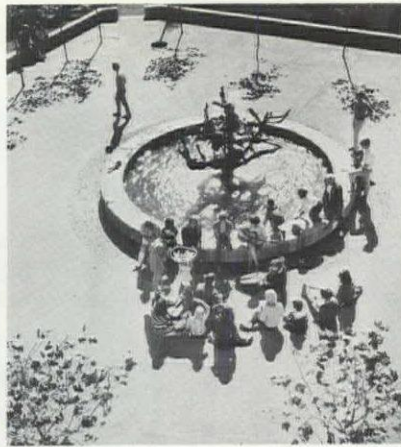
Housing and Five Tasks: Housing remains a difficult problem for the US to solve in spite of its industrial capacity, Kassabaum noted, adding that this country needs "a workable consensus and policy on land use" that will balance individual rights with the needs of the community.

Finally, he said, if the architect is to play a decisive role in urban design, he faces the five tasks of 1) understanding the nature and origin of urban problems, 2) proving that the architectural profession is relevant to their solutions, 3) devising new ways for the architect to become involved in the urban drama, 4) demonstrating professional competence and 5) exercising leadership.

The 13th Panamerican Congress will be held in Puerto Rico since the organization traditionally meets in the homeland of the president.

(AIA) will carry a detailed report of the Bogota proceedings in its January issue.)

Kassabaums with Dr. Carlos Lleras, president of Columbia; in background, Augusto Gautier, new FPAA president.



Clockwise from upper left: fountain and gathering place, Cowell College Residence Halls, Santa Cruz, Calif.; Mathes and Nash Residence Halls, Bellingham, Wash.; College Dormitories, Ellensburg, Wash.; Bluebeard's Hill Apartments, Virgin Islands.

HUD Awards Given to 27 Projects Including Three For Urban Design Concepts

Twenty-seven projects ranging from single buildings to large developments have been cited in the Design Awards Program sponsored by the Department of Housing and Urban Development.

After reviewing nearly 300 entries from 43 states, the District of Columbia, Puerto Rico and the Virgin Islands, a seven-man jury of professionals selected four for Honor Awards in project design.

Among the 23 Merit Awards were three recognized for superior large-area planning in the new urban design concept category. Cited were Baltimore's 283-acre Inner Harbor Redevelopment, with Wallace, McHarg, Roberts & Todd as urban design consultants; the Town Center in Rockville, Md., Geddes, Brecher, Qualls, Cunningham, urban design consultants; and Capital Centre, St. Paul: Hammel, Green & Abrahamson, Inc., consulting architects.

Weaver Serves Warning: In presenting the awards at the national conference of the American Insti-

tute of Planners in Pittsburgh in mid-October, HUD Secretary Robert C. Weaver hailed the omnibus housing act but warned that it still could be starved for funds this year and in the future.

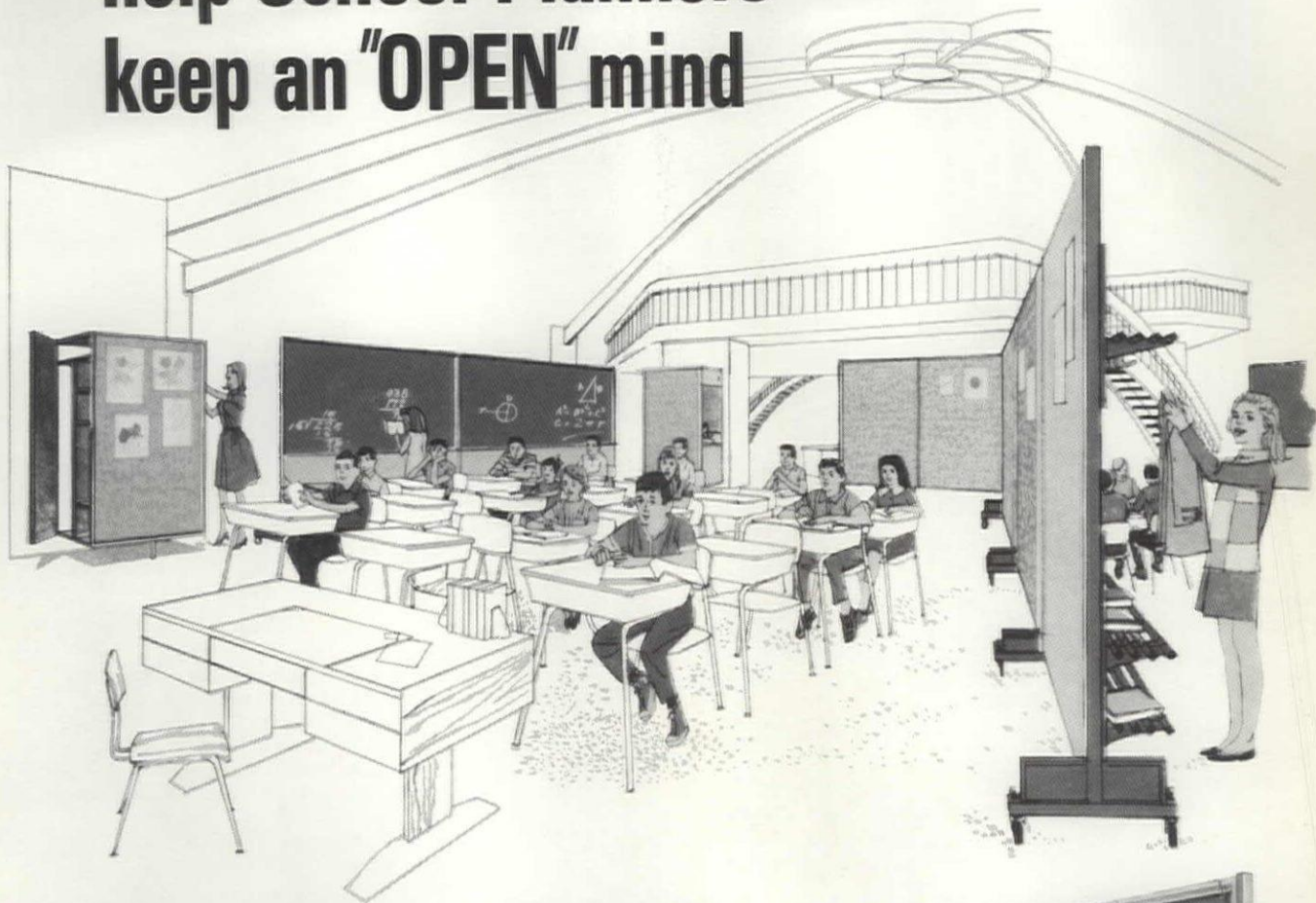
"I consider the Housing and Urban Development Act of 1968 to be the most important piece of legislation in the history of urban aid to get beyond the rhetoric of good intentions and to get on with the job of building and rebuilding a better urban America," he said.

But HUD, Weaver said, is still in the battle for funding, a battle, he added, that "will not end either with this year or with this Administration. Those who oppose this monumental effort have not been reconciled to it simply by its passage—and that is a fact we must face."

Honor Awards: Bluebeard's Hill Apartments, St. Thomas, Virgin Islands: Kramer, Kramer & Gordon, architects; College Dormitories, Ellensburg, Wash.: Fred Bassetti & Co., architects; Cowell College Residence Halls, Santa Cruz, Calif.: Wurster, Bernardi & Emmons, Inc., architects; Mathes and Nash Resi-

Continued on page 30

Vogel-Peterson RDF's help School Planners keep an "OPEN" mind

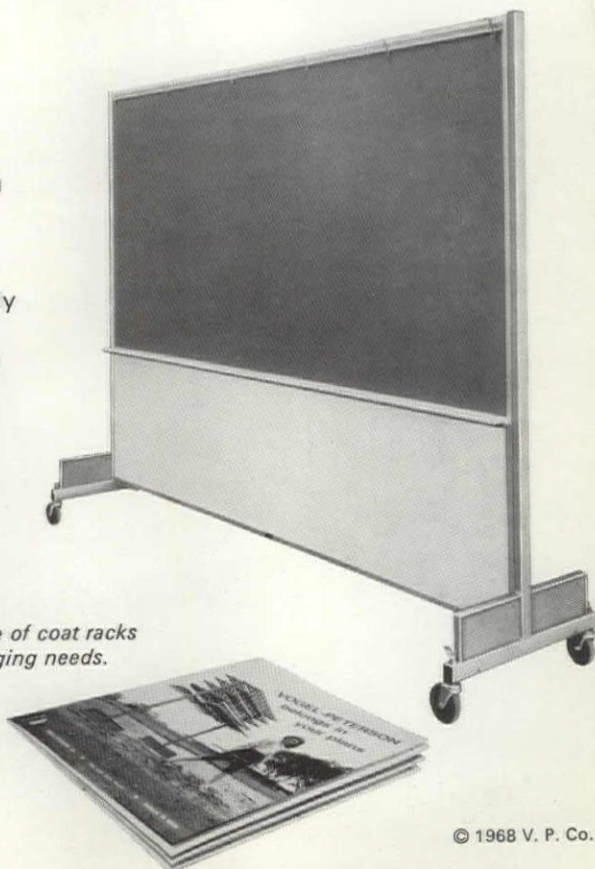


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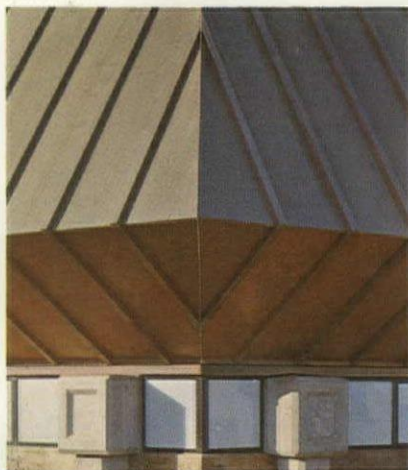
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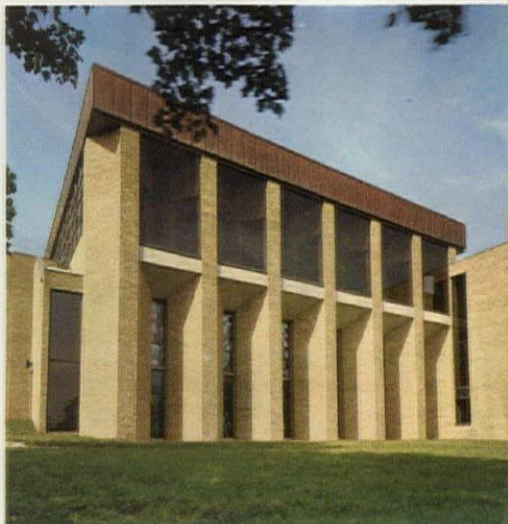
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Copper's workability and light weight, plus its affinity for redwood, commended it to Callister, Payne and Rosse for both roof and fascia on the University of California's Field House at Santa Cruz.



The functional and highly decorative band which terminates Agudath Sholom Synagogue (left and above) in Stamford, Conn., is an excellent example of a typical copper fascia. Architects: Davis, Brody & Associates.



Hugh Stubbins & Associates counterpoint the smooth, uniform surface of copper roof and fascia against the rugged texture of brick on the Dana Hall School's Senior Residence, Wellesley, Massachusetts.

 **COUNT ON COPPER**

dence Halls, Bellingham, Wash.: Henry Klein, AIA, architect.

Merit Awards: Civic Center Historic Preservation, San Antonio: Robert V. Buck, AIA, Allison B. Peery, AIA, Roberts, Allen & Helmke, Torres & Makar, Fred McDonald Jr., and Bill Mitchell, restoration architects.

Clarke Tower Men's Dormitory, Cleveland: Fred S. Toguchi Associates, architects; College Town, Phase I, Sacramento: Neill Smith & Associates, architects-planners; Fulton Mall, Fresno, Calif.: Victor

Gruen Associates, architects-planners; Harper Court, Chicago: Dubin, Dubin, Black & Moutousamy, architects.

Jefferson Terrace, Seattle: Kirk, Wallace, McKinley & Associates, architects; Lemoyne College Student Center, Memphis: Gassner, Nathan, Browne, Seabrook, Architects-Planners, Inc., architects; Lloyd Terrace, Princeton, N.J.: Charles K. Agle, AIA, architect; Makua Alii, Honolulu: Frank Slavsky & Associates, architects; Market Square, Alexandria, Va.: Meer & Graef, architects; Mount Sinai Hospital Staff Residence, New York:

Pomerance & Breines, architects.

Munjoy South Town Houses, Portland, Me.: Fielding Bowman, AIA, and Zane Yost, AIA, associated architects; Park Slope North Rehabilitation, New York City: Victor Gruen Associates, architects-planners; Parwood Apartments No. 1, Long Beach, Calif.: Stephen G. Oppenheim & Associates, architects.

Portland Center Apartments, Portland, Ore.: Skidmore, Owings & Merrill, architects; Sandy Springs and Everett Parks, Maryville, Tenn.: Oliphant & Kersey, Inc., landscape architects; Smathers Plaza, Miami: Robert Bradford Browne, AIA, architect.

Water Filtration Plant, Brockton, Mass.: Camp, Dresser & McKee, general engineers, and Johnson-Hotvedt & Associates, consulting architects; Woodside Gardens, San Francisco: Neill Smith & Associates, architects; Young Men's Christian Association, Boston: Architects Collaborative, Inc., architects.

The winning projects are illustrated in a brochure which will be mailed to all AIA members.

Savannah Expands Base Of Restoration Program

The Historic Savannah Foundation, which seeks to preserve its architectural treasures by putting them to good present-day use, is broadening the base of its already ambitious program.

Confining its activities within the state of Georgia since its organization in 1954, the foundation now has retained a national real estate marketing service—Previews Inc.—to offer two of its mid-19th century buildings for sale across the land.

The two—the Oliver Sturges and the Stoddard-Lawton Houses—and other properties owned and restored by the foundation were on view during the recent annual meeting of the National Trust for Historic Preservation.

The Savannah group owns 20 buildings outright, representing an investment of over \$328,000.

The foundation assists in finding desirable tenants for the buyers of its projects. The two houses, for example, could be used for professional offices, shops or other commercial purposes, with apartments on the upper floors.

The buyers' restoration plans must be in keeping with the foundation's requirements for preservation.

Continued on page 34



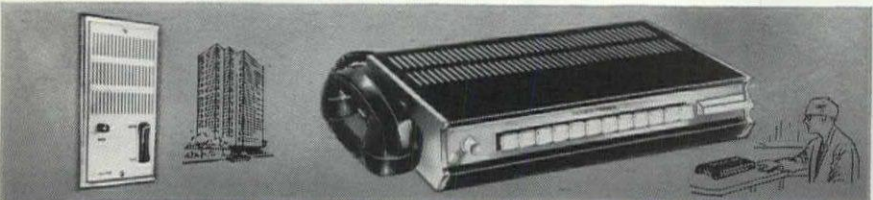
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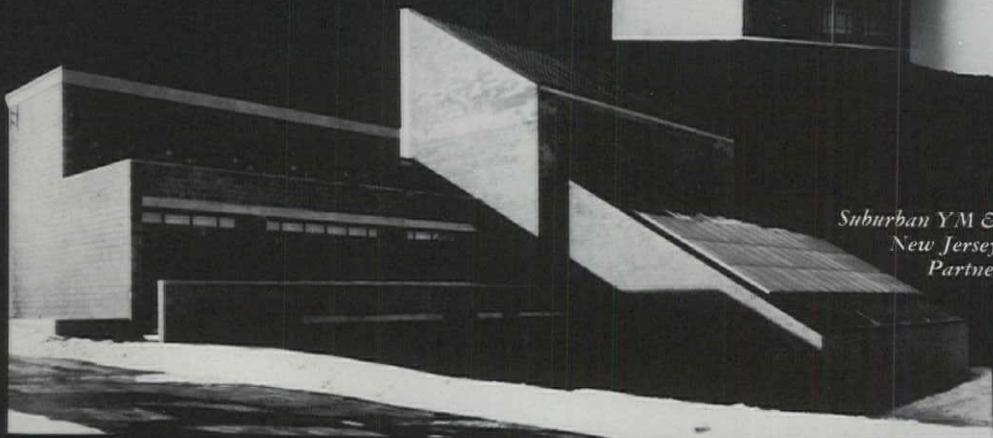
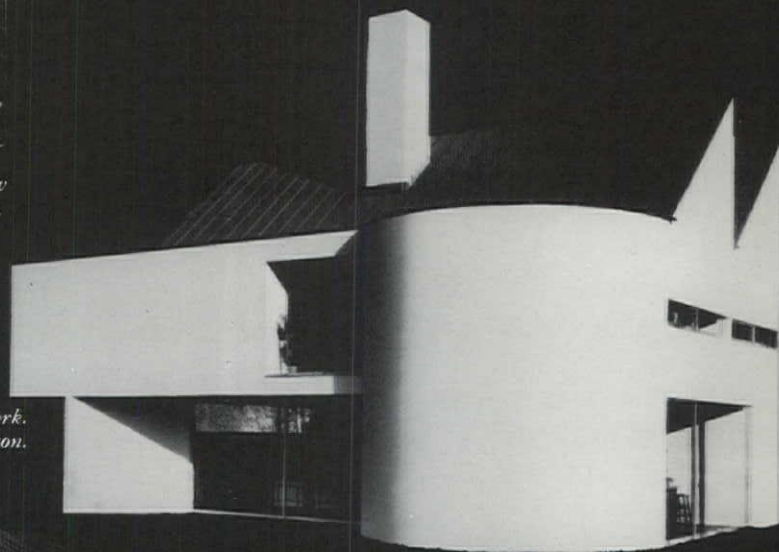
We are indeed gratified that Follansbee Terne is a major design component in four of the twenty buildings selected by the American Institute of Architects for a 1968 honor award.

FOLLANSBEE

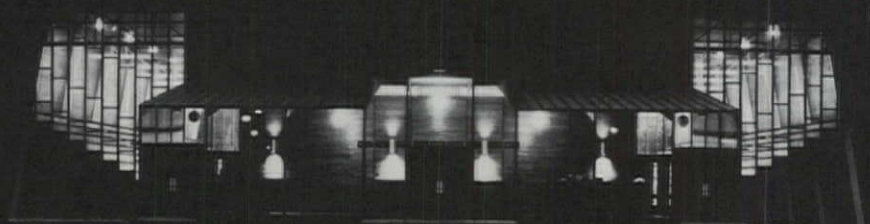
FOLLANSBEE STEEL CORPORATION
Follansbee, West Virginia

Jefferson Market Branch Library (Restoration) New York, New York. Architect: Giorgio Cavaglieri, FAIA.

Residence. Purchase, New York. Architects: Gwathmey & Henderson.



Suburban YM & YWHA, West Orange, New Jersey. Architects: Gruzen & Partners. Consulting Architect: Abraham W. Geller.



Washington and Lee High School Gymnasium, Montross, Virginia. Associated Architects: Stevenson Flemer, Waitsfield, Vt., Eason Cross and Harry Adreon, Washington, D.C.



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tion of the exterior facades.

Its own headquarters—the Dodge House—is just one of several hundred residential and commercial structures which have been refurbished by the foundation.

AIA Booklet Describes Architectural Services

The AIA publication, "A Statement of Professional Services," now in its second press run after a good initial reception, serves all Institute chapters as a basic, guiding instrument for printed communications explaining what architects do and what the architectural process is.

Or, the publication can be, and frequently is, used as is—it contains a pocket for the insertion of chapter fee schedules.

However, for chapters preferring to develop their own brochures, the national booklet serves as a policy reference and editorial source. Chapters are free to extract from it as much material as they wish.

The 16-page national publication contains a summation of architectural services performed under AIA Documents B131, B231 and B331,

the owner-architect agreement forms. It gives brief descriptions of the architect, the process of selecting an architect, architectural services, client relations with the architect, the architect's compensation, construction costs and the AIA.

Former Housing Manager Named to Institute Staff

A former regional housing manager of the Allegheny County Housing Authority has been named to the new AIA Headquarters position of director of Housing Programs.

He is Jackson T. Wright Sr., a business administration graduate of Duquesne University.

His experience with the Pennsylvania authority, with which he served from 1963 to 1967, included the supervision of the administrative and maintenance staffs of 10 low rent housing communities. He was also responsible for the selection and placement in housing of more than 1,200 families.

William H. Scheick, FAIA, the Institute's executive director, said in connection with the appointment that "significant expansion of Institute housing programs is planned as a new activity made possible by the dues increase. Our

Housing Committee previously had only part-time staff assistance."

The Housing Act of 1968 with its 10-year projection of 6 million low and moderate income housing is, Scheick added, one "of great significance for the architectural profession, requiring extensive involvement with all aspects of urban housing and with low income housing in particular. We must become concerned with the socio-economic aspects of housing problems as well as the physical problems. This is a vital step for the AIA."

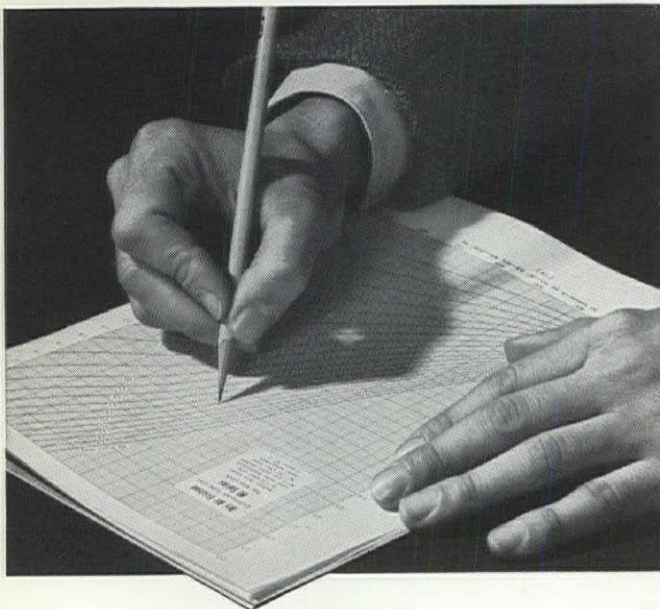
Urban Problems, Solutions Shown in Institute Films

As part of a coordinated effort to increasingly speak out on public issues, the AIA has produced three motion pictures, each about 14 minutes in length.

The 16mm, color, sound productions are:

- "Right of Way," making a strong plea for balanced transportation systems and urban highway planning by design concept teams.
 - "The Best We Can Do," showing what good design can do in creating new towns and villages, antidotes to sprawl.
- Continued on page 37*

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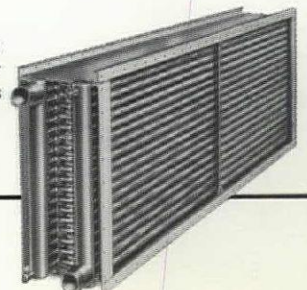
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• "The Noisy Landscape," illustrating how signs and well-planned graphics can add to the beauty and uniqueness of the community.

AIA chapters have exclusive rights to loan distribution of the films until April 1. At that time, prints will also be made available through a national distributor.

The AIA Library is now accepting orders for the films, produced by Henry J. Kaufman & Associates, Washington, D.C., and Lawrence Ravitz & Associates, New York City. Color prints are \$40 each; all three films are \$110, including handling and postage.

Writing Fellowship Lists Architecture as Subject

Applications for the eighth annual Pulitzer Fellowship in Critical Writing, which includes architecture among a half dozen or so subjects, are due Feb. 20.

Carrying a \$2,000 stipend, the fellowship is "to assist an American college or university graduate of superior qualifications to prepare for a career in critical writing on art or another cultural subject."

Preference will be given to candidates preparing for, or engaging in, a career in journalism.

Inquiries should be made in writing to Prof. John Hohenberg, secretary of the Advisory Board on the Pulitzer Prizes, Graduate School of Journalism, Columbia University, New York, N.Y. 10027.

NAHB Goes Astrodome; AIA on Design Seminar

After gathering in Chicago for 24 continuous years, the National Association of Home Builders will open its five-day convention-exposition Jan. 13 in Houston's Astrodome.

The AIA's Committee on Housing will cooperate with NAHB's design and environmental studies department in preparing a session to be given by specialists in housing design, scheduled for the afternoon of Jan. 14. In addition, the Houston Chapter AIA expects to plug into the convention activity.

Geared to interest small-volume operators as well as tract developers, the builders will have some 40 programs to choose from and will roam the huge Astrodome viewing what will be the largest exposition

in NAHB history, said Stanley Waranch, convention chairman.

Seminar topics will run the gamut from multifamily projects to marketing to special presentations "emphasizing opportunities in commercial buildings and the mobile homes market."

Necrology

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UNFINISHED BUSINESS

BY PHILIP J. MEATHE, AIA
Chairman, Public Relations Committee

Public Relations and the Profession

Long ago, when Socrates was asked to describe his work as a teacher, he said that he was a sort of gadfly given to the state, "and that the state is a great and noble steed which is tardy in his motions owing to his very size, and requires to be stirred into life."

The old man described perfectly the proper function of an Institute director and committee chairman. It is a function I undertook a couple of years ago when appointed to head up the national Public Relations Committee of the Institute. The job was accepted willingly for a simple reason: public relations, or public education, if you prefer that term, is one of the two most important functions of the AIA.

The AIA exists to educate today's and tomorrow's architects and to make practice easier now and possible in the future. As architect Tom Creighton said years ago: "It's not enough to design well. We must also work to make our designs possible." Part of that work lies in explaining what we think needs to be done.

Putting it another way, if the AIA is the nervous system of the profession, its PR program is its voice. Public relations is also our reputation, the composite cumulative effect on others of our actions, policies and statements.

When I took over the job as committee chairman, we found there hadn't been a PR committee riding herd on this important program for several years. Responsibility had moved from group to group and person to person and was not recognized as a responsibility of top management.

Funds were being appropriated on a stop-and-start basis for projects often thought up overnight. On the other hand, some worthy projects were short-changed, delayed, sometimes ignored. Too often good projects took from two to five years from recommendation to execution. Among these were the 1960 Press and the Building of Cities Seminar at Columbia University, described by a prominent newsman as a "remarkable experiment in communications." Another was

the 1965 conference for the mass media at Arden House. Still another was the major motion picture, "No Time for Ugliness," which won first prize in category at the American Film Festival.

More alarming, however, was the continuing waste that resulted from amateur execution of PR projects by miscellaneous committees, task forces and departments.

However, we now have a working committee. I'm about to step down as its chairman in favor of Bailey Ryan, AIA director from Louisville. The PR Committee isn't like any other AIA committee. It doesn't and shouldn't concern itself with any one department or subject. Its job is to interpret the best ideas and talents that the profession produces, no matter what department or committee they come out of.

This makes two things very important. First, the chairman of the PR Committee must have direct access to the board as an equal. By approving our PR report, the board has recognized this need.

Second, while we have a good long-range program developing and a set of new tools being created for chapter use, we're still working on the problem of harnessing and making the best use of the Institute's many praiseworthy—and sometimes newsworthy—efforts.

In developing the PR program, we gave attention to the need for a committee, staff and counsel, with each part understanding and appreciating the value of the others. We then had to convince the board that it had to pay important and continuing attention to what the AIA tells the world. The next step was to get the money to carry on a big-league program, and now we're getting some of that.

The one problem we haven't completely licked is how to effectively control the generation of PR ideas in the various committees of the Institute so that we can determine their value, ultimate form, cost, and how best to exploit them.

But we're working on it. We're beefing up our PR staff to ferret out and monitor staff and committee

activities. We're appealing to all AIA committee chairmen to turn to the PR Committee before deciding to ask the board for a booklet, film, display or whatever. We're asking the board to refer all such requests to the PR Committee if the latter hasn't had a look at the proposed project or tool.

Meantime, staff and PR counsel are getting out instructional material for chapters, producing leaflets for the public, writing speeches for local use, producing TV spots, talking to key magazines and broadcasters about favorable news, and promoting three major new films for use in your community. Concurrently, to broaden the base of the Institute's PR effort, a paid national advertising campaign is being launched early in 1969.

What do we expect from it all? First, survival. We've got to ensure our competence to handle the increasingly complex problems of practice and then make sure that we get a hearing. We also have to do what lies within our own talents and training to help solve America's pressing urban ills and make possible a decent urban life for our citizens. How important is it that we do these things? Our public relations counsel answered this, before our cities began to burn, in a report to the new PR Committee:

"Throughout the entire fabric of American life, traditional beliefs and ways of doing things are being examined critically. The building industry has not been exempt from this scrutiny. Nor does the architectural profession enjoy any special immunity. With builders, entrepreneurs and government leaders looking for new and better ways to build, the burden is on the profession to justify its worth.

"New solutions are being proposed and important people are listening. The architect . . . cannot stay for long where he is. He must travel. One path leads to new opportunity, the other oblivion. To find his way he will have to be alert and resourceful. But like travelers of old, his survival may depend on having powerful friends along the way." □



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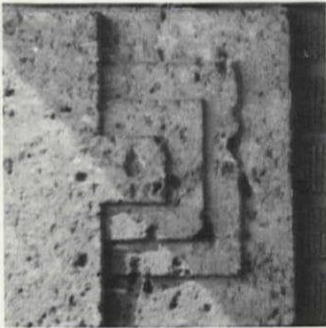
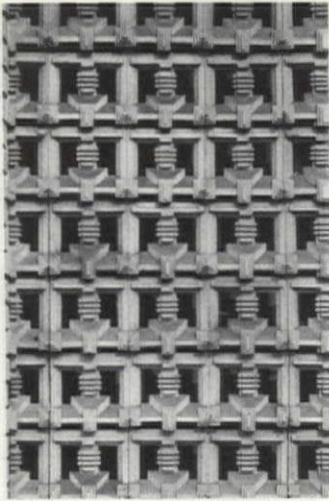
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Beneath the grime and soot, despite the marks of age and disrepair ungracefully borne, the Imperial was like a magic cavern, a sacred grove full of sudden wonder, illumined randomly by sunlight, clothed in ornament. Wright's own sense of nature was not unlike the Japanese and his idea of unity analogous to the Oriental. But he came out of the north European tradition of forest and lore, a tradition which a thousand years ago reared up the grand transparencies of Gothic glass and which in Wright brought forth the dense tactile and spatial ambiguities of his own art. Faced with the strong integrativeness of Shinto, he responded with a monument to his Welsh ancestry, and nowhere else did he build in such intricacy and intensity as in the living fabric of the Imperial Hotel. For all its Westernness, it could have been built only in Japan. Yet for all its Oriental unity, it remained a Celtic vision.

This position, half without and half within two cultures, was in fact Wright's place, building with forms and thought at once antique and futuristic, a bridge between the magic of the past and the wonder of the future. The goal he sought in architecture was the order of total interrelatedness. This drive for unity was not always successful, but it remained his major ideal, and it will be his most important contribution to the thought and form of architecture, and indeed of all our culture, when our present linguistic difficulties with the word "organic" are long forgotten.

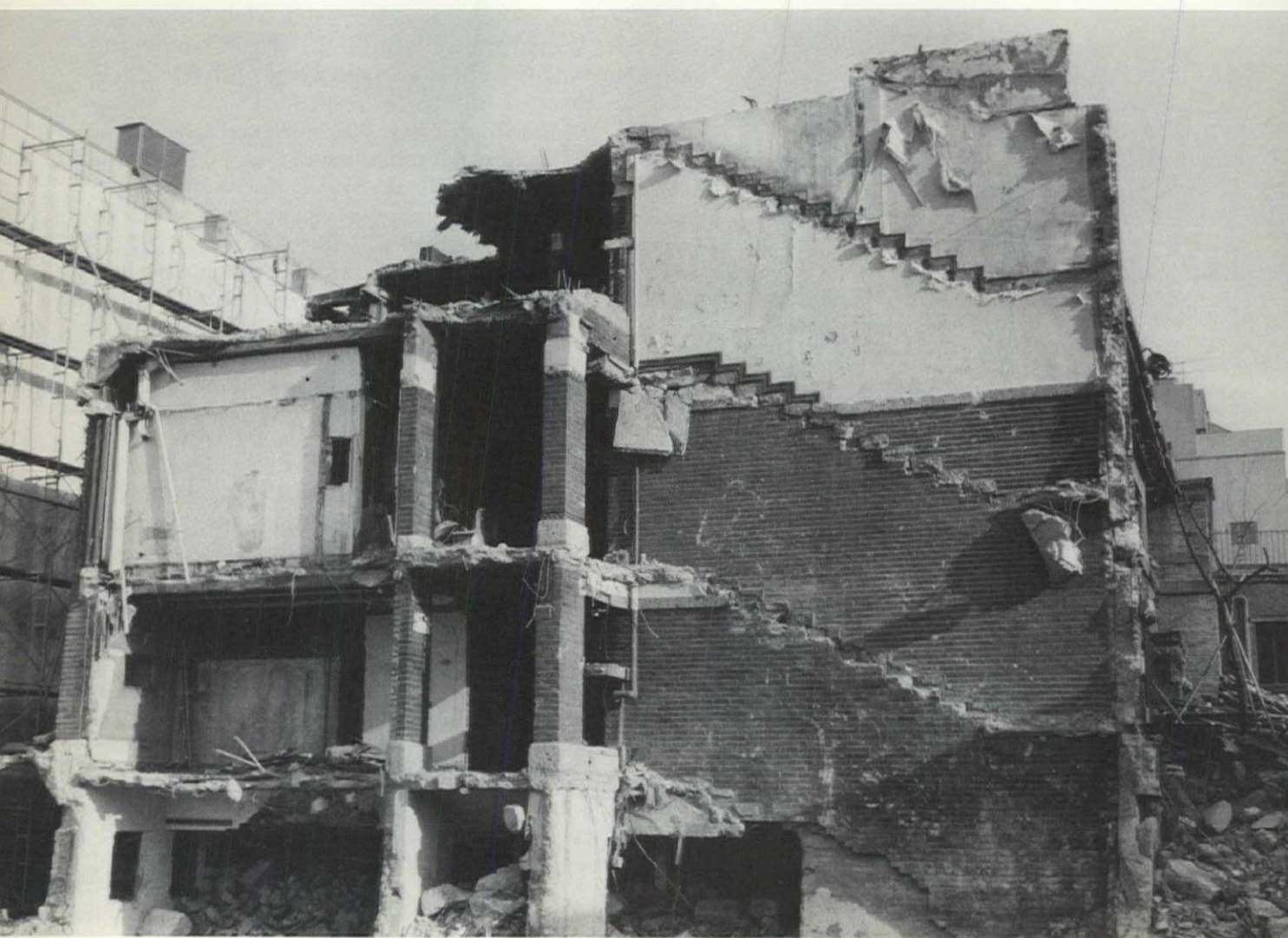
Now the glitter and the gloom of the Imperial are gone. Now we pick our way amid its bones, searching for its vanished truth. Speaking in London in 1938, Wright said: ". . . architecture I know to be a Great Spirit. It can never be something which consists of the buildings which have been built by man on earth . . . mostly now a rubbish heap or soon to be one. Architecture is that great living creative spirit which from generation to generation, from age to age, proceeds, persists, creates, according to the nature of man, and his circumstances, as they change. That is really architecture."

CARY JAMES, AIA

Author of "The Imperial Hotel"

In a firsthand account of the demolition of one of Wright's greatest works, a Japanese architect-educator sets out to separate fact from fiction concerning the structure itself and the so-called floating foundation in particular.

The Imperial Comes Tumbling Down





BY SHINDO AKASHI

For a long time I had wanted to study Frank Lloyd Wright's Imperial Hotel—his most devoted work in my view—by recording it accurately through drawings and photographs.

In August 1967 the hotel management accepted my request for investigation which I initiated with eight Waseda students, four boys from my seminar, a few professors and some architects. It was then that I learned the history of the hotel's subsidence.

According to the management, the sinking started right after the completion of the building in 1922—some say it began even during the construction period—and it did not stop until demolition was finished early this year.

We found almost 2 feet of subsidence at the grill entrance and, at the southeast corner, even more. The Imperial was not a single compact structure but consisted of numerous pavilions, varying in the loads they placed on the foundations; thus the sinking was not uniform.

The north wing, for example, collapsed at the entrance to the banquet hall (Ill. 1). The rain leaked in the cracks, making the Imperial unusable as a hotel any longer.

While Wright intended to cope with the problem of weak ground

on which the hotel was sited by utilizing a floating foundation, it is my understanding that his idea was not fully realized—hence the resulting subsidence. This fact is not widely recognized anywhere.

The hotel management postponed the proposed demolition several times in deference to the Jap-

The author: Mr. Akashi, an architectural professor at his alma mater, Tokyo's Waseda University, has designed more than 40 projects encompassing just about every building type. His son Naibu Akashi received his master's degree in architecture at MIT in 1957 and was employed by Philip Johnson, FAIA, for a time.

anese architects who voiced opposition,* but last November the decision finally was made to destroy the Imperial since it had become dangerous and unrestorable.

I then had to hurry my investigation. Demolition was completed within three months, and during that time we were very busy taking photographs of various elements, checking their construction and putting down dimensions on a set of drawings. Here are the circumstances as I saw them.

Foundation

The facts of the Imperial's construction became apparent as dem-

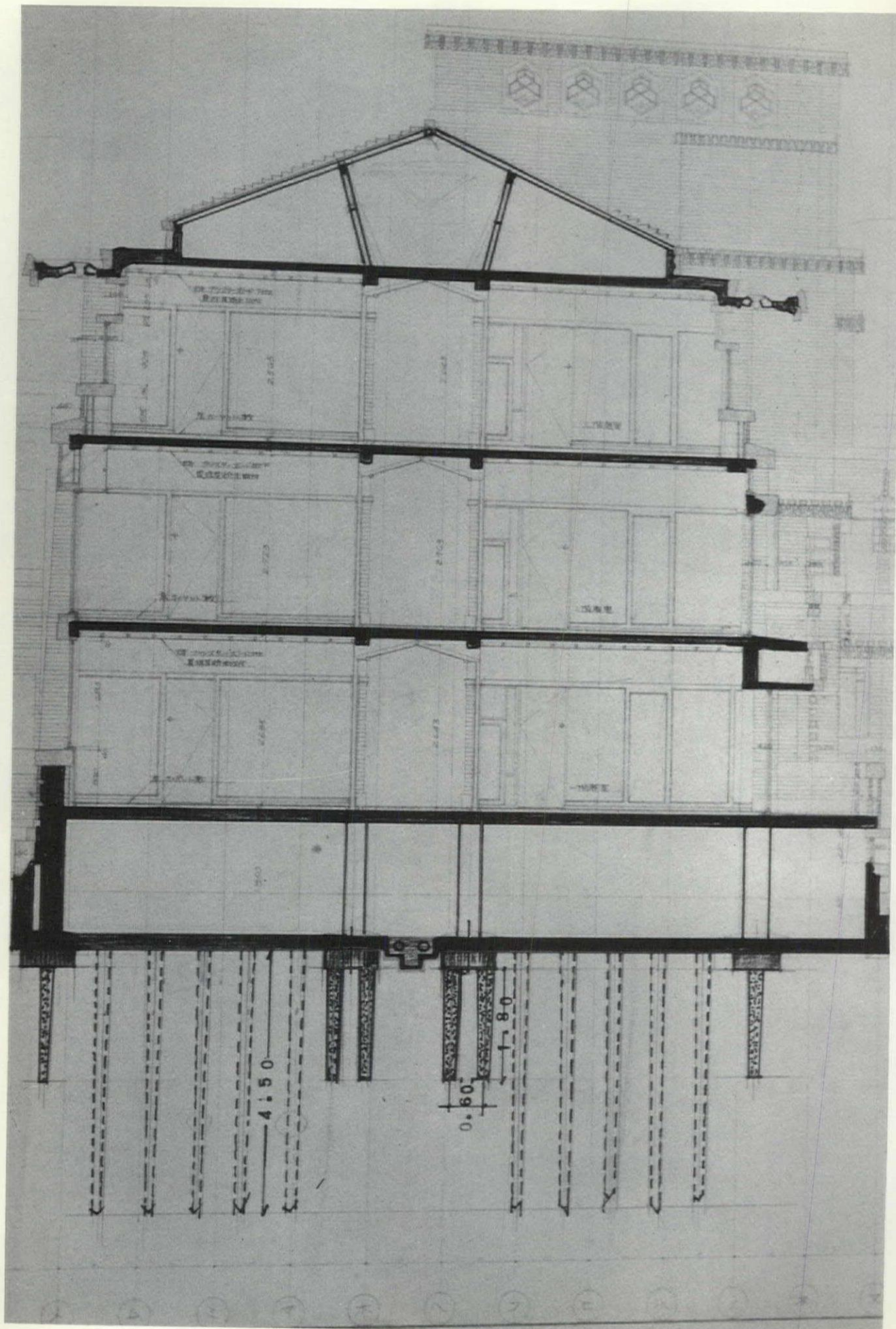
olition got underway. Its main parts—beams, floors and some columns—were of reinforced concrete. Although the hotel appeared to be a brick structure, it actually was made of concrete, with the bricks used as formwork and exterior finish. Oya stone was employed for lintels and arches in some of the sections.

Our work of actual measurement advanced by observing foundation and ground factors in the course of demolition and also by studying test-boring graphs made at the site of the new hotel building by Kajima Construction Co. Soil conditions were among the worst in Japan. The substratum at two borings consisted of 52 feet of silt, underlaid by 11 feet of clay, 65 feet of sand and 5 feet of gravel with sand underneath.

In light of all this, Wright attempted to decrease the weight of the structure. The continuous foundation beneath exterior walls and the central corridor columns were connected with plain concrete slabs 4¾ to 6 inches thick. Beneath these slabs, wooden piles—6 inches in diameter, 14 feet 8 inches in length—were driven at random.

Since this piling was not indicated on the drawings, it must have been an on-the-spot idea.

*The American Institute of Architects at its 1967 convention passed a resolution requesting the aid of Japan's architectural society in saving the hotel.



Under the continuous foundation beneath the central columns, concrete piles were driven in two rows at 23½-inch intervals (Ill. 2). These were made by pouring concrete into holes formed by originally driving wooden piles which, of course, were to be removed. In some cases, however, they were left alone as they had been driven.

The piles were from 4 to 6 feet in length; 6 inches at the bottom and 9 inches at the top in diameter (Ills. 3, 4). Under the exterior walls, piles were driven in single rows at the same intervals, and their length and diameter were similar to those found under the central columns.

The continuous foundation beneath the exterior walls was not in a stepped, pyramid style as many supposed. Instead, it was a plain concrete slab 7¾ inches thick, 3 feet wide and 10 feet long (Ill. 4).

It seemed that the plain concrete piles created a lot of difficulties during construction and that observers on the scene became aware of the subsidence. As a result, almost all of the piles under the central pavilion appeared to be of pine or cedar 14 feet long; and more were driven in closer intervals than elsewhere. We found such piles beneath the exterior walls of the lounge at the lobby (Ill. 5). The foundation under the banquet hall, the tallest portion of the hotel, was similar to that of the lobby.

It is said that the Imperial had a floating foundation, designed to contend with the undependable substratum of organic substance and silt. Although the plain concrete slabs under the basement floor might have been suitable for such a purpose, they were not connected to underground beams—and so I regard the solution as only half realized.

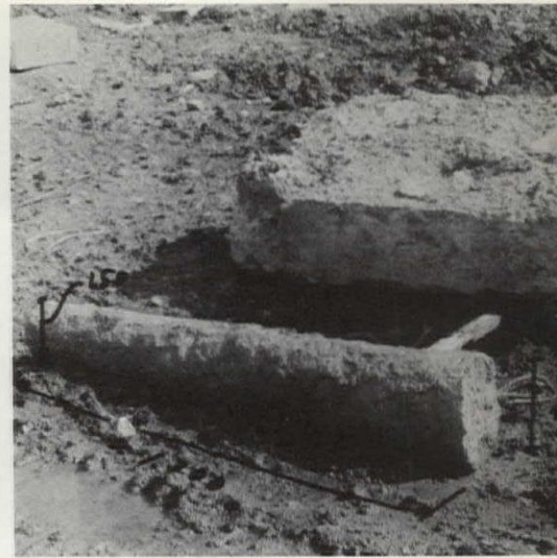
In the course of our investigation, we paid particular attention to the ground which was subsiding under the structure, but we could not find any boxes or any special foundation construction to overcome this problem. It would seem, then, that while Wright incorporated several design features for earthquake resistance, he probably miscalculated a feasible solution in terms of bearing qualities.

As our study progressed, we found that Wright had given meticulous attention to every detail. The plan of each of the three main pavilions and of the individual rooms demonstrated the importance he attached to function.

There were a few places, however, where the appearance of the



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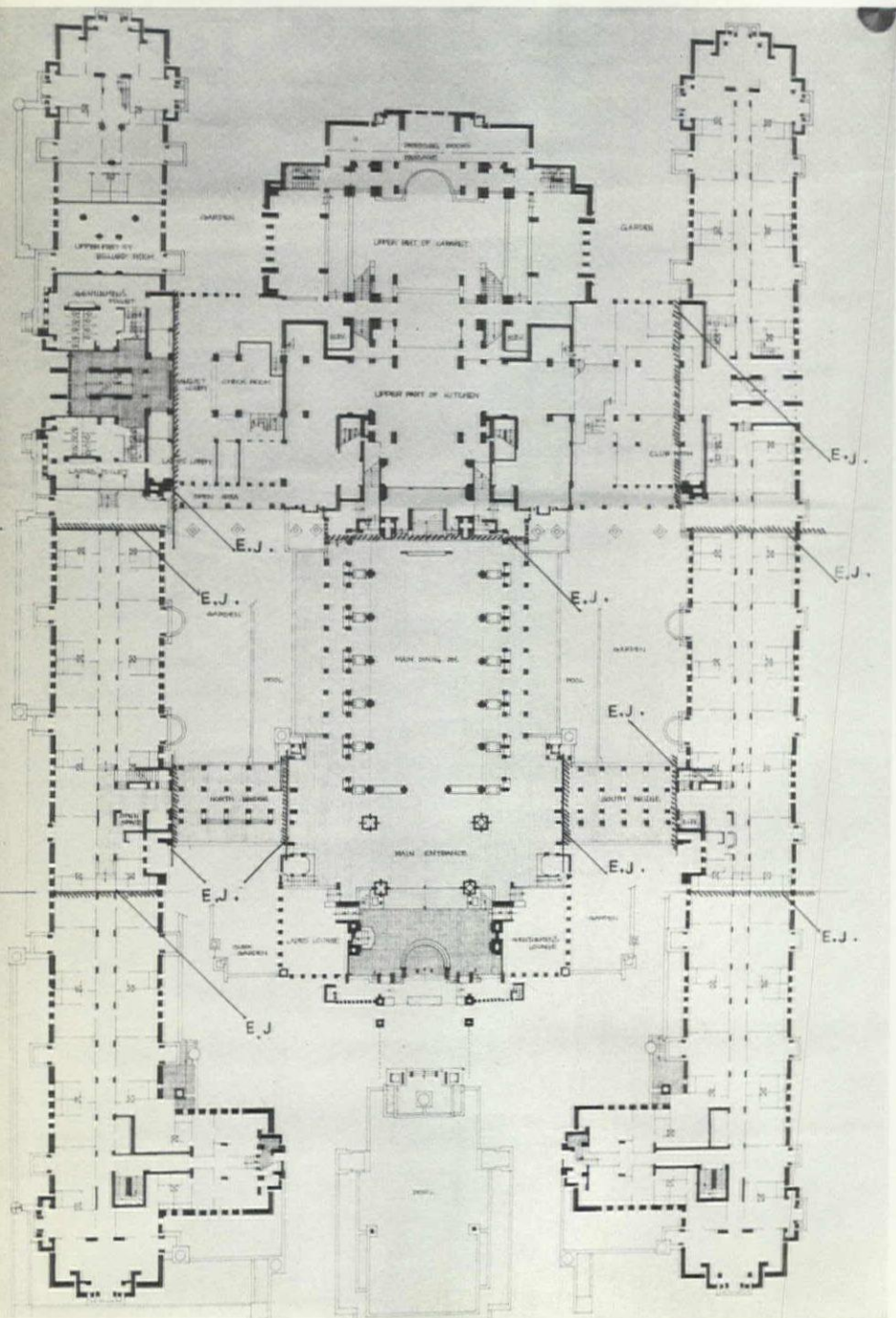
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building was deceiving. The promenade is a case in point. While its roof appeared as a sloping surface, beneath the copper plating was the rugged reinforced concrete construction which characterized the entire building (Ill. 6).

At the right end of the promenade, we found an expansion joint which connected that element with the guestroom pavilion (Ill. 7). These joints appeared at each connecting pavilion (Ill. 8), probably part of Wright's design for earthquake resistance; however, owing to the building's subsidence, the expansion joints separated and water leaked excessively through them. Repeated efforts to repair the leakage proved in vain.

As suggested earlier, some people may have regarded the hotel as a complete brick structure because of its exterior finish. For walls and columns, 2x12-inch bricks laid up about 3 feet served as formwork into which concrete was poured (Ill. 9). Some of the bricks varied



in shape, but all were the same thickness and made at Tokoname, a town in Aichi Prefecture.

This method of laying bricks was not used for the walls at the stairways. There it appeared that the walls were of plain concrete with a brick veneer.

Trussed Rafters and Staircases

It would seem that Wright's original idea was to use a flat roof, but he realized later that it would not be in keeping with the Japanese idiom (Ill. 10). He deviated, however, from that country's traditional method, notably in his use of support members, brackets and anchor bolts (Ill. 11).

Plans for five floors are shown
 ED. NOTE: The precise metric measurements supplied by the author have been converted, generally, into the nearest inch or foot.

in Wright's collection of works, but in reality the Imperial was more like seven stories—the floor levels varying in a number of areas.

The ground-floor plan indicates there were 77 stairways of various kinds in terms of increments of rise, width, etc. The one for guests consisted of Oya stone steps, the treads of which were more than 12 inches wide and 6 inches high, supported by iron bars (Ills. 12, 13). The edges of these bars were buried 4 inches in the walls.

The detailed drawings which I examined showed that all the stairways were indicated as ordinary sloped slabs, and so it is most likely that Wright altered the original design after selecting the Oya stone upon his arrival in Japan.

Composition and Pattern

The horizontal planes (Ill. 14) which keynoted Wright's composition can become easily monotonous. Therefore, he introduced massive and geometrically carved stone for the columns and other vertical elements, influenced, perhaps, by Mayan art (Ill. 15).

In addition, so his book *A Testament* (Santpoort, 1957) declares, he was strongly impressed by playing with geometric toys in his kindergarten days, and such an impression might have played a role in his designing the Imperial freely and with joy as if the whole building were a piece of sculpture.

The architect placed abstract stone figures at the hotel's entrance and in the center and at the corners of the court—figures which might have been the symbol of cosmopolitanism since people from all over the world would visit the hotel. I can find no reference to these in his writings. He did say to the Imperial's current president, Tetsuzo Inumaru, "In this hotel, pictures and sculpture are not necessary."

Final Statement

Wright was commissioned to design the hotel in 1915 when he was 46 years old, and in 1922 it was completed. During those eight years he put his heart and soul into its execution.

Like many creative persons, he was keenly enthusiastic about his own ideas and seemed to disregard the advice of engineers and other consultants in carrying them out. The Imperial's construction was basically weak, and thus the work of this great architect has had its life terminated prematurely. To me it is a heartache and a real tragedy of the century. □



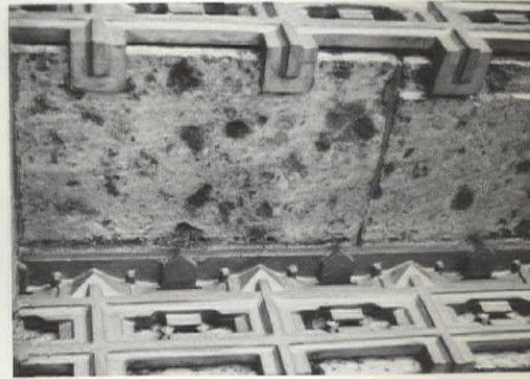
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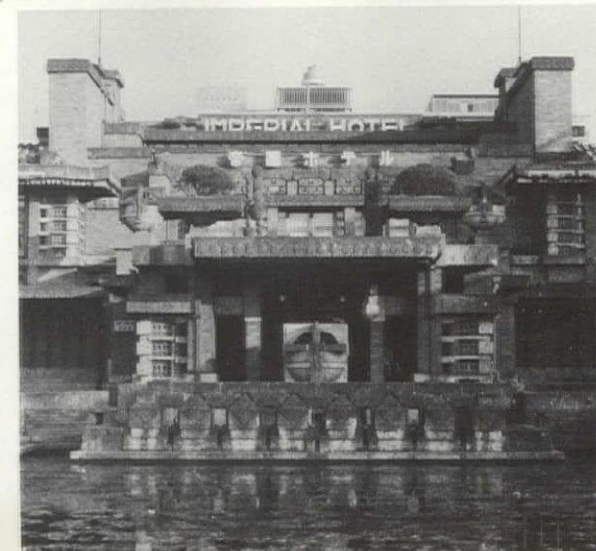
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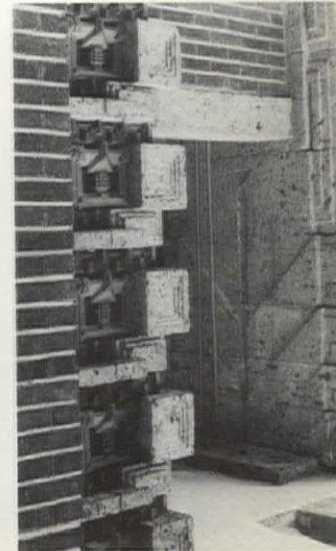
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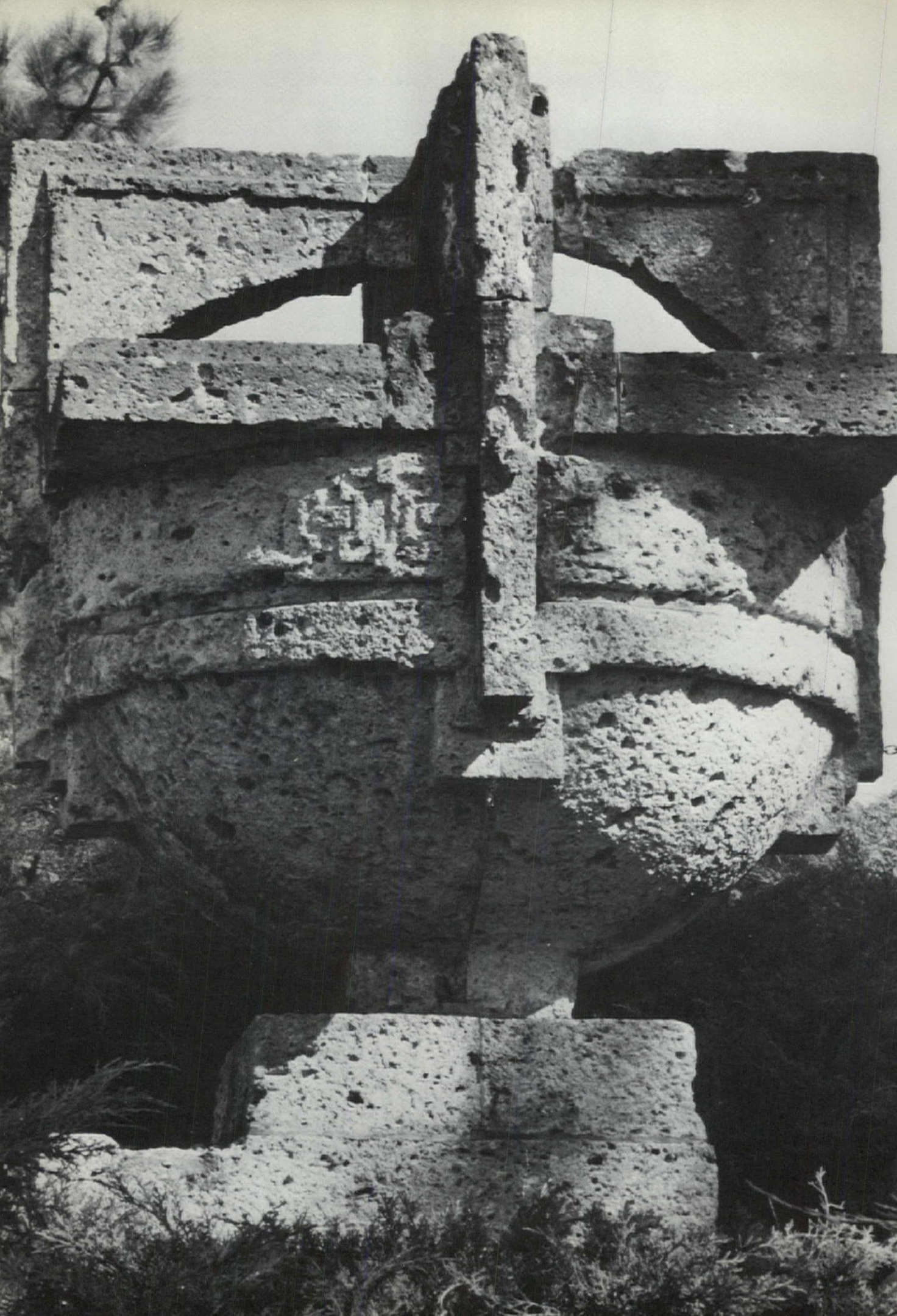
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P.S. While the Imperial is no more, at least a small part of it has found a resting place on the Stanford University campus in front of a residence also designed by Frank Lloyd Wright. The 1½-ton stone urn which graced the hotel was presented by the owners—the Inamura family—to Paul R. Hanna who is Lee L. Jacks Professor Emeritus of Child Education. Damaged by climate and still further by its recent ocean voyage, the art piece will be restored under the direction of William Wesley Peters of the Frank Lloyd Wright Foundation. The urn, 8 feet high and 4 feet wide, will be installed near the curving driveway of the hillside house which the Hannas will donate to Stanford (retaining life interest) as a memorial to Wright. A new book on the Imperial, reviewed below, summarizes the architect's ideas.

Many are the architectural treasures that have survived the catastrophes brought on by the natural elements. The Palazzo Strozzi in Florence is one; the Imperial Hotel in Tokyo was another for the 46 years of its existence. But man's destructive hand is something else again.

Today the Strozzi is still spared, and it is truly inconceivable that the Florentines would ever willingly tear it down. But, unbelievably, even those massive stones are threatened by the traffic that rumbles past its majestic facade. Frank Lloyd Wright's Imperial is no more, although it survived an earthquake and even the more devastating aftermath of consuming fires. It even survived one element of man's destructive tendencies—the incendiary bombs of World War II. Its soft stone crumbled, however, in the industrial atmosphere of Tokyo, and a subway under one wing sagged and cracked the building. Added to these woes was insensitive remodeling—an offense to the building's unity, dignity and beauty.

And travelers came to seek out those sleek hotels, bright and shining and chrome-plated, preferring apparently these sterile structures to the softer and more subdued atmosphere of the old Imperial. The overwhelming blow came when rising land values in the midst of the teaming city of Tokyo required more intensive use of the site. All these things brought about the demise of this international landmark. A lack of about \$4 million needed to save it sealed its doom.

Ada Louise Huxtable wrote a column about the Imperial in the *New York Times* of December 10, 1967, and she commented that the hotel was "the victim not of natural forces or cataclysmic events but of the two most powerful instruments of destruction of our age: progress and obsolescence." She

comments further that "there is no logic to this destruction except dollar logic, a standard that measures art, beauty, history, esthetics, environmental character and national pride with a scale of costs and conveniences on which such factors have no worth." And on this scale the Imperial was a "disposable treasure," no matter how much a "unique synthesis of technology and art," no matter how important as a transitional monument, "blending two cultures, past and present, East and West."

Cary James, AIA, the author/photographer of *The Imperial Hotel: Frank Lloyd Wright and the Architecture of Unity* (Charles E. Tuttle Co., Rutland, Vt.), would not have us dwell on the tragedy of the hotel's last days, however, for that he says would "obscure the real nature of the building." Instead he calls our attention to the architect whose vigor and vitality "illuminated the whole structure." James explains carefully the way in which unity of thought and action shaped the Imperial. Part by part he describes it, and then shows us the whole.

James, who practices in Mill Valley, California, believes an in-

The reviewer's name is well known to readers who follow the Books department. However, in addition to her signed reviews, Mrs. Osman, the Institute's assistant librarian, has for the past six years or so been chiefly responsible for the book mentions which make up the larger portion of the department.

troductory to the building cannot be without a parallel introduction to the words of Wright, and so half the pages of text are devoted to quotations from Wright's *An Autobiography*. One of the longer quotes is Wright's own story of the design and building of the Imperial, and of the earthquake that failed to conquer it.

James uses the quotations to indicate something of the "quality and strength" of Wright's thoughts.

After we have considered them in the first 46 pages, he brings us to a portfolio of photographs he made when he visited the hotel in 1965. There are 63 plates in all and six folded floor plans. James says that the photographs do not emphasize the ruins, though they were there, and the photographs "can only imply without describing the reality of the hotel." But they are excellent photographs, and they do tell us a tremendous amount about the nature of the building, its spatial realities and the materials that were the means of construction.

"No book," writes James, "can substitute for the experience of architecture. This can only be, within the limits of word and photograph, an attempt to create here on paper a reality honestly related to the far greater reality of the Imperial Hotel. It is an effort to broaden our consideration and our understanding of not only this hotel but the thought and the art of Frank Lloyd Wright." One would commend James and say he achieved his aims admirably.

Full-page advertisements about the "New Imperial" have appeared in recent magazines in the United States. The advertising copy is rather distressing to some of us. It states: "For all those people who thought they would miss the old Imperial, here's what is going up in its place: The new Imperial." And there is a drawing of a hotel that looks like any hotel in New York or Dallas or Memphis. The advertising copy ends rather dramatically in the best tradition of advertisers: "Imperial . . . and the legend continues." One wonders and doubts, and looks again regretfully at the beautiful photographs James' book provides. And at least some "who thought they would miss the old Imperial" will continue to miss it—and to mourn it—no matter how many new Imperials dazzle the eye with molded plastic and glass and steel. MARY E. OSMAN

Architecture in the 'Kleenex Culture'

BY ROGER H. CLARK

Architecture has traditionally been perceived as enduring, permanent structures. The architect has continually searched for materials and structural systems that would increase the length of time that a building might stand. It is the timeless monuments of the ancient, classical and medieval worlds that are revered as a great cultural achievement.

However, we also admire the anonymous "non-architecture" of primitive cultures. The admiration in this case is not for the permanence of these structures as they had to be repaired and replaced often. Rather it is the highly refined form that was produced that is esteemed.

Individual monumental buildings did not normally exist. The shapes and forms which these people created met their physical, spiritual and social needs. As these changed, in time the primitive builder fashioned additional elements allowing those which no longer served as a function to crumble back into the earth. Ironically, the culture that produced this architecture was slow-moving, and as technology provided the opportunity for more permanent buildings, the culture's rate of change increased.

Today, buildings are perceived as concrete organizations which once achieved will last forever. Yet the physical facility often outlives the social needs and conditions to which it originally was a response. In short periods of time, vast changes are taking place in those needs or forces to which architecture must respond and in the technology which gives us the ability to interpret these needs and the situation under which they exist. The forces and rapidity of change result in buildings with a decreasing useful lifetime. There is no reason to assume that the increasing acceleration of change will be curbed; future cultures will, it seems, be even more dynamic.

There appears to be four possible approaches to the problem that the physical architectural form very often outlives the function for which

it was intended and that the needs and structure of society and the function of buildings are changing with stepped-up frequency.

The first of these approaches is the one found most often in practice today. In this case, the architect realizes that he is operating at a single point in time and that while he attempts to forecast the future, the immediate problem generally dictates the solution. The result is that as the needs change, buildings which are physically



The author: Mr. Clark is an assistant professor in the School of Architecture at the University of Virginia. He currently is writing a book with Dr. William Zuk on *Kinetic Architecture* which will deal to a large extent with the problem of obsolescence, discussing such things as short-lived and disposable structures.

sound must be remodeled or torn down and replaced. With the rapid modification of life that is taking place, this phenomenon is substantially necessary at an ever-increasing pace.

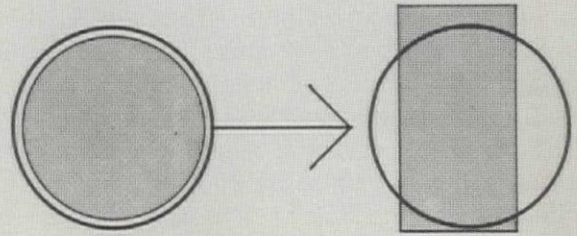
The second potential approach is best represented by Mies van der Rohe's principle of universal space. The desire in this case is to design a space flexible enough to meet any functional demand. Mies's solutions are anonymous universal buildings not adjusted to any specific function, but it is difficult to accept the concept that all forms fit all tasks. As the needs of society change, as the technology which allows us to interpret these needs also changes and advances, as a new population matures and as the situation under which the needs exist changes, so, too, should the three-dimensional form response—architecture.

Recently a third approach using kinetic structures was proposed by Dr. William Zuk of the University of Virginia. He has suggested the need to consider architecture that is active, not passive—an architecture that meets changing needs through an incorporated flexibility of deformable, displaceable, expandable and mobile structures.

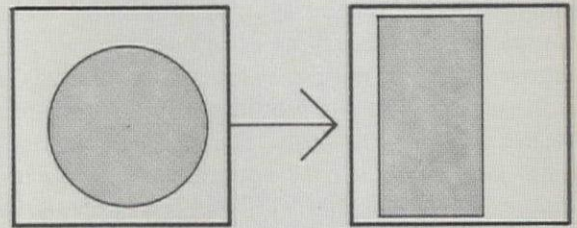
This concept suggests a fourth approach which entails the theory of obsolescence, allowing ar-

The four diagrams illustrate the possible approaches open to the architect in his attempt to design form to fit the needs and behavior patterns of a rapidly changing society. The shaded areas  represent the needs and forces to which architecture must respond. The unshaded areas  represent the architectural forms. The heavier lines depict permanence, while the lighter lines illustrate forms that can be easily changed or eliminated. The ideal situation occurs when the needs and forces closely fit within the form. Two elements are used in each diagram to indicate that change will naturally take place within the needs and forces that determine architectural form.

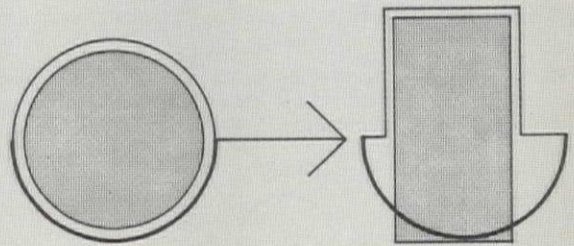
1. *The Typical Solutions:* The architect in this case may attempt to forecast the future, but the immediate problem generally dictates the solution. With the tendency to think of architecture as permanent and not with the acceleration of social and technical change, the purpose, function and need which formed the original building advance and they must either be uncomfortably accommodated within a rapidly outdated form or force buildings which are physically sound to be remodeled or torn down and replaced.



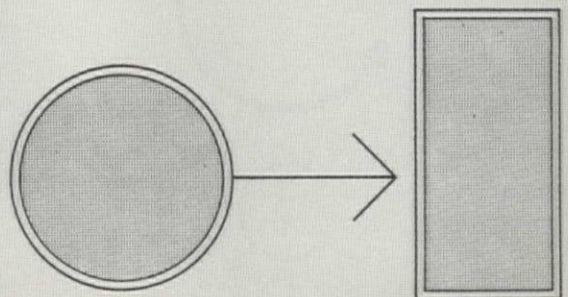
2. *The Universal Space Solution:* The principal goal is to design a flexible space that can meet any functional demand. Very often the result is that this architecture, while attempting to solve all functions, satisfies none. Mies's work is typical of this approach.



3. *The Kinetic Structure Solution:* Architecture is to be active so as to meet our changing society and its needs, and not passive as has traditionally been true. There are few if any examples of this type of architecture in existence. It exists primarily in theory as presented by Dr. William Zuk and Peter Cook and his Archigram group. It is proposed that architecture should meet change through an incorporated flexibility. Nevertheless, the structures that have been suggested are, it appears, to be long lived. It seems reasonable to assume that the building's flexibility will be limited by the system chosen at the time of the project's inception. Therefore, while the structure is to contain a built-in flexibility, this must be limited by assumptions made at the time the design is formed.



4. *The Architecture of Obsolescence Solution:* This suggests that architecture should be designed to solve the context that exists, and as that context changes the architecture should be systematically eliminated. Buildings tend to outlive their original function which changes with increasing frequency. Is it really possible to predict the future accurately? Past performances do not inspire confidence we can.



chitecture to continually meet the changing demands of a constantly changing technology and society by systematically eliminating those structures which are no longer useful. Architecture would truly be a physical expression of a society in flux.

Through scientific and technological advances and displacement, the life span of many things which have been considered permanent has been decreasing. This irresistible shift toward disposable objects demonstrated by our rejection of old things, coupled with our fantastic increase in knowledge and expansion of productivity which generates new opportunities, has prompted George Nelson in *Problems of Design* (Whitney, 1965) to label ours the "Kleenex* culture."

But the implications of obsolescence make us uneasy. They elicit a sense of guilt about wastefulness, arouse suspicions of conspiracy and even evoke vague suggestions of social degeneration. Yet true obsolescence is a process put in motion when something better emerges. Admittedly, "better" is sometimes difficult to assess, but change is essential to progress.

Applying the theory of obsolescence to architecture would, of course, force many changes on traditional practice. It would perhaps even force the architect "to discard the professional garments by which he is recognized," as Reyner Banham has suggested in *Theory and Design in the First Machine Age* (Praeger, 1964). Building materials that the architect would commonly work with might include cardboard, plastics and stabilized earth. Permanence would no longer be a criterion for excellence.

Construction techniques would obviously have to be altered. The time necessary to erect a build-

ing would have to be reduced from a matter of months to a matter of days or, at least, weeks. The cost would have to be reduced significantly (perhaps a dwelling unit might cost less than \$1,000). The manufacturer would become an integral part of the design and construction team. If obsolescence is spurred by genuine improvement, then architectural decisions will have to be based upon increasing quantities of social, scientific, economic, psychological and technological information.

It is especially important in a process of this nature to distinguish between what is improvement and what is merely fashionable. Fashion has little to do with true obsolescence. A new design may represent a better adaptation to changing conditions, and it may not. When the design does not represent improvement and makes no contribution, the illusion of change is achieved by "styling." While fashion as such is that aspect of obsolescence which is usually ridiculed, it should not be overlooked that architecture is already subject to fashion.

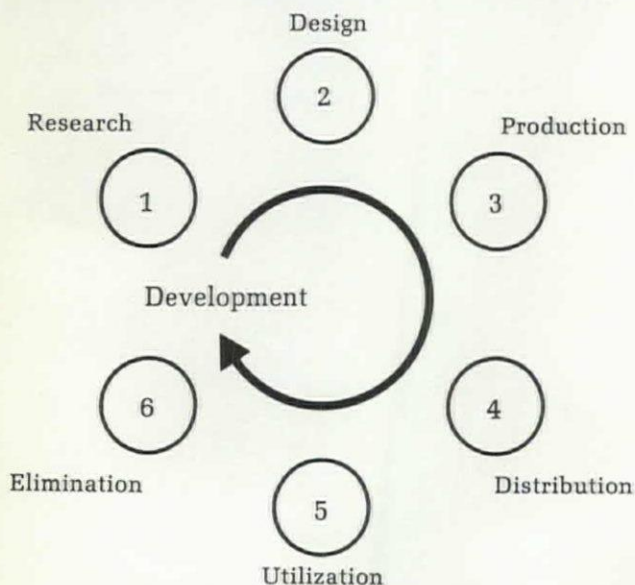
Significant architecture can only result as a direct response to human needs. Only as the human situation and the social structure change, or as technological advancements provide further tools for interpreting the needs of the human, or as research results in a more complete understanding of the human and his needs can constructive changes take place in architecture. It is evident that the context is changing rapidly enough to seriously consider a constantly changing architecture.

Again, as George Nelson puts it: "We have learned how to handle obsolescence as a prodigious tool for social betterment in those areas where we have both knowledge and control. The waste occurs where obsolescence is both too slow and too haphazard, where adequate information and adequate controls and systematic elimination are lacking. What we need is more obsolescence, not less."

With a society that is mobile and dynamic, with technological developments at an unprecedented rate, with an increasing inability to accurately predict the future, with changes of great magnitude taking place within short periods of time, with considerations of more mass production and kinetic structures in architecture, with the total effects of the electronic revolution not yet felt, with other disciplines and interests working themselves into architecture, and with an obvious move toward an open-endedness in all aspects of life, we move toward a theory of obsolescence in architecture—an architecture that is designed for a short life, an architecture that is disposable. □

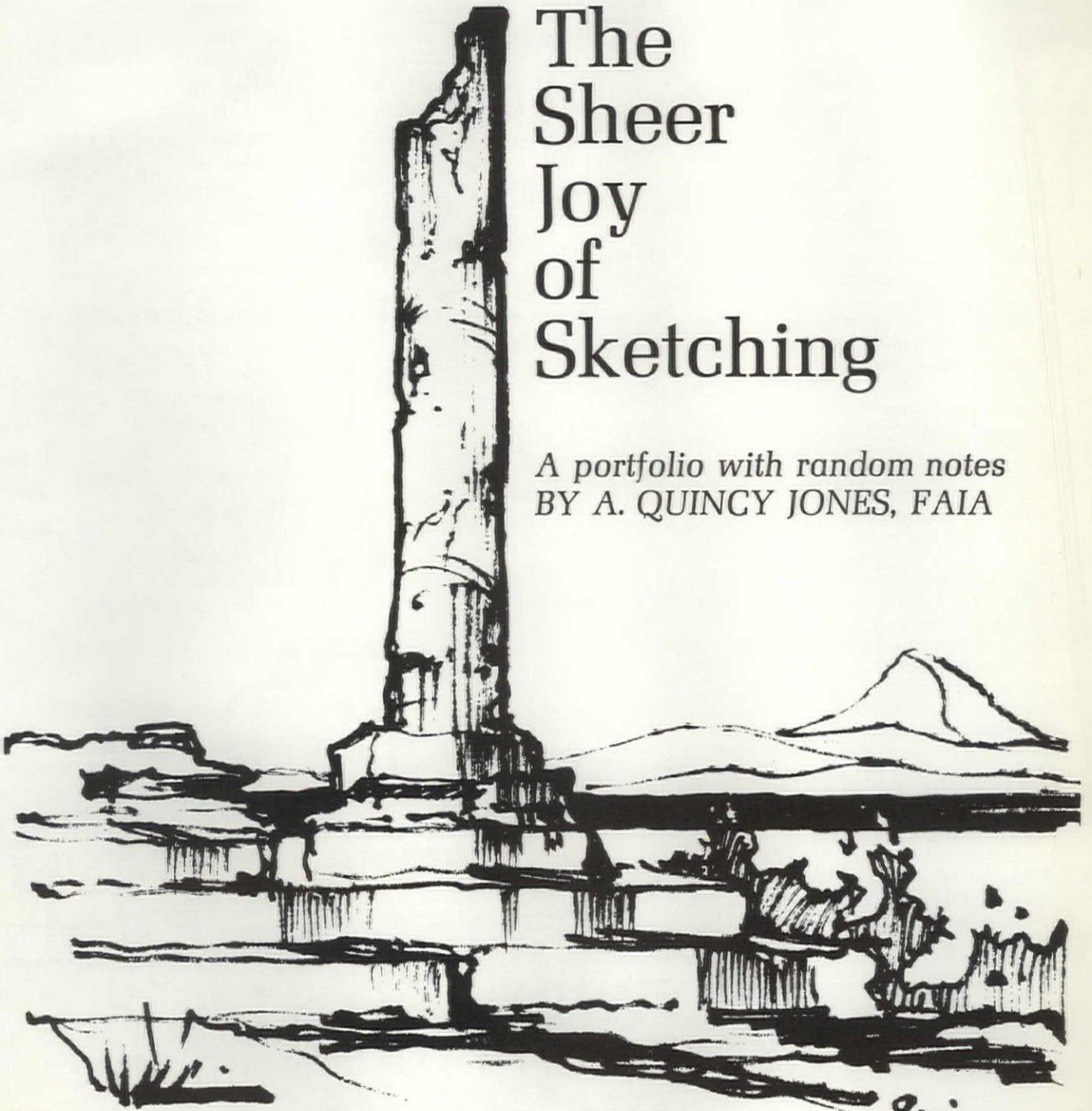
*Registered trademark, Kimberly-Clark Corporation.

"Design should not freeze the status quo, locking individuals, communities and whole cities into immutable, yet soon-to-be-outdated patterns." (From a Cornell report.)



The Sheer Joy of Sketching

A portfolio with random notes
BY A. QUINCY JONES, FAIA



ABGINA.

26 SEPT. 1962

Quincy



BOMBAY - FROM TATE HOUSE
 Temple IMPROVEMENT TERT BLDG - 12 SEPT '62

It is a kind of participation in the place.

Sketches often show the character of an area quite differently than slides or photographs. One gets involved—in how people live, their culture, customs, etc. For example, when I sketch a gondola in Venice, my respect for the gondolier is enhanced all the more, and the marvel of the boat is something I want to know more about. Its unsymmetrical design appears quite symmetrical at times, and the sketch must tell the story in such a way that one feels the boat move along the canal. In architecture, the method of communication is visual. By always working at it, you keep your hand in it to express yourself graphically. Sketching is fun as well as a constructive way to keep "one's hand in," just as it is important to practice the piano every day. By sketching on a trip, I enhance my ability to see and feel the spaces—and this is what architecture is all about anyway. Sketches end up as a graphic method of taking notes.

When one takes pictures, he is often thinking about composition and how one object looks against another, or the marvelous accident of color when a building silhouettes against an early morning sky. When one is sketching, he is not only aware of these conditions if he is sensitive to composition and color but also becomes terribly involved just because he is committed to drawing and putting down on paper the way his mind's eye has seen the spaces between buildings,



Venice
 July 1967



WAT ARUN.

31 AUG '62



HONG KONG

28 AUG '62

or the outcroppings of rock along the hillside, or the movement of an old woman as she trudges down the road with a heavy load of kindling wood on her back.

Sometimes, when one is sketching, he has experiences that he would otherwise miss.

In Okayama, Japan, I made friends with very young schoolchildren just after dawn—an experience I shall always remember.

While making the quick outlines of a cyclist with his cantilevered load of small packages, I became aware of the children who were giggling behind me. They, too, were sketching.

A few years ago, at least, not many tourists visited Okayama. The city had been bombed heavily during the war, and Hiroshima is not many miles away. I was glad somehow that I had arisen early to meet these young artists on what appeared to be their own terms—through sketching. I was strange to them; my eyes were different from those they usually saw and my language was not the same. Yet it seemed all right between us, as one sketcher to another.

It is difficult to say that certain sketches are favorites, but there are some that I do think about occasionally. I am glad, for instance, that I made those of the steel buckets at the Tata Iron & Steel Company in Jamshedpur, India, where I attempted to get the scale of the operation. I made several trips at various times of the day and put my notes together at the desk in my room near the steel plant. While I also took slides of the open-hearth firing at night

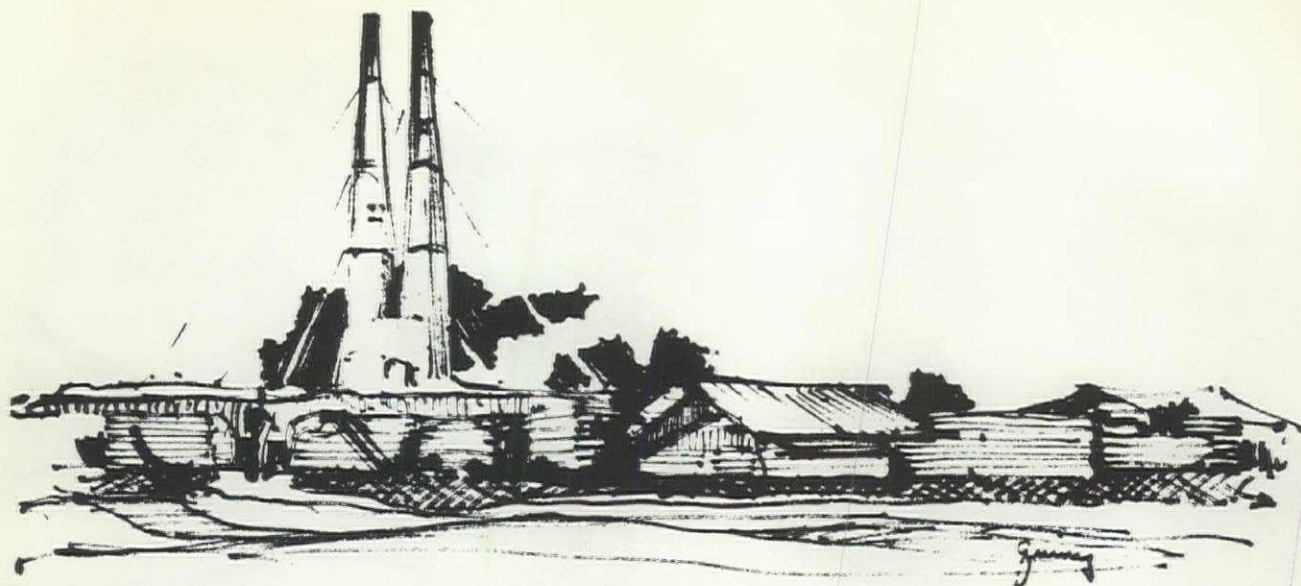


Small load of
Coking Firewood -



Bank above room at
Yonowabaso Inn - @ Ito
2/7/58

Typical - slide or undercut - along
Japanese highways -



**ROADSIDE BRICK KILN.
BETWEEN DELHI & CHANDIGARH.**

14 SEPT '62

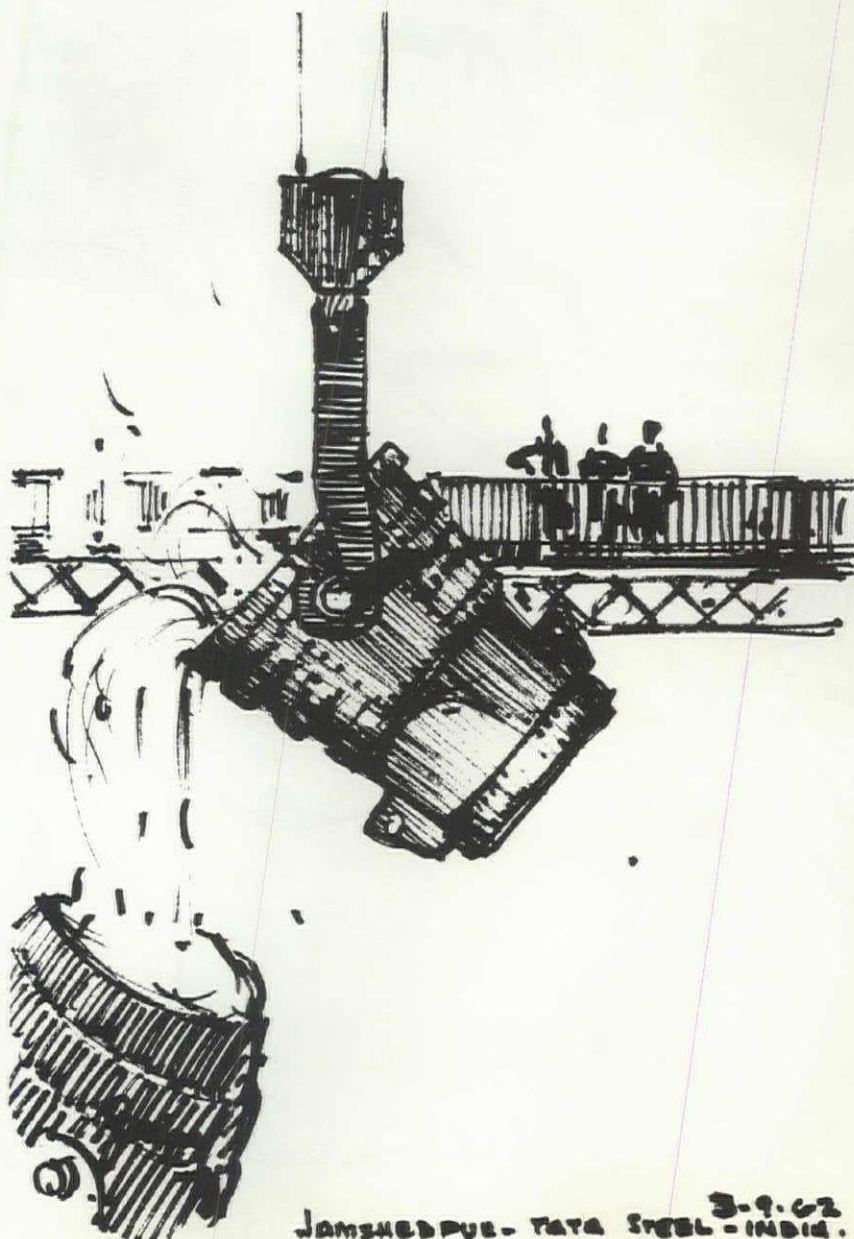
when the contrasts are unbelievably beautiful, none of them came close to the drama and feeling of the sketches of the buckets as viewed against the figure of a human being.

I really look forward to a trip and the drawing. It is a real chance to express a certain kind of relaxation. I cherish the time of day when I can return to the balcony of a hotel room and finish the sketches I started earlier while walking or driving.

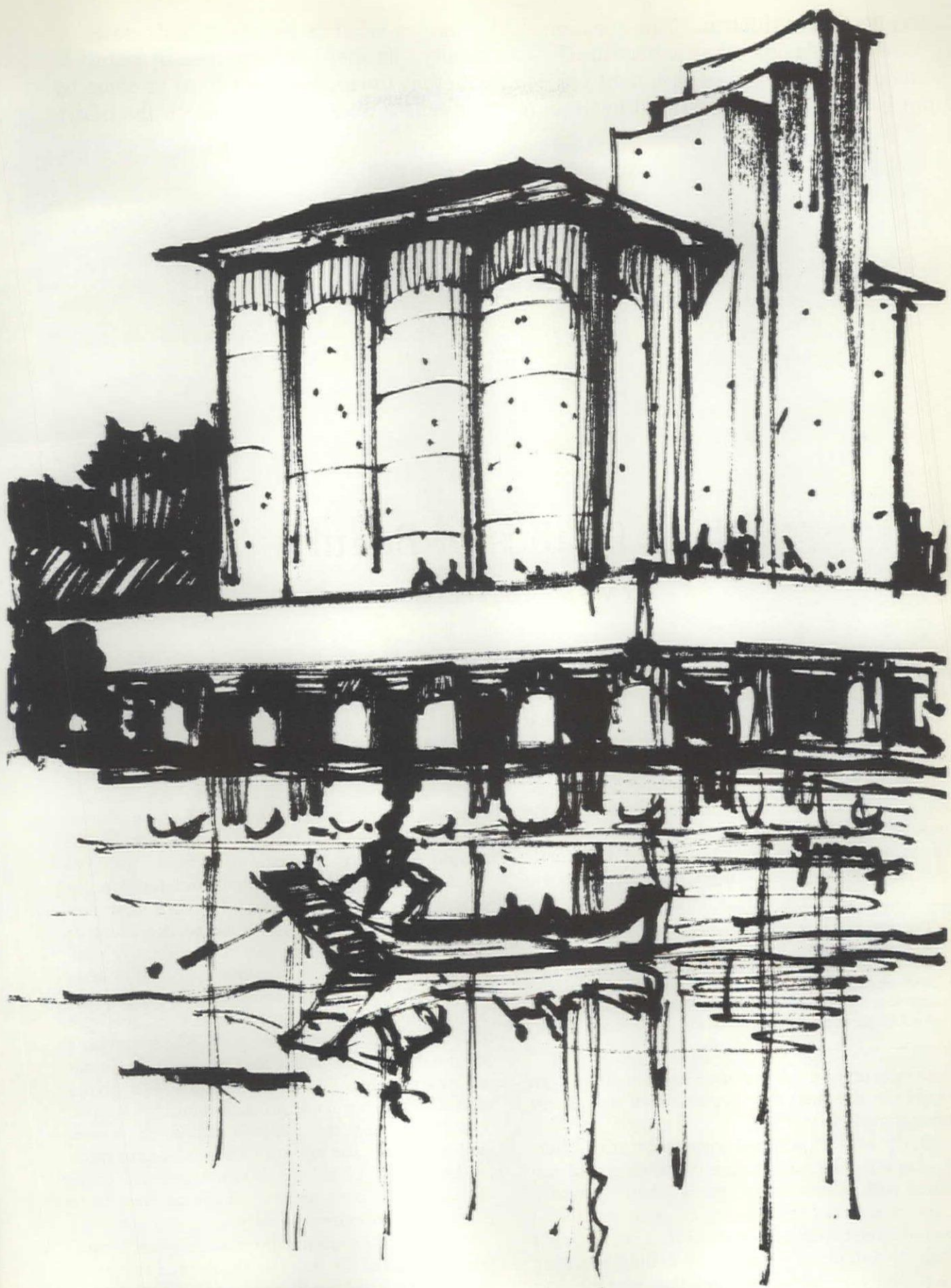
Sketching is fun when it is not troublesome, and I plan ahead for the materials I will need, the same as one does for photography on a trip. I try to plan what I can carry in my pockets. I have used Lindy ballpoint pens and brush pens. And I have used rapidograph pens filled with good black ink. On a trip earlier this year, I took marker pens and did a lot of sketches in color for the first time in several years. Usually I take quadrille pads for sketching. The smooth surface takes the pens easily, and I can run the sketches through the Ozalid machine for prints. All in all, however, I do not worry too much about these things. They are of the moment.

Wherever I am—at home or at work or play—I draw every day. I draw at the restaurant while waiting to be served or at the telephone when I am talking or at the theater when I am not with the play.

Most of my work is done quickly and without reworking. When I start to go over a sketch, I usually do something wrong and end up throwing it away. I love to draw; it is a part of me.



JAMSHEDPUR - TATA STEEL - INDIA. 3-9-62



GRAIN ELEVATOR
BANGKOK

1 SEPT. '62

Architectural Criticism. The question "Who knows what is beauty?" boils down to "Who will decide what is beautiful?" and, finally, "Is there an expertise in beauty?" One of America's most dissident voices admits that the answers are hard to come by but is equally convinced that even an inquisitiveness about it all is worth the effort.

The Politics of Beauty

BY WILLIAM F. BUCKLEY JR.

It is a thesis of the literature of protest against the way physical America is shaping up that external harmony is necessary for the repose of the soul. I suppose I am not absolutely certain that this is so, but I do know that it is so for some people—myself, for instance—though not necessarily for those people who, according to fashion's book, are the most to be admired in the human race. These last include the inner-directed types of whom the absent-minded professor is the most widely caricatured example, who are

The author: Mr. Buckley, author, editor of the *National Review* and TV personality, was the Conservative Party's candidate for the New York mayoralty in 1965. His article is adapted from an address given at this year's annual meeting of the National Council of Architectural Registration Boards in Honolulu.

generally oblivious to external surroundings, who could not care less whether one, two or a dozen trees grow in Brooklyn.

One's own experience counts greatly. Mine, during my childhood, was a continuing confrontation with beauty. I don't know whether I would have recognized it as such, or even whether I would have thought back about it as such, except that my father was constantly calling attention to it wherever we were—and that was all over the place. He had lived, after college, in Mexico, and intended to settle there and would have, except that he backed the wrong revolution, which

was easy enough for a political activist to do in those days, since during the period there was almost always an incumbent revolution.

So he left, escorted to the border by armed guard, in 1921, and taking with him the plans for a beautiful house and garden he had just begun to build and on which he had lavished infinite attention. He bought a large house in Sharon, drawn to the little town in northwest Connecticut for the simple reason of its extraordinary beauty. We went to Paris and Switzerland and London for protracted stays when I was a boy, but kept popping back to Sharon, where we settled more or less permanently during the '30s, spending winters in Camden, South Carolina, where my father undertook the rehabilitation of a derelict antebellum house which is surrounded now, the fruit of his diligent supervision, with whole terraces of flowers, red and white and lavender. I remember as a boy my older brothers and sisters giving vent to their underworld amusement because, notwithstanding my father's vigilance, a red azalea had had the nerve to raise its head smack in the middle of a bed of white azaleas, quite against my father's orders, which no vertebrate had ever been known to defy.

But such acts of insubordination were rare even among the flowers, the shrubs and the trees, which performed prodigies under his direction. In Sharon we lived among many acres of green, on a property called Great Elm, after a tree of noble girth and stature, reputed to be the largest

elm in Connecticut, under whose irenic shade a treaty with the Indians was said to have been concluded shortly before the Revolutionary War.

The town itself was—and still is—an elongated rectangle with rows of majestic elms going the length of it, extending a mile or more to the south. The Garden Club once classified it, after Litchfield, as the most beautiful town in Connecticut, and it was a source of constant pleasure to my father, who loved it even as he loved the trees on his own property, which he looked after with pride and loving care.

The Dutch elm disease struck Sharon before he died, and one of the first casualties was the great elm. We all knew the pain he experienced on account of its loss because, when the time for fortitude came, as when there was a death or illness in the family, he fell into a preternatural silence. The decision was made to cut the tree down, but he saved the trunk, which stands even now about 20 feet high, to remind someone, by its enormous waistline, of its splendor.

All those elms, the whiteness of the town, the coordinated vision, did communicate something to our lawless brood, indeed so much so that most of my brothers and sisters continue to live there, and continue to care about the elms and the shrubs and the flowers, and the stillness, and the town, which continues to look as though it was hewn out of a single, pleasant dream. They did come by that repose of the soul about which we hear more and more, as related to one's surroundings—concerns which architects and their supervisors are enjoined to care about more and more.

During the '30s my mother was active in the Dutchess County Garden Study Club, whose principal effort was to guard the Hudson River against the irruptions of billboarders who had designs on its banks for large and garish announcements of their magical contributions to modern commerce. After an extensive war the Garden Club won; and I remember cheering the victory against Coca-Cola even when I was too young to be permitted to drink it, though I may merely have been acting as echo chamber for my father's enthusiasm.

At about the same time, without any notice whatever, all of a sudden a large billboard sprang to life about a mile and a half north of Sharon, interrupting the theretofore uninterrupted stretch of New England landscape that coaxed the tourist up toward the Berkshires. On seeing it my father was seized with indignation, which he communicated to us at dinner. Activists that my older brothers and sisters were, they promptly volunteered to go out and burn the sign down.

My father's allegiances were in conflict. On the one hand, he had himself once been a revolutionary or rather counterrevolutionary, who, as a

young man, undertook nothing less than the replacement of the order of things in all of Mexico. On the other hand, he was the conservative who believed in law and order. The dialectic did not yield altogether convincing results; we were to do no such thing. However, he said, if the town of Sharon itself rose in popular uprising against the billboard and marched against it, our sympathies would clearly be on the side of Sharon rather than on the side of BBD&O, or whoever the villain was.

As often happens in such situations, we ended up doing the thing halfway, and ignobly. Caught up in the post-Depression exuberance of 1939, the owner of the local soda fountain and cigar store abutting the local post office hoisted a spectacular Coca-Cola sign above his building, an unnecessary piece of exhibitionism considering that there was only one other place in all of Sharon to go if you wanted to buy Coca-Cola at the fountain. We stole up there late one night with mops and a bucket of white paint and streaked the sign into unrecognition, a venture in beautification which we found especially easy to perform inasmuch as the gentleman in question was the town's premier grouch, and, quite coincidentally we then supposed, Republican lord of all he surveyed.

The next day a horrible communal silence fell on the town, as the question was moot whether the omnipotent Republican would call in the National Guard to detect the malefactors or whether he would submit to the implicit censure of the community, always assuming the expression had indeed been the community's. He did neither. He merely, within a matter of days, hoisted a fresh sign; whereupon, after a council of war, we reasoned that unlike Hercules, we were not equipped to cut off Hydra's head. So he won; but a demonstration of sorts had been made.

I am, then, myself committed to the notion that attractive external surroundings can mean a great deal, and to the corollary that something ought to be done about it; just how and just what being, of course, the question. Next in order of consideration is the question: Who knows what is beautiful? Perhaps it boils down to the easier question: Who will decide what is beautiful? That, after all, is merely a matter of political arrangement.

The Congress of the United States, for instance, is absolutely in charge of deciding what is beautiful and what isn't in respect to its own quarters. Sam Rayburn was in charge of the Congress at the time the plans were drawn for a new House Office Building, and so it came about that the sovereign legislature of the United States, representing all the people, devised and constructed this building. And this raises another question: Is there an expertise in beauty? To which the answer of course is, yes and no; yes in that some people's eyes are

better than other people's; no in the sense that there is continuing disagreement on just whose eyes are operatively better.

And this, in turn, makes insufficient the recommendation of Daniel Patrick Moynihan, a very fashionable intellectual who also happens to be very bright, that the architectural profession form a lobby. "There wasn't a special interest in America that didn't have a hunk of the [highway] bill except the architects," he observed at one of our regular conferences of disgust over the deterior-

The most beautiful
buildings are designed
by architects.
So are the ugliest.

ating face of America. Why not? The most beautiful buildings in the world are designed by architects. But so are the ugliest buildings in the world; and it isn't that the beautiful buildings are beautiful because they are free of the pressures of the marketplace, though those pressures do figure, often for the worse, in certain types of buildings. Disagreements about architecture—indeed about all art—are often written about as though they were being fought between the beautiful spirits and the Philistines, which is all very well until the moment comes when with absolute confidence we are asked to distinguish between the two in such a way as is esthetically, or politically, acceptable. The Pan Am Building that hovers over the New York Central Building, now called the New York General Building, is despised by Norman Mailer, adored by August Heckscher. Heckscher is in, culturewise; indeed he was JFK's No. 1 on-duty esthete. Mailer is concededly erratic, but he is in very steady company in his dislike of the Pan Am Building.

The most galvanizing words recently uttered on the matter of saving America the Beautiful came from the President of the United States, whose superb French cook, inherited from JFK, recently resigned in despair after the superordination of a dietitian from Austin, Texas, who ordered him to serve beets with cream on them at affairs of state. Can a man who thus misorders his own kitchen be trusted to design the Acropolis?

It is not safe, in a word, to assume that great and beautiful buildings are automatically what happen when you allocate more money to be spent on great and beautiful buildings—even when you give the money to those among our highest political authorities who discourse most

regularly on the subject of the beautiful life.

If we cannot expect that beautiful buildings will necessarily arise from an act of political will, can we hope for better luck from authority in city planning? Edward Durell Stone remarks that most of the cities of the world intended to be spectacularly beautiful—Leningrad, Paris, Washington—were designed by the assertion of central authority. Louis Napoleon hired Haussmann to redesign Paris in 1853, and the result was certainly smashing. The czars recognized that the Russian talent was not for visual beauty, so that when St. Petersburg was made, Peter the Great called in a Frenchman; and behold the result. Washington, says Stone, was conceived as a "white city," and even that elementary conceptual commitment gave it character, what beauty it has. It is a pity that more cities aren't thus conceived, that there isn't a master planner around, with a first-rate sensitivity for the natural character of the place and the people, to require a kind of loose-footed uniformity, which is nothing more than a respect for harmony. A spontaneous cultural homogeneity is an adequate substitute.

It is a tricky business to regulate, in behalf of an overarching esthetic idea, what a man may build on his own plot of land; but even so, I'd be for taking that risk. The idea is widely accepted that if you buy a lot which is not business zoned, you may not transact business on that lot; and there are no persuasive squawks, addressed either to the civil-liberties unions or to the natural law, to deny the municipality the right to zone.

What about the extension of the zoning right to regulate a building's facade? It is a dangerous business, because the doctrine of congruity, fanatically extended, might have the effect of discouraging those elegant variations which, expressing a disciplined individuality, sometimes give birth to the flowering of an idea, and even to breathtaking mutations. But the rewards of running the danger can be very great, whether in a small town like Litchfield, Connecticut, or a very large town like Paris. In such towns as these, one

The role of various
governments ought to remain
primarily negative.

can walk about and know what it is that Ian Nairn, recoiling from the typical American city, means when he says that although "chaos occasionally is good fun and essential, chaos all the time is just chaos," and, pleading for relief from

the "chaos of nonrelation, probably worse in America than anywhere else," reminds us as so many others have done that "townscape depends on two things, relationship and identity."

Having acknowledged that something should be done about the problem, we need to ask what, concretely. What are the theoretical problems, and what are the practical problems? The first have to do with the role of the government; the second, with the capacity of the community to rise to the challenge.

The role of our various governments, local, state and federal, ought to remain primarily negative. Governments are as a rule better at reeling off prohibitions than indulging themselves as creative artists. I have mentioned the overarching problem: How is the government going to decide what is beautiful; will the Library of Congress send down a memo on the matter? And secondly, don't we need to understand that the kind of organic beauty we most greatly need to encourage in our towns and cities can issue only from the genes of the community? Infusions of federal money and federal bureaucrats tend, as Jane Jacobs has amply demonstrated in her book on the life and death of the great American cities, to upset the glandular balances of individual neighborhoods; and the baby is deformed.

In some areas, the federal government has intruded probably forever. One never quite realizes, in retrospect, why the federal government had to get into some of the acts, but so it happened. As for highway building, for instance, the program arose like Venus from the Cyprian seas ordaining that henceforth the government would pay 90 percent of the cost of building interstate highways. That gave the government a little leverage which it sought to exercise, by happy accident, for the common good by offering a bribe (an extra one-half of 1 percent) to those states which would agree to ban billboards along the banks of the highways. Only seven states have qualified for that subsidy.

The pressure from the billboarders in the other states was overwhelming. They used every weapon, including theory. Now here is something that needs to be done—some first-class theorizing in behalf of the esthetic order. The cynic will doubt that this is of any material importance, and the cynic will be wrong because ours isn't an altogether pragmatical community, it is very much theory oriented. We brood, and I think it is good that we should do so, over the niceties of such questions as whether the individual has the quote right unquote to post billboards on quote his unquote land. Granted that human beings will produce fancy theoretical justification at the clink of a nickel. But grant, also, that those justifications are effective weapons, and that we have

been delinquent in failing to shoot down presumptuous theory with better theory.

It is true that the billboarders survive primarily through political pressures and manipulations. But, draped in theoretical mantle, they seduce a not inconsiderable number of people who are convinced by the private-property argument. Robert Moses, who has been fighting the billboarders for almost 30 years, tells us it is "dirty fighting, with eye-gouging, rabbit-punching, bone-breaking, mayhem, and no holds barred." At the level to which he refers, nothing will do but the mobilization of the esthetic conscience followed by irresistible political counterpressure. But meanwhile the billboarders must be stripped of their theoretical armor. This one ought not to be difficult. Here the individual can say, with some plausibility, that his is an undisputed right to build a house exactly along the lines of his own petty choosing—on the grounds, *tout court*, that he has the sovereign right to define the specifications of his own enjoyment.

A very intricate case needs to be developed, wooing public acceptance, to knock down that argument; and I myself believe it can be done. "The quarrel between the individual's right to design his own home and the neighborhood's

Billboards are
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right to architectural unity can only be solved," a philosophic friend of mine has argued, "by an existential dialectic. If the community desires architectural harmony, it must win the argument by the exercise of power."

But the billboarders, I should think, are more readily disrobed. The display of hortatory commercial slogans is not covered by the same set of arguments used by the anarchical housebuilder—because the billboards are manifestly not directed at himself, but rather at others who pass by. As such the billboards are acts of aggression—like skywriting—against which the public is entitled, as a matter of privacy, to be protected. If a homeowner desires to construct a huge Coca-Cola sign facing his own homestead rather than the public highway, in order to remind him, every time he looks out his window, that the time has come to pause and be refreshed, he certainly

should be left free to do so. But if he wants to face the sign toward us, that is something else.

Regards the maintenance of the natural beauty of great parts of the nation, the weight of the argument is, once again, on the side of the public. The present Secretary of the Interior, Stewart Udall, is, I think it is fair to say, as aggressive a champion of the necessity to maintain oases of natural beauty as anyone who ever held high federal office. Sometimes, to be sure, he does leave the impression that he resents any private dwelling at all, on the grounds that it is liable to get in the way of a meandering buffalo. But his occasional excesses are tolerable in an age that very much needs to be reminded of the factor of beauty, natural and man-made. The withholding of land, to be retained in its supernal beauty, is a legitimate function of government, as Adam Smith was among the first to observe.

I would greatly welcome an exhaustive theoretical justification of an extension of the present zoning ideas. As they stand, they are after all widely accepted. Most towns and cities, as I have noted, have zoning laws; and some—New York City is one—use the power to discourage, for instance, the obnoxious ziggurat, which with its mechanical terraces has defaced so many buildings. But Jane Jacobs has pointed out that the mere acquisition of power is not by any means a solution to the problem.

New York City conferred powers upon itself beginning in 1916 and subsequently did much, by the use of those powers, to damage its potential for beauty. Circumspect use of power is supremely important, with a heavy respect for those domiciliary prejudices which are indispensable to beauty, preserving their individuation without which relationships are utterly lifeless. The practical problem with cities is infinitely complex, in large part because of the transient population—it takes a while before an individual is incorporated into a city. Urbanization has greatly increased the difficulties. Since 1945 our cities have grown hardly at all, but the suburban communities have increased in size by almost 70 percent. The result has been to leave the cities at the mercy of the awful urban renewal programs.

Still, progress can be made, block by block, area by area; and the theoretical problems having been chased at least to the point where a respectful and considerate attention for theoretical differences is exhausted, the question will finally arise—my friend's existential dialectic: Will we, or won't we, do something about it? And at this point one needs, in a democratic society, to depend on the community.

The community is cursed by indifference, one that is perhaps exaggerated, but it is most certainly there. "Indifference," sighs the late Sir

Herbert Read, "is endemic . . . a disease which has spread through our whole civilization, and which is a symptom of a lowered vitality. The sensibilities are dulled and the average human being no longer cares to feel the keen edge of life, to have freshness in vision or zest and savor in the senses." Sir Herbert is very largely correct, but it is demoralizing to take his conclusions as an absolute judgment on the current state of mind

Natural beauty
must be fought for athwart
people's indifference.

because if one does, one faces a dilemma. It is, very simply, that the only way to do anything about the problem of natural beauty and architectural harmony is to do so athwart the people's indifference; indeed, athwart their will.

At this point a word should be said about the Very Gloomy. The point can be made, as with Mr. Udall, that their exaggerations are galvanizing. But the opposite point can also be made, that their gloom is so total as to invoke not the impulse to reform, but the impulse to despair.

Herewith Marya Mannes on her especial irk: "Cans. Beer cans. Glinting on the verges of a million miles of roadways, lying in scrub, grass, dirt, leaves, sand, mud, but never hidden. Piels, Rheingold, Ballantine, Schaefer, Schlitz, shining in the sun or picked by moon or the beams of headlights at night; washed by rain or flattened by wheels, but never dulled, never buried, never destroyed. Here is the mark of the savages, the testament of wasters, the stain of prosperity." And her climax: "Slowly the wasters and despoilers are impoverishing our land, our nature and our beauty, so that there will not be one beach, one hill, one lane, one meadow, one forest free from the debris of man and the stigma of his improvidence." Does that kind of thing make you want to give up beer cans, or does it make you wonder whether Miss Mannes has, when it comes to beer cans, the same kind of problem that the fellow had who went to the psychiatrist and kept brushing the mosquitoes off his arms and legs?

Or there is the crushed poet, an anonymous employee of the Department of the Interior, who comes up with grisliest metaphor of the season in, no less, an official publication:

"The shift of our nation from a predominantly rural to an urban population has made a sinister sandwich of much of our land, buttering our soil with concrete and asphalt, piling people on peo-

ple, and then hanging a pall of polluted air over all." And, not to be outdone by Miss Mannes, he reaches his own immolation: "If current trends continue unchecked, in another generation a trash pile or piece of junk will be within a stone's throw of any person standing anywhere on the American continent." Surely before that happens the hungry cosmos will have gulped down the sinister sandwich and eliminated our worries?

Another doomsayer, with, however, restraint in his voice: "For some of our mountains at present will only support trees, but not so very long ago trees fit for the roofs of vast buildings were felled there and the rafters are still in existence. There were also many other lofty cultivated trees which provided unlimited fodder for beasts. Besides, the soil got the benefit of the yearly 'water from Zeus,' which was not lost, as it is today, by running off barren ground to the sea." (Plato, on the despoilation of Attica.)

Another kind of criticism, more subtle but equally enervating, is *el fastidioso's*, the kind of man who, because Shakespeare ever wrote, can't bring himself to see anything good in John Cheever, can't listen to an Appalachian folk song because the organ tones of Bach crowd his ear. Listen to Edward Durell Stone:

"Compared with us, the Italians are impoverished. They hold body and soul together with a few strands of spaghetti and are not pampered by creature comforts. But you hear opera on every street corner and people walk among fabulous things of beauty. Verdi, Titian, Michelangelo are spoken of with reverence by the taxi drivers and the waiters. They are more concerned with the well-being of the spirit than with material well-being. I once flew from Venice to Akron,

Enough is being done
to permit, to admit, hope.

Ohio, and when I landed and looked about me, I decided that the so-called poor people of Italy were a lot better off."

Ho hum. The poor people of Italy happen to be very poor indeed, and a lot of them express their reverence for life by voting the Communist ticket at election time and prefer the Beatles to Verdi. Any anyway, genius is genius precisely because it isn't normative but unique. To compare Venice to Akron is not only stupid but outrageously irrelevant, the cant-millenniarism which makes so many of our cultural critics, like so many of our politics critics, so very profoundly boring.

In fact, things can be done, in fact, things are being done. Not nearly enough, but enough to permit, to admit, hope.

In southern California a group of merchants and housewives, unsubsidized by the federal government and, I daresay, unread in Miss Mannes or in the literature of the Department of the Interior, have undertaken a program—they call it Los Angeles Beautiful, and let us not raise our noses, what would you call it?—which is doing what it can, where it can. "When we started out," the executive director, Fred Chase, commented to a *Newsweek* reporter, "my old friends thought I'd changed my sex or something. But we've shown everybody." The program is being emulated in more than 200 southern California communities.

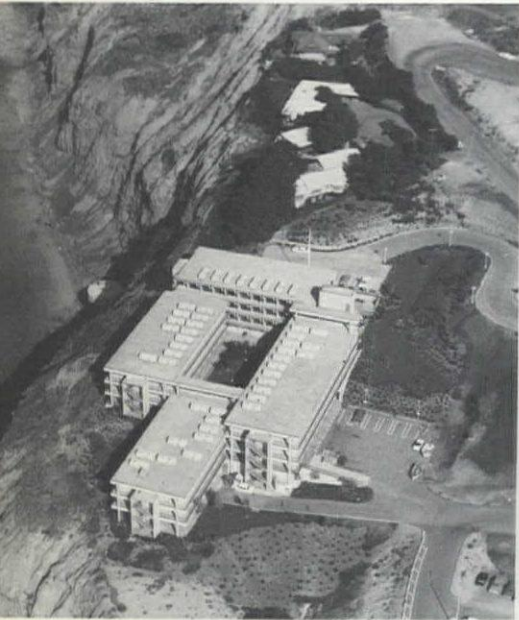
"Plant-a-tree," *Newsweek* reports, is among the projects; "Converting abandoned trolley-car strips into landscaped traffic islands, sponsoring horticultural experiments to determine which plants have the highest resistance to auto exhaust fumes; and promoting a plant-a-tree campaign in the downtown area. A neighboring group, the Pasadena Beautiful Foundation, recently helped remove all but a few billboards from the main thoroughfares and persuaded the city to adopt sight-nuisance and sign-control ordinances."

At a formal level, it is not easy to devise the means by which to inculcate the appreciation of beauty. To some it comes naturally, to others it is intellectually received. I remember with great affection a chauffeur-companion of my childhood, a gentleman refugee from Russia, a nobleman, of course, full of flossy ancestry, married to Tolstoy's niece. Finding himself impoverished in Paris between the wars, he took a job as a bus driver on the condition that he be assigned the route to Chartres, so that he might adore it every day. How do you create such men as a class, as a nation? Nobody knows. I believe it is correct to make the effort, not to leave such matters to fate.

If I were a teacher I do not know what techniques I would use, beyond attempting to stimulate a mere interest in the question. Perhaps I would try showing the children slides of various buildings and asking, "Is this ugly? Is this beautiful?" and bringing down a cane upon the knuckles of the blockhead who grunted the wrong answer. I would do so with due recognition of the hazard of my undertaking, because my own knuckles are constantly rapped, as for instance when I go and see some of the work of our most prestigious artists and architects.

Still, I would take the risk in behalf of the idea that a regard for beauty, an inquisitiveness about it, can be communicated, even as I learned about it merely by sensing pleasure in my father's soul as he walked among his azaleas, or about the beautiful towns and cities of the world. □

Navy Sets Course



First Honor Award: The Bureau of Commercial Fisheries Laboratory, Scripps Institute of Oceanography, La Jolla, California, by Frank L. Hope & Associates. The facility, on a restricted, sloping site, has plan for a fifth building when expansion is required. To allow for radical changes in space assignments without disturbing the general appearance of the building, four independent structures are grouped closely together around a courtyard and connected by open galleries on all sides. The jury's verdict: "The structure, circulation, mechanical system, flexibility of interior space and expansion possibilities are admirably handled and extremely clear. . . . A very human and quiet building."

First Honor Award: Mess Hall at the Naval Training Center in San Diego by Mathew Lapota & Associates. The requirement was for feeding of 8,000 persons in a time period of 1 hour and 20 minutes, divided into four 15-minute periods. The one-story, 80,000-square-foot structure has a central section for food preparation and storage, two wings connected to the central section, each with two dining halls, four cafeteria serving lines, two kitchens and two sculleries. The Navy's strenuous demands, the jury commented, "have been handled in a simple, powerful manner," making it a clear solution to a mass feeding and circulation problem and holding its own on a very complicated site.



for Better Design

A new awards program for best designs for the US Navy has been established by the Naval Facilities Engineering Command of the Department of the Navy in cooperation with The American Institute of Architects.

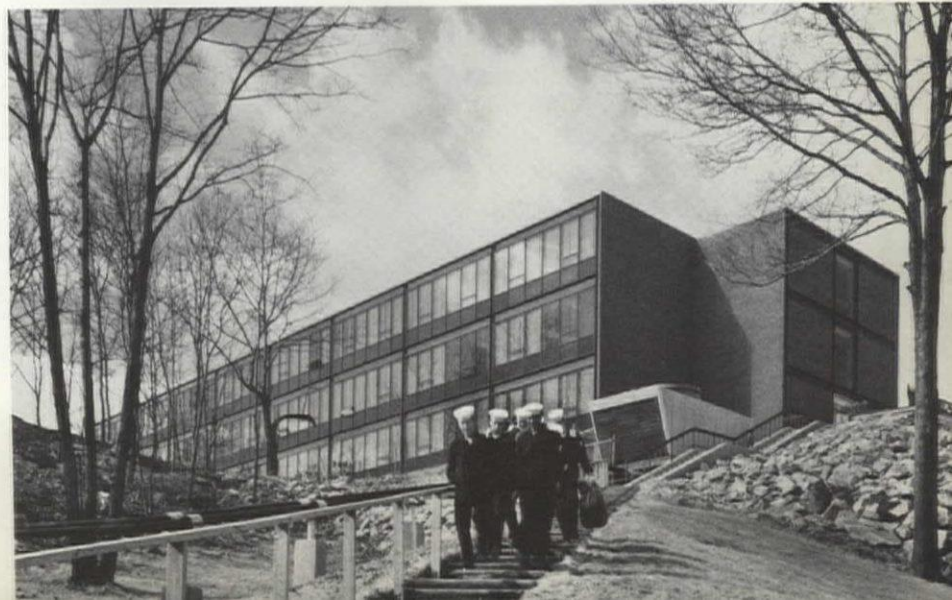
Known as the AIA-NAVFAC Biennial Awards Program for Distinguished Architectural Achievement, it gave out in its initial round two First Honor Awards and five Awards of Merit, selected from a total of 49 entries.

The jury, whose members were Henry L. Kamphoefner, FAIA, chairman, Hugh Stubbins, FAIA, and Paul Rudolph, AIA, agreed that the program supports an important need if architecture is to maintain its quality in American society.

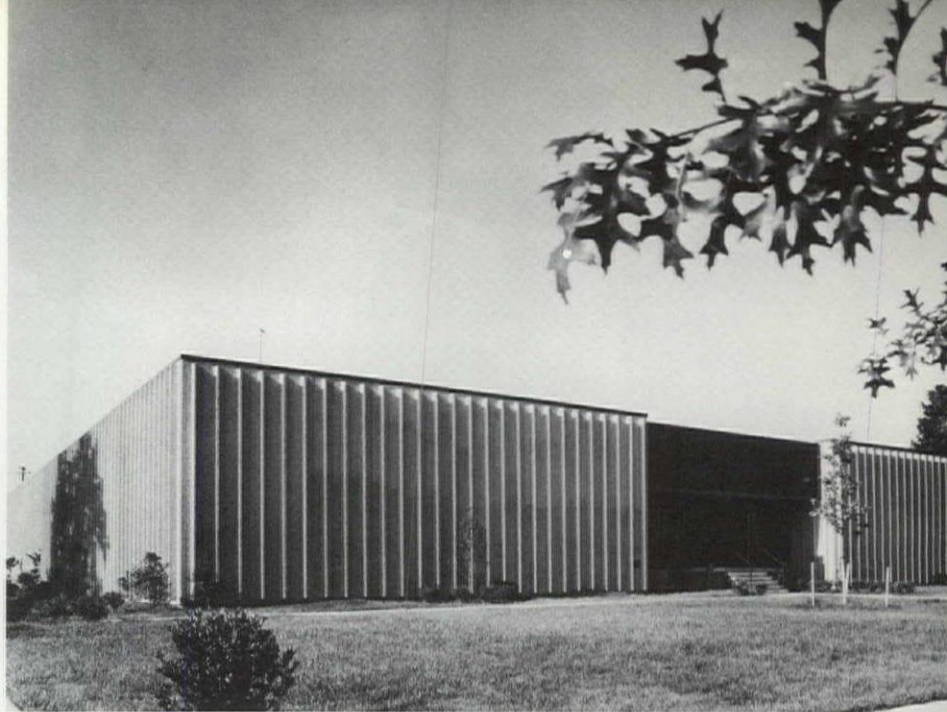
US Navy 584-men barrack, San Diego, by Deems, Lewis, Martin & Associates. The design solution had to be found within definitive drawings, maintenance criteria and a predetermined budget and, in addition, it had to have a pleasing atmosphere. Natural gray concrete, variegated deep blue glazed brick panels and gray glass were used, judged by the jury to be an admirable selection of materials.



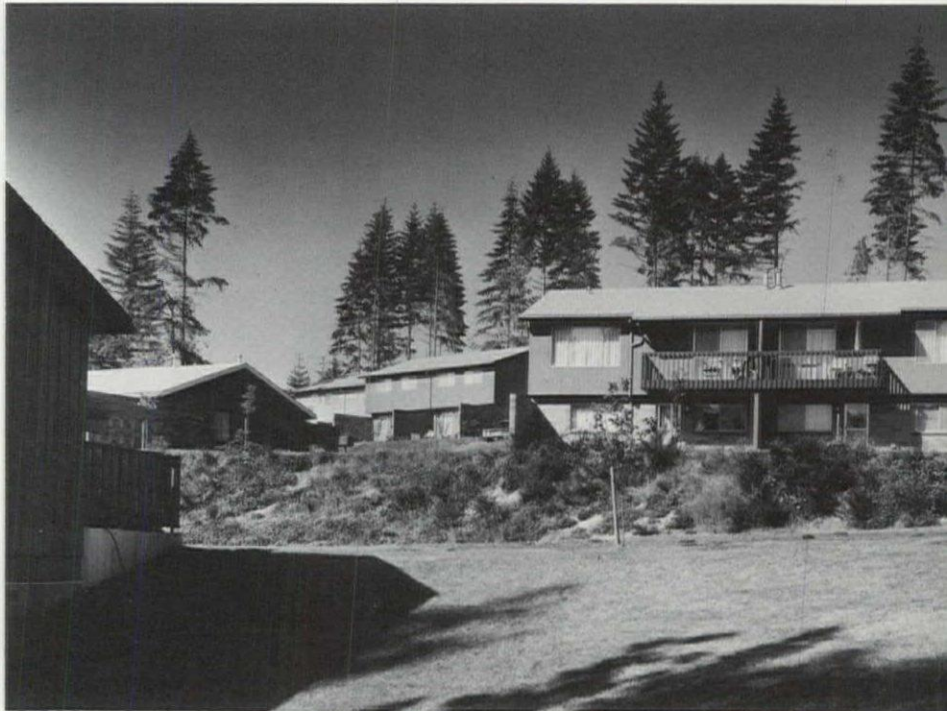
Administrative facilities, Grotton, by Sherwood, Mills & Smith. "Essentially a glass box," the architects call it. The maximum use of glass is to provide a light and open environment as a contrast to the shorebased crews' regular underwater working conditions. The jury hailed it as an unpretentious building, straightforward in use of materials, simple and flexible.



Bowling Center at the US Naval Station in Norfolk by Shriver & Holland. With costly pile foundations required for the entire 24-lane facility, the architects used a minimum of interior columns and wall-bearing steel-joint framing for the roof to keep within a fixed budget. The jury found it "a utilitarian building" which achieves a certain elegance by reducing details and massing to the simplest terms.



Jackson Park Naval Housing Facilities on Puget Sound by Durham, Anderson & Freed. "The relationship of housing to the beautiful site is noteworthy," said the jury. "The gentle lines of the buildings and sensitive use of materials give the whole a sense of humaneness." The 200 housing units, combined in two-, four- and six-family structures, are oriented toward the water for a maximum view from all living and dining areas.



US Naval Hospital, Long Beach, by Hugh Gibbs & Donald Gibbs. Out-patient capacity is 16,000 per month and therefore, to minimize traffic in the hospital proper, out-patient clinics and diagnostic rooms are at the building's periphery with direct access to parking lots. The jury cited the design as an unusual clear and clean solution to the complex problem of a hospital.





The Design for Protection

BY ROBERT J. PATTON

Geographic and topographic characteristics of a region are elements to be considered regarding the safety of urban areas. Although fallout particles are often carried high into the upper atmosphere, a range of high mountains could interrupt their trip downwind and prevent their distribution in the proximity of a population center on the leeward side of the range. The city of Denver might be considered to fall into this category.

Another feature of the natural landscape worth consideration is water. As was mentioned in connection with the characteristics of gamma radiation, some of the rays traveling from the radioactive particle collide with atoms of matter, change direction and lose energy. This scattering is directly related to the density of the medium through which the rays travel. Gamma rays are highly attenuated when passing through water. Due to their weight, fallout particles would sink when settling on water. The presence of bodies of water (harbors, lakes, reservoirs etc.) in or near urban areas could decrease or even eliminate certain areas of the ground plane from contamination and contribute significantly to protection.

However, once natural barriers are penetrated, the problems of protection increase. The characteristics of urban form, pattern and relief make it difficult to do more than generalize about methods which might afford protection. These generalizations relate solely to the characteristics of gamma radiation and its interaction with physical elements.

In describing the manner in which gamma radiation interacts with an environment, we

viewed the city as a collection of compartmented volumes within which people would seek refuge. Because of the intense penetrating effect of gamma radiation, people withdrawing to these enclosures would merely achieve a false sense of security unless the mass, density and configuration of the shells provided adequate protection. It is these qualities that urban designers must consider in order to create safe areas within the city.

The simplest form of protective compartment employs the principle of barrier shielding by surrounding the space with a material which, by the nature of its thickness or density, absorbs and scatters the radiation and reduces to a harmless level that which ultimately emerges from the interior surface.

It should not be implied that protected areas must be totally enclosed spaces. The configurations of radiation-attenuating shells can have varying degrees of freedom in their organizations. The most rigid configuration would be a sublevel or basement area which places the occupants out of the line of fire of the radiation from the fallout field at ground level and beneath at least one overhead floor and roof.

Protection at ground level, however, is also possible. Greatest protection would be found in central areas such as corridors, auditoriums and utility spaces often found in schools, churches and single-story office buildings. Direct radiation from the fallout field must pass through exterior walls as well as interior partitions, and this series of barriers can be instrumental in reducing radiation exposure.

The same concept would apply to multistory buildings. Here, the compartmentalization is successive in a vertical as well as horizontal

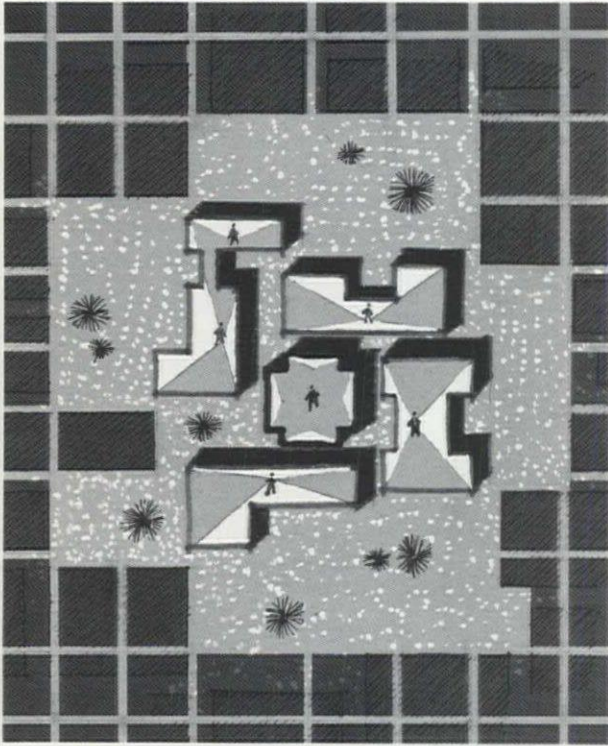
direction, depending on the particular building type. Radiation from the fallout on the roof must penetrate downward through successive layers of floor slabs. The radiation emanating from the fallout on the ground or scattered in the atmosphere similarly must pass through successive sets of walls. It is clear that the core of the multistory building, particularly at the mid-height floors, would offer the greatest amount of protection, because this location puts a number of barriers, as well as distance, between occupants and radiation sources. The multistory compartmentalization concept would apply in the more densely built-up areas of the city such as apartment and central business districts.

Openings in enclosures are also possible, although their handling is critical. Barriers can be arranged as staggered baffles, and apertures can be carefully sized and positioned in a manner which adequately attenuates penetrating rays and still provides some natural light.

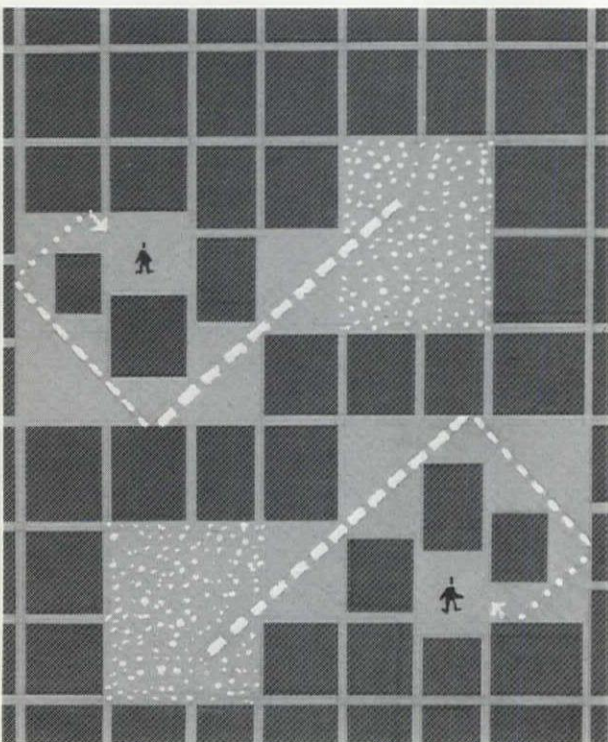
The provision of the multitudes of protective compartments needed to shelter an urban population from gamma radiation in time of emergency can be achieved in a number of ways. Ironically, many safe areas already exist in older structures designed and built before problems of fallout protection. By accident, the materials used and their configurations often provide areas of adequate protection. A nationwide survey has designated areas in many of these structures as shelter spaces. In addition, study has indicated that other existing buildings could provide protected spaces by minor remodeling such as reducing window areas or adding partitions, stairwells and retaining walls of higher density materials. This would not necessarily detract from the architectural quality of the building.

The best program, when successfully implemented, is the incorporation of protected spaces in the design of new buildings. A dual-use concept is employed in which a normal area in the structure is designed to be functionally and esthetically satisfactory for everyday use (auditorium, lounge, lunchroom, etc.) and, in addition, is designed to protect against fallout gamma radiation. In the event of an emergency, it would serve as a shelter without requiring any alterations.

This view of urban compartmentalization is only an increment in the full understanding of a city's potential in providing protection for its inhabitants. The importance here is in developing insight into the concepts of enclosure from the standpoint of mass density and configuration and into the means by which these concepts can be achieved: existing structure survey, remodeling and new structure design.



Mutual shielding offering protection potential
The urban maze offering protection potential



Urban Configuration

Barrier shielding is best understood when explained in the context of spaces within singular building elements. We can expand our scope, however, and consider larger elements of urban organization and their possible contributions to protection. For example, we have discussed the value of topography from a regional standpoint. The same principles can apply to urban topography related to the form and pattern of the structured physical masses of a city. This theory would be dependent upon the proximity of the elements one to the other. Adjacent structures can limit the area of a field of contamination and reduce the amount of direct radiation striking the walls of immediate neighbors. An adjacent structure might also act as a mass barrier, much like a wall of very dense material. Areas providing this concept of mutual shielding can be achieved by carefully planning the site of each element.

Another kind of protective urban pattern might be referred to as maze. If, in passing from its source, radiation is forced to follow an irregular path formed by the disposition of structures, intensity can be reduced considerably. In an idealized situation, one in which there is no fallout within the maze and the effects of atmospheric scattering are limited, certain areas would be out of the line of direct radiation from the source. Such shielded pockets can also be created in urban areas by imaginative site planning.

Other features of urban planning are also conducive to allowing protection potential to come into play. As has been mentioned, bodies of water, lakes, ponds and reflecting pools can decrease the size of a fallout field in the proximity of buildings or other centers of human activity. Siting buildings against hillsides, earthen berms or any other form of land sculpture can contribute to the shielding capability within an urban area to decrease, at least, the serious direct radiation emanating from the contaminated ground plane.

Organization of the Total System

An understanding of the concepts of regional disposition, urban compartmentalization and configuration dismisses the notion that the only means of protecting urban populations from fallout radiation is going underground. It is important, however, to understand these concepts as a part of a whole. Unless they are related to total urban organization, potential protection value cannot be fully realized.

The best approach to organization of an integrated urban system lies in the incorporation of protective concepts in the master planning

stage. This fact is emphasized by the deficiencies apparent in existing shelter survey programs and in private family shelters. While many marked public shelter areas in cities are up to standard regarding protection value, they may be slated for demolition either because they are substandard in other ways or because of future community renewal proposals.

The most serious problem, however, is that many are not properly allocated as to population distribution. There may be an abundance of shelter spaces in areas of low density while shortages exist in areas of high density. Private family shelters can only be a result of spontaneous, voluntary action and do not normally relate to cooperative neighborhood arrangements which is a necessary part of an organized shelter system.

The incorporation of the protective concepts of compartmentalization and configuration into the master planning process is necessarily based on criteria evolving from present knowledge of the pattern and functioning of urban systems. This is mostly concerned with the disposition of population density and its daily fluctuations. High and low density conditions are static, based on domestic housing patterns, yet there are dynamic fluctuations based on the changes in this pattern related to daytime, nighttime, weekend and holiday activities.

In the static situation of housing districts, shelter requirements may vary. In some cases, group family shelters that provide the opportunity for creating a more intimate environment would be appropriate. In more densely populated areas, larger community spaces that ease the problems of communication and management are needed. In the dynamic situation during working hours, when density patterns change, the multiuse shelter concept could be employed. In school design, and particularly in the central business and industrial districts, many forces affecting successful postattack recovery are concentrated.

Perhaps the most serious condition would occur during transient periods when people are going to and from work or when nonresidents are passing through unfamiliar cities. In these cases, structures other than buildings (freeways, underpasses, interchanges, parking garages, etc.) offer the design potential for protection.

Long-range shelter-system planning evolves from an analysis of these static and dynamic characteristics of urban living patterns. A rational compromise has to allow the shelter needs to dovetail with other requirements to provide a system of optimum protection for the community. Equally important is the relationship of the shelter system to the network of

utilities which serve the city. If these services could be protected, they would prove invaluable in providing light, air, water and communications both during and after an emergency. The system must also relate to a circulation network, both pedestrian and vehicular, which will allow the population to be distributed to its assigned shelter areas within an adequate warning time with a minimum of congestion.

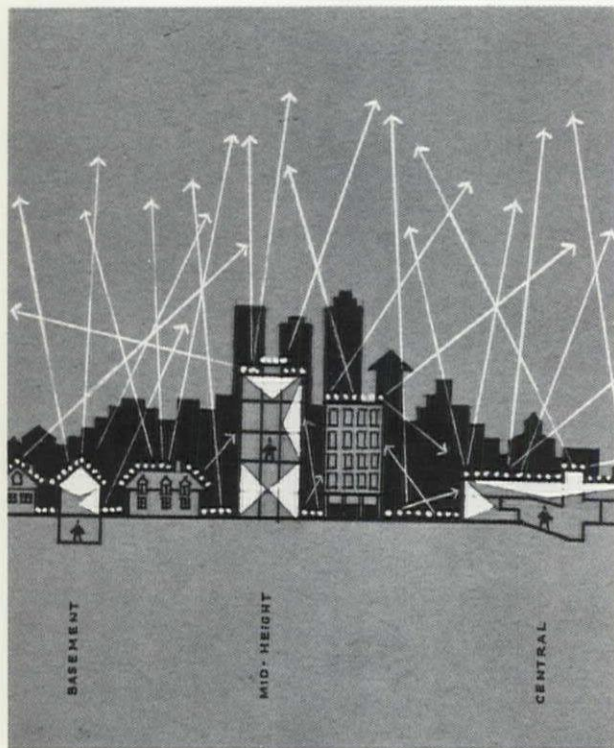
The systematic ordering of the city to protect its population from the harmful effects of fallout radiation is directly related to the important characteristic of the time-rate of decay of the radiation. In the event of fallout of intensely radioactive material, the most highly protected areas would be sought after first. However, as the radiation intensity begins to decrease with time, there could be a corresponding movement outward into more spacious areas which previously might have provided insufficient protection. This would be an important psychological boost in addition to bringing many urban functions to reactivation prior to dissipation of radiation in all areas of the city.

Role of the Architect and Urban Designer

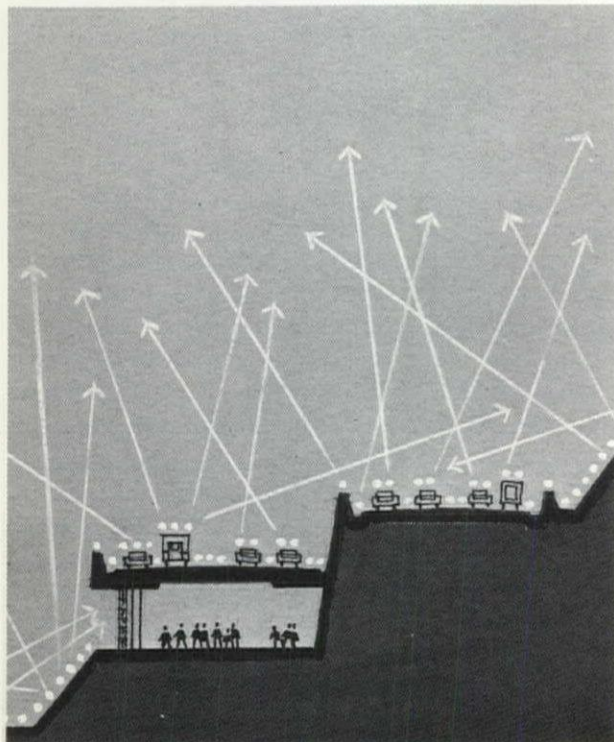
Those members of the intelligent public who normally assume the responsibility of leadership and decision making in the community are searching for answers to the questions of urban development in the face of thermonuclear threat. The objective of civil defense planners is to provide satisfactory answers to these questions, and the most immediate answer, which is now manifest in action, is to plan and develop a nationwide system of fallout shelter space adaptable for community utilization.

Since property owners, building committees and others initiating construction projects rely heavily on architects and urban designers for solutions, civil defense authorities have developed programs directed toward these professionals to create competence in the understanding of effective shelter design and analysis techniques. With the cooperation of architectural and engineering schools throughout the country, special courses dealing in fallout shelter analysis, environmental engineering and protective construction have qualified many as specialists in designing to resist radiation.

However, this is not the entire answer to the problem, particularly where the design of total urban shelter systems is concerned. The field is wide open for research and imaginative application. The approach to these problems requires an understanding of the integration of multitudes of details and data into an integrated whole, an approach to which the creative architect and planner should be responsive. □



Compartmentalization offering protection potential
Urban components offering protection potential





Editor: Donlyn Lyndon, AIA, School of Architecture and Planning, Massachusetts Institute of Technology, Cambridge. **Contents:** *Skill in Essence-Seeking* by Robert S. Harris; *A Systematic Approach to Design* by Philip A. Corkill and Robert F. Guenter; *A Post-Mortem on the Princeton Report* by Bernard Kaplan.

Skill in Essence-Seeking

BY ROBERT S. HARRIS

It is doubtful whether any university program in architecture has ever simulated accurately the experience of any particular architectural practice, much less the variety of practices that now exist or the increasing variations that are evolving. More simply, if the schools are to prepare architects for the practice of architecture, what practice should be taken as a model? What is the realistic possibility of hitting the moving target?

Such questions are often asked as means of establishing the direction and thrust of architecture curricula. I would propose another approach, namely, what are the opportunities for personal growth and development that are available essentially within the context of a university, and what are the opportunities available elsewhere? What opportunities does a student have while in an academic program which, if lost, cannot be readily recovered? I believe that these questions lead more surely to the development of curricula more responsive to both the interests of the student and the interests of the school and of the profession. The underlying principle is after all a familiar one in architecture: to seek the essential opportunities inherent in each situation, and to find a response that clarifies both issues and values.

To begin, let me assert that the university probably means something to the student first in terms of his own life and development, intellectually and emotionally, before it can mean anything to him in terms of profession or occupation. I think we would not want to distort the meaning of university by constructing our programs only in relation to societal and national tasks. A young person is first of all a young person, with varying qualities of exuberance and curiosity and energy, and secondarily a student of architecture or chemistry. The student's time at the university is a part of his continuous life. It is a significant part and has impact upon that life. But it is not neces-

sarily a beginning, and it is essentially not an end. It is only a part with more or less distinct time dimension, and has the potential of one remarkable characteristic, *intensity*. I would submit that the university offers a young person the opportunity for engagement and intensity, and the university's responsibility is to provide the rich contextual soil of ideas and information that may allow and promote intense engagement.

And so we may ask whether the university must be understood as a training ground for task-oriented proficiencies? Or is it the hothouse for ideas and information that students may exploit, in which the effectiveness of their encounter with the university is the criteria upon which their right to continue rests? To the extent they engage and use the resources assembled by the university, probably transforming those resources and the university in the process, they develop their own capabilities for engaging other places, problems, opportunities. We measure how much we learn from the student when we evaluate his contact with us—just as he measures us by the contact we make with him. As he makes lively contact with us, we respond and enjoy his presence and learn much from him. As we make lively contact with him, so he may also respond, enjoy and learn.

The principles involved are those of *interaction, engagement, responsiveness*. These comprise what I would say is the primary faith of our times. We expect interaction to pay off. We blame our failures on poor communication. But interaction requires responsiveness and engagement, and that implies a degree, perhaps a large degree, of spontaneity. Perhaps this is why the ecological analogy is now popular, not through its appeal as scientism, but through its eloquent expression of balanced interaction, and flexible and responsive and essential structure. Can we see our educational institutions and our programs recast to nourish such a combination of intense, informed,

considerate, spontaneous response? To nourish a lively engagement of people and ideas and issues? For these are the skills and understandings that the student or graduate must have, whether he is a student of environmental design or not.

I propose then that we add to profession- and task-oriented goals the goals that are student-oriented. I do not think these are necessarily contradictory, nor do I think they are identical. We might consider ourselves to be primarily parts of universities offering excellent undergraduate educational opportunities, and secondarily offering leads to professional careers. What should be the goals for students? This question will prove more productive than questions aimed at describing the careers in architecture. The profession is changing and our students will undoubtedly continue to change it. Careers are constantly upset. So I think we should address ourselves instead to how we might assist students to:

- recognize and revise frames of reference; to see things in many ways
- use all their capacities without inhibition—to know the disciplines of analysis, the essential and inevitably present roles of intuition, and the probing and testing means of imagination—to liberate the use of all of a person's mental powers while also allowing and encouraging the development of productive skills and
- develop the ability to share information, ideas and images—to express and respond to essential qualities as well as to specific fact—thus to engage dialogue and to communicate and to learn.

Doesn't the university, then, have the responsibility to liberate capabilities and to assist the gathering and directing of energies? Rather than establishing slots for people, it continually re-evaluates slots, and thus punctures them. The student's initial expectations may be fulfilled, or shifted, or extended, or promoted. To what extent, then, may a school say "This is what is important and should be taught?" And can that be effectively stated in terms of specific subject matter? Does it help to offer specific subject matter in even a dozen options? A choice between any number of fixed careers may not be relevant or satisfactory. These are questions individual universities must ask, and they deserve a range of answers. But also I believe they are questions that shift the basic premises of architectural education as they suggest a frame of reference which cannot so neatly respect the distinctions between professional and general education. A well-supported second year studio project may be at least as valuable as general education as any other courses a second-year student may take.

I would like to extend this line of reasoning into the definition of a problem for environmental design education, the problem of *sequence*. We

should be able to apply what we have learned from McLuhan and others about the difference between linear and nonlinear organizations. The linear, or sequential arrangement, lets you have things only one way. Indeed, we may understand this limitation when we invent interactions of ideas, when we verbally or musically create rhythms and patterns that confuse sequence like chicken and egg games, and thus allow mental

The author: Mr. Harris is head of the Department of Architecture at the University of Oregon.

mergers and escape one-wayness. But we recognize nonlinear, nonverbal, projections and patterns as possessing the quality of simultaneity, of the reality of mutual dependence and continuous coexistence. A nonlinear array allows the user to form his own sequences, and to re-form them in relation to the frames of reference he may be able to bring to them.

How does this affect environmental design education? Well, whether we are talking about two-year or five-year sequences, we may recognize the constraints of linear organization of opportunities. Those constraints oppose the spontaneous responsiveness we might want to allow ourselves and our students. This is the problem of sequence, then, in which distinct course boundaries and specified course sequences, seem often to frustrate efforts to take broad-based views of specific issues. We find ourselves seeking to break out of course-ordered curriculum into issue-ordered curriculum.

We recognize the continuing need for structure to organize and mobilize the energies and resources needed for effective action, but we also recognize responsiveness so that structure may not distort the work itself. Don Lyndon has asked: "What are the consequences for architectural education of a view that presumes that students make their own professions; that the schools establish a complex environment in which students encounter chunks of ideas that mature during succeeding years into patterns of activity that we cannot now prefigure?" In relation to that question, I think we may define another problem, this time the problem of providing *cumulative education*. For whether we prefer our experiences in neat sequential packages or in somewhat messy but intense fields of action, we must still hope that one experience and another may be added together so that study and work over time are cumulative and reinforcing. And this must include, I would think, all study and all work, all experience of any sort, and not just some of it. To accomplish this, many strategies may be appropriate, but I doubt that the strategy of careful

separation of one cycle of work from another, of general education from professional, will seem correct. That at least is not where I would expect emphasis to be placed. I shudder to hear students say that now that they have liberal arts out of the way they can concentrate on architecture. Our programs might better celebrate the relevance of our studies than the distinctions, emphasize connection and reduce compartmentation.

We have something less than an ideal program at the University of Oregon, but I find value in our inclusion of 11 three-hour courses as electives in the fourth and fifth years. That seems to me a major advantage. In the midst of the student's most advanced professional work he acquires his maximum opportunity to take advantage of the university-at-large. I would oppose a structure which eliminated that opportunity.

Similarly, I would oppose programs that completely eliminated architectural content anywhere in the undergraduate program. There are numerous strategies that may be employed to accommodate transfer students that do not require jettisoning the first two years of college education and turning them over to English and math de-

partments. And the opportunity is present in a course in mechanical equipment to develop ideas and concerns regarding ecology, and the quality of the natural environment and the preservation of natural resources; systems analysis and basic design allow opportunities to recognize and appreciate the essential interdependence of all things, as well as the emotional satisfaction of a deep and rigorous understanding; and the design studio allows direct observation of our society and of the human condition in many contexts. We should seek programs which will reintegrate architectural studies into the stream of all studies, rather than programs that emphasize the separateness of the disciplines. And as we allow the student to engage intensively a rich context of ideas we may expect him to develop the insights and the skills that will truly ensure him roles in the emerging and diverse practices of architecture. His own responsibility will be to seek in each circumstance the essential opportunities open to him for his own development and service. In this he will not be able to depend on the university or any other source either to provide all the information or experience he needs. □

A Systematic Approach to Design

BY PHILIP A. CORKILL
AND ROBERT F. GUENTER

The architectural profession has been confronted with a gross incongruity. The fundamental characteristic of this dilemma is the polarity of prevailing attitudes about systematic programming and methodological design.

On the one hand, we have architectural firms and their educational counterparts who extol the computer and the attendant concept of automated problem-solving as indispensable to a meaningful design process. At the other end of the spectrum, many schools and practitioners defend a tradition which ostensibly disallows the introduction of rational discipline into their repertoire. Systems proponents decry solutions that are conceived "subjectively" in the name of uniqueness, while their opponents view the methodological approach as a fatal blow to creativity.

We should delineate any procedure which derives a truly original and firsthand solution from a given body of factual and tangible material as a creative process. This definition does not limit creative solutions to those which are beneficial

and "good" in societal terms, although such a qualification is usually understood by implication.

Presumably, man's very survival depends upon his ability to creatively solve the ever-expanding aggregation of new and unique problems with which he is continually confronted. However, we cannot expect the results of a reasonably creative process to conform to current (and certainly not to historical) modes of evaluation. It is this difficulty of appraisal that undoubtedly contributes to the present-day frustrations and lack of agreement in the design field.

The objective of this initial phase of research at the University of Nebraska was to develop a comprehensive schema which would order the various facets of the design process. A fundamental assumption was made that the bright, creative mind would not be intimidated by highly organized factual material however extensive in size and scope. To the contrary, the authors felt that the exceptional designer would be provided with a broader range of possibilities within which he could exercise his creative abilities, and that all would benefit from a methodical *modus operandi*.

The amorphous phenomenon called architec-

tural design was assumed to start with the initial client contact, and terminate (rather prematurely) prior to the preparation of the contract documents. This overview was dichotomized in the conventional manner into the analytic and synthetic phases. Subsequent investigation led to the development of the highly specific and sequential profile which accompanies this brief explanation. Although the outline is intended to be self-explanatory, a few remarks about its central theme and its limitations would be appropriate.

The organization is obviously program-oriented and objective, rather than internalized and subjective. For example, the significant periods of ideation and incubation experienced by every serious designer are never made explicit, but are hopefully implied. Parenthetically, it must be mentioned that certain inconsistencies of portraying sequence in the profile are a result of compression for presentation purposes.

If the analytical processes are manifest in ever-increasing definition and development of the program up to the point of client verification, then the subsequent steps are primarily a matter of synthesis. This differentiation is more a matter of

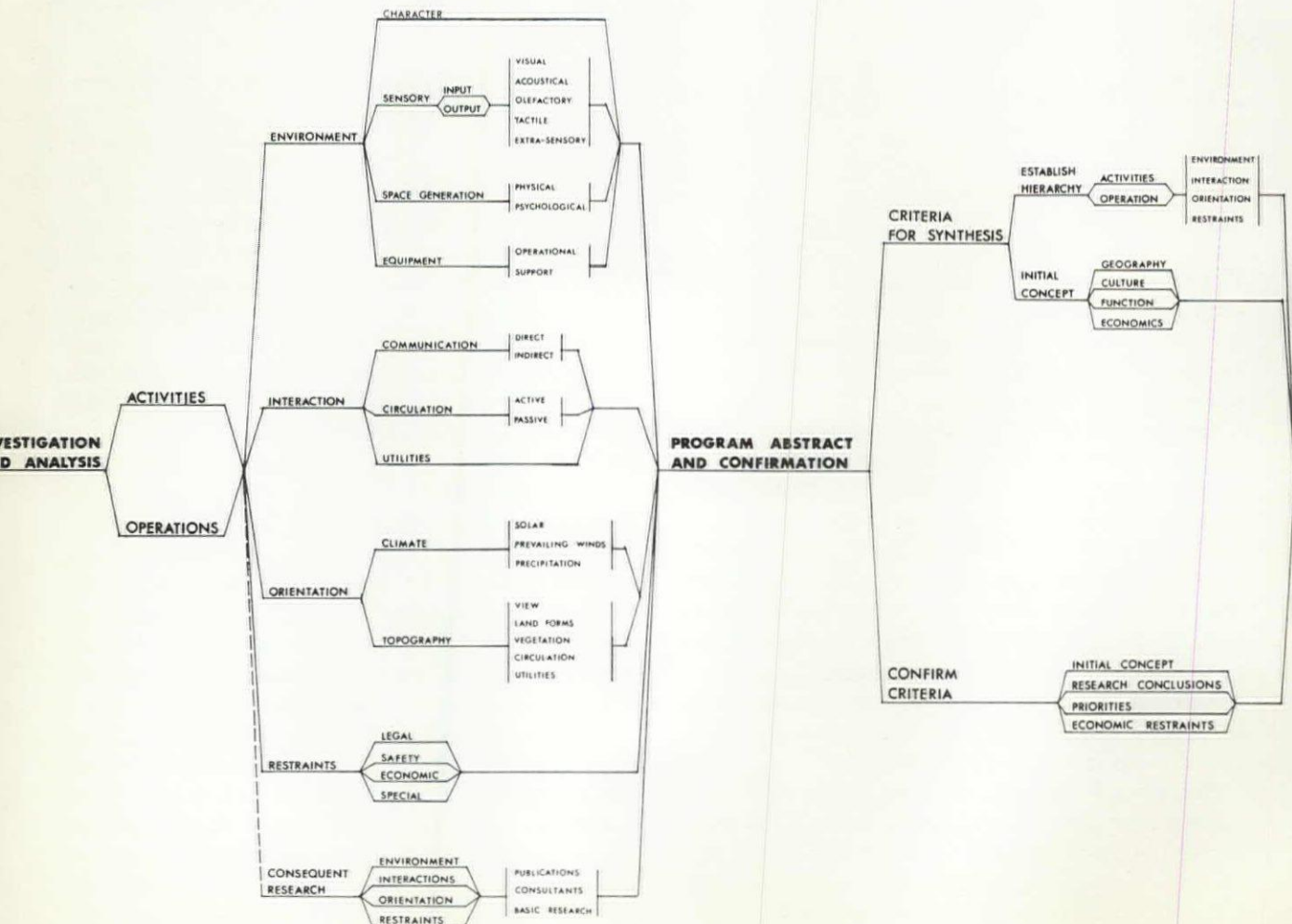
The central portion of the profile is reproduced here. Omitted due to space restrictions are the first two stages (Basic Information and Preliminary Program) which precede the part illustrated, and the concluding two stages (Proposal and Re-evaluation & Modification). These have been developed in a manner consistent with the charts shown.

convenience than absolute reality. Plainly, the program is not finalized until the project is completed, and the analytic and synthetic operations are often interlocked at many points in the profile. Needless to say, recycling is an accepted necessity. Present research at the University of Nebraska School of Architecture is concentrated

The authors: Mr. Corkill and Mr. Guenter are associate professors of architecture, University of Nebraska.

on this enigmatic aspect of the analysis-synthesis interaction.

A critical step in the design process occurs as the transition from analysis to synthesis develops. Since the basic information and a preliminary program are not difficult to obtain and expand, a complete program incorporating all aspects of the project can be voluminous. When the activities and operations have been analyzed and considered within the total context, the information relevant to the synthetic processes is generally far too cumbersome to be of immediate value to the designer. Therefore an abstract must be derived to provide workable criteria for syn-



thesis. This synopsis, which establishes an hierarchy of design parameters and an initial organizing concept, is a mandatory step for all but the most experienced designers.

Synthesis and Development and Volumetric Design were difficult to delineate in a rigid, sequential order. Their interaction is not often apparent, and an outline, like the one provided, should be of measurable value.

Since the overview diagrammed here is intended to be applicable to a wide spectrum of architectural problems, yet specific in detail, further revision and modification will unquestionably be required. An expansion of the profile is currently being tested in our design studios. Preliminary results indicate that cognition of design criteria is accelerated; the better design students perform as well as ever, and all students display a somewhat higher level of competence. Since the analytical stages are highly ordered and immediately apparent, more time is made available for the critical synthetic and undelineated creative processes. An increased number of clues and interrelated stimuli corresponding to the purpose

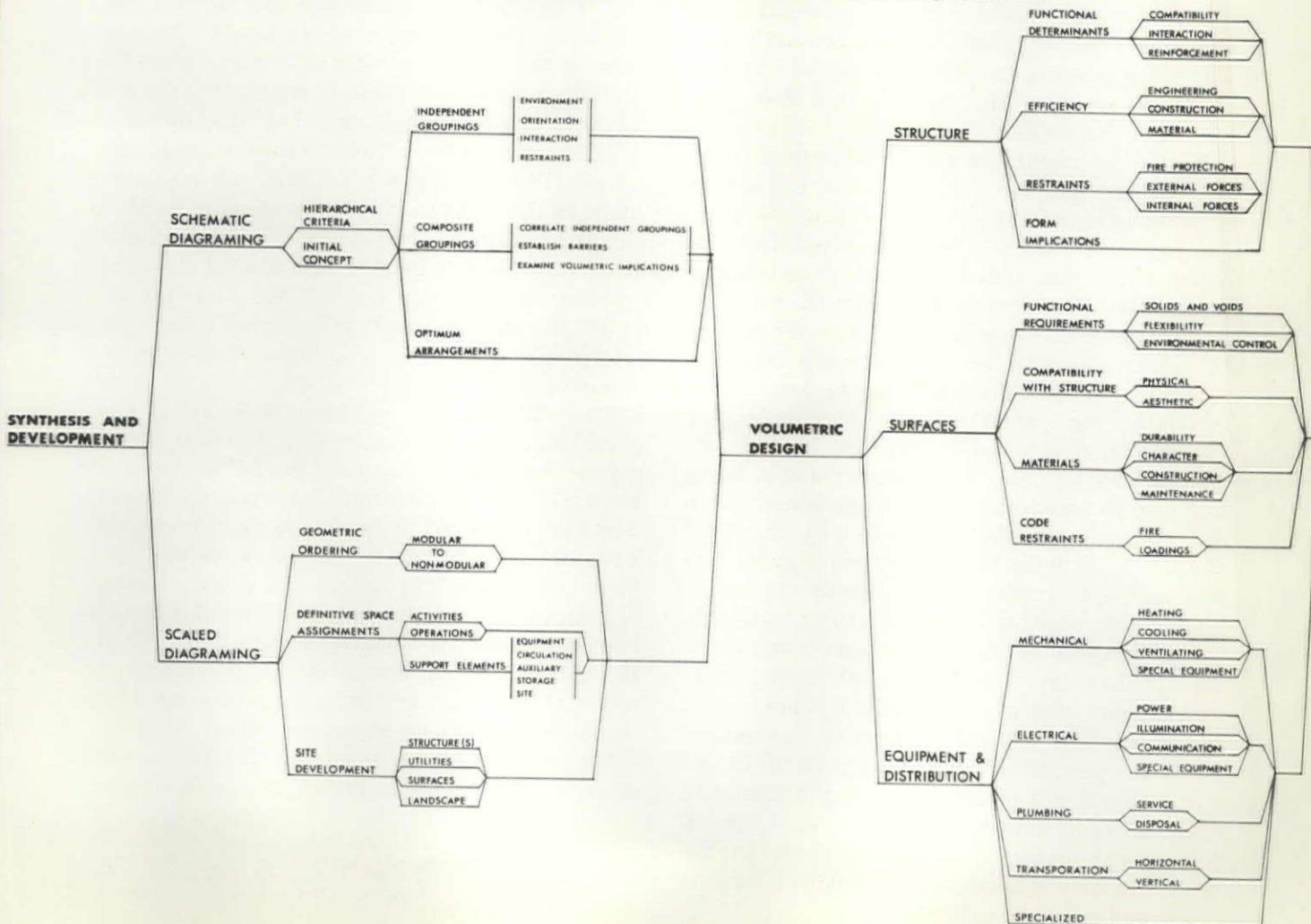
and the imposed conditions of the project are made accessible to the creative mind.

From the above presentation, it must be apparent that our initial effort has been directed toward architectural education rather than practice. Several architectural offices, however, have expressed an interest in the profile, and we strongly suspect that an adaptation of this or a similar systematic approach has broad application.

Methodology, we believe, when thoroughly understood and appropriately applied, is a reasonable way of quickly upgrading professional competence and reliability, without a significant dampening effect upon creativity.

Finally, it should be restated that this profile and its particular taxonomy is an elemental foundation for our continuing research in the sacrosanct domain of architectural design. Publication of the schema at this time has a twofold purpose: 1) it should have immediate value to many educators, students and practitioners in its present state and 2) the authors hope by giving it exposure to receive recommendations and information regarding related research. □

Basic Information includes project definition, economic factors, required services and pertinent time restraints; the Preliminary Program is subdivided into geographical context, cultural context and function. The proposal includes a complete review of solution using an adjusted taxonomy and breakdown of presentation techniques. Re-evaluation & Modification is based on client's response, additional information, technical and design feedback.



A Post-Mortem on the Princeton Report

BY BERNARD KAPLAN

Some years ago, a psychoanalyst wrote a paper in which he referred to the autopsic encumbrance, an affliction that persisted in many medically trained individuals, even when they were not dealing with dead bodies, but were confronted by agonized and tortured souls. I don't recall, now, whether that analyst was in favor of, or opposed to, the extension of the analytic situation of an attitude one must cultivate in an autopsy room.

It seems reasonably clear, however, that the doctor must maintain some degree of detachment from the turmoil of a patient if he is to be helpful in diagnosing the nature of the disturbance; of assistance in articulating the different strands and levels of tension and conflict; of unclouded vision in determining health-promoting and illness-maintaining forces in situations that are invariably more complex and many-faceted than they appear at first sight.

Such detachment, and seeming disengagement, may easily evoke from a patient the feeling that he is being viewed as a corpse, a specimen in an autopsy room; that he is being dissected, dismembered, shorn and sliced by some uncaring and insensitive robot. It is doubtful that the explanatory remarks, above, will dissipate such a feeling for what follows it. But if emotional acceptance is lacking, at least there will be the intellectual understanding that does not betoken a lack of concern for ACSA and its troubles. There is advantage to a birds-eye view, some value in being far from the madding crowd's ignoble strife in order to ascertain what the strife is all about. Of course, if one is too high up or too far away, one may be mistaken about what is going on, and so I make no claims for the validity of my analysis.

One thing a therapist knows from long experience is that the presenting symptom, the issue that appears to be of focal concern to the patient and over which he displays the greatest emotion, is often of peripheral significance in itself. Its importance is that it serves as a symbolic vehicle to crystallize and condense the deep-rooted preconscious and unconscious desires and fears that are central to the disturbance, that constitute what is really bothering the patient.

Now, it is obvious that the Princeton Report¹ which was set as the main focus of discussion at the ACSA convention did not intrinsically warrant the attention paid to it. If it had been an unsponsored paper and had not been heralded as an important document by others than the authors,

The author: Dr. Kaplan is with the Department of Psychology, Clark University, Worcester, Massachusetts. His present comments are elaborations of remarks made formally and informally at the June ACSA convention in Portland, Oregon.

it would have scarcely provoked discussion or aroused indignation. As I mentioned at the convention, both formally and informally, it struck me, as an outsider, as unnecessarily pretentious, pompous and platitudinous—the kind of thing so often turned out by members of my profession and other social scientists to try to obscure the banality of what they have to say. It is the kind of report that many of us carefully store in our circular files for disposal. But such reports rarely provoke the sort of strident controversy, intimations of immorality, and motions for censure that the Princeton statement evoked at Portland. The question immediately arises: "Why all this affect?" It is obviously not the Princeton Report per se that has elicited such a disproportionate response.

To deal with this question adequately, one would have to know much more about the structure of the AIA, the nature of the ACSA, and the history of the relationships between these two organizations than I, in fact, do know. One would have to know the degree of actual power and fantasied power that the parent, professionally oriented, organization has over the various teaching institutions. One would have to know about the real and/or implied threat to the autonomy and status of the architectural profession that comes from newly emerging disciplines.

On a more concrete level, one would have to know who decided to allocate scarce resources

¹ The variety of appellations given to the report during the discussion is itself revealing. Some wished to attribute the report to Princeton, others to its authors, Dean Robert Geddes and Professor Bernard Spring, still others to the AIA, which has sponsored, underwritten and promoted the report.

(money for educational research, that is) to Geddes; how Geddes and Spring went about their study; the degree of their consultation with, and responsivity to, other teachers of architecture; how and why hopes were raised that this report might well revolutionize education in the field of architecture. Further, one would have to know what existing interests and sources of power, whether justified or not, might be dramatically affected if certain suggestions in the report were felt to be obligatory upon all schools of architecture. None of this information is available to me; at least, not in any hard and unbiased way.

What follows, therefore, may be the consequence, technically speaking, of a counter-transference—the attribution to the patient of desires, fears and conflicts that are the therapist's own, and derive from his past experiences rather than those of the client. *Caveat emptor*.

To the intelligent layman and probably to most architects, architecture is pre-eminently an applied discipline. Generally speaking, it is taken to be a discipline directed toward the rearrangement, modification and alteration of physical environments in response to public (governmental) or private demands. Architects are considered designers of buildings and building complexes. They are expected to satisfy both functional and esthetic aims within a context of certain economic and socio-legal constraints. Few, if any, I would imagine, are concerned with abstract theoretical issues of the kind that ostensibly exercise the minds of scientists.

Although I have no knowledge on which to ground my belief, I think it likely that schools of architecture within university settings, at least until recently, arose less in response to a demand for abstract theoretical knowledge than in response to needs for well-trained technicians and novice practitioners who could be absorbed by firms doing business with private or public clients.

Due to the considerable role of esthetic evaluations in architectural design—evaluations concerning which it is notoriously difficult to achieve a consensus—it again seems plausible to assume that there has been, and probably still is, considerable diversity among schools of architecture, perhaps as great as that which obtains among schools of literary criticism. Schools of architecture, therefore, are likely to be little (or big) fiefdoms, diverse centers of power and influence.

I know practically nothing about the origin, history or present constitution of the AIA, but from a consideration of the motives and forces that usually lead to the formation of national professional organizations, I would imagine that—beyond the provision of occasions for sharing new information and techniques and having annual

banquets the organization was established primarily to set up criteria for the practice of architecture, to certify those who would be allowed legitimately to practice the craft, and to exclude others who might be claimants to remunerative assignments that were felt to fall uniquely within the competence of bona fide architects. This, of course, need not have been, and probably was not, the publicly expressed ideology of the national organization: More likely, much was made of protecting naive clients against disreputable charlatans.

With the increasing role of governmental bureaucracies as clients or potential clients, there has unquestionably been a tendency for national organizations and their local affiliates to become political pressure groups, seeking to promote, retard, or redirect legislation, and to secure for their membership as large a lump of the government largesse as possible. The professional organizations no longer look to the government merely to legitimate their role in regulating their craft. They now work to solicit assignments and monies from political agencies. This may be done in various ways—the most acceptable if not always the most effective of which is the demonstration of unique competence to handle the assignments in question. As circumstances change, however, and as the assignments go beyond those in which competence has been uniquely demonstrated—and, especially, as other groups arise with claims to equal or greater competence in the new areas of concern—the problem of effecting favorable decisions on morally acceptable grounds becomes more difficult.

The mode of adaptation of the professional organization to these changed circumstances (novel problems and assignments, competing groups, etc.) is not uniquely determined. Depending on its relative power, its degree of access to influential people in government, its integrity, it may attempt to achieve hegemony through exclusion via legislation of competing groups (as the American Medical Association has tried to do with regard to chiropractors); it may try to absorb the elite of competing groups into its own ranks; it may suggest a more circumscribed and specialized function to its membership, allowing the dominant control of the newer pastures to go, more or less by default, to other breeds (e.g., urban designers, city planners); or it may suggest the enlargement and diversification of functions so that all those who would be in line for consideration in the case of new assignments could now be legitimately included within the profession. Of course, these do not exhaust the possible modes of adaptation: one may fold one's tent and noisily slip away. Nor are mixed modes of adaptation ruled out.

It is not at all surprising that adaptation to

novel circumstances demands new knowledge and new skills—the kinds of knowledge and skill relevant to the new circumstances. Although older members of a profession may survive in restricted spheres without such knowledge or skill, a profession concerned with its perpetuation must make sure that its new blood will be properly trained to cope with the new and often unforeseen contingencies. To be sure, there may be an initial reliance on ancillary personnel (consultants of one kind or another from other disciplines) but eventually it is realized that the new knowledge and skill must be part and parcel of the constitution of the professional himself. As the anthropologist Robert Redfield once put it: The only really effective interdisciplinary cooperation is that which takes place under one hat.

Granting, then, that there must be the inculcation of new knowledge and skills if the profession is to survive and maintain or enhance its status, who is to determine precisely what kinds of new knowledge and skills are requisite? Who is to decide where, when, how and in what degree the new materials are to be incorporated into the diverse curriculums that aspirants for the professional role must run? Who is to insure, and how is one to insure, that the requisite skills, once ascertained, are in fact instilled in new aspirants during their novitiates in professional schools? And then there are all kinds of questions relative to the tension between the process of education and the process of professionalization.² It was questions such as these, it seems to me, rather than the substance and quality of the Princeton Report, that were really at issue during the convention. And these questions, you can see, are primarily questions of power, influence, locus of decision—political questions—rather than questions about architectural education per se.

I have already acknowledged that I do not know, in the gross, let alone in detail, the nature of the relationships between the AIA and the various members of the ACSA. But it seems clear to me that one who has unrestricted sovereignty in his fief concerns himself about the machinations of a national ruler, to whom he owes some degree of fealty, only when that ruler's actions threaten his local sovereignty, deprive him of resources to which he feels he has legitimate claim, or entail demands upon him which must be filled on pain of deposal or excommunication. If the actions of the AIA could not formally or informally bring about changes in architectural education, if there were not available to it sanctions or threats (however veiled and indirect) that could force compliance with its proposals or recommendations, then the response to the Princeton Report at the convention would be incomprehensible.

To be sure, national professional organizations

and their local affiliates can rarely exert direct and naked force upon university-based departments or schools, obliging them unquestioningly to adopt their recommendations, or to listen with a docile ear to their suggestions. But through their power and influence in matters of national and local certification, and through their increasing role as the intermediary between governmental institutions and universities, they can incline academic departments to follow their suggestions or face the loss of professionally oriented students and the exclusion from various kinds of funds that will go to other, more compliant and pliable institutions.

In this connection, I assume it was no accident that the most articulate and least tempered criticisms of the Princeton Report came from deans of architectural schools with considerable eminence, principalities in their own right. Such schools, when they do not have power on a national scale legitimately allocated to themselves, are likely to prefer a loose, federated structure rather than one that is hierarchically organized, with directives emanating from the top. Although they, themselves, may now disregard the Princeton Report, they can see it potentially as a means of delimiting their spheres of influence, and eventually, perhaps, depriving them of local autonomy. It is, therefore, no answer to them to say that the report was not meant for them, but for less prestige-ful, less renowned institutions; or to claim that the report has no binding force, even on smaller departments.³ One must be either excessively naive or excessively credulous to believe that a report, sponsored, advertised and circulated by a national professional organization, is merely intended to be informative, and without prescriptive force.

In this post-mortem, I have dealt only marginally with the putative patient—the Princeton Report. Although the task assigned to me at the ACSA convention was to criticize the recommendations section of that report, I have felt it far more relevant to the health of ACSA, and to the clarification and, hopefully, betterment of its relationships with the AIA, to discuss some of the background tensions that may have prompted the publication and dissemination of the Princeton Report and that are likely to have determined the character of some of the reactions to that report. Unless these tensions and conflicts are faced, the hope for a meaningful analysis of contemporary architectural education, and for adequate and acceptable recommendations with regard to the future education of architects is dismal indeed. □

² Some of these questions were discussed in my formal presentation at the Portland meetings. "What's Bugging the Student?"

³ Although I exclude from discussion here the altruistic, student-centered motives of university- and college-based departments, I do not, by any means, wish to deny the role of such motives in the opposition of departments to pressures from professional organizations.



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For their election headquarters in the nation's capital, the Willard Hotel on Pennsylvania Avenue, it was a swan song, a final addition to a long list of notable events behind its Victorian facade.

It was here, at the old Willard, that representatives from 21 of the then 34 states met in secret sessions February 4-27, 1861, to make a last effort to restore the Union and prevent the Civil War; it was here, during the same period, a disguised Abraham Lincoln, then President-elect, stole through a side entrance to await his inauguration. And it was here, later the

And here, at the new Willard, the Gridiron Club gave its dinners from 1905 until the club deserted it for the Statler by World War II's end.

For the Willard, for all its history, for its grandiose marble columns under the highly ornamented ceiling in the lobby, for its marble baseboards and marble staircases with iron-and-wood balusters, is undeniably old-fashioned and in need of renovation.

Dwindling over a period of time and not to be helped even by the Pennsylvania Avenue and 14th Street location near the White House, the hotel's revenues got a blow during April's riots. The Poor People's Campaign right on top of that gave it the final one.

The renewal plan for the avenue between the Capitol and the White House and nearby blocks was initiated by President Kennedy in 1962. The work has continued under the Johnson Administration. National Square, on the westernmost portion of the renewal project, would be encompassed by E, 15th, F and 14th Streets.

At present, the General Services Administration is trying to locate a suitable piece of government surplus land to exchange with the Willard's owners. Such an arrangement could be a catalyst and bring the rest of the \$8-million block over on government hands.

Then, the commission hopes, the land can be sold to private interests with the stipulation that a certain area be left for the square and that a belvedere be tucked into the hilly terrain along F Street.

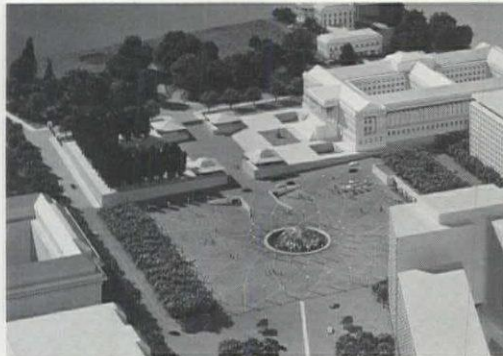
The roof of the belvedere would form a tree-planted terrace along F Street and have stairs running through to the square. With one story above grade and three below, the structure would have shops and restaurants on the upper three floors, parking at the bottom level. Facilities for parking of 800 cars under the square is also part of the plan.

Eliminated would be the Washington Hotel, now stubbornly undergoing a \$1-million renovation, the Occidental restaurant "where statesmen dine" and two parking garages.

To make up for their removal and keep life in the area, the commission eyes the neighboring block between 14th and 13th Streets as the site for two hotels, a theater, office space and stores.

Retained, the commission concedes, would be that awkward twist on Pennsylvania Avenue by 15th Street where parades and processions have trouble stepping in time. Checking with military authorities the commission was told that the turn, in fact, would be more difficult than at present because of the proposed fountain in the center of the square.

But progress must march on, new directions followed. For the parades, a new course could possibly be along the south side of the White House. BESS BALCHEN



The Willard Hotel (by Hardenburgh, designer also of New York's Plaza) and rest of the block is razed in plan for a new square on Pennsylvania Avenue.

same year, that Julia Ward Howe penned her "Battle Hymn of the Republic."

Before that time Charles Dickens was a guest at the hostelry, then called the City, and it was here he termed Washington the "City of Magnificent Distances."

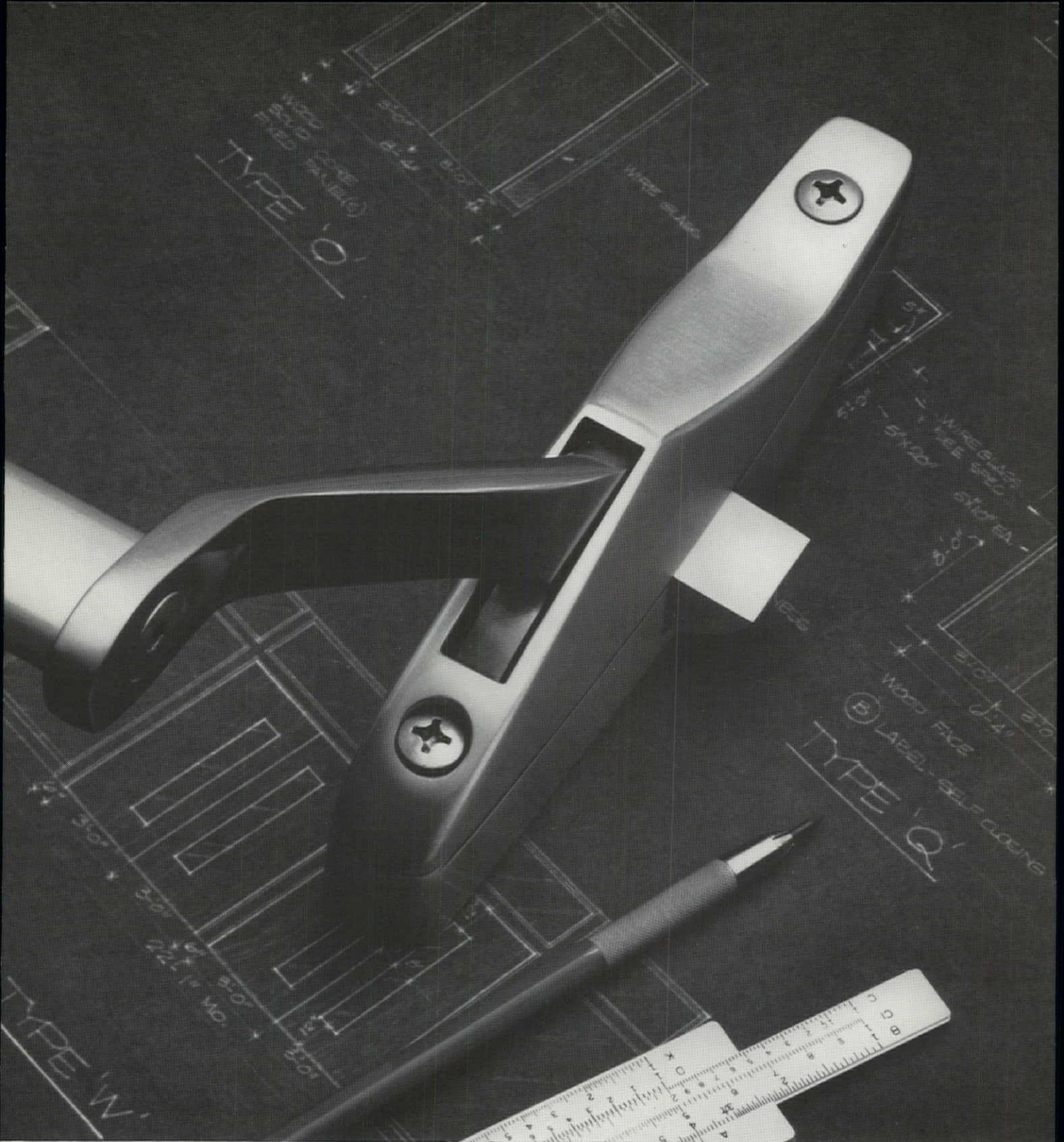
By the mid-1800s the two Willard brothers appeared on the scene, took over management of the hotel, renamed it and then replaced it. But by the turn of the century the building, run down and inadequate, was razed amidst indignant protests from the historic minded.

Up went H. J. Hardenburgh's design for the new Willard, to become fully as popular as the old. Here, presidents and glittering names continued to rub shoulders, promenading in Peacock Alley which runs through the building from the lobby to the entrance on F Street.

Out of money and out of date, the Willard was forced to declare itself out of the running two months before the Republicans rented it for what is most likely its last fling.

But in some quarters the Willard's swan song sounds like a promising overture. Viewing its demise as an important step toward the renewal of the nation's most historic avenue is Nathaniel A. Owings, FAIA, chairman of the President's Temporary Commission on Pennsylvania Avenue. For if the Willard is razed, the rest of the block between Pennsylvania Avenue, 14th, F and 15th Streets will likely follow suit and the commission's plan for a National Square become reality.

The plan for such a square was approved by the National Capital Planning Commission in 1966 and also by the Fine Arts Commission.



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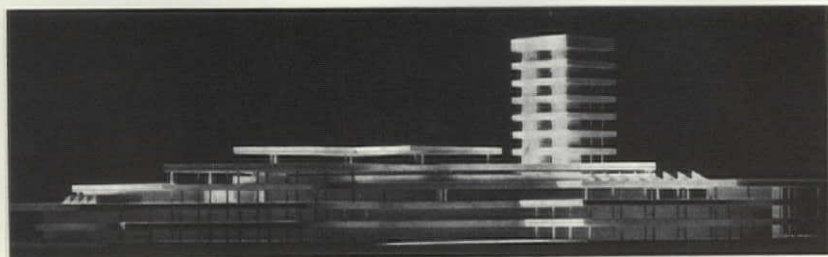
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Books

Architectural Models. Rolf Janke. New York: Praeger, 1968. 139 pp. \$8.95.

There is a dearth of published material in English on the subject of architectural models, and the German edition of this work, first



published in 1962, has been used frequently. This translation by James Palmes, librarian of the Royal Institute of British Architects, is an admirable one and gives the English-speaking architect a welcome and useful source of information.

The book is intended both for the architect who makes his own models and for the one who has his models constructed in an independent workshop. For the former, there are practical suggestions; the latter will be able to express his wishes more intelligently if he knows some of the problems involved.

Janke gives practical information on the handicraft aspect of model-making, telling how it should be done and materials and tools to use. He also provides a section of types of models: townscapes, individual buildings and interiors. And there is a chapter on photographing architectural models. Throughout the book more than 300 photographs and plans illustrate materials and methods.

Janke says his book explores the question, "How do I make a model?" But more importantly perhaps it also deals with the questions, "What am I doing with a model? What is its significance as a means of checking, correcting, experimenting, comparing and illustrating a building? Which method of presentation, what scale and what degree of accuracy are relevant to the various types of models which go with particular phases of a building project?"

The model is seen as a working tool, an importance which Janke has found often underestimated and sometimes completely unrecognized by many architects. Hence, he feels justified in the emphasis

he places upon the potential advantage of using the model in the planning process.

Rather than making the model after the final drawings are completed, what he calls "a kind of posthumous stocktaking," Janke pleads for the model to be used as an instrument of design, helping solve technical and spatial problems before fiscal plans are formulated for a project.

On the Art of Designing Cities: Selected Essays of Elbert Peets. Edited by Paul D. Spreiregen. Cambridge: MIT Press, 1968. 234 pp. No price given.

Elbert Peets died on March 26, 1968, at the age of 82. He began his career in landscape architecture and city planning in 1916, working with the German planner, Werner Hegemann. In 1922 he and Hegemann published *Civic Art: The American Vitruvius*, a book which was to become a classic in urban literature.

Peets set up his own practice in Cleveland in 1923, and he worked in pioneering efforts in town design in many parts of the country. He later became a consultant to a number of agencies of the federal government, including the Department of Agriculture, the Farm Resettlement Administration, the Federal Planning and Housing Authority and the Public Housing Authority. He served as a member of the National Fine Arts Commission; he lectured at Yale and Harvard.

Through it all Peets wrote. As Spreiregen remarks in the foreword to the admirable collection of Peets' essays, his writings "take us through much of the heritage of Western planning experience." And happily, he wrote with wit, profundity and skill.

Spreiregen himself has done a skillful job of editing. He has assembled here 27 of Peets' essays. They are arranged around seven themes: "L'Enfant's Plan for Washington; Critiques of Planning in Washington; Monuments in Washington; Other Times, Other Plans, and Other Planners; On Domes and Water; Critiques of Landscape Architecture; and Residential Site Planning." In the latter category

occurs the only essay not previously published, entitled "The Orientation of Row Houses." There are two appendices, one citing other articles by Peets, the other devoted to a biographical résumé.

In the concluding essay, Peets writes about Washington's Mall. "It is true that I must go there at dusk when the bunglings of L'Enfant's modern successors are charitably obscured in order to get the feeling of perfection. Well, that is an easy price to pay, here in the soft afterglow of a summer evening."

Spreiregen writes that the essays were assembled with but one view in mind: "to focus attention on a body of useful information regarding the design of cities." Such information gleaned from this book comes at "an easy price."

Architecture in California, 1868-1968. An Exhibition Organized by David Gebhard and Harriette Von Breton. Santa Barbara: The Regents, University of California, 1968. 108 pp. \$4.75.

Under the able leadership of David Gebhard, the Art Galleries of the University of California at Santa Barbara have presented to the public some informative exhibitions, a number of which have been primarily of an architectural nature. This catalog, well illustrated, was prepared in connection with an exhibition held in April and May of 1968 as part of the celebration of the centennial of the University of California.

California architects have shaped their structures in response to the environment and thereby have "created forms that have become the indigenous architecture of California." As the catalog notes, the photographic material assembled for the exhibition "forcefully demonstrates the astonishing eclecticism [sic] of West Coast architects, builders and owners." The introduction provided by David Gebhard is a concise and straightforward account of California's architecture.

AIA '68. Philadelphia Chapter, American Institute of Architects. Philadelphia: 1968. 135 pp. No price given.

The Philadelphia Chapter AIA publishes a yearbook which provides a graphic record of the work of local architects. The 1968 annual, now available, makes a contribution to the public's understanding and appreciation of the profession.

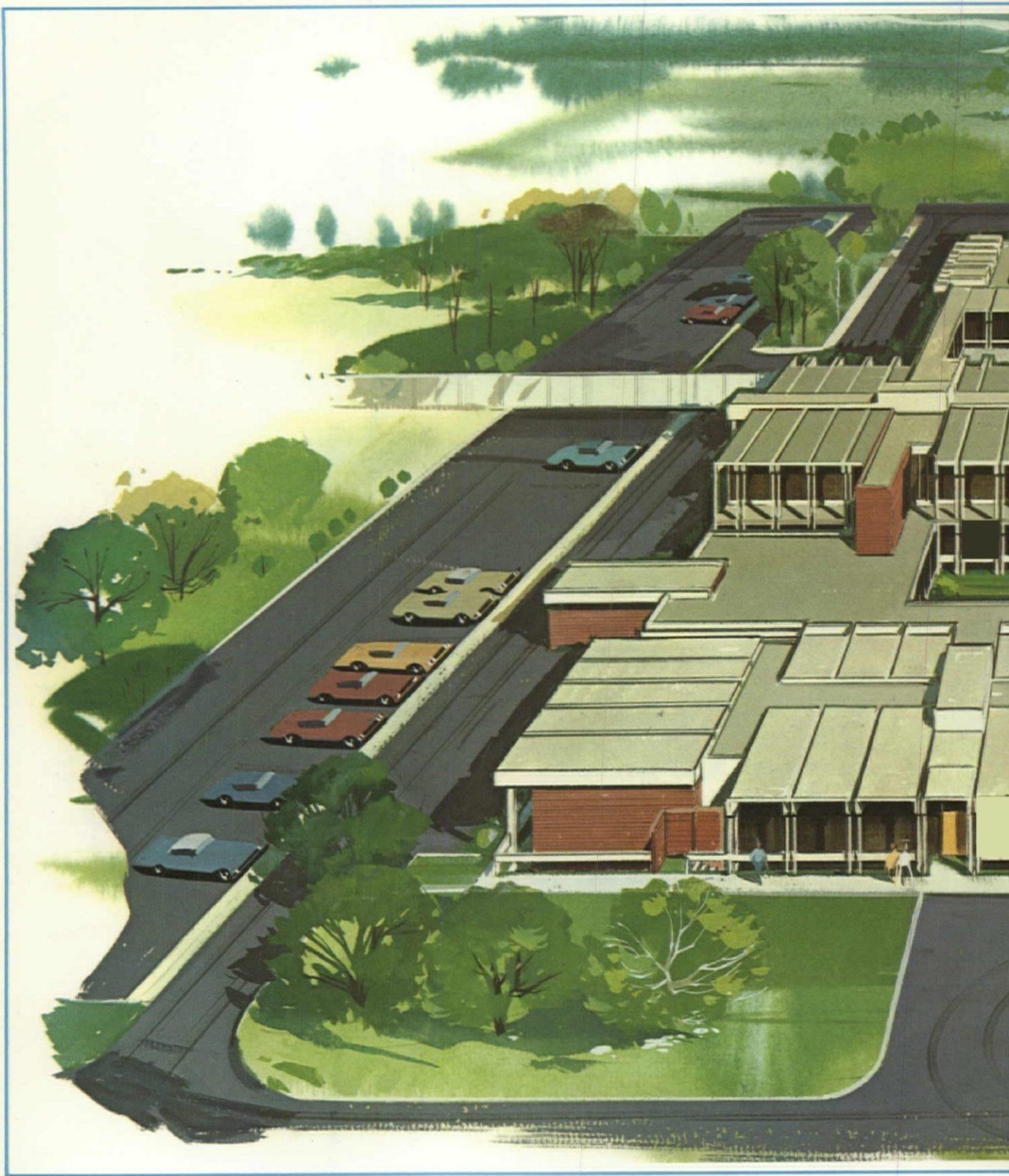
Continued on page 92



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with no ramps to negotiate...with all entrances on grade level...

carry off rain water. And large, unobstructed glass areas so that the children won't feel entrapped in an institution. So that nature can lend them a helping hand.

Daylight can penetrate everywhere the children go. Landscaped atriums pierce the building. A light, bright, cheerful atmosphere will prevail throughout.

The center was designed to serve a regional area of ten counties. And for students where daily commuting is a



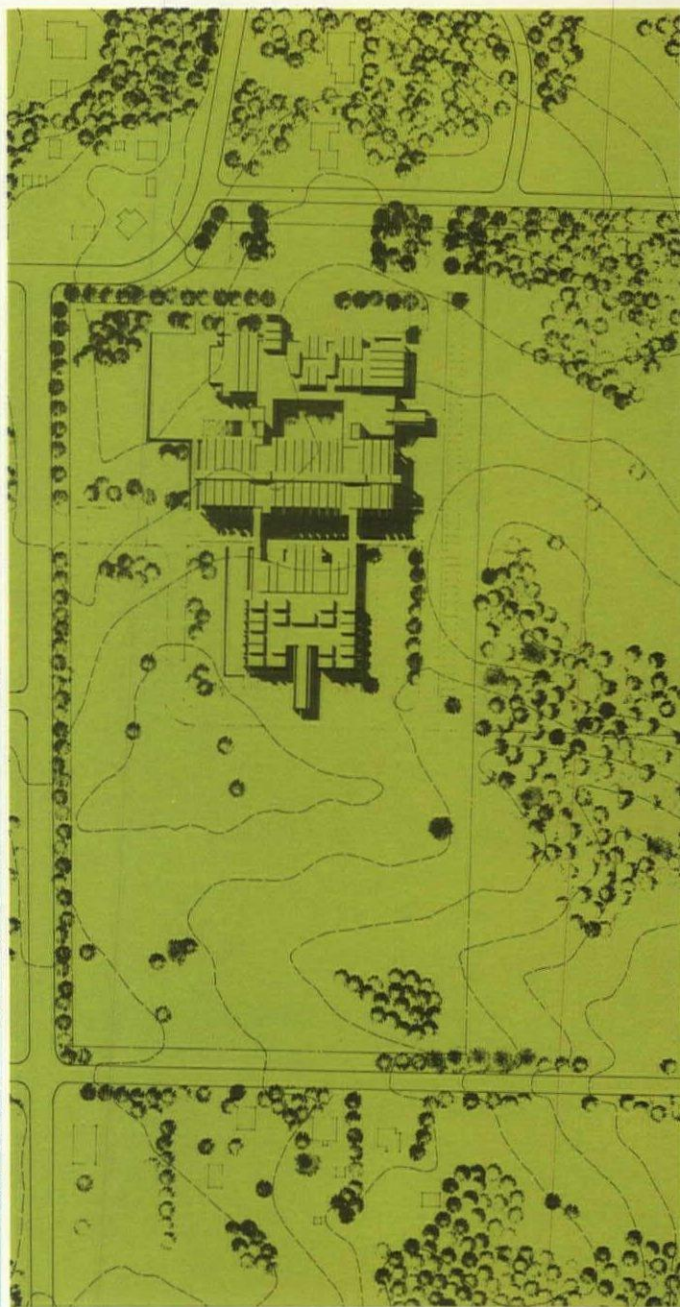
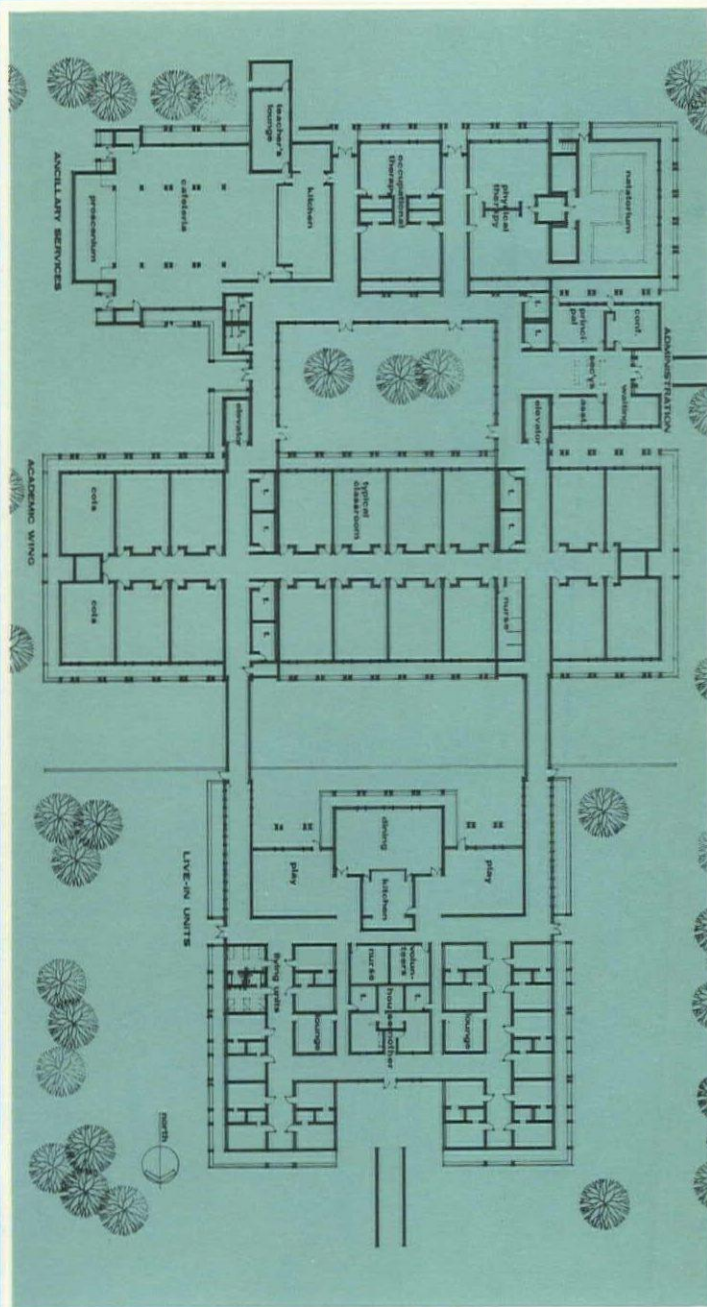
hardship, living quarters would be provided for them.

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overhangs shield glass areas from direct sun rays.

In the natatorium, where privacy is desired, exterior glazing can be L-O-F Patterned Glass. Daylight coming through it and reflecting off the water will cast interesting lights and shadows onto walls and ceilings.

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students can observe children without being seen.

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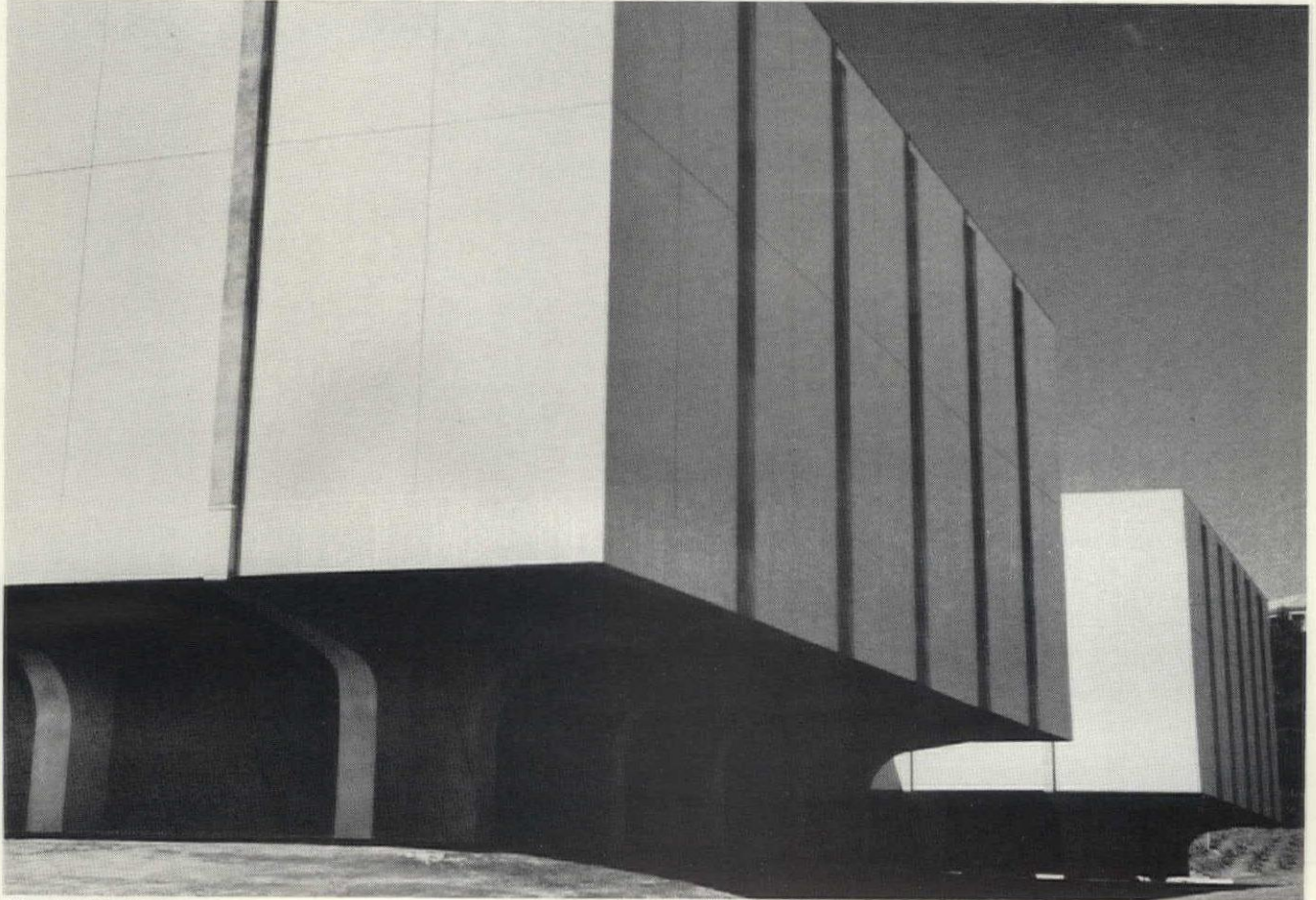
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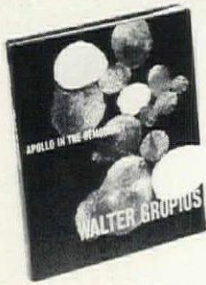
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2 THE USE OF COLOR IN INTERIORS. By ALBERT HALSE—New. This comprehensive analysis explores the use of color in the past, and presents in detailed form the information required to understand the use of color in interior design today. It examines, with many illustrations, the various systems of color notation, the psychology of color as applied to interior design, and the effects of light on color. **256 pp., \$16.50**

3 THE DESIGN OF FOUNDATIONS FOR BUILDINGS. By SIDNEY M. JOHNSON and THOMAS C. KAVANAGH—New. This volume summarizes and presents current standards (to the extent that they exist) for the design and construction of foundations. Although there is no nationally accepted foundation design standard (such as is found for steel and concrete), the authors present current practices and opinions on the routine aspects of foundation design, and indicate potential problem areas, with discussions and references to other sources. **416 pp., \$16.00**

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5 SYSTEMS MANAGEMENT TECHNIQUES FOR BUILDERS AND CONTRACTORS. By PAUL G. GILL—New. The book demonstrates the use of *systems management* techniques for the development, management and control of builder and contractor organizations. It has been written for use by builders and contractors at all levels of the construction industry, where the current need for more powerful business management techniques is critical. **224 pp., \$15.00**

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Critical Path Method. Byron M. Radcliffe, Donald E. Kawal and Ralph J. Stephenson. Chicago: Cahners Publishing Co., 1967. 292 pp. \$10.50.

"While CPM is based on rather sophisticated mathematics, it has a straightforward and practical application, making it one of the most effective construction management tools yet devised." So declare the authors of this presentation of CPM principles and applications.

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Architects' Working Details, Vol. 12. Edited by D. A. C. A. Boyne and Lance Wright. London: Architectural Press, 1968. 160 pp. 30 shillings.

This is the fourth volume in this series devoted to working details from countries outside England. The primary emphasis in the present work is upon the manner in which architects are attacking the problems that glass as a building material creates.

The book reveals a number of examples where the inventive handling of windows and window walls have solved such problems as heat gain or loss and privacy. It also offers examples of the "more adventurous" use of glass, as in the really stunning balustrade in the Civic Theater, Bonn, Germany, designed by Klaus Gessler and Wilfried Beck-Erlang. One ingenious detail by an American architect is a solarium roof designed by Joseph Esherick.

Details are given for other materials as well. The categories covered with illustrations and drawings supplied include windows, doors, staircases, walls and partitions, roofs and ceilings, balconies, covered ways and canopies, heating, and furniture and fittings. Under the heading of heating there is a freestanding under-sill radiator designed by Piero Lugli for a hotel in Rome. It proves that radiators can be beautiful. □

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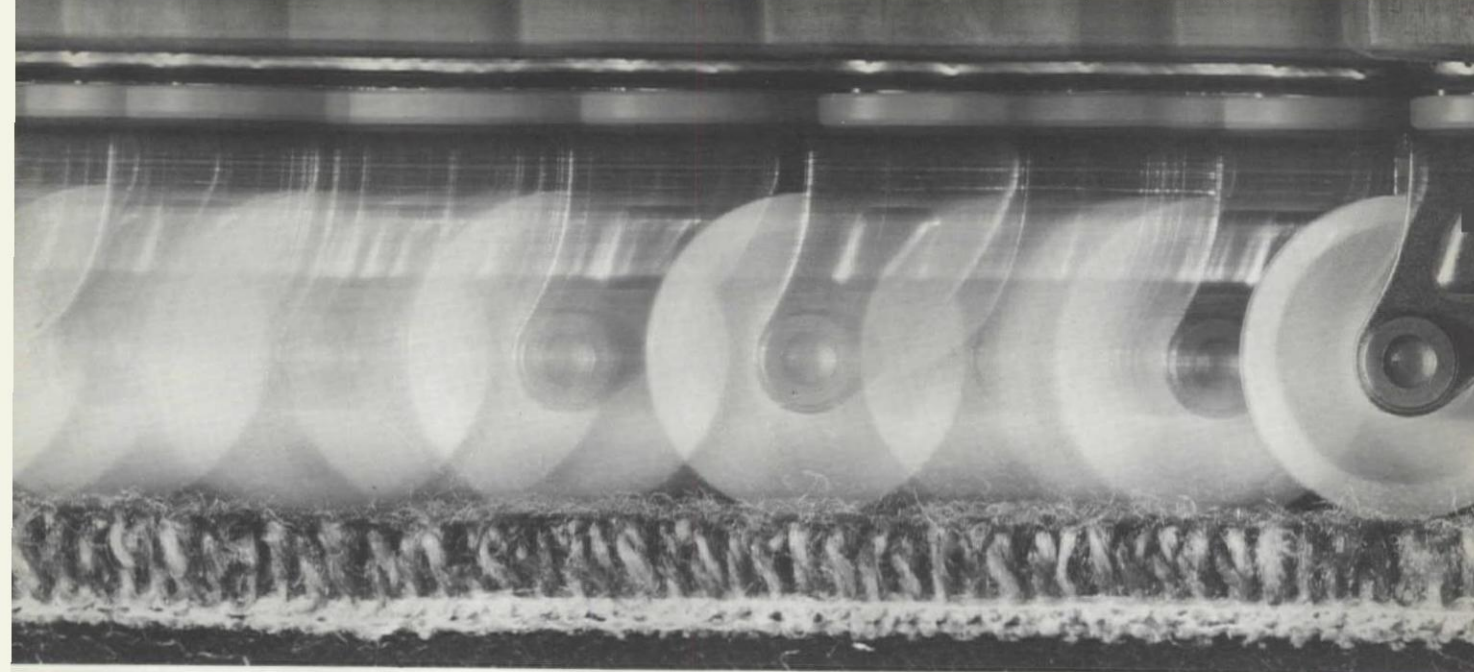
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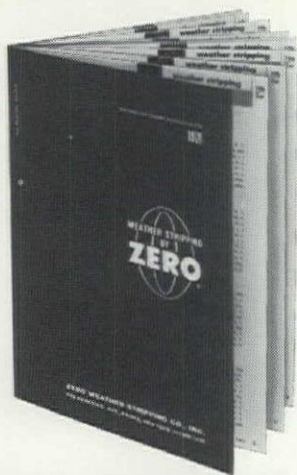
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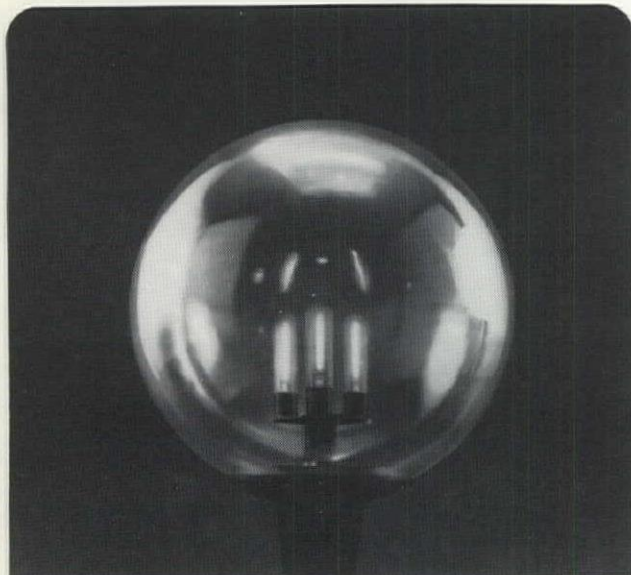


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Calendar

National

- Jan. 11-12:** National Conference on Advocacy and Pluralistic Planning, Hunter College, New York
Jan. 13-17: National Association of Home Builders' Annual Convention-Exposition, the Astrodome, Houston
Jan. 15-18: National Society of Professional Engineers Winter Meeting, Stardust Hotel, Las Vegas
Jan. 30-Feb. 2: Society of Architectural Historians Annual Meeting, Statler Hilton Hotel, Boston
Feb. 2-7: American Society for Testing and Materials Winter Meeting, Denver Hilton Hotel, Denver

AIA Regional and State Conventions

- Mar. 19-21:** Michigan Society of Architects, Statler Hilton Hotel, Detroit

Continuing Education

- Dec. 31:** Applications and submissions in prescribed form due, Rome Prize Fellowships beginning Oct. 1, 1969. Contact: Mary T. Williams, Executive Secretary, American Academy in Rome, 101 Park Ave., New York, N. Y. 10017.
Jan. 15: Applications due, Brunner Scholarship Grant, a \$6,000 award for research open to any US citizen engaged in architecture and its related fields. Contact: New York Chapter AIA, 20 W. 40th St., New York, N. Y. 10018.

Competitions

- Dec. 31:** Registration due, design for headquarters of the International Atomic Energy Agency and the United Nations Industrial Development Organization and an international Congress Center in Vienna. Nine awards with \$20,000 first prize. Contact: Consultative Committee, International Competition for the Headquarters of International Organizations, Marc Aurelstrasse 2a/30, Vienna, Austria.

Awards Programs

- Dec. 21:** Submissions due, specifications competition in 15 separate categories. Contact: Paul H. Tiffin, C. F. Murphy Associates, 224 S. Michigan Ave., Chicago, Ill. 60604.
Jan. 17: Submissions due, Design in Steel, including architecture for the first time. Contact: American Iron and Steel Institute, 201 E. 42nd St., New York, N. Y. 10017.
Jan. 28: Submissions due, Reynolds Aluminum Prize for Architectural Students. Contact: Marie Murray, Awards Programs, AIA, 1735 New York Ave. N.W., Washington, D. C. 20006.
Feb. 3: Nominations due, R. S. Reynolds Memorial Award. Contact: Marie Murray, Awards Programs, AIA, 1735 New York Ave. N.W., Washington, D. C. 20006.

Tours

- April 4:** Architecture and Gardens Tour of Japan, departing from Vancouver, B.C., 24 days, optional Hong Kong and Bangkok extension (three days each). Homeward trip may be routed through Hawaii. Repeated in fall. Contact: Kenneth M. Nishimoto, AIA, 263 S. Los Robles Ave., Pasadena, Calif. 91106. □



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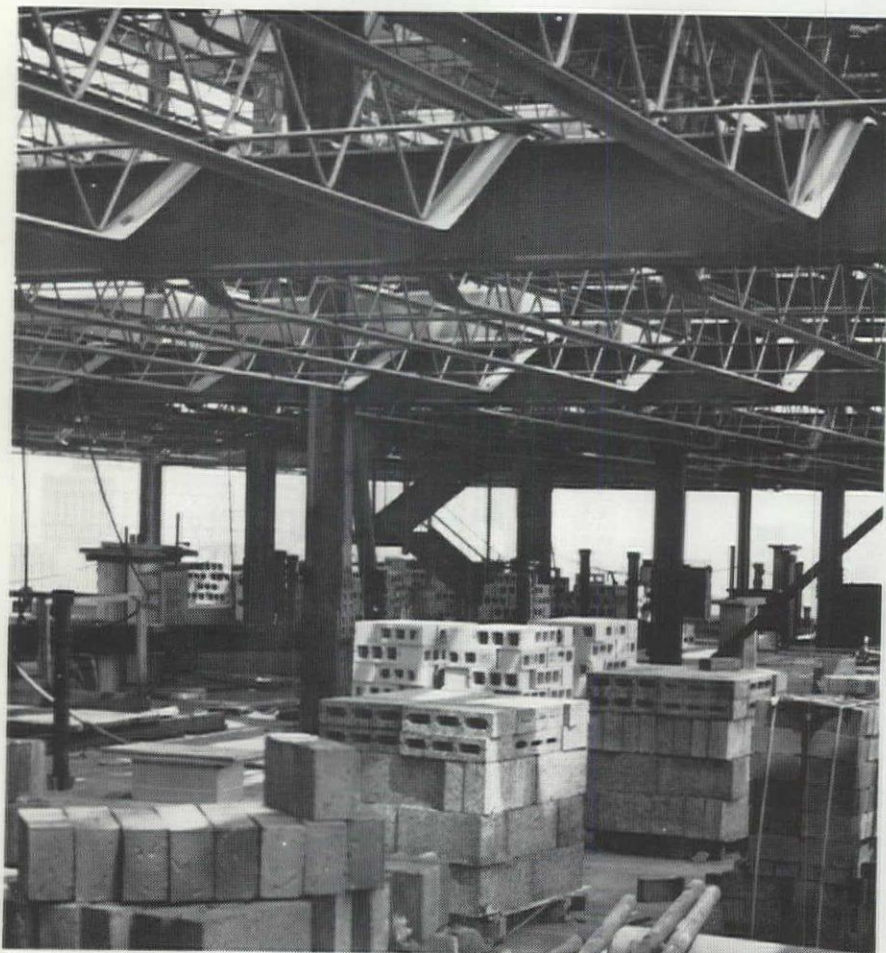
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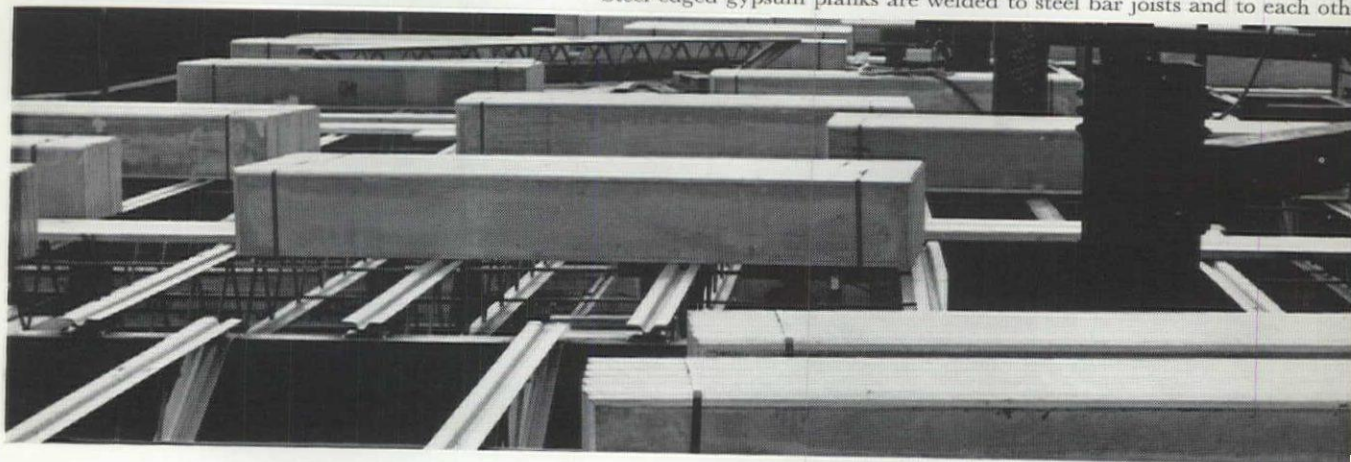


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Apartments

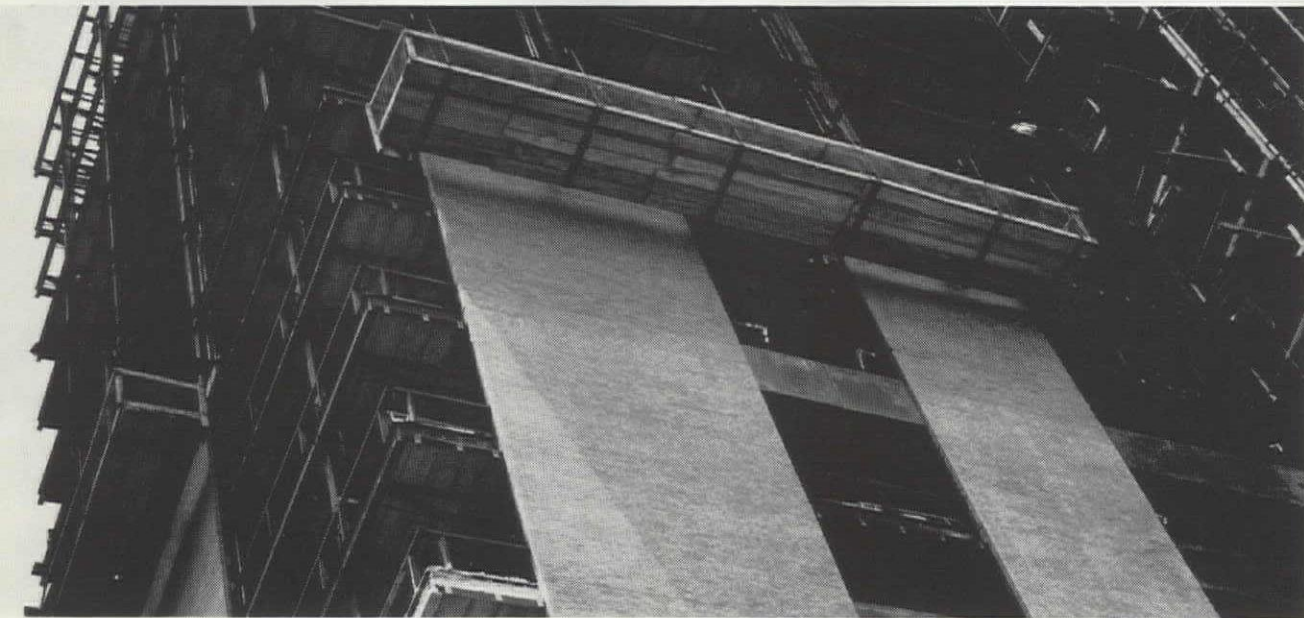


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When steel goes up costs come down



Cricklewood Hill Apartments is being less to build because of a steel frame and a new floor system. Chicago architect Joel Hillman has designed a steel-framed high-rise apartment building in which he estimates a savings of \$500,000 over the cost of the originally conceived flat plate concrete design. Overall construction efficiency, reduced foundation costs, reduced dead load in both the structural frame and floors, and the basic efficiency inherent in this new dry-floor system resulted in the savings which works out to about \$2.30 per square foot.

The new dry-floor system consists of 2" thick gypsum planks, manufactured by U. S. Gypsum, reinforced with 18 gage steel mesh and edged with 22 gage galvanized steel tongue-and-groove sections. Fitted together on top of steel joists, the planks are tacked together and to the top edge of the joists. Troweled mastic applied 1/2 inch thick, will level and provide a subfloor for the

finished flooring when the building is completed.

As the gypsum planks are laid, they form a solid floor for workmen and stacked materials, obviating the need for temporary flooring.

The gypsum plank floors act as diaphragms, transferring lateral loads from the walls to the frame, where they are resisted by four K-braced bents across the building's 60-foot width, and one K-braced bent parallel to the 190-foot longitudinal axis.

The combination system of dry-floor and steel frame was jointly developed by U. S. Steel Corporation and U. S. Gypsum Company. The design was the outgrowth of research into low-cost floor-ceiling construction for low-income high-rise housing.

The braced steel frame uses A36 steel beams and some columns. The more heavily loaded columns are USS EX-TEN 42 and 50 High-Strength Low-Alloy Steels, with 42,000 and 50,000 psi minimum yield points, respectively.

The building's exposed spandrels are made of bare USS COR-TEN High-Strength Low-Alloy Steel. Left unpainted, bare COR-TEN Steel develops an attractive coating that retards further atmospheric corrosion.

STRUCTURAL REPORT. There are many ways to keep costs down with steel. Used imaginatively, steel usually wins out in first cost compared with other building materials. In the long run, there's no question. Only steel-framed buildings can be altered economically when it comes time for major remodeling.

For a more detailed report on Cricklewood, ask for a copy of our "Structural Report" (ADUSS 27-3903-01) on the building. Call a USS Construction Marketing Representative in the nearest USS sales office, or write U. S. Steel, Box 86 (USS 5858), Pittsburgh, Pa. 15230.

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Letters

From the Convention Host

EDITOR:

I would like to relay the comments of a client-lawyer who attended the 1968 national convention as a guest. He was so impressed by the speakers, the exhibits, the activities and the conventioners that he took several days off from a busy law practice.

He was especially captivated by both the pre- and post-convention issues of the AIA JOURNAL, and his summation was "Man, you architects certainly know how to do things."

It was an honor and privilege for our chapter and our city to host the convention. And we have been told by many of our Portland friends and neighbors that it was a delightful experience for them to witness such a courteous and friendly professional group having so much fun being serious.

ROBERT WILMSEN, AIA
President, Portland Chapter AIA
Portland, Ore.

Battelle Sounds Again

EDITOR:

I would like to see more articles similar to that in August where an AIA member responded to the Battelle Report. I found it to be one of the most interesting and useful I have read on the subject of systems for a long time. Theodore Larson's reasoned approach to the concept and its impact on the design professions was a well thought-out piece.

C. R. CARROLL JR.
U.S. Plywood
New York, N.Y.

The Plight of the Student

EDITOR:

I am more confused than ever after reading the Princeton Report as to how to educate the future architects, especially in state universities where only five years are required for a bachelor's degree. Perhaps this time limitation is all wrong.

On the other hand, the curriculum at the University of Pennsylvania is seven years—a BA or BS degree from a liberal arts college plus three additional years for the professional work or even longer. And for a master's degree at Penn, one or more years is required, a total of eight or more.

Maybe that is the length of time it takes to produce the embryo architect who seems to be engrossed with the problems of philosophy, psychology, anthropology, sociology, economics, outer space design, urban design, landscape design, city planning, all the structural technologies, history of civilization, the sciences, literature, and so forth.

When Dean Hudnut sought to find out "What a Young Planner Ought to Know" in the February 1947 AIA JOURNAL, one of his colleagues stated that 120 courses should be studied and 75 others considered as desirable. According to the dean's calculations, the student would be ready to begin his professional career at about the age of 70. Phew.

I guess the architectural profession has finally caught up with the idea.

P. M. TORRACA
Professor of Architecture Emeritus
University of Florida
Gainesville, Fla.

Salute from San Francisco

EDITOR:

Your one-page feature on "A Community Affair" in October was well written. We are pleased, of course, to have attention directed to efforts at collaborative planning and implementation as distinguished from the gamesmanship of advocacy planning.

You will no doubt be further pleased to know that work is proceeding very well with the Nihonmachi project.

M. JUSTIN HERMAN
San Francisco Redevelopment
Agency
San Francisco, Calif.

Computer's Role in Real Estate

EDITOR:

As a real estate consultant and instructor in real estate and urban land economics, I want to commend the AIA Journal for publishing Paul B. Farrell Jr.'s article "Financial Analysis of Real Estate: A Primer for Architects" in the August issue.

After having carefully read the article, I feel that the author's technique for evaluating the feasibility of a project's design solution makes a valuable contribution to the field of real estate investment analysis and appraisal.

What is especially fine about this article is Mr. Farrell's ability to communicate the value of computers as a management tool to be used in assessing a real estate proj-

ect's profitability. I am extremely impressed by the lucidity with which he has been able to explain the impact that financial leverage, depreciation and after-tax cash flows have upon a particular real estate venture's productivity.

RICHARD T. GARRIGAN
Graduate School of Business
University of Wisconsin
Madison, Wis.

Salutations from Salishan

EDITOR:

All of us who had anything to do with the creating of Salishan hold the experience as one of the finest in our professional lives, and we are so very glad that all of you in related fields come to see it.

BARBARA V. FEALY
Landscape Architect
Beaverton, Ore.

EDITOR:

It certainly is an honor to have Salishan Lodge featured on the cover of your September issue and the entire development covered inside. We have received many, many compliments on the project.

JOHN D. GRAY
Chairman
Omark Industries, Inc.
Portland, Ore.

Mexican Magazine Seeks Authors

EDITOR:

The Mexican College of Architects and the Mexican Society of Architects plan to publish a monthly review, edited primarily for the 1,500 registered architects and more than 1,000 other practicing architects in Mexico City. It will also reach colleagues and professionals in related fields as well as architectural students throughout the country.

Beginning in September, this new technical publication will report on current developments in the fields of art, architecture and city planning in Mexico and other countries.

We welcome contributions—articles, photographs, plans—that describe contemporary trends in design, construction and professional practice in the United States.

Undoubtedly you subscribe to our view that this exchange will promote a better understanding between architects in both our nations and contribute to the general advance of the profession.

JOAQUIN ALVAREZ ORDONEZ
President
Colegio de Arquitectos de Mexico
Sociedad de Arquitectos Mexicanos
Mexico City, Mexico



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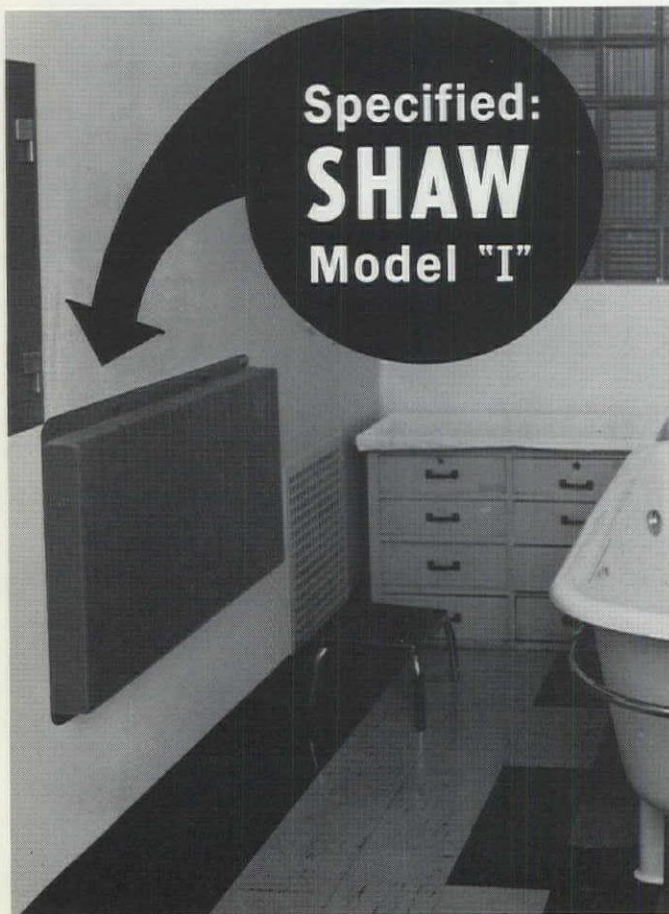
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Hydrotherapy Room, Woodside Receiving Hospital, Youngstown, Ohio.

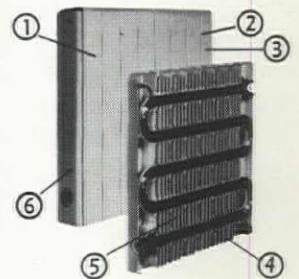
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Sheraton-Wayfarer Convention Center in Bedford, N.H. is built into the bank of a brook.

THE CASE—Among the symbols of American life in the post World War II era, few have come to be more typical than trade shows and conventions. Trade shows have become a basic means of merchandising, and conventions have become a social institution. And catering to both of them has become big business.

In northern New England, one of the most handsome of the new convention centers that are blossoming everywhere, is the Sheraton-Wayfarer Convention Center in Bedford, New Hampshire. Built into the bank of Bowman Brook at a picturesque site near a famous Colonial mill, the Sheraton-Wayfarer is constructed of exposed aggregate concrete and cedar shingles with a wide expanse of bronze tinted glass. The first two floors (the lower of which is only inches above the flowing brook) are devoted to guest rooms—32 in all. The third floor is given over entirely to public areas including a large dining room and kitchen, a ballroom, three meeting rooms and an open terrace extending the full length of the building. The ballroom and two of the three meeting rooms can be made into a single large room accommodating 1,000 people, if the occasion requires.

Early in the planning stage, architect Donald Jasinski of Hampton Falls, New Hampshire, and the owners decided to heat and cool the center with electricity rather than a fossil fuel, essentially because the building's southwestern exposure (largely of glass), made it essential to have a system that could easily provide heating for that side of the building while simultaneously cooling the eastern side. Eleven 5-ton, roof-mounted, air-to-air heat pumps were chosen to provide maximum zone control in the convention area. Guest rooms are conditioned by through-the-wall heating/cooling units.

THE HISTORY—In operation for over a year now, the choice of the heat pumps has been entirely vindicated. Owning and operating costs, originally estimated to be lower than with fossil fuel systems, have been well within the predicted cost. And the flexibility of zone control has added substantially to the center's indoor comfort—a factor which the owners feel has contributed measurably to far greater use of the center than originally expected.

1 CATEGORY OF STRUCTURE:

Motel—Convention Center

2 GENERAL DESCRIPTION:

Area: 30,000 sq ft
 Volume: 372,100 cu ft
 Number of rooms: 32 guest rooms
 Number of floors: three
 Types of rooms: guest rooms, dining room, kitchen, meeting rooms

3 CONSTRUCTION DETAILS:

Glass: single and double
 Exterior walls: poured concrete, 1" polyurethane (R=6); U-factor: 0.12: wood shakes and sheathing on frame, mineral wool batts (R=13); U-factor: 0.06
 Roof and ceilings: built-up roof over roof deck, 6" glass fiber batts (R=19), acoustical ceilings; U-factor: 0.05
 Floors: concrete slab on grade
 Gross exposed wall area: 17,600 sq ft
 Glass area: 4,832 sq ft

4 ENVIRONMENTAL DESIGN CONDITIONS:

Heating:
 Heat loss Btuh: 1,365,200
 Normal degree days: 7,400
 Ventilation requirements: 15 cfm/occupant
 Design conditions: -15F outdoors; 70F indoors
Cooling:
 Heat gain Btuh: 850,000
 Ventilation requirements: 15 cfm/occupant
 Design conditions: 95F dbt, 73F wbt outdoors; 75F, 50% rh indoors

5 LIGHTING:

Levels in footcandles: 10-50
 Levels in watts/sq ft: 1-4
 Type: incandescent

6 HEATING SYSTEM:

The convention center is heated and cooled by eleven 5-ton roof-mounted air-to-air heat pumps. Duct heaters provide supplementary heating. Each of the 32 guest rooms in the motel section of the building is conditioned by a self-contained, through-the-wall electric heating/cooling unit.

7 ELECTRICAL SERVICE:

Type: underground
 Voltage: 277/480v, 4 wire
 Metering: primary and secondary

8 CONNECTED LOADS:

Heating & Cooling (77 tons)	500 kw
Lighting	110 kw
Water Heating	60 kw
Cooking	88 kw
Other	15 kw
TOTAL	773 kw

9 INSTALLED COST:*

General Work		
(Incl. Plumbing)	\$423,000	\$14.10/sq ft
Electrical (Incl. Mech.)	117,000	3.90/sq ft
TOTALS	\$540,000	\$18.00/sq ft

*Building was completed 6/67

10 HOURS AND METHODS OF OPERATION:

24 hours a day, seven days a week.

11 OPERATING COST:

Period: July 1967 through June 1968
 Actual degree days: 7,787
 Actual kwh: 550,000*
 Actual cost: \$6,821.52*
 Avg. cost per kwh: 1.2 cents*
 *For total electrical usage

Month	Degree Days	Demand	kwh	Amount
7/67	8	64	2,400	\$ 84.42
8/67	34	40	7,600	67.68
9/67	208	32	4,000	58.95
10/67	482	72	8,400	149.26
11/67	965	156	36,800	432.93
12/67	1144	272	89,600	1,143.31
1/68	1520	356	129,600	1,490.53
2/68	1358	304	120,400	1,296.83
3/68	928	300	92,800	1,197.32
4/68	598	140	32,800	440.00
5/68	424	112	14,800	160.58
6/68	118	104	10,800	299.71
TOTALS	7787		550,000	\$6,821.52

12 FEATURES:

The use of individual zone and room thermostats for the heat pumps and through-the-wall units gives complete control flexibility including capability of simultaneous heating and cooling.

13 REASONS FOR INSTALLING ELECTRIC HEAT:

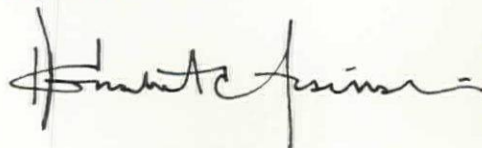
The decision to space condition the building electrically was made by the owners and was based on their satisfaction and wide experience with electric systems in motels and restaurants they own and operate throughout Maine, Vermont, New Hampshire and Massachusetts.

14 PERSONNEL:

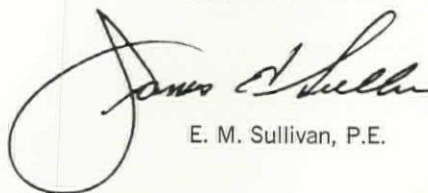
Owners: Dunfey Realty Co., Inc.
 Architect: Donald Jasinski
 Consulting Engineers: E. M. Sullivan Co.
 General Contractor: C & L Const. Co.
 Electrical Contractor: J. J. Reilly, Inc.
 Utility: Public Service Company of New Hampshire

15 PREPARED BY:

Tyler E. Carlisle, Commercial-Industrial Sales Engineer, Public Service Company of New Hampshire.

16 VERIFIED BY:


Donald Jasinski, AIA



E. M. Sullivan, P.E.



NOTICE: This is one of a series of case histories of buildings in all structural categories. If you are an architect or consulting engineer; an architectural or engineering student; an educator; a government employee in the structural field; a builder or owner, you may receive the complete series free by filling out the strip coupon at the left and mailing it to EHA. If you are not in one of the above categories, you may receive the series at nominal cost.

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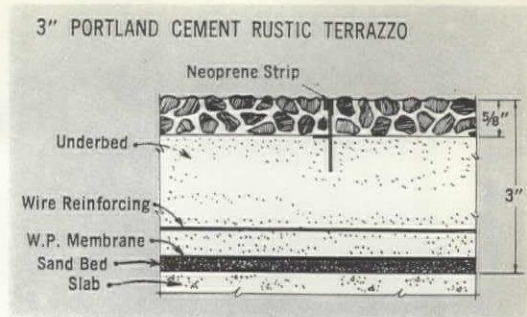
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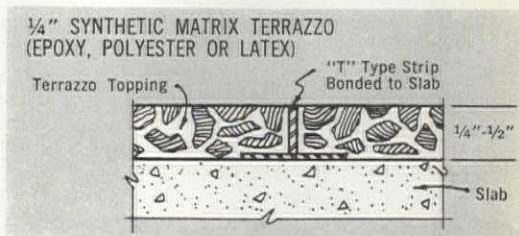
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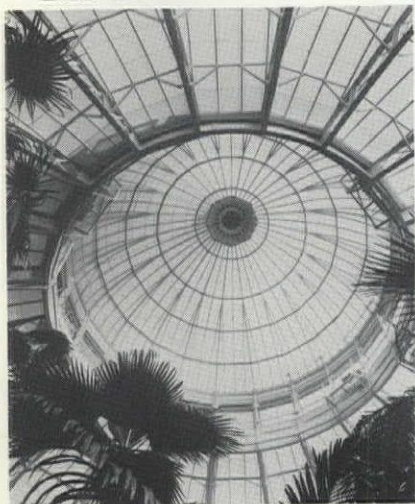
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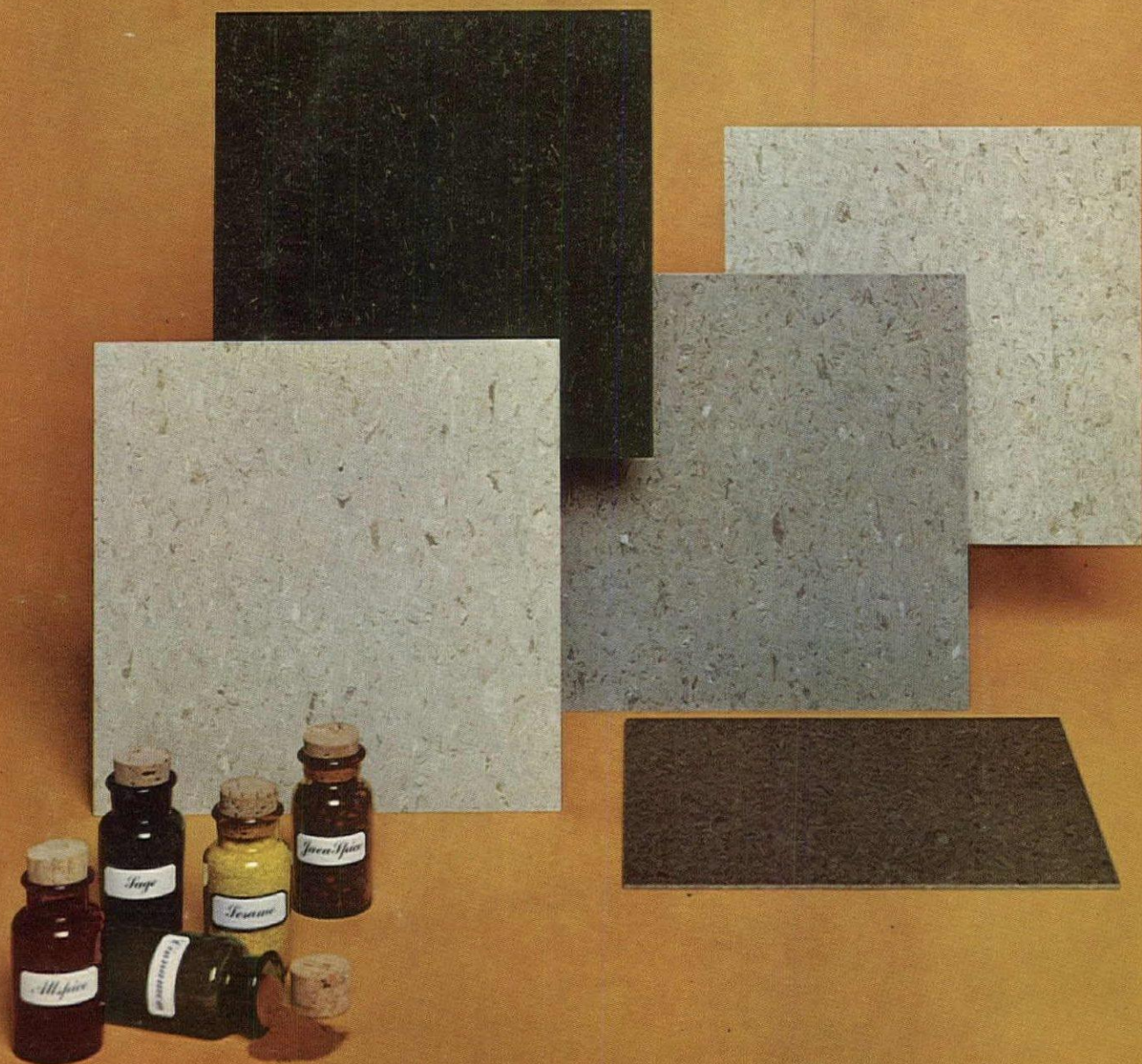
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