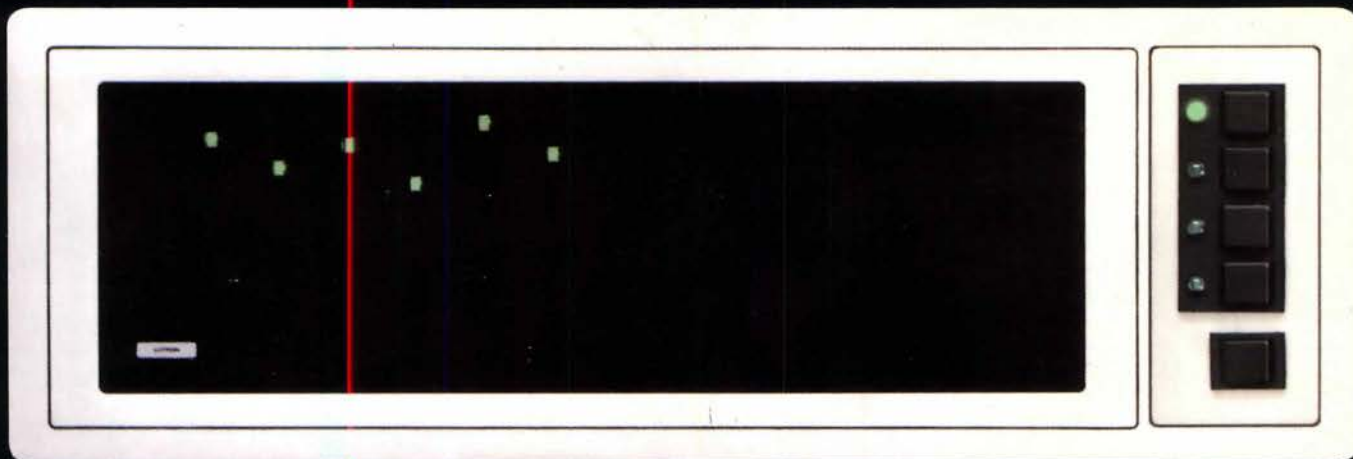




ARCHITECTURE

THE AIA JOURNAL AUGUST 1983

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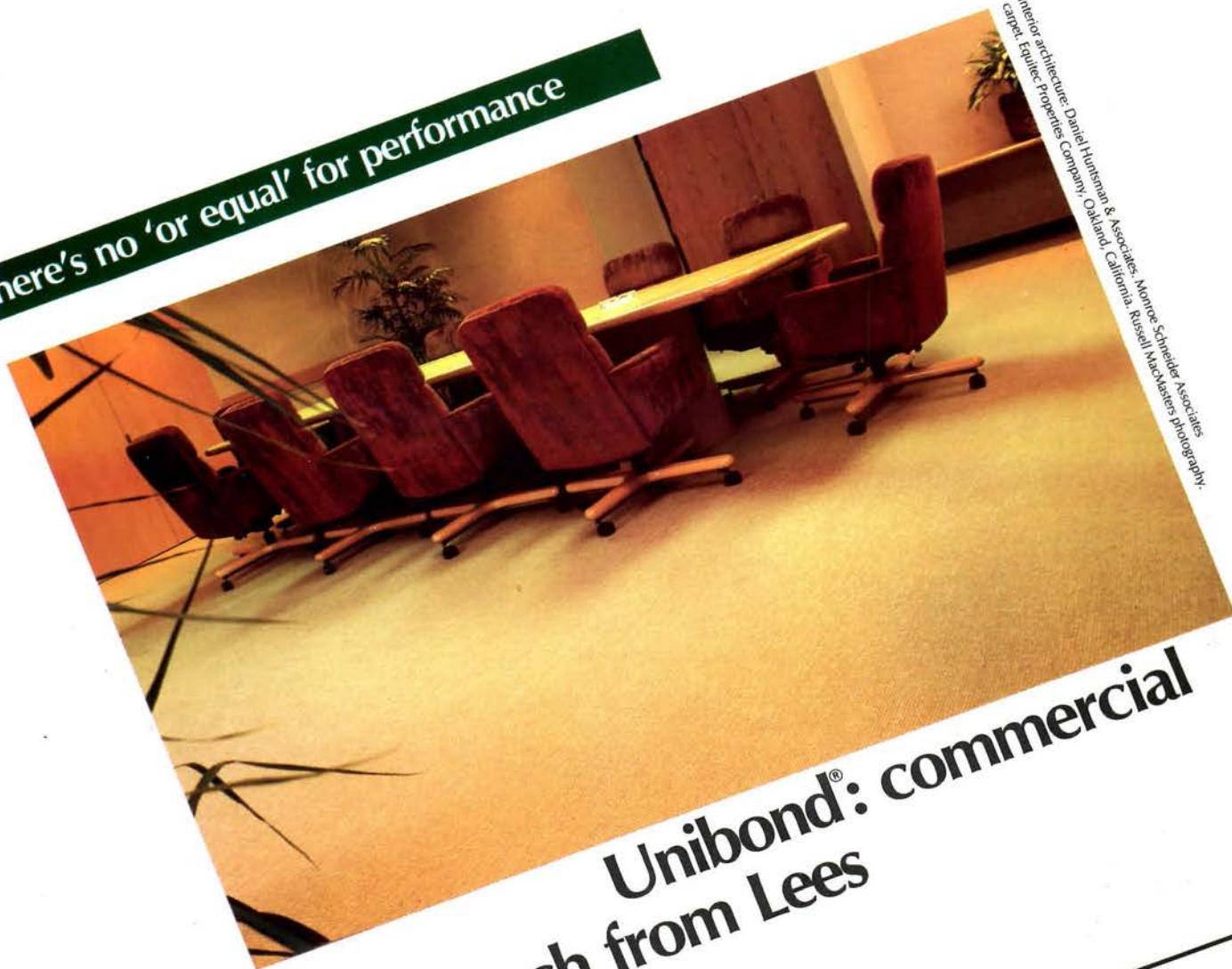
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EVENTS

Sept. 9-10: AIA Energy in Design: Process Workshop, Little Rock, Ark. (Repeat workshop Sept. 30-Oct. 1, Georgetown, Del.) Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Sept. 10: Summer Taliesin Day, Scottsdale, Ariz. Contact: Charles Montooth, Taliesin West, Scottsdale, Ariz. 85261.

Sept. 12-15: Course on Prestressed Concrete Design, Department of Engineering and Applied Science, University of Wisconsin, Madison.

Sept. 13: Workshop on Marketing Professional Services, St. Louis. Contact: St. Louis Chapter AIA, 919 Olive St., St. Louis, Mo. 63101.

Sept. 15-16: Seminar on Solar Electric Home, Chicago. Contact: SunWatt Corporation, P.O. Box 1396, Carbondale, Colo. 81623.

Sept. 16-17: AIA Energy in Design: Practice Workshop, Seattle. (Repeat workshop Sept. 23-24, Muncie, Ind.) Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Sept. 20-23: Seminar on Elasto/Plastic Sheet Applied Roofing Systems, Denver. Contact: Susan Mathews, Roofing Industry Educational Institute, 6851 S. Holly Circle, Suite 250, Englewood, Colo. 80112.

Sept. 21: Seminar on Why Has Classicism Survived, Graduate School of Fine Arts, University of Pennsylvania.

Sept. 21-25: First International Conference on Olmsted Parks, New York City. Contact: National Association for Olmsted Parks, 175 Fifth Ave., New York, N.Y. 10010.

Sept. 23-24: DesignExpo '83 Trade Show, San Diego. Contact: Susan Beer, Epic Enterprises, 6151 Fairmount Ave., Suite 115, San Diego, Calif. 92120.

Sept. 24-26: 1983 Energy Conservation Trade Show and Conference, Phoenix. Contact: Ron Schilling, *National Energy Journal*, P.O. Box 2330, Glendale, Ariz. 85311.

Sept. 29-30: Workshop on Optimizing the Performance of Existing Building Environments, Department of Engineering, University of Wisconsin.

Sept. 30-Oct. 1: Conference on Urban Waterfronts, Washington, D.C. Contact: The Waterfront Center, 1536 44th St. N.W., Washington, D.C. 20007.

Oct. 7: AIA '83 Codes and Standards Conference, Chicago. Contact: Henry Lawrence at Institute headquarters, (202) 626-7456.

Oct. 17-18: AIA Design Conference—Turning Points: Pursuing Design Excellence in a World of Change, Houston. Contact: John Gaillard at Institute headquarters, (202) 626-7363.

Oct. 23-27: Saudi Building 83: Second Building and Construction Show, Riyadh, Saudi Arabia. Contact: Jeremy Sale, SaudiBuild 83, Overseas Exhibition Serv-

ices, Ltd., 11 Manchester Square, London W1M 5AB, England.

Oct. 25-27: AIA Architects in Industry Conference—Architectural Masterplanning in the Corporate Environment, San Jose, Calif. Contact: Beverly Sanchez at Institute headquarters, (202) 626-7434.

Oct. 27-28: AIA Third Architectural Management Conference—Post Survival Management, Kansas City, Mo. Contact: William Hooper at Institute headquarters, (202) 626-7532.

Dec. 18-23: Sixth World Congress of Engineers and Architects in Israel: Development of the Desert and Sparsely Populated Areas—Policies, Planning, Architecture, and Industry, Tel Aviv, Israel. Contact: Congress Coordinator, International Technical Cooperation Centre, P.O. Box 3082, Tel Aviv, Israel 61030.

LETTERS

Daylighting Research: Robert Campbell, in his review of the International Daylighting Conference in Phoenix (June, page 54), is right in sensing that there are "incompatibilities between the researchers on one hand and design-oriented architects on the other" and that "research information . . . is proliferating a lot faster than the design profession is digesting it." The question is, what do we do about that situation?

Make research more accessible to architects? As Campbell points out, there was much discussion among daylighting researchers in Phoenix about just that problem. But architects have to meet the researchers halfway. We must avail ourselves of architectural research to a much greater extent than presently occurs, and, contrary to Campbell's claim, that may require reading, applying protractors, and looking at pictures.

Architectural research "leads a life of its own" not only because it is relatively inaccessible, but because too many of us believe in what Campbell seems to have acquiesced to: "the technological fix." That trust in technology to solve most non-formal architectural problems may be one of the few beliefs modernists and post-modernists might share. We should not take comfort, though, in the technological fix. That belief has led the architectural profession to an ever-increasing dependence upon engineers and an ever-decreasing percentage of total A/E fees. And it allows us to neglect architectural research that is not specifically related to the making of form. That neglect, inexcusable in most other professions, has become increasingly inexcusable in the eyes of the court judging what constitutes reasonable professional practice.

It is time that we stop mystifying the design process with statements such as "most architects can come to understand a problem by designing a solution to it

and in no other way" and start listening to what architectural researchers have to share. Research is what the daylighting conference eventually became of Campbell: "endlessly informative and stimulating."

Thomas R. Fisher
Hartford, Conn.

Sweet Briar Symposium: In the best of all possible worlds, the strawberries would get better at the bottom of the box and symposium panelists would engage in stimulating debate on the major issues of the day with each other and the audience. And indeed, in planning the Ewald Scholars Symposium on the New American Architecture, we at Sweet Briar College did hope to achieve such a goal and assigned a controversial topic to each panel. But, alas, architects are no different from journalists, or professors, or scientists, or any other group. They decided that the topics were too contrived or too critical, and so each speaker simply presented his or her own work or point of view.

But with this caveat aside, so much was positive and often exciting about the symposium. For many—perhaps most—in the audience, the slides and commentary were new. And, if I am to judge by the large number of comments that have come to me since the event, many genuinely seemed to enjoy and benefit from the occasion.

Bruce Dicker writes of "the opportunity lost" for discussion of the architectural issues at the Sweet Briar symposium (see May, page 10). Yet issues were brought forth: Vincent Scully declared that "modern architecture and its concomitant urbanism" is destroying the world as we know it; Wolf von Eckardt said that "all environment is about to be built-environment"; and Jaquelin Robertson said, "We're losing public amenity

continued on page 10


Corrections: The Captain Eldridge Congregate House in Hyannis, Mass., (see May, page 322) received a first honor award in the Homes for Better Living Award Program, rather than an award from the Boston Society of Architects. The project's team consisted of Korobkin Jahan Associates (design architect), and Building Diagnostic Inc. (design and research coordination), as well as Brett Donham & Tadhg Sweeney (architect of record).

Also in the May issue, Booth/Hansen & Associates, Ltd., was consulting design architect for the City of Chicago Fire Station shown on page 333.

A participant in the planning process of the Louisiana World Exposition of 1984 was John Kriken (not John Creighton), who is director of planning and urban design for the San Francisco, Los Angeles, and Houston offices of Skidmore, Owings & Merrill (see March, page 96).

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Letters from page 8

because of overweening self-aggrandizement by the private sector." Perhaps Mr. Dicker did not make all that he could have made of the opportunity to hear more of what was being said.

Harold B. Whiteman Jr.
President, Sweet Briar College

The Bateson Building: I would like to set the record straight about the Gregory Bateson Building as described in the April issue (page 64). It is extremely important to the profession that information about the building's performance be accurately disseminated to the design profession since it was one of the first large, energy efficient office buildings using passive design strategies to be built.

First, the Bateson Building is not a

sealed building, as there are two operable windows per bay, exterior doors, and decks accessible from every major office area, and a ventilation strategy that flushes out the office space with outside air every night, eight months of the year.

Second, the atrium being the design focus of the building plays no role in distributing heat or air to the interior office space. Its functions are to introduce natural light to the interior offices, to clearly show the major circulation, to provide a relief space for the worker, and to act as a thermal buffer zone between the outside and the work space.

Third, the paragraph stating that the building's current 24-hour mechanical operation is temporary and only made possible by reduced energy costs is totally incorrect. The building was designed to

use only 40 percent of the energy of a conventional building with 24-hour operation, eight months of the year. Due to operating management's misunderstandings, the building did not operate as designed the first year, but is doing so now.

Fourth, it was very clearly stated in reports by the California Occupational Safety and Health Administration that smoking was a direct and main contributor of contaminants in the building, i.e. the highest source of complaints came from the areas with the greatest concentration of smokers. The off-gassing of formaldehyde was gone after the first few months, and the spores in the rockbeds came from poor construction clean-up. The rockbeds are now clean and being activated.

As was reported in the AIA JOURNAL previously (see Sept. '82, page 18), there were problems during the first year of operation. The complaints of some 200 out of 1,300 employees occurred during two periods. First, during an initial period when tenants were moved in too soon and the complete building was not yet finished, and second during winter months when defects in the boxes that control the flow of air to diffusers and in fan cables affected 80 percent of the ventilation system. All systems have been corrected, and complaints are seldom heard.

Unfortunately, the problems of indoor pollution are typical of all buildings. One of the key significances of the Bateson Building's design is that the passive operating strategies provide *better control* to eliminate pollution than those found in traditional sealed building types and yet *still* have the potential to provide major energy usage efficiencies.

Glenn Hezmalchal, AIA
Office of the State Architect
Sacramento, Calif.

Portland Building (Continued): I must add my non-juror's vote to George Hasslein's (see June, page 6). Contrary to Charles Gwathmey's statement of "moment over matter," I decry current trends of monument over matter. When form follows function we have formalism at the expense of function. Vitruvius' words "commodity, firmness, and delight" still are the ultimate criteria of a finished building. I know there is a need for buildings in the spirit of Petra (page 70, same issue), but not for me in the form of this current pastiche of postmodern pasteboard. There is more to learn in one clearstory of Aalto's white-lighted low buildings, (page 59, same issue), which have more monumentality than the mega-block mentality that creates and follows the current muse.

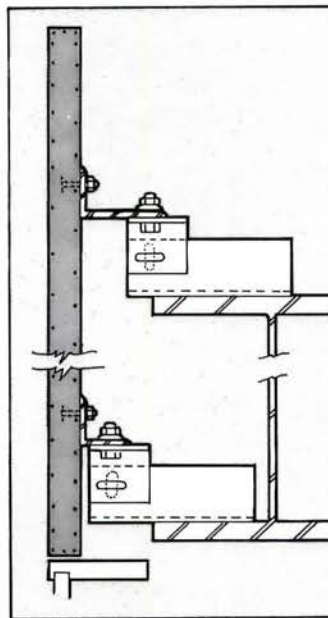
By the way, let me compliment you on another delightful issue.

Edward Harrison Bernstein, AIA
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Buckminster Fuller: 'The Most Visionary Thinker of Our Times'

In June 1929 R. Buckminster Fuller offered to AIA at its convention in St. Louis the patent of his prefabricated Dymaxion House. Fuller's design was so disdained that the convention-goers passed a resolution opposing "any peas-in-the-pod-like reproduction designs." This, of course, is the same organization that awarded its highest honor, the gold medal, to Fuller in 1970.

This tale exemplifies Fuller's struggles throughout his life. Most of his early designs, mathematical theories, and philosophical ideas were dismissed as foolhardy, eccentric. But over time Fuller became respected as a thinker far ahead of his times.

Bucky Fuller died July 1 at the age of 87. He suffered a fatal heart attack at Los Angeles' Good Samaritan Hospital at the bedside of his wife Anne, who, in a coma, was critically ill from complications following surgery. Mrs. Fuller, also 87, died two days later.

Fuller once described himself as an "ordinary man." Yet, he authored 25 books, held 27 U.S. patents (some 200 world-wide), had 39 honorary degrees in fields ranging from fine arts to engineering, and this year received the medal of freedom from President Reagan. He has been called a modern-day Leonardo da Vinci, a Renaissance man, the most visionary thinker of our times.

It was the invention of the geodesic dome in 1947 that brought recognition from the architectural community. Architectural historian James Marston Fitch said of Fuller's design, "It is the only large dome that can be set directly on the ground with simple anchors, rather than a foundation, and the only practical clear span structure with no limiting dimension." The dome's basic unit is a tetrahedron—a triangular-sided pyramid form—that when interlocked produces a structure of unparalleled strength-to-weight ratio.

Another important contribution to architecture was his understanding of how industrial processes could be applied to the built environment. His Dymaxion House was the first prefabricated dwelling unit awarded a patent. It was a hexa-



Phil Haggerty

gonal, mast-hung, cable supported structure, weighing only three tons and would have sold for \$.25 per pound. But, like Fuller's other early prefab designs, the concept far preceded the necessary technology and acceptance by the building industry.

Fuller believed that it was through technology that man could achieve a benign universe where every person was adequately fed, clothed, and housed. In his later years he traveled thousands of miles lecturing this theme: We can harness and direct our vast, ever-changing technological prowess for the benefit of all mankind. The ultimate machine to Fuller was not a machine but the knowledge and control of forces of nature that "bind us in mutual dependence." He consistently promoted the ideals of "doing more with less," "reforming the environment instead of man," and "comprehensive anticipatory design science."

Fuller's ultimate invention was the "World Game," in his words "computerized collations of the world's available resources and productive mechanisms" that would be used as a "framework for global planning, for eliminating the causes of poverty and war, and for protecting and restoring the ecological integrity of our planet." In the late-'60s Fuller applied

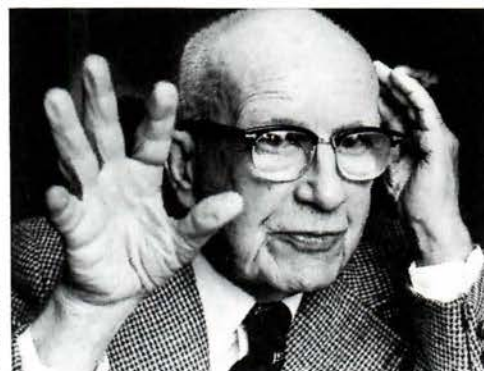


Photo Ideas, Inc.

this global planning to the production and distribution of electrical energy. He proposed a worldwide energy grid spanning continents and oceans that would generate electricity from the power of the tides—a perpetual source of benign energy.

But Fuller recognized that his vision of a benign universe could only be accomplished if all the divergent political, religious, and individual interests were overcome. In 1979 he said, "Ten years ago it became eminently demonstrable that from an engineering viewpoint a complete retooling of our production from weaponry to livingry would within 10 years have all humanity living at the highest standard of living any humans have known, and we could phase out fossil fuels and atomic energy. We could live entirely on our energy income. Equipment could be designed to harvest the sun's energy.

"Then I discovered, as you will, that all great politics, all great nations, all great governments, all powerful religions, all great bureaucracies, and most of business would find it absolutely devastating to have all humanity a success. They're all predicated on humanity being a failure. They say, 'Come around and I'll get you a job. Come around and I'll comfort you. Come around and I'll get you well and get you in heaven.'" *continued on page 30*



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News from page 21

Born July 12, 1895, in Milton, Mass., Fuller exhibited his talents early in life. Reportedly as a 6-year-old in kindergarten he built a tetrahedral octet truss (a key structural element of his geodesic dome) out of toothpicks and dried peas. He attended Milton Academy, where he excelled in mathematics and science. Following the tradition of four generations of male Fullers he proceeded to Harvard University where he was expelled for "general irresponsibility" (throughout his life he eschewed traditional education) and went to work in a cotton mill in Quebec. He returned to Harvard, was expelled again, and joined the Navy by offering his mother's boat for subpatrol duty off Maine. In 1917 he married Anne

Hewlett, daughter of New York City architect James Monroe Hewlett. After his stint in the Navy, Fuller worked for Armour & Co. and for a trucking firm.

In 1922 tragedy struck the Fullers when their 4-year-old daughter Alexandra died, having been afflicted with polio and spinal meningitis since birth. Needing a change, Fuller teamed up with his father-in-law and started a company to manufacture a fibrous building block invented by Hewlett. From 1922-27 Fuller built 240 buildings, set up five factories, and invented the machinery to produce the building block. But it was also a time when Fuller, devastated by the death of his daughter, began drinking heavily and by 1927 was on the brink of suicide.

That year—1927—became the turning

point in Fuller's life. One night he found himself standing on the shore of Lake Michigan (he had moved his family to Joliet, Ill.), and there he decided that he had no right to do away with himself. "I decided that I was an inventory of experience. And if I did away with myself I might get rid of some connecting link of experience in the universe that would turn out to be important. So I decided that I would only work for humanity, not for my family, or myself, or any one side," Fuller once recounted.

He moved his family into a Chicago tenement and literally did not speak to anyone for almost a year. Out of his isolation came his first book, *4D* (named after the fourth dimension in Einstein's theory) and the first schematics for the Dymaxion House. The house and each subsequent invention were intended to help reach his goal of "finding ways of doing more with less to the end that all people—everywhere—can have more and more of everything," in Fuller's words.

What followed was the flowering of Fuller's inventions. The Dymaxion Car—a three-wheeled automobile with one rear wheel for steering—could turn its length and reach 120 miles per hour. It was a major attraction at the 1933 Chicago World's Fair, but was doomed to failure after it collided with a conventional auto during a demonstration run. Only two more were built. Next was the five-foot-square Dymaxion bathroom. Then in 1940 Fuller designed the Dymaxion Development Unit, a corrugated steel house that was used by the Army for emergency shelters. In 1943 the Dymaxion Map was patented—the first cartographic project of the world without visible distortion. Fuller called it the "Airocean World."

In 1944 a new version of the Dymaxion circular unit, the Wichita house, went into prototype production. The hope was that mass production of the house, to sell at \$6,000 each, would provide employment for workers no longer needed to build warplanes and would serve as a stop-gap solution to the postwar housing shortage. But the idea was scrapped when the building industry showed no interest.

The first industrial acceptance of the geodesic dome came in 1952 when the Ford Motor Co. commissioned Fuller to design a dome spanning 93 feet for its Dearborn, Mich., Rotunda Building. Since then thousands have been built, probably the most celebrated of them the U.S. Pavilion at Expo 67 in Montreal. In later years Fuller envisioned huge domes covering cities to provide an environment free of air pollution.

In 1959, Fuller turned his talents to the management of global resources, working out of Southern Illinois University in Carbondale and traveling around the world. He found his most receptive

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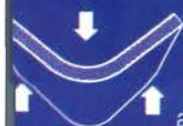
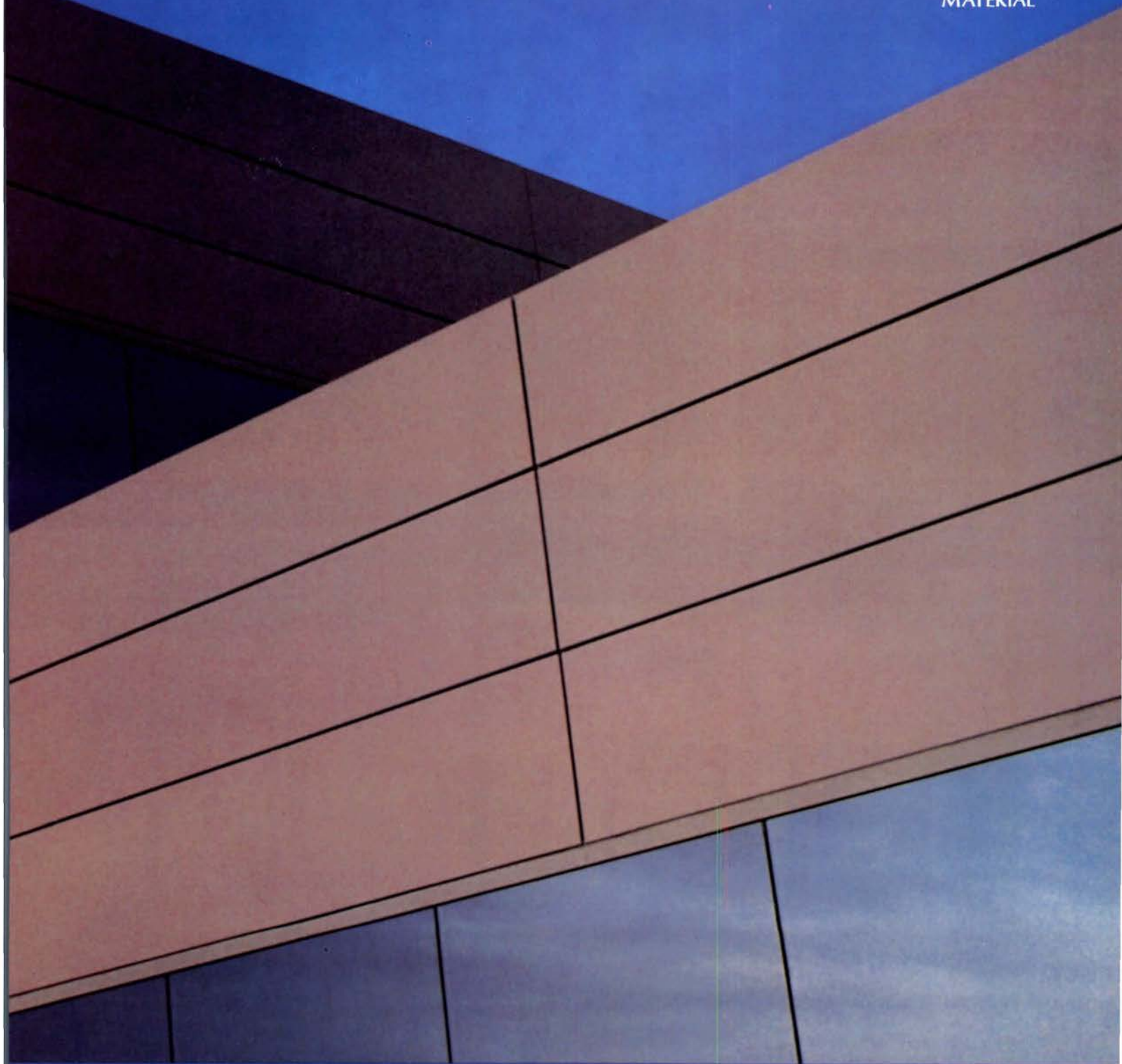
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News from page 30

audiences college students, many of whom looked at Fuller as a guru-like figure.

Among his last projects was the Spherical Tensegrity Research Station, a city-block sized plastic and steel sphere, kept aloft in space by sunlight. In Fuller's vision the station would take over many of the functions of space satellites, including earth resources observation and weather forecasting, while sending solar energy back to earth in the form of microwaves. He also proposed "air deliverable, energy harvesting, self-cleaning dwelling machines, which would be installed at a very low-cost on remote land." Another was Fuller's "Old Man River," a dome-covered city for 9,000 families. It would contain apartments and civic, cultural, educational, commercial, and industrial facilities.

This leads back to Fuller's concept of a universe in which the physical and metaphysical converge in a common, benign system. It is not a universe that dehumanizes man, but one that liberates him. It is not a universe that divides, but one that unites. And this vision may ultimately be one of Fuller's greatest legacies. As Ezra Pound wrote in 1971, "Buckminster Fuller—friend of the universe, bringer of happiness, liberator."

NORA RICHTER GREER

William W. Caudill: Founder And 'Spiritual Leader' of CRS

William W. Caudill, FAIA, recently wrote: "The prima donna is dead. If Michelangelo were alive, he couldn't cope with today's complexity without a team. . . ." Caudill, who died June 25 in Houston at age 69, was a prototypical team player and the antithesis of the prima donna.

To his partner Wallie Scott Jr., FAIA, Caudill was "the spiritual leader" of Caudill Rowlett Scott, the giant Houston firm noted for innovations in design, technology, and management that Caudill founded with the late John Rowlett in 1946 in College Station, Tex.

To William Lacy, FAIA, president of Cooper Union, Caudill was a personal mentor and a "teacher of enormous patience and energy, always trying to get ideas into some shape that could be transmitted to somebody else, whether a client, a student, or a person at the next drafting table."

To Jack DeBartolo Jr., FAIA, partner with Anderson DeBartolo Pan whose first job in architecture was with CRS, Caudill was "a great problem solver, always a

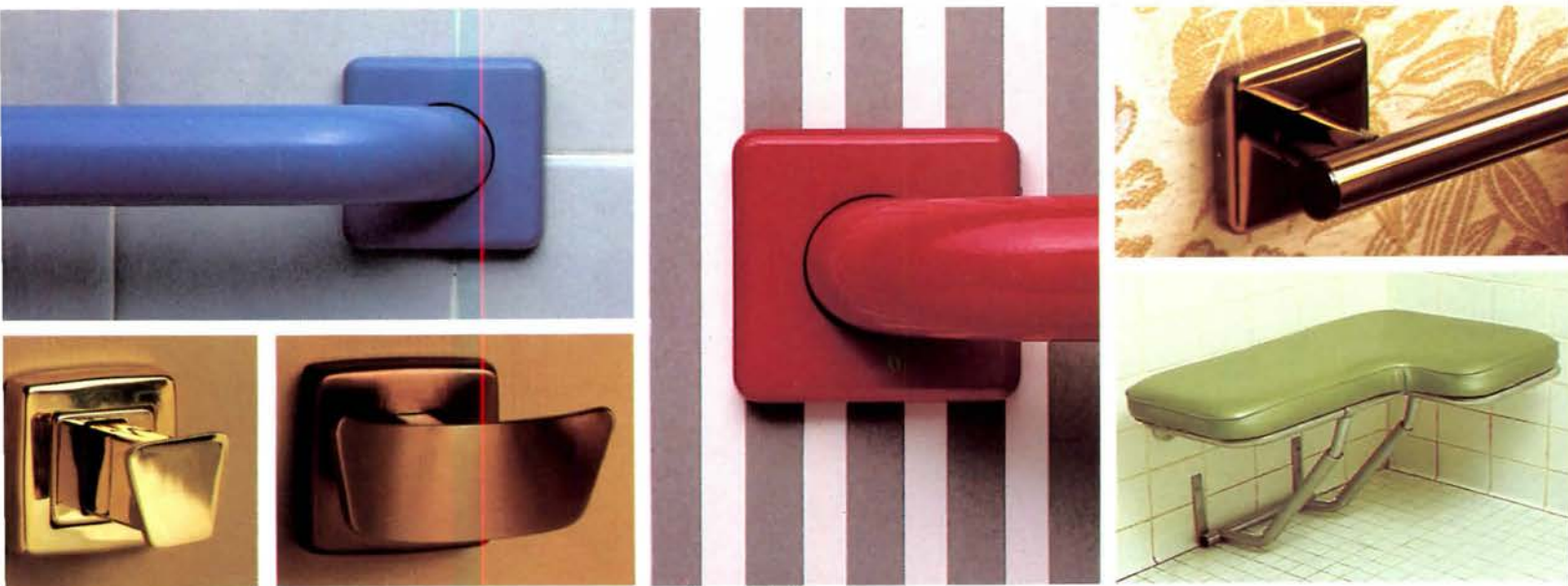
researcher, looking for new ways and concepts of practicing architecture."

And to William Blurock, FAIA, who served with Caudill on AIA's board, he was "a strong individualist with a delightful, low-key, humble attitude."

Caudill's beginnings in Hobart, Okla., were humble. This May he wrote: ". . . I'm amazed at where I am today. Where did I get my motivation? That's easy—from my mother. . . . No one worked harder than my Mom. She fought in a man's world. She taught her kids to stretch his and her potentials." As a child, he had a stutter, and he later told people he went into architecture because he thought it was a profession that wouldn't require him to speak much. Although he never entirely overcame the problem, its vestige became a Caudill trademark, and he became a frequent public speaker.

A student with great intellectual curiosity, he obtained a bachelor of architecture degree from Oklahoma State and a master of architecture from MIT. Early

continued on page 41



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in his career, while teaching at Texas A&M, Caudill got published the first of his 12 books, *Space for Teaching*. "Of course I was only 26 at the time and I had never designed a schoolhouse. But at least I wanted to do something," he wrote years later, admitting that he had since "eaten a few of those words." The little book, as he called it, turned out to be a harbinger of the direction of CRS, which, as Harry Weese, FAIA, says, "became as effective in the educational field as SOM in the corporate world."

In about the third year after formation of CRS, Wallie Scott recalls, the fledgling firm was commissioned to design two small elementary schools in Blackwell, Okla., "a long way from College Station. So, at Bill's suggestion, two of us took our drafting boards, pencils, and paper and spent a week with the teachers, the kids, and the school board. We drove up to Blackwell in Bill's Hudson—he had the only car in the firm that would go that far."

Caudill dubbed the team's role in on-site programming and design as that of a "squatters" after the Oklahoma pioneers who squatted on land until they had laid claim to it. The term stuck as a label for a process that Caudill Rowlett Scott re-



peated and refined through the years.

The idea is to communicate intensely with the clients and users and to design their building "literally under their noses," as Scott puts it. "As the years went on, it was brought into great precision. We developed pre-squatters in our offices, and then we started having programming squatters that precede the design squatters. We got to the point where by the end of the design squatters, if the building wasn't too

complicated we had a pretty good set of drawings."

To this day the firm rarely uses anything else but the squatters technique. Even for Houston clients, a squatters is set up away from CRS's offices, usually on the client's turf. CRS squatters have also been held in Saudi Arabia, India, and Pakistan, and the process has been widely copied. As William Lacy says, the technique "eliminates the possibility of 'the a-ha syndrome,' where the architect says 'this is your building,' and the client says 'oh no it's not.' By the time of the preliminary design presentation, the client is as much a part of it as the architect."

The father of the process, Caudill was also its master. DeBartolo recalls one squatters in a rural mountain setting that turned into "a real hillbilly fight. But Bill came off as a regular guy, not a slick architect from Houston, and he convinced them of the value of the things we were proposing." Blurock recalls a squatters almost 20 years ago for Cyprus College in California, a commission on which his firm collaborated with CRS. "Bill was a great influence, although he sat over in the corner and seemed to be just directing traffic. At the design presentation, he minimized his contribution, saying, 'I just

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stood around and watched all these guys doing the work. My role is like the M-G-M lion: I come out and roar once in a while, but it doesn't have anything to do with the quality of the picture."

Caudill was by instinct a teacher. Although he gave up his connection with Texas A&M in 1949, he returned to academe a dozen years later as head of the school of architecture at Rice University, a position he held until 1969. He continued to teach at Rice for two more years. Of Caudill's teaching skills, Lacy says: "He forced everyone to be a little more methodical, a little less intuitive—although he was a very intuitive kind of design architect. He was a great believer in drawing bubbles and connecting them, and

sometimes he could drive us crazy with his 'A plus B equals C' diagrams. But he went beyond that elemental logic. He had a real feeling for people and truly believed that architecture should serve people."

Blurock adds, "I would not consider him an academic, but rather a teaching architect. More than once he said, 'I know a lot of young old people and a lot of old young people.' He promoted intellectual growth regardless of people's ages." One way he shared his own intellectual growth was through writing. In addition to his books and hundreds of research reports and articles, Caudill wrote, over the last 19 years of his life, a series of informal, short essays about whatever was on his mind at the time. Professional, personal, serious, humorous, these writings were

distributed in the firm and collected in three-ring binders. He called them TIBs for "this I believe," usually producing a TIB a day, sometimes more than one.

In March 1982, Caudill confessed in a TIB: "I guess I'll never learn to be fashionable where architecture is concerned—particularly the fashions that are given to us by the magazines. I still like the expression 'problem solving.' I'm *really* straight." Characteristic of his penetrating, self-effacing attitude, this April he wrote: "As I travel around the country it becomes obvious to me that our reputation exceeds our own evaluation of the CRS team. Perhaps we are more critical than others because we are searching for perfection. Nothing wrong with that."

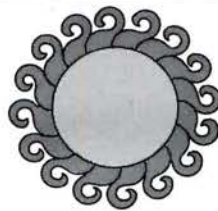
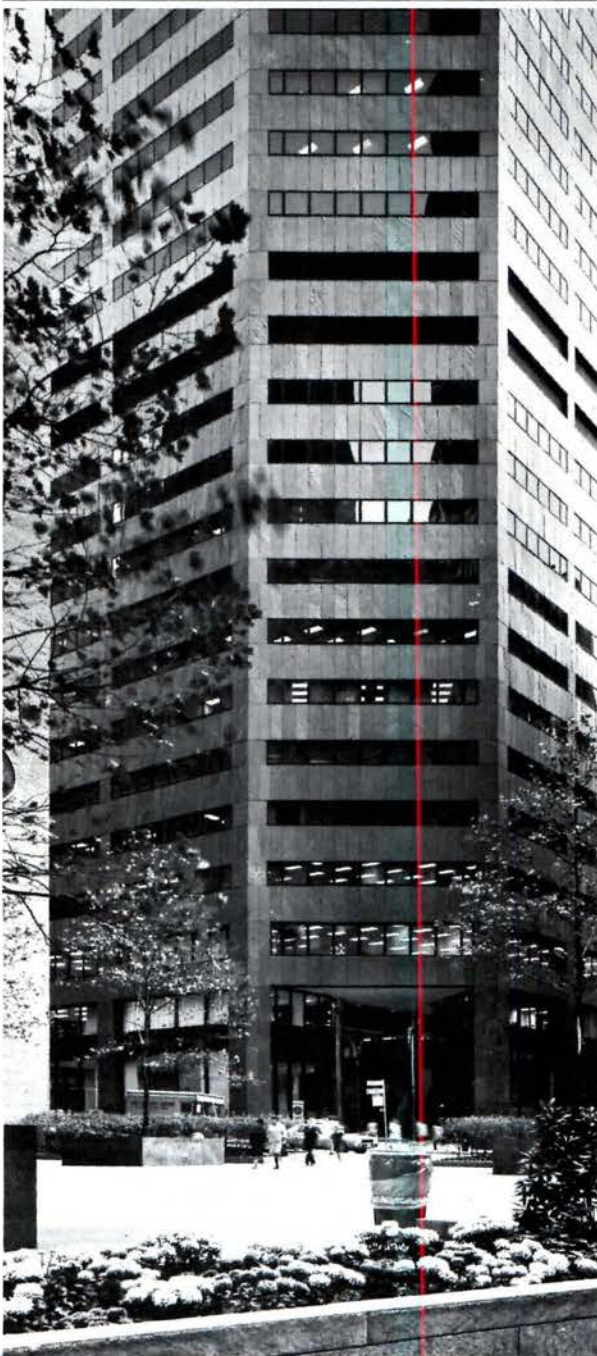
Caudill inspired friendship and lasting allegiance. Typical is the expression of Paul Kennon, FAIA, who heads a CRS design studio: "He loved people and touched the lives of many. He was someone I loved dearly." Adds Max De Pree, chief executive officer of Herman Miller, Inc., on whose board Caudill served for the last 11 years of his life: "He had the unique ability to get under your skin and into your heart at the same time. He was forthright, yet very supportive, almost always on the side of a solution instead of being part of the problem."

"It meant a lot to Bill that he was going to be inducted into the Oklahoma Hall of Fame, the first architect to be so honored. At our meeting in July after Bill's death, Herman Miller's board decided to hold our November meeting in Oklahoma City. All 11 of us wanted to be present at Bill's induction." ALLEN FREEMAN

Robert L. Davison: Beginning with his studies at Harvard in 1913 and throughout his career, Davison single-mindedly worked at developing new ideas in low-cost housing, prefabrication, new building materials, and new methods of construction. In 1926, he founded, with Henry Wright and others, the Research Institute for Economic Housing. Two years later, disillusioned with the slow progress of the institute in revolutionizing housing production, he became director of technical news and research at *Architectural Record*. During the 1930s and early '40s, he directed housing research for the John B. Pierce Foundation, working on such problems as simplified plumbing techniques. Later he did pioneering research on curtain wall construction, proposing such now-commonplace concepts as metal facings and plastic and foam sandwich construction. More recently, he was a housing consultant for the United Nations in Latin America and for the Pratt Institute school of architecture, for which he worked on a HUD-sponsored project.

Davison retired to California in the mid-'70s. He died in June at the age of 92.

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Activities of UIA and Other International Bodies

For nearly two years a reorganization of the International Union of Architects (UIA) has been considered and discussed by its members worldwide. The focus of the reorganization is on making UIA "more representative" of its members, or in the terminology of reorganization proponents, the "democratization of UIA."

Juan Jose Casal Rocco, a vice president of UIA and president of the Pan American Federation of Architects Associations (FPAA), has called for "a profound change in UIA's structure." Last October the president and officials from UIA's Region III (the national sections of the Americas) and members of FPAA and the UIA-FPAA statutes committee convened in San Salvador, Bahia, and adopted the "Declaration of Bahia," which called for changes in UIA's structure and voting procedures.

In an interview in the *UIA Bulletin* last February, Casal Rocco gave his views of the intent of the declaration. He said that it calls for a pyramidal structure in UIA with national sections at its base, subregional groups coming next, regional organizations above them, topped by the international organization. "Our intention," said Casal Rocco, "is to create a new work model that allows direct participation by the majority of the national groups of world architects in the decisions of the institution."

To accomplish this participation, he said, UIA's structure should be decentralized into regions and subregions. The subregions, it was hoped, would facilitate communications and share experiences in small groups. "The structure of these small groups should include at least a subregional secretary," said Casal Rocco, "and a council comprised of the president from each national section in the subregion." The subregions would hold annual meetings.

Casal Rocco said that each region would be made up of seven subregions and would be directed through a council made up of the presidents of each national section, UIA council members from the region, and subregional secretaries. The regions would hold a congress every three years.

To make UIA more representational, changes in voting policies would also be made according to the declaration. "Authentic representation," said Casal Rocco,

"can be obtained by simply instituting elections in which all UIA members vote for the offices of president, secretary general, and treasurer." He also said that regional elections should be held for the offices of vice president, council members, subregional secretaries, and secretary general-treasurer for each region.

(Currently the UIA assembly, composed of delegates representing the national sections, elects all officers and council members.)

The Declaration of Bahia passed without the approval of the United States representatives present. R. Randall Vosbeck, FAIA, a member of the UIA council, says that a compromise resolution was agreed upon during a meeting of the FPAA executive committee and Region III representatives in New Orleans during AIA's convention. Vosbeck says that the resolution, which will be presented to the UIA council at its meeting in Budapest this September, calls for council members to be elected by the regions they will represent, while officers will continue to be elected by the assembly.

Worldwide Data Bank on Settlements Planned in Spain

Arkisyst—a center for international documentation of information for the conception, planning, and construction of human settlements—may soon be available for the use of architects around the world as a data bank. UIA is sponsoring Arkisyst with the assistance of Unesco, the United Nations Center for Human Settlements, and the Spanish government.

Unesco offered to locate Arkisyst in Spain, and that offer was accepted by King Juan Carlos. French architect Gerard Benoit, who is the UIA delegate in charge of computer information, presented a report last fall to UIA in which he outlined recent developments in establishing Arkisyst:

- A plan for the project has been prepared that considers short range goals for the center, phases of development, financial implications, a review of national points of convergence, and a number of regional centers of information.
- Contacts with other world bodies such

as the International Confederation of Architectural Museums, the International Council of Archives, the International Council of Museums, and the International Council of Monuments and Sites have been made to prepare guides, exchange information, and create a consulting network.

- Consideration is being given to the means of storing information for long and short terms, methods of disseminating information, use of data obtained, and adaption to evolving information processes.

UIA Plans Competition to Advance Housing Technology

The UIA council held its 58th session in Santiago, Chile, this past January, passing resolutions that indicate UIA's intention to strengthen bonds between architects internationally, address the problem of housing, and establish a formal outlet of expression through a journal.

It was ratified that UIA is a "non-denominational and apolitical organization, and that its mission is that of facilitating and multiplying the free contact among architects," embracing practitioners despite nationality, race, religion, professional training, or doctrine.

The council recommended, upon the request of the Nordic national section, that all national sections work, among the architects of their representative countries, against the proliferation of nuclear weapons.

The council approved a proposal supported by the Chilean national section to organize an international competition on new technologies that may help solve the problem of housing in underdeveloped countries. The competition will be organized through UIA's commission for competitions, with the support of the United Nations and interested UIA national sections.

In an effort to further international communication, the council directed UIA's college of delegates to evaluate and implement—upon the approval of the UIA board—an association with the London-based magazine *International Architect*, making it the official journal of UIA.

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UIA's 20th World Congress will be held Oct. 26 to Nov. 2 in Manila. The choice of Manila has the support of the Philippine Institute of Architects, the United Architects of the Philippines, and the Philippine government. The First World Fair of Computer Science in Architecture is also scheduled during that time. The Assembly of UIA will take place in Baguio, Philippines, from Nov. 2-4.

UIA's College of Delegates has developed new guidelines for UIA's working groups (which consider a number of international architectural issues, such as housing).

According to UIA statutes, national sections wishing to establish working groups will have financial and organizational responsibility for them. Those sections already having working groups in existence will be given priority to re-establish them under the new rules. Working groups whose sponsor sections do not express interest will be offered to other sections or will be eliminated.

Each working group will be made up of a team composed of section experts in the group's theme, numbering from three to nine members, plus consultants belonging to other national sections. The groups are free to consider themes of their choice, although it is suggested that themes representing priority needs, as designated by the college of delegates, be considered.

Paris Documentation Center On Conservation Expands

The International Council on Monuments and Sites (ICOMOS) is a worldwide organization that promotes the "study and conservation of historic monuments, buildings, and districts." A part of that activity has been the continued expansion of the UNESCO ICOMOS Documentation Center, located at ICOMOS's headquarters in Paris.

The documentation center was begun on a small scale in 1971, appointed its first director in 1977, and is now affiliated with the documentation centers of the International Center for Conservation in Rome and UNESCO's division for Cultural Heritage. It holds a collection of secondary materials, publications, books, and "specific information on the conservation of cultural heritage," explains Ann Webster Smith, an ICOMOS vice president. The center is used by students and scholars from around the world who are conducting research on their own cultural and natural sites. Smith says the center has a

collection of all the materials relating to the cultural nominations to the World Heritage Convention List.

ICOMOS works with UNESCO on the World Heritage Convention, which was begun in 1972 to increase awareness around the world of the value of cultural and natural sites. The convention documents and lists such properties, which are nominated by the convention's 68 member organizations. The U.S. currently has 10 sites listed. The Cahokia Mounds State Historic Site in Illinois was added last December.

According to Smith, ICOMOS is actively promoting the establishment of new members in developing countries. Smith says there is growing international concern that the "pressures of progress" will lead these nations to "repeat some of the mistakes that some of the Western countries have made" in terms of the impact of new technology on cultural and natural resources.

Meanwhile, in the United States, US/ICOMOS has recently established a fellows program, patterned after AIA's, that recognizes "American scholars, professionals, and civic volunteers who have made notable long-term contributions to the enhancement of life," in one or more areas of activity including but not limited to architecture, architectural history, conservation, history, landscape architecture, and urban planning.

This past year US/ICOMOS also sponsored its first International Art Competition for Young People. Its purpose is to "foster an awareness in young people of the rich architectural and cultural history of America," as well as draw attention to the historic preservation movement, says Terry Morton, chairman of US/ICOMOS. The competition was open to those from 9 years of age to 16. Contestants submitted drawings and a written essay of a building or buildings that they wished to preserve. Twenty-five winners from around the country were selected and will participate in a 1984 international competition.

In February, Morton testified in a congressional hearing about the "leadership role" of the U.S. in the convention, which she said has been lax since 1980.

An organization similar to ICOMOS in scope and intent is the International Centre for Conservation in Rome, or ICCROM. Established in 1958 as an intergovernmental organization for the exchange of conservation information and expertise among nations, ICCROM currently has 61 member nations, including the U.S., where membership is guided through the Advisory Council for Historic Preservation in Washington, D.C.

Part of ICCROM's information-sharing efforts entail a research and training center that it operates at its headquarters in the Ospizio di San Michele in Rome. The center offers a number of courses in conservation for architects, engineers, urban planners, archaeologists, art historians, conservators, scientists, and museum curators. Participants are selected from applicants already involved in conservation work.

ICCROM's own activities in the field involve its "regular and emergency missions," where teams of international specialists go to sites around the world to study preservation problems. ICCROM teams have studied the effects of air pollution on Venice, algae growth on prehistoric paintings in the Lascaux caves in France, and the deterioration of the west front of the U.S. Capitol.

World Bank Enlists Architects In Urban Development Projects

By the year 2000, according to a United Nations estimate, 12 out of the projected 15 cities with populations between 12 million and 31 million will be in developing countries. For these nations adjusting to their growth and becoming integral parts of the world economy, the World Bank has undertaken a program "to develop approaches for the efficient and equitable provision of urban services and employment," according to the bank's statement of objectives.

To these ends, the bank initiated its urban lending program through its urban development department in 1972. The department conducts work such as providing shelter, improving transportation systems, and planning integrated urban projects and regional development.

The department, which undertook only one project in 1972, today has more than 90 projects under consideration and in preparation for the bank's fiscal lending program for 1982-86. Likewise, the staff has grown from 10 in 1972 to more than 83 a decade later. Architects and planners, as well as engineers, economists, and financial analysts comprise the staff, with architects employed both as in-house, full-time employees and as consultants.

Sylvia Gottwald, a Washington, D.C., architect, has worked as a consultant since 1980. She has been involved in projects in Thailand, India, and her own native Yugoslavia. Compared to her in-house counterparts, Gottwald says, she has more of an architectural role. "The architects who become part of the staff

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The right glass.
Right to



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usually do little architectural work," she says. "They get involved with administration, cost analysis, report writing, and occasionally coordinating consulting architects."

Many of the department's projects involve the provision of shelter. Shelter projects include not only housing, but slum upgrading, improvement of infrastructure, and "sites-and-services" projects. According to the department's statistics, shelter projects in every region except South Asia accounted for the bulk of the work.

It is in the sites-and-services projects that individuals are encouraged to construct their own homes on serviced sites, through the provision of land tenure, access to loans, and a variety of infrastructure improvement aids and services.

Following the provision of electricity, water, and other services, says Gottwald, the very basics of a house are provided. This usually takes the form of a concrete slab on grade and a core unit containing bathroom and kitchen facilities. The family buys this basic structure, and over time will construct their own walls and roof.

"The object is always to provide the minimum amount possible for the most people," explains Gottwald.

Architectural consultants are sometimes involved in providing technical assistance by either training local architects to carry out a project, or working with local people in teaching organizational skills. "This is often what the Third World countries lack," says Gottwald. "Even though they have their own talented architects, when it comes to managing a project they are less capable."

Architects also consult to the bank's education department where they frequently oversee the design and construction of schools. The buildings are designed by local architects while the consultants act as the department's representatives "to monitor and evaluate the job that is being done and to make sure the money is going in the right direction," says Gottwald.

Whatever the nature of the project, the architect has two major objectives: to make the project financially feasible and to create a decent living environment. Gottwald explains that the work can occasionally be frustrating because the empha-

sis is always on economics and other logistic considerations. Esthetics is rarely a priority. "It gets a little difficult for an architect trained to design," says Gottwald, "but at the same time, dealing with all these other issues can be very challenging."

An urban renewal project in Bombay has been one such challenge. Gottwald says that she has had to use her architectural training to determine the maximum amount of cost-cutting allowable without adversely affecting the environmental quality. "I have been analyzing the design and construction standards to see how they can be pared while maintaining housing that is safe and livable," she says. "We've been studying the requirements to create a new set of standards, so you can provide people with what they need, and maintain it without major cost."

It is one of many issues that must be considered if the project is to result in a cost-effective, suitable environment, says Gottwald. "It's not exactly the type of job that you'd recommend to a young architect, because there are so many things you have to worry about at once."

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Activités de l'UIA et d'autres Organismes Mondiaux

Depuis environ deux ans, la réorganisation de l'Union Internationale de Architectes (l'UIA) est à l'étude et fait l'objet de discussions au sein de ses membres à l'échelon mondial. Le but de cette réorganisation de l'UIA est de "rendre effective" la représentativité de chacun de ses membres, ou, pour reprendre les termes des partisans de cette réorganisation, la "démocratisation de l'UIA".

Juan José Casal Rocco, vice-président de l'UIA et président de la Fédération panaméricaine des Associations d'Architectes (FPAA) a lancé un appel en faveur "d'un profond changement des structures de l'UIA". En Octobre dernier, le président et des personnalités officielles de la Région III de l'UIA (secteurs nationaux des Amériques), des membres de la FPAA, ainsi que la commission responsable des statuts de l'UIA et de la FPAA, se sont réunis à San Salvador de Bahia, et ont adopté la déclaration de Bahia, qui est favorable à un changement des structures de l'UIA et des modalités de vote.

Dans un entretien public dans le bulletin de l'UIA, daté du mois de février dernier, Casal Rocco formulait son opinion relative aux buts de la déclaration. Il affirmait qu'elle souhaite pour l'UIA une structure pyramidale ayant pour base les sections nationales, puis les groupements sous-régionaux, coiffés par des organisations régionales, le tout chapeauté par l'organisation internationale. "Notre intention", dit Casal Rocco, "est de créer un nouveau modèle de travail qui permette à des groupes nationaux des architectes du monde entier de participer directement aux décisions de l'institution."

Pour mettre en oeuvre cette participation, il affirmait la nécessité de décentraliser les structures de l'UIA en régions et sous-régions. On pouvait espérer que les sous-régions faciliteraient la communication et permettraient le partage par petits groupes des expériences menées. "La structure de ces petits groupes devrait avoir au moins un secrétaire par sous-région," dit Casal Rocco.

Casal Rocco indiquait que chaque région pourrait rassembler sept sous-régions et être dirigée par un conseil composé des présidents de chaque section nationale, des adhérents du conseil

de l'UIA de la région, et des secrétaires sous-régionaux.

Pour faire de l'UIA une organisation plus représentative, des modifications dans les modalités de vote pourraient être faites selon cette déclaration: "Une représentation effective," affirmait Casal Rocco, "peut s'obtenir simplement en organisant des élections qui permettraient à tous les membres de l'UIA de voter pour désigner les titulaires des postes de président, de secrétaire-général et de trésorier." Il ajoutait que des élections régionales devraient être organisées pour pourvoir les postes de vice-président, des membres des conseils, des secrétaires sous-régionaux, et du trésorier payeur-général pour chaque région.

(A l'heure actuelle l'assemblée de l'UIA composée de délégués des sections nationales élit tous les représentants officiels et tous les membres du conseil.)

La Déclaration de Bahia a pu être acceptée sans l'approbation du représentant des Etats-Unis qui se trouvait présent. R. Randall Vosbeck, de la FAIA, membre du conseil de l'UIA, affirme qu'une résolution de compromis a été trouvée au cours d'une réunion tenue à la Nouvelle Orléans entre le comité exécutif de la FPAA et les représentants de la Région III à l'occasion du congrès de l'AIA. Vosbeck indique que cette résolution, qui sera présentée devant le Conseil de l'UIA lors de la Conférence de Budapest de Septembre prochain, recommande que les membres du conseil soient élus par les régions qu'ils représentent, et que les personnalités officielles continuent d'être élues par l'Assemblée.

Banque Mondiale de Données A créer sur l'Habitat Humain

Arkisyst—centre de documentation international concernant l'information relative à la conception, l'aménagement et la construction des habitats humains—sera prochainement à la disposition des architectes du monde entier et fonctionnera comme banque de données. L'UIA patronne Arkisyst avec l'appui du Centre des Nations-Unies pour les Habitats humains, ainsi que celui du gouvernement espagnol.

L'UNESCO a proposé d'implanter Arkisyst en Espagne, proposition qui a été acceptée par le Roi Juan Carlos. L'architecte français Gérard Benoit, qui est le délégué de l'UIA chargé de l'information sur les ordinateurs, a présenté devant l'UIA un rapport à l'automne dernier dans lequel il soulignait les développements récents de l'implantation d'Arkisyst:

- Un plan concernant ce projet a pu être élaboré, qui précise les buts assignés à moyen terme à ce Centre, ainsi que les phases de développement, les implications financières, le tableau des points de convergence entre nations, et le nombre de centres régionaux d'information.
- Des contacts ont été pris avec d'autres organismes internationaux tels que la Confédération Internationale des Architectes de Musées, le Conseil International des Archives, le Conseil International des Musées, et le Conseil International des Monuments et Sites qui ont pour but de préparer des guides, d'échanger des informations, et de mettre sur pied un réseau de consultants.
- L'accent est mis sur les moyens de stocker l'information à long et à court terme, sur les méthodes de diffusion de l'information, sur l'utilisation des données, et sur l'adaptation aux techniques évolutives de l'information.

Concours des Technologies de L'habitation ouvert par l'UIA

Le conseil de l'UIA a tenu sa 58ème session à Santiago du Chili en Janvier dernier, adoptant des résolutions qui indiquent l'intention de l'UIA de renforcer au plan international les relations entre architectes, de faire connaître les problèmes du logement, et d'exprimer ses points de vue dans un journal.

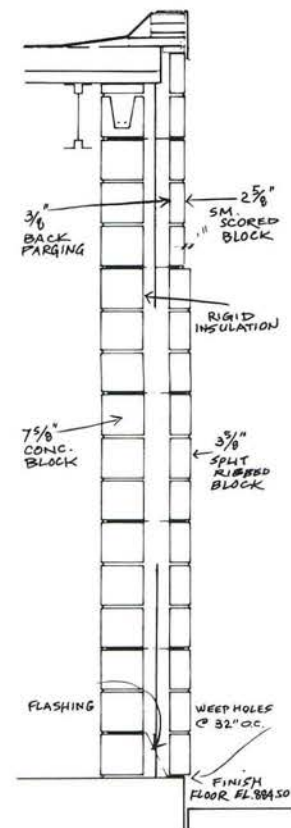
Il a été admis que l'UIA était une organisation non-confessionnelle et apolitique, et que sa mission consistait à faciliter et à multiplier les contacts les plus libres entre architectes, "comprenant des professionnels de toutes nationalités, races, religions, doctrines, et venant de toutes les écoles d'architecture."

Le conseil a recommandé, à la demande

suite page 72



The complete building showing the split ribbed and scored concrete masonry units used for the exterior.



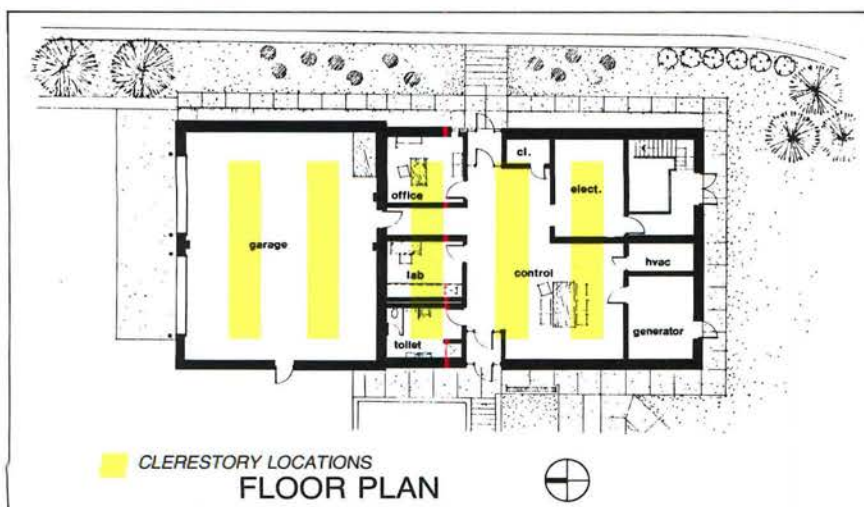
TYPICAL WALL SECTION

Concrete masonry passive solar architecture delivers 53% of heating required in laboratory/office structure.

Blue River Main Sewer District No. 1 Waste Water Facilities Operations and Maintenance Building

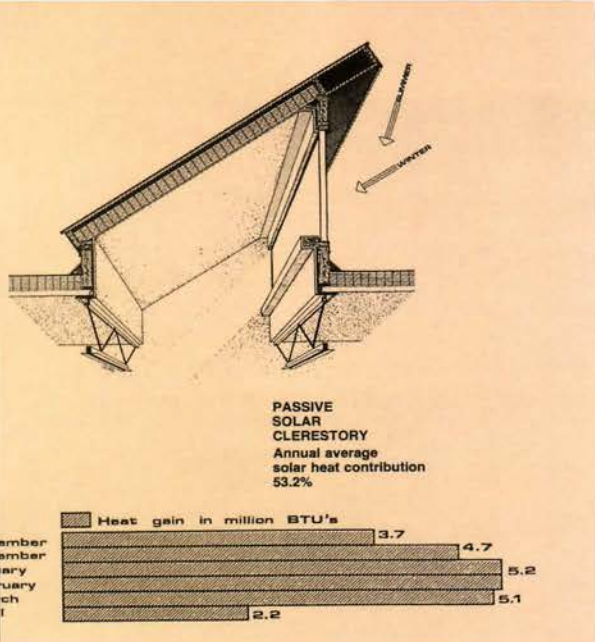
Johnson County, Kansas

Architects/Engineers
Ponzer, Sears, Youngquist, P.A.



Detail of the exterior concrete masonry facade.





An interior scene with exposed concrete masonry walls used for heat storage and the clerestories above.

Clerestory windows and concrete masonry function together for passive solar collection, heat storage and daylighting in this waste water treatment facility near Kansas City.

The operation and maintenance building measures 87 x 44 ft., and is of heavily insulated loadbearing concrete masonry construction. Exposed concrete masonry is used for both exterior and interior walls. The exterior walls feature a veneer of 4" decorative split ribbed concrete masonry and single scored block backed up with 8" regular concrete masonry units.

The passive solar system with concrete masonry provides the basic heating and cooling package. The building has R-38 ceilings, R-20 walls and other state-of-the-art energy conservation features. The architects and engineers estimate that this passive solar and conservation package will provide a yearly energy savings of more than 50% over conventionally built structures.



Above

A view from one of the water clarifiers showing the clerestory windows and concrete masonry construction.



Duane R. Youngquist, Architectural Engineer for the project. "We needed a building material that was economical, virtually maintenance free, aesthetically pleasing, and able to provide mass required for the passive solar design. Concrete block proved to be an excellent material to meet these demanding criteria. Concrete block provided a good surface for painting on the inside of the building, allowing the designer freedom of expression. Split ribbed block, combined with smooth, scored block, provided an aesthetically pleasing appearance for the exterior of the building."

—Ponzer, Sears, Youngquist, P.A.



National Concrete Masonry Association
P.O. Box 781
Herndon, Virginia 22070

Marketing Dept., National Concrete Masonry Association
P.O. Box 781, Herndon, Virginia 22070

Please send me further information on concrete masonry solar architecture, without obligation.

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Firm Name _____
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City _____ State _____ Zip _____



Organisations: début de liste page 69 de la section nationale nordique, que toutes les sections nationales puissent lutter, parmi les architectes de leurs pays respectifs, contre la prolifération des armements nucléaires.

Le conseil a approuvé la proposition de la section nationale chilienne d'organiser un concours international sur les technologies nouvelles qui aurait pour tâche de résoudre le problème du logement dans les pays sous-développés. Le concours sera organisé par les soins de la Commission de l'UIA responsable des concours, et avec l'aide des Nations-Unies et des sections nationales intéressées.

Dans son effort pour promouvoir la communication internationale, le Conseil a demandé à l'ensemble des délégués de l'UIA de fonder, avec l'approbation du Bureau de l'UIA, une association liée au magazine "Architecte International", dont le siège est à Londres, et d'en faire l'organe officiel de l'UIA.

Le 20ème Congrès Mondial de l'UIA se tiendra du 26 Octobre au 2 Novembre prochains à Manille. Le choix de Manille est approuvé par l'Union des Architectes des Philippines et par le gouvernement philippin. La Première Foire Mondiale des Ordinateurs pour l'Architecture est également prévue pour cette période. L'Assemblée de l'UIA aura lieu à Baguio, aux Philippines, du 2 au 4 Novembre.

Le Collège des Délégués de l'UIA a élaboré de nouveaux principes de travail pour les groupes d'études de l'UIA (qui traitent un nombre important de problèmes architecturaux tels que le logement).

Selon les statuts de l'UIA, des sections nationales désireuses de créer des groupes d'études auront la responsabilité administrative et financière de ces groupes. Les sections possédant d'ores et déjà des groupes de travail opérationnels donneront la priorité à leur réajustement aux nouvelles dispositions. Les groupes d'études dont les sections de tutelle manifestent peu d'intérêts glisseront vers d'autres sections ou disparaîtront.

Le Centre Documentaire sur La Conservation s'agrandit

Le Conseil International des Monuments et Sites (ICOMOS) est une organisation mondiale qui encourage "l'étude et la conservation des monuments, des bâtiments et des quartiers historiques." L'une de ses tâches a été de développer le Centre ICOMOS de Documentation de l'UNESCO à Paris, où se trouve son administration centrale.

Le Centre de documentation, qui a eu

des débuts modestes en 1971, a nommé son premier directeur en 1977, et se trouve à présent associé aux centres de documentation du Centre International pour la Conservation, qui a son siège à Rome, ainsi qu'à la Division de l'UNESCO pour le Patrimoine Culturel. Il abrite une collection de matériel spécialisé, de publications, d'ouvrages divers, ainsi qu'une "information spécifique concernant le patrimoine culturel" explique Ann Webster Smith, l'un des Sous-Directeurs de l'ICOMOS. Le centre est utilisé par des étudiants et des chercheurs du monde entier; leurs études concernent les sites naturels et culturels de leurs pays respectifs. Mme Smith nous précise encore que le centre dispose d'une collection de tous les matériaux concernés par la nomenclature figurant sur la Liste de la Convention du Patrimoine Mondial.

ICOMOS travaille en collaboration avec l'UNESCO sur la Convention du Patrimoine Mondial, dont les débuts remontent à 1972, et dont la finalité est de conduire à une conscience plus aiguë de la valeur des sites naturels et culturels à travers le monde. La Convention établit et répertorie ces richesses qui sont sélectionnées par les 68 organisations-membres de la Convention. Les Etats-Unis ont actuellement dix sites figurant sur cette liste. Le site historique de l'Etat d'Illinois, Cahokia Mounds, a été rajouté en Décembre dernier.

Selon Mme Smith, ICOMOS s'emploie activement à encourager une meilleure participation des nouveaux membres qui font partie des pays en voie de développement. Mme Smith précise qu'il y a dans le monde la crainte grandissante que "la pression du progrès" n'entraîne ces nations "à répéter les mêmes erreurs commises jadis par certains pays occidentaux", eu égard notamment à l'impact des nouvelles technologies sur les ressources culturelles et naturelles.

Dans le même temps, aux Etats-Unis, le bureau américain de l'ICOMOS a récemment mis au point un programme destiné aux chercheurs, et établi d'après les normes de l'AIA, et qui entend aider "les chercheurs et les professionnels américains, ainsi que les individus ayant eu l'initiative de contribuer notablement et durablement à une amélioration de la qualité de la vie", dans un — ou plusieurs — secteurs d'activités qui comprennent, mais de façon non limitative, l'architecture, l'histoire de l'architecture, la conservation, l'histoire, l'architecture de paysage, ainsi que l'aménagement des villes.

L'année écoulée, le bureau américain de l'ICOMOS a également patronné son premier Concours Artistique International

pour la Jeunesse. Son but est "d'encourager la prise de conscience de la jeunesse pour les richesses de l'Histoire architecturale et culturelle de l'Amérique", ainsi que d'attirer l'attention sur les tendances de la conservation des biens historiques, nous indique Terry Morton, président du bureau américain de l'ICOMOS. Le concours était ouvert aux jeunes gens de 9 à 16 ans. Les participants soumettaient des dessins et proposaient un rapport concernant un bâtiment (ou plusieurs bâtiments) qu'ils désiraient voir préservés. Vingt-cinq lauréats venant des quatre coins du pays ont été choisis et participeront en 1984 à un Concours International.

En Février, Mme Morton a été l'un des quatre représentants des organisations spécialisées dans la Conservation à parler devant la Commission compétente chargée par la Sous-Commission du Congrès responsable des domaines publics et des parcs nationaux. Au cours de son témoignage, Mme Morton demanda aux Congressistes une attention plus vigilante et un soutien accru relatifs à l'Amendement de 1980, qui désigne les Etats-Unis en tant que participants de la Convention du Patrimoine Mondial.

Aux termes de cet amendement, les Etats-Unis ont également à assurer un rôle moteur, et à contribuer à la "préservation des sites internationaux grâce à l'éducation, l'information, et l'initiation.

Mme Morton a affirmé que la participation américaine à la préservation des sites internationaux par le biais des Services des Parcs Nationaux avait sensiblement diminué depuis 1980. Elle a également insisté pour que le Département d'Etat paie sa contribution à la Convention du Patrimoine Mondial, qui n'avait plus été honorée depuis 1980. Enfin, Mme Morton a demandé qu'une somme de 135,000 dollars soit attribuée, dans le cadre des dotations allouées aux Services des Parcs pendant l'année fiscale 1984, afin que soient menés à bien les projets du bureau américain de l'ICOMOS, et que les Etats-Unis satisfassent aux obligations disposées dans l'amendement.

La demande de Mme Morton, relative aux dotations, a été ajoutée à un projet de loi approuvé par le Congrès au mois de Juin dernier. La dotation est à présent soumise à l'approbation du Sénat.

Une organisation proche des moyens et des buts de l'ICOMOS est le Centre International pour la Conservation, qui a son siège social à Rome (ICCROM). Fondée en 1958, en tant qu'organisation inter-gouvernementale chargée de promouvoir entre les nations l'échange d'informations et de techniques d'expertise concernant

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Organisations: début de liste page 72
la conservation, ICCROM compte aujourd'hui 61 membres, dont les Etats-Unis, orientés par le Conseil exécutif des Monuments Historiques, à Washington.

Une partie des efforts de l'ICCROM en matière d'échanges d'informations concerne un Centre de Recherche et d'Initiation géré par ses soins au siège social sis à l'Hospice Saint Michel de Rome. Le Centre propose un ensemble de cours concernant la Conservation, destinés à des architectes, des ingénieurs, des urbanistes, des archéologues, des historiens d'art, des conservateurs, des hommes de science, et des curateurs de musées. Les participants sont choisis parmi des candidats déjà engagés dans des travaux de conservation.

Les activités spécifiques d'ICCROM sur le terrain comprennent "ses missions régulières ou ponctuelles", au cours desquelles des équipes de spécialistes internationaux visitent les sites du monde entier pour étudier les problèmes relatifs à la conservation. Les équipes de l'ICCROM ont étudié les effets de la pollution à Venise, les phénomènes de photosynthèse sur les peintures préhistoriques de Lascaux, et la détérioration de la façade occidentale du Capitole à Washington.

Des Architectes est de leur Apport à la Banque Mondiale

En l'an 2000, selon une estimation des Nations-Unies, 12 villes sur les 15 pour lesquelles on escompte une population oscillant entre 12 et 31 millions d'habitants, se trouveront dans les pays en voie de développement. Pour permettre à ces pays d'ajuster leur croissance et de devenir des partenaires accomplis de l'économie mondiale, la Banque Mondiale a mis au point un programme destiné à "développer les moyens de concevoir de façon équitable et rentable l'utilisation des services urbains et de l'emploi", pour reprendre les déclarations des objectifs de la Banque.

A cette fin, la Banque a fait démarrer son programme d'aide à l'urbanisme grâce à son département du développement urbain en 1972. Le département a conduit des recherches sur les projets de construction immobilière, sur l'amélioration des moyens de transport et sur l'aide au développement régional. Les projets concernent six régions: l'Afrique de l'Est; l'Afrique de l'Ouest; l'Europe, le Moyen Orient et l'Afrique du Nord; l'Amérique Latine et les Caraïbes; l'Asie méridionale; l'Asie orientale et le Pacifique.

Le département, qui a commencé par une première étude en 1972, a aujourd'hui plus de 90 projets à l'examen qui seront soumis au programme d'aide de la Banque pour la période 1982-86. Ses effectifs sont passés de 10 en 1972 à plus de 83 dix ans plus tard. Des architectes et des urbanistes, mais aussi des ingénieurs, des économistes et des analystes financiers font partie de ce dispositif; des architectes peuvent être employés à cette tâche par la Banque à temps complet ou encore comme consultants.

Sylvia Gottwald, architecte de Washington, D.C., travaille depuis 1980 comme consultant. Elle s'est occupée de réalisations en Thaïlande, en Inde, et dans son propre pays, la Yougoslavie. Quand elle se compare à ses homologues de la Banque, Mme Gottwald affirme qu'elle se consacre davantage qu'eux à la partie architecturale. "Les architectes qui font partie de l'équipe de la Banque font en fait peu de travail architectural. Ils sont concernés par des travaux administratifs, des évaluations de coûts, des rapports, et par la coordination occasionnelle des architectes-consultants."

Le département préfère en général s'assurer les services de consultants venant de pays où un projet spécifique est en cours, ou d'architectes ayant l'expérience du Tiers-Monde.

De nombreux projets du département concernent la construction de logements sociaux. Ces projets ne regardent pas seulement la construction, mais aussi la réhabilitation des taudis, l'amélioration des infrastructures et les projets concernant les lieux à bâtir et les services. Selon les statistiques du département, les constructions de logements sociaux forment l'essentiel des projets, à l'exception de l'Asie méridionale.

C'est pour les projets des "lieux à bâtir et des services" que les individus sont encouragés à construire leurs propres maisons sur des sites où sont offerts des services, grâce à la fourniture de terres cultivables, de prêts, et une variété de services sociaux et d'infrastructures.

Dès que l'on a l'électricité, l'eau et d'autres services, dit Mme Gottwald, on dispose de l'essentiel pour une maison. D'habitude cela prend la forme d'un bloc de béton et une unité contenant une salle de bain et quelques équipements pour la cuisine. La famille achète cette structure de base et construit elle-même par la suite ses murs et son toit. "L'objectif est toujours de fournir le minimum indispensable au plus grand nombre possible de gens", explique Mme Gottwald.

Les projets de sites à bâtir et des services peuvent comprendre des maisons

qui puissent abriter des communautés auto-suffisantes, des cliniques, et occasionnellement, de petites industries qui s'ajoutent à l'économie locale.

Des architectes consultants sont parfois amenés à fournir leur aide technique soit en entraînant les architectes indigènes à élaborer un projet, soit en travaillant avec les populations locales elles-mêmes pour leur inculquer les principes de base de la construction. "C'est en effet souvent une lacune propre aux pays du Tiers-Monde," dit Mme Gottwald. "Et même lorsqu'ils ont des architectes de talent sur place, ils éprouvent des difficultés à élaborer un projet."

Les architectes donnent aussi des conseils au département éducatif de la Banque où ils donnent leur avis pour la conception et la réalisation des écoles. Les bâtiments sont conçus par les architectes indigènes tandis que les consultants sont présents en tant que représentants du département. "Leur rôle est de surveiller et d'évaluer le travail qui se fait et de s'assurer que les crédits sont utilisés à bon escient," dit Mme Gottwald.

Quelle que soit la nature du projet, l'architecte a deux objectifs majeurs: rendre le projet réalisable financièrement, et créer un environnement convenable. Mme Gottwald explique que ce genre de travail peut apparaître parfois comme frustrant car l'accent est placé sur les considérations économiques et logistiques. L'esthétique est rarement prioritaire. "Ceci peut embarrasser quelque peu l'architecte qui a l'habitude de créer," dit Mme Gottwald, "mais en même temps avoir à traiter autre chose peut prendre l'aspect d'un défi."

Un projet de rénovation urbaine à Bombay a pu être l'objet d'un tel défi. Mme Gottwald dit qu'elle a eu à utiliser sa formation d'architecte pour minimiser les coûts de revient de l'opération, sans compromettre la qualité de l'environnement. "J'ai analysé les normes concernant la conception et la construction pour voir ce que l'on pouvait éliminer tout en maintenant une construction qui soit en même temps sûre et vivable," dit-elle. "Nous avons étudié tout ce qui était requis pour créer de nouvelles normes et avons essayé de répondre aux besoins des gens et d'y satisfaire sans coût excessif."

C'est l'un des nombreux résultats qui doivent être considérés si l'on veut que le projet débouche sur un environnement convenable et corresponde à la mise de fond, dit Mme Gottwald. "Ce n'est pas exactement le type de travail que vous devez confier à un jeune architecte, car il y a mille choses à penser en même temps." MICHAEL J. CROSBIE





Obras del UIA y Otros Cuerpos Internacionales

Desde hace casi dos años una reorganización de la U.I.A. ha sido considerada y discutida por sus miembros mundialmente. El objeto de la reorganización consiste en hacer que la UIA "presente más" a sus miembros, o usando la jerga de los proponentes de la reorganización, "demostrar la UIA."

Juan José Casal Rocco, vice presidente de la UIA y presidente de la Federación Panamericana de Asociaciones de Arquitectos (FPAA), ha pedido que se haga "un cambio profundo en la estructura de la UIA". En octubre pasado el presidente y funcionarios de la UIA, de la Región III (Secciones nacionales de las Américas) y miembros de la FPAA y del Comité de estatutos de la UIA—FPAA se reunieron en Bahía, San Salvador y adoptaron la "Declaración de Bahía", que clama por cambios en la estructura de la UIA y en el procedimiento de sufragio.

En una entrevista publicada en el Boletín UIA en febrero pasado, Casal Rocco dió su opinión sobre la intención de la declaración. Observó que la declaración exige una estructura de la UIA en forma de pirámide usando las secciones nacionales como base, luego grupos subregionales, más arriba organizaciones regionales coronada por la organización internacional. "Nuestra intención" dijo Casal Rocco "es crear un patrón nuevo de trabajo que permita la participación directa de la mayoría de los grupos nacionales de los arquitectos del mundo en las decisiones de la institución."

Para lograr esta participación, dijo, la estructura de la UIA deberá descentralizarse en regiones y subregiones. Se esperaba que las subregiones facilitasen la comunicación y compartiesen experiencias en pequeños grupos. "La estructura de estos pequeños grupos debería incluir por lo menos una secretaria subregional," Indicó Casal Rocco, "y un consejo compuesto por un presidente de cada sección nacional en la subregión". Las subregiones tendrían reuniones anuales.

Casal Rocco dijo que cada región estaría compuesta por siete subregiones y sería dirigida por un consejo formado por presidentes de cada sección nacional, miembros del consejo de la UIA de la región y secretarías subregionales. Las regiones

tendrían un congreso cada tres años.

Para que la UIA esté más representada, se harán cambios en las normas del sufragio de acuerdo a la declaración.

"Auténtica representación", dijo Casal Rocco, "puede ser obtenida sencillamente al instituir elecciones en las que todos los miembros de la UIA voten por un presidente, un secretario general y un tesorero". También dijo que las elecciones regionales deberían hacerse para elegir un vicepresidente, miembros del consejo, secretarías subregionales y un secretario general y tesorero a la vez por cada región.

(Actualmente la Asamblea de la UIA que está compuesta por delegados que representan las secciones nacionales elige a todos los consejeros y funcionarios).

La Declaración de Bahía fué aprobada sin que los representantes estadounidenses estuvieran presentes. R. Randall Vosbeck FAIA, miembro del consejo de UIA, indicó que durante la reunión el Comité ejecutivo del FPAA y representantes de 3 Regiones de New Orleans en la convención de la AIA acordaron tomar una resolución equitativa. Vosbeck dijo además que la resolución, que será presentada al consejo de la UIA durante la reunión que tendrá lugar en Budapest el próximo septiembre, exige que los miembros del consejo sean elegidos por las regiones que representan y que los funcionarios continúen siendo elegidos por la asamblea.

Informática Mundial Sobre Colonias Humanas en España

El centro de documentación internacional con información sobre la concepción, planificación y construcción de la población humana Arkisyst, pronto estará disponible para que los arquitectos de todo el mundo lo usen como banco de información. La Unión Internacional de Arquitectos está patrocinando Arkisyst con la ayuda de la Unesco, el Centro de las Naciones Unidas para la población humana, y el Gobierno Español.

La Unesco ofreció una ubicación para Arkisyst en España, oferta que fue aceptada por el rey Juan Carlos. El otoño pasado, el arquitecto francés Gerard

Benoit, delegado de la UIA a cargo de la información de computadora, presentó un informe a la UIA en el que había esquemático los últimos progresos para establecer Arkisyst:

- Se han preparado planes para el proyecto que consisten en examinar objetivos para el centro a corto plazo, fases del desarrollo, implicaciones económicas, un estudio sobre puntos nacionales que convergen y varios centros regionales de información.

- Comunicación con otras organizaciones mundiales tales como la Confederación Internacional de Museos Arquitectónicos, el Consejo Internacional de Archivos, el Consejo Internacional de Museos y el Consejo Internacional de Monumentos y Sitios de Recreo han sido hechos para preparar pautas, intercambiar información y crear una red de especialistas.

- Se está estudiando la manera de almacenar dicha información a largo y corto plazo, métodos de diseminar la información, uso de los datos obtenidos y adaptación del proceso evolutivo de información.

Concurso del UIA Sobre la Tecnología de Viviendas

El Consejo de la Unión Internacional de Arquitectos (UIA) en enero pasado celebró la quincuagésima octava reunión en Santiago de Chile aprobando resoluciones que indican las intenciones de la UIA de fortalecer los lazos de unión entre los arquitectos a nivel internacional, abordar el problema de la vivienda y establecer un vocero oficial a través de una revista.

Se ratificó que la UIA es "una organización apolítica, no sectaria cuya misión consiste en facilitar y multiplicar la libre comunicación entre arquitectos" aceptando profesionales de cualquier nacionalidad, raza, religión, entrenamiento o doctrina.

Respondiendo al pedido de la sección nacional Nórdica, el Consejo recomendó que todas las secciones nacionales trabajen entre los arquitectos de los países repre-

sigue en página 84

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Organizaciones de página 81

sentantes, contra la proliferación de armas nucleares.

El Consejo aprobó una propuesta apoyada por la sección nacional chilena de organizar una competición internacional sobre nuevas tecnologías que ayudaría a resolver el problema de la vivienda en los países en desarrollo. La competición será organizada por la comisión de competencia de la UIA con el auspicio de las Naciones Unidas y de las Secciones Nacionales interesadas.

En un esfuerzo por expandir la comunicación internacional, el Consejo le ordenó al Colegio de delegados de la UIA, evaluar e implementar, con la aprobación de la junta de la UIA, una asociación con la revista *Arquitecto Internacional* con sede en Londres, haciendo de ella la revista oficial de la UIA.

El vigésimo Congreso Mundial de la UIA se celebrará del 26 de octubre al 2 de noviembre en Manila. Se ha seleccionado Manila con el apoyo del Instituto de Arquitectos Filipinos, los Arquitectos Unidos de las Filipinas y el Gobierno de las Filipinas. La primera Feria Mundial de Arquitectura en Ciencias de Computación también está fijada para la misma fecha. La Asamblea de la UIA tendrá lugar en Baguio, Filipinas, del 2 al 4 de noviembre.

El Colegio de Delegados de la UIA ha desarrollado nuevas pautas para los grupos de empleados de la UIA (que examina un buen número de problemas de arquitectura internacional, tales como la vivienda.)

Según los estatutos de la UIA, las Secciones Nacionales que desean establecer grupos de empleados tendrán que organizarlos y responsabilizarse por ellos económicamente.

Aquellas secciones que ya tienen grupos de empleados se les dará prioridad para que sean reestablecidas bajo las nuevas regulaciones. Los grupos de empleados cuyas secciones patrocinadas no expresan interés serán ofrecidas a otras secciones o serán eliminadas.

Centro de Documentación Sobre la Conservación Crece

El International Council on Monuments and Sites (ICOMOS) es una entidad mundial que promueve el "estudio y conservación de monumentos, edificios y distritos históricos." Una parte de esa actividad ha sido la constante expansión del Centro de Documentación de ICOMOS de la Unesco, establecido en la sede de ICOMOS en París.

El centro de documentación comenzó en pequeña escala en 1971, designó su primer director en 1977 y ahora está afiliado a los centros de documentación del Centro Internacional para la Conservación en Roma y la división de Legado Cultural de la Unesco. Mantiene una colección de materiales secundarios, publicaciones, libros e "información específica sobre conservación del legado cultural," según explica Ann Webster Smith, vicepresidente de ICOMOS. Utilizan el centro estudiantes y eruditos de todo el mundo que realizan investigación sobre los lugares culturales y naturales de sus propios países. Smith declara que el centro tiene una colección de todos los materiales relacionados con las designaciones culturales a la Lista de la Convención del Legado Mundial.

ICOMOS trabaja con la Unesco en la Convención del Legado Mundial iniciada en 1972 para aumentar la conciencia en todo el mundo sobre el valor de los lugares culturales y naturales. La convención documenta y prepara una lista de dichas propiedades, que son designadas por las 68 organizaciones miembro de la convención. Estados Unidos tiene actualmente 10 emplazamientos incluidos en la lista. El Cahokia Mounds State Historic Site en Illinois fue agregado a la lista el pasado mes de diciembre.

De acuerdo con Smith, ICOMOS promueve activamente el establecimiento de nuevos miembros en los países en desarrollo. Smith afirma que existe una inquietud internacional creciente de que las "presiones del progreso" llevarán a estos países a "repetir algunos de los errores que han cometido algunos de los países occidentales" en términos del impacto de la nueva tecnología sobre los recursos culturales y naturales.

Entretanto, en los Estados Unidos, US/ICOMOS ha establecido recientemente un programa de miembros, concebido según el patrón de AIA, que reconoce a "los eruditos, profesores y voluntarios cívicos de los Estados Unidos que han hecho aportes duraderos al mejoramiento de la vida" en una o más esferas de actividad, incluyendo, aunque sin limitarse a ellas, la arquitectura, la historia arquitectónica, la conservación, la historia, la arquitectura paisajista y la planificación urbana.

Este pasado año, US/ICOMOS también patrocinó su primer Certamen de Arte Internacional para Jóvenes. Su finalidad consiste en "promover una conciencia entre los jóvenes sobre la rica historia arquitectónica y cultural de América" así como llamar la atención sobre el movimiento de conservación histórica, afirma

Terry Morton, presidente de US/ICOMOS. El certamen estuvo abierto a jóvenes de 9 a 16 años de edad. Los participantes presentaron dibujos y una ponencia escrita sobre un edificio o edificios que deseaban conservar. Se seleccionaron 25 ganadores de todo el país y éstos participarán en el certamen internacional de 1984.

En febrero, Morton fue una de las personas que representaron a las organizaciones de conservación que presentaron testimonio en una audiencia examinadora celebrada por la subcomisión de la Cámara de Representantes sobre tierras públicas y parques nacionales. En su testimonio, Morton instó a que el Congreso prestara una mayor atención y apoyo a la Ley de Enmiendas de 1980 que designó a Estados Unidos como participante en la Convención del Legado Mundial. Conforme a dicha ley, Estados Unidos ha de adoptar también un papel de liderazgo y cooperar en la "conservación internacional mediante la educación, la información pública y la capacitación."

Morton dijo en su testimonio que la participación estadounidense en la conservación internacional por conducto del Servicio Nacional de Parques ha disminuido notablemente desde 1980. También solicitó que el Departamento de Estado pagara sus cuotas en la Convención del Legado Mundial, pendientes de pago desde 1980. Finalmente, Morton pidió que se designaran US\$135.000 en las erogaciones del servicio de parques correspondientes al año 1984 para la labor que ha de realizar US/ICOMOS y para que Estados Unidos cumpla con las obligaciones que le impone la ley de enmiendas.

La petición de erogación hecha por Morton fue añadida a un proyecto de ley aprobado en la Cámara de Representantes a fines de junio. La erogación es considerada ahora por el Senado.

Una entidad análoga a ICOMOS en su alcance e intención es el Centro Internacional para Conservación en Roma, o ICCROM. ICCROM, establecido en 1958 como entidad intergubernamental para el intercambio entre los países de información y conocimientos técnicos sobre conservación, tiene actualmente 61 países miembros, entre ellos Estados Unidos. Los miembros se guían por las pautas proporcionadas por el Consejo Consultivo para Conservación Histórica radicado en Washington, D.C.

Parte de las actividades de ICCROM en lo que respecta a compartir información consisten en mantener un centro de investigación y capacitación en su sede de Ospizio de San Michele en Roma. El

sigue en página 88



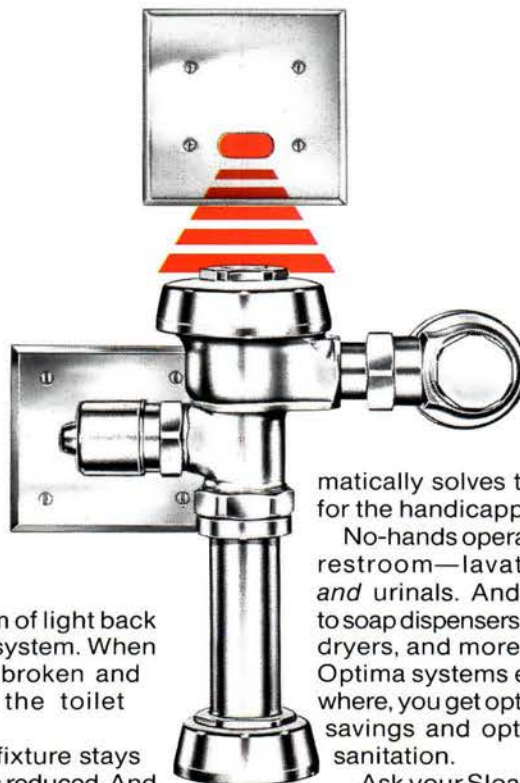
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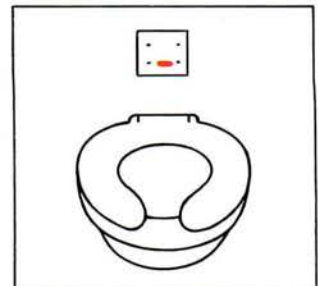


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Organizaciones de pagina 84

centro brinda cierto número de cursos en conservación para arquitectos, ingenieros, planificadores urbanos, arqueólogos, historiadores de arte, conservadores, científicos y encargados de museos. Los participantes son seleccionados de entre los solicitantes que ya realizan trabajos de conservación.

Las propias actividades de ICCROM en el campo entrañan sus "misiones ordinarias y de emergencia" en las que grupos de especialistas internacionales se desplazan a lugares de todo el mundo para estudiar los problemas de conservación. Los grupos de ICCROM han estudiado los efectos de la contaminación atmosférica sobre Venecia, el crecimiento de algas en pinturas prehistóricas en las cuevas de Lascaux en Francia y el deterioro del frente oeste del Capitolio de los EE.UU.

Banco Mundial Usa Arquitectos Para Mejorar Urbanizaciones

Para el año 2000, según una estimación de las Naciones Unidas, doce de cada quince ciudades proyectadas con poblaciones entre 12 millones y 31 millones estarán en países en desarrollo. Para que estos países se ajusten a su crecimiento y pasen a ser partes integrales de la economía mundial, el Banco Mundial ha emprendido un programa "destinado a formular métodos para proporcionar eficaz y equitativamente servicios urbanos y empleo", según la declaración de objetivos del banco.

Fue con el fin de alcanzar esos objetivos por lo que el banco inició su programa de préstamos urbanos por conducto de su departamento de desarrollo urbano en 1972. El departamento realiza trabajos tales como los de proporcionar vivienda, mejorar sistemas de transporte, planificar proyectos urbanos integrados y prestar ayuda en desarrollo regional. Se están realizando proyectos en seis regiones: África Oriental; África Occidental; Europa, Medio Oriente y África del Norte; América Latina y el Caribe; Asia del Sur y Asia del Este y el Pacífico.

El departamento, que emprendió solo un proyecto en 1972, tiene hoy en consideración y en preparación más de 90 proyectos para el programa crediticio fiscal del banco de 1982-86. Análogamente, el personal ha aumentado de 10 empleados en 1972 a más de 83 una década después. Este personal está integrado por arquitectos y planificadores, así como ingenieros, economistas y analistas financieros, y los arquitectos trabajan como

empleados del banco a tiempo completo y en calidad de consultores.

Sylvia Gottwald, arquitecto de Washington, D.C., ha trabajado como consultora desde 1980. Ha participado en proyectos en Tailandia, India y en su propio país de origen, Yugoslavia. En comparación con sus contrapartes del banco, afirma Gottwald, ella tiene un papel más arquitectónico. "Los arquitectos que se convierten en empleados del banco realizan de ordinario poco trabajo de arquitectura", declara. "Se ocupan de trabajos administrativos, análisis de costos, redacción de informes, y, de vez en cuando, de coordinar la labor de los arquitectos consultores".

El departamento prefiere generalmente contratar a consultores de los países en los que se está realizando un determinado proyecto, o a arquitectos que tengan experiencia en la realización de trabajos en países del Tercer Mundo.

Muchos de los proyectos del departamento entrañan la provisión vivienda. Los proyectos de vivienda comprenden no solo viviendas, sino también mejoramiento de barriadas, mejoramiento de obras de infraestructura y proyectos de "sitios y servicios". Según la información estadística del departamento, el grueso de los trabajos corresponde a proyectos de vivienda en todas las regiones del mundo, salvo Sudasia. Los costos de los proyectos, para vivienda solamente, ascendieron de 1972 a 1981 a US\$1.910 millones. De casi 50 proyectos de vivienda concluidos durante este período se han beneficiado 1.890.000 de familias.

Es en el campo de los proyectos de sitios y servicios donde de anima a los individuos a construir sus propios hogares en parcelas con servicios, mediante la provisión de títulos para la tierra, acceso a créditos y distintos servicios sociales y de infraestructura.

Tras la provisión de electricidad, agua y otros servicios, afirma Gottwald, se proporcionan los elementos básicos de una vivienda. Esta adquiere de ordinario la forma de una losa de hormigón en la que se instala una unidad básica que contiene instalaciones de cuarto de baño y cocina. La familia compra esta estructura básica y, con el tiempo, construye sus propias paredes y techo. "Siempre se persigue el fin de proporcionar la cantidad mínima posible para la mayoría de las personas", explica Gottwald.

Los proyectos de sitios y servicios pueden tener distintas dimensiones, desde un reducido número de casas hasta comunidades autosuficientes enteras, completas con edificios de servicios sociales, clínicas y, a veces, pequeñas industrias que

complementan la economía local.

Los consultores arquitectónicos participan a veces en la provisión de asistencia técnica bien capacitando a los arquitectos locales en la realización de un determinado proyecto, o trabajando con personal local en la transmisión de las aptitudes gerenciales. "Esto es, con frecuencia, lo que no tienen los países del Tercer Mundo", afirma Gottwald. "Aunque tienen sus propios arquitectos capacitados, cuando se trata de administrar un proyecto su capacidad es menor".

Los arquitectos también asesoran al departamento de educación del banco donde con frecuencia supervisan el diseño y construcción de escuelas. Los edificios son proyectados por arquitectos locales y los consultores actúan como representantes del departamento "para vigilar y evaluar las obras en curso y asegurarse de que los fondos van en la dirección adecuada", según palabras de Gottwald.

Cualquiera que sea la naturaleza del proyecto, el arquitecto tiene dos objetivos principales: hacer el proyecto financieramente viable y crear un ambiente de vida decoroso. Gottwald explica que el trabajo puede ocasionar a veces frustración debido al hincapié que se hace siempre en los factores económicos y otras consideraciones logísticas. La cuestión estética rara vez tiene prioridad. "Se hace algo difícil para un arquitecto formado en el diseño", declara Gottwald, "pero, al propio tiempo, puede ser un reto muy interesante el abordar todas estas otras cuestiones".

Un proyecto de renovación urbano en Bombay ha sido uno de estos retos. Gottwald subraya que ha tenido que recurrir a su formación arquitectónica para determinar la cantidad máxima de reducción del costo permisible sin que las reducciones repercutan adversamente sobre la calidad ambiental. "He estado analizando las normas de diseño y construcción para ver la forma en que pueden conjugarse en tanto se mantiene una vivienda que sea segura y habitable", afirma. "Hemos estado estudiando los requisitos en la esperanza de crear un nuevo juego de normas, a fin de proporcionar a la gente lo que necesita y mantenerlo sin que sea necesario desembolsar grandes cantidades de dinero".

Esta es una de las numerosas cuestiones que hay que considerar si se desea producir un ambiente eficaz en función del costo y apropiado, indica Gottwald. "No es exactamente la clase de trabajo que usted recomendaría a un arquitecto joven ya que hay tantas variables de las que preocuparse a la vez".

MICHAEL J. CROSBIE

ARCHITECTURE

This is our second annual review of recent buildings around the world—except for our own corner of the world, which is covered in the May annual on new American work. Through a special arrangement with UIA, this issue is going to some 12,000 architects in other nations. Therefore this introduction and the summary of international organizations' activities starting on page 69 are printed in French and Spanish as well as English. There are also summaries of major articles in French starting on page 204 and in Spanish on page 224.

Senior editor in charge of preparation of this issue was Andrea Oppenheimer Dean. *D.C.*

Voici notre seconde revue annuelle d'immeubles récents choisis dans le monde entier, exception faite de notre coin de l'univers, couvert chaque année au mois de Mai par la revue des nouveaux édifices américains. Grâce à un accord spécial passé avec l'UIA, la présente édition sera servie à quelque 12,000 architectes de tous les autres pays. C'est pourquoi cette introduction et le résumé des activités des organisations internationales que l'on trouvera à la page 69 et aux suivantes sont rédigés en Français et en Espagnol, en plus de l'Anglais. On trouvera également un résumé en Français des principaux articles en page 204.

Le rédacteur en chef chargé de coordonner ce numéro est Andrea Oppenheimer Dean. *D.C.*

Esta es nuestra segunda revisión anual de edificios recientes en todo el mundo, salvo en nuestro propio rincón del globo que se trata en la publicación de mayo sobre trabajos nuevos americanos. Merced a un arreglo especial con UIA, este número va a ser distribuido a 12,000 arquitectos de otros países. Por tanto, esta introducción y el resumen de las actividades de las entidades internacionales a partir de la página 69 aparecen en español y francés, además de inglés. También se presenta un resumen de los artículos principales en español a partir de la página 224.

El editor de alto nivel a cargo de la preparación de este número fue Andrea Oppenheimer Dean. *D.C.*

Austria

A Subway System That Is Part Sleekly New and Part Sensitive Renewal

Wilhelm Holzbauer is something of a maverick among his Viennese colleagues for being, above all, a pragmatist with no easily labeled style. Less directly indebted than most to Vienna's richly eclectic, turn-of-the-century art nouveau heritage with its love of the sumptuous detail, the ephemeral, the gesture, Holzbauer delights in bolder strokes and concepts and tailors each design to particularities of program and context. And although less well known than Hans Hollein and some other Viennese architects, Holzbauer is the only one among them who has built, or has under construction, a number of very large projects—Amsterdam's town hall and opera complex; a university in Salzburg; the town hall in Bregenz, Austria; and in Vienna, a virtual palace with early-20th century Viennese motifs for an art nouveau collector, a reductivist block of public housing, plus, of course, the new subway system that won the 1983 Reynolds award.

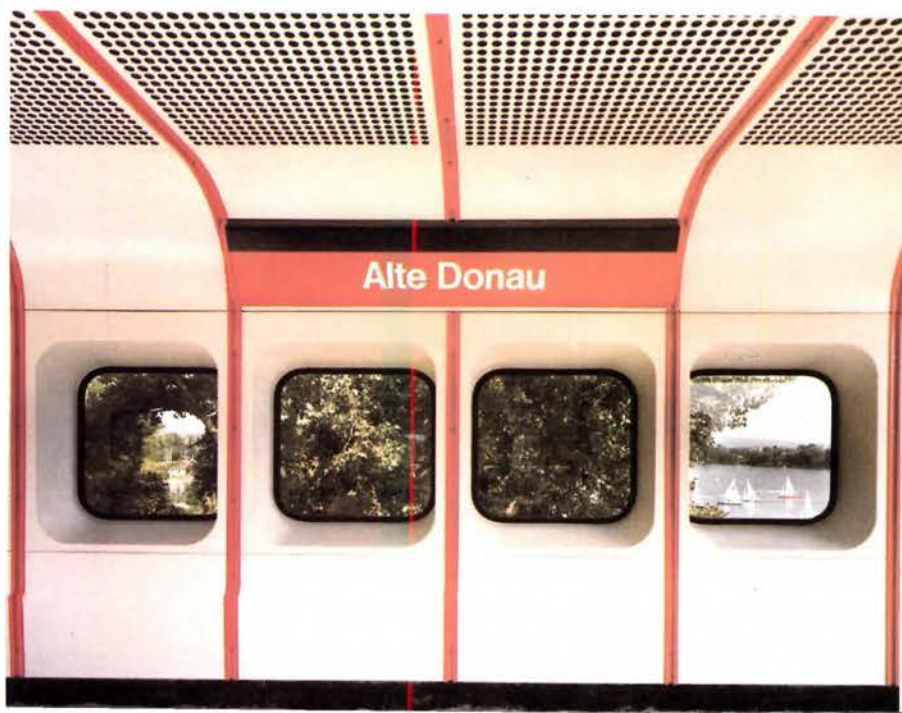
The subway (designed as a joint venture with Heinz Marschalek, Georg Ladstätter, and Bert Gantar, runners-up in the competition) was begun in the form of Otto Wagner's "Stadtbahn" system, built between the years 1893 and 1906. Coming on each other's heels, World War I, the Depression, World War II, and the occupation of Vienna until 1955 aborted plans for the subway's completion and reduced the original Wagner stations to fragments.

One of the two recently completed lines, the green, consists of restorations of and new additions to Wagner's original construction. It has 17 stations stretching over 16.5 kilometers, while the other completed portion, the red line, is 10.5 kilometers long, has 14 stations, and is entirely new. A third line (violet) is under construction, and a final one (orange) is in planning stages.

Typical red line station with interchangeable, plastic-coated aluminum panels, perforated, acoustic ceilings, crisp and clear signage.







One of Holzbauer's primary concerns was to give the subway a distinct identity and visual unity. He therefore used a vocabulary of standard interchangeable, white plastic-coated aluminum and curved clear glass panels framed in green metal ribs to create vaulted street level pavilions. By adding, subtracting, and shifting panels, he gave each station an individual appearance, fitting it to site and circumstance. Red line pavilions that share similar downtown situations look almost like fraternal twins. Homey in form and scale, they bear only a distant resemblance to their sleek, aerodynamically shaped, natu-

In underground stations, above and across page, bright, welcoming spaces for people contrast with dark, dangerous looking spaces for trains. Windows in above ground stations, left, admit pleasant views.





Above, red line spans canal. Across page, a Wagner station, part of it renovated and part new construction.

ral aluminum clad, elevated cousins farther from the city center.

In the elevated stations, long, narrow, slightly rounded body-long windows move with the passenger up the stairs to give wide open views. A sense of connection with the outside is stressed throughout the system. One of the green line's delights is that it repeatedly dives up to street level to capture views of the historic Ringstrasse and the Danube canal (not to be confused with the river).

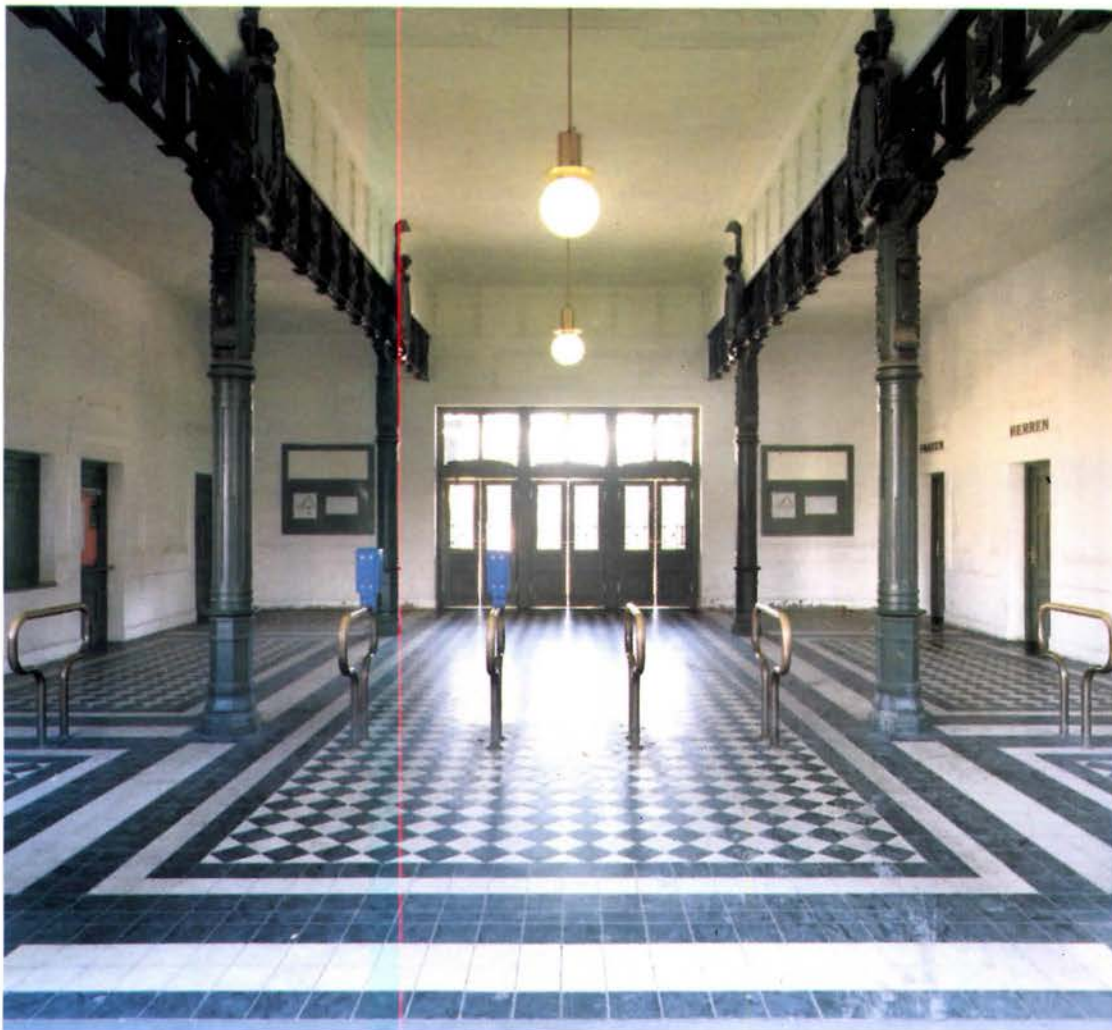
Two of the green line stations were completely reconstructed by Holzbauer from original Wagner drawings, while others were fitted with new stairs, escalators, and platforms. Three that had been totally destroyed were replaced with new stations. All are slightly different but share with the Wagner pavilions cubic shapes.

Their white aluminum panels, glazed vaulted elements, and green metal framing somehow echo the spirit and even the form of Wagner's white and green structures.

The stations' interiors—some cut and cover, some tunneled, four elevated—also share a basic vocabulary. Walls and columns are clad in white plastic-coated aluminum, ceilings in tunneled areas are perforated aluminum, while in long concourses an unfortunately pedestrian-looking louvered aluminum frame is suspended over fluorescent tubes. At the tracks, the standard treatment consists of a protective-feeling, curved overhang, whose rounded shapes are underscored by use of red or green at panel joints. At the structure's edge, where it hovers over trains, is a broad, continuous line of fluorescent tubing. All furniture is built-in. Directional markers, railings, ribs, and so on, are colored red in the red line, green in the green.







Above, one of the renovated Wagner stations along the green line; across page, new additions to the line.

Most singular is the differentiation made at the tracks between spaces for people, which are brightly lit and cheerful—albeit rendered in unrelievedly textureless plastic—and spaces for trains, which are of dark, rough construction: “black, dangerous places,” in Holzbauer’s words. He says the demarcation was, in part, “to keep passengers back from the abyss.” Although the scheme serves this purpose, since passengers awaiting trains face “the abyss,” its rawness and gloom become a predominant impression.

Although good security was a program requirement and each station has an electronic surveillance system, the need for watchfulness against crime and vandalism is of a different degree than in the U.S.

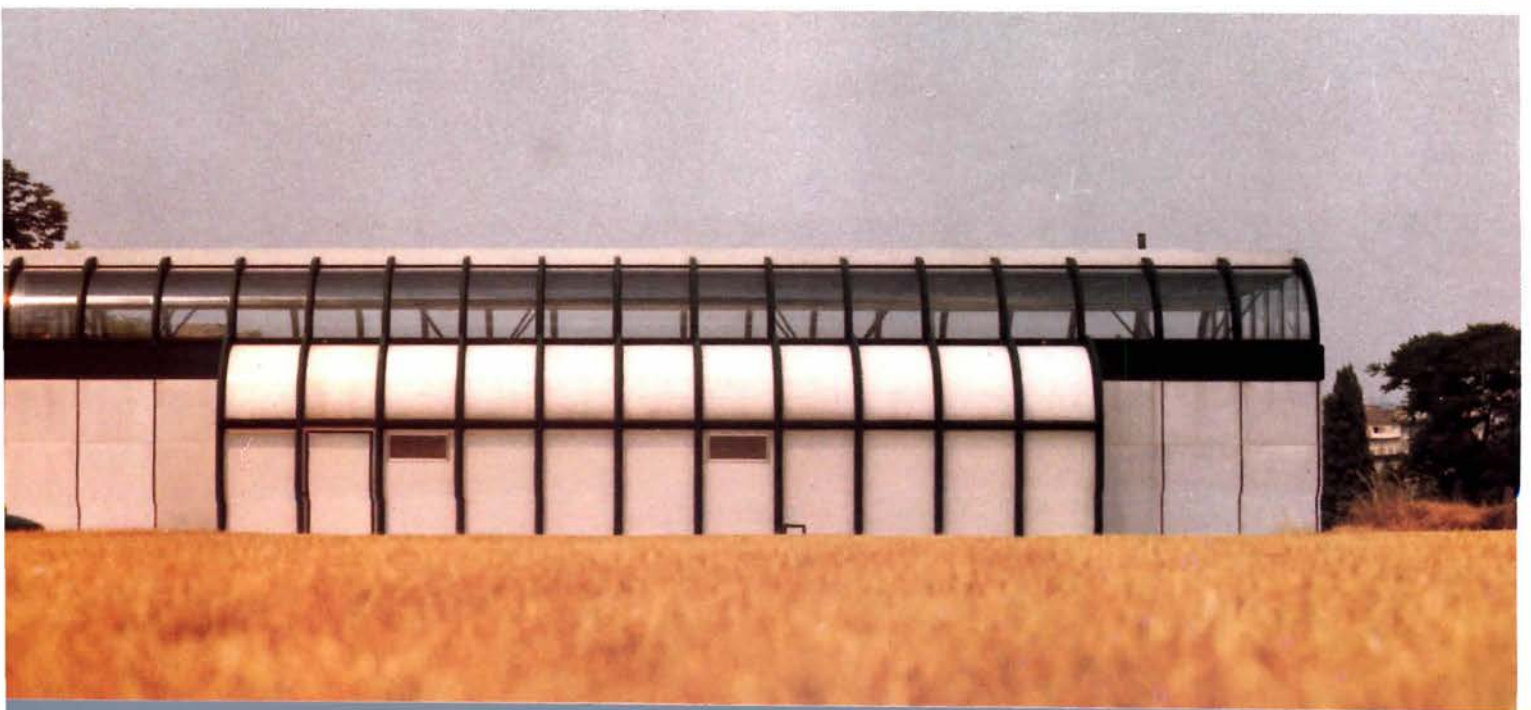
Payment is on an honor system—there are no automated machines to break down; fiberglass, built-in seating is lightweight and easily damaged, yet unmarred; protected nooks in elevated stations are out of view but seem to pose no threat; and there are no graffiti, despite the possibilities offered by smooth, white walls.

In the end, the subway’s principal achievement is utilitarian. Navigating the system couldn’t be easier. It is designed and signed to allow passengers no more than two choices for where they can go “to avoid pileups and confusion,” according to Holzbauer. Each line is color coded, signs are simple and clear, usually showing only station and street exit names.

Among the several measures of the Vienna subway’s success is that Holzbauer has been commissioned as designer of Vancouver’s new underground system.

ANDREA OPPENHEIMER DEAN





Sumptuous, Variegated House for Collectors of Art Nouveau Objects

A huge, marble villa in one of metropolitan Vienna's most exclusive neighborhoods for a publisher and art nouveau collector, it could be a palace for a king. And in its luxury, its mixture of grand classical, late modern sleek, art nouveau, and semi-expressionistically curvaceous elements it is as different as can be from Wilhelm Holzbauer's utilitarian and simply stated subway system. Holzbauer says that he shared with the client for this house, who required a virtual museum for his vast collection, "a feeling for esthetics and decadence and valuable objects."

The client insisted, among many other

things, on having two swimming pools—one below ground, another outdoors—plus separate apartments for each of three children. The house has 14 showers; the bath for the lady of the house is in white marble and blue granite.

Holzbauer designed what he calls the "important" parts of the house as cubic, freestanding elements to the south, and behind these joined the "lesser" spaces—bedrooms, baths, kitchen—in a long, rectangular structure running the length of the residence.

The entrance portico (with a sculpture by Fritz Wotruba) and dining room (with Josef Hoffmann furnishings) each form a rectangle, one at the east, the other at the west. Between them is the living area and gallery with ceilings more than six meters high, and a curving, south-facing, bullet-proof window wall giving glorious

views of Vienna. The living area is divided into three levels: At the lowest is a fireplace alcove, then comes a library (with built-in video equipment), and finally a gallery with another fireplace (by Georg Klimt, brother of Gustav, the art nouveau painter).

Special to the house are built-ins of various kinds, reminiscent of Adolf Loos, despite Holzbauer's luxuriant use of ornament and materials.

Now what might have prompted Holzbauer to put his hand at about the same time to a slick yet simply designed subway, a muscularly urban public housing project, and this pastoral palazzo for a publisher? He says, "I regard each commission individually, and I want to change neither the client nor society, but rather to put into built form the thoughts and wishes of each." A.O.D.





*Across page, daughter's maison-
ette apartment. Top, entrance
facade; middle, side view; bot-
tom, entrance portico with
sculpture by Fritz Wotruba.*







Above, from left, dining room, library, and living room. Left, stair in an offspring's apartment; right, kitchen.



Small House Attests to Vienna's Continuing Tradition of Pluralism

Vienna has become a Mecca for post-modernists. The International Style never took firm root here, for in Austria modernism was, first of all, synonymous with Adolf Loos and Josef Frank, not the Bauhaus. After the death of Loos in 1933 and the emigration of Frank in 1934, Austrian architecture succumbed to a sort of modern traditionalism encouraged not only by Austro-Fascism but by a long-standing aversion to taking theoretical positions and a history of pluralism. Juxtapositions of different styles and influences continue to dominate the work of Vienna's younger architects, though most abjure the label postmodern.

Among these is the firm Missing Link (Otto Kapfinger and Adolf Krischanitz), designer of this modest house in a mostly baroque village, a suburb of Vienna. The neatly detailed, pink stucco over brick entrance facade with curved roof echoes the shapes and colors of the village, though all four elevations are different.

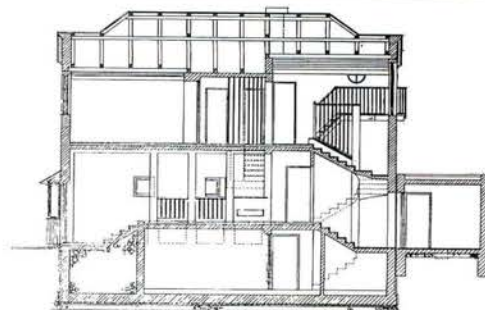
The lot is barely 500 square meters, the two-story house merely 160, but a number of devices give the little residence an impression of amplitude. Openings of various shapes and sizes are manipulated for maximum light, and on the second floor two rooms have interior windows onto a small lightwell created by a stair leading to a glazed door and terrace. The first floor is given a sense of spaciousness by an open plan, gray and white marble floor patterns, and light colors.

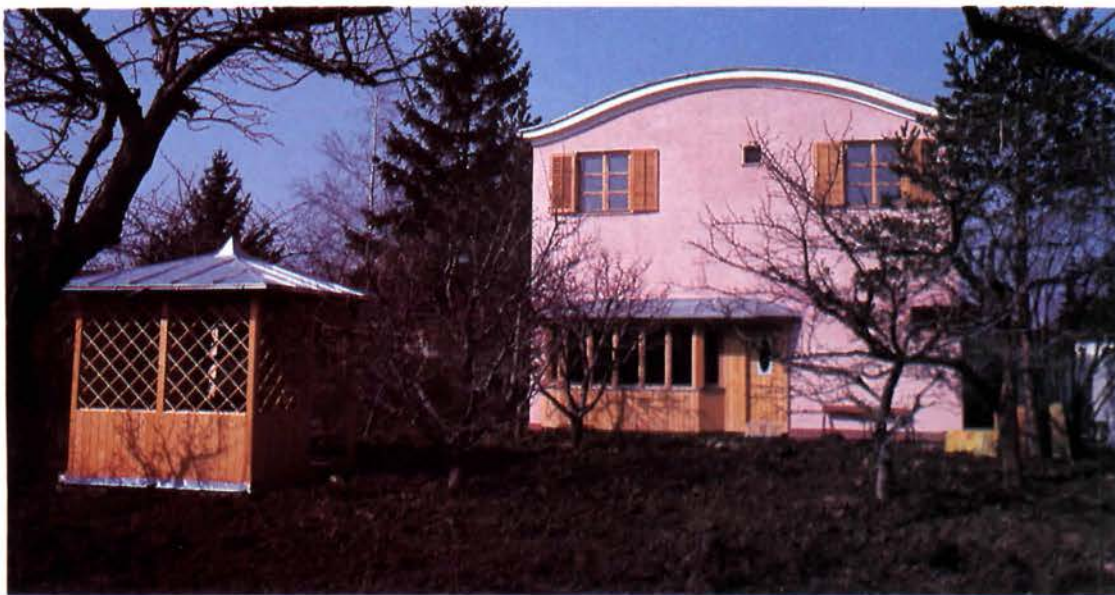
The client wanted a basement despite a high water table. In response, the architect tucked a cellar under a raised hallway separating the living and dining areas.

The living room has a glazed bay facing south; its opposite wall consists of built-ins, a fireplace flanked by settees integrated with the stair, a direct quote from Loos. Alongside the Loosian influence is that of Frank, a freer spirit, who argued for one-of-a-kind, moveable furniture.

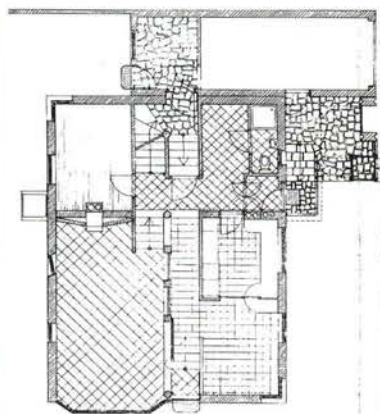
Detailing, often reminiscent of Josef Hoffmann, is immaculate throughout and contrived to create contrasts, with warm woods sometimes made to look cool, cool metal surfaces warm—the Viennese compulsion to transform and elude reality.

A.O.D.





Across page: top, corner detail; below, second floor with built-in telephone corner, stair to terrace. Left, entrance facade; left below, living room; below, from dining area.

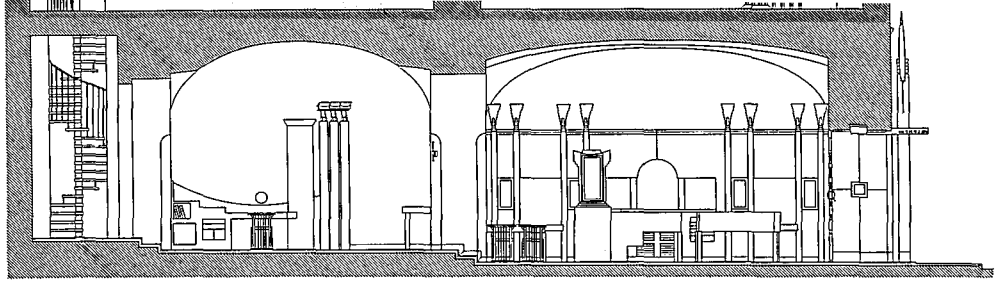


A Jewelry Shop That Is 'A Sumptuous Confection Of Rich Ingredients'

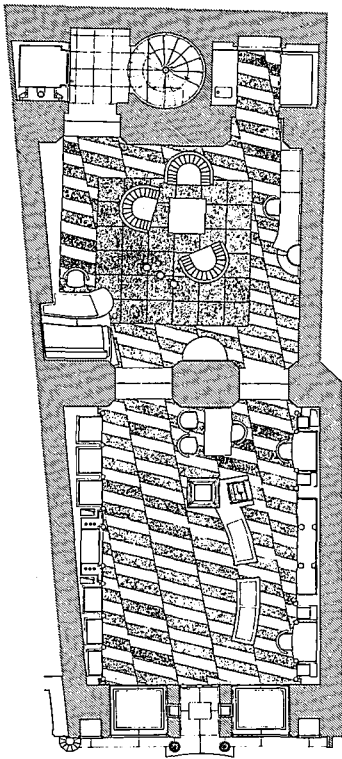
Hans Hollein's new shop for the jeweler Schullin in Vienna is, in a sense, a caricature image of Vienna. It is refined and sophisticated to the point of decadence, elevates the flawless detail to monumental importance, and flaunts reality with marble that looks like wood, fiberglass that simulates marble, and copper masquerading as bronze. Like the Viennese pastry it is a sumptuous confection of rich ingredients—copper, bronze, gold plate, brass, marble, oak, mahogany, burl wood. Yet despite its wild eclecticism, with baroque, Egyptian, and Aztec flourishes, it is a crisp, clean design.

The sense of perplexity begins at the entrance with its startling image. Hollein restored the facade of this original Biedemeier building, punched a hole for an entry where a pillar once stood, and framed it with two oak columns that sup-





Across page, facade, alone and in context. Below: left, from back room toward entrance; right, front room lighting standards.



port a blade-like form that looks like bronze but is actually copper. "It is an emblem, not to be taken literally," says Hollein. "I wanted to create a sense of hierarchy, a ritual appearance, with gold, bronze, brass, copper," all of which are found around the two openings flanking the archway.

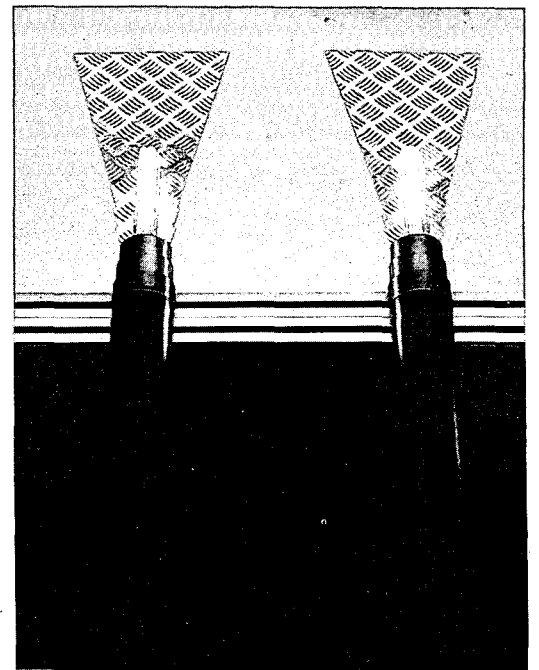
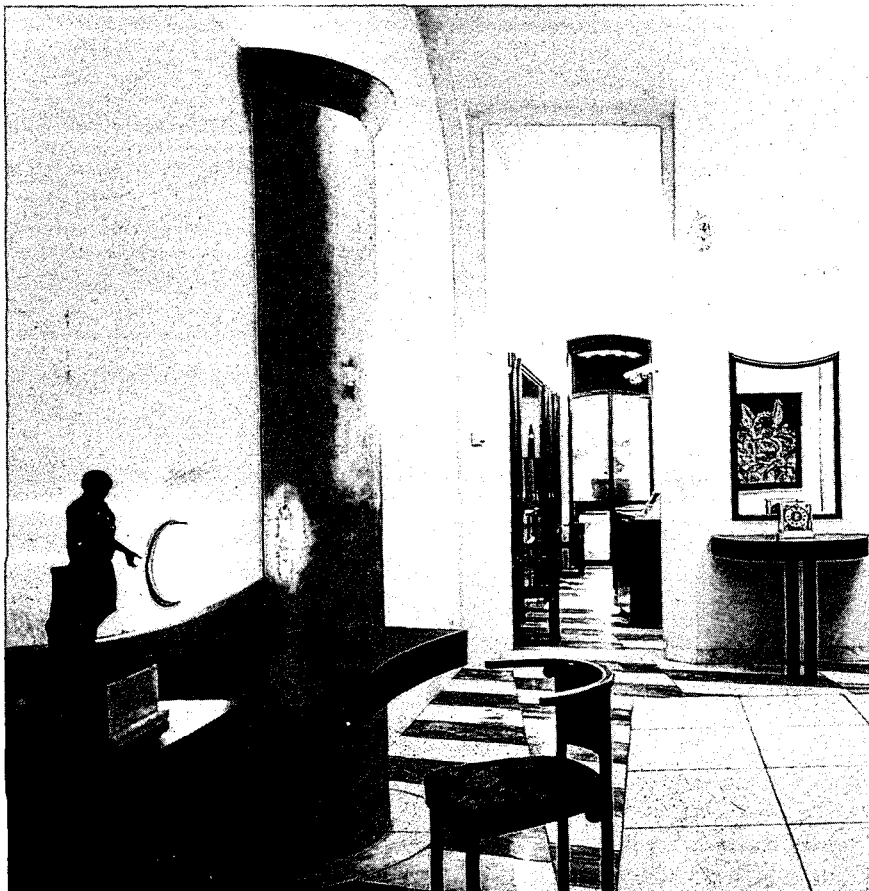
The entry door is narrow and deep to create a "zone of transition," of which there is a second inside to separate the shop's two different spaces. The first space is a long, front room for fairly fast service and browsing; a square-shaped back room is for more leisurely looking.

In the front room, the symmetrical axis is softened and shifted by diagonal placement of display cases on the right, and by diagonally patterned dark and white marble flooring. Lighting is both diffuse and focused on particularly precious items. A parade of V-shaped standards atop mahogany columns marches

down both side walls. The standards are inexpensive metal used for floor treads, gilded in 24-carat gold "to give the light a warm spectrum," says Hollein.

Two steps lead up to the back room, a more serene, static space where, however, one is first forced around three tall, narrow columns (faced in laminate that looks like marble). They support industrial-looking halogen light fixtures, "to show that even readymades can successfully be mixed with the richest materials." The floor pattern is here a mere border to give a quieter feeling than in the front room. There is a built-in settee, à la Adolph Loos. Lighting is more neutral than in the first room, and the effect is almost residential.

At the end of the space, to the right, is a kitchenette, which, with its marble-like cladding (plastic laminate) looks like the world's most expensive. Hollein says he uses materials "not for their monetary value but for their design value." Rising from the kitchenette is a circular stair that leads, for now, nowhere. The second story is yet to be completed. A.O.D.



Mauritania

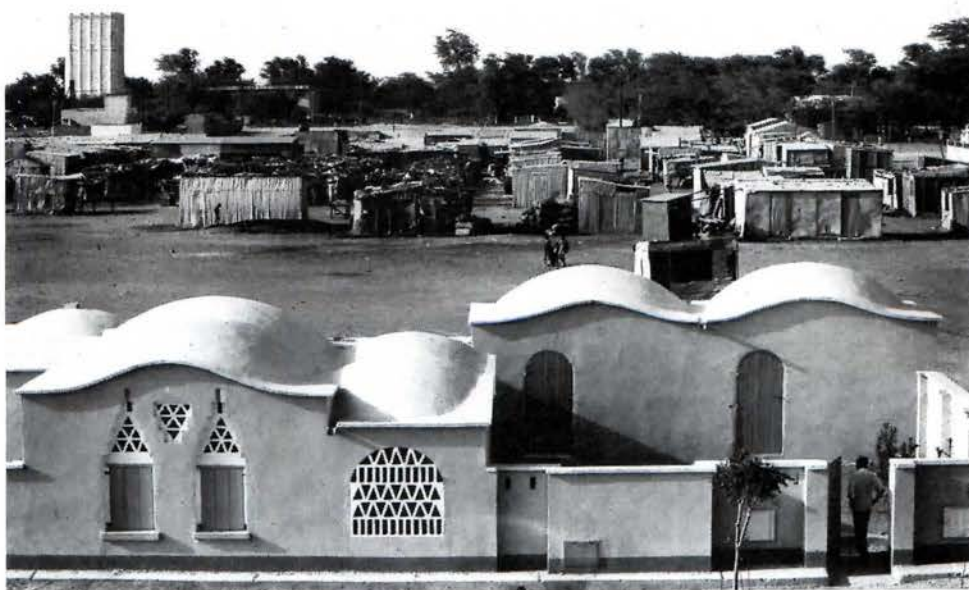
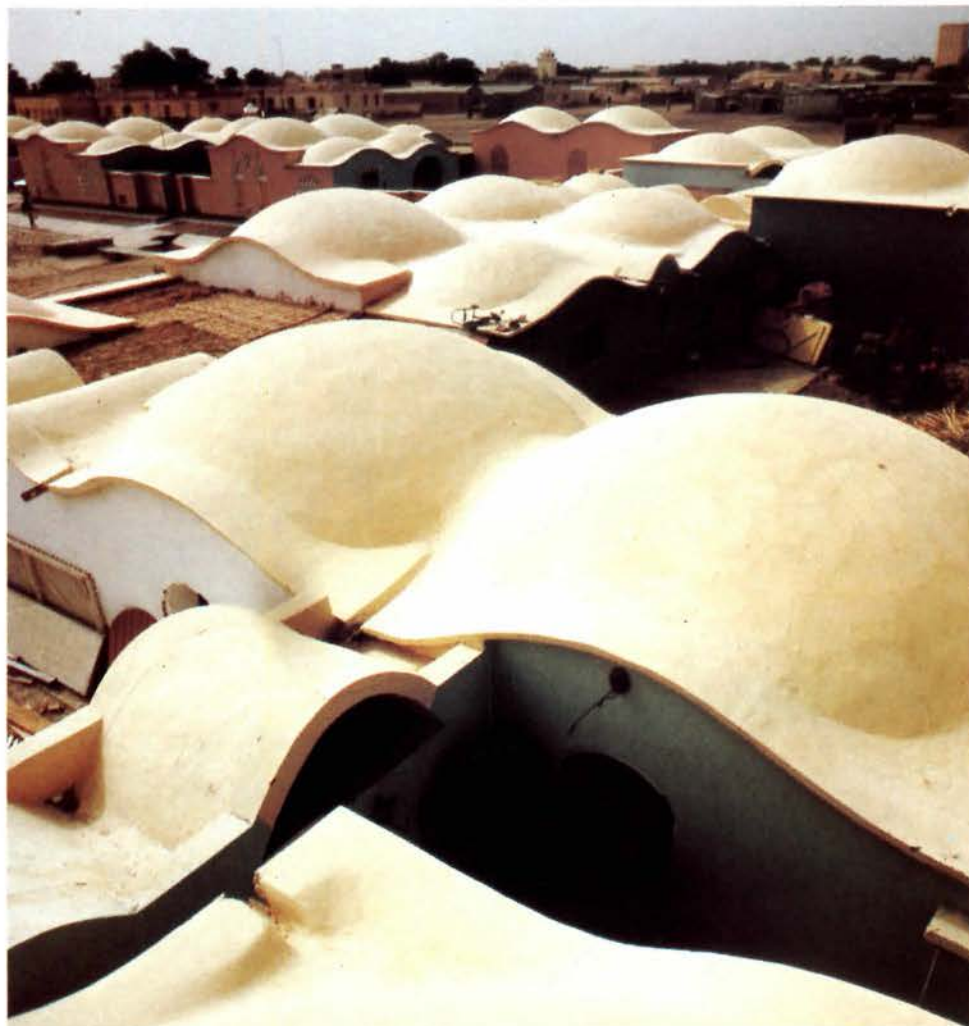
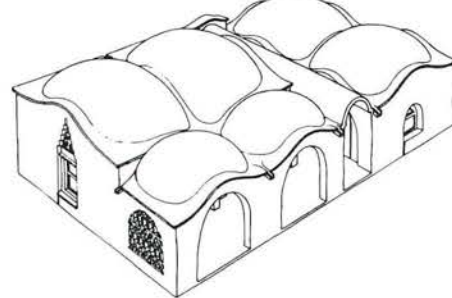
A New Community Composed of Indigenous Domed, Vaulted Forms

The Association for the Development of Traditional African Urbanism and Architecture (ADAUA), headquartered in Ouagadougou, Republic of Upper Volta, aims to revive and promote indigenous African architecture and train local inhabitants in appropriate technologies. It operates through on-site permanent bases, having offices in Upper Volta, Mauritania, Senegal, and Geneva, and is aggressive in marketing its approach.

Among ADAUA's aims is to make a dwelling available to the poorest (once they own land) by giving on-site technical advice and granting cash subsidies or supplying building materials. Local self-help is also encouraged by establishing micro-industries that produce bricks, lime, plaster, and woodwork, making it economical for low-income people to cooperate in producing their materials, and to administer the workshops themselves after ADAUA's participation has ended.

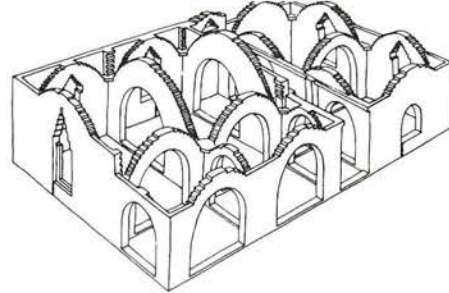
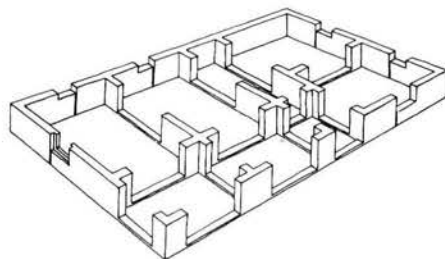
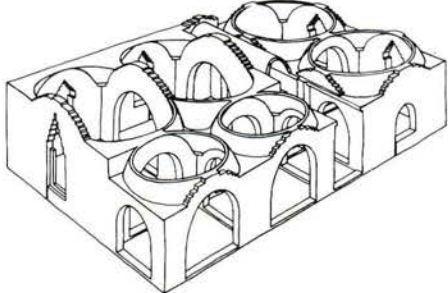
The work illustrated here houses people coming into the Satara slums of Rosso in Mauritania. It benefited from a homeowner/builder scheme set up in 1980. The inhabitants, until recently slaves, were being resettled in this area and came from several ethnic groups. Each had its own building traditions but, displaced, appeared to be at a loss in an alien world of concrete, corrugated iron, and timber houses, a very typical situation throughout evolving Third World countries. The government's resettlement scheme included the allocation of plots and provision of basic services to this impoverished population. ADAUA decided to look for appropriate forms and technologies to develop an assisted self-help program to engender a sense of participation in creating a new community, not unlike the advocacy architecture of a decade ago in the U.S.

The scheme called for a development and town plan that would integrate the Satara slum into the urban structure and also expand the area of the town to accommodate growth. One of the first things done was the drainage of the area, which is flooded annually, forcing the inhabitants to move. The second was to create jobs related to building and materials



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Project's roofline of low vaults and domes, left above, contrasts with traditional squatter housing, below. Above, water tank.

production. The third was to implement a scheme of assisted home building by owners.

The ADAUA team made an initial choice concerning construction, using an amalgum of African architectures, chiefly based on Nubian vaults and domes. The banks of the Senegal River provided a traditional source of mud for the bricks. The team built two prototypes, using a combination of vaults and domes. The buildings incorporated wind-catchers and window designs from old Mauritanian cities. The semihemispherical dome found little favor among the initial settlers, as it was considered too dominant and imposed square rooms on the inhabitants.

Consequently, designers José Estève

and Ladji Camara of ADAUA emphasized low vaults and domes. Constructing vaults in the traditional manner without shuttering proved difficult for the masons and was abandoned for wood and brick formwork. Although the people of this new community mostly liked what they saw, the government was concerned about costs, which were reduced before the scheme went ahead.

The first phase had 12 houses around a public square, which demonstrated the construction techniques and materials. The adaptation of the techniques to cement blocks, plaster, and earth bricks proved sufficiently versatile. The buildings reveal a fine sense of design, detail, and quality, and are either whitewashed or painted cream. Now colors expressing individual tastes are gradually appearing.

Later self-help construction projects by locally trained workers inevitably resulted

in a drop in construction quality, but the important process of building had begun and a transfer of technology was taking place. With the recent completion of 400 housing units, the next phase is underway to build a total of 1,400 units and a plant for building materials.

The work of ADAUA in Western Africa has gone far toward the quest of an identity in architecture, an architecture that through the involvement of its inhabitants will belong to the community it serves. It has done this through the practicability of its approach, and by applying the adage, "Build builder, don't just talk." THEO. DAVID

Mr. David, chairman of graduate architecture at Pratt Institute, is curating an exhibit on contemporary Third World Architecture, opening at Pratt Manhattan Gallery in September.

Belgium

Making an Idiosyncratic Face on a Street of Historic Facades

At first sight the Intellect Building seems a whimsical addition to the dense collection of buildings within the walled Flemish city of Ghent. However, on close examination the decorative face of this new scheme conceals a thoughtful and particularly Belgian response to the problem of integrating new with old.

Most of the surrounding buildings in Mageleinsstraat, which have been developed over hundreds of years, accommodate a mix of commercial and residential use, and the site for this project, like those of its historic neighbors, was small and defined by adjacent streets and existing buildings. The 16-meter-deep site has a 5-meter-wide frontage onto Kalanden Straat and forms the corner of a small pedestrian square.

Designs for new buildings in old cities frequently opt either for camouflage, by



directly copying vernacular forms, or for assertive modern styling. In Ghent, architect Denis Van Impe has chosen to take a more difficult approach in his design for the Intellect Building. The scheme quite obviously builds on those traditional patterns of organization and design that shaped neighboring blocks but at the same time boldly reinterprets them, in such a way as to suggest links to the work of Horta, van de Velde, Paul Hankar, and to art nouveau, which was developed in Belgium at the turn of the century. The 465-square-meter scheme has been planned on a series of five split levels above a basement. In addition to a bookshop, gallery, and small office, the program included a self-contained two-bedroom apartment for the owner.

The building fills the site and is layered with the main bookshop at ground floor level defined by a glassy arcade front onto the square. This front is modeled so as to emphasize the entrance door with the lower glazed side panels designed to bring natural light into the galleries at first floor level and provide a series of shop windows for display. In order to create the maximum shop frontage and capitalize on the corner site, the arcade is wrapped around the building and extended into Korte Kruisstraat.

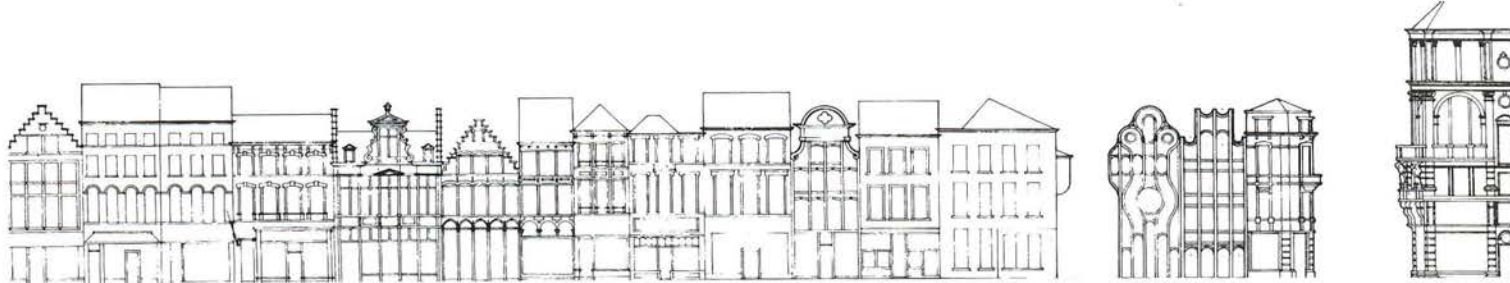
The pattern of the elevation, as with its traditional predecessors along the street, clearly delineates the organization of the building. The arcade, with the large round window above, allows generous amounts of light into the deep spaces housing the public areas of shop and gallery while the smaller upper windows mark the private living rooms. Also at this level there is an open but covered balcony, another familiar element in the Belgian townscape. To take advantage of the corner site the building has been skewed diagonally across the corner of the block to make a turret that offers views out not only onto the square but along the narrower side streets. The bedrooms above are tucked up into the roof behind separate attic windows that form a distinct top to the building.

These elements—the arcade, balcony, attic windows, and sculpted gable—are reminiscent of the traditional Flemish town house and can be readily identified in the older buildings along the streets of the city. In addition, the internal planning builds on the conventional Belgian row house plan of “the suite of three rooms.” Within the narrow rectangular plan, Van Impe has created a vertical core through the building, which delineates front and back rooms. This core also defines the third “room” at each level, creating a sales counter in the shop, and a space within the upper sales gallery that is implied by a void as well as the kitchen and bathroom of the apartment on the floors above. A generous stair is planned around the core to knit together each of the levels within the building.

In the shop itself this stair is made clearly visible and links the main sales and display area at ground floor with a mezzanine bookstack and two narrow side galleries on the first floor. Above the shop framed porthole windows provide views out from the apartment stair to the street and at the center of the building into the kitchen within the core. The building is constructed predominantly of brick, used in an unconventional manner and treated as an undulating skin. Like those town houses from the art nouveau period that are modeled in low relief, with winding lines that move in waves over the whole facade, this building shows a particular concern for decoration, detail, and urban scale pattern.

In addition to its clearly functional role of trimming openings in the brick skin,





Top, the little building is fourth from right; opposite, bookshop interior.

stone has also been used in a strikingly graphic manner. Just as the coursing of brickwork has been meticulously worked out across the faces of this building, the stone framing has been delicately fashioned and sculpted to give fine shadows and relief at strategic points. The shop windows at the corner of the building and a lintel over the apartment entrance door are greatly emphasized. Within the openings formed in the brickwork the glass is fixed with minimal framing to emphasize the openness of the arched entrance and display windows to the shop. This contrasts with a sculpted timber door and side panels, made by sculptor Jean Claude Steens, which the architect has planned for the private entrance into the apartment off Korte Kruisstraat. Also at the corner of this street and the square a

small high porthole window has been set within a giant stone medallion showing an allegorical sculpture that was specially commissioned for this building.

This blurring of boundaries between architectural design and decoration, so familiar in art nouveau, is frequently extended into the detailing, construction, and servicing of the interior spaces. In the design of his own house in Brussels, for example, Horta turned his attention not only to the external skin but to the integration of heating systems, structure, fittings, and finishes. In the Intellect Building, however, while the interiors are beautifully finished, they display few of the rich or innovative details that the exterior suggests. Consequently, though the handrails in the bookshop galleries are attractive, they seem to belong to a different family of detailing than the fireplace front in the living room of the apartment itself. BRIAN CARTER

Mr. Carter is an architect working with Arup Associates in London. He has taught in Europe and North America and written on architecture in a number of journals.

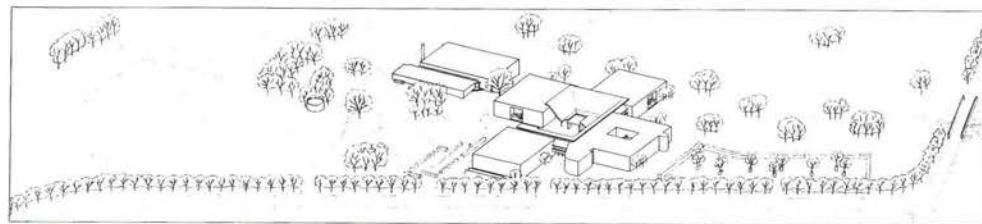
Denmark

School Arranged Around a Cheerfully Canopied Central Court

Høje Taastrup is a suburb of Copenhagen. In the overall planning for the Danish capital region for the coming decades, Høje Taastrup has been made the "relief center" for relieving overcrowding in Copenhagen and a nodal point for urban traffic. A number of government institutions will be moved out there, along with a central train station, and, if development goes as predicted, it will be the site of a new little town as well. The plan for the center of Høje Taastrup is noteworthy in Danish architecture in that it represents a decisive break with the rather puritan Danish tradition, and with the particular sort of modernist architecture that has predominated in Denmark for many years. This plan is quite clearly inspired by Leon Krier's proposal for La Villette in Paris. The town is built up around axial boulevards, and the buildings are differentiated, with monumental architecture around the most important town functions and more anonymous designs in the residential sections. This plan is akin to classicist ideals of city planning.

West of the planned town lies the new Høje Taastrup Secondary School. Slightly north of this school is the old village of Høje Taastrup, along with the town hall and a nursing home, now under construction.

It is remarkable that a community such as Høje Taastrup is aware of the signifi-



cance of architecture. This awareness may stem from unfortunate experiences in the 1960s, when a dismal and bleak ribbon development sprang up. As a result the potential of the new development has been carefully studied. Both the future central complex and Høje Taastrup Secondary School are the result of public competitions.

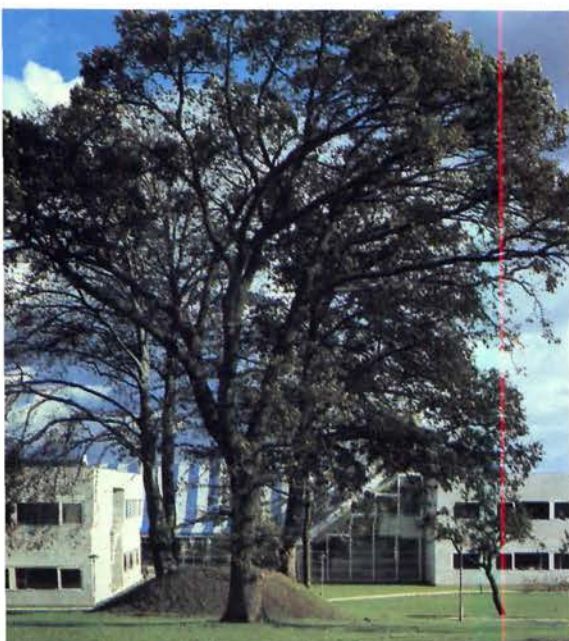
It is not surprising that Henning Larsen won first prize in the competition for the Høje Taastrup Secondary School. For many years he has been a leading Danish architect, internationally known for his designs for the university in Trondheim, the Freie Universität in Berlin, and not least of all, the new Ministry of Foreign Affairs in Saudi Arabia.

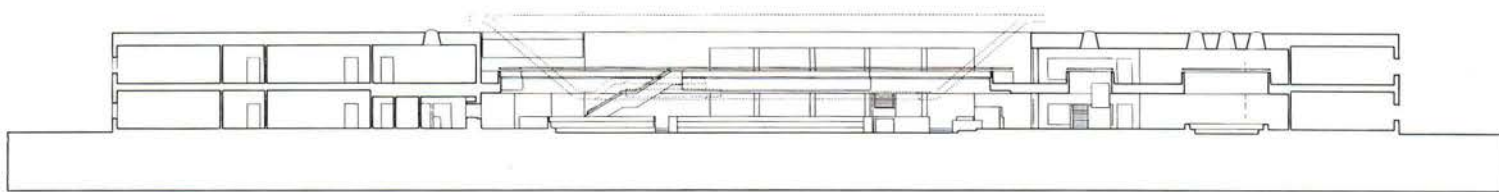
In his projects of the 1960s, Larsen was greatly inspired by theories of open forms

and structuralist architecture. Among other things, his competition proposals for the Freie Universität in Berlin, which won second prize, is based upon a structuralist way of thinking, a system or superstructure, of concrete construction within which the individual spaces could be designed with a high degree of flexibility.

Here the main motif is that of large, glass-covered concourses. A characteristic trait of Larsen's version of structuralist architecture is that while the form may be varied, it is always brilliantly controlled and the innate "grammar" of the system does not detract from the design.

In late work, such as his first-prize winning project for the Supreme Court building in Berlin, there is a meeting of the





This page and across page, the design focuses on central, blue and white roofed canteen area and court with other buildings clustered around it.

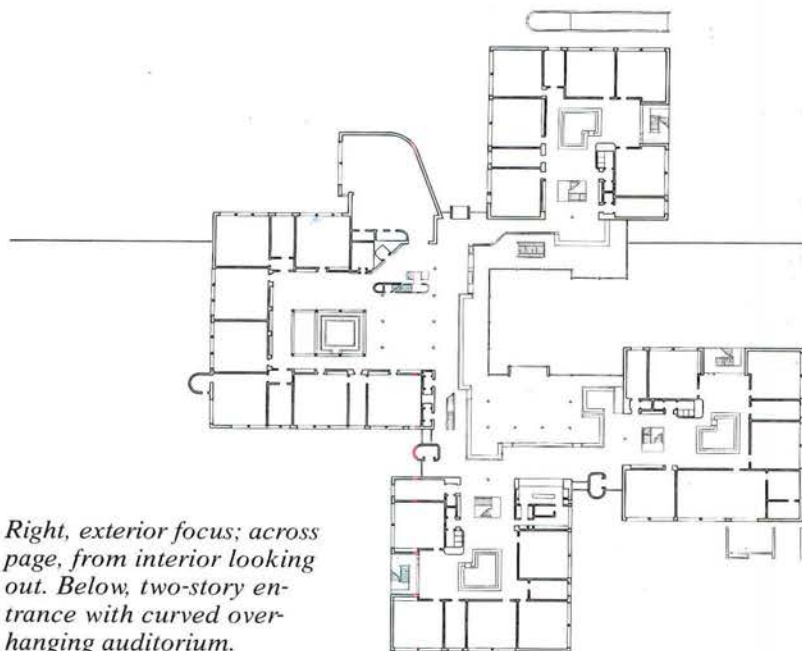
classicist world of forms with the idiom of Berlin modernism.

This combination of classic austerity, clarity, and consistency is evident in the Høje Taastrup Secondary School. The plan follows the design developed during the 1970s. The homeroom sections, each with their own little open spaces, are grouped around a large open area. Variations of this theme were used for Danish schools in the 1960s and 1970s and the results are distinguished by careful attention to the planning of open areas.

This also holds true of the Høje Taastrup Secondary School. In principle it con-



Photographs by Jens Frederiksen



Right, exterior focus; across page, from interior looking out. Below, two-story entrance with curved overhanging auditorium.



sists of four square units grouped around a central common area. The one-sided roof of this canteen area is covered by a blue-and-white striped plastic material, almost like an awning, a cheerful and informal note in the otherwise very rigorous plan.

The main entrance to the school, at the south, is marked by the diagonally rounded auditorium that virtually channels the visitor into the school. The focus

of the school is the sunken canteen area in the center, with its diversified and exciting design. From here, via the higher-lying open area and distribution area, there is access to the individual building blocks.

The classrooms on both floors are grouped around small, open areas. On the ground floor are lounges continuing through the full height of the building.

The interiors have been painted in deli-

cate white tones, accented by simple bright colors. The color scheme of the doors was designed by the architect and graphic artist Ole Kortzau.

The building consists of a bearing concrete construction faced with brick. All the brickwork has been scoured.

KIM DIRCKINCK-HOLMFELD

Mr. Dirckinck-Holmfeld is editor of Arkitektur DK and Arkitekten of Denmark.



Photographs by Jens Frederiksen

Music Center in a Glazed Garden Pavilion Filled With Color and Artworks

Aarhus, Denmark's second largest city (population 250,000) finally has a Music Center on an ideal site. The idea for a music center goes back to 1924, when the first competition was held, but not until a 15-acre site was freed more than 50 years later in the downtown by the closing of a military facility was the opportunity seized to create a center for the city's cultural life, replete with a large winter garden and restaurants.

The firm of Kjaer & Richter was commissioned as designer after winning a competition in 1977. Aarhus municipality financed both the competition and the building project, wishing to create a pendant in parklike surroundings to its town hall designed in 1940 by Arne Jacobsen and Erik Moller.

The site slopes west and is graded in two levels with a six-meter difference. On the highest plateau, toward the east, in front of the main entrance foyer, are the gardens. The slope of the site is used as the incline of the main concert hall floor. The large stage, the dressing rooms, rehearsal halls, and administrative offices are located on the lower level. The performers enter on the west, the public on the east, to meet in the concert halls that rise as two independent, closed building masses. The rear wing, containing offices, dressing rooms, rehearsal halls, and music rooms, is a massive, yellow brick volume, whereas the foyer is open and light, a structure in steel and glass.

In addition to the two halls, the Music Center contains a series of rehearsal and meeting rooms of various sizes. They are situated in the west wing with access from a four-story-high, glass-roofed arcade. The scheme is clear and easily understood, which allows guest performers to orientate themselves quickly.

Since rehearsal rooms and the performers' entrance lobby, east of the central corridor, are occasionally used for public events, there is a connection from the main foyer by way of a small courtyard between the two areas.

The main foyer, besides giving access to the two halls, contains the public cloakroom, a bar, and the balcony-level of the restaurant. *In concept, it is a semi-*



public zone between the garden and concert halls. The floor is on grade with the garden and planted with olive trees and palms, giving a sense of the outdoors, yet at the same time providing shelter from the hard Scandinavian climate.

The roof and balconies in the foyer are supported by concrete columns. The glass curtain walls are white-painted steel sections. The east and west facades are equipped with automatic exterior shading devices. These are integrated with the ventilation and heating system, assuring a constant comfort level in the foyer.

The floors and stairways are of light-colored, polished concrete tiles that have a marble-like quality. Columns and concrete balustrades on balconies and stairways are painted white; hand rails are polished brass. The walls around the two halls are yellow brick.

The foyer is amply appointed with contemporary art. French painter Pierre Soulages was commissioned to do the largest work. Danish painter Richard Mortensen is also represented with a painting in six parts. There is also a Jean Arp sculpture. In the press and guest box, which opens to the foyer on the first floor, hang paintings by Mogens Andersen.

The grand hall seats 1,500, with 950 on the floor and the rest in the main and side balconies. The stage, with its wings and tower, is large enough to accommodate opera performances from the Royal Theater in Copenhagen. Aarhus has its own opera company, which though based elsewhere in the city, performs in the Music Center, and the Aarhus Symphony Orchestra is housed here.

All this, of course, demands a great deal of the acoustics. During preliminary design, the form of the hall, its walls, and ceiling were theoretically determined.

Above, left-of-center garden axis and superstructure above stage are clues to interior arrangement. Right, grand hall.

Then a 1:10 scale model was used for small-scale acoustical experiments. Results of these tests caused major changes in the design of the seating area. The two side balconies were introduced late in the design process and have an important acoustical function.

The ceiling also went through many changes in design. It now consists of a high, light-diffusing level that forms a background for a lowered ceiling of free-hanging, curved, sound diffusing elements. Above these are catwalks and a gridiron system allowing almost every conceivable lighting arrangement.

The side walls nearest the stage are equipped with movable panels that allowed a final adjustment of the acoustics after full-scale tests were completed. When the hall is used for concerts, the orchestra pit is covered, and the orchestra, when on stage, can be surrounded by a ceiling and walls created by a telescoping backdrop.

Painter Emil Gregersen, color coordinator for the grand hall, collaborated not only with the architects but also with lighting specialists. The colors are composed in blue, violet, and green with accents of red near the stage. When the house lights are on, the lights have an accent in the blue end of the spectrum, emphasizing the blue tones in the hall. As the lights go down, the blues disappear first, leaving the warm colors in the ceiling lighting that are complementary to the walls, then gradually creating a series of gray tones. This allows the audience to center attention on the stage.

The little hall seats 320 and is primar-

ily used for concerts, chamber music, and other productions not requiring stage equipment. It is decorated in dark greens and browns, with lighter reds behind the stage. The color co-ordinator was Karen Nathorst Westfeldt.

The symphony orchestra and its conductor as well as the many visiting artists and music lovers, with exception of jazz and rhythm devotees—soon to have their building—have expressed great satisfaction with the acoustics of the hall.

The 15-acre Music Center site forms a park. The six-meter-high slope that divides the site into two levels is used in the park in much the same way as in the Music Center. To the south there is a stairway connecting the rear of the park, athletic fields, and service entrances, with the public parterre garden. To the north is an outdoor theater with seats for 700 to 800.

The zone between the main foyer and the garden contains the main entrance drive as well as a large reflecting pool. In the summer months, the foyer bar opens out to the terrace by the pool.

The garden is in some ways baroque, though symmetry is absent. Asymmetry seems more natural here because of the location of the main entrance. Diagonal walks mark the shortest route for guests arriving on foot from the main street, which separates the gardens of the Music Center from those of the Town Hall.

POUL ERIK SKRIVER

Mr. Skriver, editor of Arkitekten and Arkitektur DK from 1955-82, is author of books and articles on architecture and town planning.

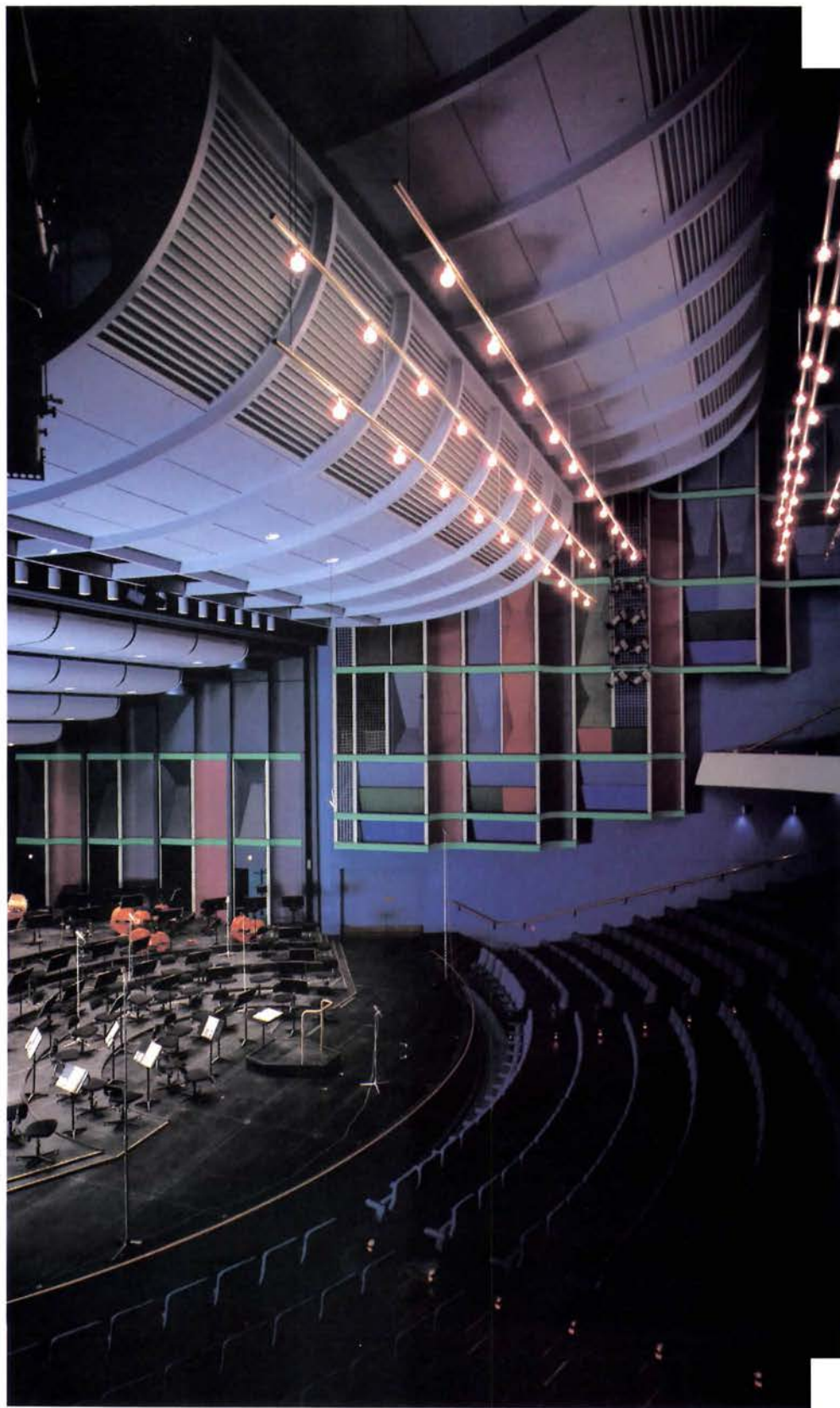
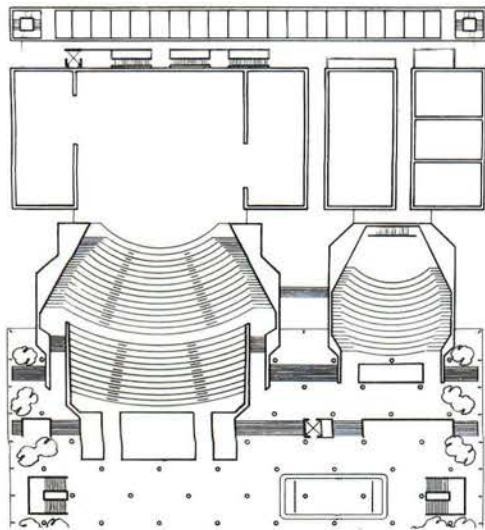


Photo by Thomas Pedersen/Poul Pedersen

England

'Romantic Pragmatism' As a Contrasting Second Force to High-Tech

Both of the most vigorous streams of contemporary British architecture can be traced back to the thinking of one man, Augustus Welby Northmore Pugin, the great Gothic theoretician of the 19th century. Pugin argued that Gothic was the only true moral architecture and that its morality could clearly be seen in two ways: first, fidelity to structure (every line of Gothic architecture was, he believed, from structural or constructional principle), and second, fidelity to place ("each county," he urged students, "should be a school, for each is a school").

The structural/functional side of Pugin's thinking has led (by marriage to the work of the great Victorian ironmen, Paxton of the Crystal Palace and Brunel of the railways) to high-tech, one of the two main British schools, about which I wrote last year. Pugin, the advocate of place and local tradition, is, via the arts and crafts movement, the father of romantic pragmatism, the other contemporary mainstream movement in Britain.

The romantic pragmatists are romantic because they try to create buildings that seem to have grown out of the soil of Britain; they owe much to vernacular traditions in form and choice of material. And they are pragmatic because their architecture responds readily—whatever its particular demands and quirks of site or client program or exigencies of the construction industry. Richard MacCormac recently defined his approach. All architecture, he pointed out, draws on the past. In the buildings of the modern movement, references to the past were arcane only for the *non-cognoscenti*. Who could tell how deeply Corbusier drew on the Parthenon and Notre Dame without reading *Towards a New Architecture*? Ninety-nine percent of humanity has not read the explicatory texts that give modernism its feet in the past, and without those texts, modernism with its totally new language was meaningless. In contrast, MacCormac and other romantic pragmatists inject new functions into the known, the comfortable, to re-establish architecture "as a public convention."

In the attempt to re-establish public convention, it is significant that British



architects have eschewed the classical tradition. Postmodern classicism is an effort to achieve exactly the same ends and one that is gathering increasing sway in the U.S., France, and Italy. But contemporary Brits (with very few exceptions) steer clear of any attempt to embrace classicism. The reasons are three-fold.

First, as romantic pragmatist Ted Culinan has pointed out, British architectural education was set up by arts and craftsmen devoted to ideals of good and simple building, deriving inspiration from the vernacular (and from engineering), quite different from the classical Beaux-Arts tradition that was inherited by the U.S. from Europe.

Second, classical architecture is perceived in Britain today as the expression of the power of authority. So ingrained is the English vision of the duke in his Palladian mansion set among rolling countryside that any attempt to re-evolve Palladianism (or any other kind of formal classicism) today seems absurd.

The third reason why classicism seems an inappropriate model for Britain today is that, since the middle of the 19th century, Britain has had no real urban tradition. With the coming of the world's most effective system of railways (incidentally in their engineering partly inspi-

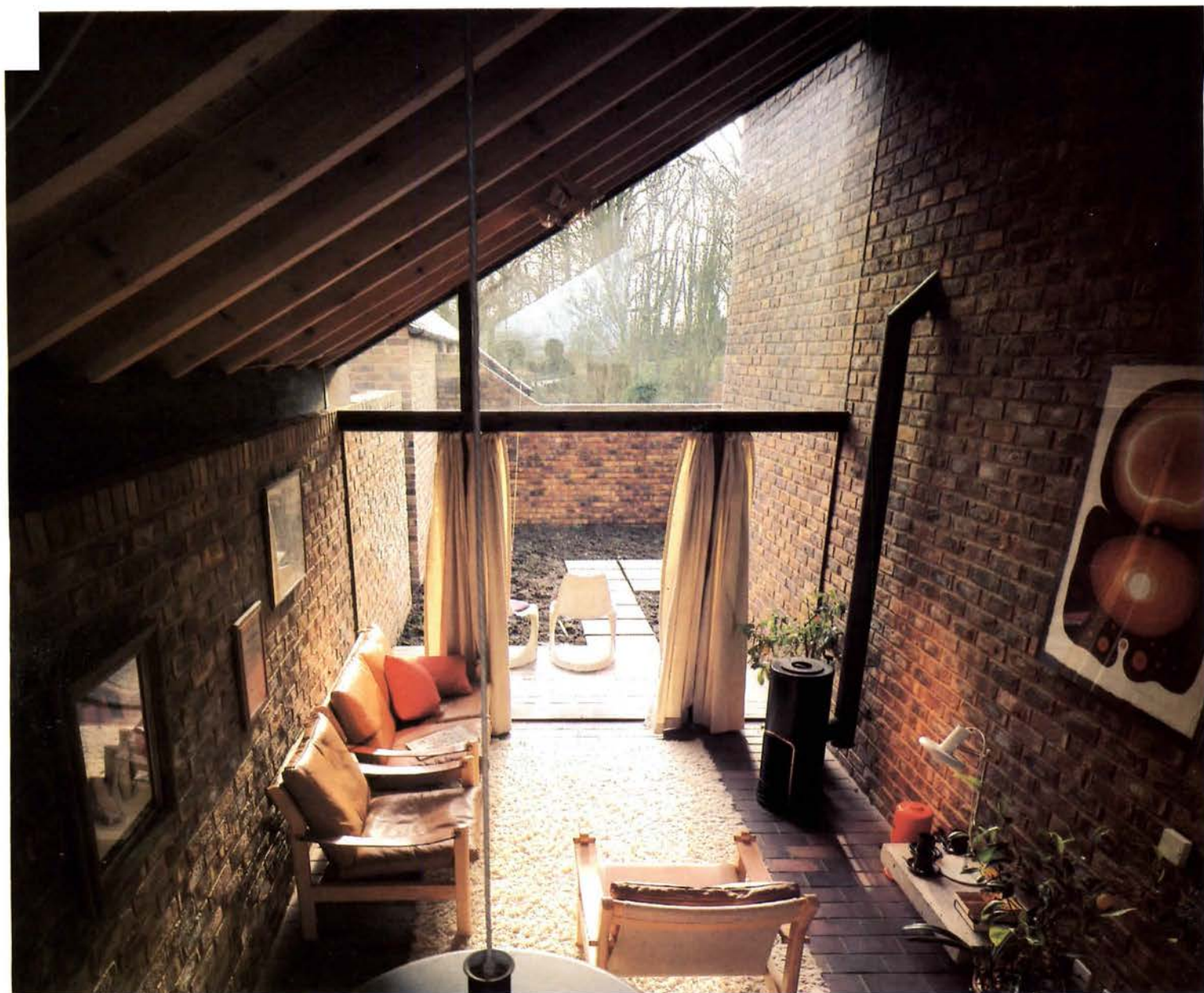
Above and across page, Aldington Craig & Collinge evoke traditional English village images at Bedlow, Buckinghamshire.

rational to British high-tech), the British ideal has been escape from the city to the house in the country, the village, or the small country town.

Hence the potency of old, well used, idealized vernacular images. And hence the inability (up to now) of both British high-tech and romantic pragmatism to come to terms with building in the city. But, at last, both streams of contemporary British architecture are beginning to come to terms with the city: High-tech architect Richard Rogers is building the headquarters of Lloyds in London's City, and romantic pragmatist MacCormac has made a design for a site in Kensington, London, that draws much on the work of English urban arts and crafts work and that of its Scottish contemporary Charles Rennie Mackintosh.

The idealized country cottage in its village is, too often, a temptation for architects and speculative builders to indulge in slushiness: mindless amalgams of bricks and tiles and render and half timbering that now surround virtually every British town and city.

The romantic pragmatists are tougher



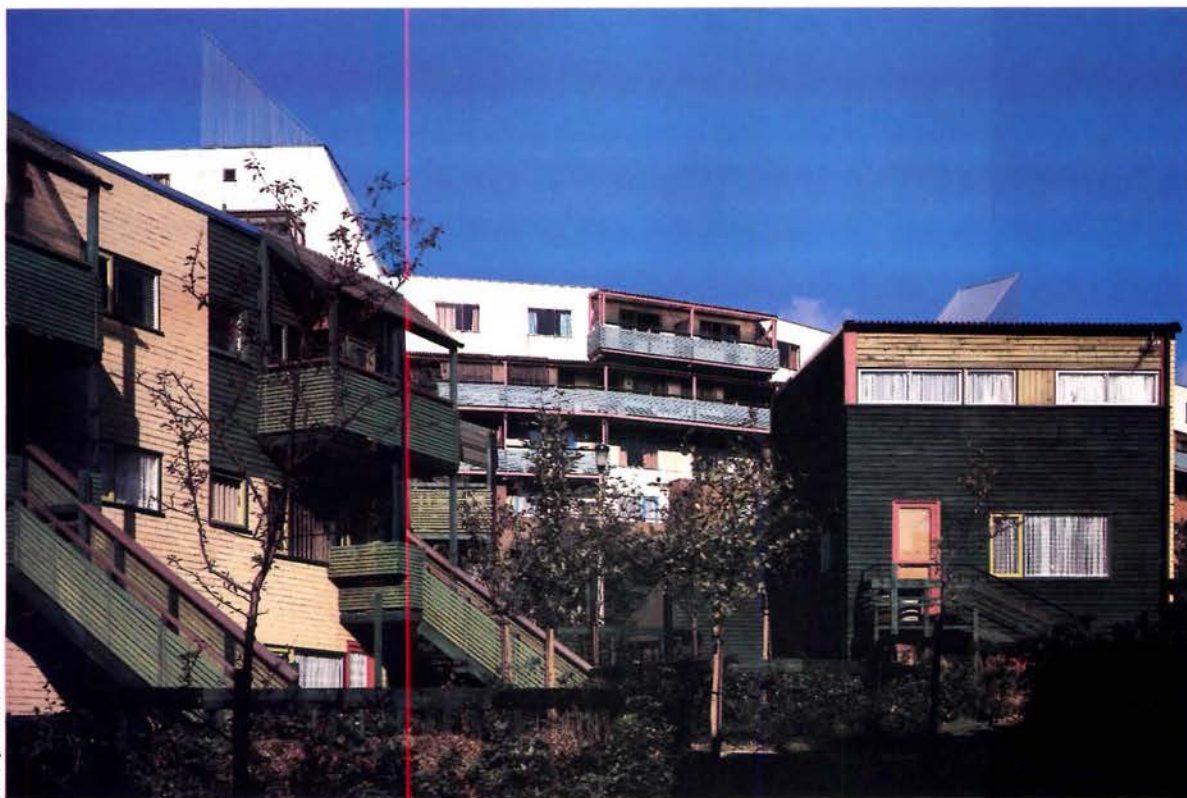
than this, more constructionally honest and more thoughtful. Without being consciously indebted to Christopher Alexander, they are trying to evolve (for Britain) a timeless way of building and languages of pattern that everyone can understand (significantly, perhaps, Alexander was trained as an architect in England). They are attempting to make *place*, not grandly or with rhetoric but in the way in which William Morris, the great arts and crafts pioneer, saw an idealized future in his novel, *News from Nowhere*. The buildings seen by Morris' time-traveling hero, who came to see London 100

years after the book was published in 1890, "were mostly built of red brick and roofed with tiles, and looked, above all, comfortable and as if they were, so to say, alive and sympathetic with the life of the dwellers in them." The materials may be altered but the aliveness and sympathy are what the romantic pragmatists, Morris' descendants, are putting into practice today. PETER DAVEY

Mr. Davey is the editor of The Architectural Review, which is publishing a special issue on romantic pragmatism in September.

The Massing of a Village

Aldington Craig & Collinge has one of the most diverse ranges of expression of all British architects. At one extreme, its work can be Miesian, but it can also be extremely gentle: for instance in the small housing scheme at Bedlow, Buckinghamshire, where the traditional massing and materials of the English village are evoked—but with an individualistic use of proportion and openings that are carefully organized to maximize views out of rooms while limiting penetration of privacy from outside. P.D.



Soft-Spoken Technology

In many ways, Ralph Erskine, an Anglo-Swede, is the doyen of romantic pragmatism. In a series of housing schemes built in Britain during the 1970s, Erskine demonstrated how the traditional British image of a collection of houses with gardens need not lead to dreary suburbanism but could be elevated to potent architecture: how they could be organized to generate a reassuring sense of place and how they could learn from the past without copying. For instance, he has not hesitated to use modern materials—corrugated metal or plastic in various forms—in combination with traditional types of construction. But the new technology never threatens, never tries to over awe with technical wizardry as it does in the work of the high-tech architects.

The latest (and perhaps last) of these schemes is Byker in Newcastle where, within the friendly curve of a great wall of housing (built to separate the main body of the site from a freeway that was never constructed) an Arcadian village has been created that combines the best of suburban living with a sense of community. Erskine has a *Scandinavian* sense of planting—a blend of naturalism and for-



Byker in Newcastle, where an Arcadian village nestles within a wall of housing.

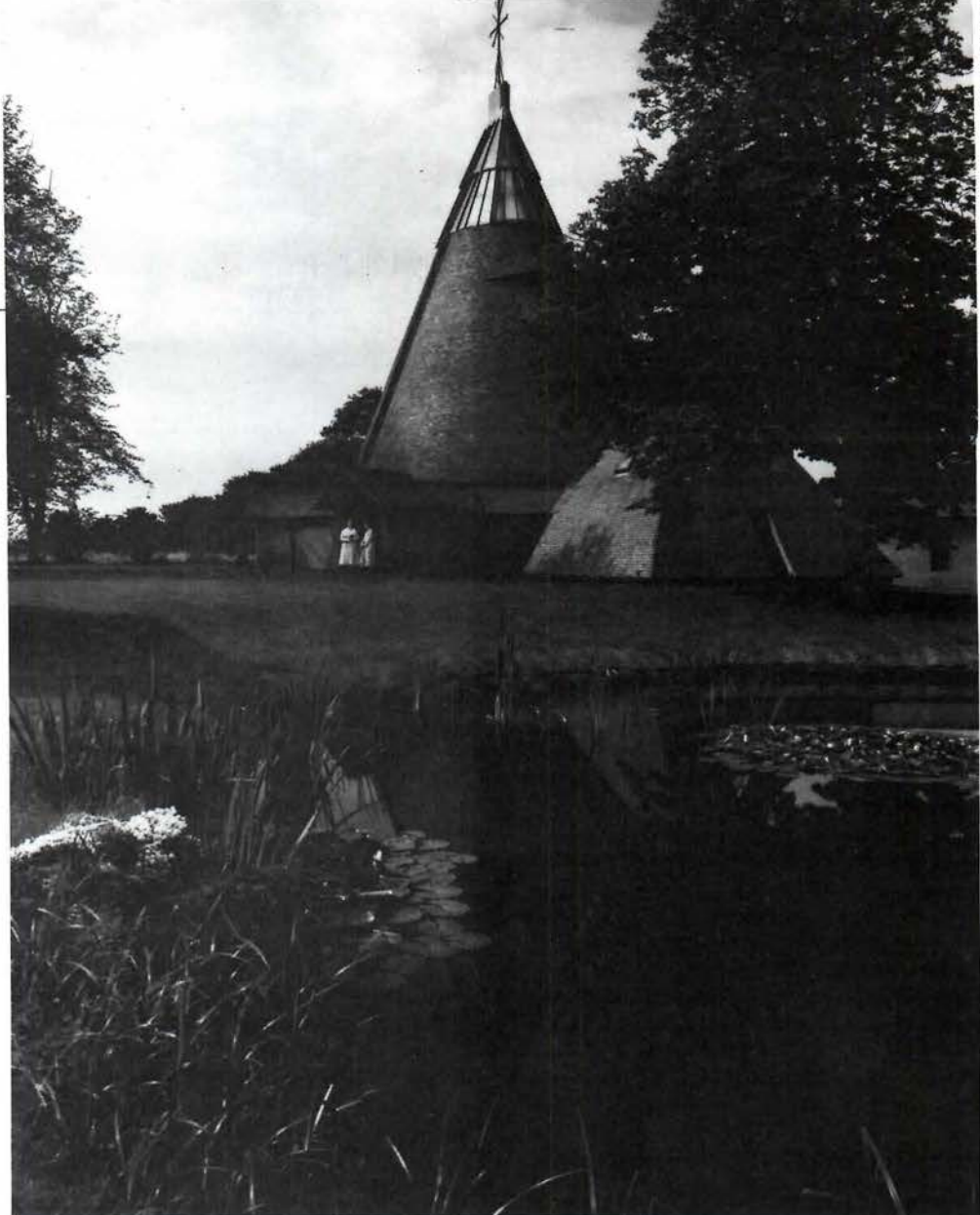
mality—that has influenced other architects of the school. The sequence of public spaces within Byker, with its easy transformation from private to semiprivate to defensible public place, is one of Erskine's most successful attempts to create a sense of community. P.D.



Pop Arts and Crafts

Michael Blee's is a pop interpretation of the English arts and crafts tradition. His Priory of Our Lady of Good Council, Sayer's Common, Sussex, uses traditional materials and forms but pops them up, particularly in the conical chapel that pivots the curve of the cloister round pond in an attempt to communicate in a series of immediately appreciable images. P.D.

Right, Michael Blee's Priory of Our Lady of Good Council.



Duncan McNe

Cullean Darley



Quietude in Canterbury

Of all the romantic pragmatists, Maguire & Murray is probably the closest to the arts and crafts tradition. It shares an affection for local materials and craftsmanship with the British architects of the turn of the century. And, like them, Maguire & Murray experiments freely with new techniques and forms while generating buildings that slip quietly into their surroundings. In the firm's dormitory for Kings School, Canterbury, the brick and tiles of the new buildings drop gently into the pattern of medieval and Tudor walls. P.D.

At King's College dormitories, Maguire & Murray combines arts and crafts values with contextual concerns.



Cullean Darley

Canada

Soaring Atria Bring Sunlight and Space into A High-Tech Hospital

"You are not sick, you're a human being. Staff are also people. We often forget this in our quest to build functional and economical hospitals."

There is a great gap to be bridged between this humane sentiment, expressed by Eberhard Zeidler, principal designer of the University of Alberta's new \$300 million MacKenzie Hospital, and the complex technology of a modern "health sciences center." It's a gap that splits the heart of modern medicine in which an increasingly costly machinery of diagnosis and treatment is pitted against the vulnerable folk who are its patients.

Zeidler, of Zeidler Roberts Partnership, Toronto, has spent much of his distinguished career grappling with this tension. His projects include the big Detroit Receiving Hospital and a number of smaller units in several Canadian cities. His masterwork in this field is the 1,750,000-square-foot McMaster Health Sciences Centre in Hamilton, Ontario, completed in 1972. It set a standard for modern hospital design that has won international recognition.

"McMaster changed my approach to architecture," Zeidler has said. "It showed me the way to a new architecture that has no end and no beginning."

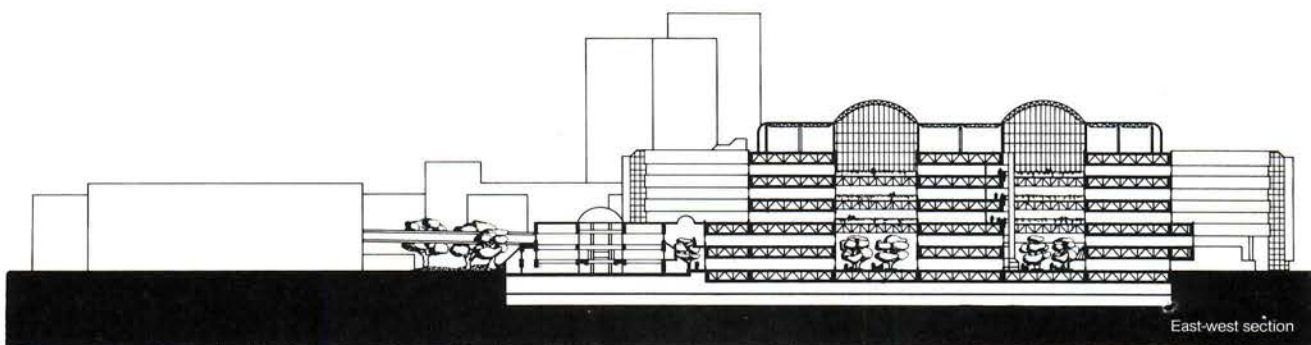
How does MacKenzie compare with McMaster? How has Zeidler's hospital design philosophy matured in the last decade?

McMaster was distinguished by the extraordinary clarity of its concept. Recognizing the rapid development of medical technology, it rationalized the structure into a lucid "servo-system" segregating services in walk-through, interfloor spaces and separate towers for vertical access. Between the service towers the floors spanned a clear 73.5 feet, allowing a very flexible and adaptable layout.

The humanity of McMaster—"you're a human being . . ."—was served by the restriction of nursing units to 36 beds with intimate visual and physical staff supervision. The tension between an uncompromisingly technical design program and human feeling was brilliantly managed.

Zeidler concedes that his approach to MacKenzie's design was more pragmatic.





Left, one of two 60-foot-wide atria, spanned by flying bridges, that make the most of Alberta's winter light. Exterior brick panels, above, were cast on site.

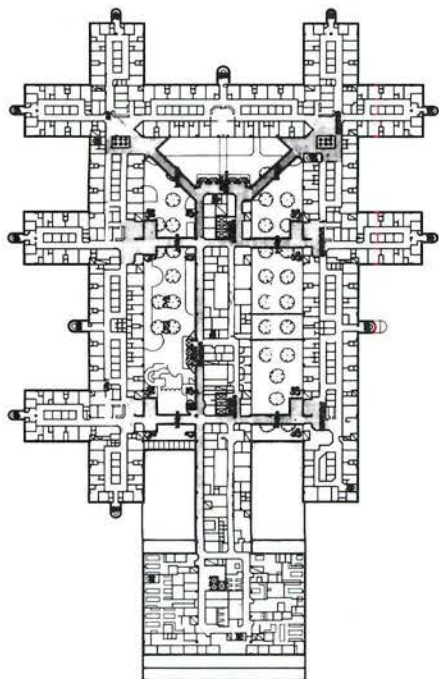
McMaster started from scratch whereas the 840-bed Alberta hospital replaces an existing jumble of out-dated medical buildings on the site. Also, more subtly, 1980s postmodern eclecticism has gentled the ideology of the strictly modernist credo of earlier decades.

MacKenzie is being constructed in two halves. Phase one, which opened last October, occupies the southern end of

the site. It preserves an existing low hostel building and a taller clinical services wing constructed in the 1960s. When complete, the five above-ground levels of the new facility will link up with the present medical services building to the north.

The structural concrete frame spans 60x30 feet. Floor to floor height is 18 feet, half of which is given over to interstitial service space. Vertically, the ducts are exposed, feeding each floor.

The T-shaped ward units accommodate 60 beds in three sectors, each with its own nursing station. These inpatient areas, with support facilities such as radiology,



Natural light filters through vaulted skylights of atria, illuminating tubular detailing. Above, T-shaped ward units surround central support facilities.

intensive care, etc., are linked to the ancillary spine housing surgery and labs by two glass-roofed, 60-foot-wide atria.

Flying bridges cross these sunny, airy indoor spaces. The inpatient areas open onto them, filling the interior of the hospital with light and sun, particularly welcome in the long prairie winters of short days and long nights.

The high-tech modernism of exposed ductwork is played off against what Zeidler calls "Georgian details." The red brick external wall panels, cast in place and bonded to concrete insulated spandrels, are articulated by elaborate white plaster moldings that echo the cornice lines of an adjacent neo-Georgian building on the University of Alberta campus. The public corridors inside the hospital are also evocative of a more gracious era with their curved ceilings and coves contrasting to the breezy modernity of the atria.

The MacKenzie Health Sciences Centre is the best facility money can buy. Financed by the Heritage Fund (set up out of Alberta's once gushing oil revenues), it is designed to have a life of 100 years and to serve as the flagship of medical care and research in the prairie

province. Considering its ambition, its cost, \$135 (Canadian dollars) per square foot, is not excessive.

Among MacKenzie's progressive features is a day-care surgical center for minor outpatient operations that permits a more efficient use of costly inpatient beds. This is supplemented by a hostel for patients and their families who have to travel long distances. These innovations have allowed the saving of 150 beds in MacKenzie compared to the old hospital it replaces on the site.

Zeidler admits that MacKenzie is "less conceptualized" than McMaster. The structural-service grid is less rigid in the later hospital. "Systems and attitudes change fast in modern medicine," the architect explains. "And we're now in a less puritan era of design. Conceptual clarity gives ground to idiosyncrasy." Yet, in MacKenzie, the functional flexibility and response to people remain, as in all of Zeidler's designs, in creative tension.

LEON WHITESON

Mr. Whiteson is architectural columnist for the Los Angeles Herald-Examiner and author of a forthcoming book on modern Canadian architecture.



Germany

A Museum That Is a Cluster of Eclectic Buildings on a Hilltop

The Städtisches Museum Abteiberg in Mönchengladbach is the first building completed by Hans Hollein, whose reputation until now has been based on exquisite shop and office interiors.

At first glance, the Mönchengladbach museum, which has put the town on the tourist map as well as Hollein in the limelight, may be seen as simply eclectic. There are obvious traces of Gaudí, Scarpa, Aalto, Kahn, Isozaki, but Hollein's transformation of these influences into a personal language transcends cut-and-paste collagism. The architect also defies at Mönchengladbach many of the constraints within which he had to work. Despite a limited and publicly funded budget, Hollein nowhere relied on standardized detailing, achieving a rich variety in spatial configuration, materials, detailing, and finishes without sacrificing quality or resorting to kitsch.

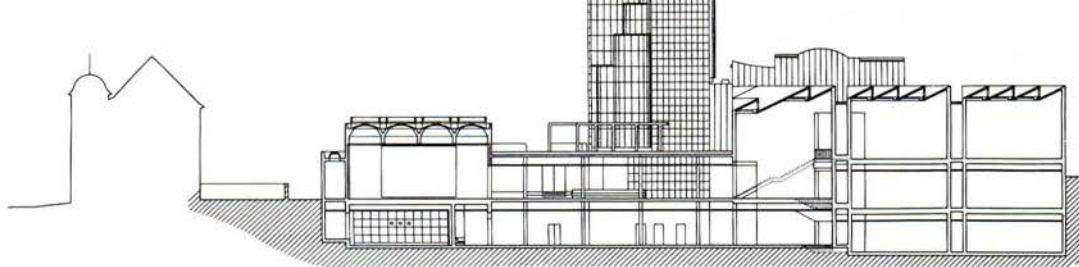
The museum is sited at the crest of the only hill in the historic town. To its south, at the bottom of a steep slope, are public gardens; to the north, at the top of the hill, is Hindenburgstrasse, the town's main commercial street. Hollein purposefully exploits the contextual contrast between townscape and landscape, or culture and nature.

Outside, the museum appears to be a number of small buildings arranged around a terrace at the summit of the hill. This terrace is actually the roof of the major exhibition spaces, which are sunk into the hillside. Looking from the main street, the buildings blend in scale with their surroundings. From the garden below, they transform the hill into an acropolis crowned by dramatic pavilions and temples.

Leading up to the complex is a pedestrian path lined by serpentine, brick garden walls. To contrast with this curvilinear route, an axial path was planned from the Hindenburgstrasse to the museum's entrance pavilion. This required removal of an existing building, which remains, and the axis now dead ends on a quiet



Top, site plan with serpentine, walled path. Above, the entrance pavilion. Across page, acropolis-like view from below.

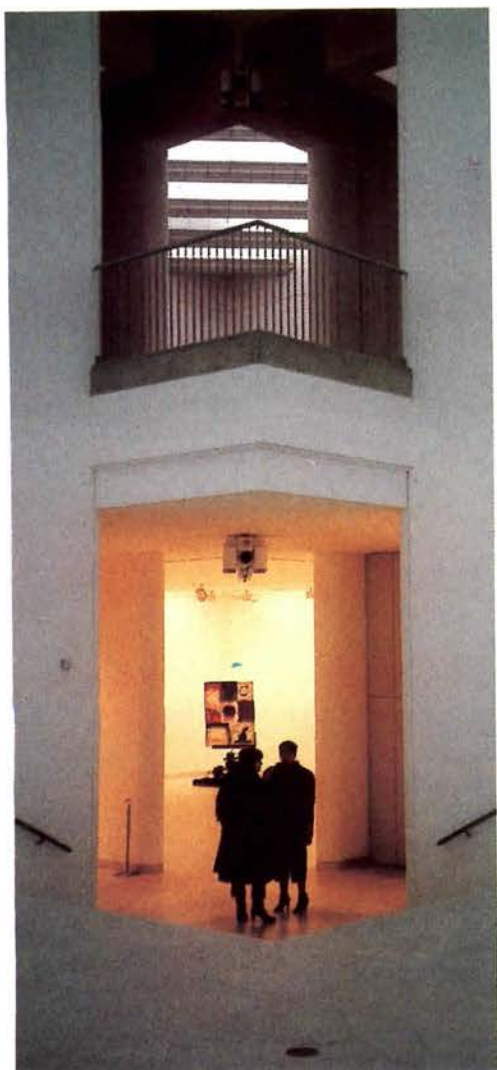


Photographs © Waltraud Krase





Photographs by Annette LeCuyer



back road, not the main street. Moreover, unlike the snake-like garden path, it has none of the drama of constantly changing, unfolding views of the building.

The terrace itself is an anticlimax. The space is ill-defined and bleak, and its stone paving is monotonously consistent in pattern and color. In contrast, the buildings surrounding the terrace revel in variety. Individuality is emphasized by a range of forms and the use of a number of cladding materials—marble, unpolished stone, stainless steel, brick, zinc, aluminum, and both mirrored and clear glass. Hollein, with his eye for detail, has made of each building a precious object.

Though the collection reads well from afar, at close range these acropolis-like temples have blank faces. The dominant building in the cluster is a tower housing the museum's administrative and support

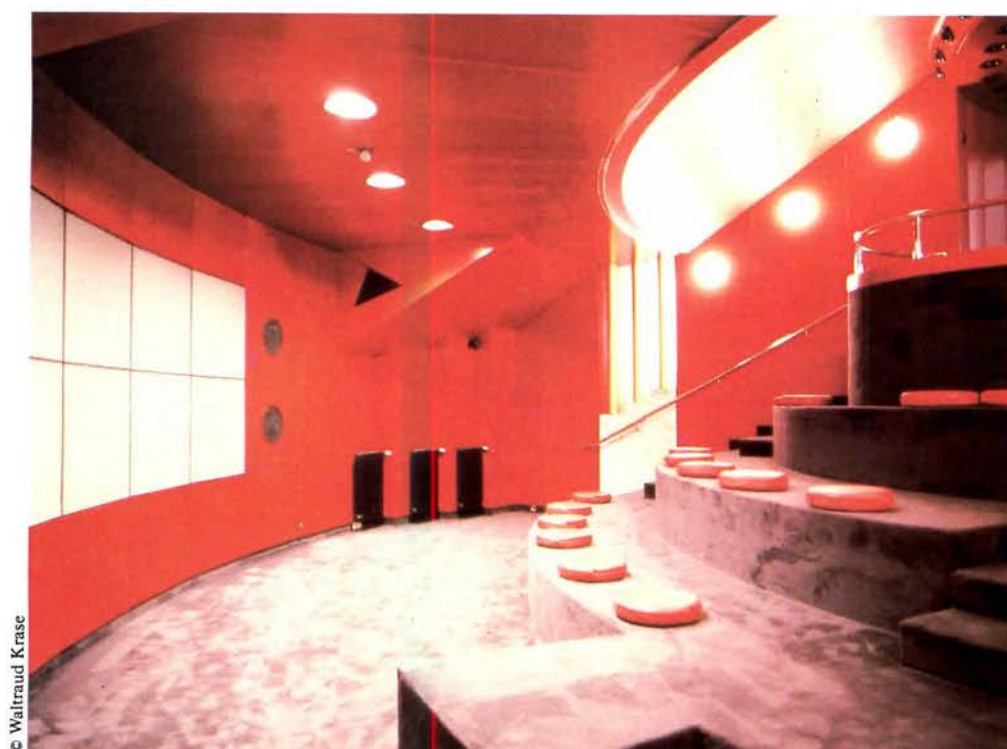


Across page, nearby cathedral and pavilion. Different gallery types, from above left, small square, round, large amoebic shaped.

functions. Although it works as a landmark, the self-contained tower is a weak space-maker contributing little to the terrace. Its glass skin is backed by a solid spandrel panel at terrace level, which makes the building visually impenetrable. Staff enter the tower from within the gallery, and instead of sharing the public terrace, have private terraces at higher levels.

The museum has two entrances: the principal one at roof level, and a secondary one from the Abteistrasse. The upper level entry is through a pavilion situated to read as an almost cubic, single-story structure from the terrace and as a two-story, more vertical form from the gar-





dens. Visitors entering the pavilion a half level down from the terrace are treated to a broad view of the countryside, then turned 180 degrees to be plunged down a cascading stair that terminates at a circular landing facing the reception area. The drama of the upper entrance is matched by the banality of the lower, vehicular drop-off entrance at the reception level located under a clumsily designed footbridge over Abteistrasse.

Hollein's previous work has been concerned with providing exotic objects within existing architecture. At Mönchengladbach, he has had the opposite

Top, from square-shaped gallery to glazed west wall; above, brash audio visual room. Right, a small 'particularized' gallery.

task of creating the enclosure for art objects. He has complied to some extent with the notion that galleries are neutral spaces for display, but has skillfully avoided the blandness of many exhibition spaces.

Inside, the complex is a heterogeneous, labyrinthian but unified whole. The route that is so carefully controlled outdoors gives way to random movement patterns within. The building's very variety and

complexity prevent museum fatigue. Galleries are located on two floors—the reception level and the garden level below—and can be broadly classified into four types.

The blandest of Hollein's display spaces is the rectangular gallery adjacent to the reception area, which is used for temporary exhibits and performances. Less neutral are two large, amoeba-shaped galleries—one on each level—with light gray marble floors, white ceilings, and linen-covered movable panels that fix to white enameled metal clad columns on a 20-foot grid. Overly bright lighting is from bare, somewhat distracting fluorescent tubes in a variety of patterns suggesting enclosures within the grid of columns.

Along the east side of these amoebic, flexible spaces are a series of more soothing, square rooms. On the upper level, north light is admitted via ribboned skylights, that run diagonal to the plan. These galleries have openings only at their corners, creating a gently controlled circulation that prescribes no set sequence of movement. The open vista along the diagonal axis offers glimpses of art in each successive room. From the upper level, from balconies adjoining the flexible gallery, viewers can look both down into double height spaces and across to large-scale paintings that need to be seen from a distance.

Finally, dispersed throughout the building are a number of small rooms and niches—each unique, each a work of art in its own right—that place objects in particular rather than neutral settings.

The building also contains a number of support spaces where Hollein was able to work without the restraints imposed by exhibition spaces. Most flamboyant is the fan-shaped audiovisual room, a dark cave, a brash concoction in red, black, and gold. Less successful is the coffee shop, a pale, spartan room with badly planned circulation. Its saving grace is a Hollein touch par excellence: a large square window that frames the nearby cathedral like a super-realist work of art.

ANNETTE LECUYER

Ms. LeCuyer is an architect and writer living in London.



Soaring, Ceremonial 'Interior Public Square' In a Layered Town Hall

When Gottfried Böhm was selected to design the new town hall in Rheinberg, the clients got more than they asked for. In addition to providing new administrative offices for local government, the town hall ingeniously incorporates a number of civic amenities formerly lacking in Rheinberg, thus becoming a new focus for community life.

Rheinberg is a picturesque community of 27,000 inhabitants near Düsseldorf. The town hall is situated on the market square, surrounded by three-story baroque houses now used as shops and offices. On the east side of the square is a 12th century church and to the west is the original town hall of 1449.

Böhm has handled the problem of inserting a large new complex into a medieval-scale setting by keeping the building mass low and disguising its expansive footprint with a variety of elevational treatments. Its nearly 106,000 square feet of space are compressed into three stories above ground with a parking garage and plant rooms in the basement. A five-story volume is hidden from view at the center of the plan.

The civic center appears to be a collection of buildings rather than a monolithic whole. The elevations are for the most part conservative, the most inventive being the palazzo-like facade and main public entrance that face directly onto a new pedestrian route connecting the market with residential streets beyond the town hall.

The east face of the building, a long, repetitive elevation pulled back from the street to provide a small public parking lot, reveals the true extent of the complex. The west wing of the town hall adjacent to the market is a straightforward reconstruction of the facades of buildings formerly on the site. The historicism is only

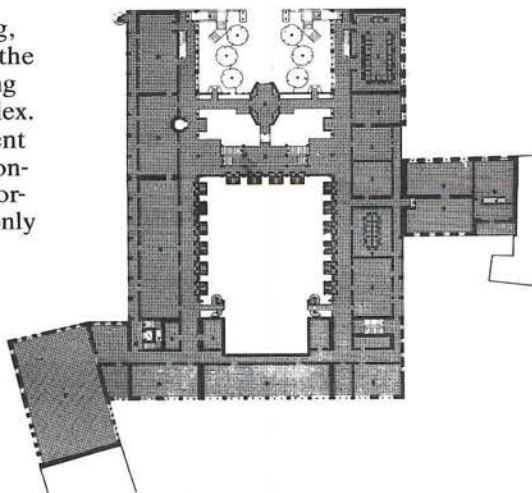
skin deep, for the superstructure and interior planning behind are completely new.

The elevational details, like the massing, are designed to reduce the scale of the building. The main front is grand, endowing the town hall with civic "weight." The other elevations, with residential-scale fenestration, feel more domestic. Under a dark gray lead roof, contrasting grays define the in-situ concrete frame and precast infill panels, and blue highlights windows and railings. The overall effect is soft beneath the often overcast sky, and the mixed hues blend well with the decorated pastel houses around the square.

The urban form of Rheinberg also plays a key role in the internal planning. As an analogy to the market, Böhm has created a series of interior public squares surrounded by shops and offices. There are three major civic spaces that blur the distinction between inside and outside: a covered open-air forecourt, a grand foyer, and a large assembly room at the heart of the building. The hard urban edges of the civic spaces are formed by administrative offices, political party rooms, meeting rooms, and a public restaurant and bar.

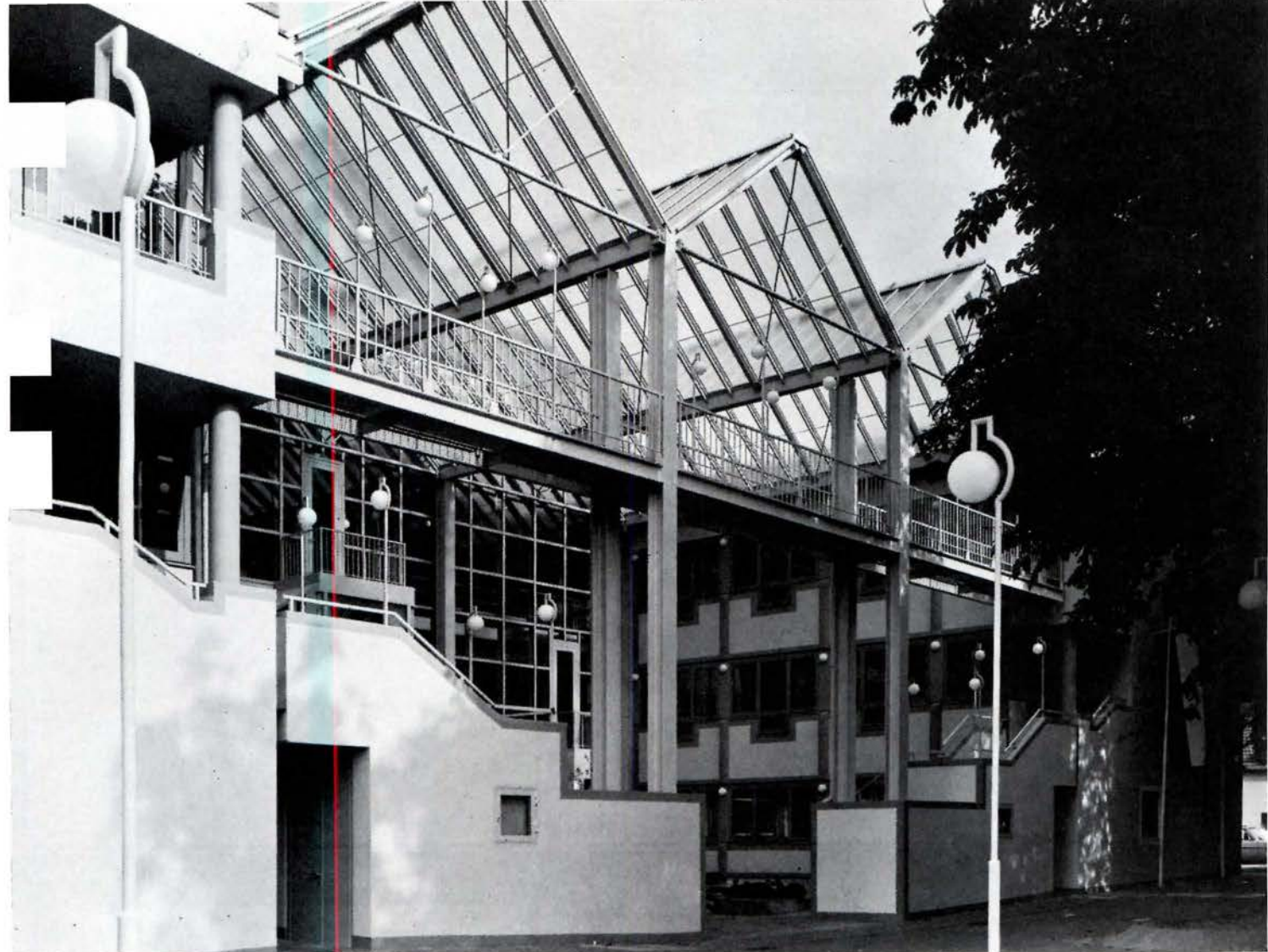
The glazed forecourt is a grand public portico leading to a projecting entrance bay. This court provides a sheltered outdoor extension to the foyers and, during summer, could serve as an open air theater complete with a facade as stage set. The civil registry office is located directly above the entrance, shielded from public scrutiny by an etched glass screen depicting

In the plan below, the Stadthalle, right, occupies the large, central space. It seats up to 1,700 for various public events.

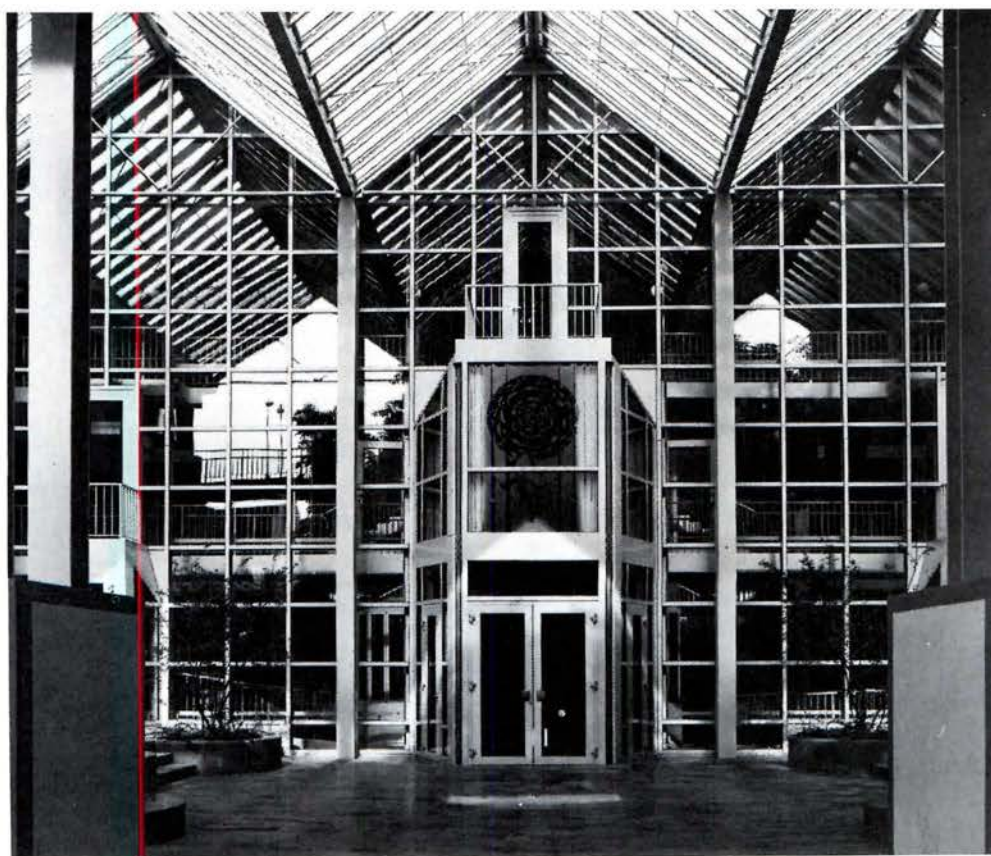


Hiroshi Kobayashi





Klaus Beckmannshagen



Klaus Beckmannshagen

ing a rose and a serpent, a comment on the mixed blessings of marriage. Such two-dimensional decoration is recent in Böhm's work and contrasts dramatically with the plasticity of his earlier expressionist buildings.

The other rooms surrounding the forecourt are only indirectly linked to it. The stairs and high-level bridge are for staff escape, not general circulation. The two projecting wings of the building, which partially enclose the court, contain offices and public function rooms, but there is no direct access to them from the court, and the design of their fenestration reinforces the separation.

Inside the front door is the second civic space, an overwhelmingly vertical foyer with stairs rising five stories on either side of the entrance. The stone paving of the forecourt is carried indoors, and stair landings are punctuated by lighting standards, giving the space the atmosphere of a street. With balconies and built-in benches at each level, the foyer acts as a second theater, a venue for informal matinee recitals.

Drama and functionalism are at odds



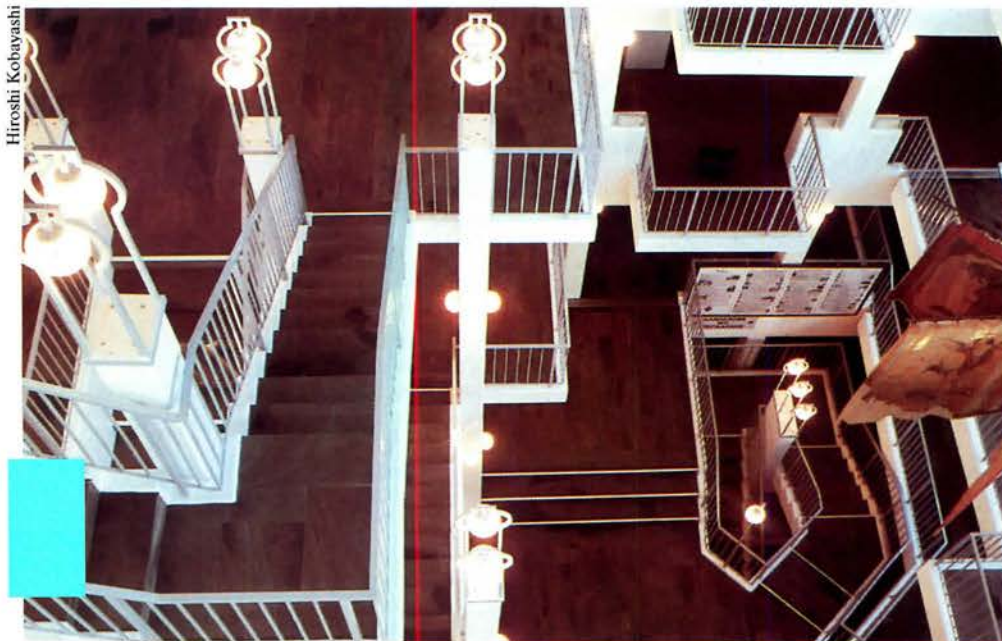
Below, the view from across Market Square. Across page, the main entrance with glazed forecourt and projecting entrance bay with civic registry room above it.

in the foyer. The receptionist for the government administration, remote from the entrance, must be discovered. The potential Piranesian grandeur of the stairs is diminished by the stark gray-painted steel balustrades. An elevator rising in a glazed shaft is so heavily structured that it blocks views of the foyer from within and hides the car, preventing it from being a moving showcase.

The final public square is most successful and transforms the town hall into a real civic center. Designed for theater, concerts, banquets, receptions, celebrations, and town council meetings, the space seats from 700 to 1,700 people and has a proscenium stage with a full complement of backstage facilities. The floor, like that of the foyer and forecourt, is paved with exterior-quality pink Italian marble. The cool blue color scheme outside warms up in this focal space to pinks, beige, and mauve. The walls are conceived as white facades full of windows, doors, and balconies that provide direct visual and physical links with surrounding rooms. The roof is partially glazed, and the lighting catwalks are shielded by back-



Klaus Beckmannshagen



On these pages, the foyer and stair hall. The top flight of stairs in photo at right leads to theater control room. Left, the civil registry room from within.

lighted glazed screens, furthering the concept that this is an open square rather than an internal room. Only the pink drapes painted on the glazed box fronts and leviathan painted roses and foliage on the glazed ceiling weaken rather than enhance the illusion.

The administrative bulk of the building—its original *raison d'être*—plays a supporting role to the public squares. Undistinguished cellular offices are arranged along single-loaded corridors that look onto the squares. The circulation thus reads more as part of the townscape than as an internal element of the building. This scheme, effective around the forecourt and foyer, which are flooded with light, is less successful around the central theater, which, although top lit, remains a darker space. The offices are designed with opaque walls and doors



onto the corridors so that they are completely cut off visually from the circulation system, and dark finishes in the corridor emphasize rather than ameliorate the problem.

In addition to transforming a substantial portion of the building into public multiple-use space, Böhm has added amenities to the original program, nota-



bly a restaurant and bar. Although well-related to the foyer and central theater, most of the restaurant is tucked away from street view. If it had been pushed to the southeast corner of the building, it would have profited from exposure to the market, the pedestrian path, and the glazed forecourt, and would have animated the building at street level.

Since it opened two years ago, the Rheinberg town hall has been well used. What might have been a 9-to-5 office building instead offers a full range of daytime, evening, and weekend activities to the public. Most important, the complex has none of the terrible anonymity that is often the hallmark of multiple use facilities. A.L.E.C.



Arcaded Shopping Core Blends Inward-Facing Old and Outward-Facing New

While the United States was going through a phase of soaring hotel atriums during the 1970s, Western Europe concentrated on building commercial arcades and malls. They were roofed-over extensions of public sidewalks into buildings, fashionable fads of the commercial world ever dependent upon new attractions to keep drawing in customers. In order to stimulate and regain interest in downtown shopping, there was a revival of models from the 19th century: glass-roofed shopping arcades.

The Hanse Quarter Arcade in Hamburg is part of a larger network that includes seven shopping arcades, and stretches between City Hall Square, the Opera, the Binnenalster, and the Stadthaus. It encompasses the downtown area with the greatest commercial density, the highest number of shoppers, and the most sales per shopper.

The Hanse Quarter Arcade is merely the backbone of an extensive restructuring of interior court buildings plus a number of new buildings fronting the street. The structures facing the street define the arcade entrances.

The 11,000-square-meter site originally belonged to an English investor and was later sold to a German insurance company after city officials had given provisional building permission for the project. The architect, Van Gerkan, Marg & Partners, planned the main section of the arcade along the site's rear boundary, since this particular location allowed the easiest accommodation of additional shops.

Along Poststrasse were a number of art nouveau houses classified as historical structures. Only their facades were preserved; the buildings behind them were newly constructed, along with arcade entrances. A completely new, slightly recessed house was erected on the corner of Poststrasse and Grosse Bleichen, offering an attractive entrance forum to the arcade. Since its opening it has been popularly known as "the swinging corner," and is one of the most popular meeting spots in the city.

On the other corner of the Grosse Bleichen a second new building was con-



structed with an inviting arcade entrance. The neighboring house, conceived by the Hamburg expressionist architect Fritz Höger in the 1920s, was finally completed according to its original design after half a century. Both buildings house a new hotel. These, in short, are the links between the city and the arcade. The arcade has a total of four junctures with the surrounding streets. At each of these points one need only cross the street in order to enter another new enclosed shopping arcade.

The architectural firm describes its design concept as follows: "Contrary to the opinion of shopping center professionals, we planned the arcade in a straight line, with natural lighting, and on one level without steps and ramps. Also contrary to normal practice, we were able, in agreement with the center management and the 60 renters, to eliminate visible individual shop signs as well as background music for stimulating shoppers. The mall is only 5.5 meters wide, yet does not disturb the stroller since a much wider visual impression is achieved through the

mirrored effects of the shop area and the transparency of the glass walls."

Natural lighting is so strong in the arcade that one never has the impression of being in interior space. This effect was achieved by locating the arcade in a position where it was not shadowed by the surrounding buildings, by extending the glass vaulting down to the roof level of the ground floor structures, and by employing lighting accents from openings to the outer streets. At the two focal points of the arcade, where it is angled and branches, the mall has been broadened and spanned with large glass cupolas. A restaurant, in a sunken area, and cafeteria, at mall level, are located at these focal points. Both have protected seating in the pedestrian zone.

Between the buildings facing the street and those fronting the interior court is an abrupt change in scale, from a height of five floors on the exterior to two on the interior. (The Milan Galleria is an obvious contrast. There the eave height and street facades are carried into the Galleria without interruption.) To retain a semblance of the external characteristics within the arcade itself, the architect used the same construction materials and elements, and the same basic designs: wall facings in brick, equally spaced supports, steel and reinforced concrete framework, and a glass cupola both in the interior and over the entrance at the corner of Poststrasse and Grosse Bleichen.

As an example of architecture and urban renovation, the Hanse Quarter Arcade naturally belongs in the category of building speculation. The arcade's one-sided emphasis on shops and gastronomy allows no real flourishing of an active and full city life. There are, for example, no entrances to the upper-floor offices from the arcade. Thus there are no chance meetings as in the multi-functional Galleria in Milan. Everything here is oriented toward consumption. Despite this, the arcade is a popular attraction on Sundays, when the shops are closed.

Until now the architect's original design has remained largely intact, yet there are some indications of change in the display windows. It will probably be impossible to suppress the shop owners' need to visually draw attention and the compulsion to exhibit brand names and individual shop signs. It appears, however, that the simple and powerful architectural design will still be able to dominate any possible



mischievous done by advertising glitter.

Every urban redevelopment destroys existing social and economic structures. This was also the case in Hamburg. The area in which the arcades are located today was formerly a colorful mixture of very plain and very elegant stores, junk shops, antique dealers, garages, and many cheap offices—all of which made the area particularly lively. The increased rent levels (double and sometimes more) have succeeded in driving out the very subculture that brought so much life to the quarter. What has remained is a monostructure of upper class consumerism, differentiated only by a variety of products.

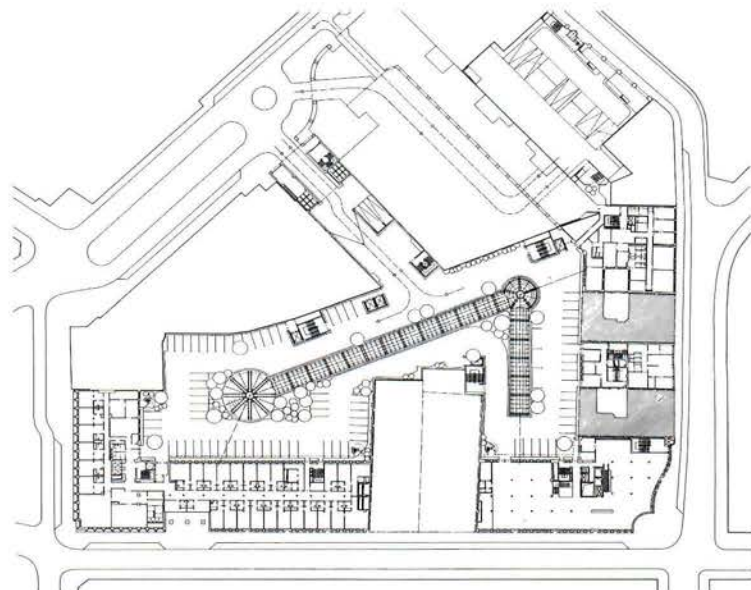
The new shopping arcades also exert unsettling influences on older, existing stores in the area. They increase commercial competition in a consumer market that has not grown, with the result that sales can increase in the new arcade shops only at the expense of older stores. At the same time, the creation of the new arcades has resulted in a downgrading of older bordering streets, which themselves were once the main reason for building the arcades.

PAUL HANS PETERS

Dr. Peters is editor of Baumeister in Munich.



Waltraud Kruse



Behind new construction and preserved art nouveau facades, the arcade forms a V-shaped spine for restructured interior court buildings. Main entrance is at new, curved, corner building, left. The arcade is linear, toplit, uncluttered. Cupola, across page, spans intersection of its two wings.

Contextual Combination Of War-Torn Housing And New Construction

In 1960, O. M. Ungers published a radical contextualist manifesto for architecture. More than 20 years and as many unbuilt schemes later, his first realization of those ideas stands as housing on Schillerstrasse in Berlin. In this combination of new and existing elements, he uses and transforms contextual clues, grafts suitable fragments onto buildings, and allows collision of disparate elements instead of trying to iron out all the wrinkles.

The Charlottenburg quarter, close to the center of West Berlin, is a popular middle class residential area with streets lined by shops at ground level and six to eight stories of apartments above.

The site, at the intersection of Schillerstrasse and Kaiser-Friedrich-Strasse, was formerly occupied by a typical prewar mixed use building organized around an internal court. Bombs destroyed its northern half, which fronted onto Schillerstrasse and turned the corner, while the southern half was left intact. Unger's concept of site usage clearly returns to the prewar model, a building type that he calls the "urban palace." He has retained the old building and knitted an unassertive new piece onto it.

The building has two-story apartments at ground and roof levels, and three levels of single-story apartments sandwiched between. There are 34 government subsidized residential units ranging from studios to large apartments with private rooftop courtyards.

The shared entrance to the building is through an urban-scaled portal to the courtyard from Schillerstrasse. The ground floor units, raised four feet above street level for visual privacy, may be entered directly from the street or courtyard. All other dwellings are reached via four vertical circulation cores in the courtyard.

Materials have been chosen for both economy and camouflage value so that the new building meets strict government guidelines and blends imperceptibly with its older counterpart. Few changes have been made to the old building apart from renovation and general cleanup. The new building is constructed of in-situ reinforced concrete that is rendered and



Painted. Internal partitions are plastered precast tongue-and-groove concrete panels.

The six-foot-high plinth of engineering brick protects the building where it is most vulnerable and alludes to the rusticated ground level of many of the older buildings on the street. The detailing of window, balcony, and door openings is cheap and cheerful. The only luxury that has been allowed is use of color and add-on pieces of lattice in both the courtyard and on the Kaiser-Friedrich-Strasse elevations.

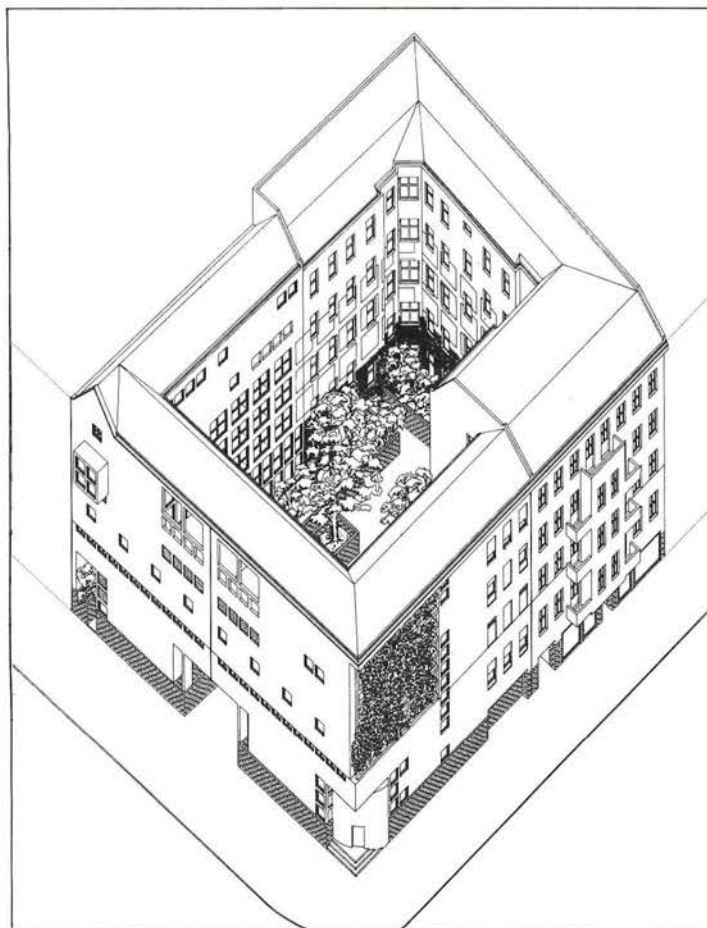
Although the massing of the new building follows traditional patterns, in details its composition represents a noticeable departure. Because the adjacent streets are heavily trafficked and noisy, all residential units face onto the courtyard and turn their backs to the street.

Each section of the elevation is a transformation of the piece adjacent so that the building intentionally reads as a series of fragmentary, evolutionary ideas rather than as a consistent whole. The Schillerstrasse elevation features a symmetrical

Above, Kaiser-Friedrich-Strasse corner elevation; right, the courtyard.

central composition flanked by asymmetrical ends. The main entrance is marked by a portal with paired groupings of windows and covered outdoor decks above. The large scale of the portal and windows above and the continuous band of windows at third story level, highlighted by a change of color, are intended to shift scale and create the illusion of a two-story building. The change in materials and color is also used to divide the facade up into the base, middle, and architrave. The success of these devices is questionable, and it is only clear that the new building contrasts markedly in its proportions with its neighbor.

On the Kaiser-Friedrich-Strasse elevation, three bays of the fenestration pattern of the existing half of the building have been carried over onto the new facade. The distinction between old and new is made clear by the fact that the new "windows" are blanks or are only par-



tially glazed. A thin line in the render and a change of color definitively mark the boundary between old and new. Following this polite acknowledgement of the past, the elevation metamorphoses into a completely new and strange entity as it approaches the corner.

The corner is emphasized only at ground level by a double height curved inset panel containing the entrance to one of the dwellings. The corner competes successfully with the larger scale central portal so that the building is *both* frontal *and* turns the corner. But the corner treatment inflates the significance of a single dwelling entrance out of all proportion, and above the curve, no effort is made to turn the corner. Corner windows that were on earlier drawings have disappeared, and the two street elevations, quite different from one another, meet without fuss. The heavy, urban-scaled lattice on the west elevation cannot be justified as a sunscreen, for there are few windows behind, and they are small.

The central courtyard is an expression of one of Ungers' fundamental concepts: the building within a building. Conceptually it is a room. The transparency and openness of its walls contrasts strongly with the solid, almost fortified wall that the building presents to the street. For the new half of the building, the wall is a giant lattice, a frame infilled with glazing and with recessed balconies. By using different fenestration patterns to express base, middle, and architrave, the courtyard wall more convincingly articulates the vertical hierarchy of the building than the painted street facade.

In the court, the meeting between old and new, less mannerly than on the street facades, is a confrontation. To emphasize the different rhythms and varying proportions of window to wall, Ungers has painted the window pattern of the new building on the old, forcing the collision of opposites. Lattice—this time garden-scaled—is fixed to the ground and second story of the old building to punctuate the difference between the “accidental” rhythm of the existing and the rational grid of the new. The paint is more successful than the lattice, probably because it is two-dimensional and more illusory. The junctions between lattice and doors, windows, rainwater pipes, light fittings, and mailboxes are so accidental and so roughly crafted that the result looks tacky rather than clever. A. LEC.

Photographs © Waltraud Krase



Kuwait

Brilliant Desert Complex By Architects from A Frigid Arctic Climate

What happens when an architect from frigid Finland is asked to design for a people of a very different culture wanting caves of stone on a waterfront site in a hot, dry climate? In the case of the Sief Palace complex in Kuwait by Reima Pietilä, the result is buildings with an unusually strong sense of place.

From the start, Pietilä's analysis of the Kuwaitian waterfront involved both geographic and cultural contexts. The site of the Sief (meaning "shore" in Arabic), adjacent to a wharf for the traditional teak dhows used in fishing and transportation, was formerly a place for two-story merchants' warehouses. The old town of Al Kuwayt consisted of coral stone and mud-walled houses. During the town's history these materials had provided the landfill for reclaiming the waterfront site. The piles of the new buildings reach down to coral reefs, and seven ceramic fountains, shaped as coral flowers, grace the site.

Raili and Reima Pietilä began design work in 1973, in competition with several architects who set out to find an architecture tailored for local identity. An international advisory committee led by Sir Leslie Martin and Franco Albini had prepared recommendations to assist the architects. Ten years earlier a traditional-style Sief Palace building had been completed on the southwest side of the site.

There is a design progression as one moves north from the earlier palace to each new building. The Sief Palace extension is tied completely in form and materials to the existing reception hall and tower. Facades of the council of minis-

ters building, with sun-protected T-shaped window openings, provide a transition to the dual walls of the ministry of foreign affairs building. The distance separating this building from the large arcades of the Sief Palace allowed the outside walls of the foreign affairs building to be cut away along vertical, horizontal, and diagonal lines. While designing these elevations, Pietilä played Arabic recordings to reinforce the memory of the human voice in music and in the calls for prayer from the mosque towers. Both the music and the openings to the exterior walls follow a repetition of rising and falling rhythms punctuated with short periods of silence.

The buildings are an appropriate response to climate. The large openings on the outside walls of the ministry of foreign affairs building admit air to a shaded transition space, with ventilation controlled through small openings in the inner walls. The building follows the same principles as the "serai," a comfortable garment that adds poetic expression to the functional needs of a hot, dry climate.

Courtyards are partly shaded by fingers projecting from walls or bridges across two-story spaces. Pietilä refers to the sun as a decorating weaver that passes its light through the fingers of the eaves. In many ways—including the fundamental search to find a building's own genuine expression—there are similarities in the thinking of Pietilä and Louis Kahn. Statements by Kahn, such as the following, capture the essence of Pietilä's work in Kuwait. "The sun was not aware of its wonder before it struck the side of a

building." "Of the elements of a room the window is the most marvelous." "A building is a society of rooms." Differences of height and the play of light particularize each place.

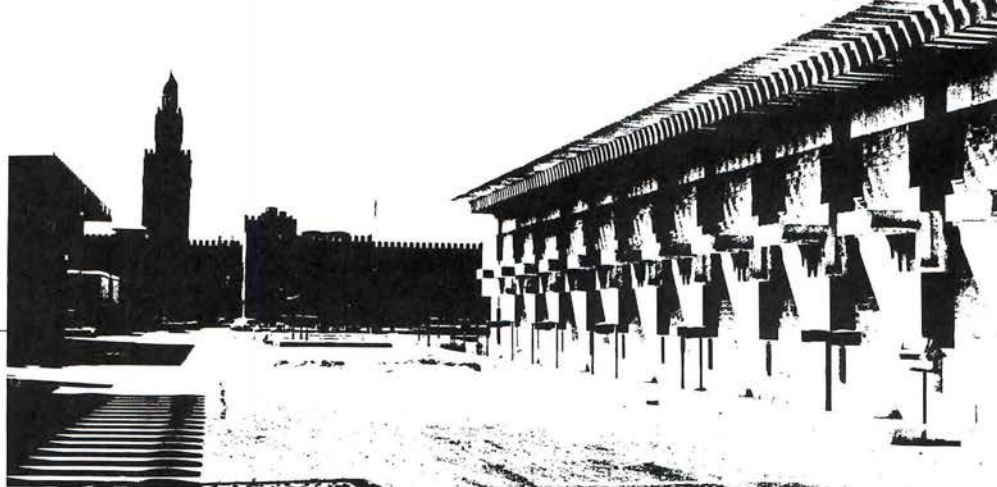
There are outbursts of colored tiles in the transition zone around the ministry of foreign affairs building, at the entry to the council of ministers building, in the courtyards, and in major activity places within the buildings. The colors on walls, courtyard forms, and fountains are arranged thematically. Internal corridors are color-coded and varied in other ways. When speaking of the color tiles in striped pattern, Pietilä refers back to the woven partitions that divide the Arab tent.

In Al Kuwayt traditional buildings were roofed with reeds from the waterfront. The suspended ceilings of the Sief Palace area buildings are made from aluminum strips that in section are enlarged cross-sectional reed forms.

As an independent oil-rich Arab state, Kuwait has been able to afford whatever architectural services it would like to have. For the Kuwait airport, Kenzo Tange took the form of a jetliner as building plan—an international form unrelated to Kuwaitian cultural traditions. The almost completed Parliament building by Jørn Utzon is marked by large symbolic entrance spaces and white cylindrical structural elements—sophisticated geometric forms appropriate to many nations.

NEVILLE CLOUTEN

Mr. Clouten is professor of architecture at Andrews University in Michigan.





Across page: top, earlier Sief Palace with Council of Ministers Building at right; bottom, Ministry of Foreign Affairs. This page: top, ceramic tile fountains, Council of Ministers; left, coral flower shapes; above, toward courtyard from Ministry of Foreign Affairs.

Sweden

The Arresting, Angular Forms of the Rudolph Steiner Esthetic

Driving through the flat land due south of Stockholm, one's attention is arrested by a group of colored and angular buildings nestling in a clearing along the edge of the Baltic. Set in a luxuriant, green landscape of this region, these buildings form the nucleus of the Rudolf Steiner-seminariet, at Järna, a working community of people who adhere to the principles of life, education, and biodynamic agriculture laid down by Rudolf Steiner (1861-1925) and his anthroposophical followers. The self-supporting colony—under the leadership of its director Arne Klingborg, himself a well-known Swedish stage designer and painter—has since 1971 systematically erected a remarkable assembly of low scale, well detailed buildings, all designed by the Danish architect Erik Asmussen.

Originally practicing from his office in Stockholm, Asmussen began work for the community with the erection of the Kristoffer School. Now he is an active member of the community at Järna and has drawing offices in a large, re-sited and restored traditional red-colored Swedish barn on the estate. From here the shy and reserved Asmussen supervises each building contract on site (one building is erected at a time, as money becomes available), and works in close collaboration with Klingborg and other artists and teachers who live at Järna.

His most recent building, a tall, yellow colored, horizontally metal faced grain tower nearing completion, stands a few miles away from the seminary and pinpoints another key activity of the community—the provision of “natural” food that is sold locally and in the Stockholm region. It is the largest silo of its kind in southern Sweden and replaces an old, virtually unusable, traditional grain store. Asmussen has also designed the nearby bakery.

The community itself has recently purchased a farm village in the vicinity and already owns or rents a number of large farms, all of which are cultivated by biodynamic methods that rely on the use of natural fertilizers, stress ecologically balanced growing, as well as the time-worn method of planting and reaping

related to moon phases, currently under scientific investigation.

In my discussion at Järna with Klingborg and Asmussen the debt to Steiner's philosophy and scientific ideas was apparent, but it was also clear that a further stimulus to thinking was vested in the work and ideas of William Morris. This has shown itself in the interest in craftsmanship and handiwork, and in the care and affection that goes into decorative and herbal gardening.

Klingborg and members of his team have spent time in Britain studying the English garden and paying particular attention to Gertrude Jekyll's ideas. The garden of the old studio house, which lies at the center of the original estate on which the seminary is based, can, without exaggeration, be compared to Morris' Red House garden that has been described as “the token of man living in harmony with nature.” Indeed it is recorded that Morris' garden was so well planned that scarcely any of the trees in the orchard needed to be felled: “Apples fell in at the windows as they stood open on hot autumn nights.” All very romantic perhaps, but in the case of Järna a



Beata Bergström



Above, overview at Baltic's green edge. Across page, three-story library and ancillary, foreground building.

romanticism that shows its results through a constant search for new ideas and opportunities provided by nature. In the area of curative education and medicine, natural cycles and rhythms also play an important part, and some startlingly successful results have been obtained (particularly with disturbed children), which has focused Swedish government attention on the community.

In architecture, too, many significant advances are being made that are also focusing the attention of the Swedes on Järna. Daily, visitors are increasing; they come out of curiosity and leave with an admiration for Asmussen's unusual and low-scale, colored buildings. One visitor told me he felt that the buildings themselves grew quite unselfconsciously out of the granite-pocked landscape. They must appear to many Swedes as a refreshing contrast to the soulless slab blocks that dominate so many Swedish towns. That they possess a "living presence" similar to Charles Moore's Sea Ranch or Herb Greene's Prairie House projects can-

not be denied, although they were designed for very different purposes and from distinctly different criteria. However, the Music Center at Järna certainly exhibits a strong iconographic quality that may well prove lasting.

Asmussen is interested primarily in three basic conditions: the landscape, local vernacular traditions, and what he would call the Rudolf Steiner "impulse." But he is no mere copyist of Steiner's ideas or a member of that boring clan that see Steiner's impulse largely in terms of irregular shaped windows and poorly finished bulbous concrete surfaces. He searches for more fundamental inspiration. He is strict in his interpretation of local vernacular conventions, and the most obvious visual connection to be found in his work to these conditions is in the way he employs external softwood in colored finishes. Softwood is used as a complete surface cloak to a building that may itself be constructed behind in a mixed technique of concrete, frame, or block construction.

Traditionally it has been used to combat the severe winter weather. Asmussen, however, is not a slavish follower of the local Swedish rural tradition that conven-

tionally paints the external softwood boarding in red oxide or (for middle class dwellings) in yellow ochre. Rather, in liberating buildings from this tradition he has, with Klingborg, developed a variety of external painted finishes using natural colors that help emphasize the different functions of the buildings but give them each a different reference during the changing seasons (i.e. the use of blue for sympathy to sea and sky and prominence as single structures in sun or snow).

Asmussen has explored the possibility of using different types of transparent water paint and tempera and has introduced plant colors both inside and outside his buildings. The roofs of the buildings often follow the pattern of the wall coloring, and are finished either in galvanized iron or in aluminum. Because of cost constraints and because Asmussen desired to create individual buildings in the landscape rather than a complex superstructure, much of the detailing is of a very simple, craftsmanlike kind.

New building at the Rudolph Steiner-seminariet commenced in 1967, although Asmussen's four major structures—the Eurhythmy House (Eurhythmus), the Library (Bibliotek), the Music House

(Almandinen), and the new Community House (Robygge) with its restaurant, bookshop, hostel, and further eurhythmy rooms—were built from 1971 on. All the buildings were planned to be roughly similar in size with the exception of the Community House, opened earlier this year, which is unusual in that it is planned around an open courtyard.

The Steiner impulse has led Asmussen to examine a new vocabulary of forms based on the landscape and vernacular principles just mentioned and to relate these aspects to the creation of forms that emerge from what Klingborg has called "rational analysis" and the "area of human experience and awareness." This may all sound presumptuous and obvious in summary form, but it has a pedigree as a way of architectural theorizing from Steiner's lectures at the Goetheanum, Dornach, Switzerland, in the 1920s.

The Eurhythmy House sets the pace for the exploration of both functional requirements and shaping. It accommodates rhythmic dance and speech, fundamental to the Steiner philosophy. The building is centrally placed and two stories high. It is linked at ground level by a low, residential connecting unit to a smaller two-story structure housing a teaching studio. The eurhythmy hall situated on the upper floor opens up like an expanded plant form to emphasize the

bodily nature of the movements (vertical means "healthy") that go on inside. The structure of this shed-like building is specially constructed to withstand severe wind pressure. The hall interior is entirely lined with softwood and has a ceiling height of 7.5 meters that closely follows the contours of the roof. The lower part of the eurhythmy hall incorporates changing rooms and storage space as well as a pair of studio bed sitting rooms with a separate entrance.

The library building is a wooden, three-story structure. It has two low, residential wings running north and south. A ground floor seminar room opens off the staircase lobby, which takes the visitor up to the library, an area galleried on the third floor, thus providing a two-story open space through the upper floors.

The Music House ("The Garnet" in English) is both a hall of residence and a teaching department, and of all the buildings on the estate it is the one that seems to come closest to nature. Set in a smooth, rocky part of the site, it echoes the natural granite outcrops in its own shape. The first floor music room, lying above residential accommodation, is crowned by a barrel vault roof that is based on a circle with its center approximately 1.6 meters above the floor of the upper story. If the circle were completed it would reveal ground level as the tangent. The rock shaped roof is further elab-

orated by a projecting oriel window over which the barrel vault changes shape into a curved apsidal end. The architect has designed the north elevation as a starkly functional contrast, giving it a simple entrance and a closed staircase enclosure. It is a surprising contrast but one entirely dictated by local climatic conditions. Perhaps it also shows something of Asmussen's ability to deal with three-dimensional changes as well. Elsewhere his wit also comes through—justified in the case of a "broken" door canopy both in terms of weather protection as well as originality. With the recent completion of the community building (called "Robygge"—"to build in peace") some of the design ideas the architect experimented with in the earlier buildings are reused.

Two small eurhythmy studios provide the new structure with its dominating profile, but the whole building comes down to intimate human scale with a beautifully detailed and colored open courtyard and a well lit restaurant.

A balcony runs along one side, a place for audience contact with events that are going on in the central ground floor space. With the erection of this building the community now has a center, and Asmussen's next proposals involve the completion of a long, low, student hostel immediately to the west of the four individual structures. This will create a sense of enclosure for the spread-out buildings. This hostel will again be open-sided like the galleried courtyard to the Robygge building and will also provide a visual link with the nearby Waldord School blocks (also designed by Asmussen to the south side of the site).

Eventually the site will be landscaped and new pathways formed. New focal points will be created in the landscape as the paths are fixed by the patterns of use created by the new buildings.

Among other projects reaching final design stage in the community is a scheme on a nearby site for the erection of a 200-person curative home and clinic and a hotel to serve it. Although plans and models have been made, this has still to receive the official approval of the Swedish authorities. DENNIS SHARP

Mr. Sharp practices architecture in London, was founder and editor of AA Quarterly (1968-82), and is author of A Visual History of 20th Century Architecture, among other books.





Across page, fluted, aluminum clad grain silo of 1981. Left, Steiner's Goetheanum Building, Dornach, Switzerland, prototype for subsequent theories on Anthroposophical architecture. A direct descendant, the music center, below, one of Asmussen's earliest buildings on the site.



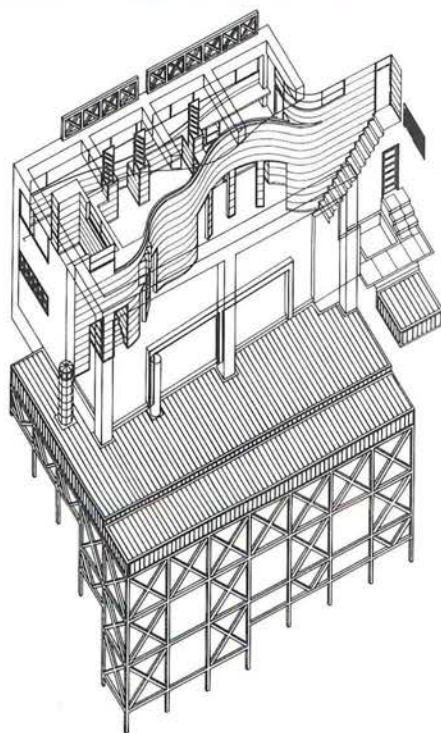
Japan

Undulating Wall Behind Exposed Rectilinear Frames

Intended as a weekend retreat for a copywriter and his family, the Nakatsuka House, finished in 1982, was designed by Hiroshi Hara. It is located in Kawana on Izu Peninsula, two hours by train from Tokyo. Izu offers many attractions for the city-dweller, among them a mild climate, scenic coastlines, and abundant hot springs. Development has been relatively restricted, since the area is part of a national park and building sites command high premiums.

The house is atop a hill on a cul-de-sac. Set back some 20 feet from the road, it is a two-story structure with a total floor area of just over 1,500 square feet. The front (south) elevation is divided into three nearly equal bays. The western third of the facade is clad in asbestos cement panels painted black, and this is where the entry is located. The other two bays are defined by an exposed concrete frame; inside them is a slightly curved wall covered by stainless steel panels.

Entering the seemingly casually placed



door, we are led to a hallway that opens to our left and find ourselves insinuated into the living room. The screen we have just passed through forms part of a long, undulating white wall that defines the living room to the south, but what immediately draws attention is the wide expanse of glass to the north. The living room floor of black carpet gives way to a black terrace. The terrace ends in a 16-foot drop, but the land drops farther still to the northeast, eventually meeting the ocean, which is punctuated in the distance by an island. Weather permitting, Mt. Fuji is visible directly ahead, beyond some intervening hills.

Hara (born in 1936) teaches at the Institute of Industrial Science at Tokyo University and also has a private practice in what is technically a collaboration with Atelier O. (Faculty members at national universities in Japan are civil servants with what are supposed to be full-time duties; hence teaching architects must maintain the fiction that they work at offices only on a consultant basis.) In the '70s Hara designed a series of buildings that he called Reflection Houses. Their structure was focused on a toplit corridor flanked by symmetrically arranged rooms. Entry was at the highest level, and the corridor led down to the living room at the lowest. The walls of the corridor and the acrylic forms that introduced light from it into the individual rooms created a valley into which we descend.

For Hara a valley is not simply a topographical feature but a basic configuration with the potential to express an image of the world. According to him, we are drawn to valleys not just by the nostalgic associations they may have for us (though Hara himself grew up in a mountainous area of Japan), but by the stability inherent in their geometry. Places of repose to which we return, they have obvious maternal connotations as well. The downward orientation of Hara's houses is thus deliberate. The urge to direct our structures upward is an ancient one, but it is particularly strong in the modern era. To these acts of hubris, Hara's Reflection Houses are meant to offer an alternative.

The Nakatsuka House has been dubbed "The Stage of Dreams" by its owner. There is in fact an oneiric quality found

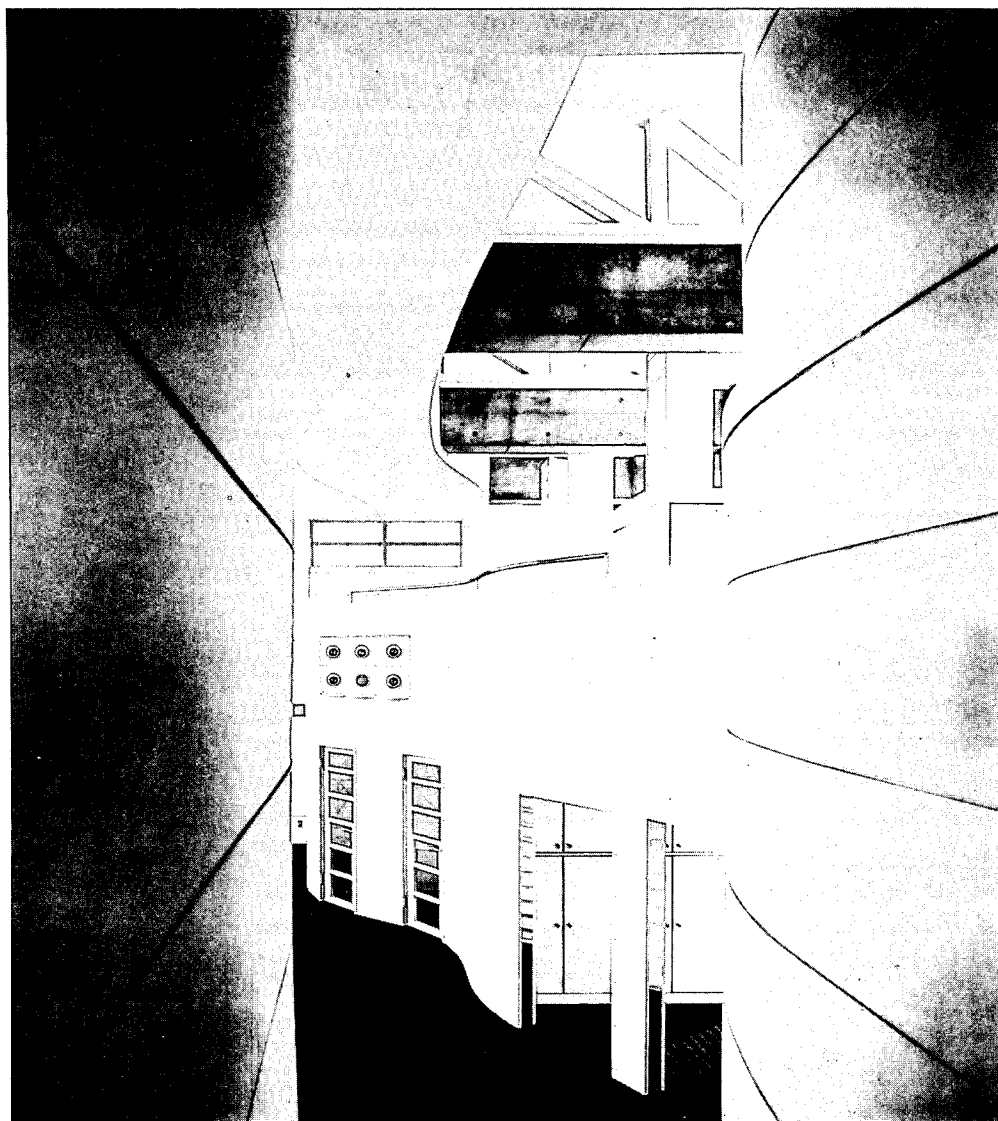
Commanding views and details, this page; hall, living room, and vertical interconnection of spaces, across page.

in all Reflection Houses. Hara would agree with the French philosopher Gaston Bachelard that the chief benefit of the house is that "the house shelters day-dreaming, the house protects the dreamer, the house allows one to dream in peace." Hara wrote in *Kenchiku Bunka* (September 1982): "In Japan and throughout the rest of the world, houses have [traditionally] been arranged so that in one form or another the living dwell together with the dead. The most striking difference between modern houses and traditional houses is that any sense that the dead live with us is absent in the former. To the modern sensibility, death is an absurdity, a sudden extinction. Our actual feelings, however, tell us quite differently, that the dead continue to live with us." Hara adds: "An absence of consideration of death leads also to an impoverished sense of nature, since human beings *are* nature."

In his Reflection Houses, Hara attempts to integrate past and present, nature and artifact, in a dreamlike vision. The Awazu House (1972), the Hara House (1974), and the Niram House (1978) all explore this.

The western third of the Nakatsuka House is a restatement of earlier Reflection Houses. It is symmetrically arranged around a stairway, and the two upper rooms—a tatami-floored room intended as a study and the parents' bedroom—get light from the hall via acrylic panels. This western third, moreover, is black on the outside, as are earlier houses. What begins, however, as a typical Reflection House is transformed by the introduction of the concrete frame. In the Niram House or Hara House, the three strata of space—the central corridor and the two flanking sets of rooms—are kept separate; there is little spatial connection between them. In the Nakatsuka House, the concrete frame (each unit roughly 18x21 feet) makes it possible not only to open up the north elevation but to interconnect the interior spaces in the lateral direction as well. In a sense then, this is a Reflection House "the walls of which are on vacation," to borrow Bachelard's phrase.

Walking through the early Reflection Houses took on a ritual quality; the organization compelled us to move and orient ourselves in a certain direction. We might say that their insistence is more characteristic of night-dreams than day-dreams. The Nakatsuka House, in keeping with the more loosely structured life



Photographs © Tomio Ohashi

led inside (and in keeping with the more relaxed quality of Hara's recent projects like the Sueda Museum) does not coerce its occupants. By opening up the house, however, Hara has added a new dimension to the dream.

From inside, the glass mirrors the sinuous wall of the living room at the same time that it reveals the landscape beyond the window where rolling hills repeat these undulations. A similar effect can superimpose the hills on the interior when we look from the terrace back at the house. The house is thus alternately open and closed, inviting nature to complete its symmetry or providing its own mirror image to do so. The natural landscape and artifact dovetail at one moment and are uncoupled the next. We begin in fact

to question which is more "natural." Miniaturized by distance, the features of the landscape after all have an air of unreality, and Mt. Fuji, the subject of so many works of art through the ages, has been rendered insubstantial and diffuse by the multiplicity of its images. Nature thus approaches artifact, just as artifact mimics nature. In the Nakatsuka House, Hara has created an environment in which two worlds can for a moment overlap and, as in a dream, we are both participant and observer. HIROSHI WATANABE

Mr. Watanabe, an architect in Tokyo, was a correspondent for Architecture Plus, contributed to this review of world architecture last year, and to the November 1979 issue on Japan.

Streetside Composition Of Four Differently Finished Metal Panels

Matsuyama is a city of 341,000 in the northwestern corner of Shikoku, one of the four main islands of Japan. An old castle town, it is the seat of the Ehime prefectural government and an industrial and tourist center as well. Among its modern buildings of note are a pair of early Tange structures rusting genteelly in a park and three quite recent works by Itsuko Hasegawa: a pediatric clinic, a house, and now the Aono Building.

The old Aono Ophthalmology Clinic was located in the middle of town, which was and is undergoing extensive commercial development. A small building set back from the street, it became a luxury the doctor and his wife could no longer afford, given the rising valuation of their land. Eventually they decided to construct a much larger building to house the clinic, living quarters for the family, rentable space, and a private hall.

The site, which faces a heavily trafficked shopping street, is approximately 52 feet wide and 120 feet deep. The seven-story building fills the entire width of the lot. The first, second, and fourth floors are occupied by Yamaha, the musical instrument and furniture maker, which did not have the good sense to use Hasegawa, and though the interior design of these floors may help move baby grands they are undistinguished by other standards. The third floor is given over to the clinic; the private hall, managed by Mrs. Aono, is on the fifth floor; and the Aonos live with their youngest child on the two top floors.

Because each floor had different mechanical and spatial requirements, Hasegawa used a simple steel-frame structure two bays wide. The north, street facade is clad in aluminum panels, plain and anodized, into which are set stainless steel panels of two different degrees of reflectivity. The stainless panels are meant to suggest a ghost image of the old Aono Building, although one wonders how many people will actually recognize it as such. Like nearly all works by Hasegawa, the Aono Building is capped by a pitched roof.

Circular elements are found scattered throughout the more public areas of the



Photographs © Tomio Ohashi

building, beginning with the attached twin columns at the building entrance. Half cylinders of anodized aluminum stripe both sides of the fifth floor hall, their positions determined by acoustical studies. And on the sixth floor, cylindrical pods, seven in all, march down the length of the corridor.

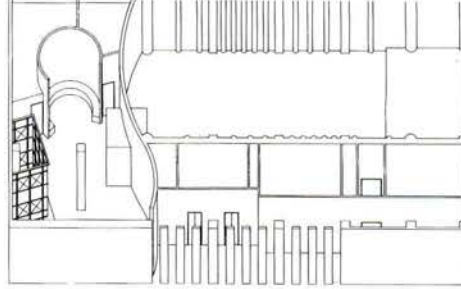
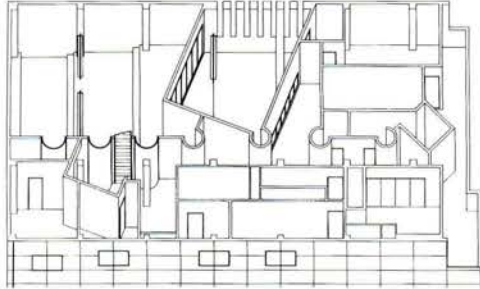
The apartment is used for holding smaller-scaled performances and for exhibiting works of art—Mrs. Aono is an avid amateur painter who spends much of her time in her seventh floor garret studio—and the plan reflects this semi-public character.

A terrace is at the center of the plan. Separating the dining room from the living room and designed as an extension of the latter, it is at a diagonal so that it overlaps and is integrated with the living room space. The two stainless steel-clad cruciform columns in the terrace, similar to the pair in the living room, further suggest this spatial continuity.

Hasegawa's recent allusions to past architectural forms, as with the ghost image or these columns, which are quotations from the Barcelona Pavilion, paral-

lel the interest shown by her mentor, Kazuo Shinohara, in early-20th century modernist architecture. This represents something of a departure from the resolutely abstract style she has employed up to now.

The cylindrical pods comprise, from north to south, three revolving doors, an alcove, storage, and two toilet stalls. They create a screen separating the more important, eastern rooms from the auxiliary rooms on the west. The pods integrate what would otherwise be a series of interrupted walls and oddly shaped alcoves into a unified gallery and give it a special, extraresidential scale and character. A short wall is placed at an angle at either end of this corridor/gallery to visually terminate the space. Midway down the gallery, the space opens out to the left to reveal a dining room. This can come as a shock, so successful has Hasegawa been in creating a gallery ambience. It is as if the spatial warp produced by the converging walls were somehow due to our own sudden disorientation.

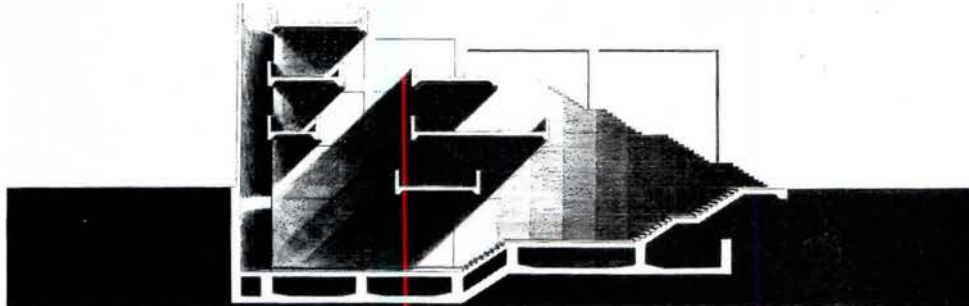


The street facade, across page, and in context, right. Sixth floor apartment/performance space, above right. Fifth floor hall, above.

The living room that doubles as a hall, more intimate than the one below, is floored with the same slate that covers the rest of the apartment. The lowest of its three levels can serve as a stage, and the cruciform columns provide an unobtrusive, effective frame for a performance. A roll of the revolving door, furthermore, can bring the cylindrical pods into the living room—that is, turn them from concave to convex—thus expressing not only the functional possibility of transforming the living room into an extension of the public area but the fact that even our day-to-day lives, no matter how privately played out, have a histrionic dimension.

In the Aono Building, Hasegawa has provided an adroit and convincing solution for a fairly complex program. Her works in Matsuyama show new directions in the career of one of the most interesting architects in Japan today. H.W.





Commercial Building Cut Through by a Cascading Stairway

What do Peyton Place, Comme Ca Du Mode, Do! Family Co., Ltd., Isamu Arpège ("We love comfortable life with spicy taste"), and Alpha Cubic have in common? They all have shops in STEP, a commercial building designed by Tadao Ando and located in Takamatsu, a city in northeastern Shikoku.

STEP faces one of the covered shopping streets found throughout Japan. Extolled by Bernard Rudofsky and other observers, these arcades at their best can be fun and convenient, protecting shoppers from sun and rain. Too often, however, they are pedestrian in the negative sense—block after block of drab terrazzo paving, characterless shopfronts, and unsightly canopies—offering environments that estrange us from all weather, good and bad. There is little to distinguish one block from another, a situation scarcely remedied by giving them, as in Takamatsu, names such as "Joyful Town" and "Happy Town."

STEP is a reinforced concrete frame structure approximately 100 feet deep. From a 43-foot frontage—the top portion of its facade is cut off by the arcade canopy—it widens in the back, forming a key-shaped plan. There is a cleft down the middle, 10 feet wide, into which are squeezed an open stairway leading to the second and third floors and a shorter stair down to the slightly depressed first floor. At each level the passageway expands in the back, circling a light well that admits some light to the lower floors. Two other stairs, one in the rear and the second facing a side alley, connect all four levels.

Ando differentiates between the basic structural elements, which are exposed concrete, and his space-enclosing walls, which are finished in tile. The order imposed by the regular grid of columns and beams allows him to freely manipulate spaces to picturesque effect without endangering the overall unity of the scheme. STEP is a small building—with a total floor area of 12,000 square feet—but Ando has managed to imbue it with all the atmosphere of a Mediterranean hilltown. There is some climatic rationale. Kagawa Prefecture is the sunniest area in mainland Japan, a fact reflected in its

olive groves and its traditional salt-manufacturing industry based on the evaporation of brine.

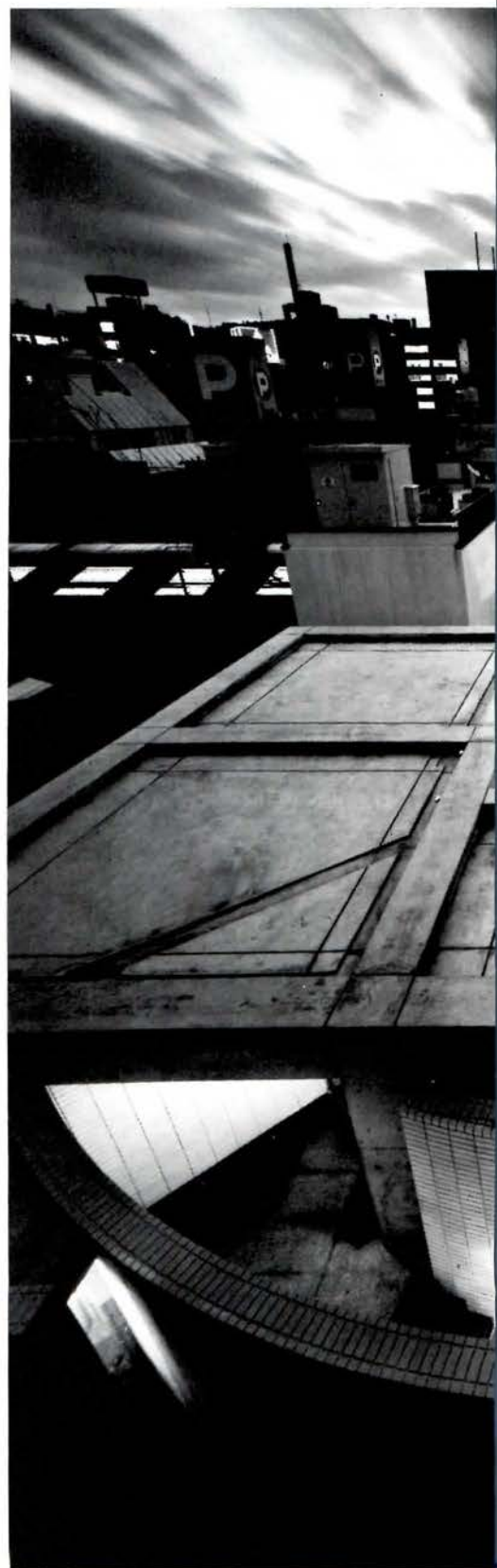
Tadao Ando has in STEP created an extremely successful alternative to the organization of the typical Japanese arcade. He always has, however, a more ambitious and problematic goal, the recovery of "the austere yet intense way of life" based on close contact with nature that the Japanese have lost in the process of modernization.

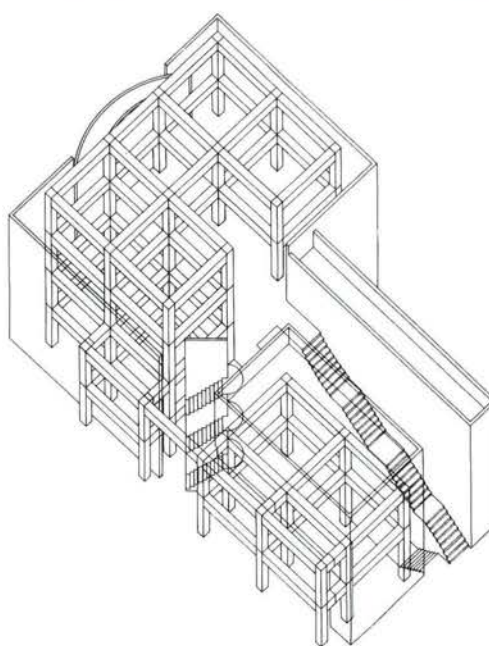
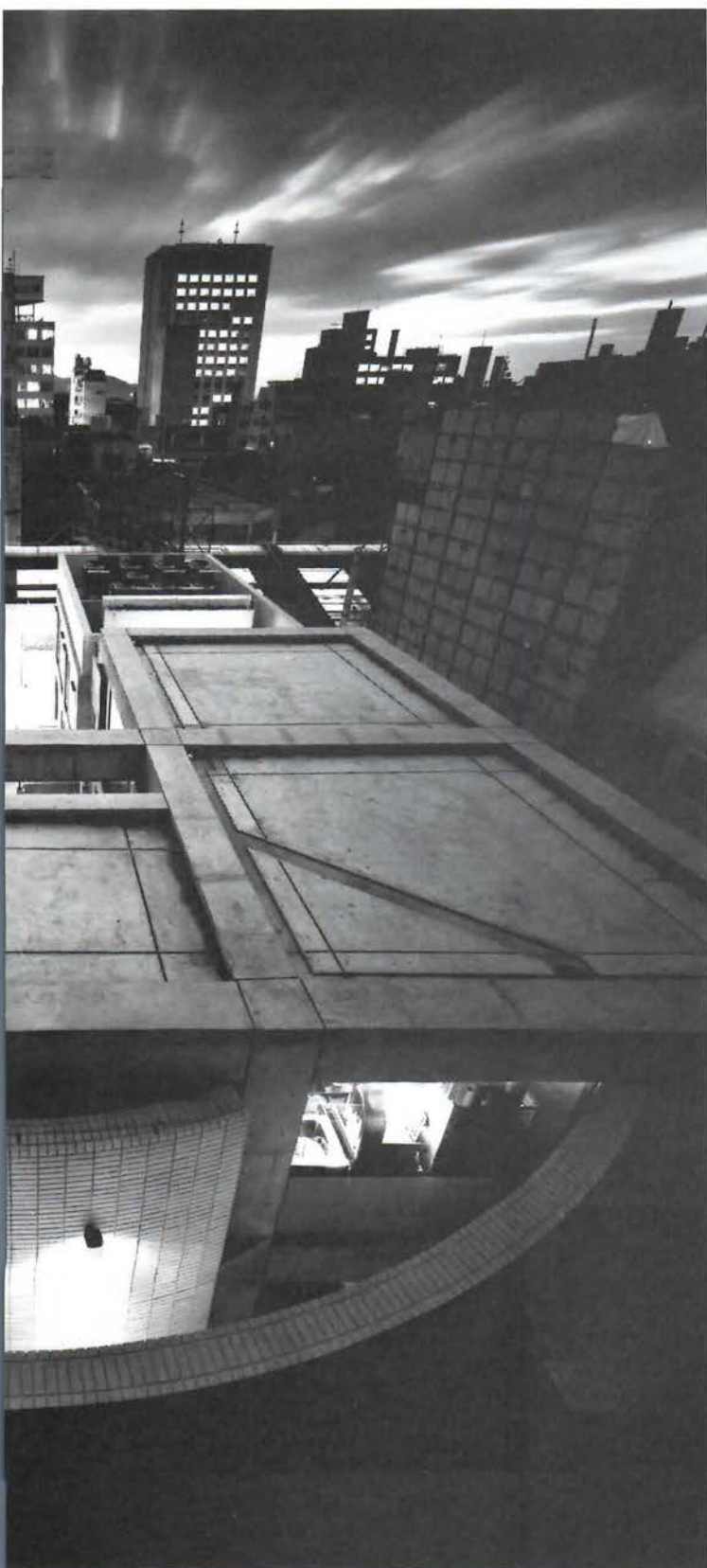
Ando acknowledges that nature is not always benevolent. In the Exhibition of Contemporary Sculpture at Lake Biwa in 1981, for example, he provided five squares of compacted earth, each 83 feet square, for the setting of the exhibition. Of these, one square is eaten away by the lake adjacent to the site and another disappears under a cliff.

Ando's houses are almost always divided into two parts separated by a courtyard. The Azuma House, which Ando regards as his prototypical residential work, is split into front and back sections, and persons must traverse the open space to get from one to the other. Ando has written: "In spite of the problems with rain, it is important that the occupant enter into a complete relationship with natural phenomena."

In his commercial buildings Ando has expanded his message, in effect declaring that entering into "a complete relationship with natural phenomena" makes us not only better individuals but more willing customers. It is apparent that he has many converts. Ando has done a number of such complexes, large and small, in the Osaka-Kobe area as well as in Takamatsu, geared to younger, hardier souls who presumably do not mind getting wet when crossing an open courtyard to price an Issei Miyake outfit or a pair of Adidas. For them Ando makes shopping a dramatic occasion. He creates truly exciting sequences of open and closed spaces, of light and shadow, in sharp contrast to the dull narrative that characterizes the typical canopied street. This by itself is a considerable achievement.

Whether he succeeds in doing more than this—more than adding the spice of austerity to otherwise comfortable lives—is not so easily answered. Nevertheless, Tadao Ando continues to be both practiced professional and advocate of stoicism. H.W.





Across page, section and overview; this page, below, the bisecting stairwell.



Photographs by Mitsuo Matsuoka © Shinkenchiku

Czechoslovakia

Shining Subway Station Opens from a Stately, Refurbished Park

The King George of Podiebrady subway station, situated in the residential Vinohrady district of Prague, takes its name and themes for its artistic embellishment from the Hussite era and its King George. The main entry hall and underpass entrance serve the four corners at the crossing of Vinohrady Avenue and U Vodárny and Slavíkova streets. The layout, by Ondrej Novák, Václav Rezáb, Ermin Stehlík, and Petr Chaura, was designed for maximum convenience of pedestrians and minimum interference with parking on adjacent George's Square and Svatopluk Cech Park. The architect was Anna Hübschmannová.

The station proper was tunneled as three naves, with the middle one shorter than the other two, leaving room for building an additional escalator to a future entrance serving two nearby streets. The central nave is connected by seven passages with the station's lateral tunnels. Pillar footings are between one and two meters wide; pillars were narrowed from an original width of three meters to 75 to 100 centimeters, establishing a standard for the system. The entrance hall and underpass entry are designed as continuous spaces, separated only by a glass wall. A newsstand, florist shops, and public toilets are off the underpass.

All interiors follow a consistent esthetic scheme, with blue-green as the principal color. Vaulted and flat ceilings are of ano-



*Left and across page, interior views;
above, overview and fountain sculpture.*

dized aluminum panels, wall facing is Yugoslav Kanfanar marble, columns are clad in vertical flaked-in strips of unequal width, and dark domestic granite is used for paving. Recessed, uncovered fluorescent tubes are used for maximum lighting and ease of replacement.

The landscaping of the adjacent park follows its original version as closely as possible. All new elements—the entry to the underpass, the ventiducts of fair-faced concrete with stainless grates by Sculptor Petr Sedivý, and the sculpture in the park by Sedivý and architects Hübschmannová and Beryl Filisková—were designed as contemporary statements.

The fractured, granite disk of the sculpture symbolizes the division of the Czech nation in the Hussite era, while its five fountains recall the continuous impulse toward unification.

A relief of King George's crest, executed in Yugoslav Vincuran marble, is situated in the exposed southern soffit wall of the underpass. Also in the underpass below Vinohradská Avenue are sets of ceramic inlay with two themes. The eastern wall displays images of the Czech kingdom—the shield, Prague, bridge towers, the Czech lion. On the western wall are symbols of the Hussite era.

IVAN HORKÝ

*Mr. Horký is secretary general of the
Union of Czechoslovak Architects.*





Yugoslavia

Winter Olympic Stadium Dominated by Huge, Angular Trusswork

Sports arenas have become the cathedrals of our time, especially those for world competitions and Olympic games. The most important in Yugoslavia is the Zetra, built for the Winter Olympiad of 1984.

For the first time since the assassination of Austrian Crown Prince Ferdinand in 1914, which triggered World War I, Sarajevo will again be a focus of world attention next February when the 14th winter Olympic games take place in and around this semi-Oriental city of 500,000.

Sited on 40 hectares, the Zetra complex includes a stadium, Olympic hall, and skating rink, all designed by local architects: Alikalfić, Dapa, and Morankić. The elements are terraced to fit the sloped site. The stadium can hold 50,000, with covered seating for 18,000. Construction lasted six months at a cost of \$5 million. It is here that the ceremonial opening of the Olympics will take place.

The most challenging element in the Zetra complex was Olympic Hall, costing \$17 million. During the Olympics, it will be used for hockey, figure skating, and the final ceremony. Post-Olympic use can be varied and flexible, because of movable walls and demountable seating. After the Olympics, the 105x65-meter arena and 60x30-meter ice rink will be covered with polyurethane paving and serve for gymnastics, boxing, and other sports with a spectator capacity of from 4,000 to 12,000. The high-tech press room for 400 correspondents will be transformed into three auxiliary sports areas.

Unlike most high-tech arenas that are painted in different, usually primary colors, here everything is a neutral tone to focus attention on the players.

Inspiration for the Olympic Hall probably came from Norman Foster's Sainsbury Centre, where, as at Zetra, a single cross-section is extended longitudinally, so that two elevations are identical to the section. The hanger-like expression is also achieved by having the roof and sides the same. One facade, however, is curved to fit in with surrounding mountain slopes. The trusses, like pointed bones on skin, contrast sharply to the smooth, flat volumes. Cladding is copper, echoing the city's many copper-roofed mosques.



Goran Kukic



Goran Kukic

Top, hangar-like Olympic hall, with its dramatic, angular trusses. Above, interior, with Olympic rink.

Next to the Olympic hall is the racing skating rink. At a cost of \$6 million, it is functionally connected to the Olympic hall, and unlike rinks used for previous games, which were built flat on the ground, this one is on a reinforced concrete slab raised above 16,000 square meters of storage space.

In these times of economic crisis, when

Yugoslavia is following a policy of maximum exports and minimum imports, it is important that all materials and equipment (except for Dutch-produced lighting systems and American-produced acoustics) are domestic.

The Zetra project won the Borba Prize in 1982, Yugoslavia's most important architectural award. LENKO PLESTINA

Mr. Plestina is a professor of architecture at the University of Zagreb and a practicing architect.

Saudi Arabia

Sports Facility Under An Exotic Tent of Two Fabric Membranes

Frei Otto is, of course, known as a pioneer in lightweight structures, and for developing design systems for tent, tensile, pneumatic, and cable network structures. His work, which echoes shapes found in nature and rejects preconceived styles, has been called organic, even romantic. Yet he is firmly rooted in the rationalist tradition in regarding esthetics as being determined by structure. For him, as he said, "it was—and remains—a fact that all building is structure." Mostly a consultant and adviser now, Otto is director of the Institute for Leichte Flächentragwerke and of the Atelier Frei Otto.

This giant tent designed as a sports facility at King Abdul Aziz University in Jeddah was used for the first time in the spring of 1981. The structure covers 7,500 square meters and includes movable and stationary platforms, three playing fields (44x22 meters each), plus three smaller exhibition courts.

The building, originally planned with a conventional, suspended roof, was turned into a tent for cost reasons. Despite its great size and antediluvian appearance, it is reminiscent of traditional Arab fabric structures. Construction consists of a steel cable net—with a grid of 50 centimeters, cable thickness of 12 millimeters, and a maximum free span of 100 meters—that is stretched over eight tubular steel masts. The steel net, however, is no longer visible. A roof membrane coated with a heavy layer of woven polyester covers its exterior, while a lighter one lines its interior. The space between the two layers serves for natural ventilation. Air circulates between pleated openings in the two skins and those at the peaks of the steel masts.

As yet, the huge sports center stands alone in the desert. Whether, as originally planned, a "sports village" of small buildings for eating, changing clothes, etc., will rise on its north, remains to be decided. The architect was Büro Gutbrod of Berlin, with Atelier Frei Otto as consultant. A.O.D.

Huge desert tent/cum stadium consists of exterior and interior membranes over steel cable net stretched over eight masts.



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France

A Kit of Parts for Taking the Curse off of Bland Housing Blocks

In the lace-making Normandy town of Alençon an attempt has been made to change a rigid, rectangular, and gray area of housing into something more habitable. Architects, sociologists, planners, and politicians have been locked in debate on the future of the estate. Their discussions have led to local action that has created a remarkable prototype that may well have repercussions on public housing schemes throughout the world.

The project coordinator is a past master at breaking down the more grandiose expressions of modern architecture in favor of a populist approach. In the early 1970s, when the debate on public participation in planning and architecture was much in vogue, Belgian architect Lucien Kroll commenced work on his revolutionary designs at the University of Louvain, Woluwé, near Brussels. It is an informal ensemble of structures that make up a kind of "collage" urban village, which grew out of students telling the architect what they wanted.

Change was badly needed in Alençon. A conventionally rigid solution for public housing had earlier been adopted, and like so many schemes of this sort in France it has engendered deprivation, despair, and even humiliation. New inhabitants sought to escape soon after they



arrived. Since 1976 Kroll and his team have been attempting to change things in Alençon. Here they have created a separate but parallel history to their work at Woluwé. Again they are beginning to see their ideas receive worldwide publicity through the architectural press. And they have been fired for political reasons.

Kroll was invited to Alençon as coordinator in order to apply the most stringent measures to the so-called ZUP Perseigne. This typical French mass housing estate in the suburb of Perseigne comprises characterless slabs of industrialized concrete, devoid of architectural intentions and lacking in social aspirations—mindless, in other words.

Nationally, these estates are the reposi-

tory of approximately a quarter of the French population. At Alençon half of the town's population of 35,000 is housed in such developments, unequally divided into the units provided by the government sponsored HLM and private housing associations.

The ZUPs (*zones d'urbanisation prioritaire*) can be compared to those "progressive" industrialized slab and tower block estates that were built all over Europe in the late-'50s and '60s (indeed, many of them using French systems). These horrors represent the political and constructional ineptitude of the "enlightened" politicians of the day. Is it any wonder therefore that the town of Alençon decided to seek out the possibilities of change? But what sort of change? That of course became the big question.

When you start with the idea of change but without any idea of what that change can produce you may well be excused for feeling nervous, particularly if you are a politician. If you are a householder it may well appear even more frightening: Indeed, you may have to pay for change. Also, clearly, one householder's ideas will differ, sometimes greatly, from another's.

Kroll was experienced in such questions and at Alençon was able to draw together a working team (including the deputy mayor and planning committee chairman), an experienced planner, and project architect M. Chifflet to attempt to answer them.

So far two major prototype schemes have been carried out by Kroll and his team. Since they left in 1981, further work has been done. Kroll changed the appearance of one of the rectangular slab blocks, provided a new Social Security Center as a central theme structure, and changed the rigid road pattern outside this building by the provision of earth mounds and winding roadways. A much greater amount of work, however, has been carried out based on Kroll's ideas—but not his detail design—on a new college situated at the hub of the estate. The College Louise Michel is situated in newly paved informal spaces and, consisting of rural cottage-like structures, forms an educational area within the larger space originally created by the regular slab blocks. It conveys to the public the notion of change. It is informal in concept and links with the existing housing blocks.

The lesson to be learned about transport planning in estates such as these is





to allow freedom of access but to cut down the opportunities for excessive speed. Kroll's idea was to interfere with the straight roads by introducing different surfaces (granite paving slabs as well as tarmac) and by building up earth mounds to change the profile of the landscape. These artificial mounds, which are now just reaching maturity, add a third dimension to areas between the blocks and provide greenery and visual interest in an area previously bereft of such luxuries.

The blocks themselves—concrete, long, and repetitive—have been altered by the introduction of bay windows, colored or solar panels, flower boxes, and new lean-to structures offering, again as prototypes, a wide range of possibilities. People can choose, from this variety of examples, how to change their own domains.

In reality these additions and alterations have almost miraculously humanized the existing environment, offering a new sense of scale and complication. Instead of long vistas through parallel blocks the eye rests on informal conjunctions of concrete slab blocks cut into by informally shaped buildings in warmer materials. Now, it appears, the residents want to stay.

The gray color of the original concrete gives way now to the familiar Kroll tiled panels and to brick and the subtle shades of various timbers, to the irregularities created by roofs that are no longer flat but pitched, hipped, and leaned-to. These "conventions" have been taken up by other architects now working on the village college buildings and applied with a little more enthusiasm than is probably necessary. But Kroll's originality and inventiveness still shows through. D.S.

Across page bottom: typically grim slabs of Alençon's public housing; above it, a portion of a housing block enlivened by color, a bay window. Above, a similarly transformed structure, where earth mounds add both greenery and a pleasant irregularity to the site.

Italy

The First Built Parts Of a Cemetery Famous Before Building Began

Italian architect Aldo Rossi's new cemetery at Modena (near Bologna) is still only partly realized, but already it has become one of the most publicized buildings of our time. It has been the subject of articles in *Oppositions*, *Contropazio*, and *Casabella*; Rossi's poetic and evocative drawings of the design, reminiscent of de Chirico paintings, have been even more widely shown; and, if we are to judge from the appearance last year of a 17-page, footnote-laden evaluation by Eugene J. Johnson in the *Journal of the Society of Architectural Historians*, it has become, even before completion, part of architectural history. Not since Philip Johnson emulated Mies' Farnsworth house a year before Mies even built it has a building's fame so preceded its construction.

Rossi's original design was prepared in collaboration with Gianni Braghieri for a competition held at the end of 1971, and in June of the following year the jury, which included architects Carlo Aymonino and Paolo Portoghesi, awarded Rossi the six million lire first prize (about \$5,000). Rafael Moneo wrote in *Oppositions* that the choice "consolidated and reinforced the movement known as 'La Tendenza,'" a movement that, under the slightly more familiar label "neorationalism" could be said to include not only Rossi but also juror Aymonino and the young Swiss superstar Mario Botta. Those who carried the jury for the Rossi entry felt, according to one of Eugene Johnson's

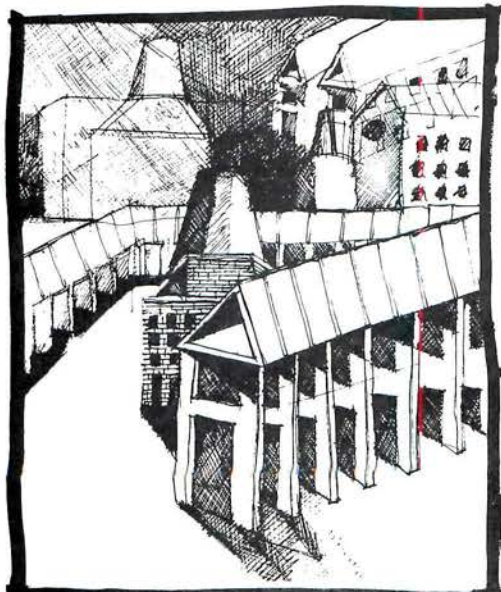
James Timberlake

Left, '77 Rossi drawing of cemetery. Above, first wing stretches across landscape.

footnotes, that the serene order of the design represented a desirable antidote to the chaotic growth of the modern city. But the choice was not unanimous; some dissenters feared that the design's forms were so monumental that they would compete with the skyline of the city and that its "collective ethos" (it is, unfortunately, a design that seems to provoke such terms as "collective ethos") might crush individual feeling.

Rossi's potentially serene, potentially crushing design was basically a large (1,050x575 feet), rectangular ring of building two floors high, almost identical in

size and shape to the existing 19th-century cemetery, designed by Cesare Costa, to which it is an addition. Within the rectangle was to be a composition of striking, elemental building forms—a low U-shaped structure, a large cube, a stepped pyramid, and a truncated cone—and all were to be linked by a network of underground passages. The hollow cube was intended to serve as a war memorial; the cone to contain an amphitheater for funeral services and, below it, a common grave for the unidentified and indigent; the function of all the rest being the accommodation of rows of marble-faced casket niches, stacked five high from floor to ceiling and repeating linearly beyond number, a burial arrangement that is,





again, identical to that of the Costa cemetery and to cemeteries all over Italy.

In 1976 Rossi revised his design. The underground passages were eliminated, and the enclosing wall paralleling the street was removed and replaced with a stepped grandstand-like element facing into the rectangular space. The burial space thus lost was then compensated for by raising the two-story buildings to three stories and by adding a new linear wing between the old and new cemeteries, this new wing to be one functional floor raised above a two-story colonnade, thus serving as a ceremonial entrance to the new complex; the plan calls for this wing to be extended across the present street and serve also as a link to new parking.

Constructed so far are most of this linear wing and the part of the three-story enclosure that is next to it; under construction is the great hollow cube. And what is the effect so far?

"Temple of Death! Your aspect should freeze our hearts!" This exclamation is from Étienne-Louis Boullée's 18th-century treatise on architecture, a work that Rossi has translated into Italian, and the influence on Rossi of the elemental forms of the French rationalists Boullée and Ledoux is undeniable.

Yet, approaching this already historic site across a flat, open field on the outskirts of Modena, one may be excused for having, at first glance, a reaction somewhat less sublime than a frozen heart.

One may, indeed, be left cold, which is not quite the same thing. In the long process from competition to construction, something has gone wrong here.

The most obvious thing missing, of course, is completion. Much more than in most cases, Rossi's design is a strongly unified composition; to see only two parallel lengths of building and, a whole city block away, a scaffolded cube, is to miss much of the impact one still expects from the finished work.

Yet missing also—and we should have expected this—is some of the sinister mystery of Rossi's drawings. In them the ink-black shadows stretch terrifyingly long across the page; nature, alas, is no match for Rossi and is content to cast paler,





less dramatic shadows. Missing, too, necessarily, is some degree of abstraction. The built shapes are stark and simple ones, certainly, but they cannot hope to be as diagrammatically pure as their drawn representations. Just to keep the water out, the eaves and window sills must project a bit beyond the plane of the wall; the texture of the poured concrete is naturally uneven; the doors must have door hardware—in short, built reality is ever so slightly more human, ever so slightly less severe, than the concept.

One might even think, seeing the dusty pink walls and bright blue roofs across the field, that some degree of appropriate seriousness is missing too, for these are not colors we think of as funereal. As one comes close enough to see the mottled rendering of the walls, however, this thought fades, for the surfaces convey already—and surely intentionally—the impression of age, as if this structure

Across page, interior of new building lined with niches for caskets. Right, old cemetery. Above, the new from the old; top right, the old from the new.

had been weathering for centuries.

And when one considers Rossi's work in combination with the Costa cemetery and with the smaller, intermediate Jewish cemetery, all such doubts disappear. The dusty rose is a perfect complement to the worn brick of the older walls, and the stretch of building lifted on its colonnade so that it is above those walls, allowing views under and beyond it, asserts a sense of rightness that, considering the new buildings in isolation, is not understood. Perhaps the leader of the celebrated "neorationalists" would not be flattered by being praised for something as prosaic as contextualism, but he has achieved it.

Sensitive as its relationship to its older



James McDonald



James Timberlake

Stanley Abercrombie, AIA



James McDonald



neighbors may be, Rossi's work must also be evaluated on its own. Its most impressive quality, but not an ingratiating one, is its severe plainness. From the outside, the completed building elements are startling in their regularity, their repetitiveness, their endlessness: They have the look of industrial building innocent of design. Yet this character is not achieved accidentally, but only through careful and deliberate design editing. The square four-

In both photos, colonnade is at left and three-story wing to its right.

paned windows are an example; even more ordinary than a typical stock window, they are so calculatedly simple that they can go almost unnoticed.

To step into these unnaturally simple sheds is to experience an electrifying contrast. Here there is an even greater impression of repetition, this time the repetition of overwhelming rows and columns of burial compartments, and the shock comes from the fact that each of these myriad compartments is individualized. Outside, the piers of the portico and the windows in the wall are all the same;



inside, each rectangular plaque is different. Each has its own name, each its two dates, almost every one its own small photograph, each its tiny votive light, each its bud vase—some empty, some with a fresh flower, some with a wilted one, some with a plastic one, one even with a red electric rose glowing in the dimness. We would have to be callous indeed not to reflect here on the personal/impersonal enigma of death.

Even outside, these buildings, though plain, are far from mute. But they speak obliquely. Simple though their geometry

is, it is not quite Euclidian. We are not invited by Rossi, as by Le Corbusier, to enjoy "the knowing, correct, and magnificent play of masses brought together in light." These forms symbolize something less direct, something less joyful, something that shades the clarity of cubes and spheres with references to the human condition. "These buildings are like a city," Rossi has written: a city of death. More specifically, he sees the hollow cube as "an abandoned or incomplete house, with empty windows" and the truncated cone as "the chimney of an abandoned

factory." Some of these metaphorical forms seem to have served Rossi in other ways at other times: The colonnade here, for example, with its flat concrete piers, is remarkably similar to the one at the base of his 1970 Gallarate housing block in Milan. (But, then, why shouldn't the house of the dead resemble the house of the living?)

Some of the meanings, too, are distressingly esoteric. What, exactly, is a factory chimney doing here? For Eugene Johnson, writing in the *Journal of the Society of Architectural Historians*, it conjures up both the notion of cremation (though cremation will not take place there) and the nightmare of the concentration camp. "With this cone/smoke-stack," he says, "Rossi has converted an allusion to oppression and destruction into a monument to the oppressed." Well, maybe.

For Charles Jencks, in *The Language of Post-Modern Architecture*, Rossi's work, particularly at the Gallarate, "invariably recalls the Fascist architecture of the '30s." But for Manfredo Tafuri, "... the accusations of fascism hurled at Rossi mean little, since his attempts at the recovery of an ahistoricizing form exclude verbalizations of its content and any compromise with the real."

In any case, Rossi's forms seem to be significant in both senses of the word: They are important, visually arresting forms, and they are also forms that have some meaning. If their meaning is not quite the same for one observer as for another, perhaps that is not a failing, but rather a desirable flexibility of meaning. The Modena cemetery is an ambitious, highly skillful, and deeply serious work of architecture. While its reality catches up with its reputation, it deserves our appreciative patience.

STANLEY ABERCROMBIE, AIA

Qatar

A University Campus Whose Building Blocks Echo Indigenous Forms

The University of Qatar, by the Egyptian architect Kamal El Kafrawi, is a large contemporary campus that meets technological and managerial requirements, while still maintaining the spiritual presence of Islam. From the outset, El Kafrawi insisted on incorporating modern technology, while rejecting the importation of building forms from Europe or America, as he believed these would disturb the perception of an Islamic environment.

El Kafrawi began by carefully studying the traditional ways of life and architecture in Qatar. His project began to take shape in 1975, construction started in 1980, and now some parts of the first phase are completed. The campus is about seven kilometers from Doha in Al Markhiah, two kilometers from the gulf shore, and is situated on an elevated site. It will eventually include one college of education for men and another for women, a college of civil aviation, and a college of science. The colleges for men and women are on opposite ends of the campus. Even the circulation paths for the various campus facilities are programmatically separated. Also on the campus are a mosque, a main auditorium, a library and cultural center, central administration and health services, a faculty club, amphitheater, student housing, staff housing, and recreational facilities. Circulation is by a system of internal and partly covered courtyards, which is more appropriate to the hot climate and the Arab cultural tradition.



John Donat

The architect put strong emphasis on natural ventilation, which is one of the many ways he related his complex to the traditional architecture of the region. For specific models, he took the few still existing wind-tower houses in Doha and modernized the basic principle.

Another element of this linking of old to new is the use of natural light in both the academic and residential buildings. In order to control the intense sunlight of the region, he reinterpreted traditional devices that had been successfully employed for centuries. Among these are

Modular units are an inventive play on traditional 'wind-tower' houses.

indirect light, which is common in all traditional buildings of the region; the use of screens in carved timber in the tradition of the Arab Moushrabir; the admission of light from shaded surrounding areas; and the use of diffuse overhead lighting from roof openings in large spaces.

The emphasis on natural ventilation and light determined the shape and size of individual lecture rooms and residential units.

The Middle East is in a phase of fundamental change, and the results will influence its development for centuries to come. Numerous universities are being planned and built by Western architects. It is of greatest significance that the one university that successfully combines regional cultural values with contemporary technology is by an Arab architect.

UDO KULTERMANN

*Mr. Kultermann is professor of architecture at Washington University, St. Louis. His most recent book is *Architekten der Dritten Welt* (Architects of the Third World).*



Courtesy of Kamal El-Kafrawi, Doha

India

The Offices of an Architect Who Holds To Traditional Values

From his early contacts and long collaboration with Le Corbusier, when he was building in India, Balkrishna V. Doshi learned "to observe and react to climate, to tradition, to function, to structure, to economy, and to the landscape around me," as he said in 1981. And from Louis Kahn and his architectural masterpieces in India, Doshi learned about art and architecture as the achievement of universal harmony and the articulation of spaces as a meaningful social order. But, Doshi realized his architecture had a foreign look, which he attributed to being educated outside of India.

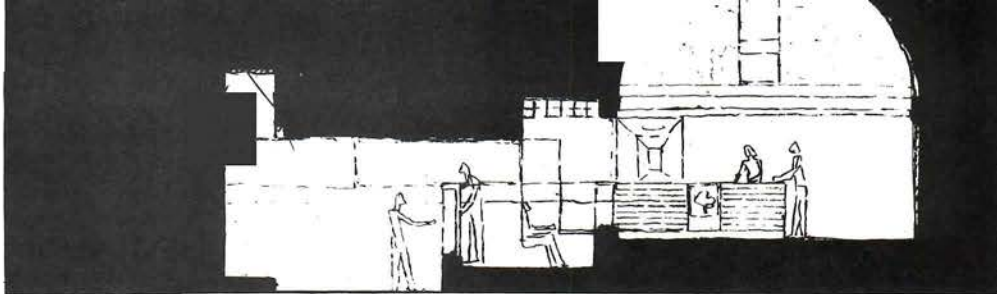
In his most recent building Doshi has overcome this handicap. It is his own architectural office, "Sangath," in Ahmedabad, completed in 1980.

Sangath means "moving together through participation" and purposefully goes beyond facilities for architecture and planning offices to encompass research, experimentation in the arts and crafts, building technology, and, as Doshi likes to put it, "the exploration of the artistic, social, and humanistic dimensions of technology."

To pursue these multiple goals the complex incorporates a set of open and enclosed spaces, which have in common what Doshi once described as the essential of Indian village life, sharing. The juxtaposition of enclosed and open spaces is one of the links that makes Sangath a traditional building, one that receives its strength and beauty from local materials, skilled and unskilled local workmanship, and local architectural values. One of the results of reintroducing traditional values is the outdoor stepped seating amphitheater for lectures and other gatherings.

The dominant shapes of Sangath are vaulted forms, which, again, were derived from a combination of local traditions, materials, and historical examples. From these elements Doshi created unified new shapes. In addition, by sinking the floor in the main studio below ground level, the enclosed spaces are dynamically interconnected inside and outside, giving the vaults a dominating presence.

With the help of movable formwork, the vaults of Sangath were constructed



with hollow clay tiles sandwiched into the walls. The outer skin is covered with broken glazed tile pieces. Doshi's use of this traditional technique reduces the heat inside the building. Airconditioning is achieved not by means of mechanical technology, but by reinforcing traditional cooling devices that are enhanced by water screens through which cool air is drawn and blown into the interior spaces.

The vaults of Sangath in section, top, in place, above, and in construction with the help of movable forms, left.

Sangath is, in fact, a powerful architectural manifestation of an independent and original Indian architecture, creative in its rediscovery of traditional and local elements in harmony with site, people and their past. Doshi articulated this when he spoke at the Aga Khan Seminar in Amman in 1980 about long-term versus short-term perspectives in the continuity of great architecture: "There's only one choice—that is, benefits for society at large and, therefore, a slow pace of development and hence, long-term perspective. Short-term goals compel the society to maximize gains but destroy local resources and skills in the process. This also leads to decline in self-reliance and loss of economic and social independence. Therefore preservation and conservation become very vital. In short, our design should be based on local potentials, and reliance on external help should be minimized to encourage public participation rather than in the exclusive control of monopolies."

Doshi concluded: "Constraint is a virtue and it must be the basis of design. . . . Buildings should avoid sophisticated technologies if they are not capable of assimilation, and the importation of technologies should be reduced so that society can remain self-sufficient." U.K.

South Africa

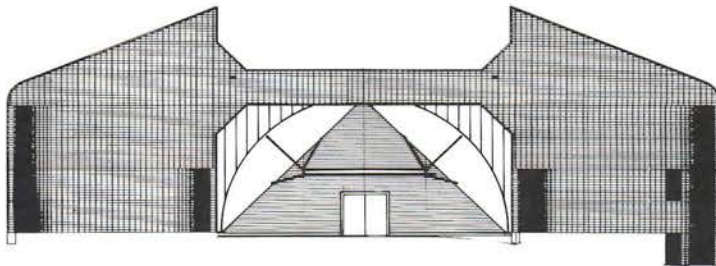
Small Office Building Gains Depth and Visual Interest from Sun Shades

With the reduction of mining activity in Johannesburg, large tracts of land just south of the city are being transformed into residential, commercial, and industrial areas. In one of these, called Ormonde, which is being developed for offices planned in park-like settings, is Hans Hallen's recently completed two-story headquarters building for SACCA, a food-distribution firm.

Its north and south elevations are flat topped, low-lying, shiny white glazed ceramic tile rectangles, opened up and textured through abundant glazing and exterior sunscreening. At the east and west these boxy shapes give way to truncated gables, especially dramatic at the west entrance facade, whose central space is a geometric confabulation of deeply recessed glazing. It is inset with two red epoxy-faced steel half circles—looking a bit like insect wings—flanking a gridded triangle of glass that frames the entry door. The east elevation, with sparse



Photographs by Hans Hallen



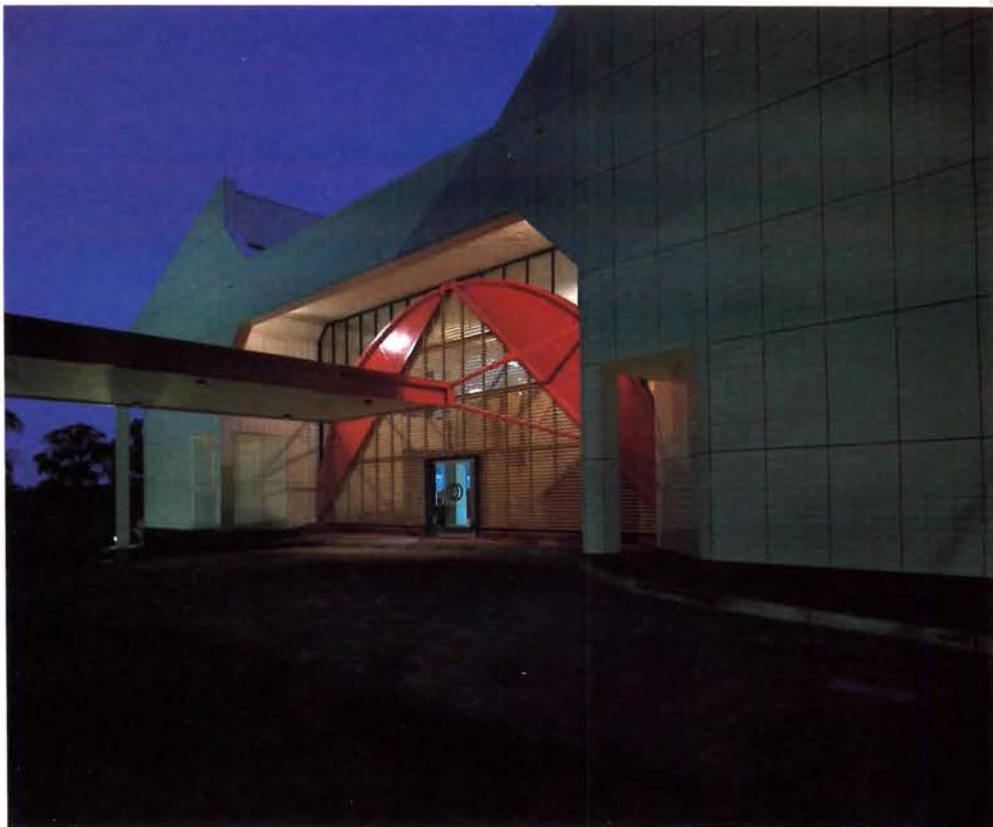
openings, follows the shapes of dining and board rooms behind.

The interior, housing 15 senior and middle managers, plus 100 other employees, is open plan with departments separated by low screens, planters, and the like. North and south windows are five meters high for broad views. Noise, the greatest problem in open offices, is kept down through full carpeting, acoustic spray plaster ceilings, and "pink sound."

For purposes of flexibility, airconditioning, lighting, and other electrical services are through trunks in a full access floor, 650 millimeters deep, with control panels for telephones and power at each desk. The only services provided in the ceiling are runs of incandescent track lighting.

Earth berms were used to hide the security fence surrounding the building and to partially conceal parked cars. A.O.D.

On this page, the west elevation and main entrance with covered port cochere, recessed glazing, and red sculptural elements, seen from inside in bottom photo. Across page: top, the east facade, and bottom, the north with external sun screen.



Australia

An Arc Ascribed on a Narrow Hillside Site Above Sydney Harbor

To an unusual degree, Australian architects have viewed their country and its culture as a projection of English and European values, much as Sir John Mandeville, in expressing the meaning of the word antipodes, asserted, "... we and they that dwell under us be feet against feet." Australian architecture has developed in much the same "feet against feet" manner, as an uncritical eclecticism imitating English and European models.

Andrew Metcalf, unlike other Australian architects who eschew ideology and theory, has been attempting to develop an intellectual framework for design. In doing so he has drawn upon American postmodern thinking, among other sources. This is reflected in this house he designed for Rose Bay, a Sydney harbor-side suburb.

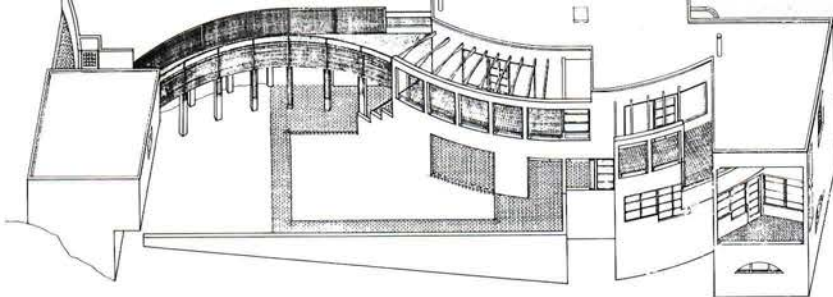
Metcalf was instrumental in 1980 in bringing postmodern ideas to the wider attention of Australian architects. In so doing he challenged the entrenched, if moribund, "Sydney School" that arose in the early-'60s as a reaction to the International Style. It owed as much to William Morris as to Wright, Aalto, or brutalism. The Rose Bay house's self-conscious application of postmodern thinking was relatively new to Sydney, so that Metcalf had to resort to lecturing on postmodernism to persuade the local council to accept its esthetic.

Andrew Metcalf's approach, notably his reliance on protomodern and early modern as well as postmodern, coincides with contemporary assessments made at Princeton and Northeastern American attitudes. The Rose Bay house is clearly indebted to Gwathmey Siegel, although the materials and execution are necessarily Australian. However, the exterior and, in particular, the convex double-layered west facing facade, is suggestive of Robert Stern's Westchester and Lang houses. In a recent interview Metcalf was careful to distance his architecture from postmodernism. It is equally true, nevertheless, that the



Max Dupain





Swimming pool, across page, fits into flattened S-curve of the house. On this page, stairway and upstairs kitchen.

design is inconceivable without reference to such American influences.

The house is located on a narrow site that falls steeply from the road toward the south; thus, the only relatively unobstructed view of the harbor lies to the southwest. The main outlook from the convex west facade is over an adjoining property obstructing the harbor view. The house developed as an isolated island along the east boundary at the lower end of the site away from the elevated street access. This dictated an arrangement where the living areas are on grade with the street, with the bedrooms below on the same level as the pool.

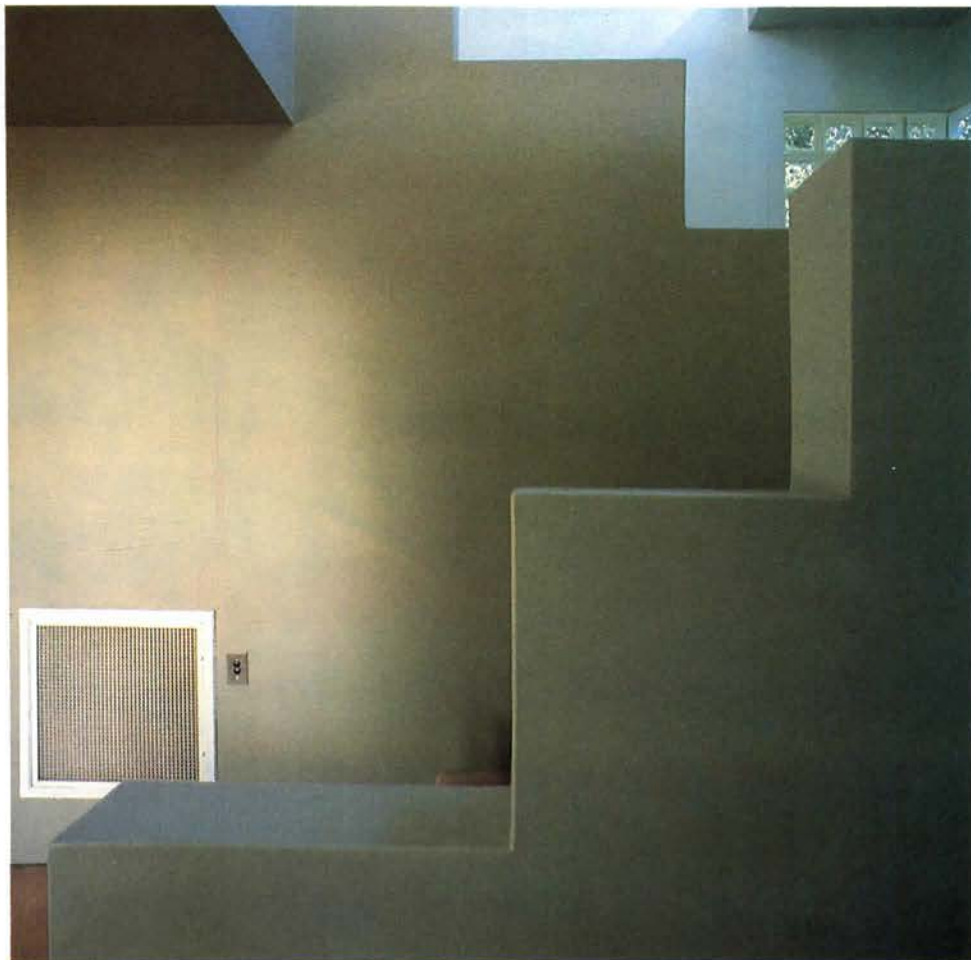
The harbor was an important factor in the design, even though the water is some distance from the house. The upper walkway and bridge deliberately repeat aspects of a ship's promenade deck, and the flowing curve was offered as a confirmation of movement.

There are a number of distinct themes running through the design that are not always harmonized. On one hand Metcalf has attempted to apply many of the lessons of postmodernism while on the other hand seeking to give their expression an Australian flavor. The choice of colors—blue, blue-gray, pink-beige, and yellow—is explained by reference to the colors found on the bark of Australian eucalyptus trees.

Andrew Metcalf chose a flattened concave-convex S-curve for the main west facade in order to allow "the house to curve out at strategic points to embrace the view, and then to enclose the swimming pool."

The house geometry involves a combination of curvilinear and rectilinear systems that are kept more or less separate from one another, the identity of each geometry being further heightened by the application of different colors. This strategy has been frustrated by the narrowness of the lot, which forces the curved planes back on the rectilinear body of the house. The two geometries are meant to be separate but are forced together and feel uncomfortable. PHILIP DREW

Mr. Drew is an architectural historian and critic; during 1982-83 he was a visiting professor at Washington University, St. Louis.



Max Dupain

Norway

Campus Organized Around a Series of Tall, Glazed Interior 'Streets'

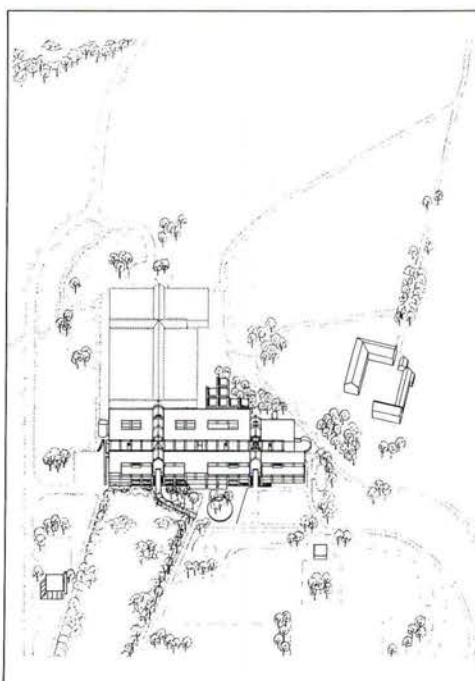
Trondheim University's new campus probably has the most beautiful site of any university in Scandinavia. Situated in the mountains, a few kilometers outside the city, it has a large, almost virgin, forested range to the south, and to the north, a magnificent view of Trondheim Fiord.

The new campus is the first stage of a project whose ultimate size has yet to be determined, though the original 6.8-million-square-foot building program seems somewhat optimistic.

In the optimism of the late-'60s, Norway's master plan for the university included the expansion of Trondheim University for 30,000 students. On this basis, a Scandinavia-wide competition was held. At that time, several different concepts for organizing universities were prevalent, as could be seen in other university competitions in Europe. Features they had in common were the possibility of expanding a campus in stages and allowing faculties or colleges to grow individually, achieving a high degree of flexibility in use of building facilities, and encouraging more interaction between faculties. Such requirements gave rise to the theory of structuralistic building forms, where a modular grid and basic building type allow freedom in altering the size and location of partitions and technical facilities. The program for the Trondheim University competition followed this new direction, and all the prize winning proposals were more or less based on it. Henning Larsen's winning scheme involved an architectural treatment of these principles that avoided a tendency to schematics and achieved a richness of form.

Another more controversial theory used in university planning is that of a strong integration in the existing city. The city university idea had its sympathizers among the youthful planners and educators, but no one really believed that a large university could be integrated into an older city. Therefore, several university centers were planned as part of new town schemes.

By the time the competition's second phase was held in 1970, the planned 6.8-million-square-foot university had been reduced to 5 million. The completed first stage is about 225,000 square feet, and



The campus is a crisp and highly integrated glass and metal 'city.'

the decision to build the second stage, of similar size, is not yet final.

The first stage has room for about 1,700 students, spread over a series of liberal arts departments, mainly in language, music, and drama. These nonlaboratory studies require a density of only 75 square feet of floor area per student as opposed to the planned laboratory facilities for chemistry and biology, which require about 350 square feet per student.

The concept of the scheme is a dense "city," consisting of three-story blocks, surrounding relatively small courtyards with glass-roofed streets between them, reminiscent of the century-old shopping arcades in Milan and London.

The ground floor houses common functions, such as the campus book store, a

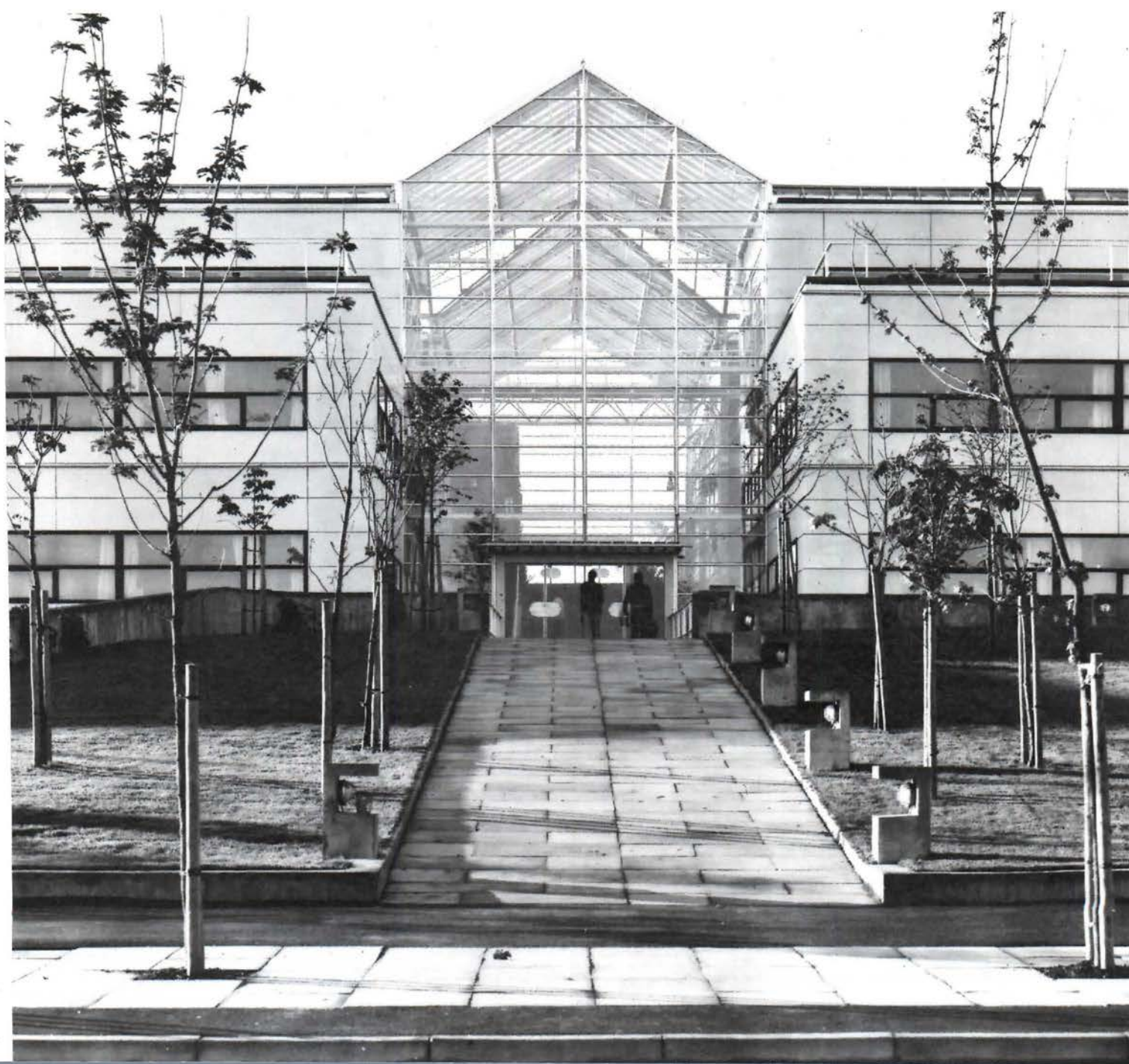
travel bureau, mini-mart, information offices, and auditoriums. Students and teachers from all departments have daily errands in this area, giving life to the streets and opportunities for informal meetings, which combats the isolation of faculty so characteristic of many older universities. Teachers and students alike confirm the positive effect these arcades have on daily life at the school.

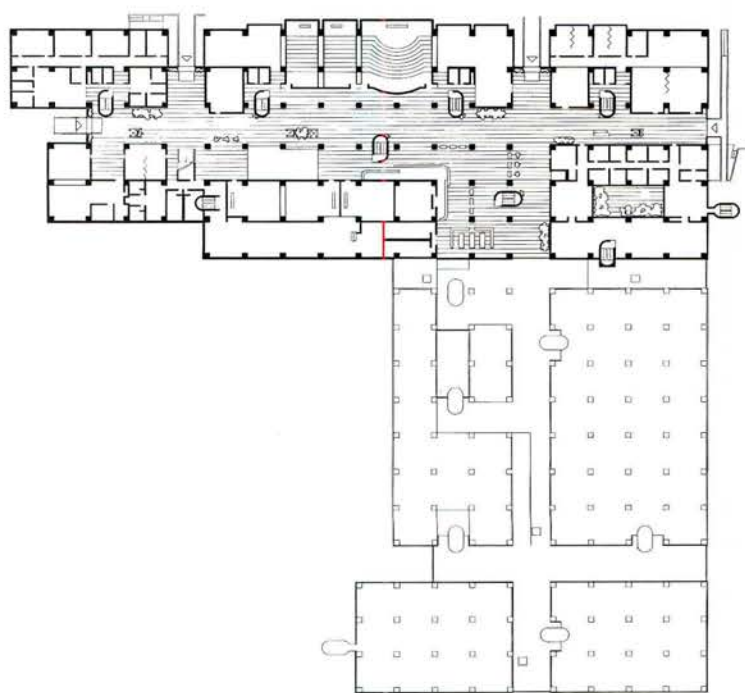
On the second floor are classrooms, libraries, and practice rooms for music students, etc. Similar areas are located on the third floor, which also contains research carrels as well as faculty and administrative offices.

The open bridges that connect the blocks can be linked up arbitrarily, enabling departments to expand from one block to another, and can also be used to connect related areas of study. Vertical circulation is by stairways or freestanding elevator towers, which are accessible for the wheelchair handicapped.

The glass-roofed streets give the university its special character, visually and socially. They also offer a pleasant climate with average winter temperatures around 10 degrees centigrade. Normally these temperatures can be maintained solely from heat loss through the lightweight outer walls of the surrounding buildings and from warm exhaust air from the ventilation system. Extra warm air can be induced, though this has not yet been necessary. The streets are ventilated throughout the year by permanently open louvers in the glass roof. This ventilation can be increased in summer by opening the upper part of the roof. This extra ventilation also functions as a smoke hatch in the event of fire.

The climate in these arcades is also favorable for subtropical plants, which are growing so rapidly that they will soon reach the roof, a problem to be reckoned with in the not so distant future.







The sleek, glass and metal campus contrasts strikingly with the older buildings and dense forests around it.

It has been claimed that the glass-roofed streets have not added to the building expenses. Square foot costs are relatively competitive with other contemporary universities in Norway. Even the heating costs seem to comply with local norms. Part of the expense for the glass roofing is compensated for by savings achieved by use of lighter than normal weight walls facing these streets. Similarly, awnings, windows, and shading devices could be made lighter and cheaper, and maintenance will also be less expensive.

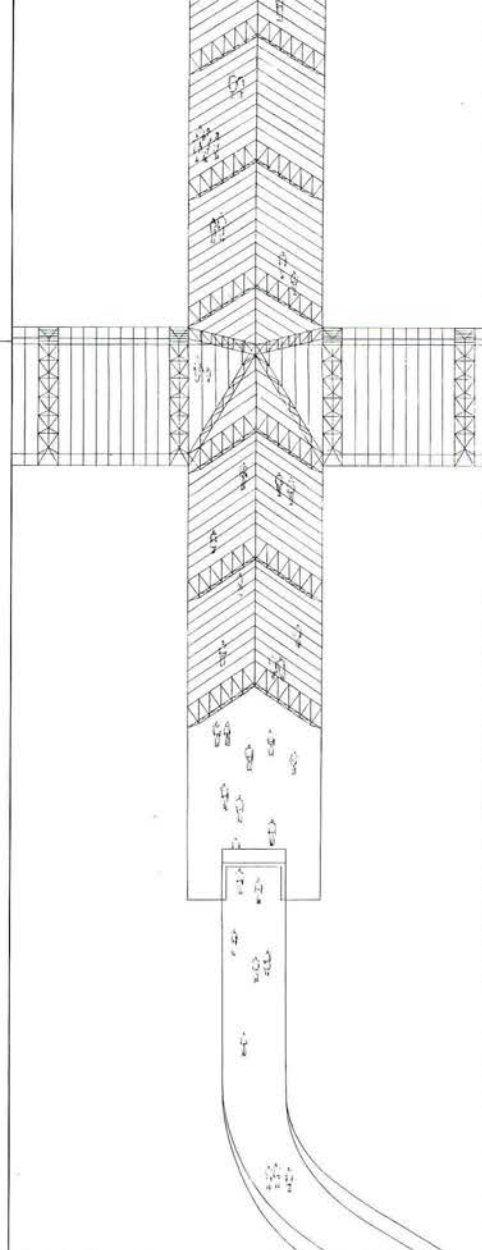
These arcades are excellent proof that strict planning principles utilizing both a

horizontal and vertical modular grid do not necessarily lead to monotonous or dull architecture. The main structure is capable of supporting a variety of elements such as bay windows, awnings, plant lattices, stairways, and elevator towers as well as the light-weight bridges. The ground floor shop windows can be easily varied, in some cases with open bays, creating small covered squares for exhibitions of informative displays. Moreover, spaces vary in size from small carrels to large, open library areas, from small meeting rooms to large auditoriums. A student representative emphasizes that there is seldom difficulty in finding a suitably sized meeting room.

Among the many outstanding features of the design is use of natural light, which

high in the northern hemisphere is quite different in quality than in southern climates, primarily because the winter months are without daylight while in summer it almost never gets dark. At Trondheim University there is a conscious attempt to bring a maximum of daylight during the dark winter months into classrooms and corridors. Traffic patterns have been planned so that one passes through a series of daylight levels, from the weakly lit corridors to the streets and bridges where maximum natural light is available. Also, the lower floor of the facades facing the arcades and courtyards are almost all glass, which is gradually reduced on the second and the third floors.

The design of the first stage offered a development process in which construc-



tion principles and new building technologies were studied and tested in close cooperation with state and local authorities. A building scheme of this complexity required dispensations from existing codes, especially fire laws, which were obtained after careful evaluation. The width of the arcades was determined by considerations of lighting, function, and architecture. The location of stair towers allows access for fire-fighting equipment.

The scheme is based on a module of 25x25 feet and a height of 10.5 feet. A column-beam construction is used, employing mainly prefabricated elements. The columns, formed as a lattice construction, were locally produced as four-story components. The erection of the superstructure only required a light-weight mobile crane, which could maneuver among the blocks. The reinforced col-

umns allow the passage of installations and ventilation ducts. The openings between each column's four legs are closed with galvanized iron lattices.

The open, column-beam structure has curtain walls on the street sides, framed in untreated pine with operable glazing. Awnings are used in areas where direct solar penetration can be a problem. The connecting bridges, elevator towers, and glass roofs are galvanized steel. Exterior facades are covered with high quality, white, asbestos-cement board. Exterior windows are framed in a combination of plastic and steel. Stair towers and some walls are red brick. Paving in the arcades, stairs, and bridges is red, square tiles. Almost all the materials employed are of Norwegian origin, and most of the prefabricated elements have been produced by local industries.

Right, two of the four-legged columns, enclosed with vertical grilles, that support space frame at pedestrian transept.

The users—teachers and students alike—express enthusiastic satisfaction with the buildings, both in regard to function properties as well as more irrational qualities.

But only relatively few rooms have access to the magnificent views. Many of the classrooms and offices are orientated inward toward the courtyards and arcades. This appears to be accepted, on the principle that a beautiful view is not necessarily a good feature in study areas, but can be enjoyed during breaks in the foyers, canteen, and a few of the meeting rooms and offices.

Henning Larsen has created both a beautiful, functional scheme and an exceptionally high quality milieu. P.E.S.



Mexico

Terraced Seaside Hotel Meant to Be a Strong Presence in Its Setting

"The Ixtapa Camino Real is Mexican: in spirit, in contours, colors, materials, and furnishing. In a word, it is what I feel contemporary Mexico should be: strong, broad, amiable, romantic; filled with spaces, color, light, and spirit." With these words Ricardo Legorreta described his recently opened hotel in Zihuatanejo, a tourist area on the coast of the state of Guerrero.

The design philosophy grew out of the luxuriant site—an intimate beach bathed by the sea, lush vegetation, a backdrop of bold mountains, all in a superb climate. The site and its surroundings are strong and aggressive, and the architect felt that his response had to be similarly decisive. He wanted the hotel to be in harmony with the exuberance and scale of its surroundings, and, in time, to blend with

them. He thus created a stepped building that seems to grow out of the landscape, has openings that invite growth of vegetation, and whose color is taken from the rocks from which it rises.

The team of planners, headed by Legorreta and comprised of architects Noe Castro, Carlos Vargas, Emilio Guerrero, and Gerardo Alonso, developed a scheme specifically for the site and the life style of the area. A computer study of the terrain aided in dealing with the presence of fractured rocks. The dominant breezes and best place to excavate determined the position of the building's two major elements. The sloped, pyramidal form is a response to terrain and climate, not an expression of an archaeological trend, or inspired by pre-Columbian culture, or an attempt at facsimile Mexicanism. The stepped roofs at each level become terraces for the one above. Airconditioning, because of good ventilation and shading, is restricted to heavily used restaurants and convention rooms.

The hotel's public spaces are largely

open to surrounding nature, breezes, and the sea. The main lobby is modestly scaled to avoid clichéd monumentality and wasted space. The plan encourages long walks and contemplative strolls. There are broad corridors that twist and change in dimension to invite exploration. Public areas are also interconnected by stairways, paths, and walks that combine with a system of elevators and electric cars for those who seek faster transportation.

Outdoor living is given special attention. Thus, at an intermediate level there is a solarium—a complex of walls, aqueducts, gardens, fountains, and plantings—for sunbathing, eating, drinking, and swimming. It is an experience completely different from that of the traditional swimming pool.

The private beach, whose access is controlled by the hotel, is enclosed within a pair of rock jetties and has in no way

This page, the hotel terraces down to the sea. Above right, the entrance. Far right a characteristically colorful interior.





been despoiled. There are no walls, furniture, or small buildings to clutter it. Only a few palm-thatched shelters have been provided for protection against the tropical sun.

The novel design of the 450 rooms follows a similar attitude toward living with nature. Each unit includes three discrete areas: a room for privacy, where an electric fan suffices except at the hottest times when airconditioning is available; a roofed terrace, which connects to the room with a custom designed, sliding Persian blind; and an open terrace. Suites have a small pool that links them to the ocean.

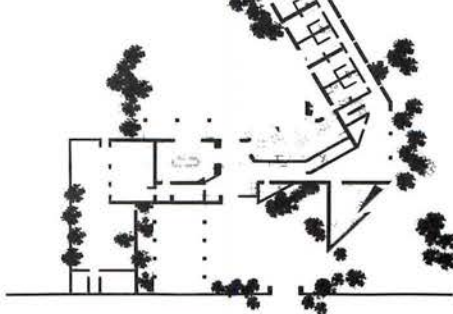
The hotel's character throughout is singular, a product both of its outdoors qualities and of a national trend in furnishings and finishes. The Ixtapa makes abundant use of strong color. For many years, due to the purist notions of the International Style, Mexicans have laid aside the chromatic expression that is such an integral part of their architecture in favor of glass, steel, and neutral tones. A renewed use of local coloring applied on highly textured finishes has been creeping into Legorreta's work in recent years, and here it has come to full flower, not only in the warm adobe of the exterior but also in vibrant interior hues ranging from magenta to deep blue. His use of color is especially notable in the bar, where violet walls look particularly splendid at sunset. The integration of materials, colors, and furnishings throughout is skillful, and native artifacts are used to accentuate the character of the building. They avoid excessive "folklorism."

At Zihuatanejo, Legorreta has created a hotel of the highest standards, with a distinct personality that springs from the timeless roots of what is Mexican.

LOUISE NOELLE



Ms. Noelle is an art historian at Mexico's National University Institute of Esthetic Studies and a member of the International Committee of Architectural Critics.



A Monastery Made of Almost Windowless Geometric Shapes

In the desert area of the state of San Luis Potosí, quite close to the village of Jesus-María, there lies a monastery of the order of the Holy Spirit, designed by architect Antonio Attolini Lack. The first impression is of the harshness of the surroundings, accentuated by stark mountains. It is a lonely place conducive to meditation. The choice of site was determined by an ancient religious ritual each May 3 that attracts 15,000 people who come to worship a wooden cross at a nearby chapel.

In response to the site, the monastery is a series of horizontal masses that present almost windowless faces to the inclement climate. The building combines a religious center, a place of study for a dozen monks, and a retreat for members of the monastic order.

The design is pure in expression and uses a minimum of elements. Its volumes, defined by angles contrasted to stepped elevations, merge with the landscape,

Below, sculptural masses set against rugged mountains; right, chapel interior.



are a defensive response to it, and project both strength and permanence.

The construction system was tailored to the isolated locale, where neither specialized labor or sophisticated building materials were available. Consequently, adobe blocks, providing excellent insulation against both temperature and sound, were made at the site by local inhabitants using traditional methods. Floor tiles were also baked in local kilns, and furnishings designed by the architect were made by village carpenters. Use of indigenous materials and objects also achieves an atmosphere of poverty and simplicity consistent with the vows of the religious order and the life of the area's people.

The building is surrounded by a sturdy wall, which, rather than defending from without, symbolizes the meditation and retirement of those who seek its shelter. One enters through a spacious court, the focal point of which is an open chapel used for holy days and gatherings of the faithful. The feeling is hospitable despite the simplicity of the construction.

Once in the building, one is enveloped within a generous, unadorned, spiritual, and protective space. The first part is a common area composed of spacious, angled, connecting rooms. Here, again, the design achieves maximum richness of form with a minimum of materials and elements, creating hospitable and original spaces. Then, a broad corridor leads to the only double height part of the building—the chapel—and to passageways that connect with tiny, bare, square cells for meditation and introspection.

Within the high-ceilinged space are the stairs that lead to the upper floor, which contains an enormous library and reading room for spiritual study far from the common areas. The climate and sparse vegetation precluded the making of gardens, so the few, small windows for light open onto an unadorned landscape within the walls of the monastery.

The finishes are, again, characterized by simplicity and their similarity to those commonly used in the locale. Adobe walls are plastered in neutral colors, and ceilings are crossed by heavy beams. Furniture is of light, natural wood, adding to the ascetic spirit of the cloister.

In this monastery, completed in 1982, the architect has achieved a harmony of spaces, scales, textures, and colors that fosters the building's function of promoting self-encounter and spirituality. L.N.

1d Courtyard Campus That Is Entered Through Huge Concrete Portals

The new National Pedagogical University is on a campus covering eight hectares in the San Angel Lava Field area near the edge of the Ajusco range. The complex of approximately 40,000 square meters is being constructed in two stages, the first of which was concluded in 1980 and formally inaugurated in '82.

The terrain is characterized by dips and swirls of volcanic rock and a vegetation of low bushes and a few small, twisted oaks clinging to the barren soil. The building rises on the Ajusco road, quite close to the Colegio de Mexico, one of the best known works of the prolific partnership of architects Teodoro Gonzalez De Leon and Abraham Zabludovsky, also architects of this university.

The complex is organized around a central space that, because of its length (300 meters), resembles a pedestrian mall more than a courtyard. The design is, nevertheless, a single block with only four entrances around an open court, which acts as a corridor, a gathering place, and the area onto which all the school's elements open. This grouping of spaces continues an ancient Mediterranean tradition used by the colonizers of pre-Columbian Mexico.

The two entrances at the ends of the central axis are colossal portals, enormous concrete crosspieces that act as lintels, as symbols of the institution's importance, and unite its two buildings. This device and the central space are constant features in these architects' designs.

The mall has a north-south axis, which adapts to the sloping terrain and follows a zigzag course, twice changing direction, and providing intriguing views from within.

Because the terrain slopes almost 30 meters, the main circulation was put on an intermediate level, with access to higher and lower floors. This adaptation resulted in considerable savings, avoiding costly platforms and excavation. The architects also made use of the site's uneven contours to give their building a dynamic character, fluid spaces, and plasticity.

The east-facing building houses administrative areas, including the library, which



Concrete is laced with marble chips, lending a warm tone; horizontal bands are reminders of wooden pouring forms.

rises with the slope of the land to form a pyramidal shape. It contains 300,000 volumes and uses terraces to obtain optimum overhead lighting in the reading rooms and shading for the stacks area. The library, along with other spaces, opens onto a clearing in the central part of the mall, occupied by a rectory and offices, which are easily accessible to students. Also in the east building is the auditorium, whose interior is of warm, acoustically absorbent materials.

The two buildings framing the mall are mostly devoted to classrooms with a total capacity for 8,000 students on the first three levels and private offices for professors and researchers on the fourth floor. Circulation on the student floors is along corridors that open onto the inner court; the fourth floor has a double-loaded corridor. There are also suspended bridges connecting the two buildings; their location was determined by a computer study.

Architects Zabludovsky and Gonzalez De Leon both consider concrete, with its resistance to wear, low maintenance cost, and good acoustic and thermal insulation properties, "the stone of the 20th century." They have studied the problems inherent in the material and devised new ways of finishing it. At this university they have mixed chips of marble, instead of gravel, with the concrete, producing a warmer tone. Scuffing the surface exposes the grain and corrects defects created during the pouring. The architects also deliberately emphasize the wooden frames and dividing planks used for pouring, the traces of which give walls a banded, horizontal appearance.

This project also marks Zabludovsky and Gonzalez De Leon's first significant use of color. The corridors leading to the classrooms have been painted for protection from the weather, and primary colors are used to counter the inherent coldness of the concrete. A different color is used for each level, which also serves to break up and lighten the enormous masses of the teaching area. L.N.

Spain

Broad Roofs Over a Series of Graceful, Light-Filled Spaces

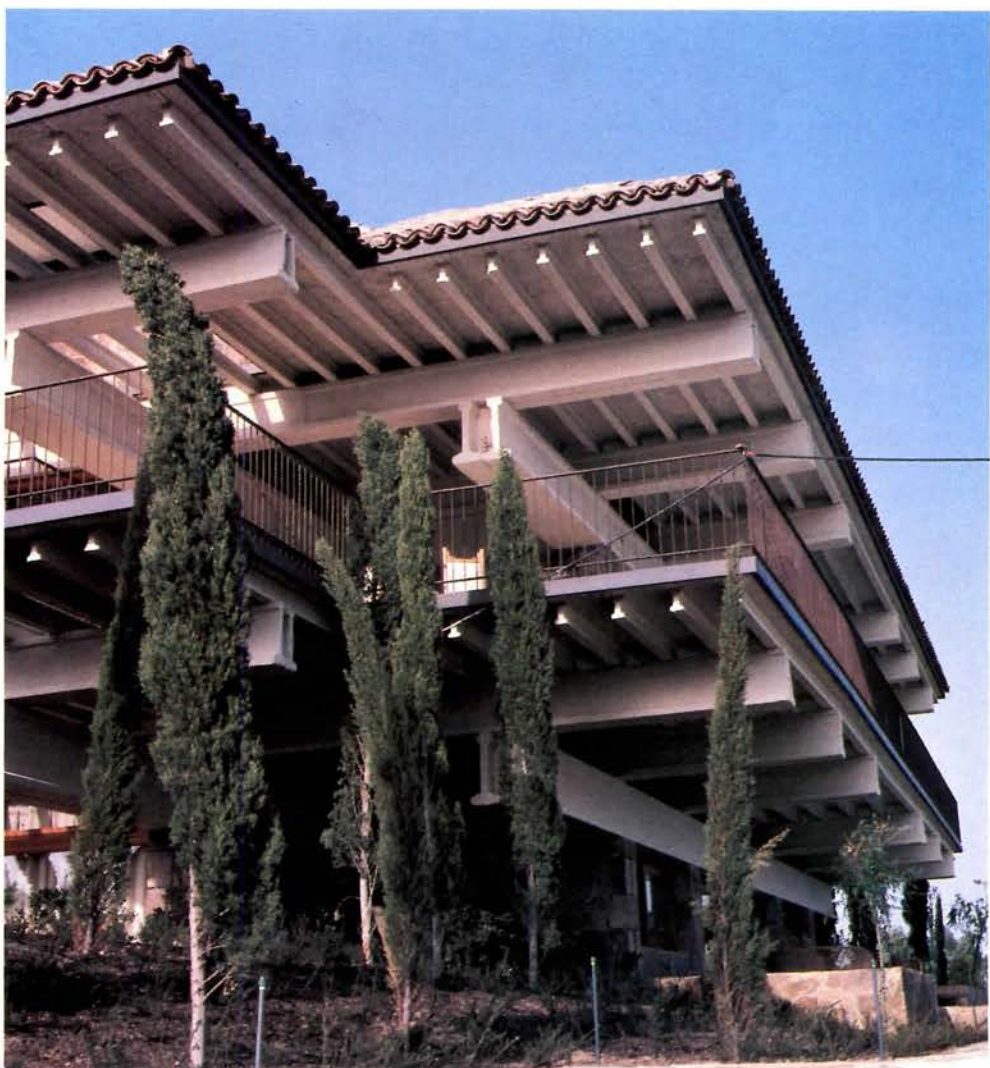
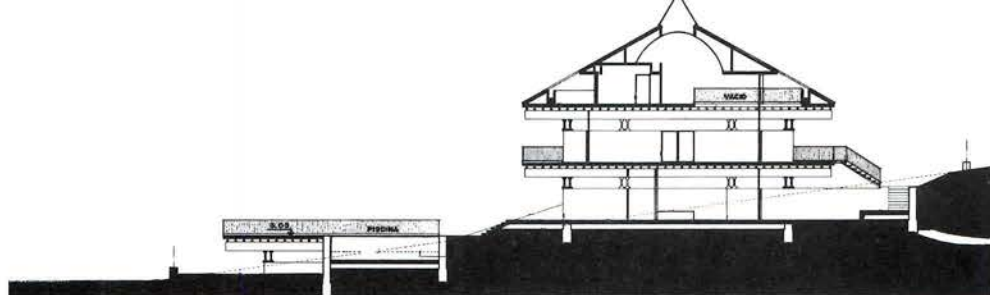
A house designed by Fernando Higuera in a wealthy suburb of Madrid, La Macarrona, consists of about 600 square meters of space enclosed within a single rectangular envelope and planned on three floors.

The garden walls and driveway are built from large, honey-brown granite boulders that extend to define the ground floor of the house within a symmetrical layout of stone walls. These walls establish a clear structural system that supports a series of beams. Original proposals to use timber were abandoned on cost grounds, and the architect opted instead for standard off-the-peg precast concrete I-beams. Fabricated originally for use in road and bridge construction, unfortunately their standard of finish is poor and the tolerance in manufacture makes junctions appear crude and alignment difficult.

By selecting 750-millimeter-deep main beams and two other basic sizes of beam, the architect has devised a clear structural framework that is forcefully expressed and around which the whole house is organized. This framework is infilled either by solid panels or by glazing fitted into Oregon pine frames.

The plan of the house is symmetrical about two axes. Floor slabs are omitted at either side so as to create open spaces through the building at the points of entry. Within each of these two voids spiral staircases link all three floor levels. Although they are elements within the structural frame, these stairs have been designed with the same visual weight and color as the structure when a distinction might have been more appropriate. Above the ground floor entrance halls and garden

Stone walls support I-beams of the broad, overhanging roof, which is surfaced in tile and topped by a long skylight. The whole has a pavilion-like quality.

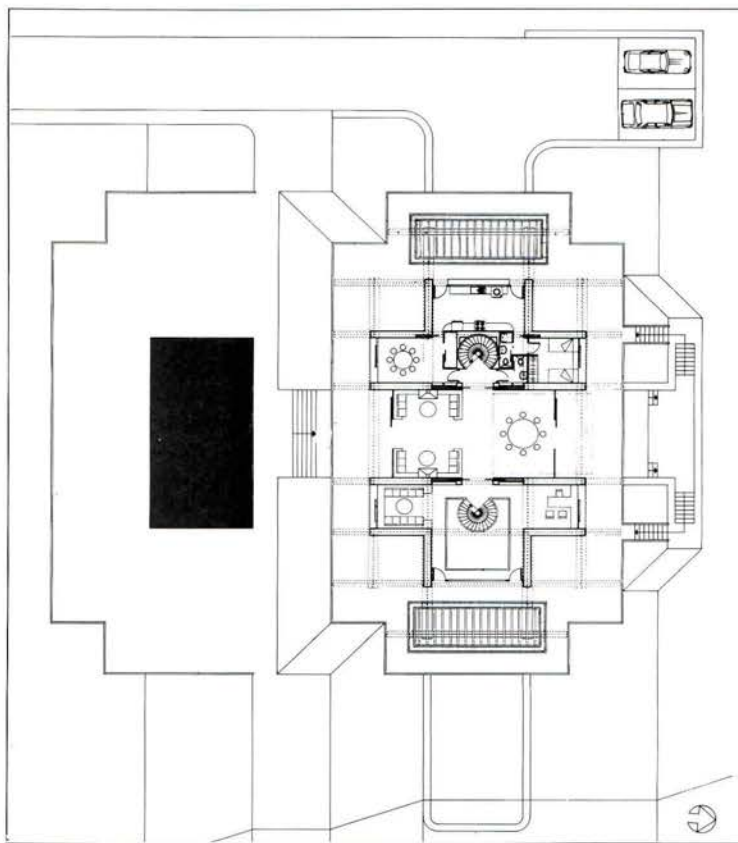


rooms are generous facilities for living and dining with a balcony around the outside of the entire house. Large spaces at the center of the house are complemented by groups of smaller studies and service rooms planned at first floor level within the spaces defined by the stone walls. On the second floor the two stairs are linked together by a wide bridge under a central skylight.

Higuera admits to a preference for the work of engineers rather than architects

and lists Morandi, Candela, and Nervi as some of his more important influences. This particular enthusiasm for structural expressionism, together with an obsession with planting and the landscaping of buildings, is noticeable in many of his residential schemes. The timber structures of earlier houses, including one on a nearby site for the sculptor Antonio Martínez Santonja, have been covered with foliage, while his designs for urban housing provide generous planting boxes that





are integral with the concrete structural slabs. At La Macarrona the concrete beams have become gigantic pergolas and trellises that now support lavish planting.

However, when, in the course of construction, the client asked for a games room to be added Higuera planned a discrete pavilion on the secondary axis of the house that was then buried in the garden. Although it is underground, the space is naturally lit by a room-sized skylight just above ground level. Like the central skylight in the main house this one is also constructed from a series of parallel ribs that are made of hollow block, plastered, and painted white. This

Above, hallway receives diffuse daylight from white-painted, ribbed skylight, which also illuminates the spiral stair at left. Below grade gameroom, across page, has room-sized skylight just above ground level.

is a development of a traditional Catalanian technique that was frequently used by Gaudí. In a setting where the light is bright and sunshine strong, the quality of diffused natural light from these rooflights is quite magical. Subsequent houses designed by Higuera have used this device to bring filtered light into the center of deep plans, and the almost completed Casa Juan Alfonso Garcia at La Moraleja has a sculpted arched skylight at its center that is in sharp contrast to the rectilinear elements in other parts of the house.

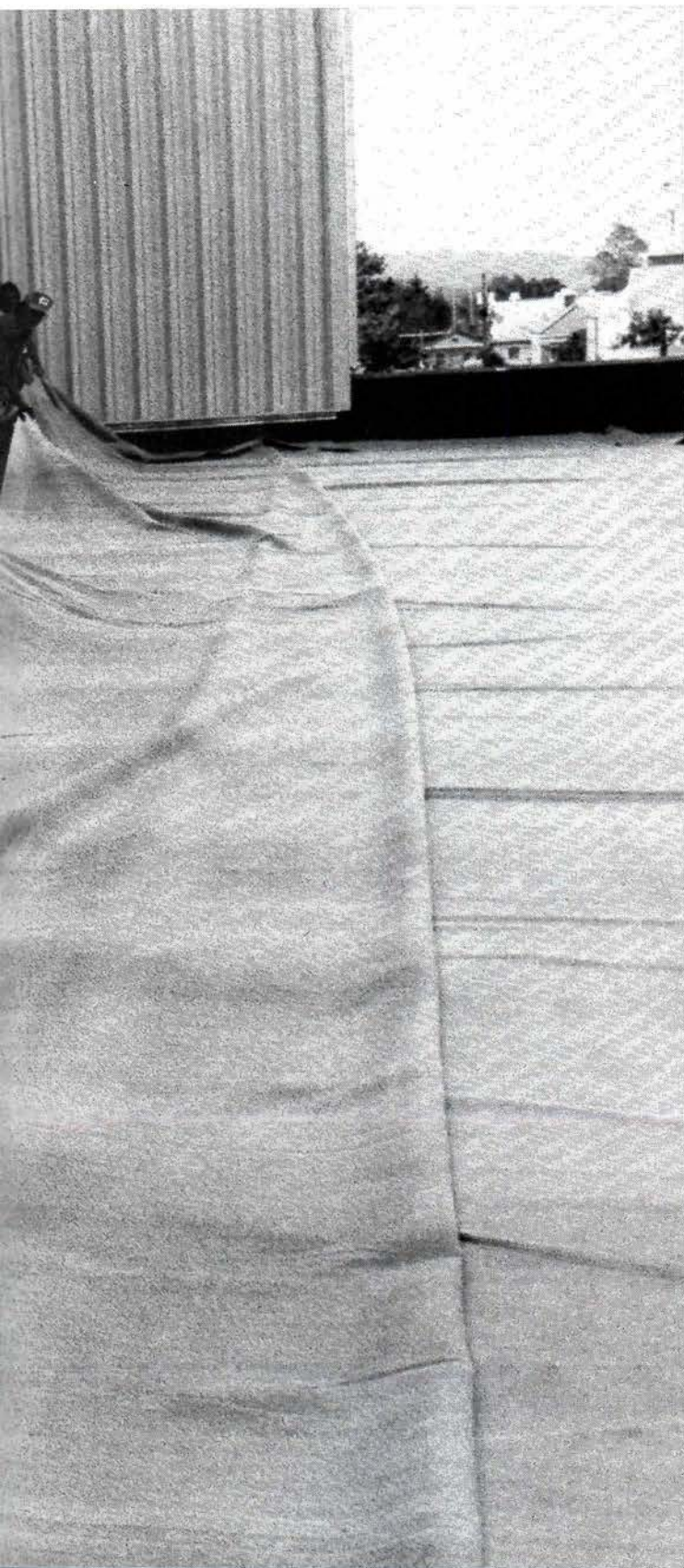
La Macarrona is important as the forerunner of many of these subsequent designs by Higuera. It is a coolly classical house that has weathered remarkably well and is memorable through its painstaking attention to detail and almost brutal expression of the structural elements from which the building is made. B.C.



A synthetic rubber roof the time of BUR-and



can go down in half stand up for years.



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	Single-Ply Synthetic Rubber			4-Ply Hot BUR
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Squares per Man/Day*	up to 12	5-8	8-12	3.5-5.5

*variation due to roof and system type, penetrations, flashings, etc.

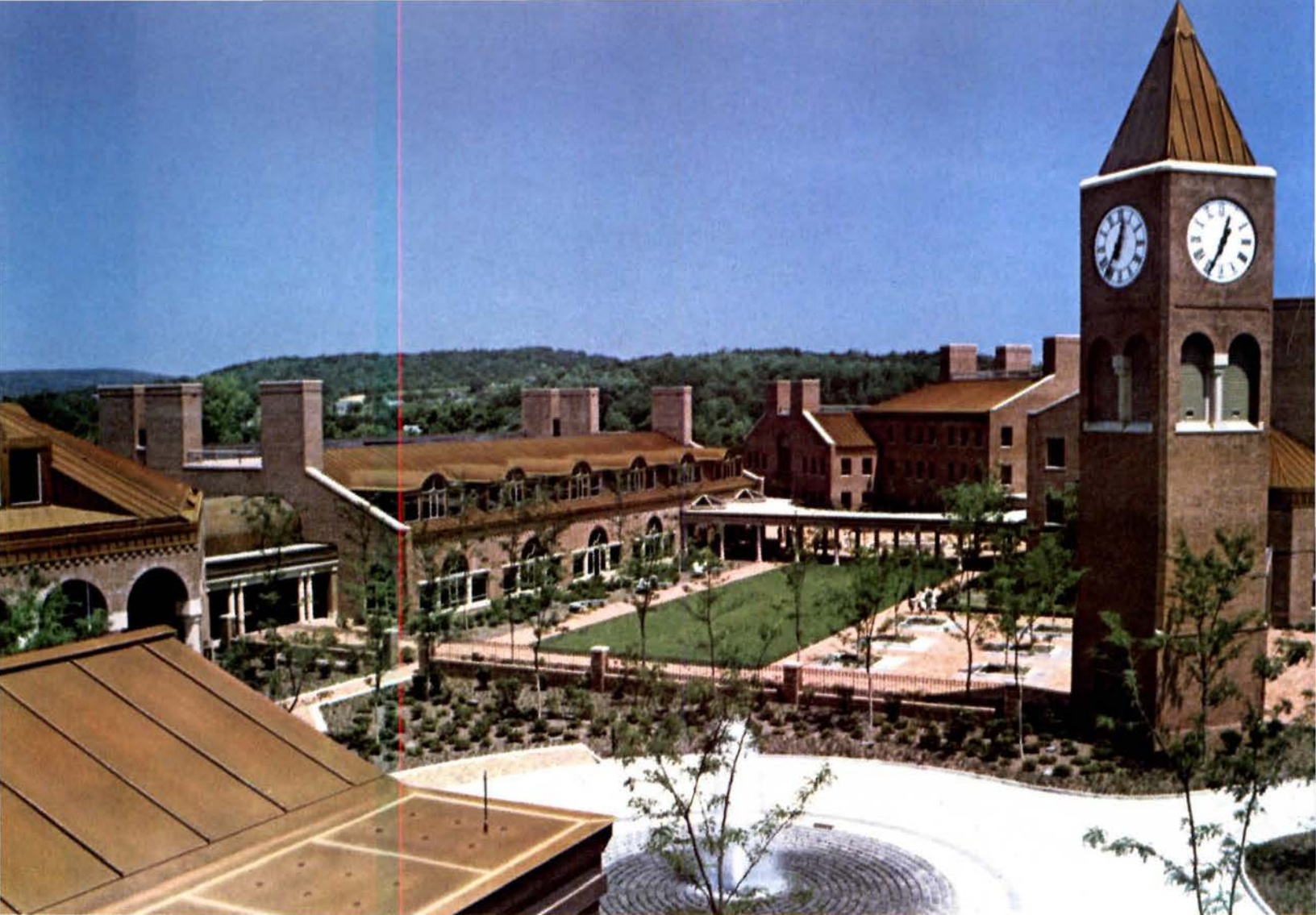
In addition to faster installation and less labor, single-ply synthetic rubber roofs offer long life. Installations stand up to punishing weather, stay flexible in cold and don't get soft or sticky in heat.

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'Chronological Parade' of Architectural Drawings

Great Drawings from the Collection of the Royal Institute of British Architects. John Harris, Jill Lever, and Margaret Richardson. (Rizzoli, \$15.)

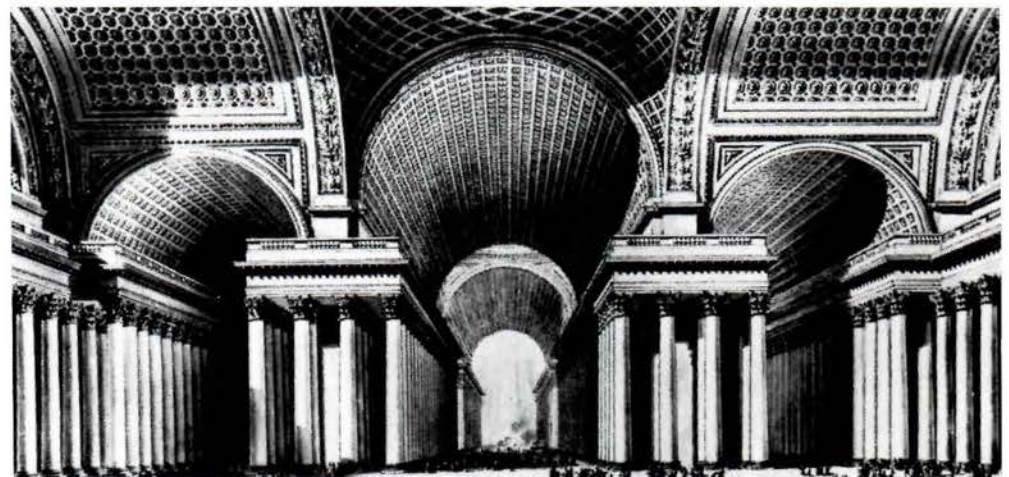
Following its founding in 1834, the Royal Institute of British Architects had the great fortune of being the final repository of choice of some of the finest architectural drawings produced by architects in the United Kingdom. George Gilbert Scott, Edwin Lutyens, and Alfred Waterhouse were among the many who bequeathed, either whole or in part, their stocks of architectural drawings to RIBA.

Because the sun never set on the British Empire (due to its imperialistic zeal), RIBA also amassed many drawings from its colonies and territories. One example is the multicolored drawing by an unknown artist of the mausoleum of Itimad-ud-daula in India, on this page. Over the years RIBA has come into possession of historic and pristine drawings produced not only in England but around the world.

The Drawing Center in New York City recently exhibited 82 of these drawings, in conjunction with a citywide festival of the arts, "Britain Salutes New York," and the center's sixth anniversary. The exhibit is scheduled to travel through the U.S. into 1985, stopping at New Orleans, Pittsburgh, Washington, D.C., Austin, Chicago, and Tyler, Tex.

The book is essentially a catalog of the exhibit. There is an introduction by John Harris, curator of the RIBA collection, in which he surveys the history of and attitudes toward architectural drawings. Harris is happy that architects are once again interested in drawings (as they claim to be in history), after a 75-year hiatus of regarding both as "deleterious influences." Postmodernism has brought back the "master drawer," the work of whose Renaissance, classical, and Beaux-Arts counterparts make up the bulk of the book.

The book is arranged to present the drawings in a chronological parade of styles, sort of, but when a certain period is not dominated by any one style, the drawings fall under a time period, such as "The Twentieth Century." There are other chapters in which the drawings are cataloged by building type, "Monuments of Commerce 1830s-1860s"; or school of thought, "The Arts and Crafts Movement"; or point of origin, "Exotic



Top, the mausoleum of Itimad-ud-daula, India, rendered by an unknown artist in 1828; above, design for a metropolitan cathedral by Étienne-Louis Boullée, 1782.

Sources." Luckily, the images and their variety are so spectacular and absorbing that the haphazard filing system is negligible. It does lead you to wonder, however, what system of organization is used at RIBA.

Inside are found works by Palladio, Wren, Lutyens, Wright, Mies van der Rohe, Sterling, and many, many others. Each chapter opens with a general description of works as they relate to the chapter title. Each drawing is accompanied by some relevant facts and figures, and a few paragraphs on the historical background of the subject in question.

Harris and his two associates, Jill Lever and Margaret Richardson, have done an admirable job of description. The breadth and depth of their knowledge about the collection, and the people who made the drawings, makes this book a valuable historic document.

The design of the book, however, suffers one problem, and it's a small one, perhaps endemic to exhibit catalogs. If you went to the show, you know what the originals look like—their size, color, detail, and so forth. Reproductions are never as good as the originals (although those in the book are quite good), but prominent works are occasionally given short shrift. An example is a pencil and watercolor rendering of Joseph Paxton's Crystal Palace, drawn by J. D. Harding in 1854. This is a huge, colorful, deep



Above, an elegant section/elevation of a staircase well by George Aitchison, 1887.

drawing, measuring 36x76 inches. It covered almost an entire wall in the gallery. In the book, however, it is tiny, and rendered in black and white. It's really a matter of knowing what you're missing and if you didn't go to the exhibit you'd never know the difference. But it raises the suspicion that those who laid out the book didn't go to the exhibit either.

Also, of the book's 116 illustrations only 15 are in color, and all of these are repeated in black and white. This was a very colorful exhibit, and one wishes that more of the works could have been reproduced in color. MICHAEL J. CROSBIE

Bruno Zevi on Modern Architecture. Andrea Oppenheimer Dean. (Rizzoli, \$15.95.)

Few who are acquainted with Bruno Zevi, whose voice has dominated architectural criticism in Italy since 1945, can avoid the comparison with Thomas Carlyle, who asserted, "My 'system' is for serving myself to live by." Zevi never tires of reminding us that he has been fighting

Fascism since the age of 17, and he has never been at a loss to describe exactly what Fascism in architecture means. Indeed, he has never been at a loss—period. In 1,400 weekly critical essays for the news magazine *L'Espresso* (subsequently collected in 24 volumes) he has commented on every issue that has faced architecture in nearly half a century.

In another dimension, he has been editor of *L'Architettura*, Italy's principal architectural journal, for nearly the whole of this period. And concurrently he has found time to discharge his obligations as professor of architecture, architectural history, and planning at the universities of Venice and Rome, and to produce vast, scholarly monographs on architectural titans like Michelangelo and such lesser known but more fascinating figures as Biagio Rosetti, the architect-planner of Ferrara. And always, whether in the halls of academe or the coffee houses of Rome, he utters the unhesitating machine-gun clatter of opinions, judgments, and convictions. This is not yesterday's journalism but the vital stuff of day-to-day events written by one who was there.

To have shot down this gamebird, and delivered him up on her own terms is the accomplishment of Andrea Oppenheimer Dean, a senior editor of *ARCHITECTURE*. This she accomplished while resident at the American Academy in Rome, a prolonged interview over a period of five months in which she read as well as taped Zevi's answers to her well formulated questions that were designed "to make clear Zevi's principal contributions to the criticism of modern architecture." The result, she avers, "is therefore a presentation, not a critical evaluation of his thinking."

But while it is a sufficient accomplishment to have stemmed the flow of Zevi's talk enough to propound her questions, the structuring of this book inescapably raises larger issues, some of them biographical, some historical, some critical. Oversimplified, perhaps, this "presentation" can be summarized as the running critical battle with Siegfried Giedion, first as author of *Space, Time and Architecture*, but by extensions as the secretary general of the *Congres Internationaux d'Architecture Moderne* and therefore spokesman for the modern movement. In this engagement, which lasted from 1943 to 1967, the date of the enlarged edition to which Giedion added sections on Aalto and other expressionist architects, conflict was continuous. In those years Zevi dragged from the modernist shadows such architects as Gaudí, Asplund, Mendelsohn, and Wurster, but most of all Frank Lloyd Wright. He became the principal European interpreter of the American architectural succession of Richardson, Sullivan, and Wright. He also sharpened the critical ideas that were offered in his

two influential early books, ultimately translated as *Architecture as Space* (1957) and *Towards an Organic Architecture* (1950).

Further issues of social responsibility and political action dominated Zevi's criticism, but he was able to focus these more closely on architecture. Without that close reference his own views could easily have degenerated into tedious argumentation. Fundamentally Zevi leveled his heaviest fire on the International Style in all its manifestations, from the Bauhaus to SOM. From this point to Zevi's most recent book, *The Modern Language of Architecture*, the architects and their buildings have changed, but the essential lineup and the arguments have remained remarkably consistent. You could have described just where Zevi would stand on postmodernism 20 years before that movement was born.

Andrea Dean has made available to American readers a valued critic whose ideas were in many cases inaccessible because they were not in English, or not clearly relevant because they lacked architectural or critical context. In addition to her introductory chapters, making up the first half of the book, she has edited the essential writings that comprise the second half, covering the period from 1941 (when Zevi was a highly articulate student at Harvard's graduate school of design) to 1982 when he spoke at the Harvard conference on "The International Style." It is a tour de force of editing to have included so much in so limited space. The book also provides an extensive biographical outline, an excellent bibliography, and about 20 illustrations closely related to the text.

FREDERICK GUTHEIM, HON. AIA

Mr. Gutheim is a teacher, planner, author, and critic in Washington, D.C.

The Architecture of Arata Isozaki. Philip Drew. (Harper & Row, \$35.)

The idea of comparing the architecture of a modern Japanese architect to that of 16th century Italian mannerism might seem a far-fetched and inevitably fruitless intellectual exercise, but that is what Philip Drew sets to do in his biography of Arata Isozaki. In comparing Isozaki's architecture to mannerism, Drew recognizes the dangers of his approach, and disclaims that "what is offered is not a theory in the form of a testable hypothesis, but merely an interpretation."

Unfortunately, Drew's interpretation runs into difficulty when he adopts Arnold Hauser's definition of mannerism as "an expression of unrest, anxiety, and bewilderment generated by a process of alienation of the individual from society and the reification of the whole cultural process." Mannerism is certainly one of the

continued on page 199

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least understood phenomena in art history; it has suffered through centuries of critical misunderstanding, and Hauser only adds to the confusion with his discussion of mannerism as a violent reaction against the high Renaissance brought about by social and spiritual instability. In truth, mannerism emerged from its latency in the high Renaissance around 1520 unattended by any crisis. The ease with which mannerism asserted itself refutes the ideas of tension and anxiety that have so long pervaded its criticism.

John Shearman is one of the few historians to properly place mannerism in its historical context. Shearman notes: "Mannerism is a style of excess... as such it could only flourish in an atmosphere of self-assurance." According to Shearman, mannerism is a fragile style, vulnerable to collapse, but it is a style that asserts the right to the enjoyment of the exquisite and the pursuit of formal beauty. It is an artificial style, profoundly aware of its artifice and dedicated to the power of art.

Drew rejects Shearman's interpretation of mannerism in favor of Hauser's; yet he fails to recognize that when he claims that "Isozaki speaks in the silver-tongued language of great beauty and caprice," he echoes Shearman's comment that mannerism "speak[s] a silver-tongued language of articulate, if unnatural, beauty." When Drew closes his book with the observation that "in his struggle for style, Isozaki made style itself the goal of his architecture," he follows precisely Shearman's concept of mannerism as a deliberately "stylish style."

Drew does not demonstrate how Isozaki's architecture is a product of his "alienation from society"; to the contrary, it appears to be the product of his collaboration with colleagues in various societies, and of the knowledge he gained from this interaction. Drew speaks of Isozaki's work as "counter-modern" rather than "post-modern," because it is, according to Drew, "antimodern." Yet, mannerism was not anti-Renaissance; as Shearman notes, "Mannerism did not grow up (as it is often claimed) in any sense as a reaction against, or in opposition to the high Renaissance but as a logical extension of some of the latter's own tendencies and achievements."

With this in mind, one can draw parallels between Isozaki's work and mannerism; one can see how Isozaki takes to extremes some of the elements and principles of modern architecture to achieve a heightened ironic effect. As Drew points out, Isozaki's creation of an overscaled stair in the Gunma Museum of Fine Art is a similar conceit to Michelangelo's Laurentian Library, and the spalling travertine on the Shukosha Building recalls

the deliberate "mistakes" of Giulio Romano's Palazzo del Te. But Drew's explanation of their purpose as "to awaken a feeling of uncertainty and alienation from reality" is unconvincing.

Drew's misinterpretation of mannerism fundamentally flaws his analysis and compromises his examination of Isozaki's remarkable achievements. A positive interpretation of mannerism might have led to a more sympathetic comparison with Isozaki, and elicited some interesting conclusions. WILLIAM H. SCHALLENBERG

Mr. Schallenberg is a Washington, D.C., critic.

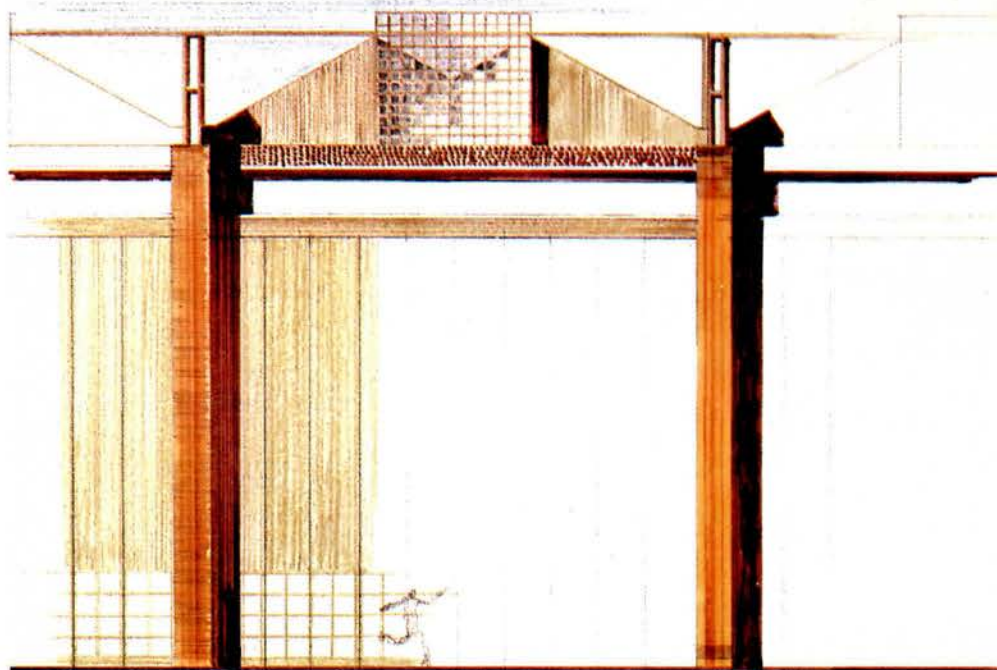
Latin America in Its Architecture. Roberto Segre, editor; Fernando Kusnetzoff, editor of the English edition. Translated from the Spanish by Edith Grossman. (Holmes & Meier.)

Eight essays make up this book, originally published in Spain by Unesco. In

an introductory essay prepared for the English edition, Fernando Kusnetzoff explains that substantial parts of the original edition focused on regional and urban problems. These essays are replaced by one by Roberto Segre on "The Territorial and Urban Conditioning of Latin American Architecture."

The book's essays by Latin American critics have three major themes, the first of which considers historical and social changes in Latin America "as an explanatory foundation for the evolution of architecture." The second theme analyzes the influence of urbanism on architecture; the third evaluates architecture's production process in relationship to the institutional and professional environment.

Do not expect critiques of specific Latin American architectural creations in this book. Rather, the essays place architecture in its social and cultural context. Each of the essays concludes with notes, and there is also a selected bibliography.



Vittorio Gregotti: Buildings and Projects. Manfredo Tafuri. (Rizzoli, \$18.50.) Manfredo Tafuri traces the development of the work of northern Italian architect Vittorio Gregotti over a period of 30 years in an introductory essay to this paperback book. The essay is really more than an insightful analysis of Gregotti's progress because it puts in perspective Italian culture and esthetics. Tafuri writes: "Always ready to question his own bearings yet sure of his route, Gregotti's journey into the territory of architecture appears as the trail of an inquirer continuously being compelled, almost despite himself, to abandon the *jeu* in favour of the *sérieux*. His optimism in design is also the symptom of an epoch, of a cultural condition, of a gamble directed toward the present: essentially the fruit of his stubborn will to be present in a 'citadel devoid of banners.'" The remainder of the book is an analysis and pictorial display of 10 Gregotti projects embracing the period of 1964 to 1981. Among the works and projects are a new campus for the University of Calabria, a business center in Milan, a research center in Naples, and boat yards on the Giudecca in Venice (a 1980 preliminary sketch of the building for Naviglio Minore is shown above). □

Evolution of a Magazine

Founded in 1912, the AMERICAN INSTITUTE OF ARCHITECTS JOURNAL for most of its life was a house organ of high quality—but a house organ nonetheless, modest in size and aspiration. Then in the early 1970s things began to happen. The magazine was redesigned, new editorial and publishing leadership was enlisted, and the JOURNAL took on the goal of becoming a major professional magazine. The following have been some of the landmarks along the way to achievement of that goal:



In 1976 the JOURNAL asked its architect readers to vote for what they considered to be the best buildings of the nation's first 200 years. The results were a clear victory for Thomas Jefferson—and a bicentennial issue of more than 200 pages, largest in the JOURNAL's modern history to then.

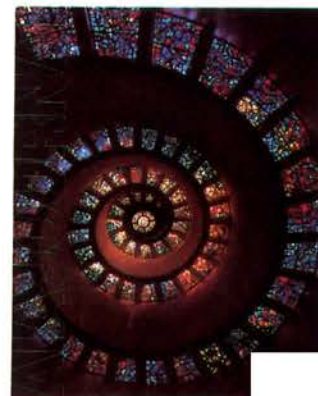


In the very next issue the JOURNAL launched what was to become its single most distinctive and popular feature: A series of evaluations of serious buildings some years after completion to see how they have met the tests of time and use. Nearly 100 such evaluations have been published in the intervening years.

In 1978 the JOURNAL launched its annual review of new American architecture—bringing together for the first time in one place the best buildings of the year, as chosen by the editors and AIA design awards juries, along with essays on trends in American architecture by leaders inside and outside of the profession. The annual has grown to be the biggest event of the year in architectural publishing.



Color has become an increasingly important ingredient in architecture, and in the years 1978-79 the JOURNAL greatly increased its editorial use of color. It now carries more color photos than any other American architectural magazine.



In 1979 the JOURNAL published a special issue on daylighting that subsequently was used as a text in such architecture schools as MIT. Its approach was to bridge between issues of technology and issues of form. A similar approach has since been taken to structure, building skin, and the architecture of movement.



In 1982, the JOURNAL launched an annual review of recent world architecture as a counterpart to the domestic annual. Later in the year it published a "discovery" issue, devoted to buildings by previously unpublished architects. Similar efforts to uncover new talent are planned for the future on a regular basis.

This year the magazine has further expanded its editorial content and changed its name to ARCHITECTURE in recognition of its broadened scope. If you are not an AIA member and do not receive the magazine regularly, subscribe now on the enclosed card.

Cette année la revue a prit une importance croissante et a changé son nom à ARCHITECTURE, compte tenu de l'élargissement de l'éventail des sujets abordés. Si vous n'êtes pas membre de l'AIA et ne reçoit pas la revue, abonnez avec la carte sous ce pli.

Este año la revista ha expandido aún más su contenido editorial y ha cambiado su nombre a ARCHITECTURE para que refleje su mayor alcance. Si usted no es miembro de la AIA y no recibe la revista, suscríbese ahora mismo usando la tarjeta adjunta.

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Résumé des Articles Principaux

La Section des Informations (page 21) annonce que R. Buckminster Fuller, de la FAIA, inventeur du dôme géodésique, est mort le 1^{er} Juillet, à l'âge de 87 ans. Surnommé le Léonard de Vinci moderne, Fuller a écrit 25 livres, déposé 27 brevets aux Etats-Unis (200 de par le monde), possédait 39 diplômes honoris causa; il avait reçu en 1970 la médaille d'or de l'AIA, et cette année la médaille de la Liberté des mains du Président Reagan. Outre le dôme géodésique, Fuller avait inventé la maison préfabriquée Dymaxion, la voiture Dymaxion (une véhicule automobile à trois roues), la carte Dymaxion (la première projection cartographique du monde sans distorsion visuelle), sans oublier l'Unité de Développement Dymaxion (utilisée pendant la Deuxième Guerre Mondiale par l'armée américaine pour les abris). Il a aussi imaginé d'énormes dômes géodésiques reliant de nombreux quartiers. La plupart de ces inventions ont pâti de ce que les conceptions qui les animaient étaient très avancées sur les techniques en vigueur et l'état de l'industrie. Les dernières années de sa vie, Fuller a mis au point son "Jeu Mondial", ou pour reprendre ses propos "les données traitées par ordinateur des ressources mondiales disponibles et des mécanismes productifs" qui pourraient être utilisés comme "cadres destinés à éliminer les causes de la pauvreté et de la guerre, et à restaurer l'équilibre écologique de notre planète". Cette conception du monde dans lequel l'univers physique et métaphysique se retrouvent dans un système banal et serein, dans lequel tous les hommes seraient bien logés, habillés et nourris, peut être considérée comme l'une des plus grandes leçons laissées au monde par Fuller.

On nous signale aussi ce mois-ci le décès de William Caudill, de la FAIA. Caudill, âgé de 69 ans, est mort le 25 Juin; il était fondateur de la firme gigantesque de Houston, Caudill Rowlett Scott (CRS). Il avait été professeur à l'Université de Texas A & M, et à l'Université de Rice, où il avait dirigé l'école d'architecture dans les années 60, et a été l'auteur de 12 ouvrages et de centaines d'articles et de rapports de recherche. Caudill a écrit son premier livre, *Espace et Education*, à l'âge de 26 ans. Ce livre annonçait les orientations qu'allait prendre la CRS. Et il faut remarquer que cette réputation s'est vérifiée dans le domaine de l'éducation comme celle de Skidmore, Owings & Merrill dans celui des affaires. Caudill a été aussi à l'origine de la conception de la programmation et du dessin "in situ", processus qu'il a nommé "squatters" en l'honneur

des pionniers de l'OklaHoma qui ont occupé la terre jusqu'à ce qu'elle devienne leur propriété. La technique "squatters" est devenue l'image de marque de la CRS et a eu de nombreux émules.

Les articles suivants sont les résumés des appréciations concernant les bâtiments proposés, par pays.

Allemagne

Page 140: Galerie marchande du Quartier de la Hanse, Hambourg; architectes: Van Gerkan Marg & Partners. Galerie marchande fait partie d'un réseau plus vaste qui comprend sept galeries marchandes et qui s'étend sur plusieurs rues de la ville. Elle représente l'élément central de la reconstruction des bâtiments donnant sur la cour intérieure sans compter plusieurs bâtiments nouveaux qui donnent sur la rue. Ceux-ci délimitent l'entrée de la galerie. Conçue sur une ligne droite, utilisant un éclairage naturel, et située sur un seul niveau, la galerie ne mesure que 5,5 mètres de large. Les effets de miroir dans le secteur des boutiques et la transparence des murs de verre donnent l'impression d'un espace plus grand. Un éclairage naturel et puissant a pu être obtenu en plaçant la galerie à un endroit qui échappe à l'ombre des bâtiments environnants; ce résultat a pu être obtenu aussi grâce à une voûte en verre qui descend jusqu'au niveau du sommet des structures du rez-de-chaussée, ainsi que par le recours aux effets d'éclairage créés par les ouvertures donnant sur les rues adjacentes. Lorsqu'il est nécessaire de faire appel à l'éclairage artificiel, on éclaire les plafonds de façon à simuler la lumière du jour. A deux endroits stratégiques où se réunissent les croisements et les allées de la galerie, le passage a été élargi et surplombé de larges coupoles de verre.

Page 142: Complexe d'Habitation de la Schillerstrasse, Berlin; architect: O. M. Ungers. Le projet comprend la rénovation et l'extension d'un bâtiment typique d'avant la guerre à usage mixte et construit autour d'une cour intérieure. Les bombardements ont détruit sa partie nord qui donne sur la Schillerstrasse, tandis que la partie sud est demeurée intacte. Sa structure comprend des appartements à un étage au rez-de-chaussée et au niveau du toit, et trois appartements par étage sur les trois niveaux intermédiaires. Il y a une entrée commune grâce à un portail conçu pour cette ville et qui donne sur la cour intérieure. Les rues adjacentes étant très fréquentées par les voitures et très bruyantes, toutes les unités résidentielles donnent sur la cour et tournent le dos à

la rue. C'est sur les façades extérieures que l'on peut vérifier le mieux le contextualisme radical de Ungers. Une façade consiste en une composition centrale symétrique flanquée d'extrémités asymétriques. Des couleurs et des matériaux variés permettent une division de la façade en trois éléments: la base, le milieu et l'architrave. Sur l'autre façade, on a réutilisé trois baies qui faisaient partie d'une série de fenêtres de l'ancienne partie du bâtiment. On a repris sur la nouvelle façade des ouvertures semblables dont certaines sont demeurées aveugles et dont quelques-unes ont été partiellement dotées de vitres.

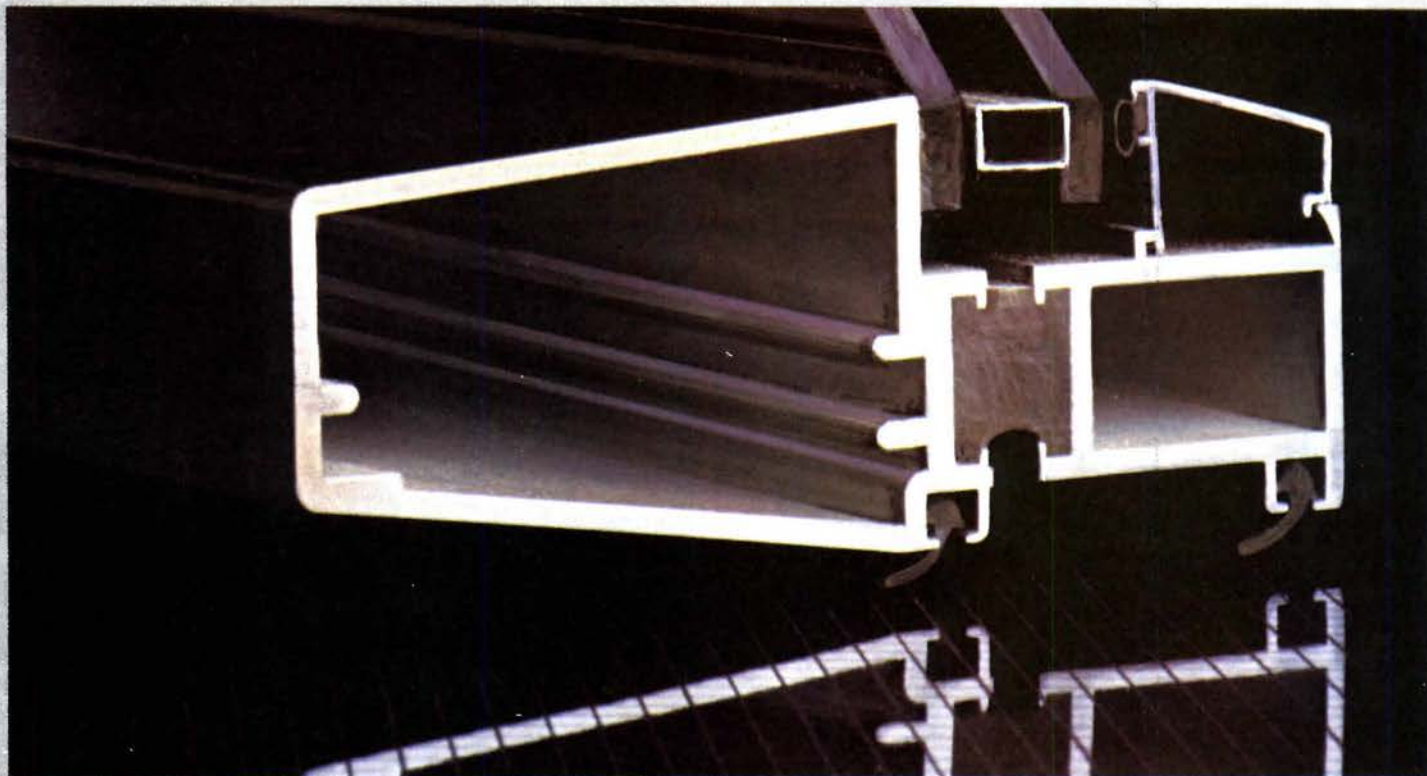
Page 128: Musée Municipal Abteiberg, Mönchengladbach; architecte: Hans Hollein. La conception de ce musée révèle une grande variété dans la disposition spatiale, dans les matériaux, dans la finition, sans pour autant sacrifier la qualité et la fonctionnalité au goût "kitsch." Le bâtiment est situé au sommet de la seule colline de cette ville historique. Au sud sont aménagés des jardins publics, au nord, la principale rue commerçante de la ville. Hollein utilise à dessein le contraste existant entre la ville elle-même et le paysage alentour. De l'extérieur le musée apparaît comme un ensemble de petits bâtiments aux formes et aux revêtements variés qui se trouvent disposés sur une terrasse au sommet de la colline. La terrasse constitue en fait le toit des salles d'expositions importantes qui ont été aménagées au flanc de la colline. Le bâtiment principal de cet ensemble est une tour revêtue de verre qui abrite les services administratifs et techniques du musée. A l'intérieur le complexe est disposé en un labyrinthe hétérogène qui engage à se promener au gré de l'inspiration. Les galeries sont situées sur deux étages et comme on peut le deviner de l'extérieur, elles sont composées de formes variées — carrées, petites, rectangulaires, et en formes d'amibes.

Page 134: Hôtel de Ville, Rheinberg; architecte: Gottfried Böhm. Böhm a réussi à insérer un nouveau complexe important dans un cadre médiéval en gardant à la masse architecturale un profil bas et en dissimulant son excroissance par le recours à diverses façades. Le bâtiment de 106,000 pieds carrés dresse ses trois niveaux au-dessus du sol et dispose d'un parc de stationnement et de bureaux de services en sous-sol. Une section de cinq niveaux échappe au regard au centre du dispositif. La façade principale est importante, donnant à l'hôtel de ville toute la solennité qui s'attache au service public. Les autres façades ont des fenêtres adaptées au style résidentiel. En ce qui concerne l'aménagement intérieur, Böhm a créé une série d'espaces publics entourés de magasins et de bureaux. Le premier d'entre eux est l'avant-cour vitrée, un

suite page 206

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EF38	180°	6,100	Hot side alum	slid on barrier	9,260	Aluminum
EF38	180°	4,990	Hot side alum	slid on barrier	7,920	Aluminum
EG16	180°	5,505	Barrier	fractured	10,250	Full length of frame
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Résumé: début de liste page 204

grand portique public conduisant à une entrée en forme de baie qui avance. A l'intérieur de la porte d'entrée principale du bâtiment se trouve le second espace public, foyer vertical à étage disposant d'escaliers qui permettent l'accès à cinq niveaux situés de part et d'autre de l'entrée. Le dernier espace public est réservé aux réceptions, aux représentations théâtrales, aux concerts et aux réunions du conseil municipal; il offre une capacité de 1700 fauteuils et possède une scène. La partie administrative du bâtiment joue un rôle de soutien aux espaces publics dans la mesure où des bureaux individuels sont disposés le long d'un seul côté des corridors qui donnent sur les espaces publics.

Angleterre

Page 120: Le pragmatisme romantique est l'un des deux mouvements contemporains de première importance en Grande-Bretagne, l'autre étant le mouvement "haute technologie". Les pragmatiques romantiques sont qualifiés de romantiques en ce qu'ils essaient de créer des bâtiments qui semblent comme sortis du sol de ce pays. Ils doivent beaucoup aux traditions anglaises en ce qui concerne les formes et les matériaux. Et ils sont pragmatiques parce que leur architecture répond adéquatement aux exigences souhaitées...

quelles que puissent être les exigences particulières ou les difficultés du site, et quels que soient le projet du client ou les contraintes de l'entrepreneur. Les pragmatiques romantiques tentent de mettre au point une conception architecturale qui puisse échapper à l'emprise du temps; ils essaient d'élaborer des conceptions urbanistiques compréhensibles par chacun.

Page 122: Village de Byker, Newcastle; architecte: Ralph Erskine. Erskine, doyen du pragmatisme romantique, a conçu, en utilisant la courbe légère d'un grand mur d'habitation, un village idyllique qui allie les avantages de la vie à l'extérieur de la ville à ceux qu'offre la vie en communauté. A l'intérieur du village, on peut aisément passer d'une vie tout à fait privée à une existence semi privée ou encore à une participation plus complète aux activités publiques.

Page 123: Complexe d'Habitation, Deblow, Buckinghamshire; architectes: Aldington, Craig & Collinge. Le plan de ce petit complexe rappelle les groupements et les matériaux traditionnels du village anglais, mais offre un exemple d'une utilisation originale des proportions et des ouvertures soigneusement disposées pour permettre à la fois un large dégagement au regard et une protection de l'intimité.

Page 123: Prieuré de Notre-Dame du Bon Conseil, Sayer's Common, Sussex; architecte: Michael Blee. Connu pour son

interprétation populaire des arts et techniques traditionnels anglais, Blee utilise des matériels et des formes traditionnels, mais les met au goût du jour. Sa méthode est particulièrement visible dans ce projet lorsque l'on considère la chapelle conique qui est située sur le pourtour de l'étang circulaire du cloître: ceci permet de créer une série d'images directement communicables.

Page 121: Dortoir, Kings School, Cantorbery; architectes: Maguire & Murray. La construction en brique et en tuile des nouveaux bâtiments s'oriente progressivement vers le style des cloisons du Moyen-Age et de l'époque des Tudor, reflétant le goût de l'architecte pour les matériaux et l'artisanat locaux.

Afrique du Sud

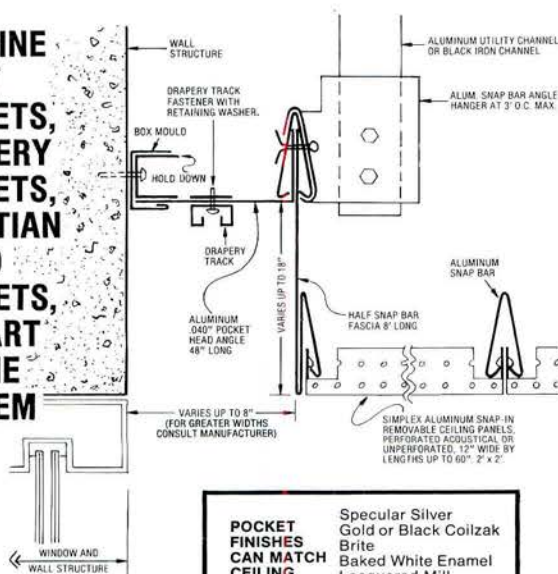
Page 170: Office central de la SACCA, Johannesburg; architecte: Hans Hallen. Au nord et au sud, cet immeuble de deux étages présente un toit plat, des tuiles de céramique et est pourvu d'une surface émaillée. Les côtés est et ouest présentent des toits à pignons tronqués. L'étonnante entrée ouest, en retrait, et revêtue d'une surface émaillée, est composée d'une série de formes géométriques, dont l'élément principal est fait de deux demi-cercles rouges recouverts d'"époxy", qui ressemblent aux ailes d'un insecte. L'in-

suite page 209

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Bob Martinez, Mayor, City of Tampa, Florida
One City Hall Plaza, Tampa, FL 33602

On the Threshold of Greatness

Résumé: début de liste page 206

térieur prévu pour 115 employés est d'un plan ouvert, aménageable grâce à la mise en place de dispositifs électriques qui font que toute la superficie est utilisable. Afin de diminuer le bruit, tous les intérieurs sont recouverts de moquettes; les plafonds en plâtre sont traités avec une pellicule acoustique et un "son feutré" est utilisé.

Arabie Saoudite

Page 159: Palais des Sports, Djeddah; architecte: Büro Gutbrod; consultant: Frei Otto. Pour des raisons financières, un bâtiment qui à l'origine disposait d'un toit conventionnel a été transformé en un chapiteau géant. Un réseau de câbles d'acier est tendu sur huit mâts tubulaires en acier. L'extérieur de ce réseau de câbles est recouvert d'un épais revêtement de polyester tissé et l'intérieur d'une membrane plus légère. L'espace compris entre les deux revêtements possède des ouvertures et permet la ventilation.

Australie

Page 172: La Maison de Rose Bay, Sydney; architecte: Andrew Metcalf. Bien que le dessin de cette maison s'inspire clairement de la pensée américaine post-moderne, les matériaux et la réalisation sont de facture australienne. Le site est étroit et la pente raide descend de la route vers le sud. La seule vue du port qui soit relativement dégagée donne sur le sud-ouest. La façade ouest est en forme de "S" aplati, pour reprendre les mots de Metcalf, "le résultat en est que la maison s'avance en excroissance arrondie aux endroits stratégiques afin de permettre le point de vue le plus large, puis elle s'incurve pour abriter la piscine." Le site commandait que l'on place les zones d'habitation au niveau supérieur en décalage avec la rue, les chambres à coucher étant situées au-dessous, au niveau de la piscine. L'allée supérieure et la passerelle rappellent délibérément les caractéristiques de pont de promenade d'un navire. Les couleurs—bleu, bleu-vert, rose-beige, jaune—sont utilisées pour rappeler celles des écorces d'eucalyptus d'Australie.

Autriche

Page 94: Métro de Vienne; architectes: Wilhelm Holzbauer avec Heinz Marschallak, George Ladstätter, Bert Ganter. Le projet du métro démontre la joie éprouvée par Holzbauer à utiliser des conceptions et des détails audacieux et sa capacité à adapter chaque projet aux exigences du programme et du contexte. Le réseau a deux lignes. Le travail sur la ligne verte, longue de 16,5 km et desservant 17 stations, consistait à restaurer la construction originale de Wagner (construite entre 1893 et 1906) et à l'étendre. La ligne rouge, longue de 10,5 km et desservant 14 stations, est entièrement neuve. Des cloisons standard et in-

terchangeables d'aluminium et des cloisons incurvées, en verre transparent, encadrées par un grillage métallique, sont utilisées pour créer des pavillons au niveau de la rue. Les stations surélevées ont de longues fenêtres le long des escaliers. Les intérieurs souterrains ont des murs et des colonnes revêtus d'aluminium blanc; dans les tunnels les plafonds sont faits d'aluminium perforé. Dans les couloirs des structures d'aluminium, qui tamisent la lumière, sont suspendus au-dessus des tubes fluorescents. Les plate-formes souterraines sont bien éclairées; les voies sont de construction sombre et sommaire.

Page 102: Maison Dachind, Vienne; architecte: Wilhelm Holzbauer. Cette énorme villa en marbre destinée à un éditeur et collectionneur d'art nouveau est un mélange d'éléments très classiques, d'art moderne tardif et dépouillé, d'art nouveau et de formes en courbes semi-expressionnistes. Les parties "importantes" de la maison sont des éléments cubiques, indépendants, situés au sud; derrière elles se trouvent les espaces moins importants—chambres à coucher, bains, cuisine—dans une structure longue et rectangulaire qui va d'une extrémité de la maison à l'autre. Le portique d'entrée et la salle à manger forment chacun un rectangle; ils sont séparés par le séjour. La zone d'habitation est divisée en trois niveaux: l'alcôve abritant la cheminée, la bibliothèque et la galerie.

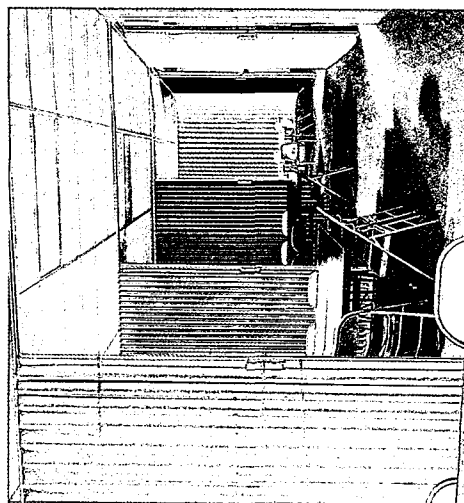
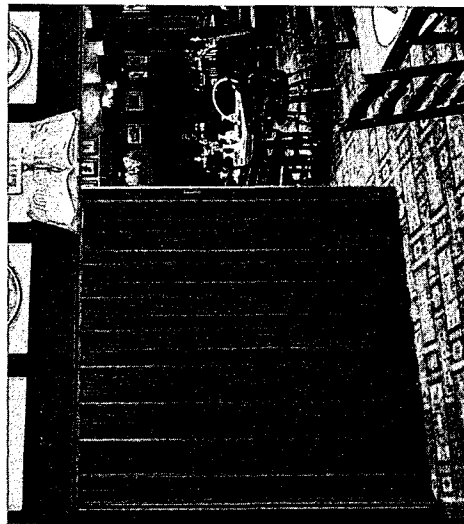
Page 106: Maison Nagiller, Vienne; architectes: "Maillon Manquant" (Otto Kapfinger et Adolf Krischanitz). Cette maison démontre la juxtaposition d'influences et de styles différents qui prédominent encore dans l'oeuvre des jeunes architectes viennois. La façade de l'entrée est faite de brique recouverte de stuc rose aux détails raffinés et est couverte d'un toit incurvé, ce qui rappelle les formes et couleurs des bâtiments environnants. Cependant, cette modeste maison de deux niveaux, située sur un lotissement de 500 mètres carrés à peine, est composée de quatre façades différentes. La maison a des ouvertures ayant des formes et des dimensions variées pour qu'un maximum de lumière puisse pénétrer à l'intérieur. Le premier niveau est un plan ouvert, le séjour et la salle à manger étant séparés par un couloir surélevé, sous lequel est située une cave. Au deuxième niveau, deux chambres ont des fenêtres intérieures donnant sur une source de lumière produite par un escalier conduisant à une porte vitrée et une terrasse.

Page 108: La Bijouterie Schullin, Vienne; architecte: Hans Hollein. La boutique est une caricature de l'image de Vienne raffinée et sophistiquée jusqu'à la décadence. Elle élève la perfection du détail à la dignité la plus extrême; le marbre qui ressemble au bois, la fibre de verre qui simule le marbre, ainsi que le cuivre qui

suite page 210

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Résumé: début de liste page 209

se déguise en bronze lancent un défi à la réalité. Mais le dessin est net et dépouillé. Hollein a restauré la façade du bâtiment original, a fait creuser un trou pour aménager une entrée à l'emplacement d'un ancien pilier, et l'a encadré de deux colonnes de chêne qui soutiennent un objet en forme de lame.

Belgique

Page 112: Bâtiment de l'Intellect, Gand; architecte: Denis Van Impe. Van Impe se sert de cet immeuble pour réinterpréter hardiment les schémas d'organisation et de conception traditionnels qui ont donné aux immeubles voisins le style qui est le leur et tente des rapprochements avec les oeuvres de Horta, de Van de Welde, de P. Hankar, et de l'art nouveau. Organisé sur cinq niveaux décalés surplombant une cave, l'immeuble contient une librairie, une galerie, un bureau et un appartement privé indépendant de deux chambres. Le schéma de cette structure décalée met clairement en évidence l'organisation suivante: la librairie principale au rez-de-chaussée est délimitée par une arcade de verre qui donne sur le square. L'arcade entoure l'angle du bâtiment pour élargir le plus possible la surface commerciale. Au-dessus de l'arcade, une grande vitre ronde laisse pénétrer largement la lumière dans la profondeur

des espaces réservés au public; au-dessus, des vitres plus petites et un balcon ouvert et surplombé d'un toit délimitent la zone d'habitation privée. La disposition intérieure obéit aux normes traditionnelles des maisons belges à murs mitoyens et disposant de "trois pièces en enfilade". A l'intérieur de ce plan rectangulaire, Van Impe a conçu en hauteur une zone qui traverse l'immeuble et qui sépare les pièces de devant et de derrière en délimitant une troisième pièce à chaque niveau.

Canada

Page 124: Centre de Recherche sur la Santé Walter C. MacKenzie, Université d'Alberta, Edmonton; architecte: Eberhard Zeidler. Zeidler a passé un temps important de sa prestigieuse carrière à concevoir des hôpitaux fonctionnels et économiques qui soient en même temps des endroits agréables pour les malades. La rénovation de cet hôpital de 840 lits a pour but de transformer l'ensemble disparate des bâtiments surannés; elle est prévue en deux étapes. La première, qui s'est achevée au mois d'Octobre dernier, comprenait la préservation d'un petit bâtiment d'habitation et celle de l'aile surélevée d'une clinique qui datent tous deux des années 60. On a créé des unités en forme de "T" qui offrent une soixantaine de lits répartis sur trois secteurs, chacun

d'eux possédant une antenne d'infirmières et toutes les commodités requises. Ces unités sont reliées à un corridor de service qui abrite le bloc opératoire et les laboratoires par deux atrium aux toits de verre de 18 m. de large. Des passerelles permettent de franchir des espaces aérés et ensoleillés à l'intérieur du dispositif et donnent accès à des zones réservées aux malades résidents. La technologie ultra-moderne de la tuyauterie apparente offre un contraste avec ce que Zeidler appelle "les détails géorgiens": des dessins en briques rouges sur les parois extérieures mis en relief par des moulages compliqués en plâtre blanc.

Danemark

Page 114: Ecole Secondaire Høje Tastrup; architecte: Henning Larsen. Le plan de l'école illustre l'approche structuraliste de Larsen — système ou superstructure de construction de béton incluant des espaces individuels qui ont été dessinés pour faciliter d'éventuelles modifications intérieures. L'école est composée de quatre unités carrées groupées autour d'un espace central où se trouve la cantine. La cantine a un toit d'une seule pente, recouvert d'un matériau en plastique à rayures bleues et blanches, ce qui ajoute un détail joyeux et informel à ce dessin par ailleurs extrêmement rigoureux.

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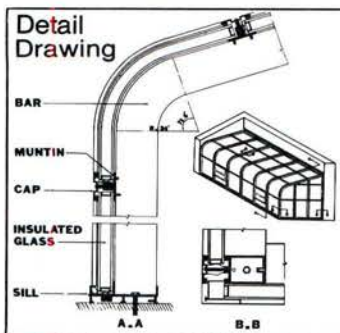


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Résumé: début de liste page 210

En venant de la cantine et en passant par l'espace ouvert supérieur et par le magasin de vivres, on accède à des bâtiments individuels ou aux salles de classes. Les intérieurs sont peints de couleur blanche aux tonalités délicates, mises en valeur par des couleurs simples et brillantes. L'école est construite de béton revêtu d'une façade de brique.

Page 118: Maison de la Musique, Aarhus; architectes: Kjaer & Richter. Le site où se trouvent la maison de la musique et les jardins s'incline vers l'ouest; et il offre deux niveaux séparés par une hauteur de six mètres. Cette dénivellation est utilisée pour former le plancher en pente de la salle de concert principale. La grande scène, les loges, les salles de réception, ainsi que les bureaux administratifs sont situés au niveau inférieur. La salle principale compte 1500 fauteuils dont 950 situés au rez-de-chaussée et les autres situés aux balcons centraux et latéraux. Une salle de concert plus petite compte 320 fauteuils. On accède aux deux salles de concert par un foyer principal dont les murs sont des parois de verre; le foyer abrite également le vestiaire, le bar et l'étage supérieur du restaurant. Le foyer est relié aux salles de répétition ainsi qu'à l'entrée des artistes par une petite cour. Ce site de 15 acres sert également de parc public; la pente du site partage le parc en deux niveaux.

Espagne

Page 184: La Résidence La Macarrona, Madrid; architecte: Fernando Higueras. A l'intérieur des murs en pierre qui suivent un plan symétrique, d'énormes blocs de granit de couleur miel délimitent le rez-de-chaussée de cette maison de 600 mètres carrés. Ces murs soutiennent des poutres-I préfabriquées de deux formats; il en résulte une impression de puissance. Le plan tourne autour de deux axes symétriques ayant des espaces ouverts à chaque extrémité où se trouvent des entrées et des escaliers qui relient les trois niveaux. Au-dessus des entrées situées au niveau de rez-de-chaussée et des pièces donnant sur le jardin se trouvent le séjour et la salle à manger, entourés de balcons. De larges espaces centraux sont juxtaposés aux espaces plus petits sur le pourtour. Le tout est surmonté d'une lucarne qui épouse la longueur du toit de tuile de l'édifice.

France

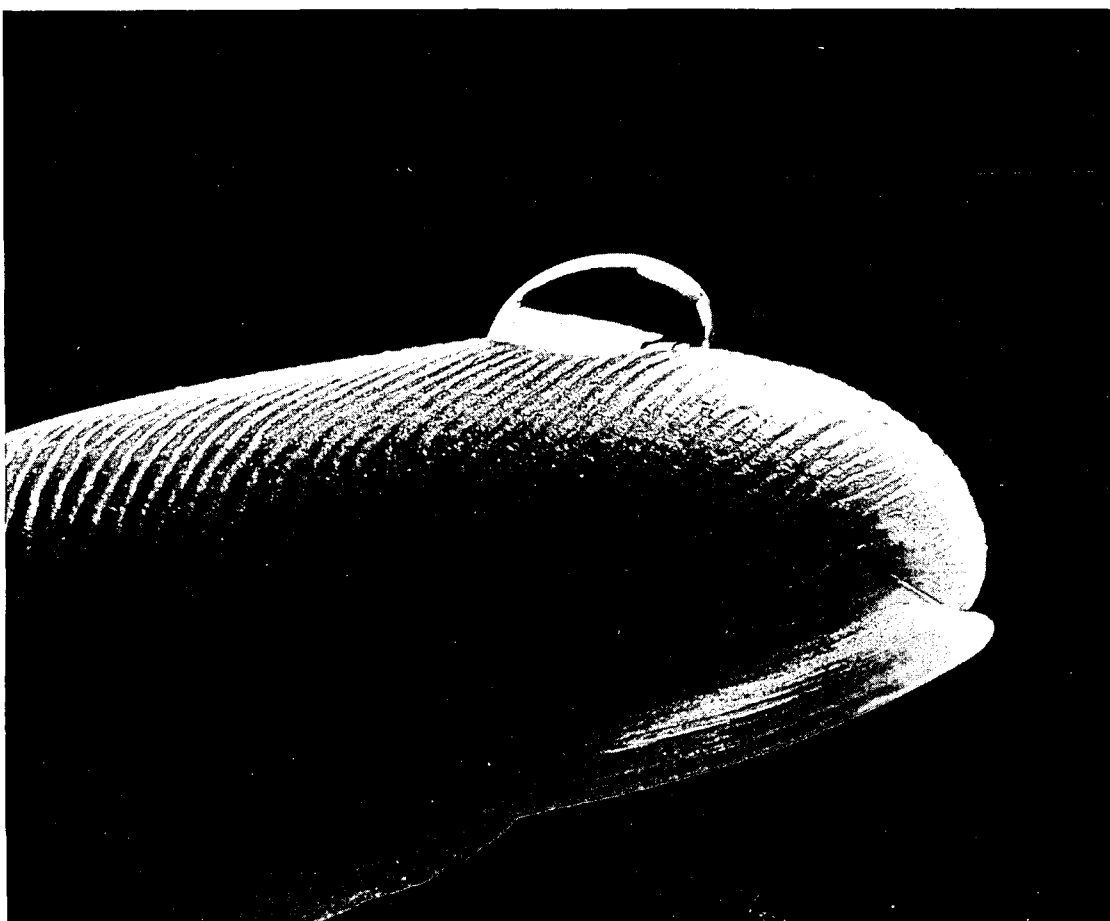
Page 160: Maquette prototype de ZUPS (zones d'urbanisation prioritaire), Alençon; architecte: Lucien Kroll. La ZUP Perseigne est un lotissement typiquement français, destiné à recevoir des logements à forte densité dans les environs de Perseigne. Il se présente sous forme de blocs de béton industriel sans caractère, dénué de tout projet architectural et dépourvu de toute aspiration

sociale. Le prototype présenté par Kroll est une tentative pour transformer ce secteur en un environnement plus humain en redéfinissant et en complexifiant les proportions et les rapports. Kroll a modifié l'aspect de l'un des immeubles de blocs rectangulaires en créant un nouveau centre d'aide sociale comme pivot, et a transformé le réseau routier rigide autour de ce bâtiment en plaçant des dénivellations et en tourmentant quelque peu le tracé des routes. Les immeubles de béton qui s'alignaient, tous semblables, les uns aux autres, ont été personnalisés par des baies vitrées, par des vélums de couleur pour abriter du soleil, par des bacs de fleurs et par des structures dissymétriques. Kroll a également dessiné les plans du collège Louise Michel; les bâtiments, qui rappellent le style des maisons rurales, sont reliés aux immeubles d'habitation.

Inde

Page 169: Sangath, Ahmedabad; architecte: Balkrishna V. Doshi. Sangath abrite les bureaux d'architecture et d'urbanisme de la firme Vastu-Shilpa de Doshi, ainsi que d'autres activités de recherches entreprises par la Fondation Vastu-Shilpa, spécialisée dans les arts, les métiers de l'artisanat, et les techniques de construction de pointe. Les formes de l'immeuble prédominantes sont des formes voûtées

suite page 214



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Résumé: début de liste page 213

qui dérivent de la combinaison de traditions locales, de matériaux locaux et de références historiques, tels que les temples indiens et les coiffes traditionnelles indiennes. Le plancher de l'atelier principal a été construit au-dessous du niveau du sol. Les voûtes sont construites de tuiles creuses d'argile intercalées dans les murs. Leur surface extérieure est couverte de morceaux sectionnés de tuiles vitrifiées.

Italie

Page 162: Cimetière, Modène; architecte: Aldo Rossi. Le projet original du cimetière a été préparé en collaboration avec Gianni Braghieri pour un concours qui a eu lieu en 1971. Le plan consistait essentiellement en un groupe de bâtiments à deux niveaux situé autour d'un grand espace rectangulaire (1,050 x 575 pieds); leurs formes et dimensions étaient presque identiques à celles du cimetière du 19ème siècle. A l'intérieur du rectangle devaient être construits des bâtiments en formes élémentaires frappantes: une structure basse en "U", un énorme cube, une pyramide crénelée, un cône tronqué—tous reliés par des passages souterrains. En 1976 Rossi a modifié son projet. Il a éliminé les passages souterrains; le mur extérieur parallèle à la rue a été éliminé et remplacé par un élément ressemblant

aux gradins d'un stade et donnant sur l'espace rectangulaire. Il a compensé la perte de l'espace consacré aux tombes par l'ajout d'un niveau supplémentaire aux bâtiments à deux niveaux et par la construction d'une nouvelle aile linéaire entre l'ancien et le nouveau cimetière. Dans les bâtiments se trouve la fosse communes des rangées de niches revêtues de marbre pour les cercueils, qui s'étendent du plancher au plafond dans un alignement à l'infini. Une bonne partie de l'aile linéaire, et une partie des bâtiments à trois niveaux sont d'ores et déjà construites. Le grand cube creux est en construction. Le plan manifeste clairement l'influence sur Rossi des formes élémentaires des rationalistes français. Les bâtiments achevés ne nontrent pas l'aspect abstrait, mystérieux et sinistre des schémas de Rossi. Rossi a réussi à se conformer, à l'intérieur du rectangle, aux caractéristiques du cimetière existant, et à conférer à la partie extérieure du cimetière une régularité sévère. A l'intérieur on éprouve une grande impression de répétition. Les bâtiments, bien que simples, ne sont pas sans expression; ils s'expriment dans un langage indirect. Les formes symbolisent de façon indirecte et austère une sensibilité qui contrarie la pureté des formes cubiques et sphériques en rappelant ce qu'est la condition humaine.

Japon

Page 150: Maison Nakatsuka, Kawana; architecte: Hiroshi Hara. Dotée d'une superficie globale de 1,500 pieds carrés, cette maison à deux niveaux est située au sommet d'une colline. Sa façade de devant orientée au sud est divisée en trois baies égales; la troisième baie, orientée à l'ouest, ainsi que l'entrée, est revêtue de panneaux de béton recouverts d'amiante noire. Les deux autres baies sont encadrées de béton brut. Située à côté de la porte, une structure qui s'achève en un mur ondulant délimite le séjour; au nord, la surface est largement vitrée. Le séjour recouvert d'une moquette noire mène à une terrasse noire, qui s'achève en une longue pente vers l'océan. Nommée "le lieu du rêve" par son propriétaire, la maison cherche à intégrer les éléments du présent et du passé, ceux de la nature et de la culture, en une vision onirique. La structure en béton permet d'ouvrir la façade nord et de relier latéralement les espaces intérieurs. Le mur sinueux du séjour se reflète dans les miroirs, ainsi que le paysage qui rappelle ses ondulations. Le paysage naturel et le paysage construit s'interpénètrent pour que se confondent l'oeuvre de la nature et celle de l'homme.

Page 152: Immeuble Aono, Masuyama; suite page 216

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Circle 76 on information card

Résumé: début de liste page 214

architecte: Yoshio Hasegawa. L'immeuble Aono remplace une vieille clinique ophthalmologique du centre de Matsuyama. Le premier, le second, et le quatrième niveaux sont occupés par un fabricant de meubles et d'instruments musicaux; une clinique se trouve au troisième niveau. Le cinquième niveau est une salle de spectacle; les deux niveaux supérieurs sont réservés aux appartements de la famille Aono. Surmonté d'un toit en pente, le bâtiment se présente comme une construction à armature d'acier et la façade qui donne sur la rue est revêtue d'aluminium dans lequel s'insèrent des panneaux d'acier, placés pour rappeler l'image fantomatique du bâtiment antérieur. Des éléments circulaires sont disséminés dans les zones réservées au public, y compris les deux colonnes jumelles de l'entrée, les demi-cylindres acoustiques disposés sur les murs du cinquième niveau, ainsi que des gousses cylindriques placées à la galerie du sixième niveau pour donner une impression de grandeur et de dépaysement.

Page 154: STEP, Takamatsu; architecte: Tadao Ando. Galerie marchande à trois niveaux, d'une profondeur d'environ 100 pieds, STEP est traversée en son milieu par un escalier ouvert. Le sommet de la façade est interrompu par une arcade en marquise et STEP s'élargit sur sa façade

arrière qui offre à chaque niveau des ouvertures pour la lumière. Il y a une nette différenciation entre les éléments structuraux faits de béton et les murs en tuile qui entourent cet espace. Le modèle de ce petit bâtiment est un village méditerranéen haut perché, mais l'architecte avait l'intention de retrouver "l'expression austère et intense de la vie japonaise" fondée sur le rapprochement avec la nature. STEP est, en conséquence, principalement ouverte aux éléments naturelles; elle marie la vocation commerciale du lieu à un sens du mystère théâtral grâce à l'alternance des espaces ouverts et fermés, des jeux d'ombre et de lumière, pour offrir un contraste avec les galeries marchandes ordinairement tristes que l'on trouve au Japon.

Koweït

Page 144: Extension du complexe du Palais de Sief, Koweït, architecte: Reima Pietilä. On constate un mouvement progressif dans le dessin lorsqu'on se déplace vers le nord, allant du palais original vers les nouveaux bâtiments qui l'entourent. La nouvelle construction ajoutée au Palais de Sief est reliée au hall et à la tour d'origine; et elle en est proche par la forme comme par les matériaux. Le bâtiment qui abrite le Conseil des Ministres est doté d'ouvertures en forme de "T" protégées contre le soleil et il conduit l'édifice à

doubles murs, qui est le Ministère des Affaires étrangères; ses énormes ouvertures permettent à l'air d'accéder à un espace protégé du soleil, la ventilation étant contrôlée par des ouvertures plus petites dans les murs intérieurs. Les cours sont abritées par de petites constructions à deux niveaux qui forment des zones d'ombre. Pietilä se sert du soleil pour tisser les décorations et il court abondamment à la couleur. Afin de se sensibiliser aux traditions du Moyen-Orient, Pietilä, Finlandais, écoutait de la musique arabe pendant qu'il travaillait sur les cadences rythmiques du bâtiment.

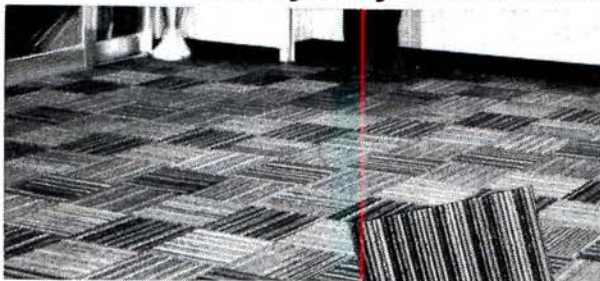
Mauritanie

Page 110: Complexe d'ADAUA; Association pour le Développement de l'Urbanisme et de l'Architecture Traditionnels Africains; architecte: Rosso. Cet ensemble destiné à des personnes très pauvres provenant de différents groupes ethniques avait pour ambition de faire revivre et de promouvoir l'architecture indigène africaine et d'exercer les habitants aux techniques de construction traditionnelles. La construction s'inspire des voûtes et dômes nubien, la boue et les briques étant fournies par les rives du fleuve Sénégal. Une première série de 12 maisons construites autour d'un square public a servi de prototype et a été suivie d'un ensemble

suite page 219

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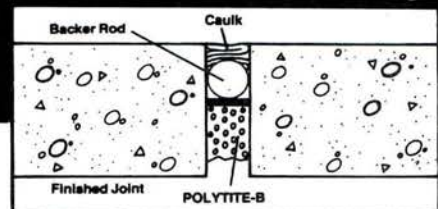
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Résumé: début de liste page 216
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Mexique

Page 180: Hôtel Camino Real d'Ixtapa,
Ixtapa; architecte: Ricardo Legorreta. Un
climat tropical, une végétation luxuriante,
ainsi qu'un paysage imposant ont influ-
encé les formes étagées de l'hôtel qui
semblent sortir du sol. Les toits, à chaque
niveau, servent de terrasses protégées du
niveau supérieur. Les espaces publics
s'ouvrent largement vers l'extérieur; une
bonne ventilation permet de faire l'écon-
omie d'un système d'air conditionné à
l'exception des endroits les plus fré-
quentés. Chaque unité comprend un
espace intérieur privé, une terrasse re-
couverte d'un toit et une terrasse ouverte.
L'hôtel montre comment Legorreta a ré-
utilisé les couleurs, les textures ainsi que
les techniques de finition inspirées des
traditions locales.

Page 182: Monastère, San Luis Potosi;
architecte: Antonio Attolini Lack. Pour
s'adapter au site rugueux et rocheux,
le monastère se présente comme une suite
d'édifices angulaires, horizontaux et sans
fenêtres, qui présentent une façade à l'abri
du climat rude. Le bâtiment est composé
d'un centre religieux et de lieux de prière

et de retraite. On a utilisé l'adobe en
raison de ses caractéristiques d'isolation;
de plus, les ouvriers locaux, peu sophisti-
qués, connaissaient bien sa forme. Les
carrelages ont été cuits dans des fours
traditionnels. L'usage des matériaux et des
objets indigènes ne répondait pas seule-
ment à des besoins fonctionnels, mais
conférait au site l'atmosphère d'humilité
et de pauvreté désirées.

Page 183: Université Pédagogique,
Mexico; architectes: Teodoro Gonzales
De Leon et Abraham Zabludovsky. Le
nouveau campus s'étend sur huit hectares
sur un champ de lave proche de la chaîne
montagneuse de l'Ajusco. Le complexe
est formé d'un bloc unique qui s'organise
autour d'un espace central semblable à
une promenade. Les deux entrées, aux
extrémités de la cour centrale, sont d'é-
normes portails ayant d'importantes pièces
horizontales de béton en guise de linteaux.
L'axe nord-sud de la promenade suit la
pente du terrain et ses lacets, rendant plus
vivantes les scènes vues de l'intérieur.
L'endroit le plus fréquenté se trouve à
un niveau intermédiaire qui donne sur la
promenade. Les parties nord et sud du
bâtiment sont essentiellement consacrées
aux salles de cours. Les parties adminis-
tratives se trouvent sur le côté est et
incluent une bibliothèque de forme pyr-
amidale qui s'ouvre également sur la prom-
enade intérieure. Les architectes ont pris

grand soin du travail du béton et ont
introduit ici la couleur pour la première
fois.

Norvège

Page 174: Université de Trondheim; ar-
chitecte: Henning Larsen. Le concours
architectural concernant la construction
éventuelle d'un complexe de 5 millions
de pieds carrés était fondé sur la théorie
des formes de construction structuralistes:
un grillage modulaire et un certain type
de construction permettent de modifier
les dimensions et l'emplacement des
parois et des commodités techniques. Le
projet de Larsen a été retenu; c'est une
mise en oeuvre architecturale de ces prin-
cipes qui évite des plans schématiques et
qui permet de réaliser des formes riches.
La première partie de l'université qui est
achevée a une superficie de 225,000 pieds
carrés... assez d'espace pour contenir les
1700 étudiants de la faculté des Arts. La
conception de l'ensemble consiste en un
centre compact, formé de blocs à trois
niveaux qui entourent des cours relative-
ment petites, séparées par des rues cou-
vertes de toits en verre. Dans chaque
bâtiment le rez-de-chaussée est le lieu des
activités en commun, telles que la librairie
du campus, une petite épicerie, etc. Le
deuxième niveau abrite les salles de cours,
les bibliothèques, ainsi que les salles de

suite page 220



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Résumé: début de liste page 219

réception destinées aux étudiants de musique. Des espaces similaires se trouvent au troisième niveau qui abrite également des cellules de recherches, ainsi que des bureaux pour les universitaires et le personnel administratif. Tout ce projet est une recherche délibérée de parvenir à faire bénéficier les salles de cours et les corridors du maximum de lumière au cours des sombres mois d'hiver.

Qatar

Page 168: Université de Qatar; architecte: Kamal El Kafrawi. Le campus, situé à sept kilomètres de Doha à Al Markhiah, et à deux kilomètres du Golfe, se trouve sur un site élevé. Il comprendra plusieurs collèges, les hommes étant placés à une extrémité du campus, et les femmes à l'autre. L'utilisation de la ventilation naturelle et de la lumière du jour a abouti à des formes complexes. Pour réaliser ceci, l'architecte a réinterprété des méthodes traditionnelles pour obtenir une lumière indirecte, telles que du bois sculpté qui forme écran. Il a également utilisé des ouvertures dans le toit pour obtenir une lumière diffuse et des tours pour contrôler le souffle du vent.

Suède

Page 146: Ecole Rudolf Steiner, Järna; architecte: Erik Asmussen. Depuis 1971

cette communauté qui s'auto-finance a érigé sur une échelle modeste un ensemble de bâtiments aux couleurs étudiées et aux détails bien compris. L'édifice le plus récent conçu par Asmussen sur cet emplacement est un silo à grain de couleur jaune qui symbolise l'attachement que porte cette communauté à la nourriture "naturelle". Elle cultive ses diverses terres selon des méthodes très anciennes. Les bâtiments de Järna s'inspirent doublement des idées anthroposophiques de Steiner et de l'intérêt manifesté par Wm. Morris pour les techniques artisanales. Le jardin de l'ancien atelier où se trouve l'école a pu être comparé au jardin de la "Maison Rouge" de Morris. En dessinant cet ensemble de bâtiments, Asmussen, qui est à présent un membre actif de la communauté, avait été d'abord intéressé par "l'élan créateur" de Rudolf Steiner, les paysages et les traditions propres à la région. Il a créé un ensemble de peintures pour l'extérieur à base exclusivement de couleurs naturelles; il a expérimenté différents types de techniques utilisant la transparence de la peinture à l'eau et des tempéras. Il utilisait également des couleurs à base de plantes pour l'intérieur et l'extérieur. La décoration est simple et s'inspire des métiers d'artisanat. Tous les bâtiments ont été étudiés pour avoir en gros la même dimension, à l'exception de la maison communautaire qui s'est

ouverte cette année. Elle se remarque par sa cour intérieure. Le bâtiment qui présente le plus grand intérêt sur le plan iconographique est la maison de la Musique, qui est à la fois un lieu de résidence et un lieu d'enseignement. Sa forme rappelle des formations rocheuses sorties du sol. La salle de musique qui est au-dessus des chambres est couronnée d'une voûte en berceau, en forme d'arrondi inachevé, qui, s'il s'achevait, formerait avec le niveau du sol une tangente. Par contraste, le côté situé au nord est strictement fonctionnel.

Tchécoslovaquie

Page 156: Station de Métro du Roi Georges de Podiebrady, Prague; architecte: Anna Hübschmannova. La station doit son nom et ses thèmes de mise en valeur artistique à la période hussite et au Roi Georges. Le tunnel souterrain est composé de trois nefs; celle du milieu est plus courte que les deux autres, ce qui laisse de la place pour la construction d'un escalier mécanique supplémentaire destiné à la future entrée. Le hall d'entrée actuel et l'accès au souterrain ont été conçus comme des espaces continus, séparés uniquement par une paroi de verre. Tous les intérieurs suivent le même schéma esthétique; le bleu-vert est la couleur principale. Les plafonds voûtés

suite page 223

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Résumé: début de liste page 220

et plats sont faits de panneaux d'aluminium anodisé; le revêtement mural est de marbre yougoslave de Kanfanar. Les colonnes sont recouvertes de bandes verticales composées de pièces de largeur irrégulière. Du granit sombre du pays est utilisé pour le sol.

Yougoslavie

Page 158: Stade Olympique de Zetra; architectes: Alikalfić, Dapa, Morankić. Construit pour les Olympiades d'hiver de 1984, le stade de Zetra se trouve à Sarajevo, capitale de la Bosnie. S'étendant sur 40 hectares, il comprend un stade olympique et une patinoire. Son coût s'élève à 17 millions de dollars; le stade olympique en forme de hangar, qui présente des structures métalliques apparentes, est un édifice de haute technologie, pourvu d'une section croisée unique, dans le sens de la longueur, rendant les deux côtés identiques à la section. Le toit et les façades sont faits de la même façon. Le revêtement est fait de cuivre pour faire écho aux mosquées avoisinantes. La patinoire est située à un emplacement inhabituel et couvre une surface de 16,000 m² au-dessus du parc de stationnement. Grâce à ses cloisons amovibles et à ses sièges démontables, le stade de Zetra pourra servir à divers usages une fois les Jeux Olympiques terminés. □

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Sumarios de Artículos Principales

En la Sección de Noticias (página 21) se informa que R. Buckminster Fuller, FAIA, inventor de la cúpula geodésica, falleció el 1º de julio. Tenía 87 años de edad. Fuller, llamado un Leonardo da Vinci contemporáneo, era autor de 25 libros, tenía a su nombre 27 patentes en los Estados Unidos (unas 200 en todo el mundo), poseía 39 grados honorarios, recibió la medalla de oro de AIA en 1970 y este año le fue otorgada la medalla de libertad de los EE. UU. por el Presidente Reagan. Además de la cúpula geodésica, Fuller inventó la Casa Dymaxion prefabricada, el Automóvil Dymaxion (vehículo de tres ruedas), el Mapa Dymaxion (primera proyección cartográfica del mundo sin distorsión visual) y la Unidad de Desarrollo Dymaxion (utilizada durante la Segunda Guerra Mundial por el Ejército de los Estados Unidos para albergues de emergencia). También contempló la construcción de enormes cúpulas geodésicas que abarcaban muchas cuadras o manzanas de edificios en las ciudades. La mayoría de estos inventos adolecían del hecho de que sus conceptos precedían en mucho a la tecnología necesaria y la aceptación por la industria. En sus últimos años, Fuller desarrolló su "Juego Mundial", utilizando palabras suyas, "colaciones computarizadas de los recursos disponibles y mecanismos de producción del mundo" que se emplearían como "marco para eliminar las causas de la pobreza y la guerra, y para proteger y restaurar la integridad ecológica de nuestro planeta". Este concepto de un universo en el que convergen lo físico y lo metafísico en un sistema común benigno, en el que todos los hombres disponen de vivienda, vestimenta y alimentación adecuadas, puede ser con el tiempo uno de los mayores legados de Fuller.

También se anuncia este mes la muerte de William Caudill, FAIA. Caudill, de 69 años, fallecido el 25 de junio, fue fundador de la gigantesca empresa houstoniana de Caudill Rowelett Scott (CRS), profesor en la Universidad A&M de Tejas y en la Universidad de Rice, donde encabezó la facultad de arquitectura en la década de 1960, y un escritor fecundo de 12 obras y cientos de artículos e informes de investigación. Caudill escribió su primer libro, *Space for Teaching* (Espacio para la enseñanza), a la edad de 26 años. Resultó ser un pronóstico del derrotero que seguiría la empresa CRS que, según se ha advertido, obtuvo tanta eficacia en el campo de la docencia como Skidmore, Owings & Merrill en el mundo empresarial. Caudill también introdujo el concepto de la programación y diseño *in situ*, proceso al que llamó "ocupación" con

referencia a los colonos de Oklahoma que ocupaban la tierra hasta reivindicar su propiedad. Este enfoque se ha convertido en la marca distintiva de CRS y ha sido emulado en todo el mundo.

Los siguientes sumarios son críticas sobre los edificios presentados; siguen por país.

Alemania

Página 140: Hanse Quarter Arcade, Hamburgo; Van Gerkan, Marg & Partners, arquitectos. La galería forma parte de una red mayor que incluye siete galerías de tiendas y se extiende a través de muchas manzanas o cuadras de edificios en la ciudad. Constituye meramente el núcleo de un amplio proyecto de reestructuración de edificios con patios interiores más un cierto número de edificios nuevos que dan a la calle. Las estructuras con frente a la calle forman la entrada de la galería. Esta galería, proyectada en línea recta, con iluminación natural y en un solo nivel, mide únicamente 5,5 metros de anchura. Sin embargo, se logra una impresión visual mucho más ancha mediante los efectos reflejados en la zona de tiendas y merced a la transparencia de las paredes de vidrio. Se obtuvo una intensa iluminación natural emplazando la galería en una posición en la que no estuviera a la sombra de los edificios circundantes, ampliando la bóveda de cristal hasta el nivel del tejado de las estructuras de la planta baja y empleando acentos de iluminación desde las aberturas hasta las calles exteriores. En los casos en que se necesita luz artificial, los techos se iluminan simulando luz natural. En dos puntos centrales, donde la galería traza un ángulo y se divide, el paseo se ha ampliado y cubierto con grandes cúpulas de vidrio.

Página 142: Vivienda en Schillerstrasse, Berlín; O. M. Ungers, arquitecto. El proyecto entrañó la renovación y adición de un edificio de uso mixto típico de la era antes de la guerra organizado en torno a un patio interior. Las bombas destruyeron su mitad norte, que da a la Schillerstrasse, mientras que la mitad sur quedó intacta. La estructura contiene apartamentos de dos pisos en la planta baja y nivel superior, y tres niveles de apartamentos de un solo piso emparedados entre ellos. Hay una entrada compartida al edificio a través de un portal de escala urbana al patio interior. Debido a que las calles adyacentes son muy transitadas y ruidosas, todas las unidades residenciales dan al patio y tienen su parte posterior mirando a la calle. Es en las fachadas exteriores donde

sale a relucir el contextualismo radical de Unders. Una elevación es una composición central simétrica bordeada por extremos asimétricos. Se recurre a cambios en los colores y materiales para dividir la fachada en base, sección media y arquitebe. En la otra elevación tres naves del patrón de fenestracón de la mitad existente del edificio se han transportado a la nueva fachada, y las "ventanas" nuevas están en blanco o solo parcialmente vidriadas.

Página 128: Städtisches Museum Abteiberg, Mönchengladbach; Hans Hollein, arquitecto. En el diseño de este museo, Hollein logró una rica variedad de configuración espacial, materiales, detalles y acabado sin sacrificar la calidad o caer en trivialidad. El edificio está situado en la cima de la única colina existente en esta histórica ciudad. Al sur se encuentran los jardines públicos; al norte, la calle comercial principal de la ciudad. Hollein aprovecha a propósito el contraste contextual entre el paisaje urbano y el panorama campestre. Desde el exterior, el museo parece constituir un cierto número de edificios pequeños de distintas configuraciones y materiales de recubrimiento dispuestos alrededor de una terraza en la cumbre de la colina. La terraza es en realidad el tejado de los principales espacios de exposición, que están hundidos en la ladera de la colina. El edificio dominante del grupo es una torre recubierta de vidrio que alberga las oficinas administrativas y las funciones auxiliares del museo. En el interior, el complejo es un laberinto heterogéneo que invita a desplazarse al azar. Las galerías están situadas en dos pisos y, tal como se desprende del exterior, tienen formas distintas: rectangulares, amíbias, cuadradas y pequeñas.

Página 134: Ayuntamiento, Rheinberg; Gottfried Böhm, arquitecto. Böhm ha abordado el problema de insertar un gran complejo nuevo en un marco a escala medieval manteniendo reducida la masa de edificación y encubriendo su huella expansiva con una variedad de tratamientos elevacionales. El edificio de 106.000 pies cuadrados se eleva en tres pisos sobre el nivel de tierra, con un garaje para estacionamiento y habitaciones de plantas en el sótano. La sección de cinco pisos está oculta de la vista en el centro del proyecto. La parte frontal principal es grandiosa, dando al ayuntamiento "peso" cívico. Las otras elevaciones tienen una fenestracón de escala más residencial. Para el plan interior, Böhm ha creado una serie de espacios públicos rodeados por tiendas y oficinas. El primero es el patio frontal vidriado, un pórtico público magno que conduce a una nave de entrada la cual sobresale del edificio principal. Dentro de la puerta delantera del edificio está el segundo espacio cívico, un foyer vertical con

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escaleras que suben cinco pisos a uno y otro lados de la entrada. El espacio público final está concebido para funciones teatrales, conciertos, recepciones y reuniones del consejo local. Tiene asientos para 1.700 personas y dispone de un escenario de prosenio. El conjunto administrativo del edificio desempeña un papel complementario al de la plaza pública ya que las oficinas celulares están situadas a lo largo de corredores de carga simple que dan a las plazas.

Arabia Saudita

Página 159: Sala de Deportes, Jeddah; Büro Gutbrod, arquitectos, Frei Otto, consultor. Por razones de costo, un edificio que originalmente estaba proyectado con un techo convencional se transformó en una gigantesca tienda de campaña. Una red metálica se extiende sobre ocho mástiles tubulares de acero. La red de acero está cubierta por una fuerte capa de poliéster trenzado en el exterior y una membrana más liviana en el interior. El espacio entre las dos capas tiene aberturas plegadas y sirve para fines de ventilación.

Australia

Página 172: Casa en Rose Bay, Sydney; Andrew Metcalf, arquitecto. Si bien el diseño de esta edificación está sacado claramente del concepto americano postmoderno, sus materiales y ejecución son australianos. La estrecha parcela cae abruptamente desde la carretera hacia el sur y la única vista relativamente franca del puerto yace al suroeste. La fachada oeste es una curva en S aplastada para permitir a la "vivienda encurvarse en puntos estratégicos a fin de aprovechar el panorama y, luego, cerrar la piscina", según palabras de Metcalf. La configuración de la parcela dictó el lugar de las salas de estar en el piso superior a nivel con la calle, y la colocación de los dormitorios debajo en el mismo nivel que la piscina. El pasillo y puente superiores repiten deliberadamente los aspectos de la cubierta de paseo de un barco. Los colores—azul, azul-verde, rosado-beige y amarillo—están concebidos como imitación de los que se encuentran característicamente en los eucaliptos australianos.

Austria

Página 102: Casa Dachind, Viena. Wilhelm Holzbauer, arquitecto. Esta enorme villa de mármol para un editor y coleccionista de arte nuevo es una mezcla de elementos clásicos magños, elegantes elementos de los últimos años de la época moderna, arte nuevo y elementos expresionistas curvilíneos. Las partes "importantes" de la casa son los elementos cúbicos, autoestables, al sur, detrás de los cuales están los espacios "de menor importancia"—dormitorios, cuartos de

baño, cocina—en una estructura rectangular prolongada que va a todo lo largo de la casa. El pórtico de entrada y el comedor forman cada uno un rectángulo con la sala de estar entre ellos. La zona de estar está dividida en tres niveles: gabinete con chimenea, biblioteca y galería.

Página 106: Casa Nagiller, Viena, Missing Link (Otto Kapfinger y Adolf Krischanitz), arquitectos. Esta vivienda ilustra las yuxtaposiciones de diferentes estilos e influencias que siguen dominando la obra de los arquitectos vieneses más jóvenes. Su fachada de entrada, muy detallada, construida de ladrillo enlucido, de color rosado, con un techo curvo, evoca la configuración y colores de los edificios circundantes. Sin embargo, esta vivienda modesta de dos pisos en una parcela que apenas mide 500 metros cuadrados tiene cuatro niveles diferentes. Tiene aberturas de distintas configuraciones y tamaños para permitir la entrada al interior a una cantidad máxima de luz. El primer piso tiene un plano abierto, con las zonas de estar y el comedor separadas por un pasillo elevado debajo del cual se ha construido un sótano. En el segundo piso, dos habitaciones tienen ventanas interiores que dan a un tragaluz creado por una escalera que conduce a una puerta de cristales y terraza.

Página 108: Joyería Schullin, Viena; Hans Hollein, arquitecto. Esta joyería es una imagen en caricatura de Viena, refinada y "sofisticada" hasta el punto de la decadencia. Eleva el detalle immaculado a una importancia monumental, imita la realidad con mármol que se asemeja a madera, fibra de vidrio que simula mármol y cobre que aparenta ser bronce. Sin embargo, su diseño es vivo y limpio. Hollein restableció la fachada del edificio original, abrió una abertura de entrada donde estaba antes un soporte, y la enmarcó con dos columnas de roble que sustentan un elemento en forma de cuchilla.

Página 94: Metropolitano de Viena; Wilhelm Holzbauer con Heinz Marschalak, George Ladstätter, Bert Ganter, arquitectos. El proyecto del metropolitano ilustra el amor de Holzbauer por los trazados y conceptos atrevidos y su capacidad para adaptar cada diseño a las peculiaridades del programa y el contexto. El sistema consiste en dos líneas. Una en la línea verde de 17 estaciones, con una longitud de 16,5 kilómetros, consistió en la restauración y adiciones a la construcción original de Otto Wagner (realizada entre 1893 y 1906). La línea roja de 14 estaciones y 10,5 kilómetros es totalmente nueva. En ella se emplean paneles estándar de aluminio intercambiables y paneles de vidrio claro curvos, enmarcados en armazones de metal para crear

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pabellones de bóveda a nivel de la calle. La estaciones elevadas tienen extensas ventanas a lo largo de las escaleras. Los interiores subterráneos tienen paredes y columnas recubiertas de aluminio blanco, techos de aluminio perforado en las zonas de tuneles y en los vestíbulos abiertos marcos de aluminio de celosía suspendidos sobre tubos fluorescentes. Las plataformas subterráneas están intensamente iluminadas; las zonas de vías están oscuras y están construidas en bruto.

Bélgica

Página 112: Intellect Building, Ghent; Denis Van Impe, arquitecto. En este edificio, Van Impe reinterpreta valientemente los patrones tradicionales de organización y diseño que dieron forma a las cuadras o manzanas de casas circundantes, sugiriendo vínculos con la obra de Horta, van de Welde, Paul Hankar y el arte nuevo. El edificio, organizado en cinco pisos a varios niveles por encima de un sótano, contiene una librería, una galería, una pequeña oficina y un apartamento de dos dormitorios independiente para el propietario. El patrón de la elevación delinea claramente esta organización. La librería principal en el piso a nivel de tierra está definida por una galería de vidrio que da a la plaza. La

galería está construida alrededor de la esquina del edificio para aumentar al máximo la zona frontal de tiendas. Por encima de la galería, una gran ventana redonda permite la entrada de una cantidad generosa de luz a los espacios públicos profundos. Ventanas superiores más pequeñas y un balcón abierto aunque cubierto marcan zonas de estar privadas. La planificación interna utiliza el plano belga convencional de viviendas en hilera de "conjunto de tres habitaciones". Dentro de este plano rectangular, Van Impe ha creado un núcleo vertical a través del edificio que delinea las habitaciones de la parte frontal y trasera y define una tercera "habitación" en cada nivel.

Canadá

Página 124: Walter C. Mackenzie Health Science Center, Universidad de Alberta, Edmonton; Eberhard Zeidler, arquitecto. Zeidler ha pasado mucho tiempo de su distinguida carrera haciendo frente a las tensiones de diseñar hospitales funcionales y económicos que sean también lugares placenteros para los pacientes. La renovación de este hospital de 840 camas en sustitución de la mezcolanza existente de edificios médicos anticuados en ese emplazamiento se está realizando en dos etapas. La primera etapa, que se concluyó el pasado mes de octubre, entrañó la

preservación de un edificio de hotel, de baja altura, y un ala de servicios clínicos de mayor altura construida en la década de 1960. Hay unidades de salas en forma de T con capacidad para 60 camas en los tres sectores, cada una de ellas con su propia estación de enfermería e instalaciones auxiliares. Estas unidades están vinculadas con las instalaciones complementarias de cirugía espinal y con los laboratorios por medio de dos atrios de 20 metros de anchura, dotados de techos de cristal. Puentes volantes cruzan los espacios interiores llenos de sol y aire, y las zonas de pacientes internos dan hacia ellos. El modernismo de alta tecnología de los conductos al descubierto se conjuga con lo que Zeidler llama "detalles georgianos": patrones externos de ladrillo rojo combinado con complejas molduras de yeso blanco.

Checoslovaquia

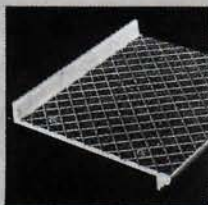
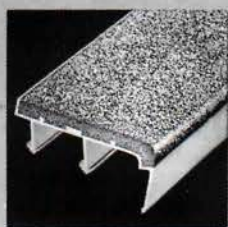
Página 156: Estación del Metropolitano del Rey Jorge de Podiebrady, Praga; Anna Hübschmannová, arquitecto. La estación toma su nombre y los temas de su embellecimiento artístico de la era hussita y su Rey Jorge. La estación constituye un túnel de tres naves, siendo la nave intermedia más corta que las otras dos a fin de dejar espacio para la construcción de una

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escalera mecánica adicional para una entrada futura. La sala de entrada existente y el paso inferior han sido concebidos como espacios continuos, separados solamente por una pared de vidrio. Todos los interiores siguen un plan estético consecuente, siendo el color principal el azul-verde. Los techos abovedados y planos están fabricados de paneles de aluminio anodizado, el recubrimiento de las paredes es de mármol yugoslavo Kanfanar, las columnas están revestidas de tiras verticales exfoliadas de anchura desigual y el pavimento utiliza granito oscuro del país.

Dinamarca

Página 114: Escuela Secundaria de Høje Taastrup; Henning Larsen, arquitecto. El diseño de la escuela ilustra el enfoque estructuralista de Larsen: un sistema o superestructura de construcción a base de hormigón en el que cada uno de los espacios se ha concebido con un alto grado de flexibilidad. La escuela está integrada por cuatro unidades cuadradas agrupadas alrededor de una zona común central de "canteen". El tejado de un solo lado en esta zona está recubierto de un material plástico de tiras azules y blancas, nota alegre e informal en un proyecto por lo demás muy riguroso. Desde la zona de "canteen", a través de una zona abierta más elevada y la zona de distribución, se obtiene acceso a cada uno de los bloques de edificios o clases. Los interiores están pintados de delicadas tonalidades blancas acentuadas con colores brillantes simples. El edificio está construido de hormigón de carga recubierto de ladrillo.

Página Centro de Música, Aarhus; Kjaer & Richter, arquitectos. La parcela del centro de música y los jardines tiene una pendiente hacia el oeste y está explanada con dos niveles a una diferencia de seis metros. Esta pendiente se utiliza como declive del piso de la sala de conciertos principal. Su amplio escenario, sus camerinos, salas de ensayo y oficinas administrativas están situadas en el piso inferior. La sala principal tiene capacidad para 1.500 personas, 950 sentadas en el proscenio y el resto en los palcos principal y laterales. Una sala de concierto más pequeña tiene 320 localidades. Se obtiene acceso a ambas salas de concierto a través del foyer principal cerrado por paredes-cortinas-vidrio, que también contiene guardarropas público, bar y el nivel de palcos del restaurante. El foyer está conectado a las salas de ensayo y el vestíbulo de los artistas por medio de un pequeño patio.

España

Página 184: Residencia La Macarrona, Madrid; Fernando Higuera, arquitecto. Enormes piedras de granito configuran

la planta baja de esta vivienda de 600 metros cuadrados, dentro de un trazado simétrico de muros de piedra. Estos muros sustentan viguetas de Castilla preformadas de dos tamaños. El resultado es un alto grado de expresión y carácter. El plano gira en torno a dos ejes simétricos con espacios abiertos en cada extremo para entrada donde hay escaleras que enlazan los tres pisos. Las entradas por encima del nivel del suelo y habitaciones jardín constituyen espacios de sala de estar y comedor bordeados de balcones. Grandes espacios centrales están rodeados de espacios más pequeños en su periferia. Todo este conjunto está cubierto por una claraboya.

Francia

Página 160: Diseño prototipo para ZUPS (zones d'urbanisation prioritaire), Alençon; Lucien Kroll, arquitecto. El Persiegné ZUP es un conjunto masivo de viviendas típico de Francia en las afueras de Persiegné, que consiste en losas sin carácter de hormigón industrializado, libre de intenciones arquitectónicas y carente de aspiraciones sociales. El prototipo de Kroll es un intento por convertir parte de esta zona en un ambiente más humano con un nuevo sentido de escala y complicación. Kroll cambió el aspecto de una de las manzanas o cuadras de viviendas de losas rectangulares proporcionando un nuevo centro de servicios centrales como estructura temática central y modificó el patrón vial rígido fuera de este edificio añadiendo montones de tierra y vías serpenteantes. Las largas y repetitivas cuadras o manzanas de viviendas se han alterado mediante la introducción de ventanas salientes o miradores, paneles solares o de color, cajas de flores y nuevas estructuras de apoyo. Kroll también diseñó el College Louise Michael, que consiste en estructuras parecidas a cabañas rurales conectadas a las manzanas o cuadras de viviendas existentes.

India

Página 169: Sangath, Ahmedabad. Balakrishna V. Doshi, arquitecto. Sangath alberga las oficinas de arquitectura y planificación de la empresa de Doshi Vastu-Shilpa y otras actividades: investigación realizada por la Fundación Vastu-Shilpa, experimentación en las artes y artesanías y tecnología de la construcción. Las configuraciones predominantes del edificio son formas abovedadas, derivadas de una combinación de tradiciones locales, materiales autóctonos y ejemplos históricos, tales como los templos indios y los peinados tradicionales del país. El piso en el estudio principal está hundido por debajo del nivel del suelo. Las bóvedas están construidas de losetas de arcilla huecas emparedadas en los muros. Sus superficies exteriores están recubiertas de trozos de azulejos vidriados.

Inglaterra

Página 120: El pragmatismo romántico es una de las dos principales corrientes contemporáneas en Gran Bretaña. La otra es la alta tecnología. Los pragmáticos románticos son románticos porque tratan de crear edificios que parecen haber salido del suelo de la región; deben mucho a las tradiciones locales en lo que respecta a la forma y la selección de los materiales. Y son pragmáticos porque su arquitectura satisface todas las exigencias, cualesquiera que sean los condicionantes y requisitos específicos del emplazamiento, el programa del cliente o las demandas de la industria de la construcción. Los pragmáticos románticos están tratando de crear una forma intemporal de construcción y patrones de expresión que sean comprendidos por todos.

Página 121: Vivienda, Deblow, Buckinghamshire; Aldington, Craig & Collinge, arquitectos. Este pequeño proyecto de viviendas evoca la masificación tradicional y los materiales del pueblo inglés, pero ilustra un uso individualista de la proporción y las aberturas que están cuidadosamente organizadas para maximizar la vista desde las habitaciones en tanto se limita la penetración de la vida privada desde el exterior.

Página 122: Byker Village, Newcastle; Ralph Erskine, arquitecto. Erskine, el decano del pragmatismo romántico, ha creado, dentro de una curva suave de un gran muro de viviendas, un pueblo árabe que combina lo mejor de la vida en los suburbios con un sentido de comunidad. En su interior, Byker lleva una fácil transformación del lugar privado al semi-privado y al público defendible.

Página 123: Priory of Our Lady of Good Council, Sayer's Common, Sussex; Michael Blee, arquitecto. Blee, conocido por su interpretación popular de la tradición artística ya artesanal inglesa, utiliza materiales y formas tradicionales, pero los populariza. En este proyecto, su metodología se observa especialmente en la capilla cónica que gira sobre la curva del estanque redondo del claustro en un intento de comunicación mediante una serie de imágenes inmediatamente apreciables.

Página 123: Dormitorio, Kings School, Canterbury, Maguie & Murray, arquitectos. Los ladrillos y losetas de los nuevos edificios encajan perfectamente en el patrón de muros de la época medieval y Tudor, señal del amor del arquitecto por los materiales y artesanías locales.

Italia

Página 162: Cementerio, Modena; Aldo Rossi, arquitecto. El diseño original para el cementerio fue elaborado en colaboración con Gianni Braghieri para un certamen celebrado en 1971. El diseño fue fundamentalmente un gran anillo rec-

sigue en página 232

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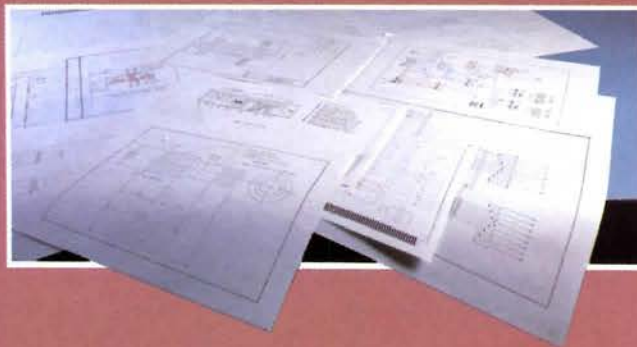
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tangular de edificios (1.050 x 575 pies) de dos pisos de altura, casi idénticos en tamaño y configuración al cementerio existente del Siglo XIX. Dentro del rectángulo habría de incluirse una composición de formas elementales sorprendentes de edificación — una estructura baja en forma de U, un cubo grande, una pirámide escalonada y un cono truncado — todo ello vinculado a una red de pasadizos subterráneos. En 1976 Rossi revisó su diseño. Se eliminaron los pasadizos subterráneos; se suprimió el muro de cierre paralelo a la calle y se sustituyó por un elemento escalonado a especie de tribuna frente al espacio rectangular. El espacio de sepulturas así perdido se compensó entonces elevando los edificios de dos pisos a tres pisos y añadiendo una nueva ala lineal entre el viejo y el nuevo cementerio. En los edificios habrá una tumba común: hileras de nichos para ataúdes con frente de mármol, desde el suelo hasta el techo y repitiéndose linealmente ad infinitum. Han quedado concluidas hasta la fecha gran parte del ala lineal y parte del recinto de tres pisos; en obras está el gran cubo hueco. El diseño muestra claramente la influencia sobre Rossi de las formas elementales de los racionalistas franceses. Lo que no muestra el edificio concluido es el siniestro misterio y abstracción de los dibujos de Rossi. Rossi ha logrado contextualismo con el cementerio existente y simplicidad estricta del exterior. Dentro hay una gran impresión de repetición. Los edificios, aunque simples, distan mucho de ser inexpressivos. Se expresan oblicuamente. Las formas simbolizan algo menos directo, algo menos alegre, algo que oscurece la claridad de los cubos y las esferas con referencias a la condición humana.

Japón

Página 152: Edificio Aono, Matsuyama; Yoshio Hasegawa, arquitecto. El edificio Aono sustituye una antigua clínica oftalmológica en la zona central de Matsuyama. El primero, segundo y cuarto pisos están ocupados por un fabricante de instrumentos musicales y muebles; en el tercer piso hay una clínica; el quinto piso es una sala de actuaciones; los dos pisos superiores son las viviendas de la familia Aono. El edificio, cubierto por un tejado inclinado, está construido con armazón de acero, y la fachada que da a la calle está recubierta de aluminio con paneles de acero empotrados, concebidos para presentar la imagen fantasma del edificio predecesor. Elementos circulares están distribuidos por todas las zonas públicas, incluyendo columnas dobles adosadas en la entrada, medios cilindros para fines acústicos en las paredes del quinto piso, y elementos cilíndricos en la galería del sexto piso para dar una escala y sabor suprarresidenciales.

Página 150: Casa Nakatsuka, Kawana; Hiroshi Hara, arquitecto. Esta casa de dos pisos, con un área total de 1.500 pies cuadrados, está situada en la cima de una colina. Su fachada meridional frontal está dividida en tres naves iguales, con su tercera parte occidental, que incluye la entrada, recubierta de paneles de cemento amiantado de color negro. Las otras dos naves están construidas de armazón de hormigón expuesto. Desde la puerta casualmente colocada, una pantalla que se combina con una pared ondulate forma la sala de estar al sur; al norte hay vidrieras amplias. La sala de estar, con alfombra negra, da paso a una terraza también de color negro, que termina en una bajada prolongada hacia el océano. Calificada de "escenario de sueños" por su propietario, esta vivienda trata de integrar el pasado y el presente, lo natural y lo artificial en una visión de ensueño. El armazón de hormigón permite abrir la elevación norte e interconectar los espacios interiores lateralmente. La pared sinuosa de la sala de estar se refleja en espejos, al igual que el paisaje que reproduce estas ondulaciones. El paisaje natural y la obra artificial se amoldan hasta confundir lo natural con lo artificial.

Página 154: STEP, Takamatsu; Tadao Ando, arquitecto. STEP, una galería de tiendas de tres pisos con una profundidad de aproximadamente 100 pies, está hendida en su mitad por una escalera abierta. STEP, con la parte superior de su fachada separada por el pabellón de la galería, se ensancha en su parte trasera donde hay un tragaluz en cada nivel. Existe diferenciación entre los elementos estructurales de hormigón expuestos y las paredes de cierre recubiertas de azulejos. El modelo para este pequeño edificio está sacado de las poblaciones construidas en las laderas de las colinas mediterráneas, pero el arquitecto trata de recuperar el "modus vivendi austero aunque intenso" del Japón basado en la comunión con la naturaleza. STEP está, por tanto, muy abierta a los elementos e inyecta a las compras un sentido dramático mediante la conjugación de los espacios abiertos y cerrados, las zonas de luz y de sombra, en contraste con las galerías de compras típicamente monótonas del Japón.

Kuwait

Página 144: Adiciones al complejo del Palacio de Sief; Reima Pietilä, arquitecto. Existe progresión del diseño a medida que uno avanza hacia el norte desde el palacio original a cada uno de los edificios nuevos a su alrededor. La ampliación del Palacio de Sief está vinculada en forma y materiales a la primera sala y torre. El edificio del Consejo de Ministros, con aberturas para ventanas en forma de T protegidas contra el sol, sirve de transición al edificio de paredes dobles del Ministerio de Asuntos Exteriores, cuyas grandes

aberturas dejan pasar el aire a un espacio sombreado con ventilación controlada a través de pequeñas aberturas en las paredes interiores. Los patios están sombreados por proyecciones a través de espacios de dos pisos. Pietilä llama al sol un tejedor decorador. También hace un uso abundante del color para decoración. Y mientras concebía las cadencias rítmicas del edificio, Pietilä, el Finlandés, tocaba música árabe para sensibilizarse a las costumbres del Oriente Medio.

Mauritania

Página 110: Vivienda ADAUA, Rosso; Association for the Development of Traditional African Urbanism and Architecture, arquitectos. En la construcción de estas viviendas para personas indigentes de distintos grupos étnicos se trató de reavivar y promover la arquitectura africana autóctona y de capacitar a los habitantes en tecnologías locales de la construcción. La construcción utiliza bóvedas y cúpulas nubienses, y las márgenes del río Senegal constituyen la fuente de donde se extrae el barro y los ladrillos. Una primera etapa de 12 viviendas construidas alrededor de una plaza pública sirvió de prototipo, seguida de la conclusión en fecha reciente de 400 unidades habitacionales. A continuación se construirán 1.400 unidades más y una fábrica de materiales de construcción.

México

Página 180: Ixtapa Camino Real Hotel, Ixtapa; Ricardo Legorreta, arquitecto. Un clima tropical, una vegetación frondosa y un paisaje agreste determinaron las formas escalonadas del hotel que parecen crecer de la tierra. Los tejados en cada nivel se convierten en terrazas protegidas para el nivel superior. Los espacios públicos están en su mayor parte abiertos al exterior y la buena ventilación elimina la necesidad de aire acondicionado en todas las zonas, salvo las más concurridas. Cada unidad contiene un espacio interior privado, una terraza cubierta por tejado y una terraza abierta. El hotel ilustra el empleo renovado por Legorreta del color, texturas y acabados de la región.

Página 182: Monasterio, San Luis Potosí; Antonio Attolini Lack, arquitecto. En respuesta al rocoso y agreste emplazamiento, el monasterio es una serie de masas angulares, horizontales, carentes de ventanas, que presentan un frente cerrado a las inclemencias del clima. El edificio combina un centro religioso y lugares de estudio y retiro. Se utilizó el adobe por sus propiedades de aislamiento y por ser un material de construcción conocido para los obreros locales no iniciados en técnicas avanzadas de construcción. Las baldosas para los suelos también son de construcción local. El empleo de materiales y objetos autóctonos satisfizo no solo las

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necesidades funcionales sino que proporcionó la atmósfera deseada de humildad y pobreza.

Página 183: Universidad Pedagógica, Ciudad de México; Teodoro González de León y Abraham Zabludovsky, arquitectos. El nuevo recinto universitario abarca ocho hectáreas en un campo de lava cerca de la cordillera de Ajusco. El complejo es un bloque único organizado alrededor de un espacio central en forma de galería. Las dos entradas a los extremos del patio central son portales enormes con gigantescas crucetas de hormigón para dinteles. El eje Nortesur de la galería sigue la pendiente del terreno con un trazado en zigzag que realza las vistas desde el interior. La circulación principal ocurre en un nivel intermedio que da a la galería. Las porciones norte y sur del edificio están dedicadas principalmente a aulas. En la parte este se encuentran las zonas administrativas, incluyendo una biblioteca de configuración piramidal que también da a la galería interior. Los arquitectos han dedicado mucha atención a su labor con hormigón.

Noruega

Página 174: Universidad de Trondheim; Henning Larsen, arquitecto. La competición para el diseño de lo que será un programa de edificios de cinco millones de pies cuadrados se basó en una teoría de formas de edificios estructuralistas, en las que una rejilla modular y un tipo básico de edificio dan libertad para alterar el tamaño y emplazamiento de las particiones y las instalaciones técnicas. El proyecto ganador de Larsen entraña un tratamiento arquitectónico de estos principios que evita una tendencia a lo esquemático y logra riqueza de forma. La primera parte concluida de la universidad contiene 225.000 pies cuadrados, espacio para 1.700 estudiantes en los departamentos de artes liberales. El proyecto utiliza el concepto de una "ciudad" densa consistente en cuadras o manzanas de edificios de tres pisos, rodeadas de patios relativamente pequeños con calles cubiertas por techos de vidrio sobre ellos. En cada edificio, el piso a nivel de tierra alberga funciones comunes, tales como la librería universitaria, un minimercado, etc. El segundo piso contiene las aulas, bibliotecas y salas de práctica para los estudiantes de música. Zonas análogas se encuentran en el tercer piso, que contiene gabinetes de investigación y oficinas para el profesorado y personal administrativo.

Qatar

Página 168: Universidad de Qatar, Kamal El Kafrawi, arquitectos. El recinto universitario, a siete kilómetros de Doha en Al Markhiah y a dos kilómetros de la costa del Golfo, está situado en un lugar
sigue en página 236

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elevado. Incluirá varios centros para hombres en un extremo del recinto y para mujeres en el otro. Las formas complejas se derivaron del uso de la ventilación natural y la luz solar. Hacia tal fin, el arquitecto reinterpretó los recursos tradicionales utilizados para obtener luz indirecta, tales como pantallas de madera tallada, el empleo de iluminación difusa desde aberturas en el tejado y torres de ventilación.

Sudáfrica

Página 170: Sede de SACCA, Johannesburg; Hans Hallen, arquitecto. Al norte y sur, este edificio de dos pisos está dotado de un techo plano, losetas de cerámica y cristalerías con pantallas contra el sol. Las fachadas este y oeste tienen techos truncados de piñones. La espectacular entrada oeste, empotrada y encristalada, está compuesta por una serie de configuraciones, cuyo elemento predominante consiste en dos semicírculos de acero recubiertos de epoxia, de color rojo, que se asemejan a alas de insecto. El interior, para 115 empleados, es de plano abierto, al que da flexibilidad la colocación de conjuntos de servicios en un piso con acceso completo. Para reducir el ruido, todos los interiores están alfombrados, los techos de yeso se han tratado con pintura acústica aplicada a pistola y se ha utilizado el "sonido rosado".

Suecia

Página 146: Rudolf Steinerseminariet, Järna; Erik Asmussen, arquitecto. Desde 1971, esta comunidad autónoma ha erigido un conjunto de edificios de baja altura muy detallados y de distintos colores. El edificio más reciente de Asmussen en ese emplazamiento, una torre granero de color amarillo, subraya el interés de la comunidad en los alimentos "naturales". La comunidad cultiva sus distintas granjas utilizando métodos ancestrales. Los edificios en Järna tienen una deuda para con las ideas antroposóficas de Steiner y el interés de William Morris en la artesanía. El jardín de la vieja casa estudio, en el que se fundamenta el complejo ha sido comparado con el jardín de la Casa Roja de Morris. Al diseñar su complejo de edificios, Asmussen, ahora miembro activo de la comunidad, estuvo interesado principalmente en el "impulso" de Rudolf Steiner, en el paisaje y en las tradiciones locales. Ha creado toda una serie de pinturas para exteriores utilizando únicamente colores naturales, ha experimentado con distintas clases de pinturas con base de agua y temple, y ha utilizado los colores de plantas tanto en el interior como en el exterior. Los detalles son simples, artesanales. Todos los edificios fueron proyectados de forma que tuvieran aproximadamente el mismo tamaño, salvo la Casa de la Comunidad, inaugurada este

año. Esta es inusitada ya que tiene un patio interior. El edificio que presenta la calidad iconográfica más acentuada es la Casa de la Música, que sirve a la vez de salón de residencia y de departamento docente. En su configuración sigue la forma de afloramientos recoscos naturales. La sala de la música por encima de la vivienda está coronada por una bóveda de medio punto o de cañón, un círculo semiacabado, que si se acabara tendría el piso como tangente. En contraste, la fachada norte es rigurosamente funcional.

Yugoslavia

Página 158: Olympic Sports Arena, Zetra; Alikalfic, Dapa, Morankic, arquitectos. El Zetra, construido para las Olimpiadas de invierno de 1984, está situado en Sarajevo, capital de Bosnia. Está situado en 40 hectáreas e incluye una sala olímpica, una pista de patinaje. La Sala Olímpica, parecida a un hangar — construida a un costo de US\$17 millones, con vigas de celosía expuestas — es una estructura de alta tecnología, con una sección transversal única que se extiende longitudinalmente, de forma que las dos fachadas son idénticas a la sección. El techo y fachadas también son idénticos. El revestimiento es de cobre, tomado de las mezquitas cercanas. La pista de patinaje es inusitada ya que se yergue sobre 16.000 metros cuadrados de estacionamiento. □

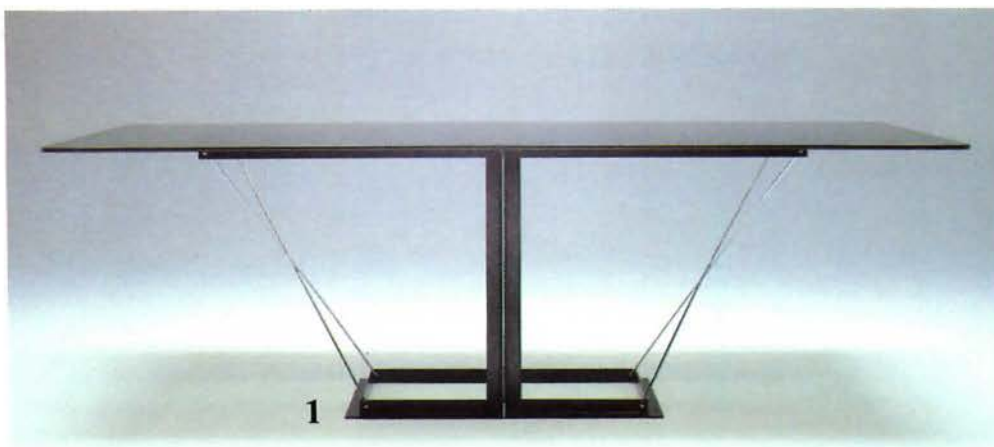
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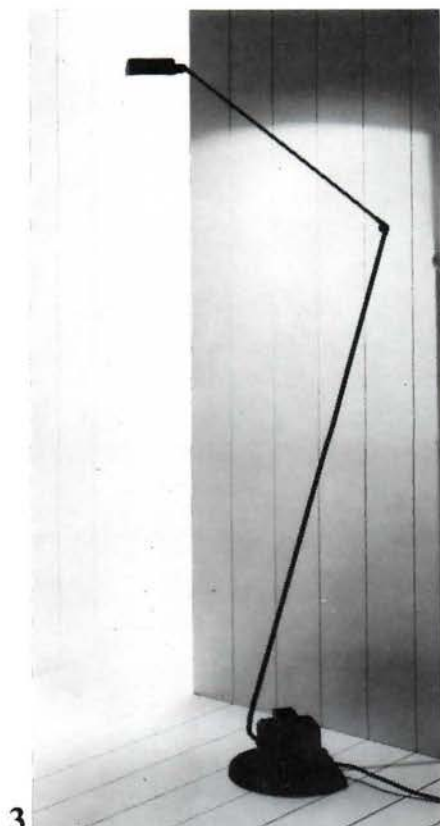


Furnishings

*Also with a foreign accent.
By Nora Richter Greer*

From the Italian firm Thema is a structural table (1). Its thin gray metallic surface is supported by an exposed I-shaped base and taut metal cables. Thema's structural bent is also seen in its black metal chair (2), with a backrest of curved and crisscrossed metal and lower supports of heavier metal.

The elegantly thin-legged Daphne floor lamp (3) is offered in painted black, red, or white metal. Manufactured by Lumina Talia, the lamp is also available in three table models. It accommodates a 50-watt, 12-volt halogen bulb. For the Teofe bed (4) designer Roberto Galimberti employs simple yet bold lines—a rectangular frame gently bends to support tubular-shaped head and foot boards. Manufactured by Pulli of Italy (and distributed in this country by New York City's Kleinsleep), the gold-plated brass platform bed is available in king or queen sizes. The mattress is supported by arched brick slats. □



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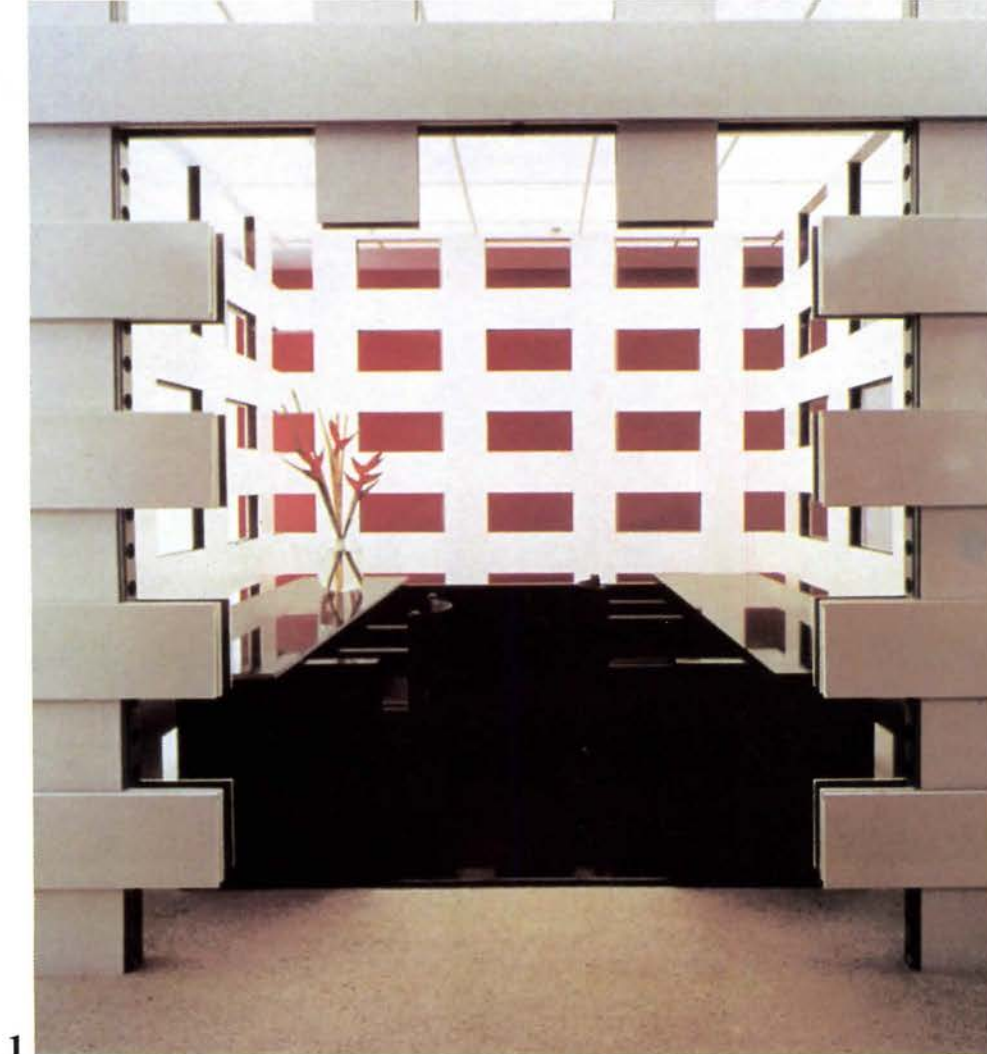
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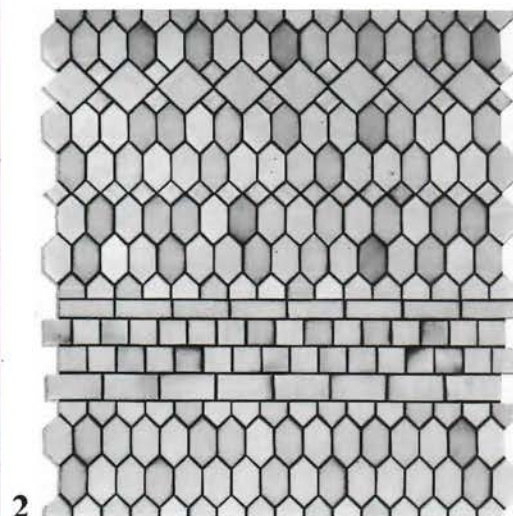
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Products

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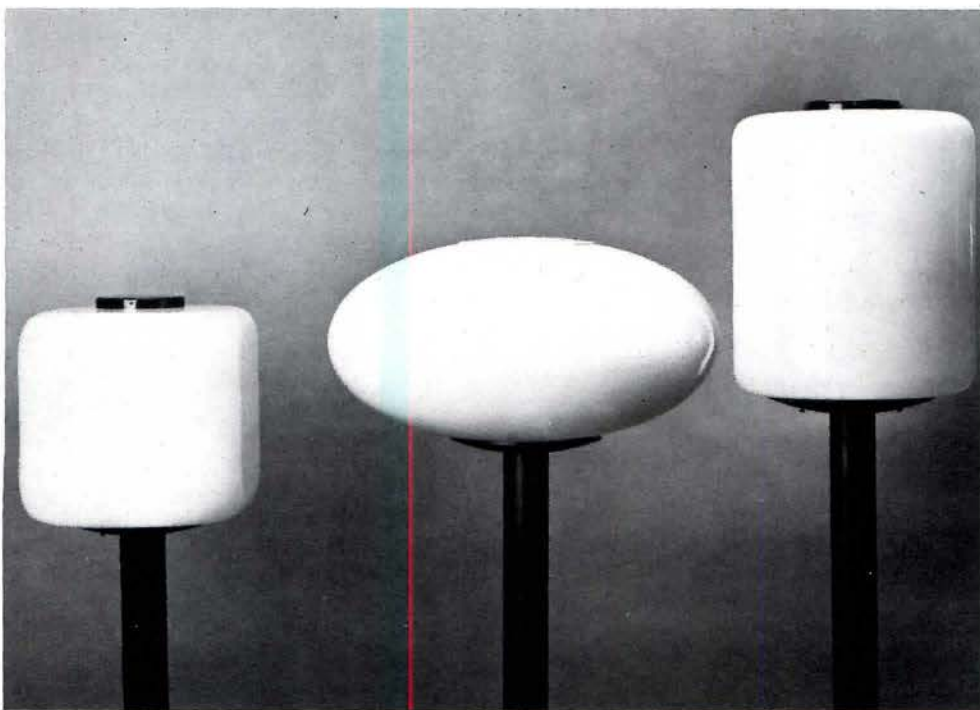
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Workstation (1), designed by Frank O. Gehry, FAIA, for Hauserman, is constructed entirely of red, black, and white Doublewall. Panels feature curved walls, knife edges, and a variety of finishes in sizes ranging from 30 inches to full ceiling heights and widths of 30 to 48 inches. (Circle 161 on information card.)

Complementary geometric patterns of Italian tiles (2) by Faver Industria Ceramiche are designed to be used in varied combinations for custom installations. The glazed tiles are available in seven designs. (Circle 162.)

Mayline's steel file cabinets (3) feature three styles of laminated reference tops, interchangeable case, drawers, bases, and steel caps in five standard and nine custom colors. Three plan file sizes are available with walnut, oak, or white scratch-resistant laminated tops. (Circle 163.)

Products continued on page 244



Lighting Fixtures.

General Electric's Designer Series of exterior luminaires is designed to use energy-efficient, high pressure sodium, metal halide, or mercury lamps. The Contour Cube, Elliptic Globe, and Round Cylinder (above) include post line ballasts suspended in the pole or mounting bracket and feature cast aluminum mounting rings, slipfitters, and socket assembly of black or dark bronze. All units provide a circular light distribution pattern. (General Electric Lighting Systems, Hendersonville, N.C. Circle 192 on information card.)

Laminated Wallboard Panels.

Armor Wall by Gold Bond Building Products is a wall panel system with a thick sheet of vinyl, factory laminated to a solid gypsum wallboard core, designed for high traffic and abuse areas, including schools, corridors, hospitals, commercial kitchens, and public transit areas. Panels are available in four colors with an embossed surface finish. (Gold Bond Building Products, Charlotte, N.C. Circle 191 on information card.)

Roofing System.

Single-ply membrane roofing system is constructed of Celanese Fortrel polyester and polymeric coatings. It is installed with custom fasteners and special heat welding equipment and is designed for application over old roofing or new substructures. (Bond Cote Systems, Pulaski, Va. Circle 190 on information card.)

Ceiling System.

Aluminum louvered ceiling features a continuous, open cell appearance that can be suspended either wall-to-wall or as a free floating unit to highlight certain interior spaces. A 2x4-foot hanging grid disap-

pears into the design of the louver cells and is designed to be adaptable with standard lay-in fluorescent fixtures and modular ceiling utilities. (Integrated Ceilings, Inc., Los Angeles. Circle 189 on information card.)

Roofing Material.

Trafbloc protective roof surfacing material is designed for use in areas with high pedestrian traffic or mechanical abuse potential. It is made of chopped rubber particles and synthetic binders and can be applied with hot asphalt, with compatible approved rubber-based adhesives. Panels also can be cut from the roll to meet custom size requirements. (Siplast, Arkadelphia, Ark. Circle 188 on information card.)

Thin Brick Veneering.

Huntington Pacific mini-brick are constructed of kiln-fired Alberhill clays and wire cut 7/16-inch thick. They can be applied to almost any sound substrate for remodeling and new construction. Four sizes are available in eight glazed finishes and nine unglazed finishes. (Huntington Pacific Ceramics, Inc., Corona, Calif. Circle 187 on information card.)

Interchangeable Lock.

Removable and interchangeable core cylinder lock by Schlage allows the conversion of existing installations from standard knobs to core knobs without modification to the existing chassis or buying new locks. The core is removed with the use of a control key, and a spring-loaded pin allows a new core to be inserted by hand into the cylinder housing. It has six front chambers keyed like a standard six-pin cylinder. (Schlage Lock Co., San Francisco. Circle 183 on information card.)

Acoustical Ceilings.

Conwed Premier ceilings are designed to provide acoustical privacy in an open office landscape by reducing conversational noise. The panels feature a factory applied, washable, white vinyl latex paint finish available in 24-inch-square reveal tiles, and 24x48- and 20x60-inch lay-in panels. (Conwed, St. Paul. Circle 186 on information card.)

Task Lighting Fixtures.

LPI Stock Parabolic single lamp luminaire features a two-element reflector in an open bottom housing. It provides controlled distribution in a narrow beam pattern with sharp vertical cut-off. Units are designed for installation in computer terminal rooms where computer screens and work stations require different illumination. (Lighting Products, Inc., Highland Park, Ill. Circle 185 on information card.)

Window System.

Factory assembled butt glazing system is designed to create the appearance of continuous exterior bands of glass with a minimum of vertical seams between panels and no interior vertical supports. Polarpane features extruded neoprene perimeter seals and extruded silicone vertical seals with thermally broken aluminum receptors in a variety of finishes. The system can be installed around any outside corner angle or reversed for inside corners. A variety of glass types and thicknesses is available. (Hordis Brothers, Inc., Pennsauken, N.J. Circle 184 on information card.)

Thermostat System.

Honeywell Energy Products' multistage programmable commercial thermostat system is designed to provide maximum energy savings in small to medium-size commercial and institutional buildings. It features two interdependent components, the thermostat and the control module, and an optional load control system. It may be programmed for varied periods of the week and features two cooling set points. (Honeywell Energy Products, Minnetonka, Minn. Circle 182 on information card.)

Computer Software Package.

Calcomp facilities planning and management software is designed to enable architects, interior designers, and facility planners to review, revise, and design elements of a facility plan on the screen and then print hard copy floor plans, equipment plans, furniture models, and other architectural drawings. The system will collect display information on interaction between different working areas and display it on a blocking diagram. (California Computer Products, Anaheim, Calif. Circle 178 on information card.) □

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