

ARCHITECTURE

THE AIA JOURNAL JULY 1983



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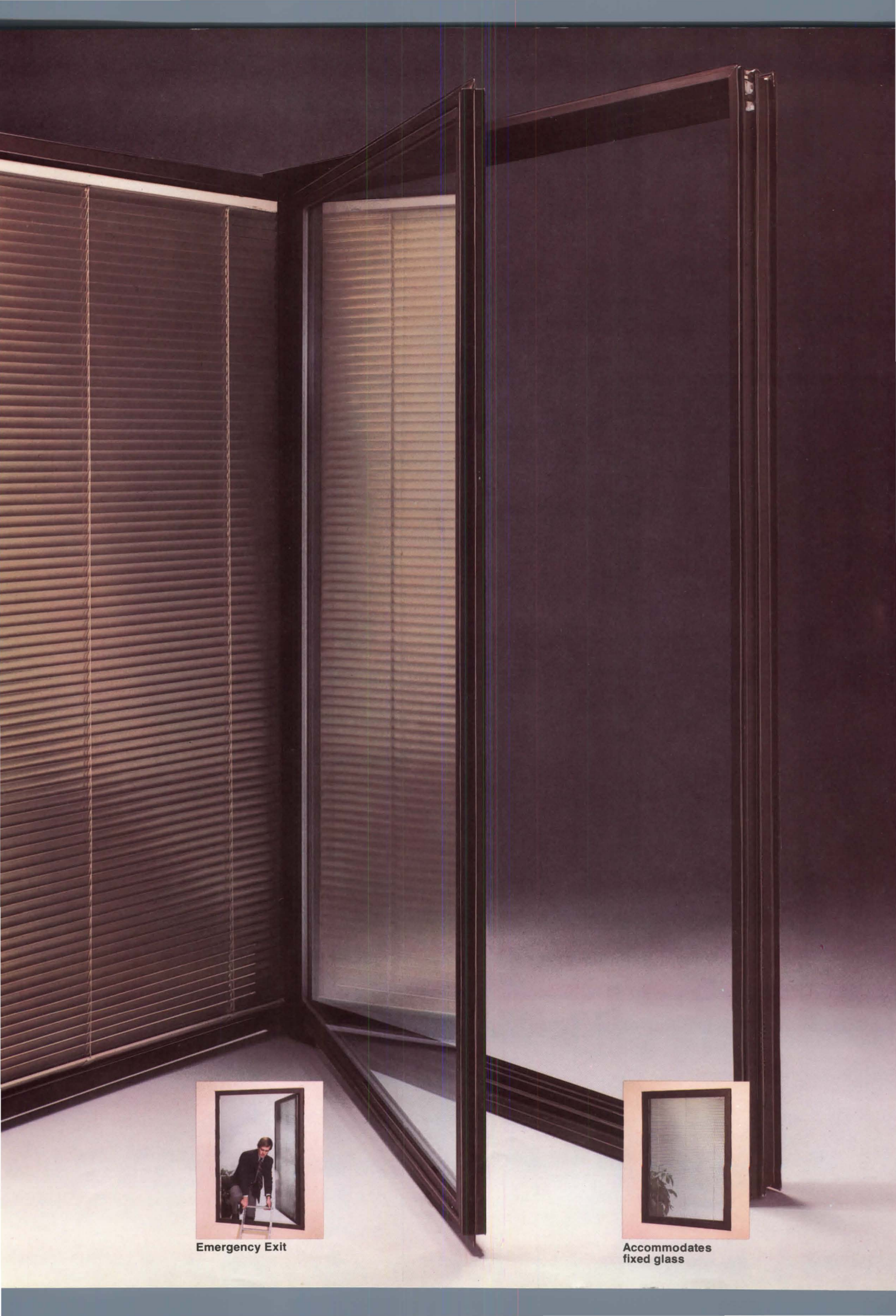


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EVENTS

Aug. 1-3: Fifth Annual ASCE-EMD Specialty Conference, College of Engineering, University of Wyoming, Laramie.

Aug. 1-5: Course on Improving Professional Effectiveness for Architects, Planners, and Engineers, Laboratory of Architecture and Planning, MIT, Cambridge, Mass.

Aug. 1-12: Seminar and Workshop on Design and Housing in Developing Countries: Alternative Roles for Users and Institutions, Laboratory of Architecture and Planning, MIT, Cambridge, Mass.

Aug. 8-10: Third Annual Window Energy Show, Las Vegas. Contact: Window Energy Systems, 345 Cedar Building, Suite 450, St. Paul, Minn. 55101.

Aug. 8-12: Workshop on Wood—Design of Structural Elements, Department of Engineering and Applied Science, University of Wisconsin, Madison.

Aug. 15-18: Workshop on Architectural Technology: Acoustics, Lighting, Energy/Design, Life Safety, Roger Williams College, Bristol, R.I.

Aug. 15-19: Seminar on Continuity and Change: Design Strategies for Large-Scale Urban Developments (Designing in Islamic Cultures Series), Laboratory of Architecture and Planning, MIT, Cambridge, Mass.

Aug. 23-27: Conference on Energy Resource Management, San Francisco. Contact: Energy Resource Management '83, P.O. Box 2787, Springfield, Mass. 22152

Aug. 26-Sept. 1: Renewable Energy Technologies Symposium and International Exposition, Anaheim, Calif. Contact: Technology Marketing Analysis Corporation, 680 Beach St., Suite 428, San Francisco, Calif. 94109.

Sept. 10-15: Twenty-third Italian Furniture, Eighth EuroLuce, and Second Eimu Exhibitions, Milan. Contact: COSMIT, Corso Magenta 96, Uffici 1-20123 Milan, Italy.

Oct. 23-29: International Council of Societies of Industrial Design 13th World Congress, Milan. Contact: Lidia Vealnti, Ufficio Stampa Estero, Via Mascheroni 1, 20123 Milan, Italy.

LETTERS

The Auditorium Building Research: I would like to add some pertinent information to the article on Adler & Sullivan's Auditorium Building (see April, page 44). The research into and documentation of the structural and mechanical systems of the building was a project spanning two summers (1979 and 1980), and many have contributed to its timely completion.

I was the on-site project supervisor in Chicago during both summers. During the first summer, I had the help of T. Kendrick and during the second summer, that

of L. Hochulii, C. Berlow, M. Palmer, W. Percival, and A. Ventura. Much of the research and many of the preliminary drawings were done in the first summer, and a brief summary appeared in *Inland Architect* in September 1979. Mylar drawings were prepared in the second summer.

In addition, a historical manuscript to accompany these drawings was prepared by C. Gregersen. During the first phase, D. Stevenson was the Historic American Engineering Record/Washington project manager, and J. Burns had that position during the second summer. Roosevelt University—in particular D. Perlman, H. Price, and P. Holt—helped provide a supportive atmosphere and made our day-to-day work more enjoyable.

The project resulted in 53 drawings that were submitted to Washington office of the Historic American Engineering Record/Historic American Buildings Survey for depositing in the division of prints and photographs at the Library of Congress. The three drawings on page 44 of the JOURNAL article are from this set. The full set is expected to be incorporated into Roosevelt University's master plan for rehabilitation of the landmark building.

*Rita Gorawara,
Associate Member, AIA
University of Chicago*

NCARB's Degree Requirement: While I am not interested in entering an unending letter debate on the subject of the National Council of Architectural Registration Boards' degree requirement, I believe there is an important point overlooked by Burton L. Roslyn, FAIA, in his response published in the April issue (page 11) in response to my previous letter: If a person has the ability to pass exactly the same exam as another person, the fact that one person attended a university through to degree is no longer of consequence.

Once that exam occurs and the ability has been proven, all that has been in the past is forgotten. All that matters is that both people have proven their ability and qualifications to receive the title of architect.

I smiled at the old "nurse" philosophy being used once again to equate the relationship of the apprentice architect to the architect. The designer is better equated to the practicing intern, assisting on operations until the time comes to solo. The apprentice architect works under the supervising architect doing exactly the work as he will upon the completion of the licensing exam. A nurse never does the work of the doctor; an architectural apprentice always does the work of an architect.

Elitism is usually a wasted effort. Society has never been improved by one segment looking down on another; especially when both segments are equally qualified.

If some architects are prone to elitism, it should not be directed toward those who have proven their ability to be equals.

Finally, I would echo the sentiments of Thomas H. Teasdale, FAIA, who warned us not to accept NCARB's assurances that an alternative to the degree requirement will be studied. We should not be easily lulled into not pursuing this totally unacceptable position by NCARB.

*Keith White, AIA
Fullerton, Calif.*

I feel compelled to respond to the continuing debate over the question of a degree requirement for the NCARB certificate qualification. Yes, the degree should be mandatory, since the college experience is as valuable as practical experience.

Since graduating five years ago, I have certainly tasted the bitter truth serum of pragmatism. Obviously, the knowledge of production, working drawings, and professional practice is developed through the incessant flow of project involvements. From starting with the intimate affairs with the blueprint machine, to endless hours of drafting, through experiencing project administration, the growing professional learns the many skills and principles necessary for the making of the responsible architect. No one denies the serious obligation to serve society with an understanding of its health, safety, and welfare, which comes through office practice.

Nevertheless, there is something to be said for education. Besides experiencing the vocabulary of design theory through the studio process, scanning infinite color slides of 5,000 years of architectural history (a little culture never hurts), being lectured on the technical aspects of building systems, not to mention the numerous electives including planning, psychology, etc., there is one significant attribute attained by the architectural graduate. This is the ability to systematically, rationally, and intuitively solve problems in terms of both the art and science of architecture.

Typical office practice rarely offers the opportunity to be lectured in statistics, methodology, or to perform 3-D form studies in abstract geometric languages. In addition, numerous "crash" courses are necessarily available to help prepare candidates for the licensing exams, particu-

continued on page 85

Clarification: The resolution introduced by the California Chapter/AIA on implementation of AIA's nuclear disarmament resolution (see June, page 16) failed to be accepted by the delegates as new business at the national convention, but the resolution's sponsor expressed satisfaction with the Institute's efforts to implement the 1982 disarmament resolution, which include AIA working with Ground Zero.

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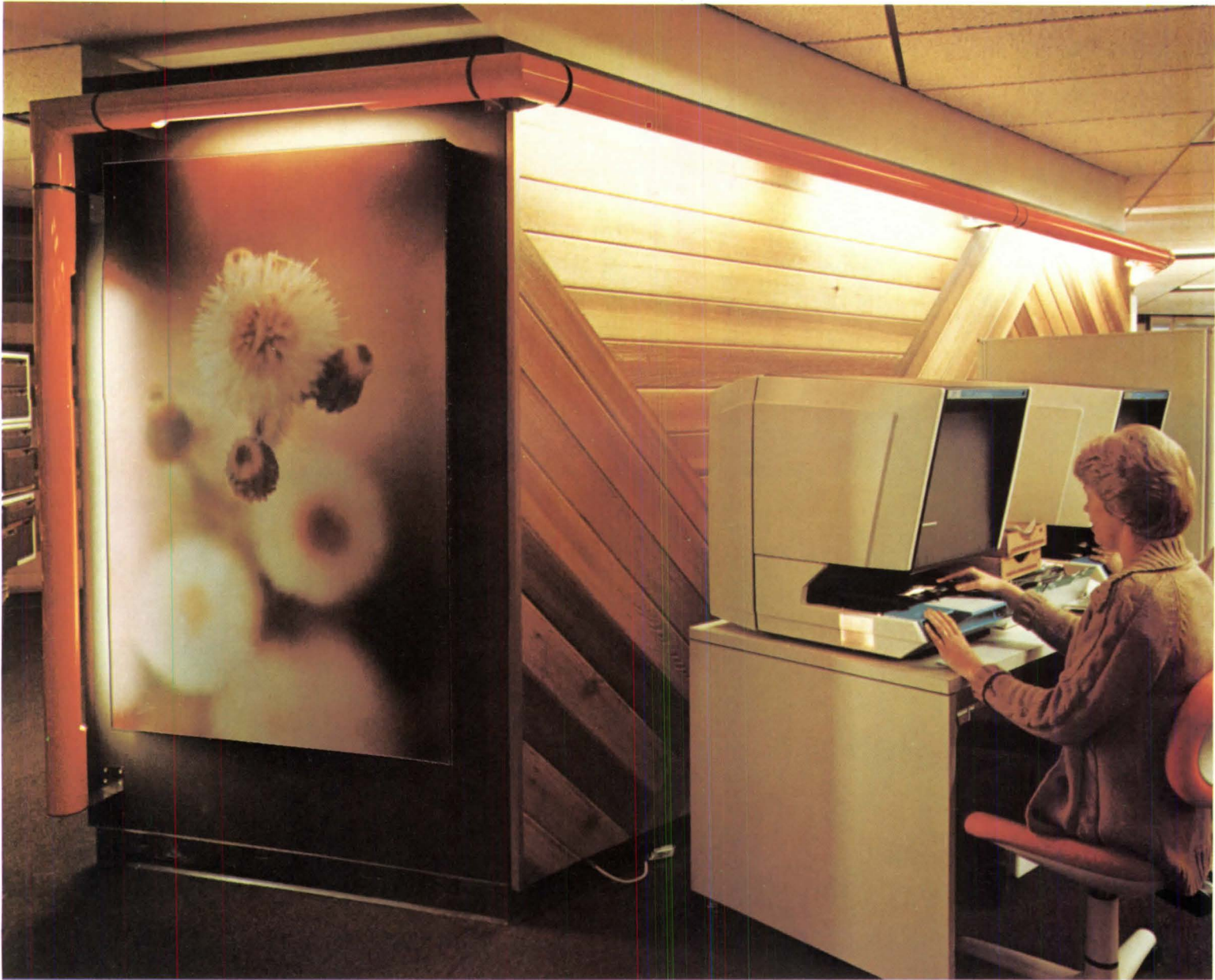
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Practice

The World Observed from Aspen (With Glimmers of the Future)

As Charles Eames did in his film "The Powers of Ten," those attending the 1983 International Design Conference in Aspen examined their realm from both molecular and universal perspectives. The theme of the conference was "The Future Isn't What It Used to Be," and speakers ranged from a molecular biologist delving into the frontiers of brain research to an entrepreneur who advised that computers named Lisa are handmaidens of the future. Synergy, politics, improvisation, and ideology shared the podium with fantastic furnishings, balloon sculptures, and celebrations of Vienna's past. Calls were made for responsibility and challenge in dealing with changing populations and social mores, and for ethical standards in the press and politics.

The future may not be what it used to be, but the Aspen conference is. Provocative and outrageous, contemplative and party-filled; attendees basking in the sun, freezing in the snow, and filling the air with speculation.

The conference opened with a flight of fancy via George Melies' 1902 film, "A Trip to the Moon." Michael Pittas, director of the design arts program of the National Endowment of the Arts, then spoke of attitudes toward the future: "I fear that too many of us in the design fields deal with yesterday's problems, at our worst, and, at our best, display such shortsightedness that we cannot seem to extend our ideas into futures that contain any degree of *uncertainty*, or *risk*, or even *chance* of failure." Pittas noted the irony of the design professions, trained to shape the future, focusing on the past and claiming impotence as defense. "We have contented ourselves with finding more and more beautiful answers to smaller and smaller problems," he said. "We have lost contact with politicians, economists, social scientists—with decisionmakers. We speak and write and design for each other."

Pittas was followed by the first of the "young turks" brought to Aspen on NEA or IBM international fellowships as glimpses of the future. Interspersed throughout the week, the fellows gave

short presentations and engaged in longer "conversations." Maya Lin was the youngest fellow, rapidly seasoning in the aftermath of the Vietnam Memorial. And the oldest harbinger of the future was architect Michael Brill.

Lin's presentation was poetic, with slides of the memorial and an antiwar poem by Archibald Mac Leish. Brill's was physical, using bold and hand-hewn graphics to make points about our perceptions of design. "Aspen people believe *design* really affects the behavior, satisfaction, and productivity of individuals, groups, and institutions. Most *normal* people don't believe this. Talking about the *interior* design of buildings, the big group that doesn't believe design counts includes: fancy architects and most clients... the folks who influence what and how we build and how we use it." Brill asked why people don't believe buildings count and answered that people are adaptable and make bad buildings look good; most effects take place over months and years; we don't think of buildings as tools, or places to use; and nobody has *proven* that it is important that they work. The result is that "buildings don't work; they are seen as a cost center, not a resource, and designers are seen as a frill, not a resource either."

Robert Hughes spoke to design values in another vein. The art critic of *Time*, erudite, elegant, and flamboyant in the tradition of British orators, Hughes decried the current fascination with deconstruction as a basis for design criticism. Deconstruction, he said, relies on pulling apart design objects and ephemeralizing them; it assumes that a powerful ideology is embodied in the object and that by dematerializing the object, the ideology is what's left. But, "ideology is attributed, not designed in," and he compares the vision of a gunmaker, for example, crafting a tool, to our view of it symbolizing a culture. "Symbolism is not designed in. A Saturday night special is not 'the gun of the ghetto,' it is cheap."

Architecture, however, inside or out, was not the dominant theme of the conference. Breadth, perhaps more than

depth, characterized the event, and the mix was rich, touching the senses as well as the mind. Adaptability was a recurrent theme and, translated to music and its design or composition, improvisation became a topic. And here words were few and emotions high. Billy Taylor, exponent, interpreter, and performer, presented the processes of improvisation and creativity of jazz as a cultural link between present, past, and future. South African Abdullah Ibrahim (formerly Dollar Brand) performed his own "African Dawn," a piece of power and beauty that easily transcended the cold and hard benches of the tent.

I. F. Clarke gave the formal keynote speech. A historian of the future, curious about the interactions between futurist fiction and the social, political, and technological ideas of the last 200 years, Clarke spoke of the failure to anticipate as a critical issue for the future. Recalling the Utopian ideals of yesteryear and the fatal fallacies of forecasting in the past, he noted that predicted futures rarely come to pass. In that sense, "the future is *always* what it used to be; we never see the big picture or the ideas and developments that change nations and the conditions of humanity."

Charles Hampton-Turner, psychologist and author of *Sane Asylum* and *Maps of the Mind*, spoke of the need for synergy of thought and deed, echoing Clarke's caution for the wholistic view. His talk was called "Paradigms for Excellence," and he called for vulnerability as a basis for emotional strength and synergy as reconciliation of individual and group needs, an abstraction from the whole. "The test of a first-rate intelligence is to have two opposing views and yet function. Synergy is the dovetailing of text and context, of different values to beneficial purpose. It is freedom in context."

Synergy, and energy, took new form with the presentations of Steven Jobs, at age 27 board chairman of Apple Computers, which he cofounded with Stephen Wozniak in 1976 and financed by selling his Volkswagen for \$1,300. Now the golden boy of American entrepreneurs, Jobs dares to dream. He introduced Lisa, a new, graphically minded Apple computer, and spoke of sales in multimillions. Optimistic, brash, and effective, Jobs was sure about the future of computers, even if his expectations for designers proved confounding.

Molecular biologist Gerald Edelman

spoke of a different excitement in brain research. A Nobel Prize winner in 1972 and director of the Neurosciences Institute in New York, as well as professor and head of the Laboratory of Molecular and Developmental Biology at Rockefeller Institute, Edelman said, "The brain is not a computer—it's more like a garden." He went on to say that the impulse to compare the workings of the brain with a computer is pure fallacy and a dangerous one in addition. After a scholarly, though humane, discussion of evolutionary theory as a reference, Edelman presented his own research, which states that we are born with all our learning capacities, and that we make connections that are random. The strong ones are strengthened and the weak ones weakened for a dynamic concept of learning, or evolution within the brain. The randomness is supported by the huge numbers of possible connections—over 100 billion, or, if we were to count one per second, it would take us 32 million years to count them all. The implications?

Edelman is clear, though still probing for himself: "Individuality is *unavoidable* and *essential* and *precious*. Categorization is *fundamental* and *adaptive* (important for designers). Memory is recategorization with decoration. (Memory is not replication, as it is with a computer.) Free will and free agents exist, but are limited. Both chronology and repertory (defined by natural selection and environment) are important; that is why IQ tests are stupid. They are indissolubly linked to the world by natural selection and group selection, and *each* of us is indissolubly linked to world group selection. *No* idea is *a priori* authentic by any method.

"All perception is an act of creation—all memory is an imaginative, not rote, act. The political order is defined by language, but like a poem, where words have meanings unlike any dictionary and are filled with error. No computer can create this world.

"Computers have logic; they are an

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Unless otherwise indicated, the news is written by Allen Freeman, Nora Richter Greer, and Michael J. Crosbie.

extension of our logic. But they do not write symphonies, and therein lies our freedom. Not all people are equal, but all must be equally free.

"Science is the imagination in service of verifiable truth. Art is the objectification of emotion, the embodiment of emotion in a structured object. We are born with an excess repertory and that allows us to define values. Design is the happy marriage of art, science, and values."

Edelman's exploration of the mind closed the conference while opening the minds of attendees. MARGUERITE VILLECCO

Bruce Goff's 'Life and Works' Celebrated in Oklahoma Cities

Former students, apprentices, colleagues, contractors, and clients of Bruce Goff celebrated the life and works of the idiosyncratic architect last month in several Oklahoma cities.

Goff, who died last Aug. 4, was remembered in Oklahoma City, Tulsa, Bartlesville, and particularly Norman, where he chaired Oklahoma University's architecture school from 1948-55 and built his best known work, the Bavinger house, in 1950. On June 8, which would have been Goff's 79th birthday, tributes were paid during a gathering at the university's student union. Goff was "the greatest creative genius I have ever known," said Oklahoma University President Emeritus George Cross. "A session with him would make even me believe I could be creative."

A former Oklahoma student, Japanese architect Tabenobu Mohri, said, "The word 'kindness' does not describe how Goff cared for everyone. His every word rubbed my heart."

Jerri Hodges Bonebrake talked about her "old but ever-new friendship" with Goff, whom she met when she was 17 years old and later became his "awed but comfortable" secretary. "He taught more than architecture," she said. "He brought something beautiful to everyone."

The spiral Bavinger house, built for an art professor in a rocky ravine, and other Goff buildings were open to the architect's friends during the three-day celebration. These included the 1949 Ledbetter/Taylor house in Norman, a major solar/bioclimatic design; the 1955 Frank house in Sapulpa, with its pottery shapes and materials built for the originators of Frankoma Pottery; Tulsa's Boston Avenue Methodist Church of 1926; the Jones house in Bartlesville, built in 1958 for a collector of American antiques; and the Joe Price house, also in Bartlesville, with its three stages responding to client needs. JEFFREY COOK, AIA

Mr. Cook is author of The Architecture of Bruce Goff.

NAAB Tests New Evaluation Criteria in Architecture Schools

The National Architectural Accrediting Board (NAAB) is testing new "achievement oriented performance criteria" in evaluating architectural school programs. The criteria, adopted in March by the NAAB board of directors, are undergoing tests at seven schools across the country. They are "much more specific" in describing the content of a school's program and how it will be evaluated, and "achievement oriented," according to John Wilson-Jeronimo, executive director of NAAB.

The criteria cover four areas: history, human behavior, and environment; design; technical systems; and practice. Each of these areas is further divided into a total of 15 subcategories.

Jeronimo explains that where a school has previously been judged on its program or "the promise of its program" in preparing the student for the architectural profession (as set forth in the school's educational development plan), NAAB will now be considering the "outcome" of the program, namely the architectural graduate.

The schools at which the criteria are being tested have been asked to submit their school reports under the new criteria by the beginning of this month. These are to be reviewed at NAAB's October board meeting, and further refinement of the criteria is to follow. Jeronimo says the new guidelines, their implementation, and a system for measuring compliance should be ready on a nationwide basis by 1984.

The seven schools, which are testing the criteria voluntarily, represent a number of different undergraduate and graduate programs. They are Harvard, Mississippi State University, the University of Cincinnati, the University of Hawaii at Manoa, the University of North Carolina at Charlotte, the University of Pennsylvania, and the University of Wisconsin at Milwaukee.

The criteria were contained in a report prepared by a committee formulated to study accreditation and its process. The committee's members represented NAAB and its four sponsoring organizations: William G. McMinn, FAIA, and William A. Carlisle, FAIA, from NAAB; Dwight Bonham, FAIA, and Ballard H.T. Kirk, FAIA, from the National Council of Architectural Registration Boards; Robert Harris, FAIA, and William Porter, FAIA, from the Association of Collegiate Schools of Architecture; Randall Vosbeck, FAIA, and S. Scott Ferebee Jr., FAIA, from AIA; Martha Lampkin from the Association of Student Chapters/AIA; and Jeronimo from NAAB.

News continued on page 14



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FIVE LEVELS IN 13 WEEKS

Exploring Our Changing Society, Cities, and Architectural Forms

Theme presentations at AIA's convention in May offered a rich contrast and complement to each other, one considering movements in American society at large, another how American cities and communities are changing, and a third how architectural form can be hospitable or rude.

Perhaps the central idea in the presentation of John Naisbitt was that "things are not going to get better, things are going to get different." Naisbitt, author of the book *Megatrends* and publisher of the "Trend Report," concentrated on changes in America's economy and social structure.

Naisbitt said that we are in the transition from an industrial-based economy to one based in electronics and information, a change unequaled in importance since the shift from agriculture to industry 150 years ago. With this change has come confusion and a slowdown in America's industrial capacity, he said.

In the 1970s, 20 million new jobs were created, 90 percent of them in the information/service sector, Naisbitt continued, and by 2000, "as much as a third of the world's manufactured goods will be manufactured in the Third World," which will result in a "global economy," making the notion of a national economy obsolete.

Naisbitt predicted that increasing use of computers and information sharing will be marked by the decentralization of government and other institutions. For the profession, this is evidenced in the renewed interest in regional architecture. Naisbitt also said that more commissions are going to local rather than out-of-state firms.

He also foresees that population will continue to shift to the Southwest and Florida. High-tech industries do not need the infrastructure of the old industrial base for manufacturing, so new factory locations are chosen for the "quality of life . . . the quality of climate, the schools, and cultural offerings," he said.

This population shift will leave industrial cities, particularly those in the Northeast and Midwest, languishing, he said: "We are going to save some of our cities and not others, and it is all going to turn on local initiative. So the only national policy I think is in tune with that is one that acknowledges and rewards that local initiative."

Naisbitt also predicts that individuals will take increased responsibility for qual-

ity of life. "In the '50s," he said, "we turned our souls over to the corporations, our health over to the medical establishment, our kids over to the schools, and our welfare over to the government, and now we are reclaiming those in a kind of old-fashioned self-reliance that is part of the new economy."

In a followup panel discussion, Paul Gapp, architecture critic for the *Chicago Tribune*, expressed concern that with the focus on the broad social changes that Naisbitt believes will come about, architects may ignore the more mundane aspects of the built environment, like leaky roofs and indoor pollution. Gapp was also suspect of the computer's role in design: "You can't program beauty into them, and there's no software for the soul."

Philip Carter, a New Orleans writer and developer, believes that those without access to capital will not share the positive outlook of Naisbitt, and may become victims of the age. "The America of *Megatrends*," said Carter, "does not embrace the country as a whole." Members of the audience also expressed concern about how minorities and the poor will fit into the information age.

Naisbitt responded by saying that local leadership should take a more active role in helping the underprivileged to help themselves and encourage workers to retrain themselves for the new economy. As for architects, Naisbitt said that they should "reconceptualize" what their function in society is and "engage the process of change."

In contrast to Naisbitt's upbeat view of the future, George Sternlieb, founder and director of Rutgers University's Center of Urban Policy Research, presented a view of the contemporary city and its architectural response to the changing economy.

Pointing to the fact that in the last decade the median family income has declined steadily, Sternlieb said the result has been a crisis of future expectations. "The temptation within the United States right now is to optimize the short run and go with your winners. Within this context, most of our older cities and particularly our industrial cities are viewed as losers."

Sternlieb recounted that the historical role of the city in America was as a center of commerce and industrial manufacture. Today's obsolete cities are a result of the change in the economic base, he

said. "There is nobody who can figure out what to do with a used smokestack city, and there are lots of them."

In reaction to urban decline, cities within cities have formed, he noted. The new subcity is smaller, more sophisticated, and has no relationship to the old functions or the people housed in the decaying city. Sternlieb also said that the jobs created in the new high-tech economy will not be filled by the displaced city worker.

The result of these phenomena, Sternlieb said, is an uneasy coexistence in cities between the haves and the have-nots, and this has led to architectural form that shields the haves from the have-nots. Developments such as Ghirardelli Square, Faneuil Hall, and Harborplace offer all the same merchandise, said Sternlieb, while providing shelter from the surrounding urban disorder. "We have the triumph of Disneyland, and it is an appropriate triumph because when you charge \$15 per head, you screen out the unruly. It has history and it has fantasy, with charm and plenty of toilets."

In the panel discussion that followed, ARCHITECTURE Editor in Chief Donald Canty said that the advent of inner city rehabilitation projects and boutiques have "costumed" the cities and made us "feel good about them" without attacking the root of urban decay, which is killing the city's disadvantaged both physically and spiritually.

Henri Mortimer Favrot Jr., AIA, of Metairie, La., expressed his belief that architects need to be more involved with the development process and all aspects of urban life if they expect to deal with problems effectively.

The present conditions of the city have been with us for some time now, said University of New Orleans Professor Ralph Thayer, who expects them to continue until redress in government policies, tax codes, and the investment activities of corporate America.

In response to the audience's concern about what will happen to industrial cities and how they can be rejuvenated, Sternlieb said that one must "reinvent yesterday," in terms of small-scale retailing, and develop functions for obsolete cities.

Turning toward more pragmatic aspects of architecture, William H. Whyte, head of the New York City Street Life Project and author of *The Social Life of Small Urban Spaces*, demonstrated with photographs the impact of architectural form on street life. He concentrated on street walls, glass, entrances, and steps.

Whyte took obvious delight in castigating what he called the dominant visual image in the city: the blank wall. The blank wall essentially robs the street of life and has a variety of propagators. The suburban shopping mall form transplanted

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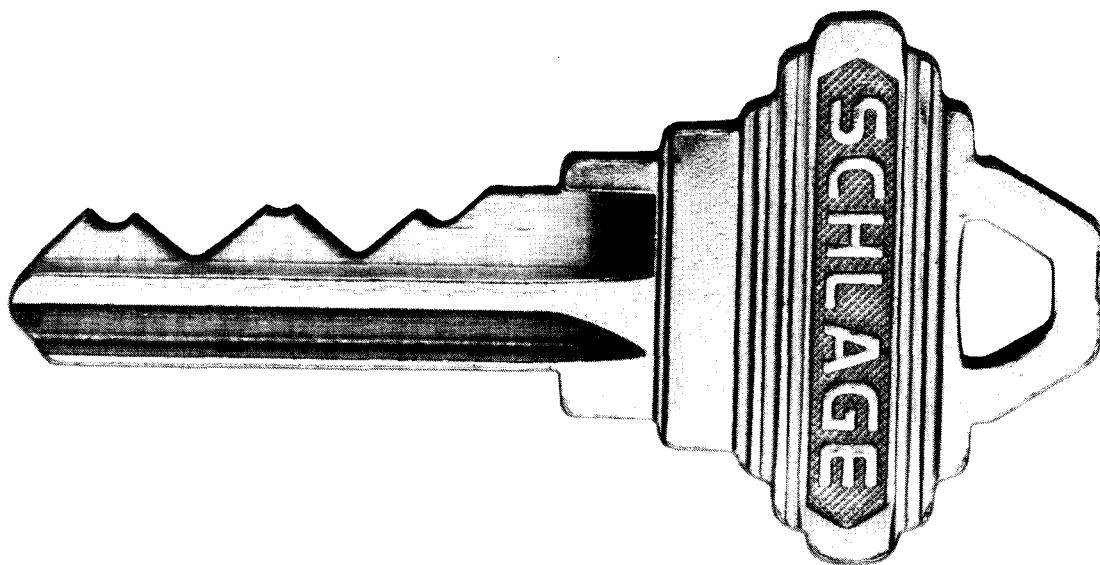
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The Institute from page 14 into the city, said Whyte, is inappropriate and results in the blank wall as do many convention centers, banks, and institutional buildings.

Whyte also rebuked the builders of megastructures and utility firms for the blank walls they produce. The telephone company, said Whyte, is one of the most notorious. "Whenever you look up and see that bell on the top of a building, you can be sure there is a blank wall at the bottom."

As an alternative to the blank wall, said Whyte, architects should study the characteristics of successful shopping streets: narrow sidewalks to channel activity, the rhythm of individual facades like brownstones, and glazed second stories that produce a "double-loaded street." Glass that can be seen through, said Whyte, provides orientation and glimpses of street life for those within the building, and invites the passerby.

Entrances, suggested Whyte, should be a gray area with the qualities of both inside and outside, with doorways that facilitate pedestrian flow. "We came to the startling conclusion that the ideal doorway is to have a door and leave it open," he said, although codes do not encourage this.

Steps, another component in street life, should be less steep, with less riser and more tread, said Whyte. When incorporated into plazas they should be at right angles to create seating niches, he said, and encouraged architects to "cherish right angles. Give people the choice and they will flock there for more comfortable group seating."

In the discussion that followed, all of the panelists reacted to Whyte's analysis of street life in a positive way. David Dillon, architecture critic for the *Dallas Morning News* and an ARCHITECTURE contributing editor, commended Whyte for focusing on how urban spaces are actually used by people and said that his conclusions, despite their self-evidence, have not been as obvious to architects.

Eugene Cizek, AIA, of Tulane University's school of architecture took that comment a bit further by saying that architects need to focus the same kind of attention on city spaces as Whyte has. He added that interest in historic preservation might lead to a better understanding of how such space has been made in the past.

Former Institute President Charles E. Schwing, FAIA, responded to an audience query about the architect's ability to change people's life styles by saying that architecture may not change life style, but can enhance its quality. He also commented, as did Whyte, on the fact that many of the strategies outlined in the presentation for making livable city spaces are strikingly simple.

Convention Adopts Diverse Resolutions, Bylaws Change

Eight resolutions were passed during the Institute's annual convention in New Orleans this May. The 811 delegates also approved a bylaws amendment that affected the parliamentary procedures of the convention's business sessions.

The bylaws amendment, introduced by the California Council/AIA, claimed that on issues of disagreement, a voice vote is inaccurate in assessing the strength of a minority. The amendment directs that roll call votes will be granted by a call of the roll of regions (instead of by voice vote), each region being entitled to the same number of votes assigned to all components of that region. A roll call vote must be approved by one-third of the delegates. The amendment took effect immediately.

In reaction to AIA's pursuit of the Direction '80s program, which calls for a shift of emphasis from architects to architecture, a resolution reaffirming the Institute's commitment to its members was passed.

Pointing to the fact that AIA is a membership organization important to the profession and its advancement, the resolution calls on the Institute and components to "strive to improve and promote the profession of architecture through service to its members," and to "represent the interests of all architects . . . in the nation."

With its passage AIA President Robert Broshar, FAIA, stated that the resolution does not affect the Institute's commitment to Direction '80s.

In an effort to enhance communication and organization within the Institute, making it more responsive to the membership, a resolution calling for a governance task force was approved. The resolution provides for a task force to include "representatives from the membership, board, staff, Council of Architectural Component Executives, and an independent management consultant." The study is to be presented at Grassroots 1984 for review and a final recommendation in the form of a resolution is to be prepared for the 1984 convention.

Grassroots sessions themselves were the subject of a resolution passed that called on the Institute to "sponsor a single Grassroots to be held annually in Washington, D.C., to coincide with the congressional session." The resolution also requested a travel reimbursement system that would encourage components to participate in Grassroots meetings.

The delegates passed a resolution that urges AIA to develop a "national policy on the issues of indoor pollution, develop a strategy to assist the profession in its ability to address the implications of indoor pollution, and coordinate the activities of the components in their ini-

tiation of, and reaction to, legislative and regulatory proposals dealing with the issue. . . ."

Two resolutions concerning minority and women architects, respectively, gained unanimous approval at the convention. An affirmative action resolution called on the Institute to encourage increased participation by minority architects in AIA, that minority architects be sufficiently represented at all levels of the Institute, and that the affirmative action committee commissioner be more aware of minority architect issues, attend all meetings of the committee, and represent their interests to the board.

The resolution approved on women architects commended AIA for its efforts over the past decade in behalf of women, and urged the Institute to continue its efforts "until such time as women, both in number and opportunity, are indeed fully integrated into the profession of architecture."

Two other resolutions, one concerning professional registration and the other new membership dues, also passed unanimously. Pointing to the increased incidence of unlicensed persons providing architectural services, continuing changes in registration laws, and "subprofessionals" calling for "specialty registration," it was resolved that AIA "assist the components in addressing registration issues threatening traditional practice and establish equitable definitions of architecture, engineering, and building contracting which will provide useful guidance to the components within the context of registration."

The resolution on membership dues for newly registered architects provides a reduced rate for members within one year of original registration, extending for a period of four years, with full membership dues required in the fifth year. A resolution to determine a more equitable method of assessing supplemental dues was defeated.

A resolution calling on AIA to make the implementation of its policy on nuclear weapons a high priority never made it to the floor, while a resolution concerning life safety awareness was tabled.

Easter Seal Award to Broshar

AIA President Robert Broshar, FAIA, has been selected to receive the National Easter Seal Society's Leon Chatelain award for 1983. The award, established in 1979, recognizes efforts in developing barrier-free environments.

Broshar was cited for his "outstanding leadership in advancing barrier-free environments for people with disabilities." Broshar chaired a barrier-free architecture task force in Iowa and initiated a statewide survey of federally financed facilities for accessibility.

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Owings Speaks of Instinct, Dedication, the Environment

Following are the remarks of Nathaniel A. Owings, FAIA, upon acceptance in New Orleans of AIA's gold medal.—*Ed.*

The accountability problem in speaking before an audience filled with dear friends, family, and colleagues—not to mention lifelong associates—places me under a disadvantage, since it eliminates my options for hyperbole and challenges my delight in never letting fact stand in the way of an idea.

But, to defend the superiority of idea over mere fact, Louis Sullivan once said that the deepest-probing and best ideas come from *instinct*, which, he pointed out, is often killed by that dread process of *intellect*. "Instinct is primary," he reminded us, "intellect is secondary." Need I say that Sullivan has long been my idol.

I will touch tonight on instinct, on anonymity, on dedication, and on the architect's responsibility to study the broad picture of space and the environment before he addresses his mind to the structures he has been engaged to design.

Half a century ago, Louis Skidmore and I had a dream. We wanted our new-born firm to expand. We wanted it to be like the peregrine falcon—feathered for space, meeting functional demands through the form of the fastest bird on earth, with its far-seeing eyes and sleek, wind-swept beauty. Our objective, I might add, was to prove that function and beauty were true economic values.

So we saw SOM as the falcon. But I also saw it as a tree—a tree adding yearly rings, producing fruit, and scattering seeds through the winds, with the resulting new growths always bearing the identity of the parent tree. The partnership, as I saw it, would become a widespread organism responding to control from a central source. "The thee in me that works behind the veil."

We became a firm, a concentration of architecture talent, and strong-willed individuals. Skid was the proudest of the men he had drawn together—that was the force he called his "life's work." In 1936, the name of our firm was shaped to become SOM when we added John O. Merrill, with his background in engineering. Did we think of ourselves as a modern Gothic builders' guild? Year by year brought new partners, a few of whom I must name: Walter Severinghaus—the conscience of SOM—and Bob Cutler—both key elements in the primary nucleus. Walter Netsch, with his flow-charts of marching directions in the large academic complex of the Air Force academy and a chapel; Myron Goldsmith and his magi-

Lenny Sirmopolous



Owings at convention's gold medal forum.

cal designs; and David Childs pointed toward the future, with a high round of ability and a diplomacy rarely found within the architectural field.

The broad partnership, long on its own in each of the offices across the country, has worked well and has sustained a role on many levels of social consciousness by exerting leadership in the communities in which it works.

Social consciousness for an architect means planning and building that respect the earth's green mantle, clear air, clean waters, and control of toxic chemicals, which respects the need for wilderness regions. Some landscapes represent a fundamental structure in our lives, a continuity which nourishes our personal stability and strength. The bend of a great river, the silhouette of a mountain range where it meets the sea, or the black earth of the Midwest stretching out to infinity—these have left their imprints on me.

One requirement of social consciousness, often unfulfilled in planning and design, has been the diplomatic effort to create and inspire a "land ethic"—a land ethic that crosses all borders, and necessarily sometimes invades special interest groups.

It is here, to this august body of AIA, that I turn for a stroke of policy and a widespread effort before it is too late. For the only basis for economic survival is a land where man and the environment can live in harmony.

The practical giant brains of commerce and industry, despite their cost, are normally considered economically sound, while the conservationist programs that guard the natural environment are often considered much too "expensive," far out of reach. An abyss has been created between them, between the recognized environmentalist movements and the public enterprises that often are unwisely blind to anything but the dollar. This abyss must be bridged. And it can be bridged best through the leadership of a trained architect-planner. That person

must take a position that is willing to advocate a disciplined freedom of zoning, of regulations, and a partnership between open space and man's use; a position that understands and promotes the imperatives of our learning to live in harmony with the only home we have.

Unless this happens, the accelerating corruption of our habitat will include a cost that in the end will destroy the health, and may I say, the spiritual peace of man himself.

How difficult it is to place a computer number on an inspirational experience! What is the value of a virgin redwood forest, standing like a dark island amid lifeless, cut-over land? In its scale, shape, light, and shadow, the forest stands like an imperishable art form, its portal opening into the inner chamber of the human soul. Yet, its value is all too often summed up in board feet.

Do we measure the value of Chartres by the size and weight of its stones? The miracle of this cathedral, a triumph of great scale with arcades applied on its outer buttresses, with its portal opening into a rich canyon of carved stone and its blaze of light through the rose window—is man's greatest architectural triumph. It is an orchestration controlled by just a single intuitive idea: the glorification of the Virgin, amplified a thousand ways.

In a sense, these two sanctuaries, the forest and the cathedral, are alike—one grown by nature, offering a renewal of contentment; the other created by anonymous master builders and their guilds for the Virgin Mary.

When I was 17, courtesy of the Boy Scouts, I first saw and felt the impact of Chartres, felt its mysterious energy, felt its haunting anonymity, but could not define it. Henry Adams helped me to understand the social forces inherent in that incredible unleashing of creative energy, directed by and mounted out of the force of religious devotion.

Today in America we have social forces but no religious fervor. We construct great steel and glass towers with the use of computers and technology far beyond the grasp of the stonemasons of Chartres. We share much of the anonymity of those early builders, but none of the humility of the ego. Perhaps we lack the sensitive fittings, the contact of the human hand, stone by stone. Is it, indeed, the personal touch of humanity that we have imprisoned and denied in our glass boxes? My instincts tell me that these forces within ourselves are not dead, although they do appear to lie dormant.

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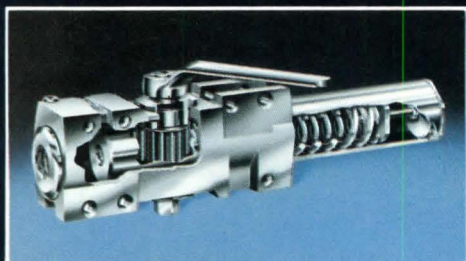


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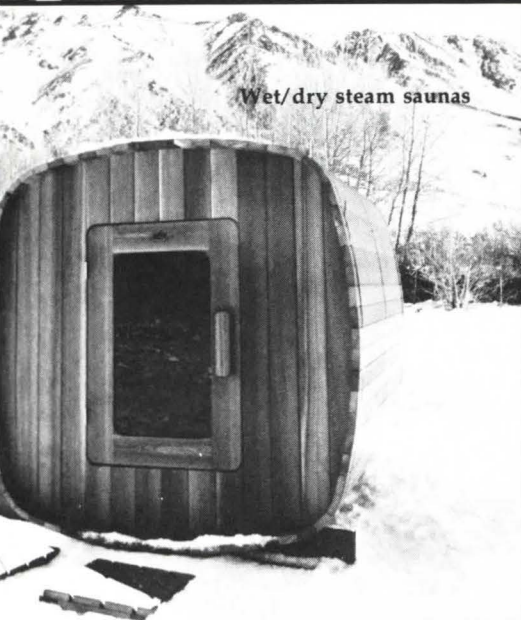




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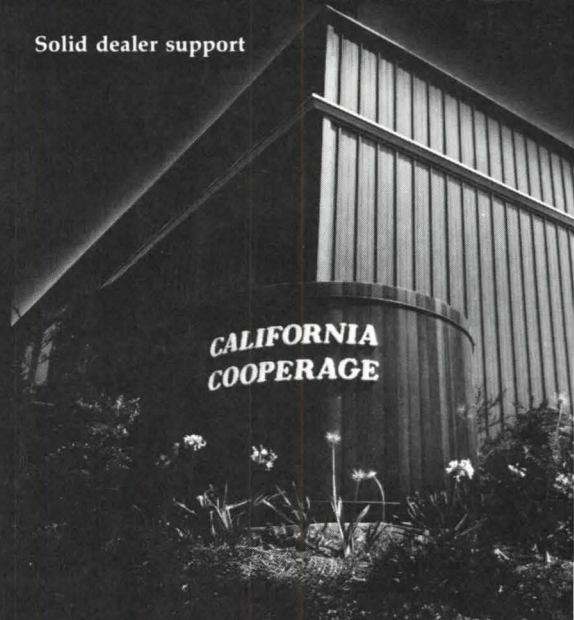
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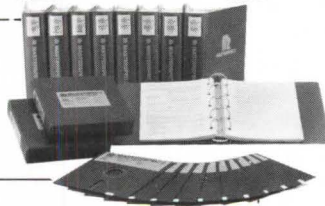
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The Institute from page 20

rience in the open space. Recognized as a jewel-like answer when it was built, it was pronounced a national monument 30 years later—in April of this year—thus protecting it from the efforts of developers to program a larger structure in its place.

Chase Manhattan Bank, distinctly related to the city environment, was planned as an anchor to stop the flight of business from Wall Street to upper Manhattan. Its plaza became a town square, a central focus to hold the district together and to serve a human need.

Crown-Zellerbach in San Francisco, placed in the center of a thoroughfare, offered new dynamics to a dying portion of the city. Again, we invited the office workers to a sunny, open-space plaza, sheltered from the wind, the moving water of a sculptured fountain contributing vitality.

These are some of SOM's answers to the imperatives of restored harmony between man's nature and man's habitat.

But outside the crowded cities, outside the suburban sprawl and the highway detritus, there is another world to which the people, their cars filled with children and dogs, travel to seek their release in motion. Motion is an outlet from the conformity and constraints of the everyday life, an escape from frustration, an escape from barriers and the unnatural strictures placed on us by the demands of the factory whistle, the time clock, and the computer. In the words of John Muir, "They come like thirsty sponges to imbibe." Instinctively, they seek a sense of place—untrammelled by the crowds, and beautiful to enjoy.

Except for the storms that plagued and scarred the coast and its roads this winter, Big Sur has drawn people from all over the nation for one view of a sunset, one view of the whales churning south, a raft of sea otters carrying their pups on their breasts, one voice of the wheeling hawk or the sea lions barking below. And the Big Sur residents themselves have become a living monument of citizen participation trying to halt the collision course between those who would preserve the land and those who merely want to use it.

The coast road, carved out of the mountains 50 years ago, threatened from time to time by freeway legislation, is now disintegrating. Thirty years have passed since my wife, Margaret, and I built our home on one of the promontories of Big Sur. From that place, we viewed the immensity of the coast and began to organize a master plan for its defense—yes, having defined our values, we had to defend them. As an architect myself, I followed my instinct to guard the thin edge of Big Sur with zoning regulations, view-sheds, and site-selected cluster building. During the two years of public

hearings, I found myself being referred to as "Foche at the Marne"—but in the end we won much of what we sought. Yes, sound planning halted the influx of developers and further commercial services, halted the devastation of the fragile road by a freeway.

I look at that great sweep of earth and sea and mountain that is Bug Sur, at what May Sarton called "the leopard spotted land" of New Mexico, at the forests and plains, and I ask, what are the economics of wonder and of harmonious living? Is there a value placed on preserving and

Government

House and Senate Approve Preservation of West Front

The two decades of wrangling over the fate of the last exposed face of the original U.S. Capitol appears near an end, with preservationists the winners over those who want to extend the central west wall about 31 feet toward the Mall. Late last month bills from both houses were headed for conference to iron out differences.

The pivotal vote came a month earlier when the House of Representatives voted by an unexpected 3-to-1 margin to preserve the west front, reversing both voting precedent and the sentiment of the House Appropriations Committee, which a week earlier had approved \$70.5 million to extend. Over the years, the House had typically voted for extension by a slim margin, while the Senate supported restoration. The vote was a victory for coalition of liberal Democrats, conservative Republicans, and several outside groups, including AIA and the National Trust for Historic Preservation, both of which lobbied for preservation.

The House version provides simply for \$49 million "to remain available until expended, for the restoration of the west central front of the United States Capitol without change of location or change of the present architectural appearance thereof." The Senate bill, which would allocate \$1 million less, is more detailed, requiring a fixed price contract supported by performance and payment bonds.

An amendment to the Senate bill, authored by Senator Alfonse D'Amato (R-N.Y.) and adopted by voice vote, would provide for a consulting architect for the restoration project who would serve as a "watchdog" for the West Front Commission, comprised of the vice president, speaker of the House, and the majority and minority leaders of both houses. The architect of the Capitol would be required to keep the consulting architect "fully

strengthening man's sense of awe and the discovery of his right place in the universe? There is something beyond the boundaries of the limited human intellect, and that something can lead us toward truly *creative* energy, with new ideal and new goals to attain.

Reaching my 80th year, I can say that I hope my epitaph will be on my motivation and strength, an epitaph cut into a rock on a point of land above the sea and in the wind of the Big Sur coast. It will read: Instinct—Untrammelled—Joyous and Fearless.

and currently informed" of the progress of the restoration, and the consultant would be paid out of the general appropriation for the project.

In comments supporting the amendment, D'Amato said the position "will be a full-time job to supervise the project properly" while noting the extent of the architect of the Capitol's current responsibilities. He also alluded to "horrendous cost overruns" in four recent Capitol Hill construction projects, including the Hart Senate Office Building and the Madison Building of the Library of Congress, that the office of the Capitol architect supervised. And, pointing out that White was a strong proponent of the extension proposal, D'Amato commented that congress should appoint someone "more sympathetic to this project."

Federal Construction Costs

The federal government could save \$43 million annually by reducing design and engineering staffs at federal agencies and by contracting with the private sector for those services, according to a report recently released by the President's Private Sector Survey on Cost Control.

The overall findings of this panel of private sector executives and specialists reported "inefficiencies" in the federal construction program that could result in a three-year savings of \$5.1 billion if corrected. Among the problems cited are that GSA "does not always execute adequate designs prior to requesting appropriations," life-cycle costing procedures are not always properly used, and various regulations cause costly delays and generate numerous wasteful design changes. The report does endorse the Brooks Law A/E procurement system as "an economical and successful procedure."

News continued on page 27

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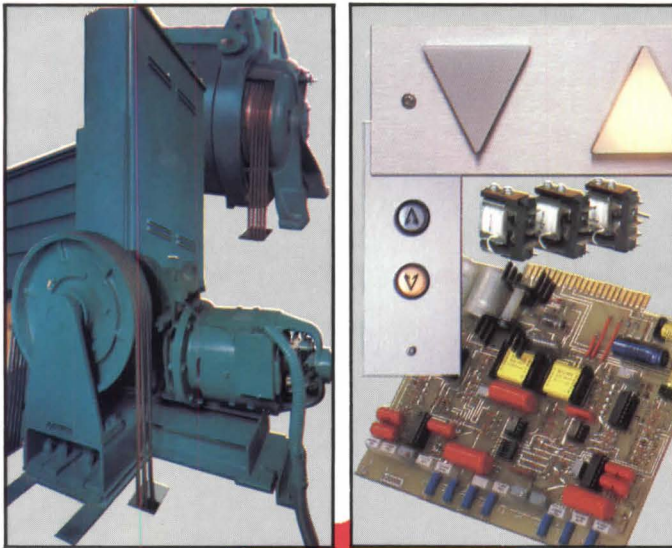
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Ise Gropius: Diligent Keeper Of Walter Gropius' Legacy

When Ise Gropius, who died June 10 at the age of 86, was nominated in 1979 for honorary membership in AIA, Norman Fletcher, FAIA, commended her talent as a critic and historian. "She talks about function not in a rigid and narrow way, but as responsive to human needs, both emotional and physical," Fletcher wrote. "Her view of the nature of structure and expression is common-sense and straightforward without doctrinaire interpretation or repetition of form. Her clear, incisive views on the basic aims of architecture seem very much needed in a climate where 'anything goes' is so widely applauded."

Fletcher, principal in The Architects Collaborative, was one of several who commented on the way in which Ise Gropius administered to the legacy of her late husband, Walter Gropius, founder of the Bauhaus in 1919 and cofounder of TAC in late 1945. Nevin Summers, her assistant in the mid-'70s while he was a student at Harvard's graduate school of



design, wrote of "diligence she has given to all matters, practical and spiritual" of the Gropius estate, including "countless interviews, speeches, articles, and letters concerning Walter Gropius and education at the Bauhaus and at Harvard; the complete design, execution, and manage-

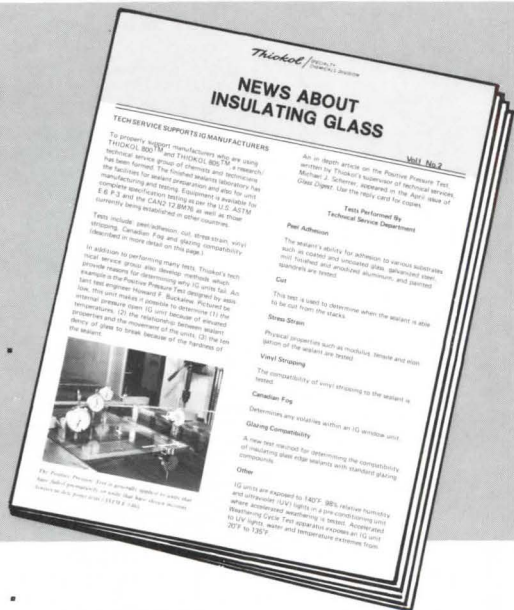
ment of the Gropius architectural exhibit's traveling all over the world; and the documentation, preservation, and donation of Gropius' manuscripts, drawings, and other works to numerous museums, archives, and libraries."

Ise Frank Gropius first met Walter Gropius, 14 years her senior, when she attended one of his lectures in Hanover, Germany. They were married in 1923, and she became his closest collaborator and adviser, working, for instance, as archivist, writer, translator, and editor with Gropius and Herbert Bayer on the first publication about the Bauhaus, the catalog for the 1938 Museum of Modern Art exhibit, "Bauhaus 1919-1928."

Through the years, the Gropiuses scrupulously saved papers dealing with his professional and artistic career. When Gropius died in 1969, he left the equivalent of 200 linear feet of manuscripts, clippings, photographs, and ephemera, says Rodney Dennis of the Houghton Library at Harvard. Yet, "when I visited her house in 1970, the archive was a model of intelligibility." Remaining was the decision of where the materials, which were almost equally distributed between Gropius' German and American periods, should reside. "The prospect of splitting up the archive and destroying its unity was apparent and discouraging," Dennis

continued on page 85

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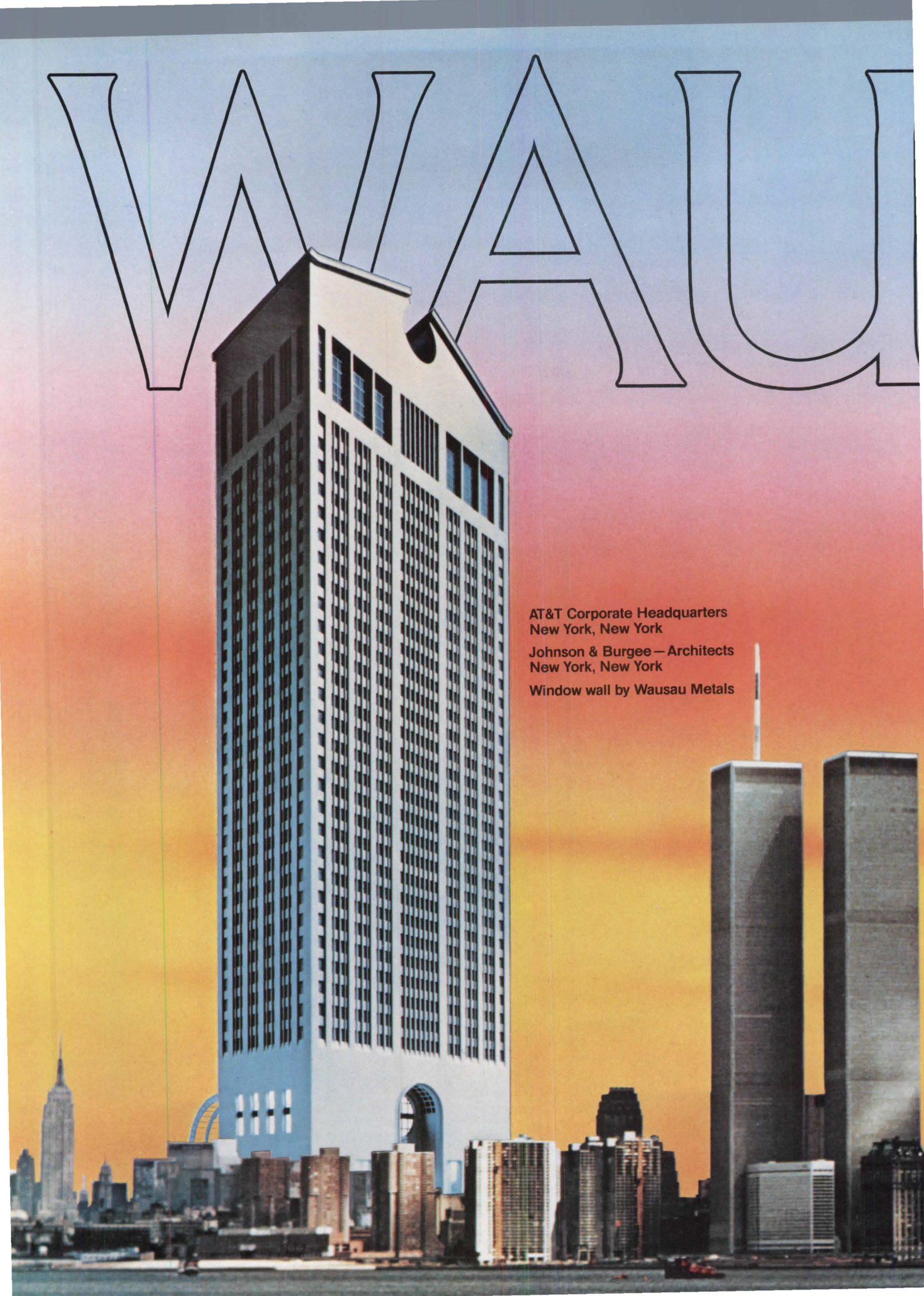
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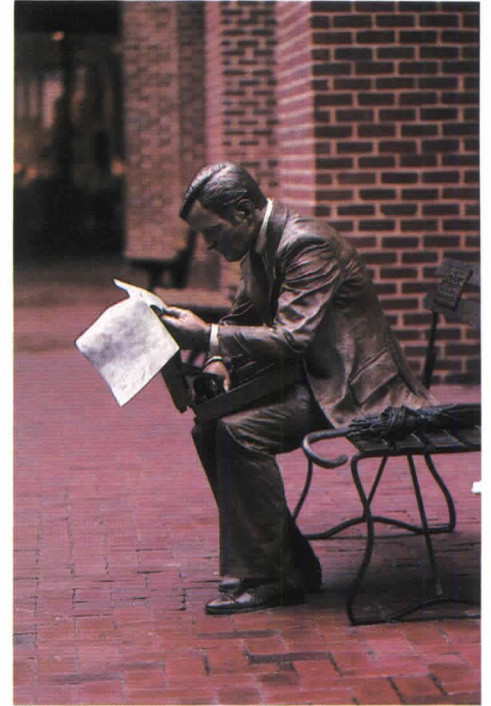


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Johnson's Civilized Slices of Life

Photographs by Philip W. Smith



Johnson calls the painters 'So the Bishop said to the actress. . . .' Man with briefcase is 'Double Check.' Above, 'Out to Lunch'; right, 'The Photographer.'



Out of the corner of your eye, they seem real, almost. Never begging for attention and never rude, they go about their business in unexceptional ways, doing the things people do in public.

Like real people, they are simultaneously types and individuals. They type-cast themselves by the clothes they wear—overalls, business suits—and by the items they hold—paint rollers, briefcases—while expressing their individuality in quieter, unconscious ways—a gesture, the way they sit, a look in the eye.

Their creator is J. Seward Johnson Jr., son of a founder of Johnson & Johnson Co. After a career as a painter, mostly impressionistic landscapes in oil, Johnson switched to sculpture some 15 years ago. Now in his late 50s and working in Princeton, N.J., he has turned out more than 70 life-sized works, each cast in editions of seven or fewer.

His figures engender humor, but their origin is a quiet acceptance of universal human conditions, not the pathos-tinged satire of a George Segal or the ruckus caricature of a Red Grooms. There is even an element of sweetness about Johnson's people, but it grows out of their earnestness or their concentration on daily tasks, not from an imposed saccharine Hummel-figurine quality. Most of all, they become part of their environments, silent participants in the lives of real people who share their space. They represent the most accessible of public art.

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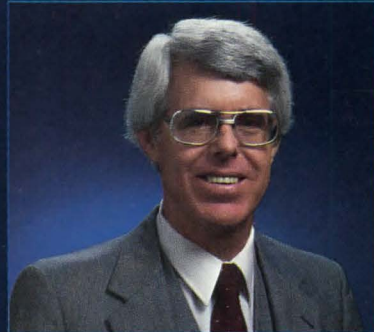
The lesson was well taught. Rixson door pivots in Frank Lloyd Wright buildings provide more than obvious aesthetic advantages. Their mechanical superiority has, unnoticed, better protected countless doors and frames from the ravages of the years. There is no better means of door hanging than the Rixson pivot.*

*Additional information, on request.

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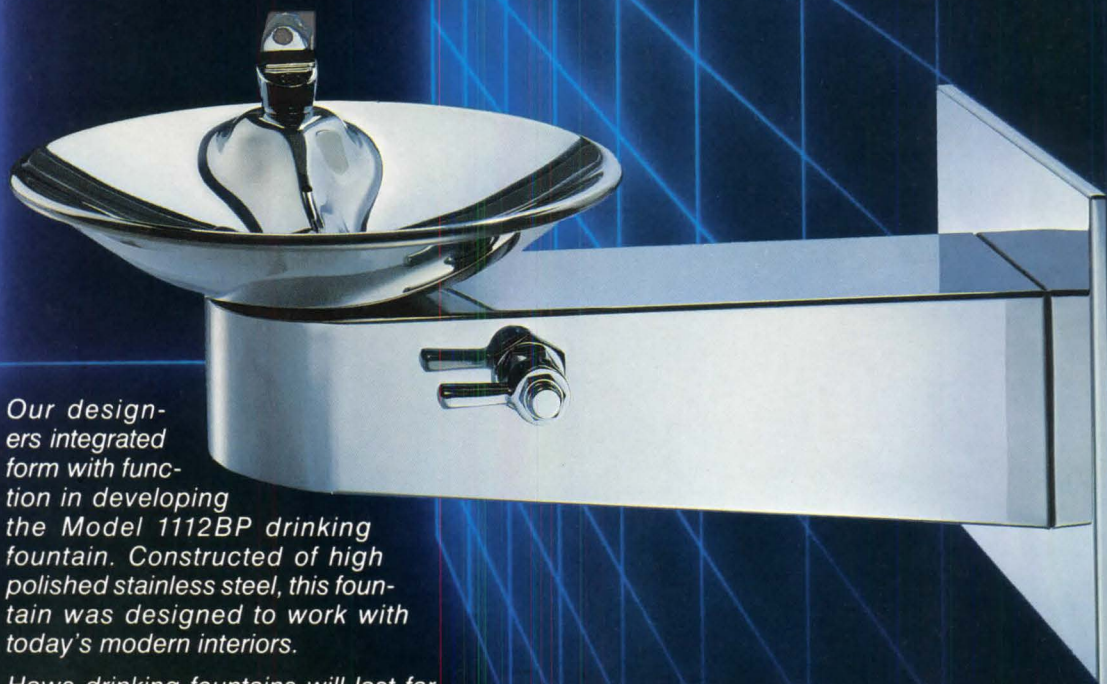
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ARCHITECTURE

With this issue we present, as promised, a new logo and the first new buildings to appear in a regular issue for a long time without a special setting or rationale. There are three of them, and they say something about the kind of work we will be examining as the months go on. One is a chancery that brings together the motifs of two cultures, without their quite touching, and admirably meets a seemingly dichotomous program. (The term program will appear frequently in our analyses of buildings.) The second is a hotel that responds at once vigorously and respectfully to its context (another favorite word). The third is a train and bus station that demonstrates that richness need not mean opulence or bigness.

Two of these buildings are shown here for the first time in a major professional magazine, and the third has been seen before. It is here in part to demonstrate that, as in our annual reviews of U.S. and world architecture, we will include buildings irrespective of whether they have been published elsewhere. Doing so, we must admit, is part of a conscious effort to change the relationship between architects and the magazines that serve their profession.

The practice of the magazines racing to be first to show buildings has several unfortunate side effects, in our view. One is to make the magazines beholden to the architects of the buildings, which inhibits honest criticism. It can even induce the magazines to "sell" their building content. These things can give the impression that the magazines are publicity vendors rather than vehicles of professional discourse.

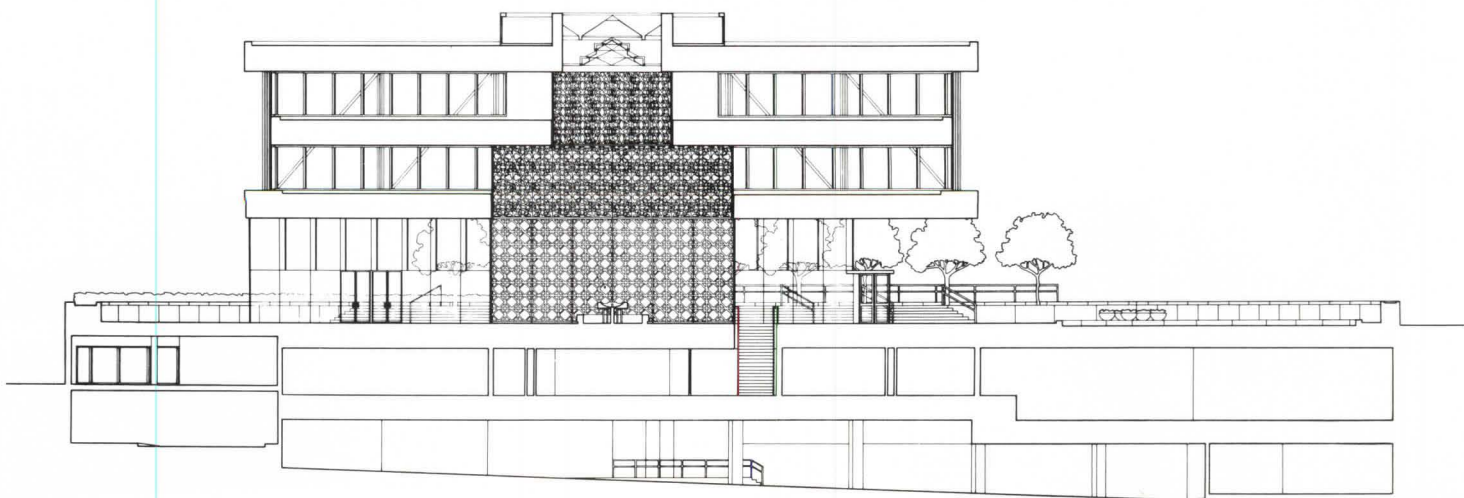
We would like to see a time when each magazine did major buildings in its own time and its own way, perhaps even arguing with one another from time to time. We would like to see buildings discussed, not just "presented." We would like to see lessons drawn from acknowledged blemishes as well as photogenic forms and beauty spots.

We cordially and respectfully invite our counterparts to join in moving toward a new kind of relationship. The first step is not to worry about who's first. And architects who want their professional magazines to be even more professional can help by simply disdaining to give first or exclusive commitments for publication of their buildings. *D.C.*



Islamic Jewel in a Modernist Box

SOM-New York's Kuwait Chancery, Washington, D.C. By Donald Canty



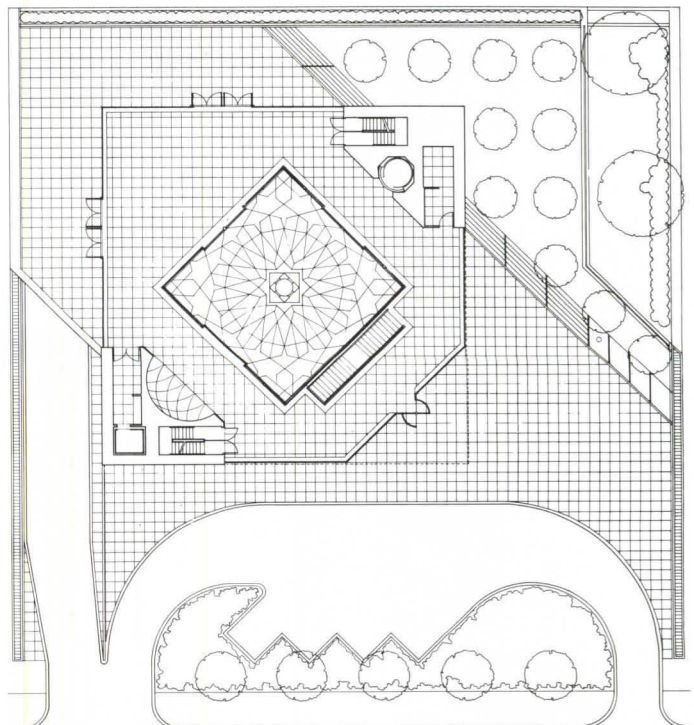


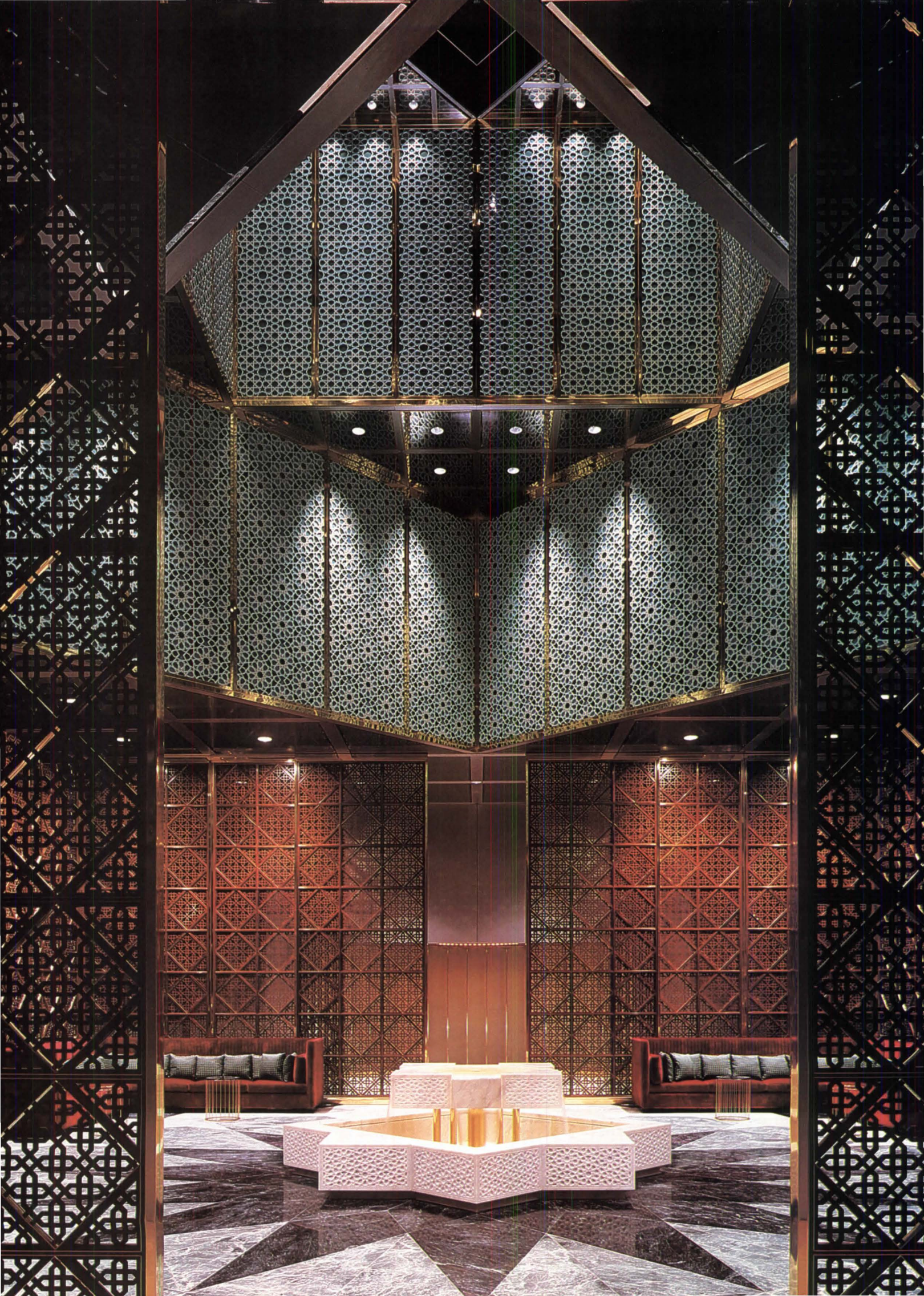
There is perpetual tension between the diplomatic and domestic spheres of Washington. Residents of the “better” (or more inflated) neighborhoods often resist the coming of foreign embassies and chanceries, and yet there is a steadily increasing need for such facilities, and Embassy Row on Massachusetts Avenue has long since filled up. So in the 1970s local and federal planners decreed a sort of second Embassy Row on a knoll a couple of miles north of the original, left vacant when the National Bureau of Standards joined the flight to the suburbs.

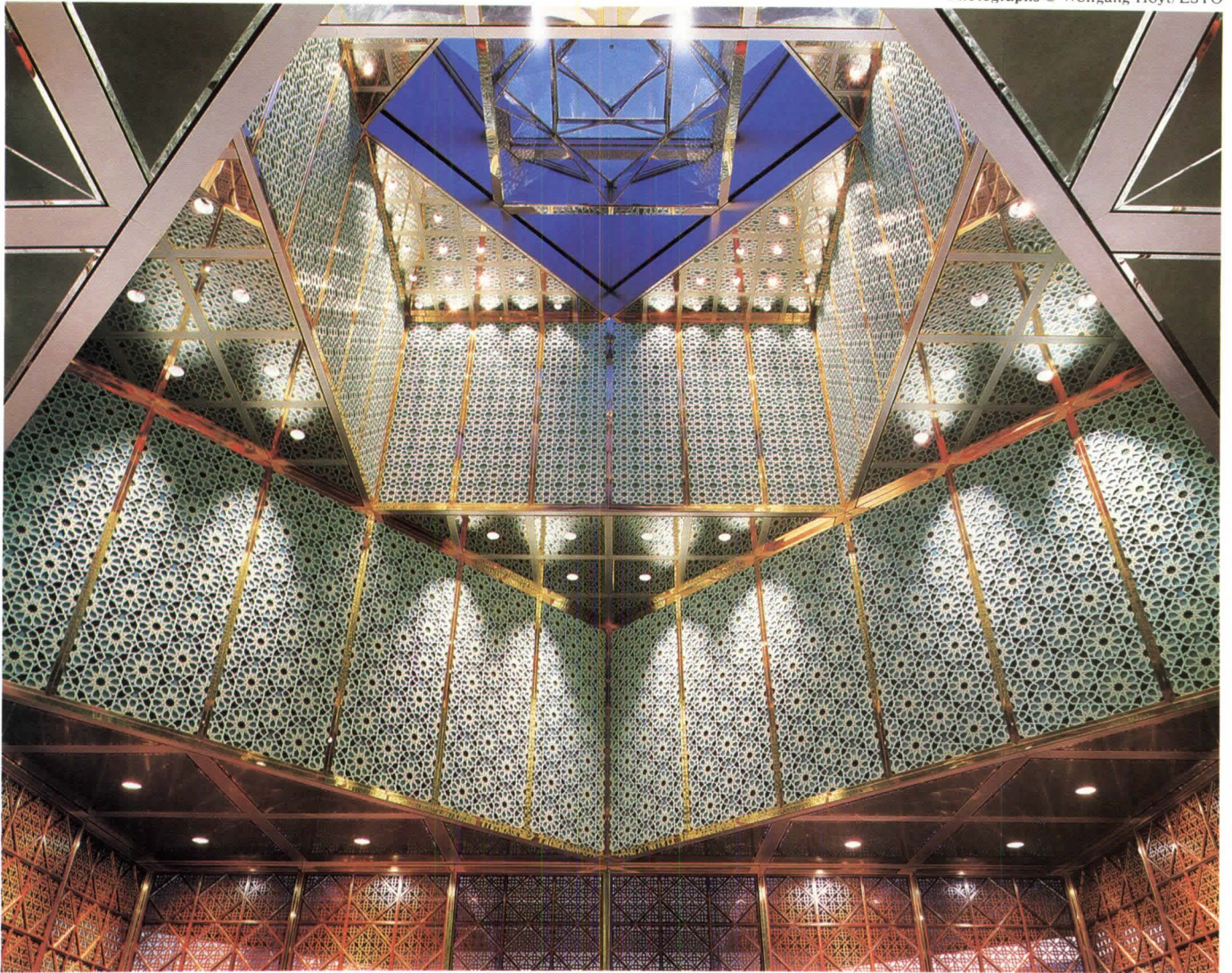
The International Center, as it is called, provides sites for 23 diplomatic buildings and the headquarters of the International Telecommunications Satellite Organization (under construction to a competition-winning design by John Andrews). Many of the initial occupants of the land are Middle Eastern nations, and most of the first buildings are uninspired, tending toward a kind of mud-colored Moorish resembling settings for “Gunga Din.”

To say that the Kuwait chancery shines in this company is an understatement. It is a white stainless steel cube with a corner carved out for the glazed entry, penetrated by gray green windows held in gleaming stainless trusses. It is a pert and dashing presence that, when approached, begins to reveal that it is saving the real drama for the interior.

Beneath the stainless trusses cantilevered from steel cores at opposite corners is the glazed entry with its glimpse of the ornate reception hall (patterned areas in section and main floor plan).







Fantastic volume fashioned of rotated squares.

For, set free-standing within the cube is the chancery's crown jewel, a three-story reception hall rising to a faceted lens that casts prismatic light across intricately patterned, brightly painted walls and onto a multicolored marble floor.

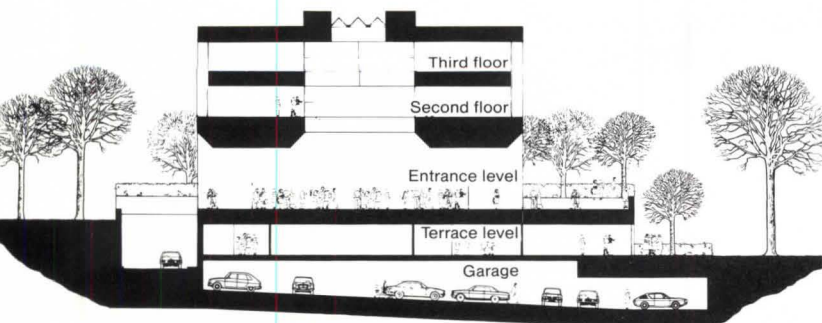
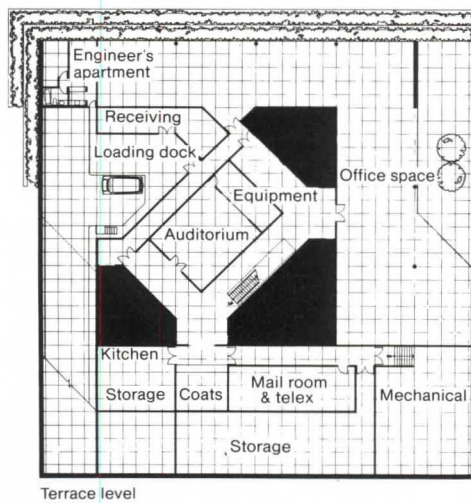
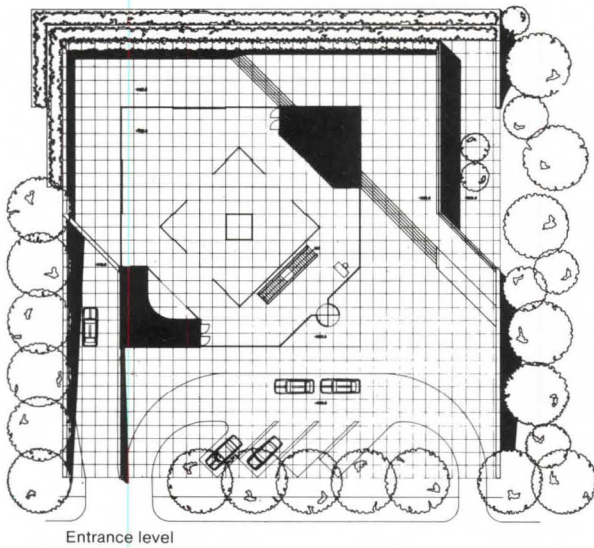
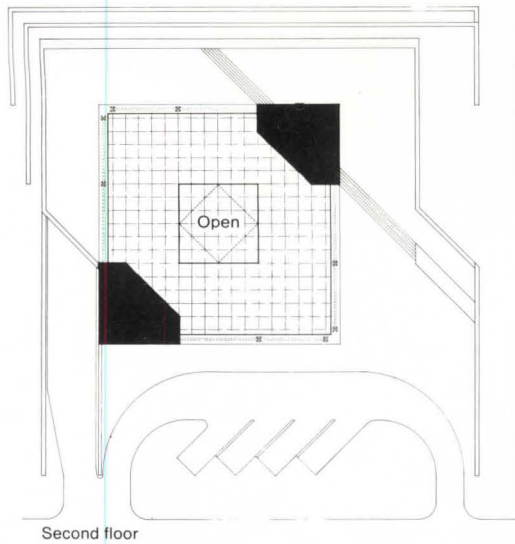
The basic decorative motif, common to Islamic art, is the rotated square. Thus the hall itself is square in plan, rotated to be diagonal to the square plan of the building. As the hall ascends to the level of the office floor above, another rotation occurs, so that the opening here is diagonal to the main floor. This happens once more on the second office floor above, so that the opening at this top level aligns with the main floor.

The result is somewhat mysterious and thoroughly magical. Looking up, one sees a series of triangular ceiling segments dotted with lights and everywhere reflecting the patterns of the walls, then finally the skylight. It is a dazzling, almost dizzying experience, and it is also almost too much. Michael McCarthy, AIA, SOM-New York design partner for the chancery, has done a great deal of work for the firm in the Middle East and acknowledges that the exuberance of the Islamic esthetic can be hard for a Westerner to get used to. "I never thought I'd be using colors this way," he says with an obvious lack of regret.

The hall is enclosed by tall teak panels cut into a filigree pattern by laser beams. For small functions the panels are closed; for larger ones they are opened so that the hall works with the surrounding main floor space; and for really large ones doors are opened to the terraces beyond the building's glass walls.

The reception hall glitters by day with light from the lens at its crest, even more by night with light from countless fixtures in its ceiling segments. Fountain follows rotated square motif.





Tight on space but lavish in details.

In addition to providing space for receptions and other social functions the chancery had to accommodate a staff of 68, provide facilities for various kinds of meetings, and incorporate a catering kitchen and off-street parking. All of this had to be done on a half-acre lot and within a 48-foot height limit. Tight zoning on the International Center protects the surrounding residential area (which includes the author's house).

Clearly this meant that something had to go underground, but the zoning prohibited frontal exposure of any below-grade facilities to protect buffers of landscaping between the various nations' buildings. The site, like most in the center, sloped sharply,



and looked down on a city street at the center's south edge. So by terracing down the slope toward this edge SOM was able to bring daylight to a level below the main floor that is used for additional offices, a 50-seat auditorium, the kitchen—and some of the most opulent guest restrooms known to Washington.

This level is linked to the main floor by an exceptionally handsome staircase. The routine at receptions is for guests to enter, come down the stair and deposit coats, then go up where

Plans are of the second floor office space, at top; the main or entrance level, center; and the terrace level, or first basement, bottom. Photos above left are of guest restroom, top; stairs to terrace level, center; and typical office. Above, elevator interior.

the ambassador and his cohorts are waiting in an alcove designed for this purpose on a perimeter wall. The stairway maintains the elegance of the spaces above (as do the restrooms). But once downstairs the feeling is that of being backstairs, in some kind of service area. Perhaps it is partly a matter of contrast with the sleek exterior and gemlike volume on the main floor.

The elegance is carried upward in a remarkable domed elevator. The office floors to which it opens do not share in the decorative zest of the reception hall, although they are to be adorned with Islamic art. These are pleasant, efficient spaces, as cool as the green glass. They have excellent views over Washington, and some have the added punctuation of a stainless truss member passing just outside.

Satisfying the program by breaking it in two.

Perched on its hilltop site, the chancery is like some modernist vision of the '30s: crisp, commanding, the embodiment of sophistication and simplicity. Some of it is the quality of the materials. (Inevitably the building brings to mind the Groucho Marx line, "like something God might have done if He had money.") Some of it is the surehandedness in detailing that comes from the mastery of a particular style.

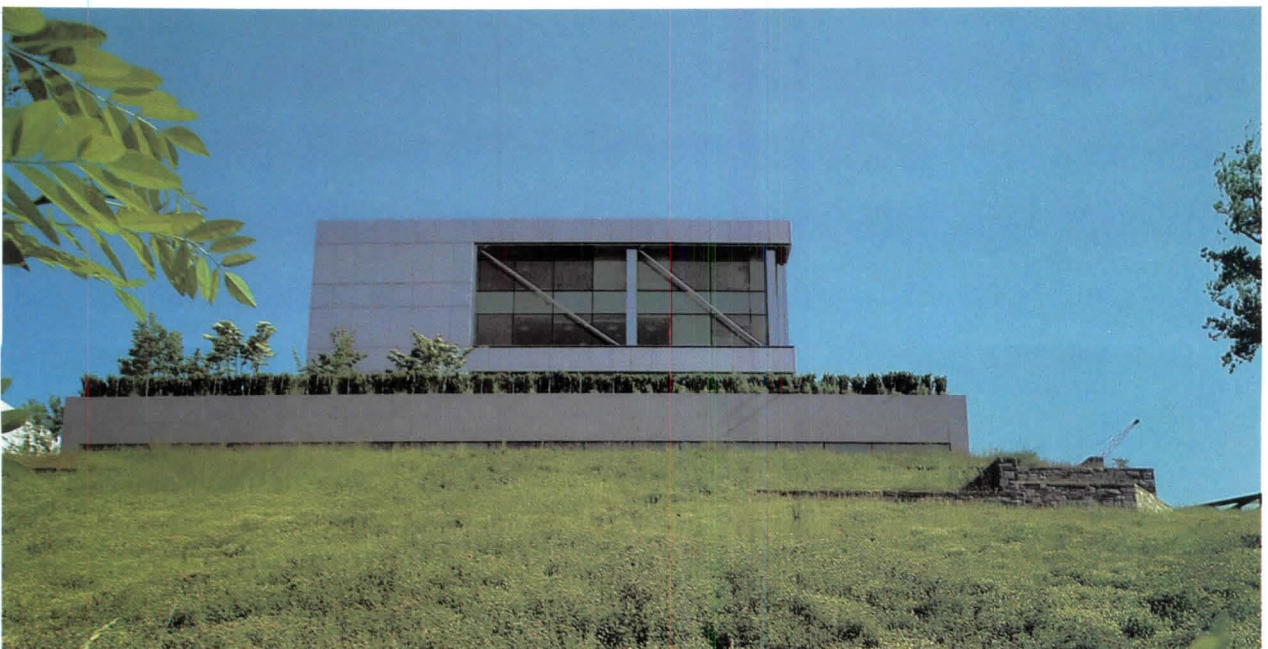
The basic program given McCarthy by the ambassador who was his client was that the building should "express both the traditions of Islam and the technology of the future." McCarthy's success in meeting these seemingly contradictory requirements resulted from his not trying to do both at the same time.

He gave the client high-tech (and a kind of classic futurism) in the shell. But entering the reception hall is like moving into another time and culture. □

Allen Freeman



Allen Freeman





Opposite page, the chancery is terraced down toward a residential street to the edge of the International Center. The terracing allowed the first below-grade level to be opened to light and views. (A second below-grade level contains parking for 38 cars.)

A Strong Contextual Gesture Gone Awry

*Long Wharf Hotel, Boston, Cossutta & Assoc.
By Robert Campbell*

My file on the Marriott Long Wharf Hotel bulges. After all, this was the building that triggered the forced resignation of the director and the chief architect of the Boston Redevelopment Authority. In Boston, where politics tends to outweigh design as an object of public frenzy, it's the politics that people remember. None of that matters much now, of course. The building is there and whatever its history, it deserves to be evaluated on its merits.

Still, it's fun to turn back the pages. Fun to remember that an extremely competent design staff review by the redevelopment agency rated the design by Araldo Cossutta, FAIA, of Cossutta & Associates, eighth out of eight among the submissions in the competition. "This scheme," the staff report stated, "represents the strongest ego statement by an architect of any of the submittals. Unfortunately, Long Wharf, unlike the Christian Science Center [another Cossutta design in Boston done when he was an I. M. Pei partner], does not need that kind of statement." After the controversy heated up, a blue ribbon committee of architects was asked to take a second look. It recommended three of the eight, none of them Cossutta's.

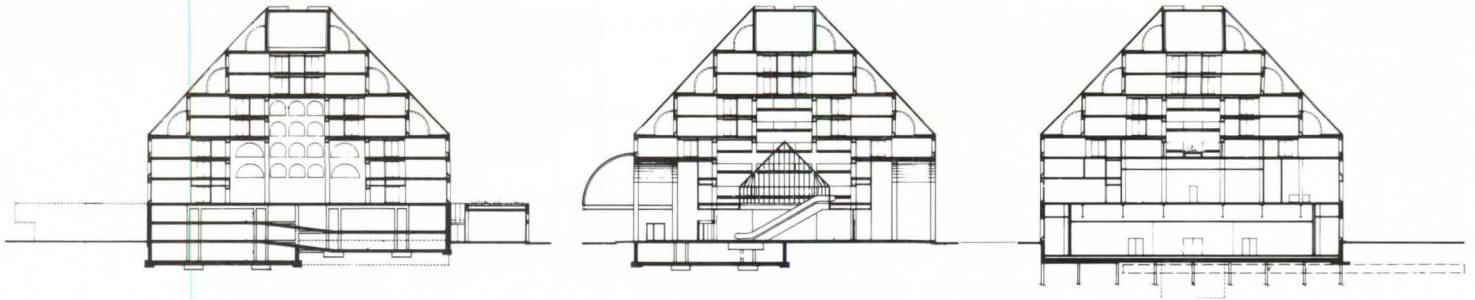
The mayor, Kevin White, however, for reasons never made public but generally supposed to bear some relation to his close friendship with Cossutta's developer (who wasn't Marriott at that time) picked Cossutta's design over what quickly proved to be the prone bodies of the mayor's two subordinates.

I suppose it's really not cricket, in judging a new building, to dig back through the muck of the past as I've just done. Yet if we don't do that, we risk missing some lessons. We fail, for example, to remember that one of the reasons people didn't like Cossutta's hotel was that they thought it wouldn't fit into the neighborhood. "It is a wholly inappropriate form for this neighborhood," said one of the blue-ribbon architects. This remark was made of a building that has proved, in the event, to fit in sufficiently well to cause many people—a majority, I suspect—to assume it is not a new work of architecture at all but is just another recycled old Boston mercantile wharf like many nearby. Memories are short, especially visual memories.



Above, the Marriott Long Wharf Hotel from Boston harbor, with the domed Faneuil Hall Marketplace behind it, then Faneuil Hall itself and the city hall and government center.





© Steve Rosenthal



In the largest sense, the right building.

With the wisdom of hindsight, wisdom I didn't have at the time either, it appears clear that Cossutta's design was never an overpowering ego trip but, rather, that most of the other designs were wimps. There was good reason for this state of affairs. An earlier battle over this same site had resulted in a set of court-ordered guidelines for the hotel design. If you followed the guidelines faithfully, as most of the eight entrants did, you got a building that curtsied and inflected in so many directions at once that it lacked any identity of its own. Only Cossutta and Graham Gund, AIA, whose design was generally the most admired, had the courage to violate the guidelines. The lesson: Courts don't design good buildings.

The last lesson is that any architect who is as charming as Araldo Cossutta, and who wears equally expensive hand-tailored suits, has a good chance of convincing even the most frantic group of citizens, at least in a gentrified neighborhood like the Boston waterfront, that he is not going to build schlock. Once the mayor had finally rammed him down the gagging throats of the neighbors, Cossutta got together with these enemies and engaged them in the kind of rational, open forum that should have occurred much earlier. By modifying his design not very much, he satisfied his critics, and nobody went back to court.

Enough history. What does the Marriott Long Wharf look like today, a year and a half after its opening?

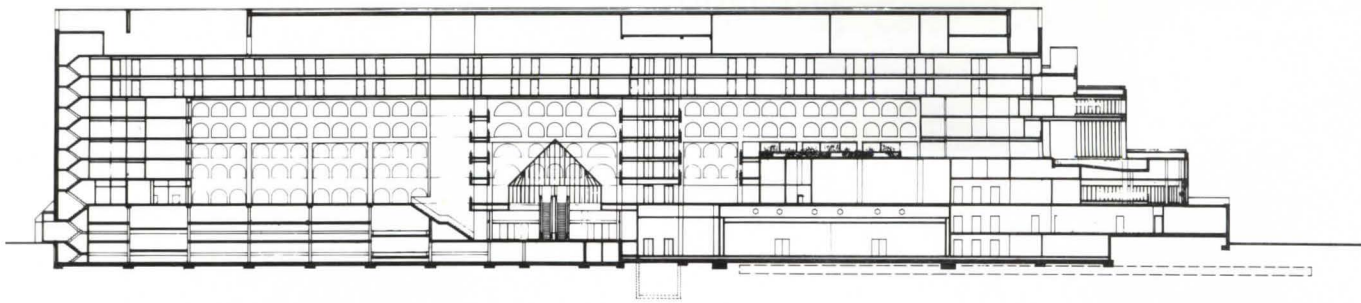
Its merits are what they were from the start, even though then unrecognized. It's the big, bold, assertive building that a major hotel on a highly visible, linchpin site ought to be. It stands with some of that same mercantile self-confidence you see in the bluff and massive Victorian wharves of Boston, or in the Faneuil Hall Marketplace across the street. It has a simple, self-contained shape and a generous scale that express a perfectly proper sense of its importance in the urban scene.

Like the other wharf buildings, locally known as "finger piers," the Marriott is a narrow linear mass thrusting out toward the sea, reinforcing the serrated contour of the land-water seam. Just as some of these wharves were amputated at the landward end to permit the building of the Central Artery, so the Marriott, too, seems to have been chopped off and infilled here—a mannered gesture, certainly, and one that leaves this end of the building rather blank, yet an engaging contextual fantasy. Contextually successful, too, is the way the long north side of the hotel forms a needed firm edge to the fine, popular Waterfront Park by Sasaki Associates.

These are important virtues. One need only imagine a tower-and-podium hotel here, or a meaningless plaza-with-sculpture facing the park, or a building made of concrete or of bronze glass, to realize just how important. In the largest, most critical ways, this is the right building.

Nevertheless, something has gone wrong with my view of the Marriott in the time since it opened. I think what happened is this: At first, everyone heaved a sigh of relief because the hotel was as good as it is and simply squashed all the nagging doubts. In time, these resurfaced. The Marriott has proved to be the kind of building that shrinks on you.





© Steve Rosenthal

Its demerits are of three kinds that I'll call its strange odor of death, its impenetrable edges, and its sculptor's detailing.

Starting with the details: They are often inexplicable except as acts of art, not architecture. An enormous, harsh red steel-and-glass pyramid hangs suspended over your head as you enter the hotel and rise on the escalator, like a great snuffer about to drop and snuff out your brief candle. The relentless use of a single material—red brick—throughout the exterior is an act, again, more of sculpture than architecture. Naturally occurring, scale-giving elements such as doors, windows, lintels, trim, steps, are all suppressed in favor of an unrelieved expression of the great carved monolithic brick mass. Granite and white-painted wood are as endemic to the Boston waterfront as brick and might have suggested a more humane palette.

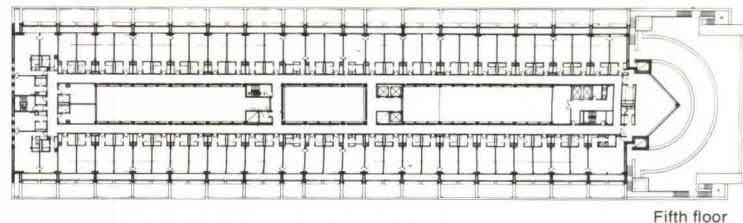
As for the impenetrable edges, they are everywhere. This is an unfriendly building. All four sides at the sidewalk scale are blankly forbidding for much or all of their length. Partly, this is the fault of an impossible program demand: to make a freestanding hotel, public on all sides, that yet must be heavily serviced. The results are indignities like a dumpster hidden behind a silly row of potted evergreens, or long blank walls fronting a ground level that consists largely of truck docks, guest parking, and the usual windowless meeting rooms. Parking was supposed to go underground (here underwater) but that idea proved too costly.

Impenetrable edges occur, too, at the restaurants and the guest rooms, and here a more serious design error has been committed. What you want in both those places is the sense above all of *prospect*, of being in a high, safe place commanding the glorious view over the harbor and the city. Instead, you always feel trapped behind layers of unwanted protective barrier. In the restaurants, the barriers are useless outdoor terraces (this isn't sunny Florida) and view-blocking parapet walls. In the guest rooms, even worse, you're stuck much of the time looking out from a cave across a little asphalt roof to which you have no access, toward a view that seems miles away. If you're facing the park, you can't see it because the terraced roofs cut off the downward view. The basic parti, therefore—the notion of a terraced configuration of the hotel at both the sides and the harbor end—is the cause of a deep sense of withdrawal from the world. You can never claw your way out to the building skin, never be in contact with the view, smell the ocean or even see it. The guest room terraces were supposed to be accessible, but their paving was cut for cost reasons. A great site has been left unexploited and largely invisible.

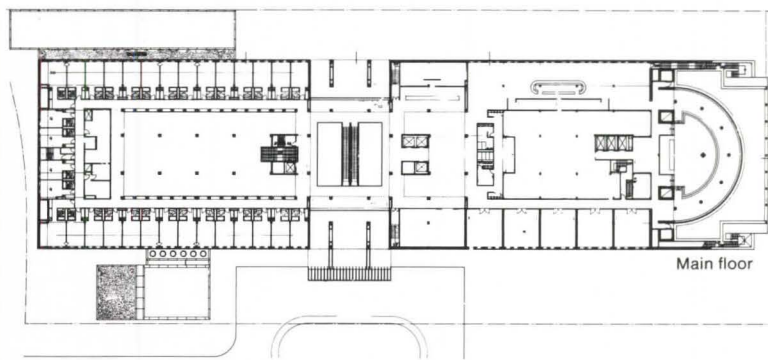
The last impenetrable edge is the hotel itself as a whole in relation to a waterfront walkway that was mandated in the competition. You're supposed to be able to pass right through the hotel at its center as part of a continuous public water's-edge promenade. A pass-through does exist, but it's a joke. Glass doors and a carpeted floor are among the details obviously intended to dissuade the public from imagining it has any right of way through this hotel. The pass-through should have been a clear visual shot, open-air and unimpeded.



Top, transverse and longitudinal sections. Across page, two 'impenetrable edges.' Right, seafood bar on Waterfront Park.



Fifth floor



Main floor



An interior of many arches, no natural light.

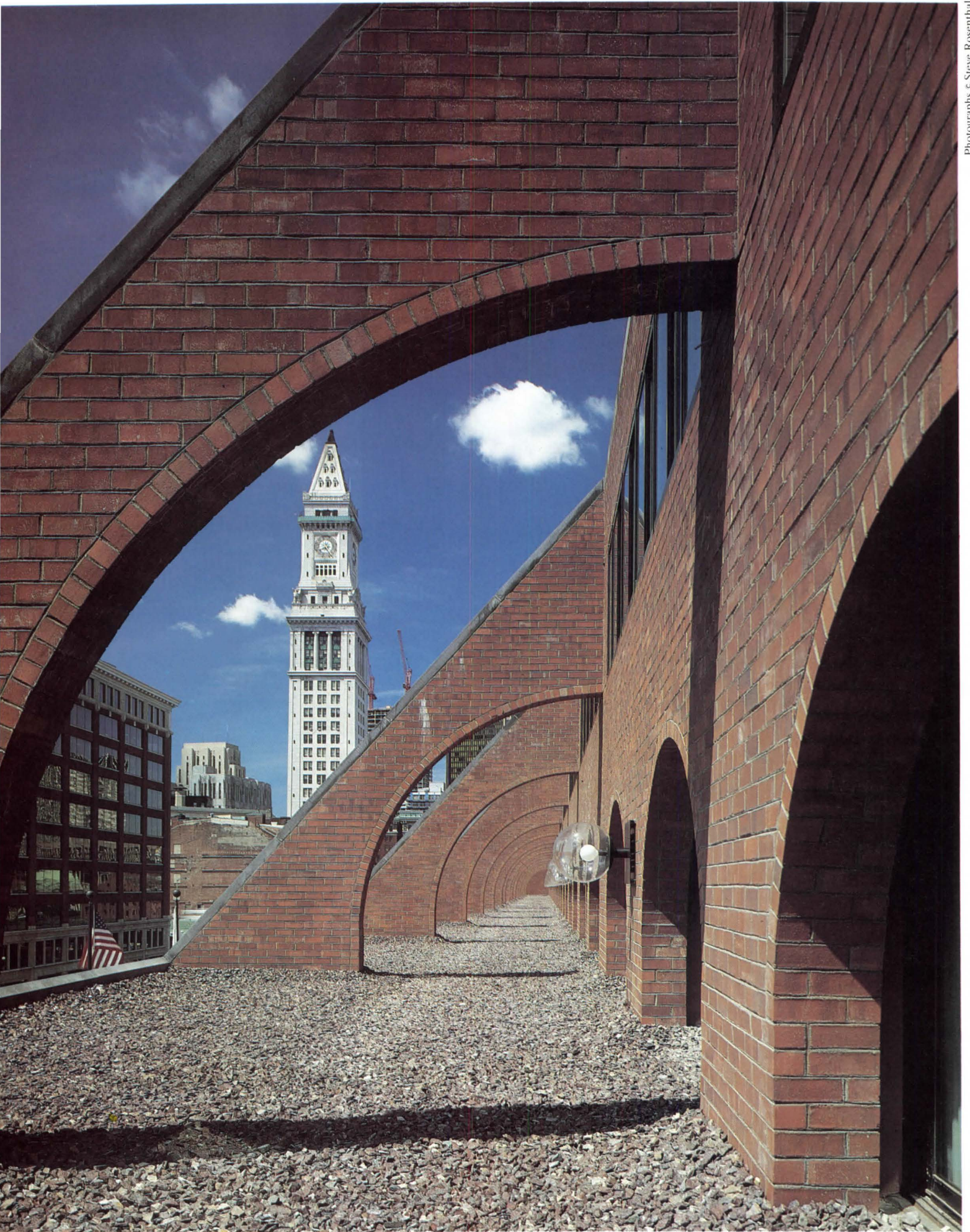
The odor of death, if that isn't too strong a term, begins with the basic metaphor of the hotel's shape. It's a stranded ship, with a prow and decks, made of unfloatable brick and pointing in utter futility out to sea. Inside, the disturbing metaphors continue. A huge interior atrium, which receives no natural light whatever, is surrounded by high tiers of corridor with arched openings, almost like a Piranesian prison. Someone, you feel, is patrolling up there. Used as decoration on a steel-frame building, the endless arches acquire an eerie, surreal quality that strongly recalls the painter de Chirico. And an interior with so many arches, and no natural light, can't avoid a sense of the crypt. The floor of this atrium, a restaurant known as the Palm Court, is cluttered with furniture that occupies rather than articulates space. Spanning the atrium's top is a special seventh floor of higher-priced hotel rooms with their own elevator and "conierge," a floor the management refers to as Seventh Heaven. This floor blocks the possibility of skylighting the atrium.

Interiors, incidentally, are by Cossutta in the public areas and by Marriott's house architects in the guest rooms, the meeting rooms, and the three restaurants besides the Palm Court. Cossutta's part is much the better, full of knowingly chosen objects that often suggest a turn-of-the-century Viennese ambience. One of the restaurants, a seafood bar, spills out along the Waterfront Park with outdoor tables, the one place at which the hotel activates an edge.

The Waterfront Marriott has been a spectacular success as a business, from all reports. Partly that success derives from an ideal location a few steps from the Faneuil Hall Marketplace, from the New England Aquarium, from the business district, and from the marinas and restaurants of the waterfront. But the innate drama of the building must be part of the reason, too, for the success. By the standards of any normal hotel-chain structure, this building is a triumph.

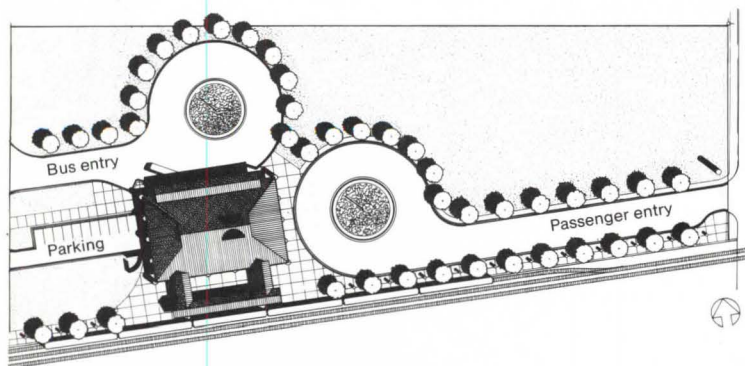
That isn't, however, the standard it asks to be judged by. It asks to be judged as the work of an architect of the highest level of aspiration. By that *standard it is* a disappointment. It belongs to one of that class of buildings that begin with a strong, even perhaps a brilliant and courageous diagram, but which fail to infuse that diagram with the life that might bring it to greatness. □

Left, bottom and top, Palm Garden's overhead mural and chess-board marble floor; the interior roofed atrium, middle. Right, one of six unpaved, inaccessible, guest room terraces.



Bright Spot Along the Tracks

The Battle Creek, Mich., transportation terminal. By Carleton Knight III



Operating railroad stations are a rare breed in the United States these days, and new ones are even rarer. But thanks to assistance from the state government, the City of Battle Creek, Mich., has built a tiny, yet handsome temple of transportation that is at once contemporary and evocative of days past when travel was exciting.

This imaginative building is more than just a railroad station; it's an intermodal passenger facility, fancy words for a single structure that combines train, interstate bus, city bus, and taxi service. The concept was bandied about widely a decade ago, but unfortunately never got much beyond the talk stage. That's too bad because it makes eminent sense.

In the Battle Creek station, by William Kessler & Associates of Detroit, train passengers arrive on one side, bus patrons



Photographs © Balthazar Korab



on the opposite, and automobile traffic on the front. The budget was low (\$1,250,000), and the program very simple, according to Michael Patten, AIA, project designer. The 7,000 square feet of enclosed space accommodate offices, storage, waiting room with ticket booth, restrooms, and a concession stand.

Battle Creek wanted an "image building," according to Patten, and the architects looked to a series of small, pavilion-like stations on the main line between Detroit and Chicago for their inspiration. Those Romanesque buildings feature traditional hip or gable roofs with wide overhangs to shelter passengers, gran-

Separate canopies for bus and train passengers flank the waiting room. The whole is ringed by glass block columns, structural under the canopies, purely decorative elsewhere.

ite block walls, and leaded glass windows. In reinterpreting that design idiom, the architects retained the old forms but updated the materials. The hip roof has a wide overhang (it cantilevers 12 feet from the building) but has a metal batten finish, while the structure itself is constructed of black glazed concrete block.

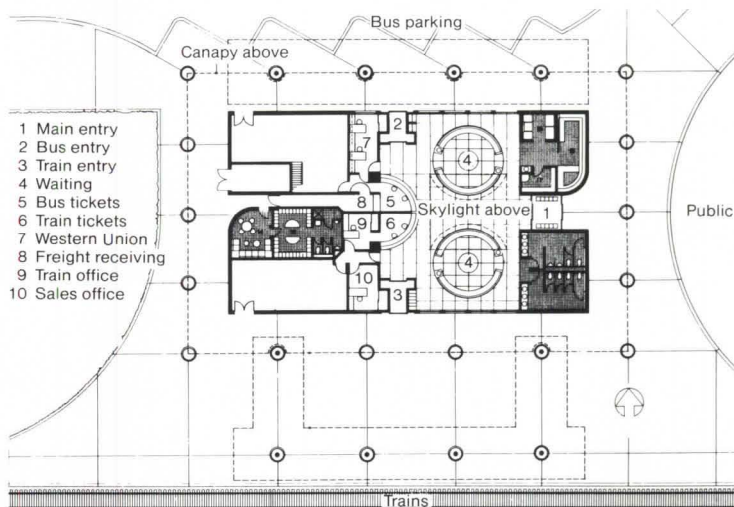
What gives the building a special image are a pair of gable-roofed canopies on either side to shelter train and bus passengers. Each has a semicircular recess on its underside and is supported by a series of glass block columns 4 feet, 8 inches in diameter lit from within, casting a lantern-like glow in the evening. The 4x4-inch glass block is laid vertically and is suggestive of the leaded glass of the past. The procession of shorter columns extends around the building at the edge of the roof purely for the sake of decoration.



Touches of color and gleaming metal.

The overall effect is not unlike a peristyle around a temple. The nearly monochromatic exterior—black walls, gray roof, and white canopies—is enlivened with a chartreuse soffits on the underside of the roof all the way around the building and a bright red-orange recess under the canopies. Inside, a series of drywall-clad rafters under the skylight is each painted a different shade, and together they cover the full color spectrum. The waiting room is further brightened by extensive use of aluminum checker plate, a durable material found in trains and buses that is used here to clad the semicircular seating areas and the ticket counter. Ceiling lighting is white neon tubing.

Given the prefabricated boxes that Amtrak and the bus companies pass off as stations these days, this quiet, well-designed structure is memorable—it is especially enchanting in the evening—and does much to bring excitement back to travel. (One note in passing: The city, which takes a great deal of pride in this year-old building, ought to take better care of it, keeping it clean and redoing the paint where it has peeled.) □

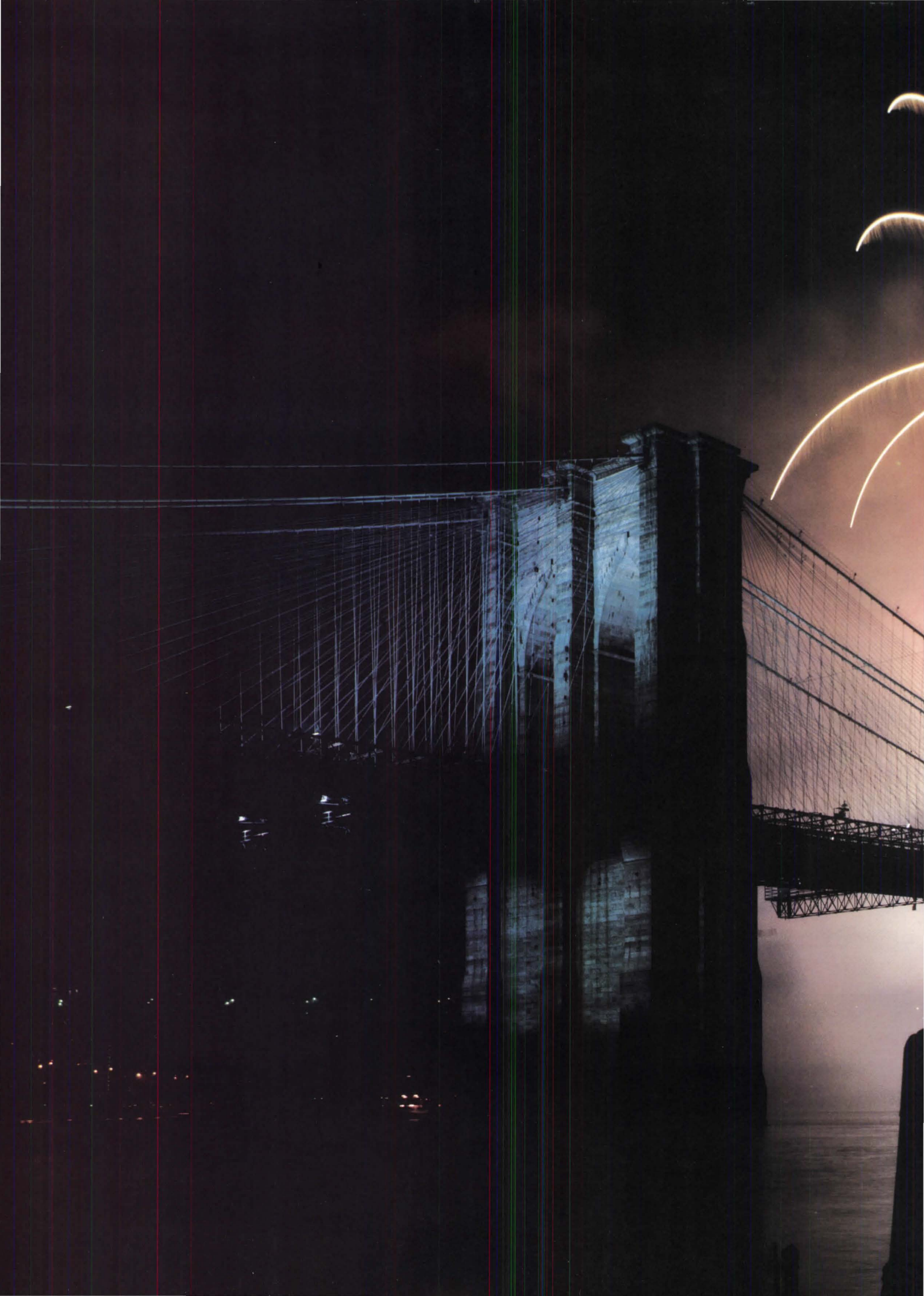


Canopies are brightly colored. Their ends are segmented to resemble stone blocks. In waiting room across page, light from skylight passes through painted rafters and is reflected by aluminum checker plate on counter and benches. Eight Amtrak trains per day stop at the Battle Creek station, right.





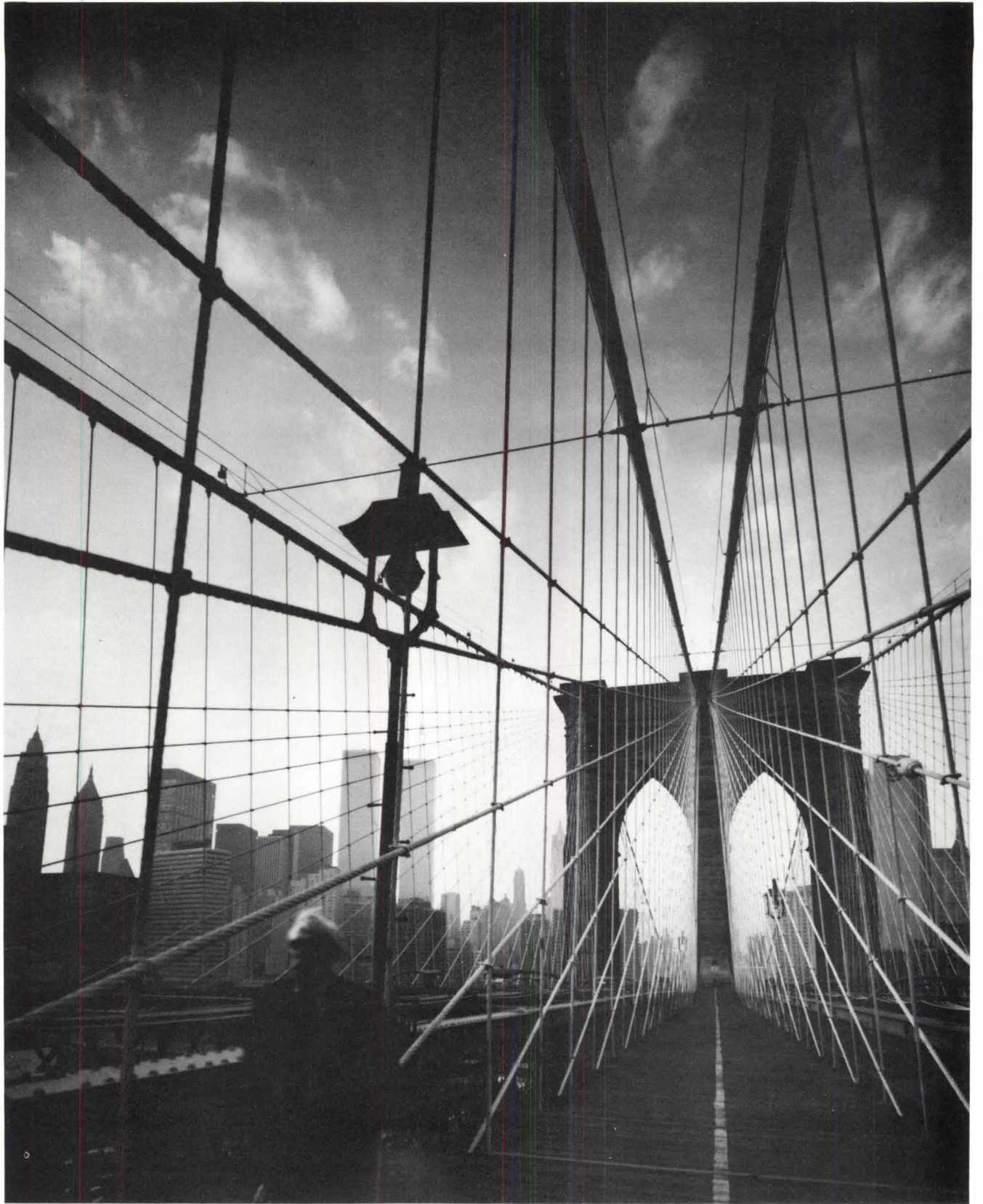
Photographs © Balhazar Korab





Happy Birthday to a Very Architectural Bridge

By Michael J. Crosbie



It was called, for a time, the eighth wonder of the world. Henry James found it a “monstrous organism.” To Kenneth Clark, it was the structure with which “all modern New York, heroic New York, started. . . .” Praised by the famous and endeared by the unknown millions whose lives it is a part of, it is both civic structure and personal memory.

The Brooklyn Bridge.

As civic structure it is an icon. A part of our mental landscape, it is a signifier for New York, the East, Victoriana, the fulfillment of dreams. Very much like a dream, it is elusive, its varieties of meaning hard to discern.

As such it has drawn more comment than any other Ameri-

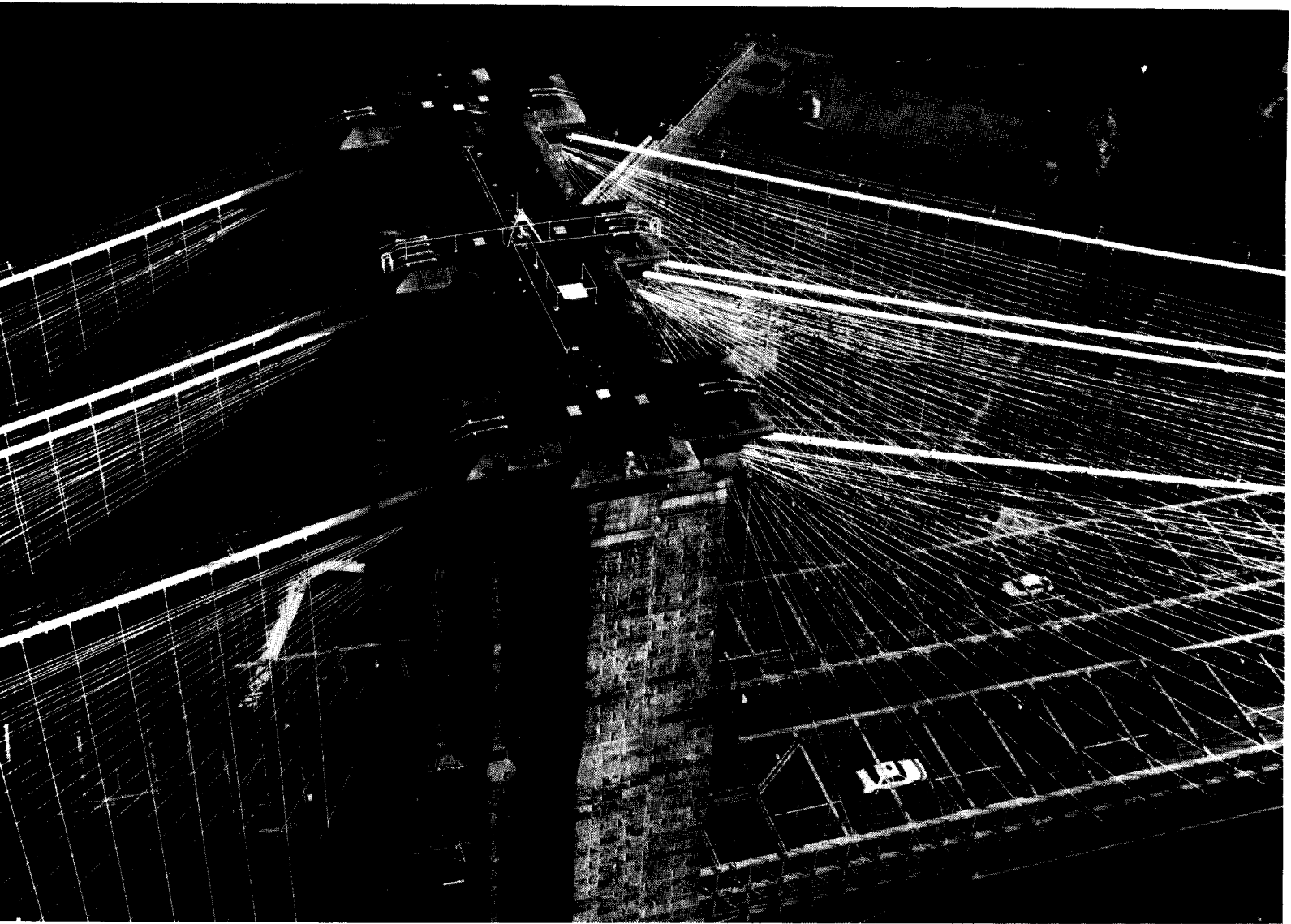
Photograph on preceding pages by Brian Rose

can structure over the century. On the third day of its official opening, May 26, 1883, an article appeared in *Harper's Weekly* appraising the bridge as a monument. The article itself was somewhat of a monument. Lewis Mumford has noted it as the first piece of “serious architectural criticism in America,” as well as the first critical piece on the bridge to appear, written by America's first architectural critic, Montgomery Schuyler.

Schuyler did not find the bridge satisfying architecturally. He

Above, partial view of lower Manhattan from pedestrian promenade through vertical and diagonal cable stays. Across page, underside of pedestrian promenade from center of cable span.





Above, aerial view of the top of the bridge's Brooklyn tower. Right, center saddle of the Brooklyn tower bearing cables. Across page, detail of diagonal stays beneath roadway.



An early negative review and later praise.

described its two towers as crude and rude, their form dishonest. Three pillars, each demonstrating the uneven loading of one cable, two cables, and one cable, would have, in his estimation, been much better. He found the Gothic archways poorly done. "There are, probably," he wrote, "few arches in the world—certainly there can be none outside of works of modern engineering—of anything like the span, height, thickness, and conspicuousness of those in the bridge towers which are so little effective. Like the brute mass of the wall above them, they are impressive only by magnitude." Schuyler was particularly annoyed by the way the cables disappeared into the cornice of the towers, an act that he termed "architectural barbarism." The cables and the webbing were the most pleasing facets of the bridge to Schuyler. Although he complained of their "unnecessary complexity," he praised their form and girth as expressive of their function.

On balance, as a noble work of engineering and not of architecture, Schuyler pronounced the bridge a worthy creation of the age: "The work which is likely to be our most durable monument, and to convey some knowledge of us to the most

remote posterity, is a work of bare utility; not a shrine, not a fortress, not a palace, but a bridge."

Other critics, aided with a view back through time, have placed the bridge in its architecturally historic, social context. Siegfried Giedion and James Marston Fitch have identified it as one of the greatest spatial conquests of the 19th century, along with Paxton's Crystal Palace in London and the Eiffel Tower in Paris. Vincent Scully writes that the bridge "introduced all at once the scale of a new urban world and released into space its symbol of the roadway rushing continuously onward."

The bridge expresses for Mumford the social and technological milieu of its design and construction. "All that the age had just cause and pride in," he wrote, "its advances in science, its skills in handling iron, its personal heroism in the face of dangerous industrial processes, its willingness to attempt the untried and the impossible—came to a head in the Brooklyn Bridge."

And of its material and design, Mumford situates the bridge in both time and space. "The stone plays against the steel, the heavy concrete in compression, the spidery steel in tension. In this structure the architecture of the past, massive and protective, meets the architecture of the future, light, aerial, open to sunlight, an architecture of voids rather than solids." The bridge's

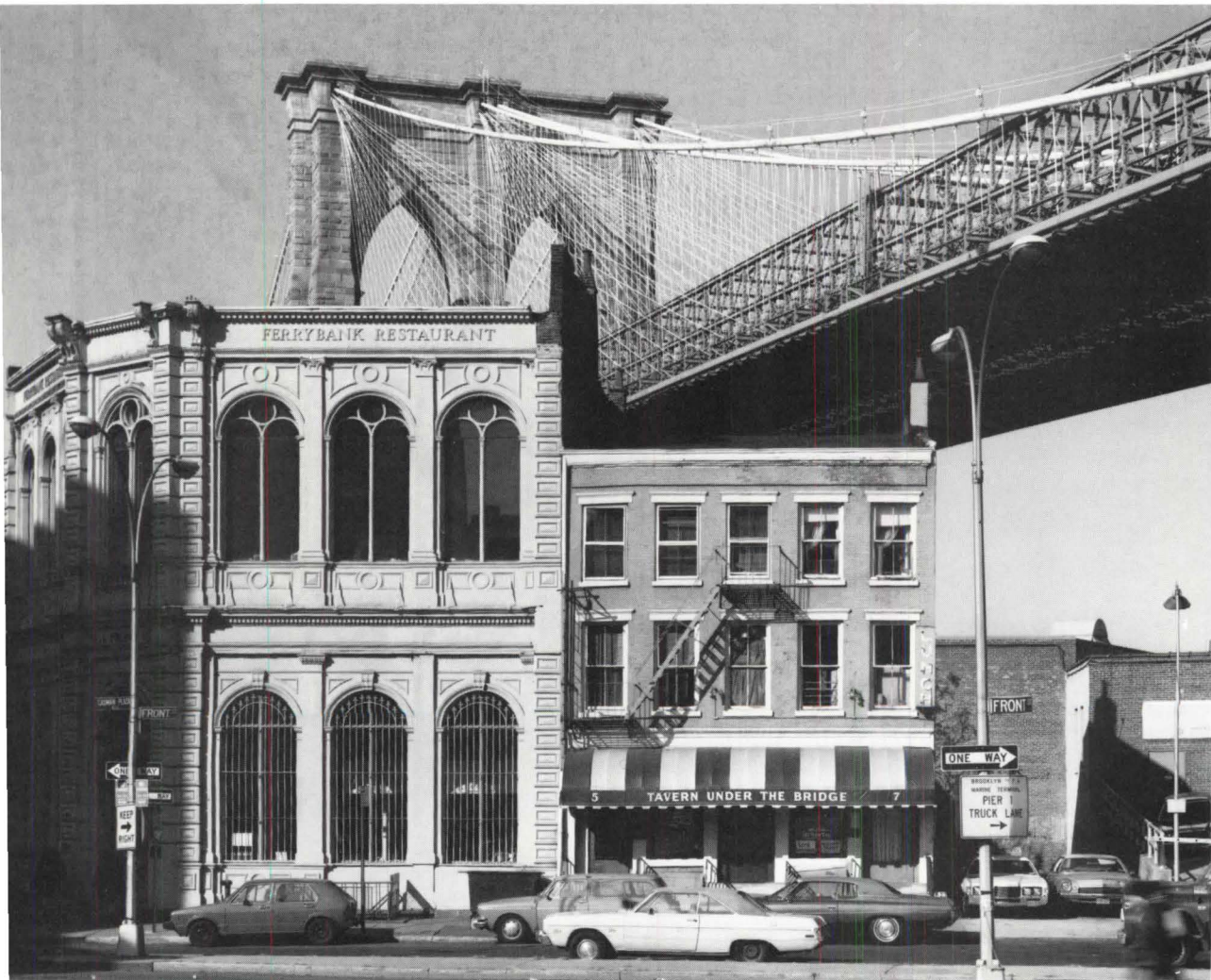


Photographs by Jet Lowe



Above, view due north from the Brooklyn tower and roadway looms behind facades on Front Street in Brooklyn. Right, the Manhattan tower at twilight.

Right, the Manhattan tower at twilight.





Not just a means of passage but a place to be.

symbiosis of masonry and steel symbolizes its span from one epoch of building to another. A structure so rich in historical memory and foresight, relevance and transcendence, seems fit for its designer, a man identified as Hegel's favorite pupil.

This is the public face of the Brooklyn Bridge. But like all great civic structures, which are truly public and accessible, the bridge is a reservoir for private memory. For those millions who have used the bridge, it has a private place in their lives. One of its strengths is in its durability as an artifact that provides both spatial and temporal orientation. A yawning portal, the shadow of cables laced across a roadway that would take my family and me to relatives who lived in Brooklyn, is a personal memory.

The commemorations on its centennial recognize the Brook-

lyn Bridge as both cause and site for celebration; as not only a device to go from here to there, but also as a place to be. Its pedestrian promenade, placed in the center and elevated above the roadway, is a celebration of the casual walker, an invitation to come and stay awhile that no bridge has since equaled. The bridge's historian, David McCullough, writes that part of the excitement of its opening lay in its importance as place. "When the day came that everyone could go on it, when people by the tens of thousands could go up that roadway and through those colossal arches, they would go, they knew, not to Brooklyn, but to a place where sailing ships would glide like toys beneath their feet, where they could look down on the tallest buildings and their own *mean, narrow streets* and the people in them, where they could gaze out over land and water and everything man-made."

That excitement exists today. □



Significant Clients: Ma Bell Builds Big

She gains architectural enlightenment just as she faces dismemberment. By Carleton Knight III

To say simply that the telephone company is ubiquitous fails to do justice to the massiveness of the Bell System. In this, the most telephone-conscious country in the world (800 million calls per day), one is hardly more than a step away from the 180 million telephones linked together by more than 1.1 billion miles of conductor wire (enough to run a dozen wires to the sun). It has been said that copper is American Telephone & Telegraph Company's biggest asset.

Architecturally, the Bell System is everywhere too; it has to be with one million employees (one out of every 100 U.S. workers). The telephone company utilizes 32,000 buildings—20 percent are leased—with a total space of 433 million square feet.

The annual construction budget for buildings is now nearly \$1 billion, four times what it was 25 years ago, making it by far the profession's largest private client.

A large chunk of that money—perhaps as much as \$200 million, spent over several years—is going toward construction of what one AT&T spokesman describes as “the ultimate telephone building.” He is referring to Philip Johnson and John Burgee's new corporate headquarters for the company at 550 Madison Avenue in New York City. The 645-foot-high, 37-story tower, capped with a distinctive broken pediment, is due to receive its first occupants this month.

AT&T's first corporate headquarters was built in 1913, 37 years after Alexander Graham Bell's immortal first words over the telephone to his assistant, “Mr. Watson, come here, I want you!” and only six years after the firm moved from Boston to New York City.

AT&T President Theodore N. Vail commissioned William Welles Bosworth, a noted Beaux-Arts trained American architect (he did the main buildings at MIT and later a house for Vail in New Jersey), to design the building at 195 Broadway. Bosworth, who lived in France for much of his life and died there in 1966 at the age of 97, responded with what he often described as a “Greek temple on Broadway.” Sheathed in granite, the building is composed of a series of eight Ionic colonnades—each level embracing three floors—over a Doric colonnade at the ground level.

The building is said to have more columns than any other in the world; there are more than 325 on the exterior.

The lobby of 195 Broadway “is New York's link to Periclean Athens,” wrote critic Henry Hope Reed. Indeed, this column-

filled space, if nothing else, inspires awe of the telephone company. Walled in marble, as are the major hallways and floors upstairs, with bronze decorative panels carved by Paul Manship and Gaston LaChaise, and alabaster chandeliers, the space is widely regarded as one of the city's finest lobbies. Manship also carved the bronze maidens that support the drinking fountains on each floor.

Another bronze statue, one of the building's highlights, used to top the 27-story structure. Called originally the “Genius of Electricity,” it later became known as the “Spirit of Communication,” and, more informally, “Golden Boy.”

Evelyn Beatrice Longman won a competition over seven other sculptors whose work was judged by architect Bosworth and sculptor Daniel Chester French. Her 22-foot-tall winged male figure holding bolts of electricity was hoisted into place in 1916 and remained there until last year, when it was taken down to be restored and reinstalled on a pedestal in the new 65-foot-high lobby at 550 Madison.

Philip Johnson has described the moving of the statue as having historical precedent: When the ancient Romans moved to a new house, “they would take the images of their household gods . . . to preserve a sense of continuity in their lives.”

John Burgee recalls, “it was an obvious solution,” but one that, at the time, left AT&T officials uneasy. “They saw it as an old-fashioned image,” he says, because it had been used as the company's symbol in years past. They began to understand its value, he notes, when he pointed out one day at lunch that the statue was still in use on the menu cover and matchbooks in the executive dining room at AT&T.

“It's like the hood ornament on a Rolls-Royce,” Burgee says, adding that AT&T is one of the few, if any, companies to use a work of art as its symbol.

And, like a Rolls-Royce, one would think that all these fancy materials for the “telephone temple,” as 195 Broadway has been called, cost a lot of money. Surprisingly, it was not as much as one might expect. In response to a request from AT&T President Vail, according to a November letter in the company's archives, Walter S. Gifford, an AT&T vice presi-

Top, frieze on New Jersey Bell headquarters in Newark. Across page, AT&T headquarters under construction at 550 Madison Ave. in New York City, to be completed by year's end.



Courtesy of Haines Lundberg Waehler Archive

dent destined to become president himself in 1925, wrote back that 195 Broadway cost \$14.03 per square foot. (According to the consumer price index, that figure today would be \$79.47, modest in comparison to the \$200-plus per square foot cost of the new building.)

Money, although not the quantity it has taken, was clearly on the minds of AT&T in the early 1970s when maintenance on its then 60-year-old headquarters became increasingly expensive. The company was faced with a major decision. Should it retire 195 Broadway and build a new corporate headquarters? If so, where should the world's largest company move and how should it go about planning the new building?

In retrospect, the answer seems pre-ordained. The world's largest and perhaps best-known company would commission America's currently most celebrated architect, Philip Johnson, to build it a monument.

The first question to resolve, however, was the location of the monument-to-be. Some thought was given to moving to New Jersey, where two of the firm's major divisions—General Depart-

ments and Long Lines—would soon be constructing major headquarters facilities designed by Vincent G. Kling and John Carl Warnecke, respectively.

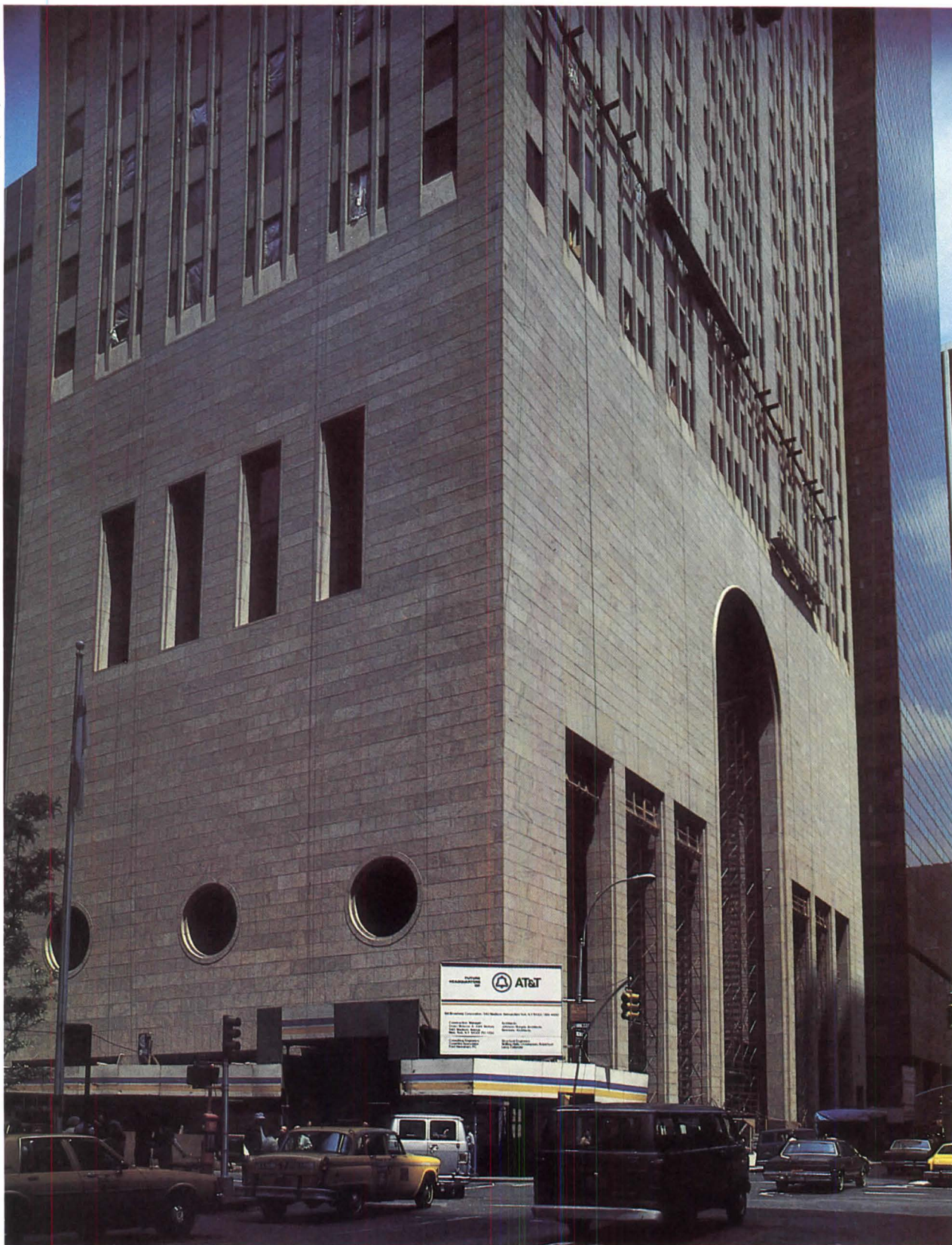
AT&T also considered other locations in the country, such as Chicago and Atlanta, but despite the ominous image of many companies leaving New York City for the suburbs because of the recession, it vowed to remain in what was the business capital of the nation.

Using a real estate consultant, AT&T settled on several potential sites on Manhattan's east side (Park Avenue was rejected because of the expensive image it offered). Then, with the aid of a broker acting as a secret front man to keep down the price of the property, AT&T was able to acquire in late 1974 a half-block on Madison Avenue between 55th and 56th Streets. The cost was approximately \$18 million (a sign of the company's prescience: today, published reports place the land value alone at more than \$70 million).

The long process of commissioning an architect then began. Stanley Smith, president of the 195 Broadway Corporation, the



Allen Freeman



'People think of us as stodgy. We aren't.'

AT&T real estate arm, says flatly, "We were looking for an architect who would make a statement about Bell. We wanted a building that would say something about our business."

AT&T, architects would soon learn, most definitely did not want just another glass box.

Smith established an in-house committee of six, three from his office and three from AT&T, which "constructed a list of 25 distinguished architectural firms." The committee was looking for architects with national reputations in the Northeast area says Smith, who oversaw the entire project.

AT&T wrote these 25 and asked them to describe their work.

Most firms responded quickly to the questionnaire. According to published reports, Johnson/Burgee Architects did not and was soon the recipient of a *telephone* call. Johnson is said to have replied that he had thrown the letter away, not liking to answer questionnaires. Whether or not the story is true—it certainly adds to the Johnsonian aura and legend, but there have been variations—Johnson/Burgee made the cut when the original list was reduced to eight.

Smith and his colleagues then visited the eight firms, looked at buildings by the architects, talked with clients, discussed the varied consultants used, and then cut the list once again.

The three finalists were Johnson/Burgee, Kevin Roche John Dinkeloo & Associates, and Hellmuth, Obata & Kassabaum.

According to Smith, each firm was given about 30 to 40 minutes for its presentation to the AT&T executive policy committee, a five-member panel consisting of the chairman, president, and other top officers.

"No design solutions were offered," says Smith, but each firm proffered a very different approach to the problem. Noting that "any one of the three would have done an excellent job," Smith adds, "there was clear recognition by AT&T that Philip Johnson was the most eminent architect in the business."

What apparently won the commission for Johnson/Burgee (Simmons Architects subsequently joined the team as part of AT&T's commitment to minority hiring) was the firm's "willingness to look at unconventional solutions," says Smith, and the fact that Johnson "did not present the meeting with any preconceived ideas. He listened as well as talked with us."

John Burgee recalls the executives asking how "we would go about representing the company's image in a building?" He replied that they would "talk with the top executives and from the picture those people have, develop a suitable image."

"AT&T remembered that answer," Burgee says, because when Johnson/Burgee was given the commission, it received a list of the 20 top executives along with it. Burgee and Johnson originally set aside one hour to talk with each of the company people, but soon found that the questions raised were more complicated and that often several hours were needed.

"Many of them were shy to architectural or esthetic questions," Burgee says, but the barrier was soon broken and they opened up, offering disarmingly similar responses.

For example, Burgee says, AT&T executives would say about their image, "People think of us as stodgy. We aren't. We're stable." Burgee adds, "They wanted a progressive image. After all, they had invented radar and computers. Bell Labs is on the leading edge of technology."

AT&T public relations executive L. K. O'Leary described his view of the company in a memo to Johnson/Burgee entitled, "Some Ifs. . . ."

"If we had our portrait painted, it should be by Norman Rockwell.

"If we were ancient builders, we would have built the Roman aqueducts instead of the Cathedral of Notre Dame.

"If we were a baseball team, we would be the New York Yankees, not the L.A. Dodgers.

"If we drove race cars, we would be Richard Petty, not A. J. Foyt.

"If we were a state, we would be Midwestern, probably Iowa. Twenty years ago we would have been Nebraska.

"If we were a U.S. general, we would be Omar Bradley, not George Patton.

"If we were a tree, we would be a huge and utilitarian Douglas fir—not a sequoia, and certainly not a dogwood.

"If we would choose an epitaph (never believing such a thing would be needed) we would choose 'Millions of customers, but it served them well, and one at a time.'"

In terms of architecture, there was almost universal agreement by the executives against a glass box, says Burgee. Asked what they thought of the Seagram Building, according to Burgee, some did not even know what it was, but those who did said they did not think of it as a glass box. "What they seemed to want was the quality of Seagram," he says.

The architects found their biggest supporter in chairman John D. de Butts. The AT&T leader was known widely for his decisiveness. "He could never understand," says one of his associates, "how Washington works. It's so slow. De Butts would look at a problem, find out how much it would cost to fix, and get it done."

Alan Ritchie, project manager at Johnson/Burgee for AT&T, told *New York Magazine*, "Johnson has no patience for wishy-



Across page, street-level view of 550 Madison. Above, just-sold former AT&T headquarters at 195 Broadway.

washy committees and that kind of thing. De Butts allowed him to get around all that. He was extremely optimistic and enthusiastic about the whole project. He would explain what he wanted in broad terms, and once he said 'Go' he would expect Johnson to just go away and design the building."

Architect Vincent G. Kling, who designed the company's General Departments headquarters in Basking Ridge, N.J., echoes that assessment of de Butts. He adds that their "one-on-one relationship produced a high degree of spontaneity." Kling sees "the hazards of that scheme," however, when another chief executive takes over, as Johnson/Burgee were to discover. "The new broom sweeps clean," Kling notes.

In the end with AT&T, says John Burgee, it came down to



Seeking a step beyond the Seagram Building.

two people, de Butts and William M. Ellinghaus, a vice chairman. "They wanted to build a symbol of their company and of their faith in New York City."

According to Burgee, de Butts thought the Seagram Building "was a quantum step forward in architectural design when it was built. AT&T should be the next step." Ellinghaus put it to the architects simply, "We want the greatest building in the world because we think we are the greatest company in the world."

That's a heady challenge for even a Philip Johnson, but he and his partner took those words to heart. That push from the client, says Burgee, "made us jump out of the International Style and into a new style."

Historical allusions aside, the major problem the architects faced was fitting the building into the community. Johnson has said of this project that he had two clients. "AT&T, of course, but also the people who use the land. How can I ignore them now? I might have in the old royal bucaneeing days, but those are gone."

AT&T wanted its tower adapted to the peopled atmosphere of Madison Avenue, and it was committed to retaining some kind of retail uses. But, as critic Nory Miller put it in her book, *Johnson/Burgee: Architecture*, "AT&T didn't want a front door sandwiched between a drug store and a lingerie shop."

To solve the problem, the architects raised the building 65 feet to create a pedestrian plaza underneath (Johnson originally wanted it raised 100 feet). Retail space is located in a separate building at the rear linked to the tower by a glass-roofed galleria.

The core of the building contains a 50-foot-square lobby with

a floor pattern inspired by an Edwin Lutyens design. "Golden Boy" stands in this space, lit by a huge arched window in front and a large oculus behind that creates a halo (cover). Security concerns—very important to AT&T—are resolved by having a bank of elevators behind the statue take visitors to a "sky lobby" on the sixth floor, where they are checked in and routed to the appropriate floor.

As for the design of the building itself, Johnson has described it thus: "I did a classical skyscraper, because it seems to me the most viable history, if there is any, in New York City is McKim, Mead & White. I tried to re-establish two interesting eras. The '20s, when you had masonry skyscrapers with windows in them, and the '90s, with their classical cornices, which are no longer allowed.

"So, I went a little astray and broke the pediment, which may have its humorous aspects, but you'll know it's our building."

The so-called highboy top may also have been inspired in part by the view from Johnson's 37th floor office in the Seagram Building. He looks out directly on the Citicorp Building whose slanted roof less than enchants him. "I'm going to do something better than that," he once told a visitor.

Recalling the building's introduction to AT&T, says Burgee, no one paid much attention to the top (according to him, Arthur Drexler of the Museum of Modern Art was the one who first compared it to a Chippendale highboy). Burgee remembers John de Butts saying, "It sure isn't what I expected, but I like it."

Stanley Smith says he was surprised, but on reflection thought, "It was integral to the thought. It belonged. It was daring. And it made sense." Another AT&T executive thought it broke "the cracker box pattern," so prevalent in skyscraper design.

AT&T was surprised then at the architectural shock waves that swept in when the building was announced in March 1978 (it made page one of *The New York Times*). No one was more astonished at the criticism, especially of the top, than Johnson/Burgee. The "Chippendale" analogy had not even occurred to them, Burgee says, adding, "of course Chippendale himself borrowed decorative elements from architecture for his furniture."

Burgee attributes the "knee-jerk reaction," as he calls it, to a profession that was moving slowly toward the use of wider historical precedents and the fact that "this was the big jump. Someone had toppled the International Style in one fell swoop. We had undercut a total design philosophy. The reaction was, 'Hey, you guys must be wrong.'"

Stanley Smith says he was "amazed and disappointed at the architecture profession for making a judgment from a bad rendering in a newspaper. He was "astounded," he says, at the reaction "based on so little evidence."

Nonetheless, AT&T began to wonder what Johnson/Burgee had wrought. Public Relations Vice President Edward M. Block told *New York Magazine*, "Corporately, we did a sort of Jack Benny double take. The last thing in the world we want to be is trendy. That's not our culture. . . . Initially [the design] didn't strike us as being odd, and it wasn't a big issue until others made it one."

AT&T felt duty-bound to review the matter and the architects were called down to 195 Broadway to present alternative designs for the top. They had not presented any options before. Burgee says that although the architects had done tracings of variations, "we never drew hard line any other top."

They revived the tracings and showed other top possibilities, describing each to the executive policy committee. In the end, recalls Burgee, Vice Chairman Charles L. Brown seemed to sum up the feelings of the group when he said, "I think they were right the first time."

Later, however, Brown apparently had some second thoughts. When de Butts retired in February 1979 and Brown became chairman (Ellinghaus moved up to president), he asked for a review of the project. He was told it was too late to stop construction, just coming out of the ground, to say nothing of being ruinous for the company's image.

In fairness, it must be said that the company was battling for its life against an antitrust suit brought by a determined federal government. That court case, which cast an ominous cloud over the future of AT&T, took much of Brown's time. By the time the consent decree ending the case was signed in January 1982, the new headquarters building was well along, but the required divestiture made it appear as though AT&T would be a shadow of its former self, and might not be able to use the building.

Under the agreement between AT&T and the U.S. Department of Justice, which originally filed suit in November 1974, the 22 Bell operating companies now wholly owned by AT&T are being combined as of Jan. 1, 1984, into seven regional companies, each to operate independently. AT&T, forced to divest itself of \$100 million of its \$150 million in assets, will retain the Long Lines department (long distance service), Western Electric (its wholly owned manufacturing arm), and Bell Telephone Laboratories, (owned jointly with Western Electric).

AT&T has established a new marketing arm for its telecommunications services, American Bell, reviving a name used by the firm in the late-19th century. Capitalized to start at \$500 million by AT&T, American Bell expects to require \$4.7 billion through 1985, no doubt some of that for facilities.

Stanley Smith of the 195 Broadway Corporation says that because of the divestiture, the company "won't stop building, but it may take a while to determine the future." In the meantime, American Bell and the new regional operating companies are utilizing leased space, a task that still requires architectural services for planning and design.

Despite the questions about AT&T's future, the new corporate headquarters kept growing upward. Rumors of its possible sale circulated, however, only to be followed by reports that AT&T wanted to lease out part of the space. At around \$60 per square foot, there were few takers.

These stories, combined with design changes to cut the escalating costs (granite mullions replaced by bronze, granite panels in the elevator lobbies replaced by wood, the telecommunications museum in the building at the rear canceled) and Brown's insistence on knowing the minutest details about what was going into the building, have soured somewhat the relationship with Johnson.

Stories that Brown is uninterested in architecture, however, appear to be overstated. He may not be the monumentalist John de Butts was, but a visitor to his office in Basking Ridge noticed several books on architecture in his bookcase.

The building will open its doors to the first of the 1,500 AT&T executives and their secretaries who will occupy it at the end of this month. By the end of the year, when Brown and his senior staff move into the top three floors, the building will be fully occupied. At 375 square feet net per person, the occupants should be comfortable.

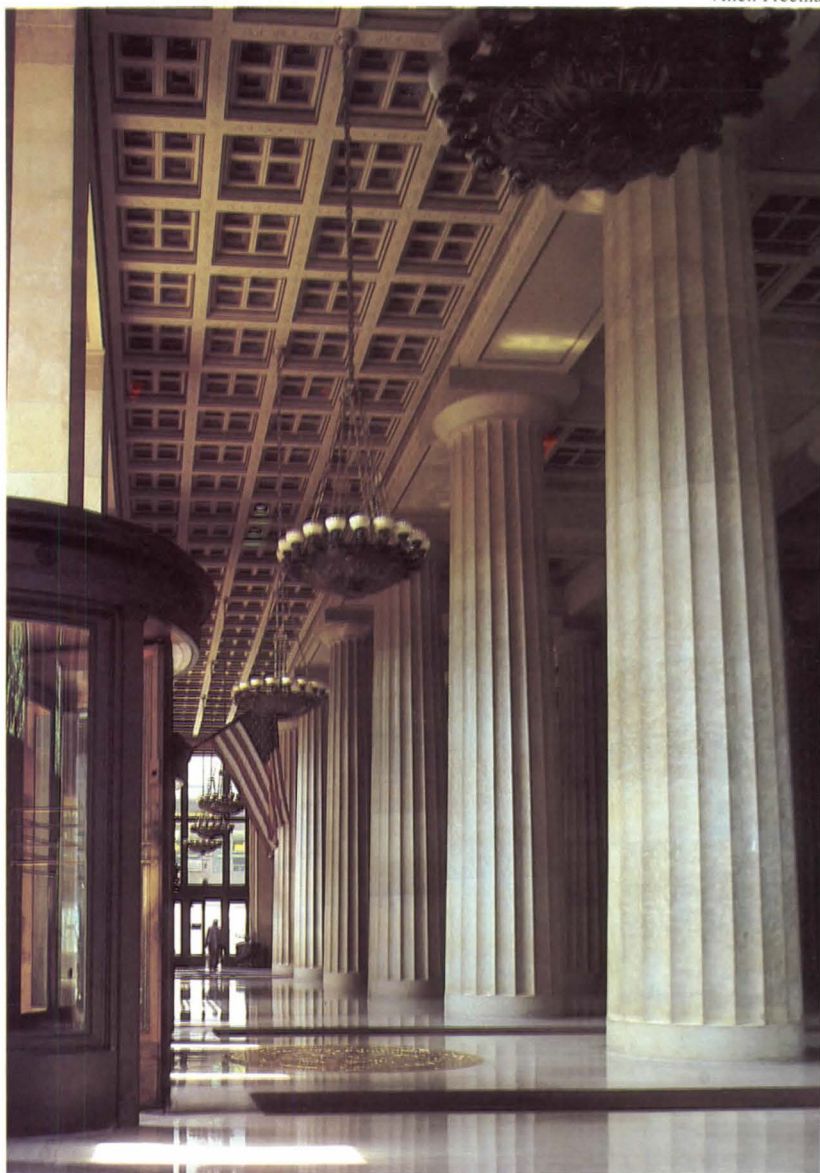
The passage of time, as well as an opportunity to observe the real thing rather than only a drawing or model, seem to have cooled criticism of the design, and there is a widespread belief now that both the architect and the client made the right move. For a company so concerned about its image, says Burgee, "This sure got them some attention."

AT&T President Ellinghaus believes the building will epitomize what the company represents. "This building is going to be a monument," he says boastfully, adding in an understandable display of corporate boosterism, "Why shouldn't it be?"

The tower also meets another criterion Ellinghaus had set; it can be seen. Despite the fact that 195 Broadway is a classical masterpiece, its location just south of city hall left it out of the public stream. And "Golden Boy" was often hidden from view by new office towers.

Whether one is on the east side, the west side, or Madison Avenue, the new building is a distinctive—and identifiable—

Across page, 65-foot-high lobby at 550 Madison under construction. Above, column-filled lobby of old headquarters.



presence. It looks particularly handsome from across the East River, to people coming into the city from La Guardia Airport or Long Island. Ellinghaus also says he "wanted to be able to see it from the air." The exceptional pediment assures that.

The structure is encased in 13,000 tons of stylishly cut, pinkish-gray granite that cost more than \$25 million. The individual blocks are large, often as thick as 10 inches. Elaborate carved moldings surround the huge, arched entry, while a quirk miter on the column corners is exaggerated for effect. Instead of a usual quarter-inch or half-inch indentation, says Burgee, it is six inches and "makes the stone look heavier."

The interiors are as elegant as the exterior; a visitor is aware immediately that this is not a speculative building. An arched ceiling welcomes visitors as they get off the elevators at each floor.

Of the cost, Ellinghaus says simply, "If you're going to build in New York City, and on Madison Avenue, you've got to spend money." He is reminded, he says, of financier J. P. Morgan's quip (in the early-20th century, Morgan controlled AT&T) about yachts, "Any man who has to ask the annual upkeep of a yacht can't afford one."

AT&T wanted something different, and the architects have succeeded in giving the company what it wanted. But as significant as what Johnson/Burgee designed is what AT&T approved. Philip Johnson's powers of persuasion notwithstanding, the executives and board of AT&T are by nature a very conservative lot. They could easily have said, "That's very nice. But it's a little too different." That they approved this significant step in architecture is much to their credit.



‘The Bell System is not 550 Madison Avenue or Basking Ridge,’

says Robert L. Yelick, acting director of real estate for AT&T, with emphasis. “It’s lots of little buildings.”

The littlest of all are likely the 135-square-foot prefabricated signal regenerating huts every four miles along the 776-mile path of the new lightwave, or fiber optics, communications system under construction between Boston and Moseley, Va., south of Richmond. The largest is the 2.75-million-square-foot General Departments, AT&T’s administrative offices, in Basking Ridge, N.J. The lowest are any number of cable vaults, while the tallest is the new 47-story, 660-foot-high office tower for Southern Bell’s headquarters in Atlanta.

There are thousands of community dial offices, mostly unstaffed, in cities and towns across the country. Forty percent of Bell’s space is for its switching equipment, a figure that has remained constant for the past 25 years. There are garages for the system’s myriad blue and gold-striped trucks. There are Phone Center stores, microwave towers, satellite receiving stations, factories, ultra-clean research laboratories, and a multitude of offices, mostly with elaborate computers.

Right now the Bell System is conducting, with the aid of architects, an inventory of those 32,000 buildings, to see who gets what come Jan. 1.

As Stanley Smith points out, “It’s an entire industry.” And, he adds significantly, “it is a system, not a series of items.” The problem, and it is a problem as well as a responsibility, V. D. McCaffrey of Bell Labs notes, is that all the varied equipment “must be interactive, whether it is 100 years old or brand new.”

Furthermore, Bell cannot shut down this equipment and move to new buildings with ease. Switching center locations are predicated on the most economical routing of wires, and it would be

nearly impossible to rewire a major city today. Thus, the system’s buildings are frequently renovated for reuse.

Despite the threatening divestiture and the dual trends toward renovation and leasing, AT&T will continue to be an outside architectural client. New York Telephone alone has an annual construction budget of \$70 million and utilizes the services of 125 architectural firms. In the Los Angeles area Pacific Telephone uses 70 firms and spends \$35-40 million a year; New England Telephone used some 60 architects last year, paying them fees of more than \$2 million for \$26 million in construction work; South Central Bell uses about 20 architects in Alabama alone for \$20 million in construction; Illinois Bell has a dozen architects on its list and spends about \$25 million a year; Southwestern Bell (the largest operating company) is spending \$235 million on construction this year and uses 80-100 architects.

It wasn’t always that way. In years past, it was not uncommon to find a single architectural firm doing nearly all the design work for one of the Bell operating companies.

In 1885, the predecessor to New York Telephone commissioned its first building, a nine-story Romanesque structure on Cortlandt Street in lower Manhattan, from Cyrus L. W. Eidlitz, who had opened his practice that year. From then until the 1960s, Eidlitz and his successor firms, notably Voorhees, Gmelin & Walker, now Haines Lundberg Waehler, designed more than 175 buildings all over the state for New York Telephone.

By 1926, on the island of Manhattan alone, the firm had planned 30 buildings, which prompted a delightful drawing of “The Telephone City,” with all the buildings together as if they made up a sizable downtown.

Edwin A. Dirkes, director of project management for Haines

Lundberg Waehler, says that the firm had more than 500 employees in the 1920s, "and they were all doing telephone work." Business continued strong until one day in 1932 when the architectural firm got a telephone call—how ironic—saying to stop work. The Depression had struck even the phone company. The firm realized at that point, says Dirkes, that it needed to diversify.

In 1926, a building that remains one of the firm's masterworks was opened. Architect Ralph T. Walker's inspiration for the headquarters of New York Telephone (also known as the Barclay-Vesey Building) derived from Eliel Saarinen's second-place entry in the Chicago *Tribune* competition. "Its massing is mountain-like—sumptuous masses piled on top of each other for an overall effect of immense repose," wrote critic Paul Goldberger in his book, *The City Observed*. He has also noted the building's resemblance to a set of renderings prepared by Hugh Ferriss in response to the city's 1916 zoning law that reduced the massing of highrise buildings.

When completed, it was the largest telephone building in the world, providing 850,000 square feet of usable space for offices and equipment. The brick structure, which has a magnificent 250-foot-long arcade along the side of the building (directly opposite the World Trade Center), is ornamented with carved stone panels. The 25-foot-high lobby ceiling can only inspire those working in the building; it is adorned with 12 frescoes depicting the history of communications, from ancient Greece to the telephone. Wrought iron and bronze details—grilles, door latches, and the like (some by Philadelphia iron artist Samuel Yellin)—add to the overall effect of a total design.

Other individual firms have also done a lot of work for Bell in their areas. James P. Gallagher of Smith, Hinchman & Grylls in Detroit estimates that his firm has completed "six to seven hundred projects" for Michigan Bell from 1905 until a few years

ago. The work ranges from a staff center complex in which four buildings are set around reflecting pools and linked by bridges to a new front sidewalk for a community dialing office the firm had designed earlier.

Fred Buck, division manager for real estate at Illinois Bell in Chicago, reports that Holabird & Root used to do about "95 percent" of the design work for the Illinois company. Now, he says, it does about 50 percent.

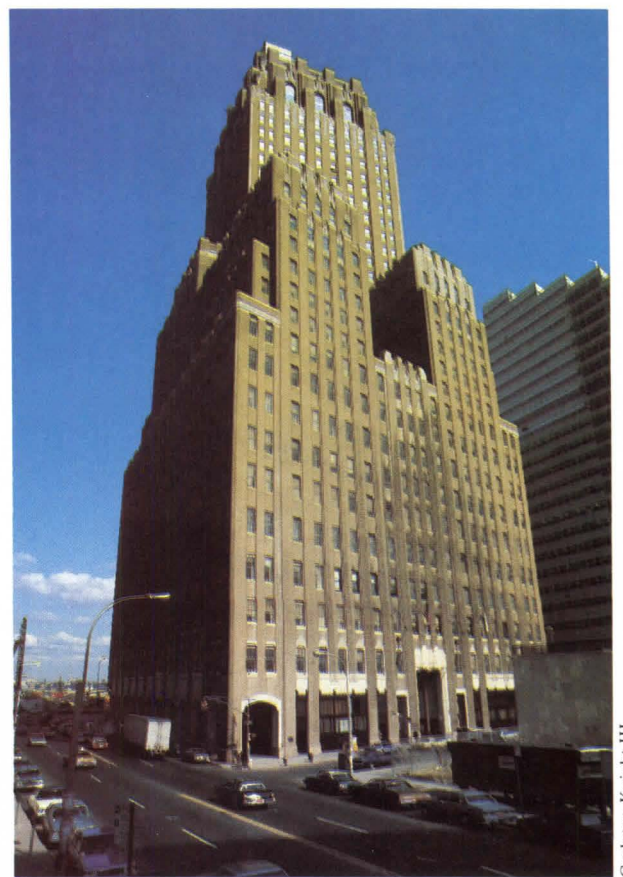
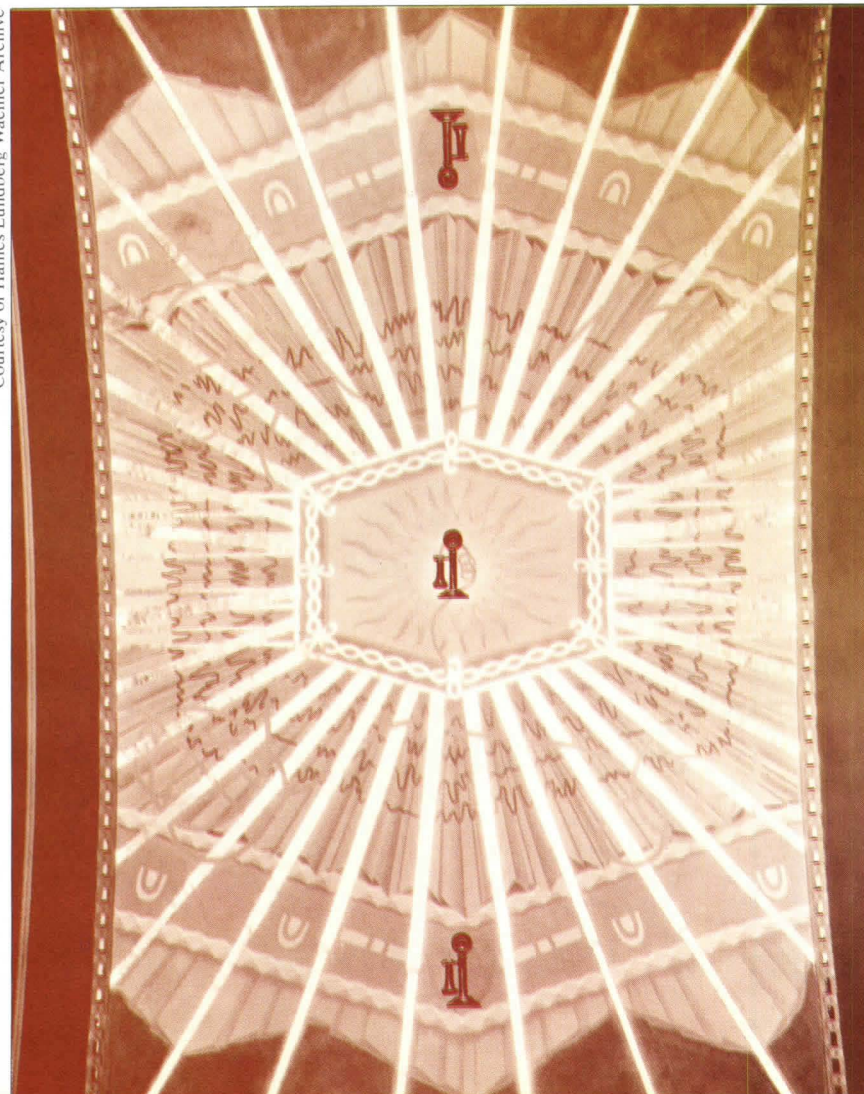
William Rumsey of Holabird & Root notes that his firm's first telephone building was for the Chicago Telephone Co., (an Illinois Bell predecessor) in 1911. That building at 212 West Washington in Chicago is still in use. He says that to date the firm has completed 194 new buildings, 338 additions, 997 alterations and 1,322 miscellaneous projects (such as sidewalks). In the 1950s and 1960s, says Rumsey, the firm could "turn out a community dial office every two or three weeks."

Holabird & Root has also done work for other Bell System entities such as Western Electric and Long Lines.

C. R. Campbell of Stevens, Mallory, Pearl & Campbell of Albuquerque estimates that his firm has done about 80 percent of the work in New Mexico for Mountain Bell during the past 27 years. He says it has completed 75-100 buildings, as well as additions, such as the pueblo style business office in Santa Fe that pays respect to that city's noted architectural tradition.

The main reason for abandoning the reliance on a single firm in a given area is that it is no longer feasible "politically," says one observer. "The public nature of the phone company demands that work be spread around," explains Stanley Smith of the 195

Across page, 'The Telephone City,' 1926 drawing of all the New York Telephone Co. buildings. Below, the New York Telephone Co. headquarters and the ceiling fresco in its lobby.



'We are looking for the latest innovative thinking.'

Broadway Corporation. Adds AT&T's Robert Yelick, the company likes "to spread the wealth."

J. D. Posen, district manager for building engineering at Pacific Telephone in Pasadena, Calif., puts it this way. "Everyone is our customer. It's good for business to reciprocate. It's also good for communities where we have offices because it keeps people employed."

How does the Bell System choose its architects? The various operating companies generally do not advertise jobs, preferring to rely on lists of architects they have compiled. Speaking about architects, AT&T's Robert Yelick says, "If they've heard about a project, it's probably too late." Many of the companies report receiving inquiries from new firms as often as once a week, and usually these firms are then added to the list.

In seeking architects for Chesapeake & Potomac Telephone's new administrative offices in Montgomery County, Md., Howard H. Walters, division manager for real estate, says he first turned, appropriately enough, to the Yellow Pages. Joe Franco, an architect with the Long Lines division, reviewed the architectural press with his colleagues seeking a headquarters architect.

Several years ago, when Bell Labs decided more space was needed at their Holmdel, N.J., building, the 700-foot-long mirrored superblock designed by Eero Saarinen, they did not hesitate about who should design the addition, and commissioned Kevin Roche John Dinkeloo & Associates, Saarinen's successor firm.

"The building is world-renowned as a Saarinen design," says

V. D. McCaffrey, director of plant engineering. "We would have been accused of being idiots if we went to another architect." He adds that Kevin Roche was active in the original design and "his reputation has been enhanced in the years since."

Bell Labs is perhaps the most architecturally enlightened segment of the Bell System. "We are looking for the latest in innovative thinking," says V. D. McCaffrey, "and that requires innovative buildings." The Murray Hill facilities, designed in the 1940s by Ralph T. Walker, were considered far ahead of their time in terms of layout and services. The short-aisle, back-to-back lab layout plan and mirror-glass facade—both widely copied in the years since—were developed by the research-oriented Saarinen office for initial use at Holmdel.

The Bell System does seem to have a problem with competition. As is widely documented, Bell does not like competition in its business, and that seems to extend to architectural competition as well.

Stanley Smith of the 195 Broadway Corporation is not impressed with design competitions. "They produce glamorous buildings, but the buildings do not necessarily function well," he says. "I don't want to see just a pretty box. I want to see function first." He also believes competitions are expensive for the client.

Six years ago, however, a full-fledged architectural competition was held by South Central Bell for an Alabama state operations building in Birmingham. As far as South Central Bell is concerned, it was enormously successful.

Wary of public complaints about South Central Bell's past use of out-of-state architects, company officials decided to give those in Alabama a try. According to H. C. Calloway, manager of building design and construction, the company turned to E. Keith McPheeters, dean of architecture at Auburn University. Following AIA competition guidelines, McPheeters sent letters to some 50 architects asking if they were interested in designing an office building (the client remained anonymous at this point).

After a review of the portfolios of the responding firms, the list was pared to 10 and then to six, with the whole state well-represented geographically. The chosen architects were told the name of the client, given an extensive program, and allotted 60 days to come up with a suitable design. South Central Bell wanted a low-profile structure that would minimize the environmental impact of its 450,000 square feet. Each loser was to receive \$10,000; the winner would get the commission.

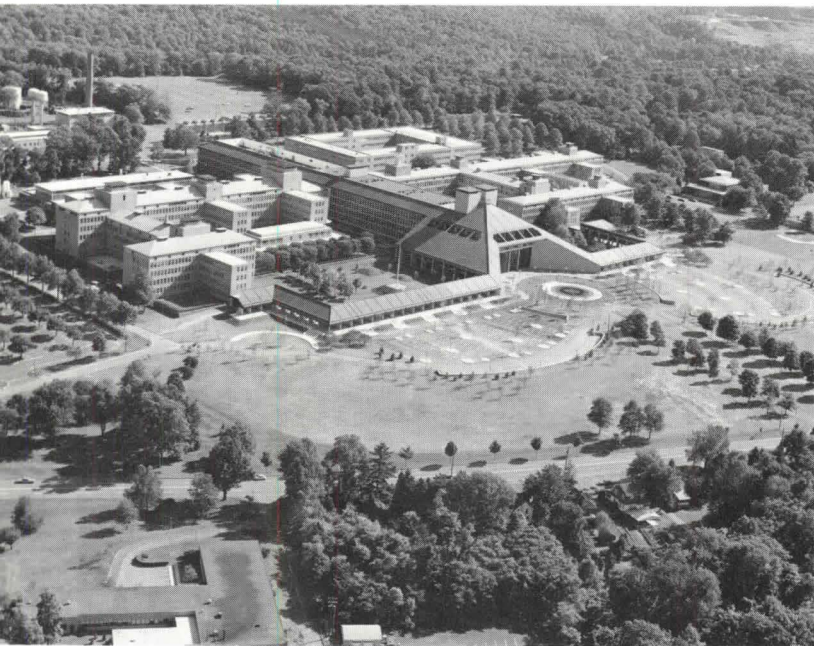
The jury—four company executives and three out-of-state architects—reached an amazingly quick decision, recalls Calloway, in favor of a design by Crawford, Giattina & Associates (now Giattina, Kirkwood & Partners) of Birmingham that placed the long, narrow building like a bridge over a lake between two sides of a ravine.

The building was completed in 1981 and Calloway says it is "everything we expected and more." Asked about doing it again, Calloway says fervently, "Without a doubt I'd say yes to another competition."

There is an important additional point to be made. "A competition makes it very difficult for a vice president to decide later that he wants the building to have a mansard roof, or a steeple," says one Bell manager familiar with such change orders. "A competition will help eliminate supplementary approval," he adds.

The size and use of in-house architects varies within the Bell System. Western Electric maintains a staff of 30 architects, according to A. J. Zahradnik, manager of plant and construction. "We handle what we can, but historically the bulk of the work is done outside." Most of today's jobs involve retrofitting factories and are done in-house, Zahradnik says.

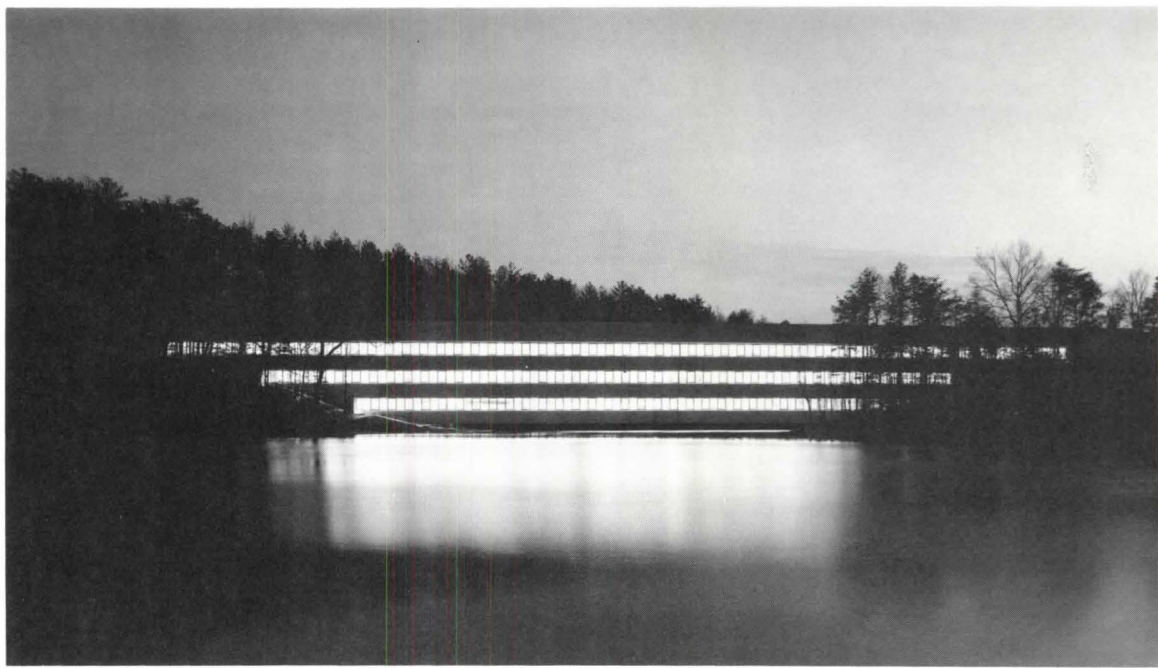
Ted Bollwinkel, an architect with Mountain Bell in Salt Lake City, reports he has a large in-house staff that does work "mostly on equipment buildings," but the operating companies usually echo what Robert L. Talbot, district manager of real estate operations for New England Telephone in Boston, says. "Jobs under



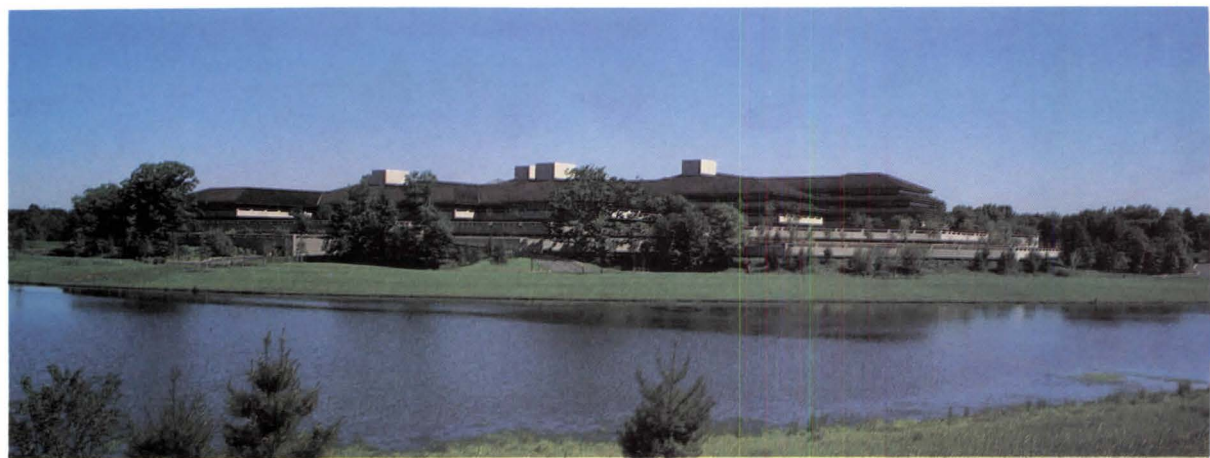


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Recent telephone buildings: Across page, Bell Telephone Laboratories. Murray Hill, N.J., facility, top, has Darth Vader-like addition by Vincent Kling, while Holmdel, N.J., labs, bottom, have mirrored addition by Kevin Roche that matches Eero Saarinen original. This page, above three photos, new accounting office for Mountain Bell in Albuquerque by Caudill Rowlett Scott and Stevens, Mallory, Pearl & Campbell. Right, competition-winning Alabama operations building for South Central Bell in Birmingham. Bottom, AT&T General Departments in Basking Ridge, N.J.



© Wolfgang Hoyt/ESTO



Courtesy of The Kling Partnership

'They value engineer everything but the paint color.'

\$40,000 are done in-house, but we're not looking to use the staff that way." Most often, they are used as project managers to oversee work by commissioned architects.

The major exception to this is at Southwestern Bell. Larry Brokaw, chief architect for Southwestern Bell of St. Louis, reports the company has 60 registered architects in eight cities. Until recently, he notes, this staff designed 50 percent of the company's buildings—large community dial offices, garages, operators' facilities, and administrative buildings—but now that figure has dropped to about 25 percent because of other work related to the divestiture.

Southwestern Bell, Brokaw says, "stresses professionalism," paying the way for its staff to take the architectural licensing examination, requiring registration of its architects for promotion above a certain level, and encouraging architects to take an active role in the profession.

Architects who have worked with Bell respect the efforts of their counterparts at the corporation. Michael J. Koenen of the Warnecke office says of the staff at Long Lines, "It's beautiful to have a client who understands the construction process." Others rail at Bell's bureaucracy and the frequency with which decisions reached are changed, but have nothing but praise for the in-house architectural staff.

The decentralized architectural selection process is not without a corporate overview, in part as a check on AT&T's investment. The company reviews all major building projects—an AT&T representative went to Birmingham to check out South Central Bell's competition winner—primarily to assure that costs are not out of line with similar facilities by other operating companies. A community dial office in Dubuque, Iowa, should cost about the same as one in Biloxi, Miss., all else being equal.

From its overlook, AT&T puts a great deal of emphasis on two areas—standards and value engineering. This is only natural, given the fact that so many Bell employees are engineers, "not eager to give up their turf," one Bell architect notes.

"Architects need to spend time to educate themselves to our peculiarities," says Mountain Bell's Ted Bollwinkel. The standards are very important to the system and are sometimes used as a rationale for not using more architects. One Bell manager says it is time-consuming to "teach new architects."

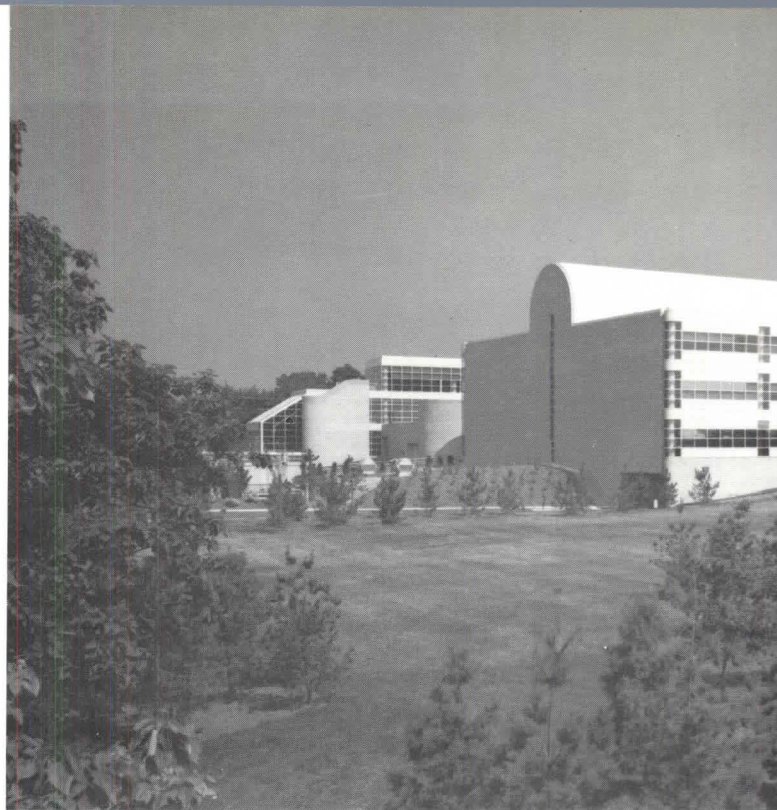
Design of Bell buildings is guided by several volumes entitled *Bell System Practices* that deal with all areas of building—architecture, mechanical and electrical systems, fire protection, maintenance, operations, and even graphics. The bulk of these standards apply to equipment buildings, primarily to assure the safety and security of the system's switching apparatus and cables. (National security is an overriding factor here, since the Defense Department's various military commands are linked through the Bell System's telecommunications network.)

The security issue aside, switching equipment, for example, must be laid out in defined patterns, and special ceiling heights are often required. Another kind of standard is found in the Phone Center stores. Asks Pacific Telephone's J. D. Posen, "Can you imagine 2,000 McDonald's, all different?"

Do the standards prescribe design? Randle Pollock, an architect formerly with Ohio Bell and now with Caudill Rowlett Scott in Houston, puts it this way, "While they can circumscribe the work of architects, with a gifted designer they can also be a springboard to innovation in design."

In short, the guidelines are "not religion," as J. D. Posen notes, but a method of assuring that the same mistake is not made endlessly throughout the Bell System and also a way to reduce costs. AT&T's Robert Yelick says, "We seldom invent our own standards. They echo good code practices."

William F. Koepke, real estate manager for AT&T, points out that the large operating companies "massage the guidelines to meet their needs," while the smaller companies follow them without change.



Southwestern Bell's Larry Brokaw tries to offer architects flexibility. He will give them a preliminary floor plan and leave the rest up to the architect. "If you want to 'design,'" he says to them, "go ahead, and we'll talk."

"We don't want you [the public] to be able to spot the telephone building when you drive through town," he concludes.

Because Bell is "not building for a 10-year bailout," as Vincent Kling puts it, value engineering has become a concept that permeates the Bell System, largely in terms of practicing life cycle costing.

Several years ago, AT&T's William Koepke reports, the company developed a seminar outline with visual aids for the operating companies to use in value engineering. Teams at each company reviewed and evaluated such areas as architecture, structure, and mechanical and electrical systems.

"It puts the building under a microscope," Koepke says, and forces the staff to review the basic concepts that went into the design.

"They value engineer everything but the paint color," says one designer experienced in working with Bell. She adds that the result of having so many engineers on the staff is that they are "uncomfortable" making a design or esthetic decision.

"Esthetics are not an upgrade," says Donald N. Coupard, AIA, architect of C&P Telephone's new administrative offices. He notes that the concern is for more efficient mechanical and electrical systems.

John Burgee points to the elegant, modular ceiling at 550 Madison Avenue as an example. Composed of 5x5½-foot metal acoustical panels with tracks that hold the airconditioning and electrical systems, it is several times more expensive than a standard acoustical tile ceiling, says Burgee. But the extra initial cost was justified in a value engineering study. Over the life of the building the ceiling's great flexibility will reduce the amount of work required when office walls are moved.

William A. Johnson, manager of C&P Telephone's administrative offices building project, says that Smith Hinchman & Grylls, the Detroit architectural firm noted for its work in value engineering, analyzed the C&P building's design and advised the company on the cost per square foot of each system. He says the process was helpful and reassuring, but warns that value engineering can be taken too far.

"Some engineers use it to cut out design," he notes, adding that a client must consider more than just dollars. "You have to temper value engineering with a good deal of judgment," says Johnson. "Otherwise, you will have a square, windowless box."

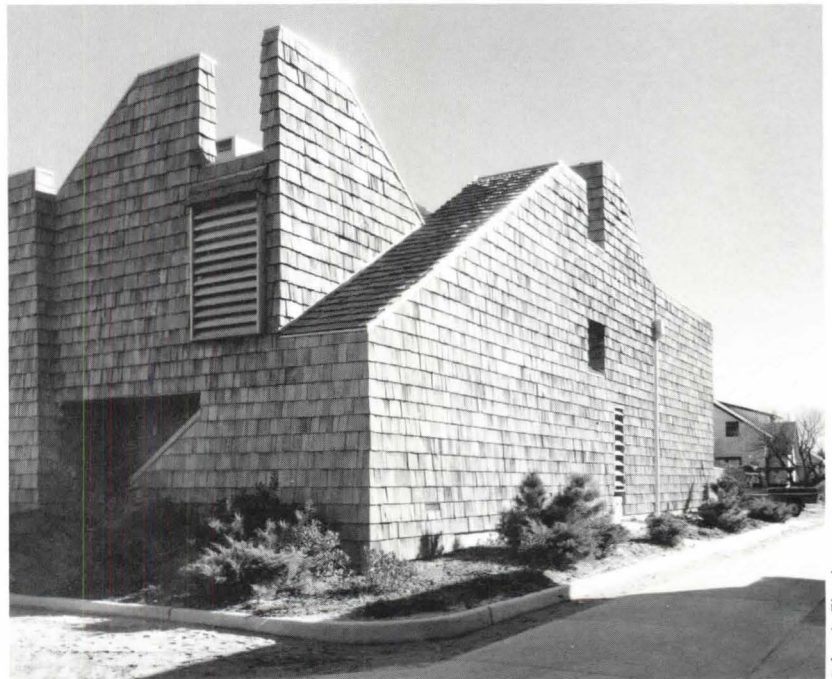
AT&T's William Koepke says that Bell's value engineering program does include some testing of materials. Western Electric



© Ezra Stoller/ESTO



Courtesy of Kohn Pedersen Fox Associates



© Louis Checkman



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Top left and right, AT&T Long Lines division offices in Oakton, Va., by Kohn Pedersen Fox Associates, which features interior street under glass-roofed galleria. Above, equipment building on Fire Island, N.Y., by Rose Beaton Rose. Left, microwave towers, in Vail, Colo., top, by Rogers Nagel Langhart and in Flint, Mich., bottom, by Harley Ellington Pierce Yee Associates of Southfield, Mich.

Buildings that 'don't look like telephone buildings.'

has checked out various air filters, of critical importance to the sensitive electronic switching systems now used by Bell. Other tests were performed on different kinds of resilient floor tile in order to minimize the electrostatic discharge that can cause havoc with the electrical equipment.

Bell's faith in paying for long-term value and the late John Dinkeloo's technical prescience were put to the test recently at Bell Labs. In the course of reglazing the Holmdel facility when the additions were constructed, the neoprene gaskets that hold the 3½x6-foot mirror glass panels in place were removed and checked. They had been developed by the Saarinen office for the General Motors Technical Center. Although the gaskets had been in place at Bell Labs for 20 years they were found to be as good as new and were reused, the labs' V. D. McCaffrey says.

Another excellent review method has unfortunately come to a premature end, a victim of the forthcoming divestiture.

In 1960 AT&T, concerned about the design quality of the buildings in the Bell System, established a biennial awards program, judged by three independent professional architects. It was thought the various operating companies could learn what their counterparts were doing, and thus get a message about quality, from the publication that resulted featuring the winners.

Pacific Telephone's J. D. Posen found the awards to be "a great teacher." In addition to photographs and plans, the premiated projects also carried cost figures. The last program was in 1979 when there were 242 entries and 29 winners.

In 1976, AT&T published a look at some of the losers in the awards program, not to disparage them, but to point out design errors. "20/20 hindsight: a design notebook on what might have been" was intended, through text and altered pictures, to help the operating companies avoid design problems.

In summary, the pamphlet states, "The frustration of designing a telephone company building lies in it really being a big piece of equipment set down in an environment of buildings and people. To compensate for this equipment characteristic, one tends to embellish the envelope to make it more than a building. However, less . . . is more, is consistent, is honesty, is non-style, is quiet statement, is fewer materials, is functional, is simplicity, is economy."

As long as 50 years ago, the Bell System spoke of fitting into the communities it served. In a book of 50 telephone buildings across the country published in 1930 by AT&T, the introduction stated that the buildings pictured reflect the company's stability and "its regard for the comfort and convenience of its employees and customers. These buildings contribute toward the achievement of the ideals of the communities in which they are located. . . ."

Many of these older buildings—often art deco in spirit—are now landmarks in their communities, perhaps appreciated even more today because of their style. The telephone building in a city or town was often a big building, comparable to city hall.

Unfortunately that program of trying to fit in got lost in the years following World War II when there was a period of unprecedented growth in the Bell System. As late as April 1960, Richard A. Miller, writing in *Architectural Forum*, noted, "Too many telephone buildings try to convey the image of grace in the manner of the elephant that tried to look graceful by draping a lace handkerchief on her back."

Every dark cloud has a silver lining, however, and even the less-than-esthetically-pleasing telephone buildings—of which there are many—can be inspirational. Take Richard C. Lee, who became mayor of New Haven, Conn., in 1953 and during the next 16 years turned the city around and put it on the map architecturally. He attributes New Haven's renaissance to the telephone company.

Lee, anxious to spur new development, especially in urban renewal areas, says he jumped at the opportunity when the telephone company offered in the mid-1950s to build a \$20 million



building along the Oak Street Connector, a highway that had replaced a bad slum. The new building would be the first major construction in New Haven since World War II.

The result was a large structure covered with a blue-green curtain wall. Lee and others were upset at its banality. "We were so eager to get underway," he says, "we didn't pay any attention to the architecture. It's a huge, blunt block that leaves a lot to be desired esthetically.

"I realized after it was up that we could have had a much better building, one that added to the skyline."

Lee was not long in waiting to assure that in the future. He established an architectural screening committee with himself as chairman. It took a hand in every city-sponsored design, especially those in urban renewal areas. In addition, he urged businesses to hire good architects.

Beginning in the 1960s, due in part to AT&T's awards program, there began a re-emphasis on community fit and quality. It was misplaced briefly, says AT&T's Robert Yelick, when Bell built some equipment buildings disguised as tract houses in suburban neighborhoods. "These residential chameleons," as Yelick describes them, "were a noble effort, but led to architectural misstatements."

AT&T President William Ellinghaus points out that "Bell is a part of every community. Our buildings should be effective and efficient and blend into their communities." Perhaps defensive about the past, he adds, "They shouldn't look like telephone buildings."

Howard Walters of C&P Telephone says simply, "You don't put a marble palace in a residential neighborhood." And, notes John Collins of New York Telephone, succinctly, "We don't build monuments." He tries for good commercial quality. The dollar cost is the bottom line, as with the rest of the system.

Ellinghaus believes that a corporation needs to be concerned about the architecture of its buildings, as an owner and an employer, but adds, "We need to be concerned about the persons who look at a building."

Referring to the interest in quality, Ellinghaus says, "A build-

Alan Goldstein

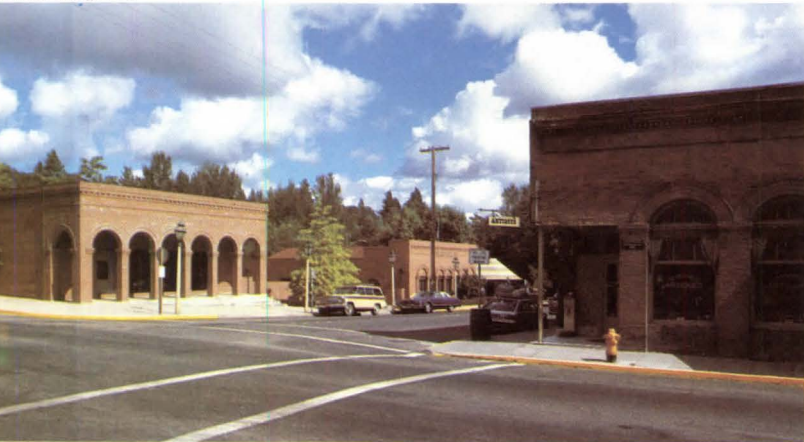


Jim Norris



John Hillyer Photography.

Top left, 10-color palette was used for C&P Telephone's new administrative offices in Montgomery County, Md., by Donald N. Coupard Associates with Interspace as interiors consultant. Top right, Miesian Phone Center Store in Chicago Loop by Holabird & Root. Above, AT&T Long Lines division offices in Atlanta by Thompson, Ventulett & Stainback feature a tree- and light-filled lobby. Left, Southern Bell's ungainly new tower by Skidmore, Owings & Merrill of New York City with Finch, Alexander, Barnes, Rothschild & Paschal of Atlanta.



'We need to let the architect be an architect.'

ing mirrors the attitude of a company. If you're really a first-class outfit, you ought to look like one."

More and more, the telephone company does, but the problem becomes one of interpretation. Jeff Berry of the real estate office at the new Long Lines division headquarters in Atlanta, says, "We wanted to create the image of a leader in the field, but didn't want to look gaudy because people would think we were spending their money frivolously."

Despite the strictures imposed by an engineer-dominated company, the Bell System has improved markedly its architecture in recent years. It may not be up there with IBM or Mobil—Bell System buildings have won only two AIA honor awards (switching centers in Northbrook, Ill., by Holabird & Root and in Columbus, Ind., by Caudill Rowlett Scott with Burkhart, Shropshire, Boots, Reid & Associates)—but it is trying, especially in the area of community fit.

Vincent G. Kling reports Bell was especially concerned about the potential intrusion of its mammoth General Departments building into the small and picturesque town of Basking Ridge. He designed it to be "the largest building in New Jersey trying to be the smallest" by siting the complex behind a lake and breaking down the mass with a series of stepped, tile-covered roofs.

Pacific Telephone's J. D. Posen describes a 1976 effort to upgrade a deteriorated equipment building in a Chicano neighborhood of Pasadena. In an attempt to halt the regular vandalism and a constant stream of graffiti, the company hired Barrio Planners, a Los Angeles firm, to suggest an approach.

The consultants recommended a large mural covering the two exposed sides of the building. It would depict various elements in the neighborhood's heritage such as the local school, a winning football team, and a streetcar. Acting on the assumption that the neighborhood would not destroy images of itself, the mural was painted and remains graffiti-free seven years later.

Bell has also come face-to-face with the historic preservation movement. After Southern Bell announced its plans to build an office tower on the site of the historic Fox Theatre in Atlanta, a national campaign to save the building started. The phone company agreed to give the preservationists a year, and that's what it took to raise the funds for a land swap that placed the tower in back of the Moorish-domed movie palace.

Pacific Northwest Bell, in dealing with Jacksonville, Ore., decided it was easier to switch than fight. Jacksonville, a National Historic Landmark, is a stage set, frozen in time from the mid-19th century. Preservationists, concerned about the overhead wires, first enlisted the support of a sympathetic member of the firm's board of directors.

He arranged for the board and company executives to see the Southern Oregon community when the directors met in nearby Ashland. Time passed, but the preservationists made certain that

telephone company executives were kept up to date when a state-wide bank restored an old hotel in town and when they utilized political pressure to force the U.S. Postal Service to build an appropriately styled post office.

When time came for the telephone company to make its move, the preservationists were caught unaware by the scope of Bell's plan. Not only did they intend to bury the wires, but they planned a new equipment building on the town's main intersection.

Robertson E. Collins, a local business executive and leader of the preservation forces, says, "The phone company did its homework. When they presented their plans, they had their architect and a noted architectural historian with them. The result was that they avoided any hassle."

The architects, WE Group of Eugene, Ore., brought along Professor Marion Dean Ross of the University of Oregon, who knew the community and its heritage of brick architecture. The problem was how to preserve the town's character and bring life to a blank facade in the middle of town. Ross recommended an arched loggia—echoing the forms and style of nearby buildings—that would shelter a storefront exhibit of old telephone equipment. WE Group architect James Bernard, AIA, describes the immensely successful result as a "24-hour museum."

Completed in 1973, the building is a major addition to the historic town, and it does wonders among the many tourists for the phone company's image as well. The building doesn't even have a sign, just the Bell logo. Says Jacksonville's Collins, "They made their statement and didn't need anything more."

There can be no doubt that translating the telephone company's image into architecture is a difficult task, if for no other reason than at Bell, equipment comes first. The long-standing dominance by engineers over the architecture is lessening, and imaginative architects are responding with thoughtful designs.

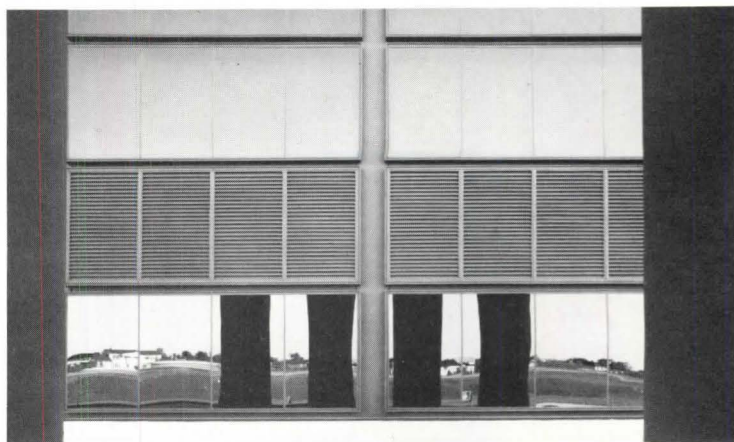
It also helps that the Bell System is welcoming more creativity. Bell's best buildings have had either a mentor, an executive wishing to make a statement architecturally, or a manager willing to let an architect design creatively. To H. C. Calloway of South Central Bell, the issue is simple. "We need to let the architect be an architect," he says. "A lot of time we direct architects, but then they are not practicing their profession."

How ironic then that just as Ma Bell seems to be breaking out of her conservative, well-engineered architectural corset, she is to be split apart, into what Ernestine, comedienne Lily Tomlin's telephone operator character, calls a whole bunch of "telecommunications bacon bits."

Although AT&T has now put most of its architectural eggs in one basket at 550 Madison Avenue, the company's long-term efforts to train the operating companies in the importance of quality design will not be for naught. The Bell operating companies, even when independently run, will continue to seek a good public image through their buildings. The "architectural" mentors and managers scattered throughout the system will not give up their interest in "architecture."

They will have a tough time, however, trying to top a Philip Johnson. □

Above, Jacksonville, Ore., building. AIA honor award winners in Northbrook, Ill., right, and Columbus, Ind., opposite.



Jamie O. Lazada





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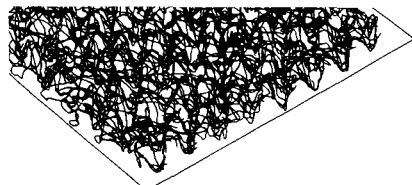
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Michael Graves at Mid Career, 11 Years After 'Five Architects'

By Richard Guy Wilson



Michael Graves: Buildings and Projects, 1966-1981. Edited by Karen Vogel Wheeler, Peter Arnell, and Ted Brickford. (Rizzoli, \$45 hardbound, \$29.95 paperback.)

Michael Graves has quite clearly attained a position of eminence both within American architecture and also American culture at large that is unusual for an architect who is only 49 years old. This year, the Portland Building won for him a fourth AIA honor award (others have been the Schulman house, 1982; Gunwyn Ventures Investment office, 1979; and Hanselmann house, 1975) and, at the same time, he continues to win *Progressive Architecture* design awards (10 since 1970). His every utterance and doodle is eagerly followed (if not by some professional detractors then by the professionals-to-be, the current student population). Gravesian-style projects and drawings appear in every student studio across the U.S., and the Gravesian color palette has made an impact not just in studio, but on interior design and built form as well. On the broader mass-cult level, articles about him appear with frequency in the popular press, and he has now become copy

Dr. Wilson is chairman of the division of architectural history, school of architecture, University of Virginia.

for airlines magazines, surely a sign of arrival. About all of this there is certainly some degree of media hype and the heavy sell, and with all this mass acceptance and adulation, can he still be considered avant-garde or even the leading edge?

Graves' success is to some degree surprising since his first major public appearance 11 years ago in *Five Architects* (republished in 1975). Then, he seemed both obscure and not likely to build at any scale beyond the occasional addition or house. He also seemed very much a "paper architect" in comparison with Richard Meier or Charles Gwathmey—more adept at cubistic murals and graphics that he rather wrenchingly tried to turn into built form. His work such as the Hanselmann house and the Benecerraf house addition was part of the neo-Corbusian revival common to all of the New York Five, but his was overlaid with a seemingly difficult and hermetic series of references: layers, cutouts, colors, dropped columns, spiderlike extrusions of the frame, and so forth. Undeniably elegant either in photographs or reality, these buildings appeared as obsessively obscure. And the understanding of his work was not helped by an accompanying unintelligible essay in a book not known for readability.

Now, a decade later, Graves appears

solo in an *oeuvre complete* that contains all his work, major and minor. Coverage comes up to nearly the present, and included are photographs of the nearly completed Plocek house and the completed Portland Building. The book contains 304 pages, with 1,200 illustrations of which 500 are in color, and there is a generous supply of his drawings along with buildings, interiors, art, and furniture. My major complaint is the frequent exclusion of the plan legend, or its printing in miniscule type. Each project has a very brief introductory statement attached, and there is a brief essay by Graves, "A Case for Figurative Architecture," and a short afterword essay by Vincent Scully on Graves' "Allusive Architecture: The Problem of Mass" (a pun). Also appended is a bibliography and a list of awards. While the book lacks a clear and reasoned essay putting Graves into context and interpreting his work, overall it is an excellent survey of his career at its midpoint, let us hope.

Graves' work 11 years after *Five Architects* appears both more intelligible and also more enjoyable, a result of his talent, his growth, and changes in the entire architectural situation. Obviously, his contacts, both first-hand and in publications with Europeans such as Aldo Rossi and Leon Krier, have been decisive in moving him away from the neo-Corbusian idiom. The open-truss-gable-pediment of Rossi, and substantial enfilades of piers and columns common to both Krier and Rossi, have made their appearance in Graves' work. Quite clearly, he has been influenced by the growth of interest in art deco, the Viennese secession, and the Beaux-Arts. And yet beyond these and other contextual occurrences and influences of which Graves has both imbibed in, and also focused attention upon, there has been his own particularized reinterpretation of classicism, or what he chooses to call "figurative architecture."

While predictions are risky, it does appear that a new classicism of many-hued variety—including straight revivalism, ironic misstatement neorationalism, and symbolic abstraction—is coming to dominate the academic discussion of architecture. In this Graves is playing a central role, for he has realized that the basis of classicism lies in an archetypal anthropomorphism—for we see ourselves or portions of our physiognomy in the orders, moldings, and traditional arrangement of walls, rooms, and buildings. To some degree, Graves has come to his position through the so-called failure of modern architecture, or, as he writes:

BOOKS



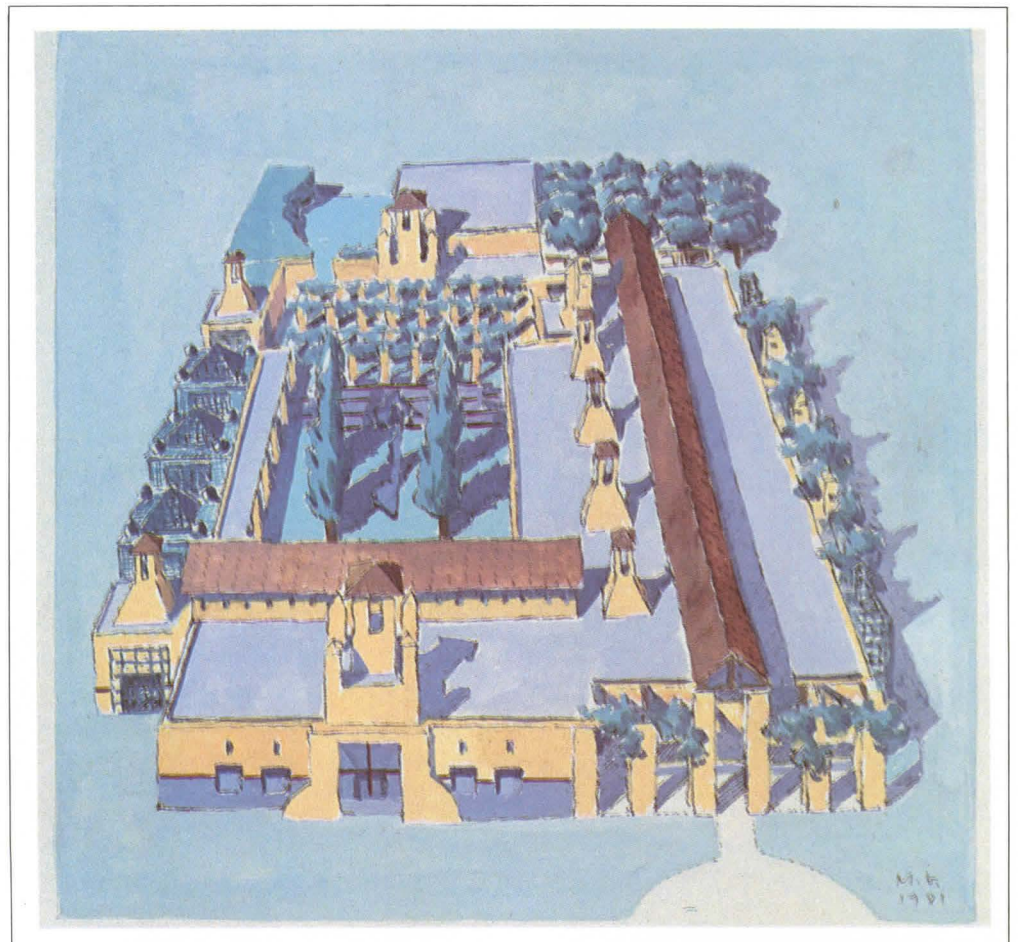
Proto Acme

Opposite, the Hanselmann house, Fort Wayne, Ind., a 1967 design. Above, 1977-82 Plocek house, Warren, N.J. Right, San Juan Capistrano Library.

"While certain monuments of the modern movement have introduced new spatial configurations, the cumulative effect of non-figurative architecture is the dismemberment of our former cultural language of architecture."

While this rejection of the abstraction of modernism has been important to Graves and his generation, it is safe to say that a rereading of some modernists, especially Le Corbusier or Adolf Loos, reveals not only the iconography of machine modernism, but also a contrary paean to classicism as the basis of architecture. While a reference to classicism was always present in Le Corbusier, it was almost completely ignored until the later 1960s and '70s. Certainly assisting in the new interpretation would be Colin Rowe's earlier "Mathematics of the Ideal Villa" (1947), which elucidated the idea of parallels between Le Corbusier and Palladio's arcadian villas. Graves overstates the case when he writes: "All architecture before the modern movement sought to elaborate the themes of man and landscape," and yet he crucially indi-

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cates the discovery of this theme within modernism. For in investigating the historical alternative to the modern movement—classicism—Graves would ultimately come to classicism's humanistic dimension, the anthropomorphic—mimetic—character, so eloquently spelled out in Geoffrey Scott's *The Architecture of Humanism* (1914, 1924).

Graves' early work, such as the Hanselmann house or the Benacerraf addition, while within the general neo-Corbusian 1920s revival, had several features of importance for future development. Space to him was not simply the area existing between two neutral horizontal planes as it was in most modern architecture, but it could be molded and formed by vertical surfaces that did not need to be inert, but could contain a variety of references. While some of Graves' earlier work was dismissed by some critics as simply decorative surfaces—such as the murals and the cutout walls—it is obvious that they are the ancestors of the great pilasters and festoons of the Portland Building and of the moldings of the various Sunar showrooms. The wall, as Graves says, is the basic substance of enclosure and far different from the plan, which for too long has been a major concern of modern architecture. For Graves, while the "tripartite division of the wall into base, body, and head does not literally imitate man, it nevertheless stabilizes the wall relative to the room, an effect we take for granted in our bodily presence there."

Essentially, Graves took the fragments and references he had been applying to the 1920s International Style and turned them into the full-scale subject of this architecture. The distance he traveled

from his early work such as the Hanselmann house (1967-69) to the Plocek house (1977-82) is impressive and indicates why his architecture has become so much more understandable and acceptable. Abstraction has given way to referential recall of more traditional sources such as villas. Not that it is a specific revival, rather it is filtered through Graves' own interpretative drawings of a variety of sources. The Plocek house is a mannerist display of many sources: Giulio Romano in the displaced fragments and rustication that runs up through several stories; Lutyens and Frank Lloyd Wright in the embracing of the landscape and the exaggerated chimney; and the Villa Madama in the approach.

Behind this rich panoply of columns, moldings, displaced keystones, and other referential figures another substantive change was also taking place in Graves' architecture. Walls were not merely surface, but grew thicker; the older Beaux-Arts notion of *pochè* appeared; and rooms seemed to be literally carved or built out of masonry. Space became limited, and the frequent usage of long linear enfilades of piers and columns, turning on round hinges (derived from Hadrian's villa and Jean-Louis Pascal's 1866 grand prix project, shown at the Museum of Modern Art in 1976-78) appeared with frequency. The columns projected upward such as in the San Juan Capistrano Library, wore different appearances—temples, urns, basilicas, and gables became almost hats.

In his essay on "Figurative Architecture," Graves differentiates between "a standard form and a poetic form," which can be translated as the distinction between the mechanical and the poetic arts.

He takes a stand against architecture as simply a technique of building and the modernist symbolism of that aspect, instead affirming architecture as an art form that translates in three dimensions the myths and rituals of society. One is reminded that in the introduction to *Five Architects* Colin Rowe noted that the forms being revived by Graves and the others had lost their original ideological and social revolutionary content and had become fashion. This lack of ideological and social value has been one of the constant criticisms directed at Graves by many, especially European critics and architects. Of course, American architecture has never been profoundly social—at least in a left wing ideological sense—and indeed the International Style in this country became the style of the *haute bourgeois* and the corporations.

With Graves, it is obvious that his architecture does not speak with an ideological silence—a favorite term of Italian Marxist critics—but rather, it has been concerned with archetypal issues and the ritualistic basis of shelter, not as only keeping the weather out, but man's relationship to nature and the world.

In Search of Modern Architecture: A Tribute to Henry-Russell Hitchcock. Edited by Helen Searing. (MIT Press, \$45.)

It is rare that a *Festschrift* is of absorbing interest as a whole, since the contributors are linked chiefly by their eagerness to take part in a tribute to a distinguished scholar rather than by any effort to produce a cohesive work. Professor Helen Searing has pulled it off in her editing of this book. She has presented fond memories and independent studies that come together both as a new work of significance and as a commemoration of the prolific pioneer, Henry-Russell Hitchcock, who has so steadily been engaged in searching out modern architecture.

Chapters that range through architectural history from Egyptian and Roman to the 18th century of Sir John Soane or Fra Carlo Lodoli to Gaudi's interiors and Bruce Goff's architecture of personal choice—all serve to enrich our understanding of design in our own time. Without exception, the distinguished scholars have taken off from some idea or connection in the massive oeuvre of the master (even some omission, as in the case of J. Mordaunt Cook's "T. G. Jackson and the Cult of Eclecticism" which brings the "Anglo-Jackson style" to our attention).

Early days of building on Long Island's South Shore come to life in Masette Glaser Broderick's account of McKim, Mead & White's work on that sandy stretch, while early tall arcaded office buildings (1870-90) are shown by Sarah Bradford

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Hitchcock with Philip Johnson, left.



T.M.

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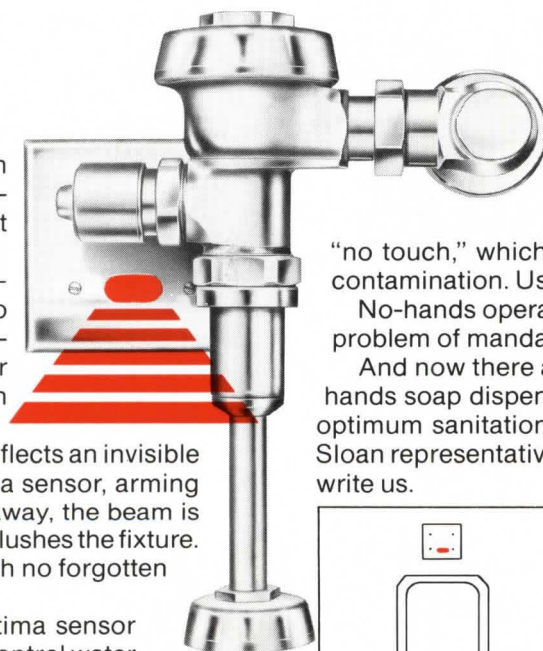
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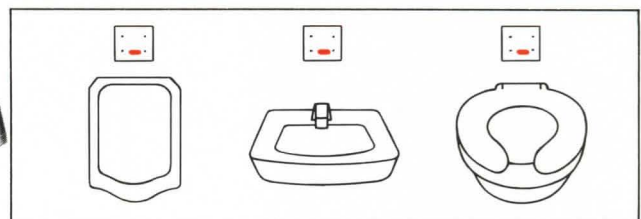


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Books from page 80

Landau to have preceded the better known Chicago works. Original ideas on urban design as outlined by Le Corbusier (then Charles-Edouard Jeanneret) in his first book, never published, have led H. Allen Brooks to speculate about how different our mid-20th century cities might have been if the 1910 book had been published. Provocative ideas abound; material for discussion and disputation enlivens every section.

Searing's organization, after the obligatory preface by Philip Johnson, is in tripartite form, pursuing the search of modern architecture from the 18th to the 19th centuries in Europe; then American

architecture to 1900; and, third, the new tradition and new pioneers in our own country. Architecture on the West Coast has been typically ignored, which has been par for the course.

Searing in her introduction, subtitled "Architectura et Amicitia," sets the tone of affection and dedication to this influential teacher, critic, and historian. Generations of scholars, architects, and architecture buffs have profited by his perceptive gaze. Philip Johnson rightly pinpoints Henry-Russell Hitchcock as an "eye-scholar." SARA HOLMES BOUTELLE

Ms. Boutelle of Santa Cruz, Calif., is director of the Julia Morgan Association.

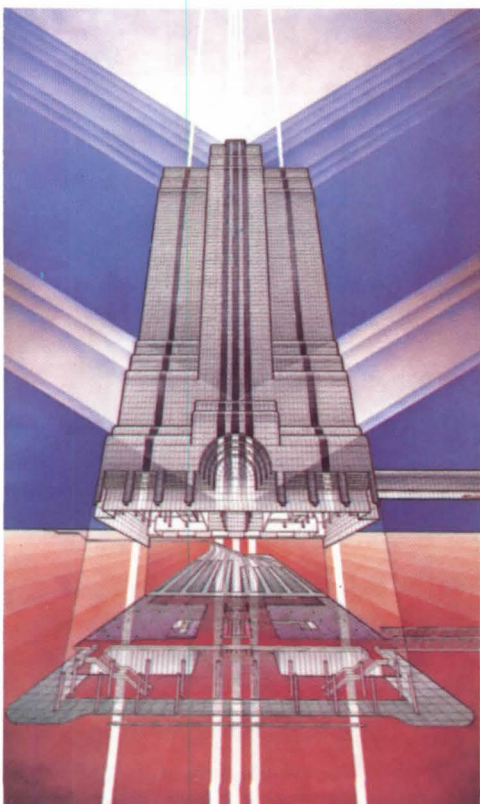
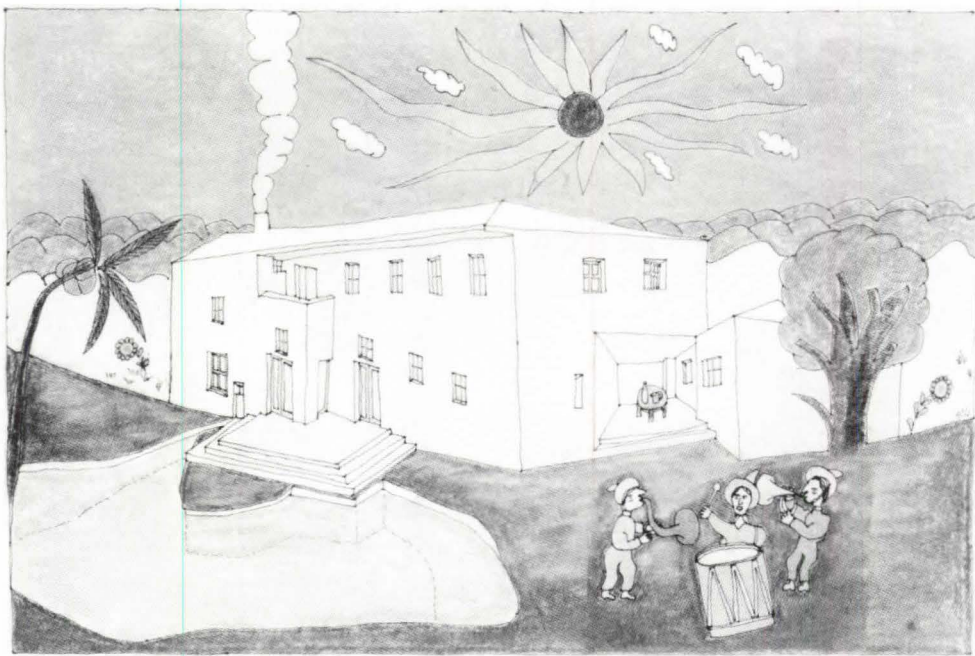
Alternative Natural Energy Sources in Building Design. Second edition. A. J. Davis and R. P. Shubert. (Van Nostrand Reinhold, \$17.95 hardbound, \$9.95 paperback.)

One of the problems arising from the energy awareness in architecture is how to cope with the tidal wave of information, methodologies, books, tables, diagrams, and formulas. It is difficult to assimilate and keep a sense of perspective about the contents, and the sheer volume of papers and books is daunting. As a result, with each new publication one must ask certain basic questions. Is the content new and valuable? Is it presented in a form that is useful for its readership? Does it fill a gap in the body of knowledge with which it deals? A. J. Davis and R. P. Shubert have completed a substantially rewritten version of their 1974 book. They have attempted to produce a comprehensive handbook of 287 pages. It contains a chapter of the background issues affecting energy design, followed by chapters dealing with regional and site adaptation, with energy conservation, with natural cooling and ventilation, with water power, with wind power, with active solar energy, with organic fuels, with integrated systems, and with passive solar energy. These are followed by a 66-page appendix containing tables, maps, Malcolm Wells' ecological standards, and alternative methods for making some calculations. The scope undertaken is obviously enormous. It is easy to imagine a single book being devoted to each chapter.

In fact, what the authors have attempted is to compress the information from several books on each subject into single chapters. The result is a book that is interesting to thumb through and full of wonderful nuggets, many derived from books and reports that I had always wanted to read about but never got to, but one that lacks cohesion as a comprehensive guide. For example, there are incidental observations on methane gas production, on determining the blade diameter for a wind generation system, on designing and sizing water-powered generators, on building various types of dams, and on the way in which a Stirling Cycle Air Conditioner works.

The same curiosity and randomness is apparent throughout the book, possibly because the authors have been more concerned with gathering material than in evaluating it. In the chapter on integrated systems, they describe various experimental houses, built and proposed, that sought to be as nearly self-contained as possible. Among them are Ecol House, built at McGill, Graham Caine's Eco House design from England, the Ouroboros project of the University of Minnesota, the New Alchemy Institute's Prince Edward Island Ark, and Richard Blazej's Grassy

continued on page 84



Chicago Architects Design: A Century of Architectural Drawings from the Art Institute of Chicago. (Art Institute of Chicago and Rizzoli, \$25.)

This handsome book was presented on the occasion of the first anniversary of the Art Institute of Chicago's formation of a new department of architecture. It contains drawings from the institute's noteworthy collection. There are introductory comments on the history of the drawings and on types and styles of architectural drawings. And the book concludes with an insightful essay on the conservation of architectural drawings. The major portion of the book, however, is devoted to verbal sketches about Chicago architects and architectural firms and, of most importance, to reproductions of actual drawings by them. The style and types of drawings are wide-ranging—from the futuristic fantasy drawing by Helmut Jahn, FAIA (1982, shown at left) of the Chicago and North Western Terminal Building to the "naive" perspective rendering of a proposed house in Coral Gables, Fla., by Stuart Cohen & Anders Nereim (1981, above).



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Books from page 82

Brook Village in Vermont. While each of these is described in the designer's terms, there is no way to compare it with the others. The descriptions of some sound as though they were carried forward from the 1974 edition. In the intervening six or seven years, they could well have been evaluated. Some work; some don't. The experience of the failures is as important as the record of the successes.

These experimental houses span a broad range of technical application from the simple trickle collector and sod roof on Ouroboros to the mechanically complex system at Grassy Brook Village. Not only is it possible to describe the functioning of the systems compared with the anticipated functioning, but it is also possible to examine the actual recorded energy required to do it with data taken from bills for fuel and electricity over several years. In addition, since there are several quite different life styles implicit in the basic programming, there is an opportunity to comment on what one is expected to give up in order to achieve something else.

When this line of inquiry is pursued, it brings up other fundamental energy issues as well. Among the more important to me is how each of us uses the 300 to 350 million BTUs that can be prorated as part of the total U.S. energy consumption. If a 25,000 BTUs per square foot house requires two cars per family, and if getting to and from work, school, and cultural activities means 150 miles of automobile travel a day, is the preoccupation with a self-contained house something of a delusion?

The most valuable chapter to me is the one on passive design. It is an assemblage of useful information on various options and offers formulas and computational methods to help approximate how the building will function. Even here, in the last chapter of the book, it oscillates between presentation of fundamental principles or information ("The British Thermal Unit, BTU, is the commonly used measure of heat," page 206) and other highly specialized bits of information and advice, such as a detailed procedure for sizing and placing vent areas in Trombe walls. It is left to the reader to reorganize the contents if the book is to achieve its potential.

With three columns per page and a generous sprinkling of black line illustrations, the book is easy to read. But since most illustrations and tables are taken directly from other publications and reduced for inclusion in the book, there is no consistent graphic approach, and numbers occasionally are close to illegibility. There are no photographs.

The references and bibliographies on each subject are thorough and broad, and

should permit the reader to pursue other topics that are of particular interest.

One welcomes the book for its diversity and generally constructive direction, but must rate it below the top level for its overall usefulness.

RICHARD G. STEIN, FAIA

Mr. Stein, who practices in New York City, is author of Architecture and Energy (1977, Anchor Press Doubleday).

Photography and Architecture: 1883-1939. Richard Pare; introduction by Phyllis Lambert. (Canadian Centre for Architecture with Callaway Editions, \$55.)

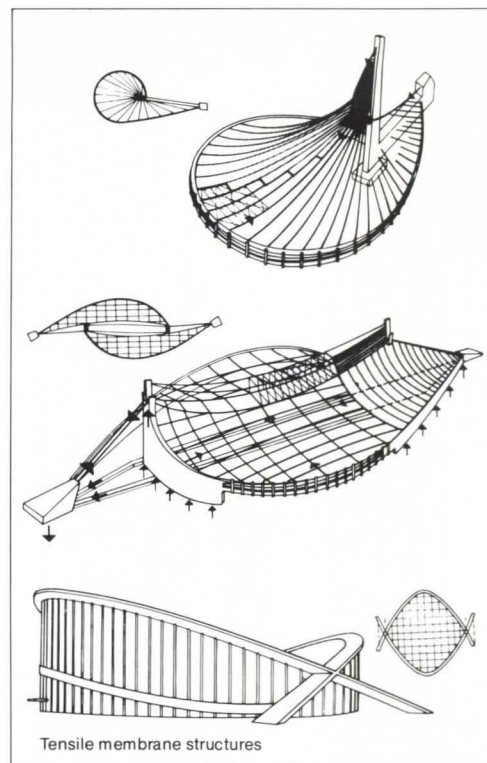
This is a book of exceptional craftsmanship on a subject of great interest about which little has been published. It is, nevertheless, a sharp disappointment.

The Canadian Centre for Architecture was founded by Phyllis Lambert in 1979. It collects architectural drawings, books, photographs, and other archival materials. From the center's collection of 25,000 historic photographs of architecture and the built environment, 148 were selected for this book to represent the first 100 years of architectural photography.

Reproduction of the photographs is superb. The photographs themselves are handsome, occasionally memorable. But there is no intelligence in the book, no informing thought to pull all this material into any kind of whole. The book is just a Little Golden Treasury of Architectural Photographs. None of the pictures has anything to do with the others, and each of them is fatally severed from its context—the context of its creator's vision as expressed in his work as a whole, or the context of a particular time and place. Much better to pore through one whole book by Atget or Walker Evans, one whole book of photographs of the Civil War, or the alleys of Glasgow, than through this meaningless sampler.

The text by Richard Pare, the center's curator of photography, is negligible, a rehash of technical history spiced with an occasional absurd over-interpretation of one of the photographs. Pare avoids any speculation on the ways in which photography, architecture, and our perception of the built world are intertwined.

A great book remains unwritten here. To suggest a trivial example: In the late-1960s, the architectural magazines switched from predominantly black and white to predominantly color photography. Almost instantly, architectural fashion switched from the deep-shadowed, late Corbu chiaroscuro of, say, Boston City Hall, to the brightly pigmented surfaces of supergraphics and later of postmodernism. There must be a zillion relationships like that, intricate symbioses that remain to be unraveled by the kind of imaginative scholarship that this book's authors have chosen not to risk. ROBERT CAMPBELL



Horizontal-Span Building Structures.

Wolfgang Schueller. (Wiley, \$39.95.)

If you like Schueller's previous book *High-Rise Building Structures* published a few years ago, you will like this one also. I did and I do. This particular volume can be used and appreciated at several levels. For those hunting simply for ideas on how to span long distances, a scan of the 2,000-plus illustrations alone should evoke a host of possible solutions. Arches, trusses, rigid frames, space frames, shells, suspensions, and pneumatics are all in there. For those who have a configuration in mind and want only to know how the forces conceptually flow through the structure, numerous line and vector diagrams will be helpful. For the more serious designers, simplified mathematical methods of analysis are given and explained for the different structural forms. For the student, there are hundreds of problems that can be worked, with answers to many of them located at the end of the book for checking. At the conclusion also is a reasonably complete list of references on the subject.

Wolfgang Schueller is both an architect and an engineer and as such knows well how to bridge the gap between the two fields. His presentation of the material demonstrates this fact. The main negative comment to be made regarding the book is its relatively high price (especially for students), but judged on a page by page basis, there is more than 6.7 cents worth of information on most of the 594 pages. WILLIAM ZUK □

Dr. Zuk is professor of architecture and director of architectural technology, school of architecture, University of Virginia.

Letters from page 6

larly beneficial to those without degrees. Clearly, something is missing without architectural school training.

Maybe it's time we bring ourselves up to the level of other licensed professionals, i.e. physicians, attorneys, and public accountants. They certainly understand the necessity of a solid education in our present complex world. This degree requirement may help to increase public awareness and respect of our profession.

Both practical experience and education play an intertwining and simultaneous role in the development of architects. The requirement of a professional degree for NCARB certification would certainly support the value of a strong education as well as the formation of well-rounded architects.

*George Fellner, AIA
Hauppauge, N.Y.*

Deaths from page 27

says, because the German part had been promised to the Bauhaus-Archiv, the American part to Harvard.

Mrs. Gropius resolved the matter to the apparent satisfaction of both recipients, sending the oeuvre on loan to the Bauhaus-Archiv, obtaining funds to photograph the entire collection, and returning to Harvard the original papers from

the American period along with high-quality photos of the German period. "Mrs. Gropius' energy and dedication, and her resourcefulness and inventiveness" were "much beyond the ordinary," says Dennis.

Also exceptional was her diligence in caring for the Gropius house in Lincoln, Mass., built by her husband in 1938, the year after they emigrated from England following the Nazi takeover in Germany. A radical departure from the building conventions of the time, the house strongly influenced contemporary residential architecture nationwide. Eight years ago, Mrs. Gropius donated the house and its furnishings, built in Bauhaus craft workshops, to the Society for the Preservation of New England Antiquities. She continued to live there and acted as its curator, giving "sightseeing tours," as she called them, to interested visitors.

"Everything about the house in Lincoln, all its arrangements, its furniture, and its artifacts, was a reflection of the taste of the two collaborators," wrote Thomas B. Adams, treasurer of the American Academy of Arts and Sciences, in his 1979 letter in support of Mrs. Gropius' nomination as an honorary member of AIA. "They thought in harmony, and much that Walter produced

and made general originated in the private life of these two people."

Although recently in ill health, Mrs. Gropius attained the age of her husband and lived to observe the 100th anniversary of his birth this May 18.

Raymond Kastendieck, FAIA: Former treasurer of the Institute (1956-63) and Great Lakes regional director (1953-56), Mr. Kastendieck died on April 21 at the age of 88. He graduated from Washington University in St. Louis in 1923 and practiced in that city until 1933. He then formed his own firm in Gary, Ind., whose projects included housing, schools, churches, and a state office building.

A. J. Annala, Detroit
Lucas E. Bannon, Beverly Hills, Fla.
F. R. Hutchison, Austin, Tex.
Gilbert Charles Jaka, Silver Spring, Md.
Raymond Kastendieck, FAIA, Gary, Ind.
Philip H. Kielawa, Sedona, Ariz.
C. Julian Oberwarth, FAIA, Etaw, Ala.
Samuel I. Oshiver, Philadelphia
Stephen Page, Bloomfield Hills, Mich.
Samuel G. Shepherd, Gwynedd, Pa.
Thomas B. Thompson, Washington, D.C.
Lars Thorsnes, El Sobrante, Calif.
Guy K. C. Wilson, Concord, N.H.

News continued on page 86

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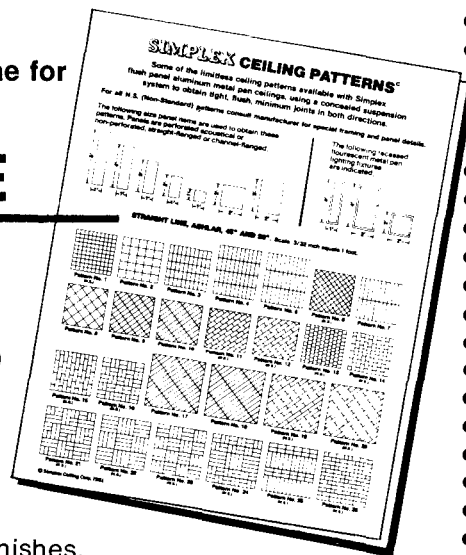
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ARCHITECTURE/JULY 1983 85



BRIEFS

Fire Safety Publication Available.

The National Fire Protection Association has released the second edition of *Building Construction for the Fire Service* by Francis L. Brannigan. This 380-page book is available for \$18 from Publications Sales, NFPA, Batterymarch Park, Quincy, Mass. 02269.

Gehry Wins Brunner Prize.

The American Academy and Institute of Arts and Letters has awarded its 1983 Arnold W. Brunner Memorial Prize in Architecture to Frank O. Gehry, FAIA.

D. Coder Taylor Honored.

Carnegie-Mellon University alumni association has presented a merit award to Chicago architect D. Coder Taylor, FAIA, for "exceptional accomplishments during his career in his chosen field of architecture."

Alden B. Dow Honored.

The Michigan Senate has passed a resolution naming Alden B. Dow, FAIA, of Midland, Mich. as architect laureate of the state.

Energy Conservation Awards Program.

Entries for Owens-Corning 12th annual awards program are due Aug. 26. This year awards will be given for residential and commercial retrofit projects, as well as commercial, governmental, industrial, and institutional. For more information, contact B. M. C. Meeks, Owens-Corning Fiberglas Corporation, Fiberglas Tower, T12, Toledo, Ohio 43659.

Precast Concrete Building Awards.

The Architectural Precast Association has presented its Shawver award to the architects of three buildings, citing them as "special examples of design integrity using precast concrete as structural elements." The structures are: South Central Bell Telephone Alabama Operations Center, Birmingham, Ala., by Gaittina, Kirkwood & Partners, Birmingham (see page 69); Miami Dade Community College by Ferendino Grafton, Spillis & Candela, Miami; and Chick-Fil-A Headquarters, Atlanta, by Smallwood, Reynolds, Stewart, Stewart & Associates, Atlanta.

Student Design Competition Winners.

Winners have been selected in the design competition "Expressions in Steel" cosponsored by Association of Student Chapters/AIA and the American Institute of Steel Construction. Frank Michielli of Catholic University won the \$5,000 first prize. The second prize of \$3,000 was awarded to Ray Imahara of the University of Southern California. Three \$600 honorable mentions were presented Richard Holben and Paul Milano of Pennsylv-

vania State University, Frank Genese of SUNY Buffalo, and Robert Laumeier and Bobby Otten of the University of Tennessee.

Call for Solar Energy Papers.

The American Solar Energy Society is seeking papers on architecture, construction, engineering, passive solar energy systems, and wind energy conversion for its annual meeting to be held June 6-8, 1984. Deadline for receipt of abstracts is Oct. 15. For more information, contact Barbara Bradley, American Solar Energy Society, Inc., 205B McDowell Hall, University of Delaware, Newark, Del. 19711.

Rotch Scholars Selected.

Thomas K. McLaughlin Jr. of Cambridge, Mass., has been awarded the 1983 Rotch Traveling Scholarship. He will receive \$13,000 for eight months of foreign travel. Eric Liebmann of New Haven, Conn. was named the alternate.

Rebar Buildings Design Awards.

Registered architects and engineers are invited to submit entries in Concrete Reinforcing Steel Institute's Design Awards Program. Structures must feature cast-in-place concrete with conventional reinforcing bars as the principal reinforcement. Deadline for entries is Nov. 1. For more information, write Concrete Reinforcing Steel Institute, Marketing & Promotion, 933 N. Plum Grove Rd., Schaumburg, Ill. 60195.

Philip Morris Inc. Honored.

The Architectural League presented its first annual Architectural League award to Philip Morris Inc. for "its outstanding contributions to art and architecture."

Architectural Scholarships.

AIA and the AIA Foundation have awarded scholarships totaling \$197,000 to 207 students and six intern architects. The awards, ranging from \$500 to \$2,000, are based on the scholarship committee's evaluation of each applicant's academic record, financial need, statement of purpose, and recommendations by deans or departmental heads.

Design Competition at VPI.

Virginia Polytechnic Institute is sponsoring an open competition for the design of a student services building. Deadline for receipt of submissions is Sept. 2. Competition entry packages are available for \$25 from the Design Competition, College of Architecture and Urban Studies, VPI, Blacksburg, Va. 24061.

Mirrored Glass Effects in Airports.

The use of mirrored glass walls in airport terminals or surrounding buildings can cause serious operational problems for airports, warns the Federal Aviation Ad-

ministration. FAA therefore cautions architects to carefully evaluate designs incorporating mirrored glass, which can cause two types of disruptions. One is a reflective flash of the sun or airport lights. The other is that the glass acts as a solid metal wall off of which bounce radar signals from navigational equipment, rendering the equipment ineffective. There are no FAA regulations prohibiting mirrored glass, nor are there likely to be in the future, says an FAA spokesman.

Financing Energy Improvements.

The National Institute of Building Sciences has released a 286-page report entitled "Innovative Financing for Energy Efficient Improvements." The report was prepared by the consultants Lane and Edson under contract with the Department of Energy. Copies are available for \$34 from NIBS, 1015 15th St. N.W., Suite 700, Washington, D.C. 20005.

Chicago World's Fair Names Architects.

Skidmore, Owings & Merrill was selected to serve as "acting coordinating architect" of the Chicago '92 exposition site by the Chicago World's Fair 1992 Corporation. Perkins & Will was selected to prepare a feasibility study on providing direct linkages from the exposition site to neighborhoods to the west.

Report on Slender Walls Available.

The Structural Engineers Association of Southern California in conjunction with the Southern California Chapter of the American Concrete Institute completed research on tall slender walls of concrete, clay brick masonry, and concrete block masonry. The publication explaining the tests and results can be obtained for \$20 per copy from the ACI-SEAOSC, 2250 Beverly Boulevard, Los Angeles, Calif. 90057.

Urban Design Publication.

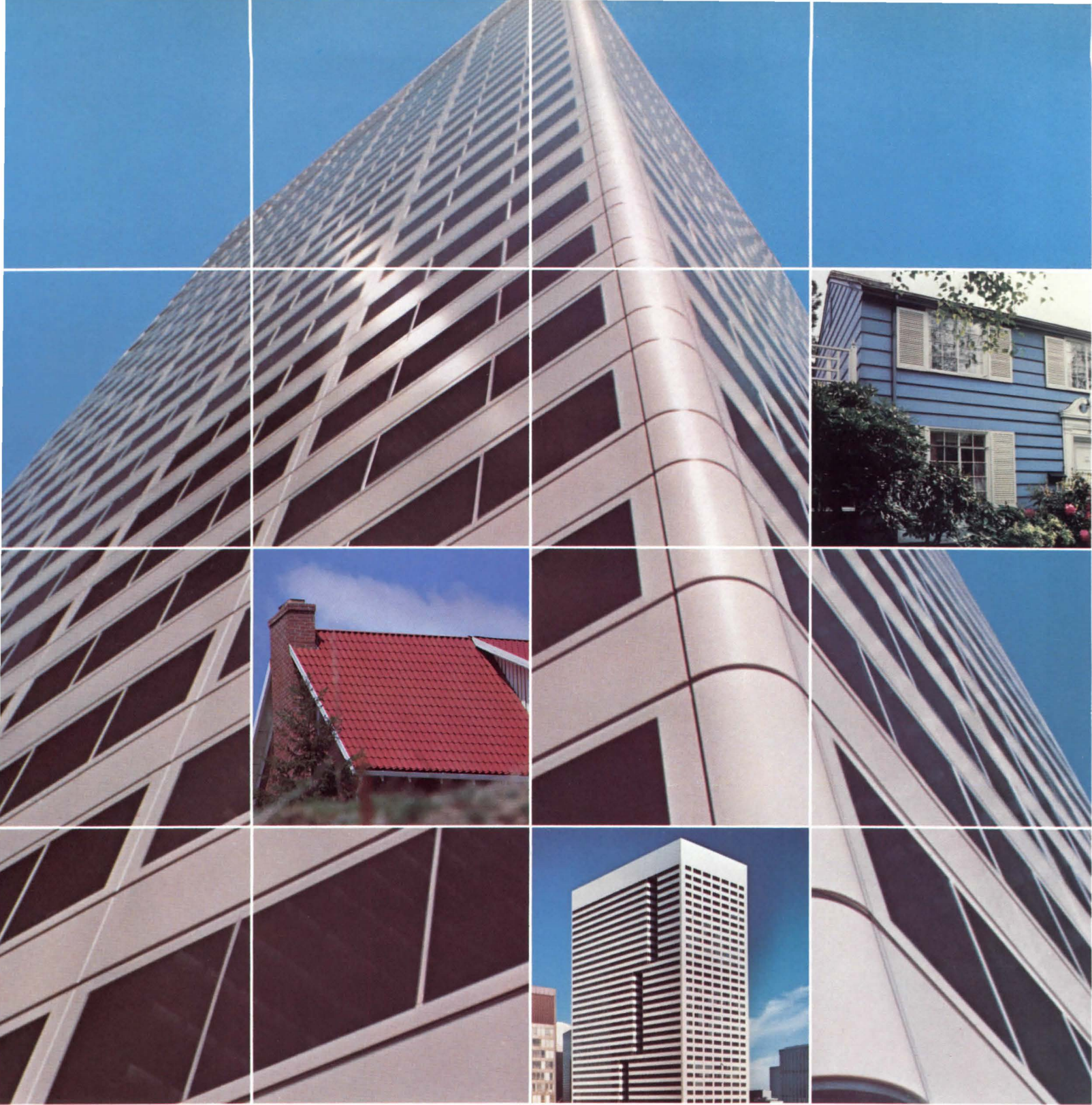
"Urban Innovation Abroad" is a monthly newsletter published by the Council for International Urban Liaison. Subscriptions are available for \$36 per year from CIUL, 818 18th St. N.W., Washington, D.C. 20006.

Energy Conservation Manual.

The University of Wisconsin-Extension has prepared a manual, *Energy Conservation in Religious Buildings*. Copies are available for \$5 from the UWEX Bookstore, Room B-7, 432 N. Lake St., Madison, Wis. 53706.

Solar Society Membership Directory.

The American Solar Energy Society has available their 1982-83 membership directory. Copies may be obtained for \$45 from Publications Office, American Solar Energy Society, 110 W. 34th St., New York, N.Y. 10001. □



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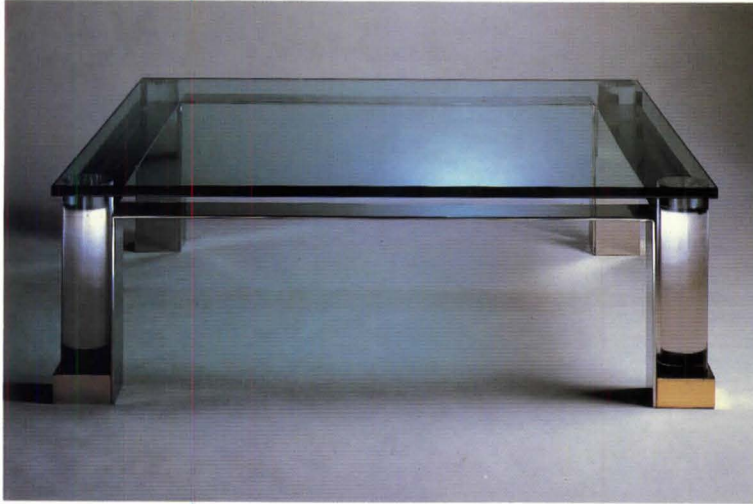
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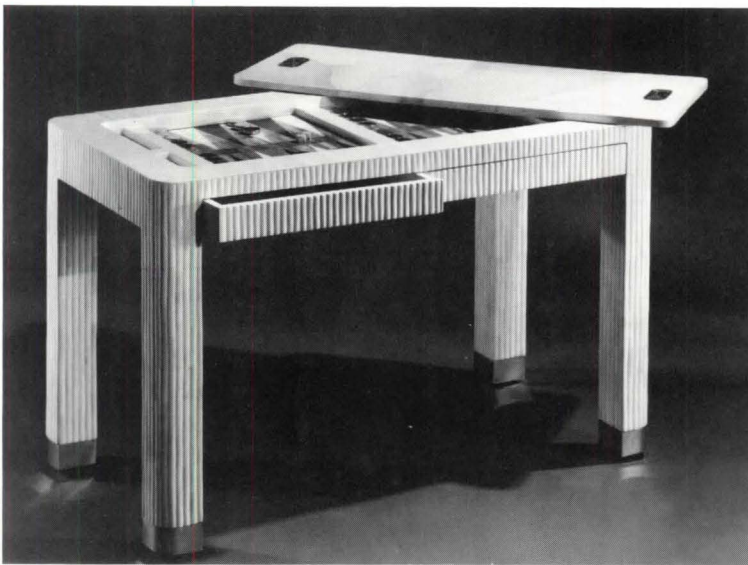
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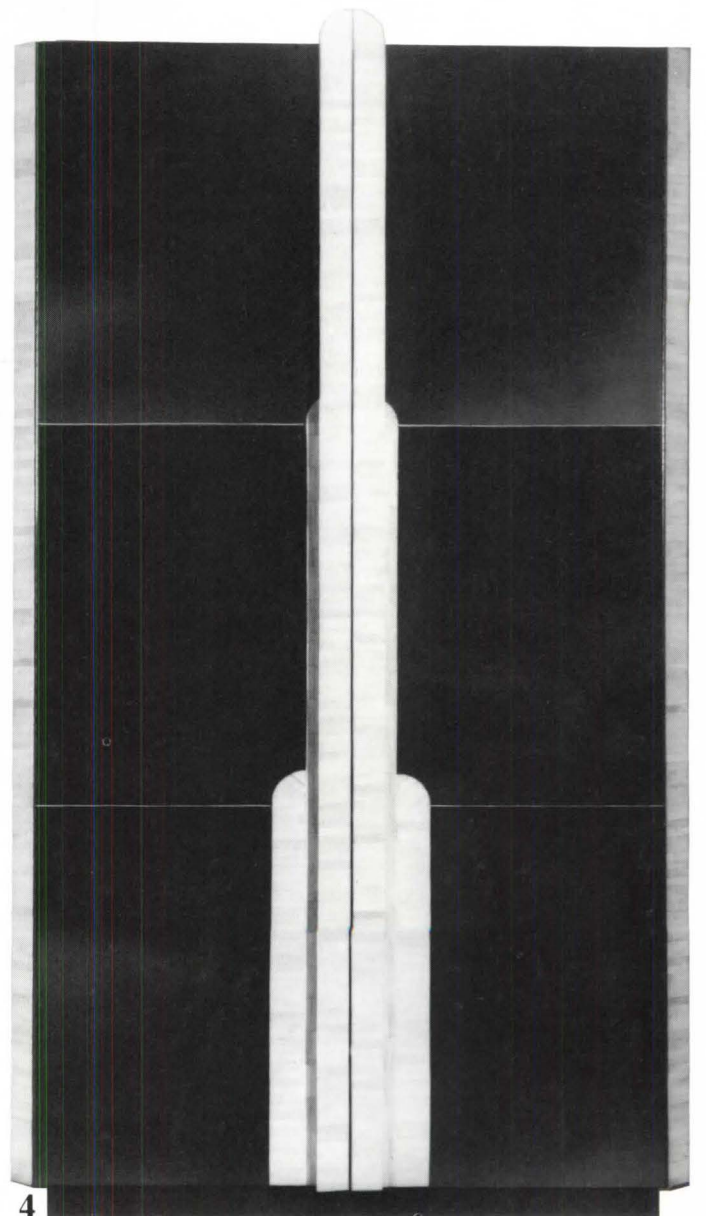
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Furnishings

*As resources for design and objects of design.
By Nora Richter Greer*



4



5

Les Prismatiques' Rhodes Coffee Table (1) has a polished steel frame, polished brass details, acrylic vertical "columns," and glass top. Designed by Raymond Jurado, the table's enlarged legs are postmodern interpretations of a classical column. The table seen here is 45x15 inches; other sizes are available, as well as a dining table. The first of Steelcase's Snodgrass Collection is the side chair (2) with an oval steel tubing frame shaped in simple, flowing lines. Designed by Warren Snodgrass, the chair will be offered in five models: open and full back, both with and without arms, and full back with upholstered arm inserts. Upholstered arm caps will also be offered. The framing can be specified in seven monochromatic colors as well as in chrome; there is a choice of more than 300 fabrics, vinyls, and leathers.

Marquetry, the art of decorating furniture with inlaid designs of wood, ivory, and bone (which flourished in 17th and 18th century France during the reigns of Louis XV and XVI), is being revived today by Mansfield Manor Ltd. The backgammon table/desk (3) has bone and wood inlays; the armoire (4) is black lacquered with bone and wood inlays.

Multicolored forms floating on a white background comprise DesignTex's Silhouette drapery fabric (5). Made of 54 percent cotton and 46 percent polyester casement fabric, the pattern is created by applying special chemicals that remove portions of the material. Colors are then printed 14 different times in the burned-out areas.

From the Alexandria, Va., studio of Peter Danko & Associates Inc. is the Unfolding Chair (6). Its cutout appearance reflects its construction: the molding of two pieces of solid beech. The studio's method of molding a pliable material onto the chair enables it to fold without hinges.



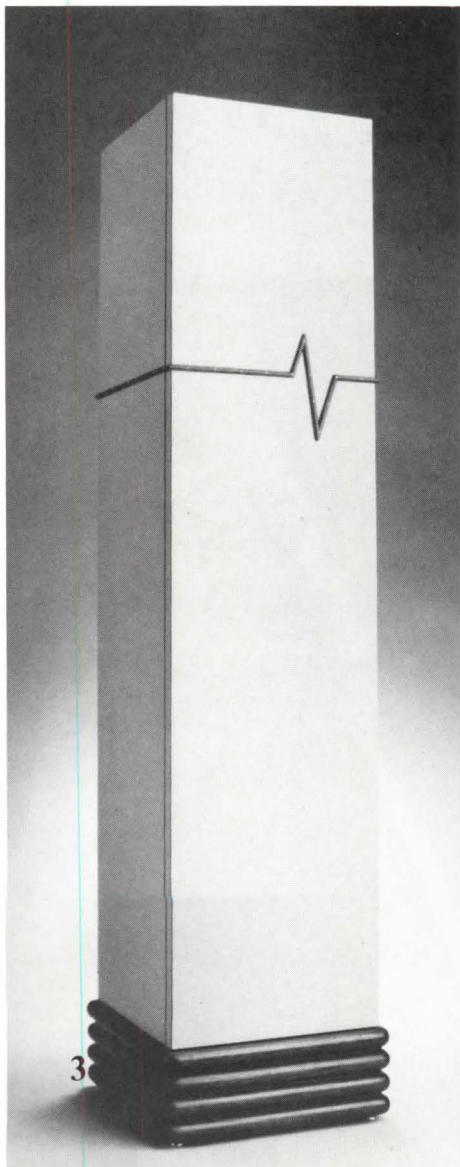
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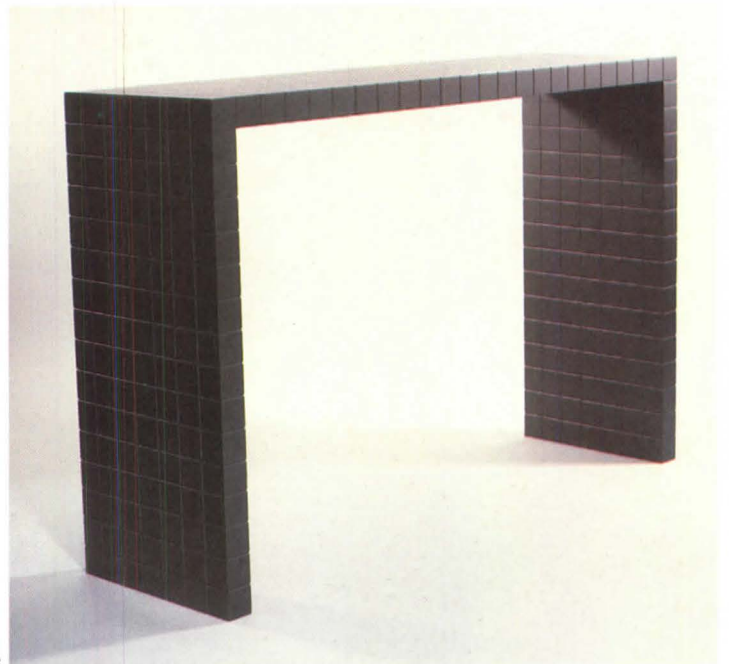
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It is unusual when a company that retails mass-produced furniture also places emphasis on handcrafted objects. Such is the case of Workbench and its Gallery at Workbench, located at Park Avenue and 32nd Street in New York City. Part of the gallery's function is as a liaison between craftsmen and clients. One piece of furniture commissioned through the gallery by Gensler & Associates is Robert March's desk (1), in which natural mahogany was molded into curvilinear shapes.

The gallery also sponsors five exhibits a year. On these pages are objects that appeared in the "Wood and Wood Not" show, held earlier this year. Instead of highlighting traditional handcrafted furniture, which is usually made entirely of wood, the show featured exquisite pieces constructed of natural wood in combination with man-made, commercially available materials— anodized aluminum, poured glass, color core, acrylics, rubber, and light-emitting diodes, among others.

Rick Wrigley's folding screen (2) has straight and curved edges of walnut and brass, with silk used as the screen's surface. Ninety percent of Wrigley's eclectic A Touch of Time's Square Cubed (3) is crafted from man-made materials— plastic laminate, dyed veneer, rubber, and light-emitting diodes. The only visible wood— purpleheart— is used as a color accent.

Michael Pierschalla's austere grid table (4) stands 35x16x55 inches. Norcore styrene lamination is etched in a grid pattern to reveal birch plywood. John Marcoux's love of the triangle dominates his furniture. The weaver's bench (5) consists of spindles and solid pieces of maple with a handwoven cotton seat. In his Tritut Table (6) the legs, surface edges, and supports are of black painted wood. In both pieces chrome nuts and bolts are used for functional and decorative purposes. The bench has brass accessories; the table stainless steel. □



6



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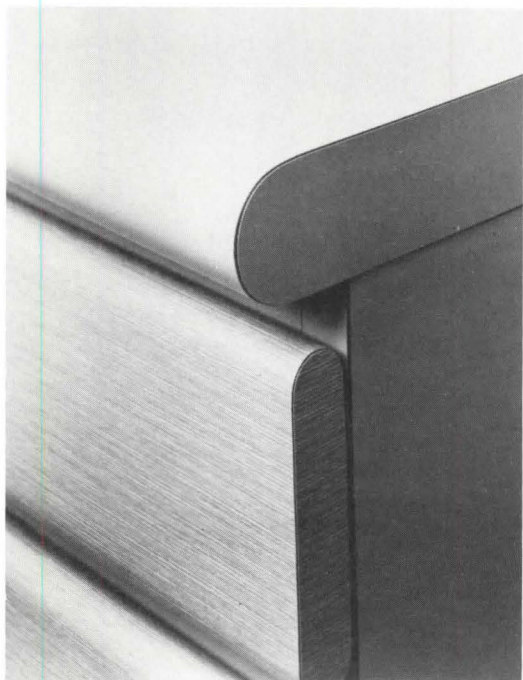
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Circle 27 on information card



1



2

Products

A selection of notable offerings and applications. By Lynn Nesmith



3



4



5

Kitchen cabinet systems (1) by Formica Corporation feature woodgrains, textural fabrics, and graphic patterned designs. The linear weave Flax pattern is designed to add texture to smoothly contoured cabinets and provide resistance to finger marks and stains. It is available in almond, white, and beige with vertical or horizontal patterns. (Circle 161 on information card.)

Wilsonart's "Cream of the Tops" countertops (2) feature colors, patterns, stripes, and edgings designed to be used in a number of combinations. The series includes counters with matching graphic stripes on the backsplash and seamless no-drip edges, a geometric pattern with a contrasting colored beveled edge, a seamless simulated oak waterfall edge, an almond tone woodgrain with a self-edge, and a leather backsplash and countertop with a woodgrain patterned wrap edge. (Circle 162.)

Herman Miller's color system (3) for systems furniture is designed to provide a systematic approach for combining different paint finishes, textures, and fabrics in component furniture systems. The series features three trim finishes, 38 colors, and six fabrics. This multi-station environment mixes panels of camel light, pale blue, and inner tone brushknits and gray blue, camel light and light tone

silkweaves. Trim and components combine light, medium, and dark tone neutrals. (Circle 163.)

Union Oil's Fred L. Hartley Research Center (4) in Brea, Calif., by William L. Pereira Associates utilizes the Alcan Planor ceiling system and radial clip throughout the entrance area, open office, and corridors to complement the curved design of the building. The clip allows panels to be installed at any angle in almost any configuration to an existing lay-in ceiling T-bar grid, in renovations or new construction. Integrated lighting fixtures and ventilation units may be installed within the ceiling system. (Circle 164.)

Nikan's Optic transparent blinds (5), constructed of polymeric resins, are designed to filter excess glare and ultraviolet rays yet provide unobstructed views outside. The blinds feature one-inch slats in charcoal, amber-bronze, smoke, indigo, and frost for commercial and residential applications. (Circle 165.)

Double facade fabric wallcoverings (6) by Joyce Vagasy feature reversible weaves of 100 percent wool. The four complementary patterns—straicloth, tilecloth, bevelcloth, and gridcloth—are available in 14 colors including crimson, mauve, blue, cameo, and pebble. (Circle 166.)

Products continued on page 96



6

Granite: silent eloquence



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Architects: I.M. Pei & Partners -
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Granites: Regal Gray, polished (on building).
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EnerCon water source heat pumps feature a heavy gauge galvanized steel cabinet. Horizontal and vertical models are available in a number of sizes and configurations to meet the varied heating and cooling needs of office buildings, apartments, gymnasiums, and institutional buildings. (American Air Filters, Louisville, Ky. Circle 182 on information card.)

Lighting Fixtures.

Open-bottom parabolic reflector in a 1x4-foot housing is designed to provide controlled distribution of light for narrow areas. The Stack Parabolic luminaires are available with a 40-watt rapid start or a 60-watt fluorescent lamp in surface and pendant models for individual or continuous row mounting. (Lighting Products, Inc., Highland Park, Ill. Circle 186 on information card.)

Roof Insulation.

Energy Miser Speed System insulation for metal buildings is designed to increase roof thermal properties in new construction and retrofit applications. It features an integral vapor barrier to control moisture and a white finish to reflect light. All attachment hardware and roof assembly roller tubes are included in the package. (Owens-Corning Fiberglas Corporation, Toledo, Ohio. Circle 187 on information card.)

Roller-Bearing Pipe Support.

Pillow Block pipe stand, constructed of high-compression plastic with curved base edges and a nylon roller resting on a Teflon base, is designed to absorb the movement of the pipe with minimal effect on the roof. The U-shaped, 4¼-inch cradle accommodates pipes up to four inches in diameter and disperses the weight over 56 square inches of roof surface. (Miro Industries, Midvale, Utah. Circle 184 on information card.)

Retrofit Insulating Window.

Sunflake Seventy Series is a wooden window with built-in bifold insulating and security shutters. The window and shutters are constructed as one integral unit in standard or custom sizes. The shutter is made with 1½-inch polyisocyanurate insulation core, ash paneling on the interior, and an embossed aluminum surface on the exterior. (Sunflake Corporation, Bayfield, Colo. Circle 189 on information card.)

Ceramic Tiles.

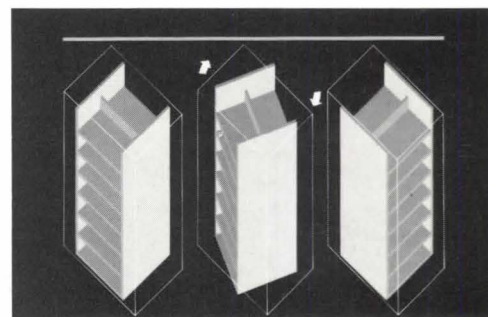
Terra Grande tiles, measuring four inches square, are designed for countertops, shower stalls, and bathroom floors. The tiles are available in 12 standard colors and 11 special order colors. (Franciscan Ceramic Tile, Los Angeles, Calif. Circle 190 on information card.)

Infrared Sensor.

Passive infrared sensor is designed to reduce energy consumption in hotel and motel rooms. The MPM-10 regulates energy usage within a room by setting the HVAC back automatically while maintaining an adjustable high-low temperature setting. Each unit is individually wired. (MPM Worldwide Corp., West Bloomfield, Mich. Circle 185 on information card.)

Exterior Wall Systems.

Syenergy insulated wall systems feature natural stone finishes designed to be applied to either new or retrofit structures with a stainless steel trowel. The Stone Caste series 100 has a surface composed of colored stones with a baked acrylic finish with shading from white quartz to dark tones. Sand Caste series 200, made of natural stone, is designed to be stained a variety of earth tone finishes. Both are packaged wet and are available in a number of standard and custom colors. (Syenergy Methods, Inc., Cranston, R.I. Circle 154 on information card.)



Rotating Storage Unit.

Aurora Rotary-File cabinet (above), featuring Quik-Lok shelving mounted on a rotating base, is designed to provide double-face access from a single side. (Aurora Steel Products, Aurora, Ill. Circle 158 on information card.)

Glass Fiber Shingles.

Woodlands shingles are constructed of ceramic coated granules embedded in asphalt with a glass fiber base and a heavyweight, three-dimensional overlay. The shingles are available in a variety of colors, including olive black, gray, weathered bark, rustic brown, and village red. (Manville Building Materials, Denver, Colo. Circle 188 on information card.)

Architectural Panels.

Span architectural metal panels feature a weathering copper finish formulated from copper particles suspended in water-base acrylic resin. The panels are available with high interlocking standing seams, continuous snap-on type battens, transitional angle rib covers, or square battens. (Span Metals Corporation, Dallas, Tex. Circle 191 on information card.)

Products continued on page 98



A few inches can give a business room to grow.

A business can't get ahead if it can't keep up with technology. In the fast-changing world of business systems, an office layout can become obsolete overnight. Unless the design is agile enough to adapt quickly and easily to changes in business and technology. ■ Instead of locking utilities in the floor or walls, Donn access floors let you run communication lines, CRT connections, HVAC duct, electrical lines and mechanical systems in a plenum only a few inches deep under the floor. ■ When you need to upgrade support systems, change office layout or repair utilities, you can do it with a minimum of expense and work disruption. Simply lift the floor panels and move the services. ■ And if you think you can't afford access floors, think again. Donn access floors can cost about the same as conventional systems for providing flexibility in services distribution. ■ Talk to your Donn representative. You'll find a few affordable inches and Donn access floors allow a business to get a head start in this fast-changing world. ■ Donn makes Liskey® and Severn® brand access floors. **Donn makes sense.**

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Products from page 96

Tracking Solar System.

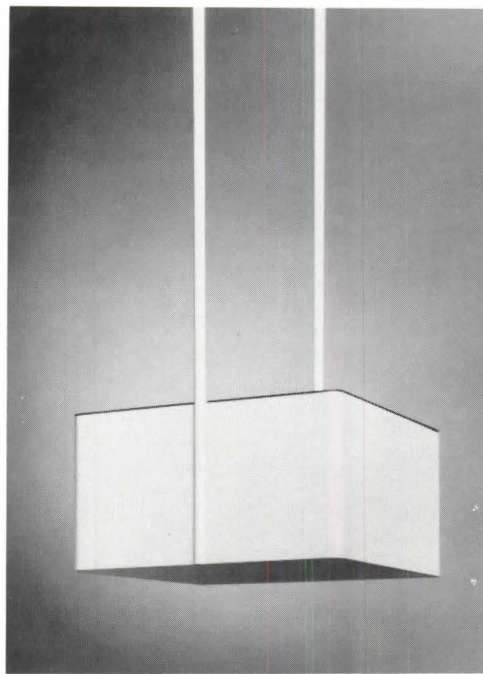
Solar Track Mark I System is designed to follow the sun's movement continuously during daylight hours and automatically compensate for daily changes in exposures. Solar energy is absorbed by the receivers in the tracking cones and transmitted to a heat exchanger and then released into a water storage tank. (Solar Track, Madison, Wis. Circle 156 on information card.)

Clad Commercial Windows.

Pella's Monumental window series features an exterior aluminum frame with a baked enamel finish and a wooden interior frame member. A dual weatherstripping system is designed to reduce air and water infiltration. Double and triple glazing in a variety of thicknesses are available. (Pella/Rolscreen Co., Pella, Iowa. Circle 160 on information card.)

Kitchen Cabinetry.

Connor cabinets feature heather or almond laminate finishes with solid oak trim on the top and bottom of every door and drawer front. Hardware includes ball bearing drawer slides, self closing adjustable hinges, sliding trays, and adjustable shelves. (Connor Forest Industries, Wausau, Wis. Circle 151 on information card.)



Mounted Light Fixtures.

Torchier Pendant mount luminaires (above) are designed for suspended T-bar, sloped, and non-accessible high ceiling installations. The units are constructed of high density particle board with rounded corners with finishes in a number of color laminates or custom wood veneers. Precision reflectors provide asymmetric or bisymmetric light distribution

patterns. Tubular stems feature swivel hanger assemblies for 45 degree adjustments in sloped ceiling installations. (Wide-Lite Corporation, San Marcos, Tex. Circle 157 on information card.)

Sound Control Panels.

Sound Reduction panels are designed to reduce noise levels by absorbing the sound and eliminating echo, reverberation, and bounce. Panels are constructed with an inner extruded aluminum alloy frame with a semi-rigid glass fiber core. Surface materials are available in more than 27 colors including perforated vinyl, backed burlap, or custom fabrics. All panels carry a class "A" fire safety rating. (Sound Reduction Corporation, Cleveland, Ohio. Circle 155 on information card.)

Operable Skylights.

Rollamatic Roof skylight systems are operated and powered by an electrical system with switching devices sealed and mounted inside box beam sections. Optional smoke, heat, or moisture sensors activate the system automatically. Various materials can be specified including translucent glass fiber sandwich panels, combinations of tempered and laminated glass, acrylic, and solid roofing. (Rollamatic Roofs, Inc., San Francisco. Circle 159 on information card.) □

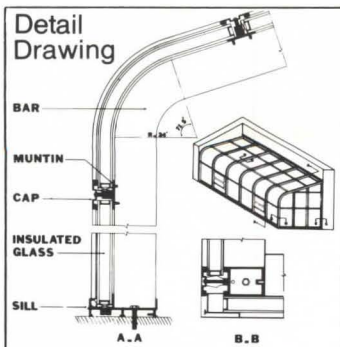


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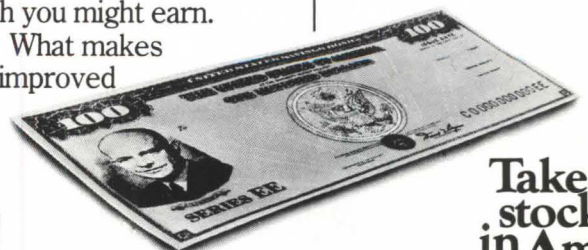
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Credits and Specifications

Battle Creek Transportation Terminal, Battle Creek, Mich. (page 48). *Architect: William Kessler & Associates, Detroit.* Glass block: Pittsburgh Corning. Electrical panels, breakers, switches: Westinghouse. Wall flashings: Wasco, York. Masonry wall reinforcement: Dur-O-Wal. Aluminum window wall: Kanneer. Masonry cement: General Portland, Inc. Hardware: Stanley, Russwin, LCN, Rockwood, Ives, Glynn Johnson, National Guard. Paint: Pittsburgh. Neon lighting: Witney Sign Co. Structural steel fabrication and erection: Buck's Steel Co. Acoustic panels: Decoustics. Upholstery: Allen's Furniture and Interiors. Side coiling grilles: J. G. Wilson Corporation, Cookson. Metal roofing: Berridge Manufacturing Co. Hollow metal work: Acme Steel Door Corporation. Insulating glass: Viracon. Millwork, checkered aluminum plate: Custom Millwork, Inc. Bollard light fixtures: ECS Industries, Inc. Plumbing fixtures: American Standard. Drinking fountain: Haws. Wood trusses: Hydro-Air. Prefaced concrete masonry units: Spectraglaze, United Glazed Products. Skylight: Super Sky Products, Inc. Parking lot lighting: Crouse-Hinds. Incandescent lighting: Prescolite. Emergency lighting: Dual-Lite, Inc. Fluorescent lighting: Garco, Day-Brite Lighting, Sylvania, Columbia Lighting, Alkco Manufacturing Co. Grilles, registers, linear diffusers: Krueger Manufacturing Co.

Kuwait Chancery, Washington, D.C. (page 34). *Architect: Skidmore, Owings & Merrill, New York City.* Textured stainless steel panels: Canadian Rogers Eastern Ltd. Window wall systems: AMPAT, Southern Plate Glass. Suspended glass wall: Pilkington Glass. Butt glazed glass wall: PPG. Flush glazed glass wall: Southern Plate. Granite wall panels and pavings: Roubin and Janeiro. Granite: Cold Springs. Exterior aluminum and acrylic skylight: EPI. Revolving and swing entrance doors: International Steel Revolving Door Co. Metal ceiling: Milgo, Terstep of Texas. Marble, ceramic, and quarry tile: Standard Art Marble & Tile. Architectural woodwork: John Langenbacher Co. Ornamental metal work: A. F. Jorss Iron Works. Interior skylight: Louis Hoffman, Super Sky. Elevators: Dover. Elevator cabs: Havenstein & Burmeister. Painting: Edward Minte Co. Blinds: Sun Control Systems. Furnishings: Knoll, G. F., Woodlee, Howe, Intrex, Zographos, ICF. Lighting: Koch & Lowy. Carpet: B. Altman & Co.

Long Wharf Hotel, Boston (page 42). *Architect: Cossutta & Associates, New York City.* Face brick: Locher Brick Co.

Structural steel: Dominion Bridge Sulzer. Composite steel joists: Hambro. Cast-in-place concrete: Boston Sand & Gravel. Precast concrete: Art Cement Products. Glass and glazing: Virginia Glass Products. Drywall: U.S. Gypsum. Entrance canopy and interior pyramid structure: Fisher Skylights. Windows: Rusco Windows, Miami Wall Systems. Doors: Weyerhaeuser Co. Paint: Benjamin Moore. Wall coverings: Karl Mann Associates, Wolf Gordon. Hardware: Schlage. Miscellaneous metals: Southeastern Metal Fabricators. Signage: Letterama. Brick pavers: Hastings Pavement Co. Slate: Buckingham Slate Co. Elevators and escalators: Otis Elevator Co. Airconditioning: Carrier Corporation, Baltimore Air Coil. Lighting fixtures: Trimble House, Columbia, Lightolier, Edison Price, Kurt Versen. Toilet fixtures:

Kohler. Ceramic tiles: U.S. Ceramic Tile, Gail Tile. Vanities (cultured marble): Florentine Marble. Whirlpool: American Hydro Spa. Sauna: Cecil Ellis. Carpet: Brintons Carpets Ltd. Marble floor tiles: Marble Technics. Millwork: L. Vaughn Co. Granite: Moliterno Stone Sales. Furniture (lobbies and Palm Court): Brickel Associates, International Contract Furnishings, Johnson Industries, Knoll International, Jack Lenor Larsen. Fabrics, upholstery: Bergamo, Knoll International, Jack Lenor Larsen, Unika-Vaev USA. Carved glass: Carved Glass & Sign. Accessories: Architectural Fiberglass, Architectural Pottery, Architectural Supplements, Baldinger, Brickel Associates, Carl Springer, Cutler/Federal, International Contract Furnishings, Intrex, Koch & Lowy, Inc., Royal Copenhagen. □

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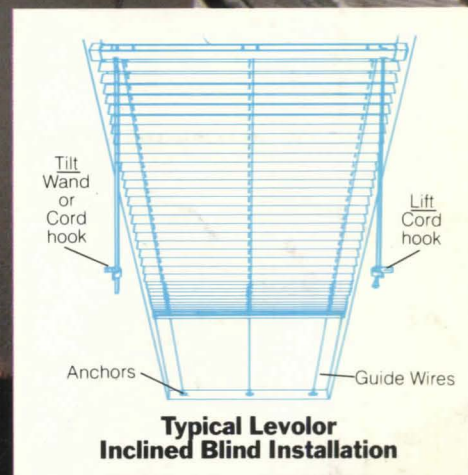
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