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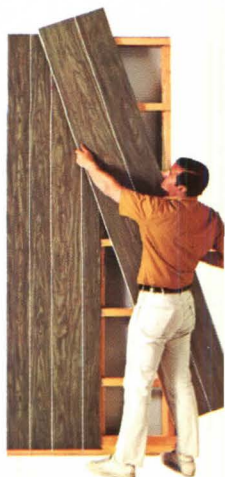
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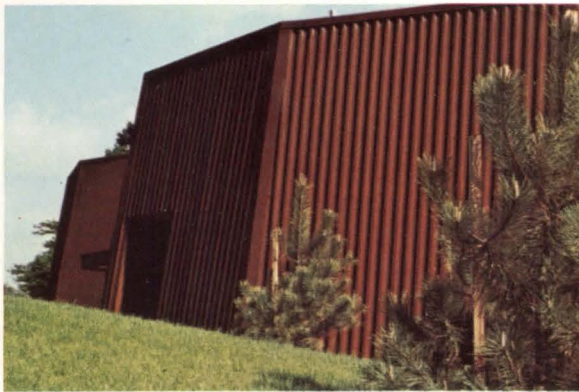
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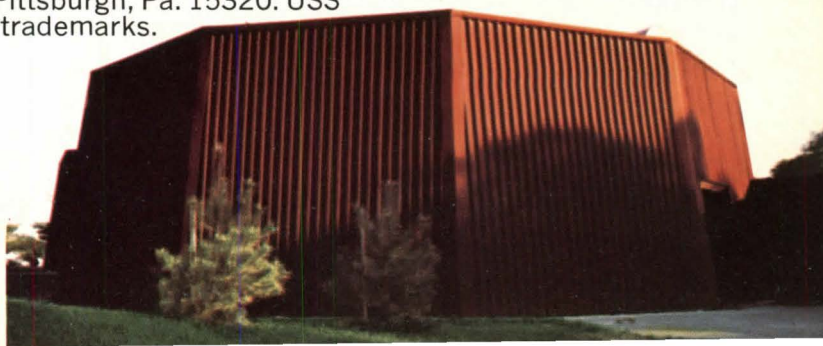


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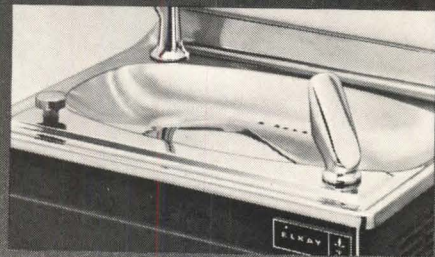
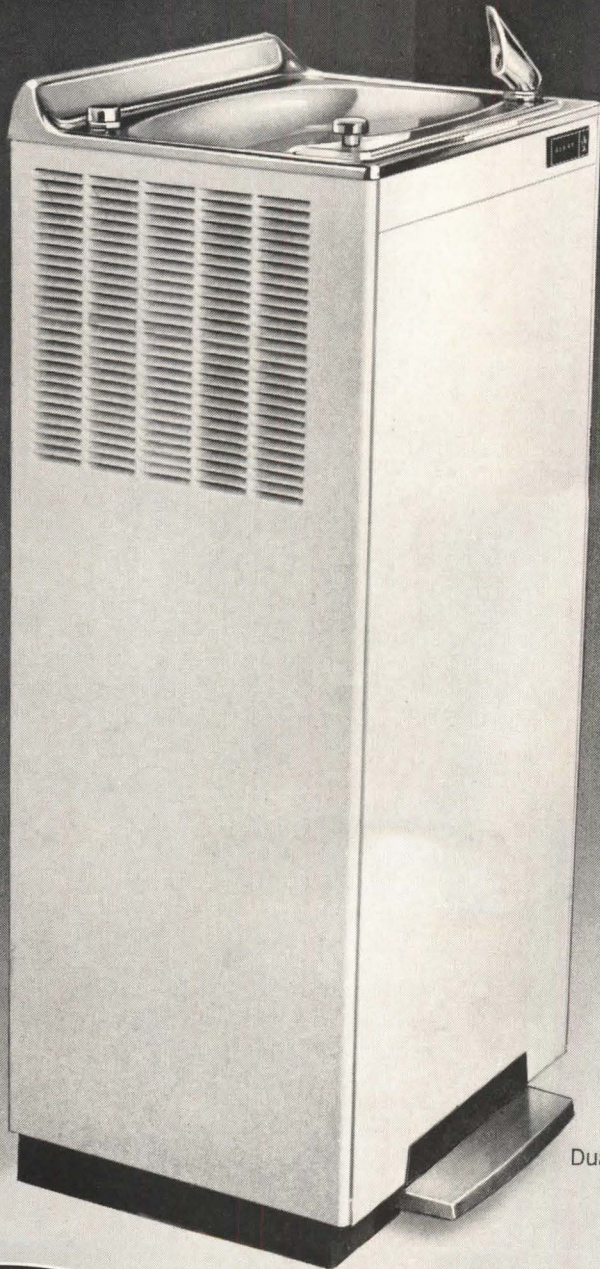
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DUKE NUCLEAR LABORATORY, Duke University, Durham, N. C. Cited as one of 16 outstanding examples of campus design for the 1970s by College & University Business magazine. The massive solidity of its design evokes a feeling of security appropriate to its function. Architect: A. G. Odell Jr. & Associates. General Contractor: F. N. Thompson, Inc. Dover Oildraulic elevator installed by Dover Elevator Co.

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AIA JOURNAL

DECEMBER 1970

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COVER

Nicollet Mall, the spine of the pedestrian way system in Minneapolis, completed on Christmas Eve 1967. Lawrence Halprin & Associates. Photo by the *Minneapolis Star*.

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VOL. 54, NO. 6

comment and opinion

THE STRENGTH OF BEAUTY IN CITIES: Ada Louise Huxtable commented recently in the *New York Times* that many of the present generation believe that the only architecture of relevance today pertains to social and environmental reform and that "the arguments center on housing the poor and creating communities rather than the creation of monuments." None would deny the importance of these goals, but this attitude toward "monumental" architecture and its adornment may afford an insight into the present predicament of the American city.

There are three civic virtues which cities should be able to inculcate in their citizens through a physical expression. The first is the virtue of urbanity, or the ability to adapt to city life. Then there is the virtue of civility, or the practice of good manners, which must be a part of the crowded life of cities. The third cardinal virtue is loyalty. Until people feel deep loyalty for their cities, they will not serve them with the best behavior. One means of instilling this loyalty may be achieved through impressive works of art and architecture that sum up the strength and significance of the city through harmonized proportion and human reason.

Every city should seek to embody some of its history in such sculptural and architectural ensembles. Every city requires a monumental art to portray its strength and show its creativity. Such art in the strength of its beauty becomes the source of civic virtue; it contributes to the urbanity of a people; it aids in the reign of civility; and, above all, it inspires a loyalty in the citizen. What could be more relevant?

Louis G. Redstone, FAIA, has said, "It is not an easy task for an architect to specify artwork as part of a building together with hardware and plumbing. There is constant pressure on the part of the client, whether he is an individual or a government agency, to omit anything from which he does not derive tangible physical comfort or profit. . . . The cost is not the deterring factor. It is the exaggerated emphasis that is put on physical values and the smaller emphasis on cultural values. . . . When cultural values are interpreted as essential to well-being, then the demand for art will become a normal requirement of architecture."

For too long, our streets and the empty spaces alongside have served an economic purpose at the expense of all others. Ever since Leonardo da Vinci, architects and planners have pointed out the desirability of distinguishing between pedestrian and vehicular uses. It was the street of the modern city that forfeited its traditional function as a place to play. Is there some connection between the conversion of the city street from its historic social role and the crime and delinquency which horrifies us today? Instead of the street being an open place for play, it has become the scene for dramas of death. It has become dehumanized and destructive. The street somehow will have to regain its mission as a place for the enrichment of life. Thus a society in crisis cannot call artistic symbols irrelevant; perhaps art in the city is one of the keys to social and environmental reform.

ROBERT E. KOEHLER

ACKNOWLEDGEMENTS

8—below, *Lowell Sun* staff
8—above, George Zimberg
12—Angela Danadjieva Tzvetin
25—above, second from above, below, Art Hupy
25—second from below, Moonlight Collaborative
26—above, Alinari
26 below, 27, 28—Enit
30—above, John Poindexter
30—top row, left, center, Williams & Meyer Co.
30—top row, right, Lewellyn Studio
30—bottom row, David Hirsch
31—above, Neer & Graef
31—center, Peter Roth
31—below, Charles R. Schulze
32—left, second from above, David Hirsch
32—left, second from below, Bill Rothschild
32—right, David Hirsch
33—right, *Minneapolis Tribune*

34—center, Department of Housing and Urban Development
40, 41—Moonlight Collaborative
42—above left, Valok. Teuvo Kanerva
42—right, below, Moonlight Collaborative
43—above, Moonlight Collaborative
43—below, courtesy New York City Parks, Recreation and Cultural Affairs Administration
44—above, Lewis Crutcher, AIA
44—below, Cy Happy
46, 47, 48—General Electric Co.
49—left, Art Hupy
49—right, Dudley, Hardin & Yang, Inc.
50—Art Hupy
52—Bell & Stanton, Inc.
53 right, 54—Official U.S. Navy photograph
56—George Cserna
64—Las Vegas News Bureau

NEXT MONTH

In naming the National Park Service the winner of the 1970 Citation of an Organization, the AIA Jury on Institute Honors explained that "it is to be commended for its attempts to develop regional character in the visitor centers and for its continuing effort to provide excellent design at all levels in our national parks." With the opening of a centralized design center bringing the interpretive operations into one location at Harpers Ferry, West Virginia, it is timely to examine the architectural philosophy of the NPS and its translation into park buildings in all parts of the country. These structures, by the way, include a variety of facilities beyond the visitor centers themselves.

Also in January: a report on the architects' role in the exhibition of the American Hospital Association; a review of Cincinnati's architectural heritage on the occasion of the local AIA chapter's 100th anniversary; a portfolio on the nine winners in the initial awards program for low and moderate income housing; an up-to-date look at what's happening in research and development in the building industry; and a glimpse of the work of the 1969 Rome Prize Fellows in Architectural Education, a section which will appear quarterly next year.

ASIDES

Continuing a practice begun in 1968, this month's issue contains the editorial index for the entire year. Additional copies — one per reader — are available free of charge by circling No. 1 on the information card in the rear of the magazine. Copies of indexes back to 1969 also can be secured simply by writing the AIA JOURNAL at the Octagon.

A good many of the informational requests we receive from our readers are answered with the help of the index, for it includes the authors and titles of all major articles, along with subject listings, which over the years have proved to be the most useful aspect of the annual compilation. We are attempting to strengthen the index in this area by incorporating more and more categories.

The JOURNAL also is the recipient of occasional inquiries for general information on careers in architecture. These are passed on to an Institute staffer who answers every week, on the average, some 200 such requests, coming from students, career counselors, educators and interested laymen.

The AIA sends the inquirer a pamphlet entitled "Designing a Better Tomorrow: A Review of Opportunities in a Career in Architecture." The pamphlet touches on such topics as education for architecture, the architect's job and his office and the rewards of a career in the profession of architecture.

For additional information, the pamphlet urges the inquirer to contact his local AIA chapter or to write to the Department of Education and Research at the Octagon. It also recommends the book, *Opportunities in an Architecture Career*, by Robert J. Piper, AIA, available for \$3.75 from Vocational Guidance Manuals, 235 E. 45th St., New York, N.Y. 10017. □



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Houston Readies for 50,000 Homebuilders as AIA Maps Plans for Its Part in Program

For the third consecutive year, the AIA Committee on Housing will stage a major presentation at the annual convention of the National Association of Home Builders in Houston next month.

The three-hour program, to be given twice — Monday and Tuesday afternoons, January 18-19 — will involve the design of a planned unit development by a panel of five architects, all active in the housing field. Working within the limits of an actual site, the panelists will:

- design the site
- design the housing (all types — single family, multifamily, private and public)
- design nonhousing elements and amenities
- discuss the systems approach to housing
- discuss the design of public housing under the various federal programs.

The AIA program at the 1970 NAHB convention drew close to 1,500 attendees at two showings and was heralded by many as one of the finest presentations of its kind they had ever seen.

Some 50,000 persons are expected to register during the week of January 17 to hear an array of government leaders in the fields of housing and finance, choose from 83 panel discussions and other events, and view more than 500 product displays in the Astrohalls.

Scheduled speakers will include George Romney, Secretary of Housing and Urban Development; his Assistant Secretary and Federal Housing Commissioner, Eugene A.

Gulledge; Senator John J. Sparkman (D-Ala.), chairman of the Senate Banking and Currency Committee; and Representative Wright Patman (D-Tex.), chairman of the House Banking and Currency Committee.

Louis Harris, the political poll-taker, also is on the agenda.

One feature, "The Show of Shows," a combination of exhibits, entertainment, demonstrations and conference carrels, will be held in the Domeskeller below the Astrodome, where builders will have access to the advice of specialists in design, financing, site planning, construction and federal low income housing programs.

Institute Collects Turnkey Data

Through a mailing which has gone to the presidents of all AIA chapters, two national committees — Housing and Governmental Affairs — are seeking to get feedback on the turnkey process at the local level. Findings and recommendations should be forwarded to the Octagon by December 31.

The Subcommittee on Evaluation of Turnkey Housing, chaired by Parker A. Narrows, AIA, of Montgomery, Alabama, hopes to present "a meaningful report" to the AIA Board of Directors at an early date.

'Architect' of the Appalachian Trail Gets His Honorary Membership at Home

"Eminent layman, distinguished citizen, having signally contributed to the profession of architecture by his notable achievement in forestry and regional planning," the citation to Benton MacKaye reads in part.

One of seven to be selected as an honorary member of the Institute this year, the 92-



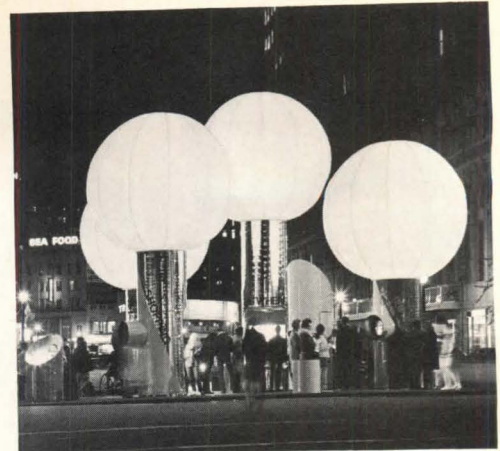
Director Bourne, Honorary Member MacKaye.

year-old honorary president of the Wilderness Society received his certificate in Shirley Center, Massachusetts, from Philip W. Bourne, FAIA, director of the New England Region.

It was back in October 1921 that the AIA JOURNAL published an article by MacKaye in which he espoused the need for "an endless trail" for the huge population of the Eastern Seaboard. The result: the Appalachian Trail, running from Maine to Georgia for a total of 2,250 miles.

Among MacKaye's other major contributions — perhaps not as well known — have been his regional planning studies, notably for the Connecticut Forest and Park Commission and the New York State Commission on Regional Planning.

MacKaye's ideas have been assembled in a book, *The New Exploration: A Philosophy of Regional Planning*, first published in 1928 and reissued in 1962 by the University of Illinois Press. In his introduction, Lewis Mumford says that "the book was not merely a pioneer essay in its own time, but it is still ahead of the thinking and planning being done in this field today."



More than 80,000 persons are attracted to the center during the 33-day trial run.

Working Model for Information Centers Tests Set of Ideas, Wins an Award

A pedestrian information center, which was evaluated over 33 days of continuous 24-hour operation in Boston's Park Square, has received an Award for Design Excellence from the Department of Housing and Urban Development.

It was conceived by Ashley/Myer/Smith, Inc., architectural firm of Cambridge, Massachusetts, as a prototype for a proposed network of centers which would be the backbone of a citywide information system for people on foot. Designed as a new public place, it was produced by repaving an underused area of the street to sidewalk level and erecting a cluster of eight brightly colored kiosks topped by 12-foot translucent plastic balloons. Each kiosk had its own type of information.

Built by Donnelly Electric and Manufacturing Company and the Center for Communications, Inc., who shared the award, the center drew more than 80,000 persons during its four weeks in Park Square.

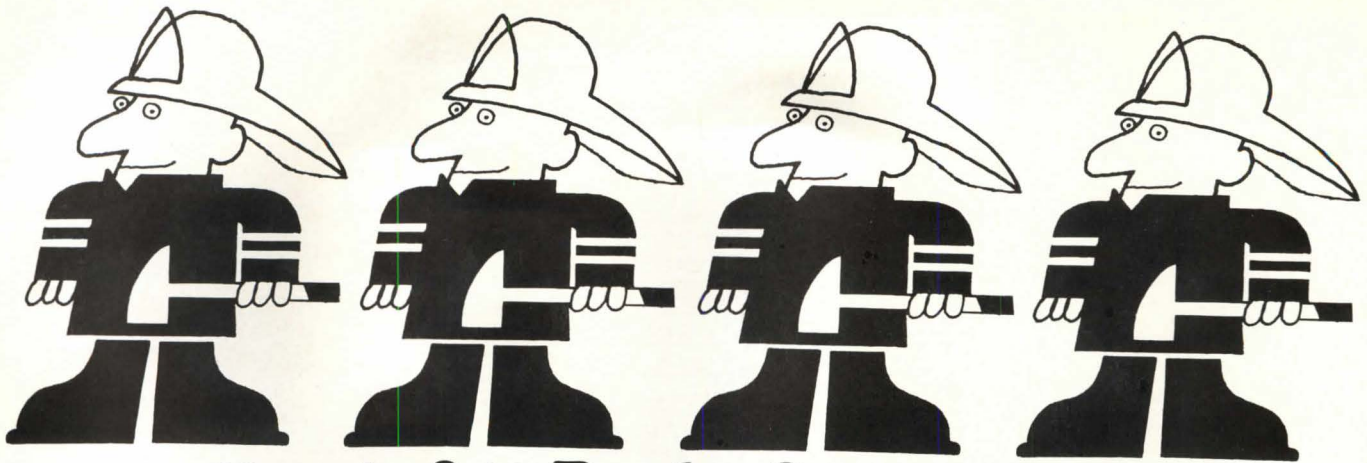
The pedestrian guide system was part of a larger experimental project in Boston. Under an Urban Beautification Demonstration grant, the Boston Redevelopment Authority commissioned Ashley/Myer/Smith to carry out a two-year policy study on visual communications in the city. The project, "Signs/Lights/Boston," covered all forms of public and private outdoor signing and lighting, including the development of a new system for traffic control. A book reporting on the entire project, *City Signs and Lights*, is scheduled for early completion.

Allen Accepts IDSA Award for Institute As 'Symbol of Increasing Collaboration'

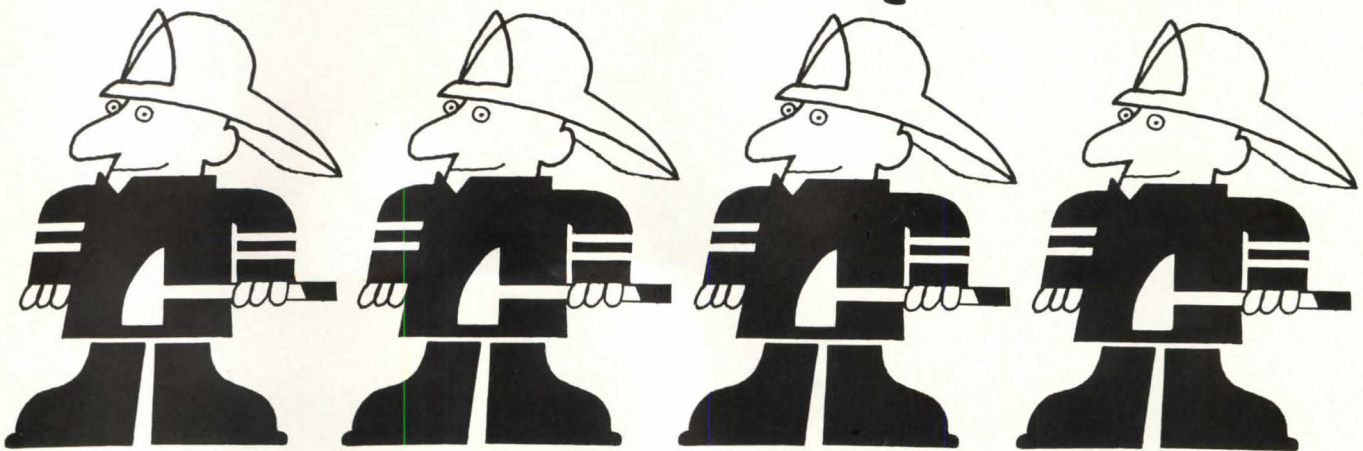
The AIA has received the first Damon Woods Award of the Industrial Designers Society of America for "conspicuous contribution to the betterment of the environment."

In making the presentation at the society's 32nd annual meeting in Pocono Manor, Pennsylvania, IDSA President Tucker P. Madawick cited such projects as the "War on Ugliness" fight against visual blight, school environmental awareness education in Dallas, Philadelphia and other cities, adver-

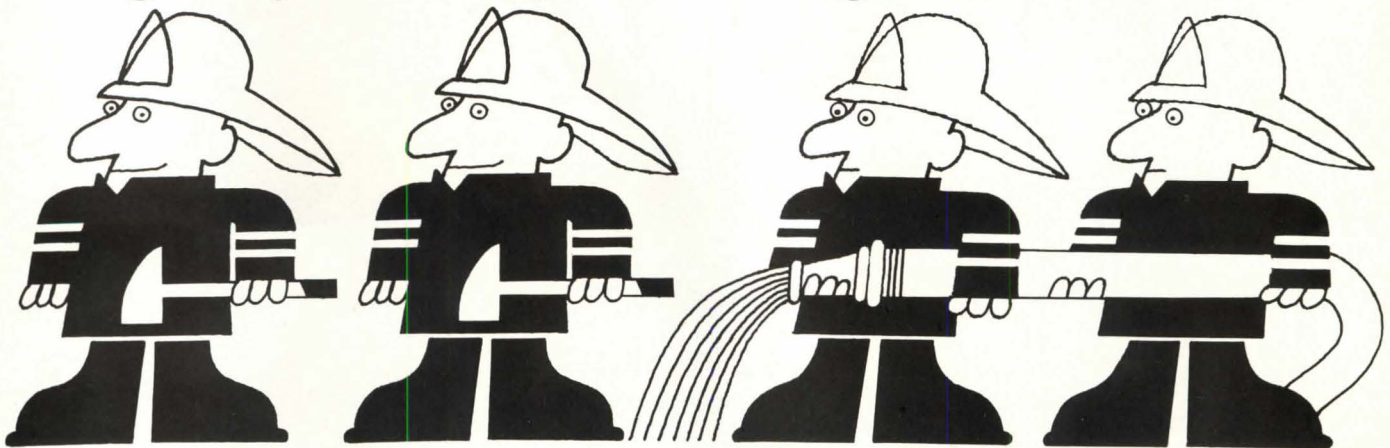
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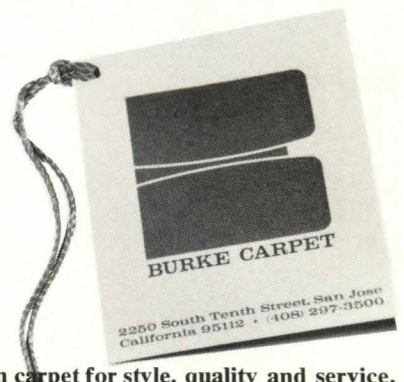
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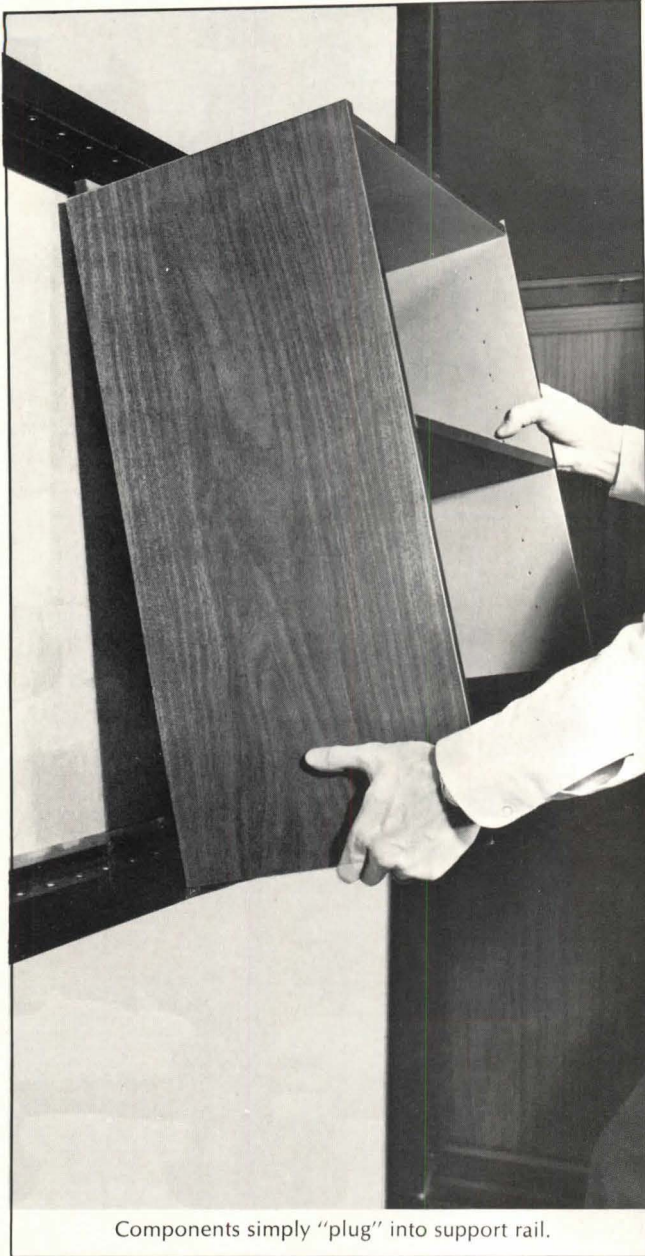
Tests were conducted for flame

spread rate, fuel contribution, and smoke density factors on our acrylic and nylon fibers as well as our Loktuft® polypropylene, Durogan® and Hi-Density Foam backings.

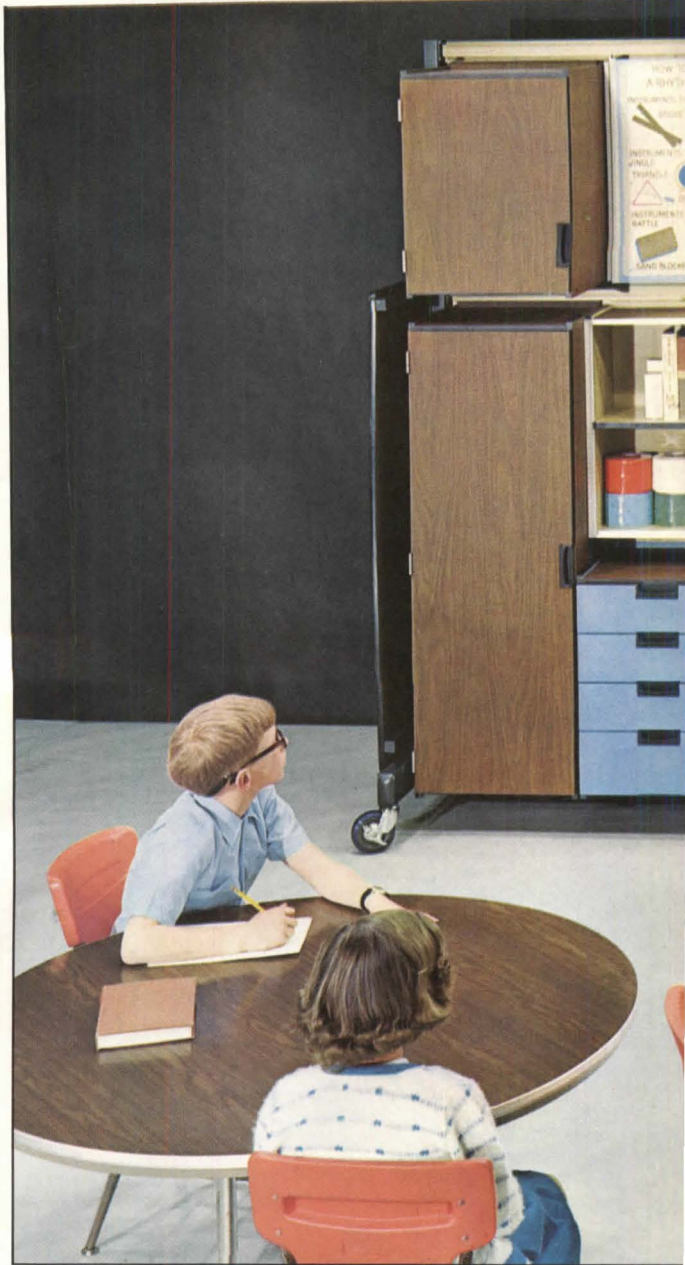
The results were gratifying. All 12 passed the Federal Flammability test. Ten out of 12 Burke carpet lines passed the ASTM tunnel test. Soon, all 12 we offer will pass both of these stringent tests, providing added fire protection to you and your customers.



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tisements that effectively drive home those priorities on television and in magazines and newspapers, films on the urban school, community design centers and urban design assistance teams.

AIA President Rex Whitaker, Allen, FAIA, said that "the Institute accepts this award from the IDSA as a symbol of increasing collaboration between architects and designers concerned with advancing techniques of industrialization, particularly with regard to increasing our supply of well-designed housing. We are confident that factory-built components can be of quality design and are a necessary prerequisite toward meeting the nation's serious housing shortage."

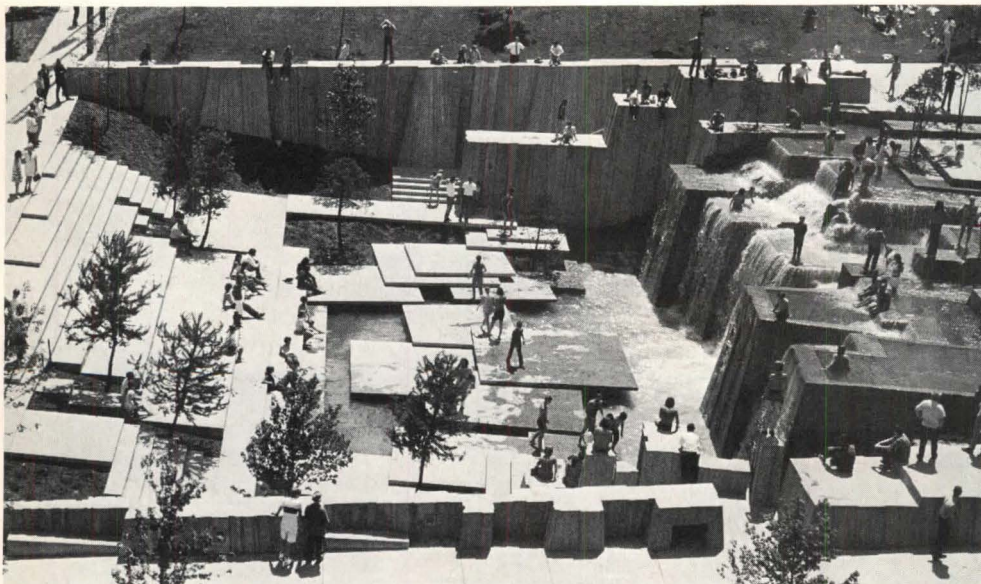
The award is established in the name of an IDSA member, Damon Woods, former director of design of Ford of Europe, who expressed concern with the condition of the American scene upon his return here in 1968. Later that year, he died in a traffic accident.

City Space Designed for Beauty and Utility Cheered by Hippies and Nonhippies Alike

"A people park" is the term San Francisco landscape architect Lawrence Halprin gives to his design for the Auditorium Forecourt in Portland, Oregon. And that it is indeed, having been the scene of at least one hippie wedding and admired and used by the most sedate Portlanders as well.

Dedicated in June, the falls, steps and terraces which make up the plaza are a terraced water garden and environmental sculpture. The new plaza is part of an urban renewal project of the Portland Development Commission.

The Auditorium Forecourt, 200x200 feet, faces the remodeled Civic Auditorium. Thirteen thousand gallons of water, filtered and chlorinated, flow per minute, cascading down 18-foot-high and 100-foot-wide concrete cliffs. There are 221 mercury vapor and incandescent lights for trees and water areas, with 20 pole-mounted spotlights.



Plaza with its "floating" concrete platforms leading from steps occupies one full block.



Rainbow Convention Center will offer visitors, among other things, a view of Niagara Falls.

A year in execution, the total complex cost about \$500,000 for land and an equal amount for construction. The design team of Lawrence Halprin & Associates consisted of Halprin, with Satoru Nishita, partner in charge; Byron McCulley, project director; and Angela Danadjieva Tzvetin, designer.

Adequate Fire Protection of Historical Properties May Involve Compromise

"Blatantly obvious utilitarian devices" installed by zealous fire protection experts and too much emphasis upon the preservation of a property's authentic character by museum directors may combine to lose irreplaceable historical buildings and objects.

So said Alexander J. Wall Jr., vice president of the American Association for State and Local History, at the National Fire Protection Association's annual meeting in Boston. He suggested that the historic site custodian seek guidance from a sympathetic consultant rather than maintaining a doctrine of absolute inviolacy and that fire protection authorities be receptive to the underlying principles of historic preservation.

Wall cited five factors behind the inadequate fire protection of many historic buildings: failure to face the reality of fire even though the property may have been spared for years; lack of a sense of urgency, fostered by the inviting complacency of most old houses; uncertainty on the part of museum officials as to the best methods of detecting and combating fires; cost factors; and reluctance to intrude upon authenticity. Solution to the authenticity versus fire protection impasse, he said, is a compromise with ingenuity and flexibility on both sides.

There's a Rainbow over Niagara Falls As Urban Renewal Spotlights Design

Disaster struck Niagara Falls in 1956 when part of the Schoelkopf hydroelectric plant operated by the Niagara Mohawk Power Corporation collapsed into the Niagara River. With this loss of power, industries abandoned the city. A loss of more than \$50 million in annual purchasing power resulted; unemployment increased; almost \$30 million in valuation was removed from the tax rolls.

To ease employment and to entice industry back into the area, the city fathers decided to make Niagara Falls a more attractive resort and convention center. It did not take long to realize, however, that the downtown was shabby and rundown and that many buildings were in a sad state of deterioration. The city made some improvements in the way of vestpocket parks and refurbished buildings, but it soon was evident that a major program of renewal would have to be undertaken to achieve the city's economic goals and to halt declining property values.

With assistance from the Department of Housing and Urban Development, two major projects in urban renewal were instigated. The first, earmarked for light industrial development, was funded in the amount of \$847,688; the second, for heavy industry, received \$874,882. Meanwhile, new firms have come into the city and local companies have launched expansion programs. The Urban Renewal Agency, the City of Niagara Falls and other bodies cooperating in the local redevelopment aim to maintain control over building design and standards are presently being formulated.

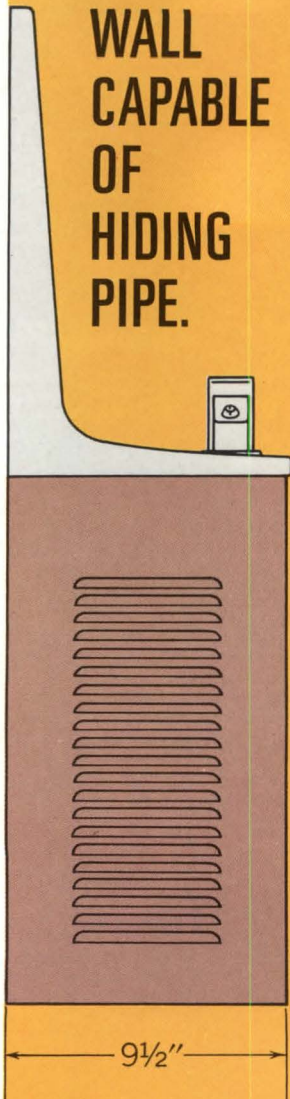
In June 1969, the Rainbow Center urban renewal project was begun. Involving some \$15 million in HUD funds, the project is slated for completion in six or seven years. The center, embracing more than 80 acres of the downtown area, will contain shops, offices, hotels, theaters and garages.

The focal point of the Rainbow Center is the Convention Center complex, designed by Philip Johnson & John Burgee Associates. Seating more than 7,000 people, the facility will accommodate conventions, trade shows, sporting events and various cultural and entertainment activities. Estimated completion date is 1972. The project, costing \$18 million and fronting on an open-air plaza, will encompass 303,000 square feet. Its 540-foot arched roof will span the blockwide building. An 1,800-foot grade-level pedestrian mall will connect the Convention Center with a vantage point for viewing the falls.

Two other developments have been announced. The Carborundum Company will

continued on page 14

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construct a four-unit multistory corporate headquarters building adjacent to the Convention Center complex. Gordon Bunshaft, FAIA, of Skidmore, Owings & Merrill will be the architect. A planetarium and gallery are estimated to cost about \$1 million. To be located about a block from Rainbow Bridge which links the US and Canada, the building will be designed by Melvin Morris, AIA.

Another plan is for a new central library, a multimillion dollar structure designed by Paul Rudolph, FAIA. Rudolph describes the design as "a highly advanced tepee-like structure." A three-story steel frame, A-frame comprised of a compendium of 45-degree angles throughout in rhombus-shaped units to conform to street contours, the library will be a part of the proposed 20-acre community center educational complex. It will be sited about 10 to 12 blocks from the physical boundary of Rainbow Center. The superblock will contain two new elementary schools, a playground area, a park and parking facilities. No through roads will be allowed.

Deputy Director Angelo Massaro, development division, Niagara Falls Urban Renewal Agency, sums it all up this way: "It has been said that the City of Niagara Falls is but custodian for one of the seven wonders of the world. The creation of Rainbow Center, therefore, must be done with care and taste to reflect the results of man's best efforts — architecture is the key."

Architects Who Incorporate Can Look For Tax Breaks, Other Advantages

The Internal Revenue Service has conceded that "organizations of doctors, lawyers and other professional people organized under state professional association acts will, generally, be treated as corporations for tax purposes."

As a result of this statement, a multiplicity of questions has arisen concerning the implications of corporate practice. Should professionals incorporate? What are the benefits and pitfalls of such an action? What exactly are the mechanics of incorporation?

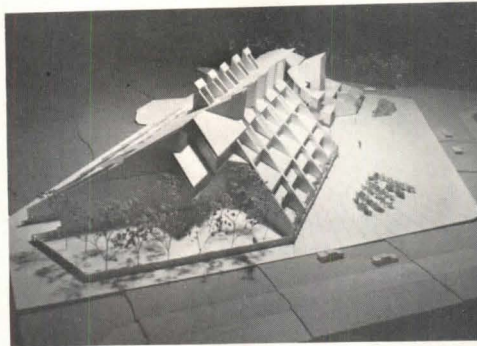
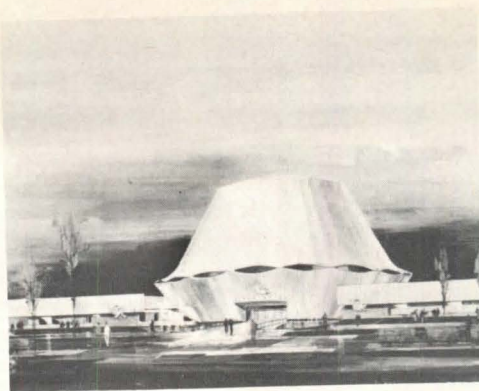
Now, thanks to the editors of *Medical Economics*, a handbook entitled "Now You Can Incorporate" answers most of the questions that can be asked regarding professional incorporation. Although the advice is addressed to physicians in particular, its implications are valid for the architectural professional as well.

The 60-page handbook opens with a case history of a group of specialists that incorporated seven years ago. The doctors explain why and how they took the step, what it's like to practice as corporate professionals and benefits accrued from such a practice.

From that point on, the chapter headings speak for themselves:

- How corporate profit sharing surpasses Keogh
- Are you the corporate type?
- You need specialist help to incorporate
- Incorporation: the first key steps
- Want a pension plan, profit sharing—or both?

continued on page 16



Planetarium (top) is also part of Rainbow Center; central library will be 10 blocks away.

Deaths

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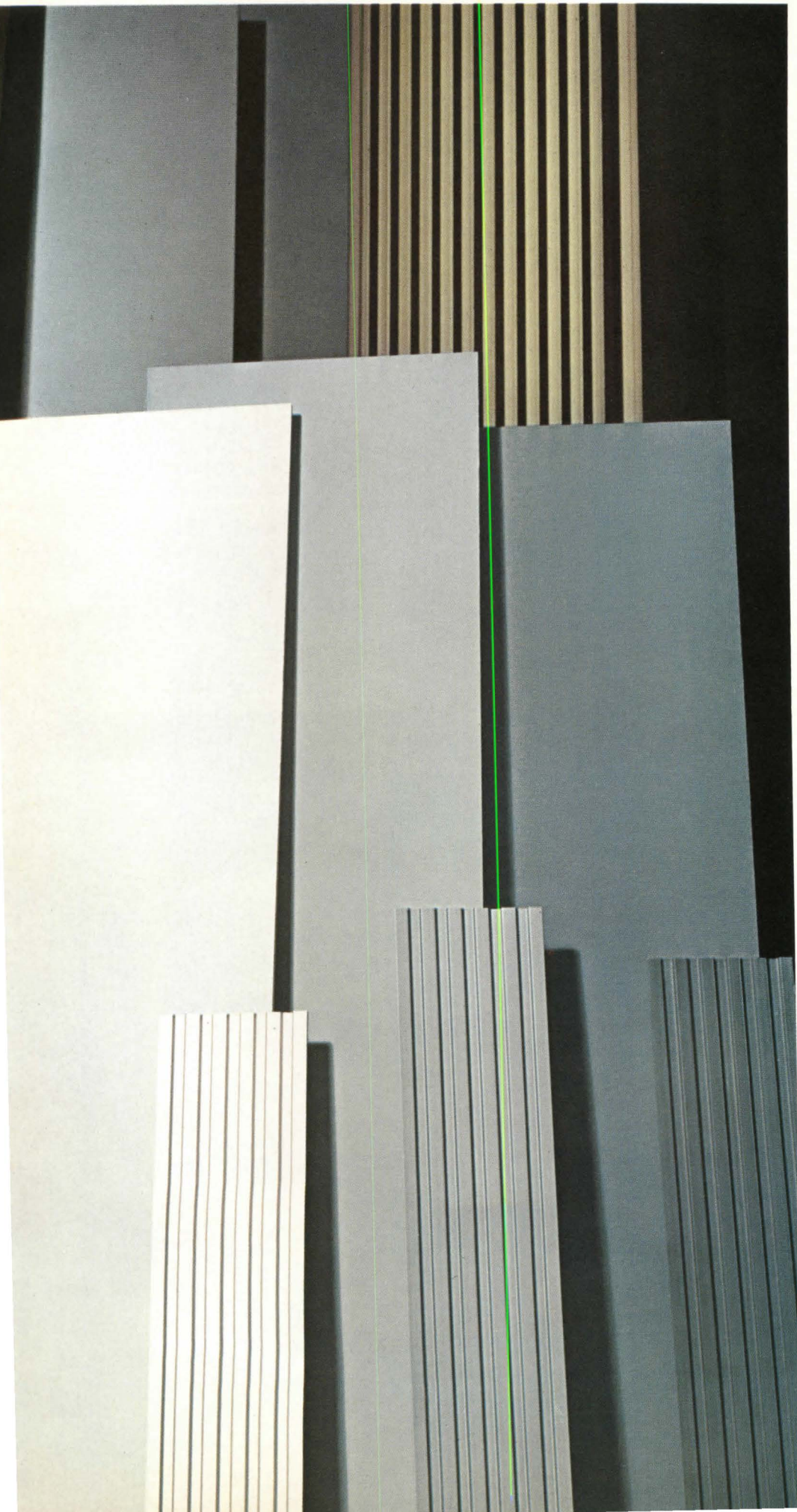
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The editors note that "once you've assessed the tax and other benefits . . . you may be tempted to rush into incorporation forthwith. But prudence dictates caution. Incorporation is a long-range undertaking."

The handbook can be obtained from Medical Economics Book Division, Inc., Oradell, N.J. 07649, for \$2.95 each (quantity prices on request).

'Stop Windowless Schools' Says Sticker

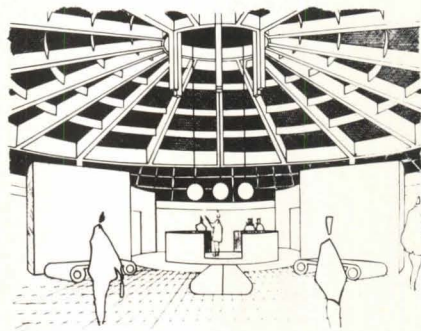
Windows are essential to student motivation and to efficient school building operation says Frank S. Fitzgerald, executive vice president of the Architectural Aluminum Manufacturers Association. He cites the case of a windowless school in Florida where students had to be evacuated because of a breakdown in airconditioning.

Such troubles may occur even with windows, but the AAMA has intensified its fight against windowless schools with a bumper sticker intended for use on cars of school board members, school architects and other local opinion leaders. "Stop windowless schools," the sticker admonishes. "Insure and protect the psychological safety of children."

Student Competition Winner Provides Original Ideas for Faculty Offices

A plan that exemplifies motion and action and one that can be expanded upon in the future is the way Douglas Mehrens characterizes his prize winner in the eighth annual InterRoyal International Student Design Competition. A resident of Gallup, New Mexico, Mehrens plans to continue graduate studies at the University of New Mexico this coming year.

Mehrens' winning suggestion for "The Design and Furnishing of a Floor of Faculty Offices for a University," exhibited a treatment that was, in the judges' opinion, most original in concept. He shaped the 4,000 square feet of space in a circular rather than a rectangular manner, integrating all functions, equipment and furniture into an architectural envelope.



Winning design earns New Mexico student \$500 prize from New York City-based sponsor.

Judges for the competition were Wm. Dudley Hunt, FAIA, director of AIA's newly established Publishing Department; Morris Ketchum Jr., FAIA, of Morris Ketchum Jr. & Associates, New York, former AIA president; and S. I. Morris Jr., FAIA, of Wilson, Morris, Crain & Anderson, Houston, well identified with the Astrodome and other architectural achievements.

InterRoyal Corporation, sponsor of the annual student competition, is concerned with the proper use of furniture and equipment in business, health care and educational environments.

Octagon Exhibition Visualizes Excellence In Low and Moderate Income Housing

Nine winners in the first awards program for nonprofit-sponsored low and moderate income housing, to be shown in the January AIA JOURNAL, are featured in an exhibition at the Octagon House, running through December 20.

The program was developed under the aegis of the Institute, the National Center for Low and Moderate Income Housing, the National Urban Coalition and the Urban Design and Development Corporation. The awards aim to encourage excellence in the design and planning of low and moderate income housing, with emphasis placed upon the suitability of the unit plan and the exterior spaces for family living and the relationship of the housing to the already existing community. □

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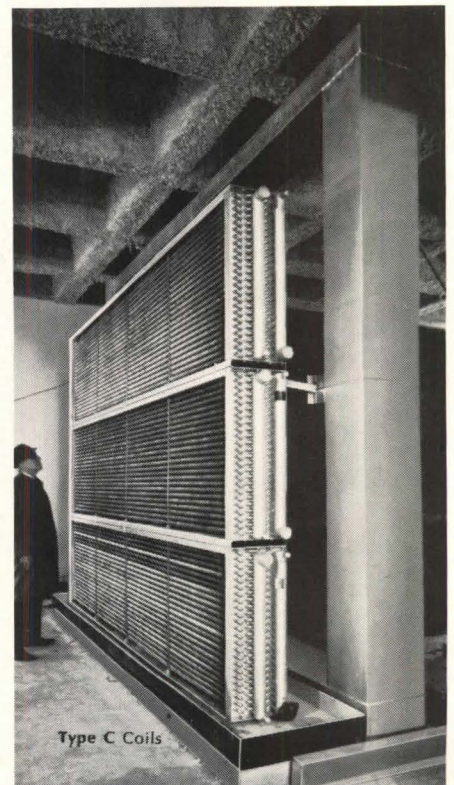
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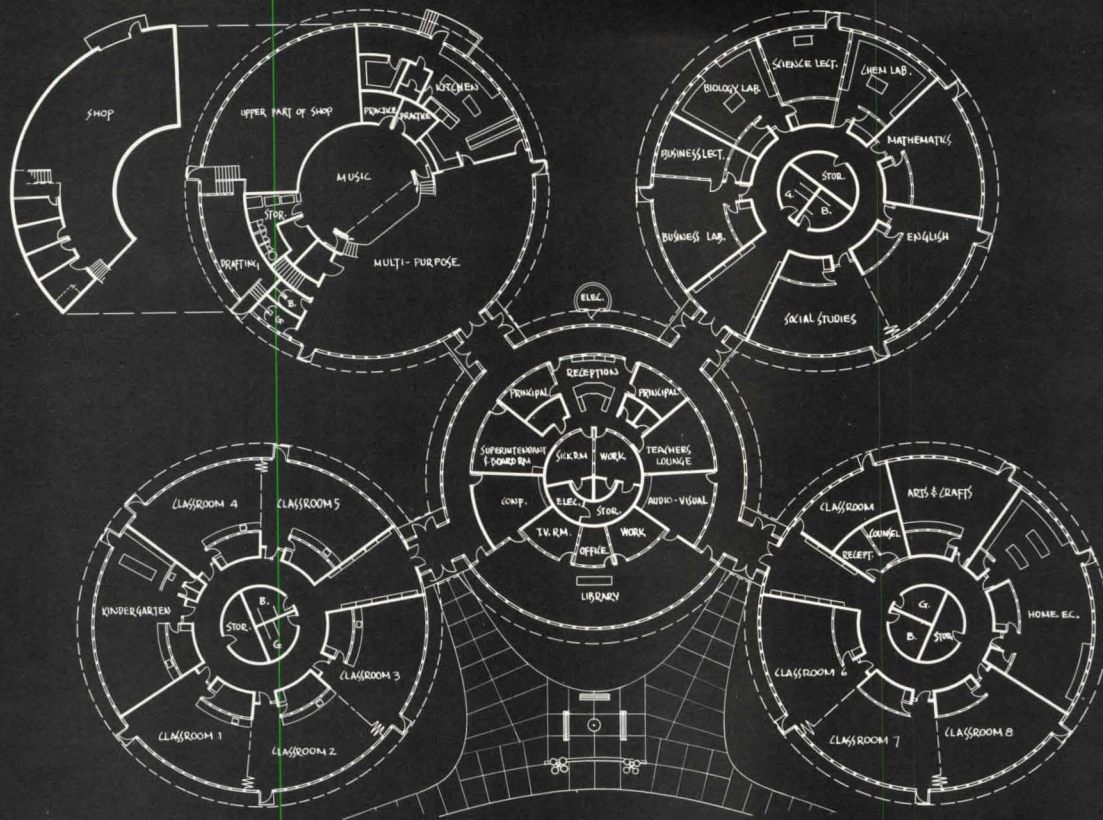
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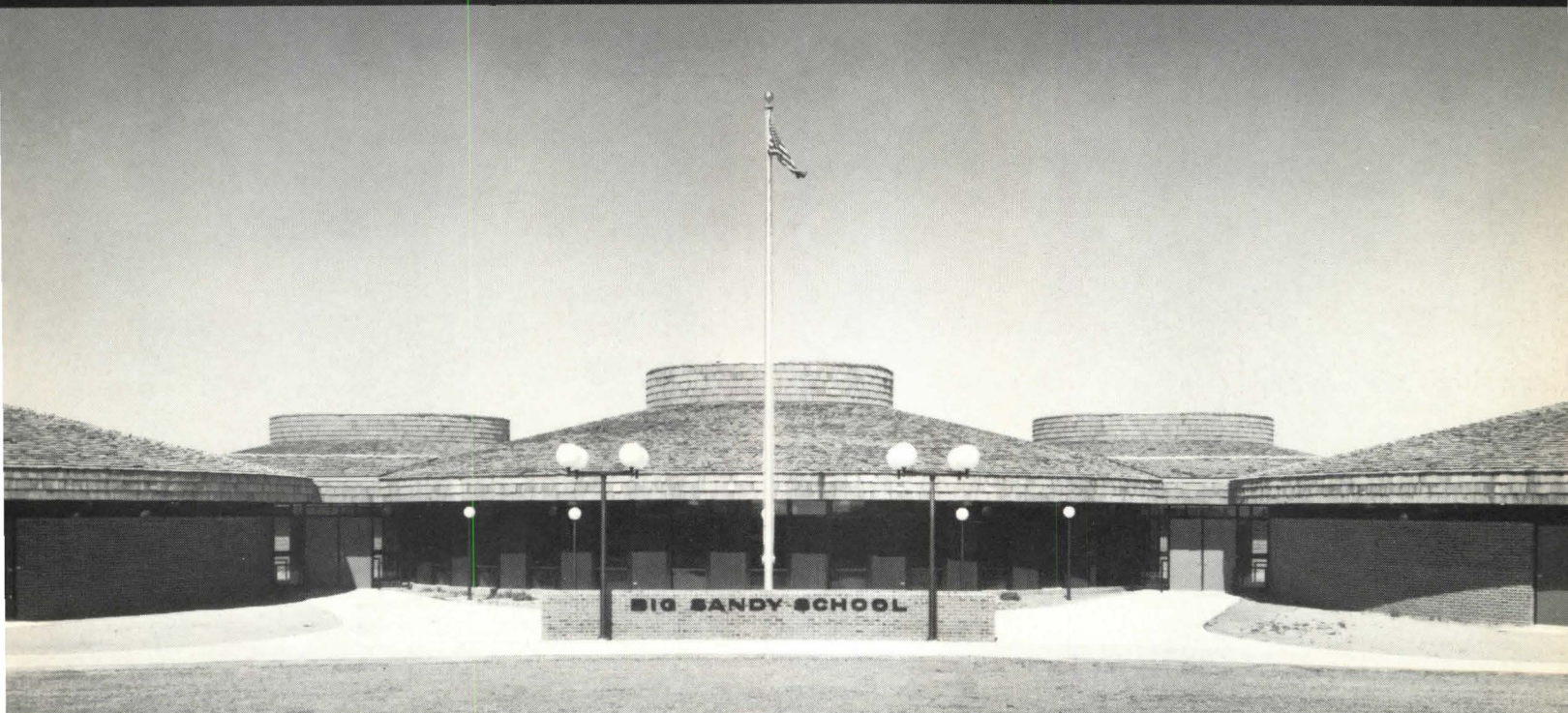
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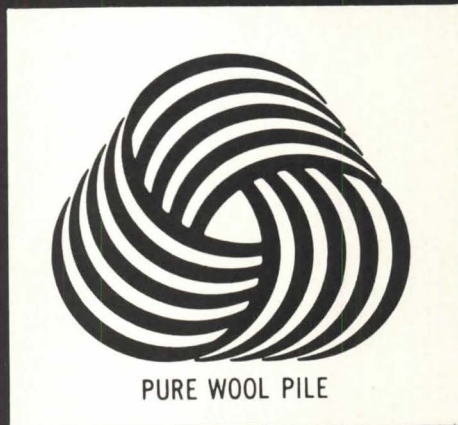


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Inching Toward Metrication

by ROBERT ALLAN CLASS, AIA

Director

Technical Programs

Now less than a year away from completion of its three-year study on conversion to the metric system, the US Department of Commerce this fall held a series of conferences to obtain the views of industry and trade groups on the subject. A report and recommendations based on the study, which is undertaken by the National Bureau of Standards, will be submitted to the Congress in August 1971.

During a two-day meeting for the construction industry and related groups at NBS headquarters at Gaithersburg, Maryland, reaction to such a conversion ranged from opposition to "wait and see" to "let's go." Many of the members of the participating professional, technical and trade associations saw little or no need to convert, but all indicated willingness to cooperate if Congress decides to make the changeover—all recognizing that the United States is the only industrialized nation in the world which has not committed itself to metric measure.

The Institute, represented by H. Leslie Simmons, AIA, led off with a paper* quoting a Board of Directors resolution of April 1970 urging "the completion of studies authorized by Public Law 90-472, particularly as these studies relate to the construction industry, and further urges that the metric system be adopted as the national standard of weights and measures in the United States of America."

What would be the advantages to architects if the US should convert to the metric system? We would have a universal, simple method of measuring, a method which would be an important vehicle for introduction of dimensional and modular coordination and standardized component sizes coupled with unified national codes and standards. Maximum economy could be obtained in the production of components as a result of the reduction of manufacture of nonstandard units and elimination of the wasteful process of onsite cutting of components.

Problems which the architect might encounter would be minor, involving such things as reorientation of the design thinking

process, re-education and obtaining, during the conversion period, data expressed in metric terms. Costs of conversion to the architect are envisioned as being comparatively small, with the eventual benefit of reduction of in-office costs and improvement of services.

A consensus of the conference indicated that national leadership and coordination would be essential to the success of the metrication process, requiring strong industry guidance. Nearly every participant recognized the need for education and retraining over a considerable time span. The concept of evolutionary metrication ("let it happen naturally") was unanimously rejected as leading to chaos and disaster. The only acceptable concept is that of planned metrication over a fixed time period in the order of 10 years, as in the United Kingdom, where conversion started in 1965 and will be fully completed in 1975. Some segments could be ready in two or three years while others would take considerably longer. A detailed time schedule will be essential to the success of such a conversion.

A suggestion was made at the conference that the design professions might prepare themselves for metrication by adopting two devices now. One would eliminate fractions of an inch on drawings and substitute decimal equivalents; the other would express scales of drawing elements in direct ratios as in cartography by using, for example, 1:48 instead of $\frac{1}{4}'' = 1'-0''$. This requires additional thought, as we might end up with having to go through conversion twice and we would be trying to handle awkward decimals which don't work out exactly.

The potentials that conversion to the metric system would have for the building industry are impressive. A wedding of metrication and dimensional coordination would provide the potential to develop a rational, disciplined and systematic approach to building design and documentation. It can provide the impetus to upgrade codes and standards. It can provide a base for less expensive in-place costs. Finally, if handled creatively and cooperatively, it will provide excellent opportunities for unification of the building industry into the strong working team that it deserves to be. □

*For a copy of "The AIA Paper on Metric Conversion"—one per reader—write the Director, Technical Programs, at the Octagon.

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A SCHOOL FOR THE CITY: Once the street was a school, a teacher of the civilities of the city. Even today the traveler to Fez or Marrakesh can see how the street is able to fulfill social purposes. There is still to be found the reader who recites the traditions of the place, the scribe who writes letters for the untutored, the actor or acrobat who entertains the curious crowds. A place for pageantry, the scene of religious ritual and a stage for social drama, the street once brought people together in a common purpose. Such uses today in American cities are only occasional.

Critics claim that crime and disorder have dehumanized the street. But it has always been the scene of strife. Guelphs and Ghibellines hurled rocks and poured boiling oil on each other in the streets of Dante's Florence, and in the time of the Medicis, an unruly mob endeavored to destroy Michelangelo's David in the Piazza della Signoria. Wherever people have protested and demanded changes in society, the city has known violence and the streets have been the stages for it. Slums, crime, drug abuse, persistent poverty are neither problems of the street nor caused by it—these are deep human ills, not to be remedied by a renaissance of the street.

The street has lost its social significance for our day because of its changing functions. Streets and their associated sidewalks suffer from technological transformations in transportation. Expressways and freeways cut the city into pieces without providing appropriate pedestrian places. Suburbs and exurbs, and even "new towns," incline to ignore the traditional street. Architectural complexes and great shopping centers have eliminated it from their grand designs. Now a corridor for the flow of traffic, the modern street gives the poor pedestrian short shrift. In such ways, the changes in the life style of people have shattered the street as an institution with specific social functions.

We can never restore the street completely to its former place in the lives of citizens perhaps, but surely something can be done to humanize it as the generator of civic virtues. We have tried in this issue to evaluate the role of the street in contemporary society. Through an analysis of aspects of the street, it is hoped that some new perspectives have been provided. We have sought to inspire insights into the nature and function of the street and to suggest uses of it in the present age of the city when a new environment is sorely needed. The mood is optimistic; the city *can* be more humane.

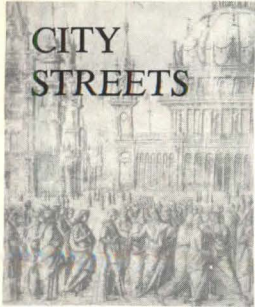
The changing functions of the street have been accompanied by a disappearance of civic discipline, the civilities it inspired in the people having been lost. The street fulfilled noble purposes as a teacher. The task, therefore, is to find new forms for old functions of the street today in order that it may renew its role as a school for the people of the city.

MARY E. OSMAN



CITY STREETS





CITY STREETS

Streets in European cities have an esthetics, an urbaneness and a pleasurable humanness that are lacking in their American counterparts. The American street will change only when our concept of the city itself has changed.

THE LIVING THEATER



by NAOMI MILLER

"In my belief the caliph Haroun al Raschid found the best means of being a sovereign well informed on all matters and that was to walk the streets during the night. An excellent system at Bagdad, and much more excellent at Paris, where the streets are endowed with supernatural life! They possess life, thought and soul, and, if one knows how to listen to them, they speak to one. In the commercial quarters one still hears vaguely, like an echo, the noise of anvils and machinery, the vibration of matter at work; while around the Odéon float in the air, as if subtilized, philosophical ideas, transcendent calculations and Homeric verses. . . . He who, at night, walks about the silent and almost empty Paris knows more about the movements of souls and the reality of things than if he had listened to many conversations and turned over a great heap of documents; for at that hour ideas are imbibed and inhaled in the still vibrating

atmosphere. Yes, it is good, it is wholesome and it is profitable to wander there during the night; but neither is it bad to walk about during the day and mix with people, with the throng, with the vast human wave, which, like that of the sea, tells its secret without speaking and only by its agitation and melodious murmur. If our ministers are never kept informed of anything, it is because they do not see the street, nor the pavements, but live imprisoned in interiors decorated in the worst style of the empire. . . . In any case, go down into the street and walk about and it will be time well spent." (Théodore de Banville from *Paris*, edited and translated by Esther Singleton, New York: Dodd, Mead & Co., 1900.)

From the highways and byways of 20th century America, de Banville's description of the streets of Second Empire Paris

rings with vivid nostalgia. At the same time, his words serve to remind us that streets have always formed the core of the urban fabric while eliciting a crucial question: Is the street due for a resurgence in our present increasing concern with the total environment?

Pavements and walkways, alive with people and produce, engage all our senses; not only the visual but the aural as well. Human voices must replace an acoustically harsh soundscape; the smells and the tactile excitement must be recaptured. All the qualities that delight the eye and the spirit must be there—the animation of cafes and shops, the color and babble of people of all ages. The sounds of the past were grating and vibrant, the air replete with the totally unintelligible and strident racket of street cries. Witness the 18th century English essayist Joseph Addison's account of the shrill cry of the milk-girl, the sometimes treble cry of the chimney-sweep; the harsh cries of the small-coal men and the vendors of brick-dust and broken glass—the amount of wares in inverse proportion to the size of the wares hawked.

For our streets to change, the whole psyche of the nation must change. In a pluralistic society which stresses its diversity, it is indeed difficult to isolate the components of a national character. No sooner do we characterize the American as inherently anti-introspective, anticontemplative, basically pragmatic, a man of action, than we realize the contradictory currents in American life—the dialectic of multiplicity and conformity. No sooner do we see the American as fundamentally individualistic in the Emersonian tradition than we discern that he is often thus in an “establishment” sense. And even if an organization man, the American's value orientation is usually personal and opportunistic. It is in his feelings, however, about urban life that his rural heritage most strongly emerges—its pioneer adaptability to the physical realities of an agrarian economy, with its overtones of Calvinist industriousness.

Frank Lloyd Wright's view of Chicago upon his arrival there is not atypical: “All around me there were giant unseeing crowds. I felt engulfed and terribly afraid.” American life still retains some of the romanticism and isolation of the frontier. Accompanying this is a constant longing for an experience grandiose and remote—the conquest of nature herself.

Streets become passageways leading *out*, even obstructions to the open road, that means of reaching the actual goal—the land. How well this attitude is reflected in the names themselves: the East-West Highway or Broadway are as evocative as the Via Appia, the rue Saint-Denis, the Riva degli Schiavoni. The missing component is that of place, of destination.

Jean-Paul Sartre observed as much on his first visit to the United States: “The American street is a piece of highway. Ours are oblique and twisting, full of bends and secrets. The American street is a straight line that gives itself away immediately. It contains no mystery.” (*Le Figaro*, 1945). For Sartre the European errs in viewing American cities as he does European ones: “They are not meant to be seen that way. The streets here do not have the same meaning as our streets. In Europe, the street is halfway between the path of communication and the sheltered public place.” Cafes are part of this scene as is the sidewalk, whose atrophy Sartre notices by citing La Cienega Boulevard in Los Angeles.

Little of the ritual of modern life is to be found in American streets. The parade is not an indigenous ceremony and is

reserved for the “grand” avenues; nor are military factors a determinant in the layout of broad, straight thoroughfares, as they were from Roman times to Haussmann's plans for the transformation of 19th century Paris. Usually our streets lack those visual interruptions, those winding intricacies or abrupt turns, those focal points for activity: stairs or fountains, or well-designed “encounters,” to be used rather than circumvented.

It is in the US that the grid plan is most insistent, resulting in an almost direct antithesis of Alberti's prescription for beautiful and convenient street patterns: “It will be better . . . to have the streets wind about . . . and within the heart of town, it will be handsomer not to have them strait, but winding several ways, backwards and forwards, like the course of a river.” (Book IV, Chapter 5). Even Haussmann, in the planning of his grand boulevards, was conscious of the value of limited vistas and perspective foci—the element of surprise and discovery essential for a dynamic townscape.

One reason for the pessimism as regards the revival of the street is the very character of modern life, which is marked by the withdrawal of the populace from streets and plazas, with the exception of slums and generally depressed areas. Our relative economic prosperity is certainly bound up with the former. In Italy and the Orient, the street is the *salone*, the living room, an enlarged indoors and not merely a public place. The outside is more seductive, occasionally even more private, than the crowded, impoverished, dark and dank interior. Outdoors there is light and air.

American interiors are created for commodity; the concern with the “well-tempered environment” has been internal; the outside becomes less livable. The street is not an escape or a release into a better life but rather just a more public one. If this problem is to be solved, the *positive* histrionic aspects of the street must be restored. Its potential is enormous. What more profitable site for the living theater! The street is theater, it is a work of art, it is the principal setting of the whole human

Cafes in Italy are part of the street whether there's a sidewalk or not, as seen below on Rome's famed Via Veneto. In Verona's Piazza delle Erbe (preceding page) umbrellas are supplied for the users' comfort.



Miss Miller, visiting architectural historian at the University of California, Berkeley, '69-70, is associate professor of art, Boston University.

drama; it is ubiquitous in literature and in art, especially in the perspective views and in the spectacles of the Renaissance. The street is the scene and its history is a long one. The Greek stoa and Roman basilica were as much the social and political foyer of the town as they were centers of commerce and seats of jurisdiction.

At present, the Galleria in Milan may provide more of this atmosphere for the tourist than for the Milanese, but surely there is *much* to be gleaned from a space of this magnificence. Once the corridors of a university without walls, the porticos of Bologna contribute much to the urban fabric and provide a protection against the weather while enhancing the rite of the corso. That this design may be incorporated and adjusted to a northern clime is seen in the colonnades of the rue de Rivoli and in the Place Ville Marie in Montreal, though the whole point is missed in the latter. By consigning the passageways to the underground, the Montreal complex ignores the potential of the street. The panorama of nature is once again reserved for the swifter moving population. In a way, the concept of these subterranean walks is reminiscent of those 19th century Parisian shopping arcades, the wrought iron and glass roofed ambiances of luxurious boutiques and elegant browsers. And these arcades, as the one in Milan, were organically linked to the streets from which they flowed, thus perpetuating the illusion of the out-of-doors within.

The use of arcades has been deemed "altruism turned architecture—private property given to an entire community," says Bernard Rudofsky in his perceptive book entitled *Streets for the People: A Primer for Americans* (New York: Doubleday, 1969). The concern with streets is surely another step in enlarging our concept of architecture by introducing a form of the vernacular (or the "nonpedigreed" architecture of the author's *Architecture without Architects* (Doubleday, 1964). Here the idea is that unsung, unheroic architecture — anonymous building — may become incorporated into the "formal" architecture and thus present a vital source of inspiration for today's architect.

In America, the best of this urban vernacular is in the tradition of Georgian London, whether in the federal architecture of 19th century Providence, Philadelphia or Boston. It is an architecture with immense respect for the human scale in all its elements, above all in the general rhythms of the facades which form a oneness with the streets they grace. A harmonious uniformity is created by the modest accents—e.g., the finely proportioned doors and windows, the understated but well placed classical details, the focal points which enliven these unassertive buildings. The simplicity and flexibility inherent in the vernacular could certainly be adapted to techniques and forms indigenous to the American street.

The pedestrian preserves of new towns or the shopping malls of suburbia are too bereft of historical context to provide an appropriate solution. Eventually radical means must be proposed as dictated by innovative technological possibilities. Until then, immediate planning should be more involved with ecological factors including the topography of the land and all those social, climatic and environmental conditions that comprise it.

The grid has long been misused in the US in such spectacular sites as Manhattan or San Francisco, as well as in innumerable urban and suburban housing developments. Moreover, the multiple constituents of the street, such as pavements, lights or greenery, must be used as positive organizational units to energize and enhance the total cityscape. And while all would agree that the Lijnbaan, the commercial pedestrian nucleus of Rotter-



Milan's Galleria, owned by the municipal government, is a city street under glass. Its shops and cafes attract people day and night.

dam, or the paths of an Italian hill town are a long way from Main Street, few would now subscribe to Le Corbusier's denunciation of the street when planning thoroughways between superblocks in his Voisin plan. The incompatibility of the automobile and the humanly scaled street must be accepted by designers truly concerned with the public welfare.

In a society where streets often have a negative connotation (witness streetwalkers and street people), Rudofsky's book is not likely to strike a sympathetic chord on a large segment of the population, namely "the man in the street." Nor are the eyes of planners and urbanists apt to turn from their focus on freeways and superhighways to the pedestrian street. It is not even immediately foreseeable that the open road so celebrated by Walt Whitman and current cineasts of the counter-culture will yield the right-of-way to the unknown pedestrian to whom Rudofsky dedicates his beautifully illustrated book. Largely, the volume is a comparison between Western European, predomi-

nantly Mediterranean, culture and our own, rooted strongly in Jeffersonian ideals of agrarian democracy—an English heritage marked by a profound urbanphobia. President Lyndon Johnson's view of American cities as "the result of greed and stupidity" and Nathaniel Hawthorne's suggestion that one should "burn them down periodically" fall well within this tradition. Rudofsky attributes this antiurbanism to a general hostility to the environment of the early settlers of North America when the entire continent was regarded as enemy territory.

Perhaps the whole concept of the city is tied to our notion of the Greek *polis* and is one of dimensions. The beginnings of the American street are traced to colonial times, and in his book Rudofsky draws most of his data from New York because it is "more of a town . . . than all American towns put together. . . . It illustrates their best and worst points." Even in the "genteel village that once was New York," the handwriting was on the wall. From its earliest days, the magnificent site was equated



No directional signs point to the world's greatest theater — the street. Quattro Canti ("four corners") in Palermo has its own strolling players.

with high land values which ignored the possibilities for beauty in its natural assets, to say nothing about the welfare of its inhabitants. New York was a "trading town"—but then so was Venice where, in Shakespeare's words, "The trade and profit of the state consisteth of all nations." Again, it is a matter of magnitude—and attitude.

Expansion and size are considered symbols of progress. This is applicable to the Baroque as well, but the patrons and puritans of the New World were imbued with democracy rather than absolutism; their goals were neither as megalomaniacal nor as lofty. The breadth of the continent inspired a more telescopic view of nature. Intimacy admired in the Italian street or north African bazaar dwells mainly in the collective subconscious. A marvelous transformation of scale is illustrated in Rudofsky's juxtaposition of the *case pensili* hovering over Perugia's Maesta delle Volte and Kenzo Tange's project for the urbanization of a Tokyo district. The concept is analogous but the space and vo-

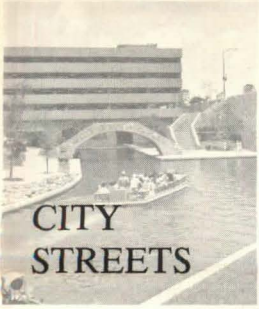
cabulary in the latter are geared to a new futurism. To describe these "hanging houses," Rudofsky likens Nathaniel Hawthorne's whimsical account of Perugia's labyrinth, "We plunged from the upper city through the strangest passages that ever were called streets . . ." to Alice's descent down the rabbit hole.

We are well aware of the esthetics and humaneness of the European street and the absence of these factors in its American counterpart. But it is equally obvious that the American street will change only when the concept of the city changes. In Italy, one little street exhibits a maximum of pride and care as an extension of the inner habitat. If we are in agreement with a street fighter of the Jane Jacobs genre, "one little street can't do much." The whole neighborhood planning unit must change; our units of city design are conceived of in terms of blocks rather than streets. Here is but another sign of turning inward instead of outward toward the street — to make it a place of perpetual life and motion, of diversity and public contact.

The principal ornament of the street must be people, people concerned with the appearance of the street as also its life, thus providing a built-in natural safety, with violence avoided because of the participation of all the inhabitants. Loyalty and pride in one's street is part of the loyalty to one's town and the latter seems incompatible with progress. An involvement in one's street is difficult for a transient and motorized population. As Rudofsky implies, the American attitude toward thoroughfares is even more telling. Long before the multitude took to the road on wheels, streets were rarely important to the people and harbored a porcine population, garbage and all matter of impedimenta — manifestations which are evident in a throw-away culture. Streets today are regarded often as corridors leading from and to and are rarely associated with the pleasures of the promenade, of strolling, lingering and chance meetings. The apotheosis of this sentiment is proclaimed in a Los Angeles Planning Board report: "The pedestrian remains the largest single obstacle to a free traffic movement."

In the 19th century, literary and artistic movements were born and nurtured in Parisian sidewalk cafes. It is highly improbable that America in the 1970s will provide a similar creative atmosphere in its attempts at urbanity. But the walker in the street might one day find his coffeehouse; in any event, there are a few optimistic signs. For example, in Edmund Bacon's Center City plan for Philadelphia, pedestrian movements in the core are separated from automotive traffic via upper and lower level concourses and automobiles are excluded from the city's main commercial street. The current preoccupation of architecture with space — the realization that wherever a man is legitimately a pedestrian, he is made to feel in harmony with his environment — was well expressed by Camillo Sitte in 1889: "Regardless of the scale and the general monotony of the modern metropolis, there must be certain open spaces in it where a person on foot can find himself in scale with his surroundings."

The present establishment embrasure of the environment, its awareness of the elements and man-made factors, is involved with man in the abstract. To these environmentalists, it seems the strip is more engaging than the street, certainly less profitable than the speedway. The street must become the matrix of a new architecture — a new design for living. "The street is the stage. . . . Revolution is theater in the streets. Millions of young people will surge into the streets of every city, dancing, singing . . . stopping traffic" are words by Jerry Rubin hysterically transforming yet remotely echoing a gentler phrase by Henry James more than a half century ago: "There is never a better way of taking in life than walking in the street." □



OPEN SPACES: THEIR SHAPE AND SCALE

by CHARLES E. THOMSEN, AIA

Those who think of the street simply as a corridor for the movement of people and traffic give little thought to its diverse functions. As the primary source of open space in the city, it demands a new and total view as an environmental element.

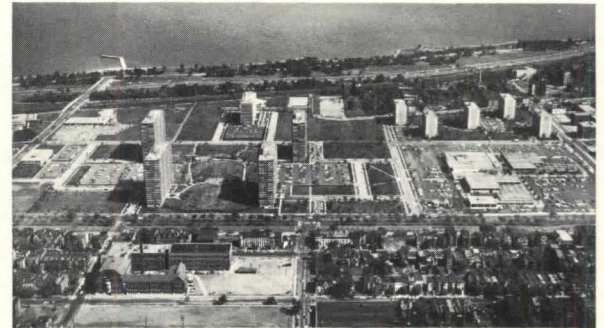
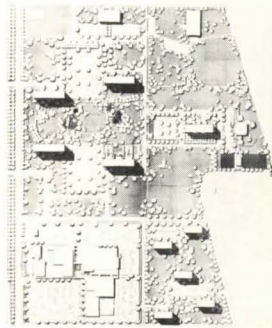
The street is the dominant form of open space in developed urban areas. In the more densely built-up sections of the city, it is often the *only* open space and the principal public place.

The city street is intimately and completely bound by urban activity and architectural form. Quantitatively, the total amount of street open space far exceeds other open urban areas, including golf courses and beaches, that are provided for public recreation. The street is experienced, used, viewed and *felt* by the urban dweller more than all other forms of open space. Also, it is the most man-made and therefore the most dependent upon the design process.

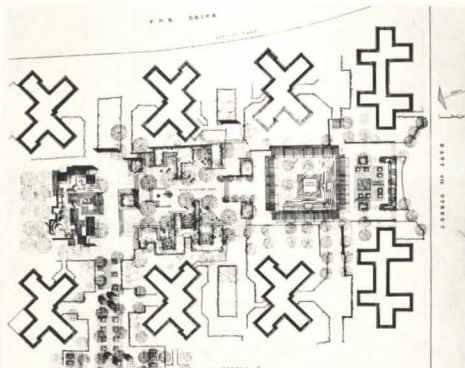
In spite of this dominance of street-scale open space and its immediate association with the life processes of a city, little has been done to exploit the street as an environmental resource. There has been a serious failure to develop and use its inherent qualities, spatial properties and functional capabilities.

Evidence of this neglect is in the monotony of endless, lifeless corridors which form the greater part of a city's street pattern. The consequence is in the hell that a neighborhood street can be, gnawed by fear, consumed in its own ugliness and deterioration, smothered in garbage heap and junk pile.

The failure to realize the environmental potentialities of the street is rooted in the acts of omission and commission which have precipitated the mid-century crisis of the American city. There are a number of prevailing attitudes and tendencies which have discouraged or discounted the use of the street as a place for the spontaneous celebration of communal life.



A new order of urban development, superimposed over the city's grid, literally wipes the city street off the map. The new form of open space is created only to be consumed by large stretches of inert "greens" and by expanses of paved areas, such as in SOM's Lake Meadows, Chicago.



Within the superblock enclave lies the promise and potential of a street-scale open space responsive to a community's life style and recreational needs, as seen in New York City's Riis Houses Plaza. Pomerance & Breines, architects; M. Paul Friedberg & Associates, landscape architects.

First, there is the traditional but narrow view of the city street as a right-of-way created by rigidly defined property lines and its use primarily for movement, circulation and access. Out-moded legal concepts of ownership, codes and zoning ordinances, business and real estate practices, municipal street-mapping procedures and requirements have all contributed to the limited role of the city street and to the rigidity of pattern.

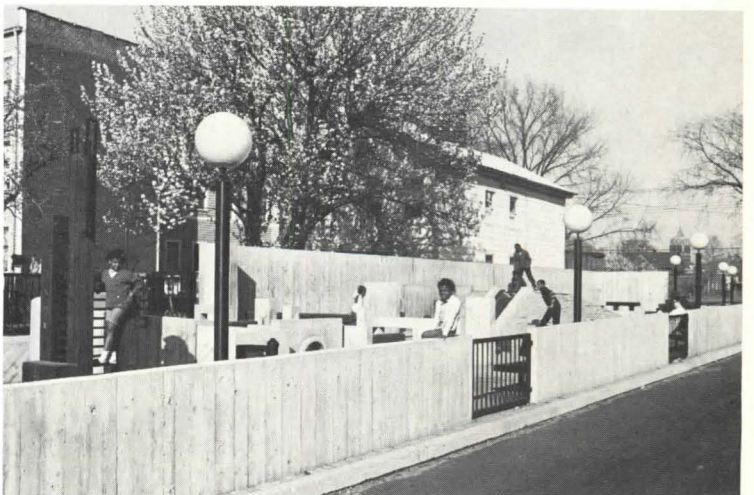
A second deterrent is contemporary urbanism's reaction against the environmental inadequacies of the street-scale open space by the superimposition over the grid of the city of a new order of streetless urban developments. These island-like super-blocks literally wipe the city street off the map. A new scale of open space is created as the real centers of communal activities—Fulton Mall in Fresno, California, and the Riis Houses Plaza in New York City are examples. But this order has inherent disruptive shortcomings as evidenced in large stretches of inert, fenced-in voids of open space which surround great housing projects. They are seen also in those enclaves which, in spite of their amenities and urban qualities, are not related to nor easily accessible from the adjacent neighborhood. Thus they remain isolated phenomena and not a part of the public life of the community at large.

The third tendency which has prevented the fulfillment of the street as an urban space is the fragmentation of often conflicting planning requirements imposed by splintered federal, state and local development programs. Often direct urban development activities can and do require the waiving of existing local ordinances (e.g., Operation Breakthrough, the Port of New York Authority projects and highway development programs). At the local level, the development, maintenance and operation of urban open space are placed under the jurisdiction of separate, independent and often autonomous city agencies—in addition to the regular programs of a parks department—and each may have its own planning requirements and design standards. There are also regulatory powers and area jurisdiction of other arms of a city administration whose responsibilities and activities affect and are affected by open space development. The fire department has regulations governing fire protection equipment and truck access while water, gas and electricity distribution standards are set by another agency. All these collide head-on in the microcosm of the city street.

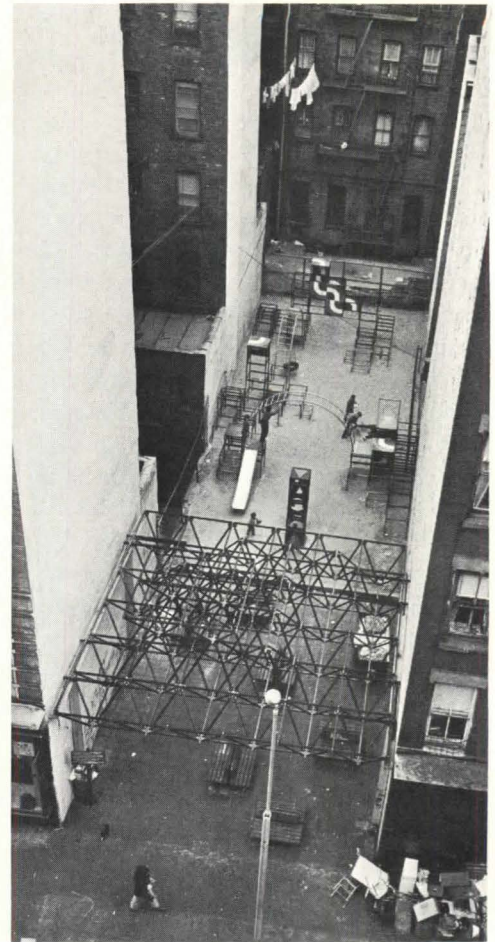
Restrictive municipal practices also prevent the application of new open space concepts. Rigid planning standards with their minimum acreage requirements—usually one or two acres for playgrounds and parks—do not recognize the scope and inherent properties of street-scale open space. And often regressive tax penalties discourage its private development. For example, in New York City, Park Avenue's Seagram Building pays an increased tax of \$383,000 per year due to the "prestige value" of its plaza.

A rapidly decreasing supply of available land has forced cities to take new measures and to seek creative ways for urban development to occur without major surgery to its existing fabric. Urban land is far too precious a commodity to limit its use for exclusive functions of specialized activities on a part-time basis. The need is for a redefinition of our concepts of urban open space and for an exploration of the potentialities of existing urban forms to perform open space roles.

Recreational and Social Functions: Seemingly impressive acreage figures encountered in municipal park agency reports are misleading. According to such figures, in New York City approximately 37,000 acres (17 percent of the city's area) have been set aside for park and recreation activities. These figures



Spatial continuity and unity are given Alexandria's Market Square (top) by Neer & Graef. Property lines make a straightjacket on a New York City street (center). New Haven's Garden Street Tot Lot (bottom) by E. R. Gegan and Robert Torello combines pathway and recreation.



do not reveal that often this acreage is under water, relying on a slow filling process. And there are the vast stretches of beach areas rendered useless by water pollution, leaving little parkland located in the immediate community environment.

The significance of open space, however, is not so much in its quantity as in its arrangement in relation to urban development. In most cities, more than half of the recreational open space available is peripheral and unutilized. Much of this area is left over from highway right-of-way acquisitions. Much of it, as the beautiful waterfront parks, is for all practical purposes inaccessible.

The balance of useful recreational land is unfairly distributed. Former New York Park Administrator Thomas P. F. Hoving in a 1966 *New York Times Magazine* article, "Think Big about Small Parks," found, for example, that of the 74 communities comprising New York City nine of them had 53 percent of the total recreation acreage. The number of playgrounds in an area usually had no relationship to the local population. Two communities in the Bronx each possessed 12 playgrounds, but one district had three times as many children.

The spectrum of open space forms at the scale of the urban street is widely diversified. It includes sidewalk arcades, plazas, vest-pocket parks, roof terraces, interior court commons, pedestrian malls, the street itself and its extensions and structures. For the city hard pressed for recreational facilities, the street is an indispensable resource, easily accessible, close to home and workplace.

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Street functions can be extended as shown in Buchanan School, Washington, D.C., before and after (top), by Pomerance & Breines and Friedberg; vest-pocket park (top right) by Friedberg and an interior block (center), both in New York City; and a plaza (bottom), in Minneapolis.

The street's significance goes beyond its recreational potentialities. Bound with activity and development, it influences and is influenced by the social interplay, the economic functions, the cultural needs and patterns which are the life processes of the community. As diverse as the communities are, as diverse will be the activities and functions of the street and its character. This complexity has made the street one of the most difficult spaces of the city to design. To complicate matters even more, functions and character change during the course of 24 hours. Bourbon Street in New Orleans' Vieux Carré has a day shift which is brisk and businesslike—a sober dispenser of services and commerce. In the evening, the metamorphosis is complete pandemonium. The quality of urban life is determined by the success of the street in allowing various functions and changes to occur in a neighborhood's spontaneous celebration of communal life.

Design Properties: An important aspect of this inquiry is the case for an extension of the present limited roles of the street to perform other functions of the city inherent to open space. It is necessary to understand not only the interaction of street open space with the neighborhood's life processes but also its significance in shaping the development pattern of a neighborhood and its impact on other areas.

Like water, the physical configuration of open space is totally dependent on the shape of the container: urban development. Like water in a statically contained condition, its adjustment is responsive to the influence brought to bear on the container—water will boil and become steam if the container is sufficiently heated. But also like the water of a young river, the channeled flow of the urban street can shape the container, carve its bed, alter its course and decide its very existence. This influence reaches back to the first human settlements determined by the crossing of two roads.

The design and development of an urban neighborhood, its form and its functions are determined by its street pattern. The hierarchy of streets, arteries and thoroughfares governing



Automobile versus pedestrian? A downtown plaza in Canton, Ohio (above), by Tarapata-MacMahon Associates, makes room for both. A different concept — for pedestrians only, except for buses and taxis — is depicted in Fresno's Fulton Mall (left), by Gruen Associates, Inc.

the movement and circulation system of development influences a neighborhood's land use pattern. The street pattern determines the physical and social characteristics of a neighborhood, its boundaries and its extent. Short city blocks, as Jane Jacobs points out, seem to encourage economic and ethnic diversity as well as functional and visual variety as opposed to superblock homogeneity. Moreover, the community derives its character, whether contained or expansive, intimate or ceremonial, sedate or orgiastic, from the pattern of the street. It is this pattern that shifts the perspective from the Champs Elysées to Main Street to playstreet.

Present Trends: A recognition of the design potentialities of the street and its extension is beginning to take place and has inspired several research and development projects, many of them under the auspices of the US Department of Housing and Urban Development. Among them was a \$500,000 study for the development of a new vocabulary of play equipment to be used in the projection of vest-pocket parks, under a HUD Urban Beautification and Improvement Demonstration grant. Another was a conceptual study of street-scale open space by Lawrence Halprin for New York City's Housing and Development Administration and published with assistance from HUD's urban renewal demonstration program in a monograph called *New York, New York*. Under another urban beautification grant, linear open space development was considered in conjunction with the construction of a new rapid transit system for the San Francisco Bay area district.

In addition, there are conceptual studies often supported by foundations, centers for urban studies and universities. Significant publications, some made under the auspices of such institutions, are Jane Jacobs' *The Death and Life of Great American Cities*; Bernard Rudofsky's *Streets for the People*; the Lavanburg Foundation study, *Life for Dead Spaces*, by Charles Goodman and Wolf Von Eckardt; and *The Pedestrian in the City*, edited by David Lewis.

There are also various research and demonstration activities undertaken or proposed to define a design vocabulary for the city street. For example, New York City Planning Commission's Urban Design Group and its consultants have

prepared a coordinated system of street equipment including luminaries, graphics and traffic controls. *Boston, under a HUD Urban Beautification and Improvement Demonstration grant*, will show the benefits of interacting graphics and sign control for downtown areas.

Such studies and projects have gone beyond the theoretical stage. An increasingly sophisticated view of the relationship of street-scale open space and urban development can be seen in the design requirements for the Capital Centre in Minneapolis. Other examples are the standards for downtown Cincinnati developed by the Baltimore firm of RTKL Inc. and, more recently, the design study by Marvin Hatami, AIA, and Tanaka & Associates for the Skyline urban renewal project in Denver.

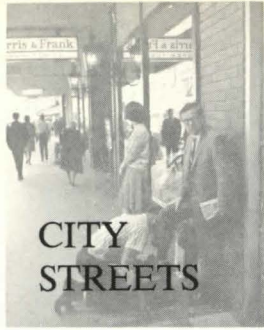
A Total View: The street is inherently endowed with spatial qualities and functional capabilities that make it an environment resource which our faltering cities can no longer afford to ignore. A comprehensive study of the design potentialities of the street is required to take it beyond its present limited role as a bleak corridor for traffic movement and to transform it into a humane environment and an urban experience. The street can be a connecting and communicating element adding to the variety of the city's open spaces. It becomes an urban space and a public place, a functioning center for the day-to-day social, economic and cultural life processes of a neighborhood.

The need for this total view of the street as a social and visual event of the city has been advocated in serious studies on the failure of the urban environment. Many proposals by the design professions have sought to define some of the potentialities of the street; enterprising neighborhood groups have been more enthusiastic than effective in their improvement efforts.

One of the principal contributions that can be made by the architectural profession in the achievement of a humane city is a methodical exploration of the design and environmental properties of the street as they evolve from abstract conception to realization, transformed in their interaction with the users—the residents of a neighborhood and its visitors. The street must no longer be a negative, linear leftover area between facades but a place to interact with buildings and other events of a neighborhood and capable of shaping both. □

Old stoops are removed and front yards created as extensions of the sidewalk in Brooklyn's Park Slope North project. Gruen Associates, Inc.





PEOPLE-WATCHING — WITH A PURPOSE

It is dangerous and costly to assume that human reactions can be predicted intuitively. A study of how pedestrians actually use downtown parks and streets offers insights that will aid the architect in the design of public places.

by C. M. DEASY, FAIA

People-watching as a sport is an ageless enjoyment, a favored leisure occupation at the opera, the ball game, on the streets or across the back fence. Any number can play, the watcher becomes the watched and as long as it's just for fun, you can write your own rules.

People-watching with the purpose of discovering how people act in public spaces, in order to plan more intelligently for their use, is much more exacting but even more fascinating. The difficult part is shedding your preconceptions so you can see what people are actually doing rather than what you assume they are doing. These are often not the same. The fascination comes from discovery: the identification of patterns of use, movement and behavior that challenge some venerable architectural values and point the way to new solutions.

Our firm's own baptism in this technique was precipitated by a balky client. We had proposed that a hideously expensive corner site in downtown Los Angeles be developed as an entrance plaza for a new building we were designing — a welcome open space in the crowded city (and a great place from which to admire the building). The client's response to our argument that this would enhance the dignity of the institution and usher in a new era of prosperity by attracting hordes of people was succinct: "Prove it." This we set out to do.

Notice that this study was not undertaken in a spirit of detached objectives but to defend our bias. Unfortunately, the facts kept getting in the way.

Our game plan was simple: visit the parks and plazas in the central business district on random days to note the range of use and activity throughout the daylight hours and patrol the streets to observe the stimuli to which downtowners respond. All these observations were recorded photographically, printed on double-size proof sheets and independently analyzed to check the observation notes.

I will not enumerate all our assumptions, or presumptions, but we had the firm conviction that attractive open space would draw people as moths to a flame and that "architectural quality"

was something to which many people respond. Both convictions were badly mauled before we finished.

Let's look at the parks first. Two of them, the Civic Center Mall and Library Square, could boast between them the complete roster of parkish amenities — grass, trees, walks, shaded benches, even a freewheeling fountain, but very few people. The limited use given to the mall was particularly surprising since it might be expected that the thousands of governmental employees in the area and the equivalent thousands who transact business with government and the courts would have found it attractive.

Pershing Square, in the center of the business district, provided an entirely different picture. Here were all the people you could want but not quite the group we expected to find. No secretaries, businessmen or shoppers these. For the most part, they were totally unrelated to the business and commerce around them — "they toil not, neither do they spin" — and viewed the park as their all-day social center. Anyone seeking a moment of relaxation in the square would have trouble finding a place to sit, the seats being occupied by season ticket holders in the "spit-and-argue" club.

All this was disconcerting. Like many architects we have manned the barricades whenever some precious bit of open space was threatened. Now we were faced with the possibility that this was a pointless cause. Just to make sure, we extended our study to include MacArthur Park about a mile west of the central business district — and regained our faith in open spaces.

Located in an area of aging, low rent apartments, this is a beehive of people and activities, not just on weekends but every day. From the children's playground to the senior citizens' center, from the quiet glades to the thriving social center at the bird sanctuary, the facilities fit the community like a glove. Here was the answer to our puzzle: To be useful a park must fit the needs of the neighborhood — something the downtown parks with their static charm failed to do.

The volume of material that was developed during these observations provided a mine of information, both general and



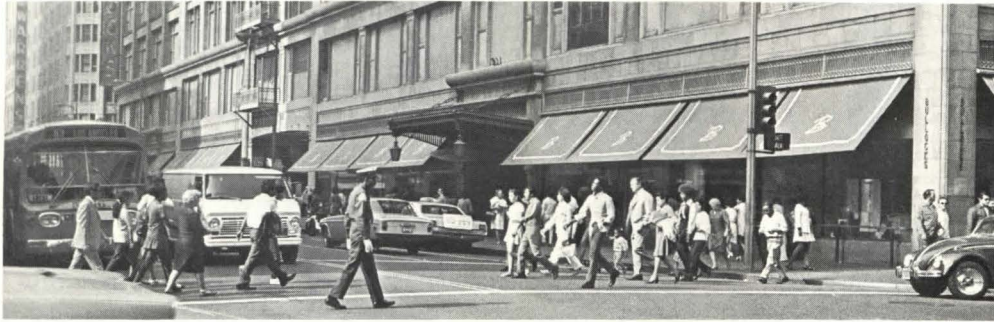
A beautiful park — but it still doesn't have many customers. Park benches don't do much good for social life when they are lined up in rows; the man in the wheelchair has the best seat, facing a captive audience. Birds rate among the best drawing factors in parks everywhere.



detailed, that had a direct bearing on the design of public spaces. Some of the points seem ridiculously simple. But consider them carefully; they grow on you:

- Landscaped, park-like spaces do not attract many people off the street.
- Of the various elements in a park that attract people, the strongest drawing card (overwhelmingly) is other people.
- Next to people as an attraction, a very poor second, are birds and animals.
- Park seating downtown is either permanently occupied or seldom used.
- One sure-fire use of a downtown park is to provide diagonal shortcuts.
- Normal park seating, i.e., parallel to the walks, is a formidable barrier to social contact.

Our experience on the streets and sidewalks was quite at variance with what we had seen in the parks. For one thing, there was never any shortage of people or action; the two, in a sense, are synonymous. Watching the people made our park studies understandable. They were downtown for a purpose. Other than the occasional tourist and a sprinkling of obvious loungers, the



Groups like these seem doomed to head-on collisions within seconds; instead, they filter through. In auto-borne Los Angeles, the downtown area is one of the few places where the sidewalks are still arenas for social life and for entertainment such as window shopping.

throng on the sidewalk were intent on their personal missions or engaged in conversation.

The degree to which they could ignore their surroundings was awesome. We had not really expected them to spend much time admiring architecture, even our own, but to see them walking in blissful oblivion under a giant girder dangling overhead on a slender strand of steel was breathtaking.

These same mindless zombies were capable of instant reaction when something of personal interest entered their range of vision. That's not quite correct: So far as we could tell, they didn't even have to see it to react. We don't know how.

The list of things that they react to contains some 27 items, and they are all concerned with personal needs or social contacts. The really important ones are:

- Window shopping. This seems to stop all of them — secretary, housewife or business tycoon.
- News gathering. The newspaper headlines stopped many people, but even more slowed to what we call a "reading walk."
- Eating.
- Friend meeting. Whether planned or accidental, meeting friends created frequent knots in the sidewalk traffic.

When we returned to the drawing board and junked our original plan, we had a substantial stock of information that pointed the way to a new design solution. More important than this, we had a much more critical attitude about our own value system; on the whole, this was the most important result of the entire effort.

What was before us now was the intensely exciting prospect that we could make this plaza an effective focus of downtown activity, not by indulging our own preferences but by serving the needs and interests of the people on the streets. Imperfect though our knowledge might be, we at least had a partial grasp of what motivates the Los Angeles pedestrian and we could put this knowledge to practical use. Perhaps the things we learned will help other architects who have plazas on the drawing board.

The new plan provided for all the criteria we had developed that could reasonably be incorporated in what was, after all, still a large-scale building entrance: meeting friends, window shopping, news, personal communication, food, telephones, directo-

Mr. Deasy, a past contributor to the AIA JOURNAL, is a partner in the Los Angeles firm of Deasy & Bolling.



Downtown, a lot of people spend a lot of time waiting for somebody or something, but there are possibilities for diversion: a sidewalk show biz, a snack, a chat, or catching up with the latest news.



ries, cages of the hilariously entertaining toucan and a pedestrian shortcut. If we missed on everything else, we could not possibly miss on the shortcut.

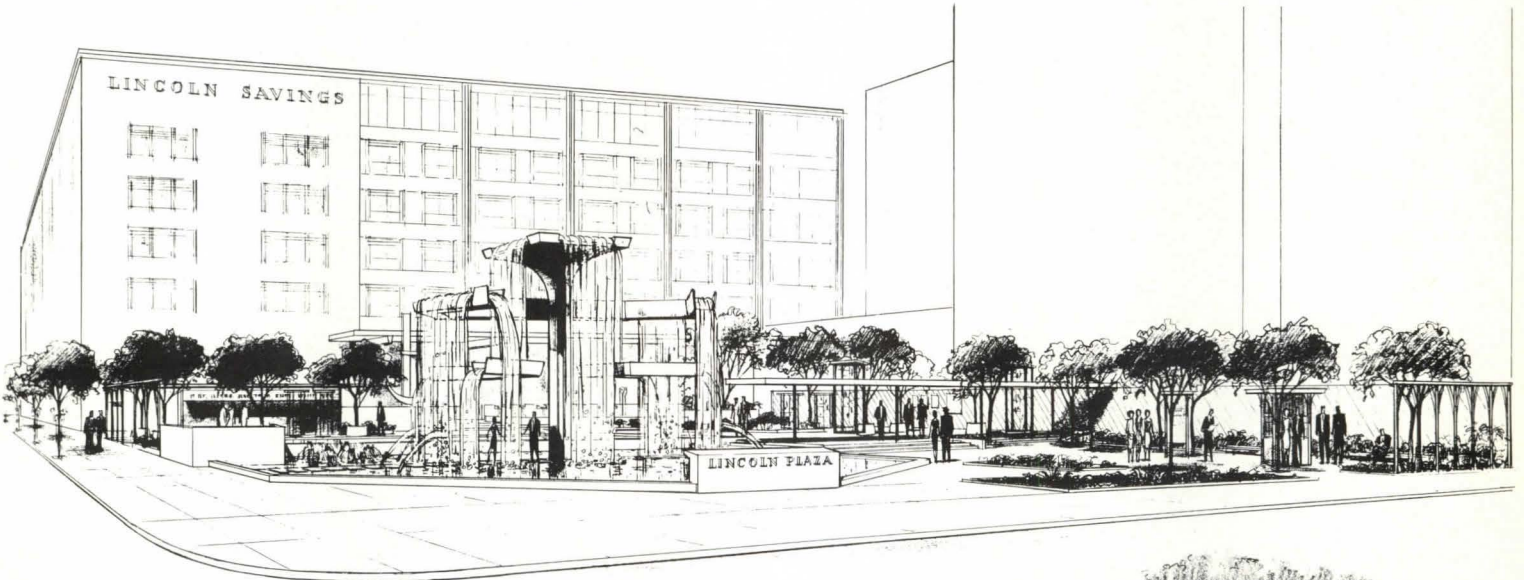
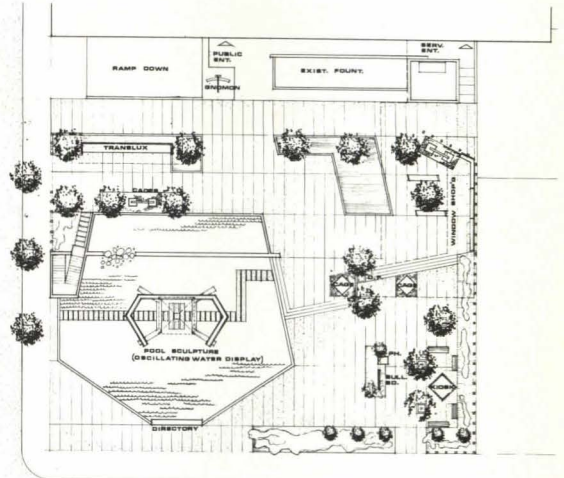
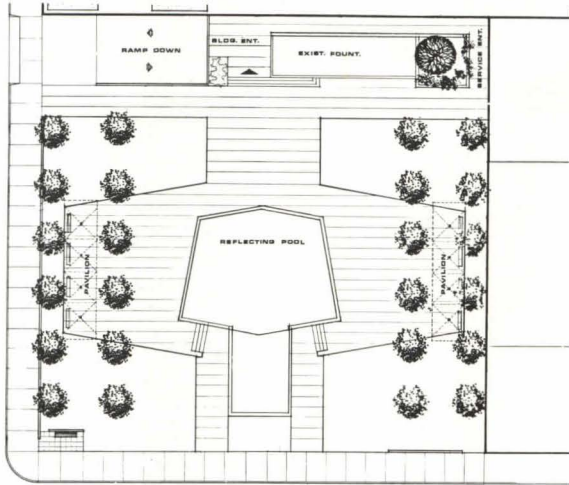
We also incorporated a rather bizarre fountain which requires some explanation. Our observation had indicated that most fountains, regardless of their beauty, simply do not attract pedestrians. Other than the interest shown by tourists, the fountains were politely ignored. Our approach was to change this by designing something that people could be involved in, personally or vicariously. One of the entrances to the plaza leads directly through the heart of the fountain where eccentrically mounted arms fill and dump their contents in great cascades. Anyone who has an acute sense of timing and is light on his feet can thus pass through the maelstrom dry-shod. We are satisfied that there will always be some nuts who will want to try this, and there is no question that hordes of others will want to watch them try it. In other words, it's more than a handsome water display — it's a game, and the difference in terms of human motivation is tremendous and noteworthy.

Since this early effort at learning about people by observation, we have improved our techniques and our understanding

considerably. Working with Dr. Thomas Lasswell, a social psychologist at the University of Southern California, we have coupled an extensive interviewing procedure with our observations in order to arrive at a better comprehension of how people respond in architectural settings and why. One recurrent factor holds particular significance for the architect: The human being is above all a supremely social animal, and his social environment is far more absorbing and compelling than the visual one. Viewing the architects' work — school, hospital or any other building — as a social environment rather than a visual one leads to a radically different set of priorities.

It may seem that this approach to architecture in some way reduces the architect's role to that of statistician, that the design process is somehow automated. Nothing could be farther from the truth. Regardless of how much information one assembles, a host of decisions remain that are purely subjective. The crucial difference is that one must have a much clearer picture of what the design is all about, which decisions are based on data and which are esthetic.

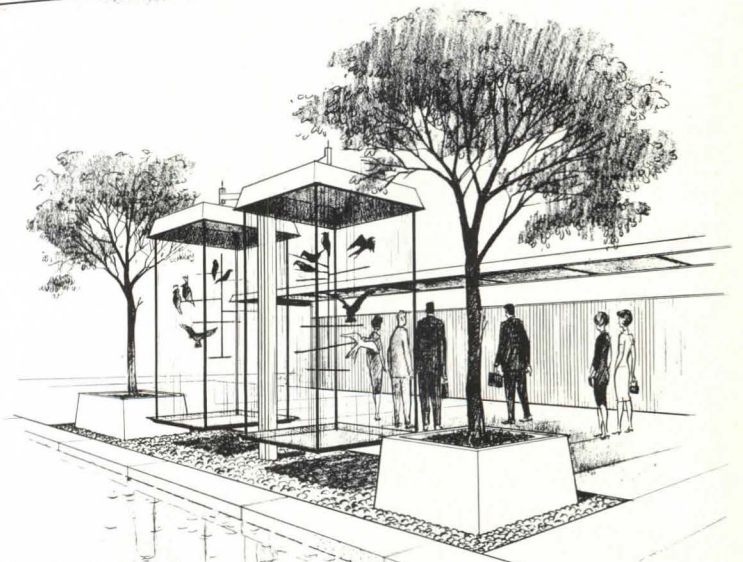
It is my own view that the objective study of human behavior in architectural settings will open an extremely productive



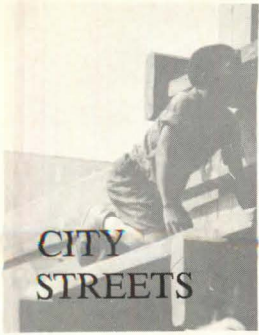
new direction for the profession. It will also, as we discovered, help us from repeating some of the embarrassing mistakes we have made.

One of the interesting byproducts of these observations was a better understanding of how park benches are used. Lined up along the walks with formal precision as they are in most parks, they limit the conversation group to two or three people sitting next to each other. In this situation, the octogenarian in a wheelchair becomes a social lion, facing an audience of five or six people and wheeling on to the next group when he has exhausted his gossip. In the only instance we saw where the benches were movable, they were definitely not lined up. Like children's jackstraws, they were abandoned in the haphazard patterns that precisely reflect the way people normally position themselves when conversing.

These two patterns, the formal lines along the walks and the casual disarray of the movable benches, seem to sum up the problem nicely. One reflects some designer's sense of order, the other the random pattern of actual human intercourse. Perhaps we need to reconsider what purpose our patterns are intended to serve.

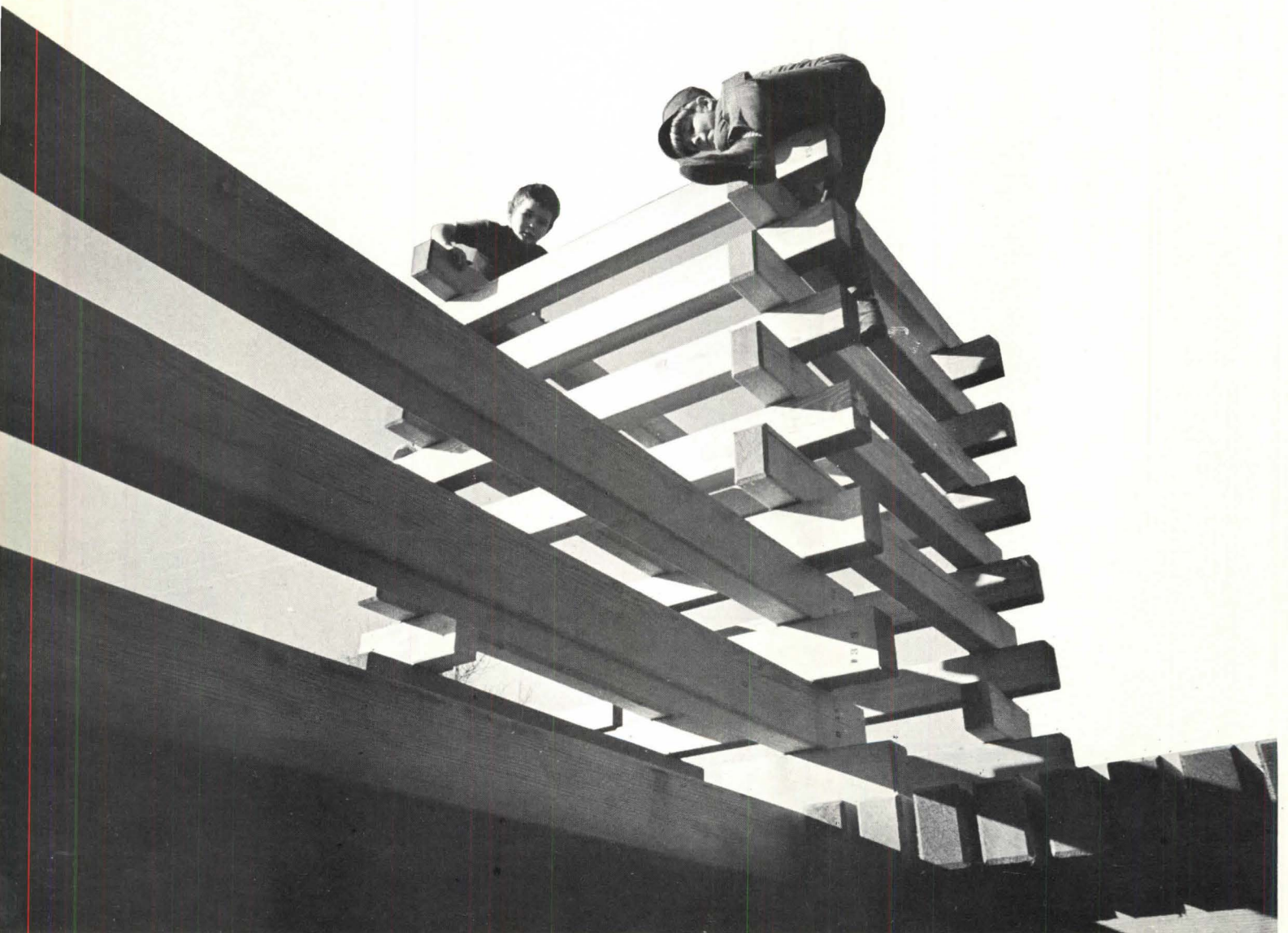


Lincoln Savings Bank on Wilshire Boulevard in Los Angeles (Deasy & Bolling); a plan study (above left) of the plaza without benefit of observations from people-watching and (right) with elements and characteristics revealed from the study incorporated. One important factor — besides the conversation-piece fountain — is that the plaza has no large unshaded areas (center). The toucans in their cages are an attraction, so is the Translux projection of the Dow-Jones news tape.



CHOICES FOR CHILDREN TOO

Three authorities have recently published books on creative play areas for children. Something of what they say, aimed at heightening experience and increasing enjoyment for the urban child, is suggested in the implicit hope that the books will be read in their entirety.



There was a child went forth every day,
 And the first object he looked upon, that object he became,
 And that object became part of him for the day or a certain part of the day,
 Or for many years or stretching cycles of years.
 . . . These became part of that child who went forth every day,
 and who now goes, and will always go forth every day.

These lines by Walt Whitman were written long before the word "environment," whether applied to physical or social conditions, became so much a part of everyday vocabulary.

Among the authorities who have given a great deal of thought to a child's surroundings is M. Paul Friedberg, landscape architect and urban designer. Second to his home, he says, the public environment influences a child, "for the city child spends nearly as much time in his early years in the playground and street as in his home." Unimaginative and destitute playgrounds and streets filled with dangerous traffic deprive the child and limit him. The results are detrimental to society. "Childhood — with its work and play inseparable — is a time for nurturing intellect and molding personality, for developing potentialities, for discovering life and experiencing it. Limit the experience and the child is limited; limit the child and the adult is limited. The child is truly father of the man," writes Friedberg in his manifesto on urban recreational environment *Play and Interplay* (Macmillan, 1970).

In another of his works, *Playgrounds for City Children* (Association of Childhood Education International, 1969), this "generalissimo of the tranquil war of the playfields," as Friedberg has been called, writes that playgrounds came into being in the 19th century when the cities became more densely populated and open space was less available. Cities and society have changed considerably since that time, but playgrounds have progressed little. "We have standardized the elements into a square of sterility."

Richard Dattner, AIA, designer of the acclaimed adventure playground in New York City's Central Park, agrees. In his book *Design for Play* (Van Nostrand Reinhold, 1969), he comments: "The typical New York playground (which is typical of 99 per cent of all the playgrounds in the United States) could not be a more hostile environment for children's play if it had been designed for the express purpose of preventing play. Characteristically, it is an unbroken expanse of concrete or asphalt pavement, punctured by the forlorn presence of metal swings, a slide and some seesaws."

But a child learns even on a poorly designed and sterile playground. "They learn first," writes Dattner, "that they do not matter as individuals but only as a group whose needs for play facilities must be met even though in the most minimal way. They learn that they can have no constructive effect on their fixed and immobile environment; they can change it only in a destructive way. . . . They learn that the man-made world is dull, ugly and



Physical challenge is a vital part of a child's play. Friedberg provides for it in the multifaceted environment of the playgrounds in Ridgefield, Washington, (across page) and in Hayward, California (above).

dangerous, and empty to sensuous satisfactions; that civilization delights in reducing the varied potentials and unique qualities of individuals to a pattern of uniformity."

In the past, city children played constantly in the streets outside their homes; many still hazard automobile traffic to play there. With playgrounds being what they are, it is little wonder that the child prefers to be where he is not caged in like an animal in the zoo even though the urban environment is hostile. The street once had a social function. Arvid Bengtsson, parks director for Gothenburg, Sweden, makes this point in his book *Environmental Planning for Children's Play* (Praeger, 1970). "The street," he writes, "has been the unifying factor, giving a



New towns can plan for play areas in advance. In Tapiola, Finland, designers have made a place for children to wade and to float things in water. Even in the crowded inner city, spaces must be made for play. Friedberg affords New York children a simple pleasure long dear to rural children — swinging in an old tire (above right). With springpads for the play area in Hayward, California, he extends the capabilities of the child beyond the motions of jumping and running.

sense of belonging and security against other children of other streets. The children of each street formed a community against the world outside even if, amongst themselves, their solidarity could at times be rather doubtful." When a backyard was too small and when a child wanted to escape too much parental observation, the street offered a solution of where to play. "The street was part of the world at large," says Bengtsson, "and was a wonderful playground in many ways, and it is obvious that somehow we must replace what has been lost."

If we want to move children away from the dangers of city traffic in the streets to safer playgrounds, we have two choices, according to Bengtsson: We move the traffic and street parking and let the streets resume their former function or we create conditions for a new community play area away from the streets. Traffic segregation is all well and good in new towns, redevelopment projects and new apartment complexes where safe play areas are planned in advance, but what about the child who lives in the city where such amenities are not presently provided? What then replaces the old street use? Future plans do not relieve a city of present obligations to its children.

One solution is offered by Peter Aschkenasy, former deputy of parks commissioner of New York City and now president of Playstreets, Inc. He calls for a mandatory requirement of all demolitionists of buildings in residential areas of a city. If new construction is not started within one year, a city should demand that a temporary playground be furnished for the community's use. We usually get one more parking lot, he says, when the community and its children need so much more. "With such a time limit on construction, we'll either get needed housing quicker or a threefold increase in desperately needed play space for children," Aschkenasy declares.

Meanwhile, where does the urban child play? In the past, city authorities have usually taken a space, fenced it off and put up signs saying, "No dogs allowed; no bicycle riding; no roller skating." No fun. We know it's a playground, says Friedberg, "because of its sterility and seal of authority." But every urban environment has leftover spaces for play — backyards, empty lots, dumping places for cars and assorted trash. No matter how crowded the city, we *can* find possibilities for turning alleys and vacant areas — those wastelands — into a playground, a place where children can interrelate with each other and benefit from mutual experiences and shared tasks. But more is needed; an entire change in the attitude of the city to its citizens is demanded. Today we are provided with only the minimal recreational facilities by cities, and the best of those come from private citizens in spite of public agencies. "Our attitudes concerning open space must change," says Friedberg. "Open space is not for leftover space, and recreation is not for the leftover time."

Children want to create their own playgrounds, says Dattner. If the child has a choice between a place designed for him by an adult and the more stimulating environment of the street, he will choose the latter. "Left alone," Dattner observes, "they choose an environment rich in experience — experience over which they have some measure of control." But anyone in his right mind has to recognize that safety is an important factor as well and that some degree of intelligent supervision is mandatory. Dattner thinks that with proper supervision it should be possible to deliver a load of building materials to a cleared site and let the children make their own playground, thus reducing both costs and acts of vandalism.

Modular play equipment, requiring no foundation, can be quickly assembled and dismantled and transferred from one site to another. A lot as small as 20x75 feet can be converted quickly by unskilled labor drawn from the neighborhood itself into a play area. Design variations are almost infinite to meet the changing needs of children. A garbage dump, a vacant lot, can become a playground almost overnight. As Friedberg comments, an old tire hung from a tree has given endless hours of joy to rural children, but even in the city that same old tire hung substantially can provide a safe and happy social play experience.

Friedberg says that someday it may be the responsibility of the park agencies to dump a truckload of styrofoam in an area and let the children build what they wish. Or at other times a pile of wood or ropes or cables or boxes or a truckload of old doors from a building site might be provided. "No more static seesaw! No more immutable concrete turtles! Instead, a dynamic, ever-changing and exciting environment, one in which a child can participate. Participate, be involved with, contribute, learn. This may sound farfetched, visionary and utopian; the only thing that I find farfetched is the fact that it doesn't exist now."

Even the most recreationally enlightened cities, says Friedberg, have not begun to create a truly recreational environment, "because they suffer from the universal preconception that recre-



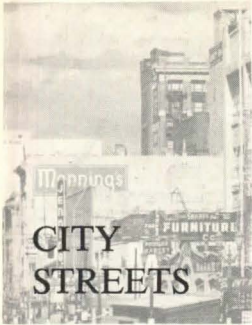
A playground can develop the imaginative and creative potentialities of a child. In lonely splendor, a child surveys the world and dreams in the Friedberg-designed play area for the Pruitt Igoe project in St. Louis (top). Richard Dattner's acclaimed playground on 67th Street in New York City gives the child many choices that help him to learn.

ation consists of 'facilities.' " A thousand basketball courts may produce some good basketball players, but they are not the answer to a teen-ager's real recreational and social needs. The "facility" approach serves only a fragment of a child's play requirements. "It is time to look at the whole subject with as few preconceptions as possible; it is past time when problems can be considered one at a time. . . . Recreation is very much a part of the total planning process and should be integrated with education, housing, commerce and transportation."

"The deficiencies of today's playgrounds," Friedberg comments, "as well as of the street and sidewalk, are most clearly defined when contrasting the activities of the child in a natural environment. For here he is exposed to a wealth of experience—stepping stones across a stream, a slide down or a climb up a hill, balancing on a fence, digging in the earth, climbing a tree, throwing a rock. In nature, the child doesn't need devices, for he manufactures his own interests from the wealth of resources at his fingertips. These resources have qualities—color, sound, odors, textures, heat and cold. He doesn't consider any spot as his playground; his playground is the world."

The Duke of Wellington is reputed to have said that the Battle of Waterloo was won on the playingfield of Eton, thus attributing a measure of England's greatness to ideals instilled while children played. It could be argued that the future of America will be determined by the way we design playingfields for our children.

M. E. O.



SIGNS OF THE URBAN SCENE

by ALAN LIDDLE, FAIA

Obstacles to good signage? Architects' ignorance, first of all, in taking signs into account during the preliminary design stages as a matter of course. There are others, but they could all be removed if architects, especially, would show more concern with the problem.



Cities should be rezoned, as far as I'm concerned, into sectors of good taste and bad taste with graduated categories of medium taste in between. The good, better and best taste zones would prohibit smoke, odors, noise and ugliness and would culminate in exclusive residential areas. The bad, worse and worst taste zones would permit varying degrees of ugliness plus increasing freedom from building restrictions and sign controls. These zones would grade from business to industry with ultimate abandon from any restrictions whatsoever occurring in the sector devoted to entertainment. What I'm going to talk about are the areas somewhere near the middle.

Excluding the exhilarating excesses of Times Square and Las Vegas (for a practitioner's view of the latter, see p. 64), most of our urban areas are comprised of ugly buildings with ugly signs on them. To narrow my subject even further, I must also include my opinion that most architects design ugly buildings but don't know it. Most architects, however, *do* know an ugly sign when they see one and could decrease the visual chaos of the neighborhoods their buildings are in by another approach to signage.

The conventional approach to the design of a building ignores any consideration of how the building is going to be labeled. This can be verified by the quantities of architectural renderings which completely avoid a solution to signs. To me, this is as dishonest as the "impossible view" in an architectural rendering, i.e., the proposed skyscraper viewed from a vantage point several hundred feet away, omitting all the buildings in between which will hide such a view.

The subject of signs on a newly designed building is usually introduced for the first time only after construction is underway. The architect will ask the owner (or vice versa), "What are we going to do about signs?" At best, the architect, if handed the responsibility, will follow the "good taste trend" and make a selection of individual letters which he will have mounted in one small line two-thirds up and one-third from the left of the plain blank wall nearest the entrance. At worst, several sign companies are approached (by the owner—to save an additional fee to the architect). Airbrush sketches are prepared by the artist on the company staff and submitted to the owner who usually evaluates them according to the accompanying price. The real tragedy is that the quality of these proposals is so bad—as it is with most free design services.

Another obstacle to good signage is the popularly held assumption that signs mean money. The manager of a thriving branch bank in a well-designed modestly identified building is begging the main office for more and bigger signs. Why? Are deposits falling off? Is business bad? Of course not; quite the contrary. But the new competing bank across the street is flamboyantly labelled, so doesn't that call for action?

A currently fashionable response to the bank manager's complaint may be seen in the super graphics fad, a solution often destructive of architecture. Bigger isn't necessarily better, but nowadays it isn't unusual to see an otherwise good building completely upstaged by its own sign. The need for better graphics is slowly being recognized by the architectural profession and perhaps the shock of super graphics is one of the reasons.

I believe the design of signs should fall within the scope of professional responsibility of the architect. This means that still

another consultant—the graphic designer—must become a member of the design team from the beginning. The amount of money normally budgeted for signs would be included in the estimated construction cost. The graphic designer would be paid by the architect from the architect's fee. Preferably this would be based on a lump sum or hourly rate, as the designer's contributions may not relate to an identifiable part of the project as does the work of some of the other consultants.

Preliminary design conferences attended by all members of the design team would include preliminary thoughts on graphics and signs. This could influence the initial design concept to the extent that, ultimately, graphics and architecture could become integrated. I can visualize the graphic designer pushing for a design statement strong enough that the building is readily identifiable without any applied letters at all. Perhaps his contribution to a concrete structure would be a bas-relief incorporating the name of the company, the address, its slogan and logo. This could be an exciting work of art if handled by a talented person. Even if his solution to building identification were only an applied sign, his knowledge of materials and methods, being beyond most sign companies, would result in solutions more ingenious and less costly than the traditional ones.

It seems safe to say that architects as a professional group are sensitive to the lack of good graphics in the American urban scene; certainly, at least, far more aware than any other segment of our society. Therefore, it behooves us to do something about this situation.

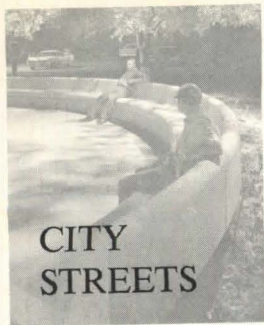
Obviously, the first place to start is in the architectural schools. The working together on a project of students from different design disciplines would instill knowledge of the need for graphic consideration in the initial conception of the project. This approach is beginning to be used in the schools, and students are far more aware of graphics than they used to be—maybe even too much so.

Anyone who has been to Europe is aware of the neatness, order and sense of scale with which signs are used in shopping centers and on facades of highrise commercial buildings. A second direction, then, would be the encouragement of correlating neighborhood signing programs. To a certain extent, this must be preceded by a strong sign ordinance. But, more important, there must be an awareness on the part of the involved design team who must size up the existing situation before making the decision which either permits their building and signs to relate to the neighborhood or to contrast with it, be it for better or worse.

A third direction would be the encouragement of national institutions, both public and private, to simplify and standardize their signing programs. Consistently good letters, even though repetitiously used, contribute positively to an enhancement of the scene. The Interstate Highway Program is a good example of consistency as an attribute. Can you imagine the series of jolts to the nervous system that would occur if there were local control of the design of freeway signs?

Signage as a form of pollution is certainly with us. Like the other forms of pollution, the solution starts by breaking the barrier of public apathy. That is the architect's role. □

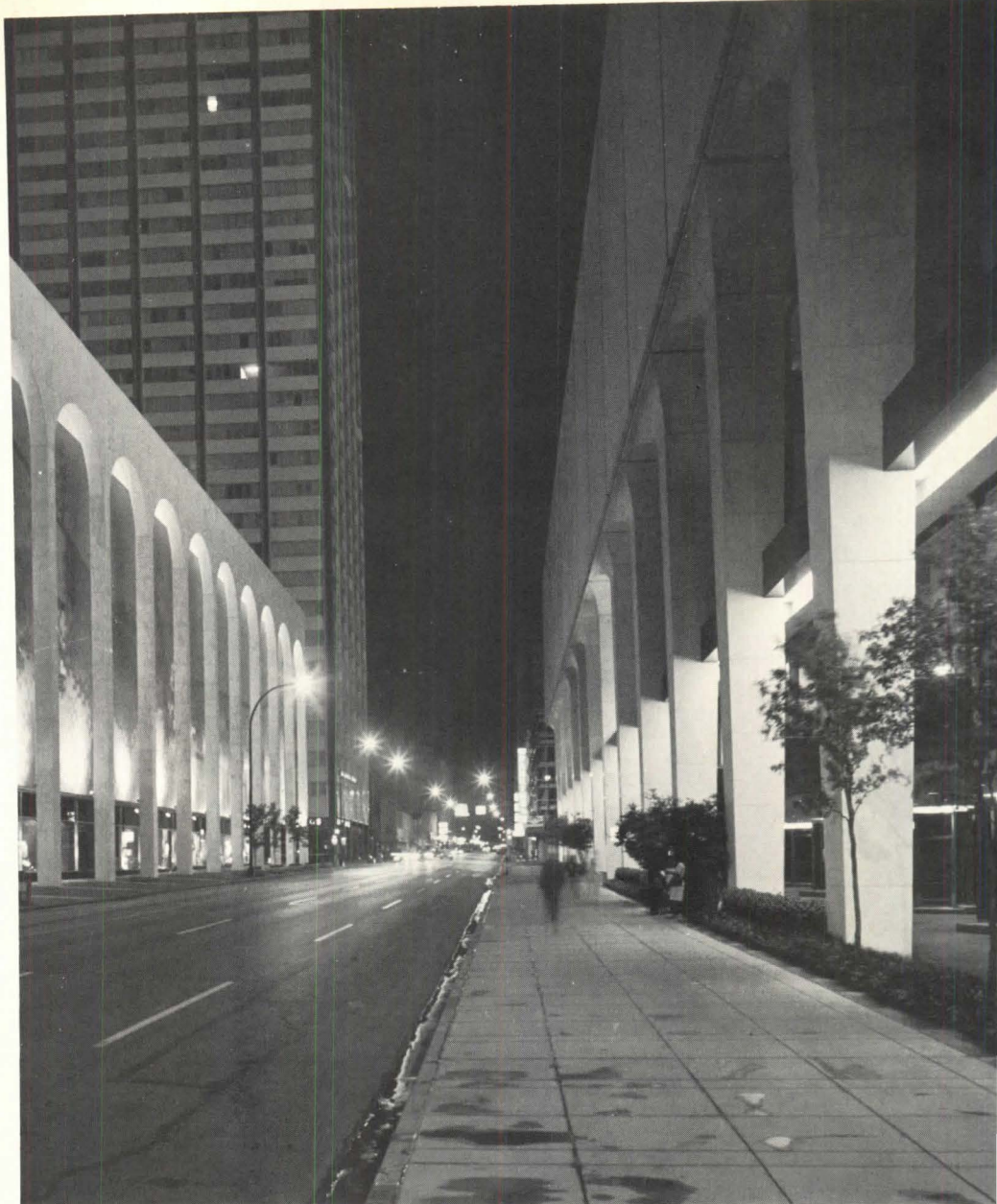
Mr. Liddle has his practice in Tacoma, Washington.



IN THE PROPER LIGHT

More important than the level of illumination is light's relation to the human dimension.

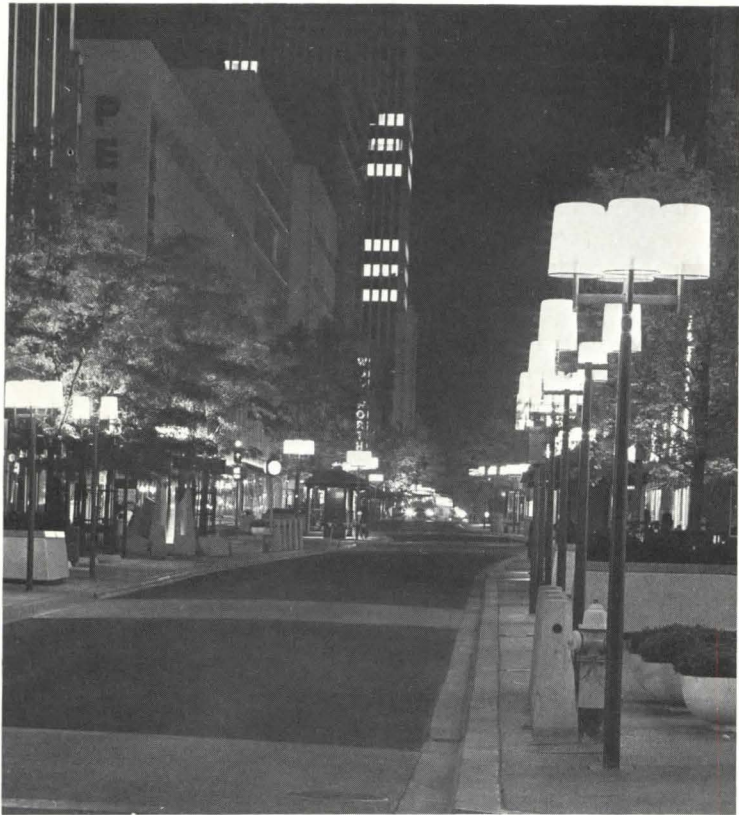
by TERRY K. MCGOWAN



By agreement with Dallas city officials, Sanger-Harris has installed a continuous row of two-lamp fluorescent luminaires around the building perimeter about 25 feet above the sidewalk (top right). Titcher's department store across the street lights the outdoor walkways with three tungsten-halogen lamps mounted behind each column. In another part of Dallas, Pacific Plaza (above) occupies a bit of otherwise unusable land — literally no more than a traffic island — lighted by John Watson.

The needs of cities require lighting for people as well as for vehicular traffic. Lighting can help solve these critical problems:

1. **Safety:** The value of streetlighting on safety has been widely documented, but this factor is not limited to streets. It involves adequate lighting of sidewalks, parks, alleys, stairways and all people-oriented areas to reduce crime.
2. **Protection:** Lighting in and around stores, parking lots, schools, apartment houses, industrial parks and stadiums deters property damage and theft. New closed circuit television surveillance methods require light to insure their effectiveness.
3. **Identification:** Architects and urban planners want each city to portray its own visible identity and configuration. Signs meet part of the identification needs, but there is also an inherent identification function in floodlighting, landscape and accent lighting for streets and walkways.
4. **Attraction:** Lighting excites and attracts people to key areas of planned emphasis. It also serves to distinguish one business establishment from another, while adding individuality to the city's shape. Designers can use something as simple as a luminous panel to produce a gay and playful attention-getter for a drive-in eatery or, with redesign, to provide a dignified attraction to a stately civic building.
5. **Beautification:** The 24-hour-a-day activities of our current



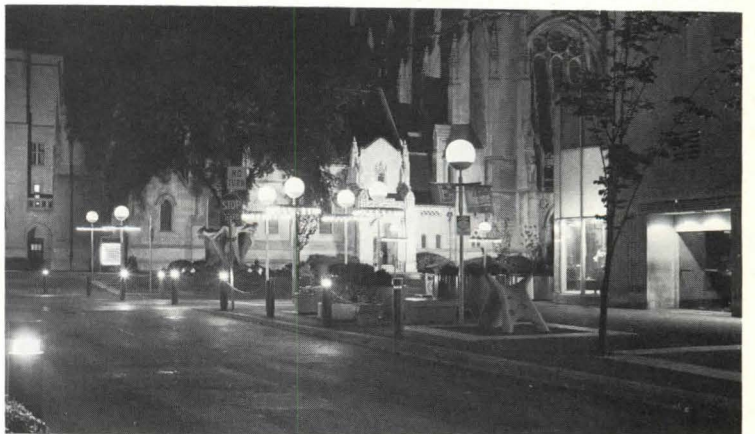
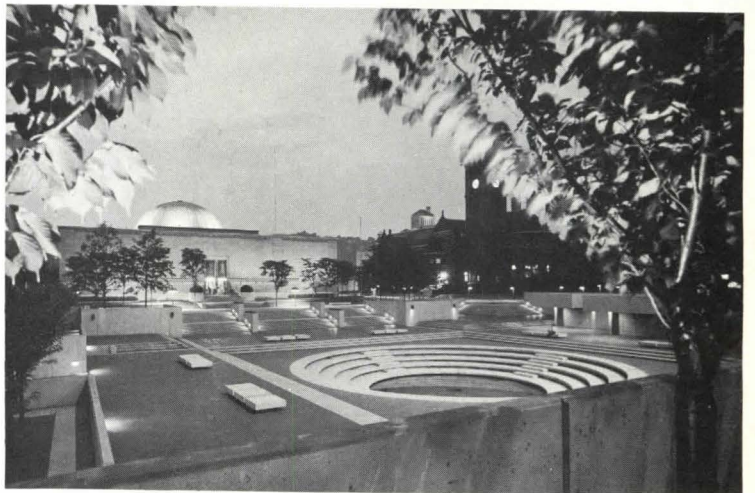
population have given more significance to the nightscape. At night, lighting can emphasize the positive in plantings, landscaping and architecture and de-emphasize the negative.

6. Unification: Preplanned lighting in a city can impart character, implement functionality and serve as a unifying influence on the city. It can help solve many of the crisis problems that have resulted from unplanned city growth.

When asked the questions, what is lighting supposed to do and how does lighting affect the cityscape, Ernest Wotton, lighting consultant of Ottawa, Canada, replies, "It should provide for ease of circulation within the city and that includes lighting for loitering. Reduction of lighting to a human scale does not mean evenly distributed illumination. It means that there should be pools of light to which people gravitate."

In narrow streets, the human or people lighting can come from spill from shop windows, from low mountings, or from light sources built into benches and other outside furniture.

Lighting for identifying and attracting is also necessary. A lighted structure can become a trademark, yet often consideration of nighttime appearance is forgotten until after the building



Store window illumination, uplighting of the trees and general area lighting from pole-top luminaires invite shoppers to Nicollet Mall in Minneapolis (top left). John Maguire has designed the lighting for two Pittsburgh projects: Allegheny Center Square (center) and East Liberty Mall (below) with its ballards, each lighted at the top with a small mercury lamp to give visual cues to the bus stops.

Mr. McGowan is with Lighting Development, General Electric Company, Nela Park, Cleveland.

is erected. Then odd patches of lighted windows convert an articulate form into a vague shape.

Structural inventiveness today offers architects greater opportunities for expression than ever before. However, the use of large glazed surfaces limits the use of floodlighting (the first and most frequently used building lighting method). Italian architect Gio Ponti has developed an approach to building design which requires the study of two designs for a building, one for day and one for night. In his *Second Aspect of Architecture*, both designs must be considered before the definite form of the building is accepted. In this way, the building's influence on the cityscape and on the adjacent streets is an integral part of its construction. Light forms a structural element of the building, and the results can be outstanding.

Light in the city should be used discretely. It may not be necessary, for instance, to light an entire structure to give it an attractive identity at night. Lighting of only a section of a church or store may do more to attract than could a large bright and stark surface.

Parks and pedestrian malls in the center of cities represent an extension of the city streets that can attract people to the areas. But there is more to park lighting than illuminating the public tennis courts or baseball diamond. The park should be used by many more people than those participating or observing the athletic events. Lighted walkways would invite usage by strollers and help identify the area.

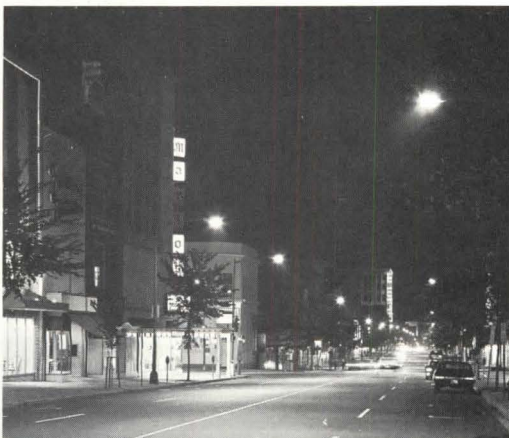
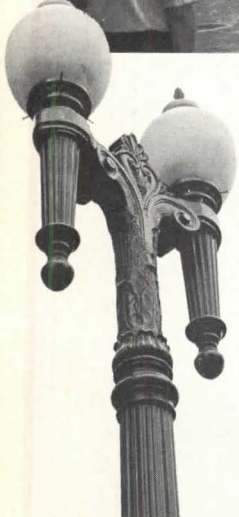
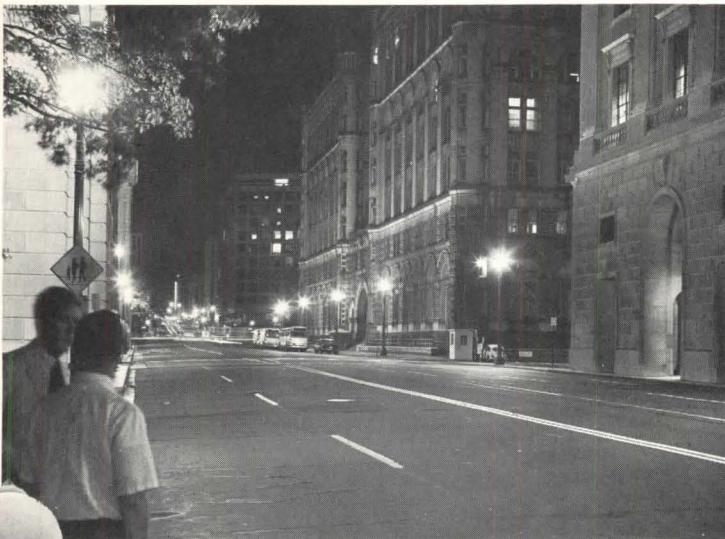
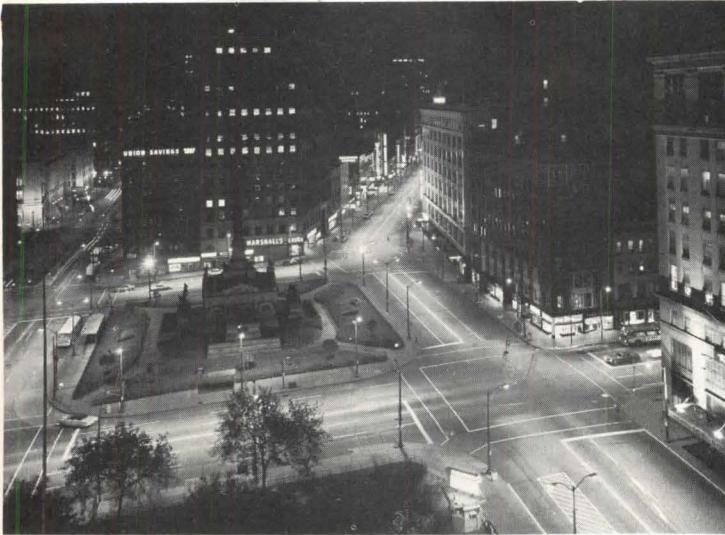
Park lighting should be unobtrusive and should show up the varying forms of foliage and landscaping. This technique can also be applied to lighting the landscaped center strips of boulevards. Landscape lighting should not endeavor to capture the daytime mood of the area. It should create a nighttime mood in which trees retire into mystery and water becomes calm.

Light can create a climax: to show up a monument as we come from a narrow street onto a great plaza to make it worth our while to stroll to the far end of a garden; to call our attention to a significant feature of the landscape; to create interesting reflections. Modern light sources enable us to do all this unobtrusively.

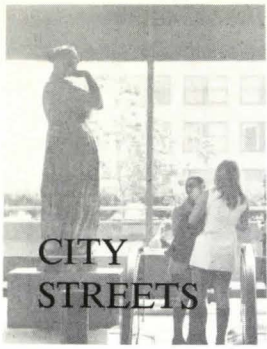
When designers had only incandescent light sources to work with, much of the esthetic potential of light was sacrificed to economy. New sources, principally the high intensity discharge (HID) lamps—mercury, metal halide and high pressure sodium—have altered this approach. For example, incandescent lamps produce light in the 15- to 20-lumens-per-watt range and have rated lives of 1,000 to 3,000 hours. Mercury, the oldest HID source, operates at 35 to 55 lpw and lasts more than 24,000 hours. Metal halide lamps develop 80 to 90 lpw initially and last as long as 10,000 hours. High pressure sodium lamps generate 117 lpw and have 15,000-hour lives.

The result: Designers can take advantage of the better economy of operation of HID sources. They can now afford to "waste" light in order to achieve a better visual result. Better refractor design, increased use of reflector optics, baffles and louvers, all of which absorb light, can help create a desired lighting pattern with significant improvement in brightness control of the luminaire and, hence, comfort to the nighttime viewer.

Variations in whiteness and color rendition of the new light sources also offer greater design freedom. Now, as with fluorescent lamps, designers can select an HID lamp which will enhance the specific material or meet particular human needs. New sources under development promise further improvements in color rendering and expanded offerings of "whiteness" to better fill these needs. □



Public Square in downtown Cleveland (top) is lighted with more than 100 400-watt sodium vapor lamps, increasing light levels up to four times over the old fluorescents. In the nation's capital (center and below), light levels have been tripled on two commercial corridors, with a reported reduction in crime of 25 percent in one year. A reflector system has been developed to enable the conversion of the historical "Washington globes" to high intensity discharge lamps.



A BRIEF FOR BEAUTY

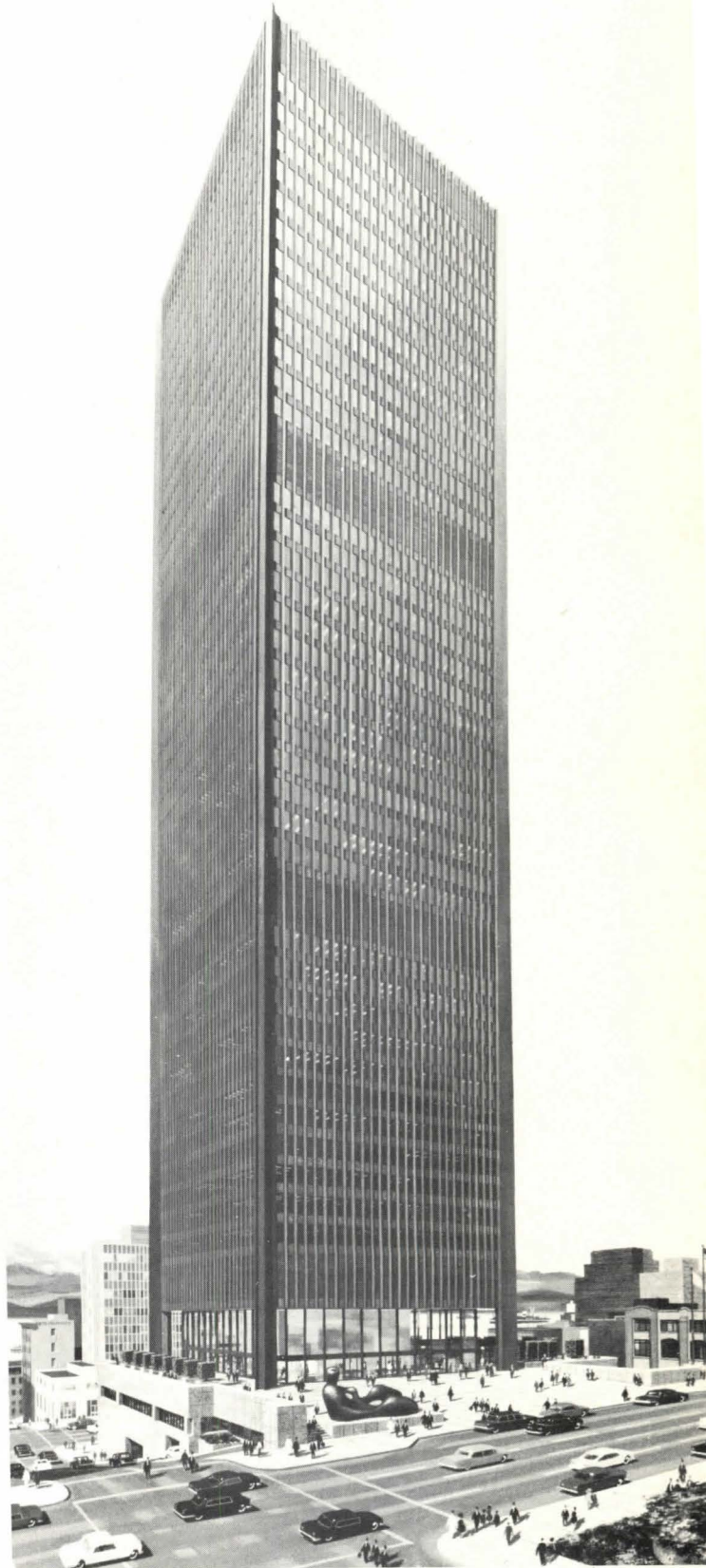
The energies of a great city generate creativity which sometimes finds expression in works of civic art. Such art is often found in the streets where it requires a response on the part of citizens.

Three American cities demonstrate ways in which art has been used to inculcate a pride of place and to create beauty for the enjoyment of pedestrians. Seattle shows how a single structure in a downtown location can take advantage of art to make the building an extension of the street. Philadelphia furnishes an example of the manner in which cooperative effort can contribute to the adornment of a great urban center, and Atlanta's Peachtree Center testifies to the fact that a large complex of buildings can be united through works of art to beautify a city's streets.

SEATTLE

Individual buildings in a city as well as great complexes can bring life and beauty to streets. In Seattle, architects Naramore, Bain, Brady & Johanson and consulting architect Pietro Belluschi, FAIA, designed the Seattle-First National Bank Building, a structure which integrates the interior with the street through the use of art. Trees, flowers, sculpture and fountains in the entrance

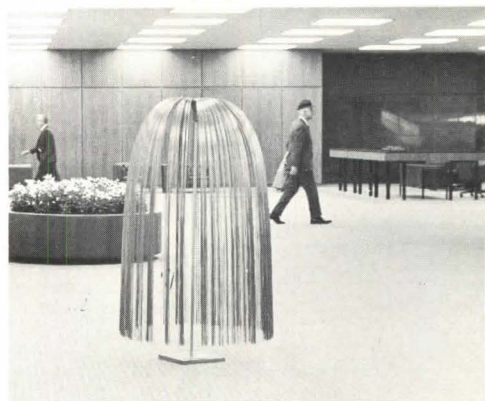
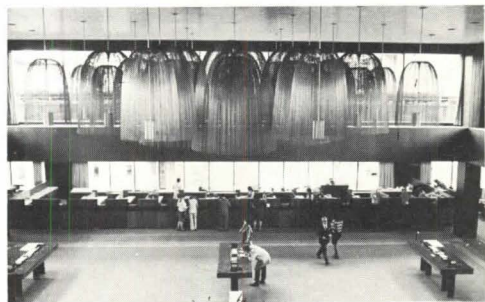
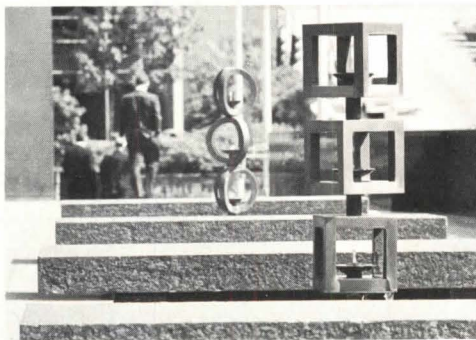
A model of the Seattle-First National Bank Building demonstrates the manner in which the street and plaza are united. Projected in the foreground is the site of a major work by English sculptor Henry Moore, scheduled to be mounted in the near future.



SEATTLE

plaza to the 50-story building combine to create a park in the heart of the city.

Seattle-First National has amassed over 200 major works of art, the first corporate collection of its kind in the area, which are placed throughout the 18 floors that the bank occupies. Larger works are located in the public banking area and the plaza. A veritable museum, the bank is open for conducted tours.



Artists from the Pacific Northwest and around the world have contributed to the beauty of the bank and its surroundings. The paving mural (above) by Guy Anderson is precast concrete in aggregate colors and textures. Subtle animal and bird forms adorn north plaza benches (left above), the work of James Washington. The bronze fountain (left below) is by George Tsutakawa. In the interior, Harry Bertioia's stainless wire bursts hang from the ceiling in symmetrical patterns; the standing floor piece is the artist's model.



In spring and summer, the green of plants and trees add a new dimension of pleasure in viewing Seymour Lipton's "Leviathan," mounted on the Penn Center Esplanade (above). Alexander Calder calls his steel stabile "Three Discs—One Lacking" (right). The giant statue of William Penn, seen in the background atop City Hall, is the work of Philadelphia-born Calder's grandfather, Alexander Milne Calder. Vincent G. Kling & Associates placed the sculptures.

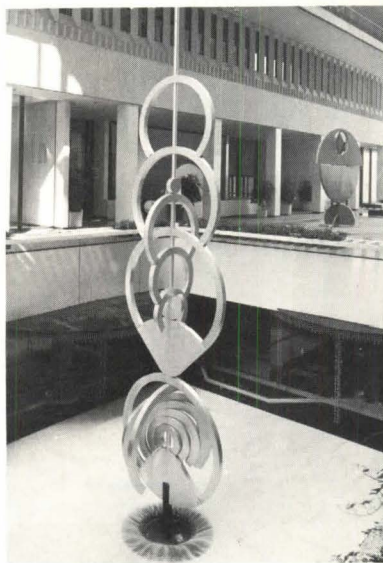
PHILADELPHIA

An interesting cooperative venture by federal and city governments and private business has brought urban quality to the streets near Penn Center. The National Endowment for the Arts offered the Philadelphia City Planning Commission a grant to buy sculpture, provided the funds were matched. Nineteen corporations which have offices in the center raised the money, and now the pedestrian can enjoy works by Calder and Lipton.





Appropriately named "The Renaissance of the City" is Belgian artist Robert Helmsmoortel's sculpture in fiberglass in Peachtree Center (above). Rising from the fountain of the Midnight Sun Restaurant (right) is Swiss-born Willi Gutmann's 2-ton, 35-foot tall anodized work "The Big One." Pedestrians enjoy provisions for their comfort as they sit in sun or shade and look at the art pieces.

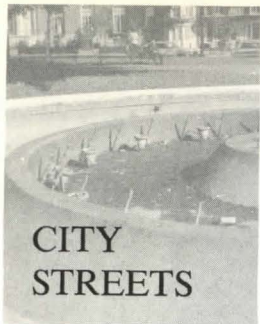


ATLANTA

The architect-developer of Peachtree Center, John C. Portman Jr., FAIA, endeavors to make the surroundings in which man works a place to stroll to sit, to enjoy sun and flowers and to linger. Through the use of fountains, art objects, music, trees and grass, a revitalization of the city street is brought about.

Peachtree Center includes two 25-story twin office buildings connected with skyline walkways, a 27-story office building, the Midnight Sun Restaurant, a 1,000-car parking garage, the 2-million-square-foot Merchandise Mart and the 800-room Regency Hyatt Hotel with a lobby that soars 23 stories to a skylighted roof.





CITY
STREETS

WHY NOT FOUNTAINS IN WINTER?

by JOHN F. FITCHEN III, AIA

With today's technology, it's possible to run them all year, even in northern climates. In winter, their frozen beauty, in endlessly fascinating forms, would add life to otherwise drab streets.

The design of fountains has undergone significant change in America in recent years: different forms, different emphases, different intentions. For example, the human figure has largely given way to abstract forms; asymmetry is now more common than symmetry; formality has been replaced, as often as not, by playfulness; monumentality has come to be discarded in favor of casualness, immediacy and the unexpected.

One of the features emphasized in fountains these days is the shapes created by water itself. With more dependable and more accurately adjustable nozzles, more controllable water pressure and the like, the shapes and forms of fountains can be created by water alone: Water itself is the material out of which the contours of expanding cones and morning-glory shapes and curving sheets of converging sprays are fashioned from myriad sparkling droplets.

Concurrently, there is more contemporary creativity with respect to the shapes of the permanent structure itself, quite apart from the translucent and shimmering forms imparted by the water. Two reasons for this new development come to mind. One is that these new shapes allow for, and even make a feature out of, the element of surprise, with free forms that permit water to flow or gush or spill over in new ways, from unexpected places and in broken, interest-capturing, irregular cascades. The second reason is that contemporary fountains are being created in new and unprecedented shapes; they are interesting and arresting in their own right even when the water is turned off and they are not activated by its eye-catching movement.

This latter consideration is a highly desirable development



For, so often in the past, civic and other impressive fountains that are located in northern cities subject to freezing weather have had to be boxed and boarded up within temporary protective housings. Wherever the climate has required them, these winterizing shelters obscure and obliterate both the general conformations and the details of the fountain, converting it from an expressive civic landmark to an out-of-season municipal blemish.

But with the technology available today, we no longer have to put up with this sort of conversion of the summertime's focuses of interest and common delight to boarded-up eyesores in the winter. It should be entirely possible to design fountains that continue to provide satisfying civic adornment throughout the months of freezing weather.

In this connection it is worth recalling the striking formations of frozen water that occur from time to time in the northern parts of the country in winter: great hanging masses of white ice caused by seeping water at the edge of a cliff; pendent rows of variously sized icicles glinting in the cold sunlight from the eaves of a building; greenish-white mounds of ice spreading broadly beneath a thin waterfall in a ravine; fantastic shapes of piled-up blocks of ice along a spray-drenched, windy lakeshore. Many of these ice masses survive considerable periods of thaw, melting quite slowly if the sun impinges on them only briefly. Even the occasional rains of an early northern spring fail to disintegrate their natural forms very rapidly, though their com-



plexion may change from crystalline translucency or a cold bluish cast to an opaque or milky whiteness.

Why not, then, create man-made designs in northern cities that can make use of ice as the element to bestow validity and interest on fountains even in the wintertime?

Such fountains would provide an opportunity for creating new and free forms — natural forms, it should be noted — that would never be quite the same from one winter to another. Sometimes they would drip from a delicate fringe of icicles. From time to time they would be capped with a fresh fall of snow; now and then they would glisten under cold, driving sleet. Sometimes their forms would be more massive than at other times, gradually changing from one day to the next as the weather affected the forms, taking on different lights and colors according to the temperature and the variable character of wintry daylight, melting away slowly in early spring into less massive shapes and contours but lingering on in slowly diminishing forms whose unpredictable reduction would only gradually come to reveal the conformation of the underlying permanent structure.

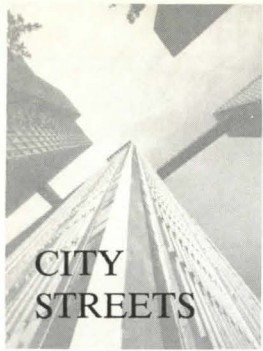
Of course, there would be numerous practical matters to be resolved; for one, the evident hazard of freezing and bursting pipes. It should be possible to prevent this, however, by coils or cables, perhaps by running an electric current through the exposed pipes themselves. The rate of water flow in the pipes, too, would have to be closely watched and controlled when the fountain first iced up, as well as at subsequent times whenever any additions or renewals of ice formed. Conceivably, this rate of flow could be automatically regulated in direct ratio to the prevailing temperature at the moment, i.e., adjusted to the rate at which the water was freezing. Correspondingly, drainage at times of melting would need to be kept operational.

The design of the permanent year-round structure of any fountain intended to function both in summer with running water and in winter as ice sculpture would require special and multiple skills in meeting both practical and esthetic requirements. A dominant consideration would be the positioning of the nozzle or other water outlets. It would no doubt be impractical, for example, to convert to winter use a fountain that featured one or more vertical jets in the summertime. It would seem that water for a winter fountain — i.e., one in which nature-induced free forms came to be fashioned imperceptibly out of ice — would normally require outlets at some level below the highest part of the permanent structure in order to keep these outlets free of capping, clogging ice. Instead of filmy, upward arching sprays made up of myriad tiny beads of water, solidified shapes of slowly accreting, pendent or jutting or downward-oriented masses would have to be planned for.

The real design triumph would be a fountain that was successful and expressive on three counts: 1) as a piece of three-dimensional sculpture in its own right, 2) as a summertime delight, based largely on splashing or spraying water, and 3) as a wintertime creation modeled largely by nature in massive ice.

Ruskin once referred to architecture as frozen music. Many people have objected to the adjective "frozen." But now we have the means to freeze the summertime music of fountains into forms no less eye-catching — perhaps even spectacular — that would be imposed by the rigors of a northern climate. The design of ice fountains would certainly require the close collaboration of artist and technologist. But such collaboration is part of the familiar scene today. □

Professor Fitchen is with the Department of Fine Arts, Colgate University, Hamilton, New York.



SIDEWALKS IN THE SKY

by JACK FRASER

Overhead streets and sidewalks are no new thing. Leonardo da Vinci is said to have worked out a scheme of elevated streets to protect the pedestrian from the weather, street vehicles and horses, and to unite buildings. Some 500 years later, American cities are trying to catch up with da Vinci.

In a growing number of American cities, architects are turning to the sky for deliverance from the snarls of the ground. Pedestrian crossings that arch buildings, span streets, separate vehicles from walkers and unite buildings or whole parts of cities above street level are completed, under construction or proposed in such diverse metropolises as Reno, Memphis, Nashville, Atlanta, Denver, Minneapolis, St. Paul, Cincinnati, Rochester, New York City, Washington, D.C., and Springfield, Massachusetts.

"Given an improvement in the economy and more mortgage financing for construction, we will see a tripling or quadrupling of elevated passageways in this country in the next 10 years," predicts Brock Arms, AIA, of Glencoe, Illinois. He was the architect who designed pedestrian bridges and walkways that will link 40 buildings in the Rosslyn complex at Arlington, Virginia.

Trends that are spurring construction of above-grade sidewalks are:

- A marriage of private owners and city planners to plan downtown renewal jointly
- Growing use of air rights
- Efforts to ease congestion on ground-level streets
- A tendency to treat urban developments as a superblock, district or zone instead of a collection of buildings which may not relate to each other effectively.

"Originally Arlington County looked at the pedestrian bridges as a solution to Rosslyn's vehicle and people traffic crush," explains Richard Arms, former county planning director and brother of the architect. "Now we see the overhead sidewalks as much more, as a unifying force, tying the development together, making it work." Arlington is using the same idea in its Crystal Mall office zone along Jefferson Davis Highway.

What these connections can do in reviving an older part of a city "is to provide a quick and easy way of overlapping the old with the new," notes George T. Marcou, a planning consultant who includes elevated sidewalks in his plans for Rochester, Nashville, Springfield and his home base, Washington, D. C.

Cincinnati, St. Paul and Minneapolis probably have the most extensive plans for elevated sidewalks. By 1973, the Ohio metropolis expects to have a 12-block second-story pedestrian concourse which will cost \$12 to \$15 million. Three blocks of the system are already built and a fourth is under construction. "Just like an octopus, the central spine will have legs and can

grow in several directions," points out Paul Ashworth, architectural graduate on Cincinnati's urban development department. The old river city "has a very narrow street system and a very compact business district." Thus the second-level sidewalks, which open to hotels, stores and parking, have great attraction, comments Willard C. Pistler Jr., AIA, who designed the Stouffer Cincinnati Inn that opens on the concourse. "We wanted to maintain this tight business area which brings convenience to office workers, shoppers and convention goers, and we also had to separate trucks and cars from pedestrians; so the concourse evolved," he explains.

Cincinnati and St. Paul are paying for the skywalks out of urban renewal funds. Minneapolis' extensive system so far has been purchased by private land owners and building developers. Other cities use a combination of public and private money, and all require some form of contribution from private owners.

St. Paul is organizing a 12-block downtown, second-level pedestrian system which goes to and through some key buildings. In 1968, the skywalk scheme received a national design award from the US Department of Housing and Urban Development. Including bridges and payments to land owners, walking above street level throughout the central business district will cost St. Paul from \$4.5 to \$5 million. Two of the skywalks are completed and two more have been started. "We look at them as normal sidewalks, as a public right-of-way, even though they're not at street level, and the city maintains them as it would sidewalks," says Donald W. Cosgrove, chief of planning for the city's urban housing-renewal agency. He says that the overhead sidewalk loop should be finished by the end of 1973.

Almost 10 years ago, Minneapolis started moving pedestrians through the Minnesota winters and above traffic by way of enclosed, heated street bridges. The passageways go to banks,



Overhead pedestrian bridges designed by Brock Arms, AIA, link buildings in the Rosslyn complex at Arlington, Virginia.

insurance office buildings, parking, shops, a large department store and a major hotel. The city now has seven skyways. "We could end with 55 street crossings," says City Engineer Clayton A. Sorenson. "The key is how you connect them. You have to go through buildings. You have to convince businessmen that the passages create new areas of rental space and higher rentals." Two of the bridges won a 1970 National Honor Award for design excellence from The American Institute of Architects for The Cerny Associates Inc. of Minneapolis.

Although the city has a skyway plan — charting where it would like the crossings to move — it does not demand uniform architecture. Each one is individually designed. At Rosslyn, St. Paul and Cincinnati, however, the overhead walkways share a common design. "My job at Rosslyn," recalls Brock Arms, "was to design a bridge which could be lengthened or raised, could link dissimilar architecture and still be simple and attractive." At St. Paul, Bruce A. Abrahamson, AIA, designed the exposed steel pedestrian concourse so it would appear simple and "universal to successfully connect buildings of various styles," says Cosgrove.

Pedestrian crossings can be used for more than movement, as evidenced by Florence's Ponte Vecchio. This bridge contained shops as early as the 1300s. Two service crossings astride Illinois tollway segments near Chicago have large restaurants as well as service stations. Between Denver's Hilton Hotel and May-DF department store a bridge supports a restaurant. Denver's new exhibition-convention hall is connected to its auditorium by a bridge which also offers a restaurant. Cincinnati's elaborate one-mile system of second-story sidewalks already invites strollers to a small, landscaped plaza atop a truck delivery depot.

At Reno, a three-story visitors center has been proposed which would span historic Virginia Street near the start of the Nevada city's tourist-gambling quarter. Urban design students from the University of California at Berkeley presented the concept to RENOvation Inc., reports Edward S. Parsons, AIA, one of the firm's trustees.

Elevated sidewalks are being planned in some cities as extension of platform development, which uses air rights. Memphis' 16-acre Operation Breakthrough site, where HUD and private companies will erect housing units as part of a nationwide drive to manufacture factory-built, quality shelter, is in a bowl, the location of old railroad tracks. Louisville architects F. R. Louis, AIA, and A. R. Henry, AIA, proposed elevated sidewalks which will carry residents from the platform over parking to recreation and transportation outside the bowl. George Washington University in the nation's capital will unite a new library and faculty office building over parking by means of pedestrian bridges which would be extensions of open decks. "It would be cheaper to close streets," admits Marcou, "but that can take a great deal of time and the effort often is not successful." He notes that these connections should be provided to maximize the movement and pleasure of people. He includes pedestrian bridges and walkways in plans for Bay State West stores, parking, offices and a motel in Springfield; in Rochester, to connect Midtown Plaza and Xerox headquarters to parking; in Nashville's model cities neighborhood; and in New Orleans to open the Mississippi River promenade to French Quarter visitors.

Atlanta's Peachtree Center has become perhaps the top tourist attraction by offering the public 766 feet of carpeted aerial walkways, including two that are 22 stories in the air connecting

the Gas Light Tower to the Merchandise Mart and the latter to the main center building. John C. Portman Jr., FAIA, expects additional walkways as Peachtree Center expands.

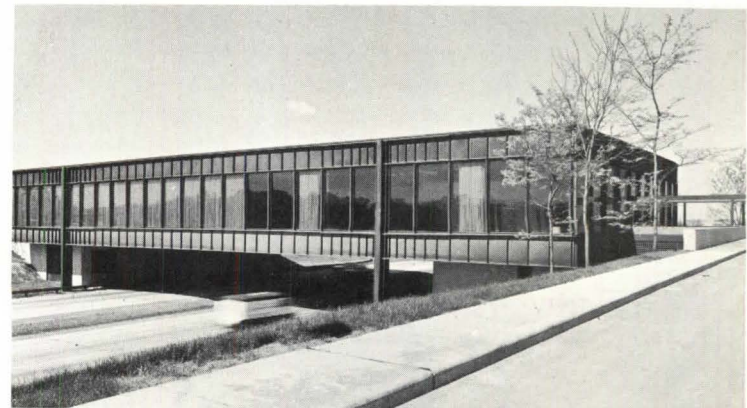
Cost of aerial walkways is but a small fraction of overall project costs, Portman explains. His crossings have ranged from \$10 to \$100 per square foot. The Rosslyn pedestrian bridges, from 12 to 15 feet wide and varying in length from 45 to 175 feet, have run \$75,000 to \$110,000. "The cost is really minute when you think of a \$5 million building," says Marvin F. Weissburg, key Rosslyn developer.

Minneapolis' skyways once cost around \$80,000 each. "Now they're running \$100,000, but some are costing double that because they're bigger and more intricately detailed," says Sorenson. Uncovered pedestrian bridges connecting to second-story platforms and plazas will cost George Washington University around \$15 per square foot, estimates Marcou. The elaborate 140,000-square-foot platform Marcou plans over Interstate Highway 40 in Nashville, including a pedestrian bridge, will run around \$27 per square foot, but "that's the social costs of poor original highway planning which displaced businesses and homes," he adds. Cincinnati figures that its concourse, which runs through alleys, costs around \$1 million per block.

"Building owners will have to install the walkways just like airconditioning," predicts Richard Arms. "They will become a necessity. The issue will become a matter of how well the sidewalks are treated, whether they are carefully thought out and designed." Brock Arms points out that "it does require official help from local government to make this happen. First, the great barrier between officialdom and private developers has to be overcome. The places where overhead circulation has occurred are places with aggressive architects and property owners."

New York City, for example, has few pedestrian bridges. Max O. Urbahn, FAIA, an AIA director, explains, "Manhattan is parcels of real estate — islands. This makes implementation of an overall plan which would include better pedestrian circulation difficult." The nation's biggest city is changing, however. Brooklyn redevelopment plans include provisions for skywalks and at least three new office towers in Lower Manhattan propose wide bridges at the second level.

"The problem is to get all 40 property owners at, say, a place like Rosslyn to behave like brothers," notes Richard Arms. He comments that it takes "a little government muscle" in the form of new zoning, tax incentives and a mix of urban renewal. "In the past," says Brock Arms, "we've divorced all these things — circulation, building, public services. Now we've suddenly got enough examples to see that the only way we're going to reinforce urban life is to integrate these systems." □



The Abraham Lincoln Restaurant Oasis, the work of David Haid, AIA, spans the Tri-State Tollway about 15 miles south of Chicago.

Mr. Fraser is assistant director of Public Relations at AIA Headquarters.

Electric Heating/Cooling System Selected for Virginia Holiday Inn



Vertical black anodized aluminum sections accent white brick exterior of the Holiday Inn at Rosslyn, Virginia.

PROJECT: Holiday Inn, Rosslyn, Virginia. **ARCHITECT:** Harvey L. Gordon, Alexandria, Virginia. **CONSULTING ENGINEERS:** Dollar-Blitz & Associates, Washington, D.C.

DESIGN CHARGE: To design a motor inn that would conform to a limited tract, yet would provide 185 guestrooms, public dining and recreational facilities, and parking for 260 automobiles.

DESIGN RESPONSE: Architect Harvey L. Gordon's solution to the narrow, sloping site is an 11-story structure of white brick accented by vertical sections of black aluminum. The first three levels of the motel are given over to a spacious lobby, kitchen, banquet room, and large multi-purpose room used for social and recreational activities. A glass-enclosed restaurant extends 200 feet across the front entrance at the third floor level. Administrative offices take up part of the fourth floor and the motel's 185 guestrooms are located on the fourth through twelfth floors.

Surface parking for 30 vehicles is provided at

the front entrance. A parking deck at the rear accommodates 50 cars and inside parking for 180 cars is provided on the first two levels at the rear of the building. An outdoor swimming pool and bathhouse are at the left of the main entrance.

All of the guestrooms are conditioned by individual through-the-wall electric heating/cooling units. Six packaged water-cooled air conditioning units, ranging from 5 to 15 tons and equipped with strip heaters, serve the restaurant and other public areas of the motel through zoned ducted systems. A single cooling tower handles all condenser water. Baseboard heating units provide supplementary heating in the restaurant.

The electric system was selected because it would provide maximum flexibility at minimum cost based on the results of a feasibility study which indicated that the electric system would cost less to buy and install than an equivalent system using a flame fuel for heating and would easily provide the desired supervisory control of occupied/unoccupied conditions in the guestrooms.

Gentlemen:
 Please send the complete series of Electric Heating
 Case Histories as they become available
 to me at the following address:

Name and Profession:

Firm, University or other affiliation:

Address:

Zip Code:

- 1 CATEGORY OF STRUCTURE:**
 Motor Inn
- 2 GENERAL DESCRIPTION:**
 Area: 125,015 sq ft
 Volume: 1,017, 386 cu ft
 Number of floors: 11
 Number of occupants: 800
 Number of rooms: 185 guestrooms
 Types of rooms: guestrooms, banquet room,
 lobby, kitchen, offices, restaurant, bathhouse
- 3 CONSTRUCTION DETAILS:**
 Glass: single
 Exterior walls: 8" brick and block; U-factor: 0.33
 Roof and ceilings: built-up roof on 1" rigid insu-
 lation (R = 4) over concrete deck; suspended
 gypsum board ceiling; U-factor: 0.20
 Floors: concrete slab with vinyl tile or carpet
 Gross exposed wall area: 37,900 sq ft
 Glass area: 12,760 sq ft
- 4 ENVIRONMENTAL DESIGN CONDITIONS:**
Heating:
 Heat loss Btuh: 2,170,000
 Normal degree days: 4224
 Ventilation requirements: 12,000 cfm
 Design conditions: 0°F outdoors; 70F indoors
Cooling:
 Heat gain Btuh: 2,700,000
 Ventilation requirements: 12,000 cfm
 Design conditions: 95F dbt, 78F wbt outdoors;
 75F, 50% rh indoors
- 5 LIGHTING:**
 Levels in footcandles: 20-50
 Levels in watts/sq ft: 1-2
 Type: fluorescent and incandescent
- 6 HEATING AND COOLING SYSTEM:**
 The guestrooms are conditioned by individual
 electric through-the-wall heating/cooling units
 with integral thermostats for room temperature
 control. Six packaged water-cooled air condition-
 ing units, ranging from 5 to 15 tons and equipped
 with strip heaters, serve all of the public areas,
 including the restaurant, through zoned ducted
 systems. A single cooling tower handles all con-
 denser water. Baseboard heating units provide
 supplementary heating in the glass-enclosed
 restaurant.
- 7 ELECTRICAL SERVICE:**
 Type: underground
 Voltage: 120/208v, 3-phase, 4-wire, wye
 Metering: secondary
- 8 CONNECTED LOADS:**
- | | |
|-------------------------------|----------------|
| Heating & Cooling (300) tons) | 980 kw |
| Lighting | 170 kw |
| Cooking | 40 kw |
| TOTAL | 1190 kw |
- 9 INSTALLED COST:***
- | | | |
|--------------------|--------------------|----------------------|
| General Work | \$1,201,000 | \$ 9.70/sq ft |
| Elec., Mech., Etc. | 499,000 | 3.98/sq ft |
| TOTALS | \$1,700,000 | \$13.68/sq ft |
- *Building was completed 8/65

- 10 HOURS AND METHODS OF OPERATION:**
 24 hours a day, seven days a week.
- 11 OPERATING COST:**
 Period: 10/12/68 to 10/14/69
 Actual degree days: 4101
 Actual kwh: 2,980,700*
 Actual cost: \$43,950.34*
 Avg. cost per kwh: 1.47 cents*
 *For total electrical usage

Billing Date	Degree Days	Demand	kwh	Amount
11/13/68	296	391	185,500	\$ 2,962.59
12/13/68	620	391	256,200	3,605.57
1/15/69	1049	666	372,300	4,661.33
2/14/69	822	630	303,700	4,056.13
3/18/69	836	594	321,500	4,256.30
4/16/69	338	468	176,200	2,948.37
5/15/69	125	414	162,000	2,836.24
6/16/69		504	234,900	3,790.81
7/16/69		576	262,100	4,206.36
8/14/69		558	257,200	4,135.42
9/15/69		522	279,000	3,752.38
10/14/69	15	486	170,100	2,738.84
TOTALS	4101		2,980,700	\$43,950.34

- 12 FEATURES:**
 All of the heating/cooling units in the guestrooms
 are wired into a central control panel. At this
 convenient location, the equipment in any room
 can be deenergized when that room is unoc-
 cupied so that unnecessary heating or cooling
 is eliminated.
- 13 REASONS FOR INSTALLING ELECTRIC HEAT:**
 A feasibility study indicated that the electric sys-
 tem would cost less to buy and install than an
 equivalent system using a flame fuel for heating
 and would easily provide the desired supervisory
 control of occupied - unoccupied conditions in
 the guestrooms.
- 14 PERSONNEL:**
 Owner: Frank M. Perper
 Architect: Harvey L. Gordon
 Consulting Engineers: Dollar-Blitz & Associates
 General Contractor: Donahoe Const. Co.
 Electrical Contractor: Walter Truland Corp.
 Mechanical Contractor: George Warner
 Utility: Potomac Electric Power Company
- 15 PREPARED BY:**
 C. E. O'Daniel, Supervisor, Commercial Customer
 Dept., Potomac Electric Power Company.
- 16 VERIFIED BY:**
- Harvey L. Gordon*
 Harvey L. Gordon, AIA
- Murray Blitz*
 Murray Blitz, 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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Des Moines, Iowa Residence Featured in Record Houses
Architect: John D. Bloodgood
Roofer: Iowa Sheet Metal Contractors, Inc., Des Moines, Iowa



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Georgia State Hospitals safeguard with Sargent Maximum Security System



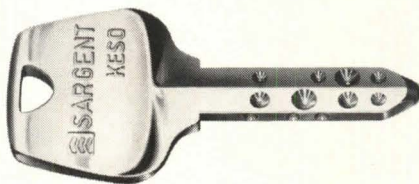
Jones & Fellers — architects and engineers.

The Georgia Regional Hospitals have an architectural design in common — a low cluster of buildings, rather than a towering, forbidding institution. This is the Augusta hospital which is typical.

The state of Georgia has just completed three regional hospitals in Savannah, Augusta, and Atlanta. They form the vanguard of 8 to 10 such hospitals, each designed to provide the best possible treatment for emotionally disturbed or mentally retarded patients.

Every one of the doorways in the three complexes is guarded by the new Sargent Maximum Security System lockset which operates only with a special key that cannot be duplicated on "corner-store" key cutting machines.

Analyzing the reasons for the selection of the Sargent system, William R. Scaife, manager of the architectural firm of Jones and Fellers said, "We looked over every advanced lockset system — but



couldn't find the same key control features that are available to us in the Sargent Maximum Security System. Its pick-resistance and the expanded levels of master keying are bonus benefits."

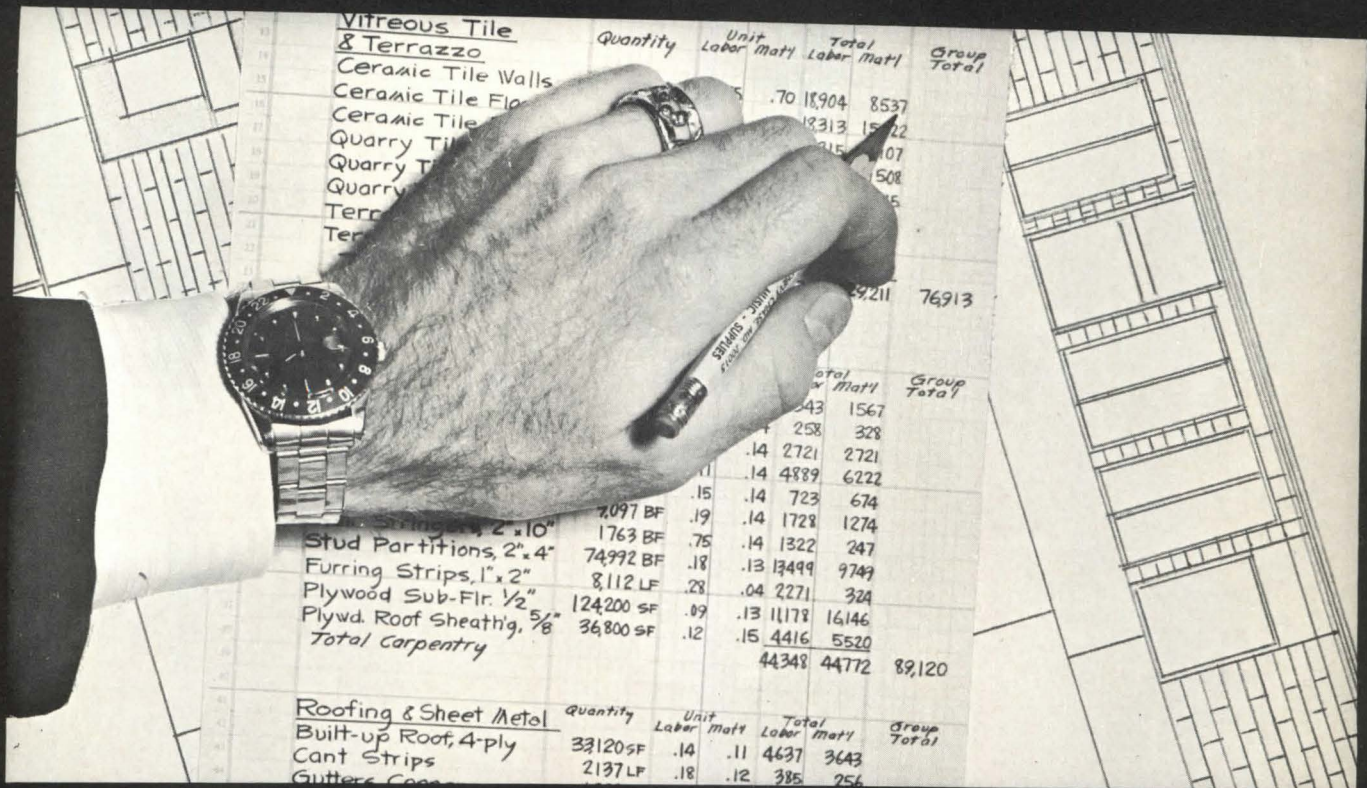
Other outstanding installations of the Sargent Maximum Security System include the Los Angeles County Medical Center at Olive View, the Loyola University Medical Center in the Chicago suburb of Maywood and the offices of the Secretary of Defense in the Pentagon.

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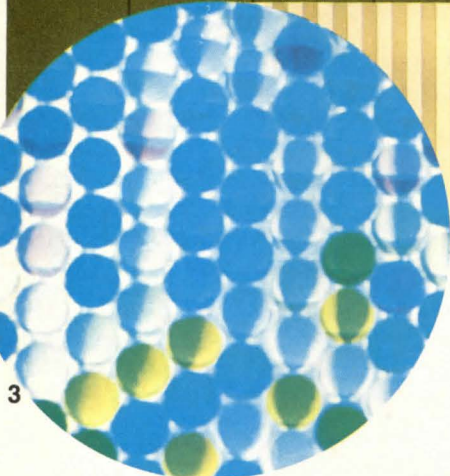
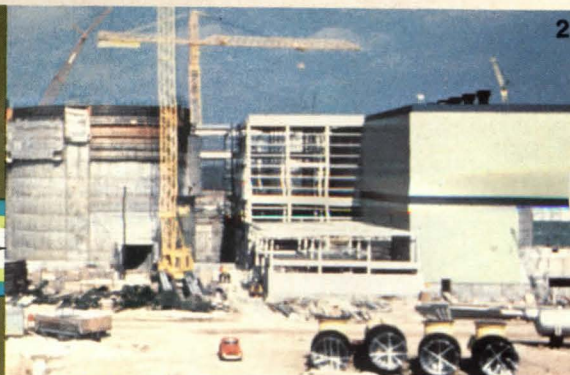
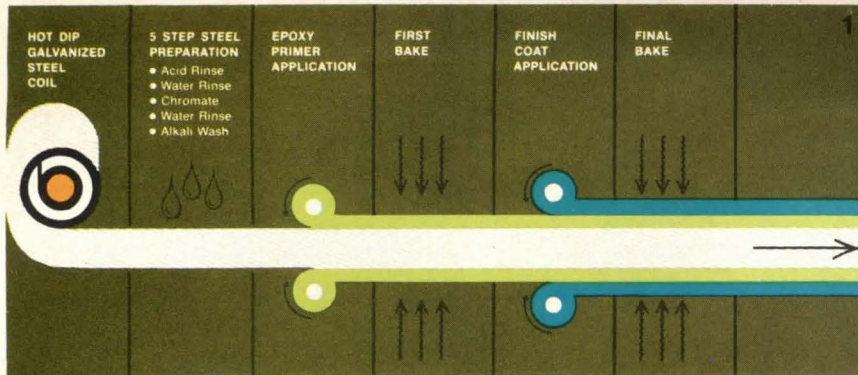
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This remarkable performance is due to a great extent to the Duofinish 500 two-coat process. (See process diagram in Figure 1.) The first coat, applied over chromated galvanized steel, is an epoxy primer, noted for its superior adhesion to the base metal. This primer forms a pliable film that stretches under impact and absorbs the stresses of forming. This second coat (polyvinylidene fluoride), available in a wide range of colors,

is an organic resin consisting of millions of microscopic particles that melt and fuse into a continuous finish. (This is shown in symbolic form in Figure 3.) *For details and full description of test data, send for the Duofinish 500 Catalog.*

Non-fade panels pay off on long term construction. Many structures, such as power plants (as shown in Figure 2), are under construction for five years or more. Produced with the highest standards of quality control, Inryco wall panels can be added to the structure throughout these extended periods without variations in appearance.

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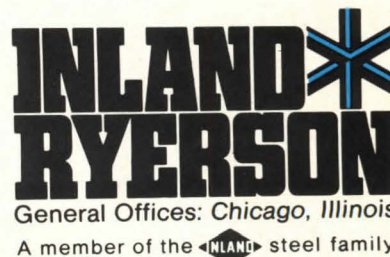
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In Defense of the Strip

Living with infamous signage? For sure. Life in Las Vegas is wholesome, no matter the gaudiness. Robert A. Fielden, AIA, who lives there and works there, explains why.

It is mid-October and as I sit here, poolside at the Tropicana Hotel, dressed in a light, short-sleeved pullover, sipping a cool drink on this 78-degree afternoon, I'm thinking to myself that living in Las Vegas cannot be all bad.

Now, I know that most people look upon our city as the den of iniquity, a town known for its crime and illicit morals. But while the nation still quakes from riots and crime, Las Vegas remains the friendliest, most hospitable city in our country, where children can play safely and where adults are secure when out and around after dark. This is the Las Vegas I know, but it is the city that very few visitors see. It's disappointing to us who live here that most people just whiz through town during the summer months.

Fall and spring are the nicest seasons here in the desert. Fall is now just underway, and even though the leaves on the trees have not yet changed color, desert flowers are starting to blossom. Soon the entire valley will be covered with gold. Fall flowers give way to tulips and daffodils. Winter, as such, does not exist. Spring follows right after Christmas and lasts until June.

The people in Las Vegas are a product of the natural environment. The town is a very casual community. "Howdy" and the hospitality of the old west still exist. Locals prefer to be known by their first names; business is usually secondary to personal friendship. Social institutions and establishments that have been patterned elsewhere over a period of time in more staid communities are virtually nonexistent in our way of life. Our society, in turn, is unique to others and may appear peculiar to some, but it is a product of the people and of the time and is responsive to the needs and desires of the community. Also peculiar, perhaps, is our acceptance of gambling.

Nevada, of course, has legalized and controlled gaming and, along with entertainment and tourism, it serves as the state's largest industry, employing more people and producing more tax monies than any other enterprise. The benefits that gaming has provided for this area far exceed the problems that it may have incurred.

Although gambling is our greatest attraction, it is not the only form of "recreation." Boating and fishing are year-round activities. Skiing is only 30 minutes away; some years the runs remain open through April. During parts of the year, it is possible to spend the morning on the slopes and the afternoon at the lake, basking on the beach, swimming, scuba diving, or water skiing. There are a multitude of other forms of outdoor recreation in our valley, too, and 11 of the local championship golf courses offer some of the finest play in the West.

By those who have visited the strip only, Las Vegas has often been described as a garish carnival filled with side shows, occupied by social outcasts. Art and culture are said to be nonexistent. Also, a great deal of architectural criticism has been cast upon our town and, I suppose, justifiably so. The irony of this, however, is that most of the Strip "architecture" has been imported from the center of our American culture and is the work of some of the more notable men in our profession. Residents privately admit that many of the inadequacies that are pointed out do exist and that it will require a considerable amount of time for the community to overcome the apparent cultural gap. But they also realize that Las Vegas is still a very young town and the cultural patterns that have taken a hundred years to evolve elsewhere cannot occur here overnight.

We do have a great deal of optimism about our future and the community is working toward some noble goals. From a "Checklist for Cities" program initiated by the local chapter of The American Institute of Architects, the city has undertaken a major urban redevelopment plan which centers around a new government, civic and social center. Neighborhood schools, under private individual financing, are establishing community school concepts. With this program, they remain open after hours and serve as community centers, with organized programs for

both children and adults. It seems notable, too, that a community that raises \$200,000 for athletic scholarships for the University of Nevada will also raise \$750,000 to help build a Fine Arts Center for the same campus.

We know that in time the face and character of the community will change and that our image will evolve as the community matures; but our lives will continue to revolve around the resort industry and the extravagance of the Strip which, although reminiscent of a Hollywood spectacular of the '40s, serves invaluable to fill a void in our American social system. It is an experience that few Americans find available at home.

Entertainment and the cost of having fun are not free, but because of the hotels' income from gaming the costs are well within the reach of millions of visitors who otherwise could not afford it. Our society, being what it is, limits real opulence to the financially select. That money barrier does not exist in Las Vegas.

Two years ago, architect/planners Robert and Denise Venturi, with a group of design students from Yale University, came to study the Las Vegas phenomena. The objective of their studio-workshop was to research the Strip, to analyze the urban form relative to its impact upon environment and to discover, in turn, what impact the environment has in producing an urban form.

Although the results of the study depicts the intense complexity of American society and projects the Las Vegas Strip as an art form in architecture, I think that the study more importantly may have — in touching upon a chameleon-type environment — uncovered an archetype quite significant to social value. If this is true and if society does someday elevate to a level that includes active participation by all and is flexible enough to meet everchanging needs, then the Yale study might be accurate in projecting Las Vegas a prototype of future American cities. And living there won't be bad at all. □



The joys of Las Vegas that few tourists know: golf on uncrowded courses, skiing, scuba diving.

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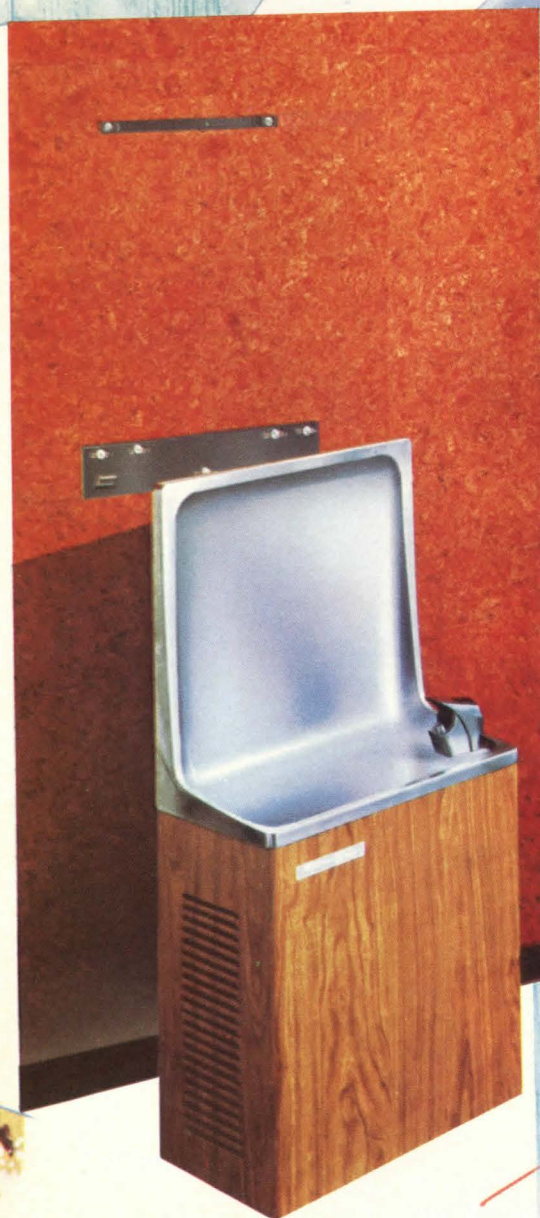
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NCARB Re-examines Its Exam

At its 1970 convention, the NCARB approved recommendations for new examination-registration processes for architectural students. Dean L. Gustavson, FAIA, immediate past president, here outlines their content.

One of the chief functions of the National Council of Architectural Registration Boards is to conduct studies of the examination-registration process and to report the findings to its annual convention. A fresh approach to this process, which included a liberalizing of NCARB and state board eligibility rules, the adoption of streamlined methods for achieving state registration and NCARB certification and an innovative examination procedure, was presented at the 1970 Boston convention by the NCARB Examination Development Committee.

The committee recommended the replacement of the current seven-part, largely technical examination by December 1972 with a new professional examination that will be administered to those candidates who have earned a degree from an accredited architectural school. For those students who do not have such a degree, a qualifying examination must be taken preparatory to the new professional examination. This procedure is clarified in the accompanying chart.

The rationale for this innovative procedure is based upon the recognition of professional education as providing those basic skills and the knowledge necessary to qualify a candidate to take a professional examination. The current seven-part examination developed in the need to test for mainly technical skills at a time when a majority entered the profession largely through an experience-only background, complemented sometimes by partial education but often with a lack of formal education and training.

Studies conducted over the past few years have proved that the quality of experience for the average college graduate was of varying value and sometimes represented a setback to the pace of professional development.

Even with this emphasis upon professional achievement and status through education, there will remain a small percentage of people who will continue to enter the profession with a variety of educational backgrounds, including partially completed degrees or non-accredited ones, and differing experience situations. Therefore, a qualifying examination will be available to those candidates with the

equivalent of eight years of education or experience. This examination will be available also to degree holders from other disciplines who enter the field of architecture by less than traditional paths and who have interested themselves in architecture by gaining experience and/or some architectural education. The qualifying examination will be a test to determine if academic knowledge and skills have been acquired equal to that of an architectural school graduate.

The report and recommendations of the committee were approved in Boston, and NCARB was directed to prepare models of these examinations and presentations for review at the 1971 convention.

The following outline is our present view of the content for the professional and qualifying examinations:

1. New professional examination: It is envisioned that this will be a test of professional judgment, emphasizing tactical considerations and decisions rather than technical ones. The examination will place the candidate in the role of an architect receiving the resource material for a major environmental problem. This resource information and problem outline will include also the many reports normally developed by associates and consultants. At the present level of our work—the concept level—we are looking to the design of an objective, multiple-choice examination in four test areas.

Test A. Management, predesign: team formulation, process determination, scheduling, budgeting.

Test B. Predesign: data collection, data analysis, problem definition.

Test C. Design: alternative concept analysis, concept selection, concept development, packaging.

Test D. Management, construction phase: control of costs, control of quality, control of time, control of changes.

This examination is envisioned as one relatively comprehensive in scope but not unduly long in time. It is believed that the examination can be accomplished in 12 to 16 hours. It is thought that by such an examination the

candidate will be tested in his ability to synthesize basic general knowledge of environment, human behavior, construction science, design and planning fundamentals, legal requirements, economics and management.

The emphasis will be upon the ability of the candidate to understand the implications of these tested areas and their relationships to practice and in turn to make valid professional judgments about how they influence environmental design. The present lengthy testing of technical material will not be included in the examination; rather, the new professional examination will aim to test the candidate's ability to use the outlines of technical information to arrive at practical solutions or strategies for solutions.

2. Qualifying examination: This will emphasize the testing for technical information and will draw largely upon the present test for its subject matter, although reorganized and improved in grouping and content. Briefly, this examination will be broken down into the following categories:

- Architectural theory: history and theory of architecture; principles of planning.
- Construction theory: building materials, building equipment, structural theory.
- Design: design and site planning.

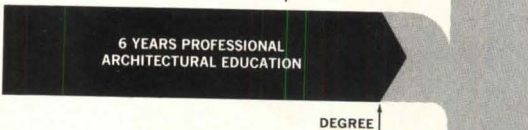
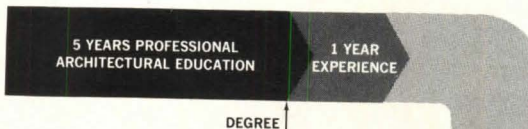
This will be a two-day examination.

Our view of the new examination process is not yet totally firm; our studies continue and we improve our ideas and our understanding. The coming year will bring further progress and we believe that by the time of the 1971 convention we will be able to present the first examination models for the new professional and the qualifying examinations.

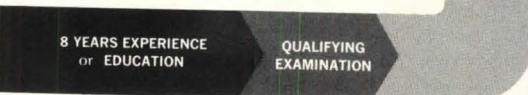
We are attempting to communicate across a broad area of individuals, groups, architectural schools and professional organizations. By an enlarged input to the study from these many sources we are optimistic that a new meaningful, relevant examination can be developed. In the spring of 1971, a major progress report will be published in the AIA JOURNAL to communicate to the profession the activities of another year. □

NCARB NEW EXAMINATION PROCESS

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Basketball Field House, in background, part of a new \$1.9 million Health and Physical Education Complex at Pan American College, Edinburg, Texas. Architect: Kenneth Bentsen Associates, Houston, Texas.

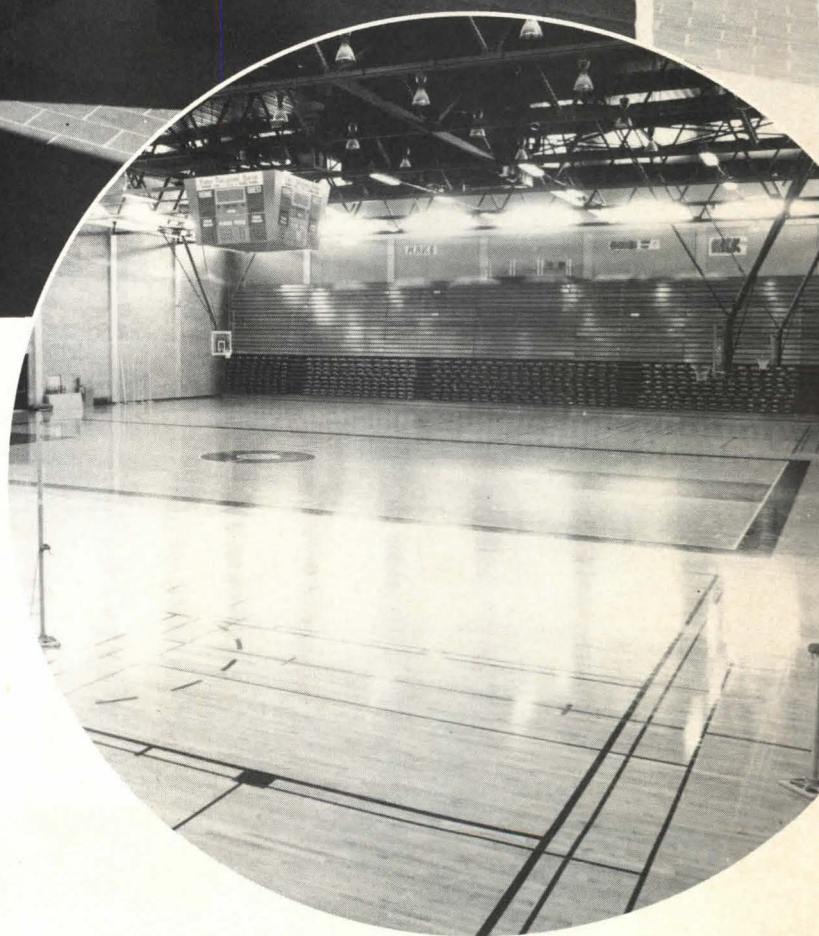
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Furnishing the City. Harold Lewis Malt. New York: McGraw-Hill, 1970. 254 pp. \$16.50.

The lack of an overall consistent pattern in the 20th century city has led to a greater awareness of the complete environment and of all the components which comprise this whole. Denser aggregates of mass-produced housing, fewer distinguished buildings and new sensory data focus attention on the parts and the adjustment of these parts to new needs.

Malt, a design consultant who specializes in comprehensive environmental programs, is primarily concerned with the "micro-architecture" of the city and its relationship to the user. Until recently, outdoor furniture in this country was more often the concern of irate motorists than the community at large. Consequently, the town was equipped with assorted "hand-me-down" pieces which multiplied with little regard either for performance criteria or appearance. In fact, the present array of street impedimenta from pavement pattern to skyline billboard is a glaring factor in the spiraling deterioration of urban areas.

Unlike some other works which treat the problem of outdoor fittings within the total urban matrix, Malt's book deals exclusively with the accessories of the city. This book is obviously expensive; stylish and traditional in format as well as in content. The range of illustrative material, serving as an accompaniment to the text, is limited in time and place, and the examples of positive planning are frequently commonplace. An attempt is made to provide a historical framework, but surely this is the book's weakest chapter. It is pop history at best: To speak of "urban renewal" in Renaissance Florence is relevance for its own sake; Haussmann was probably as concerned with riot control in 19th century Paris as with exciting vistas. Nor does the author credit the latter with his approach to the environment as a total organism. The prefect of the Seine viewed the city as a system, considering all the variables and alternatives in the context of social, economic and technological aspects.

Emphasis on the systems approach as a means of creating a more humane and workable urban environment is the main value of this book. As the products of a fragmented industry, the movable interlinking gear of the city has little to do with the people it serves. Although the author tackles such economic matters as cost/benefit formulas in the selection of public embellishments, his main interest lies in the esthetics of urban design—as good design is equated with optimal performance.

The blight of present-day city décor is

probably best treated in chapters concerned with "the density of products needed for traffic command, control, communication . . .": parking meters, lights, direction signals, signs. Shortcomings are cogently viewed in the treatment of redundancy (overdesign) to the point of chaos and confusion. Malt confirms what we feel by demonstrating how traffic signals originally designed for safety constitute "one of the most dangerous of road hazards," i.e., "communication overload" leads to withdrawal.

Technological assessment, often gleaned from the aerospace industry, may come to the rescue and put the current town paraphernalia at the service of the public at large, e.g., lights that are computer synchronized. Malt is eager to acknowledge our presence in the electromagnetic age and quick to embrace the impact of the behavioral sciences and the psychology of perception as determinants in the design of the environment. Scale is considered in systems layout and in urban lighting, but too little consideration is given to this factor as it relates to human functions.

The idea of furnishing the outdoors invokes inevitable comparison with the design of interior space: the walls and floors, the windows and doors of the city. In innumerable ways these may be used to enliven the street with texture and color or to unify varying elements. More emphasis might be given to the manner in which signs and signals might be converted via well-designed graphics into an evocative urban iconography—a rich means of effective communication. Creative possibilities for new types of civic equipment stress the transformation of the city into a work of living art, i.e., the merge of sculpture and painting into the cityscape whether for its own sake or for its practical usage in bollards, containers for flowers, provisions for resting and "natural" accessories of greenery and software to co-exist with the synthetic trappings.

City furniture must be designed in the



Scene of Buchanan's inaugural parade in 1857.

context of life, its moving and rhythmic qualities. The type of problem formulation advocated in this book encourages innovative proposals. Future solutions must embody increasing flexibility: modular architecture is a fact, as is built-in obsolescence. These movable components of the town should be expressive of an art and a life where all is in flux, allowing for multipurposes yet always geared to the visual enhancement of the city and scaled to user requirements. Malt recognizes the importance of details in the total urban design—that the whole is a sum of all the parts and that it is these parts (the fire hydrant as well as the flamboyant fountain) that he has compelled us to examine. New materials and technology must be enlisted to provide the unity and diversity, the excitement and the calm, the *putting it altogether* that we miss in the townscape.

NAOMI MILLER

The Avenue of Presidents. Mary Cable. Boston: Houghton Mifflin, 1969. 248 pp. \$10.

Mary Cable has written an interesting story of Pennsylvania Avenue. Her book traces the capital's ceremonial avenue from its beginnings under L'Enfant to the Pennsylvania Avenue Council's recommended plan for its ultimate development.

The avenue, as conceived by L'Enfant, was to have been a residential boulevard connecting the Capitol with the President's house. However, from its beginnings it has been flanked by residences, shops, markets, bawdy houses, saloons, gambling joints and casinos.

In 1850, Pennsylvania Avenue's south side was a place for God-fearing people to stay away from. To quote from the text: "If you venture on the south side of the avenue, watch your purse. . . . The north side of the avenue, separated from its deplorable other half by 160 feet of bad cobblestone paving, lived in another world."

Now the avenue's south side, in contrast with the bawdy houses, is a government row.

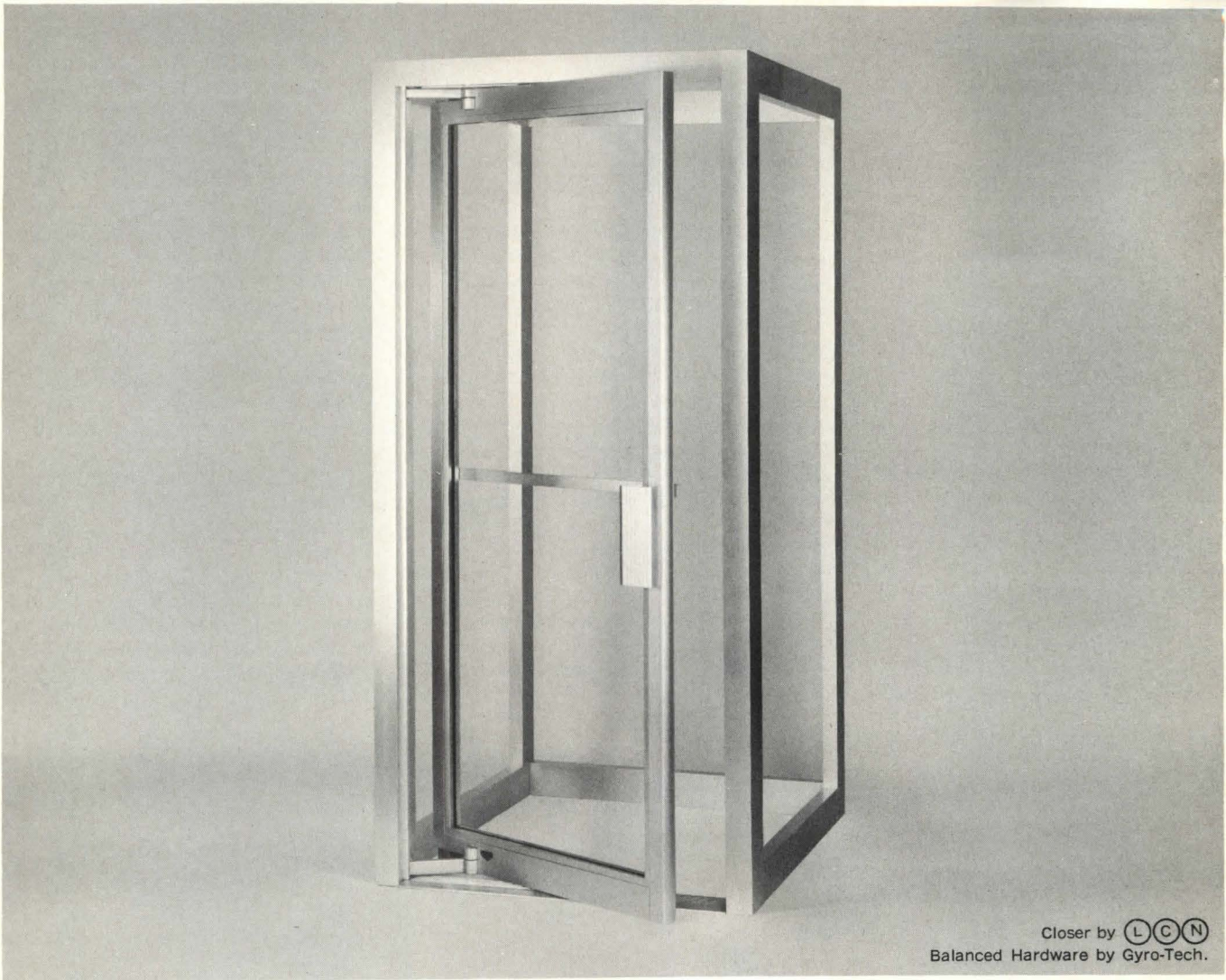
Thomas Jefferson and Boss Shepherd planted trees along its borders. Surfaces and pavings have run the gamut from dust and mud to wood block, to macadam, to cobblestones. New plans call for repaving and additional trees.

The Pennsylvania Avenue Council recommended that the avenue be widened and the north side arcaded. Strangely enough, the first to depart from the plan is the prime advocate of law and order. "In the autumn of 1967, J. Edgar Hoover suddenly announced that he would not countenance arcades on the street level of the new \$60 million FBI Building on the Avenue. Arcades, he said, would weaken the security of the FBI and provide hiding places for muggers waiting to pounce on female employees." Evidently what was once characteristic of the south side of the avenue is not to be the fate of its north side.

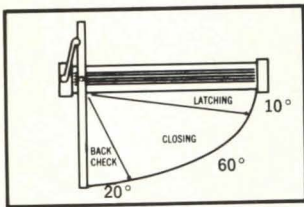
The book contains many historical tales and anecdotes about Pennsylvania Avenue and of its vicissitudes through national events of joy and sorrow, crisis, wars, suffragists and militants. There are numerous

continued on page 72

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general items of information and gossip for those interested in the history of our national capital. For example, "In 1832, Congress almost sold the mall for building lots."

Mary Cable has not worried about being thought shallow or afraid to introduce a few notes of humor. Her narrative, while geared to historical facts, is not dull. Her readers are bound to learn much of history without effort.

PAUL THIRY, FAIA

ED. NOTE: Saint Martin's College, Olympia, Washington, recently conferred the honorary degree of Doctor of Fine Arts upon Thiry, citing him for "his architectural achievements and his generous service on city, state and national committees and commissions."

The Early Learning Center, Stamford, Connecticut. Sherwood Kohn. New York: Educational Facilities Laboratories, 1970. 29 pp. Free.

The current tendency is to educate children at nursery schools rather than merely entertaining them. Most of the facilities for the education of the very young are remarkably prosaic, however. One exception anyway, according to the Educational Facilities Laboratories, is the Early Learning Center in Stamford, Connecticut.

Here, children enjoy scaled-down furniture and equipment in an open-plan building. The school's program is based on the Montessori theory of a prepared environment, and the building is designed to bring about situa-

tions where children teach each other, where teachers can give individual attention to the early learners and where large group activities can take place. The functional building cost \$14 a square foot, half the price of other schools in the same county. The architect is Egon Ali-Oglu, Cambridge.

Construction Management. Clarence J. Douglas and Elmer L. Munger. Englewood Cliffs, N.J.: Prentice-Hall, 1969. 201 pp. No price given.

A broad survey of the functions and responsibilities of professionals at the management level in the field of construction.

Employee-Employer: A Relationship in Transition. Edited by Don Chenicek. Washington, D.C.: Joint Committee on Employment Practices, 1970. 84 pp. \$5.

The Joint Committee on Employment Practices is composed of seven professional societies, one being The American Institute of Architects. For the past three years, the committee has provided a national forum for the discussion of the most recent information on professional employment. Here are the proceedings of the December 1969 conference where the focus was upon the relationship of the employee/employer. Included are papers by AIA members Paul D. Spreiregen, James Mawson, George E. Kassabaum, FAIA, and Robert J. Piper. An appendix to be noted is the Organization of Architectural Employees' "Guidelines for Minimum Standards of Employment."

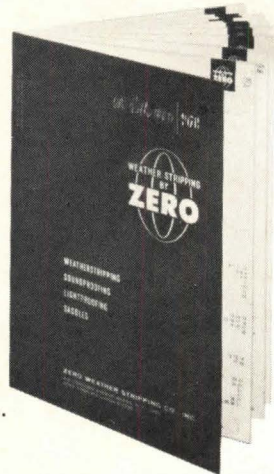
The Professions: Roles and Rules. Wilbert E. Moore. New York: Russell Sage Foundation, 1970. 301 pp. \$8.95.

Once the professional is defined, the author discusses his interaction on various levels—with his clients, his peers, his employers, his fellows in complementary occupations and the society at large. The final chapter is on knowledge and its responsibilities. Architects are not given much consideration per se. There is a statement that they "have yet to achieve a taken-for-granted status even for the minority custom-built residences"; that they have mainly wealthy or corporate clients; and that they "commonly bill clients for a percentage of the total construction costs of a building" and that "needless to say, this scarcely encourages the architects to recommend the lowest-cost constructor or to seek economical substitutes for high-cost materials."

Architecture in Northern Ghana: A Study of Forms and Functions. Labelle Prussin. Berkeley: University of California Press, 1969. 120 pp. \$8.95.

This is a pioneering work in the anthropology of architecture by an AIA member who until recently was a research fellow in architecture in the University of Science and Technology, Kumasi, Ghana. Mrs. Prussin has chosen six villages to study indigenous architectural forms and settlement patterns to illustrate the relationship between a society's culture and its manifestation in physical form. □

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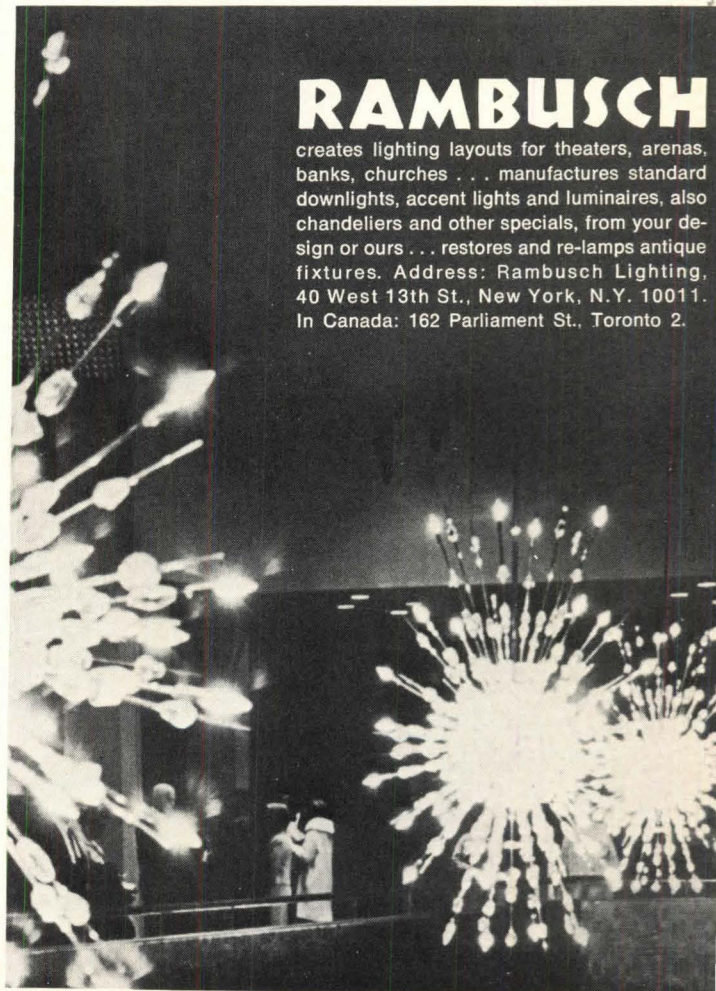


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letters

More Architects in the Political Arena

Mel Gooch's article on cementing relations with city hall in the October issue was both interesting and distressing.

As an AIA member and elected councilman of St. Louis County, Missouri, representing 1 million residents, I do not agree that "city hall" has a deaf ear to the people. Gooch's experience was enlightening to him because apparently it was his first encounter at dealing with elected officials. People do not need to "protest" to have reasonable and sensible changes take place. To be in a position of an elected official is far more rewarding and enlightening than sitting back and thinking that your vote is not heard.

It would be a great asset to our profession if more architects would take part in the political arena, using their knowledge and know-how to make our total environment more livable. Our government agencies need the help and support that the architectural profession can give.

It is always too easy to criticize through lack of knowledge and belief in half-truths. Reasonable men are starting to be elected into government offices, and they will always listen to reasonable requests. Gooch has found this to be true, and let's hope that some day everyone will realize this fact.

His experience is an example of what can be done if we just step up and are heard. The "silent majority" does not have to remain silent.

MILTON J. BISCHOF, AIA
St. Louis

Nursing Homes from a Patient's View

This letter is addressed to architects who design nursing homes to remind them of some of the patients' problems with the buildings that are erected.

More space is a vital need—space for living, not just existing. This includes space to do things and adequate, easy-to-reach and nonhazardous storage space for things to do them with. Space in the bathroom for privacy for wheelchair users. Even a bathroom deep enough will not provide privacy unless the user can turn to reach a bar across the door. Space to talk to visitors in private, or just to get away from a roommate when the togetherness becomes abrasive. Space for telephone privacy for both ambulatory and wheelchair patients. Space beyond a doorway at right angles to the end of a passageway for footrests and feet to make the turn.

Other problems include light switches too high for a wheelchair user to reach easily, if at all. Poorly placed lights which shine in the patient's eyes or reflect off the TV screen. Windows with south exposure where draperies have to be closed much of the day for several months in the winter because there is no place to get away from the sun. That definitely limits horizons.

I took part in a workshop on geriatric nursing. Approximately 70 participants worked in nursing homes. I don't know how many homes were represented, but only *one* had light switches low enough for a wheelchair user to reach easily and bathrooms big enough to provide them with privacy. Of the four nursing homes opened in this county in the last few years, all have too-high light switches. None has big enough bathrooms. Don't architects like privacy in the bathroom? Why do they think wheelchair users in nursing homes are not entitled to it?

I am not being facetious in suggesting that architects make a list of what they would want to take if an accident forced them into a nursing home. Borrow a wheelchair and visit your friends in nursing homes. Try the wheelchair in the room and in the bathroom. See how easy it is *not* to turn on a head-high light switch over the shoulder. Can the architect get close enough to the basin, wherever it is, to brush his teeth? Talk with patients. Many would get a real thrill if asked to share their experience-based expertise. We are not all senile.

MARJORIE B. THURBER
Lakewood, Colo.

Praise for Airport Design Section

The excellent report in September on the trend in airport design makes available outstanding material in the area of rapid change and demanding program of technology.

CARL NEIDENGARD
Professor of Engineering and Architecture
California State College
Long Beach

The September issue was outstanding. I have never seen the airport subject handled so thoroughly and completely, for which Bess Balchen deserves a great hand.

On another topic in the same issue, Comment & Opinion devoted to the Boston convention, was well done and very much to the point.

PHILIP J. MEATHE, FAIA
Detroit

A Vote for Abstracts

Hyman Cunin's proposals for "Bridging the Information Gap" in the July issue hit the mark on a solution to one of the major problems confronting the architect: how to absorb, file and retrieve enough of the oceans of information that flow his way in periodicals and technical journals to keep him from knowing less about more each day.

There seems to be no reason why the AIA JOURNAL cannot make abstracts of articles a mandatory requirement for all authors and, as Cunin suggests, initiate a study for the development of a classification system to simplify filing the abstracts. Here is my vote for the earliest implementation of his ideas.

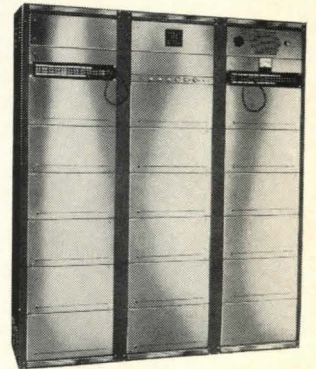
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West Orange, N. J.

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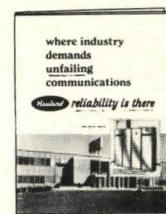
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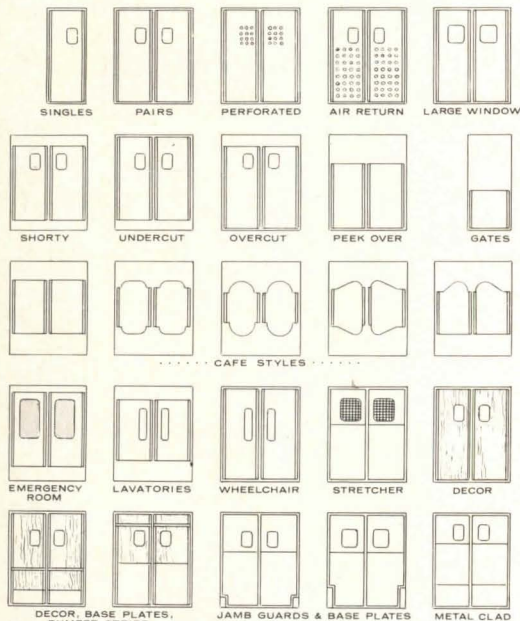


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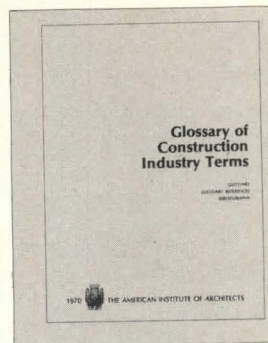
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events

National

- Jan. 7-8:** Conference on New Federal Programs to Provide Jobs for Architects and Engineers, Hotel Jung, New Orleans
- Jan. 17-21:** National Association of Home Builders Annual Convention, Houston
- Jan. 28-30:** Conference on the Ecology of Human Living Environments, University of Wisconsin-Green Bay campus and Beaumont Motor Inn, Green Bay
- Jan. 28-31:** Society of Architectural Historians Annual Meeting, Conrad Hilton Hotel, Chicago
- Feb. 9-12:** Society of the Plastics Industry, Inc. Annual Conference, Shoreham Hotel, Washington, D.C.

Competitions

- Jan. 1:** Submissions due, Furniture Design Competition. Contact: Mrs. Erma B. Striner, AID, Professional Adviser, Washington Center for Metropolitan Studies, 1717 Massachusetts Ave. N.W., Washington, D.C. 20036 (in cooperation with HUD).

Awards Programs

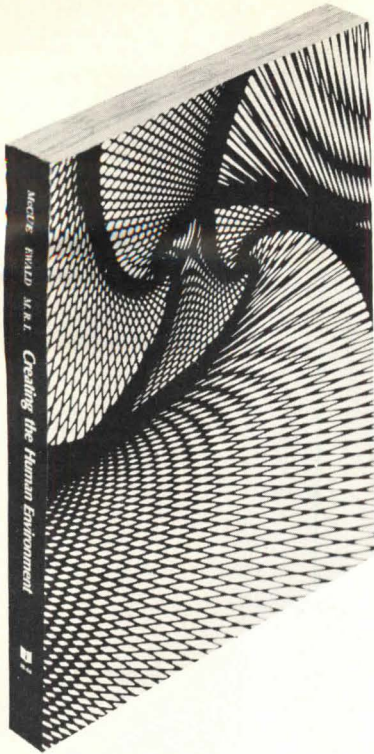
- Jan. 15:** Submissions due, Awards for Utility Design. Contact: American Public Power Association, 2600 Virginia Ave. N.W., Washington, D.C. 20037.
- Jan. 15:** Submissions due, completed works of theater architecture, to be exhibited at Congress of the International Organization of Scenographers and Theater Technicians, June 1971, Prague. Contact: US Institute for Theater Technology, 245 W. 52nd St., New York, N.Y. 10019.
- Jan. 29:** Entry forms due, Design in Steel Awards Program. Contact: American Iron and Steel Institute, 201 E. 42nd St., New York, N.Y. 10017.
- Feb. 1:** Nominations due, R. S. Reynolds Memorial Award. Contact: AIA Headquarters.

Fellowships

- Dec. 31:** Applications and submissions due, Rome Prize Fellowships. Contact: Executive Secretary, American Academy in Rome, 101 Park Ave., New York, N.Y. 10017.
- Jan. 8:** Applications due, Resident Research Associateships in Federal Laboratories. Contact: Associateship Office JH 604, National Research Council, 2101 Constitution Ave., Washington, D.C. 20418.
- Jan. 15:** Submissions due, Urban Studies Fellowships. Contact: Samuel C. Jackson, Office of Metropolitan Planning and Development, US Dept. of Housing and Urban Development, Washington, D.C. 20410.

Call for Papers

- Jan. 4:** Abstracts due, Annual Design Automation Workshop, June 1971, Atlantic City. Contact: R. B. Hitchcock, IBM T. J. Watson Research Center, Box 218, Yorktown Heights, N.Y. 10598. □



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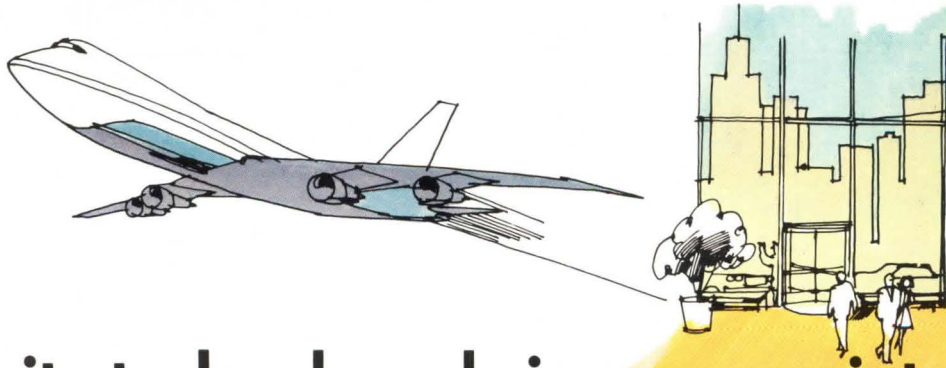
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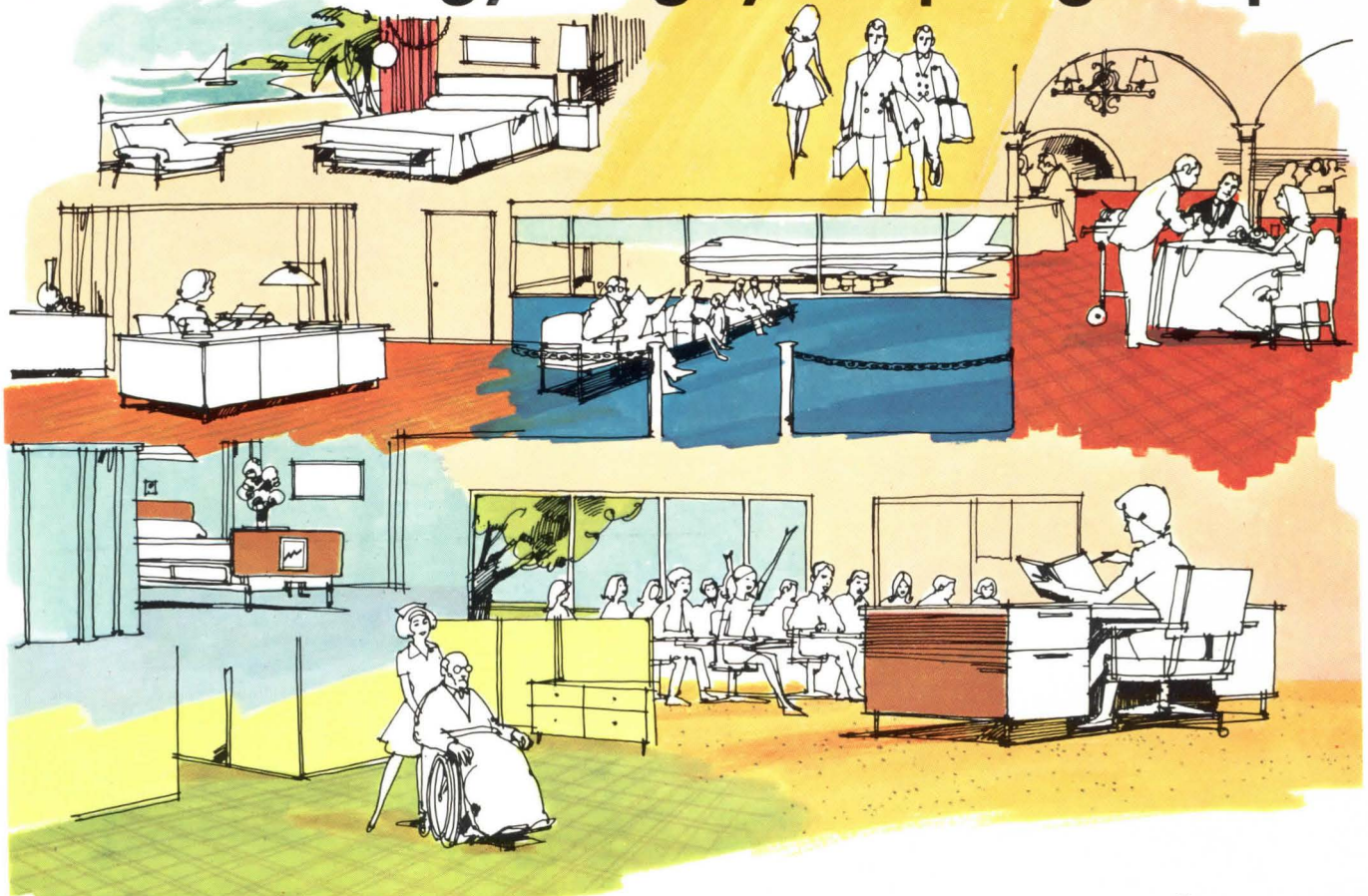
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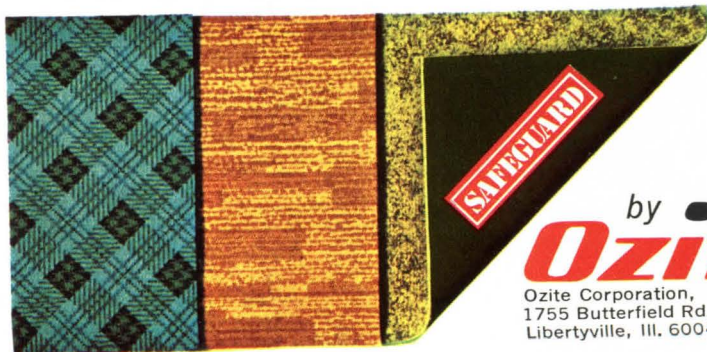


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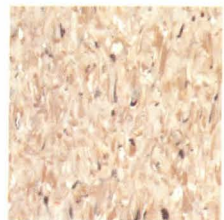
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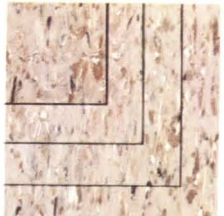
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