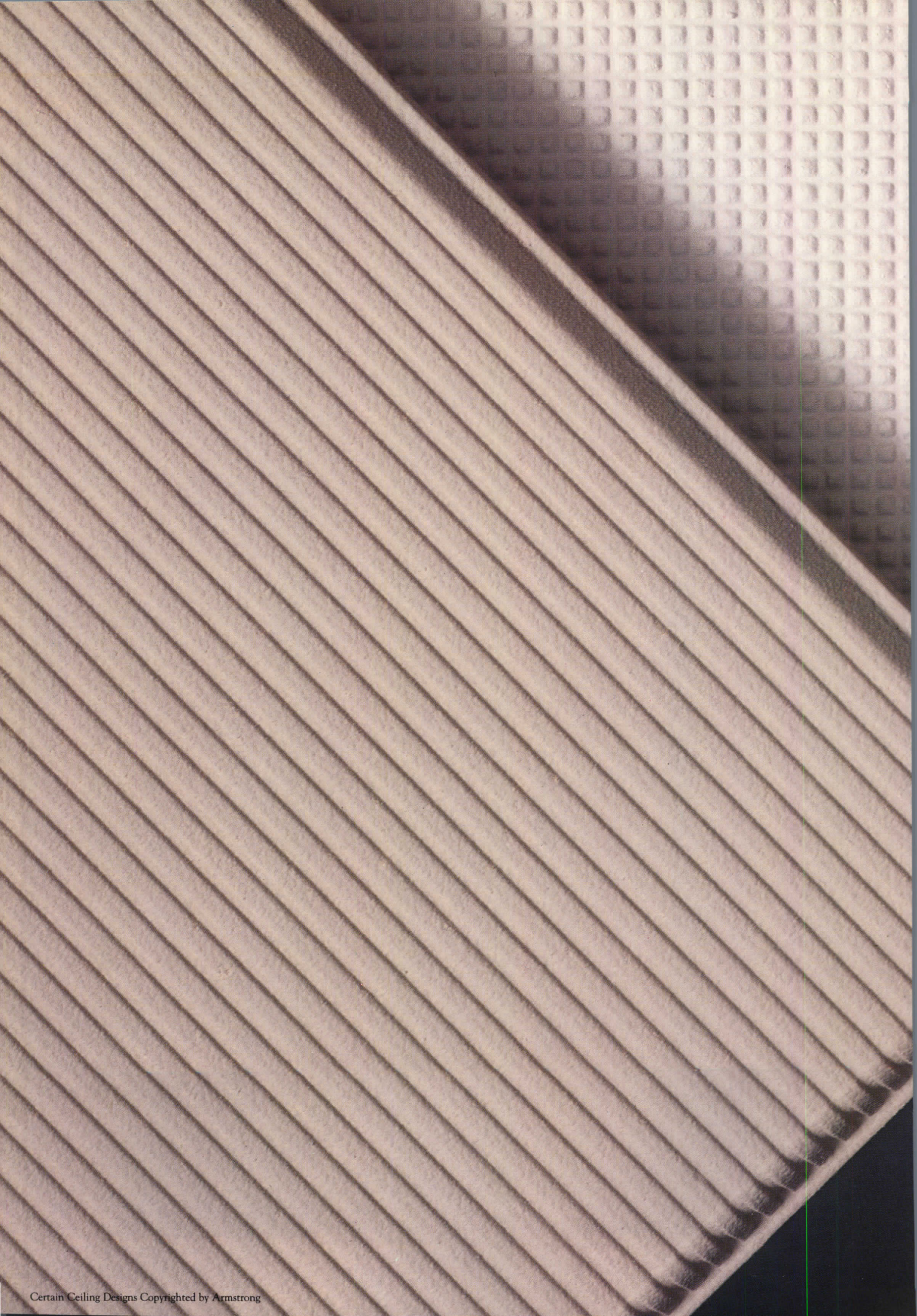



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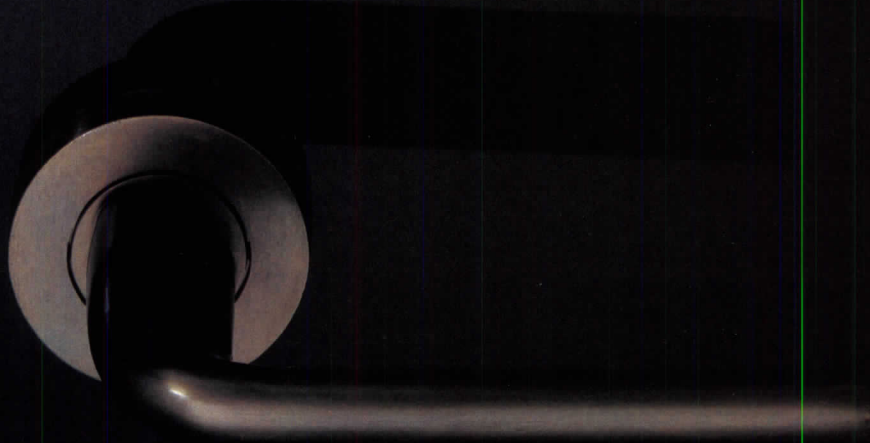
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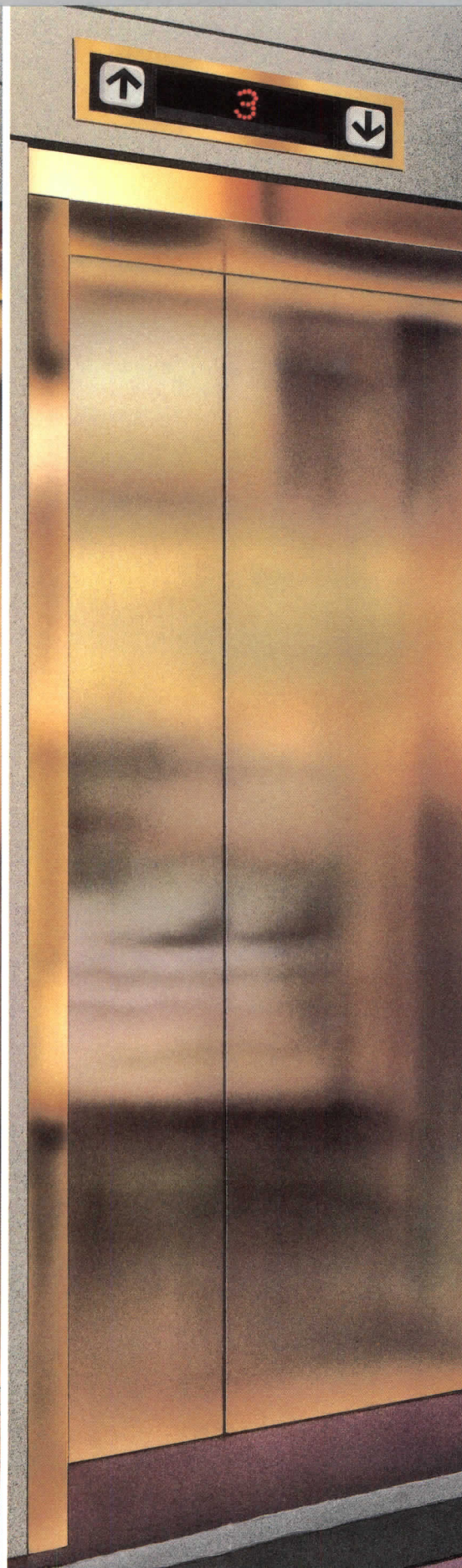
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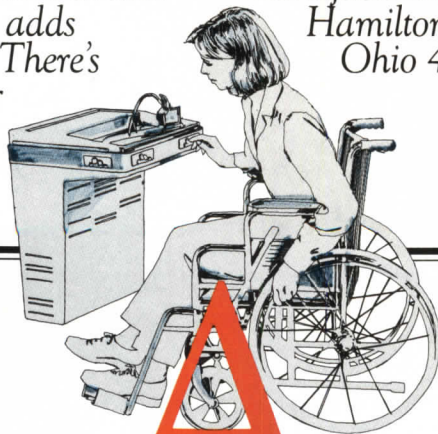
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EVENTS

Oct. 3-5: Waterford Homes Tour and Crafts Exhibit, Waterford, Va. Contact: Judith Patterson, Waterford Foundation, Inc., Waterford, Va. 22190.

Oct. 3-6: Canadian International Furniture Show, Montreal. Contact: Le Groupe de Gestion, D'Association et D'Exposition Inc., P.O. Box 1317, Place Bonaventure, Montreal, Canada H5A 1H1.

Oct. 3-8: Design Technical Conference, Columbus, Ohio. Contact: Andrea Messer, American Society of Mechanical Engineers, 345 East 47th St., New York, N.Y. 10017.

Oct. 5-7: AIA Historic Resources Conference in conjunction with Association of Preservation Technology, Austin, Tex. Contact: Bruce Kriviskey at Institute headquarters, (202) 626-7452.

Oct. 8-10: Society of Piping Engineers and Designers Convention, Houston. Contact: Mr. Nandagopal, SPED, Suite, N-713, One Main St., Houston, Tex. 77002.

Oct. 9-10: Course on Principles of Low-Energy Building Design, Cape Canaveral, Fla. Contact: Ken Sheinkopf, Florida Solar Energy Center, 300 State Road 401, Cape Canaveral, Fla. 32920.

Oct. 9-11: International Conference entitled Designs on Montreal—Plans for the Future, Montreal. Contact: James Forest, 4530 rue Clark, Suite 400, Montreal, Quebec, Canada H2T 2T4.

Oct. 10-11: Symposium on Alvar Aalto and Beyond, Los Angeles. Contact: Janey Bennett, Craft and Folk Arts Museum, 5814 Wilshire Blvd., Los Angeles, Calif. 90036.

Oct. 12-15: Interfaith Forum on Religion, Art and Architecture National Conference, Berkeley, Calif. Contact: Frank Mighetto, IFRAA, 901 Grayson St., Berkeley, Calif. 94710.

Oct. 15-17: AIA Practice Committee Conference on Key Practice Issues, Memphis. Contact: Charles Zucker at Institute headquarters, (202) 626-7532.

Oct. 16-17: AIA Building Performance and Regulations Conference entitled Architecture 2000, Los Angeles. Contact: Tick Vicars at Institute headquarters, (202) 626-7456.

Oct. 16-18: AIA Urban Design and Planning Conference on Small Community Design Issues, Starkville, Miss. Contact: Bruce Kriviskey at Institute headquarters, (202) 626-7452.

Oct. 19-22: Industrial Fabrics Association International Annual Convention, Boston. Contact: Gretchen Artig-Swomley, IFAI, 345 Cedar Bldg., St. Paul, Minn. 55101.

Oct. 20-22: Conference entitled The Statue of Liberty—Today for Tomorrow, New York City. Contact: Dale Miller, National Association of Corrosion Engineers, P.O. Box 218340, Houston, Tex. 77218.

Oct. 20-24: Course on Design of Multi-Story Concrete Buildings for Wind & Earthquake Forces, Milwaukee. Contact: James Sleeper, Center for Continuing

Engineering Education, 929 N. 6th St., Milwaukee, Wis. 53203.

Oct. 20-31: International Colloquium and Exhibition, Paris, France. Contact: Nils Carlson, International Union of Architects, 51 rue Raynouard, 75016 Paris, France.

Oct. 22-29: International Trade Fair, Cleveland. Contact: Sandy Hensel, ITF, 6200 Riverside Drive, Cleveland, Ohio 44135.

Oct. 26-29: International Facility Management Association Annual Conference, Chicago. Contact: Rita Mincavage, IFMA, Summit Tower, Suite 1410, 11 Greenway Plaza, Houston, Tex. 77046.

Oct. 27-28: Annual Pacific Northwest Computer Graphics Conference, Eugene, Ore. Contact: Paul Katz, University of Oregon Continuation Center, 1553 Moss St., Eugene, Ore. 97402.

Oct. 27-29: AIA Interiors Conference in conjunction with the International Facilities Management Association Convention, Chicago. Contact: Ravi Waldon at Institute headquarters, (202) 626-7429.

Oct. 29-30: Seminar on Automated Building Controls, Detroit, Mich. Contact: Ralph Wachter, Johnson Controls, Inc., 5740 General Washington Dr., Alexandria, Va. 22312.

Oct. 29-31: CONEXION 86—The Design Process: An International Perspective, Atlanta. Contact: Suzanne Pruitt, 240 Peachtree St. N.W., Suite 2200, Atlanta, Ga. 30043.

LETTERS

Of Portland and Urbanism: You deserve commendation for continuing the intermittent series on how communities—usually downtowns—have changed in particular locations. This emphasis on the city as a changeable organism is a necessary counterbalance to the more frequent treatment of buildings as self-contained entities, a canard perpetuated by most of the design and planning press.

Such a canard, unfortunately, exhibits itself in the work even of prestigious practitioners, a case in point being the proposed 52-story high rise by John Burgee with Philip Johnson, which would dominate the skyline of the nation's capital in an extremely aggressive manner. Such egregious displays of client-designer ego are to be not only deplored but actively opposed.

I was particularly taken with your critique of Portland in July, in which the egos of local and most "visiting" designers have been subsumed to the creation of an eminently charming and welcoming city. Even Michael Graves' weird backward placement of his building, with its parking/loading vomitoria blatantly facing the park and the much-superior Justice Center, seems in tentative adjustment. Since things in Portland seem to have produced such excellence by usually doing them the "Portland way," I am much distressed at the mention of negotiations with The Rouse Corporation to come in and do

one of its standard numbers in downtown. Let us hope that more appropriate means can be found for this project. *Jim Burgee*
San Francisco

Current Directions in Architecture: Thank you for publishing Edward Larrabee Barnes' beautiful house in Dallas [May, page 176]. It is a refreshing return to the forward march of good sense, simplicity and elegance.

The proliferation of neoclassical, Romanesque, and Florentine monstrosities that have flooded the magazines since Philip Johnson's tongue-in-cheek AT&T building had made me wonder if we were on our way back to mud huts. At least they would have been more functional and beautiful, even if not state of the art.

Adding the icing of Peter Forbes' "Temples," equally simple and elegant in miniature, helped to make this the best issue of ARCHITECTURE since Mr. Johnson broke his pediment. *Edmond Pachner*
Albany, N.Y.

Kensington, Md.

Additional Credit for Vassar Building: Your article on the Seely Mudd Chemistry Building at Vassar College [May, page 134] omitted reference to my firm, Fred S. Dubin Associates, P.C., the mechanical, electrical, and energy management design engineers. I was the architect and engineer through the design development stage of the project and was responsible for the open landscape laboratories plaza as well as the active and passive solar energy systems.

The statement that all hoods require exhaust when only one hood is in operation is not entirely correct. The system was designed so that there is a minimum exhaust at all times from all hoods with central hood exhaust fans in order to maintain a negative pressure in the laboratories and in the hoods. When the hoods are in operation, individual hood exhaust fans are energized and supplement the main building laboratory exhaust fans. As a safety measure, it is not our practice to install dampers in hood exhaust ductwork.

Fred S. Dubin, P.C.
West Hartford, Conn.

Extended Credits: The four houses in Granby, Conn., shown on pages 34-36 of our June "Discovery" issue were a joint project of Design Builders Group (M.J. Wosczyzna, president) of North Granby and Goshow Associates of New York City.

Conversion of the Navarre Building in Denver into the Museum of Western Art shown as an AIA component award winner on page 94 of the May issue, was a joint effort. The firm of Gould Evans Architects was responsible for exterior renovation and interior reconfiguration of the former hotel. As noted, C.W. Fentress & Associates and John M. Prosser, AIA, received a Denver Chapter AIA award for their part in the project.

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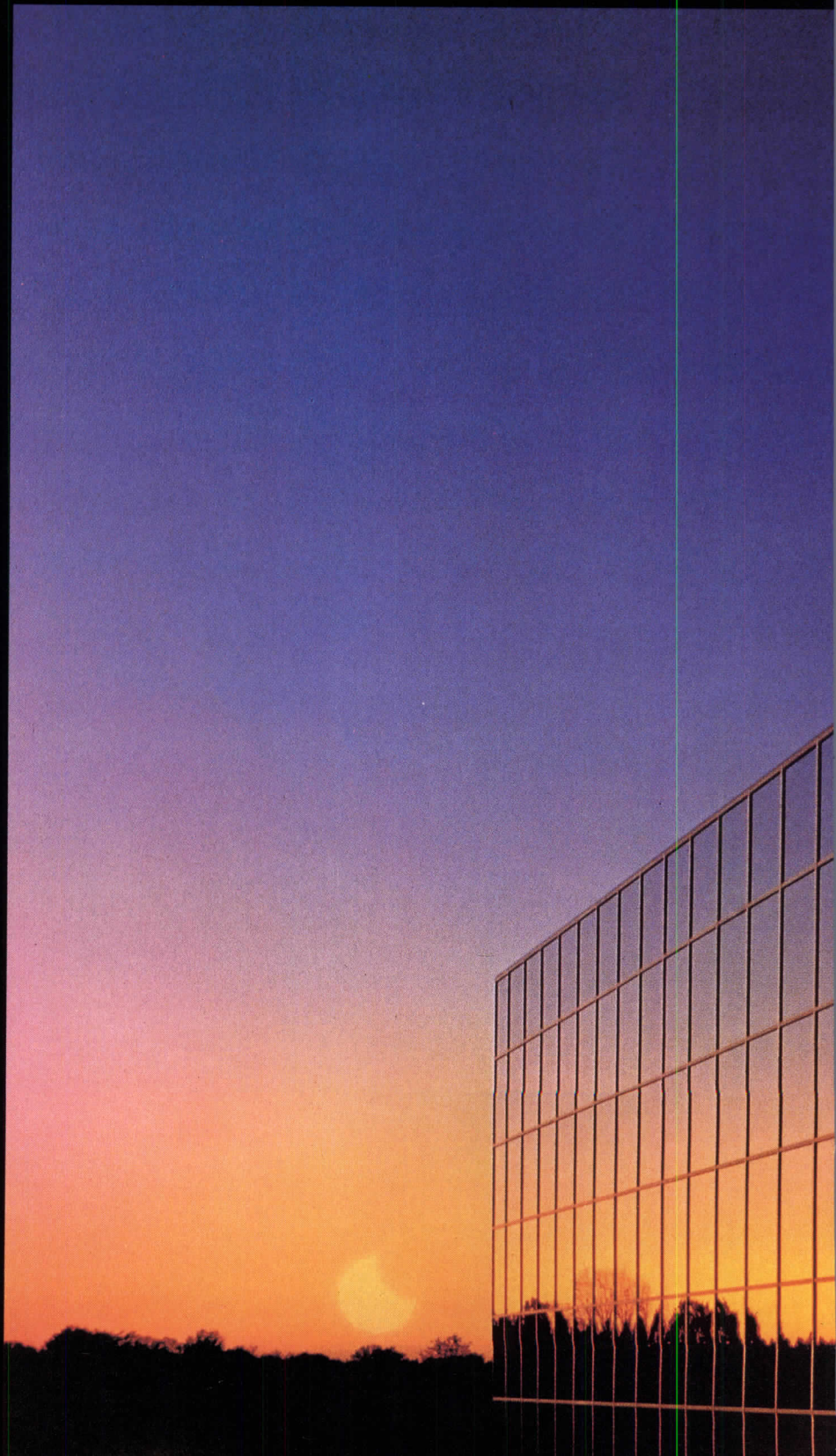
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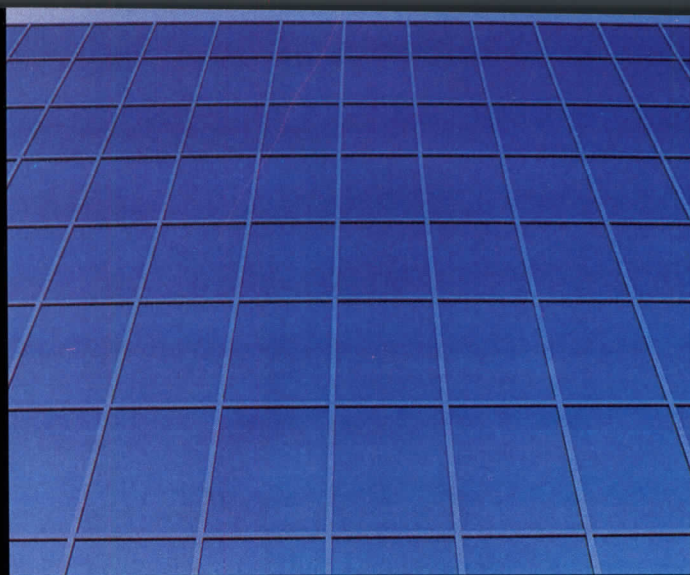
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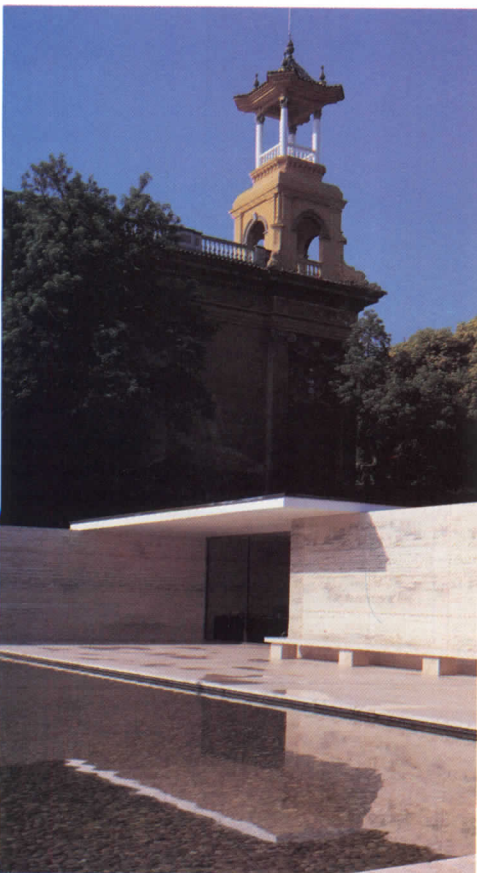


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World Architecture

Barcelona Pavilion Meticulously Recreated to Honor Mies' Centennial

At a time when most good and some bad buildings are photographed *ad nauseum*, it is difficult to understand how one of the most influential buildings of the 20th century managed to go almost unrecorded. Perhaps it is for this reason that the memory of Mies van der Rohe's Barcelona pavilion took on, over the five decades that followed its destruction, quasi-mythical proportions. In early June, a 1986 version of the pavilion was officially inaugurated, and guests were able to step into a building they had spent years trying to imagine in three dimensions, based on rather abstract plans and a few old photographs.

The spirit of the pavilion has been haunting Barcelona for years. The first efforts to try and bring it back to life, so to speak, can be dated as far back as 1954, 25 years after the 1929 International

Fair, when Oriol Bohigas, secretary of the *Grupo R* (a group of architects responsible for fostering activities and exchange with the outside world, much needed under Franco's dictatorship), first contacted Mies on the matter. Mies was to express "surprise and delight" in a letter to Bohigas dated Jan. 30, 1957. Unfortunately, the project fell through due to the total lack of support on the part of the municipal authorities. The idea, however, never left the minds of a few Barcelona architects who kept attempting to push it through.

In 1964, plans and a schematic model were prepared by one of the city's technical departments and submitted to the then-mayor of Barcelona, again to no avail.

Recreated pavilion on the original site. Opposite page, golden onyx block serves as the centerpiece of the building.

1974, Fernando Ramos, currently the director of Barcelona's most prestigious school of architecture, organized a seminar at the school, looking into both the meaning of the lost monument and the idea of rebuilding the pavilion. Four years later, Ludwig Glaeser, at the time curator of the Mies van der Rohe archive at the Museum of Modern Art, started preparing an exhibition celebrating the 50th anniversary of the pavilion. To that effect, he met several times with Barcelona-based architect and historian Ignasi Solá Morales. The outcome of these exchanges was

to prove crucial to the reconstruction project since the MoMA is depository of some of the few remaining archival documents linked to the pavilion. Finally, in 1981, as soon as Oriol Bohigas was named head of Barcelona's planning department, he gave the project its long-awaited go-ahead. Ramos, Solá Morales, and Cristian Cirici, an architect known for his finely detailed work, were chosen to rebuild the pavilion. The replica was to be as faithful as possible to the original and sited on exactly the same location as had originally been carefully chosen by Mies. The general location is that of the Montjuich, a small mountain that features prominently on Barcelona's skyline and has recently been selected to hold the main components of the 1992 Olympic Games, which Barcelona's dynamic young socialist mayor, Pasqual Maragall, hopes to bring to his city.

de Industria, which was built between the site of the pavilion and the fountain, still stands. Should the architects have their way, the *INI* will be demolished and a colonnade of Ionic columns as well as the gardens, which can be seen in 1929 photographs, will be redone to recreate the site conditions that existed at the time of the 1929 Barcelona International Fair.

One of the main difficulties the architects encountered in tackling their work was the lack of information. As Mies had pointed out in his 1957 letter, "the original construction drawings of the pavilion were lost or misplaced in Germany." Excavations uncovered the original foundations, allowing the architects to know the exact dimensions of the building. The width of the central part was 18.48 meters and the maximum length 56.63 meters. The basic module of 1.09x1.09 meters was arrived at from these site measurements.

In 1929 Mies had placed the building on a lateral axis with the monumental waterworks fountain, which was itself situated along the main entrance to the 1929 International Fair leading to the *Palacio Nacional* and the grounds of the exhibition. The wisdom of this decision can hardly be appreciated today since a disgraceful building, the *Instituto Nacional*

Among the fundamental problems that had to be looked into in terms of rebuilding the pavilion was the choice of a permanent structure rather than a temporary one, as had been the case with the 1929 fair. This meant a certain number of alterations, mainly to the roof structure, but the changes were brought about in as faithful

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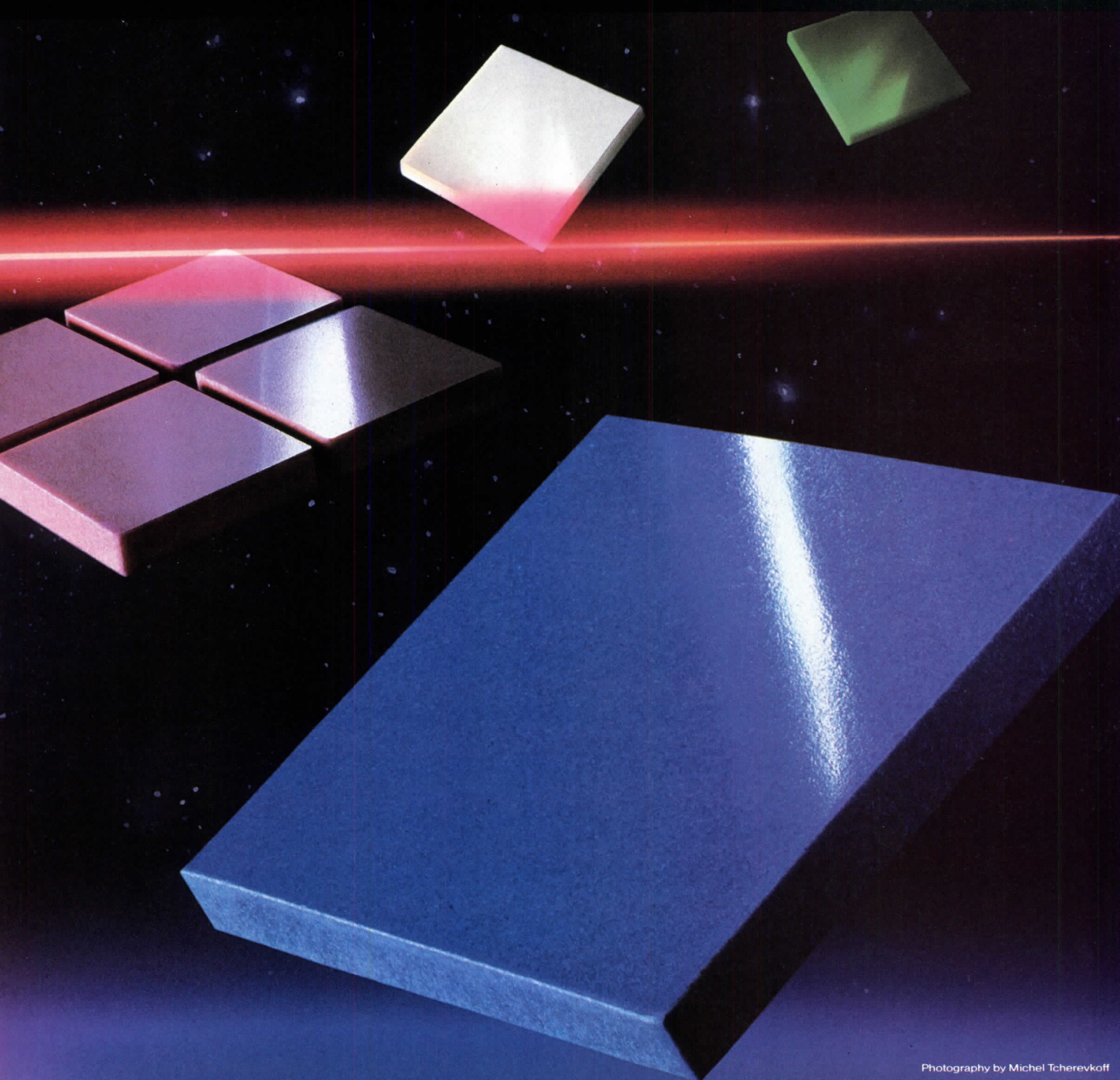


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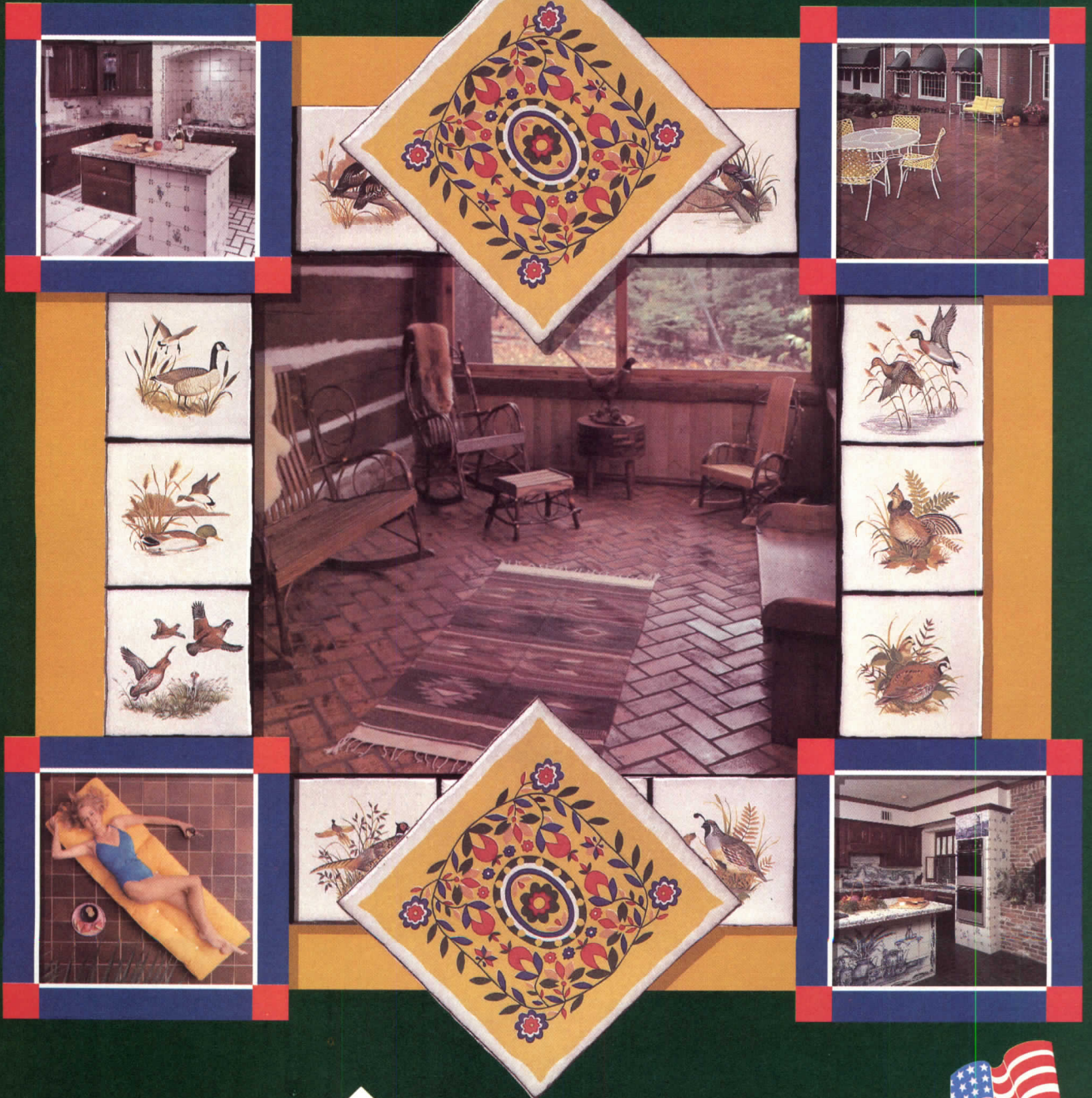
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Sculptures and Pavilion Added to Corbu's Chandigarh Complex

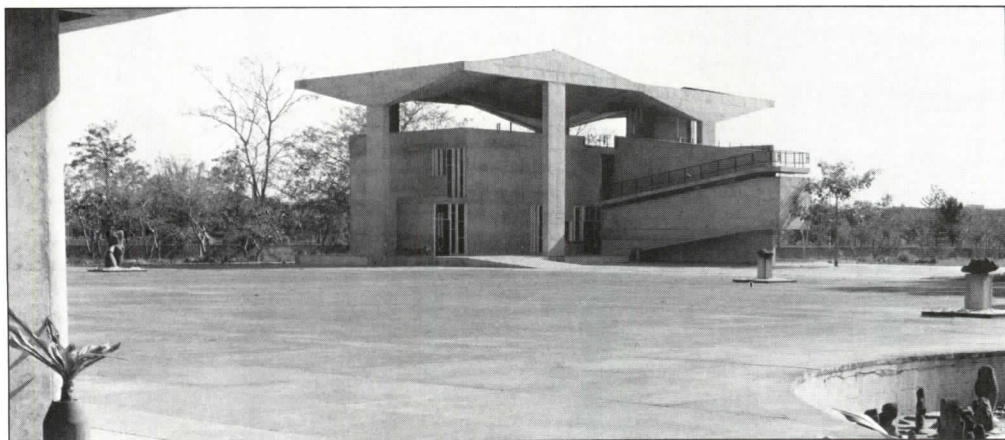
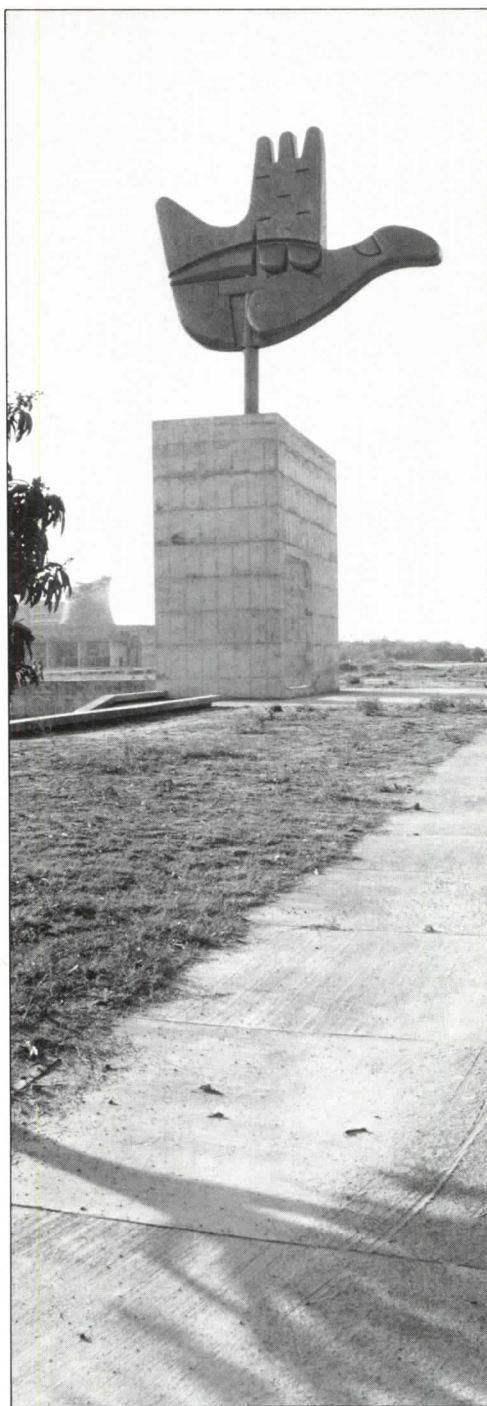
anks to the work of the Chandigarh Architects Establishment, the sculptural monuments that Le Corbusier planned for the Chandigarh capitol complex are now coming into being one by one, and a new building has just been completed following painstaking research into a design for which Le Corbusier left only small-scale plans and a section.

The monument Le Corbusier was most anxious to see built at Chandigarh was the "Open Hand," a device that appeared in his Chandigarh sketchbooks as early as January 1953. In the vigorous campaign conducted during the rest of his life to see it built he wrote several times to Jawahar Nehru, explaining the importance attached to its symbolism and insisting it should be cast in France, under his personal control.

Even the month before he died, in his last tirade, he wrote: "This Open Hand, a symbol of peace and reconciliation, must be erected at Chandigarh." It was finished last year, exactly 20 years later, complete with a sunken area Le Corbusier intended for the discussion of public affairs. Now well advanced is another monument, the "Tower of Shadows," designed as a "lofty, shady, open-sided structure, its dark atmosphere conducive to meditation, its orientation due north-south continuously breaking with the symmetry of the vast esplanade," with a ramp leading from it down to a sunken garden. The "Geometric Hill" nearby now lacks only the "path of the sun" symbol Le Corbusier designed for it, while the completion of the "Martyr's Memorial" on the other side of the Esplanade is planned in the near future.

Building is in progress too behind the high court building. Extra accommodation was needed here even in Le Corbusier's lifetime, and the plans drawn up for an addition built under his direction include provision for future extensions. This design is being followed in the present works.

Aside from the monuments and high court extension, the main element left unexecuted in the capitol was the fourth major building planned there by Le Corbusier. Initially conceived as the governor's house, the design was revised when the governor took up residence elsewhere. The second project for the site was an electronic laboratory for scientific decision, also known as the Museum of Knowledge. It was to contain facilities for computers (which Le Corbusier called "bound books"), intended to aid policymakers in their work by providing them with the means to scientifically assess the



implication of their strategies, but funds

have not been found for its construction.

Astoundingly, however, a building planned by Le Corbusier for another part of Chandigarh has just been finished—a pavilion for temporary exhibitions (below), next to the museum and art gallery in the arts center. The detailed design of the new building was drawn up by the Architects Establishment following research into Le Corbusier's intentions for this pavilion, as conducted by the first Indian appointed chief architect at Chandigarh, the late M. N. Sharma. A double-parasol roofed pavilion appears in numerous projects by Le Corbusier, some of them individual buildings, others elements in larger museum complexes (as may be seen in the "Musé de XX^e siècle" section of *Oeuvre Complète*). None was ever built in his lifetime, but he did prepare two detailed pavilion projects for Heidi Weber, the second of which was built shortly after his death in Zurich as the *Centre Le Corbusier*.

The new building at Chandigarh is the second version of the pavilion project to be built posthumously and thus offers interesting comparisons with its distant Swiss cousin: The pavilion built at Zurich is mainly of steel, while the Chandigarh version is entirely of concrete. But the Chandigarh pavilion most closely resembles the first pavilion project Le Corbusier prepared for Heidi Weber—a proposal for a double-parasol welded steel roof over-sailing a two-story structure of concrete.

The completion of the Chandigarh pavilion in 1986 is remarkable, doubly so considering the present political problems in the Punjab. For the record, although Chandigarh was built as the new capital of the Punjab, it is now shared by the Sikh Punjab State and the Hindu State of Haryana, whose parliaments both sit in Le Corbusier's assembly building (the chamber originally intended for the upper house is now used by the Haryana State parliament). As might be supposed, security is extremely strict, especially in and around the capitol. Indeed, the difficulties involved in getting to Chandigarh at all at the moment bring home the nature of the Architects Establishment's achievement. —CHARLOTTE ELLIS

News continued on page 21



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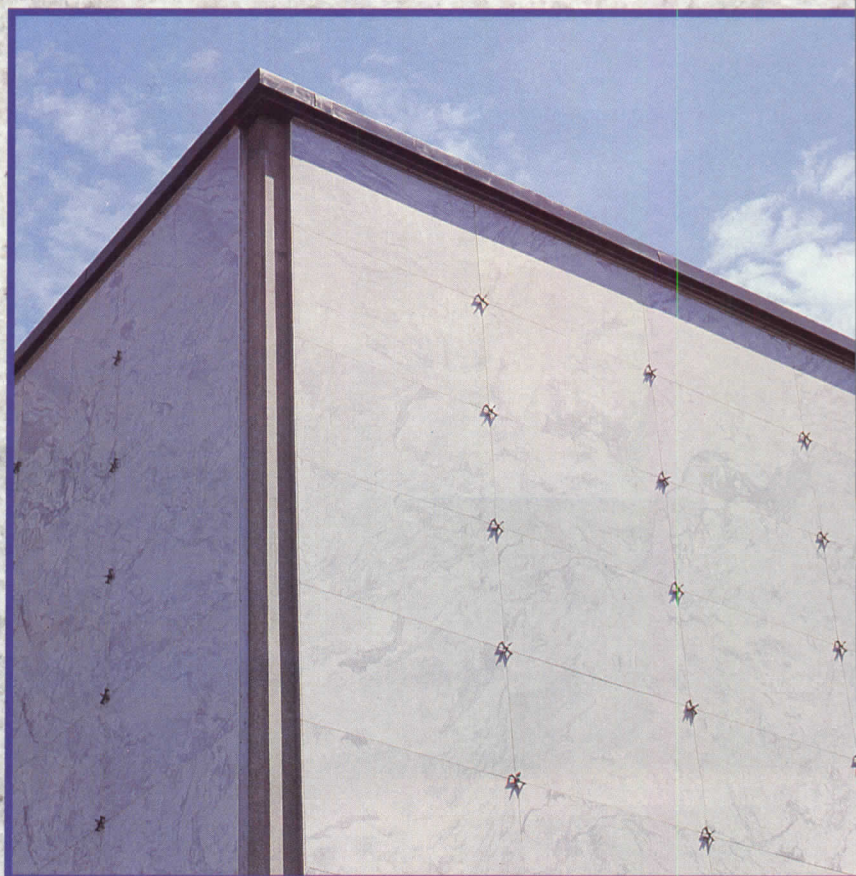
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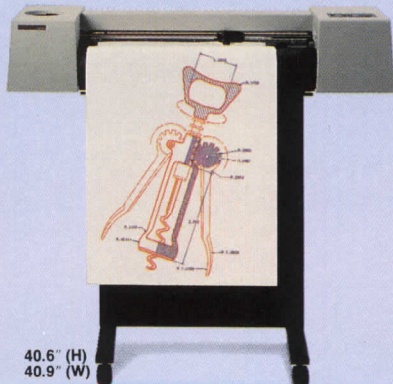
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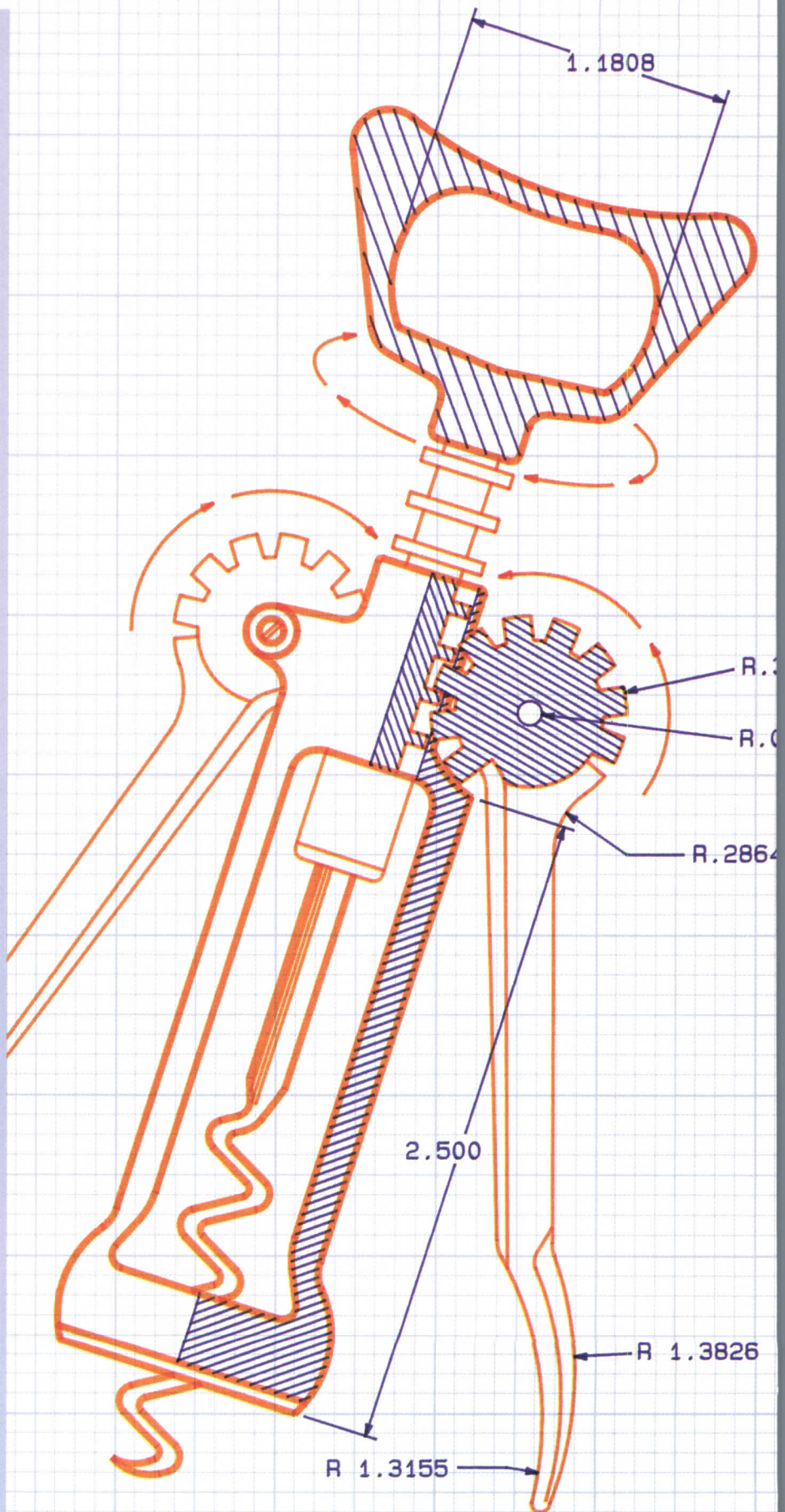


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In Vancouver, Transportation as The Theme of a World's Fair

When its gates close Oct. 13, Expo 86 in Vancouver will be remembered more for its dazzlingly high-tech exhibits and its vivacious, carnival atmosphere than for its architecture, which, with only a few exceptions, lacks the bravado of past world's fairs. In the long run, however, the most important legacy of Expo 86 may be its role in the transformation of the 165-acre False Creek site from gritty industrial lands and railroad yards into a stable, well planned, mixed use district in downtown Vancouver.

What turned out to be an ideal site for Expo was the 163-acre north and east shoreline of False Creek, a protected inlet to the Pacific Ocean just south of downtown Vancouver. In addition, the Cana-

dian government acquired as the site for its Expo pavilion a 60-year-old pier on Burrard Inlet, three-quarters of a mile away from False Creek. The two would ultimately be connected by the first leg of Skytrain, Vancouver's rapid transit.

In preparing a masterplan for the False Creek site, Vancouver architect Bruno Freschi envisioned what he calls a "referential" plan that would aid visual orientation and also reflect the city's street grid. The bulk of the Expo buildings would be temporary, but four permanent buildings would become anchor points:

Top, the B.C. Complex from False Creek. Above, Canada Pavilion with five 'sails' set on a pier in Burrard Inlet.

two new False Creek buildings—the Expo Center and the British Columbia Pavilion; the to-be-renovated Roundhouse, a 100-year-old railway house at False Creek; and the Canadian Pavilion on Burrard Inlet. The False Creek buildings would be placed at strategic points along the site and would be connected by a main circulation spine and a smaller walkway along the water's edge. These two paths would be linked by several plazas.

Freschi then developed a modular concept for the pavilions. Made of triangular steel trusses, steel pipe columns, triangular wood roof panels, and wood wall panels, two or more of these 50-square-foot modules could be joined to create interior spaces free of disruption.

These pavilions, of which 40 were built, are scattered along the circulation paths, as are independently designed pavilions. Freschi's intent that these modular frames simply be the foundation for more innovative, experimental architecture, however, never materialized. Instead, the pavilions



are basically boxes whose exterior walls are decorated to identify the occupant. (Saudi Arabia's pavilion, for example, has a nomadic flavor—sand-colored tents in the azure-sky desert.) A few attempt to hide the modules, such as the Swiss pavilion with its giant, bright yellow Swatch watch, the strap of which wraps around the pavilion. The real bravado, if any at all, comes in the interior design, as one country attempts to outdo another, either in exhibit design or in innovative and fantastic 3-D or multiscreen movies.

Hardly innovative, but nonetheless delightful, are some of the independently designed pavilions: the abstracted Egyptian temple Rameses II, housing ancient Egyptian artifacts; the Northwest Terri-

tories pavilion designed as an iceberg; the more conservative Ontario pavilion with its entrance ramp weaving through a horseshoe-shaped fabric structure. Freschi's plazas gained themes—air, marine, and land—and too much street furniture: land vehicles of all kinds, giant buoys, an air balloon, the nose of a 747 jet. Added to this is sculpture, the most popular being Highway 86, designed by SITE Projects of New York: an undulating, 700-foot-long road as a whimsical, yet eerie, collage of vehicles—trucks, cars, tractors, motorcycles, wheelchairs, bikes, sailboats, a submarine, airplanes, skateboards, even jogging shoes. By day it comes alive with people; at night it takes on an almost surreal quality.

Left, the whimsical progression of vehicles on SITE's Highway 86 seeming to vanish into thin air. Below, crowds at the monorail move through the B.C. Pavilion plaza.

There are space ship concession stands, theme restaurants (Olé Cantina housed in a stucco pueblo, for example), rides, colorful ticket booths, restroom and business facilities . . . and, on busy days, close to 120,000 visitors. Overall, a festive, lively place, but, as Vancouver architect W. Randle Iredale puts it, "The tradition of the world's fair as a display of architecture was not taken seriously here."

Of the permanent buildings, the Canadian Pavilion is the most striking with its nautically inspired tensile structure. Designed by the joint venture of Zeidler Roberts Partnership, Toronto, and Musson Cattell & Partners and Downs/Archambault, Vancouver, a three-story concrete building on the seaward end of the pier is topped by five "sails." The sails are actually five pieces of Teflon-coated glass fiber, each stretched between two masts spaced 80 feet apart. After Expo, this section will become Vancouver's convention center. At the pier's other end is a 26-story glass and concrete building, housing the Pan Pacific Hotel and the city's World Trade Center.

The other permanent structures lack the buoyancy of the Canada Pavilion. The geodesic dome, designed by Freschi, was envisioned as a "pure communication" building, a 120-foot-diameter dome, the exterior and interior of which would have become a giant computer or television screen. Instead, it has a faceted stainless steel surface with white steel supporting beams. After Expo, it will become an art, sciences, and technology center.

The B.C. Pavilion, designed by Waisman Dewar Grout, Vancouver, is a rectangular glass building with a two-story atrium. Set parallel and perpendicular to it across a plaza are aluminum-fronted, twin structures. The plaza is covered by a glass-topped space frame; at its center is a moderate-sized theater. Overall, this space set in the heart of the fair acts as Expo's great outdoor gathering place.

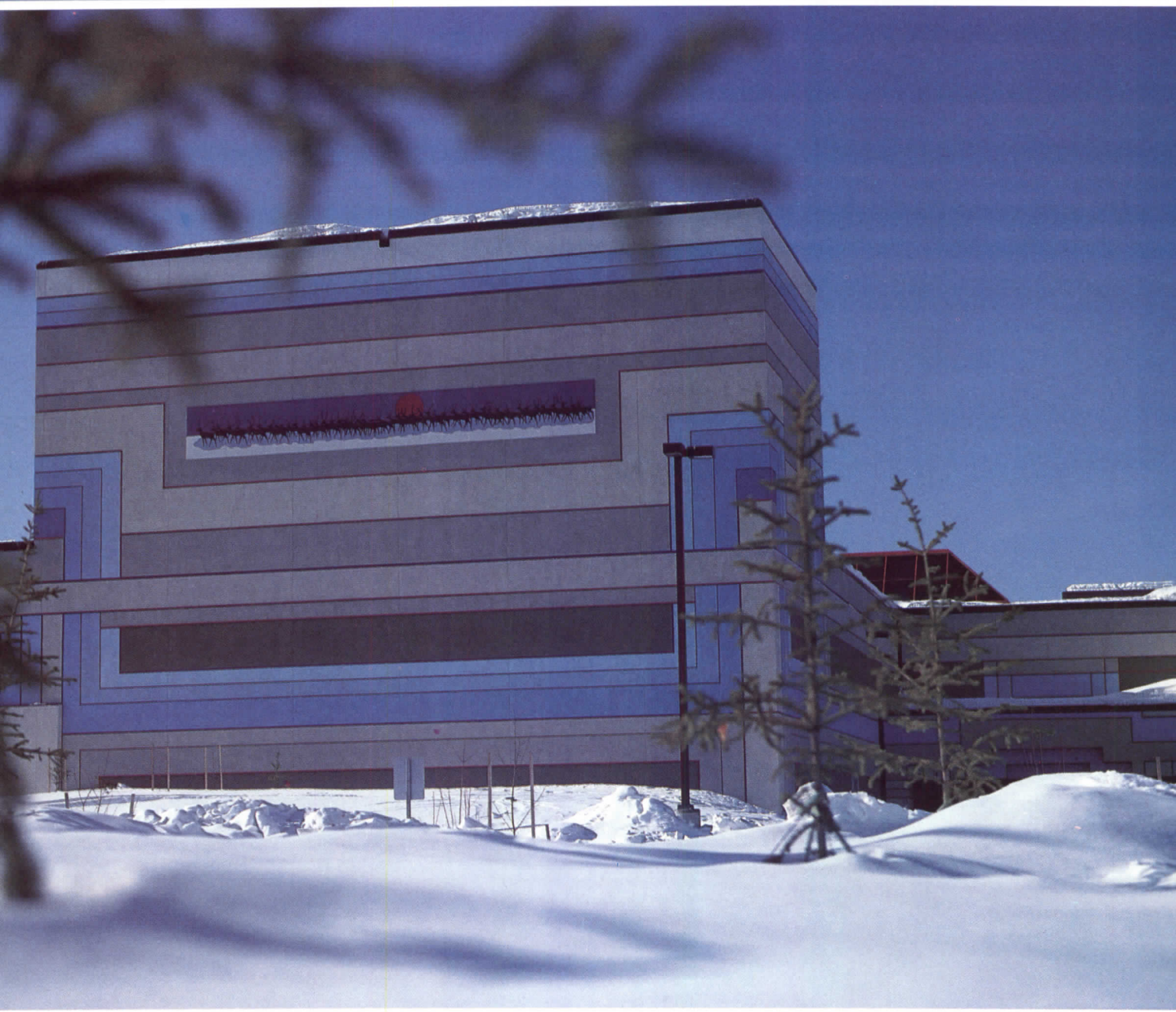
As for the Roundhouse, the interior was handsomely renovated but the exterior was awkwardly handled and is obscured by other fair structures. All three buildings, though, should provide an anchor for the future development of the False Creek site, which is already being planned by the semi-governmental organization B.C. Place.

That organization will develop the site over a 20-year span as residential, commercial, and park land in partnership with private developers. B.C. Place, headed by architect Stanley Kwok, will oversee density, use, and design. The waterfront will be saved as a continuous public park.

—NORA RICHTER GREEN

News continued on page 2

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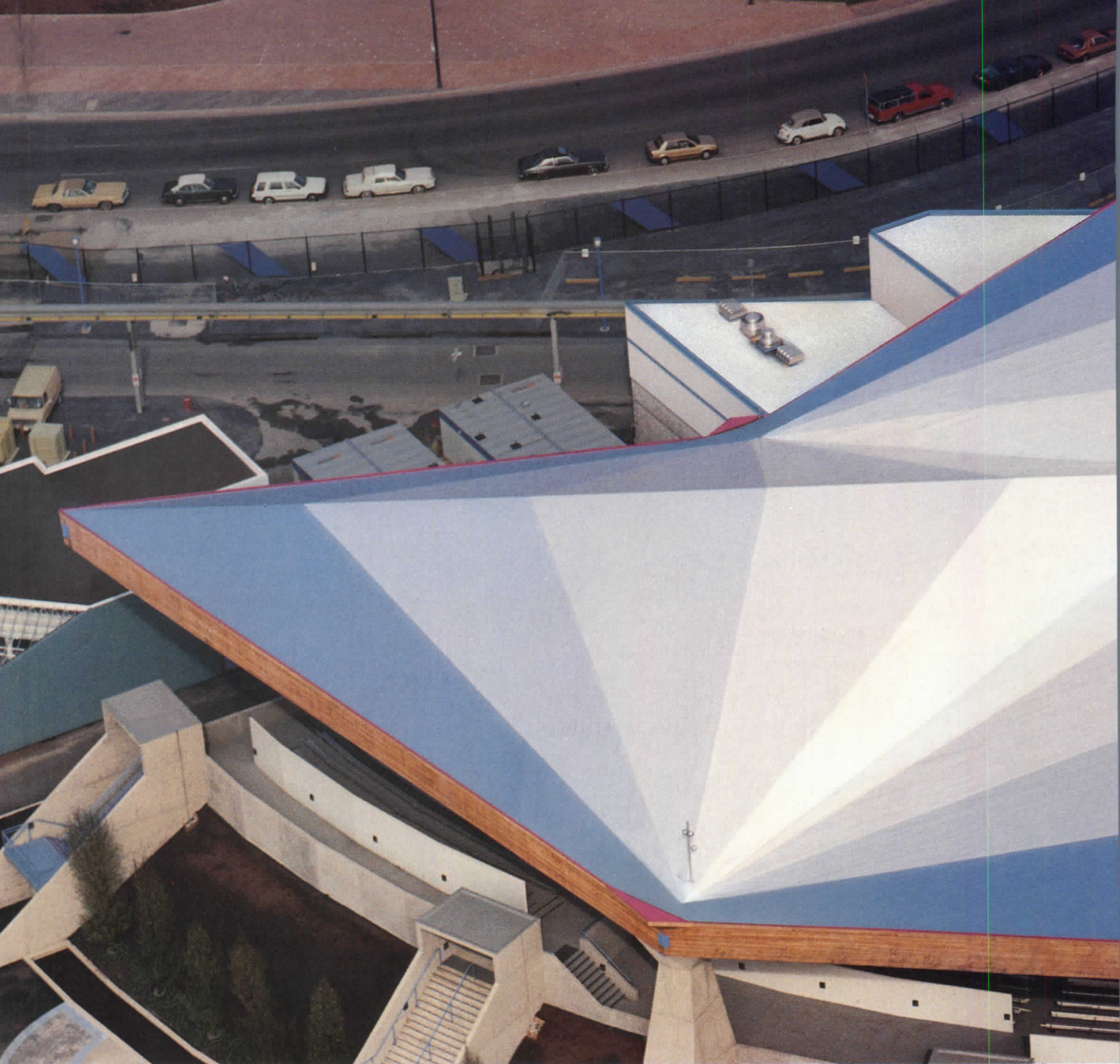


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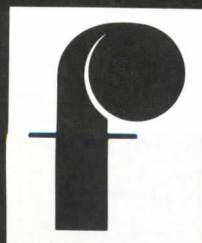
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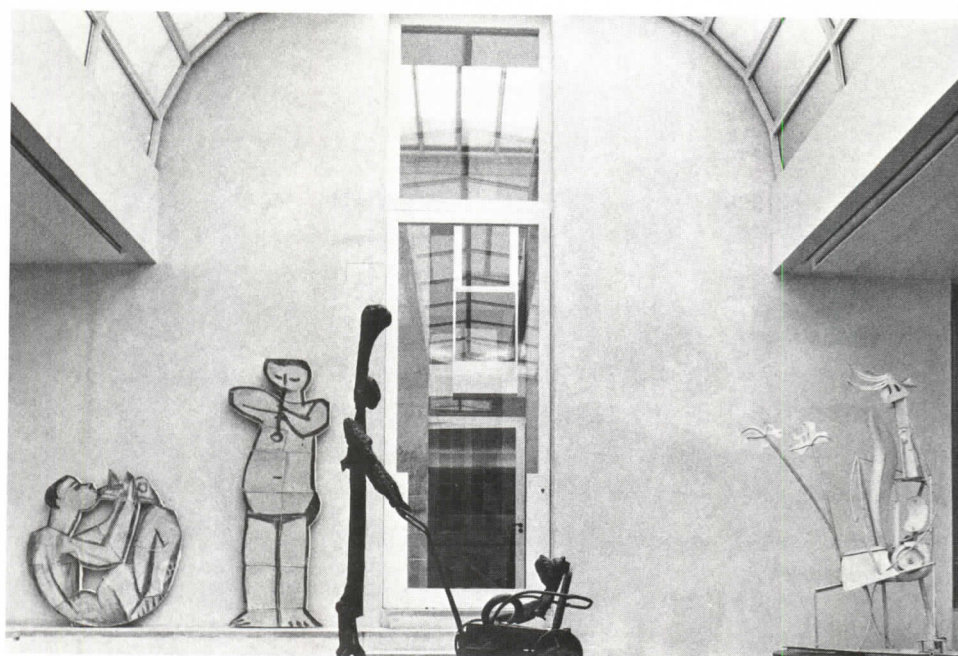
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Museums Proliferate in Paris Under Mitterand's Scheme

As a career, being the architect for a major Parisian project is about as secure as being a gladiator in ancient Rome, so inextricably linked is architecture with politics in France. None of the seven Parisian *Grands Projets* announced by President Mitterand when he first came to power has progressed entirely as planned, and, at the time of writing, the future of several of the projects is uncertain, especially those least advanced on site. For the time being, however, museums remain a major Parisian growth industry; some are dubbed *Grands Projets*, others not—such as the new Picasso museum (above) that opened some months before the national elections in March.

The many items selected by the state, in lieu of death duties, from Picasso's personal collection of his own and other artists' work, are housed in a magnificent 17th century town house in the Marais, converted according to designs by Roland Simounet. Much altered for institutional uses during the 19th century and subsequently neglected woefully, the facades and superb surviving staircase compartment of the Hôtel Salé have been restored by the Monuments Historiques department; but Simounet's conversion of the rest of the building is far from historicist.

Simounet has been at pains to exploit the full potential offered by the original building to create room-sized galleries to contain a chronological sequence of work (in line with current French theories on the display of pre-1960s 20th century art) while at the same time designing interiors in an idiom intended to contribute positively to Picasso's oeuvre.

Delays and difficulties surrounding the project meant Simounet missed the opening (he was in hospital, recovering from overwork). But compared with the Presidential *Grands Projets*, progress on the

Picasso museum was fairly smooth by Parisian standards.

Meanwhile, Pei's Grand Louvre project is still going ahead, complete with pyramid. According to a poll recently published in the national press, 56 percent French people are in favor of the pyramid, 28 percent against—while a staggering 78 percent think the Grand Louvre as a whole should be completed, partly because the building works are creating employment but also because the finished result will enhance national prestige.

—CHARLOTTE ELI

Israeli Competition Winners

Ram Karmi and Ada Karmi-Melamede a brother and sister team of architects from Tel Aviv, Israel, are first place winners in an international design competition for the Israeli Supreme Court building to be located in Jerusalem on a hill overlooking the Knesset.

The winning team was chosen from among 174 entries in the two-stage competition, which was funded by the Rothschild Foundation and emphasized the selection of an architect and not a specific design scheme. Ten teams were invited to submit proposals that include scale models and drawings. The first-place scheme will serve as a basis for developing a final design for the \$15-20 million court complex.

Ram Karmi is the former chief architect of the Israeli housing ministry, and Ada Karmi-Melamede is a practicing architect in Israel and has taught at Columbia and Yale. The three other finalists were James Ingo Freed, FAIA, of I.M. Pei & Partners; Amir Kolder, Opher Kolker, and Randy Epstein; and Davide Shalev.

The jury was comprised of Bill N. Lacy, FAIA, (chairman); Daniel Havekin; David Reznik; Cesar Pelli, FAIA; Charles W. Moore, FAIA; Sir Isaiah Berlin; Jacob Rothschild; Colin Amery; and Meir Shamgar. *News continued on page 3*

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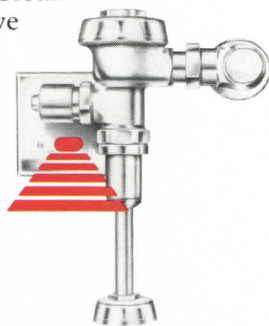
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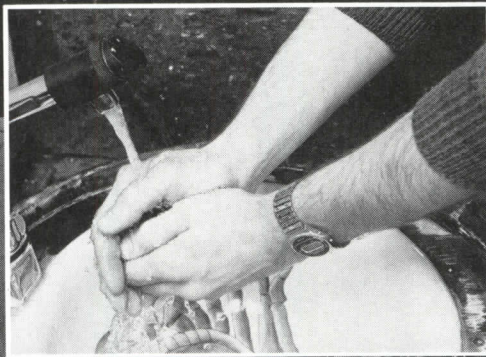
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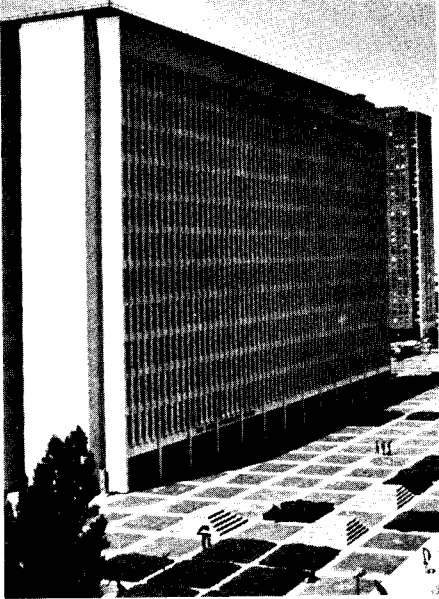


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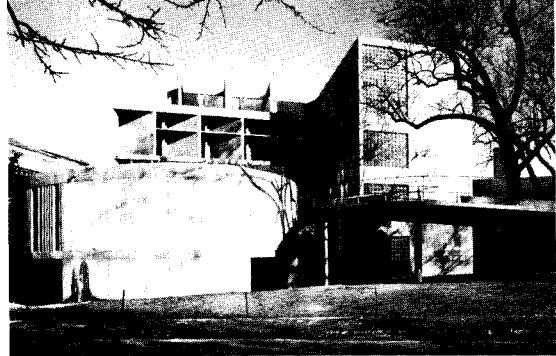
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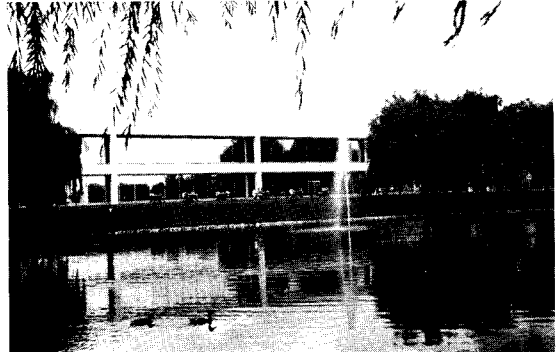
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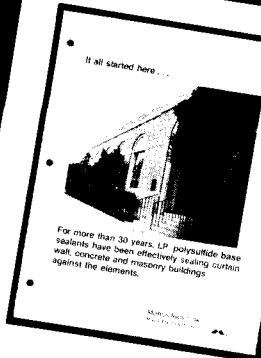
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Silent Sentinels' from India



ucked away in the courtyard of the Capital Children's Museum in Washington, D.C., is a world fashioned of broken plates and bottles, old rags and beads, all of it welded together by energetic imagination. It is the creation of Nek Chand Saini, a retired road builder who lives in India and has been constructing sculpture from junk for nearly 30 years.

In 1958 Chand quietly began work on a sculpture garden in Chandigarh as a hobby, building it out of bits of china, metal, rocks—anything he could find—and incorporating waterfalls, canals, and bridges. The rock garden now covers 12 acres, draws 2,000 visitors a day, and is considered an Indian treasure.

Ann Lewin, president of the children's museum, visited Chand's creation, met with the artist, and persuaded him to create a smaller version for export. Chand set to work and eventually sent 50 tons of sculpture, courtesy of the Indian government. Local Washington contractors donated time and materials to prepare the museum's courtyard for the sculpture. Chand then personally supervised the placement of the pieces, aided by local students.

Chand's creations, balancing bales on their heads with a backdrop of soda bottles, greet visitors to the museum from a loft above the courtyard's street entrance. Street guards of stone and procelain salute as one passes into the courtyard, where the population of Chand's world swells. Rag-clad dolls in native costume, some of them life-size, are protected by a sky-right roof that covers the entrance to the museum proper.

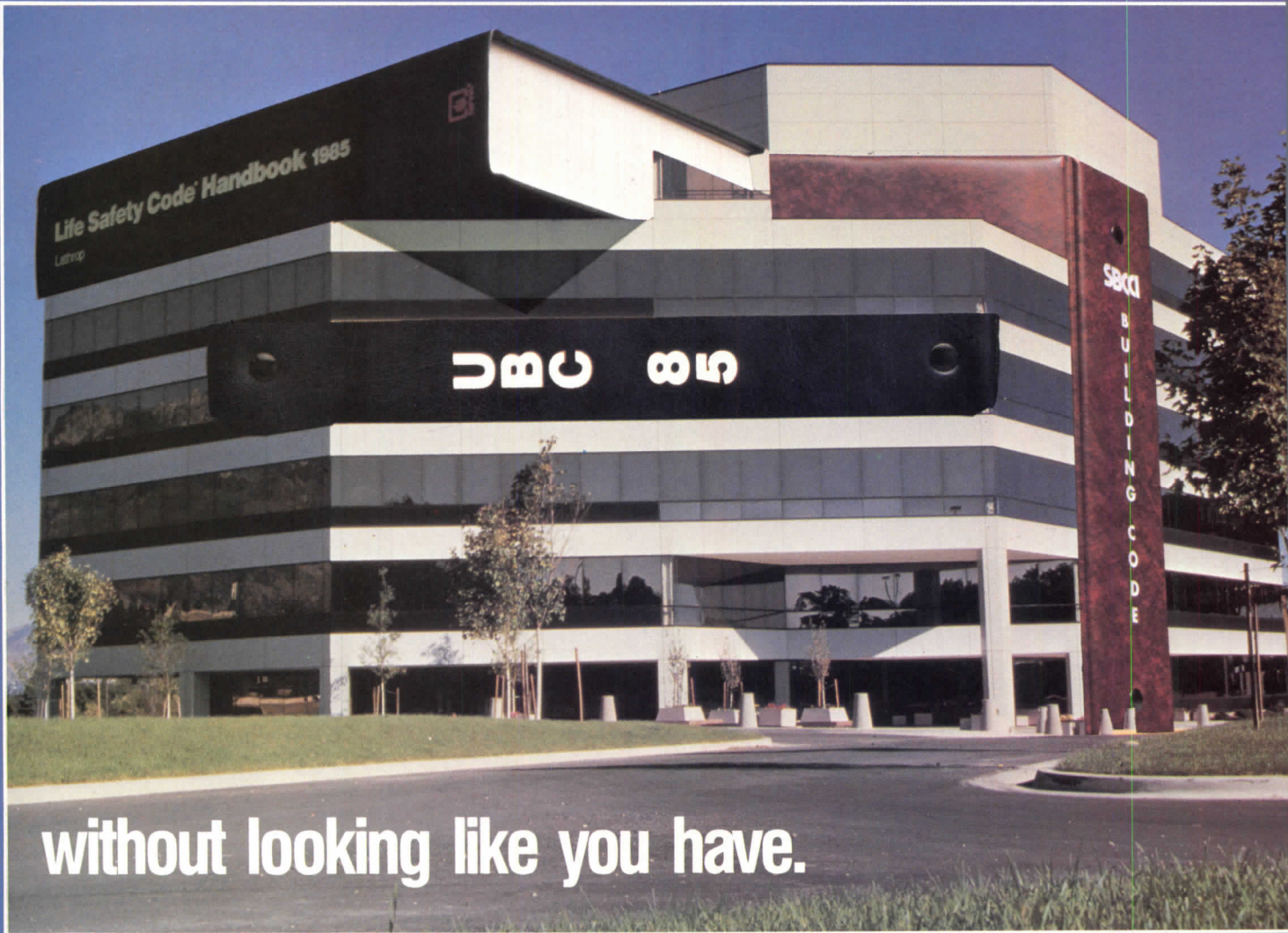
A museum employee reports that the sculpture is especially popular with young visitors—perhaps too popular, considering that they occasionally have to be coaxed away from running amid Chand's silent sentinels. —MICHAEL J. CROSBIE



Photographs by Michael J. Crosbie



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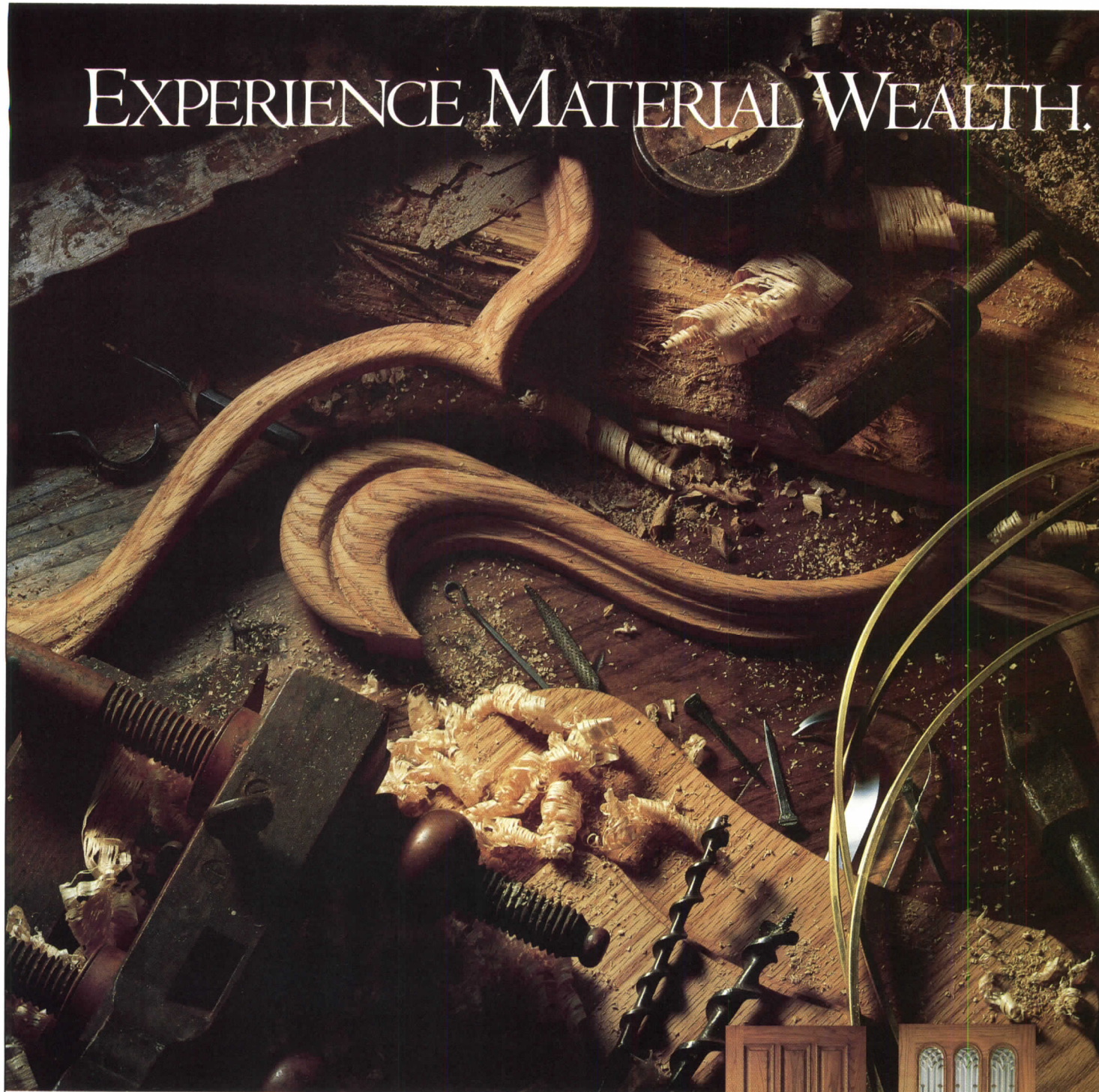
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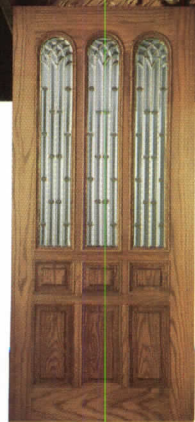
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ARCHITECTURE

This is our fifth annual presentation of new architecture beyond U.S. borders, one we rather grandly call the world issue, knowing full well that we can't pretend to cover all parts of the globe. For one thing, our correspondents are concentrated in Western Europe, Japan, and Australia; for another, countries tend to go through cycles of creativity.

But we have observed a number of developments common to many countries (including our own) that seem more widespread than five years ago. An obvious one is that "anything goes," as Philip Johnson keeps telling us. A result has been a continuing process of exploration and change, with all that change implies: friction, conflict, mistakes, complexity—design trends that have the vitality of a suspension bridge rather than the solidity of a pyramid. Which is all to the good, as bridges transport the living while pyramids shelter the dead.

For instance, the first few buildings shown in this issue demonstrate idiosyncrasy, contrast, and contradiction. The Hundertwasser haus in Vienna, by the Austrian painter of the same name, is a commingling of Chagall, Gaudí, and Erich Mendelsohn in Venturi duck feathers. This fantastical house makes the Austrian fire station that follows it—a modern building with postmodern touches by 37-year-old Ernst Hoffmann—look restrained, while the fire station in turn contrasts sharply with the vernacular Greek buildings that succeed it. Next comes a startling collision in spirit: Richard Rogers' space age Lloyds bank in London, a glass box garnished, as correspondent Reyner Banham says, with "spiral staircases, service cranes, and other functional gizmology." We invite you to explore these and the rest.

Perhaps you'll agree that respect for context—a very particular place, time, culture, and history—is a thread common to almost every building in this issue, as well as a merciful lack of polemic; a tendency to look at the past as a source for abiding values and ways of approaching design instead of a romantic treasure trove of styles for plunder; a concern with craftsmanship and the art of building; and a predilection for incident, accident, and other reminders of our humanity.—ANDREA OPPENHEIMER DEAN

(Ms. Dean has been editor in charge of the world issue since its inception. D.C.)

Austria

Public Housing as Realization of an Artist's Fantasy

On a Monday mid-morning in May, a group of tourists is listening to a well-rehearsed speech in French from a guide outside the Hundertwasser haus, and a nun is sitting quietly on a bench nearby. As soon as the information office opens, the nun goes in to inspect the model, drawings, and photographs on display, then writes in the visitors' book, "I like this housing block but find the crazy angle of some of the columns disturbing." Most of the entries recorded the previous day — by some 50 people from as far afield as Kuwait and New Zealand — are favorable. The exception is signed by someone from New York. It reads, "What bull-shit."

The Austrian-born painter, Friedenreich Hundertwasser, thinks it a miracle this 50-apartment public housing complex should have been built at all under his direction. But he is "happy that Vienna can set the world an example and that I, Hundertwasser, should have been given the chance to do this and turn a dream into a reality." Not that he wants the result to stay as it is, or be treated as though it were a historic monument, "for when people live in a public monument, there is a

feeling of restraint and they cannot relax. I want every inhabitant to feel free at any time to adapt the facade I have designed."

Hundertwasser has been campaigning since the 1950s against "chicken coop" housing designed by "men of bad conscience who work with straight-edged rulers." To him, the notion that "today's architecture is criminally sterile" and that "the straight line leads to the loss of humanity" have become inextricably linked with his ecological and social beliefs. No doubt expecting him to be content with mere decoration, the City of Vienna authority eventually honored a long-standing promise and invited Hundertwasser to put his theories into practice in a new housing development.

But Hundertwasser was by no means content just to embellish a pre-designed block. He was soon at loggerheads with the architect appointed to design the complex and insisted instead on working directly with staff of the city building department. He radically altered the form of the complex and closely supervised all stages of the building works, encouraging workmen to contribute decorative motifs of their own.

The elevations are decorated so tenants can recognize their flats from the street; each dwelling is a different color, outlined with a "ceramic ribbon" that is deliberately crooked (even though the

flats inside are not), the whole being embellished with brightly colored keystone, fragments of tile, trees growing in the most unexpected places, built-in plant troughs, and landscaped roof terraces. Hundertwasser thinks columns are an important feature in Western architecture, so he has put some on the facade facing Kegelgasse (Ninepin Street), designed to look like skittles (hence the crazy angle that disturbed the nun).

He thinks deep-rooted memories of cultural heritage are important too, so he has had rebuilt as part of the facade a fragment of one of the buildings that stood on the site, has provided some sculptures of a type available at garden centers like the Venetian lions adorning the terrace overlooking Löwengasse (Lion Street), and has recycled railings from various places to decorate communal spaces indoors and out, including a winter garden.

Yet even eight months after completion, only 16 of the 50 flats in the Hundertwasser haus were occupied. Although Hundertwasser hoped flats would be available to everyone, rich and poor alike, regulations governing public housing in Vienna mean the rash of applications for flats, after a two-day open house last September attended by 70,000 people, have been very carefully vetted. Household whose joint earnings exceed 400 thousand



Right, a version in paint and, above, the painter with a butterfly.





... Austrian shillings a year (25,500 U.S. dollars), or who have a place to live elsewhere are not eligible. Nor are the flats within the reach of those on low incomes, in addition to a monthly rent of 45 Austrian shillings per square meter, a security deposit is also required.

One of the first households to move in, a middle-aged couple with a teen-age daughter, has been living in a 76-square-meter flat with a 45-square-meter terrace for two months, and much prefer it to the suburban flat they formerly occupied. They describe the block as a "bunker." They are proud that theirs is the only flat in the complex to contain a mural by Hundertwasser himself. (It came to be known as a means of obliterating the word "arsehole" painted on one of the walls by a down-and-out before the flat was finished.) Despite declaring that many tramps have slept in this house and that anonymous artists have scrawled and scribbled on the walls: these traces of these unauthorized practices should be allowed to remain," Hundertwasser must



have been persuaded it was too much to expect a family to live with graffiti of this kind on a bedroom wall. Similarly, he seems to have overcome his dislike of even surfaces to some extent, for the floors inside each apartment are perfectly flat.

A young computer programmer was very enthusiastic about the Hundertwasser haus after two weeks in residence. She very much liked the uneven surfaces in the communal corridors, which remind her of going for a walk in the woods. She particularly likes her 118-square-meter apartment because it is on two levels and, she says, the stairs give her plenty of exercise. She and her husband (another computer programmer) lived before in a flat on the outskirts of Vienna and much prefer living centrally, particularly in the Hundertwasser haus, which they think "fun." They have heard that some of the bathrooms make people feel seasick but like their own.

Feelings are less positive on the subject of the constant stream of sightseers who come to look over the complex, espe-



Right, decorative fountain and its tiled pool. Left, fanciful exterior columns; left below, whimsical washroom.

cially the ones who ignore makeshift signs at entrances saying access indoors is restricted to residents. Various features have already been removed by souvenir hunters, it seems, some of whom expect to be shown around individual apartment as of right. Tenants have to be careful when they open their front doors, for as many as five people at a time may try to force their way in, according to one resident, who says some of these uninvited guests complain that her husband should not be living in the complex at all because he is not an Austrian.

Indeed, the Hundertwasser haus appears to be in a continuous stage of siege from sightseers—so much so that for all his good intentions, Hundertwasser's two-fold claim to have created there "a considerable contribution to public housing in general and to the fame of Vienna in particular" is not only highly questionable but seems also to be a contradiction in terms.

In fact, scope offered to residents of the Hundertwasser haus is limited in the extreme. They are allowed to vary the facade (but only parts they can reach with their arms out of the windows), to make such alterations to common areas as may be agreed by majority vote and (within the bounds of safety) to do as they please inside individual apartments that differ very little from run-of-the-mill public housing norms save in the manner bathrooms have been tiled. But whether they take up these options or not, it seems residents are regarded as fair game in a spectator sport now attracting tourists to Vienna from all over the world.

The result is a wolf in sheep's clothing—a form of public housing that purports to break with paternalistic rules and regulations but does so only on the surface. Although heavily disguised as a new kind of safari park, the chicken coops are still hidden away inside and the tenants regarded as a species in need of husbandry rather than people who might be capable of looking after themselves. As if to make the point, the City of Vienna insignia and flagpoles are as evident on the Hundertwasser haus as they are on the Karl-Marx-Hof; in both cases, the buildings and the tenants are public property.

—CHARLOTTE ELLIS



Ms. Ellis is an architect and freelance writer based in Paris.





Pleasing Forms and Multiple Functions In a Fire Station

At 37, Ernst Hoffmann is beginning to make a name for himself as an architect in Austria. He is currently working on two large public commissions in Graz, the state capital of Styria. A 50-apartment public housing scheme is under construction to his designs in Vienna, he has another on the drawing board, and the first phase of a third is now being built in Linz.

Yet Hoffmann has only one completed building to his name—the local fire station finished two years ago at Mödling, a town of 20,000 just outside Vienna. To date, Hoffmann's career has been based on winning public sector commissions through competitions of one sort or another—a method he thinks not only useful for getting work but a good means of bypassing the present demand for nostalgia in Austrian architecture. Once a design has been selected winner of a public sector competition, he says, it can be built.

But he can't afford to enter many competitions unless he wins them. For instance, he spent his entire second-stage fee of 60,000 Austrian shillings (nearly \$4,000) for the Mödling fire station competition, paying the model maker for a detailed 1:100 scale model with a lift-off roof. He thinks it was money well spent, as he is convinced it was the model that tipped the scales and won him the competition and the commission.

Launched in 1981, the Mödling competition was limited to architects working in the region. Sixty entries were received, and Hoffmann won after a second-stage run-off. His design has changed very little since the first competition scheme, he says. He worked it up for the second stage and refined it later, but the concept remains unchanged—a long, low range containing emergency vehicles at one end and staff accommodation at the other, with a freestanding, campanile-like tower providing the main feature on the street frontage. His guiding idea was that the function of the building should be visible and comprehensible to everyone and that it should make a beneficial urban contribution.

As it happens, about the last thing the firemen wanted was to be watched. The force is manned by volunteers and the fire station acts as a kind of clubhouse for members and their families as well as the center of emergency operations. The tower has three main functions: There is a radio mast on top of it, hoses are hung to dry inside it, and the structure is used for ladder practice. It seems firemen prefer to practice climbing ladders in private. But Hoffmann managed to win the competition, and the tower was built as he planned, thus providing a vertical feature to close the vista at the end of an existing street of workers' housing.

Organizationally, the Mödling fire station is very straightforward. The voluntary force takes turns, two at a time, manning the station, and the rest of the force arrives by car when there is an alarm (hence there are no slippery poles, the prerogative of a resident fire brigade). Parking spaces are at the rear of the building where several doors are provided to give rapid access to changing rooms and the entrance to emergency vehicles that always leave the building from the side nearest the street. They return at the rear, pausing under cover if necessary for wet hoses to be unloaded. These are drawn under the building and washed in a long trough leading into the basement floor before being hung in the tower to dry. This one-way vehicle circulation system ensures that vehicles are always facing the right way for immediate use and obviates the need for turning space within the building. The garage is overlooked by the control room at first floor level within easy reach of other staff offices and a meeting room off the same corridor.

So much for the business end of the building. The main public entrance is on the street elevation, signaled by a break in the facade and a double-height projection, semicircular in plan, containing a small museum. The rest of the main range is devoted to staff training and leisure activities.

The international influences picked up by Ernst Hoffmann in making this design are clear. Suffice it to say the entire building is faced in banded gray blockwork, enlivened near the main public entrance with small squares of pink Italian granite. The ceramic keystones depicting former fire station commanders were the deputy mayor's idea and one of the rare departures from the competition design.

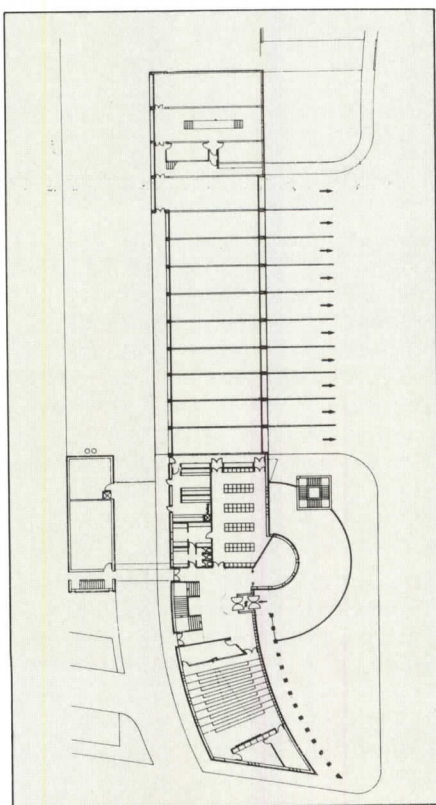
For a fire station, the interior contains some surprisingly pretty details—small pin-



...t, campanile-like tower is main feature
 ...street frontage. Above, practice wall,
 ...s watchman's apartment and bridge to
 ...in building; right, entrance hall.

...nite squares let into the gray granolithic
 ...een, at the corners of the main stair-
 ...e landings, for instance. Hoffmann has
 ...o made good use of local resources of
 ...kinds. Much of the furniture was made
 ...he local technical school as a teach-
 ...exercise, for example, and cost only
 ...price of the materials. And the con-
 ...te facing blocks were custom-made to
 ...exact colors and sizes he wanted at
 ...cement works immediately across the
 ...d from the fire station. Because of the
 ...ings in transport costs, the price was
 ...nparable with off-the-shelf mass-pro-
 ...ced blocks.

But according to Hoffmann, the great-
 ...help in achieving the standards he
 ...ught was the deputy mayor who, as luck
 ...uld have it, is greatly interested in archi-
 ...tecture and was most anxious that the
 ...w fire station should be a visual as well
 ...a functional asset to Mödling. This it
 ...doubtedly is. — CHARLOTTE ELLIS



Greece



H. Calligas

A Generation of Respectful Building in An Ancient Town

The centuries-old town of Monemvasia, built on a Mediterranean rock by the Byzantines in the sixth century A.D., owes much of its current state of harmony to the involvement of Alexander and Haris Calligas. After their architectural registration 20 years ago, they decided to settle and work in the place they had come to love as students, where Haris had done research for their art history professor at the Athens Polytechnic, Angelos Prokopiou, a friend of Alexander Calder.

These architects believe that living in restored and revived Monemvasia is like

living in the best that modern town planning aimed to achieve. Alexander Calligas believes that "Monemvasia has everything: quality bestowed by the past, streets, plazas, green, places for the children to play, the mountain and the sea at your immediate disposal, human scale. What we are doing here is not an exercise in romanticism, but a step into the 21st century."

There is a plausible duality in the work of the Calligas. The exteriors of their buildings are integrated with the context and the image of its historic surroundings, while the interiors convey the life style and character of the current owners. One could speak of three interior vocabularies: open plan, minimal purity (total absence of furniture), and a rather "secular" quality, in which the interior appears as a free assembly of the users' paraphernalia. The

last indicates the sensitivity of the architects to the users' personalities and need for variety in spite of the architects' own preference that gravitates toward the first two vocabularies.

They are adamant, however, regarding the character and quality of the exterior. Their buildings cannot be distinguished from the surrounding ones, except sometimes through the freshness of their new textures. The Calligas have made no formal studies in historic preservation. They claim to be uninfluenced by similar efforts elsewhere or by literature on the subject. They seek no gimmicks, concentrating on pure construction, pleasing proportions, space, light, texture, and honesty to the past, present, and materials. Every detail is based on knowledge that was acquired through research on the site and



Across page, a long view of Monemvasia. Left, an art gallery; below, an antiques shop; bottom, living room of a house by the Calligases.

Dimitris Kalapodas



Dimitris Kalapodas

...ulation about ancient construction techniques and practices. Nothing is left accident. The plans are the result of a design effort, based on what was found on the site, historic reconstruction, and the requirements of the clients. The Calligases train their own masons and are themselves present daily on the site, guiding and supervising construction, translating drawings into words. Alexander, with his sketching pad in hand, and Haris, searching in the ruins, are among the few architects who still perform the cardinal role of the architect as *archi-ton* (the head-builder), who through practice creates theory. Nothing is done in a vacuum, and what is important is to be aware of the past of the place. It appears to us that Americans sometimes have difficulty in getting

the feeling of what happens in Greece. Perhaps what you'll write might help some understanding," says Alexander Calligas. "I could not come up with an aphorism on America other than that American technology coupled with a reverence for the old might help us all find some solutions for survival in the future." Meanwhile, the Monemvasia of Maurice and Andronikos II Paleologos and Alexander and Haris Calligas offers not only one of life's most serene and relaxing moments, but a rewarding experience in environmental and spatial education. —ANTHONY C. ANTONIADES, AIA
Mr. Antoniadis is professor of architecture at the University of Texas at Arlington, an architect, and author of Contemporary Greek Architecture.





H. Calligas



Dimitris Kalapodas



Dimitris Kalapodas

Above, a building by the Calligases, most of which had collapsed and has been rebuilt. Right, another house largely rebuilt following clues from neighboring houses.



Dimitris Kalapodas

England

Glazed 'Plant-House' atop a Cascade of Silvery Cylinders

a building of the year—which it must undoubtedly be—the new Lloyds Headquarters in London is surprisingly modern.

It is not tall enough to “ruin the skyline of the city,” as was direfully predicted, because that had been done already by more conventional neighboring tower blocks of the 1960s and '70s, most of which overtop it by a number of stories. To see the spectacular upper works of the Lloyds building properly it is necessary to go up 10 spiral steps to the viewing platform on the most celebrated of London's landmarks, “The Monument,” the Doric column that celebrates the end of the Great Fire of London in 1666.

From that distinguished elevation one can see almost the only aspect of the Richard Rogers Partnership design that does not “date” it in the conventional sense of the term—the glazed “Crystal Palace” baroque vault that roofs the summit of the towering atrium that rises clear through the center of the building. This apparent postmodernistic cliché (which happens to make perfectly good sense in this case) is in fact, very difficult to see from anywhere else, and down at street level most views of the building are dominated by quite other features of the design.

In what seems to be the classic view already, up Cornhill from outside the Mansion House or the Royal Exchange, one sees the view closed by Lloyds' most massive service tower, a three-story plant-house balanced—apparently—high in the sky on top of a cascade of tapering, silvery cylindrical air ducts that come almost down to ground level, all garnished with spiral staircases, service cranes, and other functional gizmology. This dominant view—though not so dominant as to overtop the four Gothic pinnacles of Sir Christopher Wren's Saint Michael's Church half-way up Cornhill—is not the arrogant scenic contrivance that it might at first appear, but it derives from a reasonable planning assessment of how to fit a large and very busy building onto a small and awkwardly shaped site.

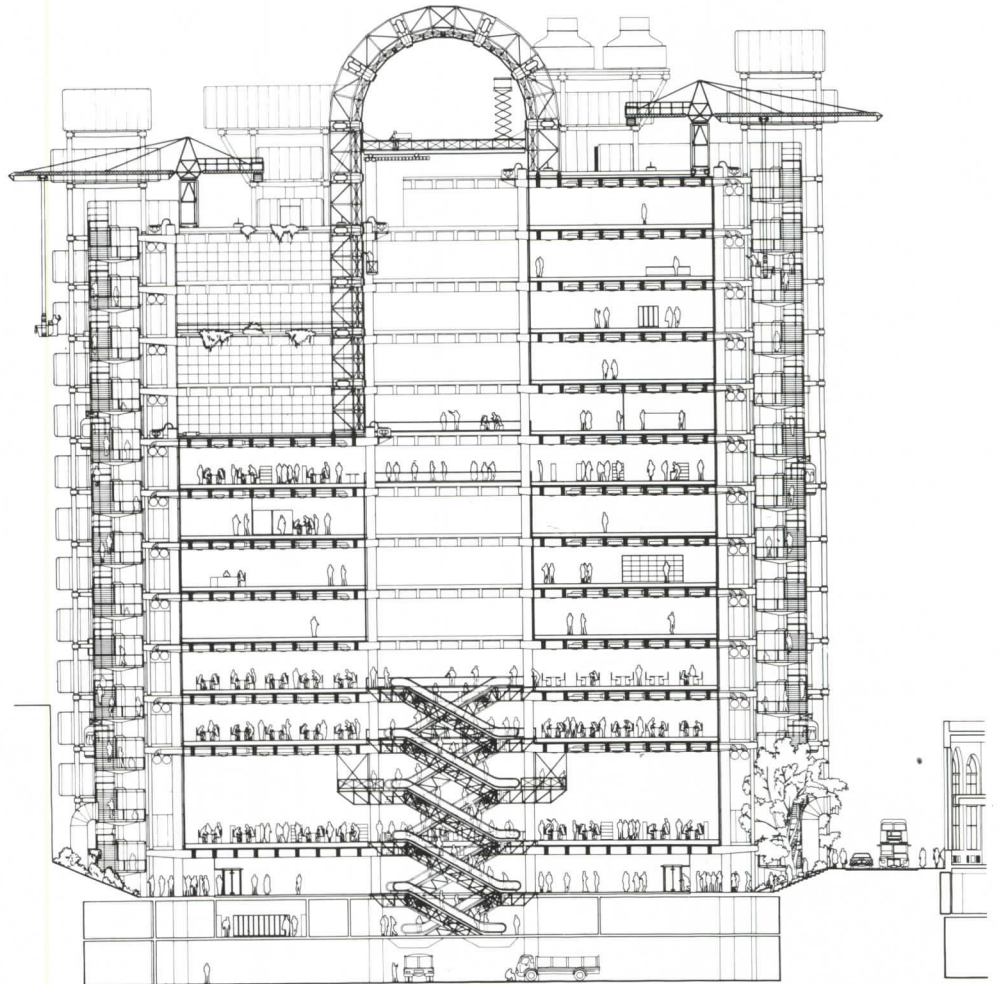
Since the City of London was not significantly replanned after the Great Fire, or after the depredations of the *Luftwaffe* in World War II, it retains its largely medieval layout of narrow and opportunistically curving streets, onto which were



© Peter Vanderwarker

Below, looking east, the massive service plant appears perched atop a tower of reflective air ducts and circular staircases. Below right, on street level stainless steel stairways connect with gleaming stair towers, and a suspended glass canopy defines the entrance. Right, uniformed 'waiters' maintain tradition.





Photographs © Peter Vanderwarker

loaded massive citadels of finance to serve its enormous prosperity as the world's banking capital in the 19th century. More recent rebuilding has partially opened up this labyrinthine plan with mini-piazas, but most of the area directly surrounding the Lloyds building is tightly built up of streets of conventional and uninspired stone facades (including that of Lloyds' own previous building), leaving only an awkward, bent rectangle of land for the new building to stand upon.

The Rogers office decided not to build out to the perimeter of the site, but to cover most of it with a rectangular glass box of usable (and rentable) work space, with "The Room" where Lloyds' worldwide insurance business is done occupying the whole *piano nobile*. Into the leftover spaces between the rectangle and the site's perimeter were fitted the service towers, standing clear of the almost Miesian glass walls of the main block. Given the way in which the street layout created the shape of the site, however, these leftover pieces tend to be found in line with approaching streets, and the towers placed upon them therefore tend to occupy most views of Lloyds from other parts of the city.

Considerations like these move the expected arguments about "how will Lloyds fit into the historic townscape of the city?" into a frame of reference that is rather different from what is customary. The near-

Right, Lloyd's expressionist forms serve as a backdrop for the old Leadenhall Market; below right, escalators within the towering central atrium; above, 'The Room' with log book in foreground.



est thing to a historic building in its immediate vicinity is the old Leadenhall Market, formed by putting a classic Victorian glass roof over a set of narrow intersecting streets. Otherwise, the buildings it confronts or adjoins are a job-lot of timid variations on architectural formulae that were mostly exhausted at the time of their design. In the end, the issue is not so much one of stylistic congruity between Lloyds' busily detailed high-tech facades and the rest of the city, but of the way it relates to established patterns of ground-level circulation.

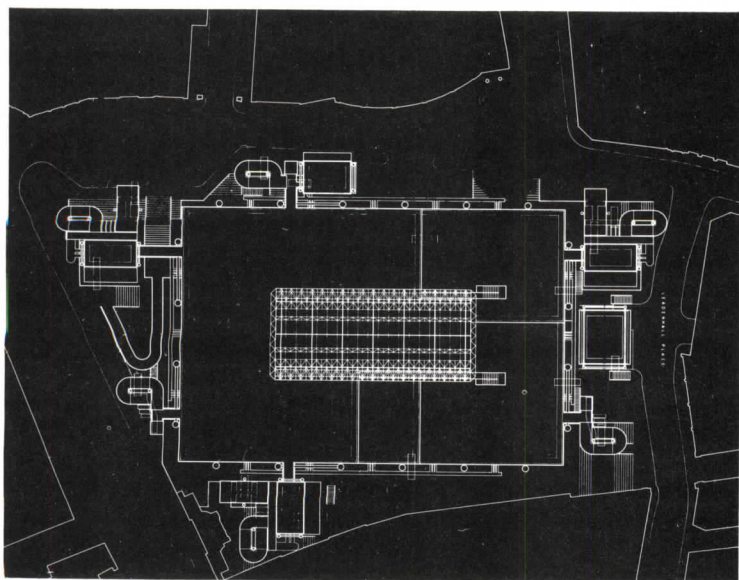
Those patterns are concerned with smallish doors opening at grade level off relatively narrow sidewalks, but that relationship had been busted wide open by Lloyds' older buildings, which tended to feature recessed lobbies behind enormous archways, even when their facades followed the traditional building lines. New Lloyds, contrariwise, stands well back from the sidewalks and is entered a half story up from grade or a half story down. "Up" seems to be fine: The main entrance with its broad steps under a suspended glass canopy brings one to an open lobby between elevators to the right and The Room on the left, while beyond the lobby what must be the world's first high-tech

wheelchair ramp returns to street level on the Cornhill side.

"Down" seems more problematic, even allowing for the fact that it was not completely finished at the time of my visit. One descends between the main structural columns and under the supporting chassis of The Room, and although all this is made of easily the finest quality a best-finished concrete to be seen anywhere in London at present, the walk space under the perimeter of the building seems both gloomy and uninviting. In part this is because the narrowness of the surrounding streets and the sheer bulk of Lloyd's and the adjoining buildings ensure that very little direct sunlight ever penetrates to this level, and one must wonder whether the Rogers office may not have missed a piece of traditional city-building wisdom hereabouts, since the half-up/half-down mode of entry, found in practically every Victorian downtown in the world from lower Manhattan to Perth, Western Australia, is almost completely unknown in London.

The result is in striking contrast to the activity and bustle of both people and building details up above; and this one cannot but notice, for one of the things that *must* be said of Lloyds is that rare in recent architecture has the crowded human activity within a building been amply symbolized by the crowded detailing of its exterior. It's all action, everywhere! — REYNER BANHAM

Mr. Banham's most recent book is A Concrete Atlantis; he is a professor of architectural history at the University of California, Santa Cruz.





England



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Quiet but Complex Conference Center in A Demanding Spot

Powell Moya & Partners' The Queen Elizabeth II Conference Centre was completed in London earlier this year and opened officially by the sovereign this June. Neither a fashionable building nor one that screeches for attention, it has attracted none of the razzmatazz surrounding the new Lloyd's headquarters on Lime Street. But it is just as interesting, albeit for entirely different reasons.

The conference center site in Broad Sanctuary, opposite the west front of Westminster Abbey, had long languished. Building work on a new Colonial Office ground to a halt there in the 1950s, leaving only massive basements completed. No subsequent plans got beyond the drawing stage until the government decided the disused basements should be converted for use

as a telephone exchange and designs were drawn up for a separate building project to go on top. Preliminary designs for the latter were invited from Powell Moya & Partners in 1975, the year after they had been awarded the Royal Gold Medal for Architecture—the first firm (as distinct from an individual) ever to be so honored.

In due course their proposals for the new conference center building were shown at the Royal Academy, but nothing much had happened on the site when the conservative government came to power in 1979. During the purge on public spending that followed, the then-secretary of state for the environment, Michael Heseltine, announced plans for farming out the conference center project to the private sector—plans later reversed, seemingly on the grounds that long-term income anticipated from the building was held to outweigh by far the costs of construction. The curious result of these hiccups is that a government hesitant on cutting to the quick public sector spending has become, almost by accident, the client for the most important public sector commission to be built in Britain this decade.

This spring, the Broad Sanctuary hoagings came down at last to reveal an extremely thoughtful and apposite essay in urban design that has transformed this crucial site at the ceremonial hub of Westminster. The main organizational device is a new city square—not in the form of a podium masquerading under that name as used time and again in the 1960s and '70s only to blast apart the urban fabric but a real square enclosed on three sides by existing buildings and on the fourth by the new conference center, handled so skillfully as to seem small and unobtrusive. But although it sits so serenely in its setting and is clad in materials that, to coin a cliché, are "in sympathy with" its catholic collection of neighbors, it makes no stylistic concessions to them whatsoever.

This building belongs to a branch of British modernism invented in the late 1940s by Philip Powell and Hidalgo Moya and developed by them ever since with the aim, as here, of answering complex requirements "efficiently, humanely, and imaginatively" in buildings that respect their neighbors "without being overwhelmed by them." Intentions like that often sound better than the architecture they produce but in Powell Moya & Partners' case is supported by a convincing body of work, notably at Oxford and Cambridge.

essay in urban design creating a new
are at Westminster.

at Westminster, the built result looks
effortless as to seem to have been self-
ent from the start—a deceptive impres-
sion as is clear once some of the technical
difficulties have been appreciated, among
them the problems posed by building onto
pre-existing basements separately adapted
for government agencies to provide an inde-
pendently accessible telephone exchange,
and the high security requirements built
into the program for the conference center
itself. Even the bulk of the new building
is apparent only in air photographs: it
covers nearly half a hectare and is 10
stories in overall height (excluding mezz-
anine levels but including three basement
levels of its own)—though it certainly
does not seem so from the street.

A judicious massing has been used to
take up the building's bulk. The principal
feature of the main, south-facing eleva-
tion is the structural expression of the
suspended, projecting third floor, where
is housed the main conference suite
and the accommodation required on a single
level. Beneath is a series of minor but
aggressive projections from ground level
while the fourth to top floors are
stepped back to the north, so the tallest
part of the building backs onto an exist-
ing range of similar height.

Internally, facilities are arranged in three
main groups, with privacy levels increas-
ing on the way up the building. The main
auditorium, with seating for up to 720
delegates, is on the ground floor. Various
potential room combinations are provided
for a total of some 830 delegates in the
main third floor conference suite, and a
smaller, separate conference suite is located
on the top floor. Ancillary accommoda-
tions for the press, interpreters, delegates,
administrators, etc. are arranged as appro-
priate around these three main areas.

The architects have aimed at simple,
functional spaces within the building, to
be adapted to meet specific requirements,
while making the most of views out.

As visits to other conference buildings had
shown how depressing windowless confer-
ence rooms could be, they say; the views
to be had here—of Big Ben, the Houses
of Parliament, Westminster Abbey, and
other surrounding buildings—should cer-
tainly endow the conference center with
its own identity all its own.

The interiors are somewhat less felic-
itous; even from photographs one suspects
endless battles had to be fought over each



and every item of furnishing not readily
available from a government range pri-
marily intended for civil service offices
and army barracks. The outcome has been
dubbed "stodgy" by the editor of the
Architectural Review. But if the British
government and its agencies have yet to
learn that interior design is *not* best treated
as an ad hoc assemblage of bits and pieces
chopped and changed to suit personal
taste, at least they did not interfere with
the overall design of a building that, with-
out resorting to pastiche or post-anything,
makes a valuable and positive contribu-
tion to one of the most celebrated loca-
tions in London. The result makes a
refreshing change from current architec-
tural fads and will certainly outlive them.

—CHARLOTTE ELLIS



France



Bofill's Gargantuan Brand of Classicism In Montparnasse

Picking out the Parisian oeuvre of Ricardo Bofill and his Taller de Arquitectura poses no problems whatsoever, provided you know where to look, for to date only one major scheme has been completed to their designs in the capital. It is easily distinguished from the plethora of other new development just south of Montparnasse station by the characteristic use of classically derived motifs on gargantuan scale.

The circumstances surrounding this commission were very curious. When flexing his political muscle after being elected to the newly recreated role of Paris mayor in the late 1970s, Jacques Chirac declared himself "architect of Les Halles" and stopped a scheme then under construction there. Designed under the aegis of President Giscard by Bofill and the Taller to fill the entire former market site, all this work disappeared subsequently and the site has been redeveloped, bit by bit, by other architects. But as a conciliatory gesture, the City of Paris authorities invited Bofill and the Taller to design a public housing complex in the 14th arrondissement. Bofill calls the finished project the "Echelles du Baroque."

As built, it contains 272 apartments and

22,000 square meters of commercial space; all the accommodation is for rent. The first phase was completed a year ago, when the first residential tenants moved in. Since then, all the building work has been accomplished, gardens have been laid out within the complex (though work is still in progress on a small park immediately to the west), and a notice in the caretaker's office says there is no more accommodation of any kind left for rent. The commercial space has been taken in the main by shops and restaurants, with a sprinkling of doctors' consulting rooms and the like. The finished building has become a favored location for fashion and product promotion photography.

If the Echelles du Baroque is a touch less Piranesian than the Palacio d'Abraxas at Marne-la-Vallée, a mite more urban than housing projects by Bofill and the Taller as so far built in other Parisian new towns, this Paris project shares with them contrasts in scale that give the impression that, like Tom and Jerry, residents inhabit a private world within a macro-environment designed for some much larger species. At the Echelles du Baroque, for example, giant triglyphs to the attic story correspond in height to apartments on the top floor; entrance doors to the complex are dwarfed by the sheer size of torus moldings at the base of a giant order of columns.

Describing the constraints of a site that

led him for the first time to adopt an asymmetrical layout, Bofill says "our starting point was to respect the street and townscape while at the same time breaking up flat surfaces, to achieve a type of layout that would integrate all possible forms." The layout addresses itself to a double logic: the creation of articulate "internal space and respect for the urban grain." In other words, the "external" facade follows the existing street pattern while two principal open spaces have been created within the complex—the ovoid "Colonnes" and the horse-shoe shaped "Amphithéâtre"; the elevational treatment is varied to provide differing responses to the surrounding streets and the "internal" spaces. Bofill's rationale for this is: "If changes of scale are introduced from an understanding of the structure of space and of baroque architecture, the 'internal' and 'external' facades will be different"—which is why he calls the scheme "the scales of baroque."

For the "external" facades, Bofill has used "architectonic concrete that borrows from history a play on conventional elements that, by their combination, provide a diversity of architectonic scales and hierarchies, engendering a number of pos-

Below, street facade. Opposite: elevation, one clad in concrete (below left) and the other in reflective glass (above and below right), create internal courts.



readings based on the spatial experience of a culture." They culminate in a crescent overlooking a traffic roundabout; Taller drawings suggest that, in Bofill's mind's eye at least, this crescent might be extended by future development to form an entire circus. The complex is arranged so that run-of-the-mill public sector apartments are concentrated round the concrete-clad "Amphithéâtre," while the 100-square-meter curtain wall of tinted glass around the "Colonnes" contains other rent residential units. Here, "the glazed facades of the ellipse define the external space in the manner of Italian piazzas," says Bofill, and curtain walls are punctuated with two-meter-diameter glazed columns that serve as bay windows for the apartments.

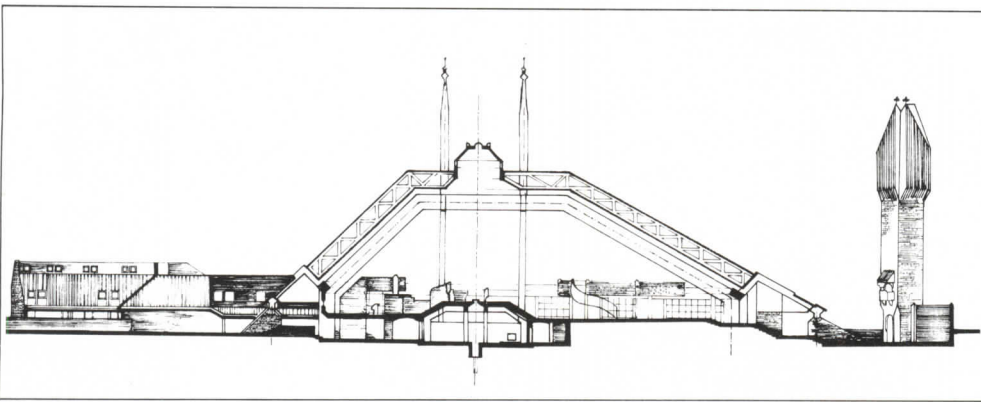
The Taller has long been working on ways to perfect the technical means to build Bofill's brand of classically derived design. For the Echelles du Baroque, pre-cast concrete casting methods were used to produce the 3,400 concrete cladding components. The definition of detail so achieved was remarkably crisp, with finishes that could almost have passed for stone. After assembly on site, color-matched mastic was used to fill generously dimensioned joints between panels. At completion, the results looked uncommonly chic, especially in comparison with other recently built developments in Paris, where construction standards generally are dismal. At that time, the Echelles du Baroque received much public approbation, including an article published in a magazine intended for customers of a grocery chain, which extolled the "ultra-modern" architecture (but failed to credit Bofill and the Taller with the design).

A year later, the illusion of immaculately conceived instant classicism is becoming tarnished. As might be expected, the precast concrete cladding panels are now weather-stained, while the mastic joints are discoloring quite independently. The patina so produced is most peculiar and lacks the original visual impression of a uniform, overall finish of stone-like quality. More functional aspects of the Taller's innovative construction methods have yet to stand the test of time, but even if they prove entirely satisfactory from a technical point of view in the long term, my guess is that public acclaim for the Echelles du Baroque will be short lived. Nothing breeds contempt quite so fast in France as last season's fashions once their initial impact has faded.

—CHARLOTTE ELLIS



Poland



Strong Beginning For a New Era of Church Building

Church design is practically the only area of importance in which Polish architects today have relative freedom. It is an area where personal expression is the goal of the client as well as the designer and where there has been significant artistic and technical innovation.

Shortages of building materials and modern technical equipment, of capital and skilled construction workers mean that only very economical projects get approval from the resources-conscious Polish bureaucracy. Narrow economic and

technical limits were established in the '60s, and since that time the majority of completed buildings, with the exception of churches, have possessed few noteworthy architectural or environmental qualities.

In the '70s, resulting from a new attitude of the Polish government toward the Catholic Church, 1,000 locations for new churches were designated. This compensated for more than two decades when all new sacral investments were banned and created new architectural opportunities.

Now that a few years have passed we can define two basic foundations for sacral architecture in Poland today. The first is based in local, regional, and sometimes even folk culture. The second

Modern outside, handcrafted within.

reflects the ideology and ideas of the modern movement, which still prevail among current architectural trends in Poland. The influence of postmodernism is still very limited.

An outstanding example among recently completed churches is the Catholic Church Under the Invocation of the Holy Ghost, winner of the Association of Polish Architects' (SARP) annual prize for the best building of the year. It is located in Tychy-Zwaków.

The booming economy of the Silesia region and large immigration of recent years created a tremendous need for new housing, resulting in the creation of the new town of Tychy. It is today the largest of Poland's new towns. Though started in the '50s, its main urban elements are still under construction. On the outskirts of this town is the new sacral complex. It consists of the church, a small underground chapel for everyday services, a parish house, and accommodations for nuns and parish clerks.

Though now located in a completely open area, the church will soon be surrounded by new housing whose size, scale, and forms are yet unknown. But we can probably assume that, like most of Poland's new housing, it will be an architectural disaster. Therefore, the SARP prize jury statement praised this church as "a simple architectural form, which should harmonize with an unknown future environment."

Design of the church began in 1977. Construction was started in '78 and completed last year. The project was entrusted to architect Stanislaw Niemczyk, who designed all the buildings, equipment, and furniture. The church was erected from funds collected from parishioners, which is standard procedure in Poland, as is the practice of having the local parish priest serve as investor, coordinator, and buyer.

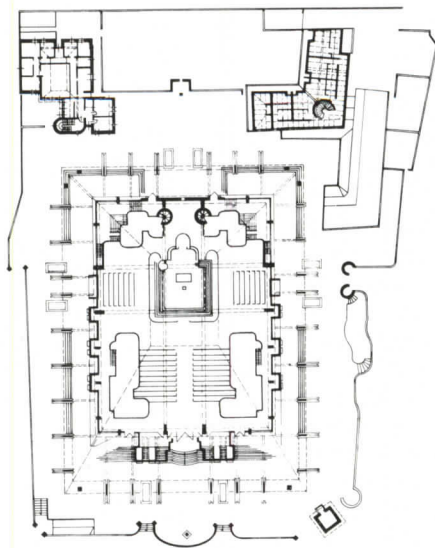
In the church's concept and details of finds elements of recent Polish modernism combined with those typical of the mountain region. Among the latter is the "sobota"—a long, low, and open gallery enveloping the main body of the church. For centuries in this harsh climate such galleries have sheltered mountain people in winter, even when the church is closed.

The main building is designed as a meeting of separate forms. The one is a heavy masonry bearing wall of bricks that defines the gallery and creates small courtyards and annexes for parish programs. The second



It is a big, nearly industrial-looking roof with a simple, pyramidal shape. Its long horizontal lines create a static and quiet feeling. Four tall tower-crosses on the roof add some expression and identify the presence of the complex. The body of the church is made of specially prepared bricks. The roof consists of concrete beams covered with a wood structure and copper cladding. The elevated high altar is illuminated by natural light.

The carefully designed and finished interior details combine traditional crafts and inventions of the designer. These are, in my opinion, the high points of the project. Controversial, I think, is the relationship between the entrance elevation, which is dominated by a brick campanile, and the tower with its refined relief. Even more



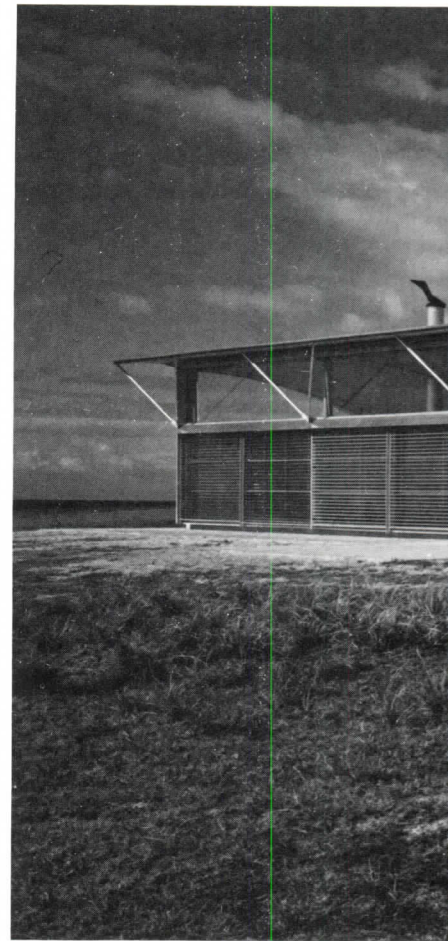
questionable, I believe, is the sharp contrast between the church's large interior space, which is dominated by a beautiful, finely drawn and colored mural by Jerzy Nowosielski that covers the area behind the platform between the roof's concrete beams, and the heavy, almost brutal roof supports. The effect is to rob the interior of the calm and quiet so typical of traditional Polish churches.

But despite these reservations, the final result places this church among the best achievements of the last decade of Polish architecture.—ADAM KOWALEWSKY

Mr. Kowalewski, a member of the Polish Academy of Sciences, has been director of the Warsaw development office and Warsaw's chief planner.

Australia

Photographs by Max Dupain



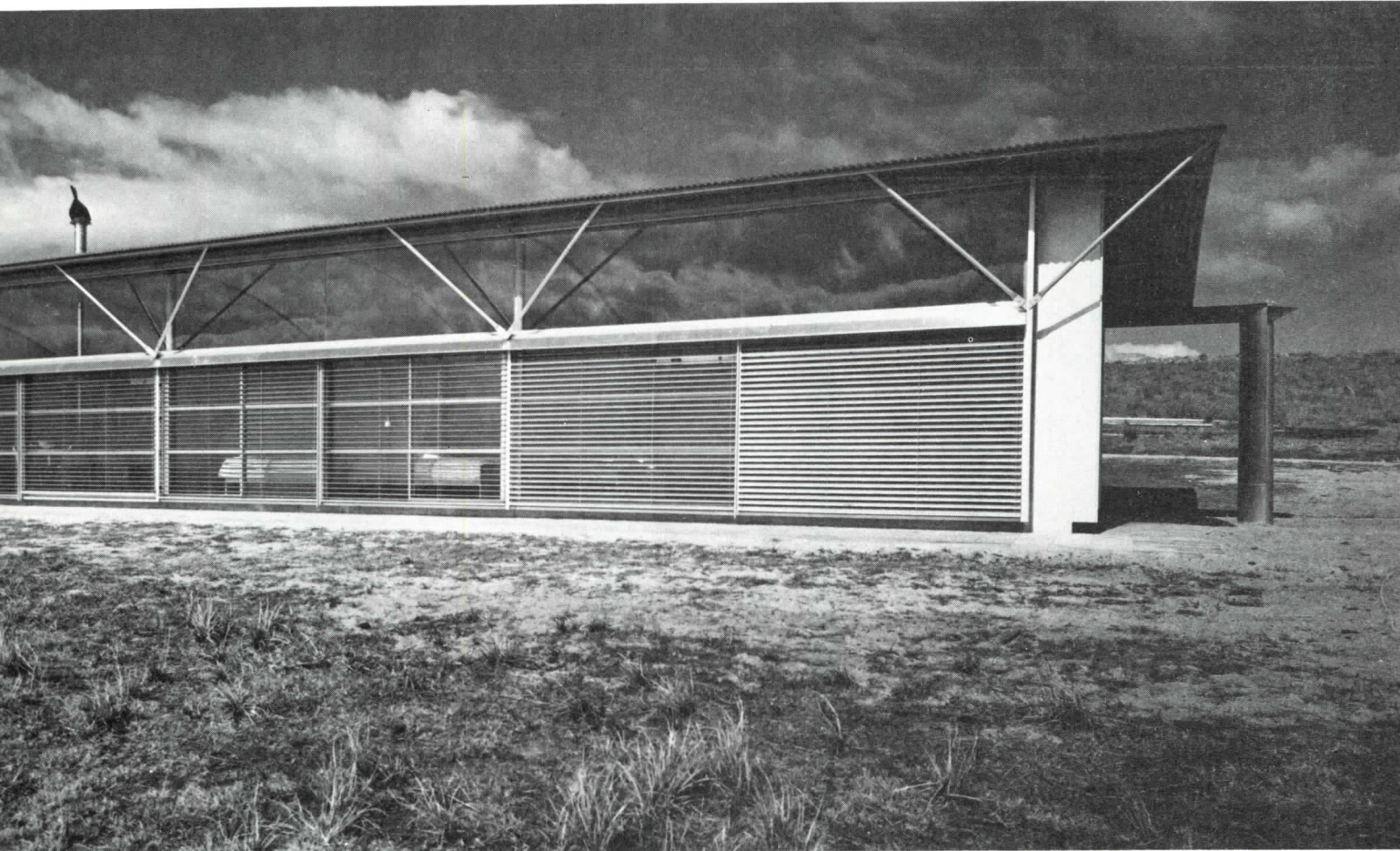
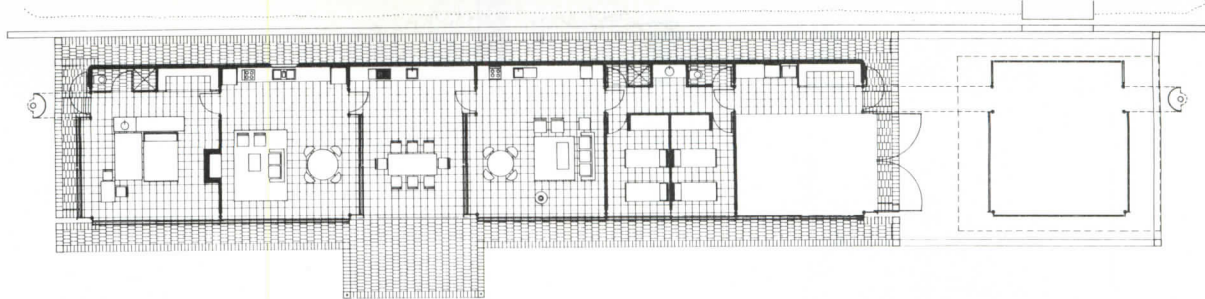
House with a Roof Like a Butterfly Spreading its Wings

The clients wanted a house that would exhibit some of the qualities they had experienced while camping on the sparse, open site on weekends in a tent. With its marvelous butterfly-like roof in the act of spreading its wings, Glenn Murcutt's house near Moruya, his best to date, resembles the archetypal Roman military tent of calf leather known as *papilio* or butterfly, in recognition of the manner in which it was unfurled from a long, caterpillar-like roll and pitched by spreading the sides from a central ridge, much as a butterfly emerging from its chrysalis and spreading its wings.

The analogy doesn't stop here, for butterflies manage the absorption of solar radiation by adjusting the dihedral angle of their wings, trapping or reflecting radiation according to their needs. The convex profile of the curved roof-wings works in a similar fashion, capturing the daylight and directing it downward into the

living areas to produce a soft, diffused light. The precise siting of the house was most important. Some 120 miles south of Sydney on the south coast of New South Wales, it is situated on 33 hectares of land overlooking the ocean. It is delicately poised on the edge of the Australian continent, its axis driving into the hazy emptiness of the Pacific Ocean. From the large side, viewed end on, its silhouette recalls Greek chapels on the Aegean Islands, perched on their cliffs, mute white figures standing as here in a treeless landscape.

The single-story pavilion is arranged two sections with the parents' suite at one end—the end nearest to the sea—and the children's at the other end. Each is, for all practical purposes, self-contained, having a kitchen and bathroom of its own. The two sections are separated by a compact verandah at the center that serves as a common conversation area and entrance. At 225 square meters, the floor area is generous by Australian standards. The pavilion is a simple rectangle, six (4.7 meter) bays long with the larger of the curved roofs enclosing the north-facing living areas and bedrooms and the smaller covering the kitchen, bathrooms, and laundry.



...ft, butterfly-like profile; above, north-
ing elevation; right, adult suite.

annexes along the blank south wall. The colors of the house seem at first too artificial, too metallic. And yet on closer consideration the silver, gray, and white scheme turns out to be just right when placed against the silvery gray of the boulders and the muted amber and brown of the dry grass. A seemingly artsy casualness has been combined with sensible refinement and delicacy of detail.

The inside is furnished with fuss-free Swedish Ikea furniture that is easily replaceable. All of it had to withstand the heavy usage of young people and their friends and the unrelenting assault of salt-laden sea air. The colors inside are confined to glossy-gray, dove gray, and white with a dash of blue for the steelwork, metal framing, walls, and ceiling. A warm gray was chosen for the 12½-inch-square ceramic tiles that cover the slab on grade. The transition from indoors to outdoors is accomplished by a change of texture, from the warm gray tiles inside to a rougher gray paver incorporating a silver fleck





beyond the building. Underfloor heating is provided in the floor slab.

The Moruya house of 1985 represents a genuine departure for Murcutt in having an attractive fluidity that is absent in the earlier work. This is most evident in the maritime expression of the underside of the roof, which picks up the heaving line of a wave building in the surf. The theme is taken up in the door frames along the circulation spine separating the living and service zones whose circular treatment is reminiscent of the engineering detailing of watertight doors in ship passageways.

The starting point for Murcutt's development as an architect was a reconsideration of Mies van der Rohe's pavilion type epitomized by the Farnsworth and Tugendhat houses. With each variation, Murcutt has visibly moved further and

Above, house's sunny, high-tech interior.

further from the original, until the house near Moruya bears no closer resemblance to the original than a flower to its image under a microscope. A part of the reason is that the house is in Australia, in a landscape having its own particular character, still wild but of a superb refinement and delicacy. Murcutt sought with great success to appropriate some of the character of the scenery he knows best in and around Sydney, but he was also inspired by the primitive long house of New Guinea where he spent his childhood, and he related to the open pavilions with their big roofs of the South Pacific. Further, Murcutt detached the narrow verandah of the colonial bungalow from three sides of the house and straightened it out, while discarding the interior house core to pro-

duce a completely new house type, a long thin verandah-house enclosed along the front with adjustable glass louvers. It is far cry from the Miesian pavilion, and yet is it not the same flower?

Murcutt's genius has been to develop minimalism that is austere and tough so that all that remains is an irreducible core far from boring or lifeless. Central to Murcutt's work is the special character of the Australian landscape, and in its obvious self assurance and precision of form, the Moruya house is confirmation that building and landscape can now live together in Australia, that the two are no longer estranged. — PHILIP DREW

Mr. Drew is an architect and critic; his most recent book is Leaves of Iron, a monograph on Glenn Murcutt (see review page 114).



Ship-like Building anchors a Water- front Neighborhood

The Alfred Wegener Institute for Polar Research in Bremerhaven by Oswald Matthias Ungers reminds us, not inappropriately, of an ocean liner. Located on an old harbor at the threshold of the historic inner city, it provides a visual termination for one of the city's most prominent postwar building complexes. A traditional block grid pattern still dominates this area of Bremerhaven, and the design of Ungers' institute restores and extends this old grid pattern as well as the area's context through its compact silhouette, brick facing, and orderly rows of windows.

The design of the building was determined both by the demands and conditions of the site and by the building's functions. The institute required four equally large functional zones: labs and research space for geology, biology, meteorology, and oceanography; public space, including a library and lecture hall; space for storage, shops, and logistics; and space for the building's technical installations. The ratio of usable floor space to operating space is one to one. All laboratories occupy the periphery of the building; offices are concentrated in the semicircle on the east side surrounding the lecture hall of the same shape.

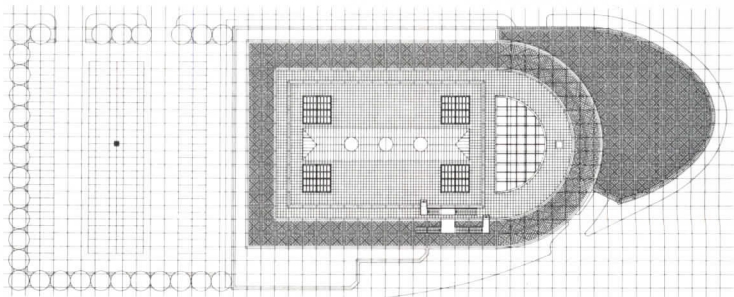
The building was constructed in conventional concrete and masonry, and detailing was kept traditional. The brick shell is partly inlaid, and the window sashes are wood.

Above, Ungers' Wegener Institute with its curving brick facade faces the water and maintains the city's street wall.

Characterizing the Bremerhaven institute are its curved facade, compactness, uninterrupted fenestration generated by a cellular plan, and its continuation of the scale of neighboring buildings—features anticipated in late 1970s competition entries by Ungers for two Berlin hotels. His idea of repairing the city block through new buildings that acknowledge former building lines also had precedents in both a competition entry for a Berlin department store and a later one for the central German library in Frankfurt.

—PAULHANS PETERS

Mr. Peters is editor of the architectural monthly Baumeister in Munich.





Across page, above and below, the institute building as it faces directly on the water is composed of a solid base of brick with upper stories of white masonry, looking like a small vessel chugging up the river, complete with pipe railings and smokestacks. The building's 'aft' includes metal balconies. Above, interior of lobby is stark and light, with precise detailing that distinguishes the building as a whole.

West Germany

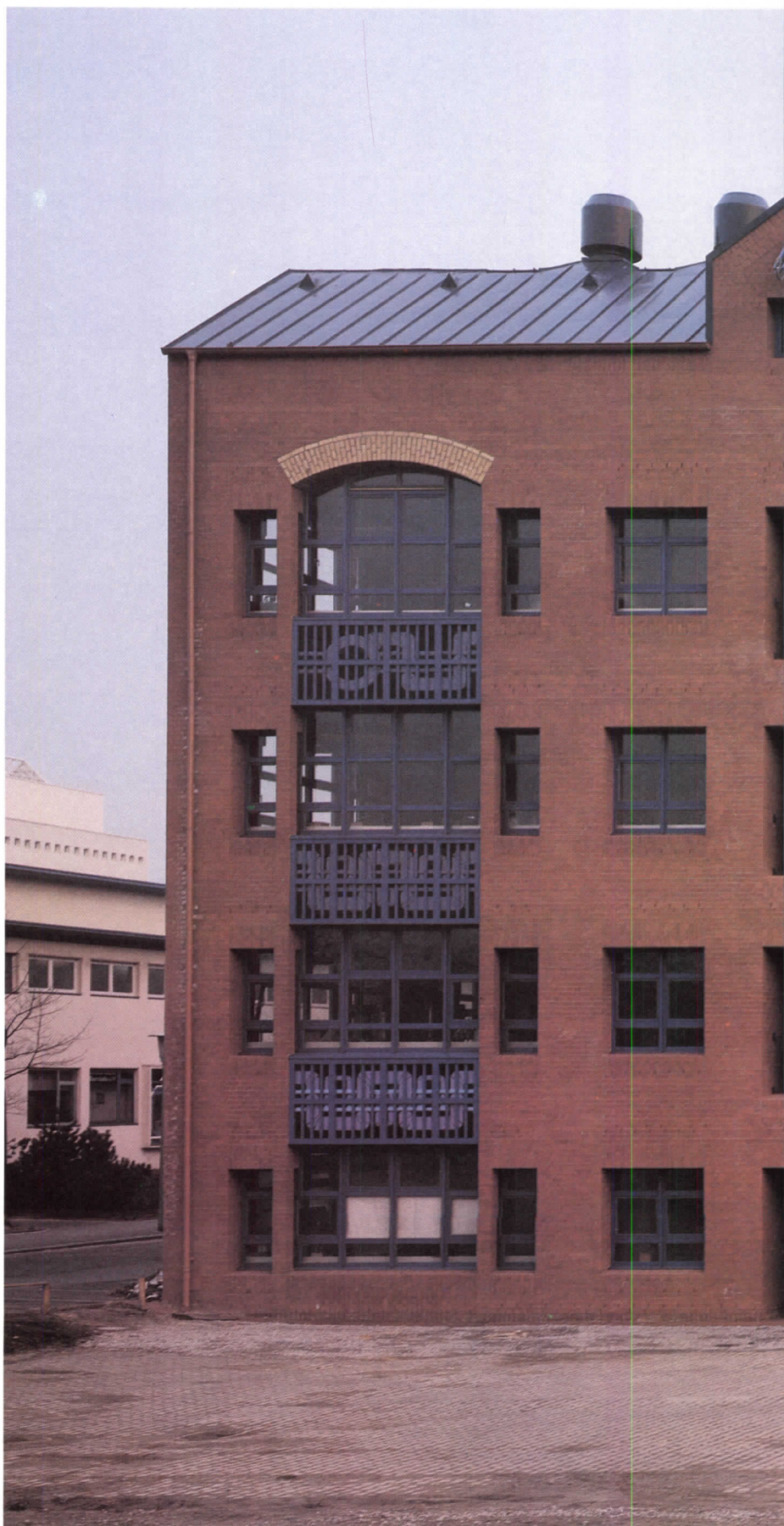
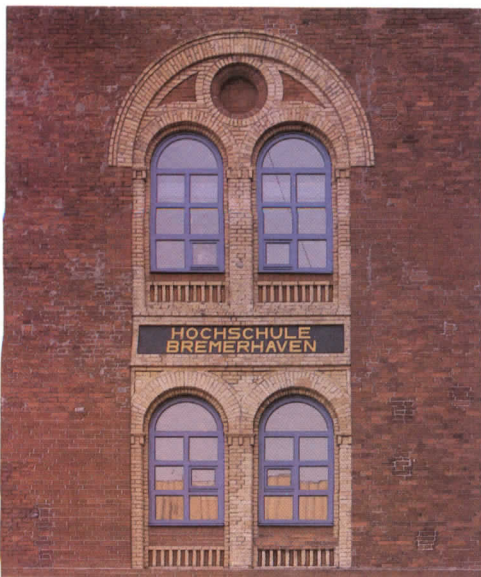
Böhm Combines Old And New in a Sturdy School Extension

In November 1979, the city of Bremen announced a competition for the design of a multipurpose extension of the Carlsburg Professional School founded four years earlier. Located on the planned site were the remains of an abandoned brewery housed in a converted mid-19th century emigration center. Original competition plans called for razing these buildings to provide space for the new extension.

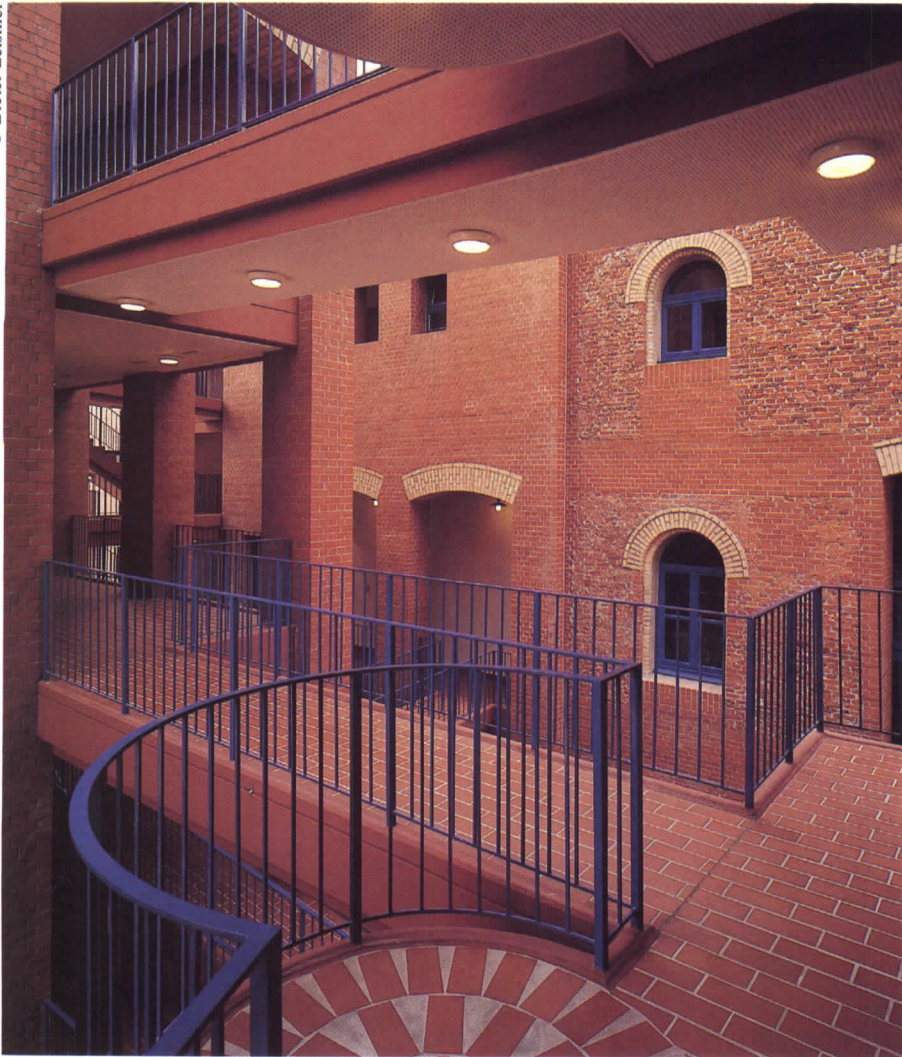
The new complex by 1986 Pritzker architecture award winner Gottfried Böhm, Hon. FAIA, and Georg F. Adolphi includes labs, offices, seminar rooms, a student cafeteria, student government offices, and a library. The original emigration center had been completely altered over the decades through numerous additions and renovations. Of the old buildings, only the three-storied hall, central tower, and one wing remained; a second wing had been replaced in 1960 by a reinforced concrete structure.

Since most of the old structural mass proved to be sound and the budget for the new complex was limited, the architects decided to incorporate the old buildings into the new plan. By doing so, site space was saved for possible expansions in the future. Studies showed that the concrete-framed structure was particularly suitable for housing the new labs, and

Below, the old; right, the new.







Central to the design is the atrium and use of traditional building materials.

the old hall could be utilized for the library and cafeteria. The remaining rooms were located in new sections connected with the old building by a high, glazed atrium. Conceived as enclosed interior space and as a climatic buffer zone for the entire complex, the atrium offers space for meetings and programs and an extension of the cafeteria on the ground floor. The new lab wing is connected to the converted lab section via the atrium: The two buildings compliment one another in content and style and are given a cohesive functional unity by the connecting structure. The original hall of the emigration center now contains the main cafeteria and library facilities.

Central to this most recent building by Böhm are his use of the atrium and of brick. The atrium has been a distinguishing theme in Böhm's work (except in his churches) from his competition entries

for a new town hall and a museum for Cologne (unbuilt) in the '60s through 1984 Zublin headquarters building in Stuttgart. In all cases, the atrium was enclosed by layers of rooms, most of which faced both the atrium and the outside.

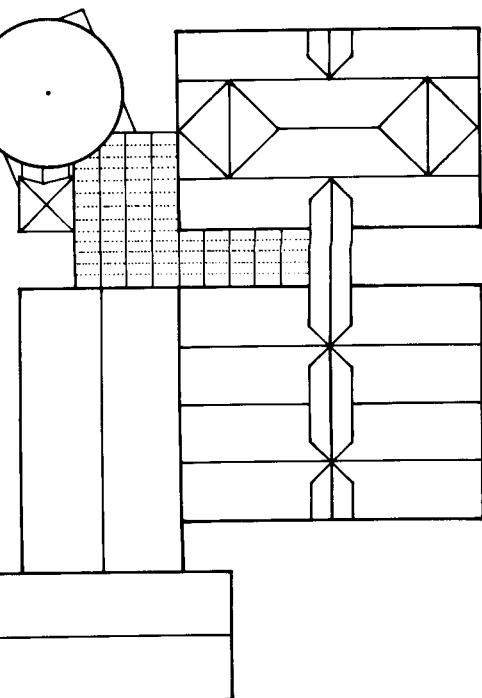
In many earlier buildings Böhm's trademark was concrete, applied in situ, to form a bizarre, almost expressionistic volume. In recent years, as in this building at Bremerhaven, the architect has used it only for structure. Typical for his newer buildings is the way he uses traditional building materials. Here he applies brick only as a cladding material in the new part, which has smooth surfaces, while the old building shows typical load-bearing construction.

In addition to brick cladding, the new lab building has generous glazing and pined sheet inserts, which is also used on the roofs. Exposure of the original brickwork on the old facades has given the entire complex strong visual harmony.

—PAULHANS PET

The old sections are connected to the new by a glazed atrium, as shown below. Bottom photo, the new elements complement the old building (left in photo) but make no pretense of emulating its style.

© Klaus Frahm



© Klaus Frahm

Canada

A Sampling of the Nation's Far-Flung Works of Quality

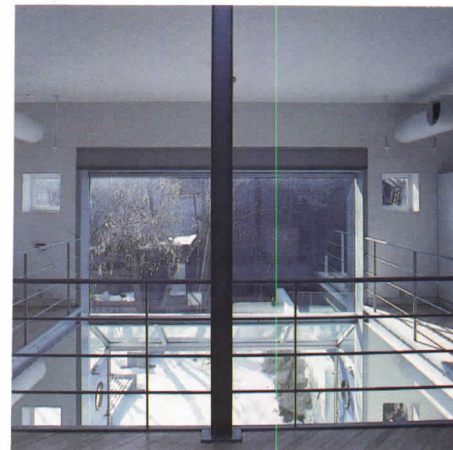
Because of Canada's geographic and linguistic situation, the importance of America's influence goes without saying, and developers, as in the U.S., are Canada's largest private clients. Ironically, however, while some major Canadian developers are praised for involving strong design-oriented architects in their American projects, in Canada they continue, with few exceptions, to hire "developer architects." The results are distressingly visible in our cities and countryside. Government also tends to opt for a timid and anachronistic attitude toward architecture. Remarkable buildings, if they occur, are the result of chance, not of a well-planned strategy.

Therefore, when surveying recent Canadian architecture of quality one has to look at small non-developer and often non-governmental commissions. Their architects sometimes barely make a living and are often totally ignored by the established firms. At the moment, Toronto and Vancouver have the strongest groups of designers, Toronto still offering slightly more opportunities to build than Vancouver, which has been suffering from a very depressed economy for the last few years.

Two design-oriented firms dominate Toronto's architectural scene today: A.J. Diamond & Partners and Barton Myers Associates. Both principals arrived in Toronto toward the end of the 1960s and, given impetus by Jane Jacobs who settled in Toronto at about the same time, fought urban renewal. One of the first signs that a major turning point may have been reached in clients' attitudes is that both firms have now attained the level of recognition they would have enjoyed a long time ago in a less conservative environment.

Toronto's new YMCA by A.J. Diamond & Partners is considered one of the most significant buildings of recent years in the city. For this downtown site, the architects adopted a low-key attitude, using reddish brick and reconstituted stone block reminiscent of Toronto's rich housing and industrial heritage. Internally, the building offers a series of very pleasant spaces linked by strong visual connections. Particularly successful is the main circulation axis, a long rectilinear staircase that climbs up to the rooftop jogging track while offering changing views of the gymnasium. Another important circulation element is the half-circular staircase located in a concrete cylinder near the main entrance to the building; although it does

Below, Diamond's YMCA, Toronto; right Myers' Toronto office for Gottschalk & Ash. Across page, Hughes' monorail, Vancouver.



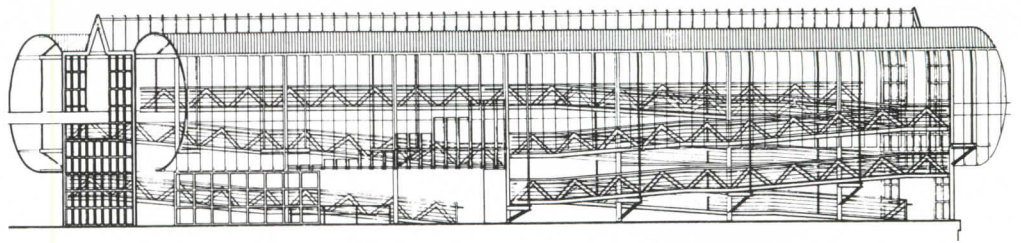
not act as a pivot, as one would expect from the outside, it is finely detailed and an excellent example of the firm's sensitive yet bold handling of materials.

The multifunctional circular auditorium with its retractable seating is the building's most spectacular room. It is carefully designed and detailed, special in material treatment, and has a programmatic versatility that adds to its richness.

The outside, by contrast, suffers from slightly awkward massing and the effect of blank walls. One wishes that the Kahn-inspired clarity that guided Diamond and project architect Donald Schmitt in the concept for the auditorium and its ancillary spaces had been extended to the totality of the building.

The fashionable Yorkville district is an area of Toronto where several of Barton Myers Associates' buildings and renovations can be found, including Myers' own well-published residence.

Just down the street from Myers' house is his office for the firm of Gottschalk and Ash. It is a small-scale example of



what BMA excels at—taking an older building and radically transforming it and adding to it if necessary (in this case, half the upper level is new). An airy feeling is created in this confined space by a two-story reception area, the use of skylights, and careful manipulation of the floor at the periphery so that lower level rooms are illuminated from windows placed at the upper level. Tiny openings, the size of one glass block, create a surprising amount of light inside while subtly punctuating the facade.

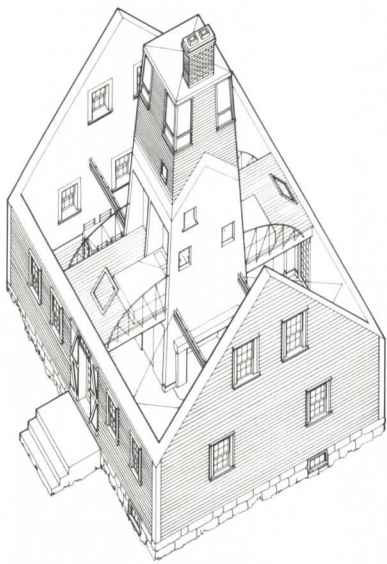
The Eames-inspired steel detailing is in the best tradition of this firm's work; the reception desk and wall-mounted display elements of the presentation room are the work of project architect John Shnier. At A.J. Diamond & Partners and a few other Toronto firms, young designers such as Shnier are having increasing influence on upgrading design standards and defining a trend that can only gain in strength over the coming years.

Because of British Columbia's uneasy political and economic climate, this sum-

mer's world's fair in Vancouver provided some of the area's architects with the first real work they had seen in a long time.

Most impressive among Expo's displays are the colorful monorail stations by Rogers Hughes Architects. For these structures, destined to house a very temporary function, Hughes and project architect Nigel Baldwin used a light perforated metallic sheet curved to evoke fast movement. The pattern and density of the perforations allow passengers to look out during daytime, while the lighting system was designed so that people could see in at night.

The end facades and pyramidal roofs surmounting each station recall some of Hughes' housing schemes that exploit historical themes and for which he has been widely acclaimed. However, his introduction of basic geometrical forms could indicate a new direction for this architect. It will be particularly interesting to see if the design of the monorail stations for the world's fair influences his current projects, including a highrise housing scheme under



construction, also in Vancouver.

On the opposite coast, near Halifax, Nova Scotia, Brian MacKay-Lyons just renovated a 200-year-old Cape Cod house typical of the Maritimes. Representative of this young firm's careful approach to design, the building shows a refreshing yet respectful attitude toward renovation in an area of the country where magnificent vernacular material is still the best architecture to be seen.

This house shows the obvious influence of Charles Moore: MacKay-Lyons was a student of Moore at UCLA, then worked for him on a couple of projects. Here,

however, Moore's "aedicula" is transformed in a central chimney that contains a fireplace, bathroom, staircase, and other functions, then serves as an anchor for the sleeping platforms, and finally culminates in a widow's walk overlooking the sea and the newly planted orchard. This house is one of the first recent major built design efforts by a local architect in the Maritimes, a region where buildings of impor-

Chimney/widow's walk provides views out to the sea and becomes a dominant interior feature of this recently renovated 200-year-old Nova Scotian house.



...ce are designed by outside architects. Finally, at the other end of the spectrum in terms of vocabulary is Québec architect Jacques Rousseau. Although his work is still very modest, he has managed to create a major impact on the Montreal architectural scene. Rousseau's Bar Business is a highly personal research exploration of dramatic uses of raw steel and concrete that, along with provocative effects created by lighting consultant Alain Lortie, set the stage for periodically changing visual events in the bar. Underlying the architect's work are ideas about the city, its industry, and its energy.

Jacques Rousseau's very urban Bar Business, an exploration of raw steel and raw concrete.

Rousseau, who is part owner of the bar, has long been intrigued by St. Lawrence Boulevard, which he chose for the location of this project because of its "limitless, permissive, and effervescent" nature. St. Lawrence is the longest and oldest north-south axis to cross the island of Montreal; it also is the dividing line between East and West, French and English.

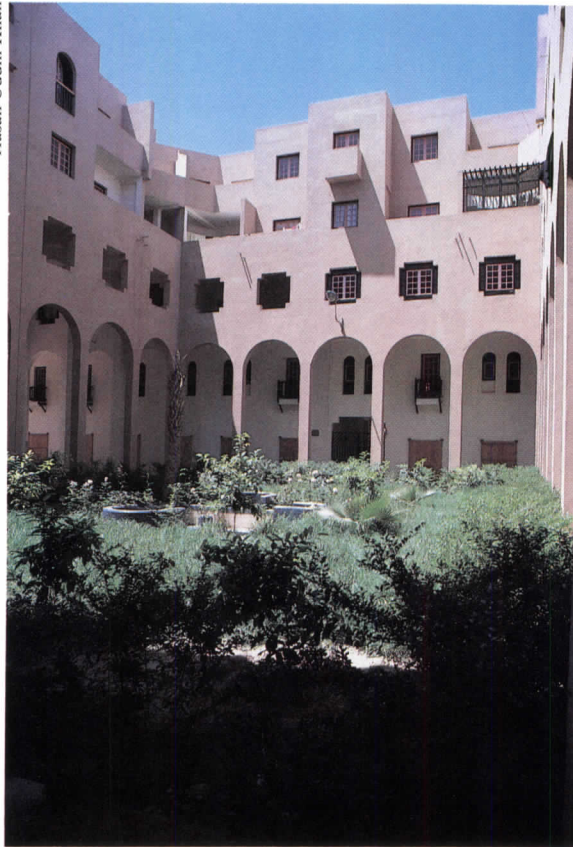
The building was used until recently as a clothes factory and industrial warehouse.

The structural elements found in it by the architect correspond to the juxtaposition of two grids. The first and most important is one parallel to that of the city itself; the second, more accidental in nature, responds to the angle formed by Milton Street and St. Lawrence. At the meeting point of these two grids, an imaginary spiral emerges in the mind of the architect and determines the basic geometry of Bar Business.—ODILE HÉNAULT

Ms. Hénault is editor of Section A, a Canadian quarterly design magazine based in Toronto.

Morocco

Hasan-Uddin Khan



Hasan-Uddin Khan



Top, court of Assif-Marrakesh housing; above, outer arcade with shops at ground level, apartments above. Opposite, new Ourzazate commercial and craft center, above, with old casbah (in right of photo); below, interior passageway that serves shops and display spaces.

Combining Simple Volumes with Rich, Traditional Details

Charles Boccara of Morocco is one of a small group of third world architects with foreign-based educations who in the mid-'30s to mid-'40s refuse the sterile clichés of the modern Western architecture of the 1960s and '70s, while also being satisfied with reproducing stereotypical native images and forms where these are inappropriate.

Boccara was born in 1940 in Tunisia, grew up in Morocco, and received his training at the Ecole des Beaux-Arts in Paris. He returned to live in Morocco some 15 years ago. Most of his commissions have been in the public sector.

He says that he is still influenced by the tenets of modernism, that applied ornamentation is to be avoided, and that emphasis should be on the articulation of volumes in space and on visible structural solutions. Nevertheless, Boccara combines geometric compositions of volumes with ornamentation derived from existing Arab and Moroccan crafts. The juxtaposition of simple volumes and rich detailing, in alabaster, ceramic tilework, woodwork, and painting, creates a marvelous blending of the old in the new.

In the past 10 years, his output has been significant though his office is small (and he says he has no desire to expand). He is lucky that the building industry in Morocco still allows for a somewhat flexible approach to construction, where he can re-evaluate and change such things as detailing in a project while it is underway. He works closely with contractors and craftsmen, economizing here, elaborating there, in ways that architects in the West find less and less possible.

The following are a few projects that show the diversity of Boccara's approach and his attempt to create a modern architecture with Arab-Moroccan roots:

A public housing authority commissioned Boccara to design 300 individual family dwellings at Assif-Marrakesh. Completed in 1978, this was the first phase of a larger development that included 128 units in a five-story building with landscaped courtyards and shops on the ground floor; this phase was terminated in 1983. The emphasis in each of the prototypes, whether for houses or apartments, is on traditional spatial arrangements with privacy ensured by separate sitting rooms



© C. Lignon

family or guests, symmetrical composition of rooms (e.g. bedrooms), incorporated terraces and loggias, etc. Moreover, the 300 villas built of brick covered with plaster were conceived with a potential for change—and changes there have been, though well maintained on the whole, the terraces of some houses have been enclosed to add another room, garages have been transformed into offices or small retail spaces, and even a floor has been added.

At the Avicenne hospital of 1982 on the outskirts of Marrakesh, the architect took over a project for a hospital begun several decades ago that had never progressed beyond the foundations. He adapted what existed to conform to his own conception of a relatively low-rise complex organized around open courtyards and galleries. A hot dry climate necessitated thermal insulation, so he used 50-centimeter-thick walls of stone at ground level, and of brick elsewhere. Roofs are covered with an exterior coating, as is the habit in Southern Morocco, while exposed brickwork interspersed with plaster is used for arches and passageways.

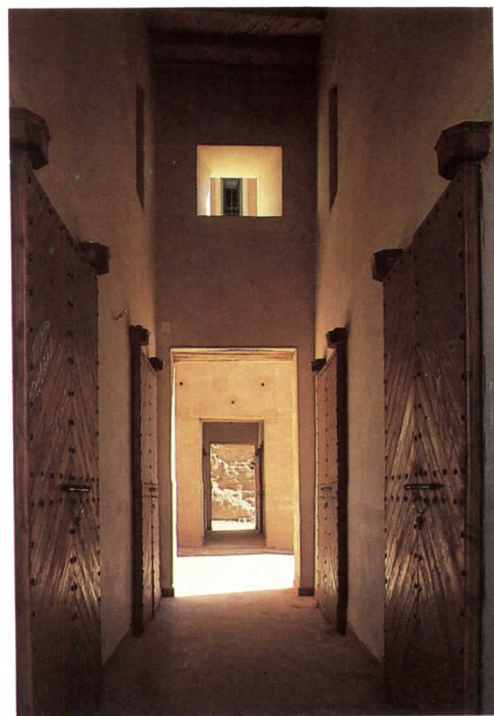
While the 300-bed hospital includes all major therapy services, and the essential services are airconditioned, Boccara lavished considerable attention on out-of-doors or

naturally sunlit and ventilated spaces where patients can mingle, relax, and meet family members. It is this human scale that makes architecture in tune with local traditions. Suburban Assif has grown rapidly to 100,000, and so the architect has attempted to introduce a form of housing with higher densities, a familiar mix of residential and commercial activities, and decorative elements.

Boccara's commercial center at Ouarzazate in southern Morocco was completed in 1984. The provincial authorities proposed a program for over 20 shops, craft workshops, exhibition rooms, a cafe-restaurant, and eight guest rooms. Although not specifically asked to do so, the architect created an appropriate place of entry to an existing *casbah* and hence opted for the use of traditional earthen construction. The architectural vocabulary, including ceilings, brick, cedar doors, and decorative motifs, is inspired from elements commonly found in the region.

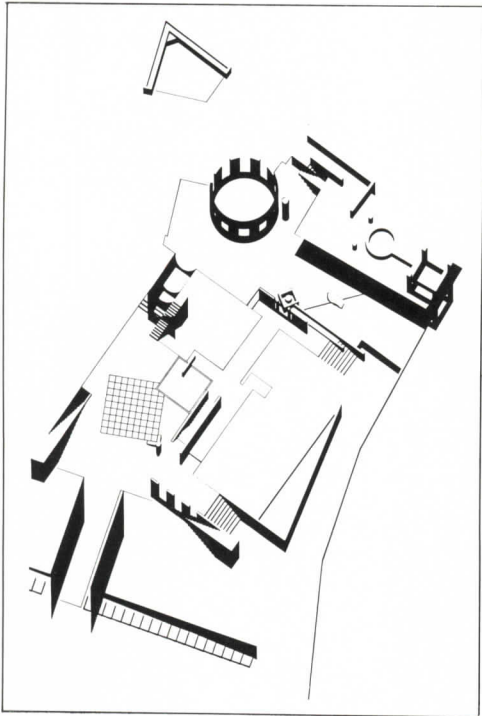
HASAN-UDDIN KHAN and BRIAN TAYLOR

Mr. Khan is a British-trained Pakistani architect and planner. Mr. Taylor, an American architectural historian and critic, works and teaches in Paris. Both are editors of the quarterly magazine Mimar: Architecture in Development.



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Japan

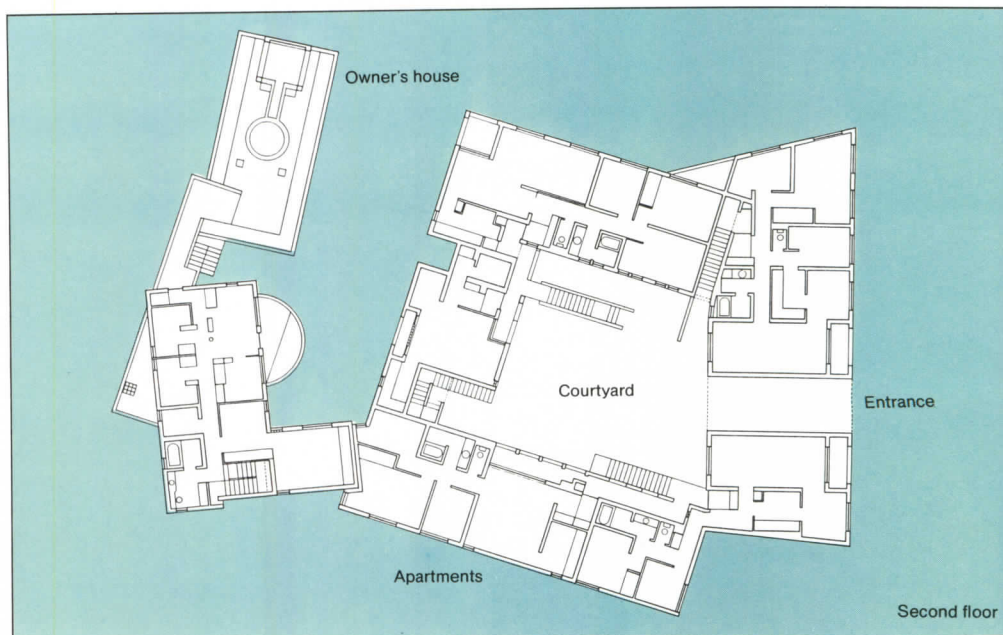


'Miniaturizing Southern California' in The Midst of Tokyo

Having created bonsai and compact cars and television sets small enough to be worn on the wrist, the Japanese have at long last gotten around to miniaturizing Southern California so it can fit into a middling-sized piece of Tokyo property. Or so it seems when one visits Atrium, a housing complex comprising 11 rental apartments and a two-family house for the owner and located in the Saginomiya district in the western part of the Japanese capital. It has pastel hues, a patio, a pool (all six feet of it), and a vaguely hedonistic

mise-en-scene suggestive of Hollywood.

The owner was open to the idea of creating something different—a model, if it were, for small-scale development—and did not begrudge the architect the relative economic extravagance of incorporating “wasteful” courtyards and building only two stories where he could have built three. The architect, Kunihiko Hayakawa, has taken full advantage of this bit of leeway to create a sense of great spaciousness by using techniques similar to those employed by the designers of Japan’s tra



Photographs by East West Color Photo Inc.

onal tour gardens. That is, he has con-
ved the circulation as a promenade,
ere the observer experiences a sequence
partial views; as much is hidden as
ealed, suggesting great spatial exten-
n in a limited area.

Unlike a tour garden, however, this envi-
ment is totally artificial. Along the
menade Hayakawa has distributed foun-
ns, stairways, an arched passageway, a
ol, and sculpture by Eishi Yamamoto.
suggesting a stage set, it resembles other
rks by Hayakawa such as his two houses

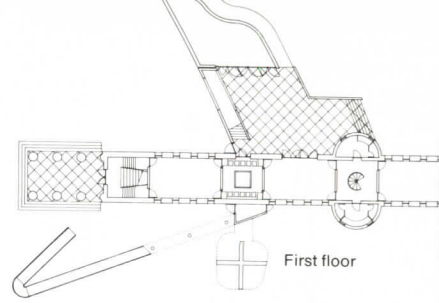
in Seijo Gakuen and Nakazawa Hall. He
will often create a zone to mediate between
a private and a public space and infuse it
with a theatrical atmosphere. The ambi-
guity of such an intermediate zone over-
laps with the ambiguity of the stage, with
its blurring of reality and artifice. Entering
the courtyard of this apartment complex,
one becomes a bit self-conscious, as if
one were truly behind the footlights.

The fantasizing that Atrium encourages
may be dismissed as escapist, yet escape
may be what is needed, given the dreary

conditions under which many people in
Tokyo live. Under perpetual siege by noise,
air pollution, and visual intrusion and worn
down by commuting in crowded trains,
the Japanese urban dweller could well do
with a haven offering a soothing, tempo-
rary respite and a chance for drama.

—HIROSHI WATANABE

An architect working in Tokyo, Mr. Watanabe was a correspondent for Architecture Plus and is a frequent contributor to this magazine.



Friendly, Playful Art Museum Clothed In Autumnal Colors

Nishiwaki is a city encircled by steep hills to the north of Kobe. Inconvenient railway connections make it something of a backwater, even though gingham from its mills is exported worldwide. Nishiwaki's main claim to fame is that the 35th parallel and the 135th meridian intersect within the city limits. Since the Japanese archipelago extends roughly from the 45th to the 25th parallels north to south, and from the 146th to the 124th meridians east to west (if one disregards some northern islands occupied by the Soviet Union but still claimed by Tokyo), the intersection may be said to represent the middle of Japan.

City officials, anxious to develop a civic identity—the city has been in existence only since 1952 when a town and three villages were administratively united—are trying to get what mileage they can from this geographical coincidence and, somewhat desperately, have dubbed Nishiwaki “the navel of Japan.”

They have enlisted the help of Tadaru Yokoo, the graphic artist and arguably the city's most famous native son. Yokoo is designing what is to be called “Japan Navel Park” on the eastern bank of the Kako River. His ambitious plan calls for, among other things, a large, conical depression in pink to be carved in the ground. However, Japanese export industries, including the textile industry, are hurting at the moment because of the strong yen, with the city in financial difficulties, the project for a symbolic bellybutton may unfortunately, belly up.

Nevertheless, one part of the park has been realized through a private donation: the Okanoyama Museum of Art designed by Arata Isozaki, Hon. FAIA. This small (4,300-square-foot) museum is intended primarily to exhibit works by Yokoo and to provide a center of artistic activities for the region.

The building stands on a site bordered to the east by an ancient mound overgrown with trees and to the west by an infrequently used railway station, and beyond the tracks, by the rushing water of the Kako. The proximity of the tracks gave Isozaki the idea of planning the museum as a linear series of compartments in the manner of railroad cars. These exhibition spaces are set above



basement housing office, meeting, and storage rooms. Various secondary elements include a ramp, balconies, a "meditation room," a mechanical space, and an atelier—are layered off against the main, linearly employed volume.

One enters through a portico, whose proportions suggest that of the Maison de la Culture in Nîmes, with massive, exposed concrete columns, into a little vestibule very reminiscent of Michelangelo's ante-chamber for the Laurentian Library. (The museum does not exhibit the level of historicism, however, that was evident in the architect's 1983 Tsukuba Center Building.) There are three exhibition rooms, the first devoted to Yokoo's works of the 1960s, the second to works of the '70s, and the third to the '80s. (The design will permit a future addition at the back dedicated to the '90s.) These exhibition rooms are separated by two more vestibules that suggest the general spirit of the graphic artworks in the last two decades: The first is centered around a living palm tree, a nod to Yokoo's preoccupation with tropical paradises during the '70s, and the second, with its slightly skewed grid pattern applied to the walls, is intended to prepare the visitor for works of the 1980s that are more "purely" artistic in nature.

Like Isozaki's previous designs for museums in Tokyo, Osaka, and Gunma were highly



geometricized and projected mechanistic images. The forms stood in stark contrast to their surroundings. The exhibition spaces were of an indefinite scale and, despite the obvious virtues these museums possessed as works of art in their own right, were not notably sympathetic to the works of art exhibited in them. The Okanoyama Museum is far kinder to the works it houses. It was designed

concurrently with the Museum of Contemporary Art in Los Angeles, and among the qualities it shares with the California museum are an intimate scale and bold coloring. A tour of European museums by Isozaki and other members of his atelier during the design process apparently convinced him that clearly defined rooms with four corners provided the best environment for viewing works of art, even contemporary works.

The purple drains and yellow and orange stuccoed walls of the Okanoyama Museum shocked locals at first, yet they help to give the building a warm, playful quality. Like everything else that Isozaki has ever designed, it stands in sharp contrast to the environment, yet unlike his past work, it does not threaten or challenge. Perhaps the museum's autumnal colors signal a mellowing on the part of this architect. In any case he seems here to be thoroughly enjoying himself.

Despite its being off the beaten track, the museum has attracted a steady stream of visitors. One past visitor was Issei Miyake, who liked the building so much he returned recently to put on a fashion show that drew considerable attention. City officials ought to be pleased, for there is no doubt that Isozaki's museum and Yokoo's works of graphic art are inspiring more Japanese to come contemplate their navel.—HIROSHI WATANABE

Japan

Serial of Structures, Each Borrowing From its Predecessor

Olive trees bearing this year's burden of fruit grow on a terraced mountainside stepping down toward a harbor. Islands dot the sea. The sea, however, is not the Aegean but the Inland Sea of Japan. The mountain is within the township of Ushimado, a quiet coastal community that is more than an hour's bus ride from Okayama City. Once a flourishing port and a station for *daimyo* and their entourage traveling to and from Edo, Ushimado fell into obscurity when new transportation routes developed after the Meiji Restoration. In recent years, a leading landowner to whom the olive grove belongs has been promoting the idea of holding an international arts festival in town; the first such gathering was held in 1985, with performances staged in a cleared area on the mountain.

It was decided to build a facility that would provide logistical support for the festival; the architect chosen was Hiromi Fujii, who teaches at the Shibaura Institute of Technology in Tokyo.

Fujii's approach to architecture has been very strongly influenced by semiotics. From it is derived his conviction that in architecture the observer, far from being a passive recipient of meaning, is required to be an active participant in the *creation* of meaning.

Fujii's career may be divided roughly into two parts. Early works, like the Miyajima House (1973), were attempts to efface all conventional associations attached to buildings. Conventional associations, by channeling the mind along predetermined routes, fail to stimulate the mind's cognitive function. Fujii employed various ruses—avowedly to induce in the observer a benumbed state that allows the unconscious to create meaning—the most obvious among them being the application of a grid pattern over the entire external and internal surface of a building.

Thus, in his early works at least, Fujii's approach was negative in its essential character; more recently, he has taken what might be described as an activist tack. No longer is he merely content to free the unconscious of encumbrances that hinder its work. His interest now is in the precise mechanism by which the mind perceives/creates meaning. The influence of a theory of literary criticism known as

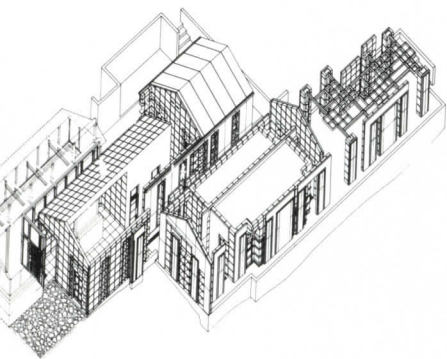


Clustered structures on a mountainside.

deconstruction is evident. According to Fujii's interpretation of deconstructive theory, what the mind seizes upon in its perception of an object is not merely the object in and of itself but its difference from a trace of its past or future state. Or as Jacques Derrida, the major figure in deconstructive criticism, has elliptically put it: "Without a retention in the minimal unit of temporal experience, without a trace retaining the other as other in the same, no difference would do its work and no meaning would appear."

Fujii will take some prototypical form and transform it through a series of operations—for example, reversing the relationship of inside and outside or replacing a solid wall by an opening. The end result may be very different from the "original," yet it inevitably carries with it traces of its past states and anticipations of possible future arrangements. Meaning is generated, or so Fujii believes, by the dis-





light, transparency of gable ends offers glimpses of shaded terrace, below.

discrepancy between what is and what was might be. What meaning is generated in the eyes of the beholder.

The program for the arts festival called for an existing, traditional-style warehouse on the site to be used as a part of the facility. Fujii has designed a cluster of structures that are to be read as a series originating in the storehouse, each houses a small gallery. Each structure retains certain features or proportions of the structure preceding it but loses many more; for example, the exposed concrete "hut" in which the office is located has a pitched roof that recalls the tiled roof of the storehouse, but in its materials and fenestration it is entirely different from its "predecessor." By the time one gets to the pergola shading the terrace that represents the final structure in the sequence, there is only the faintest suggestions of the first. The storehouse is taken down and dematerialized and in its final incarnation is poised above the landscape into which it appears ready to dissolve.

The Ushimado Arts Festival Center is a mechanical application of theory, but there is a sense of some abstruse formula being followed, as if in the gradual dissolution of the storehouse down to its metaphorical skeleton some ritual were being observed. To hazard one interpretation, the storehouse undergoes disintegration to make possible its rebirth. That ineffable portion of its existence that is ultimately released to the landscape, by the same token, can be recaptured if one knows how. Only to the initiated, it is estimated, is this knowledge revealed. The Ushimado Arts Festival Center, diminutive though it may be, is a celebration of the mystery of architecture and in that sense constitutes a festival in itself.

—HIROSHI WATANABE



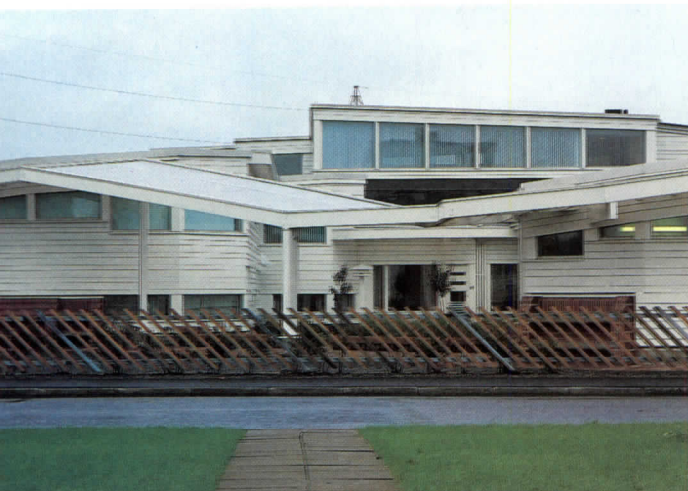
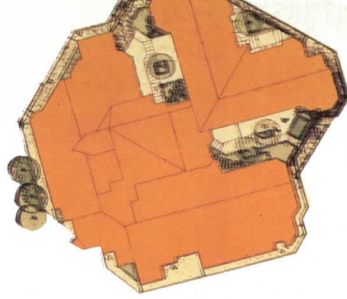
Finland



Cheerfully Complex Day-Care Center Scaled for Children

The recently completed Taikurinhattu Day Care Center by Reima and Raili Pietilä is located in western Finland in Pori, not far from Aalto's masterpiece, the Villa Mairea. Aalto's emphasis on the heterogeneous elements of architecture, as well as his affinity to nature, continue to exert a profound influence on the Pietiläs as they assume Aalto's role as the pre-eminent figures in current Finnish architecture, though the Pietiläs' intuitive and naturalistic approach parallels only one aspect of Aalto's complex architectural make-up.

The new day-care center is one of three elements that the Pietiläs designed for a large, open site in a residential district of Pori. The other two elements are a center for the elderly, to be completed by early 1987, and a park, which will be a recreation area for both buildings. A single link connects the two buildings, which are other-



'Child architecture' with somewhat fragmented, house-like clapboard forms is organized as miniature town with courts, streets, 'neighborhoods' for different age groups. Drawings by Tove Janssen serve as theme elements throughout center.

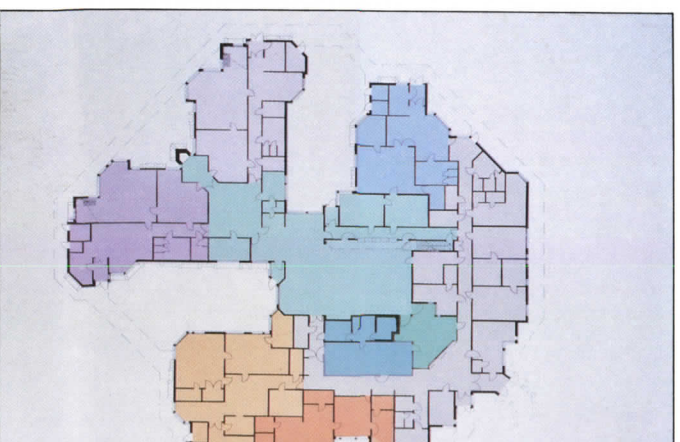
wise independent. Each has a sculptural presence on the site, and, as Reima Pietilä remarks, the red brick home for the elderly will probably appear more historical and permanent whereas the day-care center will look like a newcomer.

The day-care center's white clapboarding and rich blend of forms contrast with drab neighboring apartments, and its diminutive scale speaks to a slightly abstracted image of "house" and to the secret world of children.

"Child architecture" is one of Reima Pietilä's stated goals, and he has realized it by carefully placing windows, doors, handrails, and other architectural elements at heights appropriate for children. He says, "We did the sections for the day-care center in this way, using the 'child's eye.'"

The building appears to be fragmented and complex at first glance, yet the plan is quite logical and organized as a small urban entity. At the center of the building is a common activities room or "forum," with a singing room and story-telling inglenook located nearby. Two courtyards separate the rooms for 3- to 6-year-old children from the main body of the center. Younger children and part-time attendants also have distinct "neighborhoods." The sauna is designed as a "house" within the town, with a pitched roof and tiled "front yard." The distinctiveness of the magical, interior children's realm from the outside world is accentuated by the extensive use of brick, wood, and colored tiles. The multiplicity of doors makes approach by an uninformed visitor somewhat problematical, but, as Reima Pietilä remarks, it is "designed for the users from the neighborhood and not necessarily . . . for architectural wanderers."

The experience of special areas is discontinuous — that is to say, does not exist in an ordered and sequential manner. Pietilä says, "We must think like this: Here





With colored tile, brick, woodwork, fanciful diminutive forms to stimulate a child's magical view of the world, there are small houses within larger ones, and many special spaces. Above, sauna washing room; opposite, above, space for 3- to 6-year olds; below, play area.

we are in this place—now we're moving in an interval space of no interest to the child—and now, here again there's a special area suitable for him."

The Norwegian critic Norberg-Schulz has recently said that he believes Pietilä may be surpassing Aalto in his ability to achieve a memorable sense of place or *genius loci*. Taikurinhattu's strength is the image quality of the building—both the external white clapboarded domesticity and the magical brick and wood interior. In addition the plan is well organized; despite the chaotic perimeter, there are many special places within the interior realm, and the zoning for different

age groups functions very well according to the day-care center staff.

Taikurinhattu's greatest weakness is its insularity and lack of connection to the external, adult world. Pietilä has missed the opportunity to create a strong relationship to the elderly center or the park. The nonhierarchical arrangement of entries, while perhaps speaking to a child's more diffuse and undifferentiated view, does nothing to link the child to an adult world, where concepts such as primary and secondary entries, front and back doors are quite important.

The Pietiläs have searched for non-rational, naturalistic forms since the 1950s. The Taikurinhattu center is an example of this concern for complex, nonhierarchical form. "I have been fighting clarity doctrines from the '50s onwards," Reima Pietilä says. —NILS FINNE

Mr. Finne is a practicing architect and a 1985 Fulbright fellow in Helsinki.

India

Cellular Housing Scheme Expansible From Court to City

Indian architect Charles Correa, Hon. FAIA, and last year's winner of the Royal Institute of Architect's gold medal, writes as follows about his Nerul housing in New Bombay. — *Ed.*

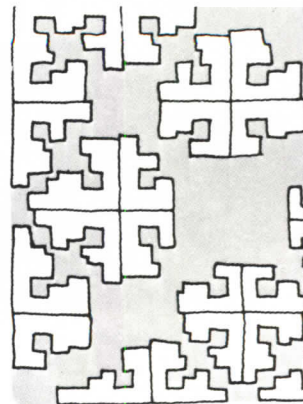
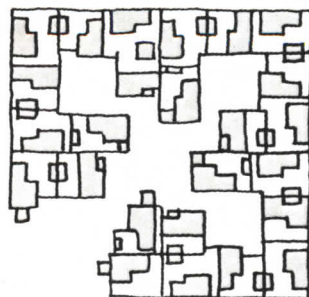
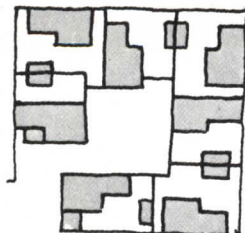
"The rural migrants pour into our cities. They are looking not merely for houses, but for jobs, education, opportunity. Is the architect, with his highly specialized skills, of any relevance to them? This will remain the central issue of our profession for the next decades.

"We live in countries of great cultural heritage. Countries that wear their past as easily as a woman drapes her sari. But in understanding and using this past, let us never forget the actual living conditions of many of the peoples of Asia and their desperate struggle to shape a better future. Only a decadent architecture looks obsessively backward ('I have seen the past, and it works'). At its most vital, architecture is an agent of change.

"Thus, in Asia, the symbol of enlightenment has never been the school building, but rather the guru sitting under a banyan tree; the monumental temples of south India are experienced not just as *gopurams* and shrines but as a movement through the great open-to-sky spaces that lie between them.

"The building must itself, through its very form, create the 'controls' that the user needs. Such a response necessitates

Basic element is pair of houses with back-to-back toilets. Units are buildable by local masons. Plans show cluster of seven houses around small court that can be replicated ad infinitum.



h more than just sun angles and lou-
; it must involve the section, the plan,
shape—in short, the very heart of the
ding.

The housing sector shown here is for
ut 550 families in an area of 5.4 hec-
s in Nerul (a node about 2 kilome-
, away from the city center of New
nbay). Within this sector, housing for
ide range of income groups is pro-
ed. [Four different sized units are
red for sale, the least expensive for
U.S. equivalent of \$1,600, the most
ensive for \$6,666.]

Since the sector is located relatively
r the MRT station, the overall densi-
are high—but, at the same time, the
owing principles have been strictly
ered to:

“Each family has open-to-sky space
ugment the covered built-up area—
thin the parameters of an optimal cost-
enefit trade-off.

“All the houses are incremental, i.e.
be extended by the occupants. In
er to achieve this, each house is placed
an independent site, not sharing a com-
n wall with its neighbor.

“Although a large range (as high as
) of income groups is housed here,
variation in plot sizes is from 45 square
eters to 76 square meters (a ratio of
out 3:5). This often has been done for
o reasons: firstly, to sharply decrease the
an inequity that is so cruelly evident
our towns and cities; secondly, because
or people have families as large—and
fact, often larger—than rich ones. So
t even if economic factors preclude
e possibility of their getting much
vered space, they would at least be
sured of their fair share of open-to-sky
ace, which—in a warm climate—is an
ential amenity.

“Usually, lowrise high-density housing
this kind is organized along linear cor-
ors. In this case, a cluster pattern was



used. The basic element is a pair of
houses, with the toilets back to back (to
save on plumbing costs).

“At the smallest scale, seven such houses
are grouped around an intimate courty-
ard (about 8x8 meters). Three of these
clusters combine to form a module of 21
houses. Three such modules interlock to
describe the next scale of community
space—approximately 12x12 meters.

“This spatial hierarchy (courtyard to
threshold, etc.) continues until one reaches
the largest neighborhood spaces with
schools and other similar facilities.

“The system is arranged on the L-shaped
site in such a manner that these spines of
community spaces open up to the hill
behind. Along a diagonal running through
the site is located the shopping bazaar.

“The typology of the houses forms two
different sets. Within each set, the houses
can grow incrementally to the next stage
of development as the family income
increases. The houses, which are under
construction, are simple enough to be
built by local masons and ministries,
with the active participation of the people
themselves.” □

Ireland



Rough-hewn, Almost Hut-like Complex on A State-Run Farm

A recent London exhibit of five young Dublin architects, including John Tuomey, the 34-year-old architect of this meat testing plant, was accompanied by a catalog noting that the group's work "on the one hand accepts the given building technology and existing typologies [of Ireland] and on the other avoids sentimentality and pastiche."

The laboratory at Abbotstown, designed by Tuomey for the office of public works, refers, he says, "to the classical tradition of Irish architecture" with its symmetrical facades and cross axial plan. But equally important to Tuomey was the fitting of his building into its rural surrounds. This he did by giving it the appearance of 18th century rural industrial or agricultural settlements, familiar sights in the Irish landscape whose simple, prismatic

forms and painted roughcast rendered walls have been carried into the 20th century by the omnipresent national schools.

Since his little complex is organized orthogonally to suit the surrounding buildings on the site at the State Farm at Abbotstown, Tuomey "hinged" the entrance wall to align with the central meandering road. The large, relatively high, hipped roofs that house the laboratories express the building's organization, explains Tuomey, and permit discharge of fumes at 14 meters above ground, as required by the program.

The building's structure is cavity wall blockwork with steel trusses supporting the diagonally slated roofs. The blockwork is finished in the traditional Irish manner, with ochre painted roughcast render.

In the interiors—especially the entrance hall, top lit corridor, and changing/washing rooms—Tuomey has fashioned spaces that fuse Irish neoclassical severity with a contemporary combination of varied materials.

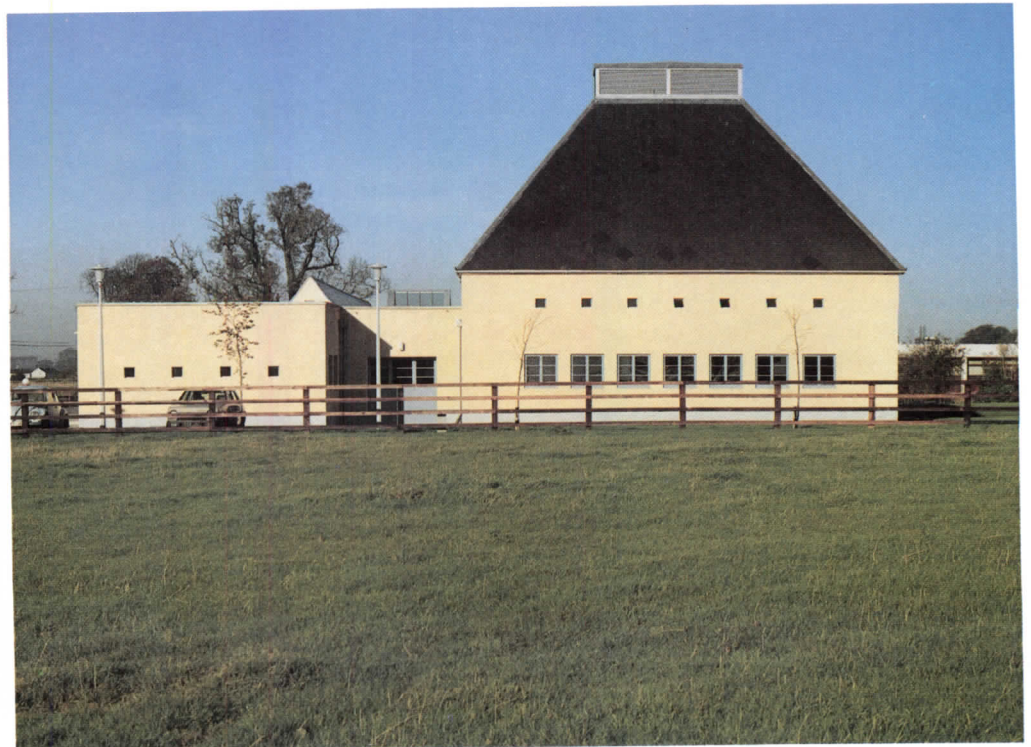
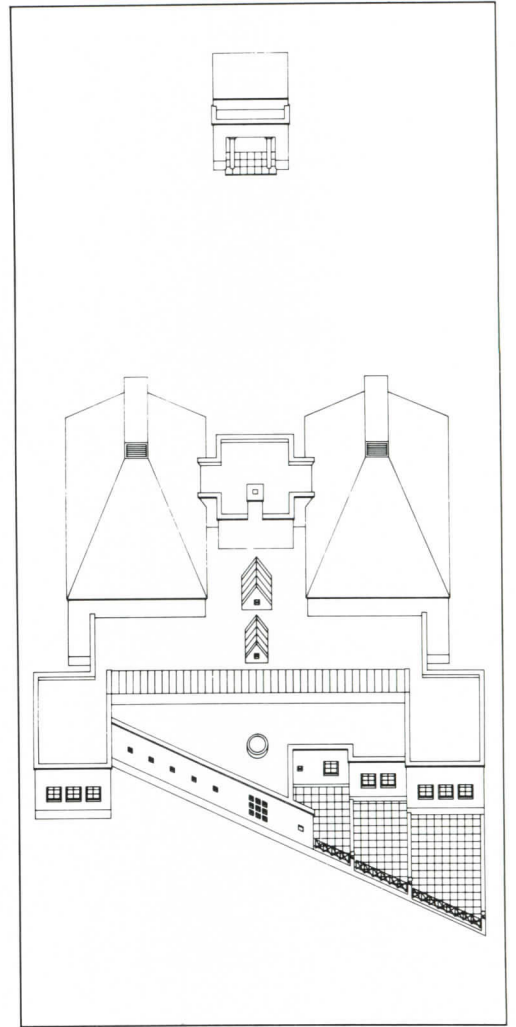
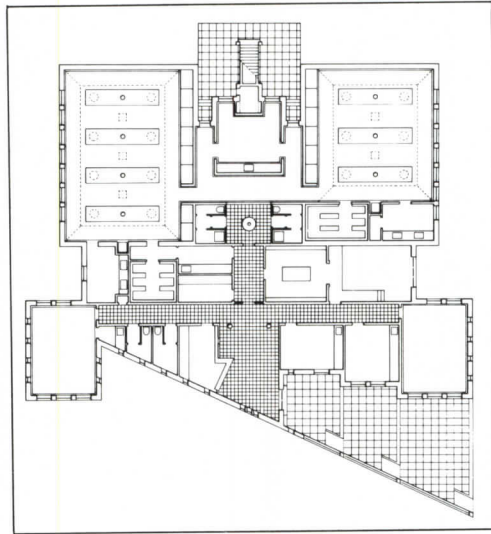
On entering the building, the axis, which

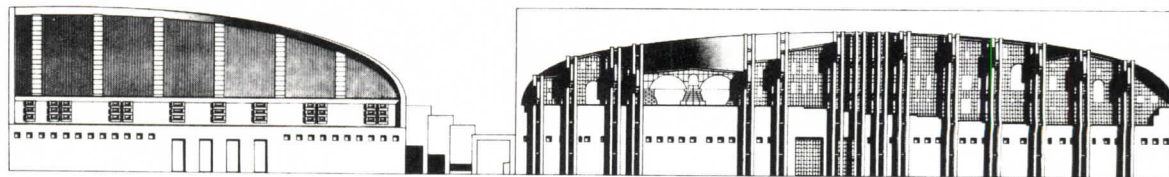
Laboratory, distinguished by its high hipped roofs, commands its bucolic setting.

was shifted by the angled entrance wall, is re-established by the corridors from entrance to place of work. Offices face south and are segregated from the laboratory room by a glass-roofed internal "street"—a buffer zone for changing overclothes and washing up—that has a special front door to the street outside.

Because the client wanted a tidy laboratory with coved floor skirting, washable walls, and the like, the architect says he chose not to expose the building's inner workings. Services for the laboratories travel via "columns" from the roof zone to under bench areas, making them easy to maintain and allowing jointless floors. The interior is, as Tuomey says, "clutter free with certain incidents such as entrance, circulation, and washing emphasized." He stresses that these two "concepts of clarity and ritual have informed the arrangement and color scheme of the interior."

—ANDREA OPPENHEIMER DEAN





Tracing a 'Cityscape' on a Facade Within a Facade

Anagni, a town about 40 miles southeast of Rome, is situated along the narrow crest of the final ridge of hills running along the western side of the valley of the Sacco River. The time of greatest glory for this center of pre-Roman origin was during the 12th and 13th centuries when Anagni sent three popes to Rome.

Below the historic center on a natural terrace of flat land, a sports palace has recently been completed by Roman architects Massimiliano Fuksas and Anna Maria Sacconi; an indoor swimming pool and plaza are in advanced phases of construction. Climbing the winding road from the valley, the sports palace comes into view intermittently, the rectangular facade appearing as an abstract wall mural until one can read an elongated arch cut out

of the concrete slab of the facade and a silhouette of pitched roofs under the arch.

This sort of cityscape, which becomes a facade within the facade, is articulated through the design and choice of glazing. The standard grid design of the curtain wall is interrupted by "windows" of reflective glass. The red painted steel mullions define elements of this vignette: the "windows" and a pair of arches on the left side of the facade. Clusters of tubular steel columns rise to the intrados of the arch. This architecture is distinctly narrative although its elements and messages are neither readily accessible nor complete. The tubular steel columns, for example, merely support the roof trusses in a straightforward manner.

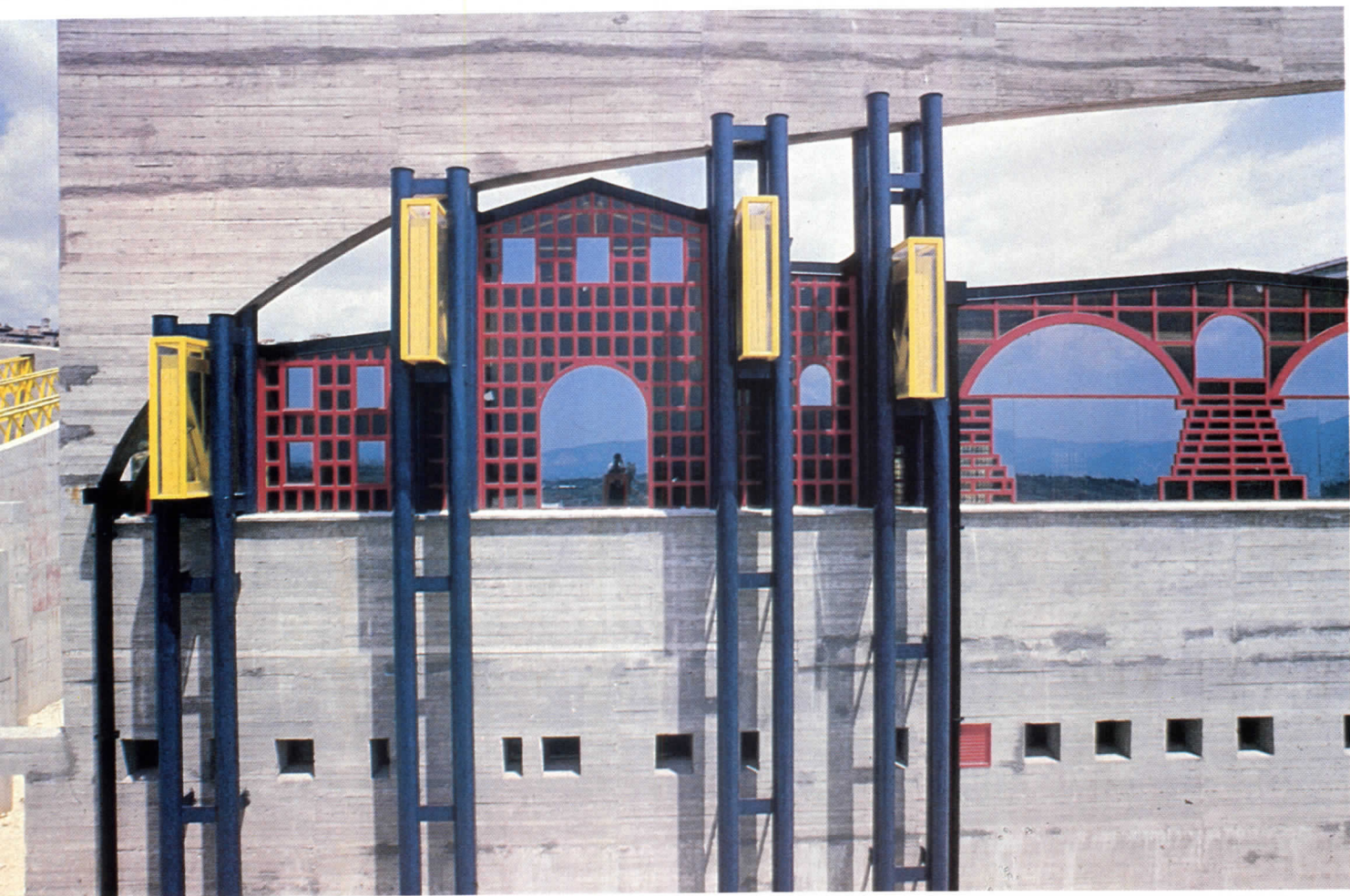
The walls of this arena consist of the

Central to the design is a cityscape etched onto the facade whose grid is interrupted by 'windows' of reflective glass and arches framed by red mullions. Tubular columns support the roof trusses.

mural/facade and a continuous curving wall, which in plan creates an arch. We perceive the curving "U" shaped wall, at least from the inside of the sports arena, which butts against the straight wall of the facade, but not everyone is going to see it.

Its narrative qualities aside, the building is a straightforward 34,000-square-foot sports arena containing a regulation playing court. The tiered amphitheater-type seating on four sides of the court is reinforced concrete. Below the grandstand, running along the interior of the facade are locker rooms, showers, services, and administrative facilities.

The pitched roofs of the facade's skyline silhouette actually form the profile of the roof of the sports palace. Here again, Fuksas and Sacconi demonstrate how the playful vignette ends up determining crucial design elements of the building. The roof of corrugated aluminum sandwich panels rests directly on the double steel trusses painted yellow; at ce





Roofs of the facade's 'skyline' define the ceiling plane creating an ingenious glazing pattern. Concrete amphitheater-like seating surrounds the court.

tain wide spans additional separate truss structures run between the primary trusses. The roof trusses penetrate the facade curtain wall and rest on clusters of four tubular steel columns. A pair of clusters on the reinforced concrete base of the facade rises up to the intrados of the facade arch for wind bracing. An outer pair rests on footings in front of the facade. The part of each roof truss that protrudes beyond the curtain wall is sealed in a glazed housing.

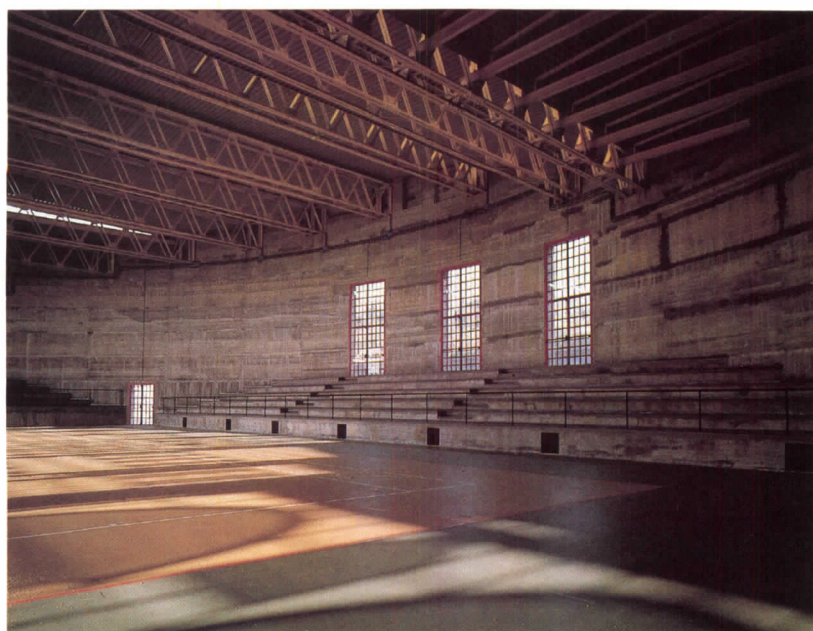
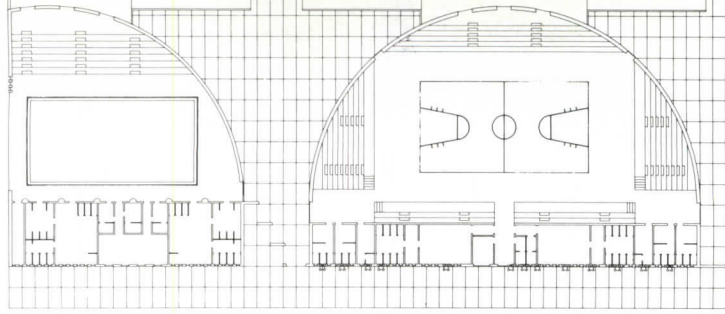
The rhythm established by the column placement and the height of each roof truss is dictated once again by the demands of the "skyline" vignette as well as the curve of the arch's intrados.

The arch and cityscape themes narrated may seem a little arbitrary, but Fuksas and Sacconi probably want it to appear that way. They are not interested in lofty rhetoric. They do not even feel the need to speak in complete sentences. Fragments suffice. The goal is not, I suspect, to tell a story with concrete, glass, and steel, but rather to suggest that the sports palace cannot, in the town of Anagni, possibly be just a mute statement of high level building technology. The sports palace is a very serious play between a theme and building technology.

The freshest and most attractive aspect of the work is its light-hearted and unpedantic quality. It is not self-conscious nor is it self-righteous or "overdressed."

—FRANK SPADARO

Mr. Spadaro is a Milan-based designer with the office of Vittorio Gregotti.



Turkey

The Soft, Sculptural Landscape Of Cappadocia

Cappadocia is a small but visually remarkable region in south central Anatolia (Turkey) with a long and varied history.

The Cappadocian landscape was formed by erosion of soft, volcanic tufa. The most common land forms are conical in shape due to the protective influence of a thin surface layer of basalt. Thicker or harder portions of this crust have survived thousands of years of erosion, while the softer tufa below has eroded at a faster rate.

The result is a tufa earth form that is roughly cone-shaped with a basalt cap. These cones are called "fairy chimneys" by the locals. Legend has it that they are chimneys from the dwellings of fairies and spirits who live in the earth.

Until relatively recently, this highly irregular landscape made road building virtually impossible. Cappadocia thus became a refuge for all manner of persons seeking political and spiritual asylum from the administration of their day.

Cappadocia has been inhabited since the stone age. It came under the rule of the Hittites around 2000 B.C. They were followed in turn by the Phrygians, the Lydians, the Persians, the Macedonians, the Romans, the Arabs, the Selchuks, and the Ottomans. During this long period of rule by various powers, the inhabitants of Cappadocia constructed several underground cities. The largest can house 40,000 persons; the deepest extended 18 to 20 stories into the earth. While the recorded history of these cities is complicated and sometimes nonexistent, their primary use was a place of refuge when unfriendly forces invaded the region.

The entire Anatolian plateau was known as Cappadocia in pre-Christian times. The name now refers to a small area approximately 180 kilometers southeast of Ankara and 50 kilometers west of Kayseri. The heart of the region is roughly bounded by an equilateral triangle 10 to 15 kilometers on a side. The apices of this triangle are the towns of Nevsehir, Ürgüp, and Avanos.

Some sites in Cappadocia are under the protection and control of the Turkish government. One is Göreme, the site of

numerous rock-cut churches of early Christian and Byzantine origin. Another is Zelve, a rock-cut village that was inhabited continuously from early Christian times and only recently evacuated due to extensive rock slides. Kaymakli and Derikuyu, two of the largest underground cities, are also under the auspices of the Turkish government.

In addition to churches and villages, there are a number of fine dovecotes in the area. These are used by local farmers to collect pigeon dung for use as fertilizer. Without the unknowing support of these birds, it is unlikely that Cappadocia could have supported more than a fraction of the people who have lived here over the ages.

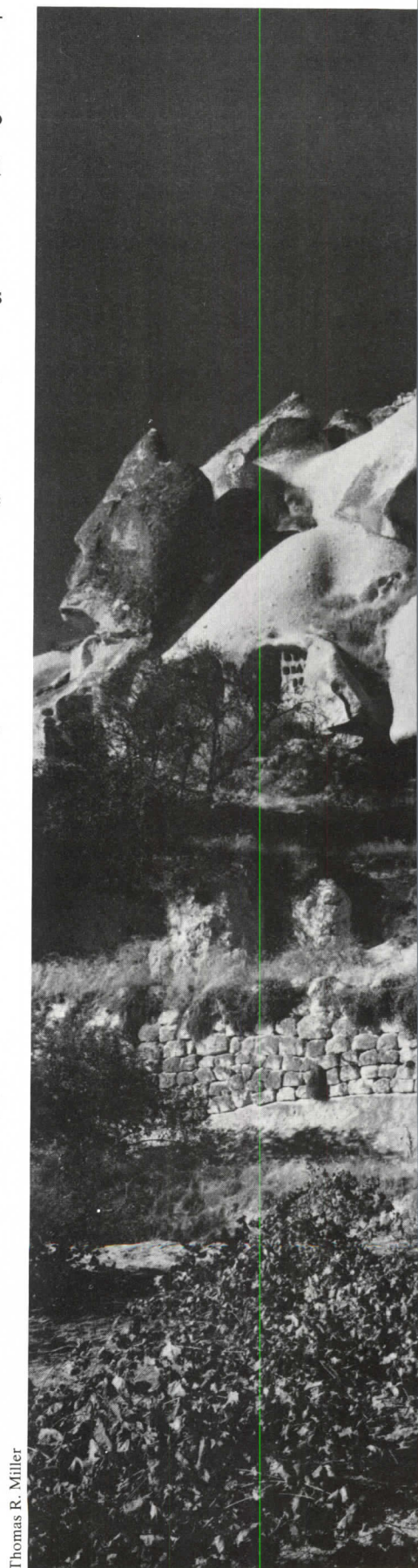
Cappadocian dovecotes are characterized by a masonry-infilled, plastered false doorway with a row of small "pigeon ports" below the doorhead. The plaster surface is often decoratively painted to attract the birds. This applied decoration is frequently derived from patterns found in the traditional Turkish kilim. Kilims are flat-woven rugs and a well-known folk art.

An exploration of Cappadocia raises numerous questions. What happened during the many gaps and soft spots in this region's recorded history? What was life like here on a sensory, spiritual, and intellectual level during various historical periods? Are current preservation efforts adequate to preserve this extraordinary place for posterity? If not, what does the future hold for Cappadocia? These photographs were made not necessarily in response to any of these questions, but merely as an attempt to establish a personal, visual dialogue between the region's past and the present.

—THOMAS R. MILLER

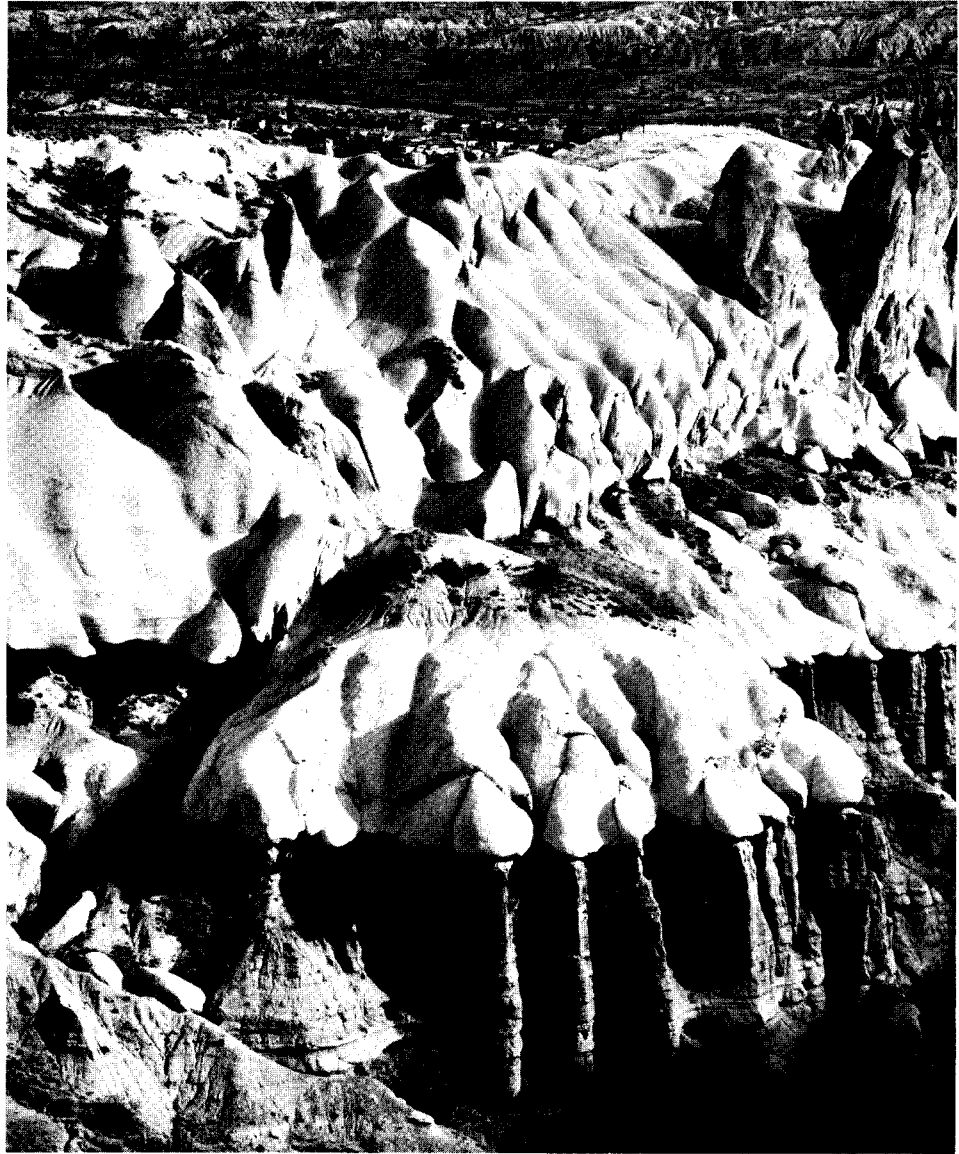
Mr. Miller has been a practicing architect since 1970. He has taught at several universities, most recently at the University of Illinois at Chicago. Original prints by the photographer are available for purchase. For further information, contact Thomas R. Miller, 2373 N.W. Johnson, Portland, Ore. 97210, (503) 274-9874.

Right, dovecotes cut into natural landscape near Avcilar. The 'doorways' are plaster-covered masonry painted bright colors to attract the birds.



Thomas R. Miller



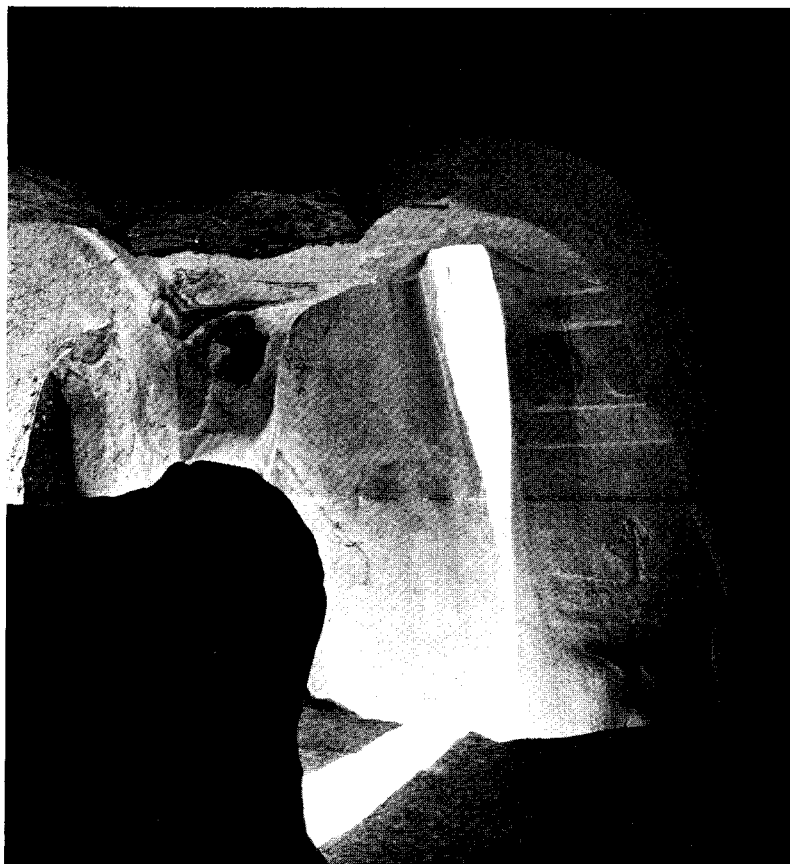
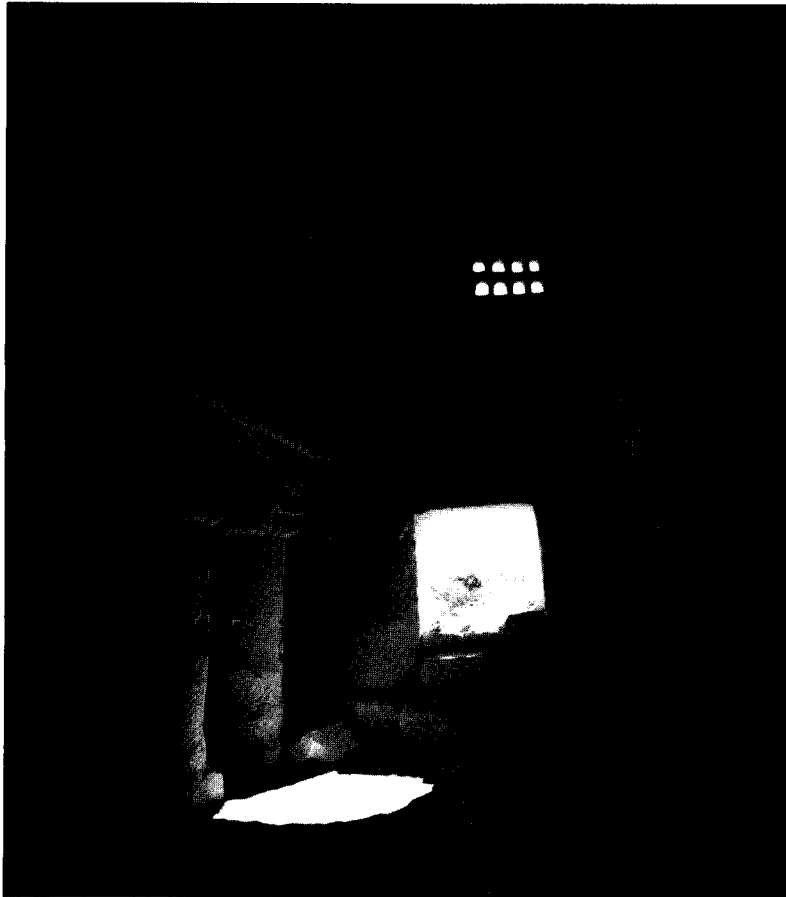


Right, landscape of eroded tufa, with Avcılar in the distance. Below, dove-cotes near Uçhisar. Opposite, the ancient village of Zelve, now uninhabited, from a plateau above.





Right, interior of 10th century Byzantine chapel near Ortashisar. Below, the interior of a rock-cut chapel at Zelve. Opposite, dovecotes cut into fairy chimney in Uçhisar valley.



Photographs by Thomas R. Miller





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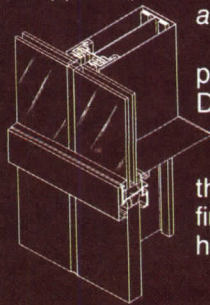


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Conflicting Views of the U.S. Chancery in Kuala Lumpur

From a local perspective. By Thor Kah Hoong

The United States of America is not just geographical and political entity. It is, in essence, a truism, a state of mind. Non-Americans, Malaysians, cannot help but respond—with a stance, with mental images, with mixed feelings—when the image of A. is evoked. The responses arise because of the resonances of its major political and economic roles on the world stage. The responses are colored by the images and sounds that flood our airwaves, our boob-tubes, our cinema screens. Hence the American embassy in Kuala Lumpur (see July, page 62), the capital of Malaysia, can never be regarded as a mere building. It is also a showcase of the U.S., and our perspective on it is gained partly through the prism of our prejudices and biases. It is a presence, the centerpoint of one. Stand on the steps of the American embassy and look out at the city. In the not-so-distant sky, you can clearly see the upward thrust of the Hilton and ESSO. For the many Malaysians who are still sensitive about our colonial past and uncertain about our present identity, the embassy allusions to the architectural features identified with our colonial past—veran-

dahs, wide roof overhangs, colonnades—is unfortunate.

"The building is ill-conceived and out of place. America is a Johnny-come-lately on the scene. She is not really a colonizing power, so it is regrettable that the embassy looks the way it does," said Mano Maniam, a lecturer in management and the former manager of an American educational agency. "It would have been more appropriate if the building had had a more metropolitan look, or if it had been more reflective of the adventurous inquiry that characterizes so much of American arts and culture."

Nonsense, says Jimmy Lim, a Malaysian architect well known for his creative use of local architectural idioms and materials. "Echoes of a colonial past? What's wrong with that? How can we disclaim the past? What we are today is a result of what happened then. So what if we borrow from the past? It doesn't matter. We are borrowing all the time, from every context, and fusing them into a new hybrid, a mutation of the features of the country's many cultural influences, the many races.

"When the designer of the embassy, George E. Hartman Jr. of the firm Hartman-Cox, first came to Malaysia he already had a design—a big block with a

flat roof and arched windows. He had little idea of the environmental ethos and climatic conditions prevailing here. The design was inappropriate, out of place. He showed me the design and I told him, 'George, it's a very good design . . . if you are building in Saudi Arabia.' I suggested that he go to Malacca, and I packed him off to Penang where my parents drove him all over town to look at the buildings."

(Penang still is, and Malacca was once, a major port of Malaysia. Both towns strongly felt the passage, through several centuries, of Arab, Indian, Chinese, Portuguese, Dutch, English traders, adventurers, soldiers, and administrators, and their accommodation of this polyglottal invasion is evident in the buildings. More than in any other part of the country, the old buildings in these two towns have successfully weathered war and the gravity pull of time, and even now are only grudgingly succumbing to the demands of those ubiquitous developers of shopping malls and corporate headquarters.)

Lim goes on to say, "I think the revised design has successfully translated the Malaysian vernacular into a multi-storied thing. Good human scale. I do think the pitched roof could have had a better resolution, but that's carping. At least the spirit is right." *continued on page 102*

Hoong is a reporter for *New Straits Times Sdn Berhad*, Kuala Lumpur.



Other Malaysian architects subscribed to the same assessment. They gave short shrift to the colonial readings. Their educated eye took in the receding frontage, the stepped pitched roof, and applauded its avoidance of monumentalism, though in appreciating this ingenious avoidance, Ken Yeang, a former president of the Malaysian Institute of Architects and a former vice president of Architects' Regional Council Asia, did also suggest that this could be reflective of the manner in which Americans wanted to be seen in Malaysia—keeping a low profile.

Not a suggestion that many Malaysians take to. Monumental! Overwhelming! Domineering! A fortress! That was the general reaction I encountered. It's one thing for an architect to assess a building on its structural and esthetic virtues. It's another thing altogether for the Malaysian public who just want to visit the USIS library or the consular section—the only two parts of the building generally accessible to them.

When you have had to park your car outside the embassy compound in front of a forbidding wall, gone through a security check at the front gate, had your bags checked at another security checkpoint at the lobby entrance, walked through a metal detector under the stony gaze of a jut-jawed, gimlet-eyed, heavily armed Marine in a glass cage, and finally passed through electrically operated doors, your perception of the embassy cannot help but

be aggravated by such watchful fears.

(Even in the company of a couple of senior embassy officials, the photographer accompanying me had to unscrew his lenses, click off several pointless shots, and had all his film canisters opened. Hup, hup, hup, in lockstep, mindlock observance of regulations and procedure.)

Unfortunately for the image of the American embassy, this is the only experience of the building that most Malaysians have. Yes, one has to be realistic about political realities, wary about giving ground to terrorists and their masturbatory fantasies of a bloody martyrdom, but for a Malaysian who just wants to borrow a Hemingway novel or apply for a visa, such jittery considerations only smack of ungrounded paranoia.

Ignore this encrustation of political overtones, ignore the Pavlovian emotions that surface every time an American presence is felt, and what you have is a large, but not overly so, building that is almost just like the other mansions in the neighborhood (if one also ignores the several prominent proboscises on the roof scanning the airways for messages and its unfortunate abutment at one corner with a garish gas station touting super formula propulsion).

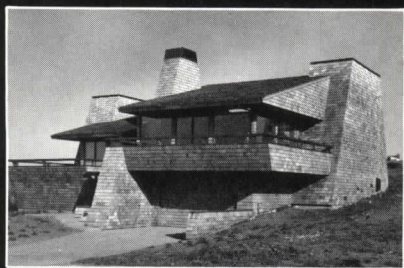
The American embassy is situated in one of the most lush, plush parts of the city, with the greens of the Royal Selangor Golf Club just down the road and the Singapore and Japanese embassies just

across it. It blends in well with the air of general air of vast wealth well-distance from curious eyes by long driveways and luxuriant foliage.

But possibly not for long. As one architect observed: "The design of the American embassy was suitably based on its context—romantic, colonial—but at the time the building was completed, the context was gone." He was referring to the imposing corporate towers and raucous shopping complexes that are sprouting in the vicinity, and the fact that Telok Ayer Stambok Road, on which the embassy fronts, is now the starting point for the major highway leading to the south of the country.

It is an ugly reality of Kuala Lumpur that dreamers and city planners cannot exert more than a slippery grasp on its explosive growth. Within some of the guardedly quiet compounds that are neighbors of the embassy, there are moribund family dynasties watching old and un-renewable wealth diminish and children slip away to more dynamic lives elsewhere. It is only a matter of time before the upkeep of vast halls weighs too heavy and the siren lure of developers becomes insistently irresistible.

It would be an ironic fate if the American embassy, with its structural diffidence and its studied adherence to the architectural mores of the neighborhood, is rewarded eventually with lofty, loud neighbors gawking down at it. □



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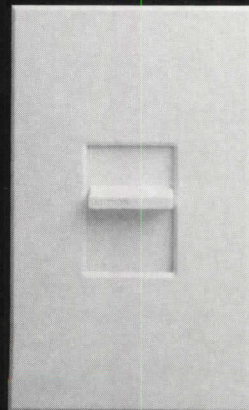
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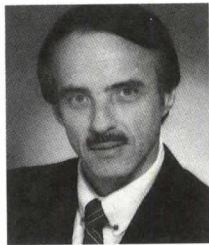
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Gerald Tomlin, ASID, I.E.S.
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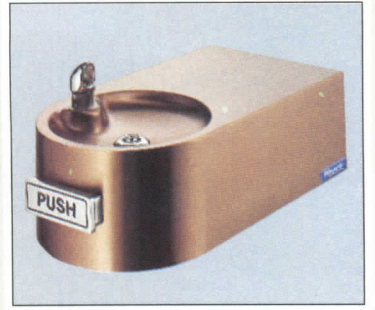
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Perspectives on Japanese Architecture

Contemporary Architecture of Japan, 1945-1984. Hiroyuki Suzuki, Reyner Banham, Katsuhiko Kobayashi. (Rizzoli, 1985.) **Contemporary Japanese Architecture: Its Development and Challenge.** Botond Bogнар. (Van Nostrand Reinhold, 1985.)

A fascination with Japanese architecture crosses national borders on the point of obsession in the West, but there has yet to be a single book that deals sensibly with both its long and diverse tradition and the explosion of modern building design and technology in the modern era. The first of these books under review, edited by Hiroyuki Suzuki and originally published in Japanese in 1984, concentrates on the last three decades of architectural development in Japan and is the more successful. Botond Bogнар's work, on the other hand, attempts to deal with both traditional and contemporary architecture as well as urban development. As a result of taking on too much, the book includes both insight and oversight. Hiroyuki Suzuki teaches at the University of Tokyo and is a noted critic of contemporary architecture in Japan whose opinions have appeared regularly in the English language edition of *Japan Architect*. In his book he provides a useful introduction to the most significant architect-designed buildings of postwar Japan. The book contains a selection of 92 buildings, each of which are presented with striking black and white photographs, small technical drawings, and a short commentary. Each book study may not include as much textual information or graphic details as the studies published in *Japan Architect*, but their very selection and grouping of buildings have made an important statement about which buildings have marked a significant stage or made an important contribution in recent Japanese architecture. The buildings are grouped according to the generation to which their architects belong. First is the "aureate generation," founders of postwar Japanese architecture. This selection starts with Kurano Tōgō's Nippon Life Insurance Co. building of 1963 and the Shojuo of 1979. These two buildings indicate immediately the diversity and challenge of contemporary architecture in Japan. The insurance company building has classical columns that have been turned into an office facade, anticipating postmodernism by more than two decades, while the Shojuo is a *sukiya* style conference center reflecting tea-house construction in the traditional manner. Also

included in this section of "golden oldies" are Kunio Maekawa's powerfully expressive Tokyo Metropolitan Festival Hall (1961) and Kenzō Tange's soaring exercise in steel suspension structure—the National Indoor Stadiums built for the 1964 Tokyo Olympics.

This group is followed by what is termed the "taking-off generation" (there must be a better translation) who started practice in the '60s and display traces of the rapid economic development of Japan. It includes Sachio Otani's Kyoto International Conference Hall (1966, 1971—with its monumental forms and distinctive diagonal standing posts), Kazuo Shinohara's Umbrella House (1961), and the House Under High Voltage Lines (1981, misprinted as 1961).

The next generation is called the "superficial generation," which was, according to the authors, less socially aware and

Below, hotel wing of Arata Isozaki's Tsukuba Center Building in Ibaraki, Japan.



lacked the opportunity to participate in large-scale national projects or work overseas. Included in this selection are Mayumi Miyawaki's Matsukawa Box (1971 and 1978). This is a mixed residence that employs reinforced concrete and timber frame construction for different parts of the building, while solid concrete forms a roof evoking the image of a traditional farmhouse.

The final section entitled "Design Towards the '80s" introduces five recent large-scale projects by leading architects, including Yoshinobu (misprinted as Yoshinobi) Ashihara's National Museum of Japanese History, Tange's Akasaka Prince Hotel, and Isozaki's Tsukuba Center Building.

The classification of such a rich and diverse set of buildings into generational groups reflects traditional East Asian thinking. It is a useful way of dealing with these buildings historically, but it causes occasional problems. For example, the "superficial generation" includes architects like Hiromi Fujii, who "impartially blend and balance Japanese and international architectural styles." This is hardly "superficial." Whatever the reservations about these categorizations, however, they do provide the reader with a compass for keeping a bearing in the complex maze of contemporary practice in Japan.

There is a short but extremely useful biography of each architect at the end of the book, and two helpful essays introduce it. In the first of these, entitled "Contemporary Architecture of Japan," Suzuki provides a concise review of major trends from Japan's initial recovery from the war in the mid-1950s to the ebullient experimentation of 1984. Reyner Banham, in the second essay on "The Japanization of World Architecture," draws attention to a fundamental problem of the "Western view" of Japanese architecture. He warns that modernism made a fiction out of Japanese architecture, appropriating it into a "Miesian and high-tech vision" of the future in order to satisfy fundamental uneasiness about architecture. Contemporary Japanese architecture, in reality, "had sources and destinations that had almost nothing to do with Western architecture." He also notes that postmodernism emerged "very much under Japanese influence."

The second book under examination is written by Botond Bogнар, a Hungarian-born architect who teaches at the Uni-

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versity of Illinois at Urbana-Champaign. It is attractively presented, with nearly 500 black and white photographs and technical drawings conveniently proximate to the relevant sections of the text. Bognar spent several years in Japan and here presents his conclusions based upon first-hand observations, together with assiduous reading of all available Western language sources. He has been remarkably diligent in the use of these sources and includes an excellent bibliography and useful footnoting throughout the text.

Bognar's book surveys traditional architecture and then makes an intensive examination of the postwar era. He discusses the impact of international trends in Japan, the revival of traditional architecture, the failure of the modern movement, the metabolists and their demise, contextualism, symbolism, mannerism, and the "pluralism" of the New Wave architects. In so doing, he marshalls together an impressive array of architects and buildings and analyzes them with vigor.

Bognar is able to provide useful insights into internationally related trends in Japan, one of the major determinants of contemporary architecture. But his inability to go beyond Western architectural preconceptions means that he consistently misunderstands or misrepresents Japanese traditional architecture and the way it relates to contemporary architecture, which is a fundamental theme that he sets out to explore.

The most confusing instance of this misunderstanding is his discussion of the meaning of space. He notes that in modernism space had the quality of being a "container," but that "this notion of space has never occurred in Japanese history and so the Japanese developed no theory of space. Spatial construction in traditional Japanese architecture seems to be only a leftover or neglected entity. . . ." Such a statement certainly marks a refreshing departure from the spate of latter-day Bruno Zevis expostulating on the theme of space in Japanese architecture, and I looked forward to the development of a good counter-thesis. Having proclaimed a point of departure, however, Bognar then backtracks into the world of "the spatial quality of traditional Japanese architecture." He adopts the new stereotypical catchwords *ma* and *oku* with relish to describe Katsura Villa and the work of Tadao Andō who, Bognar informs us, makes effective use of "the techniques of space layering; the ambiguous character of traditional Japanese architecture—with special regard to the *sukiya-zukuri*—has always been based on this. . . ." His skillful handling of the traditional Japanese concept of *ma* within the porous matrix which his framework creates is particularly noteworthy." In his discussion of the New Wave generation of the late 1970s, he comments that "these young architects have started to discover and incorporate

(the tradition of) the ambiguous symbolic qualities of space."

This is inconsistent with his earlier statement that the Japanese "developed no theory of space." I would argue, as Bognar seems to imply in his initial statement, that there is no "concept" of *ma* in traditional Japanese architecture, and that the notions of space are certainly not as developed as in the West. In Japan there is a practice of *ma*, based upon structural proportions and *tatami* mat placement to facilitate customary design, but it is Western thinking reinforced by recent writings by Japanese architects that has promoted *ma* to heroic proportions.

The one quarter of the book devoted to traditional architecture is marred by inaccuracy. Bognar suggests, for example, that "although Japan is equally blessed with both wood and stone of good quality, the importance of stone as a building material has always been minimal." This is one of the pervasive Western stereotypes about Japanese architecture and is patently incorrect. Buddhist temple buildings are customarily set on extensive stone podia in the manner of Greek classical architecture. Even when masonry is not particularly visible, as in much residential architecture, it provides indispensable foundations for the building as a whole. Castles of the 16th century made extensive use of giant granite blocks for their walls and as the base for the keep structures. The walls of Osaka Castle soar to more than 20 meters in height.

We are informed that "monumentality is largely missing from Japanese art and architecture." Yet two pages later Bognar informs us that "important architectural monuments can be found throughout the country." I do not see how one can have monuments without monumentality. I presume Bognar's definition of monumental rests on the idea of something monolithic—that is, something big, impressive, and permanent. But even by these standards, monuments of considerable size and visual impact were built in Japan. The Tōdaiji Great Buddha hall is, as Bognar himself notes, "the largest wooden building in the world." Furthermore, he ignores castles like Edo-jo and Osaka-jo, which were the largest bastions ever built in world history, with masonry outworks many kilometers in length protecting buildings rising 60, 70, even 80 meters in height.

Bognar includes a section on urban traditions that contains useful material about the grid-plan cities such as Nara and Kyoto. Tokyo forms the matrix of so much of contemporary architecture in Japan, and Bognar is mistaken in his comments on that city. He notes that "the grid plan never evolved, leaving the leading role solely to an irregular texture." He later comments that Japanese cities "have no real spaces and centers." Both comments are misleading with regard to Tokyo. The city developed as a castle town on the basis of a spiral plan effected through

moats and stone walls in the 16th and 17th centuries. The great Tokugawa castle was at the focus of the spiral and still offers extensive parklands in the center of Tokyo today.

Despite the high level of interest in Japanese architecture, there is still a dearth of accurate, accessible books in English. Bognar's study could have made a useful contribution to the field, but I see little evidence to support Kenneth Frampton's enthusiastic endorsement on the book-jacket where he says that this is, "to say the least, a study of remarkable breadth, precision, and insight." Fortunately, Suzuki's book, aided by a key essay by Reyner Banham, offers a welcome alternative.—WILLIAM H. COALDRAKE

Dr. Coaldrake taught the history of Japanese architecture at Harvard University from 1983-86 and is now visiting research fellow, department of architecture, University of Tokyo.

Unbuilt Netherlands. Cees Notteboom (Rizzoli, \$19.95.)

"In the unbuilt we see ourselves as we have not become," writes Cees Notteboom in this portfolio of never realized Netherlands projects. "The unbuilt forms part of a culture just as much as the built, it exists as thought, as response, as idea, as wish. We express ourselves through our wishes, and wishes, desires, ideas, and dreams are seldom expressed more clearly and more meticulously than in not-built architecture."

This is a wish book with a Dutch accent, filled with stunningly executed drawings. The projects cover 125 years and are arranged chronologically, starting with a plan for a bridge over the IJ in Antwerp in 1857 and ending with Benthe & Crouwel Architects' entry in a competition during the Architecture International

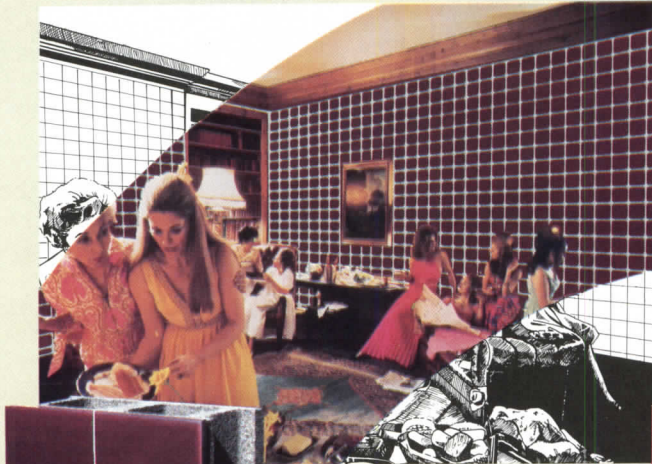
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Below, design for Dutch pavilion at Brussels exhibition 1908-10 by W. Kromhout



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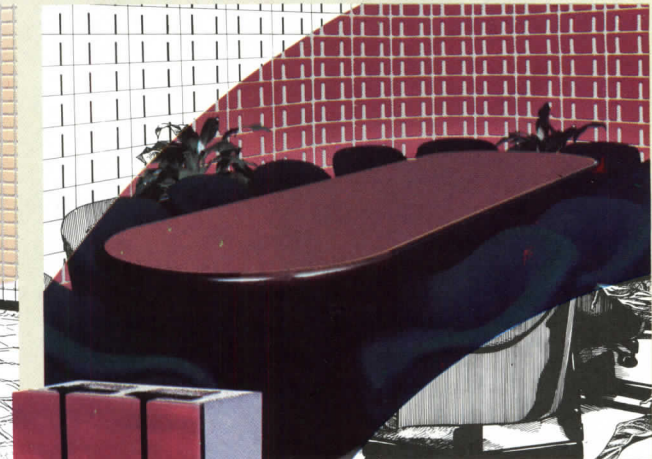
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Rotterdam festival in 1982. Between these two are projects by H. P. Berlage, J. J. P. Oud, Gerrit Rietveld, Aldo van Eyck, Herman Hertzberger, and Rem Koolhaas, among others, nearly all reproduced in color. The projects are described in lengthy captions, while the text sets them in historical context.

Despite occasional, annoying misspellings (without which no translation would be complete) this book is intelligent and provoking. —MICHAEL J. CROSBIE

Ricardo Bofill. Edited and photographed by Yukio Futagawa. Introduction by Christian Norberg-Schulz. (Rizzoli, \$50 hardbound, \$35 paperbound.)

Next to each house in Thailand is a tiny house replica, the spirit house. In even the most humble context, it is elaborately painted and gilded, made splendid so that troublesome spirits will prefer it to the main house. Presumably these spirits are discriminating about style but have no sense of scale.

Presumably the same thing is true of the inhabitants of Ricardo Bofill's mammoth new housing complexes: They like the allusions to traditional grandeur at whatever giant size Bofill provides and are content to have their kitchen in an Ionic volute or their bedroom window in the third fluting of the fourth pilaster. And it is not only the scale that startles in these buildings: Triglyphs and metopes become mullions and windows, guttae are really lighting fixtures, Doric columns are built not of masonry but of glass, and projecting cornices fail to cast the expected shadows because they are held away from the facades below them.

This is curious architecture—not without brilliance and certainly not without spectacle, but curious. It shares the mania for literal imitation current among some American architects, but exercises (exercises?) it in a completely personal way. One thinks of Loos' giant column proposal for the Chicago Tribune competition as a precedent for this work, and perhaps the rationalist fantasies of Ledoux and Boule' are also in the background. Christian Norberg-Schulz, in his introduction, claims relationships between Bofill and Picasso, Gaudí, the generally "fantastic" character of Catalan architecture and even Barcelona's neighboring mountain, the Montserrat.

However it may have devolved from other work, the products of Bofill's office (Taller de Arquitectura) have undergone a fascinating process of evolution, a process easily traced in this valuable and handsome monograph.

From the beginning the Bofill work was impressive for its inventiveness and for its attention to buildings' abilities to shape and invigorate the spaces around them. Norberg-Schulz does not overstate the case when he speaks of a "grand visual symphony" and of "environmental quali-

ties become visible."

But around 1974, roughly coinciding with a change from a concentration of commissions in Bofill's native Barcelona to a new concentration of commissions in and around Paris, there was a formal shift in Bofill's work from abstraction to classical pastiche (or, if you like, from modernism to postmodernism). Much of the Bofill magic remains, but, it seems to this observer, something has been lost. Norberg-Schulz describes a visit to the earlier (1970-75) Walden 7 apartment block in Barcelona this way: "A poetical vision had here been set into work, a vision which unified house and cathedral in one image. Here modern man could dwell, in the sense of feeling part of a rich and meaningful world." But can we react in a similar way to Bofill's later, overblown palaces for Parisian suburbs? I think not, for this is architecture so idiosyncratic that it shuts us out; the world of 12-story classical orders is not our world, nor does it invite our interpretation.

These buildings' power as space-defining rather than simply space-occupying objects has been diminished by their increased demonstrativeness, and their power as poetic inventions has been diminished by their loss of ambiguity. As we eagerly await Bofill's first U.S. work (for a New Jersey site facing Manhattan), his recent French work thus offers not only evidence of a fierce imagination but also an object lesson for today's literal-minded classicists: In the matter of historical references, the less specific may be the more evocative.

—STANLEY ABERCROMBIE, AIA

A former senior editor of this magazine, Mr. Abercrombie is editor of the journal Interior Design.

Constructivist Architecture in the USSR. Anatole Kopp. (Academy Editions/St. Martin's Press, \$45.)

This book has been long overdue. Very little has been published on the architectural avant-garde of the 1920s in the Soviet Union. This is an important step to fill the void, since it was 16 years ago when Anatole Kopp's seminal book *Town and Revolution* was printed. Unfortunately his other two books on Soviet architecture, *Architecture de la Periode Stalinienne* and *Changer la Vie—Changer la Ville*, published in Paris in the between period, have not been translated to English.

Kopp is very well qualified for writing this authoritative study on constructivist architecture. Through his numerous visits to the Soviet Union he acquired intimate knowledge and understanding of currents and cross currents in Soviet architecture and planning. This book is evidence of his long involvement in researching the setting for the key developments, personalities, and events of Soviet architectural constructivism.

At the first glance, the book makes a

very good impression on the reader. Typography, layout, and graphics are coherent and clear and reflect on the times when constructivists designed their leaflets, posters, and books in the '20s. The organization of the material is chronological, and the text is supported abundantly with large illustrations relevant to the study. Comprehension of the complex development in the evolution of a new architectural language demanded by the new way of life and the new political visions is thus made easier for the reader.

The opening chapter is on the origin of constructivism: The artists and architects jointly participated in spreading the "cultural revolution" throughout the vast countryside. They painted and equipped agitational trains, ships, and trucks because "art was a tool for social change." They designed stage sets, costumes, posters, masquerades, festivals and celebrations, workers' clothing, and propaganda kiosks.

The way of life and architecture and the principles of architectural constructivism were laid out in Moisei Ginsburg's *The Style and the Epoch*. In this book their association, and their journal, the constructivists defined the doctrine of new architecture.

The constructivist form vocabulary was given the model in the design for the Moscow Palace of Labor by the Vesnin brothers. "The objects created by contemporary artists must be pure constructions without the ballast of decoration," they proclaimed. Their leadership in the movement and the key works to earn them this distinction are discussed in chapter four.

The focal topic of Kopp's book is the constructivist search for architecture that would contribute to the process and mechanism for transforming habits, for transforming former man, who was a product of the capitalist system, into a new man. Chapter five deals with creation of the social condensers of our times: "A social condenser was a building, a complex, district, or even a whole city which in addition to its immediate functions, would firstly foreshadow the architecture and the planning of the future so that future users would grow accustomed to both; and secondly influence users through its use of space so as to introduce a new way of life into their social habits."

New building types reflected the new social program: housing communes, meat factories or factory-kitchens, workers' clubs, and the new types of socialist human settlements. Town planning, indeed, was a serious concern for the constructivists because the shortage of housing and the need of bringing the people and resources together in the big task of industrialization of the country.

Constructivism ended in the beginning of the political climate of Stalinism in the early 1930s. From then on, socialist realism channeled all forms of creativity in the governmentally dictated style. The

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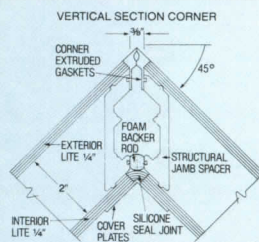
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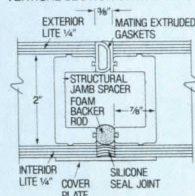
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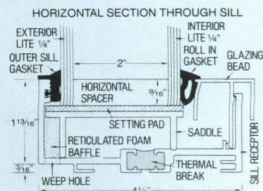
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Current Projects

s from page 110
 icts of socialist realism borrowed their
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 ins unique in the history of archi-
 re.—PETER LIZON, AIA

izon is a professor of architecture at
 niversity of Tennessee.

**Coming in from the Cold: Energy-Wise
 Building in Sweden.** Lee Schipper, Ste-
 ven Meyers, Henry Kelly, and Associ-
 ates (Seven Locks Press, \$9.95.)
 Occasionally a modest book appears
 whose message is so clear and lucid that
 it is like the child who observed the
 emperor without his clothes. This is such
 a book. A slender volume of only 65 pages,
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 developments of the Swedish mass single-
 family housing market of the last 16 years
 and compares Sweden's enviable record
 with the shortcoming of the U.S. Responsi-
 bility for research and writing of this pub-
 lication was handled by a large team of
 Swedes and Americans, although Lee
 Schipper, Stephen Meyers, and Henry
 Kelly are given primary credit. Additional
 support came from many sources, among
 them the U.S. Department of Energy and
 the Swedish Council for Building Re-
 search. Paul Kando, formerly of the NAHB
 Research Foundation, wrote two chapters.
Coming in from the Cold deals not only
 with energy issues, but also with prob-
 lems of codes, financing, mass market-
 state-of-the-art building research, and
 newly improved methods of factory con-
 struction, as applied to single-family
 houses. To those of us who are practi-
 cers, chapter five, which explores the
 transfer of technology to the U.S., is prob-
 ably the most provocative chapter of all.
 The authors attest forthrightly that
 Swedish houses today are built to the
 world's highest standard." They have less
 infiltration than their equivalent
 in the U.S. or the rest of Europe, and they
 are heated to a higher temperature.
 The number of air changes per hour occur-
 ing naturally is about half that of new
 American houses and one-fourth that of
 housing overall.
 In addition, the energy aspects of Swe-
 den's building code have been systemati-
 cally updated since 1977. The most strict,
 the 1984 ELAK code, requires 40 per-
 cent less electricity than the 1980 code.
 The policy direction for code improve-
 ments is typically set by national
 commissions.
 The authors are building research and develop-

ment, the Council for Building Research
 has an extremely broad mandate. Although
 the homebuilding industry is about one-
 twentieth the size of ours, Sweden spent
 three times as much on building research
 in 1983 (about \$39 million) as the Depart-
 ment of Housing and Urban Development
 in this country.

Of course, this extraordinary book will
 not get much attention in the U.S. The
 timing of its publication could not be
 worse. The Reagan Administration does
 not believe in codes and wants to scrap
 the FHA. The so-called homebuilding
 "industry" is dependent upon, and even
 encourages, shoddy workmanship via dis-
 claimers in its warranties. There is no
 workable quality control system within
 the private sector. Builders typically com-
 ply only with the letter and not the intent
 of local codes. The buying public toler-
 ates the real estate hype of "curb-appeal,"

room counts, and jazzy "features," such
 as Jacuzzi tubs. The lending institutions'
 limit of energy-conscious involvement con-
 sists of approving fixed shutters for fear
 that if "it isn't colonial," it won't sell.

—MARTIN ZIMMERMAN, AIA

*Mr. Zimmerman is the founding partner
 of Zimmerman Design Associates, Silver
 Spring, Md., and a member of AIA's com-
 mittee on housing.*

**Reima Pietilä: Architecture, Context and
 Modernism.** Malcolm Quantrill. (Rizzoli,
 \$45.)

As in his earlier study of Aalto, Malcolm
 Quantrill's present work is comprehensively
 rooted in larger cultural factors and con-
 siders the creative significance of design
 projects as well as executed work. The
 author has had access to Pietilä's archive,
continued on page 114



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his drawings (profusely illustrated here), lecture notes while he was at Oulu University, and the important collaboration of many interviews with Pietilä and Raili Pietilä, his architect-wife and professional partner. The result is a study that commends itself not only as it explores uncharted territory (at least in English language works), but also offers a solid and enduring interpretation.

Out of the forests, the lakes, and the granite that characterize the natural environment of Finland, Pietilä has found the romantically expressed, symbolic design themes that not only characterize his work, but also have brought him such culturally significant commissions as national exposition pavilions, major churches, and the official residence of the president of

Finland. Much of Pietilä's career has been devoted to other and quite different commissions, such as the Finnish embassy in New Delhi, the Monte Carlo Center, and the massive Sief Palace area buildings in Kuwait—the first a projection of Finnish culture in the subcontinent, and the others translations into the Mediterranean or the desert conditions of the Arabian peninsula.

Although small in number, Pietilä's buildings have been marked by great complexity, and Quantrill has raised more questions than he has been able to solve in this far-ranging treatment. In particular, the institutional building types of the more recent years—the Tapiola cultural center, the Lieksa Church, the Hervanta new town congregational and leisure time center, and the shopping center in Tampere—seem

to mark a departure from the earlier romantic and personal design extravaganzas.

Only 17 projects are available for presentation in this monograph, covering a period of 40 years, several of these works by any definition, and several others admittedly were compromised in their execution. Yet such is the richness of what remains that one comes away from the study with few reservations that Pietilä must be counted as the major creative figure in Finnish architecture today.

—FREDERICK GUTHEIM, HON. A

Mr. Gutheim is a Washington, D.C., author, critic, and educator.

The Crystal Chain Letters: Architectural Fantasies by Bruno Taut and His Circle
Edited and translated by Iain Boyd Whyte (MIT Press, \$30.)

In 1919 Bruno Taut started the "Crystal Chain" correspondence in which he and a group of architects and artists exchanged thoughts on a variety of subjects. Among those in the group were Walter Gropius, Hans Scharoun, and Hermann Finsterlin. All were sworn to secrecy and given pseudonyms. Gropius made no contributions to the correspondence, but made comments about it in private letters to Taut. Although the correspondence only lasted to the end of December 1920, it "provided an important forum for debate during a period of transition," says the editor. "It served to distance the radical architects from the norms and expectations of the architectural establishment, and in doing so made it more amenable to the new ideas that were soon to come from Russia, Holland, and France." This is the first publication to supply an English translation of all the known letters, including some never published in the German language. The letters are supplemented here by illustrations and notes, as well as an insightful introductory essay.

Leaves of Iron. Philip Drew. (The Law Book Co. Limited.)

In his novel *Kangaroo*, D.H. Lawrence wrote, "You must walk out of the world and into Australia. And it's just somewhere else. All those nations left behind in their schoolrooms, fussing. Let them fuss. This is Australia, where one can't care." In this caring and carefully written book on Australia's premier living architect, Philip Drew writes that Glenn Murcutt's buildings have the same "absolute lack of affectation, a naive simplicity, which is at the same time sensitive and gentle as much as the Australian men Lawrence encountered in 1922. Murcutt's architecture is highly concentrated and nondefensive in a pure and uncontaminated way that is entirely his own, and is, in reality inspired by the eternal cosmic and territorial conditions of the South Land."

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Books from page 114

This is an unusually sanguine matching of biographer and subject, for both are passionate outsiders, thoughtful, civilized men with deeply felt convictions about many things, but especially the sometimes other worldly beauty and fragility of their native land and the need, in Australia, to design with a gentle touch.

Drew here traces not only the progress of Murcutt's life and work but his importance to Australian culture. For, as Drew writes, "If Australians choose they can begin again, because, in a truly revolutionary sense, Australia is outside everything. It belongs neither to Asia, to Europe, or America." It is unique, as is Glenn Murcutt. — ANDREA OPPENHEIMER DEAN

The Trevi Fountain. John A. Pinto. (Yale University Press, \$30.)

Charles Moore brought a bit of Rome to New Orleans with his design of the Piazza d'Italia a decade ago. Influenced by Rome's Fontana di Trevi, the Piazza d'Italia also aims to provide a focal point for a neighborhood, using the medium of water to transform an urban environment. Beloved by tourists and movie directors, the Trevi Fountain, completed in 1762, transformed a modest urban square into a monumental display of architecture, sculpture, and water. The fountain consists of a classical palace facade set into an outcrop of rock with massive sculptural figures dominating the baroque composition. Its evolution in the city's history offers a fascinating study of art, politics, social conditions. In this exceedingly interesting book John Pinto uses original documents to trace the fountain's history and executed design by Nicola Salvi, the winner of a competition sponsored by Pope Clement XII in 1730. Despite the dynamic sculptured figures of Oceanus and the tritons, the fountain is more architectural than sculptural, says Pinto. In a discussion of the place of this masterpiece in art history, Pinto says that the Piazza d'Italia "suggests the enduring value of the Trevi as an artistic metaphor." Its form and meaning go far beyond the age and culture in which the fountain was created, offering "new and refreshing insights into their universal meaning."

Architecture in Pakistan. Kamil Khan Mumtaz. (A Mimar Book.)

A readable and concise account, this book constitutes the first comprehensive history of architecture in Pakistan. It begins with the earliest archeological settlements and the Indus Valley civilization of 2500 B.C., then covers Indo-Pakistani Islamic architecture, which emerged from 14th century contact with the Mughals; colonial architecture beginning in the 18th century; the emergence of native builders and craftsmen; and post-independence architecture from 1947 to the present.

The author's attempt, as he writes, is an overview "rather than a detailed or

definitive documentation." Although he concentrates on mainstream monumental architecture, he devotes two chapters to the vernacular tradition. The book has a glossary, chronologies, a detailed index, and is illustrated with black and white, mostly good quality photographs. One could wish for some color representation, especially of buildings with particularly rich surface decoration, for captions that do more than simply repeat the accompanying short text, and for better proof-reading. On the whole, however, the book is a tribute to the author's country, its history, and its designers. — A.O.D.

The Streets of London. Benny Green. (London: Pavilion Books, available in this country from Merrimack Publishers' Circle, 47 Pelham Road, Salem, N.H. 03079, \$15.95.)

A large number of urban designers in search of animation will do well to ponder on this remarkable book. The archives of London Transport have turned up thousands of photographs taken between 1885 and 1925, the nucleus of which served to familiarize bus drivers with new routes. This unique purpose conveys a distinctive *naïveté*—candid camerawork years before the 35mm camera was invented. This effect has been enhanced by selective cropping and editing to isolate individuals, scenes, details in the larger streetscape. However important the architecture of these six-story Victorian facades, the street furniture of gas lamps and watering troughs, the strident advertising—Gamages, Lyons, Boots, Bass, Nestle, HP Sauce, Gilbeys, Gold Flakes, Rownstreet, Cerebos, Oxo, and the rest of the largely unhealthy items urged upon the Victorian consumer—it is the people in their crowds that make the scene. The graphic environment is only the background. Against the Victorian/Edwardian England so popularized by television and many recent pop histories, the present volume offers a special focus on the urban environment, much of which is still with us and an object of historic preservation.

— FREDERICK GUTHEIM, HON. AIA

Italian Baroque and Rococo Architecture. John Varriano. (Oxford University Press, \$27.95 hardbound, \$16.95 paperbound.)

There was a building boom in Rome from the late 1500s to the mid-1700s, and Borromini, Bernini, Cortona, and Guarini were among the architects who responded with exuberant and expansive buildings whose aim was to induce "strong passions capable of transporting one's soul to a higher realm. If Renaissance architecture was to be contemplated on an intellectual level, baroque architecture was to be experienced with the emotions and the senses." In this comprehensive survey of the baroque and its last phase, the rococo, John Varriano's scholarly research is enhanced by his readable prose about the personalities and the styles they created.

Architecture in Continuity: Building in the Islamic World Today. Edited by Sherban Cantacuzino. (Aperture: \$4 cloth, \$22.50 paper.)

An outgrowth of the 1983 Aga Khan awards for architecture, this book stunningly illustrates the 11 winners with some 200 color photographs. Accompanying texts for each building are crisply articulated, and four introductory essays provide the reader with a broad grounding in many aspects of Islamic architecture. In the final editor Cantacuzino attempts to place the 11 award winners in the context of the recent design and overall development of Muslim countries, whose principal challenges, he states, reside in problems posed by the questions: "How can traditional cultures be maintained or revived without losing the benefits of modern technology, and how can the separate identities of these cultures—the regionalism of Islam—survive in the face of modern views and methods that seek everywhere to standardize and unify? For the strength of Islam has always lain in unity through diversity."

The second introductory essay, by Robert Hillenbrand of the University of Edinburgh, examines the mosque in medieval Islam, while the third, by Ihsan Fakhry of the University of Baghdad, focuses on the modern-day mosque. The fourth and final essay consists of a survey of modern Turkish architecture by Dogan Kuban, Istanbul Technical University. — A.O.D.

Ernest Flagg: Beaux-Arts Architect and Urban Reformer. Mardges Bacon. (MIT Press and the Architectural History Foundation, \$40.)

Educated at the Ecole des Beaux-Arts, Ernest Flagg (1857-1947) was the architect of the Singer Tower in New York City, the tallest building in the world at the time of its construction in 1906-08. Flagg's ideas evidenced in this structure were instrumental in skyscraper reform, contributing to the development of New York City's Zoning Resolution of 1916 which concerned height and area restrictions for high rises. Among his other Beaux-Arts designs are the Corcoran Gallery of Art, Washington, D.C. (regarded by the author as his "most elegant and eloquent work"), Manhattan's Scribner Building (said by Flagg to be "the best thing I ever did"), and the U.S. Naval Academy in Annapolis, Md. He was a pioneer in urban housing reform, devising a light-court plan for tenements that increased space, light, and air. He also designed small stone houses, incorporating modular techniques and economical methods of construction using some of his own patented inventions. His many accomplishments in the application of scientific principles and economical methods in housing contributed to his being "one of the most innovative Beaux-Arts architects in America." This book is another in the commendable "American Monograph Series." □

World Architecture from page 13
a spirit as possible. Another important decision was to the effect that no expense be spared to give the building the splendor Mies had planned for it. Thus certain walls, which ended up being stuccoed in 1929 to bring the costs down, were covered with marble in 1986 as Mies had first wanted them to be.

Originally, most materials had come from Germany where they also returned in 1931 after destruction of the pavilion. In view of the impossibility of retrieving them (Rem Koolhaas describes in a recent *Architecture d'aujourd'hui* article the subsequent desecration and disappearance of the stone slabs), a search was initiated to select materials that would ensure the greatest resemblance to the original work. Two types of travertine, one for the walls and one for the floors, were quarried in Tivoli. The latter came from the same quarry the Romans had used when building the Coliseum. The green marbles came from the Val d'Aosta in northern Italy and from Larissa in eastern Greece.

However, the task that proved the most difficult was the replacement of the onyx block that Mies had chosen for the centerpiece of the Barcelona pavilion. The search for it led Ramos, Solà Morales, and Cirici from Morocco, Algeria, and Egypt to Israel, Pakistan, Mexico, and Brazil. Finally, in an abandoned Algerian quarry, an onyx block of satisfactory size and quality was found. It was the final touch to the work.

For other construction details, it was decided to use the architects' expression, not to adopt an "archeological view" and not for products no longer being manufactured. For hidden details, such criteria as availability, bearing capacity, and durability were favored. For visible details, especially those on which little or no information existed on available documents, Mies' other works, such as the Lakeshore Drive Towers in Chicago, for example, were scrutinized and some of the details replicated in the new pavilion.

Cirici described in *L'architecture d'aujourd'hui* how, when first asked to get involved with the project along with Solà Morales and Ramos, he went from "excitement without emotion" to "strong emotion" in 1984. Walking on great blocks of stone between Tivoli and Pisa made him understand the pleasure Mies must have felt while choosing the stones for his works."

Appropriately, the first official function to be held in the pavilion after the inauguration was to honor the man who could be singled out for maintaining, among other accomplishments, a high level of respect toward modern architecture in Spain. In a highly emotional atmosphere, Barcelona's Mayor Pasqual Maragall gave Antoni Bohigas the city's medal of excellence for the consistent quality of his work as a theoretician, practitioner, and administrator.—ODILE HÉNAULT



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DEATHS

Charles DuBose, FAIA: Founder and chairman of DuBose Associates, Hartford, Conn., and designer of that city's Constitution Plaza, DuBose died early this year. He was a finalist in competition for the Paris and Rome prizes in Architecture and served as an instructor of design at the University of Pennsylvania.

Herbert D. Phillips, FAIA: A resident of Ft. Lauderdale, Fla., for the last 10 years, Phillips, a long-time member of the New York Chapter/AIA, died this spring.

Kim Swoo Geun, Hon. FAIA: Founder of Space Group and publisher of *Space*, the Korean Architectural Journal, Geun was also architect for the 1988 Olympics center and several major high rise buildings in Korea, as well as residential projects in the Near and Far East.

John A. Uhlir, AIA: An associate with San Francisco firm Fisher-Friedman Associates, Uhlir died recently. Uhlir earned his B.S. degree in architecture from Ohio State University in 1972 and his master's degree from the University of California, Berkeley, where he also taught courses in architectural rendering. He had been working for Fisher-Friedman since 1977.

BRIEFS

Gold Medal Video Tapes.

AIA has produced a series of video tapes of the winners of the gold medal since 1979. The tapes include presentations at conventions, acceptance speeches, and interviews with the recipients and their colleagues. For more information about the tapes and the college of fellows gold medal archives, contact Stephanie Byrnes at Institute headquarters.

Fellowships in American Culture Studies.

UCLA's Institute of American Cultures is offering graduate and postdoctoral fellowships to support study of Afro-American, Asian Americans, Chicanos, and American Indians. The stipend for the graduate fellowship is \$10,000 per year plus registration and out-of-state tuition. Postdoctoral fellowships range from \$20,000 to \$25,000 per year. Deadline for submissions is Dec. 31. For more information, contact Norris C. Hundley, UCLA, Institute of American Cultures, Los Angeles, Calif. 90024.

Grant for Film on Nebraska Architect.

The National Endowment for the Arts has awarded the Architectural Foundation of Nebraska a \$15,000 grant for production and distribution of a film on Linus Burr Smith, chairman of the architecture department at the University of Nebraska from 1934-1964. The foundation (1910 S. 44th St., Omaha, Neb. 68105) is seeking additional funding for the project.

Wood Remodeling Design Competition.

The American Wood Council and Remodeling magazine are seeking entries to honor outstanding design of remodeled, renovated, and reconstructed buildings. Original structures need not be built of wood, but additions must have wood structural and overall appearance. Kitchen, baths, and single rooms are not eligible; there is no entry fee. Deadline for submissions is Oct. 31. For more information, contact AWC, 1250 Connecticut Ave. N.W., Washington, D.C. 20036.

Student Competition Winners.

The Orange County (California) Chapter/AIA has selected Kurt Hauffe and Erik Trabert of Orange Coast College as first place winners in a community college student design competition for an addition to the Newport Harbor Art Museum. Also cited were Vicki Bovard and Karla Krieger, also of Orange Coast College, second place. Robert Mann of Saddleback College and a joint design by Karl Schmidt and Bill Reizner of Orange Coast College tied for third place. Don Hepner of Orange Coast College and Linda Ellis of Saddleback College received honorable mentions.

Competition Finalists.

Kevin Bone, Barton Phelps, Frank D. Welch, John L. Wong, and SITE Projects, Inc., are the five finalists in a two-stage design competition for the revitalization of historic Pershing Square in Los Angeles.

Steedman Traveling Fellowship.

Washington University in St. Louis has announced a competition for the James Harrison Steedman Fellowship that will provide \$11,000 to an architect aged 21 to 33 who has graduated from an accredited school for a year's travel and study architecture abroad. The winner of the competition also becomes a fellow in the American Academy in Rome. For more information, contact Regina Engelken, News and Information Office, Campus Box 1070, Washington University, St. Louis, Mo. 63130.

John Dinkeloo Traveling Fellowships.

Tom J. Buresh of Los Angeles and Charles Wolf of New York City have been awarded the 1985 John Dinkeloo Traveling Fellowship in Architectural Technology and Architectural Design. Each fellowship is \$5,000, of which \$3,500 is for four months of travel and \$1,500 for two months at the American Academy in Rome.

Student Design Winners.

Thomas Alexander Barnes of Louisiana State University and Sarah Springer of Cornell University were first and second prize winners of the Architectural Woodwork Institute student design competition. The competition is open to students of architecture and interior design.

Pevsner Memorial Fund.

The department of history of art at Birkbeck College of the University of London has established a fund to create a Nikolaus Pevsner memorial library within the architectural library at the Royal Institute of British Architects. This fund will be used to purchase archival and antiquarian materials that the library would otherwise not be able to acquire. For more information, contact Francis Ames-Lewis, Birkbeck College, Malet St., London WC1E 7HX, England.

William Sullivan Student Award.

Sabina Gillaspie, 1986 graduate of the University of Texas at Arlington's school of architecture and environmental design received the William Sullivan award for excellence in interior design. The award was created by the university to honor Sullivan, president of furniture manufacturer Vecta Contract, for his service to the school's programs for architects and interior designers.

New NCARB President.

Robert L. Tessier, AIA, of Springfield, Mass., was elected president of the National Council of Architectural Registration Boards. Tessier will serve as president until July 1987.

Veterinary Hospital Design Winners.

Architecture student Son Sang Kong and veterinary student Katherine Thigpin, both from the University of Tennessee, were winners in a national student design competition for a veterinary hospital sponsored by Hill's Pet Products. Each received \$1,000 for the winning entry. The competition was open to veterinary students teamed with students of architecture or environmental design.

Army Corps of Engineers Award Winner.

The Child Care Center at Ft. Bragg, N.C. by the Ferebee, Walters & Associates has been selected to receive the honor award in the Army Corps of Engineers design and environmental architectural awards program.

Frampton Named Chairman at Columbia

Columbia University's graduate school of architecture, planning, and preservation has named Kenneth Frampton as the chairman of the division of architecture.

Marketing Awards Program.

Builder magazine is sponsoring their second spotlight marketing awards program. The program focuses on excellence of a marketing program for advertising, graphics, signage, special promotions, architecture, brochures, and interior design. There are four major entry categories of housing. The entry fee is \$150; Nov. 7 is the deadline. For more information, contact Betsy Oliveto, *Builder*, 655 15th St. N.W., Suite 475, Washington D.C. 20005. □

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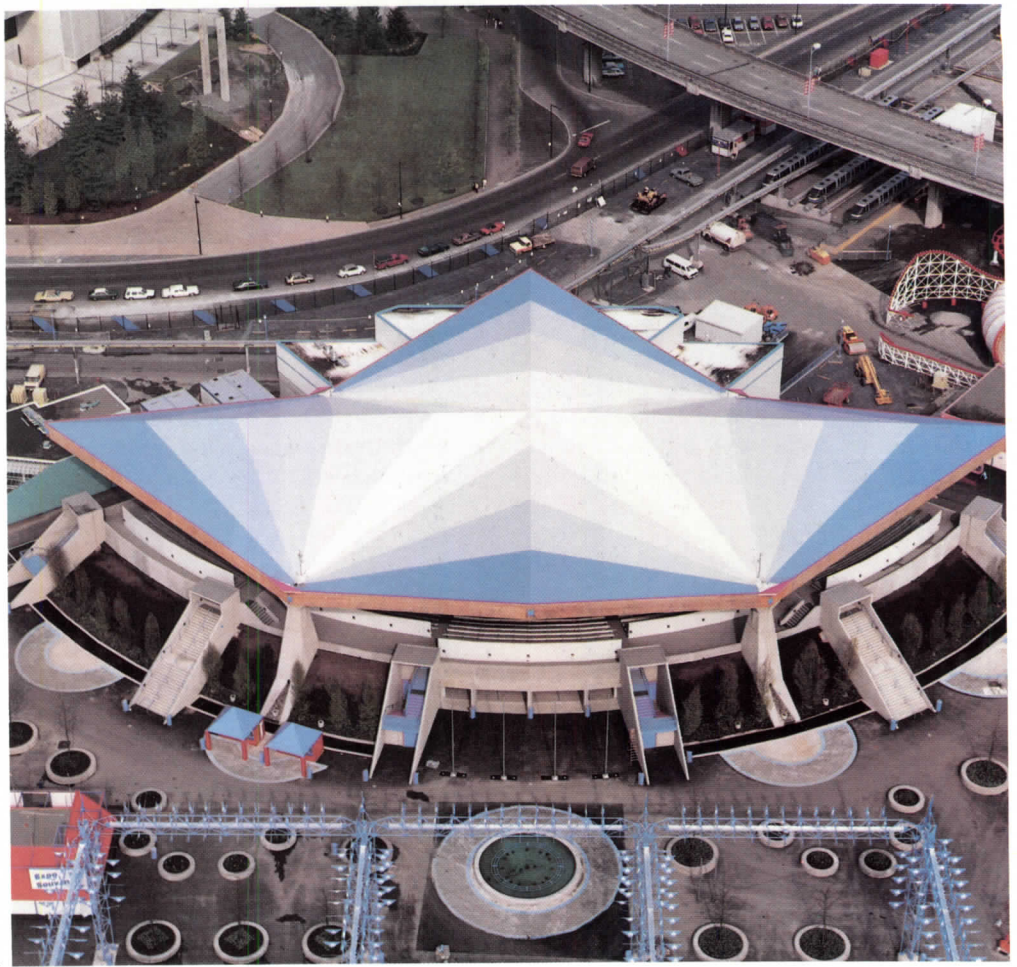
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Products



The 4,242-seat amphitheater, designed by Aitken Smith Carter Partners and The Wade Partnership and located at Vancouver's Expo 86, has a single-ply roofing system made of Du Pont Hypalon synthetic rubber. Manufactured by Dunlop Construction Products, the roof (1) is colored in varying shades of blue. (Circle 201 on information card.)

Concord armchair (2) and sofa (3), designed by Stanley Jay Friedman for Breuton Industries, have polyurethane foam seats and backs upholstered in fabrics or leather and one-inch-round stainless steel tubing with a mirror, satin, or bronze finish. (Circle 202.)

Fusital collection of hardware is comprised of varied door handles (4), window pulls, and coordinated furniture accessories. (Circle 204.) —LYNN NESMITH

Products continued on page 116



Bath Fixtures.

Regency "monobloc" basin set is available in chrome or gold with six optional anodized color insets—gold, silver, green, blue, brown, and black and burgundy. The fixtures have a variety of matching accessories. (Kallista, Inc., San Francisco. Circle 210 on information card.)

Roof Tiles.

Japanese ceramic roof tiles are available in a variety of styles and colors with glazed, unglazed, glossy, or matte finishes. Each tile can be installed over conventional felt material with a single corrosion-resistant nail. (DRG International, Mountainside, N.J. Circle 211 on information card.)

Interior Doors.

Classique die-formed door facing is made from a single sheet of 1/8-inch-thick hardboard with two panels and a well-defined oak grain texturing embossed over the entire surface. The larger, upper panel has a swept archway appearance, and the cross rail is positioned lower than standard American doors. Units are available in all standard passage door and bi-fold door sizes. (Masonite Corporation, Chicago. Circle 215 on information card.)

Window Units.

Kalwall window replacement units are designed to meet requirements for renovating historical landmark buildings and buildings listed on the national historical register. Units are highly insulated with a U-factor ranging from .15 to .40. Light transmission options range from 3 to 38 percent. The patented window unit is comprised of a "sandwich" panel formed by bonding reinforced, translucent glass fiber sheets to a grid core constructed of interlocked structural aluminum I-beams. The complete panel measures 2 3/4-inches thick and can be fabricated in sizes as large as five feet wide and 20 feet long. (Kalwall Corporation, Manchester, N.H. Circle 213 on information card.)

Storage System.

Mobile filing and storage systems are available in five basic work station configurations for standard single aisle and lateral systems. Open-plan office installations include file centers between work stations, file hubs for multiple work stations, and dividers between work stations. In the standard system, shelving units glide on tracks with minimal effort to allow aisle and media access. In the lateral system, rear shelves remain stationary while the front shelves slide to the desired position. (Spacesaver Corporation, Ft. Atkinson, Wis. Circle 217 on information card.)

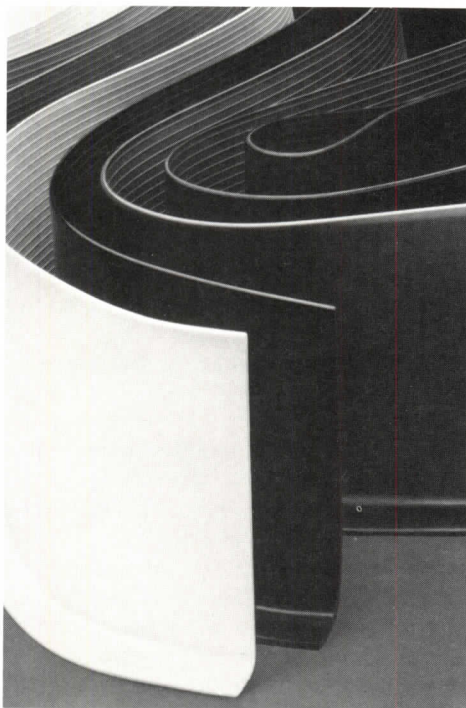
Surfacing Material.

Marghestone is an assimilated granite material made of marble pieces bonded together with resins. Material is available in tile and slab form in two colors. Verde Mare is a medium emerald green with

black highlights, and Rosso Aquila is a blend of medium brown with black in a fine grain pattern. (Verona Marble Co., Mesquite, Tex. Circle 218 on information card.)

Drafting Table.

Dial-A-Torque drafting tables are available in five models with board sizes ranging from 37 1/2x50 to 43 1/2x84 inches. The drawing board has a vinyl surface supported by a steel sheet over tempered hardboard with a cellular core. The plastic edge guard can be used with a counterbalanced straightedge or can be set flush to the drawing surface to accommodate a drafting machine. The table has a fully counterbalanced torsion bar system for precise manual control over the board's angle. Storage includes a reference drawer sized to accommodate a 24x36-inch sheet, a tool drawer with styrene tray and lock, and a file drawer. (Hamilton Industries, Two Rivers, Wis. Circle 219 on information card.)



Floor Trim.

Roppe vinyl cove base flooring trim (above) is available in eight colors with a satin finish. The trim comes in four-foot lengths in three sizes—2 1/2-inch cove base with no toe, four-inch cove base with no toe, and six-inch cove base. The top lip is designed to fit snugly against the wall, and the outer finish prevents cracking. (Roppe Rubber Corporation, Fostoria, Ohio. Circle 234 on information card.)

Software Program.

Construction TaskMaster is a computer software package designed to provide a daily schedule tracking system for architects, engineers, and contractors to coordinate management of a project. The program will run on any IBM or IBM-compatible microcomputer with 256K memory and dual floppy disks. The system uses predefined symbols to represent

each phase of the scheduled construction, and all data is generated on the job site. Each symbol is assigned estimated and actual daily costs, and the actual costs are updated periodically. (OPenn System Inc., Tulsa, Okla. Circle 220 on information card.)

Office Seating.

Series One collection of commercial seating consists of 19 chairs in seven models: executive, managerial, operational, conference, guest, secretarial, and technical. Seat cushions are molded urethane foam with a waterfall edge, and arms are recessed to allow close proximity to work surfaces. (Panel Concepts, Inc., Santa Ana, Calif. Circle 221 on information card.)

Roofing System.

Standing seam roof panels are designed to be installed by either snapping together self-locking raised seams into a weather-tight roof or seaming panels with a special tool supplied by ECI. No batten caps are required. Panels give 24-inch coverage and are available with a Galvalume finish in white or a variety of colors. (ECI Staff, Tex. Circle 222 on information card.)

Office System.

Syntrax office furniture system incorporates electrical and wire management capabilities in the work stations. An integral track works with an optional carriage to allow a CRT monitor to move freely across the length of the work surface. A trough allows two- or three-circuit electrical distribution and holds and conceals wiring and channels it through lining tops. An adjustable keyboard arm pulls out from under the work surface. An accessory console that runs the length of the work surface provides storage space. Channels built into the console accommodate a variety of accessories, including paper trays, a telephone tray, and a light bracket. The office system is designed to be used in conjunction with other All-Steel components. (All-Steel, Aurora, Ill. Circle 232 on information card.)

Adjustable Lavatory.

Height-adjustable bathroom lavatory is designed for households with small children and disabled persons. The "lift" is available in 11 colors. (Villeroy & Boch USA, Pine Brook, N.J. Circle 231 on information card.)

Bathroom Fixtures.

Ariane bathroom faucet has hot/cold color coding and single-lever operation. The fixture is chrome-plated brass with a swivel spout and a ceramic disc cartridge and single-lever black handle. Epoxy finishes are available in red, green, blue, gray, and white. Matching hardware is also available for bathtubs, showers, kitchen sinks, and bidets. (Porcher, Inc., Chicago. Circle 230 on information card.)



Mobile Pedestal Drawer Unit.
 mobile pedestal drawer (above), available in several different models in varying heights, widths, and drawer configurations, designed to be used with the Wes-Group office system. Chassis and drawers are made of welded steel, and top and recessed pull drawer fronts have soft radiused edges. All models have gang lock counterweights, and swivel casters. (Westinghouse Furniture Systems, Grand Rapids, Mich. Circle 170 on information card.)

Door Hardware.

Dor-O-Matic pocket pivot hinge is designed to allow fire doors to recede into walls to provide wider corridors and reduce the doors' susceptibility to scuff marks caused by traffic. The pivot can be used on cross corridor doors to position the door flush in the wall pocket. Available with a steel prime coat and a number of plated architectural finishes, the pivot can be used with the floor door closer mounted in the pocket for a completely concealed installation. (Dor-O-Matic, Chicago. Circle 223 on information card.)

Lighting Fixtures.

Series of recessed lighting fixtures includes three drop opal and two eyeball configurations. The drop oval trims use a 60-watt lamp and are available in black, clear, or gold. The two eyeball designs have an optical black seamless baffle and accommodate a 50- or 70-watt lamp trim. (Halo Lighting, Elk Grove Village, Ill. Circle 224 on information card.)

Door Closers.

Commercial door closers are made of cast iron and forged steel and are available with three mountings—regular arm, parallel arm, and top jamb. The unit has a full range spring power adjustment to accommodate doors of different sizes. Designed to meet universal building re-

quirements, the unit has a back check that allows adjustment of the door swing between 60 and 85 degrees of the opening. The closer conforms to handicapped access codes. (Emhart Hardware Group, Russwin Division, Berlin, Conn. Circle 225 on information card.)

Skylight Sunscreens.

Velux exterior awnings are designed to block the sun's rays on roof windows to eliminate a maximum of 93 percent of heat gain. The sunscreens are available in both opaque PVC or a glass fiber mesh to permit a view to the outside while reducing the heat gain. (Velux-America, Inc., Greenwood, S.C. Circle 226 on information card.)

Office Seating.

ESD office seating is engineered to reduce static electricity charges and to prevent their further buildup during natural, static-generating motions. The chair acts as an effective conductor. Surfaces are securely connected, and a special conductive upholstery fabric is used. The modified chair base and casters complete an electrical circuit that routes static to a grounded surface. Chairs do not require a ground chain because the five casters provide multiple points of contact to the floor. The chair's arms, armrests, base, and shell are *continued on page 124*

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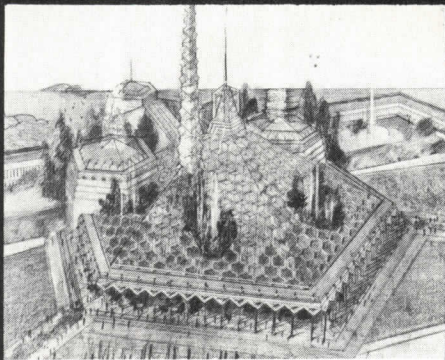
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Products from page 123

available in six neutral colors, and arms and bases may also be specified in polished chrome. (Steelcase Inc., Grand Rapids, Mich. Circle 235 on information card.)

Lighting Fixture.

5000+ series of fluorescent lensed troffers includes both static and air handling luminaries. Available in four standard sizes, static models are fitted with either steel or extruded aluminum doors. Air handling units are available with flush or regressed extruded doors, and hinge and latch doors feature T-slot hinges and positive action cam latches. All units are furnished with standard installation hardware and options including wiring plates and T-bar lock clips. (Columbia Lighting, Inc., Spokane, Wash. Circle 212 on information card.)

Lighting Control.

Automatic light switch has a sensitive, ultrasonic occupancy sensor that controls lights based on occupancy within the designated area. A push-button override cancels automatic sensor operation and enables the lighting to remain off. A six-minute delay timer prevents lighting from being switched off when an area is vacated for only a short time. A 15-second test function enables quick testing of the unit after installation. The wall-mounted unit is designed for use in rooms to a maximum of 450 square feet. (Watt Watcher, Santa Clara, Calif. Circle 216 on information card.)

Ceiling System.

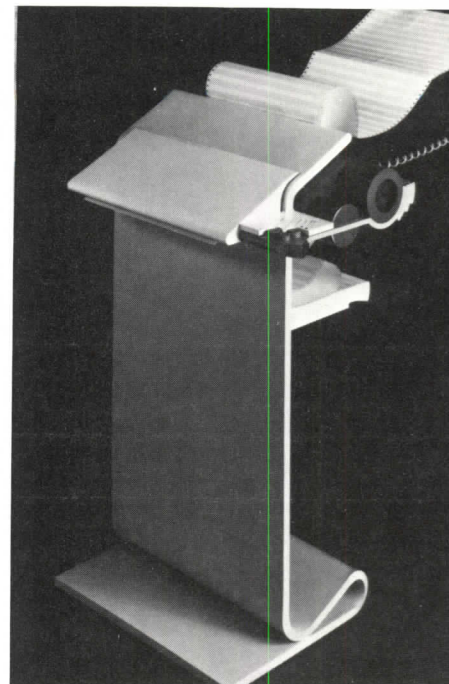
Tempra 4000 ceiling system has a 9/16-inch face and a narrow T-bar grid suspension. Panels have geometrically routed reveal edges and a self-centering device designed to center tiles and light fixtures into place within the grid opening. Panels are available in a variety of colors and finishes. (Chicago Metallic Corporation, Chicago. Circle 229 on information card.)

Surfacing Material.

Mineralite facing material is made of granites, glasses, and aggregates that are factory-mixed with cement and nonresinous additives. Available in a range of colors, it is designed to be trowel-applied over a base coat and requires no separate sealing coat. (Insul-Crete Co., McFarland, Wis. Circle 214 on information card.)

Ceiling Panel.

"Canyon Absolute" vinyl-faced acoustical ceiling panels are made of glass fiber and are available in sizes ranging from two-to five-foot-square. Panels come in two thicknesses with foil backing or nonfoiled backing. Lay-in panels rest on flanges of standard T-bar exposed grid suspension systems. (Armstrong World Industries, Lancaster, Pa. Circle 236 on information card.)



Printer Stand.

Elaine computer printer stand (above) Technology Design for Synapse is comprised of both curving and geometrical forms. The stand is designed to be used with standard computer paper. (Technology Design, Bellevue, Wash. Circle 233 on information card.)

Surfacing Material.

"Floclad" contoured sheeting system is total wall and roof system that is comprised of all panels, components, and accessories necessary for installation. Panels are designed to reduce the need for flashings and closures on eaves and ridges and gutters can be installed at ground level or over openings. Contoured sheeting is designed to be used in conjunction with tapered beam, rigid frame, modular single slope, and flat roof buildings. Built drainage channels reduce snow and ice buildup. Six standard colors are available. (Sonoco Buildings, Waukesha, Wis. Circle 240 on information card.)

Carpet Tiles.

Patterned carpet tiles have a self-lock backing system that is designed to be installed with a free lay-in system without adhesives. Tiles are available in cut pile or loop tile textures in either 18- or 24-inch squares. (Lee Commercial Carpet Co., King of Prussia, Pa. Circle 238 on information card.)

Towel Warmer Frame.

Towel warmers for hotels, offices, and houses are available with a white gold, yellow gold-plate, polished brass, or chrome finishes. Units come in electric or hydronic models and can either be wall or floor mounted. (Myson, Inc., Falmouth, Va. Circle 237 on information card.)

Ceiling System.

"Revisions" open cell, lay-in ceiling has monolithic appearance and is designed

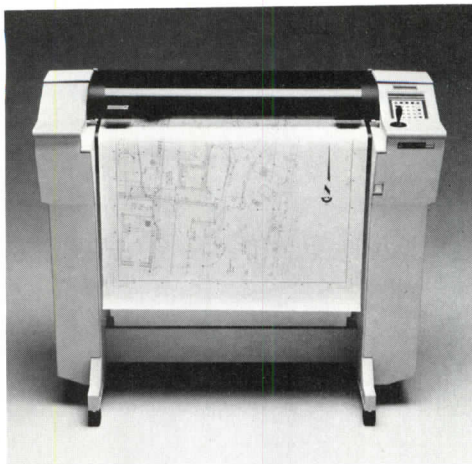
standard ceiling grids. Constructed of fiber material, 24-inch-square panels can be installed under an existing ceiling without decreasing acoustical efficiency. The original ceiling or blocking heating, conditioning, or lighting. Ceiling panels are available in two patterns in white, as well as four special order neutral colors. (Armstrong World Industries, Lancaster, Pa. Circle 239 on information card.)

Must Fan.

Non-mounted kitchen exhaust flue is insulated with super "Firetemp-L" insulation board for flush mounting on ceilings and walls. The insulated exhaust flue requires zero clearance, and the structural-grade silicate fire-proofing board is designed for continuous protection at 1,700 degrees Fahrenheit. The super "Firetemp" board meets standards for nonbearing partition walls and columns. (Pabco, Portland, Ore. Circle 173 on information card.)

Prior Insulation System.

Exterior insulation is designed to provide a protective thermal shield that is flexible, breathable, and moisture resistant. The system is designed to provide effective adhesion to gyp sheathing, wood, and particle board. (STO Industries, Rutland, Vt. Circle 174 on information card.)



Pen Plotter.

D-size pen plotter (above) has a plotting speed of 24 inches per second and an eight-pen turret with automatic pen capping. A nonvolatile setup memory is designed to permit up to four users without adding setup parameters such as communications mode, scaling, rotation, pen velocity/acceleration, and log-on messages. The integrated plotter communications interface allows the unit to operate on- or off-site and can connect directly with most computer-aided design software systems. Optional sensors determine the pen type and the appropriate pen performance parameters are adjusted automatically for

optimum plot quality. Built-in diagnostics run five tests each time the plotter is turned on, and a 40-character display notifies the operator when maintenance is required. (Calcomp, Anaheim, Calif. Circle 175 on information card.)

Acrylic Panels.

Abrasion resistant Plexiglas acrylic plastic sheets are designed to be used in commercial installations that require transparent security barriers. Individual panels are available 42 inches wide and 48 inches high. The sheet is listed by UL as a bullet resisting glazing material against medium power small arms fire. The material has a hard coating on both surfaces designed to provide high abrasion resistance. (Rohm & Haas Co., Philadelphia. Circle 176 on information card.)

Computer Software System.

CAD/CAM computer software system is comprised of a 19-inch color monitor option that is designed to fill the gap between personal computers and high performance systems for engineering design, analysis, and drafting. The system has either a two or four MB of main memory and a high resolution screen. (Autotrol Technology, Denver. Circle 177 on information card.)

Products continued on page 126

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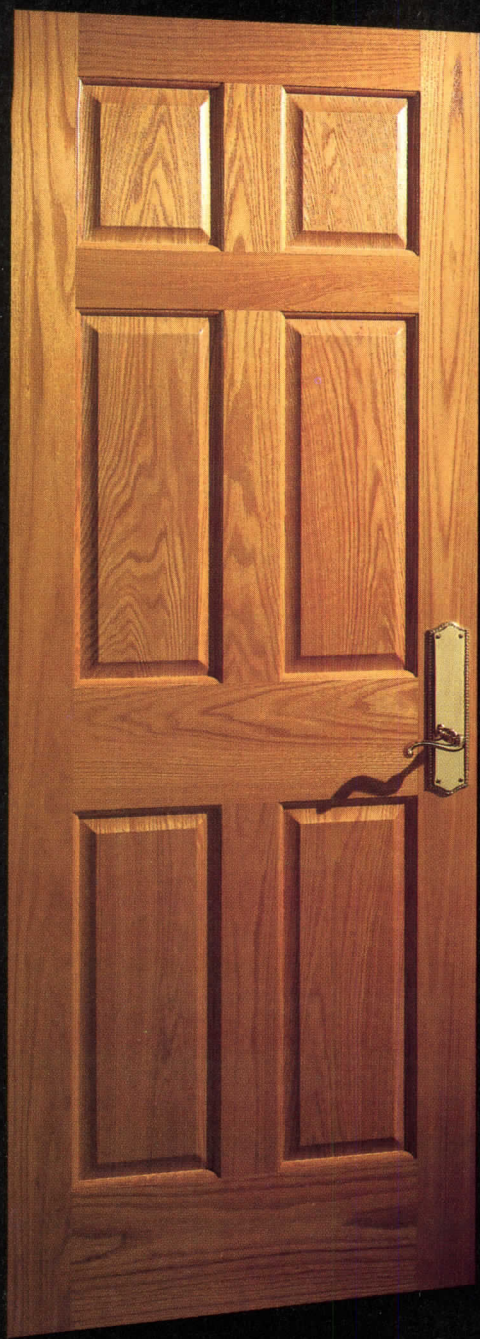
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Window System.

"Yankee Spirit" divided lite window unit is made of ponderosa pine and Low-E high performance single strength glass. The glass is coated with a pyrolytic surfacing that is fired into the glass during the manufacturing process. The coating is designed to retain heat indoors in winter and reduce heat gain in summer. The glazing material is also designed to block 63 percent of ultraviolet rays, which fade upholstery, drapes, and furniture. Available in double hung units, stationary units, picture windows, and 30 degree bay windows, the window system has weatherstripping and a block and tackle balance. (Wes-Pine, West Hanover, Mass. Circle 178 on information card.)

Bathroom Fixtures.

Collection of imported bathroom hardware in chrome and baked enamel colors includes fixtures and furnishings for tubs, toilets, sinks, showers, towel bars, medicine cabinets, and mirrors. (House of Ceramics, Port Chester, N.Y. Circle 179 on information card.)

Wall Board.

Nonasbestos "Ultra-board" is a wall board designed to provide fire protection, moisture stability, and frost resistance in curtainwall construction. The panel can be plastered, laminated, and finished with a minimum of preparation and can be cut, drilled, and nailed without flaking, chipping, or cracking. Suitable for interior and exterior construction, panels come in a variety of sizes and thicknesses. (Brit-Am Venture, Middlesex, N.J. Circle 180 on information card.)

Decorative Trim.

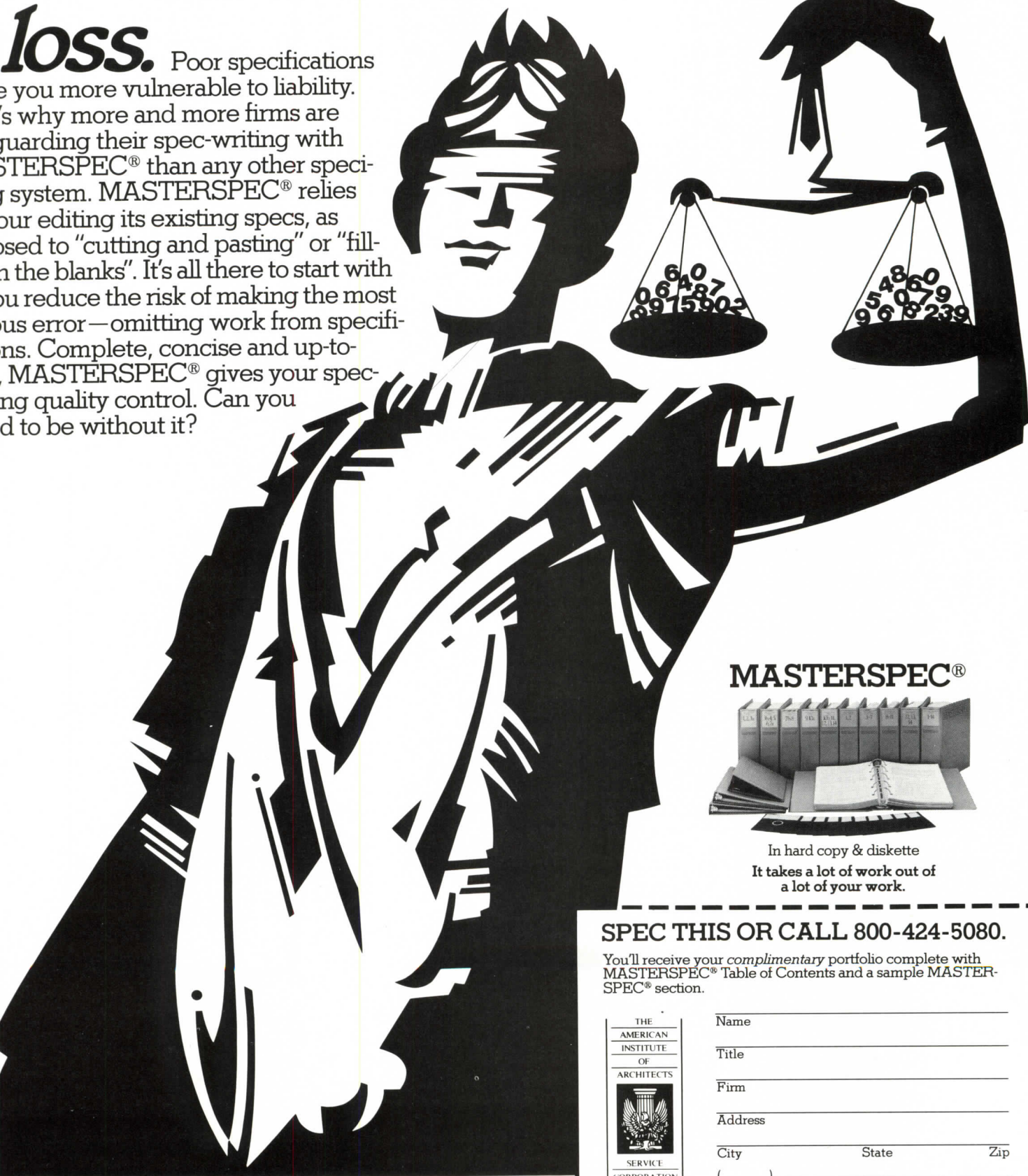
Series of architectural millwork and moldings includes 11 sizes and styles of louvers and window trim. Constructed of polyurethane, louvers can be stained or painted to match any trim color. The ornamental fixtures are available with closed louvers or open with a screen backing. Detailing trim is available in three round gable sizes, two half round arch gables, two vertical gables, a cathedral gable, triangular and octagonal louvers, and a round design with four key voussoirs. (Russell Enterprises, Pittsburgh. Circle 181 on information card.)

Locking System.

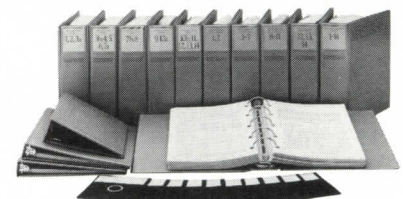
Multi-point lock is designed to be installed on residential patio doors constructed of wood, aluminum, or vinyl. Made of heavy gauge steel, the lock is 18 inches long with locking pins eight inches apart. A spring mechanism is designed to prevent the operating lever from moving until the locking pins are engaged to prevent the lock from being accidentally activated. A single or double key operated deadbolt is also available. (Fullex U.S., Inc., Worcester, Mass. Circle 182 on information card.) □

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