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BUILDING TYPES STUDY: BUILDINGS FOR THE ARTS

FULL CONTENTS ON PAGES 10 AND 11

ARCHITECTURAL RECORD

APRIL 1981

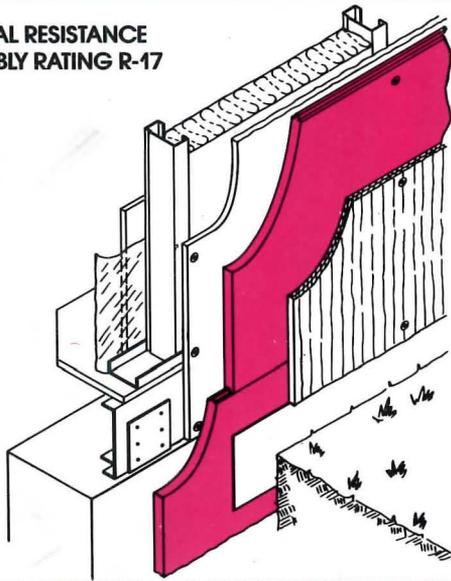
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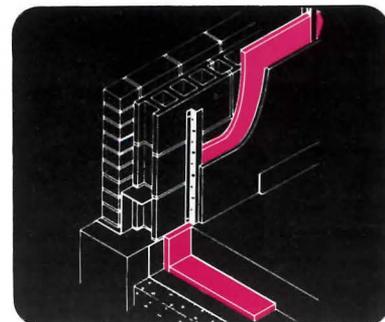
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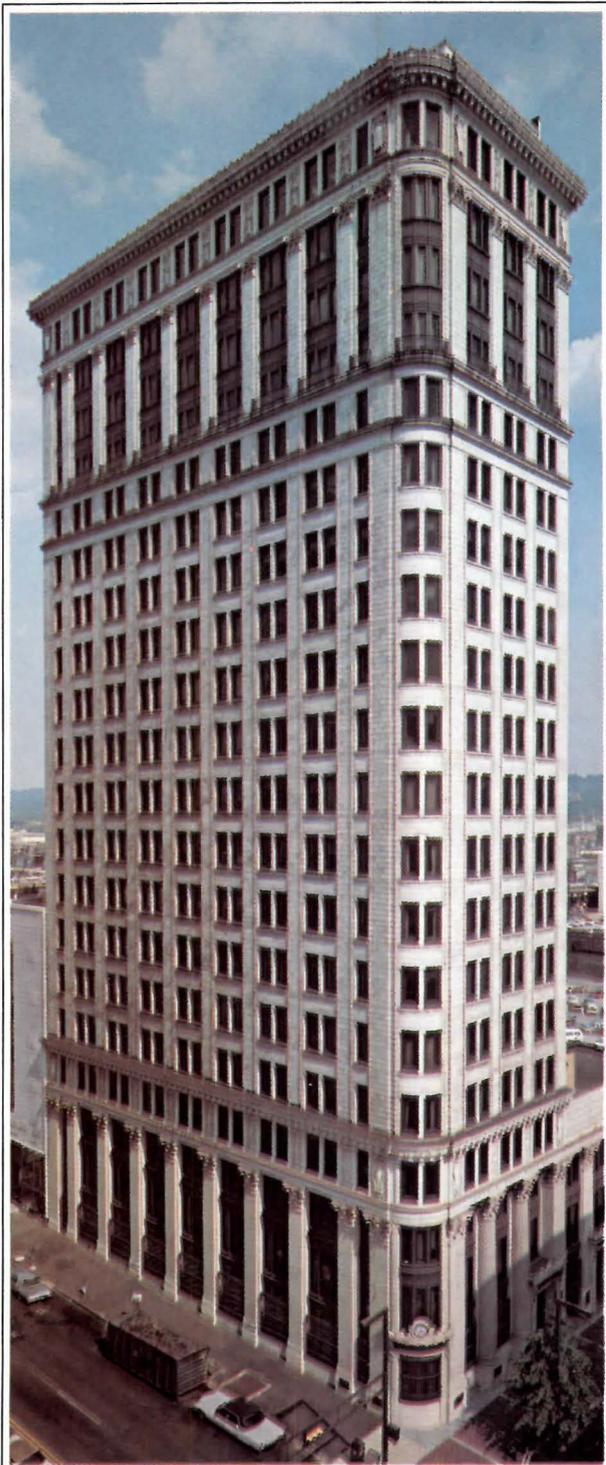
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Letters to the editor

I very much enjoyed the article by Ada Louise Huxtable [RECORD, January 1981, pages 72-79]. I have followed her writing in *The New York Times* and must say that I think she is surely one of the most penetrating critics writing today.

Norman Foster
Foster Associates
London

Re: Chalk up seven for Richardson.

Your Favorite Architects polls in the January issue [page 89] intrigued me. Previously hypothesizing that the favorites of the preps and pros would greatly differ, I was surprised to see that the top five in both polls were so similar. I was also amazed that John Portman was mentioned at all in the student poll.

However, the fact that H.H. Richardson didn't get recognized on either list shocked me into becoming a pollster myself. I chose the Five Favorite approach and surveyed my fellow employees and employer. Seven of sixteen participants mentioned Richardson, enough for a tie for second. Of course, we're fully aware of the influence our geographic location has on our decision, but wanted to relay our tribute to one of the all-time greats.

Our results went like this:

1. Le Corbusier—9 mentions
 2. H. H. Richardson*—7 mentions
Palladio—7 mentions
Alvar Aalto—7 mentions
 5. Frank Lloyd Wright—6 mentions
 6. Michael Graves—3 mentions
Michelangelo—3 mentions
 8. Charles Eames*—2 mentions
Frank Furness*—2 mentions
Antonio Gaudi—2 mentions
Walter Gropius*—2 mentions
- *Not mentioned on either of your lists.

Timothy M. Morris
Drummeys Rosane Anderson, Inc.
Newton Center, Massachusetts

In response to your request for comments on "Profile of the 1981 Graduate"—

Five years ago I graduated with a Bachelor of Architecture degree in a five-year program, which enabled me to receive eight semesters of design studio—and none of the technical or working drawing studios. I must really object to the viewpoint that architectural schools should emphasize design skills to the detriment of other areas of the profession.

Should the architecture graduate be one of the few fortunate enough to land a design position in a firm, he may never receive the technical training needed by a fully rounded practitioner. In addition, doing working drawings and understanding the nuts and bolts of a building not only cuts down conflict between design and production, but probably improves our design abilities as well.

For most of us graduates thrust onto a working drawing staff, the best words for our initial feelings were helplessness and discomfort. Despite working summers during school, we never really received enough training to come out and make an immediate, meaningful contribution to the profession, rather than being a semi-trained burden on the employer. It is perhaps with good reason that the initial pay for architectural graduates is so low—we are, in effect, paying a tuition to our employers for continued training.

I would like to see at least one semester in the student's education devoted to his doing a reasonably complete set of working drawings—including a cost estimate, building code check and a rough set of specifications. The student could use one of his school designs, enlist the help of structural, mechanical and electrical engineering students (as part of a mutually beneficial joint program between colleges) and, in general, simulate a *real world* situation. Both the profession and the student could do nothing but benefit from such a learning process.

Arlen Solochek
Architect, AIA
Arizona Public Service Company
Phoenix

"Profile of the 1981 Graduate" in your January issue is quite good, but not a great revelation. The percentage of responses to the survey is disappointing, but the editor's own criticisms cover important issues.

I believe a more important issue to address is the enlightenment of the general public concerning architecture and practice.

Gene E. Trotter, AIA
Coordinator,
Architectural Technology
School of Technical Careers
Southern Illinois University
at Carbondale

Calendar

APRIL

Through April 25 "No Place Like Home, Concepts of the Individual House," seven designs by Arata Isozaki. Also included are works by Paul Rudolph and Frank Lloyd Wright. At the Spaced Gallery of Architecture, 165 W. 72nd St., New York, N.Y.

10-11 "Historic Preservation and the Economics of the 1980s," sponsored by the Preservation Alumni of Columbia University's Graduate School of Architecture and Planning; held at Columbia University, New York, N.Y. Contact: Charles Hasbrouck, New York City Landmarks Preservation Commission, 20 Vesey St., New York, N.Y. 10007.

16 The Conference of Built-up Roofing, sponsored by the National Roofing Contractors Association; at the Bonaventure Hotel, Los Angeles,

Calif. Contact: National Roofing Contractors Association, 1515 N. Harlem Ave., Oak Park, Ill. 60302.

23-24 "Passive Solar Workshop," sponsored by Passive Solar Associates; held in Denver, Colo. Contact: Passive Solar Associates, P.O. Box 6023, Santa Fe, N. Mex. 87501.

24-25 "The Streets of New York: A Conference on City Space," sponsored by the Project for Public Spaces and Parsons School of Design, at the New School for Social Research, New York, N.Y. Contact: Project for Public Spaces, Inc., 875 Avenue of the Americas, Rm. 201, New York, N.Y. 10001.

MAY

Through May 2 "Buckminster Fuller, A Retrospective Exhibition," at the Getler/Pall Gallery, 50 W. 57th St., New York, N.Y. 10019.

Weekends Architectural License Seminars; program includes home study courses, handbooks, and seminars covering all subjects of NCARB exams. Contact: Architectural License Seminars, P.O. Box 64188, Los Angeles, Calif. 90064. Seminar schedule: May 8, Miami; May 9, Atlanta; May 10, Houston; May 15, Kansas City; May 16, Washington, D.C.; May 17, New York; May 22, Chicago; May 23, San Francisco; May 24, Los Angeles.

11-15 First International Civil Engineering Convention and Exposition, sponsored by the American Society of Civil Engineers; at the New York Hilton Hotel, New York City. Contact: ASCE, 345 E. 47th St., New York, N.Y. 10017.

13-15 Third International Congress on Polymers in Concrete, sponsored by Nihon University, Japan. Contact: Department of Architecture, College of Engineering, Nihon University, Koriyama, Fukushima-ken, Japan.

17-19 Workshop, "Land Use Law for Planners and Lawyers," sponsored by the American Planning Association; held in Washington, D.C. Contact: American Planning Association, 1313 E. 60th St., Chicago, Ill. 60637.

25-26 Conference, "Energy and Big Building Design: Where We Are and Where We Are Going," sponsored by the Mid-Atlantic Solar Energy Association; held in Philadelphia. Contact: Mid-Atlantic Solar Energy Association, 2233 Gray's Ferry Ave., Philadelphia, Pa. 19146.

26-30 "Solar Rising," National Conference and Exposition of the American Section/International Solar Energy Society; at the Philadelphia Civic Center. Contact: Fanfare Communications, 2012 Walnut St., Philadelphia, Pa. 19103.

27-28 Conference, "The Economic Impact of the Arts," sponsored by Cornell University's Graduate School of Business with support from a grant by the Bell System; on the Cornell campus, Ithaca, N.Y. Contact: Jane Cohn, Dudley-Anderson-Yutzy, Public Relations, Inc. (212/977-9400).

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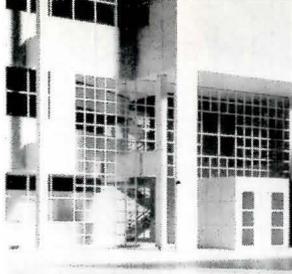


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THE RECORD REPORTS

13 Editorial

Both the AIA Convention and NEOCON will focus (hooray!) on design

4 Letters/calendar

33 News in brief

35 News reports

The Reagan Administration intends to withhold funds for developing the Building Energy Performance Standards. Gerald P. Carmen from New Hampshire has been nominated to head the General Services Administration. A symposium entitled "New York: Building Again" brought seven architects together for a discussion of high-rise buildings.

39 Buildings in the news

A residential development in midtown Atlanta by Frank Gehry. Pietro Belluschi and Jung/Brannen join forces for a 45-story Boston office tower. Extraordinary energy savings are being promised for residents of a now-under-construction housing development in Sacramento. Robinson Mills & Williams' master plan for a 71-acre office park outside San Francisco.



©Steve Rosenthal

44 Design awards/competitions

The Downtown Research & Development Center honors projects that have encouraged revitalization of central business districts. The Seattle Chapter of the AIA cites 10 distinguished buildings, in an awards program judged by Philip Johnson and John Burgee.

71 Books received

73 Office notes

ARCHITECTURAL BUSINESS

65 Legal perspectives

Strict liability for architectural services

Attorney Arthur Kornblut analyzes situations in which an architect may be held liable for designing a defective product—even when normal standards of professional negligence have not been violated.

67 A simple equation for a complex economic problem

Phillip Kidd, director of economic research for McGraw-Hill's Information Systems Company, takes a look at the theoretical underpinnings of the "new" Reaganomics.



FEATURES

87 A museum in Germany and a seminary in Connecticut
by Richard Meier & Partners

The winning design in a recent competition, Richard Meier's proposed addition to Frankfurt's Museum for the Decorative Arts transforms a nineteenth-century villa into the cornerstone of a complex urban scheme. The nearly-completed Hartford Seminary Foundation responds to an altogether different context, interweaving public and private functions in a structure whose radiance is literal as well as symbolic.

98 Architecture and the Reagan Administration

Architectural critic and planner Frederick Gutheim has been active on the Washington scene as far back as the Hoover era and has watched seven Presidential Administrations come and go since then. The capital city is enjoying an architectural boom partly as the result of the initiatives of these earlier administrations. Gutheim's article focuses on this boom, as he discusses the Reagan budget cuts and the impact of certain Presidential appointments. The question he poses, which he believes it is too early to answer, is what the Reagan turn to the right will ultimately mean to the cause of architecture.

106 Reconstructed court tennis facility
Newport, Rhode Island
Peter Forbes, architect

When work on it was completed this fall, the Newport Court Tennis Facility became the first "new" court put into play in this country since 1923, and only the eighth structure of this kind ever built in this country. Of the eight, it is the only one open to the public.

112 The Trancas Medical Building
in Napa, California

Joint venture architects Peter Gluck and James Stewart Polshek use similar similes in describing their design for a "bare-bones" health-care facility in the Napa Valley: Polshek likens the building to "a couple of ships parked next to each other," and Gluck alludes to an "aircraft carrier."

BUILDING TYPES STUDY 558

118 Buildings for the arts

Widespread concern over dwindling funding by the public sector may be allayed by new blood entering the financial picture. Four projects contrast varied approaches to designing future facilities and a fifth is shown for its especially lighthearted nature.

118 Century Center
South Bend, Indiana

Johnson/Burgee architects

124 Spirit Square
Charlotte, North Carolina

Hardy Holzman Pfeiffer Associates, architects

126 The Walters Art Gallery
Baltimore, Maryland

Shepley Bulfinch Richardson & Abbott, architects



Robert Lautman

130 The Crocker Art Gallery
Sacramento, California

Rosekrans and Broder, architects

132 The Usdan Center
Wheatley Heights, New York

Ashok Bhavnani, architect

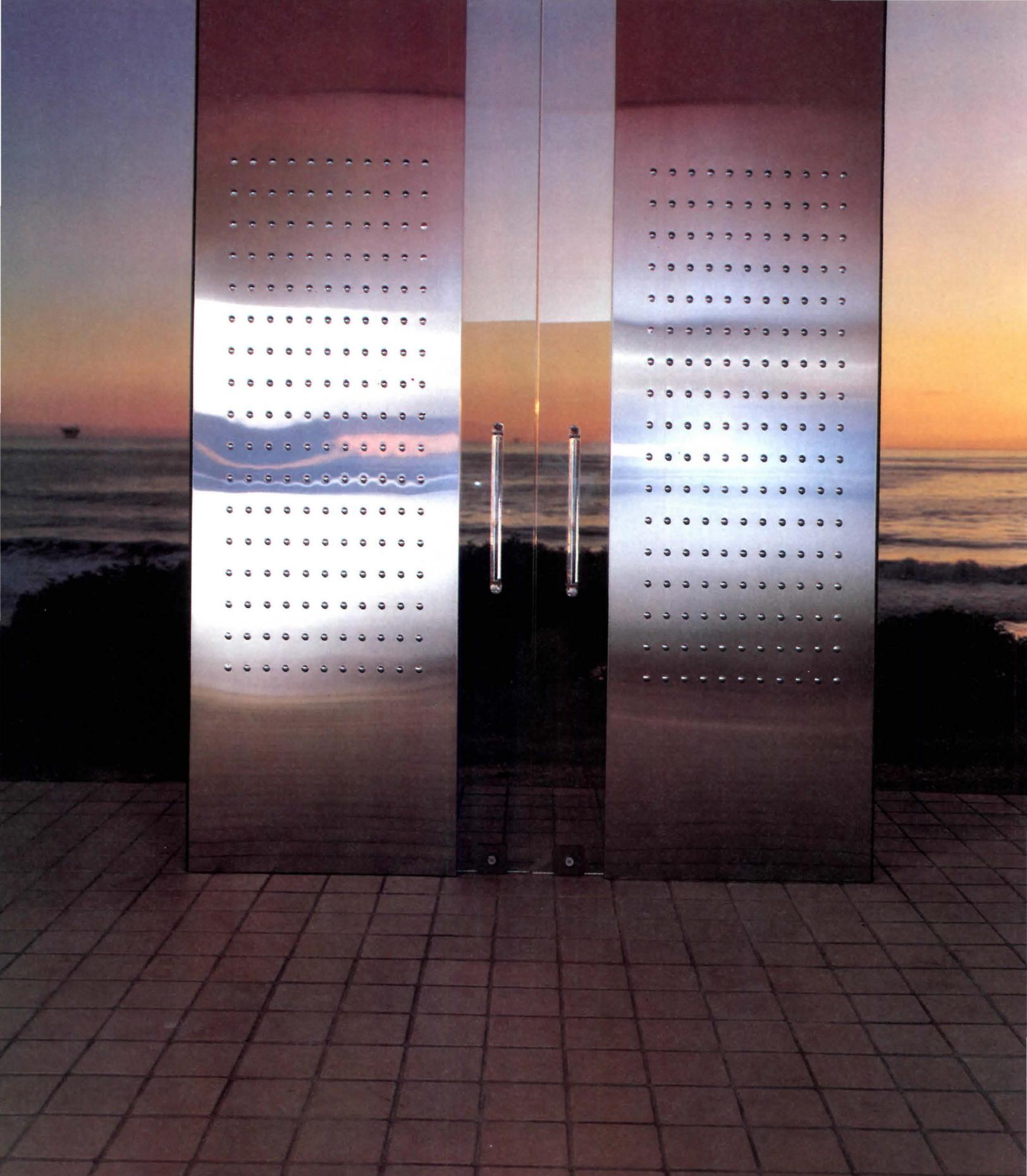
ARCHITECTURAL ENGINEERING

136 Office literature**141 Product reports****186 Architectural Record Bookshop****197 Classified advertising****212 Advertising index****215 Reader service inquiry card**

NEXT MONTH IN RECORD

Building Types Study:
Retail stores

Shopping has become the great American pastime. Growing competition for the consumer's dollar has convinced many merchants to commission architects who can create unique interior environments in support of their marketing strategies. RECORD reports on seven highly individual solutions to the problem of selling merchandise. In the architecture of two department stores, four small shops, and a renovated 152-year-old shopping arcade are signs that businessmen and architects now see the architecture of a store as essential to its interior design. Architecture can be an asset—rather than an empty shell waiting for the store display designer.



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Both the AIA Convention and NEOCON will focus (hooray!) on design

For years on this page I grumped that both the AIA convention and NEOCON seldom seemed to concern themselves with the primary concern of designers—be they architects or interior designers. We saw, in years past, an emphasis on business problems, on liability, on design-build, on construction management. Those are, of course, realistic concerns in a real world—but it's always been my conviction that on the annual occasion of large groups of professionals getting together for national meetings, design concerns should get star billing. And so they are this year. . . .

At the AIA Convention, to be held in Minneapolis on May 17-21, the subject is "a line on design and energy." AIA President Randy Vosbeck observes correctly that "The energy crisis is here to stay . . . energy-conscious design is a major challenge [since] energy has the potential to change the character of the built environment, the potential to create a new vocabulary for design . . . [and] may be more revolutionary than anything that has happened to architecture since the Renaissance."

Specifically, the Convention's theme program consists of a keynote by Ralph L. Knowles, professor of architecture at Southern California, author of the excellent "Energy and Form: An Ecological Approach to Urban Growth," and winner of the AIA Research Medal in 1976. Knowles can be expected to offer a sophisticated and thoughtful analysis of the design strengths of "a new architecture" that can grow from energy concerns. In the second theme session, James Marston Fitch and social scientist/historian Dr. Roberta Balstad Miller will lead a panel discussion on energy-conscious history and technology—a useful reminder not just of the common sense of the technological basics (as shown, for example, in the pueblos) but the more subjective design values and design ideas that architecture is exploring these days. The third theme session will deal with public policy as it affects energy-conscious design—codes, standards, economic impact. And the final theme session will be what promises to be (given not just the high skills but strong opinions of the panelists) an architectural and ideological highlight: Scheduled is a designers' panel including Bill Caudill of CRS, Harrison Fraker Jr. of the Princeton Energy Group, Fred Dubin, and Sim Van der Ryn, former state architect of California. All are skillful design-

ers, pioneering experts in the technology of energy conservation, and articulate exponents of energy-conscious design that begins with the first day of planning—not just off-the-shelf technology.

To supplement the theme programs at the Convention, the AIA will introduce its new Energy Professional Development Program. There will be 15 seminars on: energy analysis, energy design, management of the energy-conscious design program, solar heating and cooling, audit and retrofit, preservation and energy, lighting and daylighting, earth-sheltered design, windows and energy, marketing energy services, energy economics, emerging technologies, computers in practice, and financial management for small firms. All of which sounds to me like an extraordinarily well structured and timely program. If you haven't thought seriously about going to the Convention this year, you might dig out the program and think again.

And just as fascinating is this year's NEOCON program, the program built each year around the country's biggest display of contract interior furnishings at the Merchandise Mart in Chicago. Jim Bidwell and his staff have assembled what also seems to me to be a fascinating series of sessions (and also a chance to take a rest from walking the floors of the giant Mart to explore the new offerings of the furniture, lighting, carpeting, and other "interiors-products" manufacturers). Bucky Fuller is the keynoter—and it's been a while since he made a major speech to the design community and I for one wouldn't miss it. I also wouldn't miss a session entitled "Under Reconstruction: The Needs of Urban America." Chicago Mayor Jane Byrne is signed up, and Mayors Dianne Feinstein of San Francisco and Edward Koch of New York are hoped for—and shouldn't *they* bring a touch of political realism to a gathering of architects and interior designers. The other sessions range from the most practical ("Implications of Work Station Design on Office Productivity") to the philosophical ("The Inside Out of Design" with Helmut Jahn and Harry Weese).

I've never had a good feel about the number of architects who attend NEOCON (an awful lot of interior designers do) but the programs have been good and this one sounds better. If you haven't been direct-mailed, you can get more information from Sharon Haney at the Merchandise Mart, 312/527-4141. —W.W.

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NEWS IN BRIEF
 NEWS REPORTS
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 REQUIRED READING

"Federal budgetary restraint is having a more lasting effect on construction activity than the temporary ups and downs of interest rates," according to George A. Christie, vice president and chief economist for the F.W. Dodge Division of the McGraw-Hill Information Systems Company. January's \$10.5 billion of newly started construction was down four per cent from last year's amount. Contracts for nonresidential building totaled \$4.1 billion, another decline of four per cent from the January 1980 figure. Residential building contract value, at \$4.2 billion, registered a four per cent increase over the January 1980 total.

The 1981 AIA National Convention will be held May 17-21 in Minneapolis/St. Paul. "A Line on Design and Energy" is this year's convention theme, and the subject of four "theme" programs. Among the speakers, panelists, and moderators invited to discuss energy-conscious design are: Ralph L. Knowles (professor of architecture at the University of Southern California); James Marston Fitch (professor emeritus of architecture at Columbia University); Richard G. Stein, FAIA (architect); Carl T. Rowan (syndicated columnist for the *Chicago Sun-Times*); Robert MacNeil (news analyst); William Caudill, FAIA (chairman of the board of CRS Inc., Houston); Harrison Fraker Jr., AIA (head of the Princeton Energy Group); Sim Van der Ryn (former California state architect); Robert A.M. Stern, FAIA (architect); and Josep Lluís Sert, FAIA (winner of the 1981 AIA Gold Medal). I.M. Pei, FAIA (recipient of the AIA's 1979 Gold Medal), will join Sert and other Gold Medal winners for a panel discussion on May 20th. The convention will feature 14 professional development seminars focusing on "energy consciousness at every stage of the design process." For more details, see editorial, page 13.

Marcel Breuer, FAIA, received the sixth annual Award for Excellence in Architectural Education last month during the annual meeting of the Association of Collegiate Schools of Architecture (ACSA) in Monterey, California. The AIA/ACSA-sponsored award is presented annually to a living educator who has taught at least 10 years and who has made "outstanding contributions to the field of architectural education." At the invitation of Walter Gropius, Breuer joined the faculty of Harvard in 1937; in 1946, he moved to New York and established Marcel Breuer & Associates. Breuer was presented the AIA's Gold Medal in 1968, and he was the first architect to have a one man show at the Metropolitan Museum of Art. The AIA presented Honor Awards to Breuer for the Whitney Museum in New York City (1970), the Koerfer House in Switzerland (1972), and the St. Francis de Salles Church in Michigan (1973).

The 25th Anniversary Convention of the Society of American Registered Architects (SARA) will be held in San Antonio, Texas, November 4-8. The theme of this year's convention is "T-Squares, Triangles, and Cash: or Practicing Architecture Can Be Profitable." For further information contact: William E. Baldwin, ARA Convention Chairman, 1100 Jorie Blvd., Oak Brook, Illinois 60521 (312/323-9710).

NEOCON 13, the National Exposition of Contract Interior Furnishings, will be held at The Merchandise Mart in Chicago, June 16-19. The annual event is billed as "the world's premier contract furnishings market." R. Buckminster Fuller is this year's keynote speaker. For more details, see editorial, page 13.

The International Exhibition of Design for Interiors—INSCAPE '81—will be held at the Barbican Centre for Arts and Conferences in London, November 15-19. The exhibition is sponsored by *The Architectural Review*: manufacturers have been invited to submit furniture, fittings, and associated products available on the international market. INSCAPE '81 hopes to attract architects, designers, specifiers, and management from all over the world. For more information contact: Carole Deighton, Munro/Deighton Public Relations, 28 Newman Street, London, W1P 3HA, 01 631 4547.

Applications will be accepted until May 29 for the 1981-82 Architectural Fellowships Program. Eight fellowships of \$10,000 each will be awarded to individuals in the areas of architecture, interior design, landscape architecture, urban design, and historic preservation. The Program is funded by the Architecture and Environmental Arts Program of the New York State Council on the Arts, and is administered through Educational Facilities Laboratories (EFL)—a division of the Academy for Educational Development (AED). The Fellowships are intended to "assist individuals of proven accomplishment and future promise by freeing a measure of their time [six months] for independent project work." New York State residents, not matriculated in a degree program at the time of the award, should contact: Nancy Morison Ambler, Architectural Fellowships Program, EFL/AED, 680 Fifth Avenue, New York, New York 10019 (212/397-0044).

Henry F. Arnold's TREES IN URBAN DESIGN, (published by Van Nostrand Reinhold Company), has been selected the most outstanding book in architecture and urban planning, in the Fifth Annual Professional Scholarly Book Awards (sponsored by the Association of American Publishers). Honorable Mention was awarded to the *Encyclopedia of American Architecture* by William Dudley Hunt Jr. (published by McGraw-Hill Book Company).

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Johns-Manville

Seven architects convene at the Museum of Modern Art to discuss "super-building"

A city of skyscrapers seems a particularly appropriate place to explore design trends in high-rise buildings. Last month, the Junior Council sponsored a symposium at the Museum of Modern Art in New York City, entitled "New York: Building Again." Seven prominent architects—each with major buildings now under construction in Manhattan—were invited to discuss their current, high-rise commercial projects. Though the individual presentations underscored the impressive diversity among the seven architects and their specific approaches to design, the buildings presented shared at least one conspicuous common bond: they all fit quite comfortably under the general heading of "super-building"—the biggest building on the smallest amount of the most expensive land in Manhattan. And because of the inevitable impact these buildings will have on the cityscape, the architects addressed themselves to timely questions of zoning, massing, and scale; of particular interest was the architects' shared goal of creating "people places"—the open-to-the-public amenities that are increasingly being provided by developers in exchange

for extra buildable air rights.

The architects invited were: Eli Attia, Eli Attia Architects; Raul de Armas, Skidmore, Owings & Merrill; Edward Larrabee Barnes, Edward Larrabee Barnes Associates; Philip Johnson, Johnson/Burgee Architects; I.M. Pei, I.M. Pei & Partners; Cesar Pelli, Cesar Pelli & Associates; and Der Scutt, Swanke Hayden Connell & Partners. The symposium was moderated by Arthur Drexler—Director of the Architecture and Design Department at MOMA—who invited Chicago *Sun Times* architecture critic Franz Schulze to analyze the buildings from a Chicagoan's vantage point.

In response to the evening's presentation, Mr. Schulze noted: "The new buildings are well-behaved but exuberant, having the tendency to fly all over the landscape. They are aware of context, and use arcades and atriums for wonderful 'people spaces,' yet the buildings muscle their way into the neighborhood with a good-natured aggressiveness that is characteristic of New York."

Mr. Drexler's observations included: "In this phase of modern architecture, we are appearing to revert to expressionism. In adding

'contextualism,' the buildings are now twisting and shimmying, and one has the sense, particularly from the projects shown, that we are going to get more of this."

In summary comments, Der Scutt seemed the most enthusiastic about the new work in progress: "Something great is happening to New York. This symposium should celebrate the fact that New York developers are finally engaging the most talented architects to design their buildings, because they are finally realizing that better architecture is better for business. And in fact, there is an incredible competition going on among the developers: as an example, George Klein is already bragging—I have a Pei, a Barnes, and I'm going to have a Johnson."

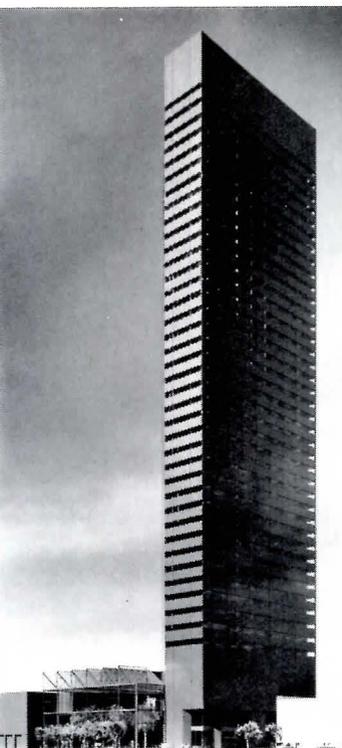
While "New York: Building Again" concentrated on Manhattan high-rises by New York architects, there's no question that these designs are trend-setters with larger ramifications for other cities.

The individual architect's projects are shown on this page, with selected comments from the February 18 symposium.

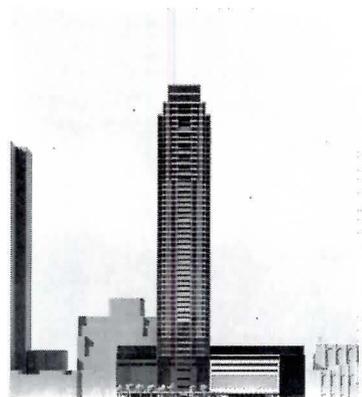
—Janet Nairn



AT&T Corporate Headquarters (above), Johnson/Burgee Architects. Philip Johnson: "We took the building off the site, as we are well aware of what Ada Louise Huxtable keeps telling us in *The New York Times*, that the city is overcrowded . . . I'm sorry the building doesn't have set-backs but we didn't have room."



IBM Building (above), Edward Larrabee Barnes Associates. Edward Larrabee Barnes: "We cut-away the corner at 57th Street to make a monumental entrance. The tower covers only 40 per cent of the site with most of the rest enclosed in a great glass-covered plaza and arcade . . . we kept the building high against the avenues and low in the mid-block area, following the urban design criteria generally accepted in the city."



The Museum of Modern Art, Museum Tower Apartments (above), Cesar Pelli & Associates. Cesar Pelli: "To me, enclosure is one of the most critical elements. This correlates to the biological studies of a cell in which the surface is where everything really happens."

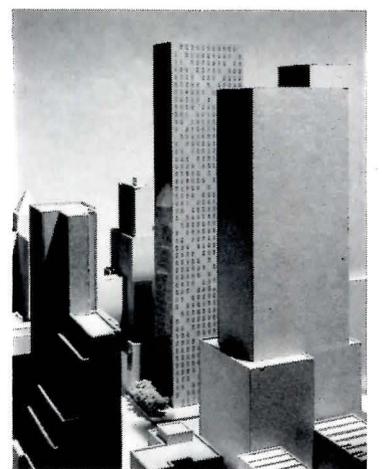


199 Park Avenue (right), I.M. Pei & Partners. I.M. Pei: "There's not much you can do with a grid of 5- by 5-feet—so we notched it here and notched it there to give it more interest. And not much more, because we didn't have the money for it."

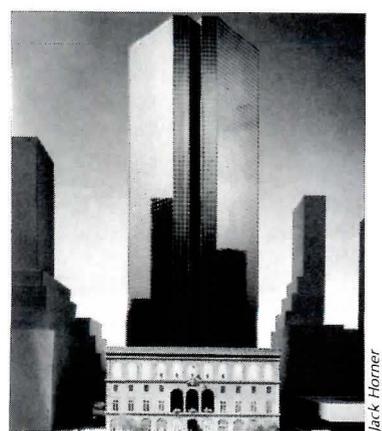
Trump Tower (below), Swanke Hayden Connell & Partners. Der Scutt: "How does one slide into a site 115 feet wide and 170 feet long, a 60-story mass next to a 13-story building occupied by Tiffany's? You can't hide something like this."



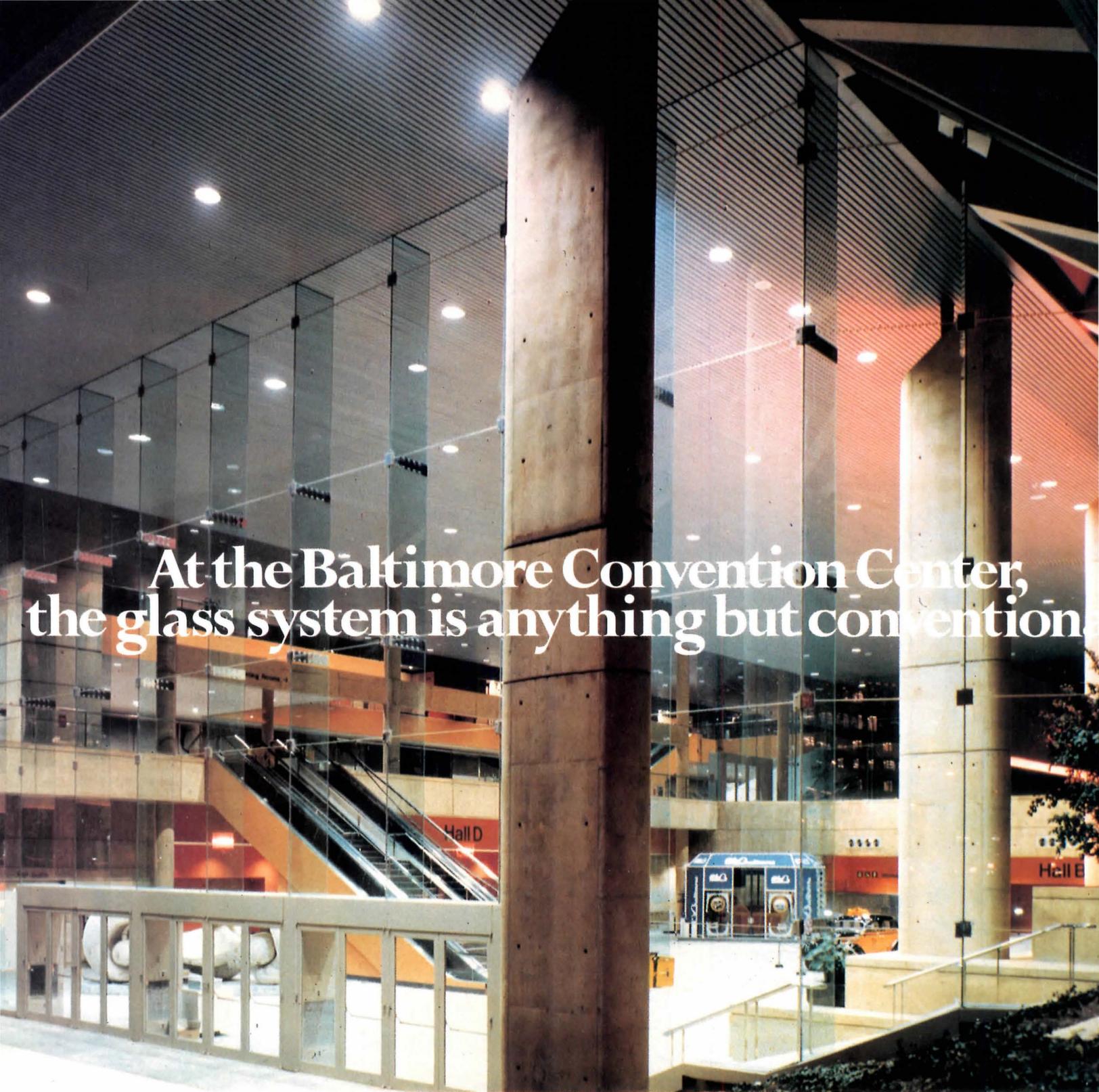
101 Park Avenue, Eli Attia Architects.



780 Third Avenue (above), Skidmore, Owings & Merrill. Raul de Armas: "The smallest, tallest building in the world," (65 feet wide and 600 feet tall).



Park Avenue Plaza, Skidmore, Owings & Merrill.



At the Baltimore Convention Center, the glass system is anything but conventional

Architects: Naramore, Bain, Brady & Johanson. Cochran, Stephenson & Donkervoet Inc. Glazier: Southern Plate Glass Company, Baltimore.

It's clear to see that no ordinary system could have created the spectacular façade at the Baltimore Convention Center. That's why a Pilkington Suspended Glass Assembly was chosen. As a method of glazing large openings in buildings, the Suspended Glass Assembly has proved its superiority all over the world.

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The new Administration plays swan song for BEPS

The Reagan White House has decided to halt development of the Building Energy Performance Standards (BEPS), by withholding funds from the program. The budget for BEPS development will be slashed 35 per cent this fiscal year—leaving only enough money to finish paying for contracts already underway. For the fiscal year beginning October 1, the "amount we have to spend is zero" says John H. Cable, the Department of Energy (DOE) official in charge of the proposed Standards.

Deregulation through budget manipulation has become a major weapon in the Reagan Administration's plan "to get government off the back of American business." However, building interest representatives in Washington were surprised that the BEPS program could be ended with the single stroke of a budgetary pen. Difficulties in developing a BEPS plan have already caused Congress to delay its implementation by 18 months: but there remains a mandate to propose a standard by this September, and to put it in force one year later. Mr. Cable, however, expects that the Administration will propose legislation lifting the requirement; whether the Reagan White House does so or not, Mr. Cable considers the program dead.

The demise of BEPS will delight most of the building industry. Only the AIA remains a partisan in favor of the Standards—though the Institute is joined by Mr. Cable, an architect who feels BEPS would perform a useful function. The question is whether higher prices for energy lead to more energy efficiency in the built environment: perhaps, says Mr. Cable, but not fast enough. The AIA would join him in that assessment.

While the BEPS program is drawing to an end, the buildings division, which Mr. Cable heads, will continue to support some energy efficiency research; he describes this as "long-term generic building energy science" research and development—including work on ventilation and control, envelope systems and material, performance calculations and diagnostics, and various pilot programs.—*William Hickman, World News, Washington.*

Pennsylvania Avenue: a new construction checklist

Private and public development efforts along Washington's Pennsylvania Avenue are moving ahead at a brisk pace. RECORD's Washington reporter William Hickman supplies an update:

- The Pennsylvania Avenue Development Corporation (PADC) has given preliminary approval for a \$112-million office, hotel, and apartment complex across from The National

Gallery of Art. (Architect: Leo A. Daly.)

- A spring construction start is expected for a \$150-million hotel and office building with retail space, on the block that also includes the National Theater and the National Press Building. (Architects: Mitchell/Giurgola.)

- Developers hope to begin a \$90-million renovation of the Willard Hotel in June. (Architects: Hardy Holzman Pfeiffer Associates.)

- Groundbreaking for a \$120-million office building at 1001 Pennsylvania Avenue is planned for the summer. (Architects: Hartman-Cox.)

- 1201 Pennsylvania Avenue is the address for "the first of a new class of buildings"—an office building with retail space in the lower level. Construction costs are expected to be \$40 million. (Architects: Skidmore, Owings & Merrill/Washington, D.C., office.)

- A new home for the National League of Cities, (among other tenants), will open in the spring. (Architect: Frank Schlesinger.)

- The National Press Building, owned primarily by the National Press Club, plans to begin work this fall on a \$30-million rehabilitation program—plans include an atrium. (Architect: HTB.)

- The tentative go-ahead has been given for a development that will include the brownstone Apex Liquor Store and the studio of Civil War photographer Mathew Brady. (Architects: Hartman-Cox.)

- The Canadian government is planning an architectural competition for this summer, to design a chancellery for a site diagonally across from the East Building of The National Gallery of Art. The competition will be open to both American and Canadian architects.

- Pershing Park (across from the Treasury Building), will open in April. It is adjacent to Venturi, Rauch & Scott Brown's Western Plaza, which opened in time for Ronald Reagan's inauguration.

The PADC reports that its street improvement work is now one-third complete. Current budget revisions have reduced Federal support for the Congressionally chartered organization, but officials say they can live with the reductions.

Budget cuts are also slowing work on the south side of the Avenue, where the General Services Administration is renovating the old Post Office Building (architect: Arthur Cotton Moore).

Until Federal money begins to flow more freely, the GSA will not begin to implement a plan by architect Harry Weese to complete the Federal Triangle. (For a thorough analysis of the PADC's activities—and the current state of Washington affairs—see Frederick Gutheim's article "Architecture and the Reagan Administration," page 98.)—*William Hickman, World News, Washington.*

Reagan slashes funds for Barriers Compliance Board

In January, the Architectural & Transportation Barriers Compliance Board (ATBCB) promulgated a highly-controversial set of detailed "guidelines and requirements" for uniform standards that would make Federally built and leased buildings more accessible to the handicapped. But now the board is "fighting for its life" under a Reagan Administration request to Congress that ATBCB receive no money to continue into the fiscal year that begins next October 1: the Carter budget requested \$2.3 million for ATBCB.

Despite a personal appeal to President Reagan, from ATBCB chairman Mason V. Rose, the board's personnel was frozen by David Stockman's Office of Management and Budget (OMB): Rose acknowledged that by this fall, the board "may be out of business."

The Architectural & Transportation Barriers Compliance Board's mission is to create minimum guidelines for the scope and design of accessibility features; the guidelines must be followed by the four Federal Agencies that actually impose the standards that architects and contractors must follow—(the U.S. Postal Service, the Department of Defense, the General Services Administration, and the Department of Housing and Urban Development). Each agency is represented on ATBCB's 22-member board of directors. Three of the agencies opposed the issuance of guidelines in January, and now the guidelines are under legal challenge for violating the Reagan Administration freeze on new regulations. The question revolves around whether the board is an independent agency that is exempt from the freeze.

The Office of Management and Budget (OMB) is also demanding that the board supply estimates of the cost to government agencies of complying with the new guidelines: this set off a bureaucratic wrangle over the 27-page questionnaire that the ATBCB staff sent to the four standard-setting agencies. Agency officials said it was impossible to fulfill this request by the March 15 deadline. But new "dirty estimates" of added costs were expected to be given to OMB by the agencies, despite their contention that "factual data" for such estimates does not exist.

Also under dispute, is the legality of a \$700,000 contract with the National Conference of States on Building Codes and Standards (NCSBCS) for an "educational" program of seminars on the guidelines—to be held in each of the 50 states. Roger Craig, of the U.S. Postal Service, questioned the board's authority to undertake such a program. David Williamson, HUD's representative on the Compliance Board, questioned the allocation of so much of

the Agency's budget to such a program, stating "putting the cart before the horse"—that is, publicizing a set of standards not yet agreed upon. Mr. Williamson also said that critics suggest that the militant board majority might be using the program to "try to develop a constituency" that would back the board's position on accessibility standards.—*Donald Loomis, World News, Washington.*

New Hampshire businessman to head GSA

President Reagan has nominated Gerald P. Carmen—a former Firestone Tire dealer and real estate developer from New Hampshire—to head the General Services Administration (GSA) and he has been confirmed. Carmen is 50 years old and served in 1976 and 1980 as chairman of the New Hampshire campaign for then Presidential hopeful Ronald Reagan. The White House describes Mr. Carmen as "blunt-spoken." A.R. (Mike) Marschall will be retained as the GSA's chief of the Public Buildings Service (PBS).

Before he was instated, Mr. Carmen underwent confirmation hearings before the Senate Governmental Affairs Committee; in addition, the Committee on Environment and Public Works asked for testimony, before the Senate voted on Mr. Carmen's nomination.

Mr. Marschall is very popular on Capitol Hill. Senators pushing for legislation to revamp PBS and to enlarge its new construction program are pleased that a Federal executive of Mr. Marschall's talents has been reappointed; they have repeatedly suggested that the success of the program depends on having a Federal executive of Mr. Marschall's talents.

In addition to its building program, the GSA is in charge of the Federal government's purchase of standard office supplies and equipment—including general purpose computers, the National Archives, the strategic stockpile, the libraries for former Presidents, and the guard force for Federal facilities.—*William Hickman, World News, Washington.*

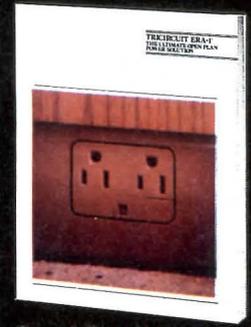
AIA names foreign Fellows

The AIA has selected eight foreign architects Honorary Fellows of the Institute: Elissa Makiniemi Aalto, Finland; Jerzy Buszkiewicz, Poland; Hans Heyerdahl Hallen, South Africa; David H. Hambleton, Canada; Hans Hollein, Austria; Kisho Kurokawa, Japan; Serafio Perez Loza, Mexico; and Eberhard H. Zeidler, Canada.

Honorary Fellowship is reserved for architects of "esteemed character and distinguished achievement" who are not United States citizens, and who do not practice in this country. The new Honorary Fellows will be invested at the AIA's upcoming convention.

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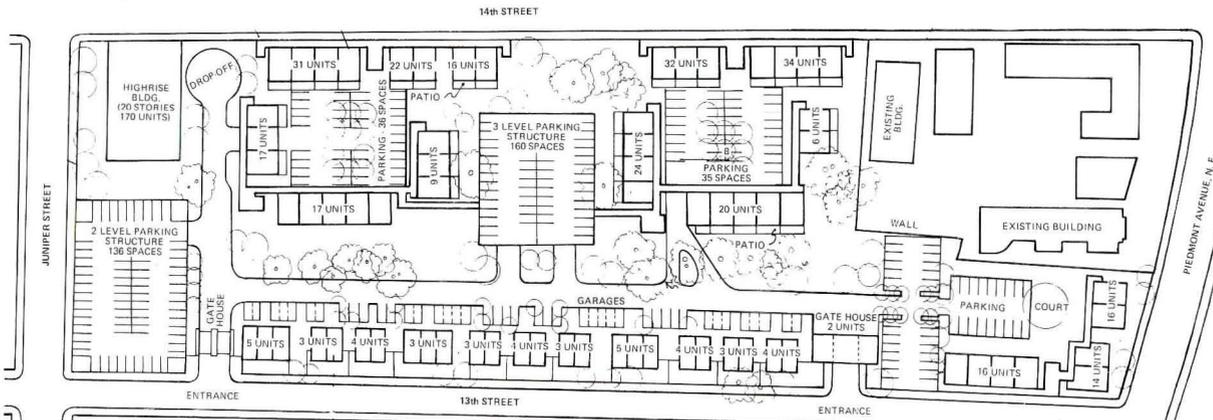
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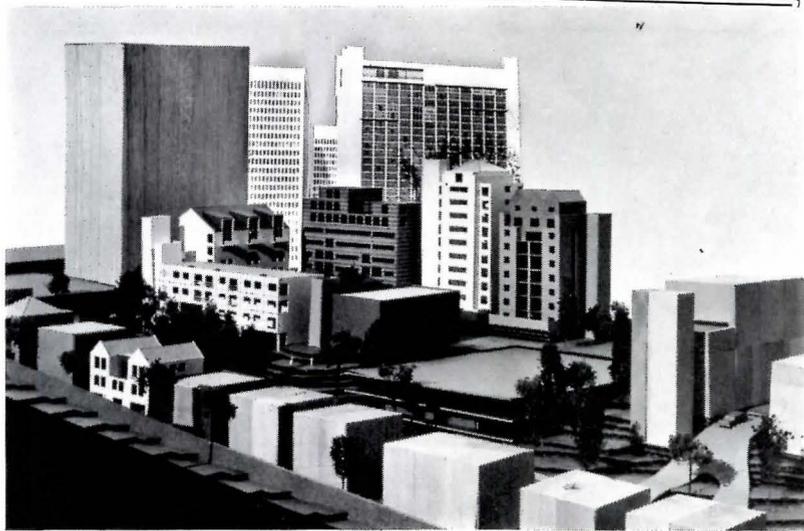


Frank O. Gehry: Santa Monica to Atlanta

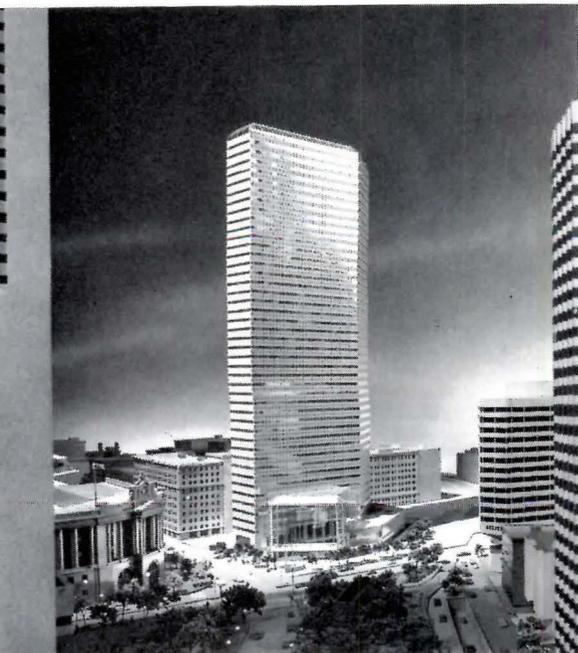
chain-link fencing, aluminum siding, plywood, asphalt, corrugated cardboard, and exposed studs may be common. Gehry has also been considered the signature architect of the city, but for a \$40-million residential development in midtown Atlanta, Georgia, Gehry proves that his architectural vocabulary can be extended to include the less adventuresome preferences of this southern city. The Atlanta-based Considine Company commissioned Gehry to design a 490-unit "community" on a seven-acre site across the street from the Colony Square Hotel (glimpsed in the background of the model photo at right). To avoid the look of a housing "project," Gehry's scheme calls for an eclectic mix of buildings—ranging from three to eight stories in the 92-unit first phase of construction (to begin this summer, and to be completed early next year). The six-stage development will be built in increments of less than 100 units; the final phase of construction calls for a 20-story building—with 170 units—which is now on the drawing boards. According to



Jeffrey W. Ross, of the Considine Company, "land parcel for the high-rise is still in the acquisition stage." The individual units will sell for no more than \$100,000 (the units will range from efficiencies to three-bedrooms). A developer's statement echoes the current trend to repopulate inner cities: "A significant number of people want to live in midtown. They simply need the opportunity to find attractive, reasonably priced homes. We think this [housing "community"] will not only supply a great deal of that need, but engender some other residential projects as well."

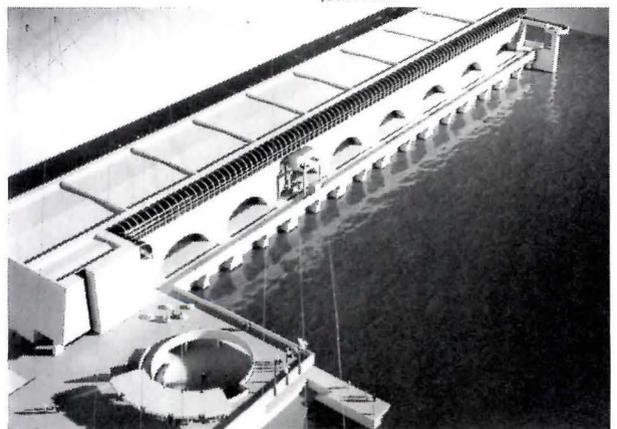


A hexagonal office tower for Boston's Dewey Square



This spring, 1.23 acres of Boston's Dewey Square will serve as the construction site for a 45-story, \$100-million office tower. Mayor Kevin H. White applauded the project as "the latest symbol of Boston's extraordinary economic and architectural rebirth." Dewey Square Tower will contain approximately one million square feet of office space. A six-story entrance gallery will house retail space, a restaurant, a cocktail lounge, and three movie theaters. The base of the building is to be granite—"in keeping with the historic [neighboring] South Station Head House." The upper floors will be cast stone and glass. Architects for the project are Pietro Belluschi, and Jung/Brannen Associates. Occupancy is slated for 1983.

Jack Horner



A power house along the Savannah River

The U.S. Army Corps of Engineers is constructing the Richard B. Russell Dam and Power House on the Savannah River (which separates Georgia from South Carolina). Architects Marcel Breuer Associates have designed the new facility as part of a hydro-electric system already in place on the river. MBA was retained by the Corps as consultant architect; they are responsible for the superstructure of the power house, visitor facilities, and adjoining sitework.

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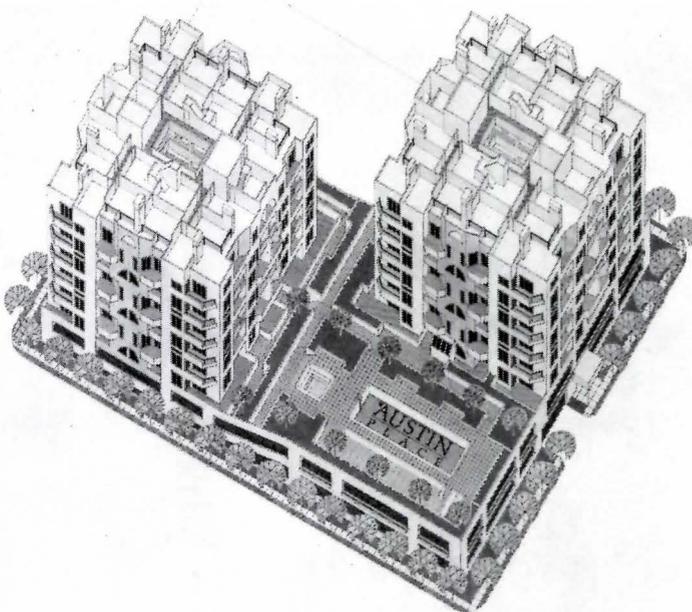
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welcome addition to a Houston neighborhood

The first in a series of similar mid-rise projects . . . intended to revitalize the stagnant neighborhood in the Binz area of Houston, Texas, is the architect's description of developer David Mitchell Companies' Austin Place. The 140-unit condominium consists of two six-story residential buildings supported by a two-level

parking garage—each building will be centered around an open-air atrium. A terraced, landscaped recreational plaza, with pool, is scheduled for the garage roof. The \$10-million housing development has been designed by San Francisco architects Sandy & Babcock Associates. Occupancy is scheduled for 1982.



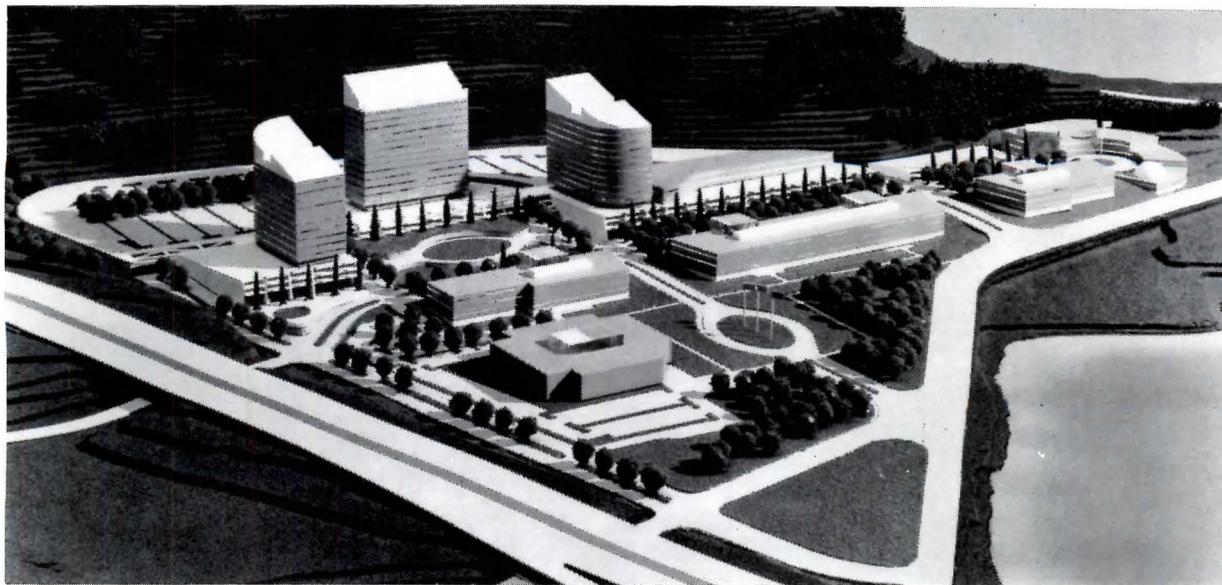
Energy efficiency wins in Sacramento

The Capitol Area Development Authority (CADA) selected Berkeley architects Stoll/Partners and joint developers Goldrich, Kest & Associates and Shapell Government Housing for a mixed-use development on a leased block along the Capitol Mall in downtown Sacramento, California. The \$12-million project—called "Capitol Commons"—will contain 92 condominiums, 10,000 square feet of commercial space, community gardens, and underground parking. In a memorable understatement, the architects note: "All units are highly energy conserving . . . energy costs are estimated at \$25 per year, per unit, for space conditioning." Such economy is expected to be accomplished by passive solar heating, through-ventilation, solar water heating, and "massive construction." Capitol Commons is under construction; occupancy is scheduled for this year.



On the waterfront

Construction has begun on a 10-acre office park, ten miles south of San Francisco. According to developer Camneau Corporation: "Robinson Hills & Williams' campus-like design complements the surroundings by silhouetting high-rise buildings against a hill backdrop, and by placing low-rise structures in the foreground, at the edge of the San Francisco Bay." The eight buildings of the San Francisco Executive Park (SFEP) will be visible from the freeway; the developers regard such a conspicuous site as the opportunity to make SFEP the "Southern gateway to San Francisco."





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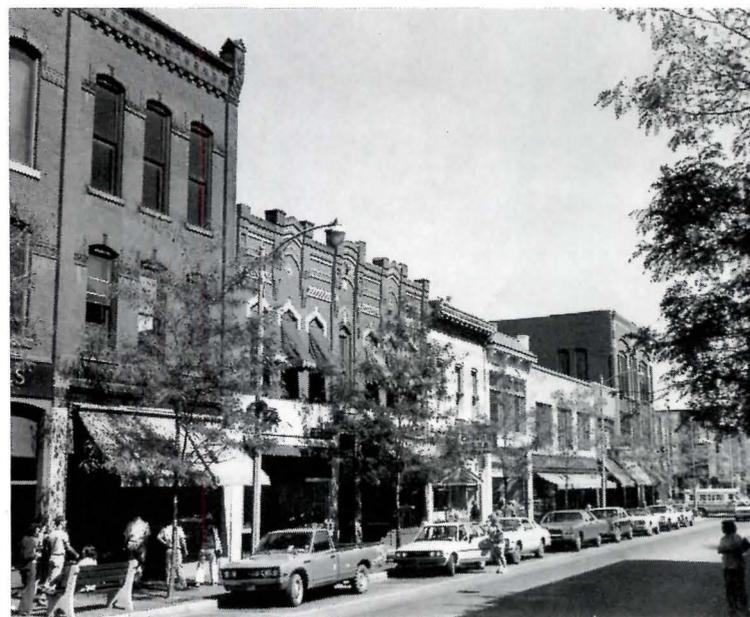
Nick Merrick/Hedrich-Blessing



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DOWNTOWN DEVELOPMENT AWARDS

Entries in the third annual design competition sponsored by the Downtown Research & Development Center, an independent organization in New York, were judged by Lawrence A. Alexander, director of the Center; Geoffrey Freeman, AIA; and William Shore, vice president for public affairs of the Regional Plan Association. The five First Awards and eight Merit Awards presented this month to city agencies and developers honor outstanding projects in central business district revitalization.

1. Arcade Square, Courthouse Square, River Edge, Dayton Ohio (First

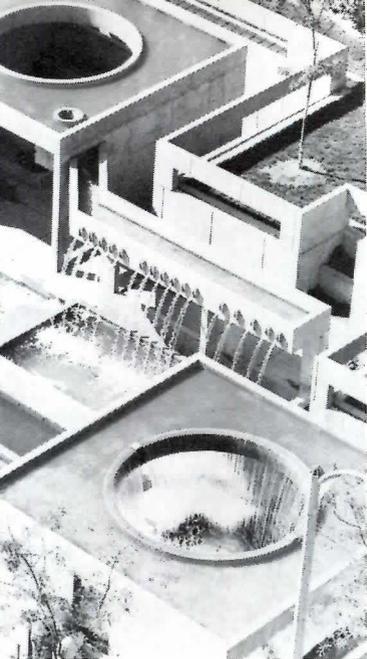
Award). Three projects designed by Lorenz & Williams involve the renovation of a turn-of-the-century shopping arcade (photo); the reshaping of Dayton's major public space; and the upgrading of a rundown riverbank into an attractive park that provides a catalyst for future development.

2. Ghent Square, Norfolk, Virginia (First Award). Town houses by Toronto architect Barton Myers (photo) typify the low-rise scale of this 65-acre middle-to-upper-income redevelopment project, designed to harmonize with nearby Victorian buildings. The jury commented: "A good working out of

a good idea: getting market-rate housing really close to downtown."

3. Town Square, St. Paul, Minnesota (First Award). An office/retail complex by Skidmore Owings & Merrill (see RECORD, March 1981, pages 120-122) and a hotel and parking ramp by BWBR Architects provide a new focus for St. Paul's skyway system.

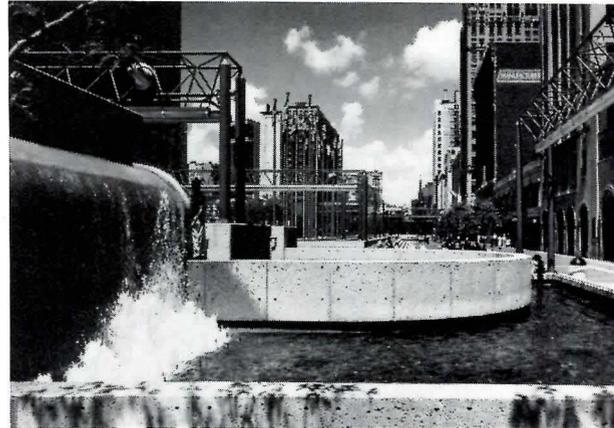
4. Scottsdale Mall, Scottsdale, Arizona (First Award). Caviness and Downs were the architects for the 2.9-acre shopping mall. "It gives you a sense of walking, unlike usual urban spaces in Arizona," one juror observed. The photo also shows the adjacent Scotts-



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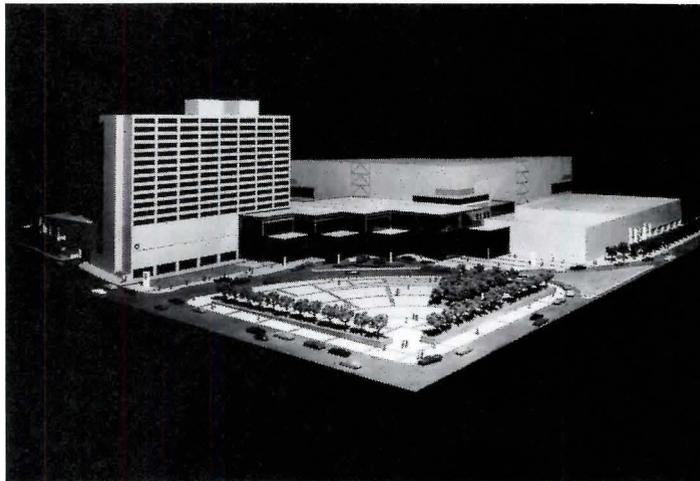
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dale Center for the Arts, designed by Bennie Gonzales Associates Inc. and a parking garage by Taliesin Associates.

5. Market Street Restoration, Corning, New York (First Award). The 10-block area was praised for its enhancement of architectural diversity. Under the supervision of the Market Street Restoration Agency, guidelines for signs and shopfronts in this historic district retain the flavor of vintage Americana alongside a new civic center.

6. Riverside Park, Flint, Michigan (Merit Award). Fountains and an "Archimedes Screw" (the river's own power lifts water to street level) are features of a

park designed by CHNMB Associates.

7. Quaker Hilton Hotel, Akron, Ohio (Merit Award). A \$7.5-million project by architects Curtis & Rasmussen recycled 36 Quaker Oats silos into a 200-room hotel and convention facility.

8. Washington Boulevard Improvement Area, Detroit, Michigan (Merit Award; see RECORD, October, 1980, pages 98-99). Rossetti Associates combined water displays and light sculpture to enliven the faded elegance of a grand avenue.

9. Stamford Downtown Renewal, Stamford, Connecticut (Merit Award). Encompassing 90 per cent of central

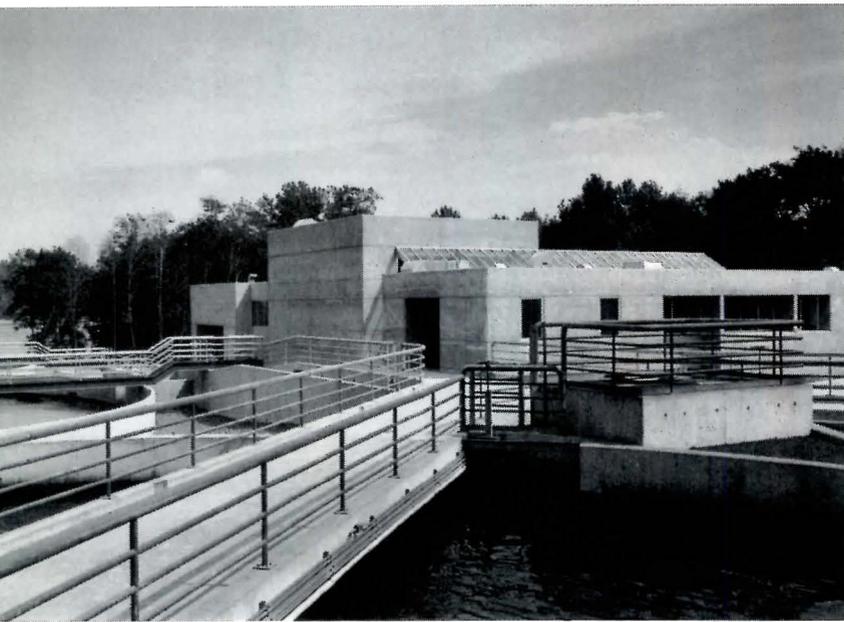
Stamford, the project has involved many architects, with private construction since 1970 totaling \$150 million.

10. Santa Monica Place, Santa Monica, California (Merit Award). A 425,000-square-foot skylit retail and commercial complex by Frank O. Gehry and Associates forms a much-needed link between an existing pedestrian shopping mall and the civic center.

11. Downtown Crossing, Boston, Massachusetts (Merit Award). Pedestrian walkways and plazas designed by the Boston Redevelopment Authority and Mayor's Office are reversing the decline of an 11-block retail district.

12. Lexington Center, Lexington, Kentucky (Merit Award). A three-story glass-enclosed mall serves as the gateway to an adjacent hotel, sports arena, and exhibition hall, all designed by Ellerbe Associates.

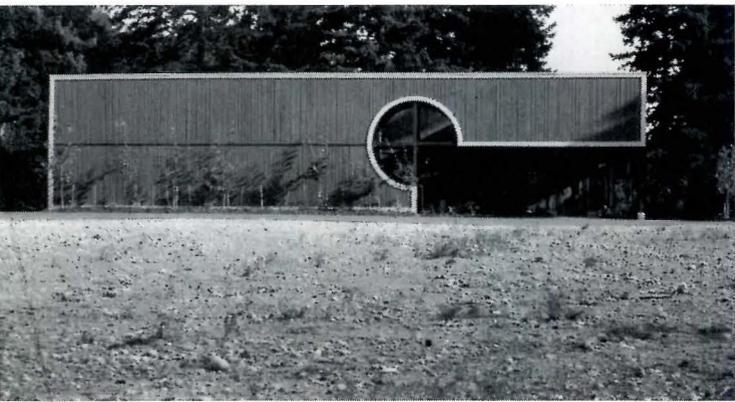
13. Harristown Phase I, Harrisburg, Pennsylvania (Merit Award). Key elements in plans for this 39 square-block area are two retail and office buildings: *Strawberry Square*, by Lawrie & Green-Mitchell/Giurgola (photo; see RECORD, December 1980, pages 76-81) and 333 Market Street, a 21-story structure by Murray Associates/Bower & Fradley.



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Art Hupy

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SEATTLE CHAPTER OF THE AIA HONOR AWARDS

In a jury session held in New York, Philip Johnson, FAIA, and John Burgee, AIA, reviewed photographs of all 62 entries in the 1980 Honor Awards Program of the Seattle Chapter of the AIA. They selected seven Honor Award winners and gave Citations to three projects, all located in Washington. Summing up the entries, Mr. Johnson described Northwest architecture as "a little bit isolated . . . in the sense that you're doing Modern architecture—and there's nothing wrong with it when it's done with this panache and excellence." Mr. Burgee concurred: "These architects are not

trying to be followers of the latest fads. . . . They are just doing very well at what they know."

1. Shelton Wastewater Treatment Facility, Shelton; Kramer, Chin & Mayo, architects (Honor Award). Color-coded mechanical systems are played off against concrete walls in a successful fusion of architecture and sanitary engineering: "a problem that is usually not handled so sensitively by architects."

2. Moore Residence, Whidbey Island; Arne Bystrom, architect (Honor Award; see RECORD, mid-May, 1980, pages 102-105). "A marriage of

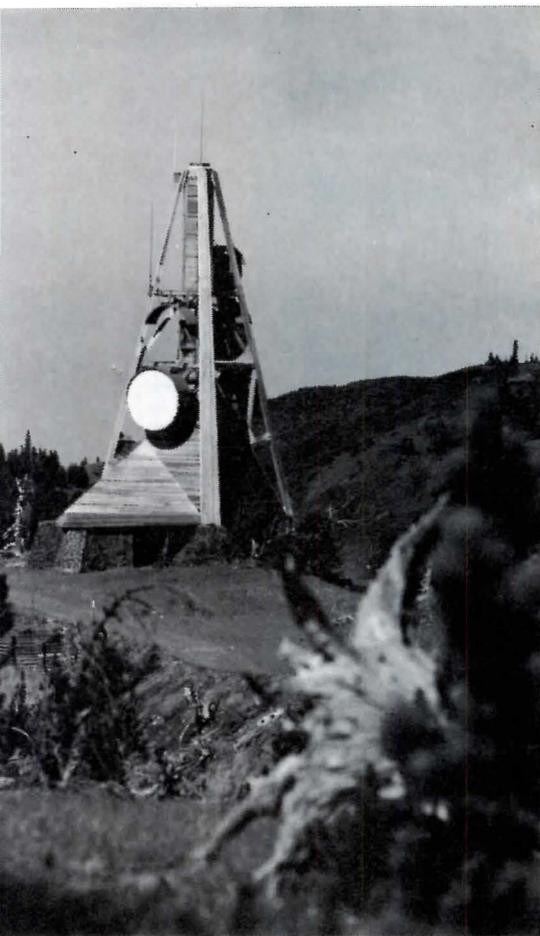
Northwest shingle bungalow and a modern shed roof factory. Tough, strong, and very original."

3. North Puget Sound Radiation Therapy Center, Bellingham; Johnson, Erlewine & Associates, architects (Honor Award). The jury noted that "The problem is insoluble; it's a treatment that only needs a box. By treating it graphically (the carve-outs are really graphics), you get a great landmark-looking thing."

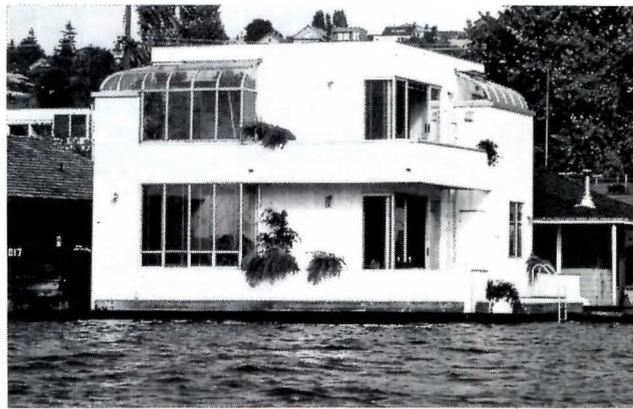
4. Bellingham Transit Terminal, Bellingham; The Architects Group (Honor Award). A concrete post-and-beam structural spine and a steel



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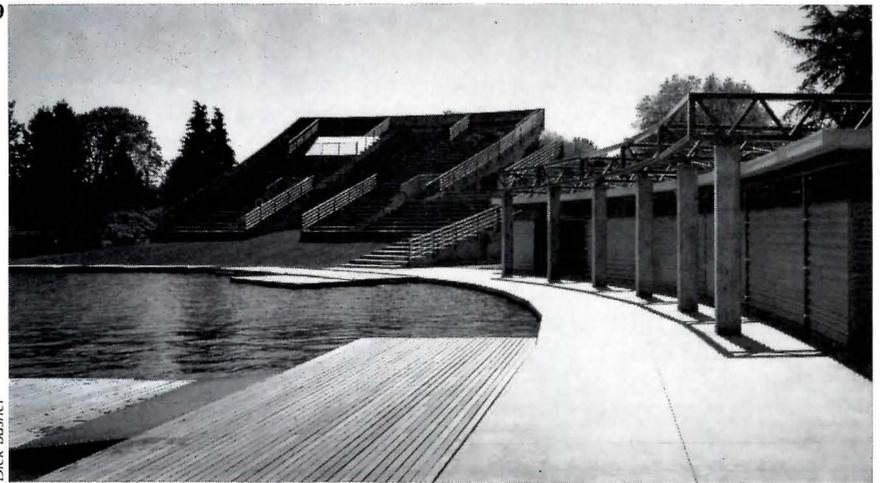


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Dick Busher



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Dick Busher



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Calendar

Arizona Passive Solar Design Competition for Homebuilders and Home Designers. Jointly sponsored by the Arizona Solar Energy Commission, the Arizona Society of the AIA, and several homebuilders' associations, the competition is open to architects and students (student designs will be judged separately). Design categories include single-family and multi-family houses, retrofit, and mobile homes. A registration fee of \$50 (\$30 for students) also entitles entrants to attend workshops on passive solar design. Awards totaling \$50,000 are available. Completed entries are due May 28. For additional information contact APSDC, 1650 West Alameda Drive, Suite 140, Tempe, Arizona 85282 (602/968-9776).

Red Cedar Shingle & Handsplit Shake Bureau/AIA Architectural Awards Program. The awards honor projects "demonstrating design excellence and significant functional or esthetic uses of cedar shingles or shakes." The deadline for entry blanks is June 12, and entries must be submitted by July 17. Further information is available from the Bureau's Architectural Awards Department, 515 116th Avenue N.E., Suite 275, Bellevue, Washington 98004.

space-frame canopy were added to an abandoned railroad freight depot. Johnson and Burgee praised the "clever treatment of the roof that cuts back where the bus comes close to the curb."

5. Seattle-First National Bank, Motor Banking Facility, Juanita; Hobbs Fukui Associates, P.S. (Honor Award). "A very simple problem handled very simply but very sensitively." Using steel pipe and clear plastic, the architects created a colorful prototype for suburban installations.

6. Livingston House, Bainbridge Island; William Bastida, architect (Hon-

or Award). The jury cited "the craftsmanship and wood detailing of the interior spaces and the subtle handling of supports and the supported" in this hillside house.

7. Microwave Tower, Mission Ridge; Shavey DeGrasse Shavey, architects (Honor Award). Besides housing telephone equipment, the mountaintop tower serves as a warming hut for skiers. The building was partially constructed of local stone and wood.

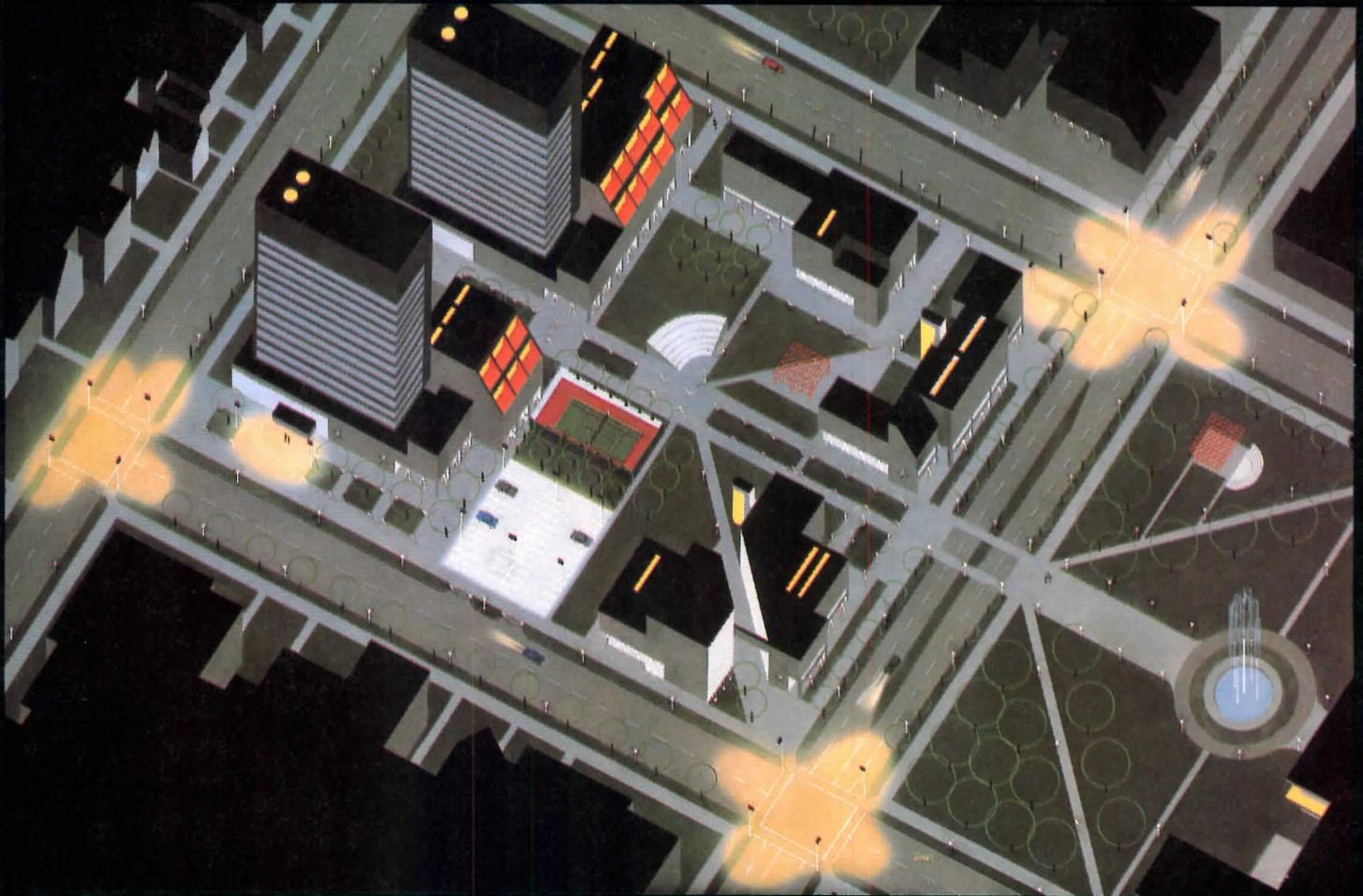
8. Fryberger Houseboat, Seattle; Olson/Walker & Partners, architects (Citation). Both jurors found pleasing reminiscences of 1930s modernism in

this 20-foot-wide bachelor dwelling moored in Lake Union.

9. Greenlake Sailing and Boating Facility, Seattle; Olson/Walker & Partners, architects (Citation). This boating complex incorporates fragments of Seattle's unused Aqua Theatre as picturesque "ruins."

10. Hampson Residence Addition, Seattle; Keith R. Kolb, architect (Citation). The jury commended the architect for "creating his own interior/exterior space. . . . The delicious extra terrace which looks back into the living room makes a complete outdoor room."

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Strict liability for architectural services?

If the courts allowed products liability principles to be applied to claims against architects, the professional liability problem would be far worse. To date, the courts generally have resisted the efforts of plaintiffs' attorneys to hold architects liable under theories of implied warranty and strict liability (principles of liability normally associated with defective products). In determining which theories of liability apply, the law often distinguishes between projects involving traditional architectural services and other kinds of projects where the design and construction responsibilities are merged. A couple of recent cases illustrate how the courts can view these liabilities differently.

by Arthur Kornblut, Esq.

Architects' professional liability is predicated on negligence. Before an architect can be held liable for damages in a professional liability claim, the plaintiff must prove the architect failed to meet the ordinary standard of care expected of an architect under the circumstances. The law does not impose on architects a standard of perfection or an implied warranty that the professional's services will be satisfactory to the client or to anyone else. Negligence, not a bad result, is the basis of professional liability. This distinction is important; in the area of products liability, a defective product, irrespective of the care used to make it, is the basis of liability.

Whether an architect's liability is judged under traditional professional liability principles or under broader products liability principles often depends on the nature of the architect's relationship to the client and the project. In some cases, the project type itself can determine which legal principles will apply. This is becoming increasingly true when the project involves dwelling units or housing (with the exception of custom designed residences built by someone other than the architect or designer). The courts are tending to view housing as a consumer product and thus are applying products liability principles when defects appear. Recent cases have involved everything from mass-produced tract housing to individual houses to apartments in condominium high-rises.

Plaintiffs' attorneys often attempt to hold architects liable under products liability principles because these legal theories make it much easier for the plaintiff to recover damages. Although the courts normally will not

permit the use of products liability principles in cases involving professional liability, situations frequently arise in which the law is unclear. This occurred recently in a Connecticut case arising out of a roof collapse.

The court in this case (*K-Mart Corp. v. Midcon Realty Group*) rejected an attempt to impose strict liability (liability without proof of negligence) on an architect for allegedly selling "defective" designs. The plaintiff, a lessee who had a retail store in the building, suffered damages when the roof collapsed. The defendants were the developer (who built the store and leased it to the plaintiff), the general contractor, and the architect who had been retained by the developer to design the building.

One of the plaintiff's allegations against the architect was that he had "sold" working drawings and specifications that were unreasonably dangerous to the users of the building and thus he should be held liable under the doctrine of strict liability. The architect moved to dismiss this count in the complaint, arguing that he provided a professional service to the developer and that strict liability principles could apply only if there had been a sale of a product.

In ruling for the architect on this motion, the court acknowledged that an issue existed about whether the architect had provided a professional service or sold a product, but the judge avoided ruling one way or the other. The judge's rejection of products liability principles was based on a relatively narrow legal point. The lessee (the plaintiff) was not the ultimate user of the allegedly defective documents; the developer and the contractor were. Under strict liability principles, the allegedly defective product has to reach the ultimate consumer without substantial change in the condition in which it was sold. The plaintiff was not deemed to be a "user" of the documents themselves and became a "user" only after they were transformed by

the developer and the contractor into an actual building.

In a closing comment, the court, despite ruling for the architect, said: "It is possible that the doctrine of strict tort liability will be extended to reach the design and development of buildings which, like ordinary consumer products, are mass marketed to the public. . . . However, [the court would not accept the proposition advanced by K-Mart] that a user of a building may recover for property damages allegedly caused by defective architectural designs for the building where it is not even alleged that the architect's conduct was analogous to the manufacture or marketing of consumer products intended for widespread distribution."

The Connecticut court's allusion to the potential liabilities associated with the design and development of mass-marketed buildings is not unfounded. As mentioned above, products liability principles have been applied in numerous cases involving housing or dwelling units even when they have not been mass-produced.

In a Missouri case (*O'Dell v. Custom Builders*), a builder was held liable for breach of an implied warranty that house plans prepared for the plaintiffs (the homeowners) were fit for use in constructing a house on the plaintiffs' property. The contract between the owners and the builder required the builder to prepare the design for the house and to construct the shell. The owners were going to act as their own general contractor and subcontract the remainder of the work to others.

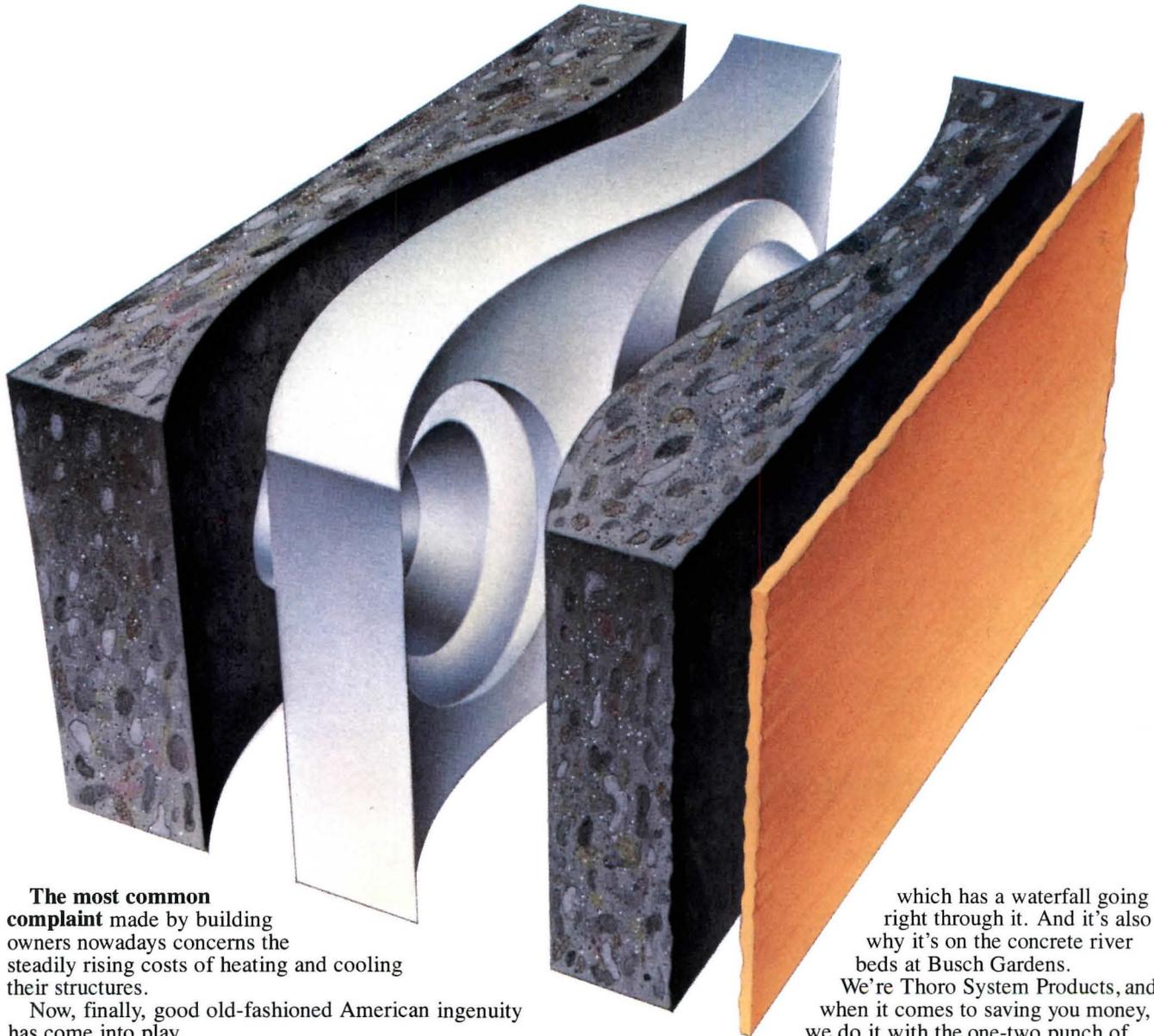
When the foundation design proved to be inadequate, resulting in settling and cracking, the owners sued the builder. The court ruled against the builder stating that "an experienced builder who provided plans for construction of a house on a lot selected by plaintiffs warranted the sufficiency of the plans provided and that the structure would therefore be fit for the purpose in view."

Despite disclaimer language in the parties' contract, the court relied on common-law-implied warranties of habitability and quality to protect the "purchaser" of the home. Recent cases in Wyoming and South Carolina have even extended these implied warranties to protect subsequent owners of homes. The builders' liabilities were extended beyond implied warranties to the original purchasers.

Mr. Kornblut is a registered architect and practicing attorney in Washington, D.C.

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A simple equation for a complex economic problem

Most businessmen are aware of the Quantity Theory of Money, having been introduced to it in Economics 101. Keynesian-oriented professors pooh-poohed this theory as a simplistic economic model, which the student need know only for historical background and final exams. Yet this supposedly quaint framework has a way of popping up in different guises, whenever "new" economic ideas are broached. And so it is that submerged in the new "Reaganomics" are some hidden messages from the old Quantity Theory.

To help the reader recall the joys of Economics 101, the Quantity Theory in simplest form is stated as the equation $MV=PO$ (remember?). Where M is the money supply, V is the velocity of circulation of money, P is prices (including interest rates, which are the prices paid for money), and O is the output of real goods and services.

Implicit in the Reagan economic program to stimulate the economy is the intention that monetary policy will restrict the growth of money and credit. Whether they admit it or not, economists of every policy persuasion

are worried about how real output can grow when the money supplied *isn't* growing and when price increases (at best) are expected to match last year's horrendous performance. However, the Quantity Theory tells us that, with M constant, P and O can rise if V rises. But why should V rise in today's economic environment?

Many years ago, Alvin Hansen, the American explicator of Keynesian Economics (the theory that Reaganomics is supposedly invalidating), provided an answer. At a given level of money, "idle balances" can be drawn

into "transaction balances" by raising interest rates. Years ago, such transfers might have been cumbersome; but in the eighties, with the proliferation of negotiable orders of withdrawal (NOWs) and money market mutual funds with check-writing privileges, money can be held "idle" in interest-bearing accounts and then, with the scratch of a pen, instantaneously turned into transaction balances to purchase goods and services.

Besides creating a whale of a problem in defining the money supply that the Federal Reserve should be controlling, this solution has another "minor" difficulty. To raise output while limiting money growth and price increases, interest rates *must* rise. Obviously, this isn't a policy prescription put forth by the construction industry.

Still, don't despair. That is only the gloomy result of this policy. The Theory also offers another, more tantalizing solution. What if P (including interest rates) should *fall*? Then O could rise rapidly with moderate changes in M and V.

This delightful possibility has emerged from the works of the "expectationist" economists surrounding David Stockman, director of the Office of Management and Budget (OMB). They argue that policy actions clearly showing the American public that inflation is being checked can lead to a dramatic, rapid decline in the rate of inflation, lowering interest rates and spurring economic growth.

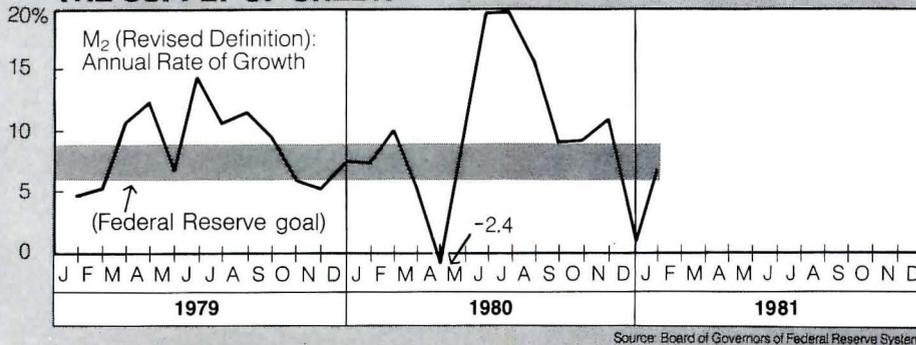
Now, to brighten your day, sit back and recall last year's spectacular break in interest rates and the resulting splendid surge in residential and nonresidential contracting in the second half of 1980. What's that? What will cause interest rates to fall this year? Don't bother me with details! I'm theorizing. . . .

Realistically, the outlook for 1981 is closer to the gloomy solution than to the bright one. Monetary policy will continue to lean toward restraint. Any time interest rates sag, business, state and local governments, and individuals will rush into the financial markets to obtain credit denied them in 1980, keeping rates higher than in past recoveries. Nevertheless, the sheer size of demand for buildings, coupled with a stimulative second-half fiscal policy, will help residential and nonresidential construction contracting grow later this year.

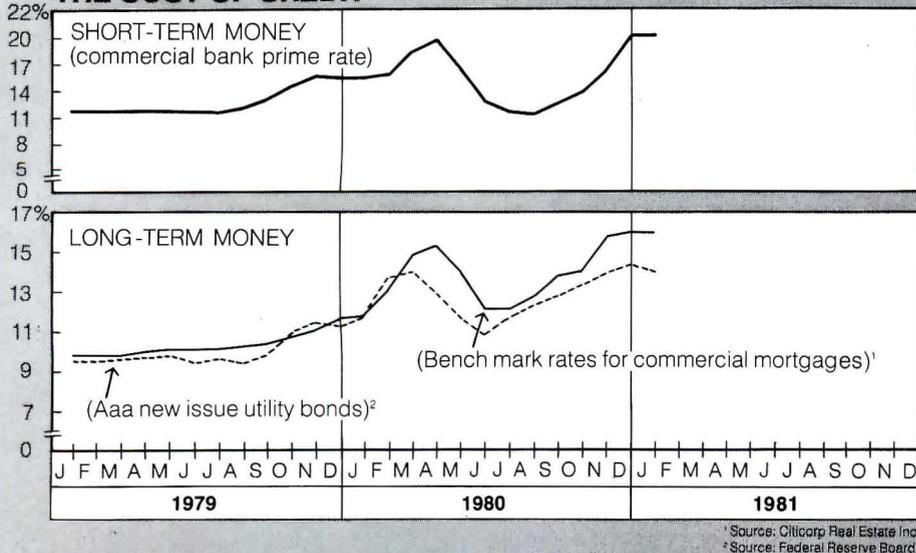
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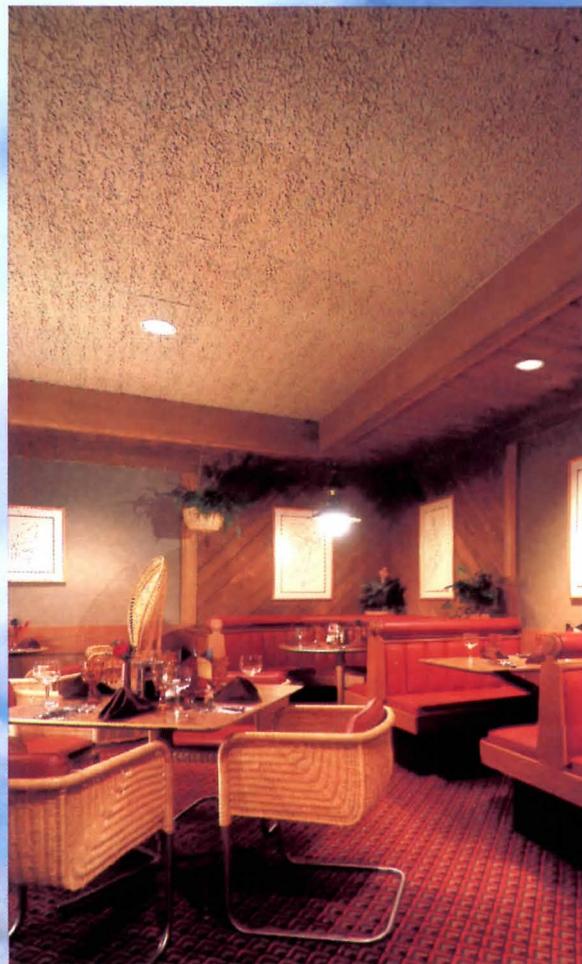
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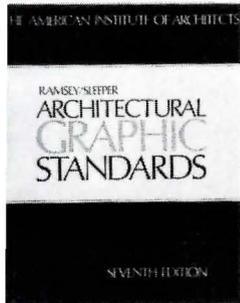
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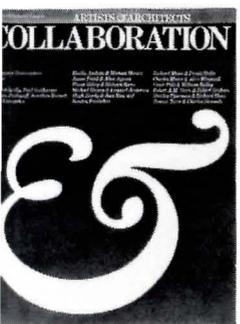


BOOKS RECEIVED



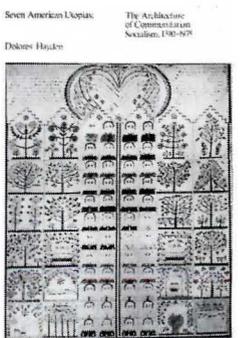
(RAMSEY/SLEEPER) ARCHITECTURAL GRAPHIC STANDARDS, Seventh Edition, *edited by Robert T. Packard; John Wiley & Sons, \$75.*

For almost 50 years, Ramsey & Sleeper's *Architectural Graphic Standards* has been known as the "Architect's Bible." The *Seventh Edition* has been fully revised and updated, with over 70 per cent of its material new. This expanded coverage includes: new engineering data (particularly for hvac); new technical data pages (increased by 8 per cent); new data on site development and landscaping ("reflecting the latest design and planning concepts"); emphasis on construction for the handicapped; and expanded coverage of open office planning (including safety and seismic considerations). The current edition has been prepared by Robert T. Packard of the AIA; more than 140 architectural firms, industry associations, and government agencies contributed material.



COLLABORATION: ARTISTS & ARCHITECTS, *edited by Barbaralee Diamonstein; Whitney Library of Design, \$16.95.*

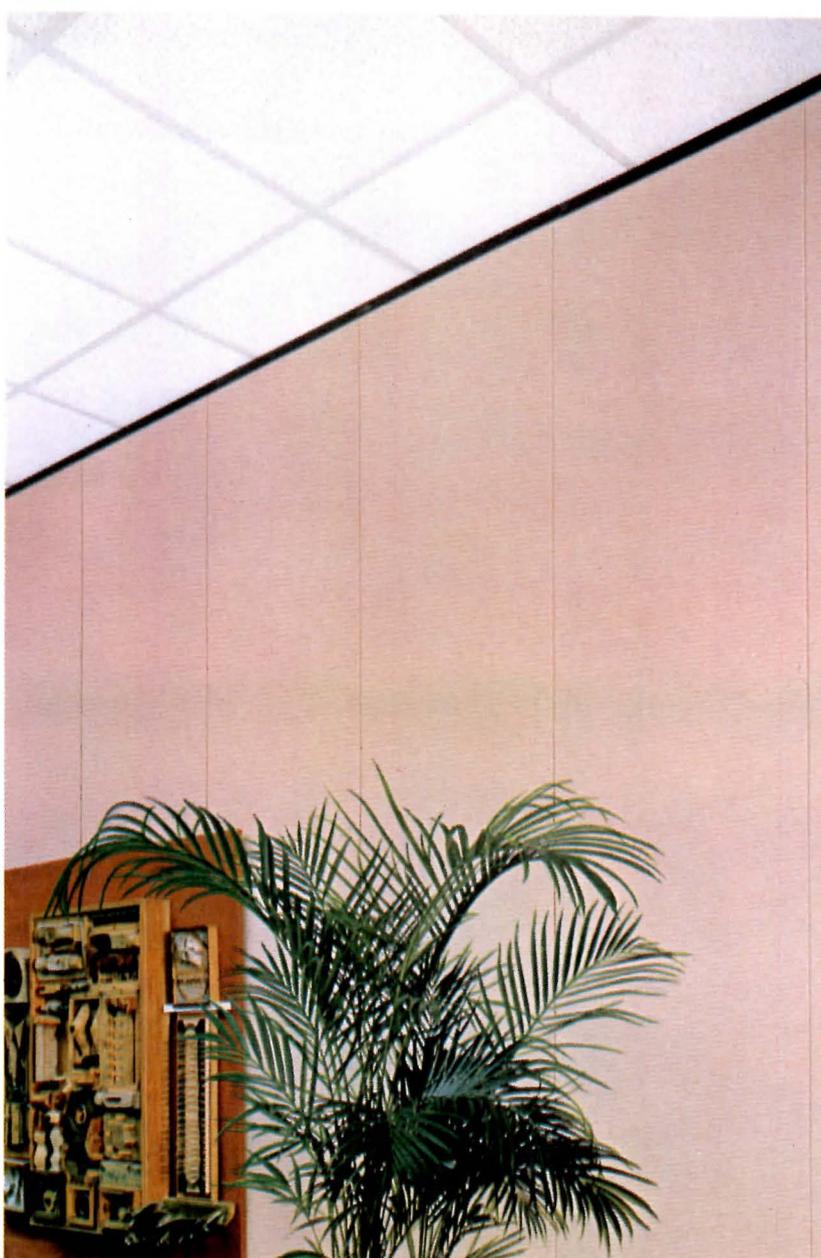
Two months ago, RECORD reported (February, page 37) on "Collaboration: Artists & Architects," an exhibition—sponsored by Philip Morris Inc.—celebrating the 100th anniversary of The Architectural League of New York: 22 architects and artists were commissioned to blend their talents in order to address "the most significant architectural problems in the decade ahead." The results of those efforts are fully illustrated in this 175-page exhibition catalog. Essays by Jonathan Barnett, Paul Goldberger, Stephen Prokopoff, Jane Livingston, and Vincent Scully, precede the drawings and models that the 11 teams contributed. Among the architects and artists included are: Emilio Ambasz (and Michael Meritet); Frank Gehry (and Richard Serra); Michael Graves (and Lennart Anderson); Richard Meier (and Frank Stella); Charles Moore (and Alice Wingwall); and Susana Torre (and Charles Simonds).



SEVEN AMERICAN UTOPIAS: THE ARCHITECTURE OF COMMUNITARIAN SOCIALISM, 1790-1975, *by Dolores Hayden; The MIT Press, \$9.95.*

"What is the relevance of communal architecture and planning for a contemporary, largely noncommunal world?" "How can present-day community groups, architects, planners, and building workers apply the lessons of communal building to the experience of contemporary building projects or the organization of the design and building professions?" Those are two questions raised by Dolores Hayden. Using seven communal group case studies, she shows that these historical examples represent a "history of organizing and building processes . . . they are 'premature truths' to be grasped." The Shakers, the Mormons, the Fourierists, the Inspirationists, the Perfectionists, the Llano Colonists, and the Union Colonists are among the utopian communities that come under Ms. Hayden's purview.

continued on page 73



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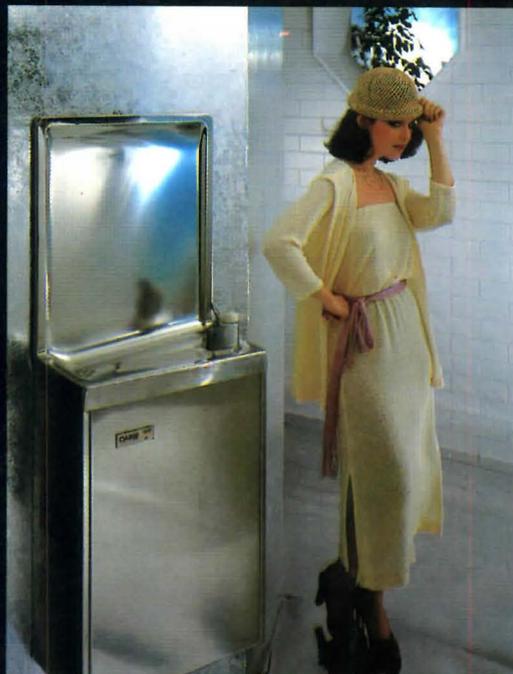
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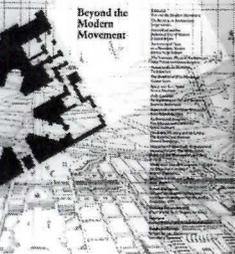
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The Harvard Architecture Review



THE HARVARD ARCHITECTURE REVIEW: BEYOND THE MODERN MOVEMENT, edited by Jeffrey Horowitz and Michael C. Lauber; The MIT Press, \$25.

Includes: an interview with Robert Venturi and Denise Scott Brown; a 1977 Forum Discussion, (panel members—Stanford Anderson, Peter Eisenman, John Hejduk, Léon Krier, Donlyn Lyndon, Cesar Pelli, Robert A.M. Stern, Stanley Tigerman), that included individual building presentations by Isozaki, Venturi and Rauch, Graves, Rossi, Moore/Grover/Harper, and Herman Hertzberger; and essays by Jaquelin Taylor Robertson, Peter Papademetriou, Stanley Tigerman, Denise Scott Brown, Jorge Silvetti, and Stanley Tigerman. *The Harvard Architecture Review* is a student publication of the Graduate School of Design.

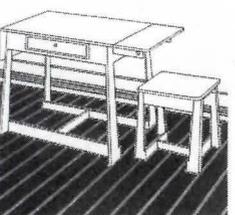
Photographs Five Architects



JUDITH TURNER PHOTOGRAPHS FIVE ARCHITECTS, introduction by John Hejduk; Rizzoli New York, \$27.50.

There's nothing coincidental about the number five in the title of Judith Turner's photo-essay. *New York Five* architects Eisenman, Hejduk, Graves, Gwathmey, and Meier are reunited, yet again, in the form of architectural details from: House VI (Eisenman); The Cooper Union Renovation (Hejduk); Benaceraff House Addition (Graves); Kislevitz Residence (Gwathmey/Siegel); and Bronx Developmental Center (Meier). Though the individual projects may now be suffering from over-publication, Ms. Turner focuses her camera on fragments—the effect, is, in John Hejduk's words, "subtle, precise, impeccable, abstract, compositional, and quietly moving."

THE WERKBUND



THE WERKBUND: HISTORY AND IDEOLOGY 1907-1933, edited by Lucius Burckhardt; Barron's, \$17.95.

The 1976 Venice Biennale attracted 700,000 people to a design exhibition centered in the history of the Werkbund associations: this volume contains 13 critical essays that grew out of the exhibition. In his introduction, editor Lucius Burckhardt offers an overview of the early 20th century Werkbund: "One of its few constant tendencies has been to retain a tense inter-relationship between artist and designer, between an individual object and a mass-produced article, between the principle that a design must be distinguished from its execution, and the surmounting of this dichotomy." The essays are illustrated and punctuated by photographs.

GAUDI: FURNITURE & OBJECTS



GAUDI: FURNITURE & OBJECTS, Riccardo Dalisi; Barron's, \$16.95.

University of Naples Professor Riccardo Dalisi has compiled photographs and drawings of Antoni Gaudí's small-scale designs—chairs, tables, lamp-posts, grillwork, and details. The 237 illustrations serve to guide the reader through Mr. Dalisi's extensive text . . . "I have attempted to give a global sense to this book, in accordance with cultural demands that have been advanced even in non-intellectual sectors of the population and in the culture of recent years."



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Headquarters Building, Square D Company, Palatine, Illinois
Architects: Loebel, Schlossman & Hackl, Chicago, Illinois
Roofer: E. W. Olson, Chicago, Illinois



Offices opened

Architecture for Health, Science & Commerce, P.C. is a new architectural practice located at 222 Mamaroneck Avenue, White Plains, New York.

Robert Wagenseil Jones/AIA/Architect has opened a new office located at 7 Fourth Avenue, Branford, Connecticut.

Charles Wing Architect/Planner announces the opening of his new office, located at 954 Risa Road, Lafayette, California.

Firm changes

Aeck Associates announce that Antonin Aeck, AIA has been named president of the firm, and Richard L. Aeck, FAIA, the firm's founder, has become chairman.

Allen & Hoshall, Inc. announce that Larry S. Peterson has joined the expanded industrial development division of the firm.

Allen & Sheriff Architects announce the appointment of Bill Bernstein as associate and director of production.

Carl E. Winnekins has joined the firm of Architects Group Limited.

Booker Associates, Inc., architects and planners, announce the following additions to its staff in the St. Louis and Washington, D.C. offices. They are: Michael Lehnhoff, sales manager; Roy Milbrandt, architect; Kuldeep M. Sachdev, project engineer.

CUH2A, the Princeton-based architecture, engineering and planning firm announce the appointment of Richard J. Hallowell, Jr., P.E. to department head of mechanical engineering.

Wayne G. Pippin has been named director of operations for Hannell-Heumann & Associates.

Cristobal Garau, Jr. has been appointed to the position of associate with the firm of Conceptual Engineering, Limited Architects/Engineers/Planners.

Daniels and Zermack Associates Inc. announce that Joy Naylor has been named manager of interior design and Stephen H. Daniels has been appointed architect in charge of the new Scottsdale, Arizona office, located at 6962 First Avenue.

Carlos A. Hernandez, P.E. has been named president of the Tampa-based engineering and planning firm of Diaz, Seckinger & Associates, Inc.

The firm of Richard A. Dobell & Associates has now become Dobell, Bryant and Collier, Architects.

Earl R. Flansburgh and Associates, Inc. announce that Todd Lee, AIA has been named senior vice president.

Fujikawa Conterato Lohan and Associates, Inc. announce that John Bowman, AIA, Gerald Johnson, AIA and Arthur Salzman, AIA have become associate principals. Michael Heider, AIA, Laurin McCracken, AIA and Thomas Samuels, AIA have been named associates with the firm.

Orlando Diaz-Azcuy, vice president of Gensler and Associates/Architects, has been appointed a design principal and member of the firm's management committee. Derek Claudius and Linda Moriarty Groth have been named new vice presidents in the firm.

Golemon & Rolfe Associates Inc. announce that Mario Bolulio has joined the firm as an associate.

Alan M. Shapiro has joined Hellmuth, Obata & Kassabaum, Inc. as vice president and director of the transportation facilities group.

Huygens and Tappé Inc. announce the change of its corporate name to Huygens and DiMella Inc.

Kercheval and Associates, Inc. Civil Engineering announce the appointment of Wan K. Young, S.E. as principal structural engineer and a member of the board of directors.

The architectural firm of Krusinski Gelick Foran Ltd. and Sidney Morris & Associates, Inc. have announced the merger of the two companies.

Chancy M. Lott, AIA has been named project director of the Orange County division of Albert C. Martin and Associates.

Martin/Bueker, Architecture/Planning has merged with Direction One Architects & Planners, Inc.

Massdesign Architects & Planners, Inc. announce the promotion of Thomas A. Downer to the position of associate.



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eliminating the continuous vertical gaps that extend from the roof deck to the built-up roof in this way, you can reduce membrane stress by as much as 10%.

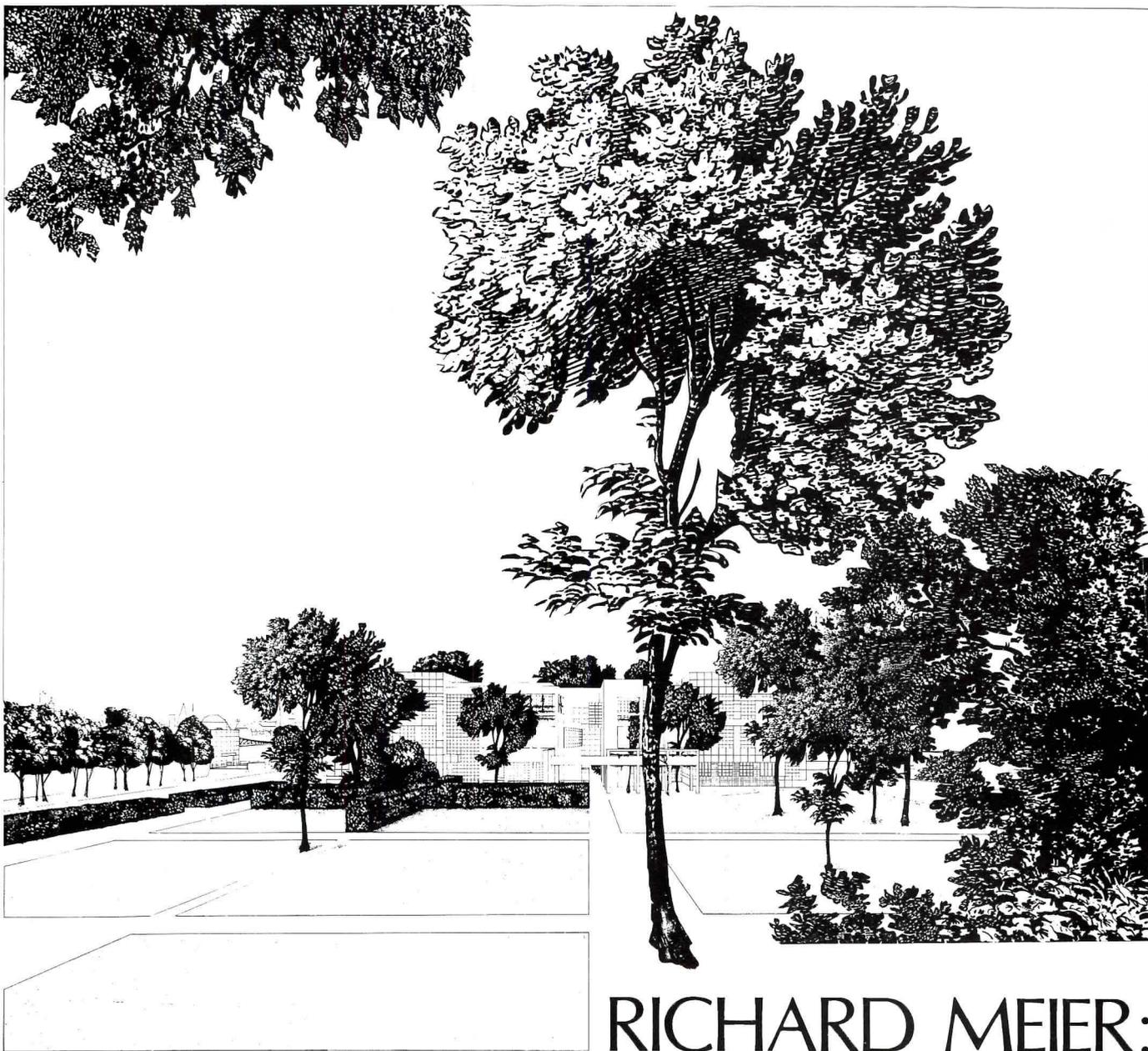
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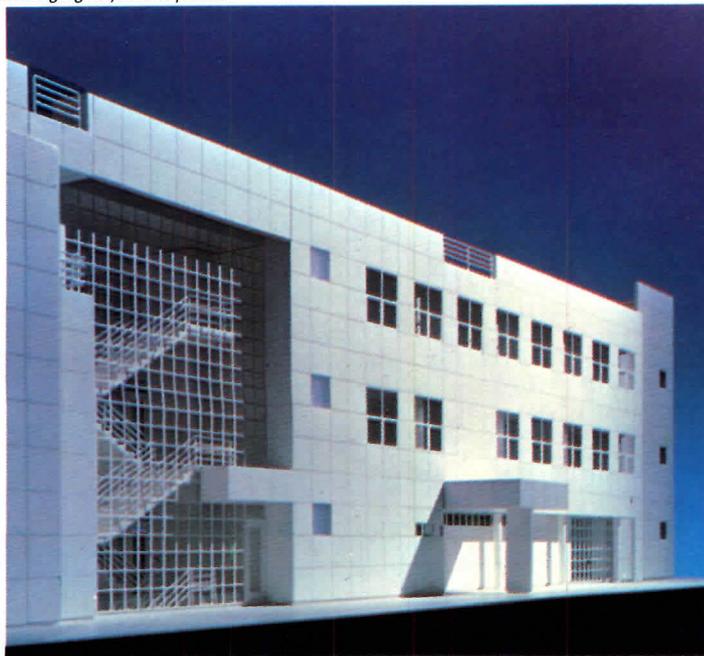


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RICHARD MEIER: TWO PROJECTS IN CONTEXT

©Wolfgang Hoyt/ESTO photos



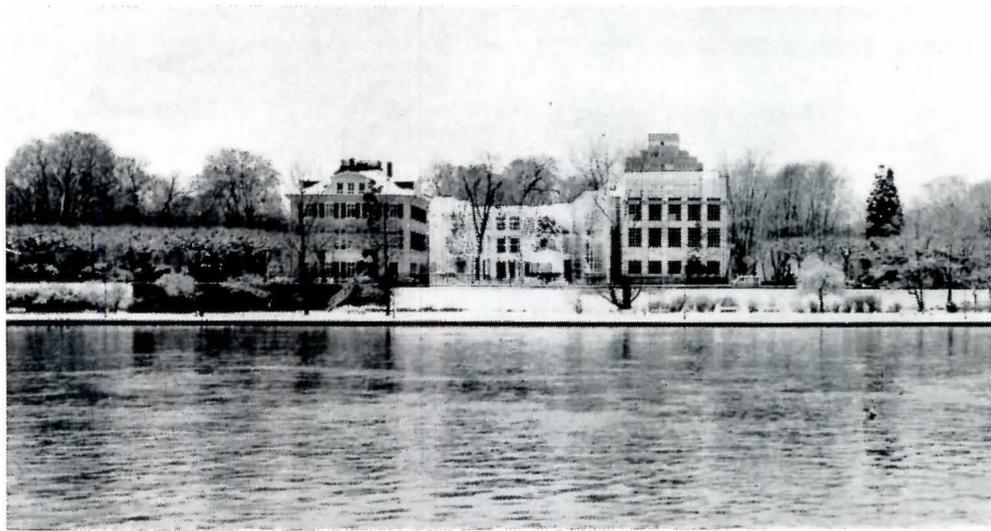
In the architectural spectrum that extends from white to gray, the work of Richard Meier stands squarely at the former end of the scale as the antithesis of contextual, "inclusivist" design—or at least, so it has generally been perceived by critics. Meier himself has always contended that despite the seeming autonomy of his buildings' luminous volumes and crystalline structure, his designs *do* respond to their surroundings, through "reciprocal involvement" rather than mimicry or pastiche. The two recent projects illustrated on the following pages—an addition to the Museum for the Decorative Arts in Frankfurt am Main (the winning design in an international competition) and the Hartford Seminary Foundation in Connecticut—shed new light on Meier's approach to a classic problem: the adaptation of ideal archetypes to the contingencies of real life. —*Douglas Brenner*

THE FRANKFURT MUSEUM FOR THE DECORATIVE ARTS: THEME AND VARIATIONS

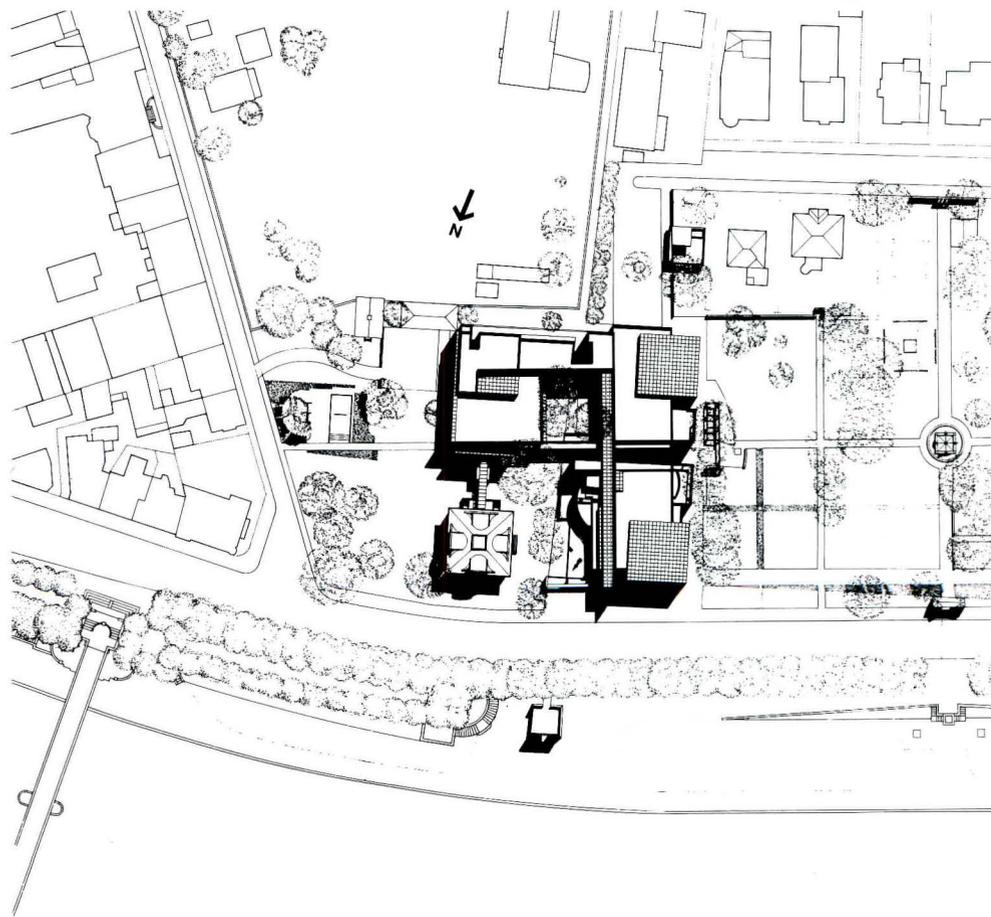
The Neoclassical Villa Metzler, a stately relic from the age of Goethe and Schinkel and the leitmotif of a new project by Richard Meier, has been the home of Frankfurt's *Museum für Kunsthandwerk* since the end of World War II. One of eight museums on the south bank of the Main overlooking the city center, the three-story stuccoed mansion built in 1803 provides elegant, if woefully crowded, gallery space for an extensive collection of European and non-Western decorative art. In 1979 the city of Frankfurt invited Meier along with four German architectural firms, the Austrian Hans Hollein, and another American firm, Venturi, Rauch and Scott Brown, to participate in a design competition for a new building roughly nine times the size of the present museum. Besides preserving the villa and fine old trees, the architects were asked to relate their designs to neighboring museums within a continuous riverside park. On a broader scale, the entire site was to be conceived as an urban linchpin, a pedestrian link between the residential quarter of Sachsenhausen to the south and the commercial district across the Main.

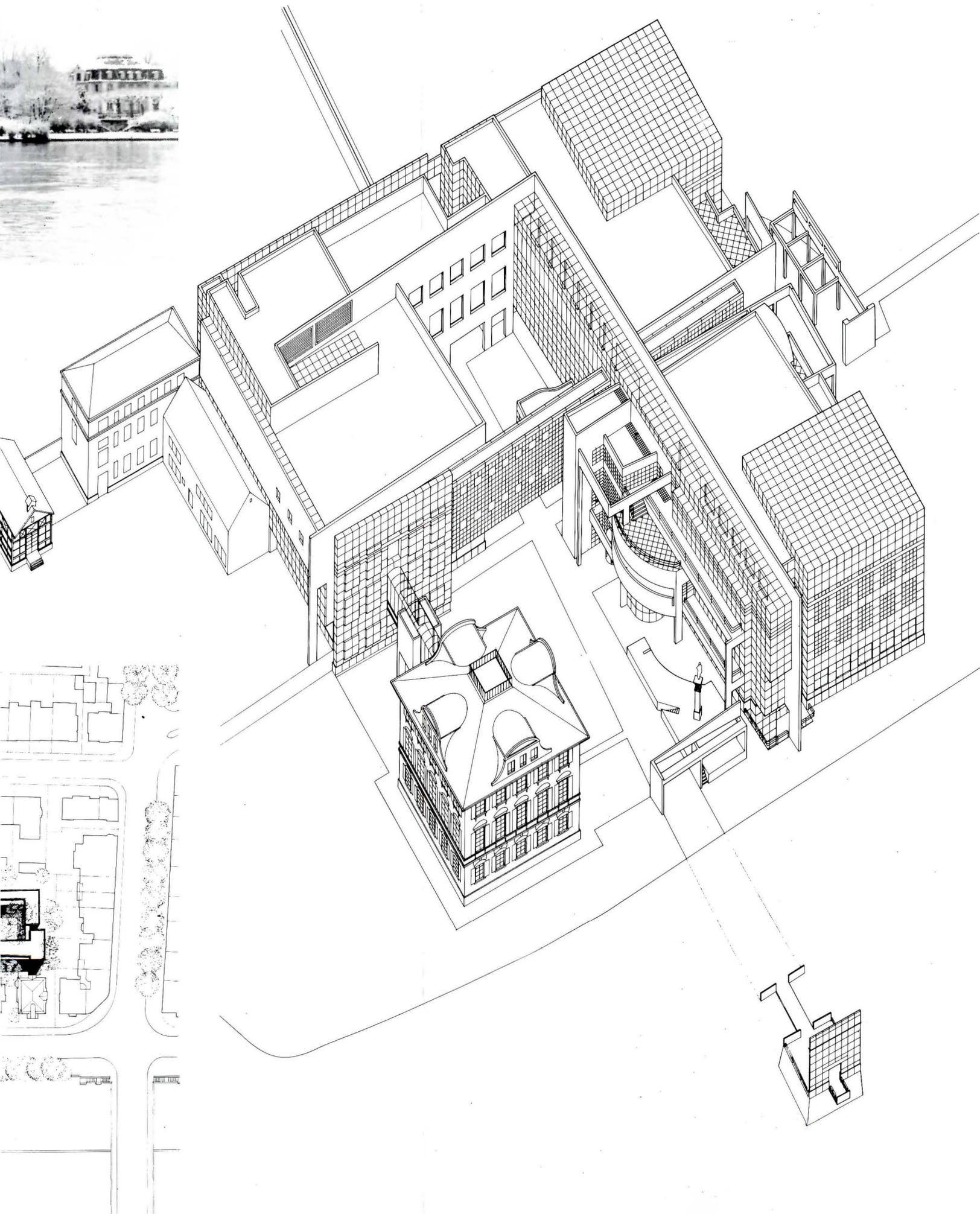
Richard Meier's winning project (scheduled to begin construction next winter) accommodates every requirement of the program with consummate skill, enhancing the impact of an historic landmark while transforming fortuitous aspects of the site into coherent determinants of a new esthetic order. In Meier's scheme (site plan right, axonometric opposite) the Villa Metzler occupies one corner of an open courtyard, connected by a glass-walled bridge to a reinforced concrete structure clad with porcelain-enamelled metal panels and stucco. Viewed as an abstract composition, this design embodies the exquisite counterpoint of pristine white surfaces and interlocking spaces bathed in light that distinguishes Meier's best-known work of the past two decades: the white houses, the Bronx Developmental Center, and the Atheneum at New Harmony, Indiana. Seen in context, however, the museum project reveals a thorough, sensitive response to an existing urban fabric that suggests it is high time to reassess Meier's familiar image as the uncompromising maker of utopian artifacts.

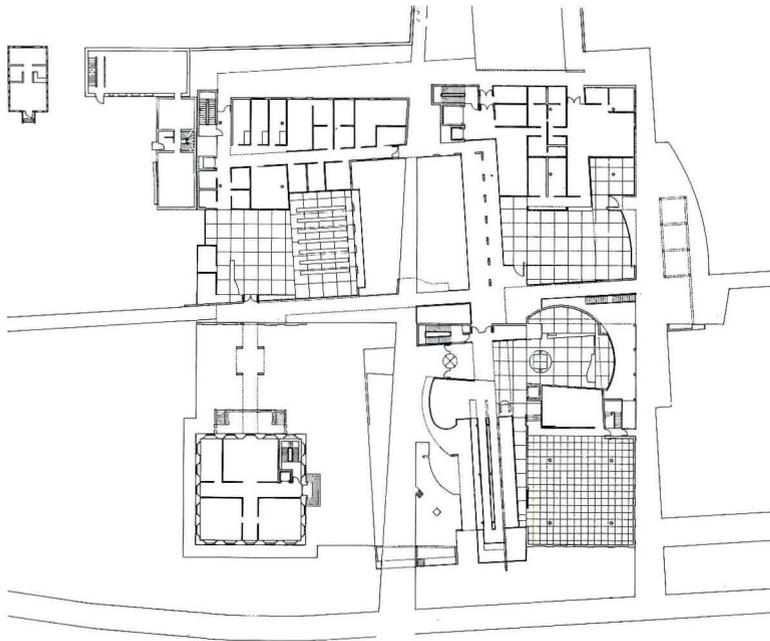
A perfect cube, 58 feet on each side, the Villa Metzler could hardly have been better calculated to appeal to Meier's taste for geometric precision. With the inventiveness of a composer transposing a simple melody into a baroque fugue, he has taken the elementary quadrate proportions of the villa plan and the orthogonal pattern of its facades, and repeated them as modules at nearly every level of his design (pages 90-91), from the



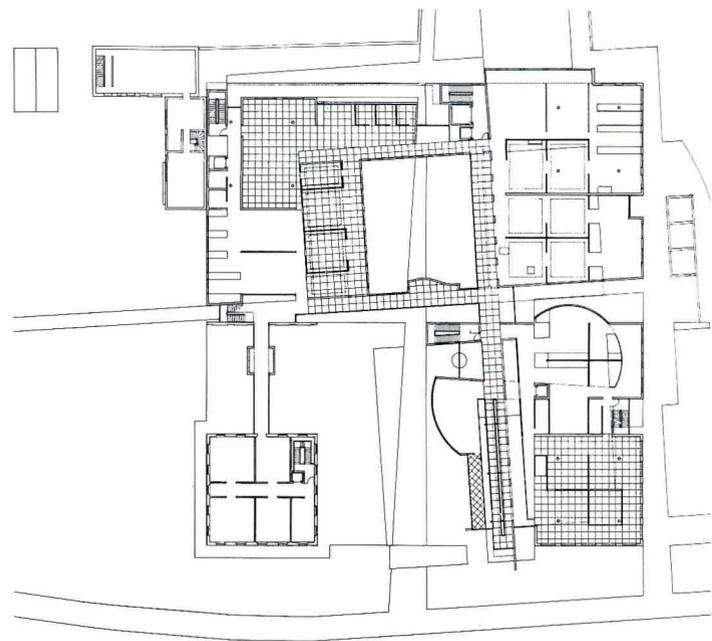
A photomontage (above) superimposes a model of Richard Meier's proposed museum extension on a view of the actual site, a stretch of the Main embankment known as the *Museumsufer* ("Museum Bank"). The hip-roofed building on the left is the Villa Metzler. (Meier's project also includes plans for an addition to the Museum of Anthropology, photo right). Massed as a cluster of low pavilions around two courtyards, the museum conforms to the scale of nearby houses. A rectangular terrace on the riverfront lines up with the courtyard gateway to compose a ceremonial entrance visible from the north bank. The entry to the museum proper is behind the curved wall opposite the villa.



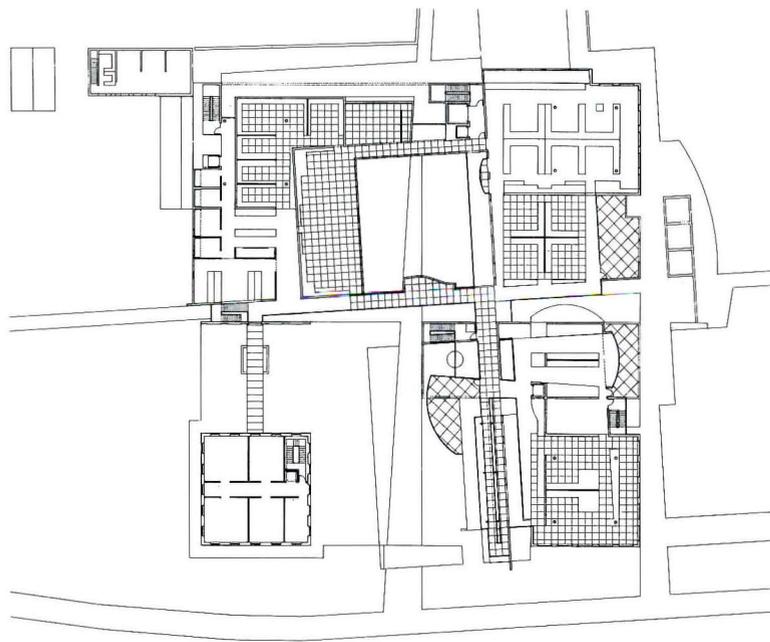




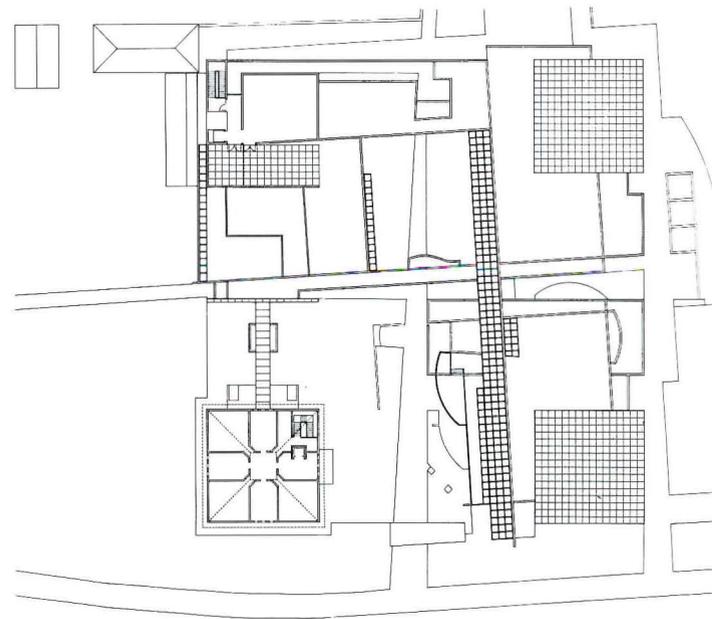
FIRST FLOOR



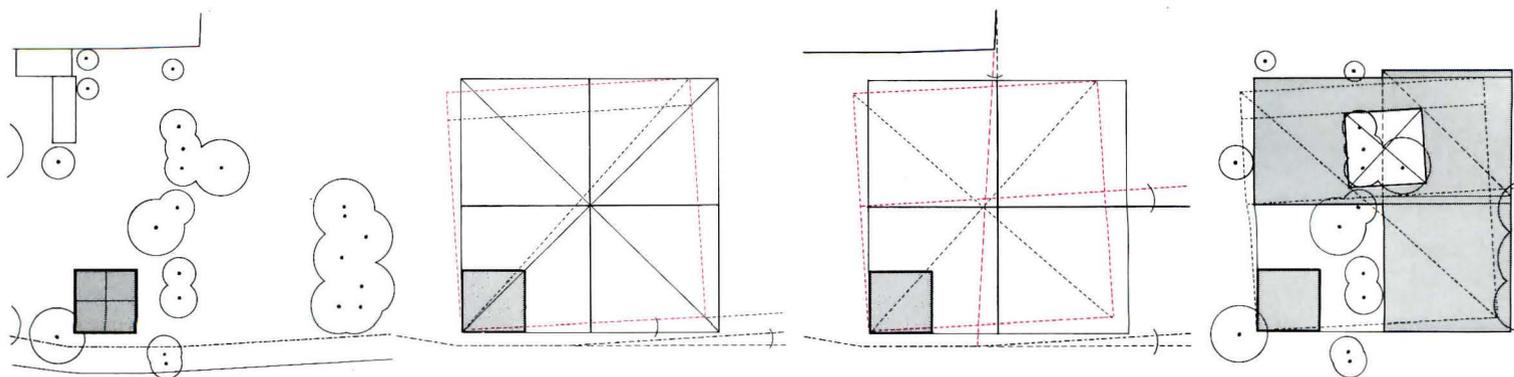
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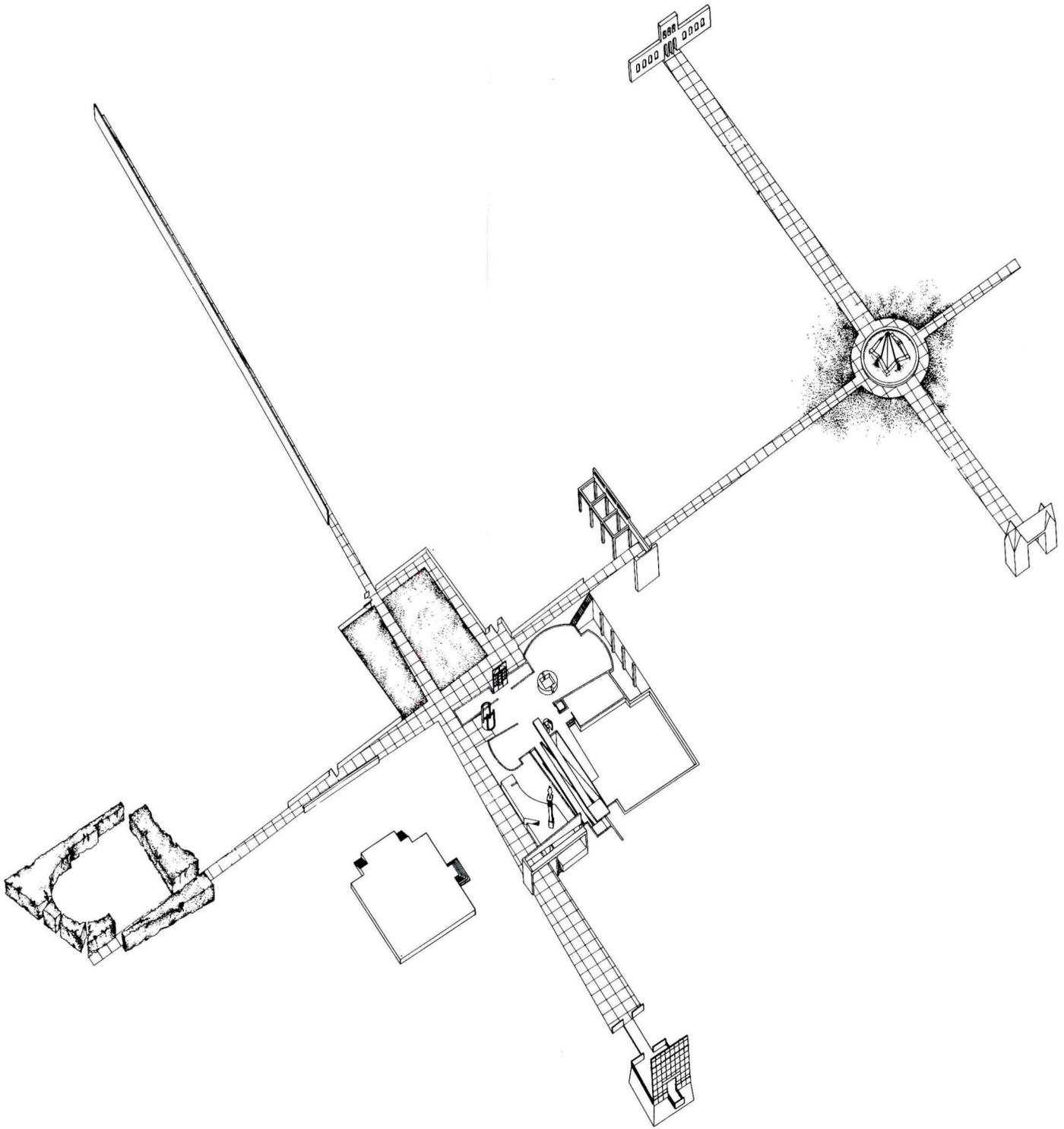


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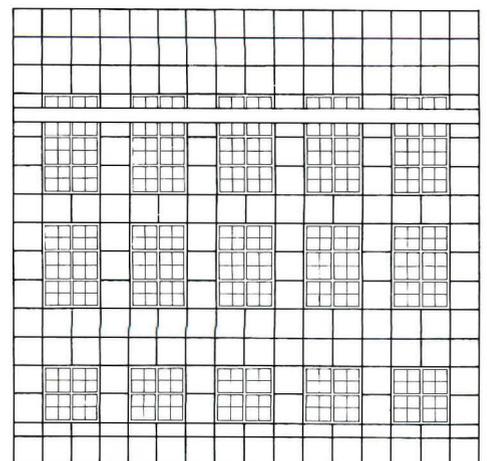
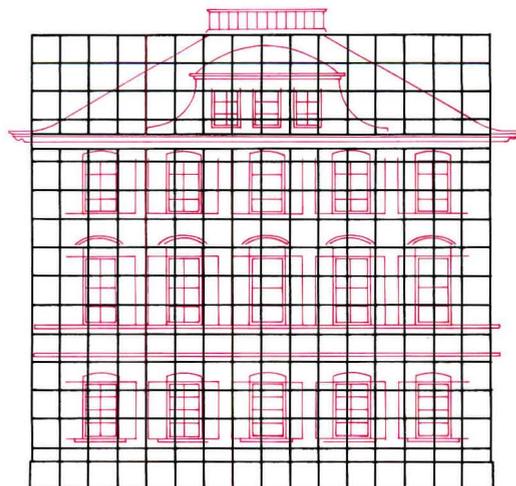


ROOF LEVEL





Beginning with a plot plan (far left), Meier inscribed the villa within one quadrant of a larger square. By rotating the square $3\frac{1}{2}$ degrees, and shifting its axes by the same measure, he established a frontal relationship with other buildings on the embankment and retained existing diagonal walkways. A courtyard aligned with the villa quadrant, and another determined by the diagonal grid, form transitions between the museum and external paths (above). A grid derived from the villa facade is replicated in the new museum (right).



axial circulation system of the basic parti to entire elevations and the grids of window mullions, skylights, wall panels, and paving blocks. The dominant axes of the museum are also echoed in garden paths, hedges, and terraces that overlay architectonic order on a picturesque landscape.

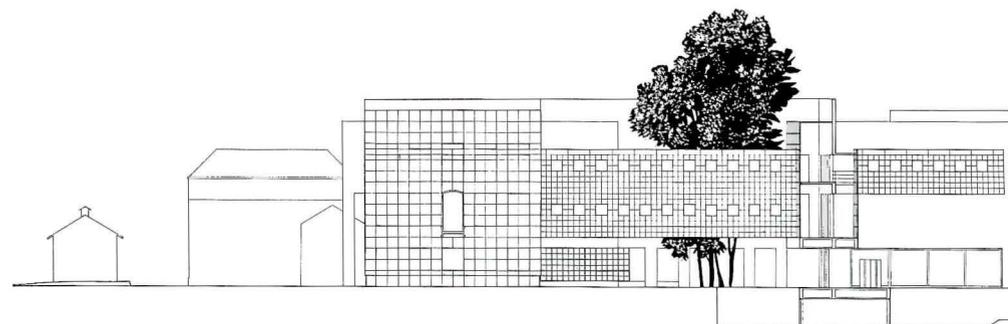
At the same time that Meier reverently projects the geometry of the villa, he modulates its classical harmony to acknowledge the new building's relationship to the different orientation of its neighbors on other sides. By rotating the basic square of his plan by $3\frac{1}{2}$ degrees—to align with the facades of other buildings along the Schaumainkai embankment—he creates a series of skewed planes, introducing a subtle diagonal tension within the original grid (see drawings, page 90). A similar displacement of the major axes follows the diagonal route of existing pedestrian paths through the site, connecting the residential streets behind the museum to the embankment and the Eiserner Steg, a foot-bridge across the Main (lower left in the site plan). The courtyard at the intersection of these paths is a miniature public square, sheltered within the building. By facing the embankment with an open plaza rather than a broad monumental facade (as was proposed by both Hollein and Venturi, Rauch and Scott Brown), the museum becomes a welcoming gateway from the city to the park and the streets of Sachsenhausen. A riverside "civic balcony," on axis with the gateway to the courtyard, provides a ceremonial portal to the city and to the Main, which is regularly plied by floating restaurants and other pleasure boats.

A new "garden wall" and portico at the south entrance to the park and a pair of quasi-Gothic towers at the corresponding northern entrance (page 91) allude to similar structures shown in a painting of circa 1800, believed to depict the villa grounds when they still lay within the vineyards of a local church. This promenade through fragments of Frankfurt's past continues onto the steps of the Eiserner Steg, where Meier proposes the installation of two Gothic spires donated to the city in 1871.

In its role as a civic institution where men from all levels of society can study their cultural heritage, the modern museum dates back to the eighteenth-century Enlightenment. (Meier commemorates this lineage by mounting a statue column in the entry courtyard, a deliberate reference to E.-L. Boullée's vision of the museum as a "temple of fame for statues of great men.") This time-honored didactic aim underlies the organization of the Frankfurt collection, which is arranged geographically and chronologically as a virtual Baedeker of the decorative arts. Visitors are oriented in the ground-floor entry hall, where curved walls lead the eye towards a ramp to the main galleries, ascending through a skylit glass enclosure that flanks the courtyard. The ground floor also comprises a temporary exhibition space in the northwest quadrant, a library and offices to the southeast, and a restaurant opening onto the park through a vine-covered pergola to the west.



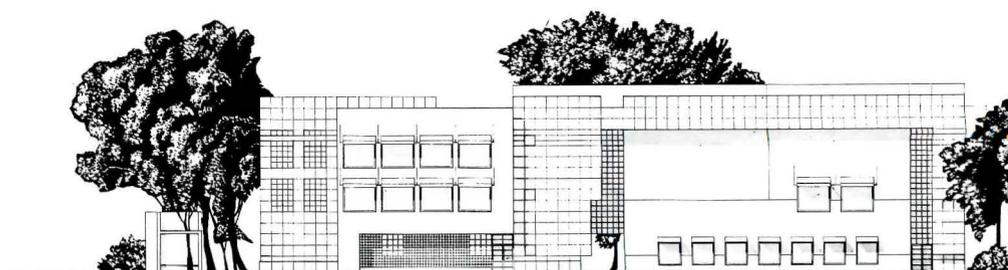
NORTH ELEVATION



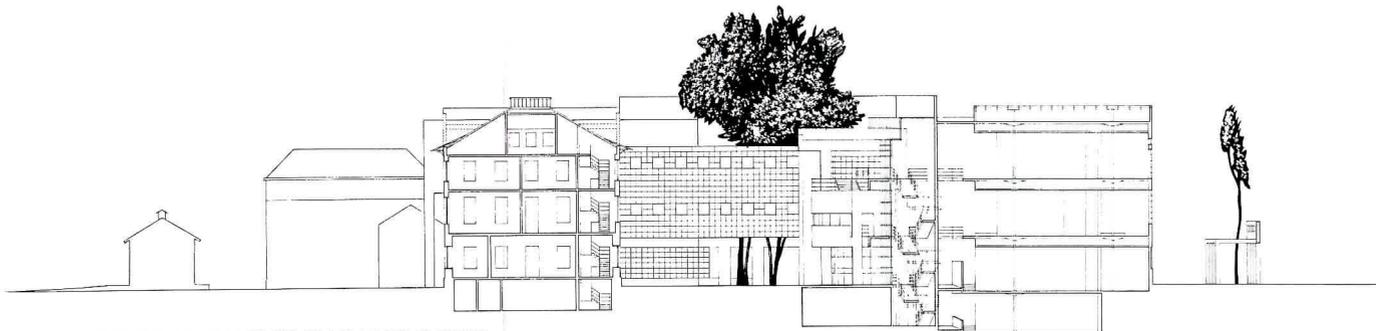
SECTION THROUGH ENTRY COURT LOOKING SOUTH



EAST ELEVATION



SOUTH ELEVATION



SECTION THROUGH VILLA AND NEW BUILDING LOOKING SOUTH



SECTION THROUGH INNER COURTYARD LOOKING SOUTH



WEST ELEVATION

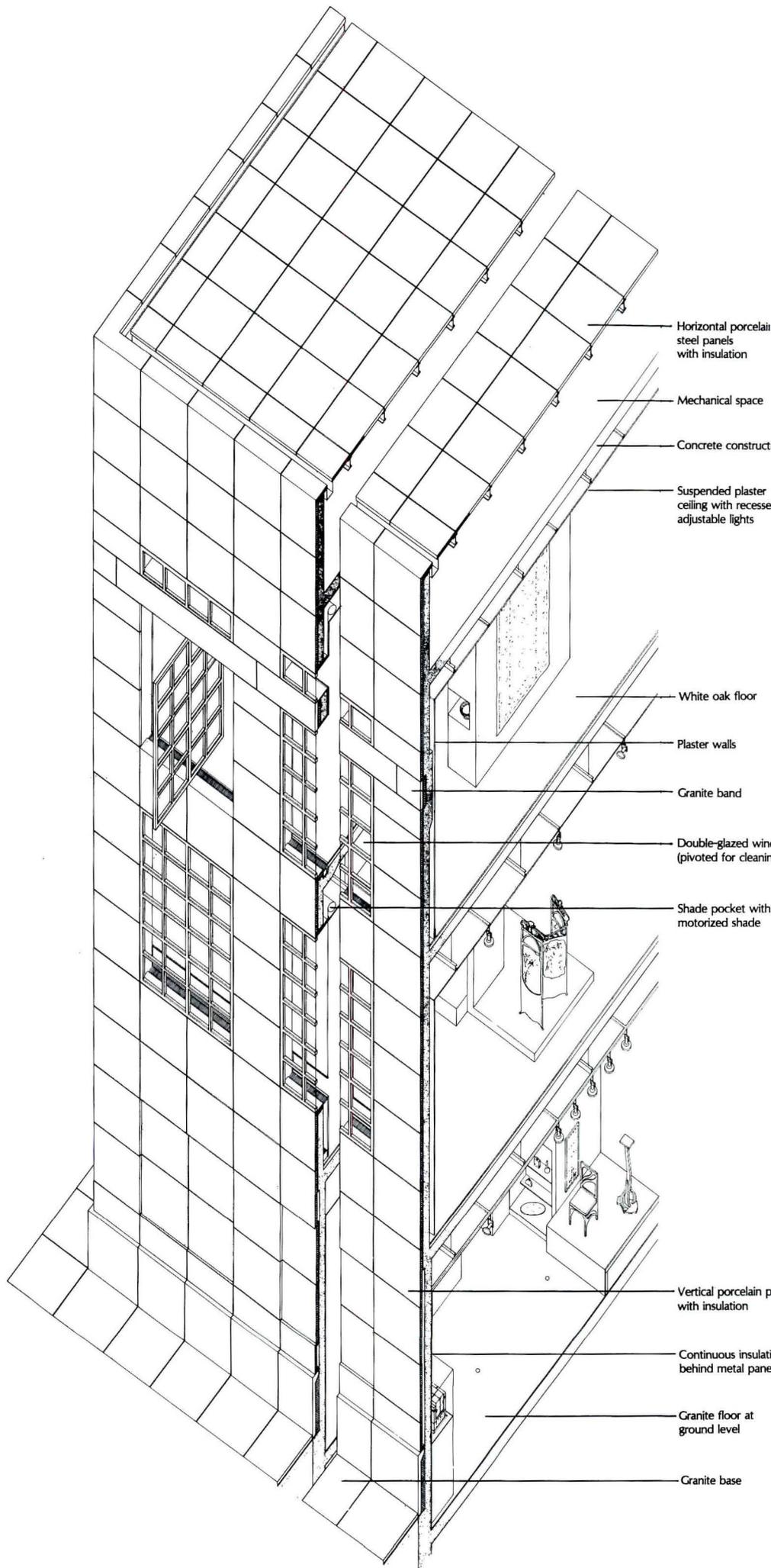


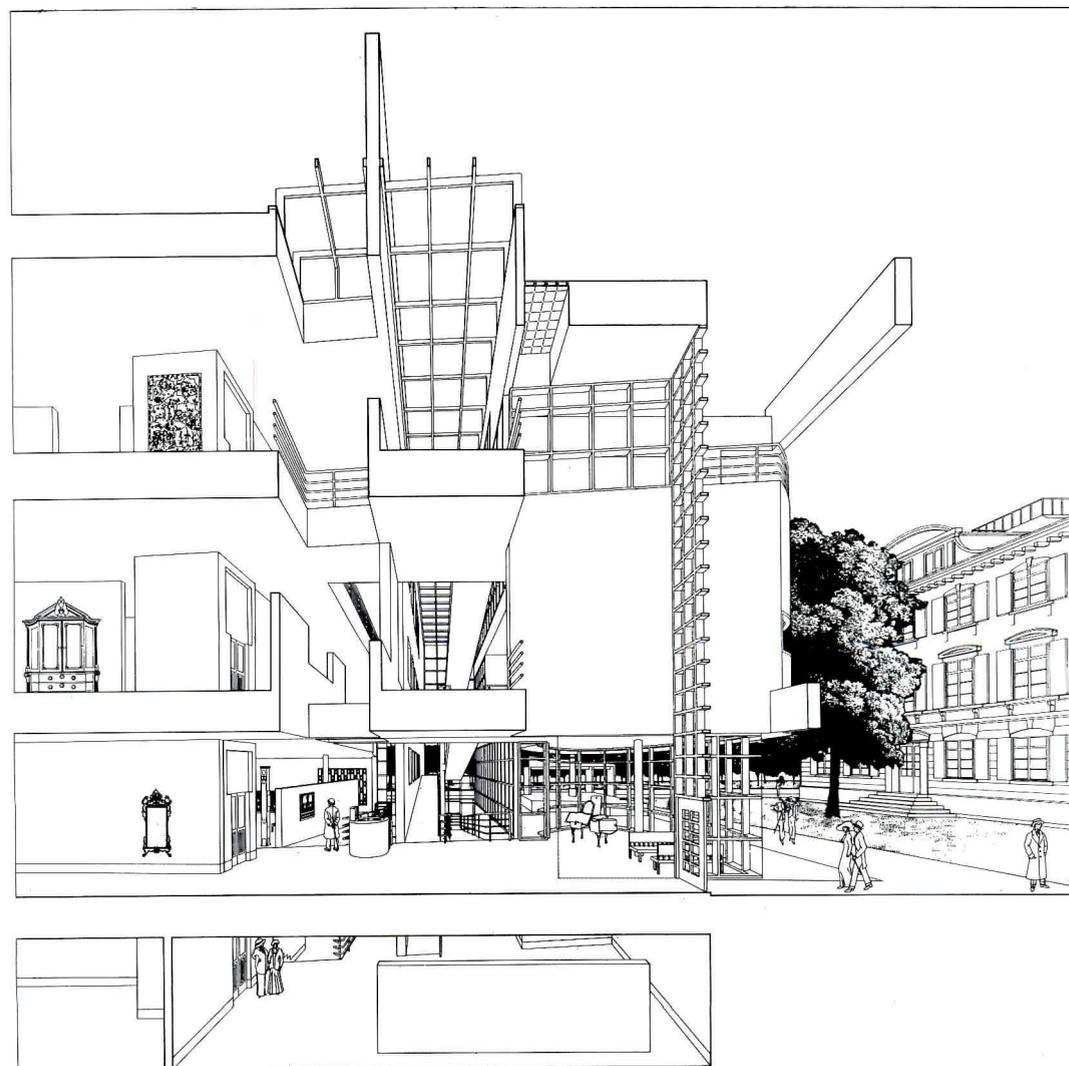
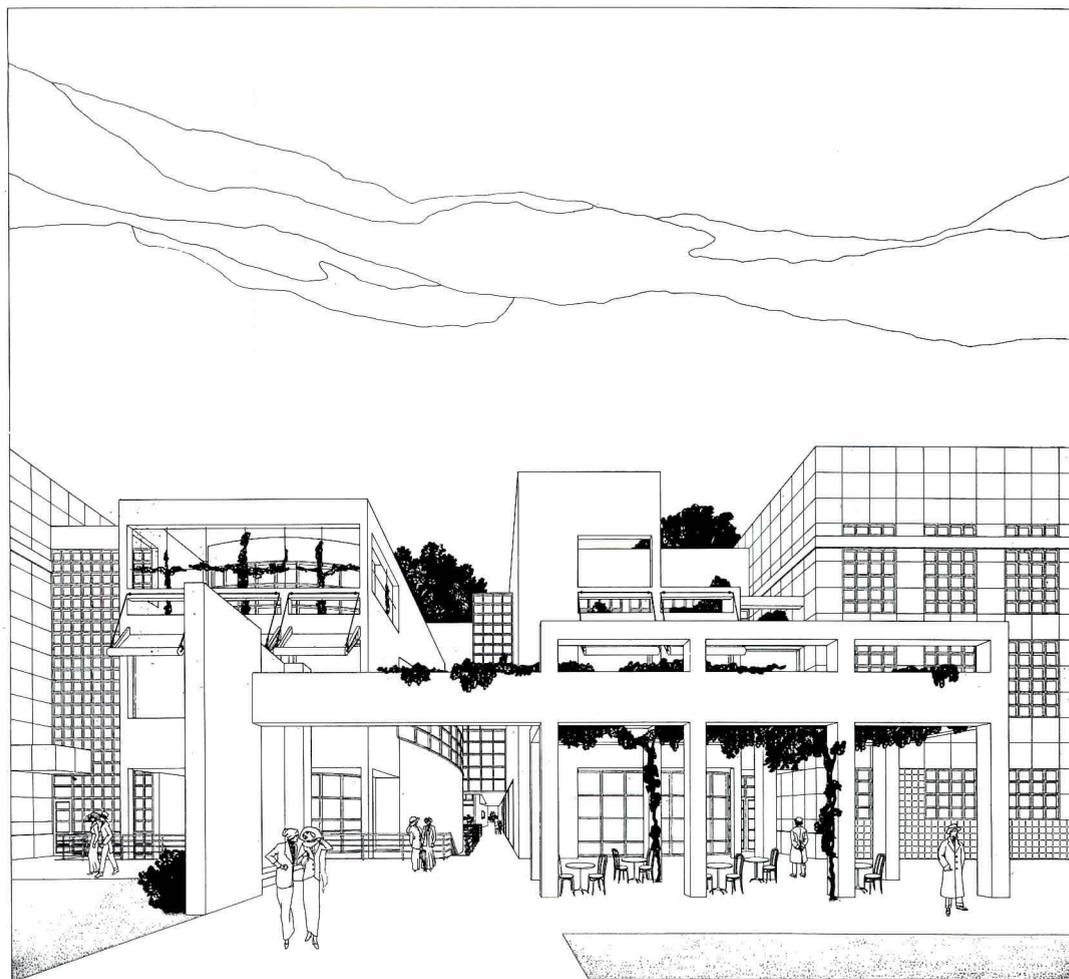
SECTION THROUGH INNER COURTYARD LOOKING NORTH

In the galleries upstairs one advances counterclockwise through European art history, from Gothic, Renaissance, and Baroque on to the twentieth century. Rococo and Neoclassical exhibits are suitably ensconced in the Villa Metzler, accessible through its second-story bridge. Islamic, Eurasian, and Far Eastern artifacts, and a collection of rare books and manuscripts will be on view in the third floor of the new extension. Even though the organization of permanent exhibits is rigorously historical, the architectural character of the galleries is varied throughout to introduce an element of discovery and surprise. The distinct hierarchy of "public" and "private" spaces that Meier has consistently stressed in his houses is deliberately blurred here. The entire building is a sequence of public spaces, yet the quality of light and the proportions of openings and enclosures are modified to achieve the effect of intimate niches within the public realm.

All interiors are white, with white oak floors, cabinetwork, and trim. Instead of assembling period rooms, Meier set out to create unobtrusive surroundings that are congenial in spirit to the nature of each object. For example, tapestries will be hung in large rooms with views of the park, whereas manuscripts demanding close study will be displayed in smaller, more secluded spaces. Interior "windows" and circulation routes through the galleries are positioned so that exhibits are sometimes perceived obliquely, partially, or from a distance, allowing one to savor an unexpected glimpse back at objects already seen or tantalizing previews of delights to come. Shifting views of the villa, the park, and the city beyond also reinforce the experience of the new museum as a bridge between past and present.

Focused light suggests paths of movement in the manner of the German Baroque architects whom Meier respects greatly. The range of his historical affinities is revealed in other aspects of the museum as well, but always through an imaginative reworking of prototypes that evokes the essence rather than specific details of earlier styles. For example, the white enameled museum wall panels, an outgrowth of experiments with metal wall modules that Meier began over 12 years ago, also relate through color and texture to the porcelains and Bavarian Rococo furniture that constitute major holdings in the *Kunsthanderwerk* collection. Meier's buildings are routinely compared to Le Corbusier's work of the 1920s, but in this instance, the interplay of cubic volumes, grids, and implicit classical proportions also recalls designs by pioneering Central European modernists such as Peter Behrens, Josef Hoffmann, and Adolf Loos. Ultimately, though, the complexity of Meier's personal style defies genealogical analysis. He has described the basis of style as "an attempt to discover and redefine order, to understand the relationship between what has been and what can be, to extract from our culture both the timeless and the topical." Even as a project yet unbuilt, the Frankfurt museum provides a worthy measure of his success.





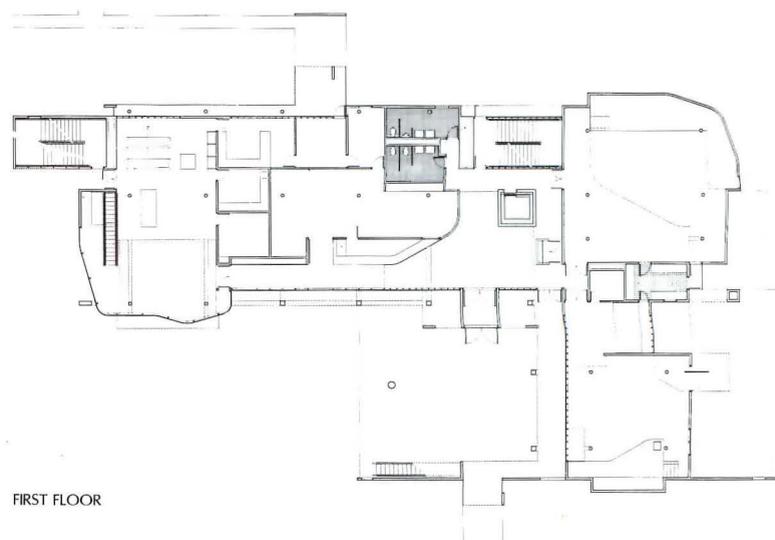
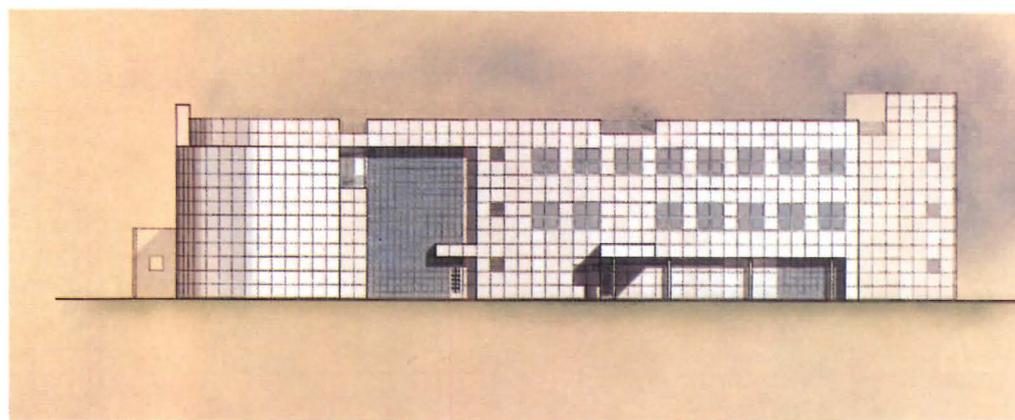
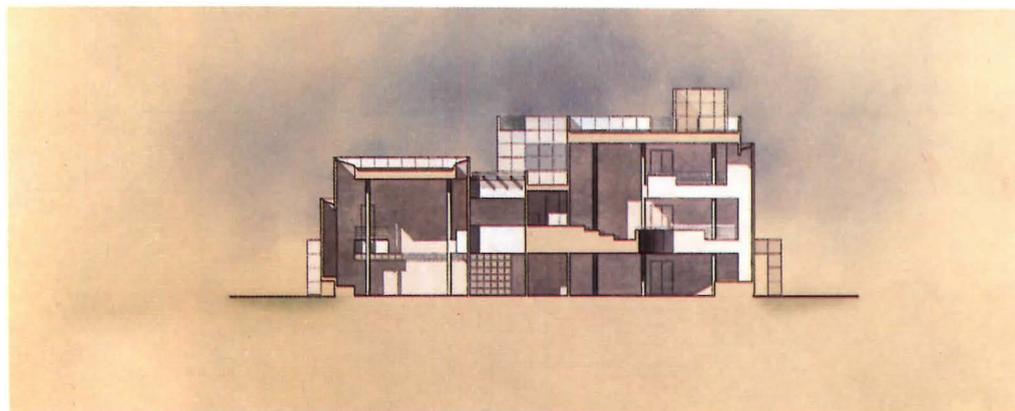
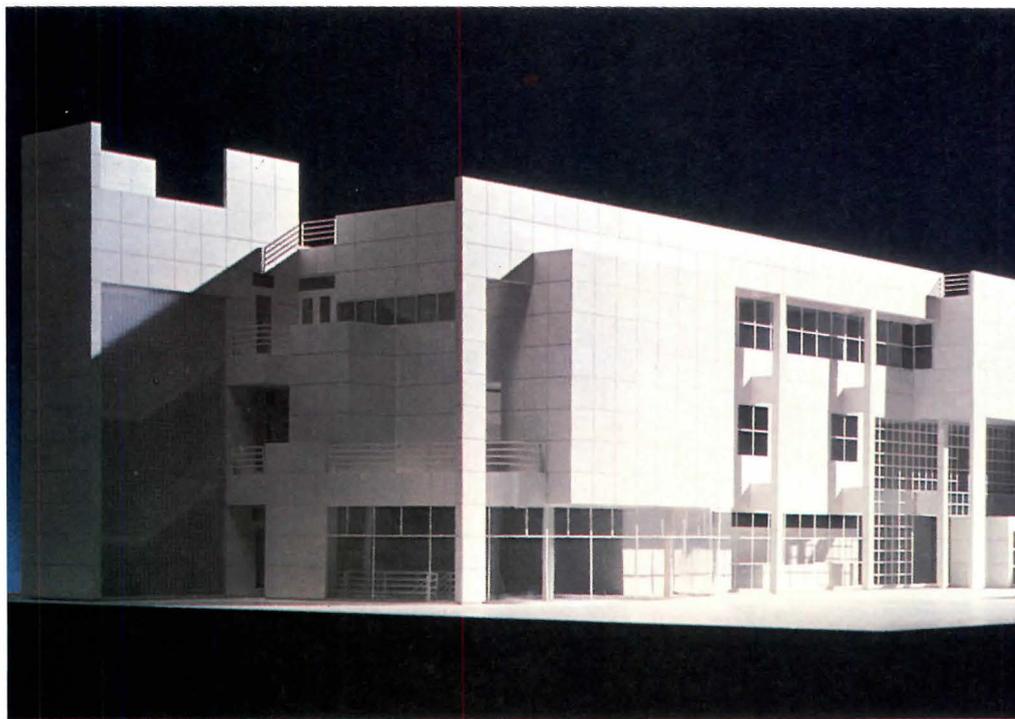
Modular white porcelain-enameled panels sheathe a structure of load-bearing reinforced concrete exterior walls, 12-inch-diameter columns, load-bearing interior walls, and reinforced concrete slabs with suspended ceilings. The base of the facade is pink granite, selected to match the villa's stone foundation. Gallery lighting combines artificial illumination and dynamic daylight from windows with diffused side-light from glass blocks and heat-absorbent glass. All windows are equipped with built-in sunshades (see section). Exterior sun-controlled canopies are visible above the restaurant pergola in a perspective of the west facade (above right). Meier's perspectives (a section through the entry hall is shown below right) establish fanciful links to the past with a collage of trees from Schinkel's collected engravings, and human figures copied from Otto Wagner's 1913 rendering of an arts and crafts exhibition hall in Vienna.

THE HARTFORD SEMINARY FOUNDATION: A COMING TOGETHER UNDER LIGHT

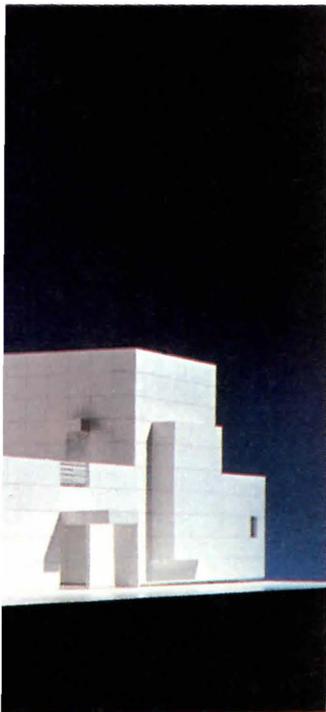
Connecticut's Hartford Seminary Foundation gave up its role as a training college for the ministry in 1972 and re-established itself as an interdenominational continuing-education and research center for both clergy and laymen. With a full-time faculty of 12 and no resident students, the directors of the seminary decided to sell their old Neo-Gothic buildings to the University of Connecticut Law School and erect a single new structure nearby that would encompass all of the Foundation's diverse programs. Richard Meier's 27,000-square-foot layout serves the seminary's dual function as a "public" organization, devoted to encouraging religious understanding in the world at large, and a "private," inward-looking place for contemplation. Public spaces are all within easy reach of the main lobby. Upon entering one turns left to the bookstore and library, or right to the large meeting room and chapel. Private areas such as faculty offices and small classrooms are ranged along corridors on the upper floors.

The L-shaped plan forms a partially enclosed entry courtyard (a tree is its fourth side), whose projecting chapel wing shields a view of the law school buildings diagonally across the campus. A gateway on axis with the main door suggests a ritual passage into sanctuary—at once a vestige of the cloister and an inviting gesture to visitors. At the outset of the project, the seminary faculty were unsure whether a chapel was required for an institution whose primary activities were now scholarly, but Meier persuaded them that a chapel would provide a symbolic focus for the building, even if it were not the literal center of activity. The fundamental concept behind Meier's chapel design—an idea that permeates the entire building—was a belief that the common element in all houses of worship is "a coming together under light." The building is intended to be a luminous presence inside and out, admitting a full spectrum of direct and diffused daylight through windows and skylights, and reflecting sky and landscape in the white porcelain-enameled facades that clothe its steel frame structure.

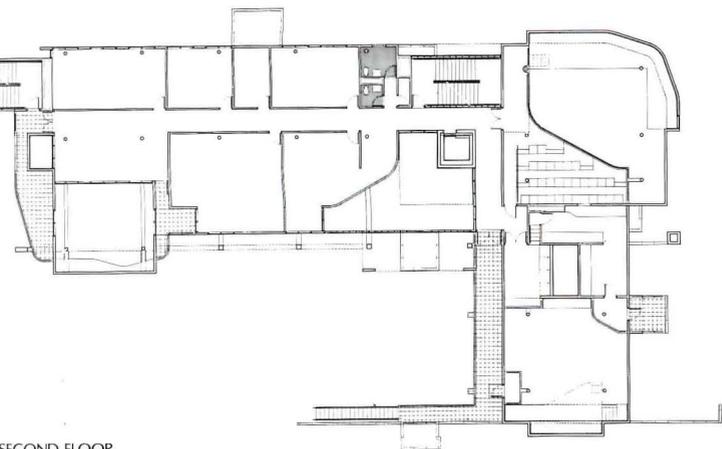
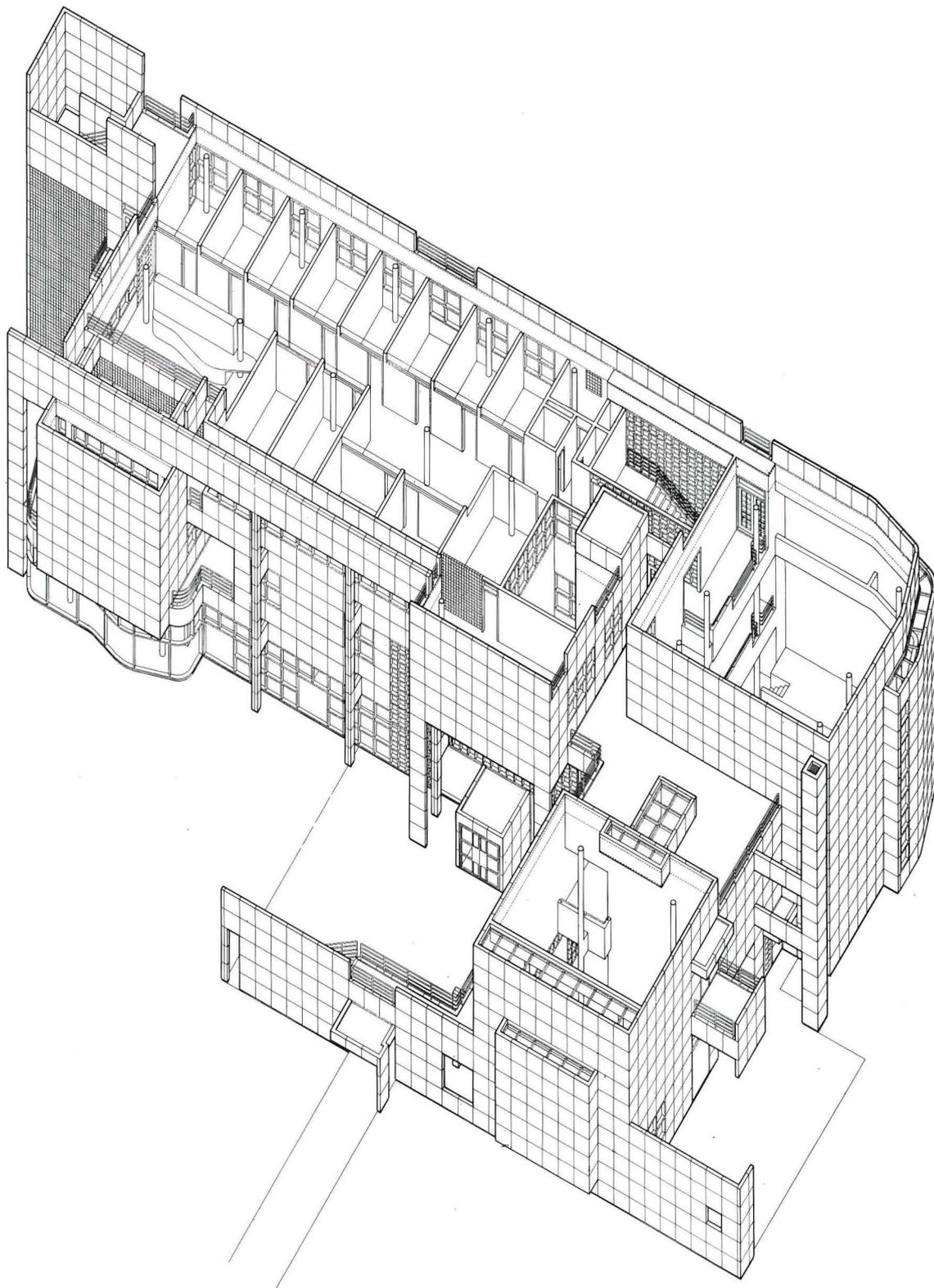
The project initially provoked outrage among Hartford residents, who complained that a large building of steel and glass is incompatible with the seminary's surroundings, a neighborhood of Queen Anne, Shingle Style, and Neo-Colonial houses. Meier is convinced, however, that with time even his harshest critics will come round. For despite its forthright modernity, the new building can just as well be seen as the heir to a strong indigenous tradition, exemplifying the austere grace, white surfaces, and clean lines of the best New England vernacular design.



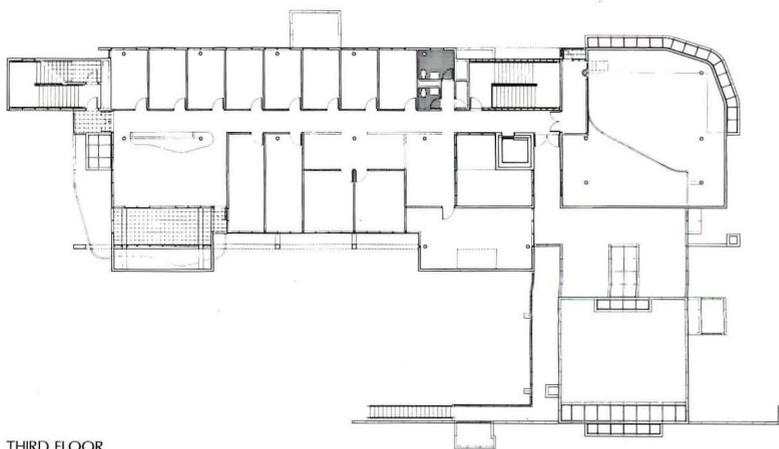
FIRST FLOOR



Meier's characteristic use of multidirectional light to define space assumes new meaning in the seminary as a symbol of learning and community. The contrast of large windows and partly enclosed light wells reflects the orientation of the building towards both public and private concerns. A section through the chapel and meeting room (left) reveals the complex interpenetration of interior spaces. The building will be dedicated this June.



SECOND FLOOR



THIRD FLOOR



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ARCHITECTURE AND

What messages are we getting?

What messages should we send?

by Frederick Gutheim

As the Hungarian proverb that Marcel Breuer was fond of quoting has it, "They won't eat it as hot as they cooked it." But wait and see is still the bottom line after more than four months of the Reagan transition. Enough of the new Administration has emerged, however, to describe the shape it is taking. The hard evidence from appointments and the soft indicators from political statements reveal a new administration that is more moderate than its earlier campaign image of tax cutting, deregulation, anti-environmental, supply-side policies. These are yielding to political realities, and the proximate programs that are emerging will be less immediate, less extreme, and less likely.

This anticipation of a slow-paced turn to the right derives from the ponderous apparatus of the Federal government and its heavy momentum. It is like turning a large ship. So much of what government does is already in place. The Fiscal Year 1981 budget has been sent to Congress already, the product of extensive negotiation and agreement. As for changing the Federal bureaucracy, most of that is under civil service.

And large parts are protected by other practical considerations. More than a century ago Senator Marcy, who coined the phrase, "To the victor belongs the spoils," was asked about its application. "I never said the victors should loot their own camp," he replied. Audible difficulties from the transition team about recruiting qualified people, and the freeze on hiring that was Reagan's well-publicized first step are factors for stability. In fact, freezing jobs is seldom a productive economy. Cutting manpower is wasteful unless you cut programs and that comes back to the budget.

The many facets of architecture that are affected by what the new Reagan Administration will do range from the business and financial climate in which the long-range commitment to build is undertaken to the cultural and political messages the Reagan team wants architecture to send and the more lasting achievements by which it will be remembered. Therefore, any estimate of Federal architecture in the next four years will require a *tour d'horizon*. And it will wind up back in Washington, the fascinating and revealing capital city where so many of the Administration's ideas will be tested.

Extravagant expectations may be aroused in the rhetorical heat of Presidential campaigns, but the first real test is how the new President exercises his appointive powers.

The Reagan Cabinet appointments are characterized over-all by conservative philosophies, traditional views, previous experience in Federal government, as well as the corporate managerial style that may be expected to prevail throughout the Administration. Caspar Weinberger at Defense, David Stockman at Budget and Donald T. Regan at Treasury occupy positions that will be important to building interests. They also are representative of the larger governmental framework for which the protracted effort of the Reagan transition team created at least the basic armature.

The stake architects have in national policies, as these may be affected by the Reagan Administration, begins with the economic climate, the availability of building money, and the level of interest rates. Federal funding for many programs that are expressed in building for health, housing, education, defense and other services is also important—more important certainly than the total of direct Federal building jobs. Many architectural firms are heavily involved in overseas work. Foreign aid programs will be cut both at the bilateral level represented by the Agency for International Development and the World Bank (International Bank for Reconstruction and Development) and other international agencies. The Administration's indifference to these last could scarcely have been more strongly underlined than by its failure to name an Executive Director to the World Bank or an Assistant Secretary for International Affairs at the Treasury.

At stake are hundreds of private commissions and the jobs of six or seven hundred architects in Federal agencies—about one-quarter of whom are located in Washington. This body of work is concentrated about half in the Army Corps of Engineers, the Naval Facilities Command and the General Services Administration; with the balance widely distributed among 27 other Federal agencies.

About twenty of the largest "national" architectural firms now maintain Washington offices. In most cases these are "producing" offices as well as business promotion and

contact offices. (It could also be noted that many Washington firms have "national" practices.) In step with the growth and more diversified character of the city, Washington has thus become a more distinct architectural center. Although it is difficult to find the data to support the assertion, the value of architectural contracts written with such firms probably exceeds Chicago, Boston or Philadelphia if not New York City. While fundamentally as well as initially related to Federal procurement most of these firms have now "taken off" and can probably survive without the Federal share of their business.

As indicators of architectural change, little can be discerned in party platforms, campaign promises or political ideologies. A

Congress divided between its two Houses, the tension between a Democratic House and a Republican Executive, a concentrated and probably stultifying effort to turn national policies toward free market decisions is not a climate in which architecture is likely to receive much positive attention. The political directions that have been telegraphed thus far—tax cutting, budget-balancing, deregulation, decontrol, decentralization, devolution—are predominantly negative. In architecture, as in other sectors, less is likely to change than has been expected.

Contrary to many expectations, a national architecture neither comes when beckoned nor performs as expected. Nazi Germany,

according to the studies of Barbara Lane and the testimony of Albert Speer, made a determined effort to realize a distinctive architecture but failed. The same could be said of Mussolini's Italy or the Soviet Union under Joseph Stalin. The New Deal created no architectural image, with the possible exception of the works of the Tennessee Valley Authority. Kennedy's New Frontier generated architectural pronouncements and a few Washington landmarks. The Kennedy Center is a profoundly ironic memorial.

Admittedly it is hard to discern the architectural consequences of Democratic and Republican administrations. Architecture takes too long to develop to allow it to be neatly sorted into four-year periods. Most of what happens overlaps. There is also ambiguity in the relationship of design to political

THE REAGAN ADMINISTRATION

Planner and architectural critic Frederick Gutheim is a native Washingtonian. Every Presidency since Hoover's has been subjected to his enlightened scrutiny. Now that it is Ronald Reagan's turn, Gutheim is taking a close look at the President's proposed program and budget cuts and at his new Cabinet and sub-cabinet appointments. For Gutheim, even the President's and Mrs. Reagan's lifestyle has implications for architecture. But the messages he is receiving are complex and contradictory at best. No one knows for sure if the Administration's turn to the right is a turn away from the concerns of architecture. Gutheim believes that the fact that the capital city itself is booming, not just in construction, but in architectural ideas, may help to focus the new Administration upon issues dear to architects. And he reminds the President's team that architecture can provide opportunities for their Administration they would do well to recognize. —M.F.S.

ideology. It was a Republican President, Calvin Coolidge, who uttered the laconic words: "Architecture—I'm for it." And in 1926, the Federal Triangle was the result. But it was Franklin D. Roosevelt who provided the funds for the Apex Building, but who left the Federal Triangle an unfinished jumble of buildings, non-buildings and parking lots.

Those limitations do not diminish the temptation to employ architecture for political ends. Often the historical rewards are from starting rather than finishing a building. If the Reagan Administration style of corporate management can be communicated by means of architecture that will be attempted. Architects will stand with management consultants, advertising and public relations advisers, television and communications specialists. They will be responsible for communicating such ideas as efficiency and economy, dignity and power, tradition or innovation, high technology or humanistic response.

Any survey of an Administration's architectural inclinations begins with the President himself. Was the shadow of coming architectural events cast during Governor Reagan's administration in California? Certainly at that point he best illustrated whatever measure of interest or lack of it in architecture may be said to characterize him. The most significant episode was probably the decision to use stock plans for school designs and to cut back the state school building program. The state division of architecture was also expanded and work for architects in private practice was curtailed, at least up to the point where legislation pushed by the California AIA mandated the greater use of architects in private practice. However, all this needs to be interpreted with caution because the most significant expansion of the state bureau came not under Reagan but later.

A clearer reading is the more personal one. One look at the Victorian governor's mansion was enough to convince Governor and Mrs. Reagan it was not to their taste. Some backing and filling resulted in an architectural competition for a new gubernatorial residence—won by the Worley Wong Group. This was not built and the roof that eventually sheltered the Reagans during their period in Sacramento was a suburban ranch

house built by private contributors and given to the state. (It was this house that Governor Jerry Brown refused to occupy.)

But clearer still, Reagan's architectural taste is described by those who have visited the Reagans' house at Pacific Palisades or their ranch retreat north of Santa Barbara, where a conventional, conservative middle-class comfort has been stamped out in moderately antique furniture and printed linens. It is now up for sale. This is the style which Mrs. Reagan appears to have decided upon for the redecoration of the second-floor family quarters of the White House.

Much of the White House has been taken over by the demands of Presidential business, official entertainment, security, historic preservation (the Queen's Bedroom and the Lincoln Room, for example, are under the jurisdiction of the White House curator, Clement Conger). The millions of tourists who visit the mansion annually are confined to certain hours and days as well as to limited areas of the White House. The effect is to restrict the President's domestic use to the second floor and the rooftop solarium, hardly more than a large apartment.

Given the characteristics of the 1980s and those of the Reagan people, the smart money would probably do best on what can be called "designer architecture," especially if the designer-conscious Nancy Reagan will be calling the shots. How to translate her personal and domestic preferences into public architecture remains the question. Oak floors, fine fabrics and antique furniture specified and organized by topflight decorators may produce an attractive White House environment, but as the President's spokesman said, "There's a difference between where you work and where you live." And the main point about the White House whether as interior decoration or urban design is how to combine these. Beyond the White House is another world of Federal buildings design. The key appointments here have not yet been made but Mrs. Reagan's sidekicks, Betsy Bloomingdale and Mrs. Walter Annenberg, look like the nucleus of a discreet but powerful taste-making force within the Administration, as significant as the input of other corporate wives into the pin-stripe executive suite. This is no departure from a tradition that the American Presidency has known

from the start, perhaps best illustrated in this case by Mrs. Chester Arthur and the designer Louis Comfort Tiffany. Mrs. Reagan has also accepted membership on the board of the Wolf Trap Farm Park, the city's major summer concert hall designed in 1971 by Macfayden and Knowles, a step correctly interpreted as a commitment to the arts. Mrs. Annenberg has been an influential figure in shielding the National Trust for Historic Preservation from the cuts that have adversely affected the National Register of Historic Places and other parts of the preservation apparatus.

The choice of Mabel Hobart Brandon as White House social secretary also brings to Mrs. Reagan's circle a Washington "insider" with impressive credentials and professional experience as head of Washington Corporate Arts Inc., a public relations firm dealing primarily in the visual arts. It is by such people that the image of the domestic White House is created by what Ivy Lee called "the propaganda of the deed." If Mrs. Brandon has her way, the White House will reflect "the excellence, the imagination and the creativity of the nation as well as the warmth and hospitality of President and Mrs. Reagan." Architecture could well have a piece of that action.

And the architectural influence of the Presidency reaches beyond the domestic. Historic examples are not hard to find. Franklin D. Roosevelt was a conspicuous architecture buff who did not hesitate to hand selected architects his sketches for parti and facade (like Jefferson's, not always matching). Harry Truman built a balcony on the White House south portico, making it look more like a Midwest country club, and proposed that every American embassy overseas should be a replica of the White House. Eisenhower supported the demolition of Mullett's Second Empire Executive Office Building to replace it with something proposed by a firm of management consultants that would accommodate his burgeoning executive staff.

Much of a Presidency's architectural style is frequently contributed by members of his personal and White House staff. It was William Walton, to choose but one example, working with Jacqueline Kennedy, who glamorized official Washington buildings (much as André Malraux did Paris), scrubbing away their grime, lighting them at night, making

continued on page 104



Top: Rayburn and Longworth House Office Buildings; above: Washington Channel from East Potomac Park. On the skyline from left to right are buildings by I.M. Pei and Marcel Breuer.



The old Apex Building at 7th and Pennsylvania Avenue



Top: Western Plaza by Venturi, Rauch and Scott Brown; above: Willard Hotel ballroom renovation.

“Washington, D.C. is a city as well as a capital . . .”

The Reagan Administration comes to occupy a capital city that is booming—2 billion dollars worth. The Washington metropolitan region, now the tenth largest in the nation, continues a rapid rate of growth that for close to half a century has put it near the top among other large American cities. Washington, despite its monumental image, is a city like Houston or Los Angeles. Its growth is concentrated at the periphery of the city. Its urban core, the 10-mile square District of Columbia, continues to lose population. But it is here that urban change is most apparent.

In block after block of the old city north and west of the White House—the 100 per cent location—office buildings, regulated by the city’s 110- to 140-foot height limit, have created new and monotonous streetscapes. Here one finds the activities that fuel the boom—not the traditional Federal bureaucracy but the lawyers, accountants and other specialist consultants who are spawned by the increasing regulatory activity of the Federal government, and the Washington offices of large firms that seek Federal purchasing contracts or require representation here for other reasons. Here is the expanding international world led by the World Bank, the Monetary Fund, the Interamerican Bank, but including many other services. Much of this business, which has been traditionally centered in New York, has been steadily moving to Washington. Financial institutions, of course, but

also television, press and even book publishing have been steadily moving here. The most distinctive Washington activity is the trade association, covering a wide range of organizations from labor unions to professional societies.

The character of the boom is qualitative even more than a matter of building space or construction dollars. Notably the best evidence is the Metro rapid transit design of Harry Weese. It is announced in the performing arts, led by the Kennedy Center. Once a try-out town like New Haven or Boston, Washington theater has major repertory groups like Arena Stage, whose home in the Southwest Washington redevelopment was Weese’s first building in the nation’s capital. Washingtonians are still incredulous, but regular charter bus tours bring New York theatergoers to the capital to see what’s new, and to see first-string critics from *The New York Times* at local galleries and museums is commonplace. The sudden sophistication of restaurants and other places of entertainment keeps pace. Here, again, it is the expense-account set that is most in evidence and is expected to multiply in the new Administration.

The image of the new capital city is clearly visible in certain areas. The office building boom is impressively stated at close-in suburban subcenters at Crystal City and the Arlington ridge, or Rosslyn, but its influence is pervasive around the Capital Beltway, a dozen miles from the city’s

center, and along the main radial expressways out of town. Its influence is felt even in older historic centers like Alexandria. But its architectural image is clearest when concentrated along the Georgetown waterfront, the redeveloped Southwest or around Capitol Hill.

Washington architecture is close to making the capital into a real city—but not yet

Too much of the city gives visitors the impression that around another corner or two they will come to Main Street—an ever-receding goal. Large areas seem congenitally torn up, under construction or redevelopment. As critics like Paul Rudolph have written, the spatial resources of the city, as endowed by L’Enfant’s initial design, leak purposelessly away. Its booming office buildings have not produced anything like Chicago’s vernacular commercial architecture of the turn of the century. Its recent Federal buildings suggest potential but are still too varied to receive general characterization. The strengths of the city in parkland are not matched by distinguished landscape design in spite of opportunities like Centennial Gardens or the Franklin D. Roosevelt Memorial. Historic preservation, another area of strength, despite some Georgetown buildings, has not realized the imaginative possibilities of adaptive reuse. The work of national architectural figures—even Pope, Gilbert, Brown and perhaps Bacon—has not led to their

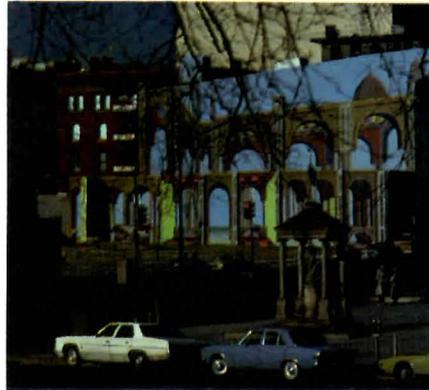
architectural masterpieces being built here, but rather to some compromised versions that survived the delays, stop-and-start administration, parsimony and the design regulation process. Distinctive building types like embassies, trade union headquarters, national associations and the institutional buildings of the World Bank and international agencies do not live up to their design potential; and when the effort has been made to innovate, as in design competition, the results have been faulted. If this dismal recital argues the Reagan Administration could find in the capital city an opportunity to bring into focus the level of architectural achievement we associate with IBM, Mobil, John Deere, Weyerhaeuser, Olivetti and other successfully integrated corporations, this opportunity is neither easy to translate from private to public terms nor to do so in the present climate of architectural disenchantment with previously inflated architectural expectations.

A trip from National Airport to the capital across the elevated Southwest Expressway provides a look at today’s Washington

Alternatively, one encounters the Metro, Washington’s most important design accomplishment as well as structuring influence since the Capital Beltway. Architect Weese’s arched coffered ceilings convincingly project the image of the monumental city. Unfortunately the Metro does not arrive within easy walking distance to



The Willard Hotel overlooking Western Plaza.



Top: the National Portrait Gallery; above: mural depicting proposed developments on Market Square at 7th and Pennsylvania Avenue.



Washington Circle

the airport gates and ticketing offices, and shuttle buses are required. The now crowded airport itself—a New Deal relic—is an unresolved dilemma. It has a powerful constituency, including many Congressional patrons. Mounting objections to its doom, and plans for a successor could be an early target for the new Administration, a convincing illustration of a new environmentalism. Eero Saarinen's Dulles International Airport is not a good candidate for general use because it was designed with international traffic in mind. The redevelopment of the older airport for other uses would probably further the image of the historic Federal capital city initially planned by L'Enfant, set in a topographic and architectural bowl. Other parts of the Virginia county of Arlington remained as rural landscape for decades, only to lose their important ridges to the south for development. Only the Arlington National Cemetery, and adjacent Fort Meyer, have maintained the natural landscape backdrop as seen from Washington's monumental core, which L'Enfant intended.

Crossing the Potomac one sees the Capitol dome on the horizon. The foreground is occupied by buildings designed by architectural masters—J.M. Pei's L'Enfant Plaza, Marcel Breuer's HUD Building, Edward Durell Stone's Sharif Building (now headquarters of the Department of Transportation) are followed by others designed in the 1970s. South of the

expressway are housing elements of the 550-acre Southwest Redevelopment, a major civic preoccupation of the 1950-1970 period designed by Pei, Weese, Chloethiel W. Smith, Charles M. Goodman, Arthur Keyes and others. This veritable parade of the work of the best and brightest is followed by the buildings of the Capitol, particularly the Rayburn House Office Building, a bit of Texas come to Washington. In this area much Federal building is still in prospect, including the master planning of the Capitol complex (embracing the Library of Congress and the Supreme Court).

The Architect of the Capitol has just published his Phase III Master Plan report, which finally gets to the architectural issues in the proposals of Romaldo Giurgola for dealing with the notable deficiencies of office space earlier documented in the Wallace Roberts and Todd plan. While no immediate building is proposed, any action in this very long-range plan will be politically touchy as Senator Proxmire has discovered. They include such visionary possibilities as relocating the Supreme Court, providing for administrative functions for the Federal court system and possibly a second Court, further aggrandizements by the Library of Congress (which has just moved into its huge Madison building), a \$50,000,000 "people" mover in the now hardly-used 1906 railroad tunnel under the Capitol grounds, additional office buildings for the House and Senate and extensive additions and refurbishing of the

decayed landscaping features provided by Frederick Law Olmsted's plan of 1876. The plan does not comment on the controversy-ridden proposal to extend the West Front, but moving the inaugural ceremonies to this side of the building brought attention both to this unresolved problem and the scandalous intrusion of parked cars that continues to disfigure the Capitol grounds to the east.

Federal building is the great stimulant in this part of town, but it is cultural institutions and visitor traffic that predominate led by the Smithsonian Institution

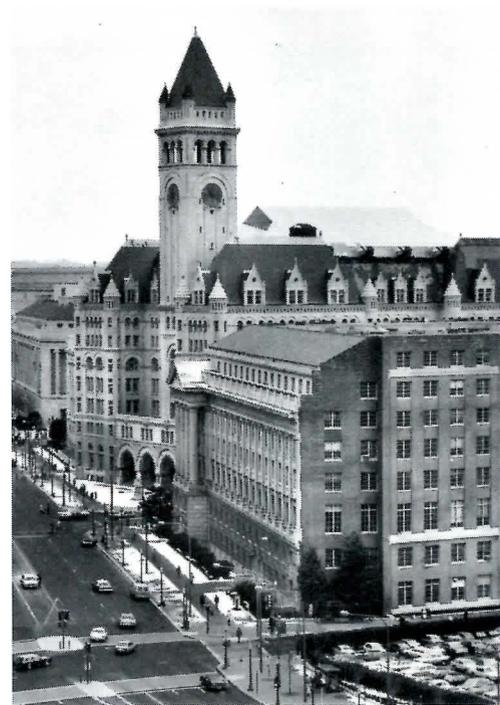
The four-acre quadrangle immediately south of the 1855 Smithsonian headquarters building, designed by James Renwick, has received planning approval to accommodate a \$50-million underground complex including two new museums of Asian and African Art, offices for the Smithsonian Associates, and much visitor and staff parking. The concept design was provided by the Japanese architect Junzo Yoshimura translated into Washington terms by Shepley Bulfinch Richardson and Abbott, under the direction of partner Jean Paul Carlhian. To the north of the central business district a new convention center is rising, stimulating further development nearby.

Between the traditional "main street" and the Convention Center, now topped out, what amounts to a Washington-sized megastructure will get under way before the year ends.

Designed by the Washington office of Skidmore, Owings & Merrill, headed by David M. Childs and Melin Mitchell, and put together by Oliver T. Carr Jr. and Theodore R. Hagans, the three-block-long structure will contain a gaggle of familiar enterprises—a branch of the Hecht department store chain, another Hilton Hotel, six levels of office space, and parking for 750 cars. Immediately to the east is another block scheduled for a \$150-million redevelopment. Underneath is the longest subway station in town. As for the design, red brick for once will yield to stone; some bits of old commercial Washington in the form of a fire house, a church and a few facades; and the hoped-for bustle of crowds generated from peripheral uses should enliven the regimented bulk.

Sixteen years separate the inception of the Pennsylvania Avenue redevelopment at the beginning of the Kennedy Administration from the geared-up, ongoing program of the Pennsylvania Avenue Development Corporation today

Given this form of organization, PADC and its program will not be much affected by transition. Established by Congress in 1974, PADC has had high architectural aspirations. At stake is the city's urban image, as a city and a capital city. The Avenue is its Main Street. What was most visible on the inaugural television screens was the recently completed Western



Top: military frieze, Pension Building; above left: the Pension Building, south facade, from Judiciary Square; above right: Pension Building interior.

Old Post Office Building adjacent to the Federal Triangle.

"... and is booming not just in construction

Plaza, an emasculated version of the original Venturi, Rauch and Scott Brown design. Shorn of its vertical pylons and three-dimensional models of the White House and Capitol, this paved reproduction of the original L'Enfant plan in light and dark granite, reinforced by 30 wry and ironic lapidary inscriptions of how the city was perceived by two centuries of visitors, reinforces the vacuity of an urban space it was intended to overcome. As with so many things here, one hopes this is not the last word. An urban square can grow and respond to experience and criticism and should.

Facing the Western Plaza is the Willard Hotel, a 1901 commercial renaissance monument to a sequence of earlier historic hostleries. Earlier appointments with the wrecker's ball were canceled and with the selection of the Fairmont Hotel Company and Stuart Golding, architects Hardy Holzman Pfeiffer were brought in to apply a little post-modern reinterpretation. A hotel will be reborn, extensively rephrased within the preserved exterior fabric. Adjoining this is a miniaturized version of the original building, an architectural echo or underlining of the preservation effort. Also facing the plaza is the ill-fated Pershing Memorial. Whether because of the timing or the location or as a reflection of the non-monumental inclinations of today's architecture, this memorial to the World War I leader produced by Wallace Harrison for the Battle Monuments Commission is

a shameful vacuum, a landscaped space that may be a counterfoil to the paved plaza but is devoid of commemorative significance. A similar missed opportunity is the recasting of the north facade of the Commerce Department Building, behind which lies one of Washington's great architectural spaces, the Patent Office Search Room, for some use and in some form that would reflect the importance of its new setting.

The most significant unfinished elements of the Federal Triangle must also be paid attention to

Vincent Kling, John Carl Warnecke and others have struggled with this agglomeration of buildings, which also face onto the Western Plaza—and it may still be up for grabs. The thread that is expected to untangle the larger skein is the old City Post Office now being redeveloped under the guidance of Arthur Cotton Moore as a mixed-use project containing commercial spaces and offices of Federal cultural agencies. It was the decision to save the post office, long spurned as incompatible with the surrounding neo-classicism, that generated the most recent effort by GSA bringing Harry Weese in through the architectural competition door to deal with the cut off bits of William Adams Delano's 1934 hemicycle. Weese was then asked to propose designs for parts of the Triangle farther west, including the 1,000-car parking lot originally planned as a Grand Plaza (now possibly *de trop*)

and two major new building sites facing the Avenue. He has now produced a half dozen proposals with their environmental impacts.

Intense activity by PADC marks the north side of the Avenue running east from 14th Street. Typically, private landowners and developers have brought in their own architectural proposals for PADC to approve. In addition to the Avenue facades, PADC's influence now extends farther north up Seventh and Ninth Streets into the traditional downtown center where enterprises like Hecht's department store are planning major redevelopment. The importance of all this is that downtown Washington is experiencing a major turnaround in the characteristically depressed zone east of the White House where little has been built for half a century.

PADC has numerous other individual developments under way, some like 1201 Pennsylvania, designed by Skidmore, Owings & Merrill of Washington for Cabot, Cabot and Forbes, nearly ready for occupancy; and others like the Quadrangle Development Corporation's hotel, office and retail complex, well along in construction. Architectural standards here are implicit, and diversity within them is calculated, but it adds up to a continuity of sorts.

More than office buildings, hotels and commercial space are involved in the Pennsylvania Avenue plan

Edward Larrabee Barnes has been appointed to deal with a large hous-

ing component of the plan. Three related sites will contain approximately 1500 dwelling units, about half of them on the Avenue proper, and in the total enclave perhaps 250 will be for low- and moderate-income families. Input is currently being received from a variety of Federal and local agencies, as well as extensive market studies, and some decision is expected this spring. This development succeeds an exercise by Hugh Newell Jacobsen some five years ago when the expectation of development at lower densities was envisioned. While the argument is constantly heard that a 24-hour population is needed to sustain the vitality of such close-in areas, and housing is politically popular, it is less convincing that this is a good environment for family living. But situated virtually on top of an important Metro stop, anything could happen here.

Farther east on the Avenue, and directly opposite I.M. Pei's East Building of the National Gallery of Art, the Canadian government has acquired a key site where it will build a new chancery. This location is a welcome departure from the steady incursion of foreign embassies into Washington's residential districts. Fourteen new embassy buildings are in the works comprising a 26-acre district just off upper Connecticut Avenue. But downtown is where these office buildings with their related parking and visitor traffic belong. Embassy-sponsored cultural activities have a great potential for enlivenment. The



Top: FBI Building on Pennsylvania Avenue; above: incomplete hemicycle of the Federal Triangle, which includes the Internal Revenue Building.

Top: Georgetown waterfront and Whitehurst Freeway; above: condominium construction at Washington Circle behind old townhouses.

Behind the Museum of African Art, a splendid nook of abstract art in a court named after Frederick Douglas.

ut in architectural ideas."

Canadian Departments of Public Works and External Affairs are now preparing a competition among Canadian architects for the design of this challenging and strategically situated parcel.

Much else is afoot on Pennsylvania Avenue, including the old Market Space area, marked by the engaging turrets of the old Apex Building. While waiting for buildings to rise, PADC has produced more superficial, temporary and tentative activities. In the name of "Animation," street fairs, *trompe-l'oeil* mural paintings and other innovations have resulted but not much that is not being done better elsewhere; indeed, elsewhere in Washington.

With its strong local and Congressional support and having already survived the Nixon-Ford years the PADC program should be moving into its period of greatest activity little affected by Washington's new faces.

Pennsylvania Avenue development has still to find its role as a convincing mediator between Washington's two centers—the downtown business community to the north, and the center of visitor activity on the Mall

The most recent evidence of this competition was the discussion in the National Capital Planning Commission over the location of the new building for the Museum for African Art. Proponents of the downtown location argued that it would provide greater visibility, strengthen downtown's cul-

tural center at the Gallery Place Metro stop and, implicitly, create stronger links to the Washington black community. The advocates of the Mall urged that location was in itself symbolic, it was where the crowds already assured high accessibility and attendance, and it was where a museum ought to be.

Revitalization is in spate. Older rehab areas like Georgetown, Foggy Bottom and Capitol Hill have burst their traditional boundaries

Hardly a part of the old L'Enfant city, north to Florida Avenue, fails to exhibit some form of spontaneous rehabbing. Historic trolley car suburbs like Mount Pleasant or Brookland have become centers of new residential activity. Gentrification is a complaint, but the strength of a black middle-class is also characteristic.

Once limited to residential uses, the revitalization movement has extended to older commercial buildings, by no means all of them because of their historical character. In and around such areas new building sites have been discovered. Oliver Carr's West End development reaching from Foggy Bottom up to Dupont Circle, east of Rock Creek, is the most impressive and architecturally interesting of these, the horizontally striped red brick and glass facades of its buildings constituting something close to a new commercial vernacular. Perhaps there will be too much, as was the case in Lafayette Square,

and one is reminded of Calvin Trillin's objection to "an overexposure to exposed red brick." But the effect is impressive when it closes a street picture, as at New Hampshire Avenue and M Streets. Up Connecticut Avenue at L Street at the Farragut Square Metro Station, Chloethiel Woodard Smith has been given one of those rare opportunities to develop a large corner site facing two large and important office buildings previously designed by her firm. The complex will be called Washington Square and it promises to be worth watching.

Standing at Washington Circle, where the westward extending office buildings, the medical district, George Washington University and medical center, and the vernacular of Foggy Bottom come together in an aura of historic preservation, it is difficult to believe one is not in the presence of a new Washington. Another few steps and there is Georgetown.

After decades of slowly eroding the opposition of the Georgetown residential community, the waterfront area south of M Street has finally emerged as a complex of red brick office buildings, condominium apartments and retail trade

Mixed-use is the prevailing theme. Preservation architecture, of the style first formulated by Arthur Cotton Moore in Canal Square, is mandated. This part of Georgetown has little to do with the older residential community to the north. Here is the new

Washington's fashionable West End, a region of clubs, restaurants, art galleries, chic shops and hotels.

Much remains undecided: The dimensions and design of a waterfront park, the removal of the elevated highway, the character of M Street as an urban design "seam" connecting the old Georgetown and the new, even the appearance of the Chesapeake and Ohio Canal National Historic Park around which most of the new buildings are gathered.

Viewed from the Key Bridge, the old river port oriented area of early 19th century water-powered mills and industries has been transformed. The names of the new enterprises may echo the past, and some evidences of early building have been incorporated into the new environment, but what is seen in the Paper Mill, the Flour Mill, the Dodge Warehouse, the Foundry, Canal Square and the rest of this recycled district is something altogether new.

The Washington boom is not just in construction; it is in architecture

Much of it is in place, under construction, or firmly committed. Given this momentum and its essentially non-Federal character, little of it is likely to be influenced by Reaganism. But in the four years of the new President's term a new Washington will have emerged. Quite possibly when the Reagan people have been here a while, they will begin to learn something from all this.

them gay with bunting and flags. It was Walton who discovered architectural opportunities for the New Frontier in the redevelopment of the White House forecourt, Lafayette Square, and who rescued the Naval Academy—not to say historic Annapolis—from the horrors of an ill-conceived engineering sciences building. Walton discovered Karel Yasko, subsequently imported from Wisconsin to Washington as the General Services Administration and Public Buildings Service architectural impresario; and that archetypical figure of the Kennedy Administration, John Carl Warnecke, the designer of everything from Lafayette Square to the Kennedy tomb at Arlington with its eternal flame. Without such White House support it would have been impossible for Daniel Patrick Moynihan to have begotten and Nathaniel Alexander Owings to have pushed through the Pennsylvania Avenue redevelopment plan.

No one of Walton's close personal relationship, inspired commitment and talent has emerged in the Reagan entourage. If one does he or she is unlikely to be in the top echelon of any of the Presidential advisors so far named. Yet that is the critical point at which any architectural hope from the Reagan Administration must appear.

If the President's personal interest is not enlisted, little is likely to be done by his subordinates or Cabinet appointees. A clear indication of the low priority architecture will be accorded was given by the failure to designate a director of the GSA or PBS in the first round of Cabinet-level appointments or a month later. Gerald P. Carmen, from New Hampshire, has only now been confirmed for the GSA post. A.R. (Mike) Marschall will continue as Commissioner of the PBS.

Indifference at the White House will be reinforced by the increasing continuity in design matters reflected in the nonpolitical style of the Commission of Fine Arts and the National Councils for the Arts and Humanities. Faces may change in these important places, as appointments expire and new ones are made, but the product of such decisions is likely to remain about the same in the absence of any strong demand for change.

Architectural substance from the Federal perspective is largely a question of the level of Federally funded programs—a budget matter. Architectural style is more important but more elusive. To peer ahead one must survey the vast wastelands of the Federal bureaucracy and specific programs and projects, many of which are in Washington and have been under way for many years. Tidying up such long-term commitments as the completion of the Federal Triangle, the Pennsylvania Avenue redevelopment, and readying the city to accommodate its masses of tourists and business visitors will appear more likely to yield highly visible results than most efforts requiring fresh starts. To assert Republican competence, no better illustration could be found than to bring to a successful completion a transformation of the scandalously leaky Washington Union Station which since its fiasco as a Bicentennial Visitors Center has

been stultified by internecine strife between the Departments of the Interior and Transportation.

Before much can be expected in the way of Federal architecture there must be Federal buildings. Building has been traditionally a political whipping boy, a situation unlikely to be changed by the Reagan people. The long and increasing arrears in homebuilding, correctional institutions, health facilities, educational buildings and most other categories are the result of attitudes which proclaim building should be cut back to help the economy, and suspended in order not to hurt it. Most of all, building should be postponed. (One good reason for voting for any incumbent President is that in the second term more is likely to get built than in the first.)

It will be difficult for a new administration to accomplish much when Federal building is on the down curve. The Federal Public Buildings Service is dead in the water. It has no program. This can be compared with the period 1972-75 when PBS produced 60 Federal buildings nationwide.

Moreover, the absence of any Federal building budget and the loss of momentum under the Carter Administration makes building an easy target for budget cutters. It is harder to create a program in this climate than it is to maintain one that already exists.

Something might be hoped for from the legislation introduced by Sen. Daniel Patrick Moynihan (S. 2080), which contains numerous provisions of architectural significance, among them specification of design competitions and a stronger position for Congress in the architect selection process. But it is hard to see that this reintroduction of political influence into public buildings is anything other than setting the clock back to the bad old days of Albert Thomas, one-time Chairman of the House Subcommittee on Appropriations, or even more recent periods when architectural commissions were openly purchased with campaign contributions and cronyism, if not actual payoffs or kickbacks. The demise of the architect selection process initiated by President Kennedy, illuminated if not controlled by a selection panel, later enlarged to include regional selection panels, was a casualty of President Carter's indiscriminate abolition of advisory panels of all sorts. This procedure was intimately related to the appointment of architects in private practice, the recognition of design excellence, the resolutions of questions of architectural productivity or regional representation, and a highly professional structuring of commissions. It had such practical results as a vast reduction in the detailed specifications of Federal practice and the amount of paperwork required.

Thinking back upon Presidential involvement in Federal architecture involves such episodes as Herbert Hoover and the Federal Triangle, Franklin D. Roosevelt and Washington's National Airport, John F. Kennedy and the design of Lafayette Square and the guidelines for Federal architecture, or Richard M. Nixon and the great strengthening of the National Endowment for the Arts under

Nancy Hanks. But it could also bring to mind Harry Truman's aberrations and much jobbery at GSA during administrations when no White House interest was being expressed. The Moynihan Bill could be kept alive by his powerful personal commitment, but a better prospect would be to rescue and enact some of its provisions that appear beyond controversy either between House and Senate or between Congress and the Administration. One such opportunity is the reinstatement of GSA's discretion in the timing of building projects. Another would avert the real possibility in an economy-minded time of returning to a leasing policy for office space and a virtual abandonment of new Federal building.

The ubiquitous nature of the architectural interest in the national government requires a broad survey, and it is not likely to be exhausted here. When the AIA addressed the Republican platform committee hearing in Detroit last June, it demonstrated both this broad professional interest and the ability of architects to get together a comprehensive approach that included such considerations as energy.

No progress had been made by the inauguration or beyond to filling most of the more significant subcabinet jobs but several major appointments have been made. Assistant Secretaries typically will have the most to say about who does what and who gets what in their respective departments.

The Reagan appointments emerged from the work of a transition team who, at the end of 14 weeks, had produced only the 16 Cabinet level appointments. Over-all, the appointees can be characterized as committed to the President and his general campaign program, conservative and indeed orthodox, pragmatic in outlook, likely to work together as a team, qualified by experience and with considerable background in Washington. Often described as coming from business careers, they are perhaps more fairly identified with banking, brokerage and financial institutions. Some key figures have come from large construction firms like Bechtel (Weinberger) or Schiavone Construction Co., a New Jersey firm (Raymond Donovan). There is little to indicate any architectural tendencies.

The man who will be the closest Presidential advisor and in control of most of the White House staff work is Edwin Meese III, a long and close Reagan associate. Probably next in importance will be the new head of the Office of Management and Budget, former Congressman David A. Stockman.

The White House staff appointment with the greatest architectural potential is that of Martin C. Anderson as chief domestic policy advisor. This is not because he has been, as reported, an enthusiast for Ayn Rand. He is an economist whose 1964 attack on urban renewal, *The Federal Bulldozer*, inaugurated the decentralization of this program and led to block grants. Anderson's top priority will probably be reforms in the welfare system, but he can be expected to support further changes in HUD's urban development action

grant program.

At the Defense Department, Secretary Caspar Weinberger commands the largest share of the Federal construction budget. While architecturally important, in material terms, this body of work has little design significance. It is largely decentralized to regional offices of the Corps and devoted to building types that are either highly standardized or so functional and architecturally circumscribed that they have little visibility.

At the Department of Housing and Urban Development, Samuel R. Pierce Jr. can be counted on not to rock the boat. A conservative and the only black in the cabinet, his appointment sailed comfortably through the Senate Banking Committee, if not fully pleasing those who preferred someone with stronger background in local government—probably as a mayor. But Pierce brings valuable experience as general counsel of the Treasury Department and on the House Judiciary Committee staff. He will probably hold the line on housing program levels but attempt to implement the Administration's deregulation policies and move the entire program more toward community block grants and other measures of decentralization. Pierce will emphasize more the housing than the urban development part of HUD's title. A good thing, too, because housing will need all the help it can get to overcome the depressing effect of building-money rates and the lack of interest at the White House. (About Ronald Reagan's only recent statement about housing is his often quoted remark that in moving to the White House he will be moving into public housing.) Some imaginative reforms in housing money could be regarded as a Reagan opportunity but stability is probably the most that can be hoped for. Housing will also be influenced by the anticipated reduction of environmental protection, although the more important aspects of this are beyond the reach of the Federal government in the realm of local government regulatory delays, zoning and other measures affecting the supply of land.

On the urban development side, HUD is hardly the place to resolve the Sun Belt-Frost Belt issue awkwardly raised in the closing days of the Carter Administration by the President's Commission for a National Agenda for the Eighties. But HUD did initiate the "targeting" program that represents one of the few significant attempts to concentrate and coordinate enormous Federal powers—something that defied even Lyndon B. Johnson. And the problem of the Frost Belt cities with their declining population and concentrations of urban poverty won't go away. Pierce's first meeting with big city mayors was a chilling experience even for those from Detroit, Toledo, Milwaukee and other Frost Belt cities. Little more was offered to the mayors by the two other new Cabinet members, Drew Lewis of Transportation and James Edwards of Energy. Clearly the cities are in for some rough times.

The appointment of Donald I. Hovde as HUD undersecretary does little to clarify the image projected by Pierce. Personable, artic-

ulate, this Madison, Wisconsin real estate speculator must have acquired a national perspective in his 1979 tour as president of the National Association of Realtors, where he voiced that organization's distaste for industry regulation and rent control. HUD is not quite the place from which to act on interest rates or inflation, but it will help to have an industry representative talking to these points. Real estate's handle on HUD was further strengthened when Philip D. Winn, a Colorado developer, was appointed assistant secretary and FHA commissioner.

HUD's "forward and to the right" command will be strengthened by the assumption of the chairmanship of the Senate Banking, Housing and Urban Affairs Committee by Senator Jake Garn, former mayor of Salt Lake City and an avowed budget cutter. Utah will also have a major say in the arts and humanities programs that fall into the jurisdiction of the Senate Labor and Human Resources Committee, headed by Orrin Hatch. On the whole, however, this cast of characters does not sound likely to provide the leadership a new program of "enterprise zones" will require if it is to produce results.

At the Interior Department, the appointment of James G. Watt, a Denver attorney who forged a career at the Mountain States Legal Foundation by opposing environmental regulations will probably concentrate his attention on those highly controversial matters and the closely related energy programs. His previous experience in Washington has been as head of the Bureau of Outdoor Recreation, as Deputy Secretary of the Interior for Water and Power Resources, and as a member of the 1975 Federal Power Commission. Whatever is done with National Parks programs, Interior's main architecture activity, will probably fall to some as yet unnamed assistant secretary. Russ Dickinson will be retained as director of the Park Service; the result of a confirmation deal made by Senator Henry Jackson with Secretary Watt. This appointment also controls most of what the Federal government does in historic preservation including support for the National Trust for Historic Preservation.

Budget-cutting as a campaign promise seems to have become quite realistic program-cutting. David Stockman's strategy in its initial phases has been one of sharing the misery. That will allow the ultimate shape of the Fiscal Year 1982 budget to be shaped by political forces. Still, there are cosmetic aspects. From cancelled programs—like HUD's municipally popular Urban Development Action Grant program—troublemaking projects can be transferred to other more viable areas ("candidates for survival" rather than for the grave as HUD Secretary Samuel Pierce has diplomatically described them.)

At the State Department the Foreign Buildings Operations program is of primary architectural interest. William Slayton, who spent the Nixon-Ford years at the American Institute of Architects, has directed the Foreign Buildings Operation program. As a political appointee he will submit his resignation—

and probably will hope it will not be accepted—but Slayton is a Democrat. His performance and low political profile have raised expectations he may be retained.

A Federal architecture could contribute substantially to such sectors of national concern as energy and the environment. Such a positive emphasis and challenge could rescue architecture itself from the hazards of whimsicality, fake historicism, exaggerated individuality, excessive caution and purposeless drift in which it is foundering.

After the exhausting frustrations with the obscurities and uncertainties of the Carter Administration, and its inability to translate ideals into political reality, all of which were faithfully reflected in whatever architectural decisions it made, no one can doubt that architecture or the lack of it is a significant contributor to an administration's over-all image. If an administration has the ability to get along with Congress, to formulate and give effect to its priorities and to reflect previous experience, the architecture it builds will be a reliable mirror of its competence.

Activity generates architecture. But the perception of architecture's potential also generates activity. In this interaction powerful leverage is seen to advance, not always wisely or successfully, commercial, political and cultural objectives. If the Reagan Administration is to do anything, it will require not only appropriate buildings but an architecture that will communicate its aspirations and mark its accomplishments. If it is going to do nothing, architecture will tell us that.

The use that is made of architects depends largely on how their patrons—politicians, businessmen or others—perceive them. If architects are seen as artists, then one may ask them to communicate some message. If they are thought of as building technicians, they may be judged by the efficiency and economy of their buildings. If they are social analysts, they may be given such problems as housing or educational buildings. In any case, it must be decided whether architects are to be judged and selected on the basis of what they design and build, or the more theoretical evidence of what they say or write.

Architecture has been mired in theoretical difficulties during most of the 1970s—or longer, as some would have it. The architect-watchers at the National Endowments for the Arts and Humanities recognize this in the grants they have made; but as between architects, educators, historians and others, as yet there is no clear idea of how the selection and use of architects should be addressed.

But however it is done, one comes to the conclusion that architecture provides an opportunity the new Administration would do well to recognize. It is not in a position to throw away any cards that could be played to advantage, and architecture could be saying something with buildings that otherwise would remain mute. Among the Reagan people are those who can recognize this from both corporate and government experience. Let us hope they will be saying so.

NEWPORT IS HOST TO A NATIONAL HOME FOR COURT TENNIS

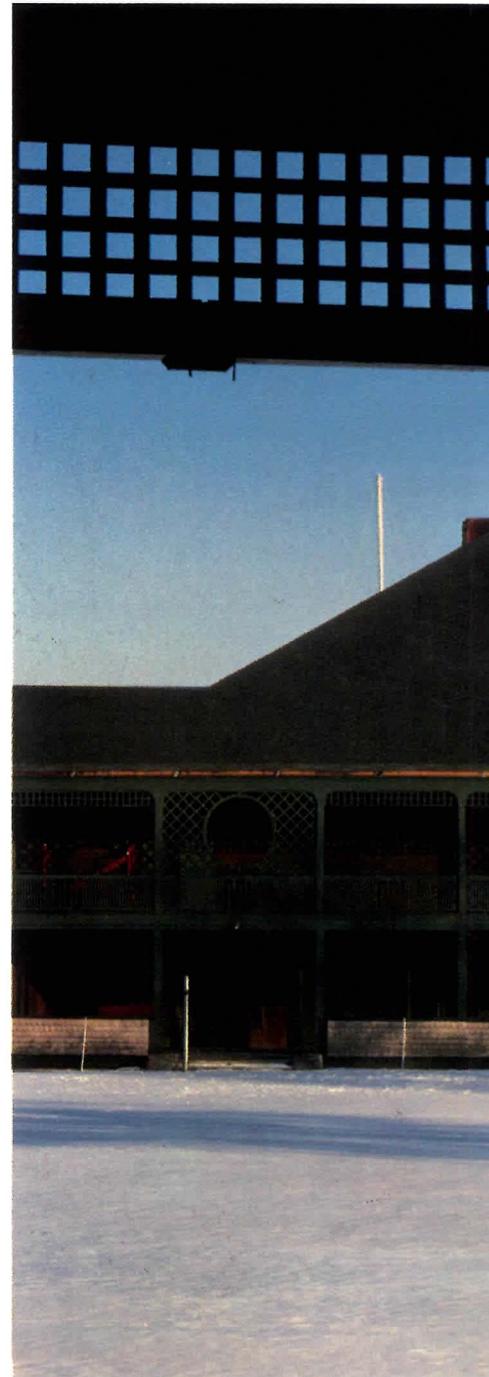
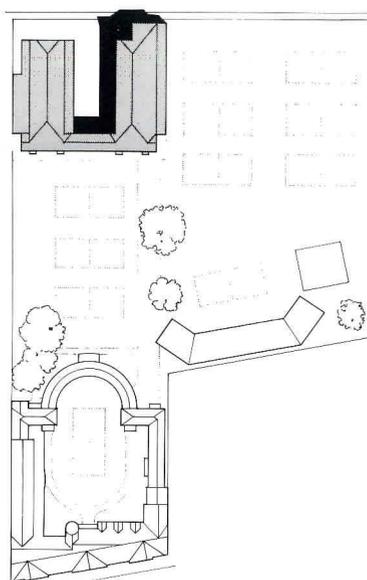
That rarest, most regal, most medieval,
most confounding and, above all, most architectural
of all racquet games is once again enthroned
in splendor at Newport's celebrated Casino.

There is a story that has long circulated through the narrow ranks of the world's court tennis players. It tells of a ranking lawn tennis player introduced to court tennis for the first time. His face flushed and brimming with excitement, he played for more than an hour. When play was over, the story goes, he turned to his hosts to pronounce his verdict. "What a wonderful game! Astonishing! Thrilling! Superb! . . . Who won?"

His question grew out of the game's all but impenetrable scoring system, but it was rhetorical for another reason. Nobody playing this ancient and delightfully arcane game for the first time wins. Even players who are adept in other racquet sports have noticeable difficulty coming to terms with the fundamental equipment of this game: a high net with a melancholy droop at its center, a racquet that looks and feels like something backed over



Paul Ferrino photos



by a truck, and a ball covered in felt, over an inner winding of cloth and twine, that appears to have been fashioned in a kindergarten class—and only after considerable struggle.

These things, together with the cryptic scoring system and a court of hauntingly complex geometry, belong to the game's venerable beginnings. Older by far than lawn tennis, platform tennis, table tennis, squash, racquets, or badminton—older in fact than all these combined—court tennis traces its origins to the twelfth century and to the cloistered abbeys of southwest France. From here the game spread rapidly to the rest of France, then across the Channel to England. The sixteenth century, a time of thralldom or even decline for most sports, was for court tennis a golden age. The game was played with a devotion that approached frenzy by the kings

of both England and France, and it became known, variously, as *royal tennis* or *real tennis*, names that it still bears today in other countries. In many of its essentials, the game has changed but little since the time of Henry VIII, for the court he built at Hampton Court (A.D. 1530) still stands, still reverberates with the sound of play, and, until surprisingly recently, still served as a model for new facilities.

But new court tennis facilities have risen grotesquely in cost since Henry's time. Once there may have been as many as 1800 courts in France alone. Today, only 30 playable courts remain in all the world. Around each is clustered a small nucleus of players so ardent, so loyal, so dedicated to the preservation of their game that the creation of a new court or—better still—the restoration of an old court, is attended by all the anticipation and

excitement of a royal birth.

Just such an event occurred last year at the Newport Casino in Rhode Island. Amid the easy elegance of McKim, Mead and White's gracious, shingle-style enclosure, a court tennis facility badly damaged by fire in 1945 was painstakingly and beautifully restored. It was the first "new" court put into play in this country since 1923, and already many of the best players from around the world have come to test its excellence. The architect for this restoration was Peter Forbes, principal in the Boston firm of Forbes Hailey Jeas & Erneman. Forbes is himself a court tennis player, so he brought to the rebuilding task an invaluable first-hand knowledge of the game's requirements, as well as a deep respect for its traditions. The results more than justify Forbes's selection.

The new competition floor at Newport is

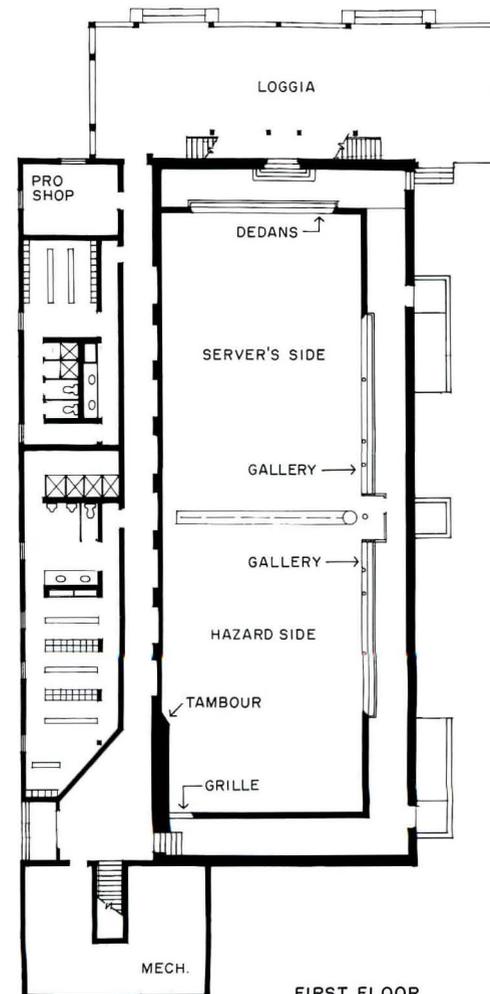
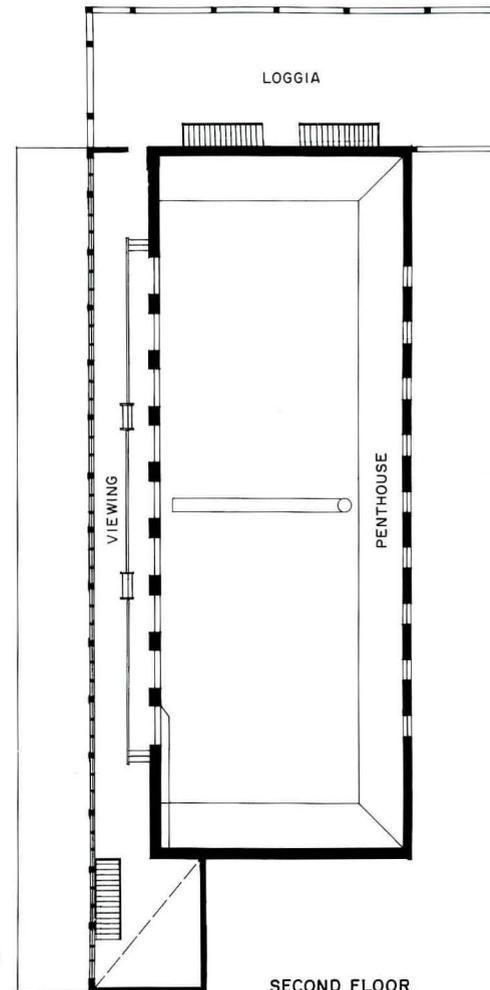
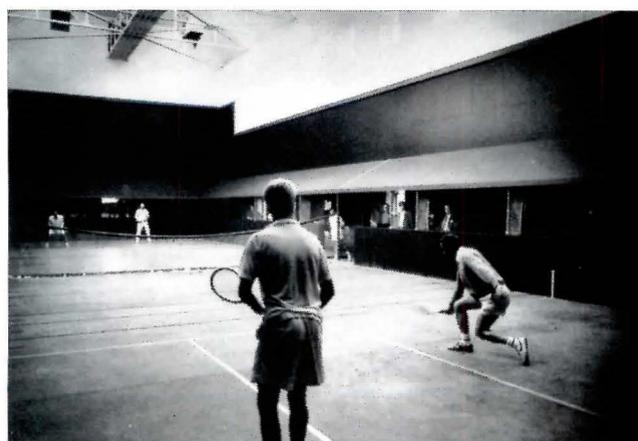
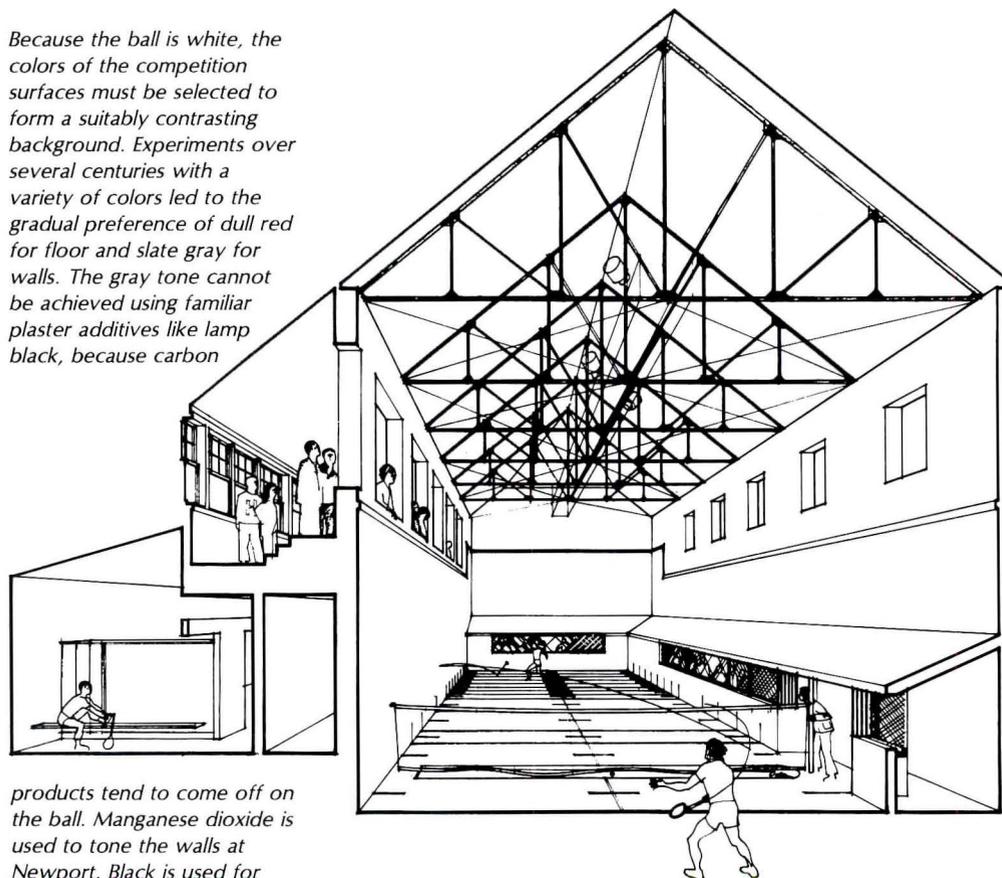


a rectangular, terra-cotta colored slab 31 by 93 feet on a side. By ancient custom, a sagging net divides the court into a server's side and a *hazard* (or receiver's) side. An assortment of wall openings and projections distinguish the two, giving each side an unmistakable identity. The most conspicuous of these, in the nomenclature of court tennis, is the *tambour*, a full-height thickening in the main wall near the rear of the *hazard side* (see plan). Today the *tambour* has no structural purpose whatever. It is merely an architectural remembrance of a medieval buttress or pilaster, but its chamfered edge is capable of producing unexpected (and indescribably irritating) caroms during play. Overhead, at a height of seven feet, the three other walls break back and up at about 40 degrees to form the *penthouse* (see section). This is the vestigial cloister roof. It is brought into play

during the serve in which the ball is gently lofted up to its canted, hardwood surface where it bounces along until it falls back to the floor on the *hazard side*. Play is then joined. The two long walls are playable to a height of 18 feet; the end walls to 24 feet. The ceiling, if any, is out of bounds. Play across the net is fast, tactics and shot selection are important, and court position is crucial. The server defends the wall opening at his back called the *dedans*. A similar but smaller opening at the back of the receiver is the *grille*. Some say that in medieval times these two openings were developed as pass-throughs so that thirsty players might be refreshed quickly. Today their function is simple: drive a ball through either opening and the point is over. The fourth wall, the long wall under the *penthouse*, is marked by a series of closely spaced openings called the

Because the ball is white, the colors of the competition surfaces must be selected to form a suitably contrasting background. Experiments over several centuries with a variety of colors led to the gradual preference of dull red for floor and slate gray for walls. The gray tone cannot be achieved using familiar plaster additives like lamp black, because carbon

products tend to come off on the ball. Manganese dioxide is used to tone the walls at Newport. Black is used for most of the floor markings (chase lines), red for boundaries of play, and blue for the bandeau, the line that marks the edge of the penthouse.





gallery. Each opening is identified. A ball struck into the *winning gallery* (that is the second gallery on the *hazard side*) is an outright winner. A ball that bounced twice in play, or a ball driven into any of the other gallery openings results in a *chase*. This is a scoring device that places a point in escrow, but a device so convoluted, so excruciatingly complex when first encountered that it is best left undescribed—except to note that it is the device by which the serve changes from one player to another.

Tambour, penthouse, dedans, grille, gallery, chase... Confusing? You bet. They have confused novice players for centuries. But they are the distinguishing features of a game that is fun to play, a game that makes captivating theater, a game that is played in a setting as medieval in character as any Romanesque cathedral.

The task of re-creating this setting at Newport was made no easier by the absence of accurate records. Forbes worked from old photographs that showed the original 1880 structure, designed by Boston architects R.G. and G.R. Shaw, before it was ravaged by fire. He got important assistance from court tennis veterans and, because the Casino is on the National Register of Historic Places, from several quasi-public bodies including the Rhode Island Historical Commission. It was the hope of all concerned that the building's exteriors could be reproduced with reasonable fidelity to the original. Though some changes were unavoidable (see comparative photos below right) the final result is a very plausible facsimile that disappoints no one. Substantial changes were made within. Steel trusses replace the heavy timber originals, and steel pipe columns buried in the wall now carry the

roof loads down to the foundations. To augment light from the clerestories, and to make night play possible, Forbes designed a catwalk that runs over the center of the court down its long axis. High-intensity metal halide fixtures are mounted on the catwalk on two-foot centers. Turned upward, they flood the court below with pleasant, indirect light that reaches about 100 footcandles at the net.

The competition surfaces were a special challenge. A very hard cement plaster was needed, a plaster that could withstand the constant abrasions and impacts of play, yet could be applied across very broad surfaces without seams or control joints of any kind. Research seemed to suggest that the most promising product was "Bickley's cement," a "sweatless," somewhat mysterious substance used with notable success at several earlier courts in England and America, and named



after its itinerant, long-deceased, inventor Joseph Bickley. Bickley had patented the product but, either by accident or by design, he had omitted at least two critical ingredients from the formula he had supplied to the Patent Office. Had Bickley taken his secret formula to the grave? Perhaps. But when the first tests at Newport with the Patent Office formula produced nothing but desultory results, Forbes sought help. He found it at the Edward Walsh Company in the person of Robert Evans, third-generation Yankee plasterer, and a man who quite evidently liked a challenge. After many trials with different additives, Evans produced a material so close in appearance and behavior to Bickley's that the two materials are virtually indistinguishable. It is the Evans material, under an epoxy sealer, that covers the almost 8,000 square feet of competition surfaces at Newport.

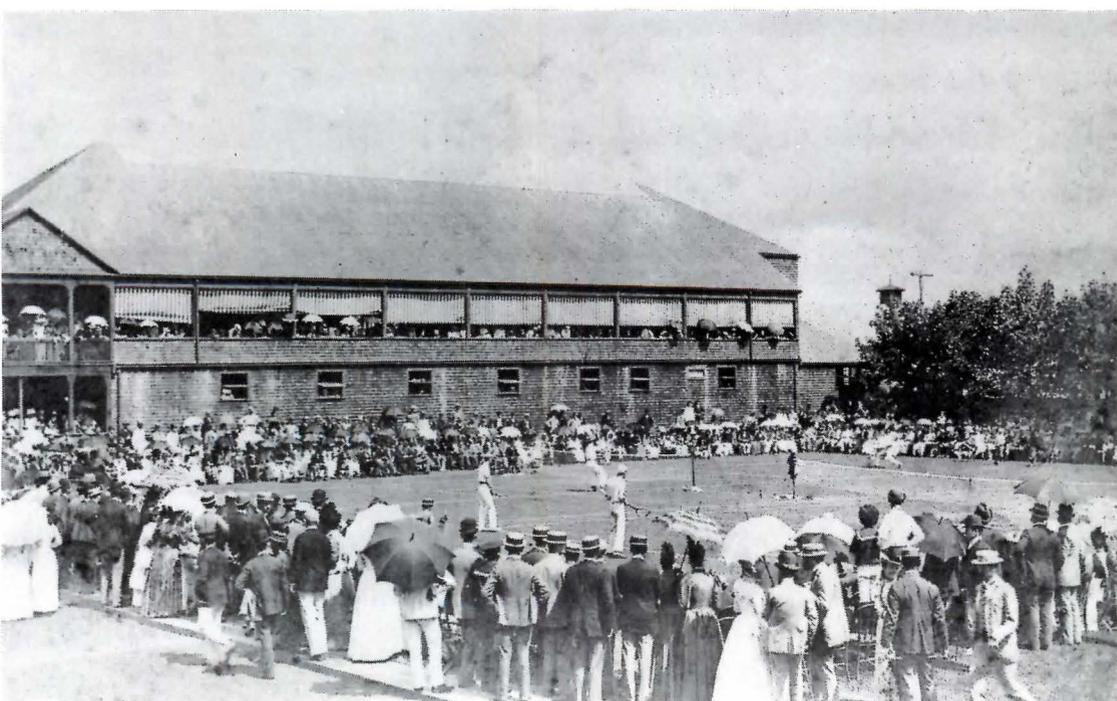
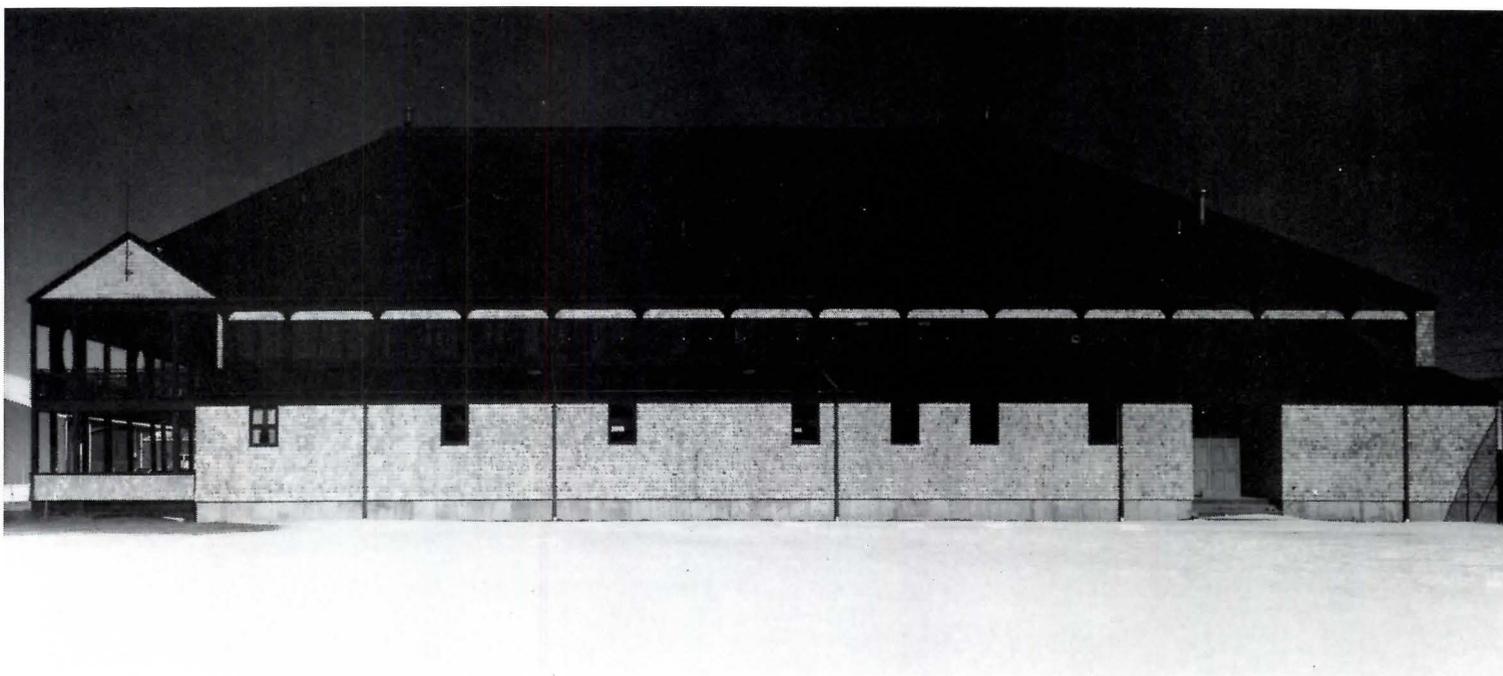
This rebuilding effort is independent of, but coincidental with, an ongoing \$2 million program to restore the Newport Casino. Work has been completed on the McKim, Mead and White facade that lines Bellevue Avenue as well as on the Horseshoe Piazza. The grandstand around the central lawn tennis court has been restored, and more work on other casino facilities will follow as funds become available.

The rebuilding of this extraordinary structure cost about \$420,000 including all fees. The work was undertaken on the initiative of The United States Court Tennis Association (John E. Slater, president) and for the express purpose of creating a "national court": a court on which any American can play as his birthright. It is, in this way, the only public court tennis facility in the United States.

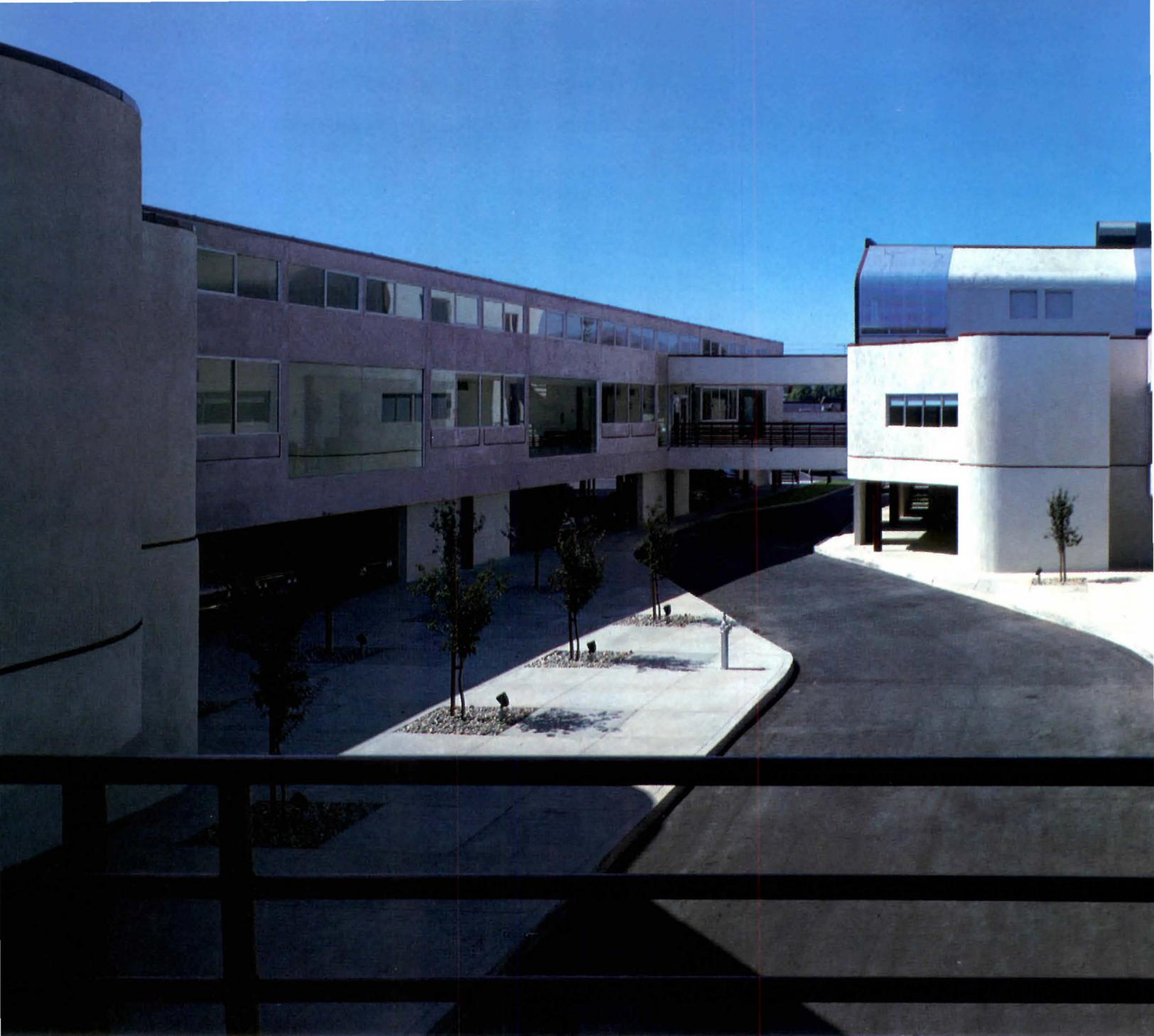
No one need worry that any of this new work will threaten either the beauty of individual structures or the aura of a vanished age that clings to the Casino in all its parts. These things are tenaciously preserved. In one instance, these continuities have even been extended by a reforged link to an even more distant past. For in the high-ceilinged central chamber of the court tennis facility, Henry VIII could toss off his cloak and coronet, grab a racquet, and pick up just about where he left off.

—Barclay F. Gordon

COURT TENNIS FACILITY, Newport. Owners: *United States Court Tennis Association and the International Tennis Hall of Fame*. Architects: *Forbes Hailey Jeas Erneman*. Engineers: *Keefe and Regan* (structural); *M. L. Dee and Associates* (mechanical). Contractor: *Walsh Brothers, Incorporated*.



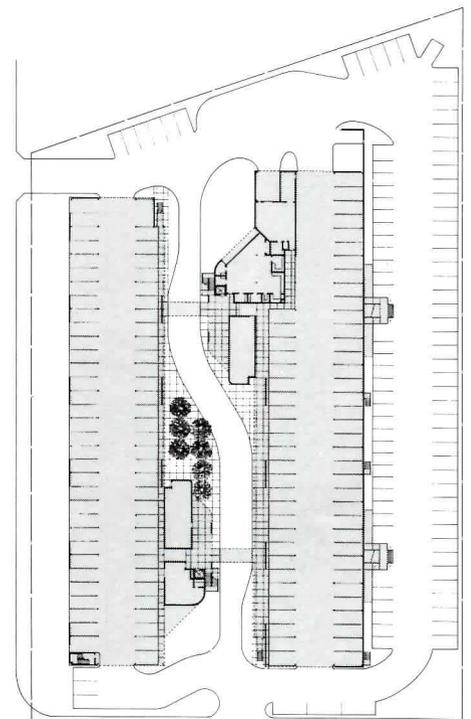
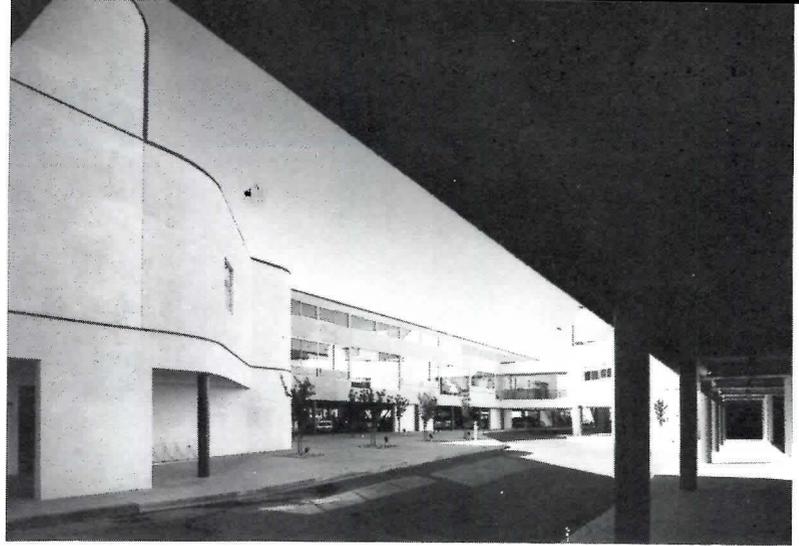
Comparative photographs, taken three-quarters of a century apart, show the east facades of the old and new structures. The upper level gallery, then and now, served as a raised viewing platform for both court tennis (photo far left) and lawn tennis (photo left) on the outdoor field courts. Color photos (opposite) show the new dressing rooms.



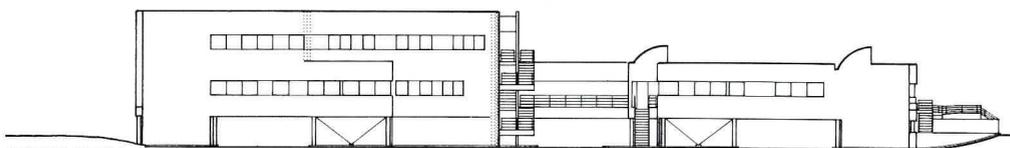
©David Franzen/ESTO photos

HEALTH CARE IN NAPA, CALIFORNIA: ACCOMMODATION AND INTEGRATION





GROUND LEVEL (SHOWING COVERED PARKING)



EAST ELEVATION

When joint venture architects Peter L. Gluck and James Stewart Polshek hear their recently completed Trancas Medical Building referred to as "a drive-in medical supermarket," they are only slightly less than delighted. The local appellation is anything but pejorative: it is an especially appropriate, if somewhat wry, expression of not only the program the architects were given, and the *parti* they responded with, but also the context within which the 70,000-square-foot facility has been so snugly fitted.

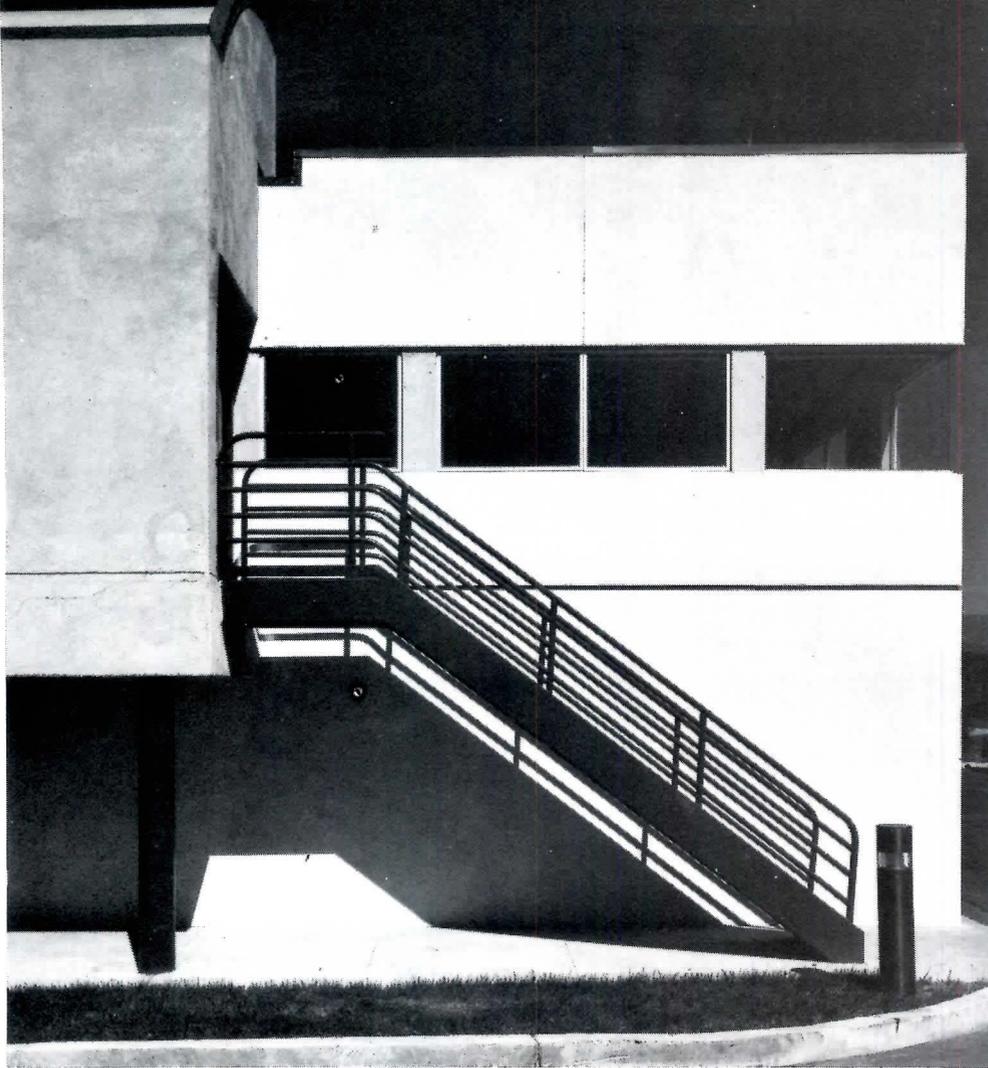
The aerial view at left offers a telling glimpse of the two-part building and its less than inspiring environs. The rectangular site is bordered on the east by the parking lot of the adjacent Queen of the Valley Hospital; on the north by a low-rise, high-density housing development; on the west by a delicatessen and liquor store; and on the south by the

city's "strip," Trancas Street—a miasma of fast-food chain restaurants, gas stations, and shopping centers. It is the commercial core of the small city of Napa, California; a *suburbanscape* that could be found in almost any American city—though here, harshly discordant amid the gently rolling mountains and world-famous vineyards of the Napa Valley.

The \$4.2-million health-care facility was the brain child of three doctors—each representing an independent medical group—who wanted to consolidate their respective offices: the proposed facility was conceived as a medical co-operative to accommodate disparate group and individual practices scattered through Napa. The perceived benefits of the collective were: easy access to the neighboring hospital; a central location from which to offer patients a complete, one-stop range of medical services and specialists; and

the opportunity to present a unified medical front for "outreach" programs to the community (currently taking the form of rehabilitation programs, but potentially preventive medicine as well). Naturally, each of the three doctors on the original building committee had more specific reasons for joining: for example, psychiatrist Berry Grundland saw the opportunity to assimilate the 22 psychiatrists and therapists of his psychotherapeutic group into the "medical mainstream," and internist Curtis Johnson reports, "it's helpful to have immediate access to a wide range of specialists for *on-the-spot* consultations."

The three-man building committee presented architects Gluck and Polshek with a program that included: office space for approximately 62 doctors and therapists; examination rooms; consultation rooms; support staff facilities; and space for storage and

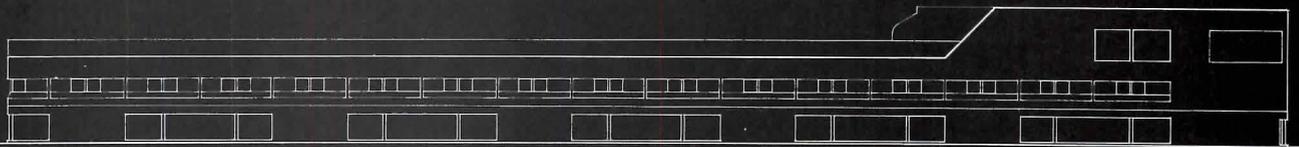


Among the various community "outreach" programs offered at the Trancas Medical Building, the children's day-care center (photo below left) is perhaps the most imaginative: entitled "A Place Of My Own," the facility will eventually enroll "disturbed" children alongside "normal" children, according to supervisor Allene Dering. The non-profit center welcomes children of the medical building staff as well as from the community. The outdoor playground is located at the west end of the inner street that divides the two buildings: the sight of children playing on the gymset provides a welcome distraction for patients and doctors.

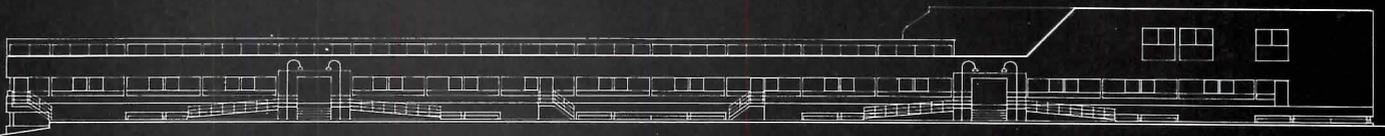


equipment—the net result is a building with approximately 400 individual rooms. The doctors also required flexibility—in both plan and mechanical systems—to accommodate ongoing changes in medical practice and continual refinements of medical technology; add to that an inelastic budget and the flow of approximately 700 patients daily (all in automobiles), and problems of organization and circulation compound.

After analyzing the site, and with a careful eye to the formidable demands of the program, architects Gluck and Polshek agreed on three "preconceptions"—the building must: 1) respond to its context with respect to automobiles (entry, circulation, parking), and unify the street by presenting an edge for the ragged line of Trancas Street, 2) separate vehicular and pedestrian circulation, and 3) separate public and private zones within the



SOUTH (STREET) ELEVATION



NORTH ELEVATION

building. The idea of dividing the building in half broke up the mass, allowed for an inner street (for easy access and entry), and helped counter the potential "maze effect" promised in a single building of 400 rooms.

The medical center is seen primarily from moving cars along Trancas Street; according to James Polshek, the street elevation is "a long exclamation mark" that is particularly appropriate because it corresponds—in scale and proportion—to the primarily one-story commercial neighborhood. Peter Gluck alludes to the east corner of the street facade (photo above) as "almost like a tail fin on a car" to effectively end the building. The architects intended to extend the facade beyond the building to form a portal for automobiles, but the local planning board rejected the idea.

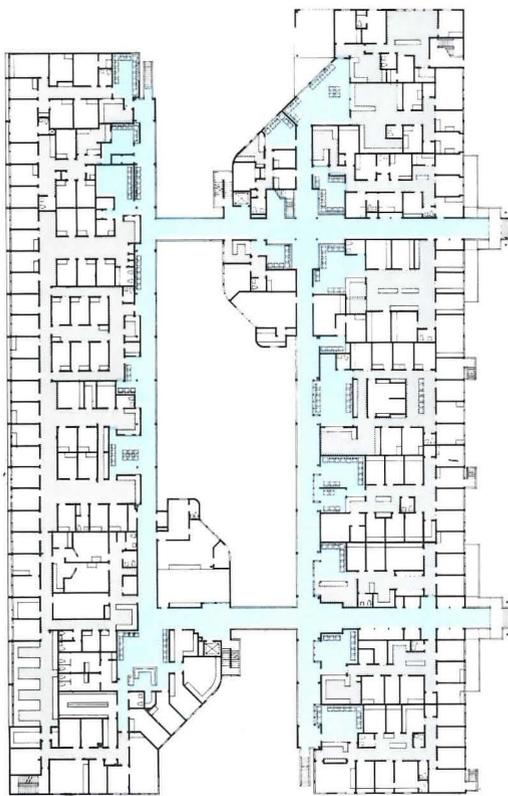
In preliminary discussions with the doctors, Gluck and Polshek determined that "image" was a critical element in the success of the project: the architects viewed the building as a medical "buffer zone" to mediate between the rather cold and awesome hospital and the community at large. The doctors didn't want the building to *look* like a traditional medical facility, and consequently Gluck and Polshek decided that the facade should be unassuming, yet engaging to passers-by: the pastel purple/pink and white color combination provides welcome lightness for the exterior. Though the doctors are less than unanimous in their agreement, the unexpected color combination works extremely well: it softens the scale of the stucco building, provides a surprising and serendipitous image for the medical facility, and breaks up what could have been a monotonous 330-foot-long facade.

The architects hoped to sink the building four feet—to further reduce its profile—but existing sewer lines and a high water table precluded this scheme; the idea, however, was not lost—the foundation is slightly below grade, and the excavation resulted in the low berm along Trancas that shields the parked cars beneath the south wing. The two buildings are elevated on pilotis, to separate, horizontally, vehicular and pedestrian circulation; as a consequence, the entire site functions as a parking lot (primarily beneath the two structures, with overflow parking in the rear).

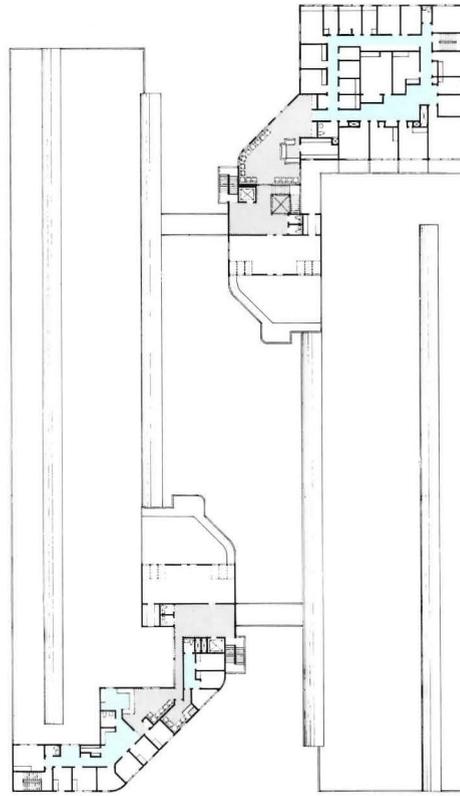
According to Peter Gluck, the construction is a "complete bastard system:" the reinforced concrete columns support a steel and concrete platform on which traditional two-by-four wood framing is employed. Though the doctors wanted a flexible building, the budget wouldn't allow for long-span



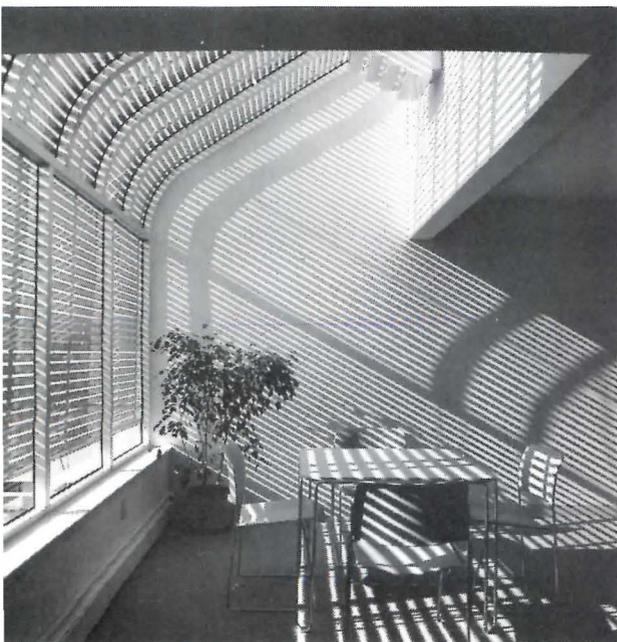
At night, the heavily glazed interior streetscape takes on a glow—illuminating the polychromed facades and sweeping curves, (the curves were constructed with laminated wood arches and steel columns). The glass-enclosed nurses' stations (photo below and right) off the public corridor, shield the private waiting areas—appropriate for individual practice—of the north building. The south building is occupied by a large medical group, and the plan at left shows their more open plan for waiting areas. The architects have used a plenum system for hvac—after isolating 125 separate heating and cooling zones.



SECOND FLOOR



THIRD FLOOR



construction; the architects responded with "partial flexibility." Many of the interior walls can be moved to accommodate the changing modes of medical practice (individual, group, inevitable future expansion).

By dividing the building into two distinct elements—connected by bridges crossing the skewed interior street—the architects were able to provide extensive glazing for the twin public circulation spines (photos above). The plan is organized from the inside out, with circulation guided along a hierarchy that moves in degrees from most public to most private. In the south building, the extra-wide public corridors open to waiting niches—as extensions of the corridor—punctuated by nurses' stations; in the north building, more private waiting areas are entered through glass-enclosed partitions that shield the combination waiting rooms/nurses' stations from



the public zone. The examination/consultation rooms are housed in the mid-section of each building—where natural light would not always be welcome. They open onto a private circulation spine (photo near left), used primarily by doctors: the individual doctors' offices flank the outer edge of each building—with views of either Trancas Street on the south, or the low-rise housing development to the north.

Both the public and private corridors are brilliantly illuminated by light troughs with north-facing clerestories (see elevation, page 113) that welcome sun into most of the interior spaces: this method of natural illumination is so effective that artificial light is frequently unnecessary in an impressive portion of each building. The doctors hope that as solar energy systems become more practical, the light troughs can be adapted to

further reduce electrical utility costs.

The Trancas Medical Building was built in ten and a half months, under fast-track construction, at a cost of \$59 per square foot. Regrettably, the materials and finishes reflect the paucity of the budget and the time constraints. James Polshek remarks: "To get it built, we had to make very serious compromises. . . ." Peter Gluck echoes those sentiments, and matter-of-factly adds: "There's an economic reality to this building." Though the building does not offer expensive materials and expert craftsmanship, such luxuries could be considered inappropriate to the program: the Trancas Medical Building is a "bare-bones" facility intended to deliver economical medical services to an average-income community. The architects are to be credited with devising a plan and esthetic that overcomes—by a generous margin—the consid-

erable constraints they were working within.

Accommodation and integration are key words in evaluating the success of Napa's newest health-care facility. For both doctors and patients, the building performs an important community service—its siting, massing, and design assure that it does so with considerable aplomb. —Charles K. Gandee

TRANCAS MEDICAL BUILDING, Napa, California. Owner: *Trancas Associates*. Architects in joint venture: *James Stewart Polshek & Partners and Peter L. Gluck and Associates—principals-in-charge: Peter L. Gluck and James Stewart Polshek; design team: Marla Appelbaum, Tyler Donaldson, Brian Ferguson, James Garrison, Jeffrey Koper, Michael Lipkin, Shauna McManus, Todd Springer*. Graphic design: *Henry Altchek*. Engineers: *W.D. Crouch* (structural); *Thomas A. Polise Consulting Engineers* (mechanical). General contractor: *Tyler Construction Co.*

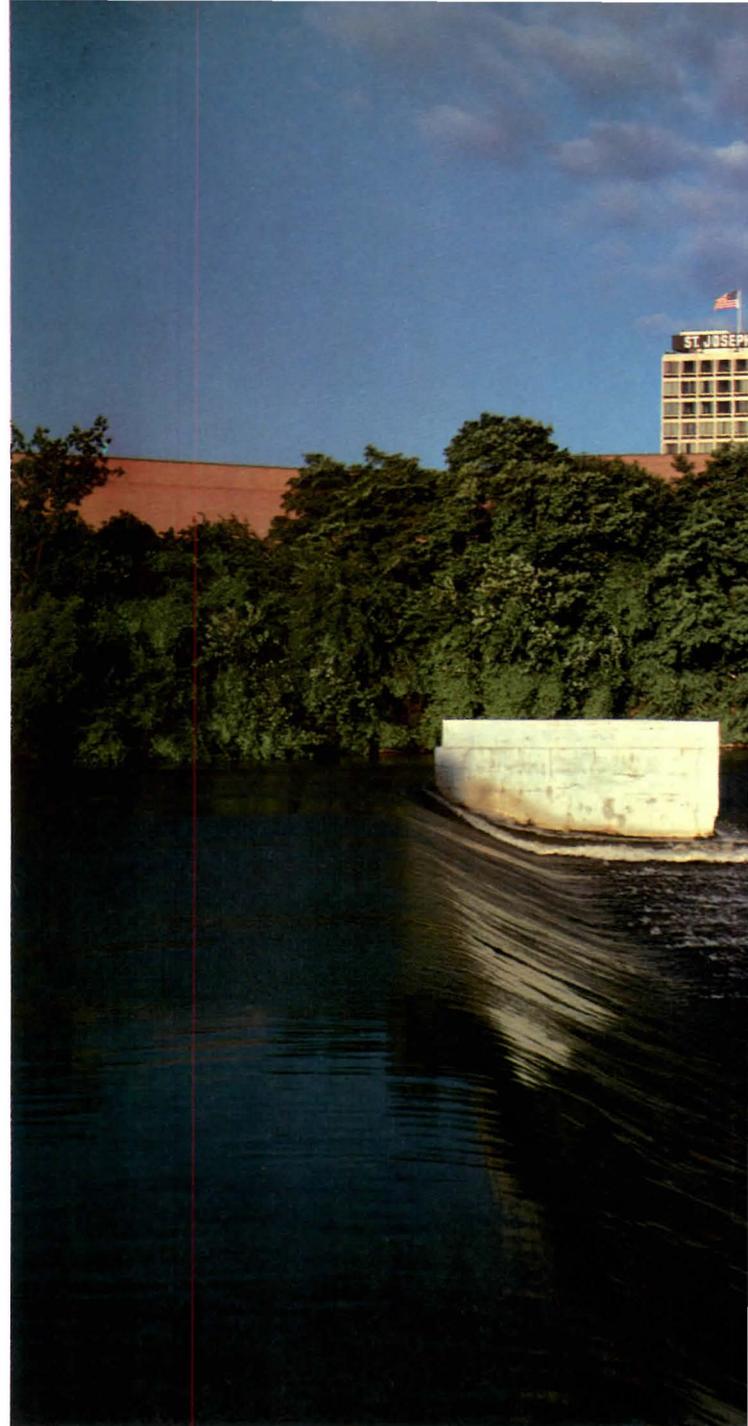
BUILDINGS FOR THE ARTS

"In order to be competitive in attracting new business and industry—and in attracting people downtown to support business—a community has to jump on the cultural bandwagon." So says executive director John Goyette of the Spirit Square Arts Center in Charlotte (pages 124-125). But who will build facilities for the arts at a time of decreasing expenditures by governments at every level?

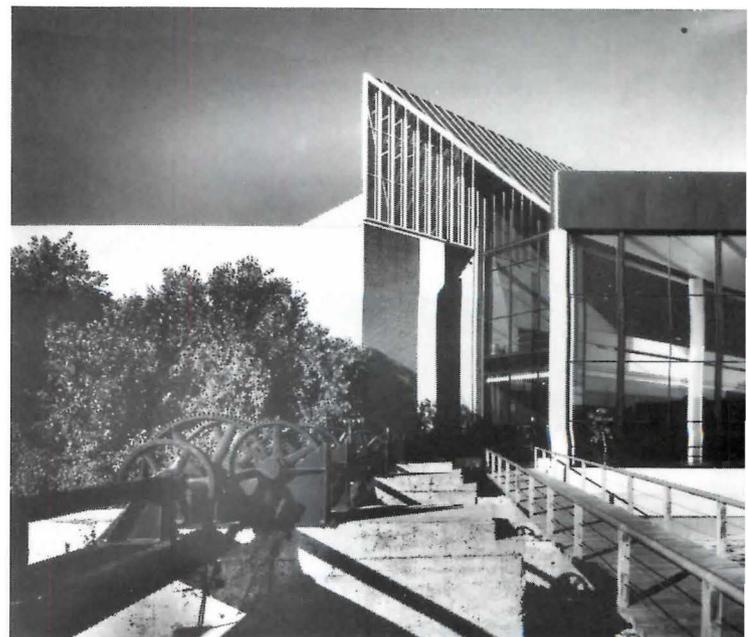
Local businesses are not overlooking the advantages that such new facilities can bring in reviving downtown liveliness, and hence in spurring new downtown development. At Spirit Square, \$1.2 million of the \$4.2-million cost has been donated by local businesses. And at Century Center in South Bend (see photo right), \$4 million of the \$11.4-million cost was donated. And almost all of the other funds were raised with local bonds and taxes.

Such encouragement from the public and business sectors comes at a particularly appropriate time—given the cutbacks in Federal spending. Until recently, Revenue Sharing Funds have been major sources of construction money for art facilities. Operating and program development costs have been eased by the supply of personnel through the Comprehensive Employment Training Act, and by monies from the National Endowment for the Arts. A recent Harris poll has shown that taxpayers would accept a modest tax increase to expand the Federal participation in the arts. So there is popular support, and the pressure is on for growth—with or without Federal participation. And it looks like business will be willing to take up at least part of any government shortfall.

The first four examples on the following pages are paired to contrast different approaches for similar functions. In each pairing, one example is almost all-new construction, and the other is almost all the re-use of existing facilities. Both Century Center and Spirit Square represent the growing trend for communities to group several cultural activities in one location. Both the new Walters Art Gallery (pages 126-129) and the restored Crocker Art Gallery (pages 130-131) represent the particularly sensitive kind of design required to produce museums. And the Usdan Center (pages 132-135) is a school for training in the arts—with a fresh and "minimum" approach to architecture. —*Charles K. Hoyt*



THE PERFORMING AND VISUAL





Richard Payne photos

TS JOIN CIVIC FUNCTIONS IN AN IMPORTANT NEW MULTI-USE CENTER

This handsome complex—South Bend's Century Center designed by Johnson/Burgee Architects—is an unusual and symbiotic assemblage of cultural and civic facilities. It includes a theater with 600 seats, a recital hall with 100 seats, and an art school combined with an art museum. It also includes a convention center with a capacity of 2000 persons and a museum for antique automobiles that illustrates South Bend's long involvement with the automotive industry. The architects have designed the Center to express the separate functions and administrations of the varied programs, which are grouped under the Century Center Authority. These multiple functions are expressed, as principal Alan Ritchie explains, in five brick boxes linked by glass-roofed "streets" and grouped around a great court designed as a central common space or "town square." (The separation of functions also reflects the fact that each administration was responsible for raising the funds to finish respective interiors.)

The combined art-museum and school building (see plan overleaf) is divided into display on the entry level with studios on the level below and classrooms above. The studios are for ceramics, sculpture, crafts, carpentry and restoration, and they are grouped because of the unusual floor loads and ventilation requirements.

The theater building contains the usual support facilities such as dressing rooms and offices, a music room and a large multipurpose room. The convention center has a large assembly room on the upper level and three large conference rooms on the lower. Offices for the conference center and the entire complex are located on a mezzanine above the assembly room.

The Center is located on the Saint Joseph River and gets a splendid outdoor space—not just a view—from the location. An island close to the shore separates the new buildings from the main flow of the river. The architects "redesigned" the island, which previously held an unused power station, as a series of terraces for public use during good weather (see photos above and overleaf). The bridge to this island rests on the existing sluice gates (photo left), that allow part of the river's current to be diverted into a channel if floods threaten. Concrete blocks on the bed of the channel create what may be the world's first architect-designed rapids.

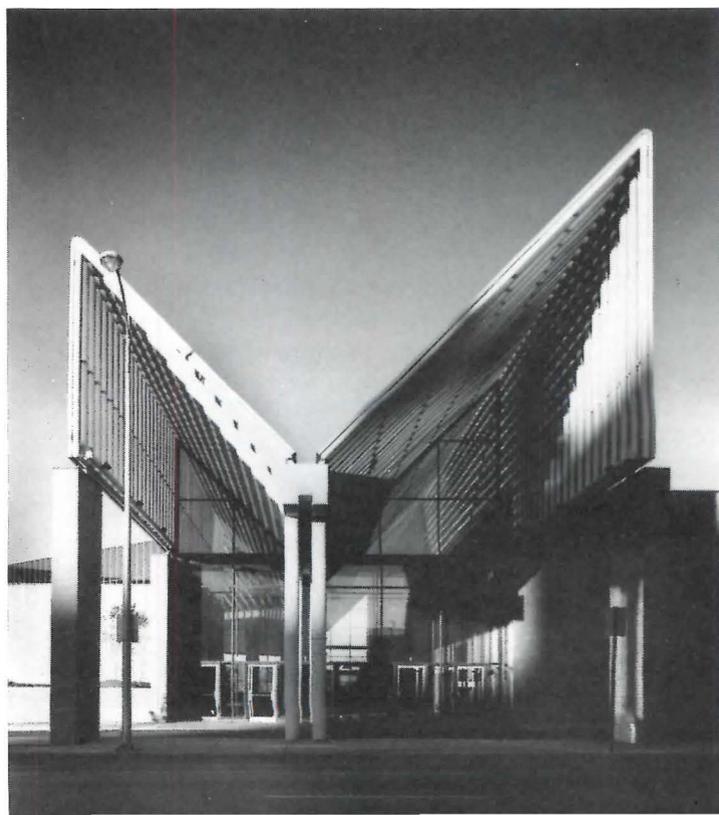
The project has been successful in three ways: First, the costs for the combined steel and concrete structure were within the initial budget—even after a three-year period of design-contract negotiation and design. Second, authority director Brian Hedman is highly

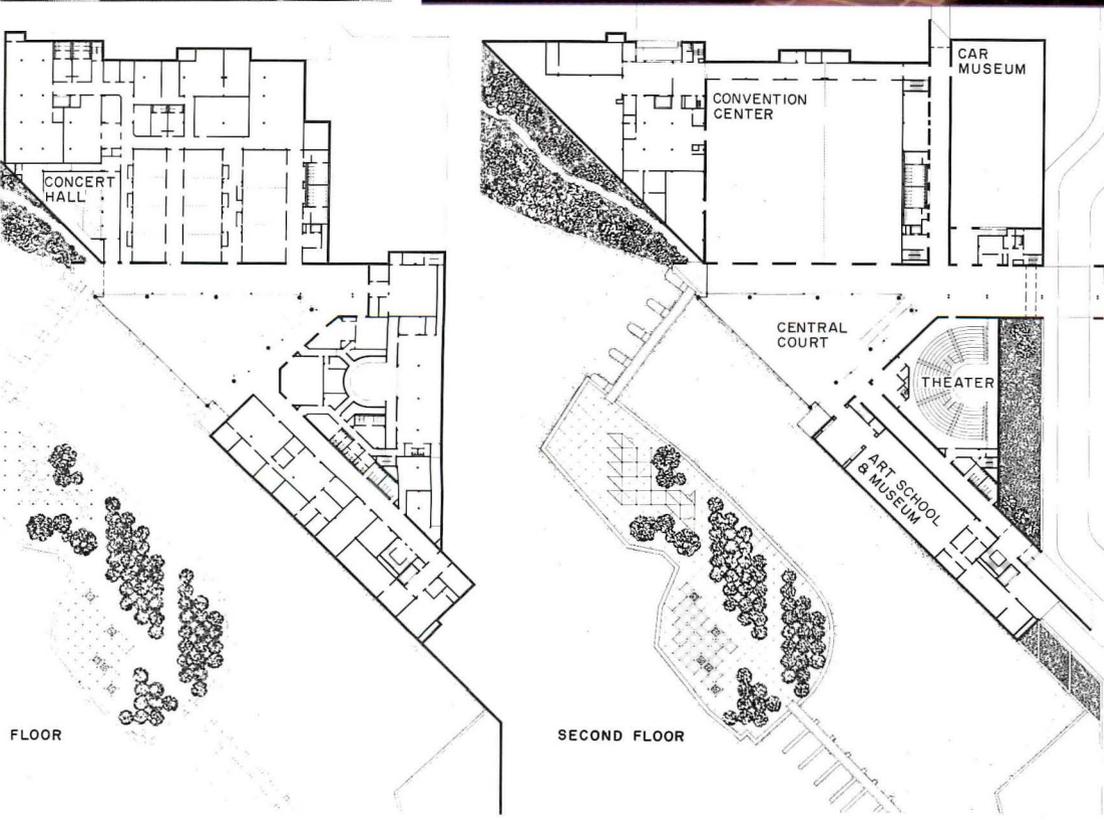


satisfied by both the complex and its financial success. For example, the central space, instead of being just a symbolic link between the various other facilities, has become a highly rentable location for trade shows, dances and other public and private functions. In fact, rents from the various convention facilities, and the central space make the Center virtually self-supporting—with any deficits being made up by a county hotel-and-motel tax of 5 per cent.

The third and important way that the Center has been a success is in spurring redevelopment of the once-depressed part of South Bend in which it is built. The area between the Center and the nearby government buildings is now filling with new construction such as hotels, which are credited to the Center's existence.

CENTURY CENTER, South Bend, Indiana. Owner: *City of South Bend*. Architects: *Johnson/Burgee Architects—Alan Ritchie, principal*. Engineers: *Skilling, Helle, Christiansen, Robertson* (structural); *Cosentini Associates* (mechanical/electrical); *Halpert, Neyer & Associates* (foundation/soils). Consultants: *Robert A. Hansen Associates* (acoustical); *Claude R. Engle* (lighting); *North American Signs* (graphics); *Sollitt Construction Company* (cost). Construction manager: *Sollitt Construction Company*.



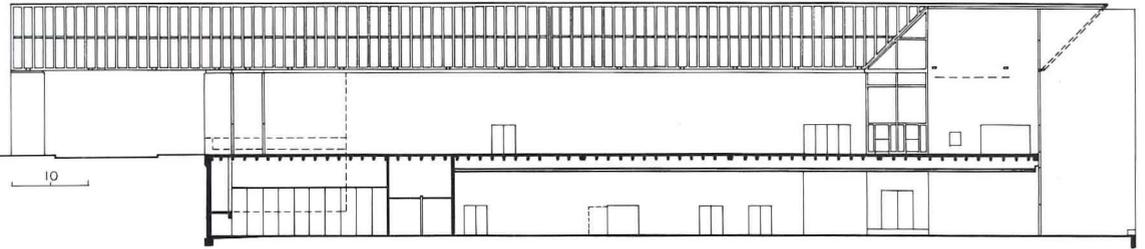


Century Center is a complex of buildings connected by the steeply-pitched, reflective glass roofs shown in the photos. Entry from the street (photo left) is at the second main level into the spaces shown on this page. The canopy over the entrance is a continuation of the glass roofs over the main corridor (small photo above). The large photo above shows the upper part of the triangular-shaped central space. Each building is self-contained. A third level exists above parts of both the museum and theater. This contains offices for each facility—along with classrooms above the museum. The adjacent terraced island (photo upper left) extends the function of the central hall out to the Saint Joseph River in good weather. It also provides a good vantage point for appreciating the handsome new complex.





Richard Payne photos



The recital hall (photo left) is one of two theaters in the complex. It is located in such a way that the convention facilities are not isolated from the cultural activities. Concert goers must pass by the conventioners to reach it (see plans previous page). The large central space (photos this page and below left) looks out on the nearby island and the channel in between. The central space serves a variety of functions that were not necessarily anticipated in the program—which called for it to be an enclosed city square. The museum (photo far left) is part of the fine arts building, which also houses a school. Each building has its own service facilities, such as truck loading docks, and has interiors finished by the separate administrations. The section above shows the basic two-level plan and its relation to street and river levels.





AN ARTS CENTER IS CREATED FROM CHURCH BUILDINGS

Architects Hardy Holzman Pfeiffer Associates designed Spirit Square to fulfill an ambitious local arts program—and to keep people downtown in Charlotte after office hours. As a result, there was a generous \$1.2-million funding by local business.

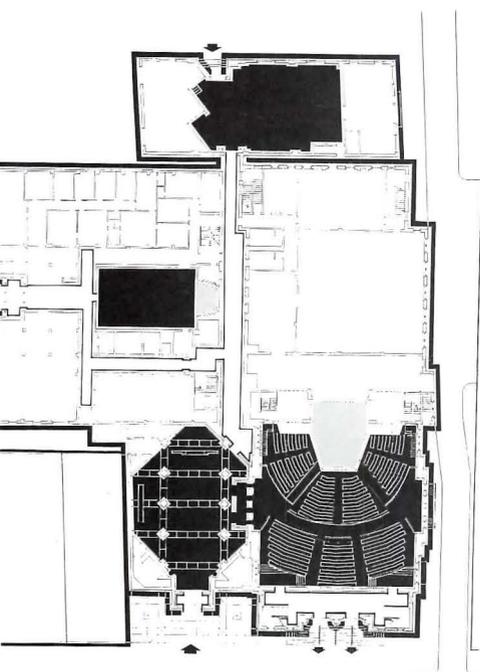
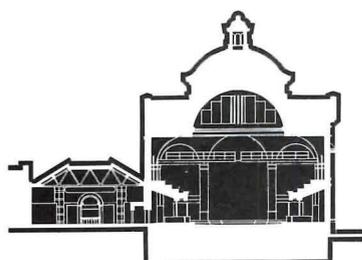
The center consists of four older buildings that belonged to a local church, and a new building, called People Place, which the architects designed as a dramatic linear connection linking the older buildings. People Place (photo above) is only partially completed (see lower lefthand shaded area of plan), but it is meant to extend to the parking area (top of plan) when funding permits.

The new construction of People Place illustrates HHPA's masterful way of achieving strong visual relationships between new and old. The walls and columns of the new building are brick which matches in color and pattern that used on the sanctuary building, except that the stringcourses are translucent glass bricks (see photo above) that transmit light, and a bit of festive glitter.

The older buildings are going through a phased program of adaptive re-use. First, offices, workshops, and a restaurant were placed in a 1952-vintage building (upper left in plan) that needed relatively minor functional alteration. Most recently, a Byzantine-

and-Romanesque-style sanctuary building has been transformed into a theater with 675 seats. In this building adjacent to People Place (photos right), the architects have achieved a rather special feat—what might be termed "adaptive restoration." They have refurbished much of the original detail, while inserting a new semi-thrust stage, and restructuring the floors of the balcony and main floor for better fire protection and greater slope—hence better visibility. New support facilities carved from the original structure include a backstage, understage and dressing rooms. Designed but awaiting funding are the conversions of the two other buildings.

SPIRIT SQUARE, Charlotte, North Carolina. Client: *Spirit Square Arts Center, Inc.* Architects: *Hardy Holzman Pfeiffer Associates*—partner-in-charge: *Hugh Hardy*; program analysis: *Kurt Kucsma*; project architect: *Harris Feinn*; technical coordination: *John Lowery*; supervision: *Theron Grinage*. Associated architects: *Ogburn and Steever*. Engineers: *Le Messurier Associates* (structural); *Piccirillo & Brown* (mechanical/electrical). Consultants: *Robert A. Hansen Associates, Inc.* (acoustical); *Jules Fisher Associates* (stage lighting); *Theater Techniques* (theater rigging); *Boyce Nemeo Designs* (projection and sound equipment). General contractor: *R.H. Wheatley Co.*



People Place (photo opposite) not only sets up functional unification of the complex of existing buildings, but provides a lobby, ticket office (partially constructed from the old baptismal font from the church) and handicapped access for the theater shown on this page. It also provides convenient public access to the future rehearsal building behind the church, and thus makes its re-use practical. (This new "link" will extend to the top of the plan in later stages of construction). The before and after photos at left show the way that People Place has been carefully inserted amidst the existing buildings.



Norman McGrath photos





A GALLERY BRINGS NATURAL LIGHT TO A FAMOUS ART COLLECTION

Architects Shepley Bulfinch Richardson & Abbott's careful and inventive addition to Baltimore's Walters Art Gallery has made possible the splendid display of one of the most important art collections in the United States. Only 20 per cent of the collection could be seen at one time in the old building, a monumental but inefficient palazzo built by the Walters family in 1905 (background of photos above).

In planning the new addition, the architects faced a number of concerns about fitting into the historic neighborhood, given the ambitious program. The old building offered only 28,000 square feet of exhibition space, and the new program called for 100,000 square feet on a similar sized site. (The space would be about equally divided into galleries and support facilities.) The gallery's location in an historic district imposed height limitations. And the architects were concerned about the visual relationship with the old building anyway—especially about the contrast of what had to be two very different scales.

In order to get the desired space, the architects planned a new seven-story building intended to appear no taller than the old one. This feat was particularly difficult because parts of the new sloping

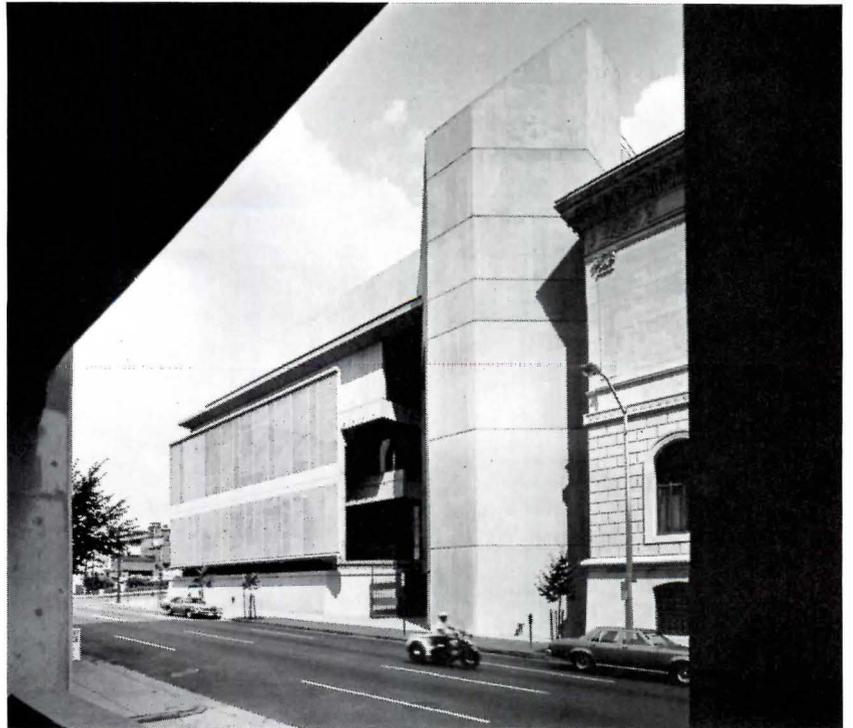
site were at a much higher elevation (see section overleaf). The architects set the top two floors back from the surrounding streets, and placed two levels below grade. They made a new main entrance to the whole complex into the upper of the two subgrade floors; visitors step down from the street. From the entrance, the auditorium stretches down to the lowest level. In order to get a maximum ceiling height, the architects designed a thin post-tensioned concrete floor system. This required pouring the concrete to close tolerances, because the mechanical and electrical systems and lighting are integrated into the coffers.

By designing the exterior walls in glass, shielded by an outer layer of elegantly detailed concrete screens, the architects have accomplished four purposes: First, with the screens they have created a large visual scale that relates well to the older building. Careful alignment of all the old and new horizontal exterior elements—such as cornices and moldings has emphasized this relationship. Second, the architects have allowed freestanding display panels and other objects to be placed against the outside walls of the galleries without the resulting visual clutter that would be seen from the exterior if the screens were not hiding it. Third, they have related to

Not only do the concrete screens establish a strong relationship of scale, but the careful coloration and texture matches the limestone facade of the original gallery building. This relationship is carried through in a sloping red granite base on both buildings, and an alignment of the various new horizontal elements with the old cornice and other projecting moldings. The two new upper floors have been set back out of pedestrian sightlines. This setback allows skylights into the top levels of galleries. Both buildings are entered by a new entrance that is set down several steps from the street, next to the high stair tower. Clear views into and out of what is really a glass-walled building occur at the corners and over the entrance. These add a sense of liveliness from the street that invites the public to enter.



Robert C. Lautman photos

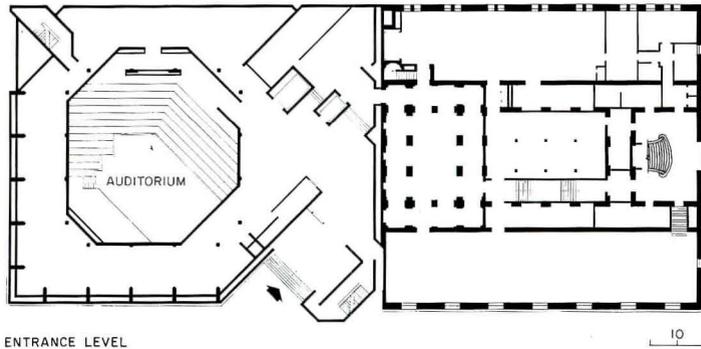
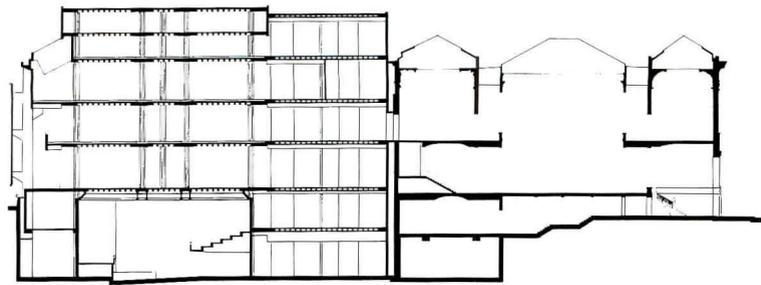




the spatial qualities of the old building, in which the galleries opened into the large central court. Visitors always sensed a larger space beyond the old galleries. In the new building, the relationship is reversed, and the galleries gain a spacious quality by opening outward. Fourth, and most innovative, natural light has been brought into the interior of a multi-story art museum, and—because of the diffusing effect of the screens—there is freedom from glare, distraction, fading of objects and solar heat loads. The architects feel that the resulting light filled quality is most important. And art critics agree. The changing natural light and the patterns it creates add a sense of reality to the exhibits, which is often missing in the current trend to windowless spaces.

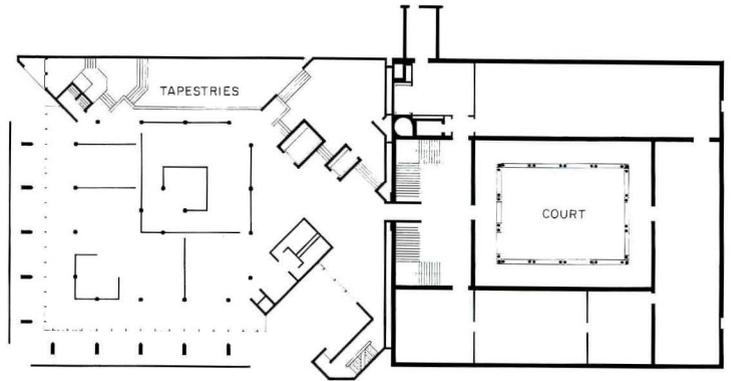
THE WALTERS ART GALLERY, Baltimore, Maryland. Owner: *The Walters Art Gallery*. Architects: *Shepley Bulfinch Richardson & Abbott*. Associated architects: *Meyer, Ayer & Saint*. Engineers: *Ewell, Bomhardt & Associates* (structural); *Egli and Gornf, Inc.* (mechanical/electrical). Consultants: *Bolt Beranek and Newman, Inc.* (acoustical); *William Lam Associates, Inc.* (lighting); *Howard MacCarthy, Jr.* (architectural hardware and specifications). General contractor: *Piracci Construction Company, Inc.*





ENTRANCE LEVEL

10



FOURTH LEVEL

The exhibits are arranged by period and location of origin, and cover the broad range of interests of the various members of the Walters family who collected them. The top two floors are devoted to offices and a large library. Ceilings on gallery floors are generally 15 feet high. Exceptions occur where the ceiling has been dropped below the exposed coffers of the floor structure, and in the tapestry hall (photo left) where extra height was needed because of the large size of the panels. Here, the floor was set down several steps. A corresponding room below houses small objects that are appropriate to the lower-height space. The cruciform concrete columns are shaped to receive the post-tensioning rods of the concrete floor system, and have a particularly graceful visual effect.





A RESTORED MONUMENT MEETS TODAY'S GALLERY NEEDS

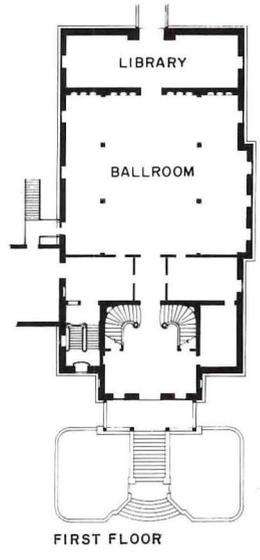
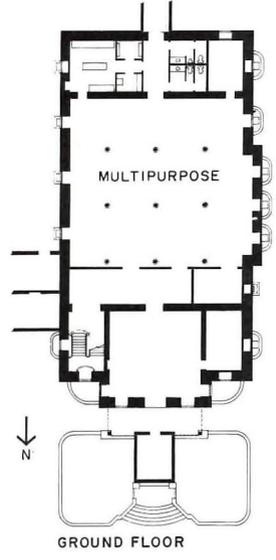
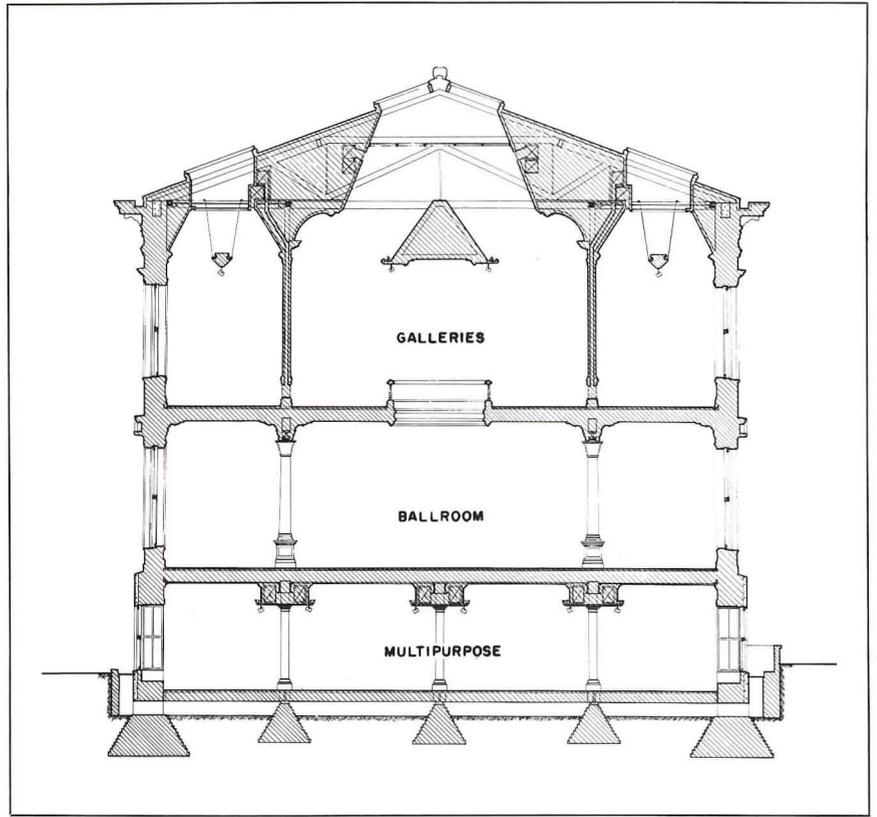
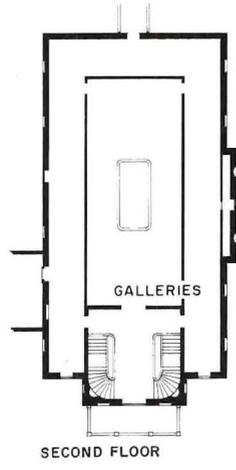
Architects Rosekrans and Broder have shown great sensitivity in combining new programming and technology with the strict restoration of the 1873 Crocker Art Gallery in Sacramento, California. Like the Walters Gallery on the previous pages, the Crocker Gallery was built to house an extensive private art collection. But there were some unique givens, for the building is a monument to Victorian tastes in more ways than one. As originally designed by architect Seth Babson, the interiors were embellished with a profusion of intricate ornament: inlaid woodwork of exotic species, tile in unusual patterns, elaborate deeply-molded plaster ceilings and stencil-painted walls. Further—as an addition onto the adjacent Edwin Crocker house—the building was designed for a mix of functions that were peculiar to the times: a roller skating rink on the ground floor, a memorial library plus a ballroom on the main floor, and a gallery on the second, where the eclectic but astutely chosen collection of paintings were hung, like wallpaper, floor to ceiling. Thanks to Rosekrans and Broder's recent work, the collection is appropriately spread out through the entire building today.

Starting with a \$2-million budget, the architects did the minimum amount of new construction that would adapt the whole

building to gallery use and provide such new functions as access for the handicapped. Because the building showed serious signs of deterioration through structural settlement and water leakage, they faced the major problems of restoration of the existing finishes with ingenuity. They removed many ornamented surfaces, including floors, in order to install new mechanical and electrical services, and to stabilize the structure. A concrete tie beam was added to the top of the masonry bearing walls, and steel reinforcement angles were added at each floor. New steel beams span between the columns, and major foundation work was done to level and stabilize the entire structure. The original finishes were then replaced.

CROCKER ART GALLERY RESTORATION, Sacramento, California. Owner: City of Sacramento. Architects: Rosekrans and Broder, Inc.—Richard Broder, partner-in-charge. Associated architects: Anra Hung Buchanan & Tom Jones. Engineers: Barrish, Aldrich, Schroeter, Inc. (structural); Lowry & Associates (foundations/soils); Gibson, Yackey, Trindade Associates (mechanical/electrical). Landscape architect: City of Sacramento, Park & Recreation Department. Cost consultant: J. Paul Oppenheim, Lee Sailer, Inc. General contractor: SMF Corporation. Decorative painting: Rambusch Co.

After the structural stabilization described in the text, the architects replaced and restored most of the original finishes, except on the ground floor where extensive deterioration required duplication. For instance, the ornamental ceilings had come loose from their lath supports. After the removal of the floors, the architects called for the injection of epoxy resin between the lath and plaster to form a new bond. The original paint colors were found by scrapping away subsequent coats, and duplicated. Such Victorian innovations as the gravity warm air system in the walls and the triangle-shaped hanging light canopies (that also diffuse sunlight from the skylights) were restored and their functions augmented. The original main gallery on the second floor is shown restored (photo below) and an entrance to the ballroom (photo right).





A LIVELY ARTS SCHOOL IS BUILT WITH MINIMAL MEANS

The result of architect Ashok Bhavnani's fascination with minimal architecture, these four lightweight, open-air structures are the latest in a series built over a 12-year period for the Usdan Center on Long Island, New York. At Usdan, a curriculum of music, dance, visual arts and drama is taught in an eight-week summer program to some 2000 eight-to-twelve-year-old students. Each category of the arts is accommodated by specially designed buildings dotted over a 250-acre rural campus (see site plan above). These new structures house choral training (photos on these pages), multipurpose activities and graphic arts (photos next pages).

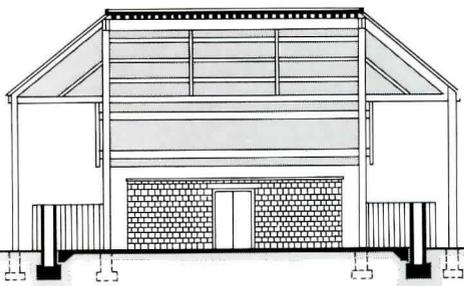
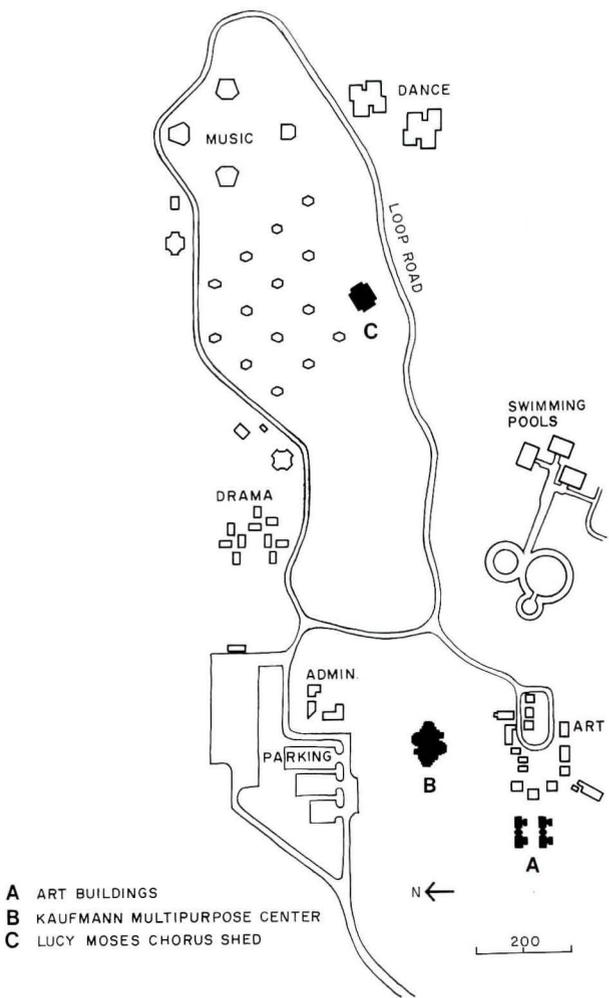
Bhavnani describes them as "lean." Without the need for mechanical climate control, he has used the least possible amount of inexpensive, lightweight industrial materials to enclose the programmed volumes. At the same time, he has provided an appropriate stimulation for the students through playful forms and sometimes startling color.

"The Lucy Moses chorus shed [again these pages] is the most minimal of the new buildings," according to Bhavnani. "It has the most efficient ratio of enclosed volume to materials. It hovers almost weightlessly." Appropriately, it also has the most efficient acoustics,

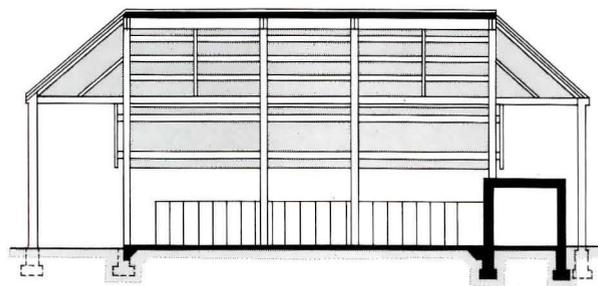
although the open sides could have been a cause of a tremendous loss of sound energy. Surrounding a 1200-square-foot-concrete platform, two low angled walls formed by vertical concrete drain pipes contain sound, because of the dense mass of the earth-filled forms. A central roof of metal decking is "softened" by heavy insulation. A vertical acoustic "skirt" at the perimeter of the central roof and lower protective roofs are made of translucent fiberglass panels to admit daylight. Such panels have become one of Bhavnani's favorite materials. The steel-supporting structure is painted purple, with wood nailers painted yellow. The multipurpose center (next pages) comprises six small pavilions that enclose a covered central space used for movies. The other two buildings are identical and contain two 600-square-foot art studios apiece.

ART BUILDINGS, LUCY MOSES CHORUS SHED AND HENRY KAUFMAN MULTIPURPOSE CENTER, Wheatly Heights, New York. Owner: *Usdan Center for the Creative & Performing Arts*. Architect: *Ashok M. Bhavnani*. Engineers: *Besier, Gibble & Quirin* (structural); *Nordheimer Associates, Inc.* (mechanical/electrical). Acoustical consultant: *Peter George Associates, Inc.* General contractor: *Theo L. Rubsamen & Co., Inc.*

Norman McGrath photos

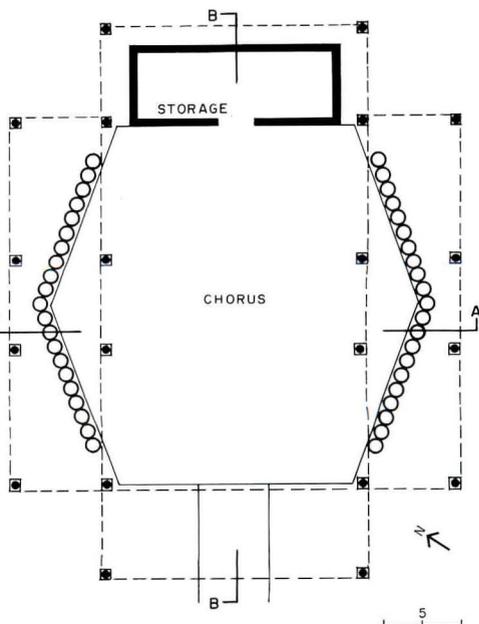


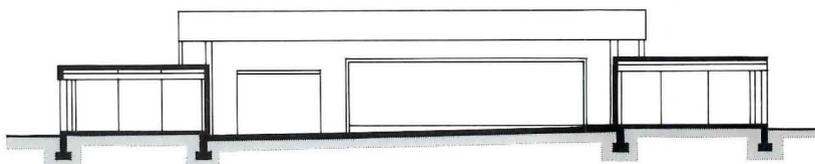
SECTION A-A



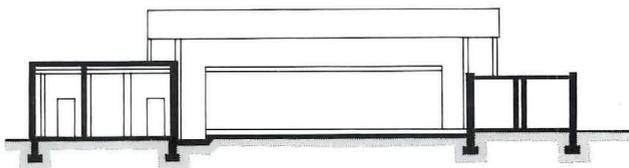
SECTION B-B

The pavilion-like character is most pronounced in the chorus shed, which is completely open to the surrounding woods. The shed gains the necessary acoustic qualities through the construction of the roof and by angled rows of upright drainage pipes stuck in the ground (see text). Choral students sit in a circle around the central conductor, under the diffused light from the fiberglass roofs above. The casual placement of the buildings on the rural site is shown in the plan at left.

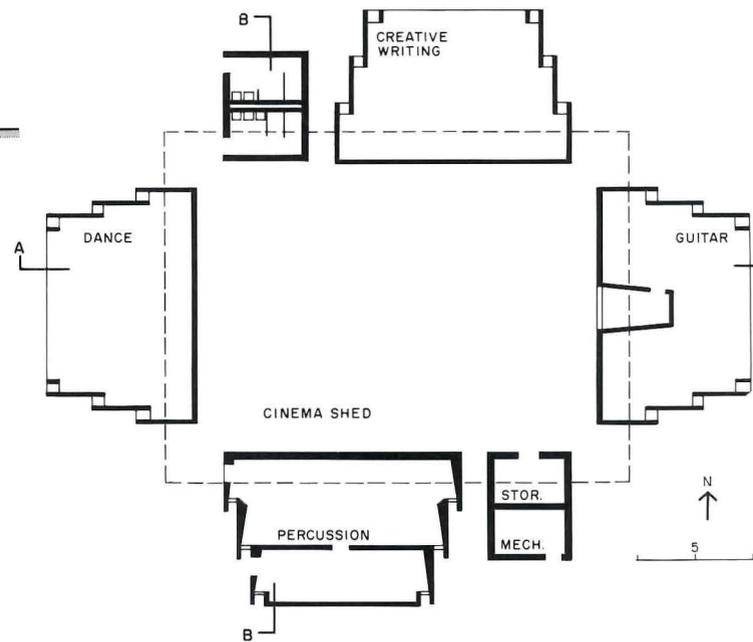




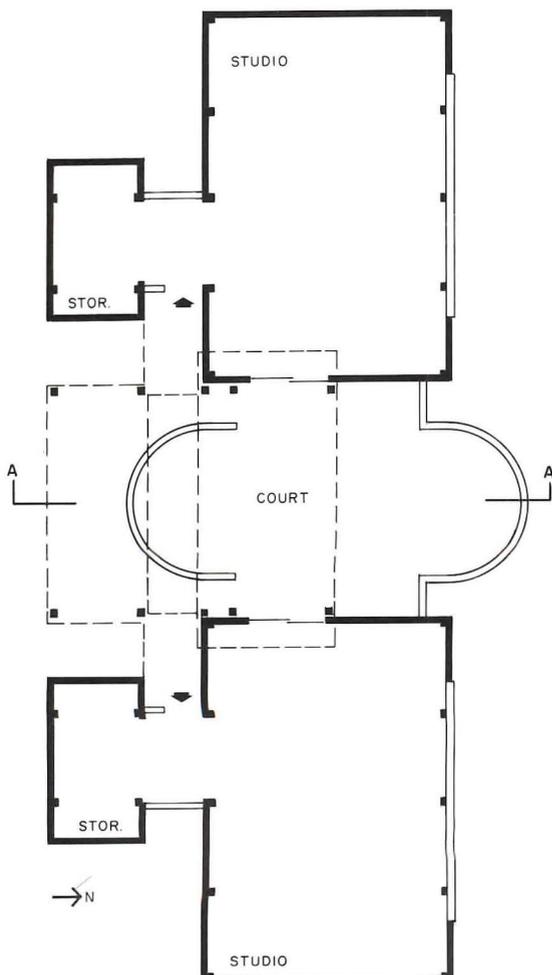
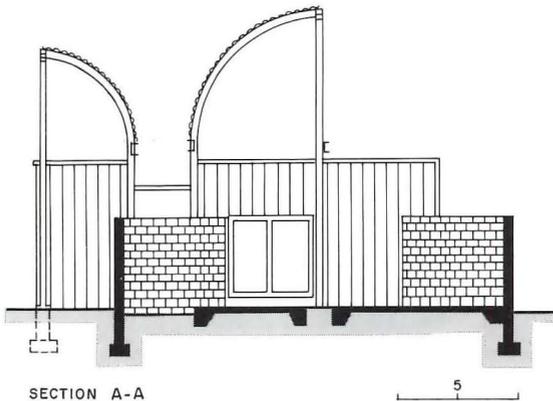
SECTION A-A



SECTION B-B



The multipurpose center (photos and drawings this page) is composed of a central prefabricated steel space-frame roof, and is enclosed by six smaller pavilions. These elements form a space (photo left) that is open to the surrounding woods, and is used for assemblies and movies. The structural elements are again painted purple. Of the six smaller structures, three are also open, like stages to the surrounding woods. They are used for such relatively quiet pursuits as dance and creative writing (see plan). The others are enclosed because of their special natures.



The art studios (photos and drawings this page) consist of two identical structures each of which contain two studios and a central court. The curved, corrugated fiberglass roofs over each central court filter light for outdoor painting during good weather. They also echo the shape of roofs on the older arts buildings, and hence tie the whole composition of new and old together. Both the structures and the walls of the studios are painted steel, while the curved walls of the courtyards are masonry.





IMPACT TRAFFIC DOORS / A 20-page color catalog describes eight series of impact doors, from heavy-duty, high volume motorized traffic application "9000" to the minimum-duty, personnel uses of the pliable "Series 2000" doors. All design and construction features, colors and optional equipment are illustrated. ■ Frommelt Industries, Inc., Dubuque, Iowa.

circle 400 on inquiry card



Old Carolina Brick Co.

HANDMADE BRICK / A color brochure and detail drawings illustrate some of the colors and shapes offered in handmolded, tunnel kiln fired bricks and pavers. The company specializes in matching handmade brick to existing old brick in size, color and texture, as well as supplying Colonial-style bricks for new structures. ■ Old Carolina Brick Co., Salisbury, N.C.

circle 401 on inquiry card



FAUCET GUIDE / A pocket-size brochure includes photos and a description of three single-control and six two-handle kitchen and bath faucets. Different models are made of cast brass, thermoplastic and vitreous china. Bath accessories—towel bars, robe hooks, soap dishes and other items—are also shown. ■ Bradley Corp., Menomonee Falls, Wisc.

circle 402 on inquiry card



PROFESSIONAL ADVICE / Written by and for engineers, "How to Become a Successful Consultant" is a kit containing six manuals, two cassette tapes and a set of Consultant Update reports that show how to start or expand a consulting practice. A six-page brochure describes the kit and its emphasis on acquiring new prospects and clients. ■ S. T. & A., Los Angeles.

circle 403 on inquiry card



GLASS ENCLOSURES / Three types of architectural and commercial glass enclosures are described in an eight-page color brochure. These include *Morelite Modules*, for residential greenhouses and solariums; *Sun Span* glazing system; and a low-cost trussed-roof glass structure available in virtually any length, and widths of up to 42-ft. ■ Rough Bros. Inc., Cincinnati, Ohio.

circle 404 on inquiry card



ARCHITECTURAL METALS / A reference guide describes a variety of copper, brass and bronze products for general architectural use, listing the major standard profiles. Color photos illustrate a number of design applications. ■ Mac-Metal Alloys Co., Newark, N.J.

circle 405 on inquiry card



HID LIGHTING / A 12-page catalog covers the "Triumph I" prismatic control lens for 2- by 2-ft HID light fixtures, showing how the lens distributes the high-efficiency lighting 40-45 deg from vertical. Prism design, performance data, and suggested applications are included. ■ K-S-H, Inc., K-Lite Div., St. Louis.

circle 406 on inquiry card



EXECUTIVE OFFICE / Made of fine veneers and solid wood, fabric, marble and invisibly-welded metal components, *Eppinger's* "Executive Collection" includes desks, cabinets, conference and occasional tables, tilt-swivel chairs, conference chairs and lounge seating. A 32-page catalog includes 16 full-color pages; furniture is shown individually and in room settings. ■ Eppinger Furniture Inc., Stamford, Conn.

circle 407 on inquiry card



SILICONES / The energy-saving potential of silicones in a wide range of construction and industrial applications is discussed in a 12-page color brochure. ■ Dow Corning Corp., Midland, Mich.

circle 408 on inquiry card



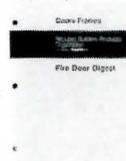
LUMBER PRODUCTS / Western and Southern softwood boards, studs, dimension and timbers, redwood and cedar lumber and sidings, as well as hardwood lumber species are included in a color catalog. Product lines range from sheathing and form panels to millwork items such as windows, doors and moldings. ■ Louisiana-Pacific, Portland, Ore.

circle 409 on inquiry card



PLASTIC GLAZING / A color brochure describes *Exalite* double-skinned plastic sheet, illustrating its use in curtain walls, skylights, solariums, atriums, pedestrian walkways, clerestories, tennis courts, passive solar systems, etc. All technical support data are given. ■ CY/RO Industries, Clifton, N.J.

circle 410 on inquiry card



FIRE DOORS / An illustrated "Fire Door Digest" describes hollow metal fire doors, frames and the hardware needed for fire safety. Included are suggestions for selecting fire doors and frames, as well as classification and specification information. ■ Republic Builders Products Corp., McKenzie, Tenn.

circle 411 on inquiry card



ROOF VENTILATORS / Macheta airfoil design industrial units are shown in a 28-page bulletin, which covers direct drive and belt driven models, including a series of two-way ventilators designed to supply fresh air during warm weather and exhaust air during colder months. Special coatings, accessories and options are described. ■ Aerovent Inc., Piqua, Ohio.

circle 412 on inquiry card



POLYCARBONATE SHEET / A 12-page brochure describes a polycarbonate sheet offering the newest silicone hardcoat, to provide the impact strength of *Lexan* sheet and a mar resistance approaching that of glass. The bulletin contains property profiles on *Margard* sheet, code compliance listings, abrasion test results and resistance comparisons. ■ General Electric Co., Pittsfield, Mass.

circle 413 on inquiry card



MICROFILM STORAGE / A color brochure introduces *Access* microfilm storage and retrieval technology, as well as compatible index control subsystems. Included are specific applications in such areas as engineering drawing control, correspondence files, real estate and investment files, etc. ■ Access Corp., Cincinnati, Ohio.

circle 414 on inquiry card



CONSTRUCTION COSTS / The 1981 edition of the "Dodge Construction Systems Costs" is designed to aid architects in projecting the cost impact of design decisions with up-to-date cost data for each functional part of a building. There are also sections on space planning, average building and system costs, and locality adjustment factors. The book sells for \$43.80, and is available from McGraw-Hill Cost Information Systems, 1221 Avenue of the Americas, Suite 1759, New York, NY 10020.

For more information, circle item numbers on Reader Service Inquiry Card, pages 215-216

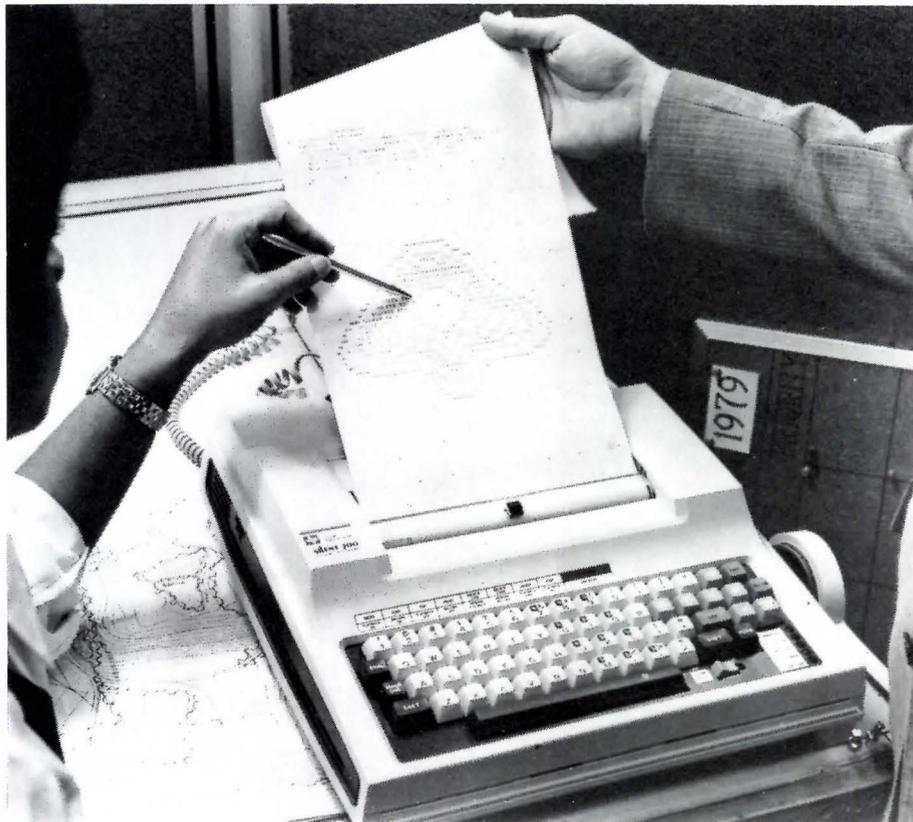


New format pen plotter from Hewlett-Packard

A new large-format pen plotter for producing architectural plans, recently introduced by Hewlett-Packard, is claimed to cut half the cost and size of competing high performance plotters. The "HP 7580A" plotter attaches not only to HP personal computers, desk-top computers and to larger "3000" and "3000" computers, but to non-HP computer systems. The plotter features microprocessor control, fast

plotting speed, and excellent repeatability, line quality, and resolution. It can automatically select line widths, character fonts, and up to eight colors, and will plot on pre-cut sheets and pre-printed forms of paper, vellum or polyester film. Its size is 43 in. wide, 22 in. deep, and 47 in. tall, and the unit weighs under 150 lb. ■ Hewlett Packard, Palo Alto, Calif.

circle 301 on inquiry card



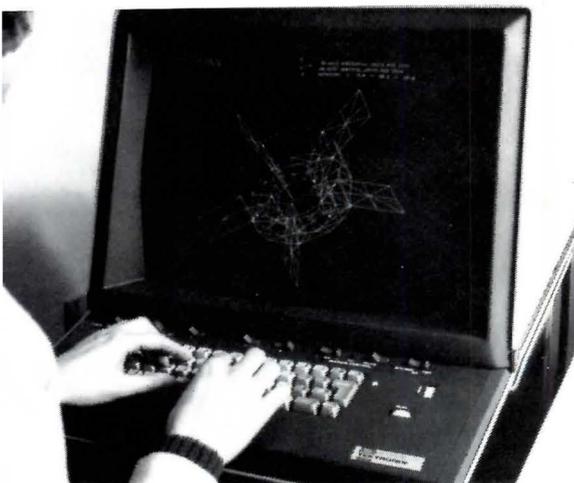
Computerized lighting overlay program by Keene Corporation

Keene Corporation's Lighting Division has developed a computerized outdoor lighting overlay program, which can save time and provide a number of alternatives for the architect or engineer who is designing lighting layouts. Using a portable remote computer terminal—which connects to the main computer by any office telephone—a company

lighting salesman feeds in the designer's response to seven key questions, and within ten minutes an Isolux (lighting intensity and distribution) overlay is produced. The computer is programmed for more than 200 of the most likely used outdoor fixtures in any of half a million possible combinations of pole height, fixture pole-top configuration, lamp type and

wattage, and aiming point. According to Tim Cannell, marketing manager for the company's outdoor lighting products division, "The new program reduces the time for architects or engineers to develop lighting designs and drawings by better than 50 percent." ■ Keene Corporation, Lighting Division, Union, N.J.

circle 302 on inquiry card



New design programs added to Boeing Computer Services

Boeing Computer Services Company, formed in 1970 to fulfill data processing for the Boeing Company and to offer computer services for commercial and government markets, has added several new computer programs to its already in-service structural analysis product line. All available via the MAINSTREAM®-EKS remote computing service, several of the programs use finite element modeling to analyze designs of many types of structures including high-

rise buildings and steel towers. STARDYNE® analyzes the behavior of various types of structures under static, dynamic and thermal load. The program's graphic capabilities (an example is shown) allow the user to create plots of the original model and the deformed structural shape for evaluation. SUPERTAB is a general-purpose interactive graphics tool used to prepare raw, bulk data for subsequent analysis; it eliminates the tedium of the computer card input process

and makes large analysis programs "user-friendly." A third structural analysis introduction is MARC, suitable for applications including linear elastic analysis of three-dimensional shells, solids and beam structures. In addition to remote computing services, Boeing offers consulting services, custom programming and data base services.

■ Boeing Computer Services Company, Morristown, N.J.

circle 303 on inquiry card

more products on page 143

"The 4000 4E"

In Ingolstadt, we believe our Audi will be just as efficient and exhilarating going from Seattle to Cape Cod as it is from Munich to Bremen.



Audi 4000 4E \$9,210.00 suggested retail price, P.O.E. Transportation, local taxes and dealer delivery charges additional. Photograph—Ramsau, Bavaria.



Surprising as it is, the cars most prepared for the realities of the modern world are those built in the old world. Here in Ingolstadt, Germany.

In this ancient city by the Danube, Audi engineers build automobiles with the foresight of their forebears.

To wit, an Audi is as ready for the rigors of Interstate 80 as it is for the medieval roads of Charlemagne.

The 4000 4E can cruise at 55. Or 100. It is the epitome of efficiency and economy. EPA estimated 26 mpg, 41 mpg est. highway. (Use the "estimated mpg" for comparison. Mpg varies with speed, trip length, weather. Actual highway mpg will probably be less.)

It has a fuel-injected engine, front-wheel drive pioneered by Audi a half century ago, a refined five-speed trans-

mission, advanced suspension and outstanding ergonomics.

Indeed, the 4000 4E is an exhilarating sports sedan.

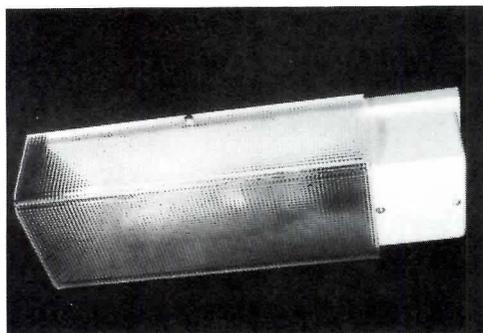
For your nearest Porsche Audi dealer, please telephone (800) 447-4700. In Illinois, (800) 322-4400.

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NOTHING EVEN COMES CLOSE

Audi

WASHROOM CABINETS / Laminate-clad "CRC" units have been specifically designed to integrate all restroom accessories into the vanity top, including paper towel dispenser and disposal and a liquid soap container. The "CRC" cabinet also provides for easy use by handicapped persons, and meets access requirements of public washroom facilities. ■ Ampco Product, Inc., Hialeah, Fla.

circle 304 on inquiry card

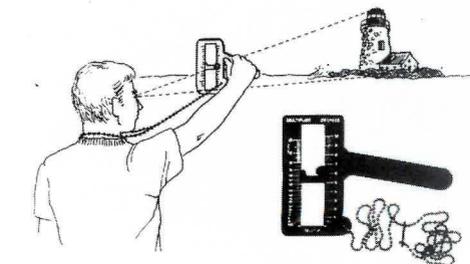


LOW-PRESSURE SODIUM / This 18-Watt LPS wall and ceiling fixture replaces a 150-Watt incandescent light, providing excellent lighting efficiencies at 100 lumens/Watt. For either indoor or outdoor use, the rugged fixture supplies low-glare illumination over a wide area. Suggested retail price: \$92.50. ■ Hetherington Industries, Inc., Levittown, Pa.

circle 305 on inquiry card

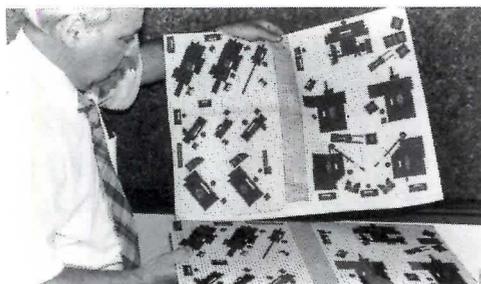
THERMAL WINDOW / The *Arcadia Aspen 740* sliding glass window has an integral thermal break in both panel and frame members. Insulating glass may be supplied in 5/8-, 7/8-, or 1-in. thicknesses, either clear or tinted, and annealed or tempered to meet safety codes. Available in one-, two- and three-panel configurations in six-ft panel heights, the *Aspen 740* monumental window features an anti-liftout design, positive latching device and optional screen. ■ Northrop Architectural Systems, City of Industry, Calif.

circle 306 on inquiry card



RANGE FINDER / Pocket-sized *Telefix* device uses geometric triangulation to easily measure distances, heights and angles in the field. Made of black plastic with an adjustable viewing aperture, with a chain lanyard to provide a fixed distance from the eye, the range finder measures distant or inaccessible dimensions in terms of local and convenient ones. Retail price: \$9.95. ■ Telefix, New York City.

circle 307 on inquiry card



PLANT LAYOUT AID / The *Repro-Templet* system provides thousands of two-dimensional adhesive-backed templets of machines and shop equipment, mounted on film grids. These are said to be simple to locate and rearrange into various plant layouts, before reproducing in any standard print machine. ■ Repro-Templates Div., A.D.S. Co., Indianapolis, Pa.

circle 308 on inquiry card

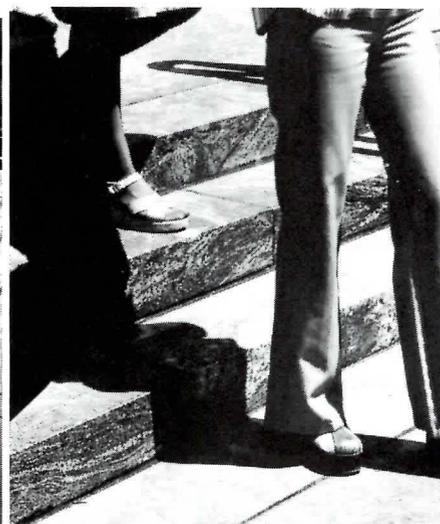
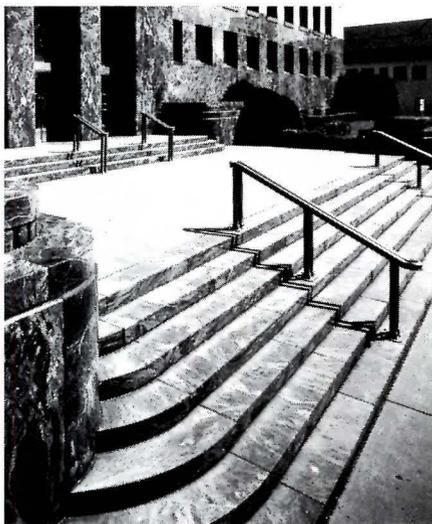
WOOD-FIRED HEATER / The *Jetstream* wood-fired heating system meets the safety and performance requirements of the Canadian Standards Association, and is adaptable to hot air, hot water, and solar heating systems. A creosote-free

method of burning all types of wood, the *Jetstream* is said to achieve virtually 100 per cent combustion of all volatile gases. An efficient insulated storage system delivers heat automatically for hours or days, depending on weather demands. Measuring 50-in. high, 24-in. wide and 42-in. deep, the model 120 SB *Jetstream* furnace weighs 1050 lbs; suggested price is \$2,275. ■ Hampton Technologies Corp., Watertown, Mass.

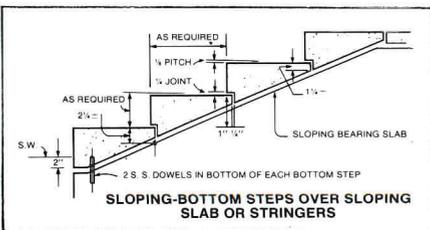
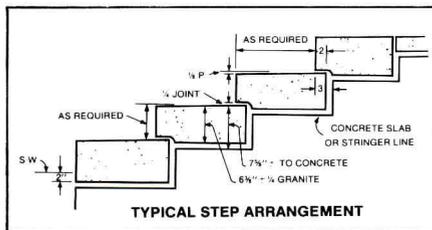
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more products on page 145

Granite.

Tough enough to take the thunder of 10 billion feet.



Architect: Tinsley Higgins Lighter & Lyon, Des Moines, IA



What else but granite can take 38 years of wear and weather without fading, staining, or showing measurable wear? That's what made Cold Spring granite the ideal choice for the Banker's Life Insurance Building when it was built in Des Moines, Iowa, in 1939. And that same unique combination of beauty and unsurpassed durability make it ideal for today's floors, facades, core walls, steps, malls and walkways — wherever you need maximum durability that's virtually maintenance-free.

For more information, plus a free copy of our 16-page, full color catalog showing all 18 Cold Spring colors available, call toll free **800-328-7038**. In Minnesota, call (612) 685-3621. Or write to the address below.



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A frame is a frame is a frame. Unless it's aluminum.

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But we've changed that. Our aluminum door frames offer cleaner, more sharply defined lines because they're extruded. The fact that they're made of lightweight aluminum also means they're easy to install, fully demountable and reusable. And they're as durable and long-lasting as steel.

Howmet door frames come in a wide choice of painted or anodized

finishes. Plus, they are reasonably priced and readily available.

The Howmet Imperial™ door frames install ceiling height only. And the Howmet Royal™ door frames install ceiling height or less. Both are available with or without matching, fire-rated sidelites, doors and hardware.

Custom Engineered Ceiling Grids

Howmet also manufactures aluminum ceiling grids in a variety of innovative finishes and

design options featuring lightweight, rust-free performance and

easy installation.

So, if you're tired of choosing from the same old products, try Howmet. Our interior products are special. Either call (501) 234-4260 or write to our Interior Products Department, P.O. Box 40, Magnolia, Arkansas 71753.

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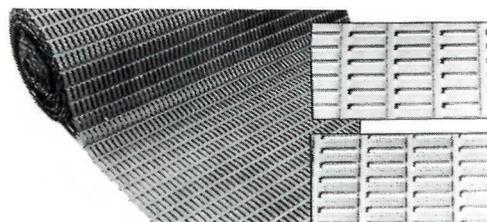


REPLACEMENT BALLASTS / Designed for replacement in a EEL-NEMA head luminaire, prewired 100- and 70-Watt high-pressure sodium lamp ballasts use much less energy than the original 175-Watt mercury lamp and ballast. Each ballast includes an attached starter, a mounting bracket which permits installation using the same holes as the original ballast, and an attached lamp socket which positions the new lamp within the fixture for optimum light output. Both are UL-listed for 120-Volts/60 Hertz operation. ■ Universal Mfg. Corp., Paterson, N.J.

circle 310 on inquiry card

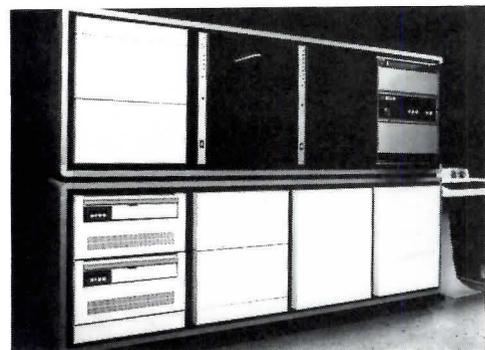
HOTEL/MOTEL CONTROL / Offered as an option with various *Singer* air conditioning installations, the *Inn-Command* guest room control performs a number of energy-efficient and informational services for hotel and motel operators. The system uses existing 115-volt building wiring to permit front desk personnel to turn individual room conditioners on or off, depending on the occupancy status. Each room may have a message and wake-up panel, with an LED display operated from the front console; this panel also provides a "room ready" signal to be sent by the maid after daily room make-up. ■ The Singer Co., Climate Control Div., Carterest, N.J.

circle 314 on inquiry card



PVC FLOORING / Made from flexible PVC tubes in grid formation, *Floorline* flexible matting has a reversible, slip-resistant patterned surface. It is impervious to water, oils, grease, alkalis, and most industrial chemicals. Flexible and lightweight, *Floorline* is available in rolls two- and three-ft wide by 33-ft long, in blue, green, red or black. ■ Tepro-mark International, Inc., Woodmere, N.Y.

circle 315 on inquiry card
more products on page 147



INTERACTIVE GRAPHICS / *Sperry-Univac's* V77-800 minicomputer is now offered as a graphics processor for the *AD/380* automated design and drafting system. As recently installed in a larger architectural firm, the interactive graphics system produces structural drawings and electrical, mechanical and architectural documents using three *CC-80* graphic work stations. ■ Auto-Trol Technology Corp., Denver.

circle 311 on inquiry card



SMOKE DETECTOR / The "Model 306M" ionization smoke detector will operate on 6-, 12-, or 24-Volt DC systems. Features include single pole/double throw alarm contacts, both remote and built-in alarm indicator light, and a dual alarm system that provides protection from both fast and smoldering fires. ■ Statitrol Div., Emerson Electric Co., Lakewood, Colo.

circle 312 on inquiry card

OUTDOOR LIGHTING / "EL Series" cut-off luminaires are said to provide efficient outdoor illumination at an economical price. Made of heavy-gauge aluminum, "EL" luminaires can be provided with mercury vapor, metal halide and HPS ballasts, in wattages from 70 through 1000. ■ Trimble House Corp., Norcross, Ga.

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Firestone introduces RubberGuard™ roofing system

Now you can get EPDM single-ply sheet roofing from one of the oldest and most experienced rubber products manufacturers in the world—Firestone.

For the contractor, RubberGuard features:

- sheet sizes up to 40' x 150'
- flashing, adhesives and sealants
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PPG SOLARCOOL® GLASS LOWERS THE COST OF BUILDING AN IMAGE.

The better a building looks, the more it will help attract tenants.

And it really isn't that difficult or expensive to make a building look very, very impressive. Not when there's glass as beautiful and economical as PPG's *Solarcool* reflective glass.

For a lot less than you might expect, *Solarcool* can be a brilliant complement for the colors and textures of a wide range of other building materials. From wood to masonry to metal.

Solarcool will complement your building's setting, too. By reflecting the surrounding view, it helps a design blend naturally into its environment, while adding a striking, yet fitting, new dimension to the overall landscape.

But controlling costs is what this newest PPG reflective glass does best. Its initial cost is low. And it can be cut, tempered and fabricated in your area. Which means improved delivery times, lower installation costs and faster job completion.

Solarcool also helps save energy. It cuts relative heat gain through the glass almost in half, compared to single glazed clear glass. And that can lead to lower air-conditioning costs.

Learn more about the beautiful economies of PPG *Solarcool* reflective glass. See Sweet's 8.26 Pp or write us: PPG Industries, Inc., Dept. AR-141, One Gateway Center, Pittsburgh, PA 15222.

Circle 74 on inquiry card

PPG: a Concern for the Future

Top Left: Physicians' Square, Shreveport, LA
Architect: Wilson, Sandifer Associates

Top Right: Tucker Office Building
Atlanta, GA Architect: Arkhora & Associates

Below: Koll Center Newport, Newport
Beach, CA Architects: Langdon & Wilson



“Elevette”[®] your condos’ most practical status symbol



The “Elevette” home elevator is so distinctive, it puts your condo in a class by itself. But that’s the *least* of its advantages. It’s also:

Convenient . . . Instead of trudging up and down stairs, you go from floor to floor with the push of a button (and save all that extra energy for tennis!).

Handy . . . Have something bulky to take up-stairs? “Elevette” does the job quickly, quietly, effortlessly.

Helpful . . . It saves time and effort. And best of all, it increases your condo’s value. Sure, the “Elevette” is a status symbol. But no other status symbol has ever been this practical.

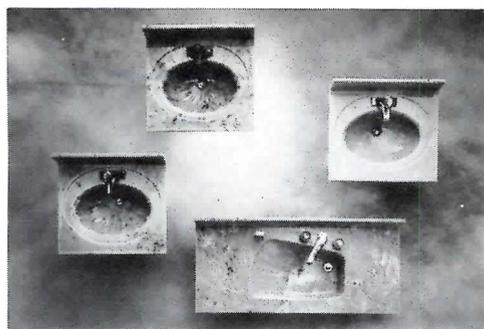
When planning your next project, don’t just allow space for “Elevettes” to be installed in the *future*. Have them installed as original equipment. Make the “Elevette” a selling feature.

Designed specifically for single family use.

Write for Full Information and Free Literature.

INCLINATOR COMPANY OF AMERICA
2239 Paxton St., Harrisburg, PA 17105

Circle 75 on inquiry card



ONYX LAVATORIES / Made of acrylic fiberglass in an onyx pattern, the “Ionic” lavatory comes in various colors and oval or recessed shell shapes, as well as a shampoo bowl. The stain-resistant lavatories have integral back splashes and non-drip edges, and carry a three-year warranty. ■ Aqua Glass, Adamsville, Tenn.

circle 316 on inquiry card

RESILIENT FLOORING / A new pattern in the “Architect’s Choice” line of commercial and residential flooring, “Candida” has the look of a stenciled floor, with an overall hexagonal design in three different, muted colorways: Tapestry

Beige, White Smoke and Spice Brown. *Mannington’s* 1981 catalog includes all “Architect’s Choice” and other flooring products, along with installation and maintenance specifications. ■ Mannington Mills, Salem, N.J.

circle 317 on inquiry card

CEILING BAFFLE SYSTEM / The *Daempa 2000* Renovation System is said to be easily adaptable to existing T-bar suspended ceilings. Lightweight aluminum baffles, ranging from two- to 10-ft in length, hook onto the T-bars and can be installed

in two basic patterns: parallel or rectangular. Optional perforated baffles offer greater acoustical control. The *Daempa 2000* system is available in 100 colors, including bright metallics, which can be mixed and matched for dramatic effects. ■ Levolor Lorentzen, Inc., Lyndhurst, N.J.

circle 318 on inquiry card



PUBLIC AREA SEATING / “Variform Seating,” based on foam upholstered V-chairs, incorporates a security system designed to keep pieces intact in public areas. The versatile table and chair components, by Tom Donkin Designs, fit together by means of a series of premounted bolts that become totally concealed when installed. Layout possibilities include circular, serpentine, straight line and a range of arcs. ■ Interior Products Co., Cleveland.

circle 319 on inquiry card

more products on page 155

ICE RINK ANSWERS



The **10**
Essentials
for getting
the most for
your ice rink
investment.

HOLMSTEN
Rinkmaster
AMERICA’S LARGEST MANUFACTURER
AND INSTALLER OF ICE RINKS,
DASHER BOARDS & ACCESSORIES

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INSTALLER OF ICE RINKS

For your free copy, just write or call. This 16 page guide contains essential ice rink information for the architect.

Whether planning a new ice rink . . . or just thinking about it . . . or modernizing an existing facility . . . this guide will help you. It tells how to get the most energy efficient ice rink ever developed at a very competitive cost.

SERVICES PROVIDED TO ARCHITECTS:

1. Typical ice rink plans, specifications, options.
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New from
Masonite Corporation...

GEORGETOWN COLONIST

PREFINISHED

Now there's a six-panel, hardboard door facing that is factory prefinished in a warm, rich, wood-like tone. This puts an end to on-site finishing, resulting in faster installation.

Identical in styling to our highly popular, original Colonist® door facing, the new Georgetown Colonist faithfully duplicates the classic architectural styling and craftsmanship of colonial American stile and rail doors. Cove and bead, grain and joint details are all sharp, clear and authentic. Its finely embossed surface creates the look, the feel, and the textured appeal of a real wood door.

And this facing makes a much better door than the panelled wood doors of old (or even of today). Better, because the new Georgetown Colonist is die-formed from a single length of durable hardboard that's 50% denser than ordinary wood for strength and stability. Better, because there are no joints between the panels, stiles, moldings and rails that can separate through years of use. Better, because Georgetown Colonist is priced at about half the cost of pine and other wood doors.

For the names of quality door manufacturers using new Georgetown Colonist, write: Masonite Corporation, 29 North Wacker Drive, Chicago, Illinois 60606.

Masonite and Colonist are registered trademarks of the Masonite Corporation.

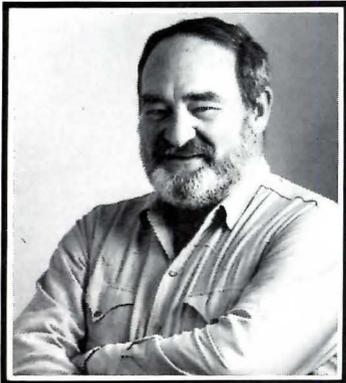


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WITH 38 TYPES OF WINDOWS, I CAN TELL YOU... MY BOYS GOT THE HANG OF IT.

Terry Fuldner, Founder



I started making EFCO windows in 1952 with only one type.

Now, we're building 38* darn good aluminum windows, with infinite variations. All competitively priced.

But if that doesn't do it for you, we'll build your windows to match your imagination.

Arch top or gothic. Double hung, single hung or rolling. Casement, pivot or projecting. Thermal or non-thermal. Replacement or original.

Send me your specs. I'll tell you how we'll build the window you're thinking of. Call me or write me.

QUICK. NAME 38 WINDOWS.

EFCO

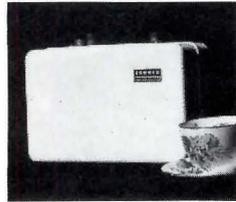
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INSTANTANEOUS HOT WATER / Manufactured



in West Germany and now available through dealers in the U.S., the Zanker-Forbach electric water heater line is composed of a series of units designed for a variety of commercial, industrial and domestic uses. The heaters consume no energy until there is a demand for hot water, and require only a single piping run. Heaters are UL-listed and approved. ■ International Technology Sales Corp., Englewood, Colo.

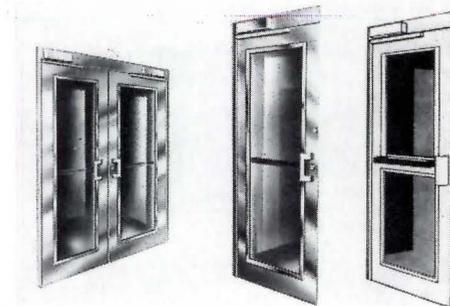
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EQUALIZING VALVE / This pressure equalizing



valve for commercial applications and multifamily dwellings ensures a constant water temperature by automatically compensating for pressure fluctuations in the hot or cold water supply. Options include volume control, screwdriver stops, flow control and back-to-back connections. ■ Nibco, Inc., Elkhart, Ind.

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BULLET-RESISTANT DOORS / Insulgard transparent

door systems offer various levels of physical protection without unduly signaling that a security measure has been taken. Standard units have a glass/Lexgard laminate sealed in a heavy-duty metal frame door, an end product capable of withstanding impact greater than most handgun calibers. Special features, such as a pass-through component, electric deadbolt, LCN closer and electrified panic lock, are available options. ■ Insulgard Corp., Hyattsville, Md.

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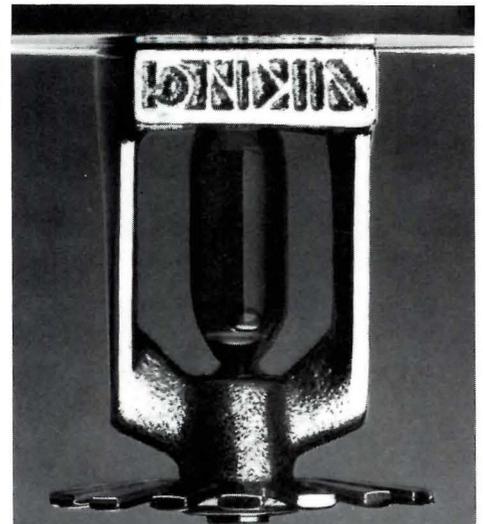
INDUSTRIAL HEATING/COOLING / The "Heat



Machine" saves energy by extracting low grade heat from waste, processed water or other warm water sources; and then raising the temperature to provide hot water as high as 160 deg F. It can heat and cool simultaneously. Suggested applications of the "Heat Machine" include hotels and motels, because of their simultaneous hot and chilled water needs; buildings or plants needing pre-heat; and various industrial process applications. Units are available in 15 sizes and three classes, ranging in heating capacities of 100 to 2800 MBH output. ■ Commercial Products Div., Carrier Air Conditioning Group, Syracuse, N.Y.

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more products on page 157



THE SPRINKLER YOU CAN LOOK UP TO

Most fire protection sprinklers aren't built with architects in mind, so they don't add much beauty to a ceiling.

That's why we've engineered our Decor® sprinkler line to be visually subtle, yet offer an attractive alternative to bulky solder-link or costly concealed sprinklers.

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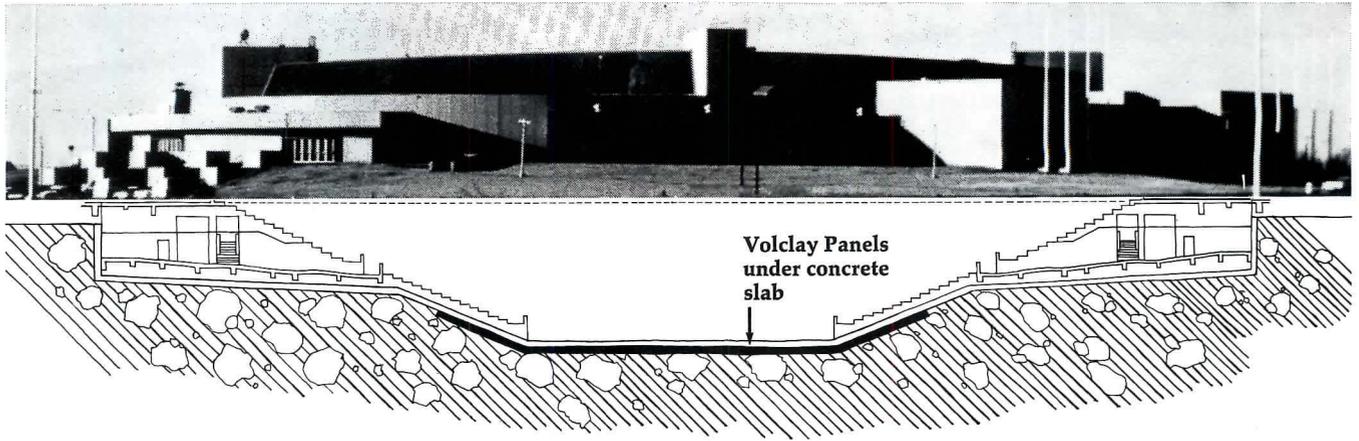


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"Without Volclay Panels, we might have built the first underwater gym floor."

—Mickey Landers, Former Project Superintendent
Rayco Construction Company, Oklahoma City, Oklahoma

The University of Oklahoma's Lloyd Noble Arena has a playing floor 4 feet below the permanent water table. A high security waterproofing system was mandatory, so Volclay Panels were specified.

"We were faced with a tricky problem to make sure the floor stayed dry," recalls Mickey Landers. "Any kind of a leak would easily lead to seepage, and water pressure could make it look more like a swimming pool than a gym.

"We hadn't used Volclay Panels, so we asked the factory rep to show us how to prepare the joints. Installation was comparatively easy. Best of all, there's been no seepage through the slab or the expansion joints in four years.

"In all my 35 years in the construction business, I've never seen a product like Volclay Panels. I'd recommend them to anyone."

Architect Max Lorenz of Binnicker & Associates, Oklahoma City, Oklahoma, specified Volclay Panels.

"There are other ways of meeting this problem, but they tend to be expensive," said Lorenz. "And even more important, none of them are as reliable as Volclay Panels. It's completely dependable."

How can the corrugated board in Volclay Panels keep out water?

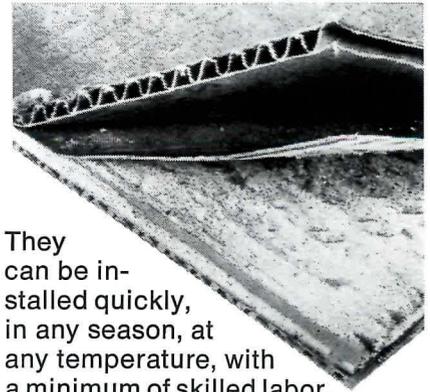
It can't.

What does the job is sodium bentonite, an aluminum silicate clay, *inside* the flutes. When they're wet, these tiny granules expand, forming a permanent, flexible gel. Whenever it's punctured, torn or cracked by structural setting or other strains, this gel literally "heals" itself. Long after the cardboard has disintegrated, this inert, natural layer of waterproofing shields walls and underslabs against ground water. At the Lloyd Noble Arena Volclay Panels have been working without failure for over four years.

Volclay Panels have been approved by the General Services Administration, the U.S. Army Corps of Engineers, and the department of Civil Engineering, University of Liverpool. These panels have also been proven in such demanding applications as building foundations in New Orleans and Miami Beach; 150-foot-deep mine crusher pits; and multimillion-dollar rapid transit tunnels.

Installation costs are low, maintenance is minimal.

Compared to conventional waterproofing systems, Volclay Panels save money.



They can be installed quickly, in any season, at any temperature, with a minimum of skilled labor. To find out more about this proven, economical waterproofing system, mail the coupon.

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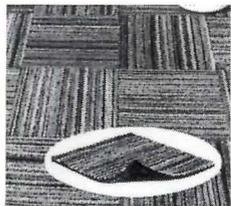
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VOLCLAY PANELS
Bentonite Waterproofing Systems

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HEAVY TRAFFIC SURFACE / "Fluff Cord Tile" is a



carpet-like square made of rubberized fabric strips bonded to a flexible mesh base. It is said to be ideal for heavy wear areas in airports, factories, shopping centers: any place where pedestrian traffic moves in and out of a public area. Individual, 12-in.-square "Fluff Cord" tiles may be laid in a parquet pattern, as shown, or diagonally; available in a natural gray-tone color only. ■ R. C. Musson Rubber Co., Akron, Ohio.

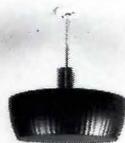
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PEDESTAL CHAIR / Constructed with a molded plywood frame set on a metal base, the "Galahad" swivel lounge chair and matching footstool are completely upholstered in natural leathers. Chair, standing 36 $\frac{3}{4}$ -in. high, has a locking tilt mechanism. ■ Stendig Inc., New York City.

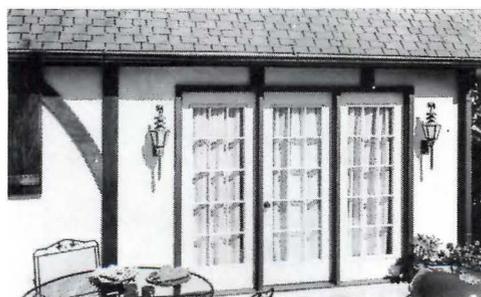
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INDIRECT LIGHTING / The Lam Luxtra 500 series



is a line of glare-free, indirect lighting fixtures using high-pressure sodium lamps that provide high levels of warm yellow light. For use under ceilings as low as 8 $\frac{1}{2}$ -ft, the fixture has an optical system that emits 42 per cent of the light within 30 degrees of horizontal for uniform distribution, eliminating the sharp color contrasts normally associated with sodium. Offered in a choice of shapes and colors, *Luxtra 500* fixtures take 250- or 400-Watt HPS lamps that produce over 125 lumens/Watt. Prices start at \$300. ■ Lam Inc., Wakefield, Mass.

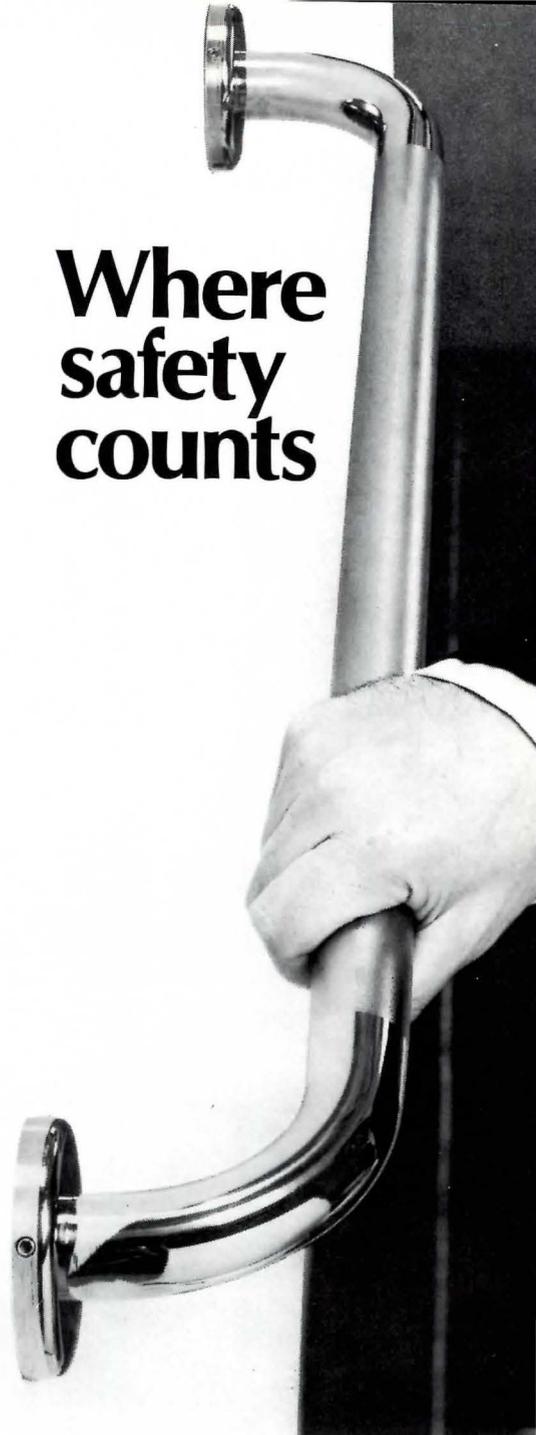
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STEEL DOOR SYSTEMS / A new line of steel doors and frames for the single-family, apartment and condominium markets, the *Energy* system includes a wide choice of embossed and raised trim styles, single- and double-door combinations with matching doorlites, patio doors (pictured) and the option of beveled and leaded glass. The 24-gauge weatherstripped steel doors have an insulation value of R12.46, and feature solid lock reinforcement for all types of conventional residential lock hardware, including dead bolts. ■ The Ceco Corp., Door Div., Oak Brook, Ill.

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