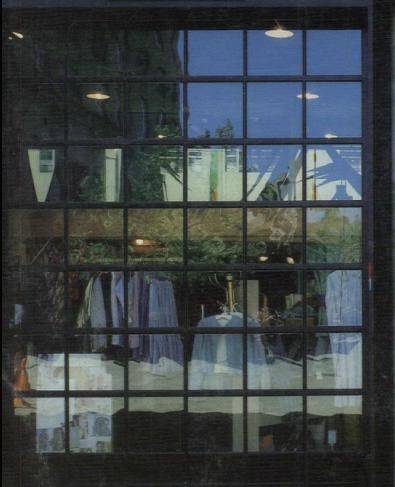
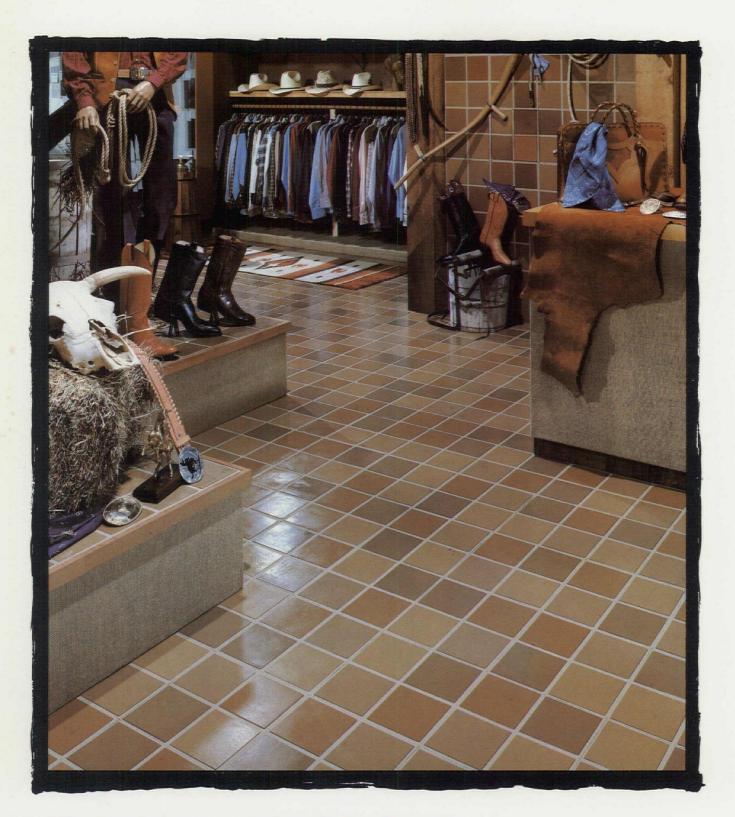
Progressive Architecture

July 1982







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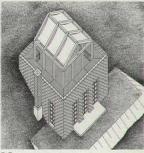
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Cover: Center Ithaca, Ithaca, NY (p. 72), by Werner Seligmann & Associates. Photo: Timothy Hursley, Hursley/Lark/ Hursley.

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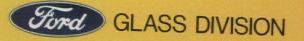
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Picking winners

Conditioned by many factors, the effort to identify the best products of any art can never be flawless, but can never be abandoned. Herewith some notes on awards programs past and present. We have just announced the 30th annual P/A Awards competition (p. 15) in the well-known program for work not yet executed, which dates back to 1953. It is not widely known, however, that P/A sponsored an annual national awards program before that—from 1947 through 1949—for buildings *completed* in the preceding year.

In 1950, P/A discontinued its competition in deference to the newly established AIA Honor Awards program. An announcement in the Feb. 1950 issue explained: "When the AIA announced its program of Honor Awards last year, we realized that such an endeavor, conducted by the only representative professional society in our field, could ultimately have great value. P/A was not ready to relinquish its own enterprise, however, until we had seen the results of the AIA Awards and had some indication of how they would be conducted. The results were good, but we felt that some improvements could be made in the procedure, bringing the judgment closer to realization of the same aims that we had in mind.'

To that end, P/A had discussed procedures with AIA officials and agreed on three ground rules: the AIA competition was to be open to all registered architects practicing in the U.S., not just AIA members; submissions were to go directly to a national jury, rather than through local preliminary judging; juries were to be selected "as objectively as P/A juries have been" and include those qualified to judge "technical, function, and social" qualities, as well as aesthetic ones. The announcement concluded by urging readers to submit their works to the second annual AIA competition.

The one-year overlap-in 1949-between the parallel awards programs of P/A and AIA invites comparison. The P/A program gave two top awards, one residential, one nonresidential, which went in 1949 to a house at Yamhill, Or, by Pietro Belluschi and a building at the San Francisco Naval Shipyard by Ernest Kump (with Mark Falk, structural engineer); the nine nonresidential "Mentions" included works by Gardner Dailey, John Yeon, Aeck Associates, Saarinen & Saarinen, Perkins & Will, plus additional works of both Kump and Belluschi; the five residential "Mentions" included houses by Neutra, Carl Koch, and Twitchell & [Paul] Rudolph. The concurrent AIA program gave its two top honors to two California entries, the Corona del Mar School, by Marsh, Smith & Powell, and a house in Marin County, by Frederick Langhorst; among its 15 "Award of Merit" winners were works by such offices as Wurster Bernardi & Emmons, Perkins & Will, John Lyon Reid, and DMJM. The only building that was recognized in both programs was the prefabricated house in Concord, Ma, by Carl Koch (with Huson Jackson and John Callender). (A house in Sarasota by Twitchell and Rudolph was recognized in 1949 by P/A, then in 1950 in the AIA program.) It is worth noting that this year's winner of AIA's 25-Year Award, Belluschi's Equitable Building in Portland, Or, was accorded a "Mention" in the P/A program—after heated debate; it was never recognized in the AIA program. In the area of jurors, the P/A program had

included the acknowledged leaders of that time: the 1949 jury included architects Robert Woods Kennedy, Louis Skidmore, and Edward D. Stone, engineer Fred N. Severud, and historian Talbot Hamlin; the two previous juries had included Eliel Saarinen, William W. Wurster, Joseph Hudnut, Paul Weidlinger, and Antonin Raymond. While P/A saw a need to authenticate recognition with jury members of international reputation-a practice resumed and main-tained in today's P/A Awards program-AIA has, over the years, filled many jury seats with people whose credentials to judge design remain elusive. Recently, AIA has sought guidance from its own Design Committee, which has developed systematic equitable methods for identifying prospective jurors. (Though I am now vice-chairman of that committee, I have not recommended any AIA jurors.) The jury for this year's awards, for instance, included among its members Robert Venturi, Frank Gehry, Joan Goody, Thomas Beeby, and Howard Barnstone.

When you assemble a jury of leaders in design, however, you get a pickier jury—one less impressed with sheer prominence of an entry (either in reality or in print). Selections that pass through such a jury, in a period of divided opinion such as this, tend to be small-scaled—and either daring or coolly noncontroversial. P/A Awards have tended recently toward the small and innovative, called "trendy" by detractors; this year's AIA honors (P/A, May 1982, p. 25) tended toward the small and restrained, called "unpretentious" in AIA releases and "ho-hum" in the *Christian Science Monitor* headline for an article by Jane Holtz Kay.

Perhaps it is inevitable for a program that recognizes unbuilt work to recognize the innovative. And it may be equally proper for a program that focuses on what is completed and working to reward what is safe.

John Maris Difa

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Views

Furniture familiarity

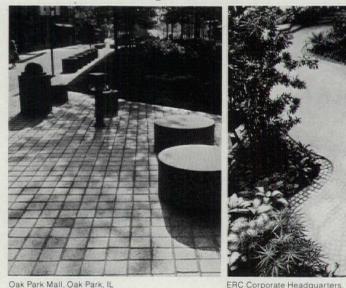
Coy Howard was right. Stefano Giovannoni's "Electric Chair" should not have been given a citation . . . especially since its likes—"Philadelphia Table" by Phillip Mayberry-has already been published in Gentlemen's Quarterly (Apr. 1981). Christopher P. Morris Morris Babb Morris Armonk, NY

[For other examples of Mayberry's work, see P/A, Sept. 1981, pp. 165-167.—Editor]

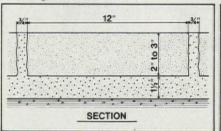
Energy reflections

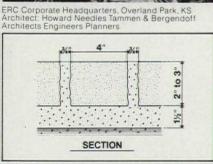
I read the April Energy issue of P/A from cover to cover certain that I would find more of the same disjointed misinformation so prevalent in the printed media. I did this because I am and have been totally immersed in the energy and architecture subject for several years. For the last three I have been involved with many of the people writing and producing the data, information and buildings in your April issue. I must say that this year's issue was a surprising light, and it gave me hope that we will be able to deliver useful and extremely valuable assistance to building design professionals in the immediate future. It is an impossible subject for building design professionals to address as individuals on a per project basis. But as a "process" and with the necessary research done and composed it appears

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Oak Park Mall, Oak Park, IL Architect: Joe Karr & Associates, Chicago, IL Sturr Young, Associate Architect, Oak Park, IL





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that energy conscious design can become a manageable and integral part of architectural practices.

A Baseline for Energy Design is an excellent article and the results are nearly consistent with the research being done here at TVA. However, the caveat that remains and must be acknowledged by its users is that this information most certainly will not be applicable to the specific projects being planned, pro-grammed and designed today. We are anxious to see the article that gives the architectural programmer the questions and the format that leads him/her to the collection of the data and information he needs to describe the energy profiles and characteristics of his/her project

This is Where and What, figure 3: This graph showing the effectiveness and cost of Architect Energy Analysis in the design process should be reconsidered. If information about a project's energy characteristics and the knowledge learned from that information is to be useful as a design guide or as relevant criteria, then this graph should peak in the programming phase. Energy data, energy information, economic analyses and strategy selections should all occur as early as possible in the design process. We know this to be true and it can be done without a mainframe computer and at a minimum cost. . . . Again, thanks to P/A for leading in the most critical area of energy information dissemination.

Robert N. Floyd, AIA Project Manager Commercial and Industrial Passive Solar Buildings Tennessee Valley Authority Chattanooga, Tn

Credit due

Leo A. Daly, Architects, Engineers, Planners, are associated with Eisenman/Robertson for the design of an office building/hotel on Pennsylvania Avenue in Washington, DC (P/A, June 1982, p. 21).

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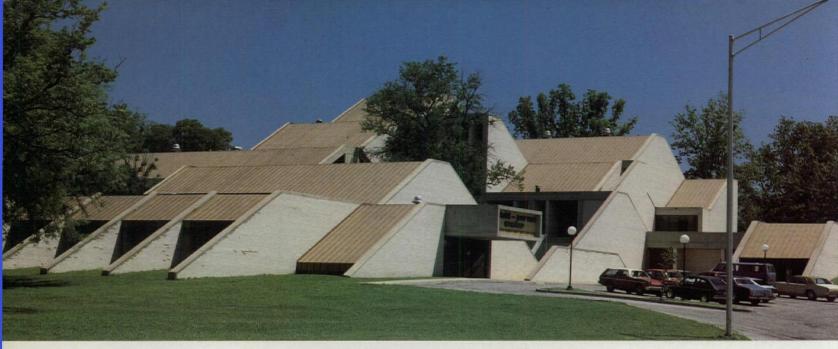
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Jury for the 30th P/A Awards

Architectural design: George Baird, architect, urban designer, author, Editor of Trace, Toronto; Alan Chimacoff, architect, Associate Professor of Architecture, Princeton University, Princeton, NJ; Mark Mack, architect, Batey & Mack, San Francisco, and lecturer, University of California, Berkeley, and Editor of Archetype; James Stirling, Hon. FAIA, James Stirling Michael Wilford & Associates, London; Urban design and planning: Stanton Eckstut, AIA, partner, Cooper Eckstut Associates, New York, and Director, Columbia University Urban Design Program; John M. Woodbridge, FAIA, architect and urban design consultant, Berkeley, CA; Research: Sandra Howell, PhD, MPH, Associate Professor of Behavioral Science, Department of Architecture, MIT, Cambridge; Marietta Millet, lighting consultant and Associate Professor of Architecture, University of Washington, Seattle.

Judging will take place in Stamford, CT, during September 1982. Winners will be notified — confidentially — before Oct. 1. First public announcement of the winners will be made at a presentation ceremony in New York in January 1983, and winning entries will be featured in the January 1983 P/A. Recognition will be extended to clients, as well as professionals responsible. P/A will arrange for coverage of winning entries in national and local press.

Eligibility

1 Architects and other environmental design professionals practicing in the U.S. or Canada may enter one or more submissions. Proposals may be for any location, but work must have been directed and substantially executed in U.S. and/or Canadian offices.

2 All entries must have been commissioned, for compensation, on behalf of a client with the power and intention to execute the proposal (or in the case of research and planning entries, to adopt it as policy). Work initiated to fulfill academic requirements is *not* eligible (but teams may include students).
3 Any project is ineligible if it has been, or will be before Feb. 1983, the subject of publication, on one full page or more, in

Architectural Record or AIA Journal.
Prior publication in P/A is not a factor.
4 Architectural design entries may include only buildings or complexes, new or remodeled, scheduled to be under any phase of construction during 1983.
5 Urban design and planning entries may include only proposals or reports accepted by the client for implementation before

wards ra 30th annual competition for projects not yet completed architecture researc

the end of 1983. Feasibility and implementation strategy should be documented. 6 Research entries may include only reports accepted by the client for implementation before the end of 1983. Submissions may deal with programming, design guidelines, technical problems, or user response and should yield information

applicable beyond a single project. Research methodology and ways of disseminating findings should be documented.

7 The jury's decision to premiate any submission will be contingent on verification by P/A that it meets all eligibility requirements.

Entry form: 30th P/A Awards Program

Please fill out all parts and submit, intact, with each entry (see paragraph 13 of instructions). Use typewriter, please. Copies of this form may be used.

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Entrant phone number: Project: Location: Client: Client phone number: Category:

Entrant: Address:

I certify that the submitted work was done, for compensation, on behalf of a client, and meets all Eligibility Requirements (1-7). All parties responsible for the work submitted accept the terms of the Publication Agreement (8-9). I understand that any entry that fails to meet Submission Requirements (10-17) may be disqualified.

Signature

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Publication agreement

8 If the submission should win, the entrant agrees to make available further information, original drawings, or models, as necessary, for publication in the January 1983 P/A. The entrant will also provide appropriate slides for the presentation ceremony and reproducible graphic material for press releases.

9 In the case of architectural design entries only, the entrant agrees to give P/A the first opportunity among architectural magazines for feature publication of any winning project upon completion.

Submission requirements

10 Each submission must be firmly bound in a binder no larger than 13" x 17". Binders 9" x 11" are preferred. No fold-out sheets.

11 Submissions must include illustrations and drawings necessary to a full understanding of the proposal-all legibly reproduced. P/A assumes no liability for original drawings. No actual models or slides will be accepted. P/A intends to return submissions intact, but can assume no liability for loss or damage.

12 Each submission must include a onepage synopsis, in English, on the first page inside the binder, summarizing the intent and principal features of the entry. Synopsis must conclude with a statement on: why this submission deserves recognition.

13 Each submission must be accompanied by a signed entry form, to be found on this page. Reproductions of this form are acceptable. All four sections of the form must be filled out - using typewriter, please. Insert entire form, intact, into unsealed envelope attached inside back cover of submission.

14 For purposes of jury procedure only, please identify each entry as one of the following: Education, Housing (Singlefamily), Housing (Multiple-unit), Commercial, Industrial, Governmental, Cultural, Recreational, Religious, Health, Planning and/or Urban Design, Applied Research. Mixed-use entries should be classified by the larger function. If unable to classify, enter Miscellaneous.

15 Entry fee of \$40 must accompany each submission, inserted into unsealed envelope containing entry form (see 13 above). Make check or money order (no cash, please) payable to Progressive Architecture.

16 To maintain anonymity, no identification of the entrant may appear on any part of the submission, except on entry form. Credits may be concealed by any simple means. Identity and location of projects should not be concealed. P/A will seal stub of entry form in envelope before judging.

17 Deadline for mailing is August 31. Other methods of delivery are acceptable. In any case, entries must show postmark or other evidence of being en route by deadline using means to assure delivery by September 15. Hand-delivered entries must be received at the address shown here by August 31.

Address entries to:

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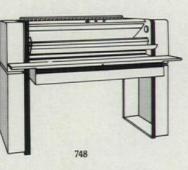
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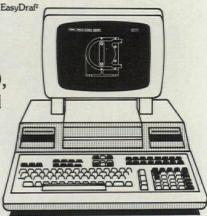
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direction at 0°F—46 pounds in excess of the 200 (lb/in) NBS suggested minimum.

Membrane Performance Standard ASTM dogbone samples exhibited three-ply

Pencil points

La Villette competition

An international competition is being held to choose the design team (which must include a landscape architect) to direct the creation of a new park in northeast Paris. If The 75-acre La Villette Park, first of its size to be created in Paris in over 100 years, will include a Science, Technology, and Industries Museum (designed by Adrien Fainsilber) and a popular Music Center, and will serve equally the populations of the city and the adjacent suburbs. Submissions, which are due Oct. 30 and will be judged in December, will be exhibited at the Centre Pompidou in early 1983.

¶ The jury comprises 21 French and foreign specialists.

Parisian developments

The French government has approved three other major architectural projects, each of which is to be the subject of an international or national competition:

¶ a new Opera House in the Place de la Bastille;

¶ a jazz and rock music center at the Place de Bagnolet;

¶ an International Communications Center in La Défence:

HOWSEX

It sounds like an entry to a New York magazine competition, but it is, in fact, what Peter Eisenman calls his upcoming book (publisher: Rizzoli).

¶ Or does he mean HOUSE X?

¶ It will be printed, says Eisenman, not with four-color drawings, but with fourcolor words. Or does he mean four-letter? Or off-color?

HOWSEX? Does Eisenman really know?

Trudeau's favorite

The announcement that Arthur Erickson will be designing a new Canadian embassy in Washington (P/A, April 1982, p. 41) is only the tip of an embarrassing iceberg north of the border.

¶ A special seven-member panel, narrowing the job's candidates from 300 applications to four, had eliminated Erickson.

Prime Minister Pierre Elliott Trudeau, however, chose to ignore the panel's recommendations. His friend Erickson was appointed designer.

Parliamentary opposition member John Fraser likened Trudeau and Erickson to Hitler and Speer. Trudeau, "like a schoolboy at recess" (according to Fraser), challenged Fraser to "step outside."

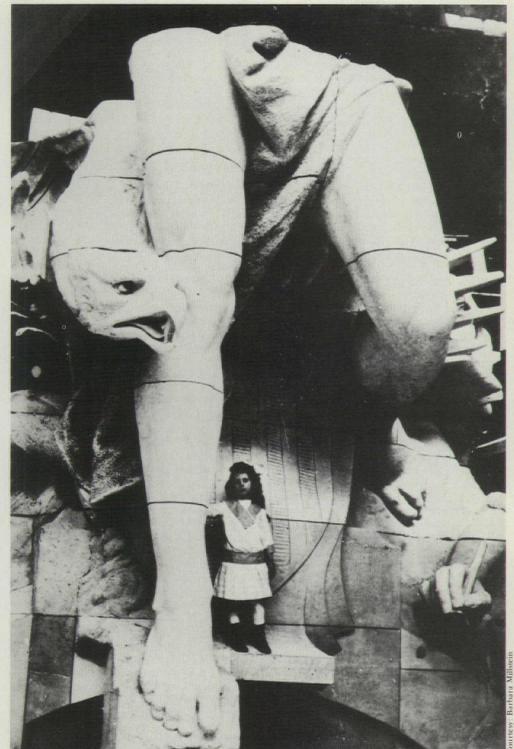
Rough and easy

Remember architect Frank Gehry's corrugated cardboard chairs and stools from the early 1970s? Bloomingdale's does, and will be marketing part of the line, known as Easy Edges, soon.

¶ Meanwhile, the relatively slick Easy Edges family has acquired some country cousins, as fuzzy and bulky as cartoonist Koren's creatures.

[Pencil points continued on page 40]

PA News report



Grand Central: An imaginative presentation

What monument covers 48 acres, required the excavation of nearly 3 million cu yd of earth and rock, was built with 2½ times the amount of steel used to construct the Eiffel Tower, and has accommodated the equivalent of over 40 percent of the U.S. population in visThe Legs of Mercury, central statue on Grand Central's façade, 1914 photograph.

itors? The answer to this believe-it-ornot riddle is one of this country's most enduring institutions, New York City's Grand Central Terminal, currently the subject of an exhibition at the New York Historical Society. The station's design and engineering feats, as well as its historical development, are presented through an imaginative installation curated by Deborah Nevins and designed by Hardy Holzman Pfeiffer Associates. Organized by the Municipal Arts Society and sponsored by the National Endowment for the Humanities and the Arts and Philip Morris Inc., "Grand Central Terminal: City Within The City" also asks pointed questions about the present and future stature of the building within its urban setting. Conspicuously lacking from the show, however, is an in-depth analysis of another implication of its title, the organization of its interior spaces as a microcosm of the city.

Grand Central Terminal, built to replace an earlier remodeled railroad station, was designed by the firm of Reed & Stem, selected in a competition in 1903, and by architects Warren & Wetmore. The drawings submitted to this competition offer a rare insight into the turnof-the-century academic design process. While the development of this consummate Beaux-Arts building and the influences on the various personalities involved with its realization are thoroughly examined, this important part of the exhibition is crowded onto a small polygonal display kiosk. More successful are the walk-through front elevation, pop-up diorama, and 20-ft model, which create a striking three-di-mensional representation of the Terminal's connection to its midtown locale and mold the exhibit spaces into a coherent chronological sequence.

The show concludes with a presentation of the current conditions of Grand color Central, including stunning photographs of its newly cleaned surfaces. In an attempt to argue for the preservation of the Terminal and sympathetic surroundings, a section entitled "Urban Fit" poses questions about the nature of urban design that presuppose an insular aesthetic bias without regard to economic and cultural realities. The question "Does an office building deserve the same visual prominence as Grand Central?" can only be answered affirmatively in the face of the railroad's decline as both a cultural and an economic symbol. For despite its landmark status, upheld by the U.S. Supreme Court in 1978, the building still suffers from a variety of economic maladies, which must be solved to prolong its existence. In the fascinating book that accompanies the exhibition, architect Hugh Hardy suggests survival techniques to ensure that Grand Central's prognosis need not be terminal. [Deborah Dietsch]

Deborah Dietsch is an architect and a freelance journalist.



Façades by Batey & Mack (left), Solomon (middle), Turnbull (right) and SOM (far right).

Novissima tardissima

The Venice Biennale's first international architectural exposition, held in 1980 (P/A, Sept. 1980, p. 38), is having its only U.S. showing May 20-July 29 at the Fort Mason Center's Pier 2 in San Francisco. The show was brought here by the Friends of the Biennale, a local organization formed for the purpose, in cooperation with Fort Mason Center, the Italian Cultural Institute of San Francisco, the San Francisco Museum of Modern Art, and the San Francisco Chapter of The American Institute of Architects. Support for the exhibition came from Campeau Corporation California, Southern Pacific Company, Italian Line, San Francisco Hotel Tax Fund, and other generous donors.

As a gala event intended to publicize the migration of architectural ideas around the world, the show's success is uneven at best. Only opening night attracted sufficient witnesses to confirm the faith. On any ordinary day the turnout is scanty. For no matter how Novissima the Strada was in Venice in 1980, it is distinctly Tardissima now.

The show has three parts. First is the Strada Novissima which contains, in addition to the original façades, two façades from the 1981 installation in Paris, as well as a gallery with an "Homage to Philip Johnson" featuring his "after-Modern" works. In the second part, four new façades by San Francisco architects face an Italian food and drink Marketplace. The third part houses the International Gallery with the drawings and photographs of work by 43 "Post-Modern" architects from 11 countries.

In front of the building, a portal designed by Donald A. Crosby of Crosby Thornton Marshall Associates announces the event. Chosen in a local competition, the gate combines "historic motifs from classical Venice with innovative design and technology from Silicon Valley," according to one press release. This unlikely fusion may account for its lack of grace.

The most injurious blow to the show is its setting. The original façade dimensions, dictated by the bay division and height of the Corderia in the Venice Arsenal, bear no relation to those of the much larger pier building. Instead of a relatively low, closed-in volume of solid masonry, Pier 2 is a broad, high, airy space with a steel truss ceiling above a bank of windows that distracts the eye away from the lightly moored shop fronts below. Lighting these stage sets from both sides only confirms their ephemerality. As one gazes at the thin façades against the light, the suspicion grows that there is even less here than meets the eye.

Despite all there is to grouse about, there is also much to commend. The new facades by Mark Mack and Andrew Batey, Dan Solomon, Bill Turnbull, and the SOM team of Marc Goldstein, Jared Carlin, Michael Chow, and Richard Tobias shine forth and engage the eye. Thomas Gordon Smith's installation for the Sponsors' Pavilion and Mark Mack's design for the International Gallery deserve high praise. But the contents themselves of the International Gallery constitute the most valuable part of the show, revealing the influence of "Post-Modernism" on the world scene. Alas, the dreary passage through the twovear-old wardrobe gives this section a light-at-the-end-of-the-tunnel impact that is unfortunate for the show as a whole. One wonders why the \$400,000 was not spent to expand this last part into a new show installed in a location more accessible to the general public. [Sally B. Woodbridge]

Degree-granting programs increase

While the architectural profession is on the brink of (if not already well into) a recession paralleling that in the general economy, the National Architectural Accrediting Board (NAAB) reports that as many as 13 new degree-granting programs in architecture are in various stages of formation and accreditation seeking. If established and accredited, these programs would represent a growth of nearly 15 percent in the total number nationwide.

"Some programs are coming to us as a direct result of the recently approved NCARB (National Council of Architectural Registration Boards) degree requirement for certification," says NAAB president David L. Perkins, FAIA. He and NAAB executive director John Wilson-Geronimo report that the new wave of interest is without recent precedent and comes at a time when some long-established programs at state universities are struggling for survival.

Motivation for the new programs also comes from architects in areas without established programs and from attempts by several institutions to elevate technology and training courses to professional status.

The prospect of these new programs is greeted coolly and with skepticism by deans and heads at some existing schools, reflecting doubts about their ability to garner the needed resources. "It can take as many as 18 or 20 full-time faculty members—not to mention the resources of the general university setting—to have a program with responsible depth and substance," said Roger L. Schluntz, AIA, chairman of architecture at Arizona State University. Another chairman went further: "Some of these operations have only three or four part-time faculty; how can they expect to grant an equivalent degree?"

The NAAB has tended to accredit programs in terms of their own stated objectives within a framework of general NAAB criteria and "perspectives," rather than against explicit curricular standards or requirements. Perkins, whose home state of Louisiana boasts five separate programs, suggests that different approaches are responsive to differing student needs and interests, but also acknowledges growing pressure for stricter accreditation procedures and even a "core curriculum" requirement. "I would like to believe that we are seeing a maturation of the process of educating architects," he said, pointing out that some of the pressure has come from students.

While declining to predict how the aspiring programs might fare, Perkins did say that the NCARB degree requirement, combined with the effects of reductions in federal aid for graduate education, would be likely to hit graduate programs: "I think we'll see the four-plus-two-year programs shifting more and more to five-year programs." [Thomas Vonier]

Susan Doubilet to be P/A Senior Editor

Susan Doubilet, editor in charge of the P/A News Report, has been promoted to the position of Senior Editor. She will continue to contribute to the feature sections of the magazine, while maintaining responsibility over the news pages.

Å graduate of McGill University in Montreal, Doubilet practiced architecture there for several years before earning a Masters degree in preservation architecture from Columbia University last year. Since then, she has been an Associate Editor at P/A. She has initated several changes in the news section, including the introduction of the "Pencil Points" columns; she is also on the Editorial Board of the nonprofit architecture periodical *Trace*, published in Toronto.

MIT Auditorium sports third cap

While many works of Modern architecture have required extensive corrective surgery—the on-going remodelings at New York's Lincoln Center come to mind—Eero Saarinen's auditorium at MIT is notable for the frequency of its visible transformations. Completed in 1954, the building's three-point spheri-





MIT Auditorium in 1955 (top) and now (above).

cal shell roof was originally surfaced with fiberglass-reinforced plastic, maintaining the image of the concrete underneath.

In 1962—after years of awkward crack-filling—the shell was resurfaced with lead sheets in a shinglelike array. When this roof, too, began to crack under thermal stress, letting the elements attack the concrete shell itself, MIT called in engineers Amman & Whitney, consultants for the original structure. With the help of the technical staff of the Copper Development Association, a new cap was designed, using 16-gauge copper sheets with doublelocked standing seams.

While the linear pattern of the new cladding is logically related to the building's geometry, the result is one more step removed from the architect's intent. While the original was lightcolored, seamless, and rather futuristic, the latest version is dark and visibly displays its joinery. And so goes one of the high tech dreams of the 1950s. [JMD]



Dagit-Saylor's winning house.

Student competition: Synthesis and balance

The association of Collegiate Schools of Architecture has announced the 1982 results of Design + Energy, its national student design competition. Jurors Sarah P. Harkness, Douglas Kelbaugh, Paul Kennon, Edward Mazria, and Robert A.M. Stern wrangled over strengths of the projects—over 2000 were submitted—and ultimately concurred with Kennon's view: "After all, this is a competition whose very title calls for synthesis and balance."

In Category I, awards for the design of a 50,000-sq-ft speculative office building went to James A. Ellis, Jr., Texas A&M University (first place), for a structure in Houston using natural ventilation and a fabric roof for cooling; Lawrence Maxwell, University of Colorado at Denver (second place); and Duncan Brown, University of Kansas, and Gary Diebel, University of Minnesota (shared third place).

In the free choice Category II, Jill Johnson, University of Wisconsin-Milwaukee, and Karen King, University of Virginia, shared first prize for designs of, respectively, an urban produce market ("a deft juxtaposition of courts," according to Stern) and a county library addition ("elegantly composed" but with some "questionable passive solar aspects," according to various jurors). Matthew Tendler, also of U.W.-M., received second prize for another Milwaukee produce market scheme. Anna Holley of Tulane University received honorable mention for the design of a New Orleans expressway commission headquarters. The jury made no third award in Category II.

Competition winners and their schools will receive cash awards totaling \$10,000. Selected submissions and jurors' remarks will be published later in the year by ACSA. The program, in its third year, is sponsored by the U.S. Department of Energy, the American Institute of Architects, and the Brick Institute of America. [Thomas Vonier]

Six honored in Plywood Awards program

"Little original work" but "a high level of professionalism" was the jury's assessment of the overall quality of entries to the eleventh annual Plywood Design Awards competition.

In the Custom Single Family category, the \$1000 First Award went to a residence in Bucks County, Pa, by Dagit-Saylor Architects of Philadelphia. In the Commercial/Institutional category, the \$1000 First Award was given to the Immanuel Presbyterian Church in Mc-Lean, Va, by Hartman-Cox Architects of Washington, DC.

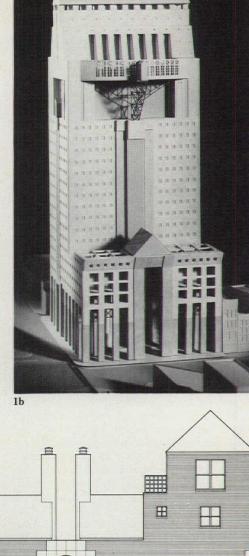
Citation of Merit winners were: University of North Carolina at Charlotte Student Dormitories in Charlotte, NC, by Gantt/Huberman Associates, Architects and Planners, of Charlotte, NC (Affordable Multi-Family category); Cove East, Federal Way, Wa, by Fisher-Friedman Associates, Architects and Planners, of San Francisco, Ca (Affordable Multi-Family category); Cedar Hills Activities Building, Maple Valley, Wa, by The Miller/Hull Partnership, Architecture and Planning, of Seattle, Wa (Commercial/Institutional category); and Heritage Park, Dublin, Ca, by Donald C. Geddes, AIA, and Lawrence Logenbaugh, Associate, Geddes Associates of San Francisco, Ca (Commercial/Institutional category).

News report continued from page 27

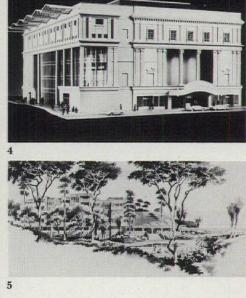
In progress



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1a, 1b Humana headquarters building, Louisville, Ky. Architect: Michael Graves & Associates, Princeton, NJ. Graves was selected in a competition among five leading archi-

tectural firms to design this 450,000-sq-ft corporate headquarters building for the international hospital management company Humana. The 27-story granite and marble tower, in the historic section of Downtown Louisville, will have a roof garden near the top and a seven-story colonnade at the base. The entrance loggia contains cascading fountains, and an open shopping arcade lines the side street. Construction, scheduled to begin in early 1983 and to be completed for 1985, will cost over \$40 million.

2 Commonwealth Townhouses, Houston, Tx. Architects: Taft Architects, Houston. Four three-bedroom townhouses are focused inward, with entrances from private individual courtyards reached from a central pavilion. The overall image of the grouping, rendered in gridded stucco and brick, reflects the context-an old neighborhood of mansions in the inner city. The units are L-shaped, with single- and double-volume spaces overlooking each other, and a loft/ study area on the third level. Construction is wood frame, windows are aluminum, and interior surfaces are gypsum board, with tile and carpet floors. Cost is \$61 per sq ft. Completion is December 1982.

3 Office building, Houston, Tx. Architects: Morris/Aubry, Houston. Construction is underway on a 55-story office tower and a 14-story 3000-car parking garage in the Cullen Center development in Downtown Houston. The five-sided tower, clad in flame-cut Sardinian gray granite with dark gray black-anodized-framed windows, steps back in three levels and is terminated with a prismatic roof set in a 51st-level balcony. Two vertical rows of bay windows articulate the north side. A landscaped plaza 41/2 ft above the street leads to a three-story entrance and a two-story lobby containing a grand staircase. The building connects to Houston's downtown tunnel system and to an elevated walkway within the Cullen Center development. Completion of the \$93 million project is expected in early 1984.

4 Ohio Theatre expansion, Columbus, Oh. Architects: Hardy, Holzman, Pfeiffer & Associates, New York. A six-story, 50,000-sq-ft wing is being added to the Ohio Theatre, which is listed in the National Register of Historic Places. The wing will house rehearsal rooms, dressing rooms, offices, and public access areas, and the existing stage will be enlarged. The addition carries the existing building's attic floor across its east façade and extends the base partially, breaking it open for a curving four-story glass wall. A clear glass roof will cantilever over an esplanade between the new wing and the adjacent towering 27-story Capitol South office building by Abramovitz, Harris, Kingsland, now under construction.

5 Monarch at Sea Pines, Hilton Head Island, SC. Architects: Jova/Daniels/Busby, Atlanta, Ga. The first phase of this 120-unit time-sharing development is now under construction. The U-shaped configuration of the four-story building grouping gives ocean views to all apartments and preserves most of the existing large palmetto and pine trees. All units have two bedrooms and are approximately 1250 sq ft.

[News report continued on page 33]

3

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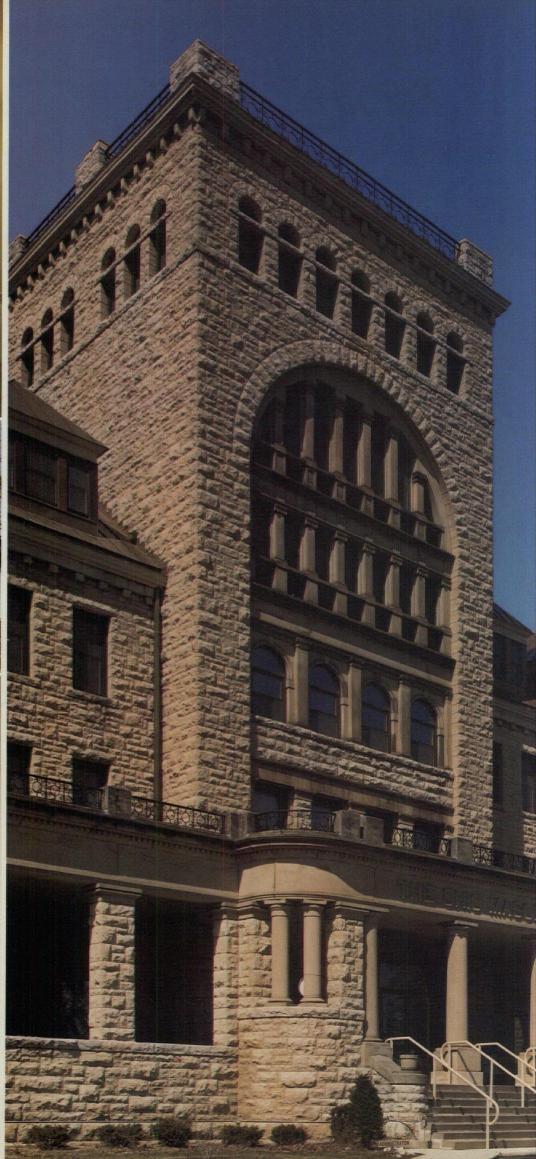
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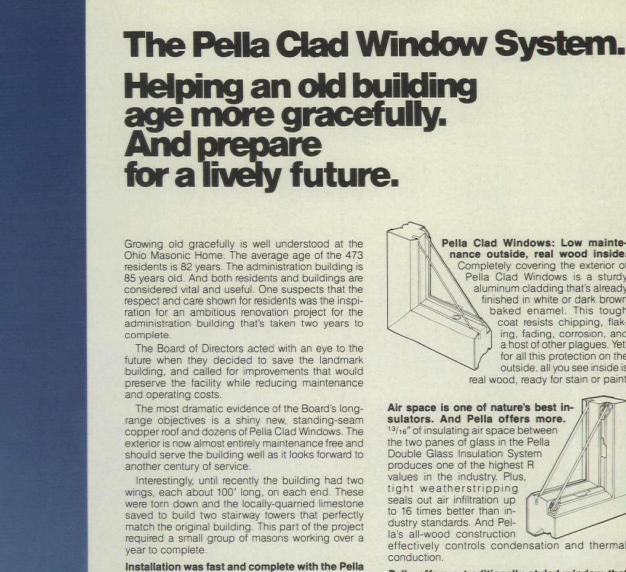
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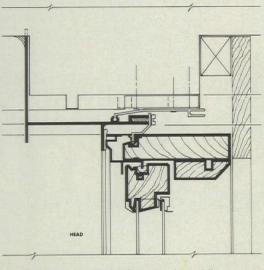








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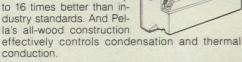
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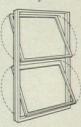
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DOVER The elevator innovators. News report continued from page 28

Perspectives

A portfolio of projects, recently completed or currently being designed, illustrates this issue's theme, "The abstract alternative."



Recess among the ruins

The 1½-year-old Maimonides School kindergarten playground has become a landmark of sorts in Brookline, Ma. According to client Jerry Benjamin, past executive director of the school, people bring their children from some distance to play there.

Designed by Schwartz & Silver of Boston, it is a miniature architectural landscape: a castle tower, tunnel, triumphal arch, piazza, obelisk, and high road. The forms are abstracted, quite rigorous in shape and detail, but far from static in function. The tower is a playhouse with monkey bars up one side. Kids can climb, hide, peek out windows, command from above, or conspire down below. The tunnel is a slide ascended by mountain or steps. The arch is a swing set edged in ladders. The bright red road is hot wheels territory. And the piazza (stage) unfolds into a sandbox.

The architects aimed at providing "an interpretive dimension"—at least two uses per object, with hinted imagery beyond that. Says Benjamin: "In most playgrounds, kids tend to cluster around one element for a while, then another. Here all elements are in vogue all the time. There is also a good deal of private space."









The concrete block forms are stuccoed and painted in pastel versions of primary colors. Wood edges and tops are painted gray. Metal is painted green, simulating oxidized copper roofs. The one genuine architectural artifact is the obelisk, salvaged from another school. Project cost: \$30,000. [NM] [News report continued on page 35]





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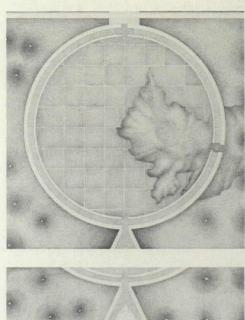
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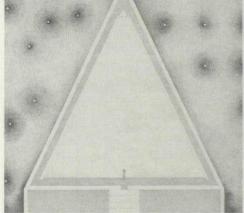
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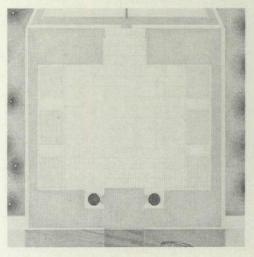
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News report continued from page 33









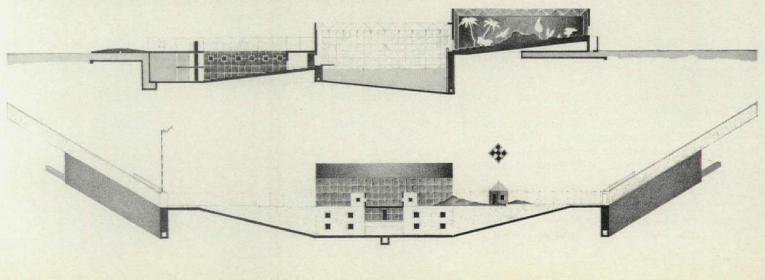
The Border-line Villa

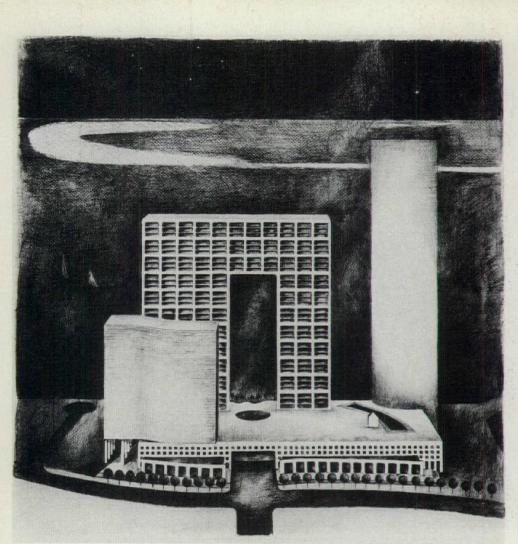
Architect Livio Dimitriu (p. 62) designed this house to be located either on a desert site between Alexandria and Cairo or, if "lasting peace" is achieved, in the Sinai Desert (hence its name). An application of a formal investigation of stairwells, it won honorable mention in the 1979 Japan Architect competition.

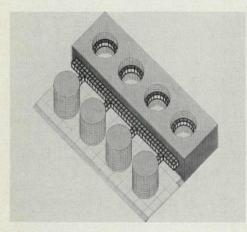
The image of the house was suggested by drawings done by the architect at three years of age. It is composed of three elements—a square, a circle, and a triangle. The square contains the living quarters and a central open atrium, wholly filled with a flight of stairs; its roof is flush with the ground. The triangular element, half buried in the ground, contains a glass-covered swimming pool for swimming "in false perspective." Stairs fill the double walls of this prism. The circle encloses a glasscovered greenhouse with stepped terraces paralleling the movement of the flights of stairs contained, here again, within the double wall system. The cylinder is penetrated by the small hill on the site. The steps culminate in an observation point overlooking the vistas beyond the estate's high perimeter wall.

A stream unites the elements and also fulfills their functions of watering the greenhouse, filling the pool, cleaning the house, and irrigating the site, which contains an orchard on one side and a natural expanse of trees on the other.

Entry is either at the main gate, where the project's only façade is seen axially, in controlled perspective, or by car to the underground parking. [News report continued on page 36]



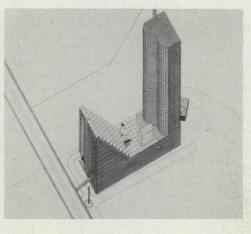




Arquitectonica explores

The Miami firm of Arquitectonica (p. 82) uses abstract forms to evoke a wide range of associations.

Arquitectonica's most monumental commission to date is the Helmsley Center in Downtown Miami. The 1.9 million-sq-ft mixed-use complex has three buildings sitting on a seven-story parking base, with retail shops and townhouses along the perimeter. A rectangular 29-story rental apartment building is punctured by a high void, providing a monumental gateway to the bay. A 53-story elliptical tower contains



The Helmsley Center (top), Sage Road Shops (above left), Riverbay (above).

luxury condominium apartments, and a 691-ft-high free-form building has offices on the lower floors and a hotel on the upper levels. The top of the gateway building is used for recreation and pool facilities for the hotel, to which it is connected.

The complex is intended to be a metaphor for the whole city. Learning from Bunker Hill's All-Star team (the nonwinning team assembled by developer Maguire for that 1980 Los Angeles competition), Arquitectonica wants each of the buildings to have its own identity, to look as if each were designed over time by various architects, and to avoid the relentless weight and monotony of repetitive forms (for example, the winning submission of the above-mentioned competition). Luckily, the Helmsley Center lacks the forced and frenetic quality the approach might imply (and seen in the All-Star design). As the design develops (and the economic situation is providing time for such a process), the stilted forms are taking on a more lyrical quality, and the complex promises to possess a striking sculptural urbanity.

Four continents, oil tanks

The Sage Road Shops, a shopping center on a busy Houston street near the Galleria, aims to explore regionalism in an abstract way. Four huge cylinders standing in a row are reminders of the ubiquitous oil storage tank, and are "extracted" from their backdrop, the familiar basic box building. The resultant voids in the block form courtyards, each containing a native tree and a classical fountain representing one of four continents.

Four shades of blue vision glass and spandrelite panels are used, one for each cylinder/courtyard pair. A red frame bridges the volumes and spaces at the upper level. While the glass buildings project an image of wasteful energy consumption, they consist, in fact, largely of insulated sandwich panels.

The building form suffers from a contradiction between the finiteness of the four "continents," and the infinite implications of the long linearly punctuated box and the row of cylinders.

Frozen erosion

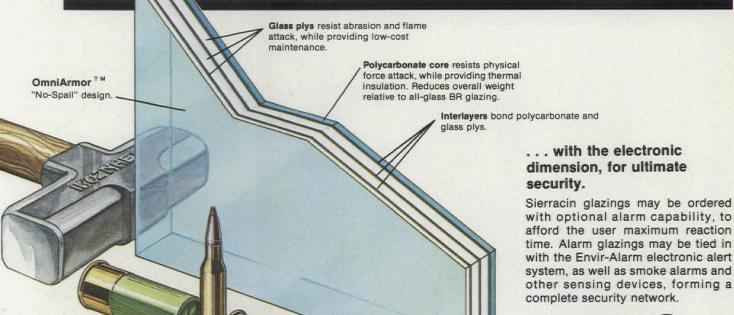
A mixed-use building in Downtown Miami is conceived as one perfect rectangular volume which, say its architects, has been "eroded in plan and section by various circumstances." Riverbay has the remnants of its pure volume sheathed in brilliant blue glazed masonry units, while the eroded sections "become" reflective glass.

The first six stories of the building are covered parking. Above, the rectangular prism disintegrates into a ten-story stepped office building and a free-form 33-story apartment tower. The space left between the two becomes a terrace, enlivened by various objects: a little house containing squash courts, a freeform concrete umbrella, and a reflecting pool—a reminder of the Miami River below—bordering the apartment tower.

The basic volume itself has strength, especially in the hardness of its six-story base, but the "eroded" forms do not complement each other, nor do their smoothness and regularity suggest the gnawing effect of the word "erosion." [SD]

[News report continued on page 38]

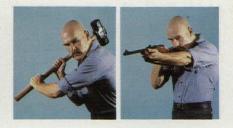
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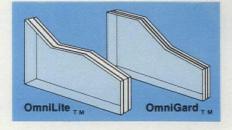
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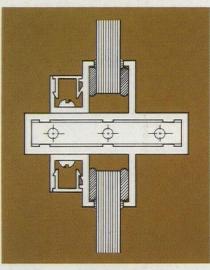
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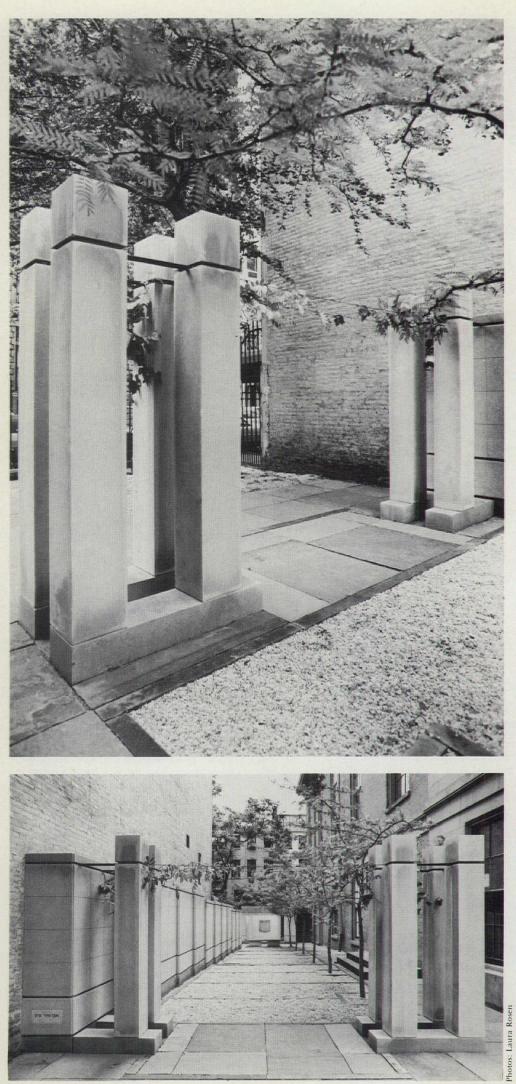


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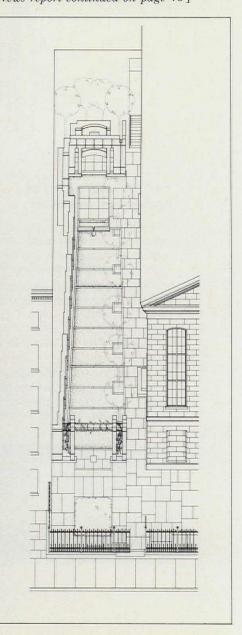


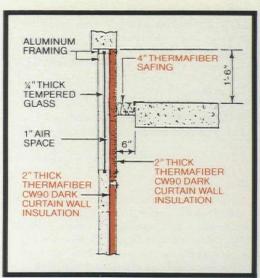
News report continued from page 36

Garden of Remembrance

When James Stewart Polshek & Partners, restoration architects for the Brotherhood Synagogue on New York's Gramercy Park, were asked to design a "Garden of Remembrance" beside the landmark synagogue, they analyzed the problem as a series of dualities: to create a pastoral setting within the hard urban environment, and to achieve a heroic effect without losing a human scale.

They solved the problem by their use of materials, elements, and spatial organization. The juxtaposition of hard materials (limestone), soft materials (trees and vines), and soft/hard materials (pebbles) creates a setting gentle yet appropriate to the urban surroundings. The design of elements that are simple, sternly capped, classically paired (in the case of the entrance pylons), yet fairly small results in the desired balance of monumentality and human scale, a balance that is further enhanced by a stepped limestone wall that uses Renaissance perspective to exaggerate the length of the 20' x 100' lot. [News report continued on page 48]





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Progressive Architecture 7:82

Pencil points continued from page 25

¶ The one-off Rough Edges series, also of corrugated cardboard, also by Gehry, have been shown at the Max Protetch Gallery in New York. The chaise longue looks as if it could lumber across the room by itself, no sweat.

A fair fair

The 1982 World's Fair in Knoxville, Tn, scarcely lives up to its world class billing, observers report.

¶ Furthermore, energy (its theme) is given secondary treatment, except in the case of the U.S. pavilion. (Review, next month).

Documenta 7

For the seventh time since 1955, the international exhibition Documenta is being held (until September 29) in Kassel, West Germany. Its aim: a dialogue among artists of various countries.

A major architectural section is included. Among the participants are Aldo Rossi, Frank Gehry, Claes Oldenburg, Joseph Beuys, Joseph Kosuth, Sol Le Witt, Donald Judd, Cy Twombly, Scott Burton, and Siah Armajani.

Some Portman anomalies

Oh no! Portman could not redesign his hotel for New York's Times Square to accommodate two noteworthy theaters, as proposed by architect Lee Pomeroy. It would have cost much too much! ¶ But lo and behold! Here is Portman ready and willing to alter his design, retracting it from beyond the street line now that politicians seem to disfavor the Broadway mall idea.

¶ Meanwhile, the portion of the Helen Hayes Theater's facade which Portman Properties had agreed to save has sadly collapsed during the demolition of the remainder of the theater.

Closing the barn door

The New York Landmarks Commission has been making a survey of the historic merit of most of the Times Square theaters, and hearings are being held for their designation as landmarks.

Cummins appoints Ambasz

Cummins Engine Company of Columbus, In, has appointed New York architect and industrial designer Emilio Ambasz to the position of Chief Design Consultant. Ambasz will deal with the industrial design aspects of all Cummins products, succeeding the late Eliot Noyes.

basz in the design of their N14 engine (P/A, May 1982, p. 159).

Smaller and better

The American magazine House & Garden, aiming at a smaller, more educated market, is being redesigned. ¶ It is patterning itself after the British Interiors magazine, giving emphasis on fine writing and sophisticated graphics, and dropping the food, health, and beauty tips. ¶ Statistics: Its cover price will almost triple, to \$4; its circulation will halve, from 1.2 million; its paper stock weight will increase, to 60 lbs.

¶ The redesign is being executed by Lloyd Ziff. The new design director will be Ruth Ansel.

¶ First "new look" issue: January 1983.

Belle riviste

Observers are noting how the Italian magazine Domus, under Alessandro Mendini's editorship, is becoming sublimely Milan hip, while Vittorio Gregotti's directorship is transforming Casabella into an even more beautiful and erudite journal than it has been.

Design Action

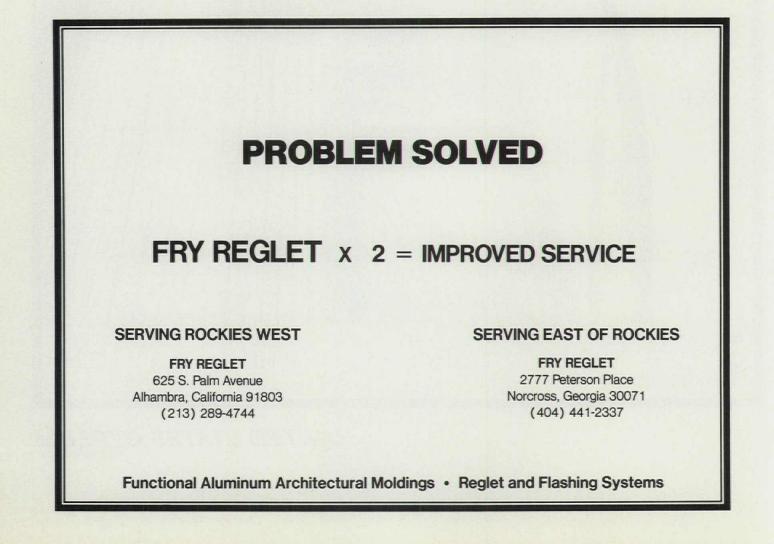
'Design Action,' a new architectural newsletter serving Washington, DC, Maryland, and Virginia, will begin publication in September.

¶ It is published by the nonprofit Architectural Arts of Washington, with headquarters in the Pension Building.

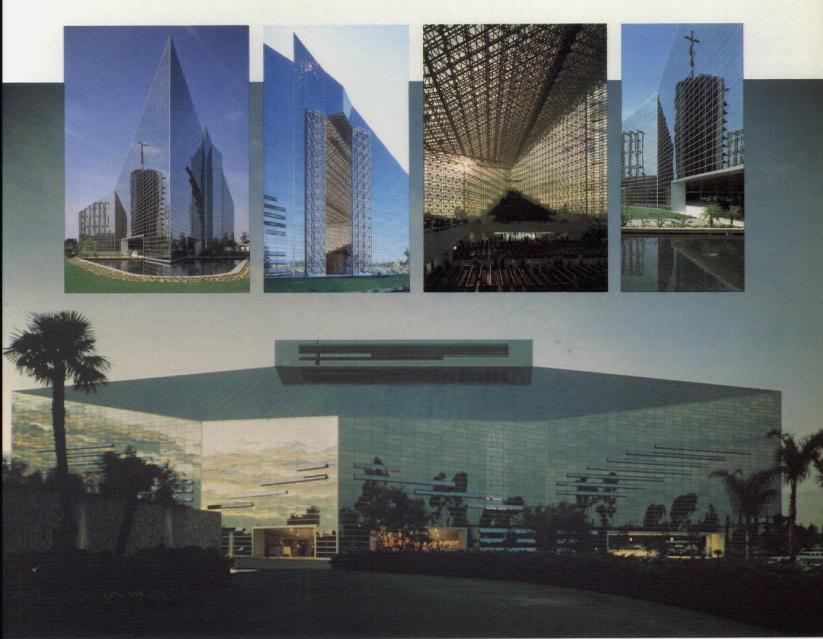
The inaugural issue is supported by a grant from the National Endowment for the Arts.

Meritorious Public Service

Thomas K. Butt, AIA, has been awarded the Meritorious Public Service Award by [Pencil points continued on page 42]



Sweet inspiration.



When architects design a church, they strive to create a structure that will inspire the religious convictions of the congregation and the admiration of the surrounding community.

Johnson-Burgee have succeeded admirably with the Crystal Cathedral in Garden Grove, California.

The Crystal Cathedral is a

monumental, all-glass curtainwall on an exposed steel space-truss frame. 10,500 lights of silver LOF Vari-Tran[®] mirror-finish glass reflect the building's natural surroundings. While inside, the entire sanctuary "opens" to the wonders of earth and sky.

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Pencil points continued from page 40

the U.S. Coast Guard for his leadership in the restoration of East Brother Light Station (which also won a Trust award, see above).

Pity the poor risk-takers

Fielding questions nimbly-but defenseless in the face of moderator Suzanne Stephens's innuendos-five New York developers showed their lights on stage at the city's Japan Society, the first of three panels on "The Hidden Designer" sponsored by the Architectural League.

Donald Trump, George Klein, Harry Macklowe, and Charles Shaw all began by politely agreeing that "good design pays." Melvyn Kaufman maintained from the first that "architecture is an obscenity" (when compared, like a poem, to a tree).

Donald Trump slid spectacularly from the "good design pays" stance to "if a design pays, it's good enough for me" (paraphrased), and finally, "letting it all hang out," declared that "a good designer's reputation is directly proportionate to his promotional ability and inversely proportionate to the quality of his plans and specifications."

Charles Shaw, developer of the MoMA tower, refused to explain why Edward Durell Stone Associates can design apartment layouts "to the appropriate market" better than Cesar Pelli can.

¶ Harry Macklowe could not see beyond the somewhat limited (albeit important) relationship between elevator shaft and building perimeter.

George Klein was the only panelist who managed to maintain a consistent and convincing attitude about good design and the role of the developer.

He also defended his support of a "grandfather clause" to the new Midtown Manhattan zoning regulations, allowing buildings contravening the new rules to be built if they had been granted an earlier permit. He will soon announce the architect (or, more likely, master architect and individual building architects) for his fourbuilding project on Times Square . . . and intends to challenge the Cooper-Eckstut design guidelines.

No tax break, poor guy

A new York State appeals court overruled a lower court's decision to give developer Donald Trump a multimillion dollar tax abatement for including housing in his Trump Tower in Midtown Manhattan. (P/A, Apr. 1982, p. 53)

I The judge felt that the statute, which encourages residential construction on underutilized land, does not apply to luxury apartments built on the site ("the best in the world") where Bonwit Teller previously stood.

I Donald said that paying the taxes would not cause him financial hardship.

SOM competing in London

SOM/Chicago is among seven finalists competing to design the National Gallery extension on London's Trafalgar Square. The program calls for approximately 30,000 sq ft of toplit gallery space over 60,000 sq ft of office space.

Also in the running are Ahrends Burton Koralek; Arup Associates; Kovell Matthews Wheatley; Richard Rodgers & Partners; Richard Sheppard, Robson & Partners; and Raymond Spratley Partnership.

Tigerman for Knoll

Knoll International has commissioned Stanley Tigerman to design its new Houston showroom.

¶ One building of a three-building complex will be renovated for the Knoll showroom, becoming a vaulted, gray-glazed, redmullioned, single-story space.

A new building may be added to the 1¹/₂block site.

Graves for Humana

Humana Inc.'s building competition has been decided:

Graves has been selected over Pelli, Murphy/Jahn, Franzen/Kroeger, and Foster Associates (see p. 28).

Portland competition winner

An association of three firms—the ELS Design Group of Berkeley, Ca, Broome, Oringdulph, O'Toole, Rudolf & Associates of Portland, Or, and Barton Myers Associates of Toronto, Canada-has won the [Pencil points continued on page 45]



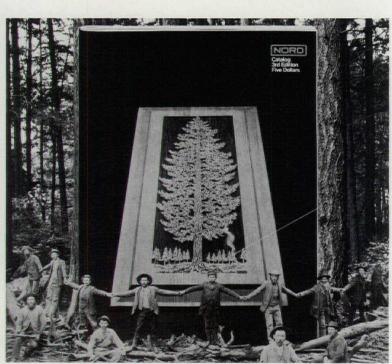
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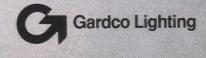
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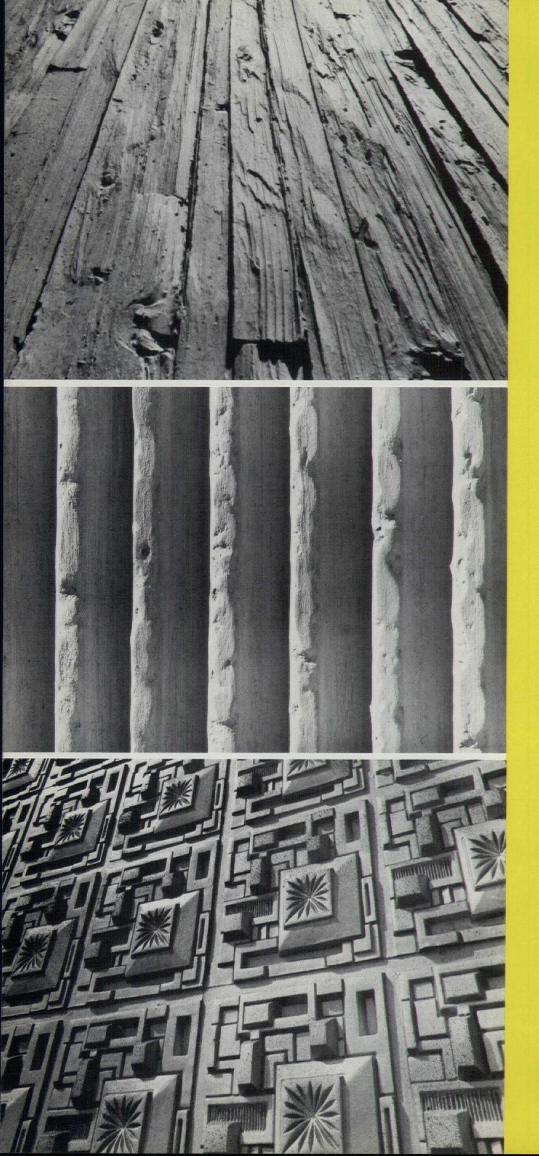
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Pencil points continued from page 42

competition for the design of Portland's \$29 million downtown performing arts center.

Also ran: Geddes, Brecher, Qualls & Cunningham; Johnson/Burgee with James Stewart Polshek & Partners.

Preservation guidelines

The National Trust's Preservation Press has reached an agreement with the Washington firm of P/A correspondent Thomas Vonier to produce a book tentatively titled 'Rehabilitating Older and Historic Buildings: Guidelines for Appropriate Designs.' The book will provide illustrated design interpretations of the Secretary of Interior's standards for rehabilitation applied to projects seeking certification for federal tax benefits.

New SOM partner

SOM/Chicago has appointed Diane Legge Lohan as a partner. She is the first woman to achieve this position at SOM.

Reaching their audience

Vitetta Group, a Philadelphia-based architectural/engineering firm, has run a 30second commercial on WHYY-TV 12 in Philadelphia.

¶ They are, they say, the first architectural firm in America to use television to advertise their services.

San Fran awards

13 Honor awards for architectural excellence have been presented to San Francisco architects by the AIA/SF:

Reiner Keller for the Buena Vista Winery restoration of Agoston Haraszthy's Press House, Sonoma; Fisher-Friedman Associates for The Islands, Foster City, and Lighthouse Cove, Redwood Shores; Jared Carlin and Alexander Seidel for the House near Napa, Suisun City;

MLTW/Turnbull Associates for the Fisher Winery, Santa Rosa, and Cakebread Winery, Oakville; The Promontory Partnership for the San Francisco Bay Delta Model, Sausalito; Spenser Associates for Saratoga Community Library, Saratoga; Bull Field Volkmann Stockwell for Stanford Shopping Center, Palo Alto, and McDonald's Restaurant, Palo Alto;

¶ Helmuth, Obata & Kassabaum for Moscone Center, San Francisco; Daniel Solomon & Associates for the Glover Street Condominiums; and Environmental Planning & Research, Inc., for Arthur D. Little, San Francisco.

New York Chapter Awards

Six finalists of 130 entries have been presented Distinguished Architecture Awards by the New York Chapter AIA. The winners are:

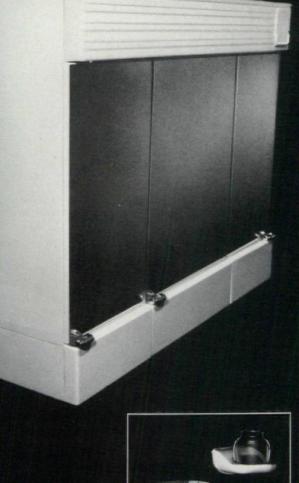
[¶] The Gainesway Farm, Lexington, Ky by Theodore Ceraldi, AIA (P/A, Dec. 1981).

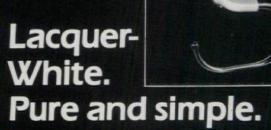
¶ Sointu, 69th Street and Madison Ave. by

Tod Williams & Associates. ¶ Viereck Residence, Amagansett, NY by

Gwathmey Siegel & Associates.

Lewellyn Park, NJ, a residence and pool house, by Robert A.M. Stern Architects.





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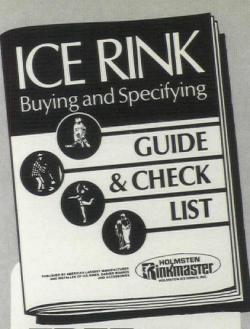


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ARCHITECTS DO BETTER WITH HOLMSTEN

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Pencil points continued from page 45

¶ The Hartford Seminary by Richard Meier & Partners.

¶ The Haj Terminal/King Abdul Aziz International Airport, Jeddah, Saudi Arabia, by Skidmore, Owings & Merrill, New York and Chicago (P/A, Feb. 1982).

N.Y. awards

The New York Municipal Arts Society has presented its 1982 awards and certificates of merit to:

¶ the Chrysler Building; Noonan Plaza; Tiffany Plaza; Lee Harris Pomeroy; Macy's Thanksgiving Day Parade; engineer Mario Salvadori; Big Apple Minutes TV spots; Excavations in lower Manhattan; and the educational Dome Project.

¶ The President's medal was awarded to Ada Louise Huxtable.

Trust awards

In addition to the 'capital improvements' awards (P/A, June 1982), the National Trust for Historic Preservation has given the following 1982 honor awards:

In the 'power of the pen' category, the Utah Preservation magazine and George W. McDaniel of Memphis, Tn, have been honored.

¶ In the 'curriculum and college' category, the University of Chicago development plan and the Restoration College Association have been honored.

¶ And in the category of 'rural and landscape,' awards have gone to the Sautee and Nacoochee Valleys preservation study; Professor Rudy J. Favretti, University of Connecticut, for his garden restoration program; the East Brother Light Station in Point Richmond, Ca; the Boston school reuse project; the Arcade, Providence, RI; Dr. Roger Gerry of the Roslyn Preservation Corp., NY; the Moody Foundation, Galveston, Tx; Mr. & Mrs. Roy Swayze, the Kirkwood plantation in Virginia; Dr. G. Brumbaugh, AIA, Gwynedd Valley, Pa; and George Bauman, for the Jefferson County, Tn, courthouse.

And Preservation Action, Washington, DC, received a National Trust honor award.

Botta book

The Round House by Mario Botta is the subject of a new book published by L'Erba Voglio, Como, Italy.

The book has an introduction by Alberto Sartoris and essays in English and Italian by Botta, Rob Krier, and others.

Latin America in Berlin

IBA '84, the international architecture exhibition whose future in Berlin in 1984 is increasingly doubtful (P/A, Jan. 1982, pp. 197-204), is sponsoring an exhibition of Latin American architecture this summer, at the Festival of Berlin Horizons '82. Organized by Jorge Glusberg of Argentina, the show will move to the National Institute of Architecture in Rome in late July, and then to the College of Architects in Madrid. [SD]

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News report continued from page 38

Calendar

Exhibits

Through July 15. "The Right Light," Photographs by Roberto Schezen. The Lobby, 369 Lexington Ave., New York. Through July 18. Percy Erskine Nobbs, Architect, Artist, Artisan. McCord Museum, 690 Sherbrooke St., W., Montreal.

Through July 18. Bernini Drawings from Leipzig. Indianapolis Museum of Art.

Through July 18. Richard Haas's Architectural Illusions. The Octagon, AIA, 1799 New York Ave., NW, Washington, DC.

Through July 25. International Exhibi-

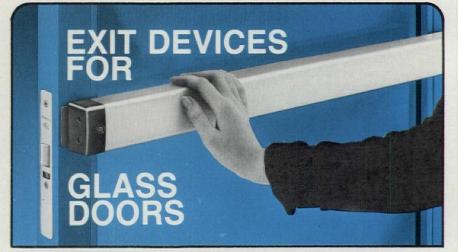
tion of Architecture from the recent Venice Biennale. Pier 2, San Francisco. Through July 30. "For the Record . . . the First 125 Years," archival exhibition of the AIA. AIA Building, 1735 New York Ave., Washington, DC.

Through Aug 7. Stanley Tigerman: Recent sketches and project drawings. Philippe Bonnafont Gallery, 2200 Mason St., San Francisco.

Through Aug. 15. The Indian Heritage: Court Life and Arts under Mughal Rule. Victoria and Albert Museum, London.

Through Aug. 22. Mies van der Rohe; Barcelona Pavilion and Furniture Designs. Neuberger Museum, College at Purchase, NY. Also: Through June 20, Robert A.M. Stern: Modern Architecture after Modernism.

Through Aug. 29. Mondrian's Room.



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Akron Art Museum, 70 E. Market St., Akron, Oh.

Through Sept. 20. The Everyday Environment in China. Centre Georges Pompidou, Paris.

Through Sept. 30. Barry Byrne and John Lloyd Wright: Architecture and Design. Chicago Historical Society, Clark St. at North Ave., Chicago.

Through Sept. 30. From Village to City in Ancient India. British Museum, London.

Through Oct. 3. Grand Central Terminal: City Within the City. New York Historical Society, 170 Central Park West, New York.

Through Oct. 10. New American Art Museums. Whitney Museum of American Art, Madison at 75th, New York.

July 15-Sept. 15. Buildings on Paper: Rhode Island Architectural Drawings, 1825-1945. Metropolitan Museum of Art, New York. Subsequent dates: Oct. 15-Jan. 3, Washington.

July 24-Oct. 12. The Architecture of Richard Neutra: From International Style to California Modern. Museum of Modern Art, New York.

Conferences, seminars, workshops

July 16-Aug. 20. Urban Studies and Architecture, Pratt Institute Summer Seminars (three lectures). Contact Prof. Livio Dimitriu, Pratt Manhattan Institute, 160 Lexington Ave., New York 11205 (212) 636-3453.

July 22-24. Sixth Annual Stanford Conference on Design, Stanford San Francisco Campus. Contact Bev Smith, Stanford Alumni Association, Bowman Alumni House, Stanford, Ca 94305 (415) 497-2021.

July 26-Aug. 5. Principles of Construction Specifications Writing. The Wis-consin Center, University of Wisconsin Extension, Madison, Wi. Contact Philip M. Bennett, Dept. of Engineering and Applied Sciences, University of Wisconsin-Extension, 432 N. Lake St., Madison, Wi 53706 (608) 263-4705.

Aug. 6-8. Alvar Aalto, Second International Symposium. Jyvaskyla, Finland. Contact Alvar Aalto Museum, Seminaarinkatu 7, SF-40600, Jyvaskyla 60, Finland.

Competitions

Aug. 10. Mailing deadline, Chicago Architecture Foundation competition for design of monument to William LeBaron Jenney. Contact Jethro M. Hurt, Coordinator, Jenney Memorial Project, Chicago Architectural Foundation, 1800 South Prairie Ave., Chicago, Il 60616.

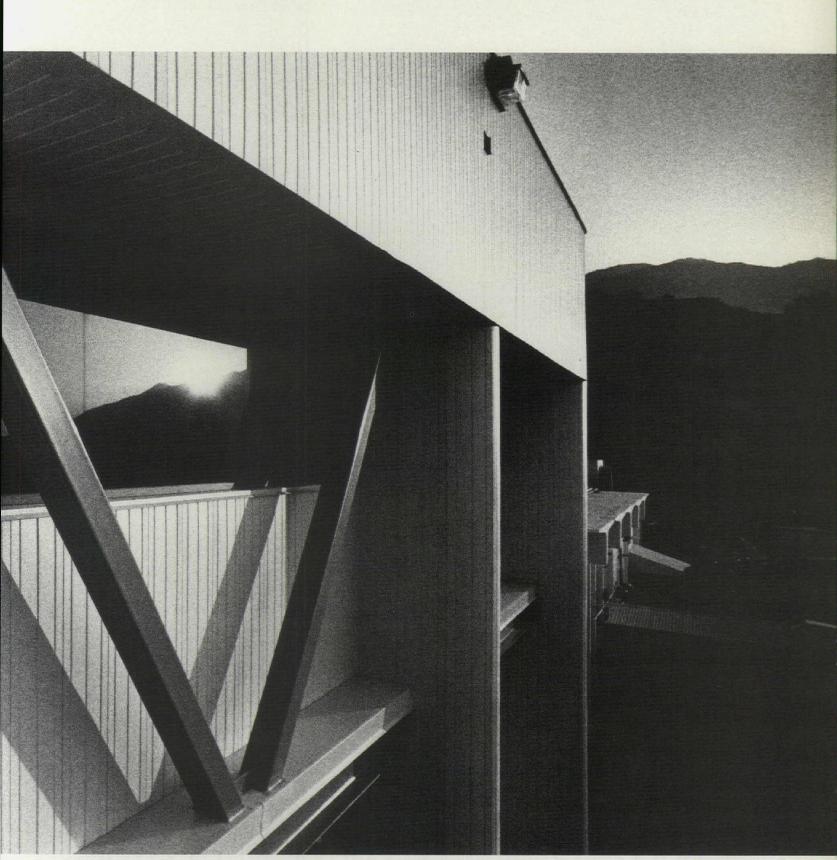
Aug. 31. Mailing date for P/A Awards entries (see entry rules, page 15).

Sept. 1. Entry deadline, Architectural Review Interior Design Awards. Contact Editor, The Architectural Review, 9 Queen Anne's Gate, London SW1H 9BY.

Nov. 1. Entry deadline, Compact Home Design Competition. Contact Compact Homes, Garden Way Publishing, Charlotte, Vt 05445.

Progressive Architecture 7:82

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The abstract alternative

Through the struggle between historicists and the establishment they wished to replace, others have pursued the possibilities of fresh and vivid abstract invention. This issue is a selection of recent such work, from Miami to Ticino. Every age reacts against the age preceding it, whether in sexual mores or architectural form, but not always in only one direction. Among the early reactions to post-war Modernism were, of course, Edward Durell Stone's exotica and glitz and Philip Johnson's gold-leaf Neo-Classicism. These sometimes tasteless exuberances were then reformulated into an erudite and distinctly "U" historicism by the adroitly polemical Roberts Venturi and Stern and the inventively ornamental Michael Graves. There have been others, of course: among them Charles Moore, whose class consciousness is slippery and undermines his inclusion in categories; Alan Greenberg, a kind of architectural Robert Taft; Stanley Tigerman, relegated to the ozone layer by his taste for popular culture and metaphor à la Saarinen. Historicism has become so potent, its influence is not only on students, but now on long-established firms that once ridiculed it.

But there have also been many reactions within the general rubric of abstraction. There are the much-celebrated directions typified by Norman Foster's industrially inspired architecture and Richard Meier's Corbusian extrapolations, and the far less recognized direction explored in P/A's March 1982 issue. The intention of this issue is not to represent the whole spectrum of creative abstract work, but to present some of the most recent work, some by architects never before published by P/A, and to focus on the quality of work being generated in this area.

Most of the architects whose work is in this issue are very critical of "Post-Modernism," but even more so of late Modernism. Most are dedicated to circumventing its recognized shortcomings: massive, inarticulated scale; lack of orientation; banality; staleness; jarring indifference to existing urban conditions; insensitivity to the anthropomorphic and kinetic aspects of experience. These are the same criticisms that the historicists make. The difference is in the nature of the remedy. The new abstract alternative is fully cognizant of history, determined to learn and even borrow from it, but equally determined to avoid literal quotation.

These architects attempt both romanticism and rationality, order and evocation, simplicity and sensuality. They are neither immune to practicality nor self-satisfied in it. They are not—like the architects of the late 1950s and early 1960s—claiming the moral superiority of any one material, but searching for the expressive potential in each and in adjacency.

The salient figure in all this is undoubtedly Louis Kahn, who in some ways is also claimed by the historicists. Kahn's affair with history, his unabashed support for monumentality

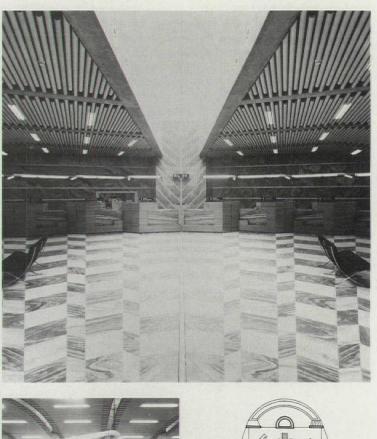
(on which he published an article as early as 1944), for archetype, for palpability (in opposition to light and diagrammatic Modernism) opened possibilities for architects still interested in abstraction. Interestingly, Kahn's admonition, "Turn to feeling and away from Thought ... but ... to remain in Feeling away from Thought means to make nothing" (1960), has been understood more profoundly by Europeans than by his own students. Perhaps Americans weren't as comfortable as Europeans, especially Italians, with majesty. Perhaps Modern architecture looks flimsier in the old European cities. But considering how much Kahn's ideas and work owe to Italian architecture, perhaps the question is not why did Kahn have a greater influence in Europe than here, but why was an American the rediscoverer.

There is much disparity between projects in this issue. Both Mario Botta's bank and Werner Seligmann's complex take on the problem of insertion into existing urban centers, while other projects stand alone in the woods. All the small projects involve investigations into the traditions of masonry construction-weightiness, the play of light and dark, solid and void-while the two larger projects conform visually to the lightness their structures demand. The Ticinese architects are probably the closest to Kahn and Carlo Scarpa, though the latest work by Mario Campi seems to have had its eye on America. Steven Holl straddles rather more determinedly the chasm between recognizable tradition and disassociated composition. The tiny house by Simon Ungers and Laszlo Kiss evolves from a proverbial primitive hut exterior to almost Secessionist splendor within. And The Palace by Arquitectonica, the blonde bombshell of the group, revels in the optimism of early Modernism with innocence replaced by a cartoonlike wink to the audience. The furthest removed from Kahn, it owes, however, a debt to Rem Koolhaas, whose revival of constructivism, Bauhaus, and 1950s pop suggests a different kind of romanticism, that of nostalgia.

This range is hardly surprising, not only because of the current climate, but because of the very nature of the concept of abstraction. On the one hand it means removed, separate from any recognizable reality. But it can also mean abstracted from that reality—epitomizing, condensing, summarizing. Perhaps this is why there is still so much to explore. [Nory Miller] Fribourg State Bank and three houses in Ticino, Switzerland

Transfigurer of geometry



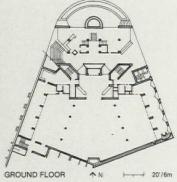




Mario Botta's just-finished Fribourg bank, an essay in urban infill and Modernist decoration; Casa Rotonda, perhaps his most perfect house; and two other recent houses attest to why he has fast become among the most respected architects.

A critique by Livio Dimitriu follows on p. 62.





Unlike many of his *Tendenza* colleagues, Mario Botta has continuously put his primary energies into building. There have been houses, public buildings, and now his largest building thus far, the Fribourg State Bank. The bank is the most demanding in terms of urban context, and was the occasion for Botta to explore the decorative aspect of architecture, at various scales, with expensive as well as common materials in profusion.

The houses, in contrast, are strong Euclidian solids within which equally strong voids are carved out in open and declared challenge. There is a certain consonance with the countryside, but it is mainly due to their similarity to traditional buildings, in both geometric simplicity and construction. Architecture, for Botta, is by definition in contradiction to nature. The houses stand monumentally erect and insular, in unreimbursable debt to Louis Kahn, yet each a vigorous invention. His palette is austere, for cement block and concrete slab continue on the inside, relieved more than softened by occasional vignettes—a sculptural fireplace, stair, or spare insertion of more precious material. Softening occurs through the careful modulation of mountainous views and Ticinese light.

Botta once submitted a competition project with the motto: "The past as a friend." He is a confirmed Modernist, castigating with relish what has become known as Post-Modernism. But he is a Modernist with a profound interest in distilling history, both plain and fancy traditions. [Nory Miller]

Progressive Architecture 7:82



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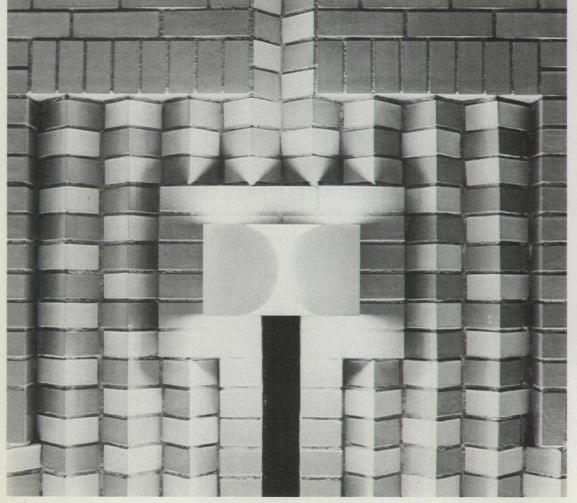
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The Fribourg State Bank occupies a pivotal corner site on the square in front of the railroad station. The wings are articulated to conform to the contiguous houses along each avenue. The center block (facing page, left top) is curved convexly through its main part to hold the corner and curved concavely at



attic level to reestablish the piazza. This center piece is also raised above ground, leaving street level for circulation with a passageway from one avenue to the other. The banking hall (this page and facing) is an exercise in traditional grandeur with traditional materials, but modern articulation and juxtaposition.

The State Bank building contains, beyond its own banking floor and offices, rental office space, a restaurant, a disco, and parking. The restaurant (facing page, this page bottom left and right) is as inventively decorative as the banking hall. Each table is distinguished by individual lights and a checkered chevron panel of brick. The disco (left) is below ground, lit by skylight and multicolored artificial lighting. Below top: Entry at the pivotal corner of the project leads directly to the restaurant.









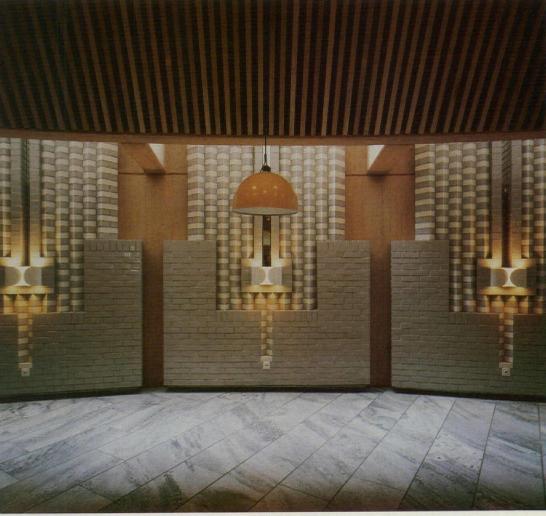
Data

Project: The State Bank at Fribourg, Switzerland. **Architect:** Mario Botta, Lugano, Switzerland. Elizabeth Hutter, Thomas Urfer, collaborators.

Site: flat triangular site, approximately 165,000 sq ft at the apex of a city block adjacent to the railroad station piazza.

Program: banking hall and offices, rental office space, restaurant, dance hall and underground parking. Three floors are underground, seven floors above, plus a penthouse level, more than 2 million cu ft altogether. **Structural system:** reinforced concrete bearing walls and columns.

Photography: Alo Zanetta.

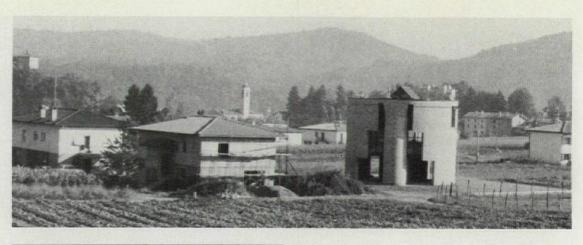


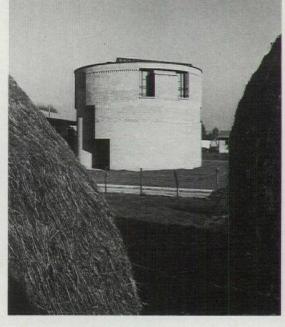
La Casa Rotonda, Stabio, Switzerland

Botta's description of this house in Stabio is: "A cylinder sliced in two along the north-south axis by light from the heavens." The departure from the rectangle is a response to the undistinguished immediate surroundings. Botta wanted to avoid any comparison to the existing houses. He wanted to create a form so different that it would establish a relationship only with the distant landscape (top photo). The cylindrical house terminates in a cornice of vertically turned bricks above a transition layer of dark pockets formed by bricks turned on 45-degree angles. Pressed into the perimeter of this is a massive column, housing the stair, with its own layered capital (facing page, top). Instead of traditional windows, the geometrical solid has been carved and bored into, as is typical of the architect (middle left, side elevation; middle right, rear elevation).

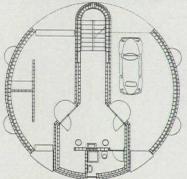
The ground floor is a transition between exterior and interior. The two entrances are behind the stair in the center. Outside but within the bearing walls are a garage and wood storage. There is a basement with service rooms and a large recreation area. On the main floor are the living area (with a fireplace, bottom photo), dining area, kitchen, study, and covered terrace to the south. Upstairs are the master bedroom and two children's bedrooms to either side of the double-height spine covered by its raised skylight.

The stair (facing page, bottom photos) is of black iron and English oak. Its steps and semicircular landing are suspended, floating, within the stairwell. Rods of the iron are twisted and woven into framed mesh panels along the sides and top.







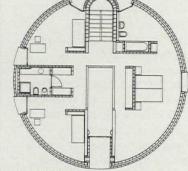




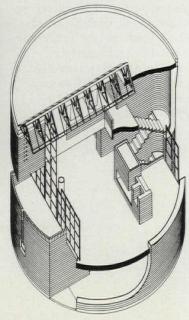


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THIRD FLOOR





Data

Project: Medici house at Stabio, Switzerland.

Architect: Mario Botta, Lugano Switzerland. C. Lo Riso, G. Caldenari, assistants. Site: small flat site in a light residential and agricultural area on the outskirts of town.

Program: approximately 1300 sq ft, house is bisected by skylit two-story space over central portion of dining/living area. **Structural system:** bearing ma-

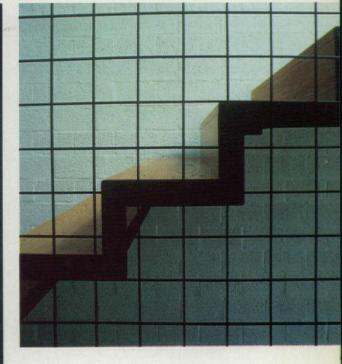
Structural system: bearing masonry cavity wall exposed inside and out; bearing reinforced concrete columns; concrete floors. Cost: \$260,000.

Photography: Studio Mario Botta except as noted.







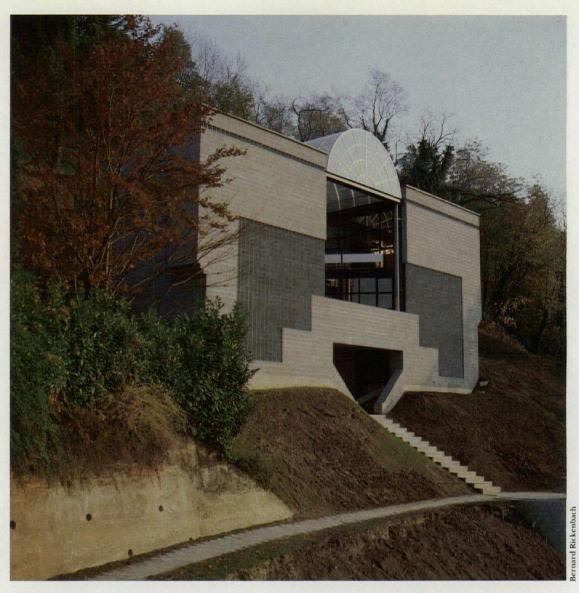


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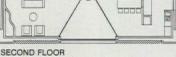
This house in Viganello (1981) is approached by stair from the parking area. There is a long approach parallel to the house, then a cylindrical platform from which to view the house, or turning, the magnificent landscape. The platform is also a small turntable for the stair which now approaches the house directly.

Entry is through a dark V-shaped void (bottom) and from there up a stair in the northeast corner to the piano nobile. Above the ground level, which contains only storage and laundry, the house is arranged around a skylit greenhouselike space, with sliding glass walls onto the valley (middle top). On the main floor are living, dining, and kitchen areas. The bedrooms are on the top floor, with balconies overlooking the view through the atrium and over the double-height living room.

There are three light and air shafts on the east side of the building, against the slope. Three-dimensional brick patterning (middle bottom) articulates the façade, reinforcing its symmetry and allowing for dramatic responses to light.









Data

Project: one-family house in Viganello, Switzerland. Architect: Mario Botta, Lugano, Switzerland. Site: sharply sloping site. Program: approximately 3200 sqft with living room, dining room, and both bedrooms looking onto terraces over the main entry, covered with a semicircular skylight. Three airshafts and light wells open the eastern side of the house (against the slope). Structural system: bearing mad Rickenbach sonry cavity wall exposed inside and out. One central masonry bearing column through the building. Concrete floor poured in place. Photography: Studio Mario

Botta except as noted.

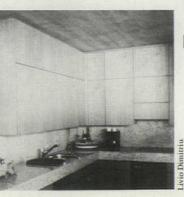


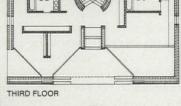
In many ways the house in Massagno (1981, above) is similar to the one in Viganello. There is a long approach path, here paved in concrete block with grass growing through. There is a piano nobile arrangement, and rooms are distributed around a central double-height greenhouse with sliding glass panels facing the best view. As at Viganello, there are air and light shafts-two, both on the west side of the building. But unlike Viganello, entry is not under the greenhouse but on the north side.

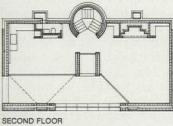
Living room (fireplace, right top) and dining (open to the granite and wood kitchen, right bottom) are on the main floor with glass walls onto the atrium. The bedrooms are upstairs, with an edge of the master bedroom overlooking the double-height living room, greenhouse, and valley below through a system of sliding walls, gridded in wood and fully mirrored on both sides (right middle). One of the children's bedrooms overlooks the greenhouse and the other overlooks the double-height dining room.

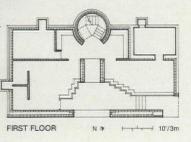












Data

Project: one-family house, Massagno, Switzerland. Architect: Mario Botta, Lugano, Switzerland. Site: sharply sloping site overlooking the town. Program: approximately 4400 sqft with double-height living room, dining room, and

greenhouse.

Structural system: bearing masonry cavity wall exposed inside and out. Concrete floor poured in place with various walking surfaces.

Photography: Studio Mario Botta except as noted.

Mario Botta



Sartoris (left) with Botta.



Botta's first project, the Parish house at Genestrerio.



House at Ligornetto, 1976.



School at Morbio Inferiore, 1977.



Transformed farmhouse at Ligrignano, 1978.





Critique

Livio Dimitriu

Botta was born in the Swiss canton of Ticino, where at 39 he still lives and works out of a small office in the city of Lugano. He commutes to Milan and Lausanne to teach. Until the commission for the Bank of Fribourg, all of his built projects were within a 20-mile radius of Lugano. While he continues designing and building private residences, and some medium-size public projects, he won a few months ago the competition for the Cultural Center of Chambéry, France, which will begin construction in October.

He began young, at the age of 18 completing the Parish House at Genestrerio, in collaboration with Tita Carloni. Botta graduated from the Venice Institute of Architecture with a high-powered thesis master, Carlo Scarpa. He came in contact very briefly with Louis Kahn, working on the new Palace of Congress Project in Venice. He also worked with Atelier Le Corbusier on the Venice Hospital Project, however after the master's death.

Ticino affords Botta a number of advantages. The Swiss canton is predominantly Italian in ancestry and cultural identification. Says Botta: "My being Ticinese immediately suggests the Lombard culture and Italy in general. I am more interested in what is happening in Milan than in events in Zurich." In Ticino Botta has the advantage of the recognized talent in that community, as well as locally skilled artisans and laborers. Ticino also offers him an extraordinarily beautiful landscape, unusual qualities of light, native building materials and techniques, and last but not least, the assimilation of, in Botta's words, "a certain pragmatism of the Swiss kind."

This general atmosphere has been receptive to the Tendenza movement (Italian Rationalists), of which Botta is a prominent member. It is thus not by chance that Alberto Sartoris, eminent architect and historian of the Modern movement, spends large portions of each year in Ticino.

Of Mario Botta, he declares: "I regard Mario Botta as the link between our ideas of decades ago and today's architecture. He is not an imitator of things past but a continuator. Mario Botta, as well as some of his local colleagues, but Botta in particular, is consistently capturing my attention. He is the continuator of an architecture that is certainly not dead, and that definitely did not fail. In my opinion, Rational architecture has not reached its fullest expression yet.

"Botta plays the role not only of an animator of architecture, but of geometry as well. He is the transfigurer of geometry, for I consider that geometry is architecture." Sartoris places Botta where he surely belongs, as a link with history. For Botta, history is not a column, is not the reuse of a form out of the past. History, in its profound meaning, is an entity to which we are all indebted, but of which we must all free ourselves.

Casa Rotonda, Stabio

There is a subtle play on words here. In Italian the word "house" carries the connotation of square plan. The notion of a round house is consequently somewhat scandalous. In part, the shape is a reaction to the absence of spectacular surroundings. As there is no preferred view, the house turns around itself, conceptually introverted. The delicate brick frieze crowning it is not merely decorative, but acts as a visual rubberband holding the volume together.

The house has the typical Botta northsouth orientation along the circulation axis, marked by a triangular-section, steel-framed glass skylight above. The vertical circulation is on axis and used structurally, another Botta trademark. The staircase is contained within a three-story column complete with capital, which dominates the entry façade. Facing the column toward the approach from the road locks in place an otherwise perpetually spinning volume.

Freed from relating to a specific site, Botta explores a more abstract relationship between architecture and elemental aspects of nature, formally and metaphorically. The lack of a base for the column marking the entry, as well as the absence of a base for the house itself (a larger scale column), gives the impression of columns penetrating the surface of the earth, like a blade of grass breaking through ground in springtime. The house can also be considered as an operation of mise-en-abîme: like Chinese boxes, a cylinder, crowned by a brick capital, contained by another cylinder, culminating in its own capital-a brick frieze. As one column supports the house, so the house supports the sky.

At the same time the house shows the evidence of the three masters who influenced him: Kahn in the overall volume and use of materials, Scarpa in the penetrations of the skin, and Le Corbusier in the elevating of living spaces above ground.

House at Viganello

The Viganello house underscores three important and overlapping developments in Botta's recent work. First, there is a departure from rectilinear form. The skylight at Viganello is semicircular, as opposed to the triangular skylights typical of Tendenza. Similarly, the main cutout in the Massagno façade (p. 61) is circular. The round opening plays optical games with the stupendous view down the hill, flattening the picture and bringing it inside the house at the scale of a painting hanging on the wall—a lesson learned from the Chinese. Circular form is dominant at Stabio, Fribourg, and Chambéry.

Second, there is the treatment of entry as a separate entity, a transitional microclimate between outside and inside. The entries at Massagno and Viganello are dark voids imbued with mystery, separate environments in preparation for the explosion of light that is to follow. Moreover, procession itself-the Corbusian promenade architecturale-which earlier in Botta's work was always contained inside the volume of the house itself-is now fragmented. There is a Delphian string of events: parking, a short walk to and by the house, a radical change of direction before entering. At both houses, the visitor is turned away from the landscape. Then, inside the house itself, there is a shock of bright light and the view reappears through selected openings in the façade.

The third development is an intensive use of the play of light and dark, not in the Kahnian sense of playing with masses only, but at the level of minute decorative detail. Where Kahn was fond of Egyptian volumetric dialogues of light and dark, Botta is shifting toward the Assyro-Babylonian precedent, which is largely a response to his palette of brick. The frieze, most clear at Stabio, is present at Viganello only on the front. The symmetrical motif of layered bricks produces a building that changes radically with the passage of the sun; like the Archangel Gabriel, its head of shining glass flies over the valley marking cosmic time.

House at Massagno

Suggestive masks have begun appearing with greater frequency in Botta's work. The facade at Massagno is no exception, with its treelike metal-ribbed sliding glass doors onto the greenhouse. The window is a sign, a commentary on the trees inside and outside the house. At Stabio (p. 58), the house appears as a giant ancient warrior's helmet unearthed by an act of loving archaeology. There is the angel of Viganello and other anthropomorphic figures in earlier work. Sometimes there are quotations from history. The light blue wash on the walls of Morbio School (left) comes from Piero della Francesca. The striped facades at Lignoretto (left) and Massagno may well be a quote from Loos's house for Josephine Baker, a play on history by stressing decoration in the work of the author of "Against Ornament."

With the Massagno house, Botta continues the series of buildings he began making at the beginning of the 1970s. These houses are either square in plan, resolved three-dimensionally as cubes, or rectangular in plan, giving birth to adjacent or overlapping cubes. The only deviation is an unbuilt half-diamond house in Manno. It is perhaps not incidental that the architect appears to have renounced the lozenge as a major device. If triangular spaces exist at all, they are sunk underground and heavily eroded.

State bank at Fribourg

The bank is Botta's first built project inside a clear urban and historic context. Only once before did he have to deal with an urban fabric—at the Morbio School (left). That complex forms urban spaces, relating in configuration and orientation to the rest of the town. The main building bounds the town like a medieval fortification wall, but in reverse, protecting the landscape from further urban sprawl.

In Fribourg, the old building was taken down and a new structure erected. The project is articulated as three pieces. The two lateral wings are in the spirit of the houses along the continuous boulevards. The cylindrical volume dominating the corner is elevated one floor off the ground by a treetrunk-like smaller cylinder, resting in its turn on a pedestrian platform. This apex attempts to relate to the piazza and reconcile the two wings. The overall volume reiterates the original configuration of the block. At ground level, however, there is now a passageway connecting one avenue to the other, which affords a central access functionally connecting yet formally separating the two wings and the "hinge."

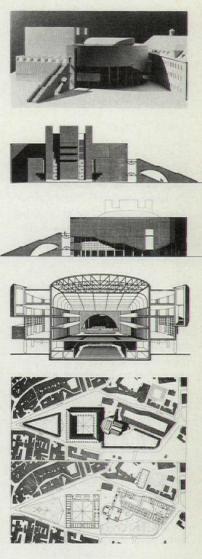
Used to making jewels on a very controlled budget, Botta found himself in a situation where the use of noble materials was demanded of him. The granite façades with marble inlays, the golden bolts holding the slabs in place, and the very careful detailing of materials meeting each other all point in a direction already clear in his workexperimentation with the significance of decoration. Marble inlaid floors are juxtaposed to light-colored wood ceilings vibrating with light. In the restaurant, marble floors next to wood and glazed or matte two-color brick walls continue the richness of decoration. Natural light cascades over the patterned walls, reminiscent of the Ligrignano Farmhouse (left). Light changes to darkness in the dance hall. Small bulbs bolt slabs of darkness to the walls, as outside golden bolts hold the façade stone in place. The love, care, and conviction with which he uses materials is the greatest homage Botta could pay to the various craft traditions to which he is surely connected through Scarpa, the master who reestablished sensuality as an intrinsic part of beauty.

Conclusion

Characteristic of Botta's work is an appreciation for the value of urban texture, an awareness that architecture belongs to the earth and springs from it, and a respect for the act of building. An ability to keep his vocabulary fresh is certainly a trademark. It is also clear that there is an autobiographical side to the work.

In Botta's own words: "More difficult to express, this aspect is essential to me for it is the poetic fact, the intuitive dimension inside the rational process. Through the experiences I had with Scarpa, Kahn, and Le Corbusier—and the names are to be understood in this sequence—I am hoping to recover the rational as well as the irrational side involved in the process of making architecture."

Botta's winning competition drawings for the Cultural Center at Chambéry, France. Construction is to begin in October.



Livio Dimitriu practices architecture in New York, teaches at Pratt Institute, directs the Urban Studies and Architecture seminar, and curated the first American exhibit of the work of Mario Botta (sponsored by Syracuse University) in 1979. Campi Pessina Piazzoli Casa Maggi, Arioso, Switzerland

The mountains and the machine

Recent projects by the Lugano firm of Campi Pessina Piazzoli typify the Ticinese talent for balancing Modernist vocabulary with vernacular building types.

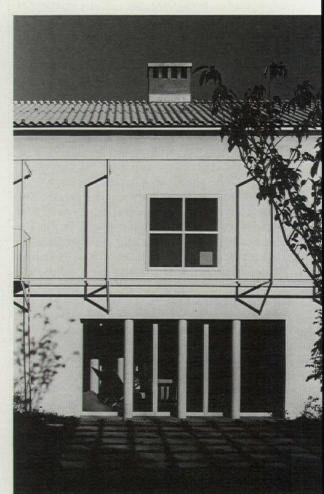
The Casa Maggi, completed in 1981, is what Campi calls "an exercise in rural contextualism." Built for the owner of a construction company, the house is set into a hill in the town of Arioso, facing a church. The house sets up a meeting of the sacred and the secular, with its temple front placed on axis with the church's campanile. The massive, almost schematic façade, with its concrete pediment and columns, was designed as a "mask" to cut off the long, rectangular volume (25 by 6.65 m) of the house itself. Rather than make a smooth transition from mass to mask, the architects deliberately sliced off the house, leaving its cornice (derived from those typical of Ticinese chapels) to stop short, exaggerating the physical and conceptual gap between house and façade.

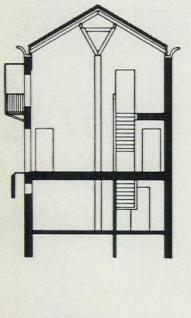
Portfolio

Not as well known in the U.S., but just as bright a star as Botta in the Ticinese architectural firmament is Mario Campi. The Italian-born architect, along with partners Franco Pessina and Niki Piazzoli, has been producing a variety of projects for over 20 years (Campi set up shop after completing his architectural training in 1961), and the firm's recent work displays the concern for vernacular building types, filtered through a Swissmodernist formal sensibility, that marks the current output of many Ticinese architects.

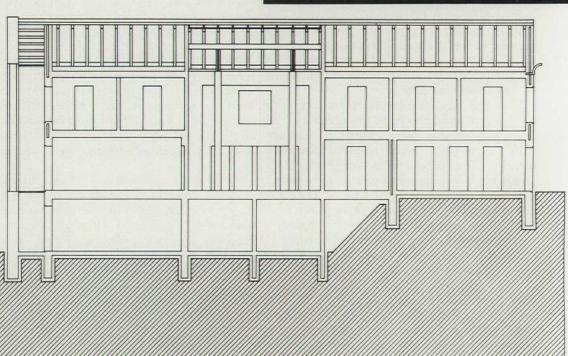
Campi, who has taught at Syracuse University and who has just completed his fourth and final year of teaching at Harvard, offers us a deceptively simple design philosophy: "A good, simple plan with excellent detailing makes a good house." Not surprisingly, the firm relies almost exclusively on custom detailing, an affordable luxury in a country where craftsmanship is still a strong tradition. Campi Pessina Piazzoli are currently at work on a competition for a bank building in Lugano (as is Mario Botta), as well as two row-house projects.

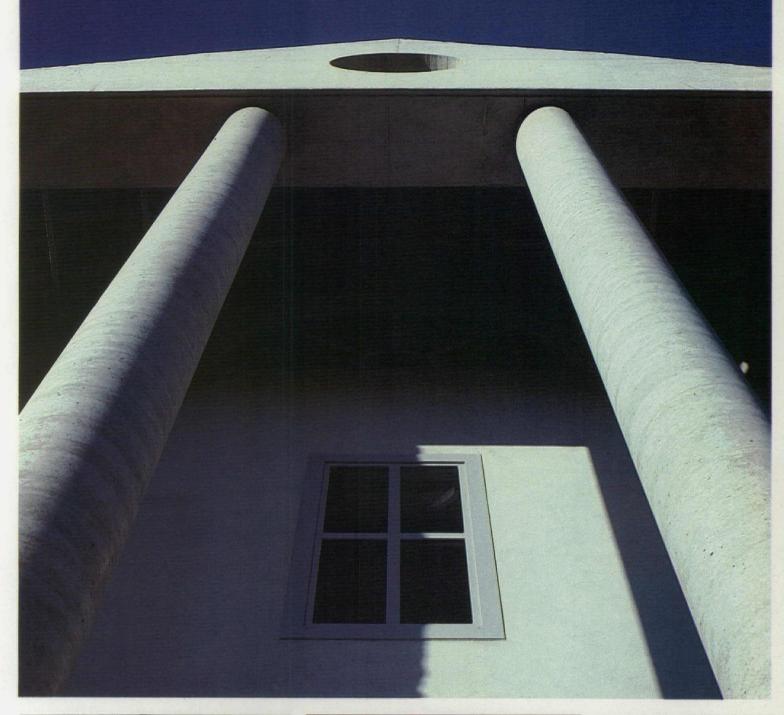
We begin with two houses, a bank, and a gymnasium, and conclude with the firm's two most recent houses. [Pilar Viladas]



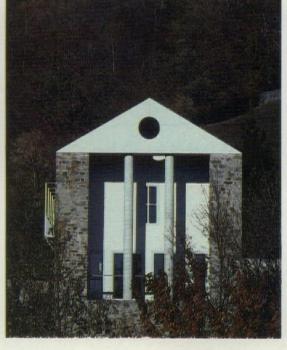


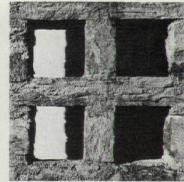
A critique by Werner Seligmann follows on page 70.



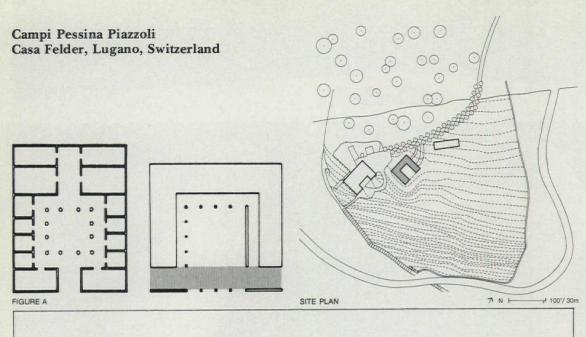


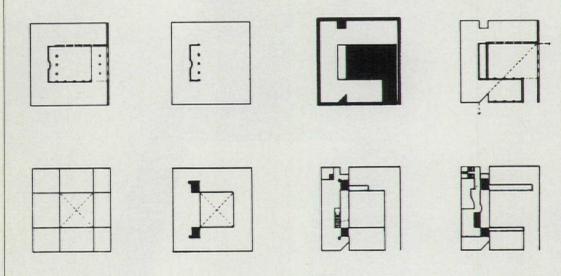






The mass of the house (this page, lower left) is based on typical Ticinese vernacular models. Iron railings and balconies (facing page, right) are used to tie the side elevations together. The stone "mask" of the façade is pierced at its base (above) by foursquare openings.





PLAN STUDIES

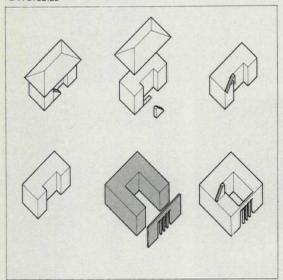


FIGURE B

The Felder house, completed in 1979 for a lawyer, his wife, and their three children, occupies a prestigious, 2000-sq-m site atop a hill overlooking Lake Lugano. Campi, who maintains that he and his partners "always try to feel the pressures of the site," also responded to the pressures of context. The architects sited the house not only to take full advantage of the lake view (facing page, bottom), but also to echo the siting of the late 18th-Century villa adjacent to the Felder house (see site plan, left). The entrance façade of the house (facing page, top) is pierced by a tall doorway of gridded sash that reveals the doubleheight space behind it. The opposite façade (see axonometric) has another double-height opening, this one with an angled glassblock wall.

The U-shaped plan of the house also echoes that of its older neighbor, but Campi chose to put a conceptual stop to the length of the arms of the U by means of a screen facade (facing page, middle left and center, and analytical drawings, this page). The screen creates a courtyard that is in use five months of the year (facing page, middle right). Three trees planted just inside the screen wall create a "zone of ambiguity": on the one hand, nature seems to "invade" the courtyard, while on the other, the screen facade seems to pull away from the house to venture outdoors. In adding the screen, furthermore, Campi draws on the historical type of the courtyard house (plan studies and Fig. A, left, discussed further in the critique on following pages). Functionally, the U-shaped plan, which measures 17 x 18 m, creates separate zones for parents' and children's bedrooms on opposite sides of the courtvard (see axonometric).

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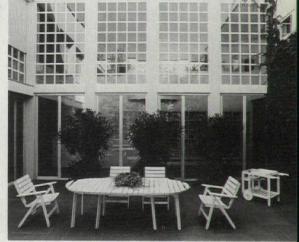
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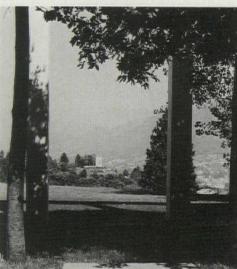
The analytical drawings of the Casa Felder were done by a group of students at Columbia University in a course conducted by Klaus Herdeg.







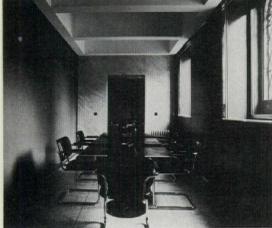


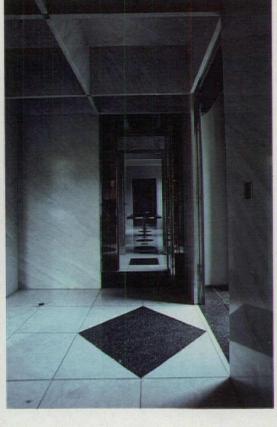




Campi Pessina Piazzoli Bank, Lugano, Switzerland





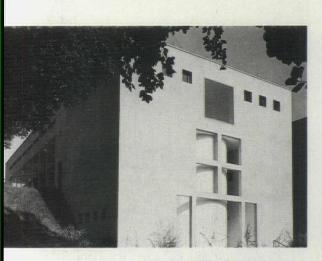


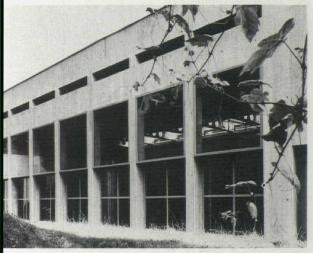
Banca Nazionale Svizzera in Lugano, the architects were given an extremely tight layout of two small rooms and a vestibule in a mid-18th-Century building, designed by the architect Albertolli as his own house. This particular branch of the Swiss bank is devoted to the exchange of currencies -new for old, and paper for gold. The program called for an entry (near left), banking room (far left, top), and conference room (far left, bottom), none of which is more than nine feet in width. If the layout was tight, however, the budget was not, and the architects were able to employ lavish materials to an almost surreally sensual effect. Working within a historic shell, they chose to cloak allusion in illusion. "The historical elements are reduced to minimalist terms," explains Campi. The massive entrance door is stainless steel; column capitals are chromed; and the coffered ceiling of the banking room (far left, top) is a "sky" of backlit pale blue glass. Flush, flawless surfaces, creating myriad reflections, result from the liberal use of glass and two types of marble: white cristallina, and labrador, a black stone flecked with white and pale blue. Consistent with this minimal, yet hardly ascetic color scheme, the conference room walls are painted pale blue. Consequently, an appropriately vaultlike yet wildly luxurious air pervades these tiny rooms, making the viewer eager to see what Campi's office will do in further renovations now planned for other parts of the building.

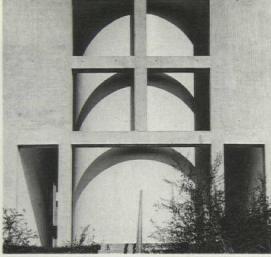
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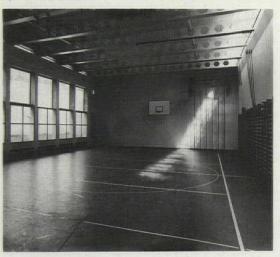
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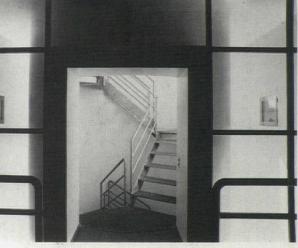
Gymnasium, Neggio, Switzerland



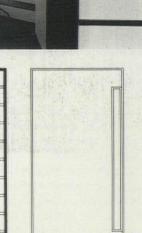












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This gymnasium, or palestra, built in 1981, was commissioned by the Fondazione Soldati, a private foundation run by the canton, with a donation of one million Swiss francs from the Soldati family. Set into a steeply sloping site, the building adjoins the Villa Soldati and a dormitory built in 1969. Its layout seems economical, if not spare. The typical floor area is not much larger than that of the standard (24 by 36 m) playing court that occupies nearly the whole of the first floor (the ground and second floors house offices, locker rooms, and smaller gym rooms).

The front elevation of the concrete box (near left, top) was designed as a "mask," or entry piece, to crown the stairs leading up the hill to the building. The large square window over the entrance at the second-floor level is flush with the façade, while the six small windows flanking it are inset slightly. Behind the mask, a pale blue stucco tower contains a custom-designed steel stair that winds its way around a triangular void.

On the main playing floor, standard steel beams span the ceiling, while custom-designed steel windows dominate one side of the building, and a long, narrow skylight illuminates the opposite (blank) wall. The windows, giant-sized variants of the double-hung classic, turn the playing court into a loggia that, unlike most gymnasiums, is flooded with natural light.

FLOOR PLAN

ROOF PLAN

Campi Pessina Piazzoli

Critique

Werner Seligmann

In the 1960s, the creative center of Swiss architecture shifted from Zurich, with its strong Modern architectural heritage in the works of Moser, Haefli, Steiger, and Alfred Roth, to the south of the Alps bordering Italy, the canton of Ticino. While the architects identified with this shift declare themselves decidedly Swiss, their architectural, intellectual, and spiritual ties are much closer to Italy.

Geographically rather than geopolitically, Ticino belongs to Italy north of the Po River. The landscape around Lake Lugano can hardly be distinguished from the sites of Lake Como or Lake Garda. This area is one of great significance in the history of 20th-Century architecture. A direct axis runs from Lugano to Como to Milan, the birthplace, in 1926, of the Italian Rationalist movement. However, while the architecture of Ticino is spiritually and artistically involved with Neo-Rationalism, the fact that these buildings exist in Switzerland distinguishes them noticeably from their Italian neighbors. Because of the social stability and the density of the population, Switzerland has maintained an extraordinarily high quality of construction and a sense of permanence in building. Since, in addition, most of the architects in Ticino (including Campi) received their training at the Eidgenoffiche Techniche Hochschule in Zurich, they have been imbued with a very strong sense of craft and functional responsiveness. Though Campi's early works are very inventive solutions, they are strongly aligned with the Swiss tradition. By the mid-1970s, Campi's work underwent major changes in direction that coincided with the international importance gained by the Neo-Rationalists.

The Felder residence of 1979 (see pp. 66-67) can be seen as the most pronounced signal of this change. The serene, beautifully proportioned, platonic, cubical villa is on a slope of a hill covered with vineyards, with beautiful views of the Alps to the east and Lake Lugano to the south. A large, turn-ofthe-century villa occupies the western section of the site. What marks the new phase of Campi's work is his solution, in which he accepts the architectural typological characteristics of the existing building, reinterprets them, and establishes a purer version of the type. The new house, comparable in volume, shares an identical orientation and is placed, as its counterpart, directly adjacent to the existing building. The U-shape parti of both buildings focuses on the mountains. The new house, however, expands the idea by introducing into the plan a courtyard beyond the cut-out of the original villa, thus further emphasizing the preferred orientation. The reference to historical archetype is unmistakable. True to the model of the antique courtyard house, the circulation surrounds the courtyard, and like its ancestor, this house has no need for external extensions.

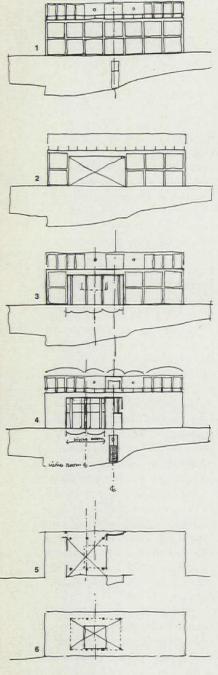
It seems reasonable to see the parti as an

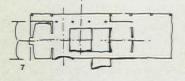
Fig. A, p. 66). To assure that the courtyard house as a type remains legible, the square area of the courtyard is completely paved and without planting. The courtyard volume is recognized by the fenestration and walls sur-

rounding it. The architect introduces a spatial zone of planting in front of the U, as well as an architectural screen wall that acts as both the foreground to a view of the mountains and as a space-defining device (Fig. B, p. 66).

The Casa Polloni of 1981 (facing page) may be seen as the Felder house transformed into a bar by flattening the U. The screen wall of the Casa Felder has been converted into a deep wall entrance zone at the street, and the courtyard space becomes both the void carved out of the house proper and the territory trapped between the entrance hall and the house. The attitude about the simple object building, enriched by a transformation of a type through simple but significant moves, remains the same.

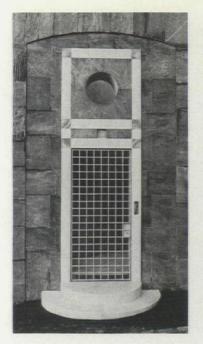
Campi's most recent house, the Casa Boni, is by far his most elaborate. It expands the architectural strategies of the Felder house; however, its complexity seems to search for its expression in the formal ideas of Terragni rather than those of the Neo-Rationalists. The building involves two separate expressions of architecture, with the base and the house proper seeming to be of two different architectural worlds. Only on closer inspection do we discover their complementarity.





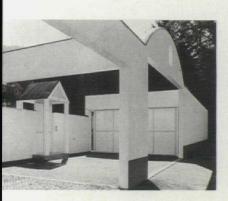
ANALYTICAL STUDIES OF CASA BONI BY WERNER SELIGMANN

Werner Seligmann is dean of the department of architecture at Syracuse University, and a practicing architect (see Center Ithaca project, p. 72).



The Casa Boni (facing page and above), built in Lugano in 1982, was designed as "an artifact sitting atop a wall." In this case, the wall, faced in green serpentine marble and entered through a white marble door, is reminiscent of the garden walls of Renaissance palazzi, while the artifact is a dazzling collection of flush, white surfaces of stucco, glass, and marble in a decidedly more Modernist idiom.

The Casa Polloni (this page), built in Origlio in 1981, uses a flat, gatelike wall (photo below) to screen the house (lower right) from the street and incorporate parking and storage space. The house, with its pale pink stucco façade, has an entrance placed off center within a foursquare composition of openings. To the right of the entrance, a trio of narrow windows topped by a tiny oculus creates an "implied pediment."



The Boni house, designed for a deeply sloping site, sits on a marble wall base that contains the entry, garage, and caretaker's apartment. The programmatic requirements of the house demanded an elaborate circulation network with a formal entrance sequence supported by complex, almost invisible service routes, while the formal sequence is based on a single, central axis. After entering an exquisitely detailed gate, the visitor is led upstairs to the entrance door of the house, where one enters an open stair that continues through the entire center of the house and allows a view of the principal spaces.

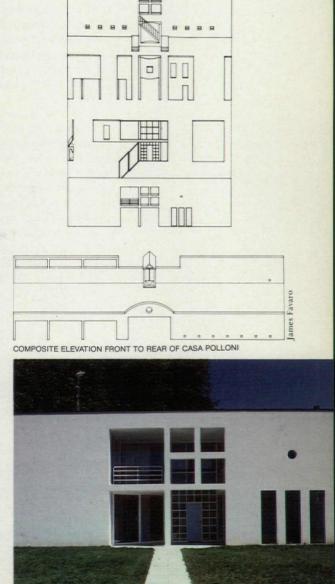
Like Terragni's Casa del Fascio, the house proper has a screenlike frontal surface. This screen possesses the unique, ambiguous property of appearing as a structural grid, and on further view-since it retains suffi-cient surface quality-of reading like a cutout wall. The architect is extremely conscious of this and clearly articulates the surface in the same manner as Terragni, through a continuous, deeply cut joint at the back of the front wall. The gridded front wall has a width of seven identical bays, which are announced by the intervals of the railing on the roof terrace and through the openings of the roof terrace wall. The railings act like triglyphs, providing the basic measure of the building (Fig. 1). The gridded front wall has been interrupted by the removal of three bays in order to register within the facade the twostory volume of the living room. Consequently the beam over this opening has been doubled in depth and thus further emphasizes the void (Fig. 2). Into this void within the frontal plane, the architect introduces a separate and different three-bay-wide structural system with round columns (Fig. 3). This grid is slightly smaller than the grid registered by the front surface, symmetrically disposed about the opening and moved slightly back of the frontal plane. Viewed spatially, the eight round columns of this space clearly define a volume within the overall volume formed by the frontal grid wall and the dense, deep wall to the rear (Fig. 6).

This space-within-a-space has its own center-the middle bay of its tripartite structural division. Since the main cut-out produces an asymmetry in the front façade, Campi, in order to re-center the house, introduces into the main façade a glass block screen, aligning it with the central axis of the whole organization, the primary circulation that runs from entrance to roof, and through its powerful insertion, unites base and the house. The introduction of the glass block screen produces a pronounced reading within the cut-out zone in the façade of the living room space. As a consequence, while the entire central space focuses on a center void, the living room itself now focuses on a single column (Figs. 4, 5). The façade is a brilliant performance of composition and spatial layering.

The plan continues this centering and recentering, using devices that are more reminiscent of the early work of Le Corbusier than of the rationalists. As in the entry and dining room of the Villa "Les Terraces" at Garches, Campi orchestrates his structure with the spatial elements of the plan. For example, the fireplace-den, the study, the stairwell, the dining room, and kitchen walls are aligned symmetrically about a single axis (Fig. 7).

While the base and house can be understood as a commentary—on an archaeological, cavelike building and a modern space of frame, planes, and volume—one cannot help but be puzzled by the lack of response of base to house beyond the mere organization of the plan and elevation. Possibly more elements of the house than the entrance door should have found its way into the base, and vice versa.

Though the projects differ widely, it is clear that each house responds strongly to its context; the ground, the sky, and light are the main generators of the design. Beyond that, Campi has been able to lift them to an astounding level of intrinsic architectural richness. \Box



Filling the void

A major site, vacant for ten years on Downtown Ithaca's main shopping mall, is filled by Werner Seligmann & Associates with an abstract composition that blends beautifully with its older neighbors.

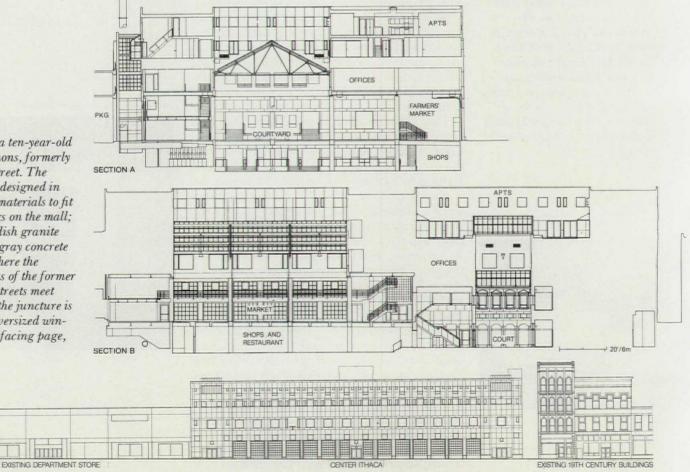
Center Ithaca fills a ten-year-old

By the 1970s, Downtown Ithaca, like so many other small towns across America, was dving. And, like other towns, Ithaca decided to fight back. Two blocks on State (main) St. in the center of the business district were turned into a pedestrian mall. Over time, a number of the old 19th-Century buildings were restored, and today life has begun to return to downtown. The most recent impetus for this change has been the opening of the new Center Ithaca designed by Werner Seligmann & Associates. The change, however, did not occur overnight, and there has been at least one major casualty. during the transformation, which has some relevance to the new center.

When State St. was turned into a mall, a number of buildings were demolished on its south side, where Tioga St. intersects. One of these was the major department store, Rothschild's, which moved into a new building (by Warner Burns Toane & Lunde) at the east end of the mall. The vacant site straddling Tioga St. was to be developed as the new shopping center, but it was ten years before a developer could be found. The department store was able to struggle along during those years and was even able to hold out until after the opening of Center Ithaca but was eventually, and unfortunately recently, forced to close.

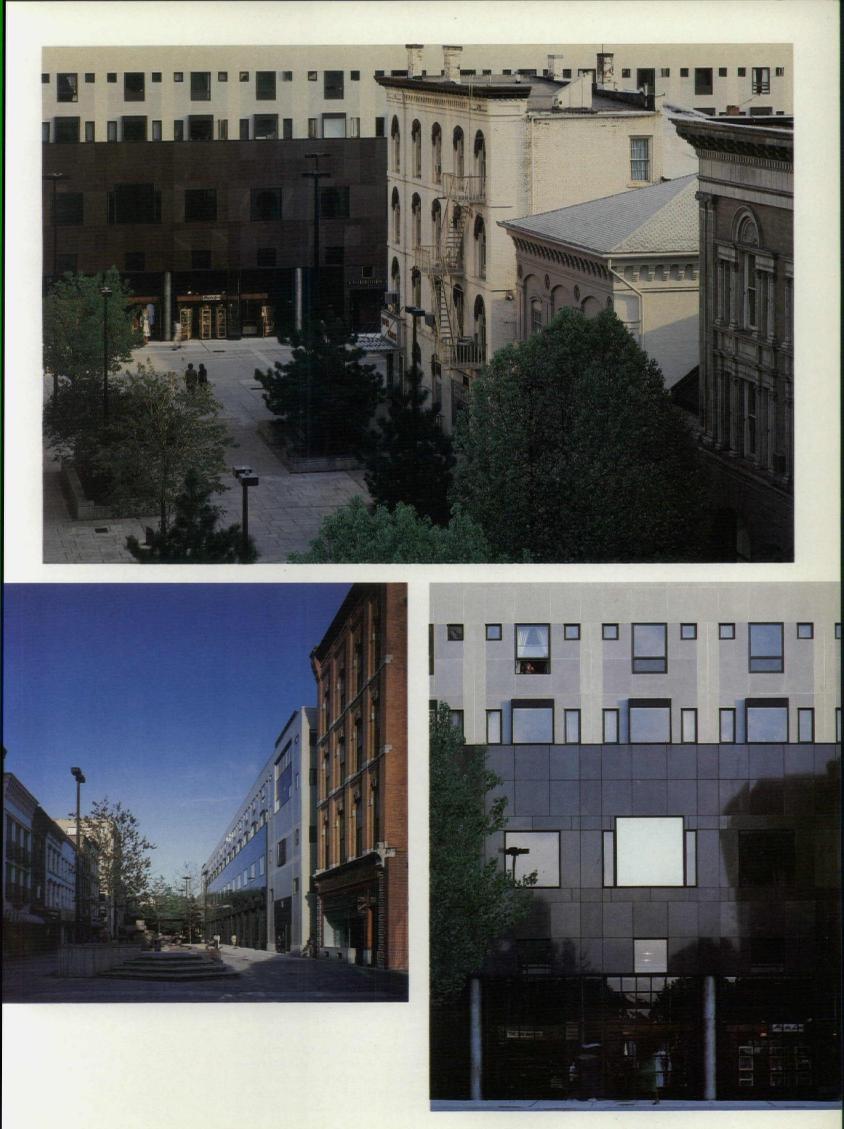
For Seligmann, the obvious thing not to do with such a major, centrally located site was to recreate a suburban mall downtown, as so many other cities have done. Instead, he wanted to recreate the downtown-the main street-that had been taken away. The idea was not to make a blockbuster, but a true piece of infill architecture that related to the buildings around it in terms of scale and materials. It would contain lower-level shopping, with offices and living above, which is an arrangement not uncommon to the older buildings on State St.

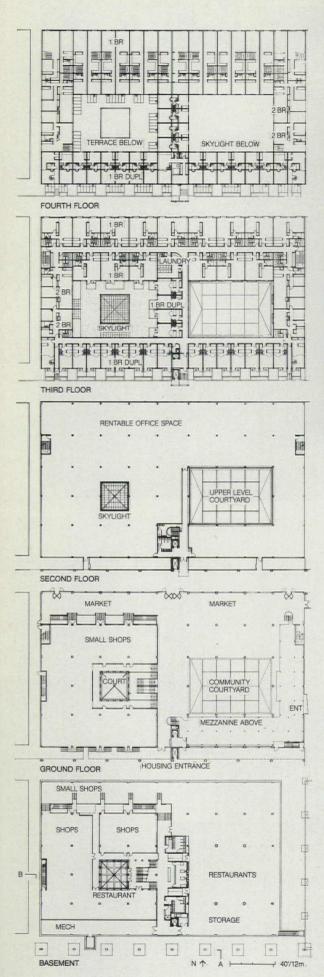
The façade of the new building is clad in reddish granite and concrete asbestos panels that approximate the tones, textures, and scale of surrounding structures. It is of a modular design, detailed in a rigorous, mathematically ordered progression which,



void on The Commons, formerly the town's Main Street. The Center is carefully designed in terms of scale and materials to fit with other buildings on the mall; it is faced with reddish granite and off-white and gray concrete asbestos panels. Where the T-shaped Commons of the former Main and Tioga Streets meet (facing page top), the juncture is recognized by an oversized window in the Center (facing page, bottom right).

NORTH ELEVATION







along with the materials clearly delineates the levels of retail, office, and residential from each other. The rationalized, symmetrical, and classically proportioned design fits well with its neighbors, many of which are of Italianate, and therefore also of quite rationalized design.

Where the center faces Tioga St., which is now also a mall, an oversized and mirrored window at the office level has been designed to recognize that juncture. A galleria along the front and part of the rear of the ground floor approximates that of the new department store to the east; it is equipped with overhead doors that open the main market area directly to the mall or to the parking area at the rear. When the doors are closed, the main entrance, which is located where the entrance to the old department store was, is used to enter the 55,000 sq ft of retail space on the basement, ground, and mezzanine levels. This space is divided into two areas: one surrounding a large glass-enclosed atrium, the other with a small skylit courtyard (inspired by Sangallo) where the court of the old department store used to be. While a mezzanine surrounds part of the eastern section, at that level in the western section, small shops at the front are entered by individual stairs from ground level. This gives each its own identity, Seligmann says, like those on Newberry St. in Boston.

None of the 25,000 sq ft of office space on the second floor has been rented yet, but on the third and fourth floors, almost all of the 62 apartments, which include two-bedroom units, one-bedroom two-story maisonettes, one-bedroom floor-through units and flats, and studio apartments, were taken immediately. And for good reason. While they are



In basement stairwell (top) and small courtyard (facing page, top right) concrete-asbestos panels are imaginatively used to appear almost like stone facing. Second-floor offices look into the main atrium (facing page, top left), and pipe rail stairs near the front facing the mall (right) lead to individual shops.



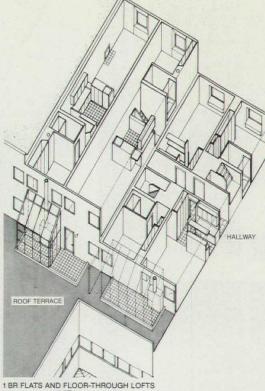
small, they are well designed and nicely detailed, and offer an extraordinary variety, given their number.

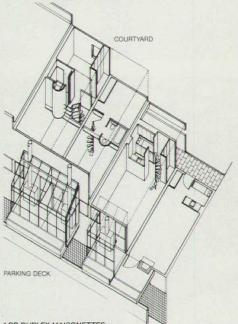
Critique

The only major problem with the apartments concerns the one-bedroom maisonettes, which are all at the south side of the building, and which were originally designed with spiral stairs leading to the bedrooms. At the last minute (during construction) the city decided spiral stairs were not allowed, and conventional ones were used instead. Although Seligmann made them as discreet as possible, they still occupy too much space and overwhelm the small living rooms.

There are more serious problems down in the retail spaces. This area was conceived by Seligmann as a large, basically unobstructed covered marketplace where goods would be sold from kiosks and stalls. But as these were designed, by the associated architects Perry, Dean, Stahl & Rogers of Boston, they almost completely obliterate the idea of the open, airy marketplace of steel and glass that was designed. What should have been light, delicate stalls are horsey obstructions made of coarsely detailed dark, heavy wood. One stall, which is a card shop, has been placed directly in front of the main staircase leading to the lower level, thus cutting short a major axis and obscuring a main circulation route. Elsewhere throughout the center, shopowners have pasted up signs in their windows, supermarket fashion, and in some cases have put gypsum board over glass partitions.

The only person who seems to have understood the marketplace is the grocer, who is at the back, facing the huge parking structure. He displays beautiful fruits and vegetables and other foods arranged simply on low counters; he opens the doors and sells plants and flowers outside, and in effect turns the back of the market into what you imagine Seligmann must have envisioned for the whole place. [David Morton]





1 BR DUPLEX MAISONETTES

Data

Project: Center Ithaca, Ithaca, NY.

Architects: Werner Seligmann & Associates, Cortland, NY; Perry, Dean, Stahl & Rogers, Inc., Associate Architects, Boston, Ma.

Client: Ithaca Center Associates. Site: 34,000 sq ft in central business district.

Program: 55,000 sq ft of retail and commercial space, 25,000 sq ft of office space, 62 housing units.

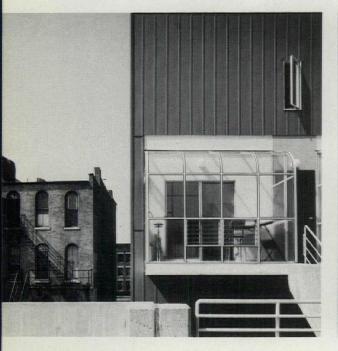
Structural system: reinforced concrete foundation on spread footings; steel frame with composite concrete decking.

Major materials: steel stud exterior wall framing, batt insulation, gypsum board sheathing, concrete-asbestos exterior and interior panels, vertical aluminum siding, C-strut granite support system, granite, overhead and upward acting doors (see Building materials, p. 126).

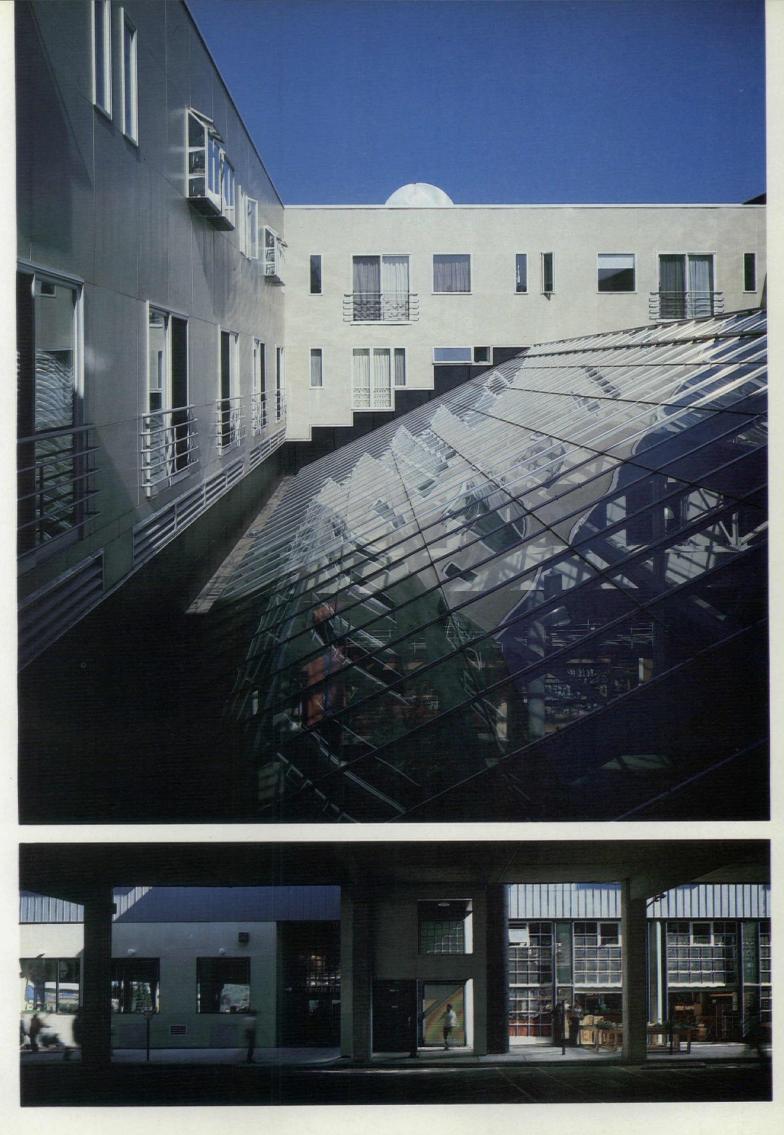
Mechanical system: water source heat pump system with gas-fired modular boilers, hot water unit heaters for market area only.

Consultants: Perry, Dean, Stahl & Rogers, Inc., interiors (kiosks and signage); Bolton and Di-Martino, Inc., structural; BR +A Consulting Engineers, Inc., mechanical; H & A of New York, Consulting Geotechnical Engineers and Geologists, soil. General contractor: Streeter Associates, Elmira, NY. Cost: \$6,007,000; \$42.90 per sq ft for building shell and rough finish of apartments. Photography: Timothy Hursley.

After construction was begun, the city decided spiral staircases for duplexes (as shown in plans, and in axonometric above) were not allowed, so conventional stairs had to be used (left). Many apartments have glass-enclosed balconies (far left); others look into main atrium (facing page, top) or onto roof terrace (not shown). Entrance to apartments is at rear of Center, near city parking structure (facing page, bottom), where grocer displays vegetables and flowers outside.



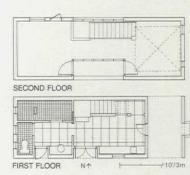






Braving the elements

Traditional architecture is abstracted to its most essential elements in this poolhouse by Steven Holl.



The poolhouse, for Pace furniture president Leon Rosen, is sited between an existing garage and pool, not far from the main house. Changing rooms and wet bar are on the first floor, and a sculpture studio for Kathy Rosen occupies the second. By embracing the pool in a low-walled courtyard, locating the poolhouse at its north edge extending over the pathway from the house, the architect establishes a strong sense of place and the foundation for an overall estate plan. Exacting attention was paid to proportion and detail. Note the verde antique "gargoyle" and pedestal, the Carrara marble sills and etched glass panels in the main door. The metal frame of the skylight will oxidize with age, adding a slightly treelike aspect to the uncompromising geometry.

opposite: Jim Daddic

It is a pity that Mies said "less is more" because the fuss that followed obscured the point. Sometimes, less is more. More interesting is when. Holl's poolhouse, for example, at a very literal level, makes more of its mere 680 sq ft by pulling all the surrounding property into a relationship with itself. The gray stucco poolhouse is placed so its façade is reflected in the existing swimming pool, which is then surrounded by low walls of matching material. Less than 350 sq ft (ground level) is now firmly enmeshed in 1150 sq ft of courtyard. An organized procession from the 1940s house to pool, including a formal gabled portal and continuous red paving, connects the outbuilding to the main house. There is even an implied connection to the early 18th-Century stone borders of the estate, for the courtyard is intended as a microcosm of that earlier grid-walls within walls. A rock unearthed in excavation is left beside the pool as a not altogether tacit evocation of the rough-stone walls beyond.

At a less literal level, "more" has to do with the expressiveness of form. Holl's fascination is with wall architecture, and he has strained to render each element in its most irreducible aspect. Windows are simply shadow and sill. Walls rise and are capped. Buildings are scarcely other than walls, locked into place by intersecting axes extending into the site. Plasticity is a function of layering and intersection.

Frozen Bartok

But it is the controlled dissonance with which these elements are combined, the contrasts held too close or pushed too far for easy recognition, the disruptive ambiguities and precarious asymmetries that create the tiny building's particular intensity. Windows and doors are never replicated—varying in size and shape however small the surface shared—and set in almost rude juxtaposition.

Elements coexist without transition. Ambiguities thus engendered are not resolved. The edge of the building, out of which the entryway is carved and above which the pyramidal skylight rises, threatens to tear away as a gate tower. Nor is the second-floor balcony clearly inside the studio or out.

Color, texture, and pattern are pitched for exaggerated contrast or unsettling near misses. On the one hand, the neutral box is placed in a bed of red pavers, lush greenery, and Hockney blue water. On the other, it is painted a carefully chosen luminous gray to reflect every atmospheric nuance. Sills and cornices are white against the gray walls, concrete against stucco for the courtyard walls, marble against stucco in the building. A polished green marble "gargoyle" and a pedestal beneath (masking lighting equipment) are set in relation not only to each other—vertical vs horizontal planes—but against stucco and paver blocks and the totemic rock from the excavation.

Inside, a verde antique water column stands like a stele within a white shower room, more green marble slices across a countertop in the refreshment area floored in flesh-toned marble and edged in white plaster. Industrial-grade pine is laid on the staircase in such a thin sheet that it remains a continuation of the floor of the studio, rigorously discrete from the bathhouse into which it descends. Much detail is gridded, but slides away from consonance.

Contrasts indicated on programmatic grounds are stretched for maximum impact. East and west façades—uneven in terms of light and heat gain—are closed, while the south is open. Subtleties, such as the necessity to provide for winter sun (in the studio) while keeping summer heat at bay, are cloaked by the recessed balcony that looks open while acting as a shield in summer. The interior requiring privacy for the cabana and light in the studio—is absolutely cavelike below, with only the tiniest openings even in the wet bar, while all four walls and the roof pour sunshine into the studio.

At the same time as overall composition has been worked for maximum tension, proportion and detail are arranged to reassure and delight. Everything in the building and around it is on a logarithmic spiral. Shapes are golden sections, squares, two squares, golden section plus square. This is all used as a fine-tuning device, not a rigid system, but pulled sometimes a little one way or another.

Big objects are detailed down to accessible scales. Doors are given individual window patterns. Picture windows are gridded, as is the sliding shower door. Broad expanses of façade are adjusted in increments from the

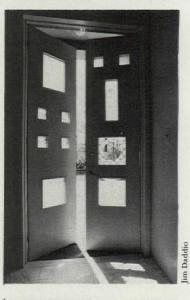




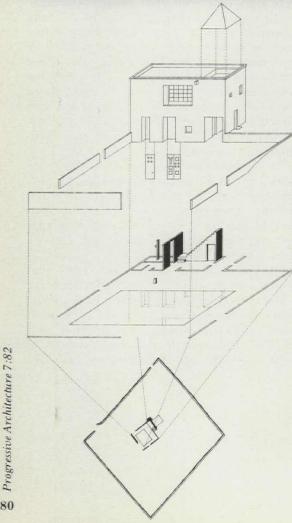
large portal or balcony to elfin windows and the smaller marble piece. The nature of the experience is broken down in the same way. There are three separate doors to the poolhouse-one to the cabana, one to the wet bar, and another off the main path. Similarly, each half of the studio has its own special lighting and its own door onto the balcony.

At each point of intersection between building and visitors, there is a courteous acknowledgment-a discrete ledge on top of walls to sit on, marble window sills to touch, an openwork balustrade, carved newel post, wooden "carpet" down the stairs. The main doors contain the most elaborate craftsmanship-sandblasted glass pictures done from the architect's conceptual sketches for the project, sketches about walls within walls, logarithmic spirals, transformation, memory, containment, paired oppositions. But nothing is bought ready-made that could be designed and fabricated. Even the skylight is custom, and reportedly economically so.

It is this combination of abstraction with fingertip luxury and attentiveness, and the rooting of abstraction in the fundamentals of architectural tradition, that disarms the animosity that frequently accompanies such design. In fact, Holl has been hired by the couple next door. [Nory Miller]







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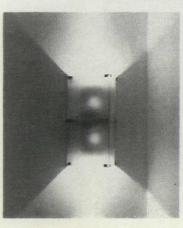




Becket Logan

Despite the poolhouse's simplicity, there is considerable detail and craftsmanship. Glass panels in the central doors are sandblasted after Holl's conceptual sketches for the project (facing page). The wooden floor of the studio follows the staircase down (facing page, top right). The studio (above, left and right) plays geometrical patterns off one another --- note even the incised lines of the newel post. The recessed balcony effectively divides the studio into two rooms, a workroom under the skylight and a sitting area with two round windows wrapped around a corner. Right: The east facade (left top) is almost like a separate gate tower. The doorway shown is a minor axis from the lawn. The north façade (right top) rises above an existing garage. Architect-designed details include light fixtures (left bottom) and a green marble shower column (right bottom).









Data

Project: Rosen pavilion, suburb north of New York City. **Architect:** Steven Holl, New York City. James Rosen, Mark Janson, assistants. **Client:** Leon Rosen, furniture designer and president of The Pace Collection, and Kathy Rosen, sculptor.

Site: 1.5 acres on a suburban estate surrounded by stone rubble walls.

Program: 680-sq-ft poolhouse between existing swimming pool and garage. First floor is used as a bath house, second is a sculpture studio. A new 52' x 52' courtyard encloses the pool area. **Structural system:** insulationfilled concrete block.

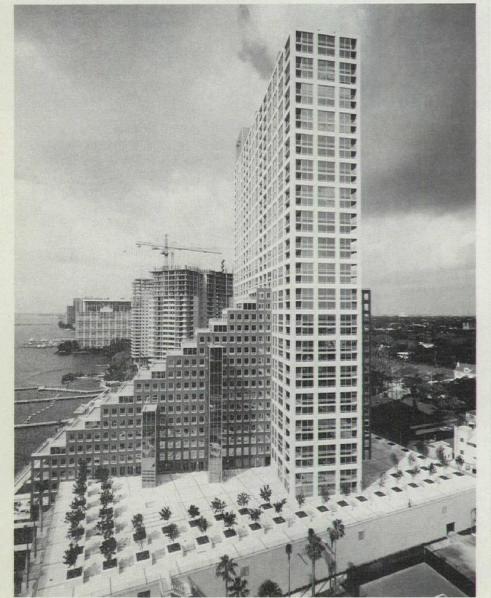
Major materials: painted stucco on concrete block exterior, plaster on concrete block interior. Interior finishes also include Carrara, rosa, and verde antique marble, brass hardware, industrial pine flooring (see Building materials, p. 126).

Consultants: Paul Gossen, structural.

Peeping into Pandora's box

The Miami firm of Arquitectonica—Laurinda Spear, Bernardo Fort-Brescia, and Hervin Romney—plays with perfection and fantasy in a large condominium apartment building overlooking Biscayne Bay. To create a work of art that retains the fresh and ingenuous quality of a child's painting, yet encompasses the stormy range of adult responses—such an achievement occupied Picasso throughout his life. And here is the young firm of Arquitectonica (median age of its three partners: 31) seeming to capture that delicate balance between knowledge and naïveté, in three spectacular condominium apartment buildings completed or nearing completion in Downtown Miami, overlooking Biscayne Bay.

The Palace (shown here), the Imperial, and the Atlantis manage to contain life's necessities within startlingly clear geometric forms, as brightly colored as children's blocks and as



neatly arranged as to warm a parent's heart. Yet the boldness of scale and the manipulation of materials reveal a knowing artistry, and the stage sets for living that these buildings provide imply more than mere blockbuilding. They imply romance, grandeur, wealth; they suggest sensuousness and aggression. These structures stand, big and luscious, shimmering in the sunlight on the edge of the bay.

Seductive as these buildings are, however, they leave room for further exploration on all levels. Happily, the Arquitectonica members have most of their careers ahead of them. They have time to refine and develop the special qualities they have displayed. Their childlike forms can become canny, the material assemblies crisp, and the fantasies more sublimely evoked. But they must work and mature to achieve "grand master" status.

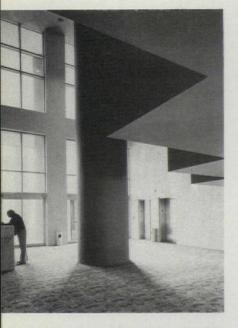
Elements and assemblies

One cannot but be astounded at the sheer magnitude of the body of work contracted by a firm so young. In Downtown Miami alone, they are responsible for three large condominium buildings, a smaller apartment building, the Babylon, now under construction, and the 1.9 million-sq-ft multiuse Helmsley Center now being designed. These line the edge of the city like giants on a superblock grid. They are best viewed from the bay or from the elevated highway nearby, and are designed with a clarity and scale legible from a speeding car.

The Palace, at 41 stories the tallest building (for now) in Miami, consists of three neat elements: a two-story base parallel to Brickell Avenue, containing parking and waterfront townhouses; a tall, 50-ft-wide slab parallel to Biscayne Bay, whose thinness and multiple elevator banks allow intimate landings and through units; and a lower slab intersecting the tall slab at right angles, with setbacks providing generous terraces. A total of 255 condominiums are accommodated.

Even more remarkable than the clarity of the Palace's elements is its use of contrasting materials and assemblies. Red-painted stucco walls in the low slab are gouged to reveal, like foamcore, a white thickness, ended and darkly reflected in blind, soulless windows. The slick, aluminum-framed glass wall of the tall slab uses contrasting finishes to express a giant double-story square grid—the smooth









In the lobby (above top), the upper wall steps back in dramatic reaction to the intersection of the two slabs at this point. Romance cloaks the architects' image of the building (middle), though the actual apartment units (above) are ordinary.

Opposite page: Aggressor slabred, jagged, solid-penetrates slender slab-tall, cool, glossy, in the architects' conceptual drawing (bottom left). The long pool at the top of the red slab, and the skycourt opening above it, were not executed at the client's request. The loss of these elements undermines the power of the penetration and, with the addition of four extra stories on the tall slab, render the proportions of the actualized building somewhat less successful than in the sketch. The drive-through entrance (top and bottom) at the intersection of the slabs is delicately executed.

Fantasy

More than for neatness, and more than for unusual material assemblies, Arquitectonica has been known for the lifestyle fantasies it intends to evoke, as expressed in scenographic images originating in Laurinda Spear's work with Dutch architect Rem Koolhaas. The conceptual drawing of the Palace (p. 85) anthropomorphizes the inert forms, and the two slabs do not merely intersect. The small slab—red, tight, jagged aggressively penetrates the aloof slimness of the tall slab. Had the outdoor skycourt pool been realized, a long strip of water would have heightened the sexual imagery.

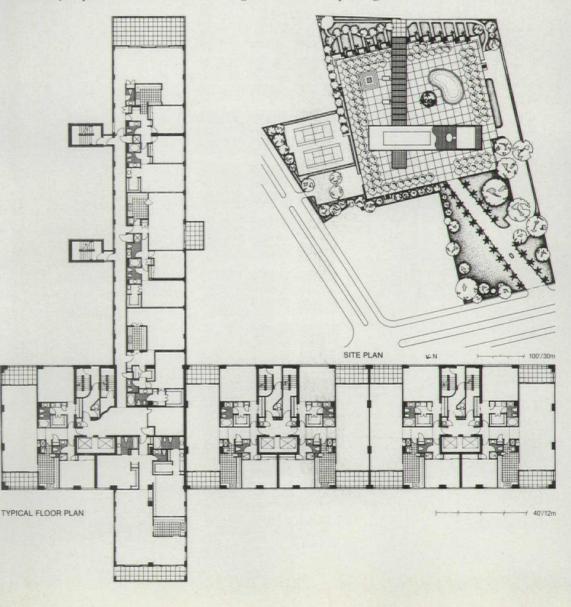
While the buildings themselves may engage in raw sexuality, their intended inhabitants apparently want desire to be cloaked in romance, and Arquitectonica's mood sketches show blonde ladies in pink chiffon gazing at tuxedo-clad men across long, long terraces in the sky. Indeed, there can be no more splendidly romantic approach to a contemporary residential building than the long, steep, angled drive up to the Palace, marked by rows of tall Royal palms saved from the original estate. Above, on Miami's highest "hill," looms the building, tall and gleaming. The effect is awesome.

While bigness can instill awe, the combination of slickness, striking contrasts, and "rational" geometric formal systems promotes further associations: high tech and the computer, more perfect, yet more limited, than human beings. High tech is anthropomorphized to become science fiction, the computer gives birth to the robot, and technology loses its fearsome face. One remembers the lovable simple/smart Star Wars' R2D2.

The rear of the building allows the full impact of the complex's architectural eclecticism to be felt. It is a veritable 20th-Century urban agglomeration, with the Chicago frame slab hovering over the red "masonry" setback tower, which abuts the reflective glass monolith. Beneath all are the low-rise "townhouses." A spectacular performance, it permits a polygamous marriage of convenience that combines bedfellows as various as the hollow-eyed but depoliticized Rossi-esque wall (the alter ego of the "masonry" structure) and the hedonistic rococo-filled three-story glass house on the roof, with its own cylindrical elevator and a waterfall on its terrace.

Chinks in the armor

Only a few flaws mar the neatness of the Palace's three elemental forms. The "skycourt" opening that was to occur above the





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Waterfront townhouses (above) are tucked into gridded base (right). Opposite page: Building's north side.

Data

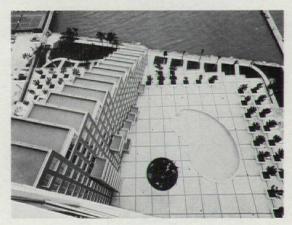
Project: The Palace, Miami, Fl. Architects: Arquitectonica International, Coral Gables, Fl. Client: Harry B. Helmsley. Site: five acres on Biscayne Bay. Program: 255 condominium apartments. Two-level garage. Health club, two tennis courts, pool, 53 cabanas.

Structural system: pile foundations, reinforced concrete columns, flat concrete slab. Major materials: anodized aluminum framing, reflective glass windows, tinted glass sliding doors, stucco on concrete block

(see Building materials, p. 126). Mechanical system: central cooling tower, individual airhandling units.

Consultants: WPL & Assoc., PFE Engineers, structural. William Dorsky Assoc., associate architects.

Cost: \$30,000,000. Photography: Timothy Hursley.



intersection of the slabs (see drawing, p. 85) was eliminated at the client's request, thereby dulling the clarity of the penetration. The addition of four extra stories on the tall slab renders the proportions of the realized build-ing less successful than in the conceptual axonometric: the aggressor slab is over-whelmed. And the introduction of waterfront townhouses, while pleasing functionally, sullies the hard intransigence required at the base's edge.

In the use of childlike forms lurks a danger against which Arquitectonica must guard. Ingenuousness can become cloying, simplistic, repetitive, and ultimately boring. The Palace remains fresh, but some of the firm's current projects (Riverbay in Miami, p. 36, for example) suggest the need for further thought.

The material assemblies in the Palace, varied and evocative as they are, miss the crispness of the initial concept when viewed up close. Of course, it is inevitable that the real world loses the perfection of the idea; in fact, in the real world, next to its very average neighbors, the Palace stands out sharply and brilliantly. But perfection is the commodity that Arquitectonica deals in and which it must continue to close in on. Stucco, say the architects, was dictated by economics; still, with its naturally dimpled surface, it remains a disappointing material with which to express the ruthless grid of the tall slab and the abstracted "planar" wall of the stepped building. Furthermore, in the tall slab, the inner aluminum grid meets the stucco grid carelessly. The stair towers' reflective glass walls distort more than is necessary. The base's tile grid lacks the dimension and sensuousness to emphasize the determined skew. Architects must maintain an intimate and caring relationship with their materials. Formulas developed for early projects must be reexamined to assure their effectiveness in new applications, and it is hoped that Arquitectonica will improve some of its shorthand notations.

The Palace's images are urban, but local zoning regulations (which are now changing) limit use on Brickell Avenue to residential and discourage traditional urban relationships. Though adjacent to Downtown Miami, the Palace, aloof on its base, and the neighboring condominiums repeat the suburban pattern of separate, private estates that they replace.

From perfection to sublimity

In a city that tends to stick to mainline architecture (with emphasis on brass doorknobs and faucets), Arquitectonica's work has an exuberance and originality possessed by only a few noteworthy Miami buildings—the Art Deco hotels of Miami Beach, and the dramatic ersatz creations of Morris Lapidus. It is an exuberance that may move the world and certainly fires the imagination of some crusty developers.

This almost naïve exuberance is the salient characteristic of the Palace. While it is indeed heroic in scale and stunning in its variety of urban images, its Star Wars imagery dominates, even over romance, awe, and aggressive penetrations. High tech is, after all, the effect most easily achieved, as attested by our commercial environment. Science fiction and the robot swathe bigness and slickness in innocence. Only maturity, hard work, and courage will turn the coin to allow the full expression of the dark and sublime sides of the artist's fantasies. Arquitectonica has proven itself bright, talented, and energetic. Its members have dared to pry open Pandora's box. In time, having wrestled with its contents, they may leash its powers. Perfection may yet burn. [Susan Doubilet]



Villa quadrata

A small house for an art history professor and curator at Cornell University is rationalist and based on the square, but with traces of Post-Modernism.

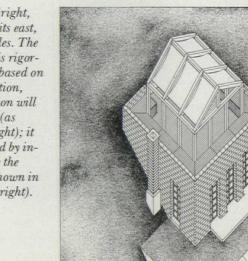
Although Simon Ungers and Laszlo Kiss have no interest in Post-Modernism, the house above Lake Cayuga they designed for professor Robert Hobbs-an art historian and curator at Cornell University-does share certain affinities with that attitude. The small (700 sq ft) one-room concrete block house is symmetrical and classically proportioned, and its form suggests that of a small temple set atop a massive base. In this respect, it not only alludes to ancient historical forms, but it also acknowledges the more recent 19th-Century Greek-revival farm houses common to its Upstate New York surroundings. In addition, the house makes use of applied decoration with trellising on the entire south side (which will shield summer sun when covered), painting of quoins and interior columns, and a Georgianesque chimney at the north side.

While it cannot be denied that the three major tenets of Post-Modernism—historical allusion, contextual response, and applied decoration—are represented in the design, there are nevertheless other aspects of the form that take precedence over them and consequently erode or perhaps even obliterate their presence. Primary among these is the conceptual organization of the structure itself, which is highly rationalized.

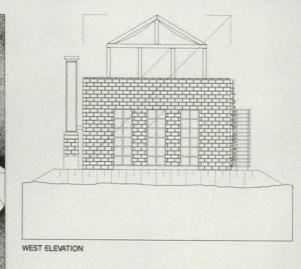
The composition is rigorously symmetrical. At the front (west) side facing the lake, three perfectly balanced (inoperable) French doors are further balanced by a detached staircase at the south and a detached chimney at the north; and also, inside, by perfectly opposed (for cross ventilation) "front" (although on the south side) and "back" (north) doors. Centered over this is the roof deck pavilion in the form of a primitive temple or hut. The entire composition is based on strict adherence to the square (see plan and west elevation below).

Of the house the architects themselves say that it is "based on the three primary elements in architecture of wall, roof, and column, and is conceived as a composition of architectonic elements or components. . . . The universal quality of astylistic language of each component contributes to the abstract qualities of what could be considered a three-dimensional collage." In this respect, they note that they are not dealing with anything related to Post-Modernism at all, but instead to Modernism and to Miesian Modernism in particular, and to its continuance. They are dealing with one of the two opposed systems that occupied Mies's development in the 1930s, and which are outlined by Kenneth Frampton (in his Modern Architecture: A Critical History, p. 232) as the dematerialization of architecture on one hand, and on the other, "the authority of trabeated architecture as it had been inherited from the ancient world, the implacable elements of roof, beam, column, and wall."

In pursuing this notion of autonomy of elements, the walls support only themselves, and the roof and pavilion structure, which could have been supported by the walls, are held up by four interior columns. The system as designed, however, provides an attractive amenity that would not have been available



AXONOMETRIC



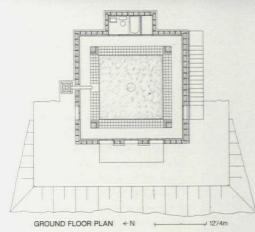
The Hobbs house is seen (right, clockwise from top) from its east, west, south, and north sides. The composition of the house is rigorously mathematical, and based on the square (see west elevation, right). The rooftop pavilion will hold awnings in summer (as shown in axonometric, right); it and the roof are supported by interior columns and not by the concrete block walls (as shown in axonometric from below, right).

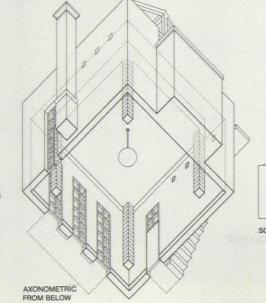


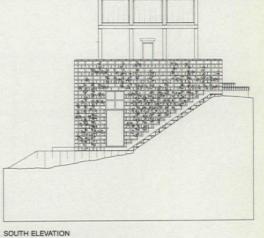




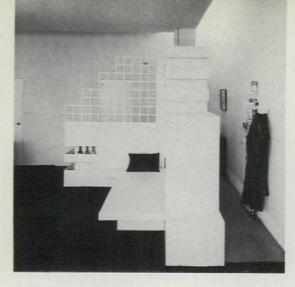








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with normal wall-bearing construction. It allowed the perimeter walls and a zone between them and the roof-supporting columns to rise higher than the major central portion of the ceiling. Thus, the owner was given high wall space for large art works. Outside, this same element becomes covered and serves as banquette seating around the perimeter of the roof deck.

Sitting under the column-supported ceiling, one is quite aware of this "separation" of elements on the interior: the higher outer walls seem to float away into space, making the small room much larger than it is in reality, and making one more aware of the landscape outside and of the lake at the bottom of the hill. The room, in its order, balance, symmetry, and pale coloration, becomes a haven of serenity which, in the last analysis, seems to speak not so much of the architectonics of architecture as it does of its poetics. [David Morton]



Interior columns support roof; raised perimeter area (above) becomes banquettes on deck. All furnishings were designed by the architects.

Data

Project: Hobbs residence, Fiddlers Green, Lansing, NY. Architects: Office of Ungers & Kiss, Ithaca, NY. Client: Prof. Robert Hobbs. Site: a triangular lot of 2.3 acres on a hillside above Lake Cayuga. Program: 700-sq-ft house. Structural system: load-bearing perimeter concrete block walls on poured concrete foundation; 2×2 4 industrial wood truss roof. Major materials: concrete block, wood, gypsum board (see Building materials, p. 126). Mechanical system: wood stove with electric coil back-up. Consultants: Design & Solar Engineering, structural, mechanical; Sibylle Ungers, color. General contractor: Design & Solar Engineering. Costs: \$30,000.

Photography: Timothy Hursley.



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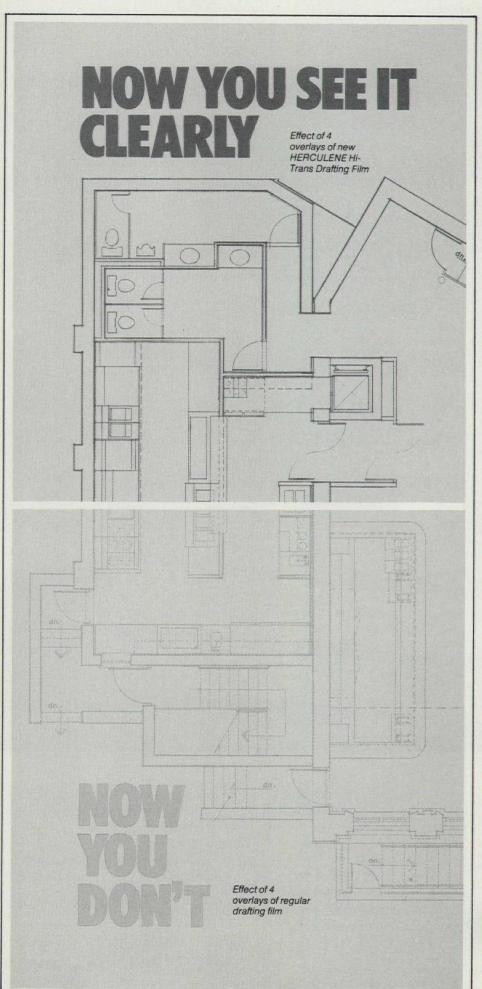
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Circle No. 326 on Reader Service Card

Progressive Architecture announces the third annual competition recognizing outstanding furniture and lighting design proposals, not yet being marketed by any manufacturer as of entry deadline, January 26, 1983. The competition is intended to give the design professions a forum to express ideas about the next generation of furniture design, at a time when architects and designers are increasingly custom-designing furniture for their projects and manufacturers are increasingly open to fresh ideas. The competition is specifically aimed at furniture intended for use, but the design need not be constrained by existing production or marketing practices. Entries may be based on either fabricated pieces or project drawings. Designers are encouraged to consider the aesthetic and ideological implications for furniture design implied by the current concerns within architecture and other design disciplines.

Winning projects will be published in the May 1983 P/A, and they will be displayed at NEOCON 15, the National Exposition of Contract Interior Furnishings, at Chicago's Merchandise Mart, June 1983. Awards will be presented to the winners in an evening program in early March attended by press, designers, and NEOCON manufacturers.

In addition to the exposure afforded the submissions, the competition will encourage further discourse between the entrants and respected furniture producers. Any ongoing discussions will, of course, be up to the individual designers and manufacturers, but benefit to both is anticipated.

The jury for this competition:

Kenneth Frampton, Professor of Architecture, Columbia University; Fellow of the Institute for Architecture and Urban Studies; an editor of *Oppositions*; and author of *Modern Architecture: A Critical History*.

Frank Gehry, FAIA, president, Frank O. Gehry & Associates, Venice, California; furniture designer.

Arata Isozaki, principle, Arata Isozaki & Associates, Tokyo; furniture designer. Rodolfo Machado, Partner, Machado-Silvetti Architects, Boston; Head of Department of Architecture, Rhode Island School of Design; furniture designer. Michael McCoy, Co-chairman, Design Department, Cranbrook Academy of Art, Bloomfield Hills, MI; partner in graphic, furniture, exhibition and interior design firm of McCoy & McCoy.

Submissions are invited in all categories including chairs, seating systems, sofas, tables, desks, work stations, storage systems, lighting, beds, and miscellaneous furniture pieces. Designations of **award** and **citation** may be made by the invited jury, based on overall excellence and advances in the art.

Judging will take place in New York City during the month of February. Winners will be honored in New York City at an The Third Annual

International Furniture Competition

sponsored by

Progressive Architecture

with winning projects to be displayed at

NEOCON 15

June 1983 The Merchandise Mart Chicago awards dinner in early March. P/A will arrange for coverage of winning entries in national and local press.

Eligibility

1 Architects, interior designers, industrial designers, and design students from all countries may enter one or more submissions.

2 Design must be original. If found to be

substantially identical to any existing product design, entry will receive no recognition.

3 Designer may be under contract to or in negotiation with a manufacturer for this design, but design must not be available in the marketplace as of entry deadline.

Publication agreement 4 If the submission should win, the

Entry form: International Furniture Competition

Please fill out all parts and submit, intact, with each entry (see paragraph 11 of instructions). Use typewriter, please. Copies of this form may be used.

Entrant: Address:

Entrant phone number: Category:

Entrant: Address:

Designer(s) responsible for this submission (identify individual roles if appropriate):

I confirm that the attached entry meets eligibility requirements (paragraph 1-3) and that stipulations of publication agreement (paragraphs 4-6 will be met. I verify that the submission is entirely the work of those listed on this form (or an attached list as necessary).

Signature _

Name (typed) _

Furniture Competition Progressive Architecture

P.O. Box 1361, Stamford, CT 06904

(Receipt) Your submission has been received and assigned number:

Entrant: Address:

Entrant: Address: entrant agrees to make available further information, original drawings or model photographs as necessary, for publication in the May 1983 P/A and exhibition at NEOCON in Chicago.

5 P/A retains the rights to first publication of winning designs and exhibition of all entries. Designer retains rights to actual design.

6 P/A assumes no obligation for designer's rights. Concerned designers are advised to document their work (date and authorship) and seek counsel on pertinent copyright and patent protections.

Submission requirements

7 Submissions WILL NOT BE RETURNED.

8 Drawing(s) and/or model photo(s) of the design should be mounted on one side only of one 20" x 30" foamcore board presented horizontally. ANY ENTRY NOT FOLLOWING THIS FORMAT WILL **BE DISQUALIFIED.**

9 There are no limits to the number of illustrations mounted on the board, but all must be visible at once (no overlays to fold back). No actual models will be accepted. Only one design per board. 10 Each submission must include a 5" x 7" index card mounted on the front side of the board with the following information typed on it: intended dimensions of the piece of furniture, color(s), materials, components, brief description of important features, design assumptions, and intentions. This information is to be presented in English.

11 Each submission must be accompanied by an entry form, to be found on this page. Reproductions of this form are acceptable. All sections must be filled out (by typewriter, please). Insert entire form into unsealed envelope taped to the back of the submission board. P/A will seal stub of entry form in envelope before judging. 12 For purposes of jury procedures only, projects are to be assigned by the entrant to a category on the entry form. Please identify each entry as one of the following: Chair, Seating System, Sofa, Table, Desk, Work Station, Storage System, Lighting, Bed. If necessary, the category "Miscellaneous" may be designated.

13 Entry fee of \$25 must accompany each submission, inserted into unsealed envelope containing entry form (see 11 above). Make check or money order (no cash) payable to Progressive Architecture. 14 To maintain anonymity, no identification of the entrant may appear on any part of the submission, except on entry form. Designer should attach list of collaborators to be credited if necessary. 15 Packages can contain more than one entry; total number of boards must be indicated on front of package. 16 Deadline for mailing is January 26, 1983. Other methods of delivery are acceptable. Entries must show postmark or other evidence of being en route by deadline. Hand-delivered entries must be

January 26. Address entries to: International Furniture Competition **Progressive Architecture** 600 Summer St. P.O. Box 1361 Stamford, CT 06904

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The energy within the space within

Donald Watson

With research assistance by Joachim W. Glassel, the author examines four facets of atrium energy design.



Court of Lions, Alhambra Palace, Granada, Spain (above), 14th Century, an example of the courtyard with shading and evaporative cooling appropriate to hot, dry climates. Cleveland Arcade (above right), Cleveland, Oh, 1888, designed by John Eisenmann and George Smith as an unconditioned buffer zone, including natural ventilation.

Donald Watson, FAIA, is an architect and author, with extensive experience in solar and energy conservation design. He is a Visiting Professor at the Yale School of Architecture, where he currently is Chairman of the School's Environmental Design Program. His technics article "Insolutions" appeared in *Progressive Architecture*, November 1979.



In its original meaning, an atrium was the open courtyard of a Roman house. As the term is often used today, an atrium is a protected courtyard or glazed wintergarden within a building. Modern atrium design incorporates many different architectural elements-wall enclosures, sun-oriented openings, shading and ventilation devices, and subtle means of tempering temperature and humidity-that derive from the courtyard designs of Roman, early Christian, and Islamic building and the 19th-Century greenhouses and glass-covered arcades of Great Britain and France. The atrium concept of climate-control, however, has been used throughout the history of architecture and in "prehistoric" or indigenous building in all climates of the globe.

What is so clearly demonstrated by the historical examples is also detectable in any building that incorporates a protected buffer zone between the interior and the outside climate—the microclimate can be controlled by design to provide richly varied places for people and plants throughout the year. While this is hardly new to an architect who is sensitive to the climatic and landscape setting of a building, atriums offer several lessons upon which to base new energy design concepts: first, human comfort is achieved with natural climatic means by architectural devices that create gradual transition from the outside to the building interior; second, if designed properly, protected spaces and buffer zones create free energy by reducing or by eliminating the need to heat, cool, or light building interiors by costly mechanical means.

With the rise of energy costs, atriums are now being designed for energy-efficient heating, cooling, and lighting of modern buildings, where the problem is likely to be different from that of older buildings. The emphasis assigned to heating, cooling, and/or lighting varies according to building type; the cost-effectiveness of a particular architectural or mechanical engineering device may depend upon its particular energy needs, or on local utility rates for heating fuel or for electricity. The microclimate that is created in an atrium results from particular window or skylight orientations, wind exposures, and shading devices. If an atrium is designed for plants as well as people, as in a wintergarden, the design problem is more complex because of the distinct "comfort" requirements of

Technics: Atrium design



Isabella Stuart Gardner Museum, Boston, Ma, 1902; design by E.H. Sears. The courtyard replicates the design and horticulture of the Venetian Gothic palazzo, requiring a glazed roof in the New England climate.



Students' Union Housing, Edmonton, Alberta, 1972: Architects: A.J. Diamond & Barton Myers; R.L. Wilkin, associated architect. A glazed internal street, with adjustable shading and venting controls; maintained at lower temperatures, the space is essentially heated by gains from surrounding spaces.

greenery. In short, the design of a buffer zone is made more complicated than a fully conditioned building interior by the variety of climatic conditions to which it is exposed.

Often not fully appreciated is the opportunity presented by a properly designed atrium as an unconditioned space, requiring no other energy than that available to it in its position as buffer zone between exterior and interior. There are an increasing number of examples to illustrate that energy-efficient atrium designs can realize construction and operational cost savings, with subtlety and variety in design and human amenity.

How the atrium can work as an energyefficient modifier of climate is best discussed by examining separately its potential for natural heating, cooling, and lighting. The first and most important step is to establish a clear set of energy conservation goals of the specific atrium design. The resulting solution will depend upon its program (whether for circulation alone, or for sedentary human comfort, or for plants and horticulture) and the resulting environmental control requirements (whether for heating, cooling, and/or daylighting). Each of these is affected by climate and by building type.

Solar heating

If heating efficiency alone is the primary energy goal of the atrium, the following design principles should be considered paramount:

1 To maximize winter solar heat gain, orient the atrium aperture (openings and glazing) to the south. If possible, the glazing should be vertical or sloped not lower than a tilt angle equal to the local latitude.

2 For radiant heat storage and distribution, place interior masonry directly in the path of the winter sun. This is most useful if the heated wall will in turn directly radiate to building occupants.

3 To prevent excessive nighttime heat loss, consider an insulating system for the glazing, such as movable insulating curtains or newly developing multilayered window systems.

4 To recover the heat that rises to the top of the atrium, place a return air duct high in the space, directly in the sun. Heat recovery can be accomplished if the warm air is redistributed either to the lower area of the atrium itself, to the mechanical system, or through a heat exchanger if the air must be exhausted for health and air-quality reasons. Remote heat storage should be considered in a rock bed, or in water storage via an air-to-water heat pump.

These are four principles of solar collector design applied to atriums. Because a large air volume must be heated, an atrium is not an efficient solar collector per se. But the volume makes it usable by people, especially if the warmest air rises to the top. If the atrium is surrounded, direct winter sun is difficult to capture except at the top of the skylight enclosure. However, by opening to the south, direct winter solar heating becomes entirely feasible. If the atrium is used for circulation exclusively, the occupants can more easily tolerate the temperature swings typical of unconditioned spaces in winter.

In cool climates, an atrium used as a solar heating system would require as much direct winter sunlight as possible. In such overbright conditions, dark finishes on surfaces where the sun strikes will help reduce glare and store heat. On surfaces not in direct sun, light finishes may be necessary to reflect light, especially under cloudy conditions. In most applications, glass should be completely shaded from the summer sun. If the glazing faces south, it is easy to shade against overheating in summer by fixed horizontal shading overhangs or louvers. Greenhouse-type movable insulation blankets might be considered to reduce nighttime heat loss. For skylights that are high and otherwise inaccessible, newly developed multiple-layered glazings that have high solar and daylight transmittance and a high R (insulation) value-sometimes referred to as "transparent insulation"-provide a promising new option in material for atriums used for heating (P/A, Sept. 1981, pp. 233-241 and Oct. 1981, pp. 125-133).

Natural cooling

Several design principles related to the role of the atrium as buffer zone address benefits that apply to both heating and cooling. If any unconditioned atrium is located in a building interior, the heat loss is typically from the warmer surrounding spaces into the atrium. In commercial buildings with large internal gains due to occupants, lighting, and machines, this means that the atrium may require cooling throughout the year to maintain comfort. If one were to design atriums exclusively for cooling, the following design principles would predominate:

1 To minimize solar gain, provide shade from the summer sun. According to each building-use profile, local climate and the resulting balance point (the outside temperature below which heating is required), the shading requirements may extend beyond summer and well into the late autumn months. If sun must be excluded in the period, say, of June to October to minimize undesired heat gain, then any fixed shading system would exclude the sun as early as February (since solar position is symmetrical with respect to the solstice dates-December 21 and June 21). Movable shading devices are thus the only means by which to match the overheated season. In buildings in warm climates, sunshading may be needed throughout the year.

2 Use the atrium as an air plenum in the mechanical system of the building. The great advantage is one of economy, but heat recovery options (discussed above) and ventilation become most effective when the natural air flow in the atrium is integrated with the mechanical system.

3 To facilitate natural ventilation, create a vertical "chimney" effect by placing ventilating outlets high (preferably in the free-flow air stream well above the roof) and by providing cool air inlets at the atrium bottom.

The inlet air stream can be cooled naturally if it is admitted from a shaded area. In hot,



OVERCAST SKY

NO SHADING 1563 fc

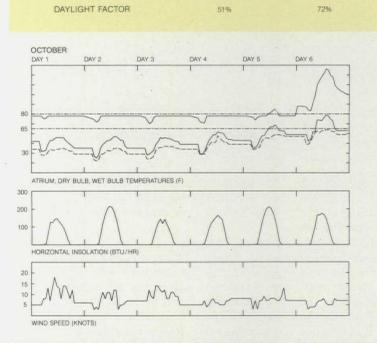
800 fc

CLEAR SKY

NO SHADING 7500 fc



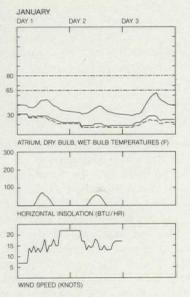
DAYLIGHTING ANALYSIS: A 1/4"-scale model was used to simulate daylighting performance under three conditions: overcast, bright sun, and bright sun, but with a shading fabric in place. Clear glass is spec-ified, in order to maximize daylight under predominantly cloudy winter skies in Connecticut. A shading fabric is specified to reduce light levels to within 2000-5000 fc under bright sunny conditions. The shading fabric is operated below the glass so that excess heat can be drawn off for nighttime thermal storage. That the design meets these lighting criteria is indicated by the tabulation, left, of light-model meterreadings



EXTERIOR HORIZONTAL

INTERIOR ILLUMINATION (GREENHOUSE CENTER)

INTERIOR



SHADING

7625 fc

2250 fc

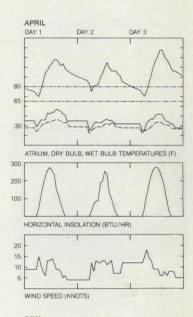
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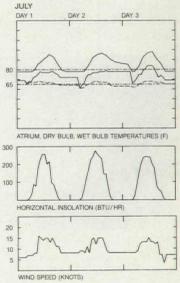
THERMAL ANALYSIS: Thermal performance calculations of the greenhouse/atrium are indicated by the graphs, generated by computer and using the DOE-2 building energy analysis program. The upper line on each graph indicates interior space temperature, assuming no back-up heating or cooling. The lower solid line indicates exterior dry-bulb temperature; the dotted line indicates exterior wet-bulb temperature. Outside solar irradiation and wind speed are indicated separately. (Thermal analysis by Sunsearch, Inc., Guilford, CT)

dry climates, passing the inlet air over water such as a fountain area is particularly effective. Allowing the atrium to cool by ventilation at night is also effective in climates where summer nighttime temperatures are lower than at daytime (greater than about 15 F difference), in which case cold can be stored by materials such as masonry or water. (Again, as a rule, if the average daily temperature is above 78 F, thermally massive materials are disadvantageous in non-air-conditioned spaces because they do not cool as rapidly as a thermally light structure). These atrium coolRepresentative days are shown for four seasons of the year. The purpose of the wintergarden is to replicate "spring" conditions during the winter. That the design succeeds in this objective is indicated by the interior space temperatures in January which are similar to the exterior tempera-tures in April. The interior space temperatures shown in the April graph indicate what would occur if there is no venting of the interior, whereas the October graph shows that temperatures are maintained within human comfort by venting (used for the first five days shown, and not used, for comparison purposes, on Day 6). Not shown in the graphs is the effect of sun-shading controls, that will be used as described in the Daylighting Analysis

ing principles are similar to those of the Indian tepee-when stack ventilation is made possible, the space will ventilate even in the absence of outside breezes, simply by the driving action of heated air. If mechanical cooling of the atrium is needed but can be restricted to the lower area of the space, it can be done reasonably; cold air, being heavier, will pool at the bottom.

While there is apparent conflict between the heating design principle to maximize solar gain and the cooling design principle to minimize it, the sun does cooperate by its change in solar altitude with respect to the building. (Actually, it's the earth's tilt that varies with respect to the sun-earth line.) There are, however, design choices to be balanced





Technics: Atrium design



Gregory Bateson State Office Building, Sacramento, Ca, 1981; Sym Van der Ryn, Office of the State Architect; project design: Calthorpe, Matthews, Corson. South-facing glazing with movable exterior shading for summer sun control; canvas tubing with fan at bottom "destratifies" heat; blue shaft, primary air inlet for night venting, connects with rock bin storage.



New State Office Building, Site 1B, Sacramento, Ca, 1982; Barry L. Wasserman, Office of the State Architect. Exterior courtyard, shaded with translucent canvas.



1201 Pennsylvania Avenue, NW, Washington, DC, 1981; Skidmore, Owings & Merrill, Architects. Atrium-light court in a 14-story office complex; essentially an unconditioned circulation space, with a four-storied south-facing window wall at the bottom.

RELATIVE IMPORTANCE OF DESIGN PRINCIPLES IN VARIOUS CLIMATES

IN VARIOUS CEIMATES	COLD/CLOUDY Seattle	COOL/SUNNY Denver	WARM/DRY Los Angeles	HOT/WET Houston	
ATRIUM ENERGY-DESIGN PRINCIPLE	Chicago Minneapolis	St. Louis Boston	Phoenix Midland TX	New Orleans Miami	
HEATING					
To maximize winter solar heat gain, orient the atrium aperture to the south.	•		•		
For radiant heat storage and distribution, place interior masonry directly in the path of the winter sun.	•	٦	•		
To prevent excessive nighttime heat loss, consider an insulating system for the glazing.	•				
To recover heat, place a return air duct high in the space, directly in the sun.		•	•		
COOLING					
To minimize solar gain, provide shade from the summer sun.		D	•	•	
Use the atrium as an air plenum in the mechanical system of the building.	D		•		
To facilitate natural ventilation, create a vertical "chimney" effect with high outlets and low inlets.	D			•	
LIGHTING					
To maximize daylight, use a stepped section (in predominantly cloudy areas).		•			
To maximize daylight, select skylight glazing for predominant sky condition (clear and horizontal in predominantly cloudy areas).					
Provide sun- and glare-control		D	•		
К	ey: •= Very impo	rtant; □= positive	benefit; ▼ = dis	cretionary use	

between the requirements for sunshading and those for daylighting.

The ideal location for a sunshading screen is on the outside of the glazing, where it can be wind-cooled. When the outside air ranges about 80 F, even glass that is shaded admits undesired heat gain by conduction. In truly warm climates, a minimum of glazed aperture should be used to prevent undesired heat gain, in which case the small amount of glazing should be placed where it is best for daylighting. Heat-absorbent or heat-reflective glass, the common solution to reduce solar heat gain, also reduces the illumination level and, if on the south, desirable winter heat gain. (In one garden-atrium, grow-lights have been a necessary afterthought to provide enough light for photosynthesis-the glass selected for the skylight admitted only 20 percent light.) Transparent membranes that admit light and that are better insulators than glass have been used in warm-climate atriums. The radiant heating effect from the skylight, however, may still cause discomfort.

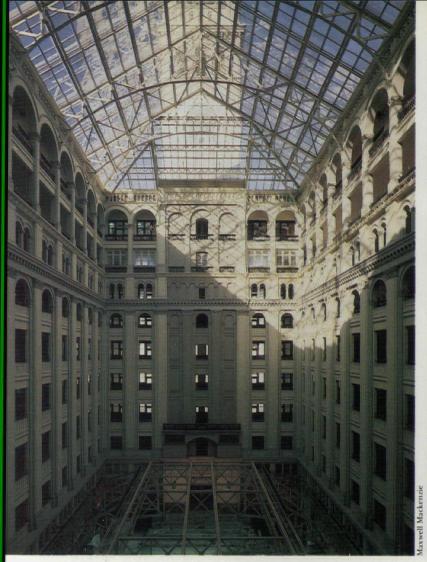
In temperate-to-cool climates, heat gain through an atrium skylight can be tolerated if the space is high, so that heat builds up well above the occupancy zone, and if there is good ventilation. In hot climates, the atrium will perform better as an unconditioned space if it is a shaded but otherwise open courtyard.

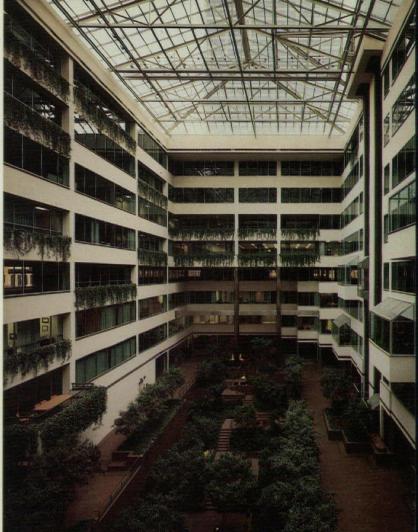
Natural lighting

In all climates, an atrium can be used for daylighting. Electric lighting cost savings can be achieved, but only if the daylighting system works; that is, if it replaces the use of artificial lighting. (Such a statement is necessary because many buildings intended to be daylit end up with the electric lights in full use regardless of lighting levels needed.) Atriums serve a particularly useful function in daylighting design for an entire building by balancing light levels, thus reducing brightness ratios, across the interior floors of a building. If, for example, an open office floor has a window wall on only one side, typically more electric lighting is required than would be required without natural lighting to reduce the brightness ratio. An atrium light court at the building interior, within 60 ft of the exterior glass, would provide such balance. An atrium designed as a lighting fixture that baffles, reflects, directs, or diffuses sunlight, can be one of the most pleasing means of controlling light.

While hardly adequate to describe all of the subtle concerns of natural lighting design, the following principles apply to atrium design for daylighting:

1 To maximize daylight, an atrium crosssection should be stepped open to the entire skydome in predominantly cloudy areas. In predominantly sunny sites, atrium geometry





An old and a new courtvard. skylighted for daylighting, are recently completed. The Old Post Office (above) in Washington, DC, is nearing completion after being saved from destruction through the efforts of a group called Don't Tear It Down, and architect Arthur Cotton Moore. The reconstruction was accomplished by McGaughy, Marshall and McMillan, Arthur Cotton Moore/Associates; Associated Space Design Inc., Stewart Daniel Hoban. The Philadelphia Stock Exchange (above, right) by Cope Linder Associates contains a 15,000 sq ft atrium eight stories high.

can be based upon heating and/or cooling solar orientation principles.

2 To maximize light, window or skylight apertures should be designed for the predominant sky condition. If the predominant sky condition is cloudy and maximum daylight is required (as in a northern climate wintergarden), consider clear glazing oriented to the entire sky dome, with movable sun controls for sunny conditions. If the predominant sky condition is sunny, orient the glazing according to heating and/or cooling design requirements.

3 Provide sun-and-glare control by: geometry of aperture, surface treatment, color, and adjustable shades or curtains.

Designing for daylighting involves compromise to meet widely varying sky conditions; what works in bright sun conditions will not be adequate for cloudy conditions. An opaque overhang or louver, for example, may create particularly somber shadowing on a cloudy day. Light is already made diffuse by a cloudy sky, falling nearly equally from all directions; the sides of the atrium thus cast grav shadows on all sides. For predominantly cloudy conditions, a clear skylight is the right choice. Bright haze will nonetheless cause intolerable glare at least to a view upwards. Under sunny conditions, the same skylight is the least satisfactory choice because of overlighting and overheating. The designer's choice is to compromise. Unless the local climate is truly cloudy and the atrium requires high levels of illumination, partial skylighting can achieve a balance of natural lighting, Courtesy EPI Architectural Systems © Lawrence S. Williams. Inc. heating, and cooling. Partial skylighting offers the further advantage of controlling glare and sunlight by providing reflecting and shading surfaces to the view, such as by the coffers of the skylights. Because it is reduced in light intensity and contrast, a surface illuminated by reflected light is far more acceptable to the human eye than a direct view of a bright window area. Movable shades for glare and sun control provide a further, surprisingly simple means of balancing for the variety of conditions. On the inside of an atrium, this can be provided simply by operable canvas or fiberglass shades.

The relative importance of these design principles for heating, cooling, and daylighting can be weighted according to building type and the local climate. In the northern United States, particularly for residential units or apartments that might be grouped around an atrium, the solar heating potential predominates, while the natural cooling potential predominates in the southern United States. In commercial and institutional structures, natural cooling and daylighting are both important. In this case, the local climate would determine the relative importance of openness achieved with large and clear skylighting (most appropriate for cloudy temperate-to-cool regions) or of closed and shaded skylighting (most appropriate for sunny warm regions). While no one set of

Progressive Architecture 7:82



Horticultural Education Building, Nature Center, New Canaan, Ct. Buchanan Associates and Donald Watson, FAIA, in joint venture. A triple-storied south-facing greenhouse serves as a wintergarden and central atrium in an educational complex.



TVA Office Building, Chattanooga, Tn. The Architects Collaborative with Caudill Rowlett Scott, Van der Ryn/Calthorpe, and TVA Architectural Branch; Syska & Hennessy, mechanical engineers; William Lam, lighting consultant. Model photo showing the interior light-court and light deflectors.



GSA Office Building, San Jose, Ca; H.O.K., Architects; Van der Ryn/Calthorpe, energy design consultants. An outdoor courtyard with shading to admit winter sun only. recommendations fits any one climate, the relative importance of each of the design principles is indicated by climatic region in Table A. Local utility rates will further determine which of the natural energy design elements of an atrium is most cost-effective. In the United States, electric lighting consumes 23 percent of the total commercial building energy use. Because of peak electric rates, this becomes an even greater percentage (typically over 50 percent) of the operating cost of commercial buildings. The upward trend in utility rates is such that in the coming decade the benefit of natural lighting through atrium design will once again emerge in commercial building design as it did a century earlier.

Garden atriums

Plants have an important role in buffer zones. If the requirements of plants are understood, healthy greenery can be incorporated into atrium design and contribute to human comfort, amenity and energy conservation ("Green Stuff," P/A May 1981, pp. 166–171).

Plants, when uncomfortable, cannot move. Major planting losses have been reported in gardened atriums because the bioclimatic requirements were not provided. While the discussion here cannot detail these requirements, the architectural design aspects of greenhouse atriums do deserve consideration. A greenhouse for year-round crop or plant production is intended to create summer or the growing-period climate throughout the year. A wintergarden replicates summer conditions for plant growth in wintertime by maximizing winter daylight exposure and by solar heating. Plants need light quantity (about one-half of what would be available outside on a sunny winter day) but not excessive heat. Most plants are overheated if their roots range above 65 F. Their growth slows when the root temperature drops below 45 F. As a result, a so-called solar greenhouse has the general problem of overheating (as well as overlighting) during any sunny day and of underlighting (in intensity and duration) during any cloudy winter day.

If the function of the atrium includes plant production or horticultural exhibit (replicating the climate in which plants flower), then clear-glass skylighting is needed for the

cloudy days and adjustable shading and overheating controls are needed for sunny days. If the plant beds are heated directly, by water piping for example, then root temperatures can be maintained in the optimum range without heating the air. As a result, the air temperature in the atrium can be cool for people, that is in the 50 F range, with the resulting advantage of providing a defense against superheating the space. People can be comfortable in such a space if they are in the sun. They can be comfortable in air temperatures at 60 F if the radiant temperature of surrounding surfaces is above 80 F. Lower atrium temperature offers a further advantage to plants and energy-efficient space operation because evaporation from plants is slowed, saving water and energy (1000 Btu are removed from the sensible heat of the space with each pound of water that evaporates). Healthy plant growth also benefits from air movement, which should be gentle and pervasive, but not subject to blasts or turbulence from fans. Air circulation has a number of roles: it reduces moisture build-up at the plant leaf and circulates CO2 to the plant, needed during their daytime growth cycle.

While necessarily brief, this discussion of plant requirements in atriums indicates the basis for combining indoor gardens in energy-efficient atrium design for the benefit of plants and people. \Box

References

Historical examples are treated in John Hix's The Glass House, MIT Press (1974); Donald Watson, ed., Energy Conservation through Building Design, ARB/McGraw-Hill (1979); and Joachim W. Glassel's Urban Sunspaces, 1981 Master's Thesis, MIT School of Architecture. (A revised version is available from the author, % Carr-Lynch Associates, 1385 Cambridge St., Cambridge, Ma, \$18.)

Acknowledgments

In addition to the special assistance of Joachim W. Glassel of Cambridge, Ma (see References), research on atrium spaces was provided by Peter Calthorpe of Van der Ryn/Calthorpe, Inverness, Ca, and Tom Lydon of Sunsearch, Inc., Guilford, Ct. Valuable comments were also received from Sital Daryanani of Syska & Hennessy, Norman Kurtz of F + K Group, Fred Dubin of Dubin-Bloome Associates, and William Lam.



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Who owns the project manual?

Walter Rosenfeld

Should a project manual be copyrighted? Is it legal to use the same specifications on another job? Is it ethical?

Architects and specifiers are generally familiar with article 1.3 of the AIA General Conditions (A201, 13th edition), "Ownership and Use of Documents," which clearly states that "all Drawings, Specifications and copies thereof furnished by the Architect are and shall remain his property," and that "they are to be used only with respect to this Project and are not to be used on any other project.' Submission or necessary distribution of the documents in connection with the project "is not to be construed as publication in derogation of the Architect's common law copyright or other reserved rights."

Architects and specifiers are equally aware that, in reality, parts of their project manuals, including specifications, are frequently reused-reused by them on later projects, and reused by others who happen upon the documents. This practice is so common as to seem almost beneath notice until an aggrieved party decides to press the issue. Only then does one begin to ask how much of the specifications is original anyway? It's quite apparent that a specifier doesn't write each project manual entirely from scratch. A great many sections and parts of sections come from manufacturers' literature. CSI "Manuspecs" are a ready source of material as well. Then, too, these days many architects use commercial masters such as "Spectext" or "Masterspec." We are therefore dealing, at least in part, with material that in some form has probably been used a number of times already. If there is a copyright here, surely it belongs to the vendors and not to the architect.

As for the originality of the documents' organization, CSI's "Masterformat" (MP-2-1) and section format (MP-2-2) have made that largely uniform throughout the U.S. To be sure, each specifier has his own style and way of saying things, makes many decisions, and often expresses intent in carefully chosen language. But are such examples of style a suitable subject for formal copyright? After all, these are not literary works, but the architect's instruments of service to a client. Would a lawyer copyright a will or a doctor an x-ray?

Reusing various pieces of the project manual is admittedly not the same as reusing the whole book. But because of the custom nature of architectural work, an entire project manual is seldom reusable without changes unless the new building is almost identical to the old, in which case accusations of plagiarism may have real merit. More often the copy at hand merely serves as a master for editing. Taking parts from several documents to fit the needs of a new project, far from being unqualifiedly reprehensible, really describes one of the basic activities of the specifier. The only question is, where are the

pieces obtained: from masters, from manufacturers, from standards-writing organizations, or from one's previous efforts or the efforts of others. Usually the answer is "all of the above.

What A201 really wants to prevent, however, is use of the drawings and specifications together to replicate at a new location a building designed by the architect for a particular client and site. Such unauthorized reuse would indeed damage the original architect and would most likely be actionable. Showing as they do the physical arrangement of materials and the dimensions critical to the building's appearance and function, the drawings, not the specifications, are the key documents in such reuse. To be sure, the contract documents are intended to be complementary, but specifications, while essential to a proper construction contract, can hardly ever be used by themselves to reproduce the designed building, which may be why architects have been loath to venture into litigation where specifications alone are involved.

Now just because reuse of specifications appears to be common, and for the most part unprosecuted, it does not mean that this practice is without perils or problems for the inexperienced. The high degree of coordination, interrelationship of parts, and custom tailoring of a competent project manual to a particular building guarantee that there are more specifically applicable statements in a given document than might be expected. For example, each building has its own economic constraints, and the copied specifications may indicate a higher (or lower) quality of materials than is appropriate for the new project. Too, different owners have their peculiar requirements that can only cause consternation (and expense) if misapplied elsewhere. And once the original building's location is greatly changed, availability of certain materials through local distributors may be affected as may be use of other materials better suited to the previous conditions.

Under article 1.3, the architect clearly has rights in the project manuals produced under his stamp. But since the material is drawn from so many sources, some of them in (or nearly in) the public domain; and because without the drawings the project is so inadequately described, he should proceed cautiously in prosecuting infringements. \Box

Walter Rosenfeld, AIA, CSI, is Managing Director for Professional and Technical Services at The Architects Collaborative in Cambridge, Ma.

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Safety liability at the construction site

Norman Coplan

The architect or engineer can be held responsible for construction site safety unless the contract with the owner explicitly provides that he is not liable.

If a person is injured because of an unsafe condition created by a contractor at a construction site, a claim can be asserted against an architect or engineer who is administering the construction contract. The premise underlying such claim is that the architect or engineer knew or should have known of the dangerous condition and taken some action to eliminate it. In some jurisdictions, such a premise, if proven, will support liability against an architect or engineer; in other jurisdictions, liability will only be founded upon a negligent action (malfeasance) on the part of the architect or engineer resulting in a dangerous condition, rather than on his failure to act (nonfeasance) to eliminate such a condition.

Although the potential liability of the architect has been expanding in many directions, those jurisdictions that hold that an architect shall be subject to liability only for malfeasance and not for nonfeasance seem to be adhering to that position. For example, in the recent case of Conti v. Pettibone Companies, Inc., 445 N.Y.S. 2d 943, a suit was instituted against an engineer by a contractor's employee who was injured when a bucket filled with sand bags fell on his head as the bucket was being lifted by a crane. The engineer had been retained by the owner to insure that the construction was performed in accordance with the plans and specifications. His contract with the owner stated that "the Engineer agrees that it will endeavor to safeguard the City (the Owner) against defects and deficiencies in the work and that he will use reasonable care and reasonable powers of observation and detection in determining that the work conforms to the construction contract documents." The contract further stated that the engineer would provide to the satisfaction of the owner "all necessary resident engineering inspection services required in connection with the actual construction of the project, which includes the general construction and incidental work, to assure that the completed construction conforms in all respects to the plans, specifications and requirements of the contract and to good construction practice.' The contract also explicitly provided, however, that the duties of the resident engineer not include responsibility for contractors' equipment or its use during construction, and that the agreement would not "create or give third parties any claim or right of action against the Engineer beyond such as may legally exist irrespective of the agreement."

The Court, in rejecting the injured party's contention that the inspecting engineer should be held liable for a hazardous condition at the site, stated:

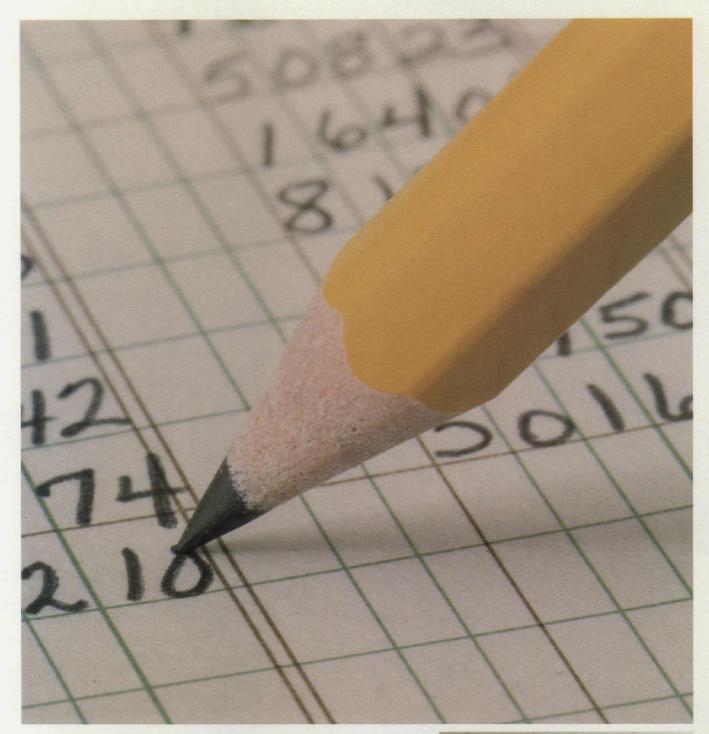
"It is well established that the law of New York does not impose liability upon an engineer, who is engaged to assure compliance with construction plans and specifications, for an injury sustained by a worker at a construction site unless active malfeasance exists or such liability is imposed by a clear contractual provision, creating an obligation explicitly running to and for the benefit of workers. ... This is simply an application of the well-settled principle that a third party cannot enforce a contractual obligation which is not clearly intended to benefit that party."

The plaintiff, however, argued that a contractual duty to assure worker safety was imposed on the engineer by the provisions of the construction contract, which provided that "the resident engineer shall be the representative of the engineer of the site, and, subject to review by the engineer, shall have the power in the first instance, to inspect, supervise and control the performance of the work." The plaintiff argued that this provision, together with the requirements of the engineer's direct contract with the owner, when read together, created a duty upon the engineer to maintain safety, which enured to the benefit of the plaintiff as an employee of the general contractor. In rejecting this argument, the Court referred to an earlier decision ("Ramos") in which it was pointed out that even if it was assumed that the construction contract language imposed some duty on the part of the engineer relating to safety, such language was to protect members of the public at large and not workmen on the job. The Court further stated:

"Unlike the clause sought to be relied on in the Ramos case, in which the engineer was expressly chargeable with some responsibility over the contractor's safety procedures, the clause relied upon by plaintiff in this case refers only to a duty of general inspection. Not only does it fail to remotely begin to approach the specificity and clarity of expression required by Ramos to create a duty running to this plaintiff to ensure his safety, the instant contract expressly disclaims any intention to provide such a benefit to any third person."

The final argument of the plaintiff was that notwithstanding the contract language, the defendant's activities at the construction site assumed a much broader range of responsibility. The Court stated that the testimony relied upon did suggest that the defendant exercised a broader degree of supervision at the site than was required by its contract, but the evidence was insufficient to meet the standard of clarity for the assumption of a duty running toward a contractor's employee.

Whatever the jurisdiction and the legal principles applicable to a claim against an architect or engineer involving safety conditions at the site, the major protection against liability available to the design professional is to provide explicitly and expressly in his contract with the owner that he shall have no responsibility for safety conditions at the construction site. \Box



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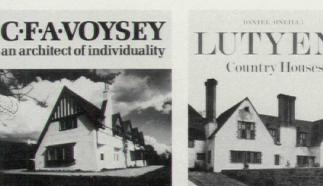
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English precursors

Books



Duncan Simpson

C.F.A. Voysey: an Architect of Individuality, by Duncan Simpson. New York, Whitney Library of Design, 1981, 160 pp., illus., \$19.95.

Sir Edwin Lutyens: Country Houses, by Daniel O'Neill. New York, Whitney Library of Design, 1981, 168 pp., illus., \$19.95.

Reviewed by William C. Miller, Associate Professor, College of Architecture and Design, Kansas State University, Manhattan, Ks.

While Sir Edwin Lutyens and C.F.A. Voysey were interested in a traditional and handicrafted architecture and shared a dislike for Modern architecture, any similarity in their careers or buildings ends there. The single-minded focus of Voysey's spartan purism stands in marked contrast to the complex admixtures and witty juxtapositions of Lutyens' architecture. Lutyens' practice was substantial in scale and scope, comprising over three hundred commissions, which included country houses, commercial and public buildings, not to mention the Viceroy's House in New Delhi. Voysey, in comparison, executed some 50 works, the majority of which were dwellings. At the same time the white planar surfaces and use of natural materials that exemplify Voysey's best works were being heralded as a precursor of the Modern movement, Lutyens work was considered to be too classical, eclectic, and traditional for modern sensibilities and needs. While we admire Voysey's austere yet picturesque assemblages, it is the masterful hierarchical spatial ordering and adroit compositional manipulations of Lutyens that currently hold our interest and attention. Thus, Duncan Simpson's C.F.A. Voysey: an Architect of Individuality and Daniel O'Neill's Sir Edwin Lutyens: Country Houses provide an opportunity to review and reassess the contemporaneous careers of these two important architects.

The architecture of C.F.A. Voysey, an oeuvre consisting almost entirely of medium-sized country houses, was characterized by elongated overhanging slate roofs, rendered rough-cast walls, horizontal window groupings stretched across the façade and tucked under the eaves, and simple handicrafted details. Vertical buttresses and large chimney [Books continued on page 110]

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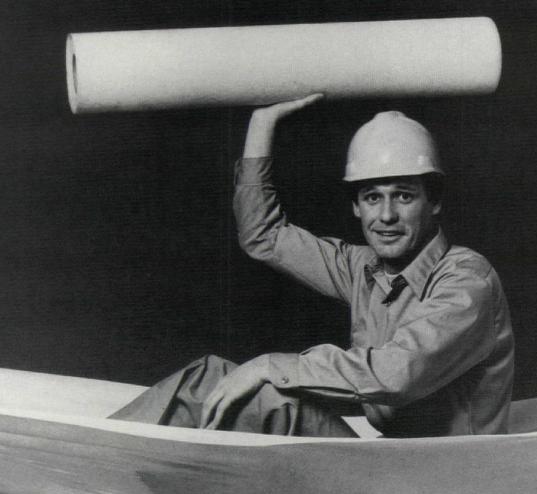
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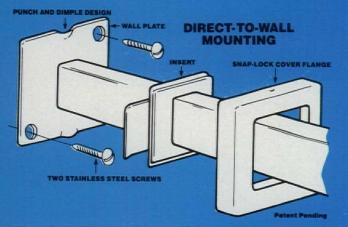
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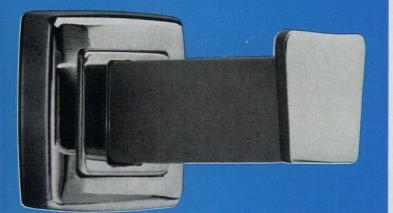


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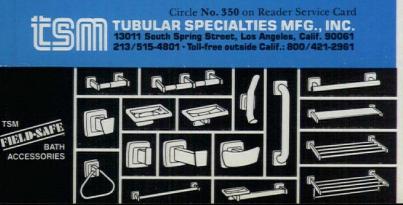
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Books continued from page 108

masses often punctuate the predominantly horizontal disposition of his works-Walnut Tree Farm, New Place, Broadleys, Moor Crag, Norney, and the Orchard being representative of these qualities. Voysey's plan orders, which seem primitive when compared to Lutyens', were never overly complex or necessarily important, being composed solely as a group of independent and well-detailed rooms adjoined by a common corridor. Desiring to achieve a "repose, cheerfulness, simplicity, breadth, [and] quietness" within a space, Voysey focused upon the particular qualities of each separate room rather than upon formal systems of spatial ordering. As part of the English Arts and Crafts movement stemming from Ruskin and Morris, all of Voysey's work exhibited the simplicity and honesty in the use of natural materials characteristic of that movement. In addition, as with Ruskin and Morris, he conceived the purpose of architecture in highly moral, even Christian tones: "It has always been observed that the architecture of a people must always be a true reflection of their moral and spiritual condition." Or, "Simplicity, sincerity, repose, directness and frankness are moral qualities as essential to good architecture as to good men.'

An austere architecture of white planar surfaces coupled with the designer's intention to create a truthful and moral architecture—what better requisites for packaging Voysey as a "pioneer" of the Modern movement? Ironically, despite the formal and polemical connections historians have formed between Voysey and the Modern movement, he vigorously objected to being considered an originator of an architecture he found repugnant. Voysey wanted, rather, to be remembered for rediscovering the basic tenets associated with English cottage vernacular buildings, and for the simple, honest, and traditional handicrafted qualities demonstrated through his architecture, furniture, and applied designs.

architecture, furniture, and applied designs. When compared to the other "pioneers" of the Modern movement, a true paucity of works exists on Voysey's architecture, furniture, and applied designs. In addition to this new volume by Duncan Simpson, recent works include C.F.A. Voysey: Architect and Designer 1857-1941 edited by John Brandon-Jones (the catalog for the 1978 Voysey exhibition), David Gebhard's Charles F.A. Voysey, Architect, and a handful of articles including several by Brandon-Jones. Thus one hopes that Simpson's C.F.A. Voysey: an Architect of Individuality will be that necessary critical analysis of Voysey's architecture.

Although Simpson competently describes Voysey's architecture, interiors, and furniture designs-from the early unexecuted projects, through his mature works like Broadleys, to the medieval-influenced last works-no particularly new insights concerning his career or architecture are presented. Simpson might have been, as is David Gebhard's short but stimulating work, more analytic and interpretive than descriptive, thus providing more discussion of aspects of Voysey's work seldom touched upon. This could have included, for instance, assessment of the relationship between his house designs and their landscaped settings, and who designed them; or more description, not to mention more illustrations, of Voysey's interiors and their spatial qualities, not solely their handicrafted details and finishes. Simpson's presentation of Voysey as "an architect of individuality" could have focused, in total, upon more substantive architectural concerns rather than secondary decorative motifs and idiosyncratic personality traits. As a result, a comprehensive interpretive analysis of Voysey's architecture is still needed.

Sir Édwin Lutyens' concern with "playing the high game of architecture" resulted in a personal exploration of hierarchical spatial ordering and formal composition that is as provocative as it is instructive. From his early vernacularinspired country houses through his transformation to classicism and interest in Palladio—from Munstead Wood to Marshcourt to Heathcote—Lutyens proved the master of numerous architectural situations. And yet, while his country houses exhibit an immense variety and diversity in execution and detail development, all were generated from two basic [Books continued on page 112]

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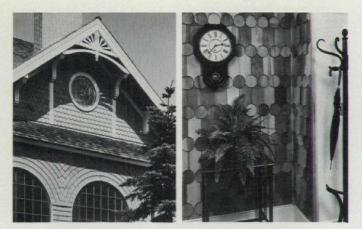
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Books continued from page 110

plan forms and contain similar ordering characteristics. In addition, the relationship between house and garden was of paramount importance in Lutyens' work; the formal ordering of the house plan often extended into the organization and design of his gardens. Little Thakeham, Heathcote, Great Maytham, and Gledstone are representative of this fusion between house and garden order.

Lutyens' traditionalism and eclecticism, coupled with his substantial practice, provided him with numerous admirers and detractors. But appreciation of his work has progressed significantly from Nikolaus Pevsner's critical remark of 1951 that Lutyens represented "the crowning paradox of the 20th-Century architect of prodigious gifts who contributed nothing whatever to the mainstream of development of 20th-Century architecture." Fortunately we do not view our modernity so hermetically today. For numerous contemporary architects, from Venturi to Stern among others, "learning from Lutyens" not to mention "lifting from Lutyens" has rekindled an interest in an architect who, in retrospect, contributed significantly to the mainstream of architectural development, a contribution we have only recently begun to fully realize and appreciate.

Of Lutyens' work, compared to Voysey's, much has been written, especially concerning his country houses. Representative examples range from Sir Lawrence Weaver's 1913 work *Houses and Gardens by E.L. Lutyens* and Christopher Hussey's biography, accompanied by the three-volume *The Architecture* of Sir Edwin Lutyens, to more recent works such as Roderick Gradidge's Edwin Lutyens Architect Laureate and Peter Inskip's critical essay in Edwin Lutyens ("Architectural Monographs 6"). It is with this last work that Daniel O'Neill's Sir Edwin Lutyens: Country Houses has its strongest competition.

O'Neill's discussion of Lutyens' country houses is presented chronologically, beginning with his earliest works executed in the Surrey vernacular tradition and the formation of his lifelong association with garden designer Gertrude Jekyll. From the emergence of Lutyens' mature vernacular style, O'Neill traces his transformation to classicism, which sprang from Georgian influences and finally embraced Palladianism. While the presentation of Lutyens' country houses is appropriately developed, as with the Voysey volume, description takes precedent over analysis and interpretation. In fact, Peter Inskip's provocative essay in *Edwin Lutyens* and Allan Greenberg's essay of over a decade ago, "Lutyens' Architecture Revisited" (*Perspecta 12*), present a level of analysis and interpretation that far outdistances O'Neill's competent but descriptive text.

Two additional aspects of this volume generate concern. First, the use of diagrammatic floor plans is inexcusable, for they neither clearly indicate the true complexity and originality of Lutyens' plan orders nor present the adjacent landscape and garden designs so essential for a comprehensive understanding of the entire design. With the availability of good plans, as witnessed in The Architecture of Sir Edwin Lutyens and Edwin Lutyens or the excellent analytical drawings found in the latter volume, it is difficult to understand why such primitive plans were selected for this volume. Second, there is a dearth of illustrative material on the interiors of the country houses, another inexplicable omission given Lutyens' skill and ability at spatial manipulation and ingenious detail. Although O'Neill deals appropriately with the subject matter, one questions the need for another work on Lutyens' country houses at this time. Robert Grant Irving's volume on New Delhi, Indian Summer, will expand our understanding of Lutyens' work, and then possibly someone will analyze and assess his commercial and public works in the near future.

For both Voysey and Lutyens, the guns of August 1914 tolled an end to the golden age represented by the 19th-Century English country house. Not only would a new socio-political order emerge, but so too would "the new architecture." But standing as testaments to their architects' capabilities, the country houses of Voysey and Lutyens continue to provide invaluable architectural lessons today. □

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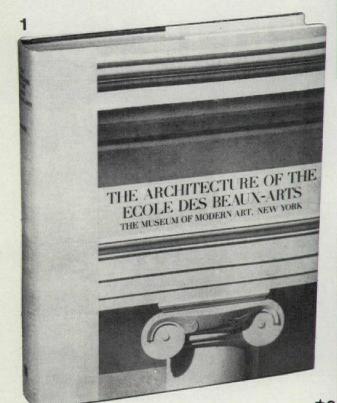
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By Henry J. Cowan and Forrest Wilson 256 pp., illus. . . . \$24.95

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By Francis D.K. Ching, 294 pp., illus....\$22.50 Written to foster understanding of design concepts, this rich source of architectural prototype demonstrates how to extract the fundamental principles of form and space from the environment, whether in the architectural one views or inhabits, in architectural visualization, in drawing, or in actual design. **Circle B604 under Books.**

5 Affordable Houses Designed by Architects

Edited by Jeremy Robinson, 168 pp., illus... \$22.95

This lavishly illustrated volume shatters the myth that architect-designed houses are more costly than developer-built houses. The superb photographs, floor plans, drawings, and details of interiors and exteriors present a wealth of ideas on how to construct beautiful and unique houses within limited budgets. **Circle B605 under Books**.

NEW*

6 A Theory of Good City Form

By Kevin Lynch 514 pp., illus.... \$25.00

The author examines normative theories of city form: identification of characteristics that good human settlements should possess, the city as a model of the cosmos, as a machine, as a living organism. The inadequacies of functional theories are also discussed. **Circle B606 under Books.**

7 Design and Planning of Swimming Pools

By John Dawes. 276 pp., illus. . . . \$49.95

A comprehensive manual that describes the essential characteristics and consequent design requirements of every type of pool imaginable. Also deals in great detail with more technical matters, such as structural problems and how to solve them, finishes, filtration, circulation and water treatment, heating and ventilating. **Circle B607 under Books.**

8 Architectural Rendering: The Techniques of Contemporary Presentation

By Albert O. Halse, 326 pp., illus., 2nd edition, 1972... \$44.50 This completely up-dated revision of the most widely used guide to architectural rendering covers all working phases from pencil strokes to finished product — and shows how to obtain the desired mood, perspective, light and color effects, select proper equip-

ment and work in different media. Circle B608 under Books.

9 Cities For People

By Ronald Wiedenhoeft 224 pp., illus. ... \$22.95

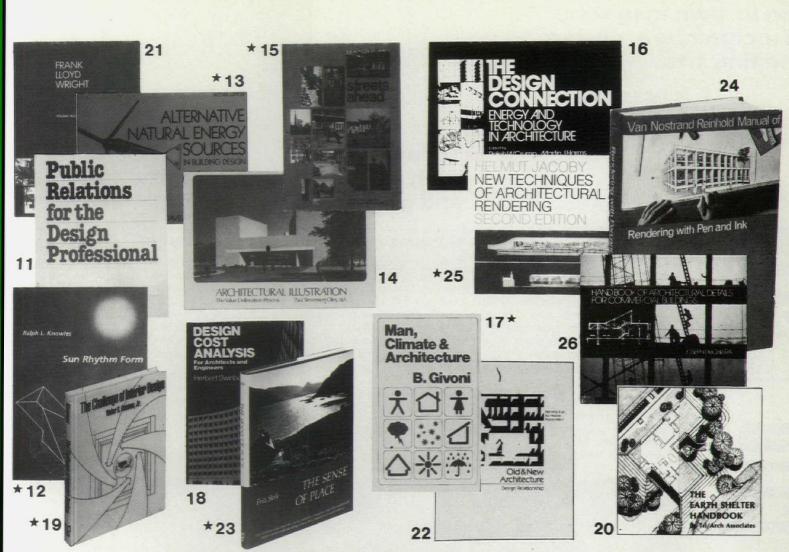
This book is a thoughtful analysis of the dehumanization of cities and the urban blight that results. It demonstrates how we can reverse this trend, making cities more responsive to human needs and improving their economic viability. It offers a number of economically sound steps that have proven effective in revitalizing cities all over the world. **Circle B609 under Books.**

NEW*

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By A. E. J. Morris 571 pp., illus \$42.50

This book traces the development of the architectural use of precast concrete for individually designed buildings from early nineteenth century to the present day. Practical considerations are dealt with including selection of surface finishes and problems of 'perfect fit' in precasting. Contributions made by leading architects over the last twenty years are reviewed. **Circle B610 under Books.**



11 Public Relations for the Design Professional

By Gerre Jones, 278 pp., illus. ... \$24.50

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NEW*

12 Sun Rhythm Form

By Ralph L. Knowles 289 pp., illus. ... \$25.00

This book is concerned with the total solar environment and ways that architects and planners can let more sunshine in through sensitive design. The "solar envelope" concept is ex-plained. Graphic techniques are presented that enable architects and urban planners to derive solar enve lopes for their own projects Circle B612 under Books

NEW*

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By A. J. Davis and R. P. Schubert 287 pp., illus. . . . \$17.95

Basic design criteria about energy conservation, solar energy, wind energy, and methane-gas energy is updated in this edition. Alternative solutions and applications are described for each problem and diagrams, tables and formulas are supplied. This book is the perfect introduction to the complex subject o energy.

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14 Architectural Illustration The Value Delineation Process This book deals with the physiological, physical and architectural aspects of the relationship and interaction between these three ele ments to interior and exterior building In this copiously illustrated, clearly ordesign. It is divided into five parts, in ganized explanation of his value delincluding climatic elements and solar radiation on building design Circle B617 under Books. eation system, the author presents a detailed description of the process

18 Design Cost Analysis for Architects & Engineers

By Herbert Swinburne 317 pp., illus. ... \$24.50

This first-of-its-kind book shows architects and engineers how to analyze and estimate the costs of building construction during the de-sign stage when the potential for controlling costs is greatest. Circle B618 under Books

NEW*

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By Walter B. Kleeman, Jr. 338 pp., illus. ... \$19.95

This book is a flagship text in the growing field of ergonomics. It shows how you can incorporate anthropology and gerontology into the design of any space or building. It shows how behavior is influenced by design enabling you to induce a feeling of well-being for the recipients of your next project Circle B619 under Books.

20 The Earth Shelter Handbook

By Tri-Arch Associates 244 pp., illus. ... \$12.95 This paper-back handbook presents to architects, builders, private home owners and commercial clients an easy-to-follow, step-by-step evaluation plan for site selection, soil evaluation and criteria for placement in relation to wind and sun. Circle B620 under Books.

21 The Architecture of Frank Lloyd Wright A Complete Catalog Second Edition

By William Allin Storrer 456 pp., illus. . . \$15.00

This second edition, which documents all of the buildings designed by Wright, replaced a number of photographs with new ones that show the buildings to better effect, changed some copy in the text, and incorporated factual information that has come to light since the original publication in 1974 Circle B621 under Books.

22 Old and New Architecture: Design Relationship

280 pp., illus. ... \$25.00 How to make new architecture compatible with its current setting. whether in the midst of a large historic urban area or as an addition to an old building, is analyzed in this first comprehensive book on the subject by 18 design experts. Circle B622 under Books

NEW*

23 The Sense of Place By Fritz Steele

240 pp., illus. \$19.95

This book is about our sense of place - the way it affects our lives, and the way in which we create our own sense of place. It is a unique look at the interaction between the features of settings and the features of the people who use them and how we could profit from a better understanding of how we relate to our surroundings Circle B623 under Books

24 Rendering With Pen and Ink

By Robert W. Gill, 368 pp., illus. ... \$14.95

This paper-back edition is a copiously illustrated guide to the techniques and methods of rendering, including sections on perspective, projection, shadow, reflections, and how to draw cars, ships, aircraft, trees, and human figures. The author also describes the very wide range of instruments and equipment currently in use Circle B624 under Books.

NEW*

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By Helmut Jacoby 167 pp., illus \$24.95

This book contains a broad, international selection of architectural drawings that represent the most outstanding modern contributions to the field. Mr. Jacoby has given consideration to examples that interpret architectural designs in detail, for the layman as well as the specialist. Circle B625 under Books.

26 Handbook of Architectural Details for **Commercial Buildings**

Joseph DeChiara 506 pp., illus. ... \$39.50 This Handbook illustrates and examines the full range of architectural details currently used for commercial buildings. Part I features plans, eleva-tions, and sections for office buildings, banks, retail stores, theaters, and more. Part II concentrates on architectural details. Practicality and realism are stressed. Circle B626 under Books

NEW* 17 Man, Climate & Architecture

Circle B616 under Books.

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288 pp., illus. . . . \$34.50

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15 Streets Ahead

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damental developments that are dra-matically changing the street scene in

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tenance problems are also covered.

Circle B615 under Books

Edited by Ralph W. Crump

and Martin J. Harms

184 pp., illus

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16 The Design Connection

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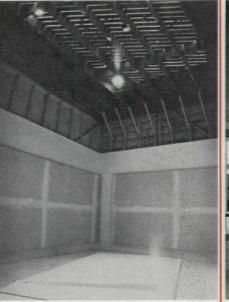
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The diversity of American architecture today will be abundantly evident in works featured in the August P/A: a group of single-family houses that run the gamut from cozy Vernacular to cool New Wave; a couple of examples of low-rise housing, one in the Classical mode, one of hill town character; a remarkable example of silk-purse-from-sow's-ear remodeling by Mitchell/Giurgola; and a Precursor article on some handsome sculptural village structures in West Africa.

Another in our current series of energy studies will take up retail facilities.

And there will be a Technics feature on How Products Get Designed.

P/A in September will be another in the series of giant theme issues on Interior Design.

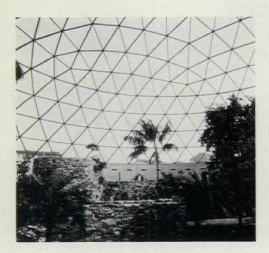
ISING



Products and literature

The following items are related to the Technics article on atrium design.

Atrium products



Crystogon aluminum-framed clearspan structures range in size from 30 to 200 ft. Panels can be transparent or translucent, flat or formed, clear or tinted. The structures, available in geodesic or space truss configurations, have been used for arboretums, aviaries, restaurants, shopping malls, office buildings, swimming pools, and zoological gardens. Options include ventilators, louvers, service ladders, and structural steel wall frames. Temcor. Circle 100 on reader service card

Clearspan Skyroofs combine an aluminum structural system with translucent Kalwall[®] panels for structures such as mall roofs. They can span up to 100 ft and require neither rafters nor joists. Adding the insulated movable reflective Solar Shutter allows control over light, solar heat gain, and thermal losses. Kalwall®/Structures Unlimited. Circle 101 on reader service card

Red-mounts[©] are accurate one-third scale drawings covering the company's skylighting systems, from skyridges to greenhouse installations. The drawings can be peeled from their backings and affixed to any plan. They are free to qualified architects. Additional information is available from Circle Redmont, Box 853, Darien, Ct 06820.

Atrium literature

Catalog for professionals includes Solarspan[®] rigid frame clear span enclosures that can be freestanding or attached to an existing building. The enclosures, of glass in aluminum frames, are available in custom widths to suit specific applications and can be used wherever a transparent or translucent covering is desired. Technical information and details are provided in the 20page brochure. Lord & Burnham, Division Burnham Corp.

Circle 200 on reader service card

'Architectural, Solar, and Standard Skylighting Systems' includes individual skylights and continuous units, as well as pyramids, greenhouses, and walkway covers. The 16-page brochure provides specifications for glazing systems shown. Both acrylic and glass are used for glazing. Wasco Products, Inc. Circle 201 on reader service card

'The Skylight Source' brochure discusses glazing in walkway covers, structural vaulted skylights, lean-tos, clusters, and polygons. The various systems are illustrated in color photos, and construction detail drawings are provided. Glazing is acrylic or polycarbonate in aluminum framing. Specifications are included, and the company system approach to design is discussed. Naturalite, Inc.

Circle 202 on reader service card

Architectural glass catalog discusses reflective, insulating, safety, acoustical, and float glass. It provides general glazing guidelines and wind load data. Design considerations when using sloped glazing are outlined. Full-color illustrations show glass installations on several buildings. Guardian Industries Corp.

Circle 203 on reader service card

Sun Span rigid frame structures are suitable for clear span architectural enclosures. They are custom fabricated in either straight or curved eave design. Aluminum framing is mill or anodized finish. Glazing is plate, reflective, tinted, or wire-reinforced glass or clear or tinted acrylic. Sun Span is described in an eight-page brochure that provides specifications and construction details. Rough Brothers, Inc.

Circle 204 on reader service card

'Plexiglas® in Architecture' discusses and illustrates the use of Plexiglas acrylic sheet in transparent enclosures, skylights, and walkways. It includes information about the company's S-U-N® (Skylight Utilization Network) program for analysis of proposed skylight installations with respect to solar heating, solar lighting, and other factors. Design information, maintenance require-ments, framing sizes, sealants, and general glazing specifications are provided in the 24-page brochure. Rohm and Haas.

Circle 205 on reader service card

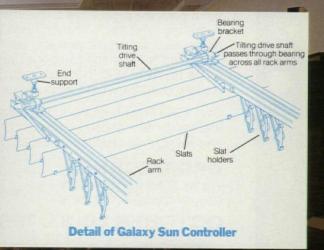
PAM skylights, space enclosures, and firevents are covered in a 16-page, fullcolor brochure. Styles shown are cluster skylighting, pyramid clusters, continuous vaulted skylights, and continuous ridgelites. Specifications and detail drawings are included. Hillsdale Industries, Inc.

Circle 206 on reader service card



'A New Dimension in Architecture' describes Lexan® sheet glazing products and their architectural applications. The impact-resistant polycarbonate glazing products include Lexan solar grade sheet, abrasion-resistant Margard[®], glazing grade sheet, translucent Pro-tect-A-Glaze[®] sheet, and Dura-Mir[®] reflective sheet. Key properties, building code ratings, flammability test data, glazing recommendations, and installation guidelines are included. For a copy of the 16-page brochure, contact Anthony Dimascio, Commercial Plastics & Supply Corp., 1642 Woodhaven Dr., Cornwells Heights, Pa 19020.

'Laminated Architectural Glass' brochure describes the use of Saflex® polyvinyl butyral as an interlayer in lami-[Literature continued on page 122]



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Circle No. 330 on Reader Service

Literature continued from page 120

nated glass for solar control, acoustical performance, and bullet-resistance characteristics. A chart illustrates interlayer colors available. Laminators who use Saflex as an interlayer in laminated glass are listed. Monsanto Plastics & Resins Co.

Circle 207 on reader service card

Skylight framing systems provide structural support and have a gutter system that prevents water seepage. The tubular type can be used with solariums and composite curtainwalls. The I-beam system is suitable for high-tech designs. EPI Architectural Systems. *Circle 208 on reader service card* **Skylights** shown and described in a 20page brochure are made from glass, fiberglass, or acrylic. There are individual units or modular ones that can be combined to provide continuous skylights. The brochure includes product specifications and photos, as well as photos of typical installations. Details show frame construction and installation methods. Bristol Fiberlite Industries.

Circle 209 on reader service card

Energy-efficient glazing products and structures using insulated glass and rigid vinyl framing are covered in an eight-page brochure. It includes window greenhouses, curtain walls, custom designs, lean-to greenhouses, and passive solar structures. Construction de-



tails and suggested architectural specifications are provided. Thermodular Designs, Inc.

Circle 210 on reader service card

Aurora[®] solar enclosures are two-story designs intended for commercial and institutional use. They are approximately 13 ft deep and 17 ft high and are available in 4-ft modules. A four-page brochure, "All Greenhouses Are Not Created Equal," compares Sunplace[®] with other solar enclosures, lists design features and components, and provides technical data. Sunplace. *Circle 211 on reader service card*

'Dimensions Unlimited 1982' illustrates custom skylighting in full color. Styles shown are: single slope, ridge, multiple ridge, standard dome, custom dome, pyramid, multiple pyramid, and vault. Each type is described and includes detail drawings. The 36-page brochure provides guidelines for selecting glazing and suggested specifications. Super Sky Products, Inc.

Circle 212 on reader service card

Skyview skylights with remote control shades are described and illustrated in a four-page brochure. The skylights can be continuous or individual domes. Aluminum frames with thermal breaks are finished in baked acrylic paint bronze interior, bronze or white exterior. The motor-driven acrylic shade is also white or bronze. Skyview Control Systems.

Circle 213 on reader service card

Florex II Spec-Data brochure describes a double-glazable greenhouse-style structure. The brochure includes a product description, technical data, installation information, and availability of technical assistance. Details of structural framing, roof, gable, sides, and elevations are illustrated. English Greenhouse Products Corp. *Circle 214 on reader service card*

'The Right Glass' discusses the use of glazing to meet specific applications. Among those for sloped glazing are several laminated glass constructions. This covers glass installations that are angled more than 15 degrees from vertical used over areas where people will be passing or working. For a copy of the 2≥ age brochure, write on professional letterhead to PPG Industries, 10 North, One Gateway Center, Pittsburgh, Pa 15222.

Tuf-flex[®] tempered safety glass, which can be used for skylights, is the subject of a 12-page brochure. It describes general characteristics and includes tables that show dimensions, tolerances, and strength. Fabrication information is provided, with data on minimum requirements for cutouts and holes. Libbey-Owens-Ford Company. *Circle 215 on reader service card*

[Products continued on page 124]

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Products continued from page 122

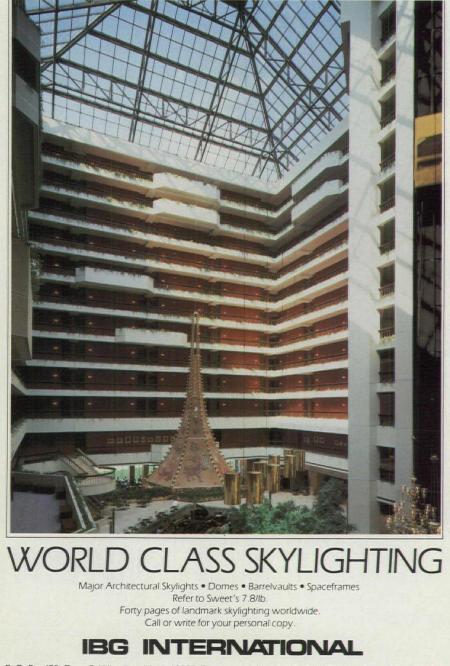
Products

Miracle Mat[®] consists of an anodized aluminum 30" x 30" modular grille over a recessed area. Within the pit are brushes with polypropylene bristles that are set in motion when the microwave field is entered. The bristles sweep through the openings to brush dirt and dust from shoes and carry it to the trap below. Vibration is absorbed by a ½-in. neoprene border. Installed at entrances, it will reduce carpet maintenance. Miracle Mat is also used at clean room entrances. Progressive Blasting Systems. *Circle 102 on reader service card*

The Egresser[®] illuminated exit sign is said to exceed NFPA codes for brightness levels, gradient readings, and contrast ratios. It provides high levels of lighting, using approximately 5 watts. Two lamp strips at top and bottom edges have six subminiature lamps each that use the back of the sign as a reflector. Lamps have a guaranteed life of 10 years and an expected life of approximately 14 years. The sign can be top, end, or back mounted and is easy to install. Crouse-Hinds Co., Lighting Products Div.

Circle 103 on reader service card

A carpet yarn palette of 180 colored bundled tufts of Monsanto Ultron nylon includes colors ranging from neutrals and soft shades to bright ones. Contained in a compact file-sized box, it is intended for use with the company's catalog of more than 200 print patterns and coordinated solids, and is offered to architects, designers, and specifiers. To obtain the samples, write on professional letterhead to Customer Service Department, Durkan Enterprises, Inc., P.O. Box 1006, Dalton, Ga 30720.



P. O. Box 100, Dept. P, Wheeling, Illinois 60090, Telephone (312) 634-3131, Telex 254401, Owip (312) 634-3810



The splitback chair, available with low or high back, has a sliding support cushion that adjusts to suit the user. Frames are chrome or natural beechwood with three stain options. The chair is offered with removable snap-on arm cushions and there are linking tables of varied dimensions. Armrests are low enough to fit under a desk or table. There are sled-based and five-prong swivel-based models. Upholstery zips off for easy cleaning or replacement. HAG USA. *Circle 104 on reader service card*

Glazed or unglazed ¹/2-in.-thick brick is used as veneer rather than for structural purposes. It installs rapidly in less space than conventional brick and does not require heavy footings, foundations, or wall ties. The glazed version, produced in a range of colors and textures, is suitable for areas such as building exteriors, lobby walls, shopping centers, offices, kitchens, and bathrooms. The unglazed version can be used wherever the look of true brick is required. Maybrik. *Circle 105 on reader service card*

Pleko Therm System exterior wall insulation and finish consists of insulation boards, reinforcing fabric, adhesive, a fastener to hold the insulation securely to the substrate, and a synthetic coating material that provides a weatherproof, crack- and stain-resistant seamless surface. For new or retrofit application, the system can be used over several types of substrates including gypsum panels, concrete, terra cotta, stucco, and brick. There are 12 standard textures and 12 standard colors. Kern-Tac, Inc. *Circle 106 on reader service card*

XF leads, made of a composition of polymer and graphite particles, show a 50 percent improvement in strength. Available in 0.3-mm, 0.5-mm, 0.7-mm, and 0.9-mm diameters, the leads are said to provide smoother drawing, blacker lines, and more uniform grading. Faber-Castell Corp. *Circle 107 on reader service card*

Mirrors illuminated by circular fluorescent lamps are offered in a variety of designs. The molding process makes it possible to create the desired shape in the desired color, and is not limited to mirrors. The company also offers custom services to develop and manufacture the designs of others. Crystallux, HCM Graphics Systems. *Circle 108 on reader service card*

Literature

Residential roof windows add light and ventilation to attic areas for added living space. Models are available with tempered or other safety glass and can be specified with triple-pane insulated glass, sun-absorbing or -reflecting glass. Windows pivot inward for easy maintenance and are equipped with a safety lock to keep them from opening further than the ventilating position. A 24-page brochure shows several styles of windows, methods of installing flashing, and typical installations. A size chart is included. Velux-America, Inc. *Circle 216 on reader service card*

Geocoustic® II Units, designed to absorb sound in the speech frequency range, are open structures of interconnecting glass cells that create spaces through which sound is dissipated. The $11\frac{1}{2}$ " x 16" x 2" panels are installed in the patch method so that no area is completely covered. An eight-page brochure provides design guidelines, technical data, application information, and suggested specifications. Pittsburgh Corning Corp.

Circle 217 on reader service card

The EPC Cellular Raceway system provides in-floor service for the distribution of electronics, power, and communications lines. A preset insert—a one-piece zinc die casting saves time in locating the wires. A fourpage brochure describes the system and includes drawings and details to explain its use. Epic Metals Corp. *Circle 218 on reader service card*



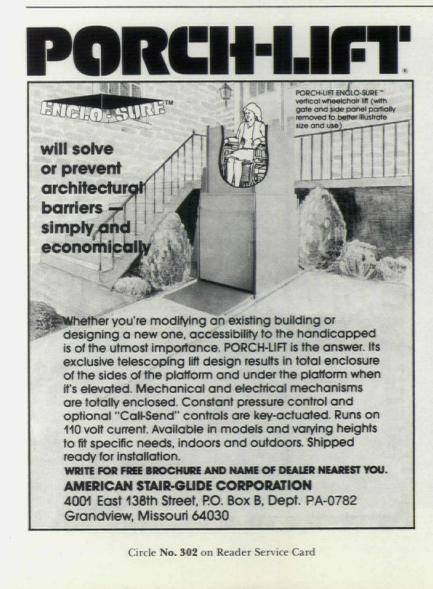
Tile catalog illustrates glazed and unglazed, interior and exterior, wall and floor tiles ranging in size from 8" x 12" to 1" x 1". Specialty products include bath accessories, mosaic trim, swimming pool tiles, and a custom design service. Illustrations in the 24-page catalog show both colors and shapes; descriptions include characteristics, applications, mounting, trim, and sizes. CeramicUS, United States Ceramic Tile Co. *Circle 219 on reader service card*

The Permalite[®] cooling tower structure of fiberglass-reinforced polyester resin features exceptional strength, long life, excellent corrosion resistance, and high-temperature capabilities, according to the manufacturer. The Permagrid[®] ceramic tile fill requires no special maintenance. The system is described in a six-page brochure that includes a cutaway drawing, engineering and sizing data, and a list of optional features. Ceramic Cooling Tower Co. *Circle 220 on reader service card*

Hydraulic door controls brochure lists the standard and optional features of four door closers, with specifications for each. Photographs and detail drawings illustrate each closer and optional accessories. A chart provides ordering information. Reading-Dorma Closer. *Circle 221 on reader service card* '

'Code Conforming Wood Design' shows design possibilities and economies achievable with wood. It covers allowable building heights and areas for a variety of occupancies and construction types. There will be separate technical bulletins for Uniform, Basic, and Standard codes. Initially, the guide will contain height and area requirements and related cost and fire insurance data on four building uses: business, mercantile, assembly, and factory/industrial. Architectural design and engineering firms can obtain a complimentary guide by writing on professional letterhead to American Wood Council, 1619 Massachusetts Ave., NW, Washington, DC 20036.

[Literature continued on page 126]



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W. P. Hickman Company 175 Sweeten Creek Road P.O. Box 15005 Asheville, N.C. 28813 (704) 274-4000 Literature continued from page 125



Doors, wood columns, stair parts, and other millwork items are described and illustrated in a 68-page, full-color catalog. Many of the doors have panels with laser-carved designs, and several have leaded-glass inserts. There are interior and exterior doors, screen and storm doors and combinations, and bifolds in several styles. Spindles, stair parts, columns, and posts are also offered. The catalog, in its third edition, is available for \$1.25 from E.A. Nord Co., P.O. Box 1187, Everett, Wa 98206.

Building materials

Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.

Center Ithaca, Ithaca, NY (p. 72). Architects: Werner Seligmann & Associates, Cortland, NY. Steel frame: Triangle Steel. Steel studs: Ohio Roll-Fab. Cementasbestos panels: Johns-Manville. Granite: Cold Spring Granite Co. Granite support system: Hohmann and Bar-

nard. Fixed glazing: Kawneer, PPG, Pittsburgh Corning. Gypsum board: Gold Bond. Interior glazing: PPG, Rolscreen Co., Andersen Corp. Skylights: Wasco Products, Inc., Velux. Greenhouses: English Greenhouse Prod. Corp. Atrium skylights: National Greenhouse Co. Hollow metal doors: Ceco. Sliding wood doors: Andersen Corp. Overhead and upward acting exterior doors: Overhead Door Co. Residential corridor ceiling system: Arm-Waterproofing: Sonnebornstrong. Contech. Architectural metal: Detroit Graphite Co. Hardware: Stanley, Sargent, A-R, LCN, Burns. Elevators: Midstate Elevator Co. Stairs: Montour Metals, Inc. Lighting: Prescolite, Hubbell, Hi-Tek, Lightolier, Hadco, Duray, Esco. HVAC: Singer. Cooling tower: Baltimore Air Coil. Plumbing and sanitary: American-Standard, Mansfield Sanitary, Inc., Moen, American Sanitary Partition Corp. Water fountains: Halsey Taylor. Sprinklers: Stone Ridge Fire Protection.

Studio/bathhouse, Scarsdale, NY (p. 78). Architect: Steven Holl, New York. Windows: A & S Windows. Marble: Vincent's Marble. Skylight: fabricated by S & J Sheetmetal. Doors: fabricated by Perry De Anglis. Sandblasted glass: fabricated by Shefts.

The Palace, Miami, Fl (p. 82). Architects: Arquitectonica International Corporation, Coral Gables, Fl. Windows, sliding

doors: Window Master. Aluminum and glass entrance doors: Horton Automatics of Texas. Gypsum board: U.S. Gypsum. Waterproofing membranes: Tremco Manufacturing. Insulation: Insulperm, W.R. Grace. Paint: M.A. Bruder & Sons. Folding partitions: Panelfold. Interior door hardware: Hager, Schlage, L.C.N. Kitchen appliances: General Electric. Closedcircuit video equipment: Simplex Company. Automatic sprinkler system: Grunau. Signage: Cooper Architectural Signs. Public elevators: Westinghouse. Private elevator: Sedgwick. Anodized aluminum handrails: Window Master. Exterior lighting: ITT, KIM Lighting. Interior lighting: Lightolier, Progress. Bathroom fixtures: American-Standard. Saunas: Amerec Corporation. Landscape sprinkler system: Toro Co. Heating system: MOR-FLO/American. Cooling tower system: Marley Tower Co. Individual a/c units: Friedrich Co. Carpeting: Alexander Smith.

Hobbs residence, Lansing, NY (p. 88). Architects: Office of Ungers & Kiss, Ithaca, NY. Concrete block: Auburn Block. Gypsum board wall and ceiling surfacing: Gold Bond. Windows, exterior doors, cabinets, Murphy bed: Ben Boynton. Interior doors: Mohawk. Roofing: Koppers. Insulation: Dow-Corning, Mono-Therm. Paint: Benjamin Moore. Stain: Cabot. Locksets: Schlage. Range: Sears. Lighting: Stonco. Heating: Proko.



OPULENT TRAVEL BY PRIVATE RAILCAR

MONTHLY SECTION ON

PERSONAL INTERESTS



At the turn of the century, when America rode the rails as its primary mode of transportation, barons of business traveled in splendor, in private cars that were truly "mansions on wheels."

Since then, of course, corporate leaders have become sky chiefs, the Lear Jet their symbol. Alas, a certain romance has gone by the rail.

That, a few men around the country are recapturing. They have purchased some of the great old "mansions," restored them to their former grandeur, and now travel in a high style many people would be surprised to know still exists in hurry-up America.

"It's a fun thing to do, almost impossible to put into words," Roy F. Thorpe declares of the "excitement" of owning his own railroad car. "You can have your own party, and serve food and drinks, and have someone serve you if you wish."

Mr. Thorpe, chairman of Falcon Safety Products Inc., a Mountainside, N. J., producer of marine and photographic equipment, is typical of today's private-car owners. They enjoy riding the rails. But few can afford, as did the tycoons of yesteryear, to tour about strictly for their own pleasure.

Most now use their cars a few times a year to entertain business customers. Or they supply them to groups on a lease or charter basis. Because of the high maintenance and operating costs involved, there is little profit to be made. Most private-car owners would be more than content to break even, and thus finance their avocation.

Rare breed. There are an estimated 500 privately owned railcars in the U. S. today. Most are stationary, converted into restaurants or second homes. Only about two dozen meet Amtrak standards and run on its passenger rail system at least a few times a year. The classic cars—"la creme de la creme," Mr. Thorpe says, "the ones every-



BY JAMES E. BRAHAM

HAM body wants''—are the business or private cars. They are "absolutely beautiful little hotels on wheels," to quote another owner, attorney John P. Hankins of Huntington, W. Va. Mr. Thorpe owns four cars and Mr. Han-

kins three, and they're most proud of their great, old, heavyweight business cars, the type built by Pullman Co. from about 1882 until 1930.

A typical business car—so named because at one time most of them belonged to the railroads and were used by chief operating officers to inspect tracks and routes—is 10 ft wide and 83 ft long. It features an open observation platform at the rear. From there one enters an observation (living) room. Forward of that are usually four single or two double staterooms, all with private baths and showers, a dining room, and a pantry and kitchen, with quarters for the crew.

Few cars are sold—half a dozen a year at most—so prices are difficult to establish. Mr. Thorpe gives this guide: "Cars today start at around \$20,000 and go up to \$300,000. Business cars that are in immaculate condition and are certified for Amtrak run from about \$150,000 to \$300,000. It would cost a million and a half dollars to build a car like that

today, so you're really getting a good buy."

Bridge club. "This is the kind of thing that if you have to ask the price, forget it. My car would be irreplaceable," says Jim McClinton Jr., a Chevrolet dealer in Parkersburg, W. Va., of his "Wayside 905" business car, purchased from the Baltimore & Ohio Railroad (B&O) 16 years ago. He's one of the rare owners today who says he uses his car strictly for the enjoyment of himself, his family, and friends. "The car's been practically everywhere. I've gone to New Orleans, San Antonio, the Army-Navy football game [wherever it's played], Savannah."

Mr. McClinton, who takes his own cook



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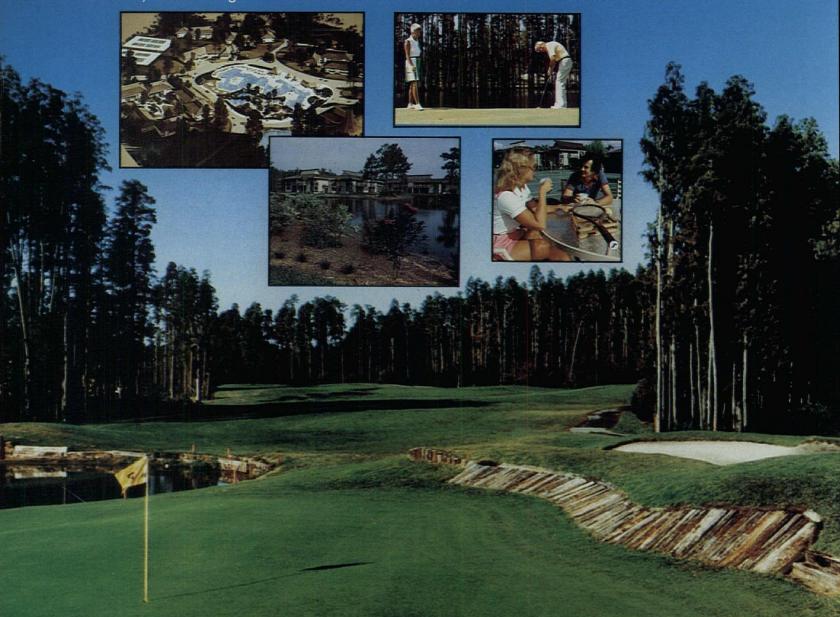
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along on these trips, which stretch out as long as three weeks, keeps his car on a private siding in Parkersburg, ready to roll. The B&O maintains his car and a man checks it daily. And the 64-year-old Chevy dealer gets to inspect the car frequently himself, even when he's not traveling. "I play bridge on it three or four days a week at noon with some lawyers and some other old pals," he says with a chuckle.

Extravagant is more the term for the two-car tandems operated by Charter Mfg. Co. Inc., Milwaukee, and Casablanca Fan Co., Pasadena, Calif. Customers are wined and dined like kings aboard these cars, described by one operator as "the four most luxurious and mechanically sophisticated cars in North America." Burton A. Burton, CEO of Casablanca Fan, jokingly calls one room aboard his "City of Industry" car the "IRS room" since it holds his fan samples, hanging from the ceiling.

Rail tours. Dick Aichele, an engineer who operates Concept Development Associates in Hillside, N. I., is a private-car owner whose hobby has become his full-time business. After he and his partner, Jack Bennett, an accountant, purchased a sixbedroom lounge car called the "Virginia Beach" in 1979, Mr. Aichele was hired by Irving Trust Co., New York, to put together a special five-car "Winter Olympic Special" that traveled from New York's Grand Central Station to Plattsburg, N. Y., for the Winter Olympics in February 1980.

Now he's working for American Express Co., running its "Sentimental Journey" tours from New York to Los Angeles. These one-week tours, with



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layovers in New Orleans and Tucson, offer the full service of past railroad travel. Each tour can accommodate as many as 38 people, and the cost per person is \$2,295 one-way.

"Chapel Hill" is one of the cars Mr. Aichele used for the Winter Olympics and is leasing now for American Express. This business car, built in 1922 for E. F. Hutton, belongs now to De-Witt Chapple Jr., owner of Chapple Leasing Inc., Middletown, Ohio.

Mr. Chapple accompanies his car whenever he leases or charters it. Nearly all owners do; that's part of the fun. His usual charge for leasing is \$950 a day, which does not include Amtrak charges. Amtrak charges private-car owners on a sliding scale based on mileage, from \$2 a mile down to 75¢ a mile. Amtrak's charges are also steep for its other services including switching and hooking up the private car to the end of one of its scheduled passenger trains. Mr. Thorpe's typical \$2,500-a-day charge includes all Amtrak costs.

Mr. Hankins, the attorney, has the most ambitious plans. He took his three cars to Knoxville's World's Fair and joined them into the "Pullman Palace Hotel"—for "VIP people who want to stay in early splendor." He intends to buy a few more cars and establish a "nationwide rental pool" of cars in Washington, New York, and other major metro areas.

Whether any money can be made on these grand old cars is debatable, however. "You just hope to make enough to pay the costs so you can have fun," says Gordon Crosthwait, a junior high teacher in San Luis Obispo, Calif., who charters and rents his sleeper-lounge-observation car "La Condesa" to private or business groups for travel up and down the West Coast. "Routine upkeep and maintenance alone run from \$5,000 to \$8,000 a year," he says.

Mr. Hankins estimates the cost of maintenance and repairs even higher—\$12,000 to \$14,000 a year, "but it comes in spurts." Such expenses, and what he believed were excessive Amtrak regulations, drove New York attorney George Pins to sell his three cars in 1979 after he had run charters across the U. S. for eight years. "The railroad is a great old way to travel," he says, "but as a business proposition, forget it."





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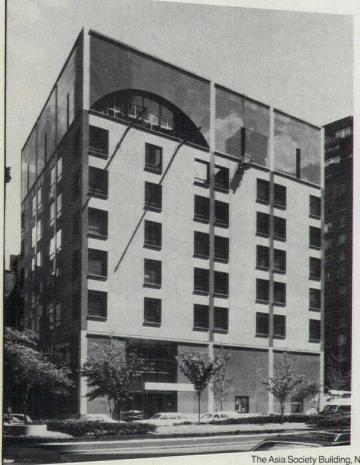
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