THE INTERNATIONAL MAGAZINE OF ARCHITECTURE APRIL 1973

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The International Magazine of Architecture April 1973

ARCHITECTURE PLUS APRIL 1973 VOLUME 1 NUMBER 3.

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Letters

We have received so many friendly, helpful and constructive letters from all over the world that our postman has had to hire a helper. And the letters are still coming in. This is enormously encouraging to all of us; but it does make it difficult to answer any letters other than those that pose specific questions or challenges. It also makes it impossible for us to print more than a fraction of the letters received. We ask your indulgence on both counts—but, please, keep writing; it does wonders for our morale, and that of our advertisers.

—The Editors.

Architecture PLUS is just splendid! Reading your first issue, I am confident it will open new windows to the world of international environmental design that will win it a wide and growing audience. Good luck!

STEWART L. UDALL
Chairman of the Board/Overview;
former U.S. Secretary of the Interior.

Now I know what I have been missing these past years. I do indeed look forward to PLUS.

DANIEL P. MOYNIHAN
Ambassador, Embassy of the U.S.A.
New Delhi, India

I have had a chance to see the first issue of your new magazine and do want to congratulate you on it. It does fulfill a very significant need for all of us interested in trends and events in architecture, planning and allied fields.

PETER WOLF
Institute for Architecture and
Urban Studies, New York City

One of my partners has just received Volume 1, Number 1 of your magazine. A brief scan by the undersigned (even before my partner had a chance to look at it) leaves me heavy hearted and disturbed enough to write to you.

I have but one question . . . WHERE IS MY COPY?

Really, the quality and depth of coverage is remarkable, particularly when one considers the scope of the publication. Copies of the magazine will be (as well they should) jealously guarded by subscribers. Please give me the opportunity to do this with my own subscription.

Thank you for your kind attention to the above matter, and congratulations on an extremely fine magazine.

DAVID M. TRIGIANI
Architect, Jackson, Miss.

I've just had time to sit down with Volume 1, Number 1 and enjoyed it immensely. I can hardly wait to argue with you on a few points, but it is a helluva good book!

For the first time an architectural reporter/critic has begun to see some of the medieval character of current cliches, and some of the real pzazz in other countries is being given much needed coverage.

GEORGE T. HEERY
Architect, Atlanta, Ga.

PLUS just arrived and pulled us right off the boards.

What a treat to us office-bound, dreamer-designer-builders to get off on a trip around the world each month now, we hope, to see what *really* is going on and how the important past is standing.

I can't wait for the hours to sit down and really read this issue cover to cover.

PETER POWERS HALE
Architect, New Haven, Conn.

The article "China Today" was most informative and brought out so well how the Chinese are trying to design around the nervous system of man.

The rest of the issue, for the most part, concentrated on the usual structural gymnastics and energy-robbing glass box fixations of the typical international designer as he cavorts on the architectural trapeze of opulence and decadence.

It can only be hoped that future issues will carry more articles covering the world's pristine and indigenous human shelters along with their living patterns.

DANIEL K. SPEER
Architect, Springhill, La.

Congratulations! Architecture PLUS is bound to be a success. Its international flavor is sure to endear it to the membership of the American Institute of Landscape Architects, which encompasses the North American Continent, as well as other countries around the world.

As landscape architects, we look forward to seeing articles on land planning, landscape architecture and environmental analyses planning.

You are off to a great start. Keep it up!

F. J. MACDONALD
Executive Vice President, AILA
Phoenix, Arizona

The first issue of Architecture PLUS is just great. Congratulations! I am sure by now you are getting similar reactions from many people and I just wanted you to know my enthusiasm for what I hope will be the definitive international architecture publication.

PETER H. SCHUB
New York City

Fine photography, deep-study reporting (Ellen Berkeley's piece on Boston City Hall is particularly perceptive) and the scholarly professional excellence of your staff make Architecture PLUS a brilliant and welcome addition to the architectural press.

Volume 1-Number 1, from front cover to the backcover ad, is a jewel.

Welcome; good work; good luck.

A. CALVIN HOILAND
Architect, Great Falls, Montana

I've seen your new magazine and it shapes up as an architectural magazine should. It's off to a flying start.

KAREL YASKO, FAIA
Architect, Bethesda, Md.

Your first issue is tremendous. I'm not a professional architect but I am interested in the social problems reflected in architectural considerations.

I found the magazine fascinating and instructive. I can well imagine that to professional architects the world over, it must be a long awaited Godsend. And it is such a beautiful magazine.

I congratulate you on the achievement. I *can imagine* that it can only get better as it gathers momentum.

For appropriate advertisers, it must certainly become an incredibly effective medium.

RICHARD K. MANOFF
Richard K. Manoff Inc., advertising
New York City

Let me take this opportunity to commend you on this excellent, refreshing, timely, and obviously high quality publication. If the inaugural issue is an indication of what we may expect from Architecture PLUS, it will meet a great need in the field of professional journalism.

SOL KING, FAIA
Architect, Detroit

At the occasion of Architecture PLUS's first issue, please accept my sincere congratulations. Would you also allow me to make the suggestion that the new magazine republish from time to time contemporary critiques of buildings that have survived honorably, together with an analysis why, in hindsight, the critic appears to have been recommendably perceptive, or why he failed. So many of surviving master works received bad reviews when they first appeared before the public that I believe the fact deserves attention and investigation.

The proposal occurred to me when I read Ellen Perry Berkeley's essay on "The Boston City Hall." The critic avoids seven pages long to state a personal opinion about either its esthetic merits or its functionalism and only quotes judgments by others, many of them critical. The poll justifies that the author be worried by "a ghastly failure to educate, a failure to get the message across. . . ."

So far so good. But then the essay continues by questioning whether "the level of popular taste (can) be 'raised' to appreciate this building" and by saying that instead of an effort in this direction "I would personally prefer to see the effort go into learning more about the untrained eye —what it finds pleasing and stimulating." Thus, on the seventh page it results that all the critical observations about a specific

building were dragged in only to deplore the gap between the *dernier cri* of the avant-garde and popular taste; and to suggest a study of perception as a psychological and physiological phenomenon. On that score I have reservations.

As a human faculty, perception concerns only the ability to develop a taste. Specific preferences are cultural attributes. Putting the tongue of animals under the microscope we will see that they have taste buds, but cannot find out why squirrels like acorns and koalas eucalyptus leaves. Investigation of their habitat may explain at least that choice, though it would still leave us completely in the dark about the nutritional value of their food.

The unfortunate gap between highbrow and common taste has been plaguing Western civilization for 150 years. It exists not only in architecture, but in literature, music and painting as well. We should worry about it and try to close it. Not by looking for the lowest common denominator though, and not by courses in art appreciation either. How? Perhaps Architecture PLUS will help to discover the way. Until then, don't hold the architects of City Hall responsible for its existence. Be grateful that between Kallmann-McKinnell, Ed Logue, Mayor Collins and other contributors civic art in America managed to advance in a new direction.

Functionalism in one way or the other was a generally accepted ideal of "modern architecture." Under this doctrine the critical observations assembled in the essay on Boston City Hall concern the essence of its merits. The stress put on some may appear exaggerated to most of its users; but these dissenters would most likely substitute for them other, not-mentioned functional shortcomings, which have at least equal esthetic significance.

Classic Modern has petered out into 20th-Century Mannerism. It seems that every style has to develop from an early, through a high, to a late phase. Cycles start with *conceptual* abstractions, such as the purity of the loftiest stone arches and vaults; or as the perfect proportions of long-ago crumbled and buried orders and carvings; or as operating and structural functionalism. They end with delight in *perceptual* effects, with a flamboyant style, with a jumble of broken pediments turned inside out; or with . . . with what? We don't know yet. We are in transition toward the unknown future. Symbolism is one of the going catchwords; be it in the sense that City Hall must be the symbol of the city's dignity and aspirations; or be it in the sense that the shape of a dog is the symbol of hot dogs. In both interpretations the term seems to be applicable to almost any style and not to describe what is new. Until functionalism came along churches used to look like churches and the houses of prolific poor like old shoes. Be that as it may, compared e.g. to the Bauhaus, Boston City Hall appears busy, tending toward flamboyance; and manifests the perceptual ambitions of its architects. But the idea of a many-layered, concrete-tasseled canopy, raised on pilotis over a brick mound, harks back to the conceptual approach of modern architecture's "high" phase, and stamps the style as transitional.

For Ellen Perry Berkeley, social consciousness and taste seem to be one and the same thing. Many of us tend to agree, although with reservations. Boston City Hall would be a still better building if its cost-benefit ratio were less extravagant and circulation more obvious; if access were provided without "Russian Roulette with the entry doors" and work spaces had more daylight. I wish City Hall were a monument to a decade of peace, decency and common sense instead of reminding me of a decade in which civic progress was bought by wasting treasures and human lives on keeping selected moneybags replete and egos inflated. If we could have our druthers, they might also have gone some way to close the gap between highbrow and common taste without requiring the detour over the likes

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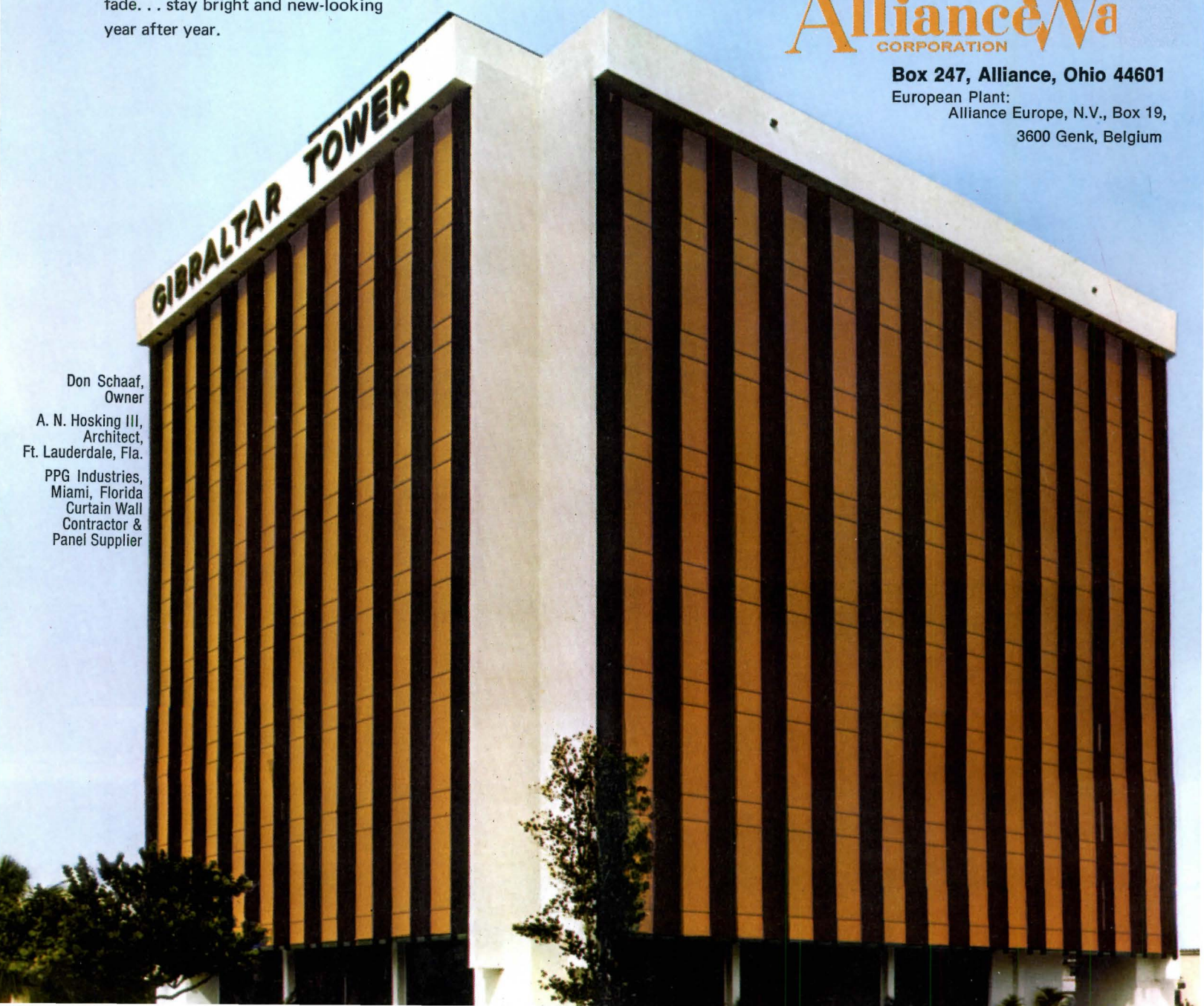

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ch time I ask one of my fellow architects what he or she would like to see more of in a magazine of this sort, the answer is "fearless criticism." And I agree—though I think I would prefer "informed criticism"; because it is relatively easy, in a free society, to be "fearless"; but it is a great deal more difficult to be "informed"—in the sense that the informed critic, having undergone the labor pains in the creation of a building or a project, understands all the demands that impinge upon you as you try to do your damnedest as an architect.

A very sad thing has been happening in architectural journalism in recent years, however; and that is that many of you who have rightly called for "fearless criticism" have, at the same time, attempted to control the kind of publication that your work should receive. And some of you, who have been most insistent upon raising the standards of critical appraisal in the architectural press, have refused to permit publication of your work in magazines that indeed have a reputation for being "fearless."

As a result, several publications in the U.S. and elsewhere have been reduced to public relations organs. Which means they are "spineless," rather than "fearless."

I can understand why some of us architects would prefer to control what is said about our work. But this hardly serves our profession, or our art, or our continuing education. It is as if book publishers refused to supply review copies to book reviewers that have, in the past, panned an author's book; or as if a museum director refused to let a previously critical critic inspect his latest show.

All of us are, I think, very deeply committed to certain freedoms. And so I would like to suggest that we agree to subscribe to a slightly modified version of the First Amendment to the U.S. Constitution—to wit: "Architects shall make no law abridging the freedom of speech, or of the press." Is the AIA listening?—PETER BLAKE

"Speeding Automobile" Balla (1915)

Futurismo 1909-1919

The first major exhibition of Italian Futurism to be held in Britain in over 50 years is now on view at the Royal Academy in London. The show, Futurismo 1909-1919, was first sponsored by Northern Arts and the Scottish Arts Council, and shown at Newcastle and Edinburgh.

It is hard to imagine an architect who at some time or other has not fallen under the spell of those Futurist images that were inseparable from the modern movement — particularly, I suppose, "Speed," painted by Giacomo Balla in 1913, "Bottle Evolving in Space," the sculpture by Umberto Boccioni of 1911-12 and, of course, Antonio Sant'Elia's drawings of a Futurist Metropolis (1913-14). But for most of us in Britain this exhibition must be the first experience we have had of the original work so well known in black-and-white reproduction.

The dynamism and life of Futurist art is ill-served by the witless and institutional setting at the Royal Academy which is antithetical to the spirit of that strange and short-lived time of passionate optimism about man and machine. An impression of tawdriness and poor execution overcame the pleasure in a few vivid individual items.

The significance of Futurist ideas really lies in the short space of time in which we have turned about-face and rejected their premises, their passion, their optimism and their faith in tomorrow. The New Luddites see the machine civilization the Futurists welcomed with such excitement as the anti-human agent of Eco-disaster. The heroic machine in Futurist eyes has become the great enemy. Their contempt for the past has been replaced by a contempt for the present expressed in the powerful resurgence of the whole conservationist movement. We no longer see the dynamic speed of Balla's *Speeding Automobile*—we see the swirling trails of exhaust as noise, pollution and smog.

What we lack is their outrageous nerve, conviction and wit. Two Futurist quotations illustrate just how much of a rear-view-mirror civilization we have become.

From the Futurist Speech to the Venetians by Marinetti, July 8, 1910: "When we shout 'Let's kill the moonlight!' we think of you, old Venice soaked with romanticism! . . . Your Grand Canal, widened and dredged, will inevitably become a great mercantile port.

Many of the news reports and comments are from our regular field editors: John Donat (London), Gilles de Bure (Paris), Detlef Schreiber (Munich), Vanna Becciani (Milan), Charles Correa (Bombay), Neil Clerehan (Melbourne), Yasuo Uesaka (Tokyo), and Leonardo Aizenberg (Buenos Aires). Plus correspondents are identified by their initials; other contributors by their full names. The remainder is contributed by our New York staff.

Trains and tramways constructed at last on your filled-in canals will bring you mountains of merchandise and a wise, rich and busy crowd of industrialists and business men!...Venetians! Venetians! Why do you wish always to be the faithful slaves of the past, the foul custodians of the greatest brothel in history, nurses of the saddest hospital in the world, in which there languish souls that are mortally poisoned by the virus of sentimentalism?"

From the Initial Manifesto of Futurism, Marinetti, February 20, 1909: "We declare that the world's splendor has been enriched by a new beauty: the beauty of speed. A racing motor car, its frame adorned with great pipes, like snakes with explosive breath . . . a roaring motor car, which seems to run on shrapnel, is more beautiful than the victory of Samothrace. . . . We shall sing of the great crowds in the excitement of labor, pleasure or rebellion; of the multicolored and polyphonic surf of revolutions in modern capital cities; of the nocturnal vibrations of arsenals and workshops beneath their violent electric moons; of the greedy stations swallowing smoking snakes; of factories suspended from the clouds by their strings of smoke; of bridges leaping like gymnasts over the diabolical cutlery of sunbathed rivers; of adventurous liners scenting the horizon; of broadchested locomotives prancing on the rails, like huge steel horses bridled with long tubes; and of the gliding flight of aeroplanes, the sound of whose propeller is like the flapping of flags and the applause of an enthusiastic crowd. . . . The oldest among us are 30; we have therefore at least ten years to accomplish our task. When we are 40 let others, younger and more valiant, throw us into the waste-paper basket like useless manuscripts. We desire it!"—J. D.

The swamp is no more

The Lugano I—II Urban Complex is located in the Almirante Brown Park in the southwest sector of Buenos Aires. This area of 1,434 hectares was formerly the Bañado de Flores—an extensive swamp which has now been reclaimed and sanitized. The previous land conditions had created a marked stagnation in the development of this zone, especially when compared to the fast-developing section in the south sector. A pilot plan was set up by the municipal government to balance growth in the different parts of the city, and thus was begun the reclamation project for the swamp.

The land was divided to allow 425 hectares for housing for 180,000 people (along with corresponding social, cultural and commercial spaces) 770 hectares for recreational use; 460 hectares for sports facilities; and 45 hectares for an industrial park, with the potential to provide 10,000 jobs for laborers.

This is the swamp "reclaimed." The photograph speaks for itself

The residential sector is divided into two principal groupings, composed of subgroupings of 20,000 people each. The first phase consisted of 3,808 units integrated into 68 structures.—L. A.

Tragedy in the afternoon

Bailey's Crossroads, Virginia, near Washington, D.C., is now on the international construction map as the site of one of the industry's most spectacular—and tragic—accidents. At about 2:30 p.m. of March 2, while the building was full of construction workers, tons of concrete and machinery ripped an 80-ft-wide top-to-bottom gash in a 24-story condominium tower. The collapse began at the roof and, with domino effect, ripped downward to the ground with the impact of a bomb, spreading dust for several blocks and totally severing the tower. Seven men were killed, 34 were injured, and seven were still missing at this report.

Professor of Architecture Ingvar Schousboe of the University of Illinois, a nationally recognized expert on concrete construction has been hired by the county to conduct the investigation. "If a chair collapses under you," he said, "either you're too fat or the chair is too weak." The heavy loading crane that was on the top of the collapsed portion of the building, obviously "the fat man," is of prime interest to the professor, who has recorded figures of the crane's weight and size, and has calculated the stress it put on the building.

Schousboe said he has examined many collapses in the last 25 years, "but never anything this ugly." He has collected numerous concrete samples and data on the wind, temperature, humidity and type of work being done at the time of the collapse. "Building accidents write their own story in the remnants," he commented.

Whatever started the fall took tons of formwork, green and cured concrete with it as it gained momentum. Afterwards, the smaller of the two building sections that remained standing had to be razed as a safety measure to protect the men looking for bodies in the area.

The building was the first of two identical towers, which were to be joined by a four-level garage. The garage was under construction at the time of the accident and two floor slabs had been completed. The impact of the adjacent failure lifted these slabs by concussion from the foundation and when they fell back on the foundation, the slabs broke. Many of the injured and dead men were under this section, now a prime search area for missing men presumed dead.

Two workmen on the roof were rescued by a helicopter after throwing down a 2x4 wood scrap with the message, "for God's sake, get us off of here!" Others were obviously not so lucky.

A local inspector says that there had been almost daily inspections of the site, with no record of violations. The developer, Charles E. Smith Co., Inc., plans to salvage the standing portion of the building and proceed with construction, hoping for occupancy in December, four months behind schedule. The company estimates there was $12 million of property damage on the $25-million structure.

The tower was the newest in a $200-million project called Skyline Center which also includes two completed 26-story apartment towers, and a 16-story office building. Plans call for two more 16-story apartment buildings, four more office towers, a hotel and shopping area.

To ring or not to ring

London and traffic rings

The Conservative Government has at last announced its decision in principle to proceed with the Inner Ringway urban motorway plan for London "subject to public discussion" but has scrapped or modified the plans for the two outer rings.

At the same time, the Labour Opposition has published *its* policy document "A Socialist Strategy for London" which would scrap the Inner Ringway and use the money saved compulsorily to purchase all rented property in London—but they intend to keep the outer ring to relieve pressure on through traffic.

The electors are presented with the choice of building ringways or not. Neither proposal carries any conviction nor any sense that a truly strategic view of the future nature of London traffic has been taken.—J. D.

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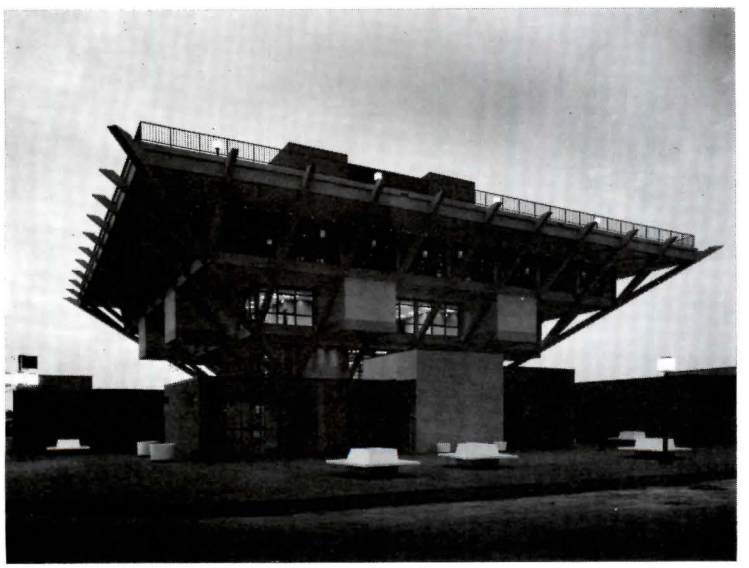
Beirut

The new administrative buildings of the Ministry of Defense of Lebanon rest on 50,000 square meters of choice land overlooking Beirut. The complex consists of four independent blocks raised on columns and connected by footbridges; and a 400-seat Conference Hall in the shape of a flattened white egg. The shell has only one entrance opening where a ramp penetrates it. The design for this asymmetric ellipse was complicated, and the design theory was tested for structural strength in a scale model at Belgrade University in Yugoslavia. The architects are André Wogenscky and Maurice Hindié. (The building will be published in detail in a forthcoming issue of Architecture PLUS.)



St. Petersburg, Florida

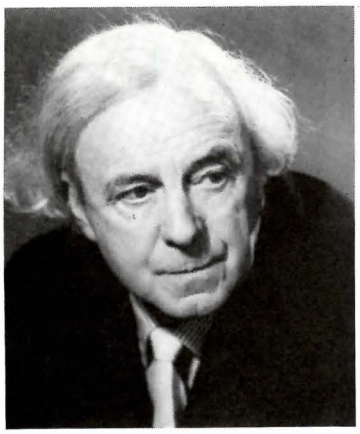
This upside-down ziggurat of five levels has something for everyone: restaurant, snack bar, meeting room, auditorium, exhibition area, gift shops, observatory deck, two-story lighted, rain-curtain fountain and a fishing promenade. Exterior buttresses carry the weight of the steel and poured-in-place concrete structure down to four major pylons, which are driven 75 feet into the floor of Tampa Bay. "The Pier," a Marriott Corporation development, was designed by Architects William Harvard and Blanchard Jolly. The pier itself has been a historical landmark for almost a century.

Washington, D.C.

The Chancery is the first building of an embassy complex which the Government of Brazil is putting up in Washington, D.C. Still in the construction stage are an auditorium, a plaza, an exhibition pavilion and facilities for underground parking. The cantilevered three-story gray glass box elegantly graces that part of Massachusetts Avenue known as "Embassy Row." The entire complex, including interiors, was designed by Olavo Redig de Campos of Brazil in association with Hans-Ullrich Scharnberg of Washington, D.C.

Vancouver

The University of British Columbia has built the underground Sedgewick Library to fit between eight steel-sided "flower pots," or caissons, 30-ft. high, each one protecting the roots of a 40-year-old Northern Red Oak tree. The tubular caissons extend 6 ft. below the two-level library's bottom floor. A four-inch air space separates the caissons from their brick casings. The red oaks form part of a border of trees on the mall at ground level. The library has room to seat 2,000 students and can accommodate 180,000 volumes. The architects are Rhone and Iredale of Vancouver.



Sir Leslie Martin
Hall of Residence, Cambridge

Top dog

The Royal Institute of British Architects will present in June its Gold Medal to Sir Leslie Martin, until recently Professor of Architecture at Cambridge University.

The citation praises his "truly outstanding contribution to architecture and planning, both through his work in private and public practice, and most notably as a leading figure in architectural teaching and research."

During 35 years as a practicing architect, Sir Leslie's work has included many distinguished university buildings at Cambridge, Oxford and Hull. He has served as Architect to the London County Council (1953-56), and taught as head of Cambridge University's School of Architecture (1956-72). Currently he is working on a new arts and recreation center in Glasgow and a government center in Taif, Saudi Arabia.—J. D.

Two polluted nations help each other clean up

Recognizing that there are enormous similarities between the two giants, the U.S. and the USSR may become partners in an environmental clean-up operation of both their houses. Representatives from the USSR are going to the U.S. this spring to discuss the proposed arrangement and, with luck, to get the thing going.

It is expected that the Soviets will suggest two subjects as a beginning: energy conversion and municipal operation (including design of new cities and urban decay solutions).

Both countries, highly industrialized as they are, recognize that industry is a major polluter. One difference between the two is the question of priorities.

In the USSR, for example, where the government owns and runs everything, the polluter is also the rescuer, thus eliminating the time-consuming political maneuvering which is always necessary in many other countries to get any meaningful legislation passed. American business interests often carry the power to override (behind the scenes) get-tough environmental packages. On the other hand, the Soviets have some problems the U.S. doesn't have—"inefficiency" for one. They lack, by their own admission, the managerial personnel and computer expertise necessary to initiate and effectively control a massive and complex campaign.

The proposed bilateral agreement is independent of the newly formed International Institute, a group of 13 countries which meets in the old Hapsburg Castle in Vienna to discuss the world's problems with the environment. The U.S.-USSR pact will have a much broader base.

Two of the Soviets invited are A. O. Kudryavtsev (Committee on Construction and Architecture) and Dr. Konstantin Ananichev, (Committee for Science & Technology). Kudryavtsev, after 30 years of studying the quality of urban life, has established planning guidelines for Moscow. Among them: optimum size of buildings (five stories) and no factories in city centers. Dr. Ananichev feels the subject of building underground should be explored. He believes "energy will become the hard currency of the future."

Edward Bentz, a physicist interested in the systems dynamics modeling of environmental and socio-economic systems (translation: he builds models of cities) was invited as a private citizen to visit the USSR last February to give a lecture tour. He will be on hand to greet the Soviets and accompany them to Orlando, Florida (where they can visit a most modern city, Disney World) to observe RCA's "wired city" experiment which the Soviets are very anxious to see. RCA has developed (and now has ready) a "videovoice" for consumer use—a small black box which attaches to the telephone and can transmit and receive images. RCA will equip homes in a section of Orlando with videovoices for a one-year experiment scheduled to begin this spring.

This trial run, if successful, could prove to have a stunning impact on every aspect of life; it could alter basic design needs in a world where distances become meaningless.

A patient could telephone his doctor, and in many cases, the examination could take place over the phone. A woman could telephone a dress shop and ask to see the latest dresses in her size, and have her selection sent. The salesman could show his samples from his office. The many "saved trips" may eventually alter traffic flow.

Britain abandons the hovertrain

The British Government has pulled the rug out from under the hovertrain, possibly the most advanced high speed ground travel system in the world, when, in a surprise move, it cancelled the project a month ago, and admitted defeat.

The Tracked Hovercraft Company was set up in 1967 as a subsidiary of the National Research Development Corporation, and at that time it was announced that within three years a manned test train would be running at speeds of up to 150 mph. Eventually the 100-seat vehicle was to carry passengers up to 300 mph.

Among other serious frustrations: several senior scientists resigned, and an 18-ft.-high section of track collapsed in August 1970.

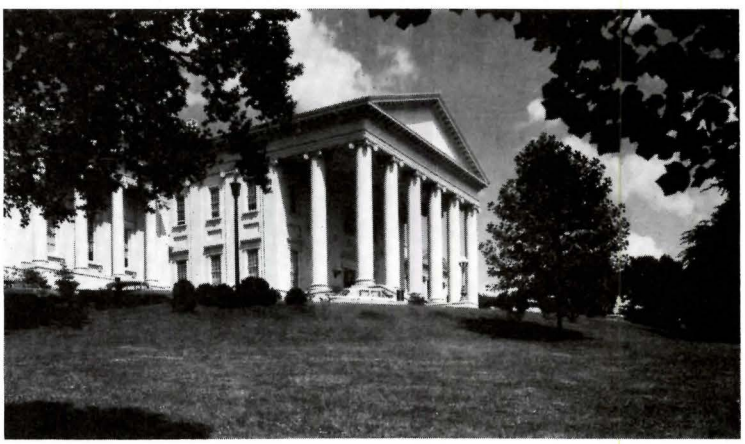
The company proved unable to guarantee that even by 1980 a passenger-carrying hovertrain would provide the badly needed airport links it was designed to accommodate.

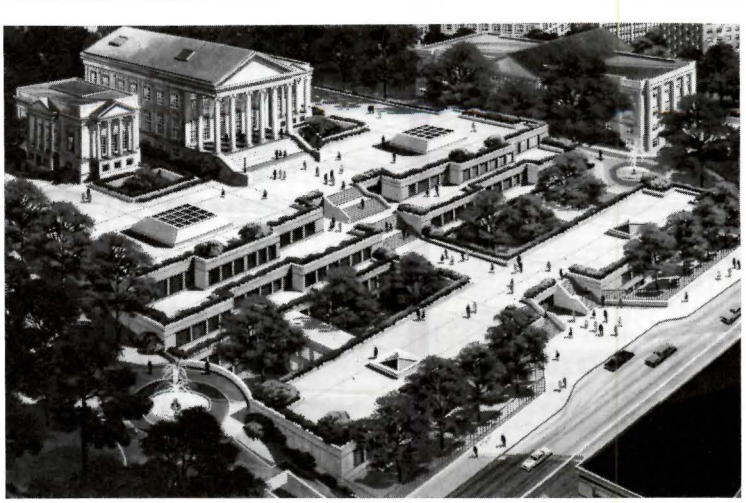
One possible customer remains—Toronto, Canada is looking into new forms of transport.—J. D.

Jefferson and Helpers

The photograph above shows, of course, the Virginia State Capitol by Thomas Jefferson. The rendering below shows the Virginia State Capitol by Thomas Jefferson with Saunders, Pearson, Appleton & Partners of Alexandria, Va.; Oliver, Smith, Cooke & Lindner of Norfolk and Richmond, Va.; and Tecton, Inc. of Philadelphia. The great man didn't really need all that help. His Capitol, America's first monumental building in the classic style, is dependent for its present effect on its serene setting. Destroying that setting would be a callous act tantamount to destroying the building. At last report, the Virginia House has passed a bill authorizing $3 million for proceeding with the planning; the Virginia Senate has defeated the bill. At least for the moment. Perhaps, for want of any other plans, it is being saved as a surprise for the Bicentennial.

Virginia State Capitol now (top) and after (ugh) proposed expansion.





Diminishing the intrusion

A last-resort plan to save Manhattan from drowning in automobiles —the Manhattan Auto Study— was presented to its long-suffering inhabitants on March 9. Only something drastic, it must be admitted, could work in a city where 250,000 cars drive onto the island and *park* every day, not even mentioning cars that are already there, and not counting cars that drive in to deposit people and drive out again, and completely ignoring the 270,000 cars that aren't going to Manhattan at all, but driving through.

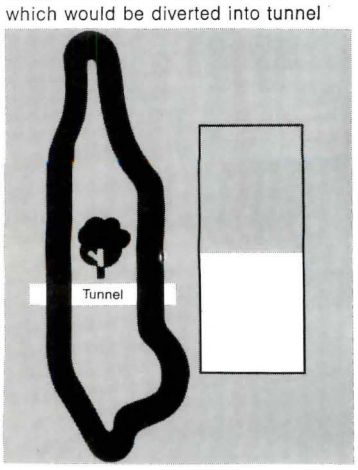
The goal of the study is to reduce peak hour travel to Manhattan's Central Business District (CBD) by at least 20 percent, and to eliminate most on-street parking in the CBD during the day. This privately sponsored plan calls for three major projects:

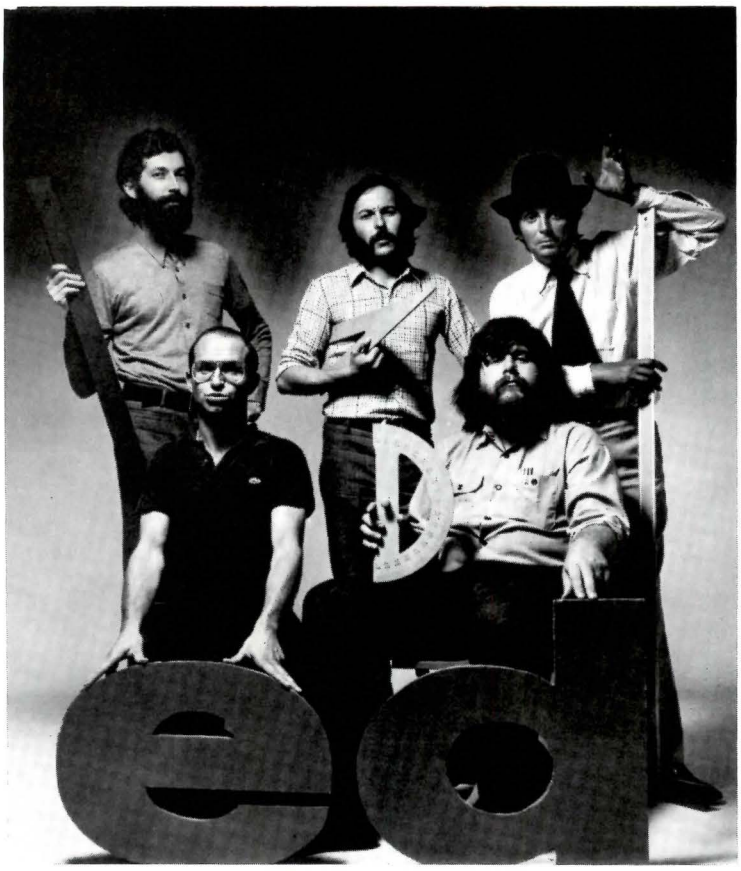
- A four-lane tunnel deep under Manhattan connecting Lincoln Tunnel on the Hudson River to the Queens Midtown Tunnel on the East River, with auto entry or exit in Manhattan prohibited, except for access to parking.
- Peripheral parking for 100,000 automobiles in an area on the west rim of the island—an area that would be created if and when the West Side Highway is ever built out over the Hudson at pier line.
- An immediate $2-a-day surcharge on parking in the CBD (the area below 60th Street) to discourage private car use.

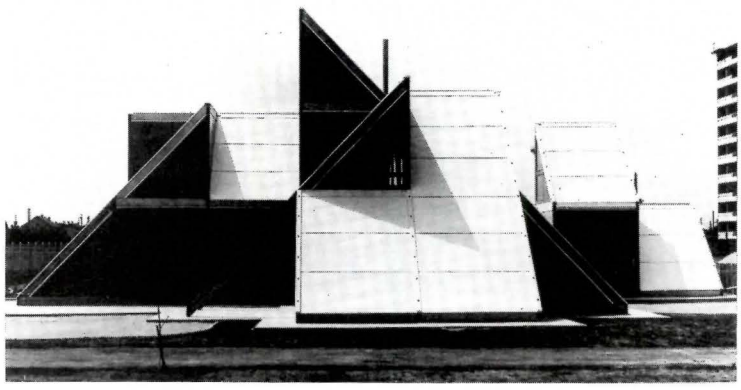
The report was prepared over a two-year period by a group headed by Stockbroker Donald E. Weeden, Planner Harry Schwartz and Editor Robert Beshar. Funds for the Study were provided by Mr. Weeden and the J. M. Kaplan Fund, Inc., through the auspices of the City Club of New York Research Foundation.

The Manhattan Auto Study group hope to "diminish the constant intrusion of the motor vehicle, and restore a measure of tranquility and civility to the city."

White shows % of weekday traffic which would be diverted into tunnel







The team called ED, and (below) their youth club

Nine hundred million francs for 999 youth clubs

Last month we showed two of the three winning designs from the French Government's architecture competition, called (with a bit of poetic license) "One Thousand Youth Clubs." The firm of ED (Environment Design) is the third winner. The two shown last month were SEAL and TRIDIM BSM de Coene.

The purpose of the project, sponsored by the *Secrétariat d'Etat à la Jeunesse, aux Sports et aux Loisirs,* is to build these 999 prefabricated teen clubs all over France, to encourage excellence in sports activities. Each of the three design firms will build 333 of the clubs. The cost is estimated to be 900 million francs.—G. de B.

Hope springs eternal

The Architectural Association School of Architecture is the oldest (125 years), largest and best-known architecture school in England, and its prospects for reaching 126 years are grim.

Direct aid from the government has been refused, and the right to require local authorities to pay school fees as student grants has been turned down. The school, a private institution not supported by the Government, is plainly distressed at the risk of becoming an elitist fee-paying institution. To remain solvent the school has estimated that it may have to raise its fees by 50 percent in 1976, which is also the year the lease on its premises in Bedford Square will expire.

Now there is a ray of hope: the Inner London Education Authority is prepared to offer fifteen new awards each year for "suitable students."—J. D.

Thanks for Chandigarh

The Institute de la Vie in Paris has given an award to P. L. Verma (Chief Engineer, Retired) and M. N. Sharma (Chief Architect) for bringing honor to the new city of Chandigarh, India; and for building a completely modern city in an ancient country. The cash prize of 250,000 French francs was put up by the Bank of Paris and of Pays-Bas (Netherlands) in recognition of the architects' success in enriching the quality of life in India.

Mr. Verma selected the site for Chandigarh and chose the architects, a design team which included Le Corbusier.

Mr. Sharma joined the Chandigarh Project in 1950 as an architect, and worked with Le Corbusier and Pierre Jeanneret on the early stages of the project until 1965, when he took over as Chief Architect from Jeanneret (Le Corbusier's cousin).

The international jury that made the selection consisted of 27 persons from 12 countries, under the chairmanship of Professor Robert Debré, a member of the Institute de la Vie.—Y. U.

Metrification can be fun

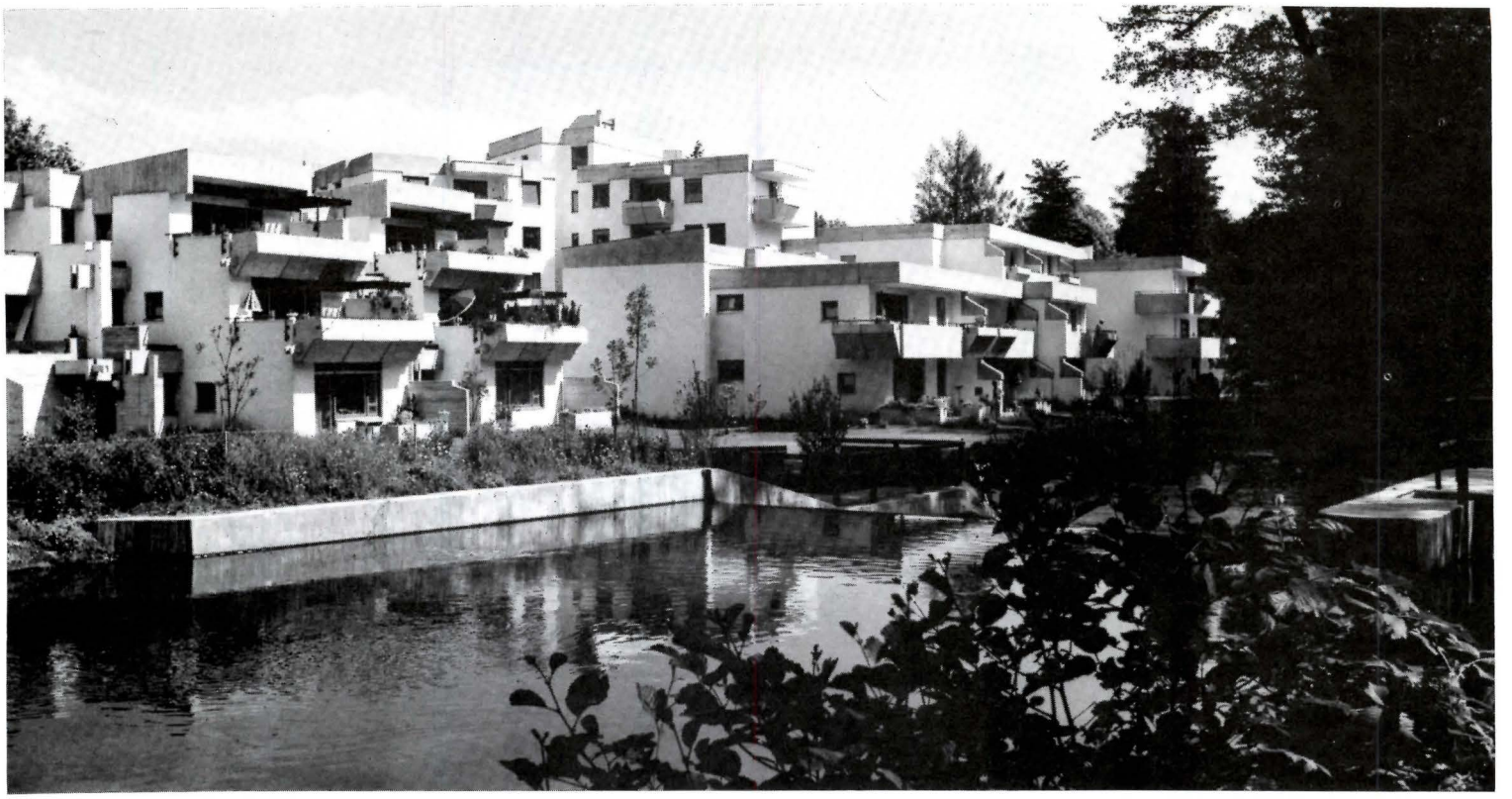
Australia has joined the world of the metric system, and to ease the pain, is printing funny cartoons on four new postage stamps, each one a colorful mini-lesson in itself.

The United States is now nearly alone (with Trinidad and Sierra Leone) in failing to convert to metrification. They missed their chance in 1821, when then Secretary of State John Quincy Adams recommended the adoption "in all its essentials of the new French systems of weight and measure."

Last year, the Senate passed a bill suggesting that the United States slowly move toward becoming "predominantly metric."

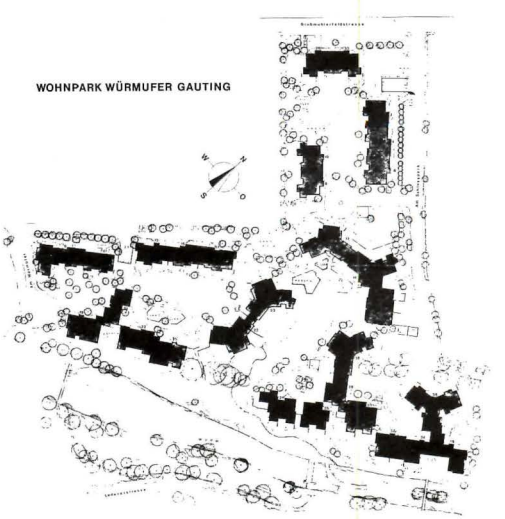
Postage stamps with metric lessons

continued on page 76



Munich

The suburb of Gauting, southeast of the Bavarian capital, now contains this community of 265 dwelling units. The units vary considerably in size—from apartments with one small sleeping alcove, to generous three-bedroom units with terraces overlooking the Würm River. The site plan (below) places the lowrise terrace houses along the river bank with the higher-rise units (left) ranged behind them uphill, but still with river views. The open areas between buildings are largely pedestrian, and there are playgrounds throughout. (Parking for 165 cars is underground.) The architects were Helmut Schöner-Fedrigotti, Wilhelm Edelmann and Jakob Haider.



Dou ·c ɔes in Maryland

The largest piece of Minimal Sculpture in the Eastern U.S. must be this juxtaposition of two "cubes"—one flame-red brick, the other silvery, reflective glass. They stand on a wooded hillside, near Baltimore, Maryland; and they contain the offices of the Maryland Hospital Service, better known as Blue Cross.

If you combine a sensitive client, a team of imaginative architects, and a beautiful site—with a program requiring 255,000 sq. ft. of space—the ideal solution might be a building that would disappear, and leave the landscape unspoiled.

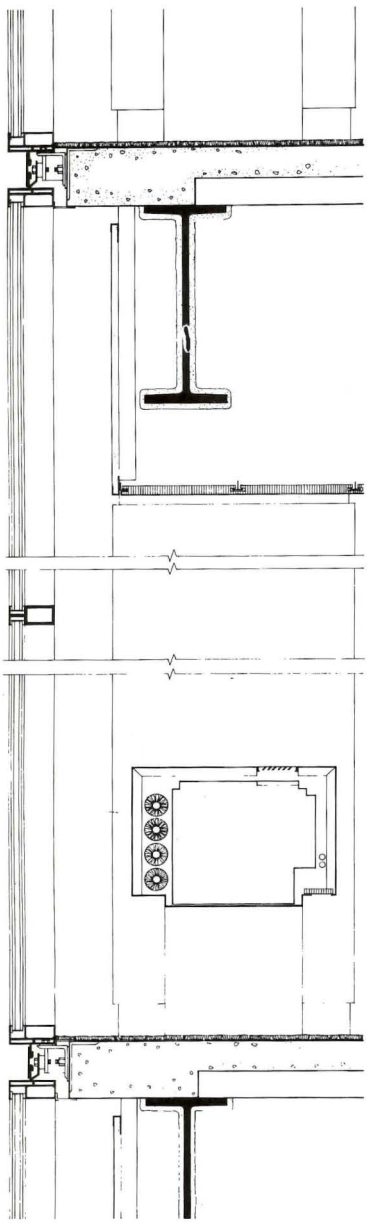
The architects and clients for this building achieved almost exactly that; but they went beyond the relatively simple notion of the vanishing building, and created a complex that not only dissolves in the landscape, but at times also creates its own environment. For as the light of day changes, the reflections in the mirrored cube change also; and not only the reflections of the small cube in the mirrored skin of the large one, but the reflections of moving clouds as well. The result is so effective that, on a recent day, when there was some ground fog in the area, it proved to be rather difficult to find the mirrored cube at all.

The mirrored cube, which measures 134 ft. square and 134 ft. tall, contains 11 floors of office space. The flame-red cube (which measures 42 ft. square and 42 ft. tall) contains the main mechanical services.

To preserve the visual integrity of these two pieces of Minimal Sculpture, the architects placed the cubes directly on a grass-covered platform; the entrance to the office building is from a sunken, circular court, so that no entrance doors are visible above the level of the platform.

Below the platform, on two decks, there

Sunken entrance court (below) is paved with Belgian Block and has a fountain in its center. The court is on grade with the first of two covered parking levels (see section). The red cube, seen in reflections, houses the mechanical services required by both the first and the second mirrored cubes. Opposite page shows plans at main entrance level, and of typical office floors. Detail is a section through exterior wall.



CURTAIN WALL DETAIL

is parking for 234 cars. (Since the parking decks are covered, the cars are out of sight.)

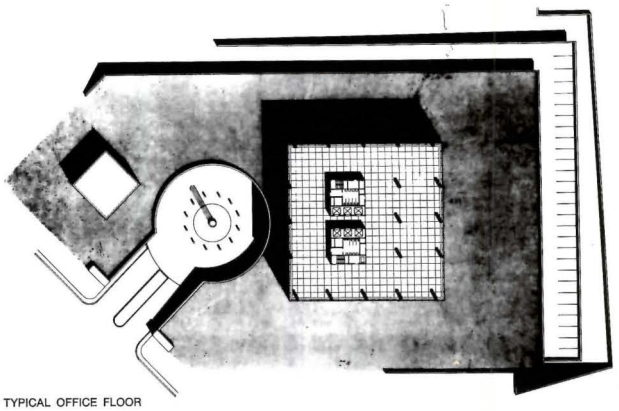
There are, of course, many other ways of making a building disappear in the landscape. Burying it might be one. But given the physical and psychological needs of the 1,000 Blue Cross employees who use this building, the solution presented here seems about as flawless as any attempted in the U.S. in recent years. To have built these structures for about $26 per sq. ft., between 1970 and 1972, makes this achievement doubly impressive.

The reflective, double-glazed skin was detailed to present the nearest thing to a flush mirror. It is divided into 6 ft. by 6 ft. sections, held in place by slender, black-anodized aluminum frames. The square proportion of the lights was chosen, in part, to equalize bending moments in the horizontal and vertical directions, and thus to minimize the possibility of breakage under extreme wind pressures. The steel frame of the structure is recessed behind the skin (see detail at left).

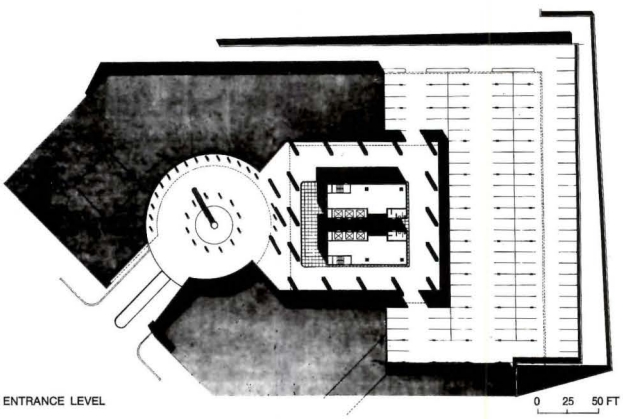
The floor plan is entirely modular, in 6 ft. squares also, and the efficiency of the tower is estimated to be about 86 percent. A cafeteria on the sixth floor seats 300 employees at a time. The walls here use some of the same flame-red brick that faces the mechanical cube, and some handsome mirror-polished supergraphics. The furnishing of the routine office floors is still under way.

Under way, also, is a second cube, slightly offset to the northwest of the first office block, and matching it in almost every respect.

This second cube, which was planned from the start to take care of future expansion, will also be entered from the sunken,

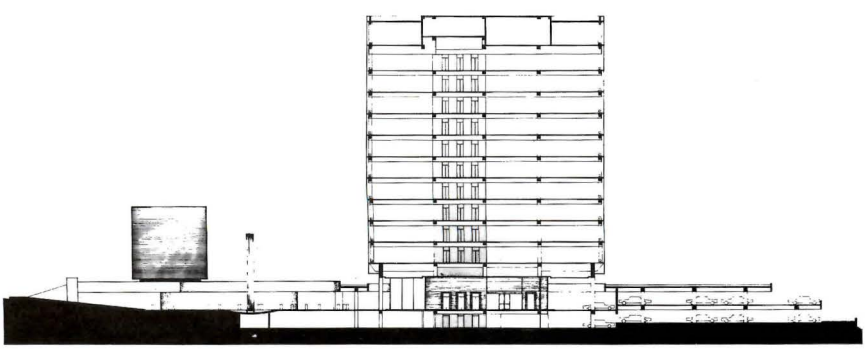


TYPICAL OFFICE FLOOR

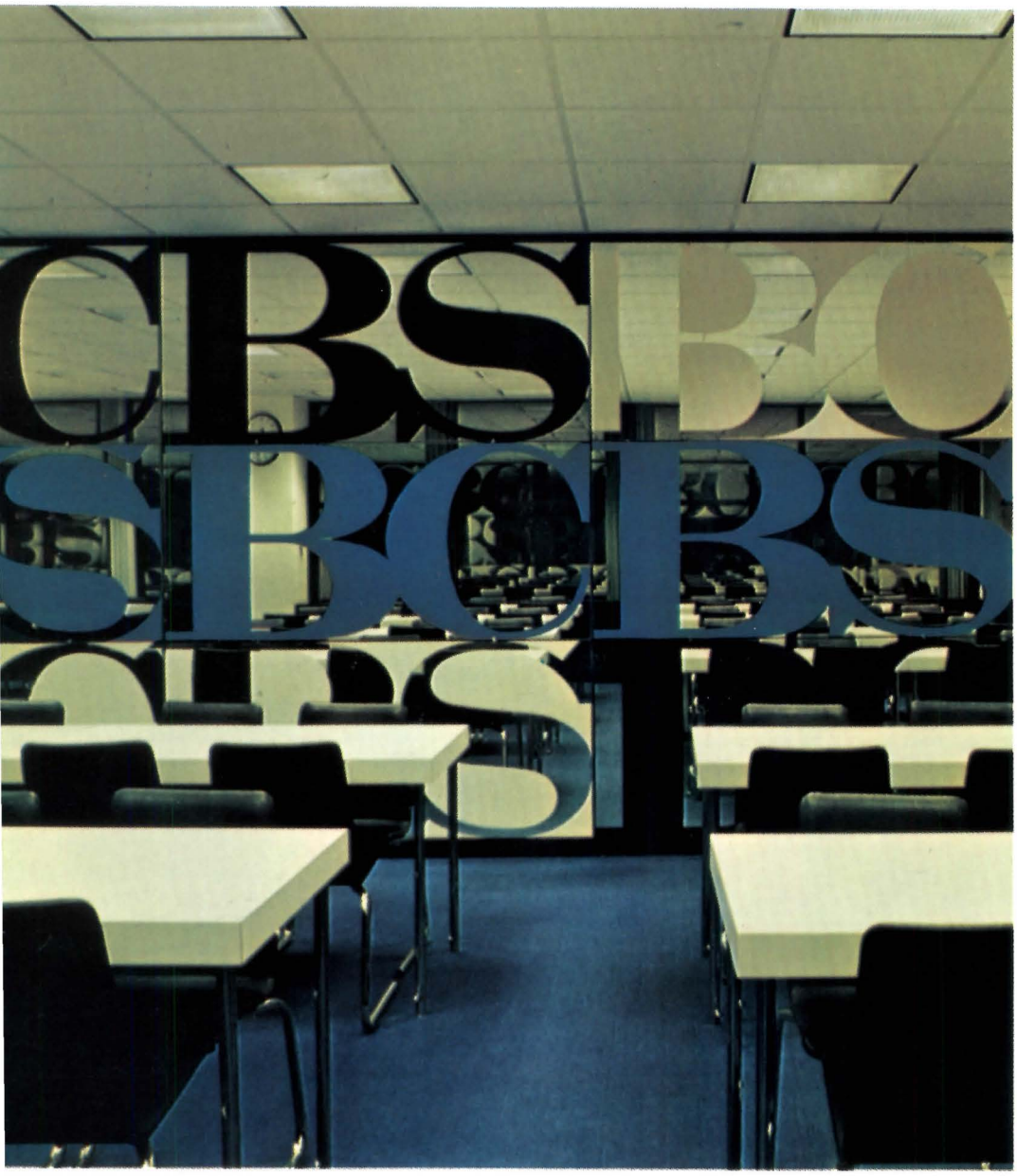


ENTRANCE LEVEL

0 25 50 FT



SECTION



circular court. When finished, the play of reflections should be even more spectacular.

Mirrored buildings are becoming increasingly popular around the world; and though they still present some problems, the advantages in terms of reduced air-conditioning loads seem to outweigh the extra costs of the curtain wall, at least in warmer climates.

But often, in the past, the mirrored facades have seemed to be little more than a fashionable fad—especially where the environment offered little that was worth reflecting.

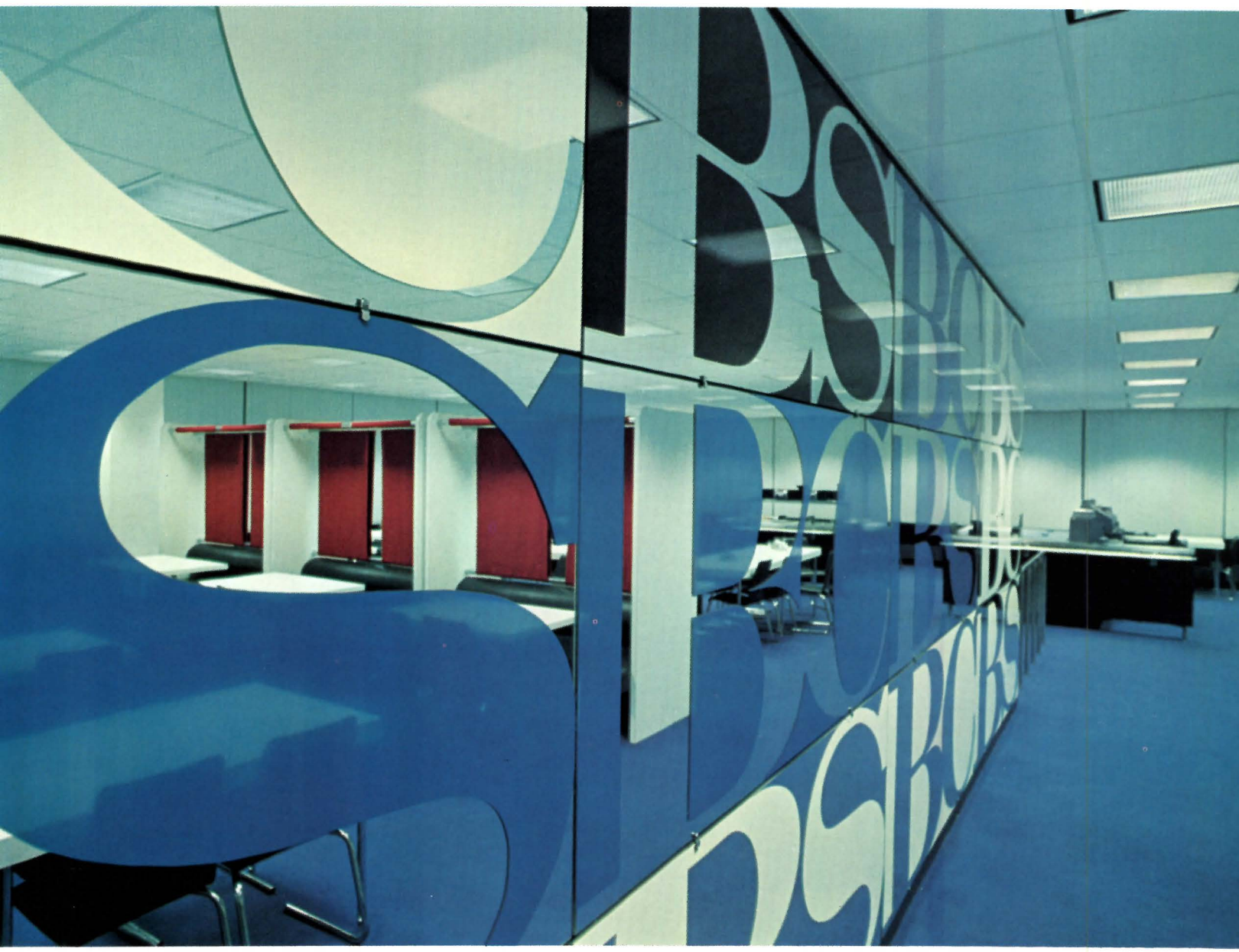
What is so neat about this small group of buildings is that the reflections were studied with evident care, creating not only images of the landscape, but abstract images of architectural spaces and forms as well.

Facts and Figures

Maryland Blue Cross Inc., Towson, Md. Architect: Peterson and Brickbauer, Inc. Associate Architect: Brown, Guenther, Battaglia, Galvin. Engineers: Sadler Associates (structural); Piccirillo & Brown (mechanical and electrical). General Contractor: The Cogswell Construction Co. Building area: 347,195 sq. ft. Cost: $8,747,000.

Photographs: Ronald Thomas.

Interiors include a typical elevator lobby, and the sixth floor cafeteria with its mirror-polished supergraphics rendered in stainless steel. The letters stand for Blue Cross/Blue Shield. Food is served from free-standing counters, and tables are arranged in open areas or in booths. There are also private dining rooms and an employee lounge.




GÖTEBORG 350 ÅR 1971

City stree for people

In a curious reversal of priorities in a technological age, some cities have in the last ten years started to question the role of the urban automobile and even to push it aside in favor of the long-ignored pedestrian. The reason is simple. The automobile-dominated urban center was not working very well. Often it was experiencing economic decline (hastened by suburban shopping centers), high air pollution and noise levels, and congestion so extreme that, even with cars, travel had slowed to walking speed.

Then someone discovered the pedestrian mall. Suddenly there were plans for malls everywhere. Germany alone has created pedestrian zones in 28 cities since 1967. The pedestrian mall became the Cecil B. DeMille urban spectacular. Only the merchants who feared loss of trade, the police charged with enforcement and the traffic planners who saw the rest of the city becoming an overburdened disaster area voiced serious qualms about the miracle of the mall.

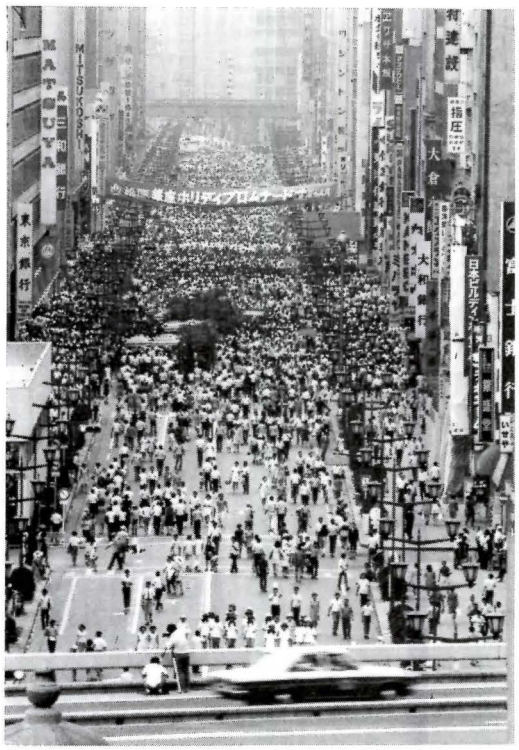
The phenomenon is international, but there are important differences between the European and the U.S./Canadian versions. European cities have natural architectural and historical attractions, plus streets often designed for pedestrian use; only the insatiable desire of the automobile for space had threatened their viability. But, in the U.S., where the car has long dominated city planning, the streets are more often straight and the architecture barren, compared to cities rich in heritage from the middle ages or before. The U.S. has to rely on more than natural charm to plan a successful mall. Not any street will do. It must naturally have a high level of pedestrian and/or shopping activity; it must be an outstanding example of urban excellence marred by traffic; or it must have high potential for recreation, which would be thwarted by cars (Disneyland, for example).

In the early days of mall fever, many malls throughout the world were planned before the city had examined the total urban environment, especially its transportation systems. The result was that the mall often failed to accomplish the transformation the city hoped for. A mall can and should affect the entire shape of a city and so must be preceded by comprehensive and sensitive planning. It may be staged, but only in the context of a total plan, not in isolated pieces. Experiments are a questionable procedure because they tend to offer inadequate criteria for fair judgment of a permanent version.

A typical mall is the central retail street of a city, with perhaps some cross streets. All but service and emergency vehicles are usually banned. There are no sidewalks, but often colorful and patterned pavement that runs right up to the building facades. This tends to create a new spatial identity; the buildings no longer stand on a pedestal, but on the ground. And, since pedestrians are no longer forced to file along its facade, but can walk straight to or away from a building, a mall can open up a whole new visual perspective of a city.

Generally, the space is landscaped with trees, shrubs and flowers, which set off sitting and recreation areas. Cafes and restaurants often line the edges of the mall and demonstrations, children's games and fountains enliven the atmosphere. There is usually a variety of stores and shops, but many malls are also 24-hour leisure areas that do not shut down with the stores. Often the street widens or narrows into plaza, sidestreet, or activity areas.

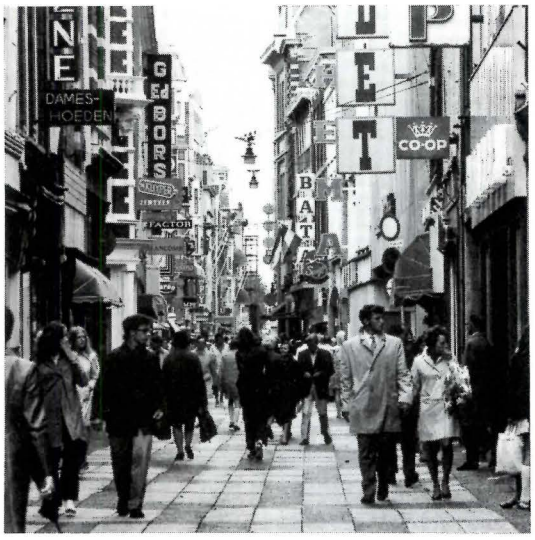
Merchants who initially oppose a mall proposal often become



Tokyo's Ginza and Shinjuku (right) on weekends.

Göteborg, Sweden, (opp.) offers 80 stores under one roof.

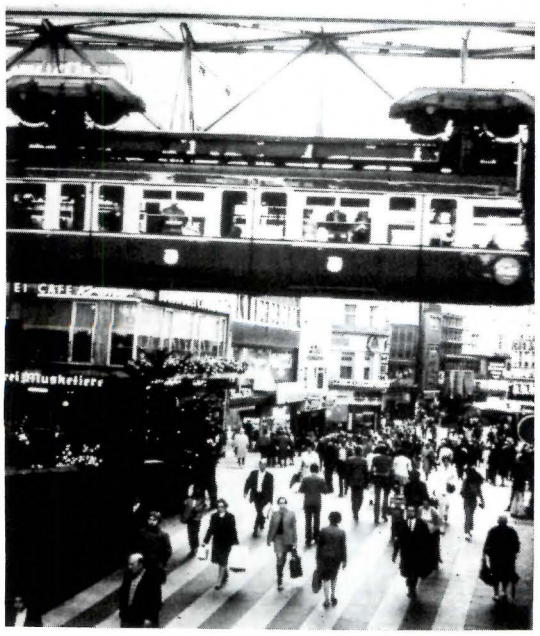
Sign announces Bonn's pedestrian zone.



The Hague.

Honolulu's Fort St. Mall.

Wuppertal, Germany.



its staunchest defenders (except for those just off the mall who would like to be included). In Norwich, England, all but two shops reported better trade on the mall; in Essen, business improved 15 to 35 percent; in Rouen 10 to 15 percent; and in Vienna, merchants reported increases of 25 to 50 percent in just the first week. Some small shops have had problems meeting increased rents (since property values tend to rise) and, in Copenhagen, the big department stores have difficulty competing with the more interesting shops and boutiques, but overall, business on a mall is good. Other benefits are lower noise and pollution levels. When New York's Fifth Ave. temporarily banned cars, noise dropped from 78 to 58 decibels (an extreme, admittedly); pollution has been known to drop 50 percent.

The most important planning concerns relate to transportation. The city must consider emergency and service access, through traffic routes, parking facilities, and, if the mall is longer than about 500 yards, maybe a mini bus or tram for the mall. In some cities it is practical to convert the entire central area into a pedestrian district, but in other, usually larger cities, a system of interconnected malls is more practical because it can be complemented by a street network for vehicular circulation. Common solutions to the traffic and access problems are to turn the streets immediately off the mall into service streets for the businesses on the mall and to provide a perimeter highway ring for through traffic. There should be enough parking for people driving into the city to leave cars at a point convenient to the mall and there must be good public transportation to and from the mall.

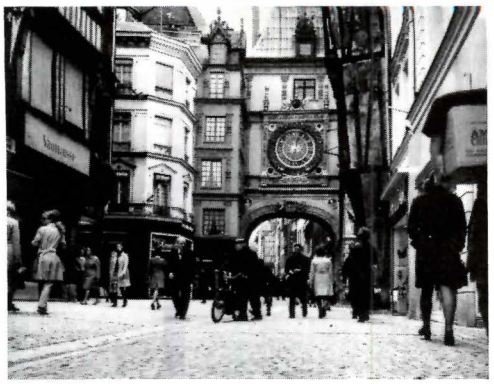
Public transportation is extremely important to the success of any mall and many cities have either built new (mass transit) systems, restructured the routes of buses and tramways, and/or provided free rush-hour service. At the same time, some cities have tried to restrain private traffic by making it legally complex, costly (with parking fees, tolls and taxes), or giving public transportation priority on the roads. Some have introduced planned congestion to make car travel so slow that the driver will finally give up and leave his car home. Ironically, however, a pedestrian zone does not necessarily cause higher traffic levels elsewhere in the city; often congestion will settle at a certain level regardless of the city's population, car ownership or road capacities.

Not every city decides to go all the way with a pure pedestrian zone. Bremen pioneered a traffic control system about ten years ago that divides the city into independent quadrants, each with a pedestrian area. Physical barriers between precincts prevent cars from driving directly from one to another, drivers must go out and around the city. Göteborg, Sweden, followed Bremen's example and Rome is considering a similar scheme.

None of these schemes will work well unless the city is able to coordinate all interested parties and get their support of the mall. Obtaining approval of a project in concept before getting bogged down in the physical details has often proved successful. Munich, Germany, and Fresno, Calif., are two cities with particular skill in this area. Financing a project also requires sensitive handling. Usually the city pays most costs (often with federal aid), but puts some responsibility on mall businesses through special taxes.

To put the pedestrian mall in perspective, it seems appropriate to quote Vienna's Victor Gruen: "A mall is too small to be all." But it makes a fascinating beginning.—Marguerite Villecco

Rouen



Rouen, France, turned to a pedestrian street system as part of an overall plan to restructure the city's center and protect its historic areas and traditions. Many of the streets designated for pedestrian use were old and narrow—unsuited to motor traffic, but rich in architectural interest and cultural value.

Rouen dates back to Gallo-Roman times and boasts a medieval historic center bounded by two quays on the Seine's banks and on the site of the moats that surrounded the city's 15th-century walls. There are two axes, east/west and north/south, which intersect near the cathedral—an outstanding example of 12th- and 16th-century architecture.

The city's architectural reputation dates back to the start of the 19th century, and Rouen blossomed as a tourist attraction after World War I. Despite bomb damage in World War II, the city still offers such sights as the square where Joan of Arc was burned, the cathedral, a Benedictine Abbey, shops, museums and private mansions. A special feature is the Rue du Gros Horloge (pictured), a medieval street lined with old half-timbered houses and spanned by a renaissance arch. This street is the heart of the city's pedestrian street system.

In 1960, the Atelier d'Urbanisme was established to renew the center-east slum district of the city, but before long the agency found itself involved in the esthetic development of public areas and then in the master plan for the city, emphasizing historic sections. In 1966, the city ordered a traffic study, which resulted in the decision to pedestrianize a route from the Vieux Marché to Saint-Maclou, by way of the Rue du Gros Horloge and the Rue Saint-Romain. The study also included parking requirements, other pedestrian options and the need to improve public transportation services.

Initially, the plan met with merchant hostility. This led to a group of engineers, architects and planners going to the United Kingdom and Sweden to study shopping centers with inner pedestrian concourses, proving that eliminating sidewalks and other changes would not necessarily impair business. A local newspaper also got into the act, campaigning actively for a mall.

In May, 1970, general traffic was banned from the designated route and deliveries strictly regulated. Repaving began, after extensive utility studies. Salvaged materials were used for the street: single-color paving stones laid in straight lines, framing a stone mosaic of a peacock's tail; planters of granite slabs; and benches made from old granite curbstones.

The old houses were restored and the mall completed—and it turned out to be successful! A poll showed that 94 percent of the population approved and even the merchants had to admit that it was good for them—some not on the mall asked that it be extended to include them.

Göteborg

Göteborg has banned traffic from several streets in the central business district. These are primarily the shopping areas (top) around the Frölanda Torg (right), which houses 80 stores under one roof and has access to public transportation within the building. The intersection of two pedestrian streets has become a lively spot for political rallies and for artisans selling their wares.

But Göteborg is most important for its transportation planning, which minimizes and rationalizes traffic in the central business area even where it does not entirely eliminate it. The zoned scheme is a proven success, with taxi drivers the only ones still objecting.

Göteborg (Volvo's headquarters) is Sweden's second largest city, with a population of 450,000 people and 136,000 cars. Several cities on the site—where the Göte River goes into the sea between the west coast of Sweden and the Danish peninsula of Jutland—were destroyed by wars between the Danes and Swedes before the Swedish King asked the Dutch to design the present city. Typically, it had protective walls and canals, but the last canal was filled in 1930 to make still another wide road. World War II brought such a huge influx of private cars to the city that pedestrians were soon forced to fight their way across a street. The administration saw imminent social and economic decline unless a rational transportation scheme could be created fast.

The German port of Bremen already had a traffic restraint system, and in the early 1960s Göteborg officials made a study visit there. By 1964, similar concepts were drafted into Göteborg's master plan and finally adopted in 1970. A total traffic ban was rejected, but a special planning commission did decide to divide the city into traffic zones similar to Bremen's.

The central business district became five zones, which could not be crossed by any but public transit or emergency vehicles (no taxis!). Travel between zones was confined to peripheral ring routes with minimum entry and exit points. Within each zone, cars and parking were permitted. Detailed traffic studies led to redesigning two intersections and adding some streetcar stops; both white lines and physical barriers identify the zones. The city educated the public by passing out pamphlets to businesses one month before and to private households one week before the new order.

The success of Göteborg's scheme is easily measured. Six months into the plan, there was 50 percent less traffic in the city center, while the ring routes reported 25 percent more traffic. To discourage cars downtown, the city raised parking prices and provided no new spaces. Accidents and carbon monoxide pollution were reduced; noise was lowered by three decibels; and retail trade remained healthy. Currently there are plans to extend the zone plan.

Stockholm

Stockholm tried to take the pedestrian vitality of its Old Town and translate it into modern terms; it has done so successfully. The pedestrian areas shown on this page are the Hötorget development, which is only about ten years old, but emulates the ambiance and social engagement of the older city, located on the island Gama Stan. Old Town has one major pedestrian street, but most of the other streets are too narrow to encourage traffic and the overall effect is one of charm and lively trade.

Copenhagen

Copenhagen's pedestrian mall enjoys wide, open street areas (right), as well as the contrast of small alleyways and plazas through and between shops (below).

At 4,000 ft., Copenhagen's Strøget is the longest pedestrian street in Northern Europe; it is also the first in Denmark. Strøget simply means main stretch, but in Copenhagen it refers to five street sections (Frederiksberggade, Nygade, Vimmelskaftet, Amager Torv and Østergade), which connect the Town Hall Square and Kings New Square and provide access to others.

The Strøget is almost older than the city itself; two stretches were established before the year 1,000. Amager Torv linked the old city and the ferry landing to the island Amager. The old street network is still evident, although fires in 1728, 1795, and 1807 largely destroyed the medieval structures. Trade along the Strøget was active then, as now.

The advent of motor transportation threatened to turn the area into a huge traffic jam and there were plans to convert the Strøget into a pedestrian zone as long as 20 years ago. But business opposition delayed action until 1962, when the town council secretary suddenly banned traffic from most of Strøget. In 1967, all of the Strøget was repaved as a permanent mall.

The plan has proved a popular success, attracting all kinds and numbers of strollers, tourists and shoppers (there is a lively pornography trade). It has replaced the square's function as the town's meeting and gathering place. The old town's varied physical infrastructure adds special interest and the changes in scale make it easily relatable to many human activities.

The mall is not an unqualified success, however. Studies by architects from Copenhagen's Royal College of Architecture revealed that the smaller shops attract a lot of attention with clever or informative window displays. But the monolithic, block-sized department stores create little sidewalk stir and several have had to close.

Strøget is also criticized for being too shop-oriented. These critics feel that if the area is to survive, there is a need for more diverse activities. Recently, when a department store closed, there were proposals to turn it into a multi-use space with workshops, art, theater, restaurants and libraries for children and adults, but the city rejected the plan and denied the necessary funds. Later, a financial institution on Strøget started a day care center, but had to abandon it when it received no support from surrounding businesses. It seems that much more must be done to make Strøget successful in the larger sense.

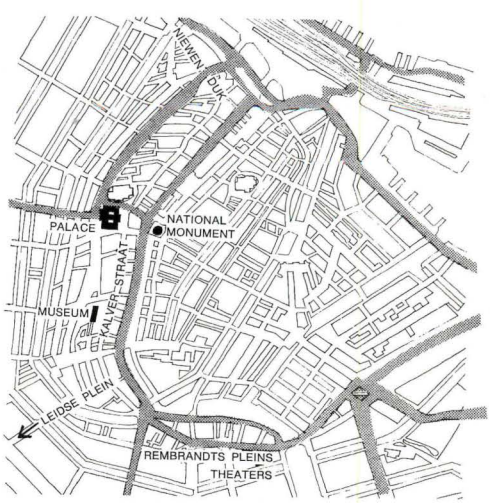
Background material was provided by Lis Kjaergaard (architect) and Per Pandrup Nielsen (architect-planner), members of the Institute for Center Planlaegning, in Copenhagen.

Brussels

Brussels' Grand'Place had evolved into a giant parking lot before the city, spurred on by a newspaper campaign, decided last summer to try a parking ban. The ban did not stop one-way traffic around the square or stop tourist buses from standing, but even so it was possible once again to enjoy the architectural splendor of the place. Grand'Place is completely surrounded by 17th-century guild halls, with sculptured and gilded facades. Local merchants cried "over my dead body" when the ban was proposed, but were won over by improved business. Parking —and perhaps traffic—will again be banned this month—maybe permanently.

Amsterdam

In Amsterdam, people eat early, drink late, and sometimes allow their children outdoors at night because theirs is that rare "safe city." Parts of the city have special appeal for the old, others for the young, free and mobile student generation. Four street sections have been closed to traffic, starting (top of the map) at the train station and running along Nieuwen Duk (New Dyke Rd.) to the palace and central square (a hippie mecca). From there, Kalverstraat, the most famous shopping strip, runs past the Historical Museum and leads either to the theater district, famous for its art deco interiors, as well as restaurants and hotels, or to Leidse Plein with fancy shops and trolleys in between. Pedestrian travel comes naturally in Amsterdam, supplemented by trolleys, buses, and what seems like millions of bikes.

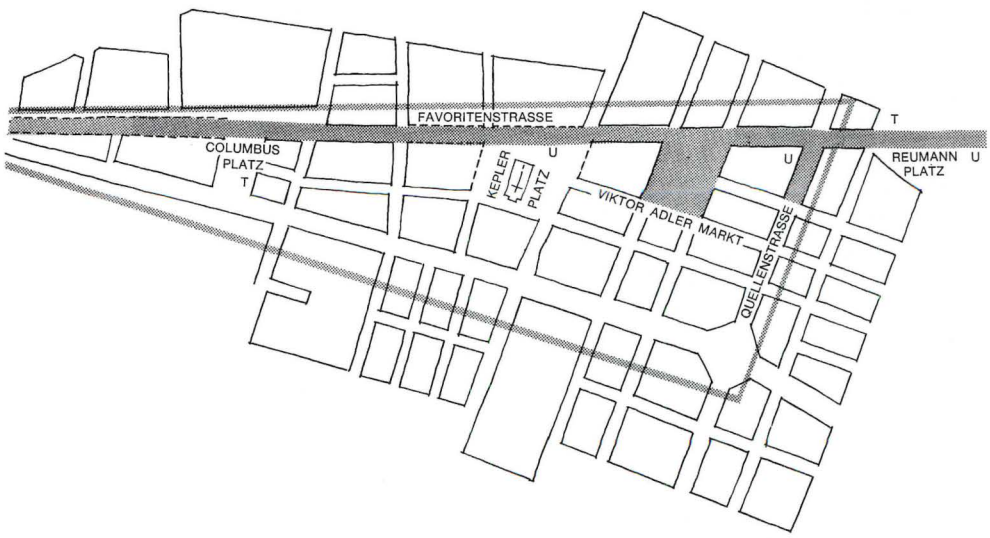


Vienna

Inaugurated in the winter of 1971 as a five-week experiment, Vienna's pedestrian area (right) still exists and there are plans for others. It centers around Keplerplatz (the cathedral area) and on the main streets leading to it (map).

Vienna had special problems. In some places, total traffic bans would have transformed very narrow sidestreets into unnegotiable dead ends, isolating the shops, hotels and restaurants from any service access; the ban, then, applies only to daytime hours and excludes Saturdays. Nonetheless the project, which benefitted from very little preparation of any kind, has enjoyed generally favorable reactions. It has even enjoyed the happy coincidence of a new subway project in the area. Ring routes divert through-traffic.

The Municipal Council took great pains to obtain user reaction to the mall. Merchants on the "deprived sidestreets" complained about the mall's floodlights; users generally rejected proposed Punch and Judy shows, but a Kindergarten made from a hut near the cathedral and decorated to look like a giant birthday present proved popular. Plastic balls for pedestrian play and a stage that undulates and has obstacles for walking games were rejected (the latter suffered "improper use by youth and nocturnal excesses" leading to virtual destruction). Businessmen were generally averse to any demonstrations or youth activities on the mall, but in fact have not lost business and many have even reported substantial increases.



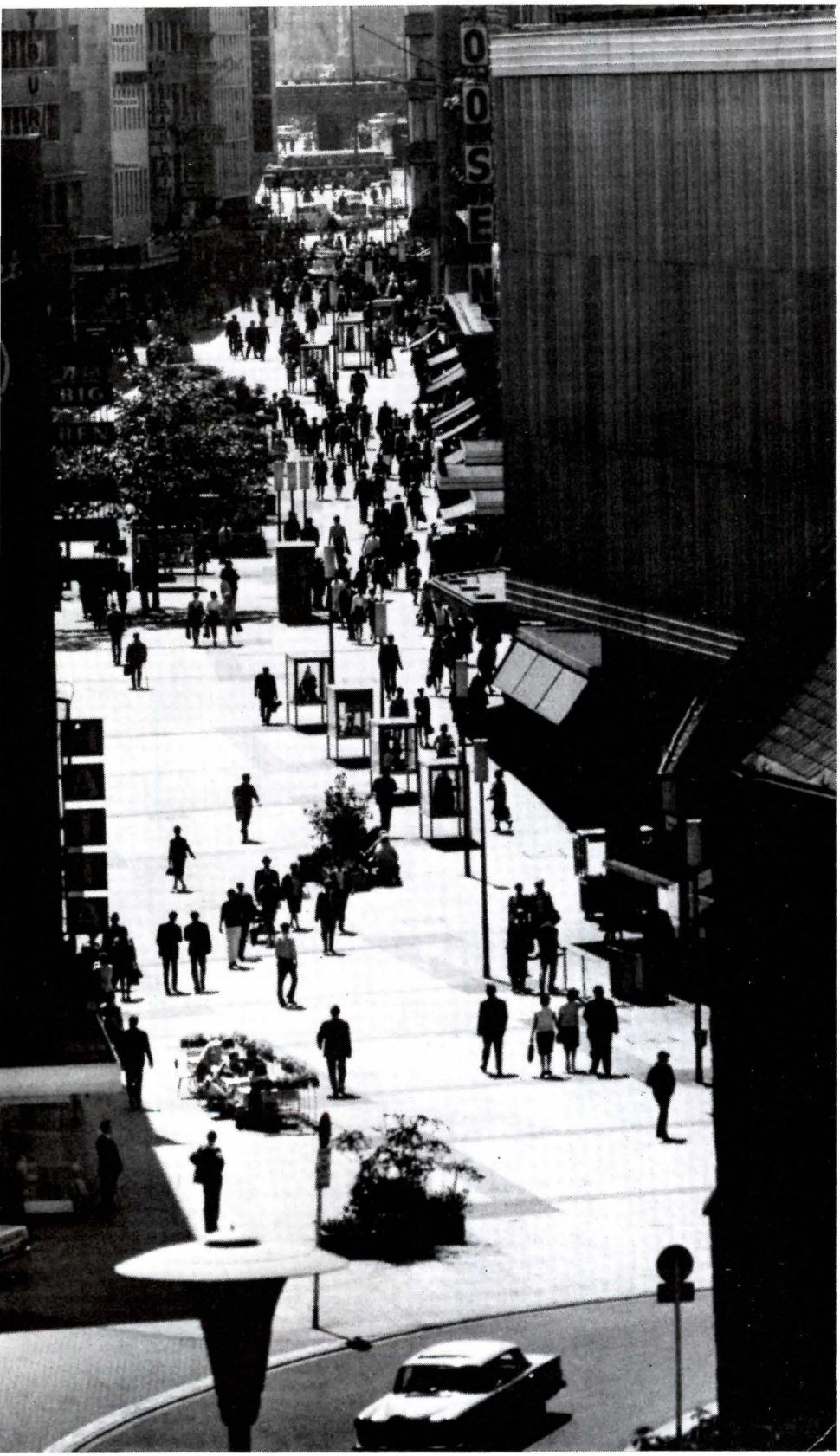
In Essen, Germany, a square established in 852 is still the heart of the city, although the medieval structures were largely destroyed in World War II. As far back as WW I, Limbecker Strasse was made a pedestrian street and in 1965 its post-WW II renovation was completed and its status as Essen's most important pedestrian street reestablished. Kettwiger Strasse (pictured on the opposite page) was made largely pedestrian by 1966 and the 1,500-ft. Viehofer Strasse by 1971. The whole pedestrian section is cross-shaped in plan, with parking between the sections and between it and the inner road ring (Essen is a kidney-shaped city with a radial street plan).

Most of the rebuilt areas follow the original pattern and scale of the old city, so most points remain within walking distance of each other. For longer distances, there are streetcars, buses, some railway lines and a planned S-Bahn. Most commercial establishments have rear service access, but some deliveries are allowed on the mall in early morning hours.

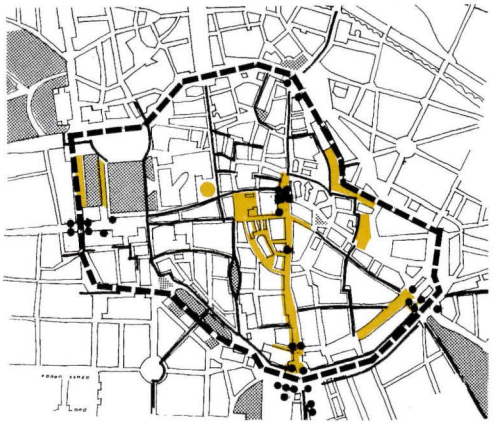
The costs of construction fell largely on adjacent property owners and some long-term leasors, but property values have gone up, as has trade (15 to 35 percent). Eighty-five percent of the retail and sixty percent of the cafe owners are in favor of extending the malls.

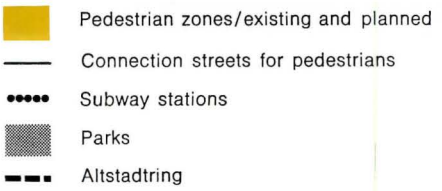
Essen

Essen's planners realized that simply closing a street to traffic would not create a mall. The two pictures below illustrate some amenities: the streets are paved with patterned color slabs (some with nonslip surfaces); there are no steps between the mall and shops; the gutters are merged with the paving patterns to be unobtrusive; there are showcases, flower boxes, water sculptures, seats, lights, trees and other patches of green. The city paid for some of these amenities, but future malls can be financed under a new Federal Building Act.



Munich





Munich's mall is not to be outdone. It is not only Europe's largest and most fascinating pedestrian street, but undoubtedly its most efficient. It was designed and built along with the city's new subway system for the 1972 Olympics.

Efficiency, however, has not diminished the mall's potential for fun and here the fun goes on all day and much of the night. You have only to go to the mall on a Sunday afternoon when the rest of the Altstadt (Old City) is dead to know this is no mere shopping area: it will be full of life and people, an inviting space lined by churches on the sunny side and by beer restaurants on the shady side.

Seeing and being seen on the mall is an important game for all kinds of people, from curious natives, tourists with sore feet, and long-haired hippies to old people content to rest amid the blossoms and watch life pass by. A recent visitor to Munich remarked that even an adjacent porno district seems to be losing out to the sights and sounds of the mall and is relatively deserted.

The mall starts and ends with historic landmarks, running almost 900 meters from the curved Stachus structures and Karlstor (the old city gate) in the east, to the Rathaus and Marienplatz in the West. (Munich raised 1 million DM to restore the Rathaus tower, the original east gate to the city. Marienplatz is the old marketplace and now serves as a site for special events.) Including sidestreets, the mall is 300 meters wide, with the central mall area (Kaufinger/Neuhauserstrasse and Wein/Theatinerstrasse) varying from 15 to 30 meters wide.

Spatially, the mall is quite complex because it widens into little plazas (and sidewalk beer stands), side streets cross it, and the Frauenplatz (the square in front of the cathedral) expands it past the street boundaries.

At first the city was afraid it could not make such a large area interesting, but the fear proved unfounded. A pedestrian count in 1966 showed 72,000 persons on the mall site between 7 am and 7 pm; in 1972, there were 120,000.

The mall cost 13.5 million DM, of which 7 million DM went into underground improvements. Since Bavarian law contained no provisions or definitions of a pedestrian mall, Munich had to go through all sorts of legal and financial contortions to authorize and make assessments for the project.

The unique charm of the area could not have been created at any price; it is the product of centuries. Interspersed with modern department stores are landmarks from the middle ages that can look especially spectacular at night when they are illuminated. These include the Holy Ghost Church (1392), a view of St. Peter's (1294), the Augustine Church (13th-14th Century), Mary's Column (1638) and many more. There are arcades everywhere, with shops tucked even into the municipal buildings.

The mall has innumerable restaurants, of which 19 have created their own leisure zones with outdoor tables that are usually filled till the wee hours. There are 1,200 outdoor seating spaces where food is served and myriad sitting areas where the entertainment comes free. Street furniture includes glass showcases and newspaper kiosks of metal and glass, planters, flagpole bases, wastebins, lights and benches. Many of these are designed as prefabricated kits that can easily be replaced or reproduced. The hexagonal, stackable concrete planters define leisure areas and have pre-planted plastic inserts so that plants may be changed and maintained easily.

The lamp standards received special attention in their design and placement. They create a continuous band of light from one end of the mall to the other and are distributed to light the buildings as well as the street. The design, which features two plexiglass globes on a standard, is more controversial. Critics label it "kitsch", but, as one man noted, Munich itself is a bit corny so that may be all right!

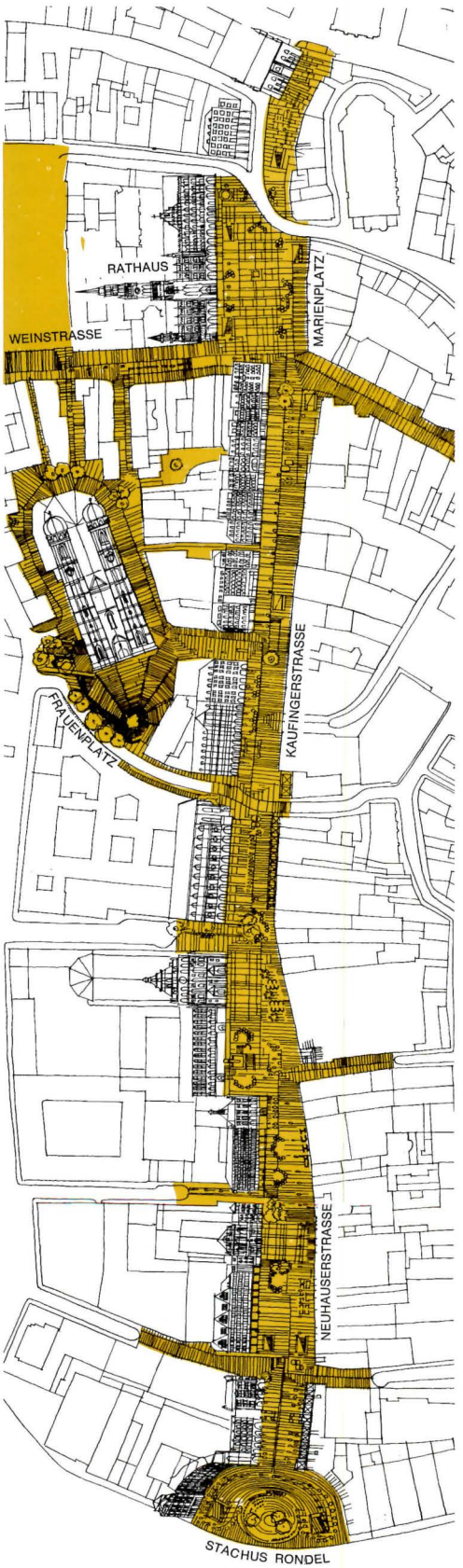
There are seven fountains on the mall where lunchers and idlers collect and tourists throw coins so little boys can fish them out. Some preceded the mall and were rebuilt after the subway excavations were completed, but there are two new ones that are particularly imaginative. One is in the Karlrondel, just outside the mall proper and the other is a participatory "arena" fountain in Frauenplatz.

The architecturally and culturally important places are highlighted by natural stone paving; all other areas have imitation stone, separated by areas of mosaic to create a net-like pattern. The sidestreets are integrated into the mall through the pavement patterns.

The seemingly informal atmosphere of the mall is deceptive, however. The entire project has been meticulously planned, starting with an analysis of the city in its entirety and its transportation systems in particular.

Munich's Altstadt was originally built for pedestrians, but was changed to make room for the cars pouring into the city. After World War II, the heavily damaged city was rebuilt around the original medieval plans and structures, but some building lines were adjusted to make the streets wider. This did little to solve the mounting traffic problems, but proved important in allowing the mall space for more than shopping.

The city first moved to open and clear its city center in 1963 and, in 1965, a local planner analyzed the core area and showed that its vitality depended largely on pedestrians and that motor traffic only detracted from the area. In 1966, the City Council decided that the Altstadt should have a major zone exclusively



for pedestrians and announced a competition for the project's design.

The offices of architects Bernhard Winkler-Starnberg and Siegfried Meschederu won the design commission for the mall and began working closely with the city on final plans. Some property owners formed a workshop for helping to plan and maintain the mall. The interim and final project designs were reviewed in the newspapers so that by the time the project was officially approved in 1969, all controversies had already been settled.

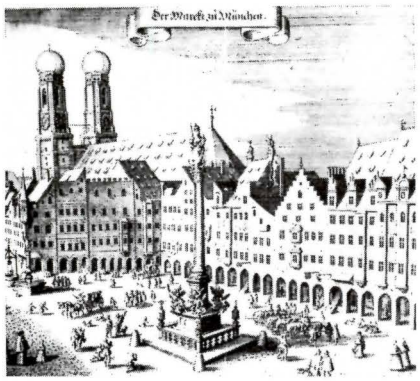
Perhaps the most important part of the mall's planning was the city's insistence on several preconditions for the project. The authorities decided that the mall would have to be supported by an improved public transportation system and made plans to integrate the mall with the two subways under construction for the summer '72 Olympics. All other public transportation was also scrutinized and then updated or rerouted. Construction started on an Altstadtring (a perimeter highway around the city for through traffic) which could distribute traffic to and from the center of the city via sidestreet feeder roads. Finally, the city decided to ban all but emergency, maintenance and service vehicles from the mall itself and decided to regulate their schedules.

The construction logistics for the mall were every bit as stringent and impressive as its planning requirements. For a while, both the subway and mall were under construction, yet merchants had been promised that they could conduct business as usual—and so they did. Throughout construction, delivery and customer access was maintained. An architect visiting Munich during this time says that the subway seemed to be built without ripping up anything, that there was often no sign of construction at all. In any case, there were inspections by the city to assure that anything detrimental to local businesses was stopped and, every two months, the city would restudy and coordinate the construction schedules.

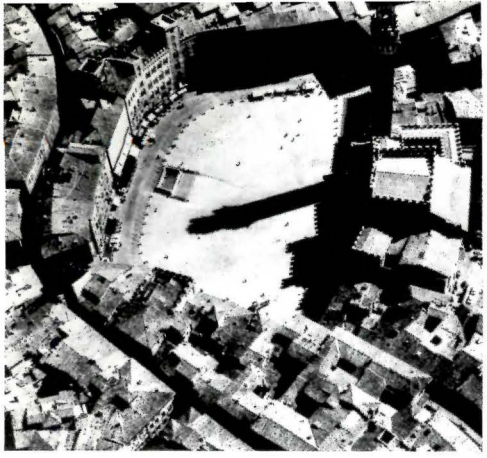
Construction included not only the subway and its entrances along the mall (there are almost a dozen of these), but extensive work in utility lines and services for the mall—much of it underground.

As it had conceptually, the city prevailed *and construction* was finished on schedule, before the Olympic games, in June, 1972.

The winning architect, Bernhard Winkler-Starnberg, speaks of the mall with special pride. He notes that the unfriendliness and unattractiveness of many cities is primarily a problem of the urban street, which has in most cases been reduced to its technical function of transporting goods and persons. But Munich has successfully fought this tendency, he says. "Its priorities are now for basic human needs, not the uncontrolled dominance of the automobile."



The 13th-century Stachus Rondel and Karlstor, the original west gate to the city (opposite, top), announce the start of the mall, while the 15th-century Rathaus, or old city hall (bottom), terminates the east end. Adjacent to the Rathaus is the old marketplace, Marienplatz, with its central pylon (center, top). Pictures (center) only hint at the vitality and charm of the mall, its people and events—be the preoccupation beer, dancing or love. Below (center) is the new fountain amphitheater at the Frauenplatz, the area surrounding the 15th-century Frauenkirche (right), located near the mall's midpoint.



Siena
Rome
Florence

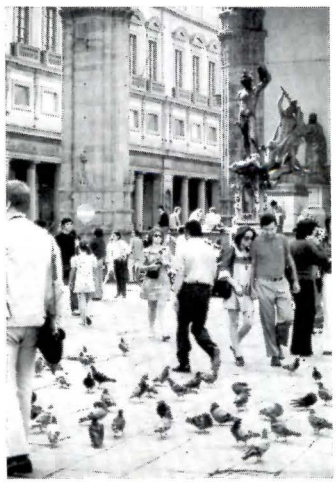
Tuscany's medieval Siena (above) was the first city in Italy to ban traffic from its center. In 1965, it applied a ban to the main and cathedral plaza areas and to the main street, Via Di Citta. (The main square, Piazza del Campo, is used for a wild horse race twice a year.) These bans were apparently only a beginning; the city is now studying a city-wide pedestrian system. In at least one respect, Siena was unusually well suited for conversion to a mall system: it had originally been designed for pedestrians and, unlike other older cities, had never installed sidewalks. Once cars were banned, it instantly reverted to a mall.

Rome, with perhaps the most famous traffic problems in Europe, has often tried clearing areas for exclusive pedestrian use. But it has rarely coordinated these efforts with any comprehensive transportation plan. The result is frequently chaos. Recently, it closed the Villa Borghese and adjacent Pincio Park to traffic and at the same time opened Europe's largest underground garage and a string of above-ground parking facilities. But still the Romans refused to give up their cars; surrounding streets simply became more packed than ever.

There have been some successes if one ignores the overall traffic consequences. In 1964, Rome closed Piazza Navonna (top right) to traffic despite strong opposition from the shopowners, who demanded the resignation of the politician responsible. But the cursed man later became the local hero as business improved; and today other piazzas have been pedestrianized in hopes of similar gains. Piazza Farnese, Piazza Fontana dei Trevi, and Piazza Santa Maria (in Trastevere) are also closed to cars. And, at Christmastime, Via Frattina, Via Borgognona and Via della Croce cover their road surfaces with wall-to-wall plastic green carpet accented by planters and benches. Future plans for Rome include low-cost or free public transportation in and out of the city; there are also plans to divide the city into seven zones, separated so that it would be impossible to drive directly from one to another.

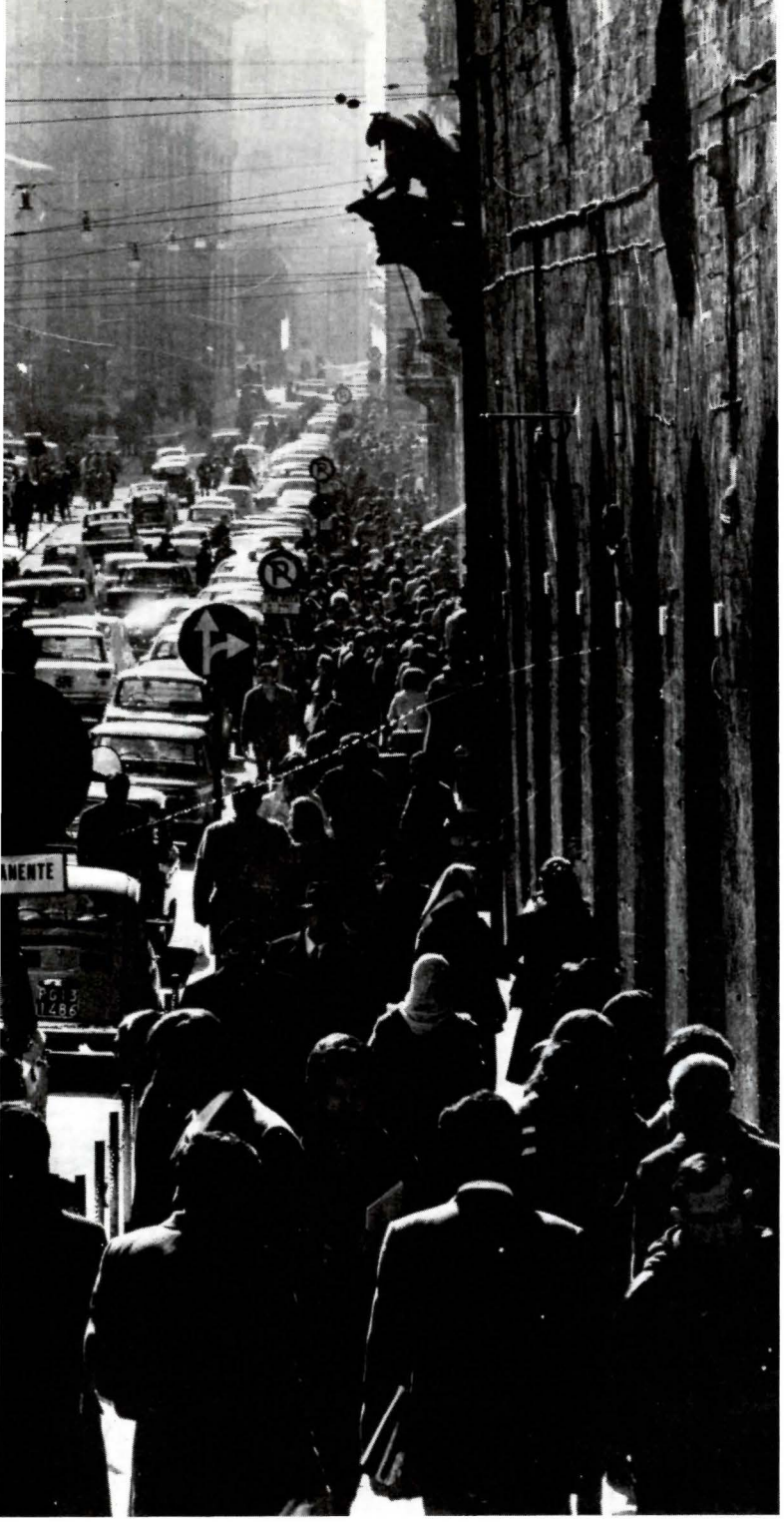
Florence (lower two photos) really joined the pedestrian movement two years ago, when it closed 40 blocks in its center to vehicular traffic. In the beginning there was fierce opposition from the merchants (as usual), but last spring business trends had been so reversed that shopkeepers on the periphery of the pedestrian zone petitioned the city council to extend the mall to include them too.

Bologna (not shown) is notable because it has made the greatest efforts to integrate mall and transportation plans. After banning a large portion of its center to cars, it is now discouraging downtown parking and diverting through-traffic. Recently there was a proposal to provide free rush-hour transportation. With popular support running high, the mall plans have proved a great political boon to the Communist administration.



Perugia

Perugia, Italy, pedestrianized its center (this page) to thwart the vehicular insanity that had engulfed its center (left). The city has one of Italy's highest car-to-resident ratios (1 to 3), but today enjoys a main street, Corso Vanucci, free from cars (right), where strollers can even stop to enjoy the surroundings with a glass or two of wine (bottom photo). The merchants say they never had it so good.



Norwich

A blend of local building styles and period architecture, Norwich is one of the most beautiful historic cities still existing in England. It reintroduced pedestrian precedence to its medieval streets about six years ago.

The existing street patterns were already established by the 11th century, but time and the automobile had taken their toll and posed a real threat to the city's environment and development. Accordingly, in 1967, the city council created an urban strategy for Norwich to the year 2,000. More than a traffic plan, the goals include limiting traffic in the core and eventually pedestrianizing the historic areas.

The first stage included a six-month experimental closing of London St., a narrow, winding road that joins the market and cathedral areas of the city. The city worked closely with local businesses and bisected the mall area with a small service road that would provide all-hour service access. Newspapers and TV generated a great deal of public attention. The experiment proved a success and the street (pictured on this page) was permanently made into a mall in May, 1968. In 1969, it was completely repaved and trees, planters, seats, showcases, litter bins and new lighting were installed. A "sleeping policeman" (an undulating road section that forces vehicles to slow to walking speed) was introduced to the service street.

The mall, however, was not an isolated phenomenon; it was well integrated into a total development and transportation outlook. The city plan also divided Norwich into 29 zones with internal road patterns that would insure exclusively local use. The radial road system of the core was preserved, but a new distributor road for through-traffic is being constructed. The ultimate system will be a combination ring-and-loop, with the loops providing access to parking areas, which the city hopes to monitor with electronic signs that will tell a motorist where there is space available. Since good public transportation is a necessity, there will be special routes for it across the mall and on adjacent routes; where possible, public and private traffic will be segregated.

So far, rerouted traffic has been easily absorbed by the city and 60 percent of the displaced vehicles have not reappeared on surrounding streets. Most shops have reported new and better business and many have donated street furniture items.

Since the closing of London St., Norwich has closed three others to traffic. It repaved and landscaped Lower Goat Lane and closed Dove and White Lion streets on a limited time basis.

Ottawa

Ottawa's Sparks Street Mall seems to have broken almost all the rules; and yet it stands as a popular and business success. It was not planned as part of an urban development scheme, nor was it integrated into a city-wide transportation plan. But it does turn three blocks of downtown Ottawa back to its citizens and they love it.

Contrary to many malls that start in the minds of a city administration, which then has to combat local businessmen, Sparks Street Mall enjoyed the enthusiastic and determined support of local merchants, who then had to convince the city that the mall was a good idea.

It all started with a lunchtime walk by architect Watson Balharrie, of Balharrie, Helmer & Associates. Musing about what Sparks St. would look like if the poles, wires, light standards and signs were replaced by trees, benches and planters, he was almost run over by passing traffic. Back to the real world, Balharrie went to the drawing board. He sent a sketch of his idea, along with a photo of Sparks St. as it was, to the newspaper, which gave him a full page.

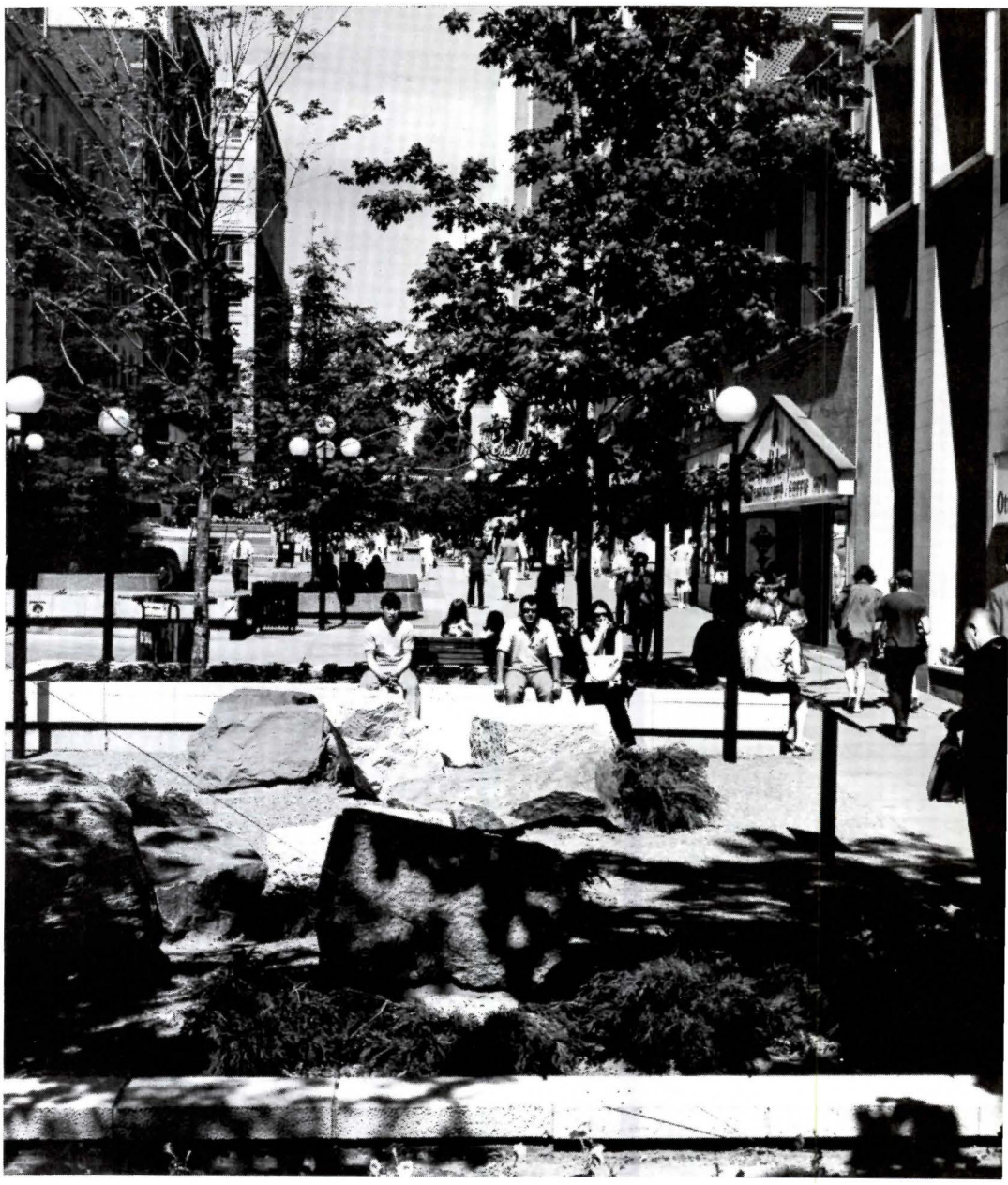
A group of businessmen hoping to revitalize the area, which was losing out to the newer suburban shopping centers, found the sketch inspiring and formed the Sparks Street Development Association to promote the idea. That was 1959.

The project started with a series of six "summer" malls before the SSDA and the city agreed to go into a partnership to construct a permanent mall. It now covers three blocks in the heart of Canada's capital city.

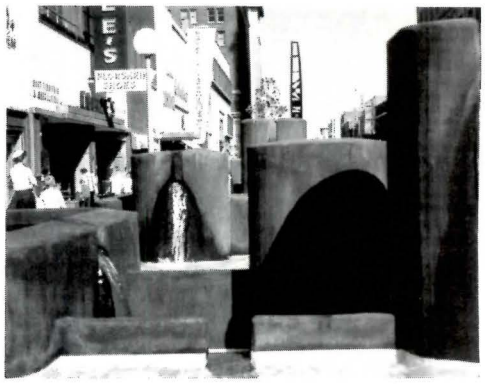
The permanent mall required repaving the sidewalks to extend the width of the street with a pattern of 8-ft.-sq., exposed aggregate panels. The experimental malls provided some street furniture, but not enough. Now moveable benches of stained cedar on steel and precast bases line the mall. Two steel-canopied service modules stand on each block, replete with store directories, a phone, water fountain and seating. Landscaping includes trees and shrubs in precast concrete tubs. The flower bases and fountains are designed for sitting.

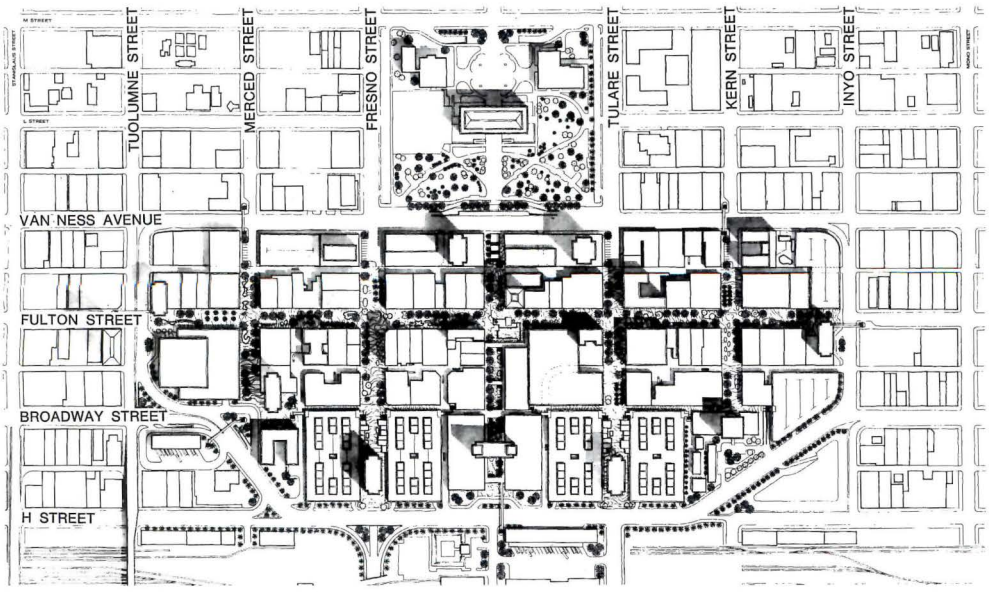
Many of the plantings are common Canadian species and this national display is again expressed in a central rock court featuring a large rock from each of the ten provinces and two territories. Other amenities include a steel and stained cedar clock tower; a speaker's platform; open-air restaurants, temporary and permanent sculpture and art exhibits; bus shelters, a steel and glass exhibition kiosk and an information booth.

Architects may find it easy to point out the faults of the mall; it is bisected by two traffic streets and perhaps it is too narrow or has a poor layout or lacks good detail. But the fact that the mall could be better shouldn't obscure the fact that it is very good.



Fresno





Part of what makes Fresno, Calif., remarkable is the fact that it isn't. It is not the fastest growing or, at 171,000, the largest city in the nation, nor has it produced any political superstars to perform urban miracles. But Fresno, by being a steadily and competently managed, medium-sized American city ("typical" as it were), has done what many other U.S. cities have not or cannot do—it has made its version of urban renewal work.

A downtown, central pedestrian mall system is the heart of Fresno's renewal efforts, but certainly not its entire substance. Perhaps the most important thing about the mall is that it was planned and executed in the context of the total needs of the city.

The city first drafted a central area plan in 1960. It established new freeway alignments, recommended circulation and parking programs, correlated its urban renewal plans with the city's resources, and encouraged private initiative. In 1963, an expanded plan, including provisions for making the center of the city into a "core superblock" exclusively for pedestrians, was submitted to and approved by the federal agencies. In March, 1963, traffic was first banned from a six-block stretch of Fulton St. (see plan).

The city administration, local businessmen and the renewal agencies worked closely together in planning the mall and other renewal efforts. Gruen Associates, Inc., (architects) were brought in as design consultants. Besides working on the physical elements of design, they completed a so-called Design for Development in 1964, which reassessed the original renewal plans and established new criteria for future plans, abandoning the common tendency to demolish everything and start anew.

The completed mall has lived up to most expectations of success. In response to the warm climate, Gruen used water as the central esthetic theme and there are fountains (above), ponds and rivulets throughout. Trellises and shade trees shelter sitting and play areas, and a slow-speed electric tramway runs the entire length of the mall. There are two larger playground areas, which were donated by a department store and the mall's contractor when it looked as if the city would have to abandon them for lack of funds. Most illustrative of popular support is a $250,000 collection of outdoor art commissioned by a citizen's group.

Gruen partner Edgardo Contini regards the renewal efforts as a success, although there is still room for improvement, especially in areas of architectural design. And, he says, for the city to be truly revitalized it must somehow bring people back to the city to *live* as well as demonstrate its commercial viability. But, so far so good. "The impact in terms of the image of the city has already far exceeded the physical dimensions of the transformation," says Contini.

Providence

Providence, Rhode Island, was suffering from severe urban doldrums when Westminster Mall was first suggested as a part of a master plan in 1958. The site (below) is called America's oldest department store street and so the mall is conservative in design. It is a series of interconnected triangles over a six-block stretch, created by trees at the intersections and with colored paving divisions (right). There is both direct and indirect lighting (buried in the planters) and ten directional sound columns for environmental muzak. The mall has spurred $5 million worth of new construction and renovation and it has increased trade.

Santa Cruz

Santa Cruz' Pacific Garden Mall (left) is credited with rescuing this quiet seaside town in California from total paralysis. Completed in 1969, the 1,600-ft. strip is a semimall, which means it allows one lane of traffic, but nonetheless enjoys the ambiance of a mall. Where there were once 22 empty storefronts, there is now bustling commerce. And where peeling paint once reigned, there are now active shops, widened sidewalks inlaid with brick, trees, benches and green lawns. The plan was first proposed in 1963, but lay dormant until 1967 when 80-year-old, retired photographer Chuck Abbott began to stir up the local merchants, who had just about given up trying to compete with the suburban shopping areas. Two years and $320,000 later, the town was a showcase enjoyed by its young and old alike.

Minneapolis

Perhaps the most famous mall in the United States—and justly so—is the eight-block-long Nicollet Mall in downtown Minneapolis, Minn. It has been an example to other planners for years and established many precedents in the planning and designing of malls.

It is not without its critics. Some say that the cold climate part of the year makes it irrelevant, that the bridges now being constructed between many Minneapolis stores are far more useful and that the mall is deserted much of the winter. Others say it should have more color, more activities than shopping, more convenient parking, more or no buses, etc. But the facts remain that the mall has been the central and successful focal point of a whole planning effort to strengthen the downtown area, that people travel from miles around to see what is regarded as the upper Midwest's most important shopping area, and that the merchants report business and property values up.

The mall was a massive planning project, taking almost 12 years to realize—and $3.8-million (of which only $1.3 million went for above-ground improvements). Work started with formation of the Downtown Council in 1955; in 1960 a plan to improve retail opportunities on the street was published and then the so-called "transitway-mall" scheme was adopted. An early key concept was the serpentine transitway that most obviously makes this mall unique; it allows variety in the layout of space and reduces the linearity of the mall area. From this point it took three years for detailed planning and approvals and then it was four more years before the mall opened.

There were financial and legal problems as well as physical ones to cope with; the Minnesota legislature had to pass enabling statutes to allow the city to do such a project. The project then set new precedents in obtaining $1 million in federal funds from programs not tried before.

The entire space under the right of way was occupied by utilities, making planning and future maintenance serious concerns. Lawrence Halprin & Associates were brought in as landscape architects to resolve some of these conflicts.

Each block was designed to have its own identity. The lighting, street furniture, paving, structures, etc., which are used uniformly along the mall, were planned to give the project overall unity. The lighting was selected to provide sparkle and highlights, not uniform brilliance. All of the physical elements were carefully integrated, with natural tones of color and an elegant urbanism the prevailing impressions.

Construction started badly, with all bids having to be rejected. But then the city itself became general contractor and things proceeded in order. The mall finally opened in November, 1967.

New York City

Ending this review with a mall that doesn't now and may never exist is not wholly inappropriate. The forces that may make or break this project on New York City's Madison Ave. are the same the world over, but here they are bigger, the stakes higher and the battle dirtier.

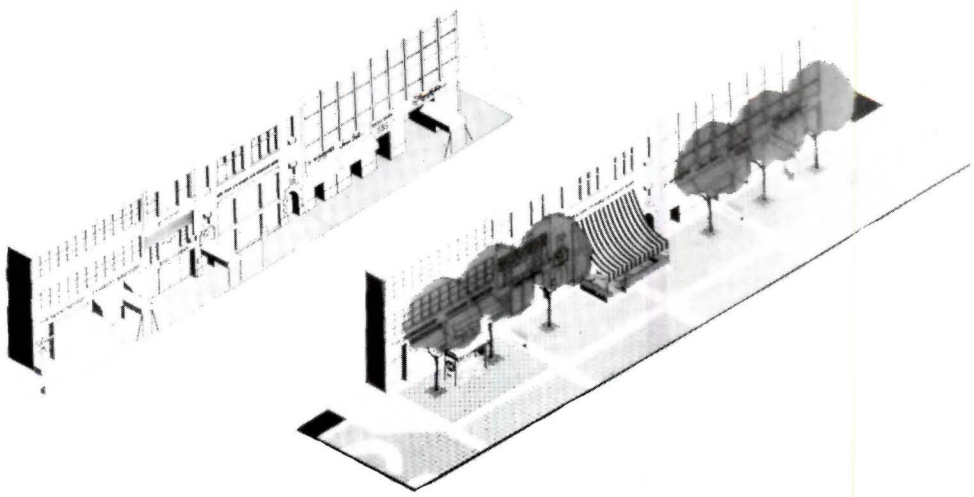
The project was first conceived several years ago and there were several experimental closings of Madison Ave. to traffic so that people could get the feel of wandering around on a major thoroughfare and so that merchants could judge its effects on trade.

A final and more organized experimental traffic ban was to have started last month, but has been "postponed" several times. At this time, the city's Office of Midtown Planning and Development says the project will go ahead in July, while business opponents say it will never happen at all. They have obtained a court ruling that says the city is acting illegally if it pursues the project. The city will, of course, appeal and has in fact already placed orders for the mall accoutrements.

Should the mall materialize, it will extend from 44th to 57th streets on Madison, which is lined with an array of shops second only to those on Fifth Ave. (where much of the mall's opposition started). Unlike many European malls, New York's would not enjoy charming narrow streets or antique buildings, but the sheer exhilaration of a well-appointed open space in New York that is both accessible and interesting is undeniable and the mall could be such a place.

The experiment is scheduled to last three months, but even if it happens as planned it must fight uncomfortable summer weather and the usual shortcomings of "temporary" projects, which may cause some people to judge the permanent concept unfairly. The experiment will have graphic street divisions, raised bus platforms, signs, benches and planters, but will lack the total planning and amenities (including street-wide paving) of a permanent mall.

The mall has also been criticized for ignoring the consequences it will have on city traffic. Madison Ave. is a major uptown route and, while the planners say that other avenues can absorb the extra cars, this has yet to be proven. Already it is as fast to walk as to drive at rush hour. Transportation on the mall itself has a better outlook. The permanent mall would have special minibuses as well as subway access.



Photographs: Courtesy of Italian Art & Landscape Foundation, except: P. 23 (bottom) Georg Munker. P. 24 (top) Julia Singer; (bottom) Gruen Assoc., Inc. P. 25 Atelier d'Urbanisme. P. 26 (left) & P. 27 Roy Berkeley. P. 29 Rapho Guillumette Pictures. P. 30 Bilderdienst. P. 31 & P. 35 (left) Dipl. Ing. B. Winkler. P. 36 (middle) R. Batton. P. 39 Helmer & Tuttle. P. 40 (left) Tidyman Studios; (right) Gruen Assoc., Inc. P. 41 (top and middle) D. Hammersclag; (bottom) Chuck Abbott. P. 42 Don Miles.

T en of 'chitecture

Are buildings about to be driven underground or to disappear?

By George Nelson

A road meanders toward the coast. It passes through villages, goes up hill and down, passes farms, finally comes to the cliffs over the sea, and stops. It is the end of the road. But the journey does not necessarily stop. With a boat, it could go on.

For uncounted years, starting long before they learned to put thoughts into writing, people have been building: mud walls, rock walls, marble walls; roofs of straw, clay, wood, stone; posts, lintels, beams, arches, corbels, vaults, domes, trusses.... Eventually they looked around, and named it architecture. It is the largest category of designed objects. The objects are hollow: they have outsides and they have insides. They dominate the natural landscape: wherever the road goes on its way to the sea, there were fields and forests, and there was architecture. Now architecture has competition, for in place of the fields and forests there are the strips, the neon jungles snaking out from the towns, eating up the surrendered landscape.

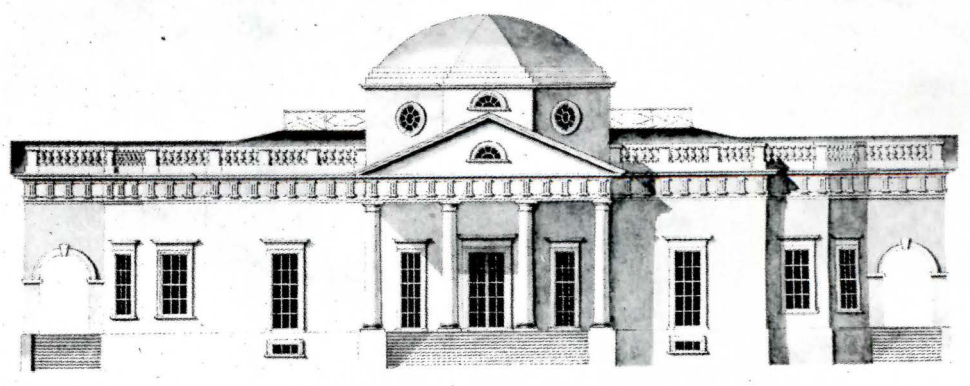
Our life span is three score and ten, give or take a few decades. Buildings last longer. So, as the race slowly grows and develops, two kinds of permanence become familiar: the permanence of nature and the permanence of architecture. The Argentine poet Borges writes that it is "Hard to believe that Buenos Aires had any beginning. I feel it to be as eternal as air and water." The human animal has always needed a sense of security, and until very recently these two kinds of permanence were his twin environmental pillars. Now, both are threatened. In Los Angeles, they have tried plastic landscaping on a freeway. In all cities, the highway bulldozers chew great holes in the shattered urban structure.

George Nelson is an industrial designer, architect, editor, writer and teacher. This article is based on a lecture he gave to Harvard's Graduate School of Design in 1972.

I suggest that the end of architecture, as we are accustomed to think of it, is being hastened, paradoxically, by the triumph of modern design. The new scale of building, now moving towards megastructures and megacities, will have the same effect. The collision between architecture and technology is leaving the former battered. We are presently going to become aware that the greatest source of visual pollution in cities is the buildings. The architect is gradually being changed from a professional to personnel, to use Paul Goodman's phrase. "Expression," that quality in architecture which allows us to distinguish a church from a town hall, is disappearing. So are windows, in more and more categories of building. The emergence within a decade or two of the first completely enclosed towns is more than likely. The space needs of automobiles are eviscerating older cities, making it clear that all current types of buildings, as grouped in urban settings, are obstructive hangovers from a period when civic form was determined by pedestrians, horse-drawn vehicles and trolley cars. While these forces have no common origin, they are all exerting pressures in a common direction.

If architecture is thought of as building created by architects, we collide immediately with the fact that very little building, anywhere or any time, has come from architects' drawing tables. Even if we think of architecture as building-*plus,* that is, as structures designed to gladden the eye and nourish the spirit as well as keep off the rain, there is very little of it. Nonetheless, there is a broad consensus that this "little" is precious. Even the visually illiterate sense that Chartres is more than a hall, the Parthenon is more than a bleached ruin, and Monticello is more than an old-fashioned house built by a wealthy man. Great buildings, like great paintings, books, plays or poems, are highly concentrated testimonials to the ability of the human animal, under suitable conditions, to get up on his

"Monticello is more than an old-fashioned house."



two feet and make like a complete man. In addition, they have scarcity value: there have never been enough of them.

When conditions are not suitable, architecture, in the sense just given, is at a serious disadvantage, more serious than the plight of painting or theater, for there is no such thing as an architecture of protest. An "angry" building is an impossibility: it cannot be designed, let alone built. "Suitable conditions" are hard to define. No society has ever tried to create such conditions. Their emergence has always been fortuitous. About all we can do is pinpoint the small places and brief periods when great buildings did appear in substantial numbers, and try to figure out by hindsight what the ingredients might have been. Without stopping here to delve deeply into such questions, I think we can say that some common qualities would be: a general feeling that life has meaning; a sense of individual liberty in the effective elements of the population; and a shared faith in the main values of the society.

These conditions do not exist at the present time in either capitalist or communist societies.

In addition to those rare events we label "great" architecture, there is also the larger output of decent, well-conceived, attractive and sensibly functioning building. This too appears to be under attack on several fronts.

One of the most serious of these threats has come, quite unconsciously, from the architects themselves. During the first half of the 20th century a struggle developed between the establishment architects, who wanted to continue their eclectic way of designing buildings, and a younger group which insisted that honesty of design, in the sense of functional planning and the expressive use of modern materials and techniques, was long overdue. This movement, like the eclectic approach it was fighting, was international. By the '50s it was clear that the modernists had won.

Now when an architect decides to use modern materials and techniques in an honest, logical way, it does not take long before he is up to his ears in systems, standard elements and modules, and as soon as the modules show advantages of cost or speed, industry begins to turn them out. When there is an adequate range of such elements in the catalogs, it inevitably occurs to someone that it shouldn't be that hard to put whole buildings together and sell them directly to users. Presently the landscape begins to fill up with standard office buildings, trailers, prefabs, mobile homes and modulars. More and more are being sold, complete with furnishings and accessories. In theory there is no reason such buildings should not be decent and attractive, but, in reality, the effect is usually that of a flattening out of experience, a diminishing of life.

In general, this is true of technology wherever it takes over. Changing modes of travel offer an illustration. When a person walks or rides behind a horse, there is time for many experiences: details of the landscape can be enjoyed; if someone is encountered along the way there is conversation. Shift the movement to a train and there is still a lot to see. Even on Japan's Tokkaido Express, at 125 mph, it holds true. But take a jet and nothing is left but a cramped seat, a magazine and perhaps a drink. As technology advances, experience recedes. Not always, and not inevitably, but generally. The symbolic expression of all this is the lunar landing: there, if a man were permitted to experience the environment directly, he would instantly die.

Another element with which architecture has to cope today is the new scale, the enormous increase in the size of the staging areas required for more and more activities. Airports have increased their size tenfold in a relatively short time. In the military area, given the capability of weapons now, a major war could begin and end within 48 hours because the fronts no longer have adequate depth. A suitable staging area for a war of greater duration, with a minimum sporting element left in the goings-on, would now require at least two planets. The interstate highway system has consumed two million acres. Suburban developments take even more. Shopping centers consume hundreds of thousands. Urban renewal programs gut whole sections of cities. Cities sprawl out into megalopolitan regions of 50, 80, or 90 million inhabitants. Visionaries like Paolo Soleri design concrete beehives for a million people.

All this creates new problems for the architect. They may not be insoluble, but they are unprecedented kinds of problems, not merely bigger ones.

A common basis for architecture in the past has been the existence of intelligible individual and social relationships. They may not have been humane or amiable, but they were there. When temples like Karnak were built, the cost in physical labor was enormous, but no one questioned the importance, even the necessity, of what he was doing. The kings, priests, satraps, emperors, and generals were real people who gave real orders to other real people. No matter how onerous the conditions, the relationships were human and universally understood. Even when things became intolerable and the people revolted, the changed relationships were still real.

We are now a long way from these simple times. Today the orders issue from anonymous corporate bureaus and are executed by in-house staffs or offices which have also become public corporations. The architect who designs a 1,000-house tract or a 30-story apartment building has no idea whom he is designing for. At best, he can only read reports which statistically define a market: average income, $16,327; 2.368 children per family, etc., etc.

As we move up the scale to the so-called

"As technology advances, experience recedes."

"significant" buildings—large commercial complexes, religious edifices, government and other institutional structures—we run into another curious fact: nobody seems to believe, with much conviction, in any of the institutions.

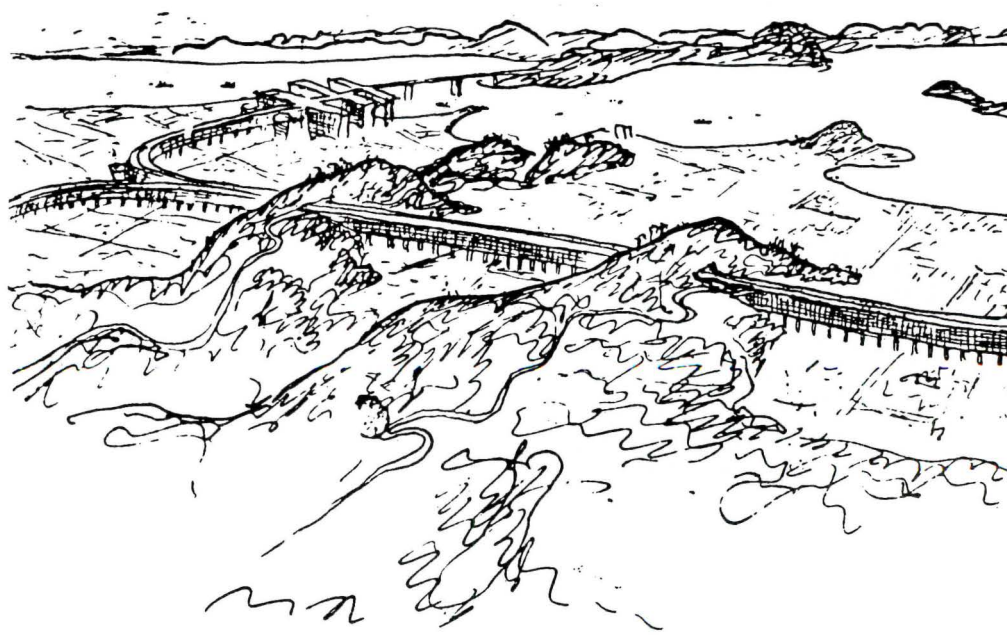
There is no need to saddle the young with this: their conspicuous display of scorn for established values, their sit-ins, card burnings, and draft evasions merely put headlines on attitudes already held, silently, by millions of their elders. The ease with which "loyalties" are switched from one corporate employer to another, the obsession with retirement which begins decades before the day, preoccupation with boats, choppers, campers, travel, with anything but work, the universal cynicism about political leaders, all these familiar manifestations are evidence enough. It has become difficult to find people with any interest in what they are doing for a living, and millions, the sociologists tell us, actively hate their work.

All this is reflected in architecture, which becomes progressively more bland, blank, mediocre, characterless. Thus the social critics cry out, not without reason, about the dehumanization of existence. Boredom, the chronic illness of our time, finds its portrait in buildings.

This takes us to a point architects rarely talk about: that the visual pollution of which we have suddenly become so conscious is not created primarily by billboards and litter, but by the superabundant clutter of buildings. Most cities would look and feel better if half the structures in them could be made invisible. The most handsome streets the world over are almost invariably one-sided: Michigan Avenue, Nevsky Prospekt, the Paris quais—all are blessed by parks, promenades or water instead of the usual row of buildings.

The swallowing up of isolated buildings (another form of elimination of superfluous

"The greatest source of visual pollution in cities is the buildings." Photograph: Gil Amiaga.



"Le Corbusier suggested . . . that buildings be constructed on rights-of-way, with highways on top."

architecture) is actually beginning to happen with the megastructures. Le Corbusier suggested this in his plan for Rio. He had noted that efforts to remake obsolete quarters in old cities invariably bogged down in legal problems related to condemnation, whereas the highway builders seemed to have no such difficulties. His inspired response to this observation was to suggest that buildings be constructed on the rights-of-way, with the highways on top. The result was linear buildings which might be five to a dozen miles in length. The scheme was not built, but it is not hard to see that the idea at its very worst would have reduced clutter. There are already a few such structures in Rio—not yet five miles long—which look well on their hilly sites. But the question arises, do we have architecture here, or technological anthills? People like Yona Friedman in France and N. J. Habraken in the Netherlands seem to visualize cities as endless structural cages, filled in to suit whatever type occupancy is desired. Others have suggested that we build in the spaces under existing elevated roads in cities.

Whatever one's opinions of such proposals, there is in all this a very clear, almost unanimous expression of a trend, the move away from differentiated buildings to relatively anonymous large-scale space enclosures. I suspect the reason for much of the excitement about Pier Luigi Nervi is not so much his brilliant engineering, but his creation of gigantic and exciting interior spaces. It is almost impossible to remember a Nervi exterior but equally impossible to forget the interior.

Wherever we look, the message seems to be that we are moving from the monument to the bell jar. Hans Scharoun's Philharmonic Hall in West Berlin is fantastically beautiful inside, a disorganized nothing outside. One could describe a cave in the same terms used for the concert hall. Or perhaps for Santa Sophia in Istanbul. As a nonhistorian, I suddenly find myself regretting that I know nothing about the feverish last years of the Byzantine Empire. It is possible that we have something in common.

This much seems clear: what we think of as the "reality" of architecture, which has so long been a conspicuous expression on the exterior (just think of Venice or Paris or Florence for a moment) is now shifting with considerable rapidity to the interior. Such a transformation is not necessarily bad, but it does give rise to questions about what is happening to architecture as we are accustomed to think of it. My own hunch is that a lot of it is going to simply vanish, first by becoming increasingly uninteresting and then by being swallowed up into megastructures or by being buried in the earth or covered with topsoil and planted.

This last notion is not as silly as it may sound. If one takes an inventory of building types in a city, it is surprising how many of them are without windows. The list includes parking garages, museums, warehouses, telephone exchanges, power houses. Also, all types of stores, theaters, auditoriums, and most restaurants. Those which must have windows are housing, offices, hotels and schools. A town in which the latter looked at the former and saw only hillside parks, is not, as far as I am concerned, a disagreeable prospect.

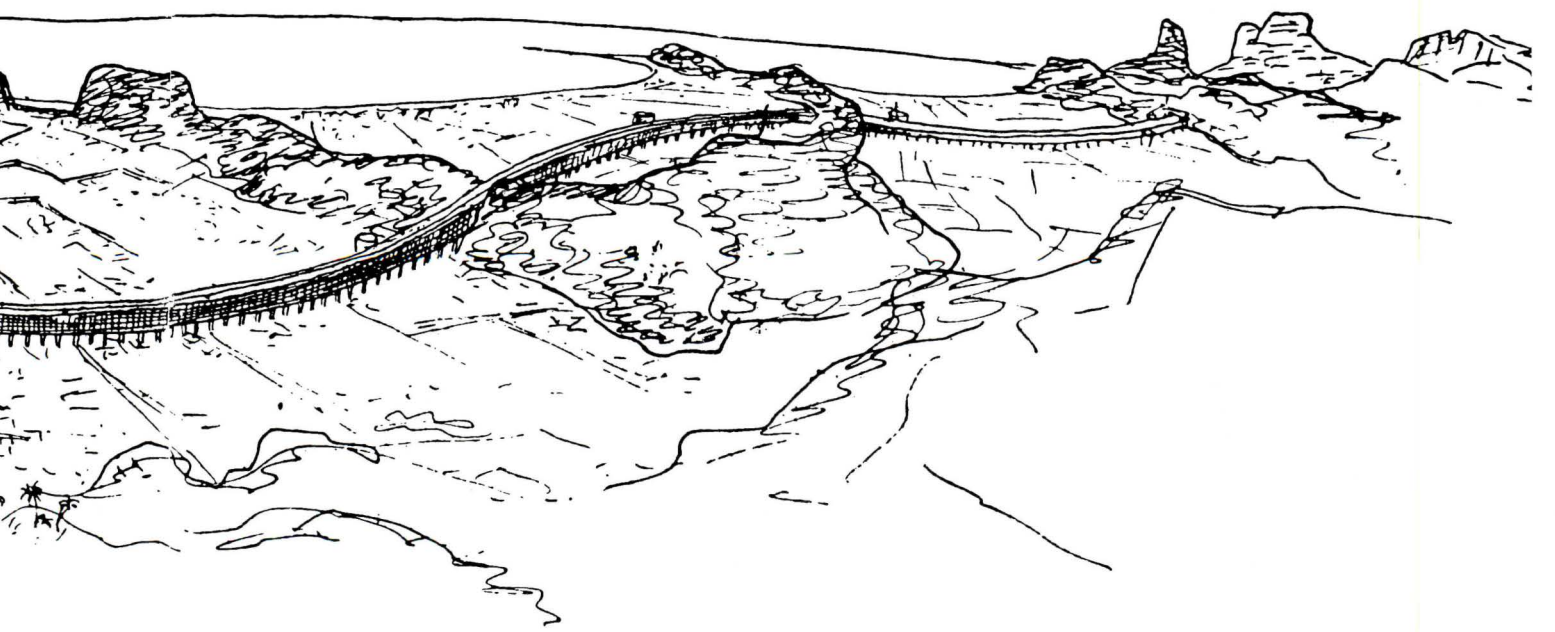
Now let me pull the noose a bit tighter: I have seen at least two proposals for covering entire towns with domes, and there is a persistent rumor that such communities are now being planned for the Arctic. Buckminster Fuller's suggestion that midtown Manhattan be covered with a dome two miles in diameter has been widely publicized. Another, which looks similar, has been designed by a team headed by Frei Otto. In such concepts we find the bell jar blown up to megascale. What are the chances that we are going to get domed cities? I don't know, of course, but my guess is that the chances are roughly 100 percent. Let me give you two examples of the way such things work.

When air conditioning first appeared on the scene, its best customers were restaurants and movie houses. In a very real way, it was forced on them: those who put it in did more business, and those who did not, lost business. Then stores began to follow. However, since air conditioning was considered expensive, it was generally believed that its blessings would be limited to those who could pay and that those who could not would somehow get along. But this isn't the way things turned out: even cars are now air-conditioned.

When the first shopping centers were built, people parked their cars and went in and out of shops by way of a sidewalk, just as they did on Main Street. Then some unsung genius reinvented the shopping mall (the GUM store on Red Square in Moscow, late nineteenth century design, and the Galleria in Milan are early examples), added air conditioning and did very well. The shopping mall, despite its added costs and higher rents, seems to be taking over.

The enclosed city is going to have a similar history, simply because it is possible. The synthetic environment, under development for thousands of years, is not going to stop short of total realization. The first covered cities will probably be built in difficult locations: in the Arctic, on the Equator, on the Moon or Mars. Then it will be discovered that the idea can be sold. When its commercial viability has been discovered by the entrepreneurial wolves, the sheep will follow.

What happens to architecture then? You don't need buildings under a dome: tents or thatched huts will do perfectly well. Given a very large bell jar, climatized to meet the exact specifications of the Garden



of Eden, the only functions left which have been traditionally met by buildings are security and privacy. So what happens to architecture in the enclosed cities?

Here too, obviously, the dominant reality will be the interior space. It may be objected that architecture is more than a matter of facades and visible mass. True enough, but it is hard to think of an architecture deprived of these elements. As we move around in cities, we have access to various interiors, but the overwhelming sensory experience in streets is created by the visible bulk of buildings.

One more point should be made. Architecture has long been the business of architects, whether they called themselves priests, craftsmen or master builders. It has been a professional calling, carried on with love, dedication and long study.

This is changing too. The big, successful offices are being bought by conglomerates, or are going public. Furthermore, many of the more enterprising architects are discovering that they can get more work, and make much more money, by becoming entrepreneurs. Can a public corporation act, think, feel like a profession? Furthermore, as the client-architect-contractor-subcontractor configuration gets replaced by large turnkey enterprises, these invariably create their own staffs. In theory, there is nothing to prevent a corporate design and planning group from turning out work of superb quality, and there are indeed occasional examples of just that. But, generally speaking, the professional who becomes personnel shortly turns into a bureaucrat, concerned for his job, his status and his pension. More often than not he ends up doing what he is told to do. As he becomes a skilled bureaucrat, he knows what he has to do before anyone tells him, thus preserving the illusion of independence and personal freedom. This process of transformation in which a man becomes a mouse, or, as Kafka put it, a cockroach, is not due so much to the organization of the corporation as to its aims, which are almost invariably not human aims.

Thus we finally confront not only the dehumanization of architecture, but of the architect as well. There is nothing special in this process: it is going on all through the society.

It is difficult to present a series of observed trends, as I have done here, without at the same time creating the impression that these trends are irreversible. This is not necessarily so. If domed cities are to be part of our future, it will only be so because millions of people, habituated to more and more sealed environments, do not resist the development. If the unrestricted breeding habits of humans were replaced by a disciplined concern for future generations, all the mega-problems of mass housing, metropolitan regions and the rest would presently evaporate. If the top priority of society were the growing of healthy people, the brutalizing, oppressive aspects of technology would disappear.

We have a lot of "ifs" here. Nevertheless, in theory, a free society can decide to reverse any trend it judges undesirable. The trouble here and now is that we have lost confidence in our ability to control our destiny and have retreated into helplessness, alienation and a search for privacy. We do not feel like citizens in a free society. Even so, we are not entirely without resources. One is the new and rather shapeless force described as the counterculture.

The counterculture is a force, not because of any organized power, but because it is a body of ideas, attitudes, feelings and behavior shared by substantial numbers of individuals. These people, as already suggested, are not confined to any social or age group. The endlessly demonstrated failure to make a viable, healthy society, the meaningless nature of "affluence" and the disastrous waste of social energy on insane ventures have been disturbing to far more people than just to alienated youth.

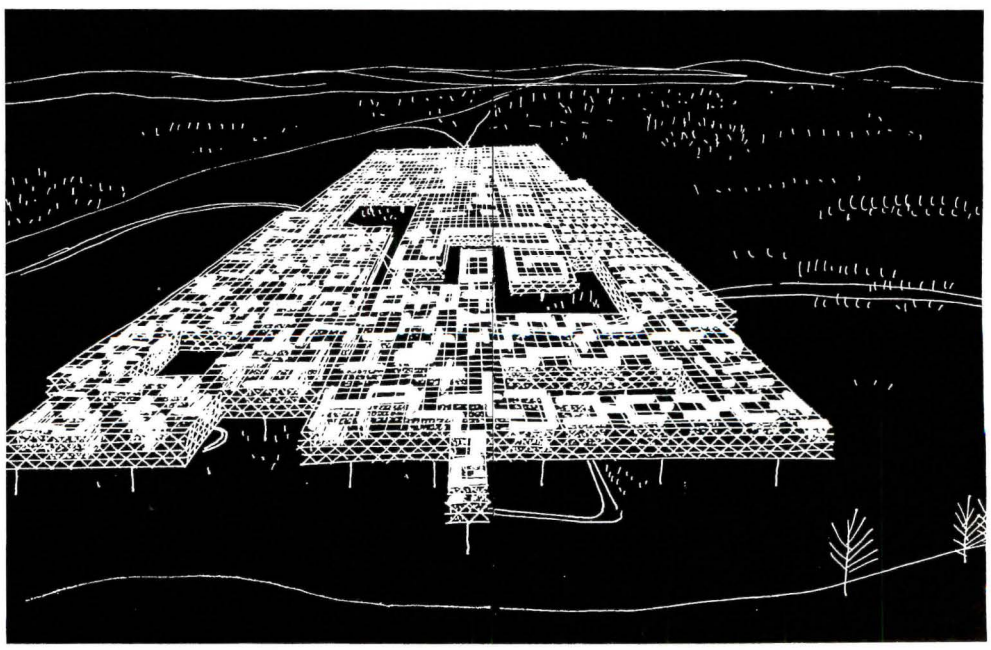
The ideas of the counterculture include outspoken disapproval of war, organized bigness, power and authority. Science and technology are suspect. On the affirmative side, the counterculture favors respect for the individual and the natural environment. There is a clearly shown desire for community, life-enhancing relationships and activities, commitment.

Such ideas are infiltrating the society at all levels; and as they gather force, we can begin to hope that the "suitable conditions" mentioned at the beginning may somehow again emerge and allow the ancient creative impulses to flourish. A nice thought. I have no idea what the odds are, but it is *absolutely imperative that we act as if they were overwhelmingly favorable.*

We have to stop and examine the last statement. The artist, architect, designer—any individual who wishes to use and deepen his creative capabilities—is as fully entitled as the next man to feel pessimism or even despair as he looks around him. At the present moment he would be an insensitive clod if he did not. Nonetheless, when he confronts his chosen work, his own problems connected with that work, he must take a positive position with regard to them. This necessity has nothing to do with his being considered a fine, cheery fellow by his neighbors and associates, but because the problems cannot be attacked, let alone solved, if the approach is negative. Any valid creative effort is by its nature an affirmative expression, and anything is a psychological impossibility.

But even a new "suitable condition" will not revive the decaying modern-architectural realities of the past few decades. The megastructures are moving in to stay and none of us will live to see the monument displace the bell jar. It is also possible that the trend towards an impalpable, impersonal, undifferentiated kind of shelter is not something we ought to resist. It

"Cities as endless structural cages."



could be that in an unexpected way it expresses another move out of our race's tormented and violent adolescence and towards maturity.

As the race makes such a move, it will have a diminishing need for architecture used as ego props and amulets. We know this from our records. Buddha left a family palace, a first-class status symbol if there ever was one, and took up residence under a bo tree. St. Francis of Assisi did much the same thing. Gandhi spent more time at a spinning wheel than in Cadillacs. Einstein lived, quite contentedly it appears, in a nondescript frame house in Princeton.

If this is where some of the discernible trends are taking us, then we have something real to work with. If our future is to be filled with factory-made, spidery geodesics, weightless systems in tension, fragile modular shells of glass, light metals and plastic films, then surely one way to look at all this increasingly sophisticated anonymity is to see it as a fresh chance to create a real habitation for man, collective in its outward expression, infinitely varied and personal in its inner reality. It is not too hard to see these feathery urban networks in one's mind's eye, as graceful and unselfconscious as a forest.

It doesn't matter so much whether architecture is coming to an end or not, for the central problems of our time are not architectural, but have to do with the humanizing of technology, with getting this runaway monster under control. Technology cannot possibly be humanized unless people become human first, which is no mean task when we consider the extent to which the present passive acceptance of mass violence and truly insane brutality has gone.

The only possible mission today for architecture lies in the creation of humane environments. There is nothing else. The realization may come as a shock, but there is nothing for us to celebrate, glorify or memorialize. I doubt if there will be monuments to the dubious heroes of Vietnam. Our leaders do not inspire reverence or gratitude. It is hard for an architect to feel passionate dedication to high-rise office buildings or shopping malls, which are rapidly moving into the category of building overkill, anyway.

The mission is to create people gardens, environments fostering human growth and development. The problem is to learn what such environments might be and how to design them. Learning is going to be painful, for we are out of practice. Perhaps we could get started by just trying to get our souls out of hock from the supermarkets.

Whether we have come to the end of architecture or to some dimly perceived new beginning (my guess is that we have come to both) there can be no doubt that we are in the middle of a transformation of unprecedented magnitude, not only for architecture but for all our activities.

In such a situation, one would think that the first thing the individual architect might do would be to form his own judgement about what is really going on. The pictures I have presented include a tendency for individual buildings to coalesce, taking on the form of large mixed-occupancy complexes with no special exterior character.

Within such frameworks the interior becomes the major reality, the most expressive element in the total scheme. Given the rapidly developing catalogs of industrial elements, many building types are moving in the direction of manufactured packages. The architect as a professional is gradually becoming the architect as a corporate type, inevitably taking on corporate values. The enclosed city seems to be a future reality, with shopping malls as the first completed step. Architecture as ego-reinforcement is on the way out; disposability is on the way in. The many proposals to bury buildings or cover them with earth indicate that many of the old meanings of architecture are already disappearing.

With all this fissioning, coalescing, packaging and hiding of building, one may suspect that we are presently going to be confronting the problems of a synthetic environment in their purest form, with interiors and urban design as the major activities along with engineering. The old slogan, "the house is a machine for living" will no doubt give way to "the city is a machine for living." It could be pretty grisly. To some small extent the outcome will depend on how the architects align themselves with the forces which enhance or degrade the quality of life.

These speculations represent a highly personal scenario; other concerned individuals will write their own. But despite the innumerable variations one could imagine, I cannot believe that the creative role for the designer *now* can be anything other than the production of humane environments. Anything else, given the social context, is anachronistic, inconsequential, egotistical and empty posturing.

The real problem for the designer is not only to find clients: *he must first determine what a humane environment really is.* The answers are not available in the supermarkets. What seems to be needed is observation, study, interdisciplinary friction and thought, directed towards the creation of a new cultural base, which is an indispensable prerequisite for a revised set of social priorities.

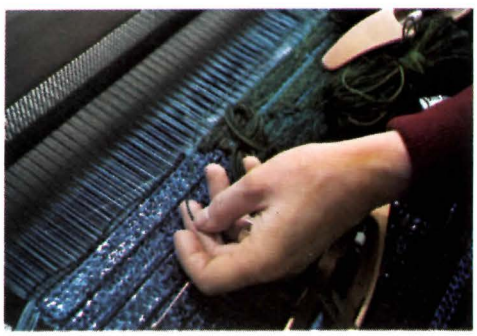
The humane environment is not a slogan: it is a mystery which can only be penetrated by humane people. There is precious little to be learned about it from our surroundings or from the schools, and the society in its general behavior has shown precious little interest in it, although the signs of change are visible.

The end of architecture, as I have been describing it, marks one of those very rare moments in history when another step in the direction of human maturity appears to be almost within our grasp.

"Buckminster Fuller's suggestion that midtown Manhattan be covered with a dome."

na nm ck
nd the
ew Pointillism

Hernmarck's best known tapestries may be the two she wove for SOM's Weyerhaeuser Headquarters in Tacoma, Washington. One of these, depicting a rain forest tree, is shown opposite. (Photo: Ezra Stoller.) Below, photographs of the artist at work in her studio on the London docks. (Photos: John Goldblatt.)



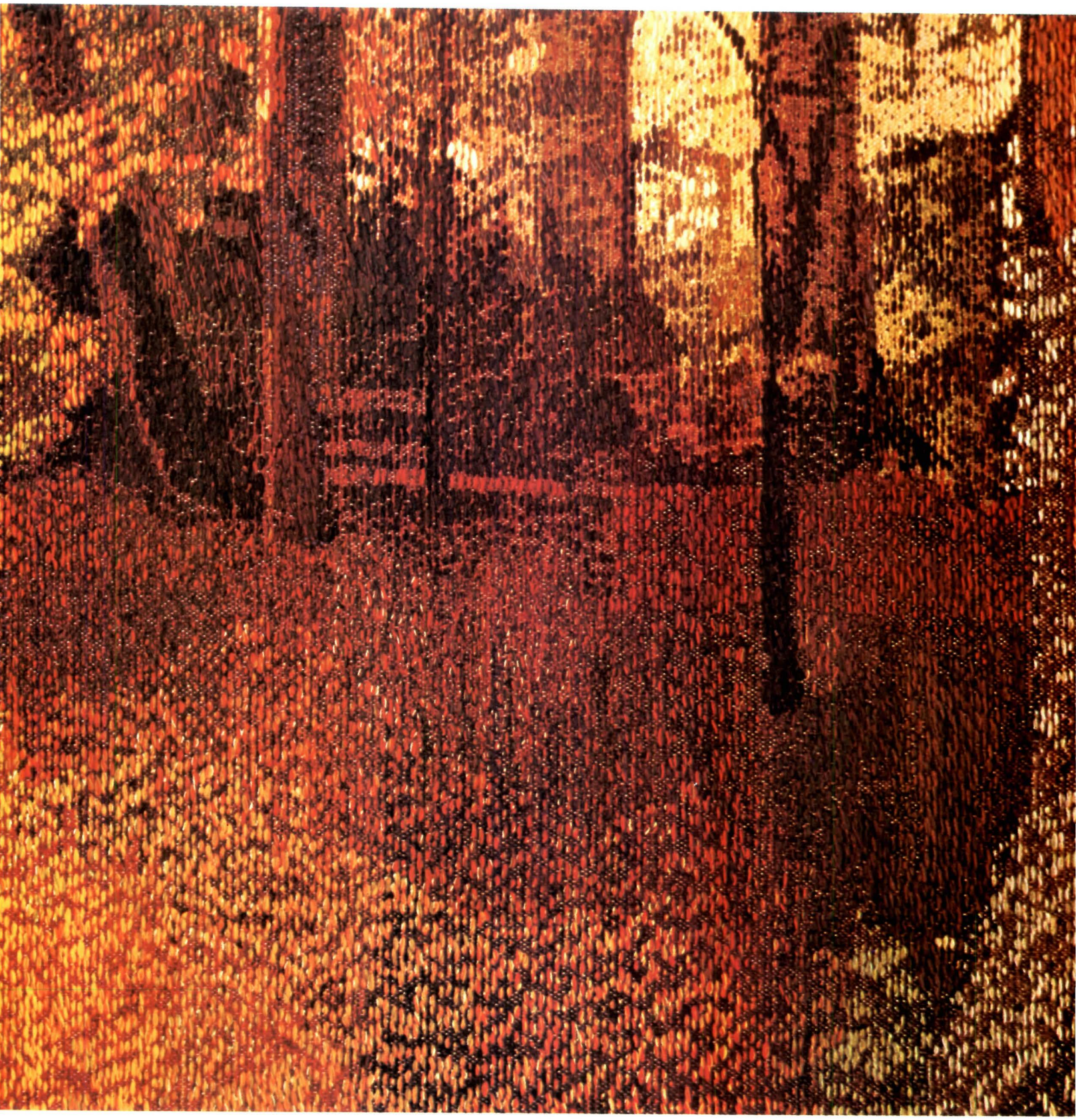
She is a young, Swedish-born weaver who long worked out of Montreal and now lives in London. Her remarkable tapestries hang in many buildings and museums in Europe and North America; and next month, at the American Institute of Architects' annual convention in San Francisco, Helena Hernmarck will receive the A.I.A.'s Craftsmanship Medal. It is one of the Institute's more imaginative and deserved awards in some time.

For Hernmarck's work is probably unique in our day. It is both completely realistic and quite abstract. Her subject matter may be a forest of trees and ferns, a wild melée in an American football game, or a fragment of the U.S. Declaration of Independence. She photographs those subjects, and then has the photographs printed as half-tones or four-color proofs, and then blows them up out of all proportion so that dot-patterns of the printed plate become enlarged and dramatized. And then she weaves these patterns on large looms, in wool and other materials—often intensifying the color as well as the contrast.

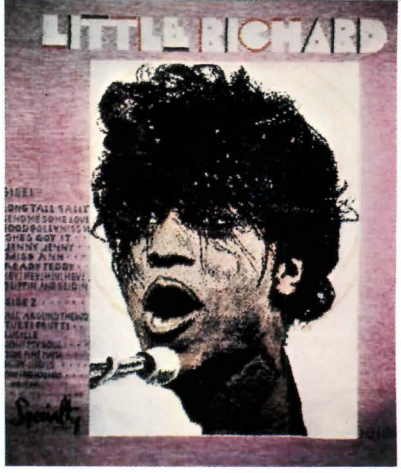
The finished product is an abstract pattern at close quarters; but the pattern coalesces into a realistic image at a distance. It is a work of considerable magic and of optical illusion—entirely modern in technique, but owing something, of course, to 19th-Century Pointillists like Georges Seurat who, according to Sir Herbert Read, "broke down the colors present in nature into their constituent hues, transferred these to the canvas in their pure or primary state, as tiny brush strokes or dots, and left to the spectator's retina the task of re-constituting the hues as an 'optical mixture'." That is an excellent description, also, of what Helena Hernmarck has been doing over the past half-dozen years or so; but she has done it in a totally unexpected medium, and with a bravado that some of the Pointillists lacked. Moreover, she has replaced Seurat's "retina" with today's zoom lens—so that the "optical mixture" only jells at a distance.

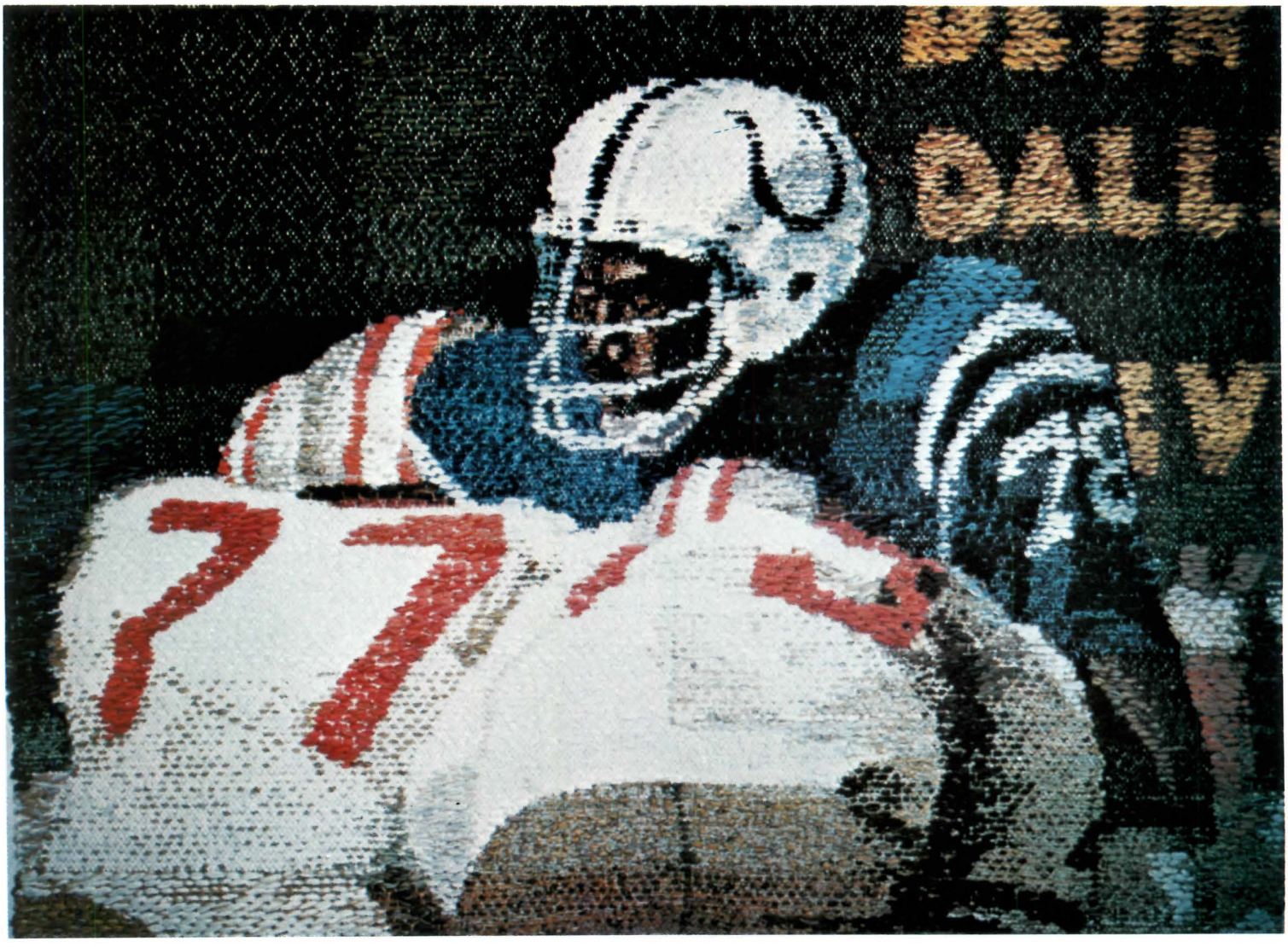
One architect who recently commissioned Hernmarck to weave tapestries for one of his buildings says that her technique is perfectly attuned to both his and his corporate clients' predilections—for it is both abstract (and sometimes surrealistic) and yet quite realistic enough to satisfy those who are visually conservative.

It will be interesting to see what she will do next. TV images with "snow"—possibly woven in colored strands of telephone wire? Who knows. She is only in her early thirties, and her eyes are very open to all the possibilities of her time, and ours.

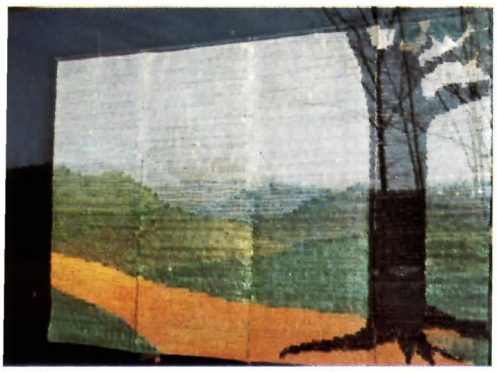


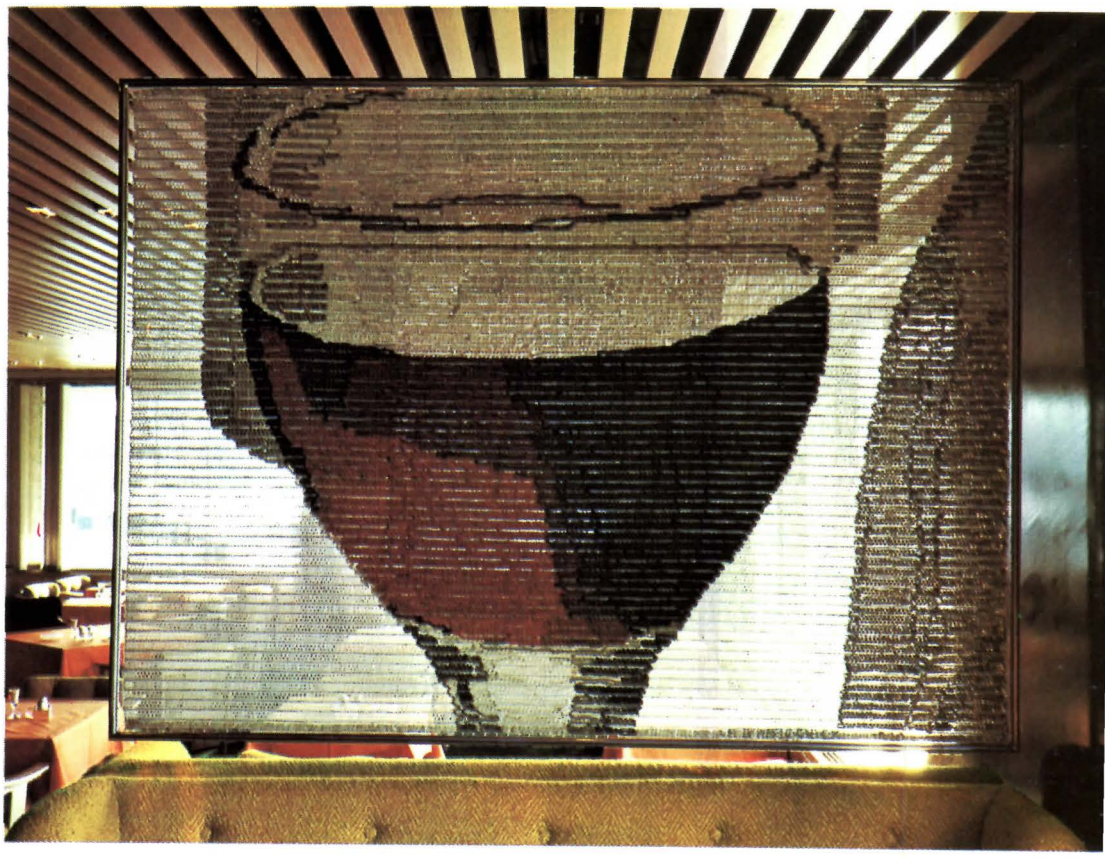
Photos on opposite page show a large tapestry woven for the First National Bank of Dayton, Ohio. The larger picture is a detail of the one above it. The architects were Harry Weese and Associates. (Photo: Wallace-Martin Inc.) Above, a sample of a Dollar Bill tapestry proposed for a Chicago bank. (Photo: Kristian Studio, Montreal.) At right, a detail of a tapestry done for the Swedenhouse, in Stockholm, based on a collage of newspaper front pages. (Photo: Calle Hernmarck.)

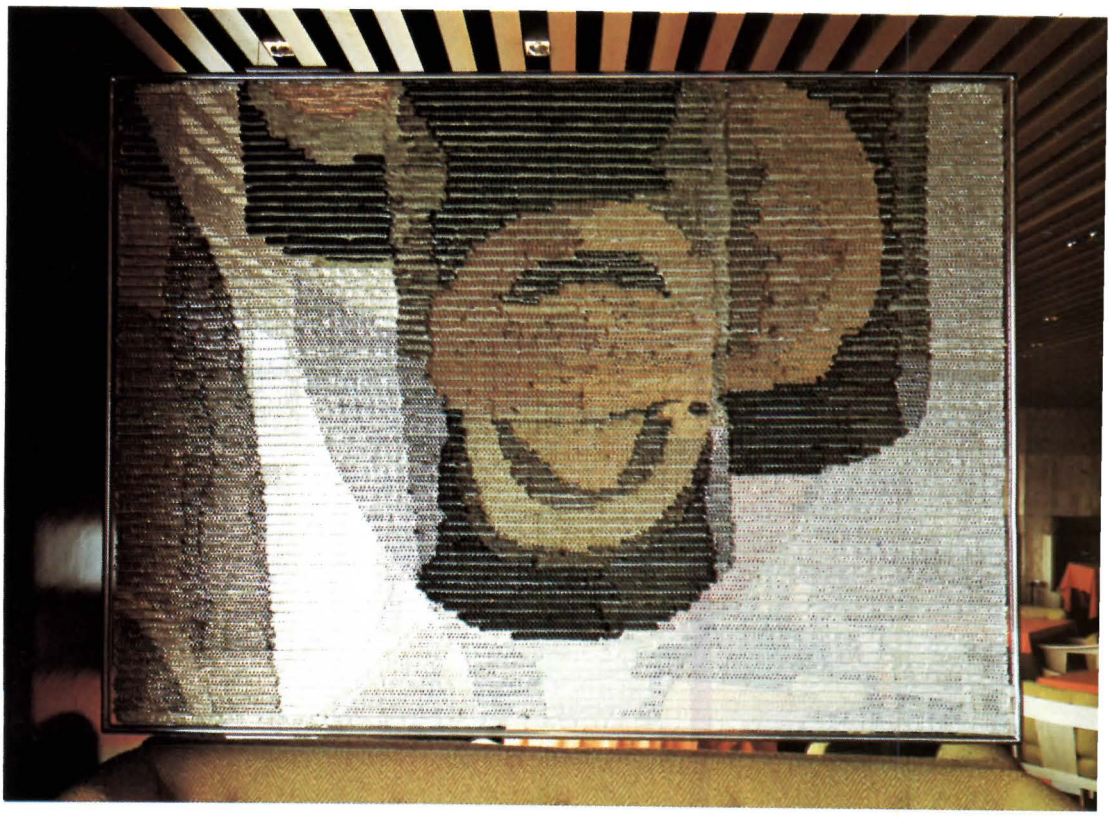

LITTLE RICHARD

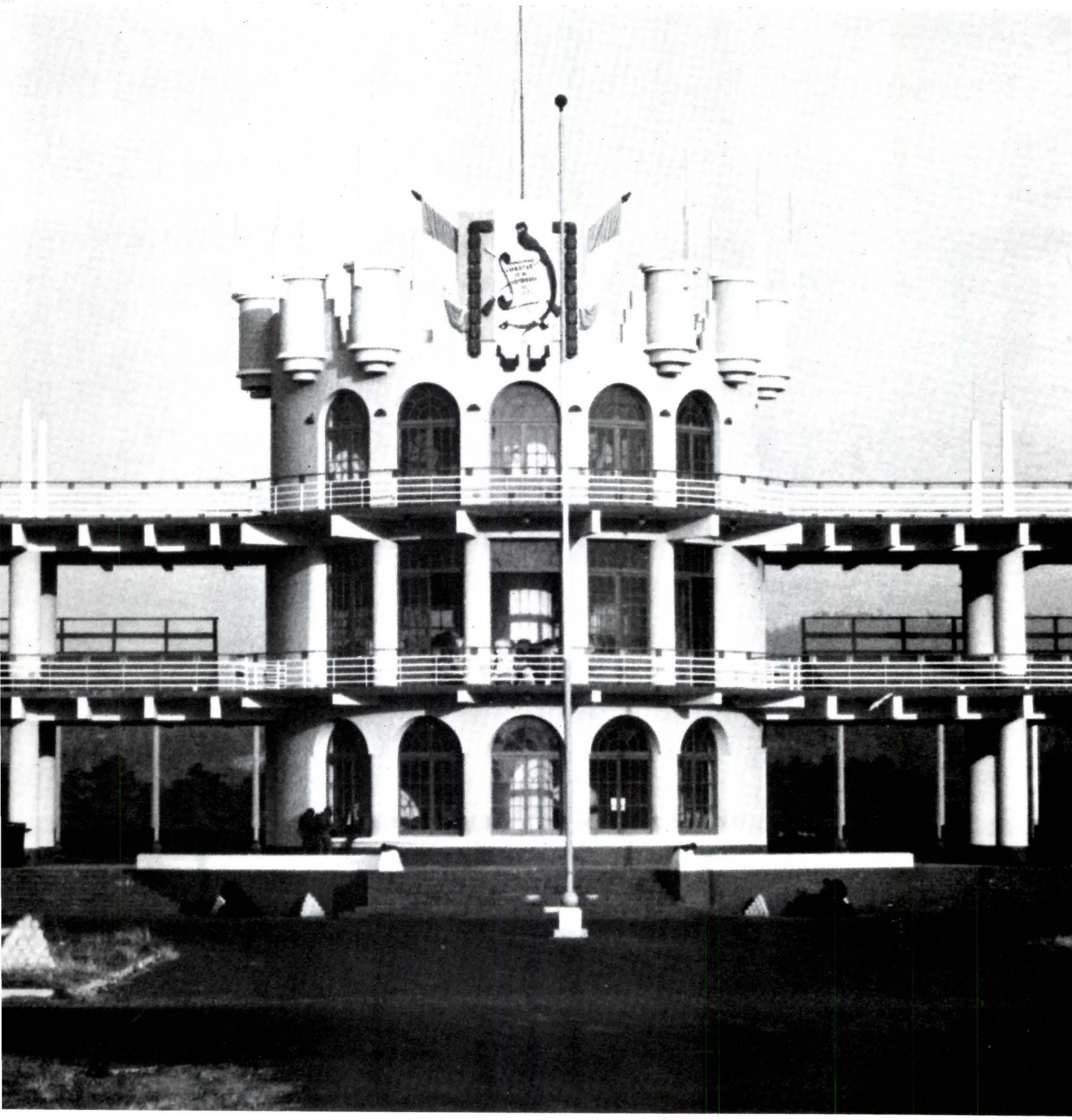


Woven portrait of pop singer Little Richard (top, left) is 8 ft. high and 7 ft. wide. Portrait of football player Bubba Smith is 4 ft. high and 5 ft. long. (Both photos: Kristian Studio, Montreal.) Transparent/translucent Tree Screen (below) was done for Architects Mary and Thomas McNulty, for their famous house in Lincoln, Massachusetts. (Photo: Tom McNulty.) Two-sided transparent tapestries of glasses of wine hang in the restaurant of Stockholm's Sheraton Hotel. These are two of six tapestries done for the restaurant by Helena Hernmarck.
(Photos: Martin Lyons, Montreal.)









L er fro G te a City

by Philip Herrera

Unlike its rich neighbor to the north—Mexico, that is—Guatemala is a blank spot on the map of contemporary world architecture. Who has ever heard of a distinctive style of Guatemalan building, of dazzling feats of Guatemalan engineering, or even of an indigenous style of architecture without architects? Indeed, for most foreigners, the only indication that Guatemala has any contemporary architecture at all is a widely publicized photograph in one of the Bank of America's ad campaigns. "Our man on the spot—in Guatemala," it says, showing the man, the spot and, in the background, one of those glass and steel buildings that connote bankerly efficiency. For all that outsiders would know, that building (and it is a bank) could be the sole new structure in the nation.

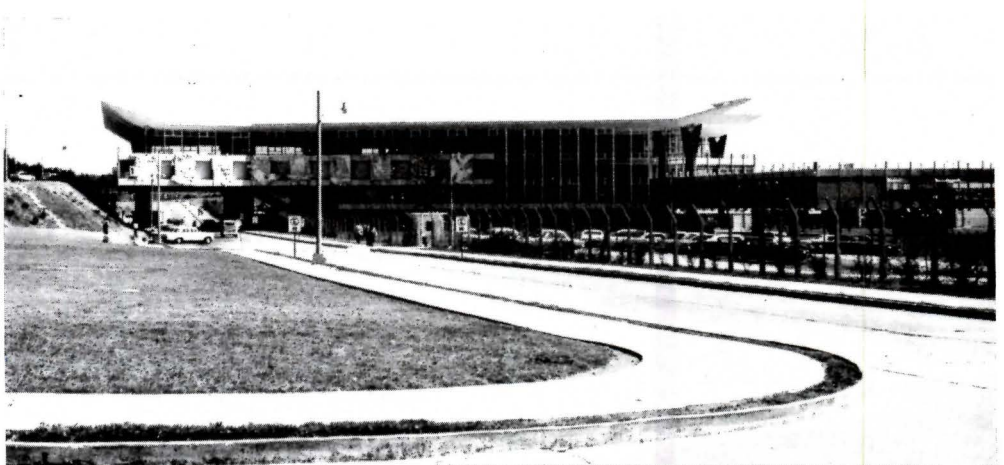
Actually, the capital, Guatemala City, is in the midst of a construction boom. Every kind of building is sprouting, from gas stations and hotels to theaters and offices. They manifest a broad-based new prosperity. The traditional mainstays of the republic's economy—coffee, sugar, cotton and beef—are selling for high prices, which brings in foreign exchange. Beyond that, a sizeable middle class has emerged, and it is devoted to free-wheeling capitalism. Then there is a strict law-and-order government, which, whatever else one thinks about it, has promoted a feeling of financial security. People who in the past literally put their money into mattresses (or land) are now putting it into buildings, especially condominium apartments. In addition, Guatemala City's population, now about 600,000, is being constantly swelled by an influx of peasants from the countryside; the growth creates a demand for more schools, more health facilities, more housing. All together, these forces have conspired to transform the cityscape radically. There has been more change in the last decade in Guatemala City, relatively speaking, than in New York, or London, or Mexico City. Why, then, are the new buildings so unknown?

Part of the reason is that they are unpublicized. What draws visitors with an eye for buildings to the little republic is the architecture of eras long since past: the enduring, mysterious cities of the great Mayan civilization, or the somber cathedrals and marvelous monasteries of Spanish Colonial days.

But if the past enthralls, the present is inescapable. After all, the tourist must use the new hotels and restaurants, must pass by the other new buildings. So the final explanation for the lack of knowledge about Guatemala's new architecture is, I fear, either disinterest or discretion.

Let us assume than an errant architectural critic flies to Guatemala City. The first thing he sees, of course, is the Aurora Airport, spectacularly situated on the edge of a plateau just five miles from downtown (1). The terminal building is not striking, though it fairly reeks of modernity. It has a finger plan (with only one finger so far), lots of glass (held by lots of yellow aluminum mullions), and what at first sight looks like a roof formed of hyperbolic parabaloid "umbrellas" (but which turn out to be just

Philip Herrera, Guatemalan by birth, writes frequently about architecture. He is an Associate Editor of Time.
Photographs by Peter Namuth.



1. Aurora Airport

conventional columns that splay out at the top for dramatic effect). For the record, the airport was designed by Roberto Irigoyen, an MIT graduate. The point, however, is that Aurora is not the sort of building that would be singled out for much praise by our critic.

But he would not make up his mind then and there. On the way from the airport to downtown, he would pass a pair of arresting, curved brick office buildings forming two quarters of a circle around a lovely Spanish Colonial fountain. Each is nicely designed, with the older one (by architect Raúl Minando) (2) dictating the style, material and cornice line of its newer neighbor (by Jorge Montes). Well and good. But the other side of the circle looks as if it will never be completed. It contains a jumble of houses, a restaurant and a tractor sales lot. Urban design, the hard-eyed critic might suspect, is hardly one of Guatemala's strong points.

A few hundred yards away, looming over the fashionable residential Avenida de la Reforma, is a 15-story condominium apartment house by Minando (3). It is an honest, straightforward structure with four big apartments per floor, and every one of them has been sold. But the building uses a mixed plethora of materials—brick, concrete, glass, marble, yellow aluminum—and the effect is a bit unsettling.

By Guatemalan standards, our critic will learn, it is nevertheless a restrained building. He will see other structures whose exterior purpose seems to be mainly to display the wares of material manufacturers. Particularly objectionable is a slick, mottled, native black marble that looks like plastic (no mean achievement) and ages badly. All in all, the effect of the garish exteriors is like wandering into a nudist camp where everybody is completely tattooed.

Well, not everybody. On another side of town stand several branch headquarters of international corporations. Two are mercifully simple. One belongs to the Upjohn Co. (4), the other to Abbott Laboratories (5); both were designed by Max Holzheu, a Guatemalan of German descent who was trained in Switzerland. They are crisp and fastidious. But they are not very original buildings. Which brings up a last critical point: much Guatemalan architecture reveals the influence of Mies, of Breuer, of U.S. architects such as Stone, Yamasaki, or Franzen, as well as of whoever is responsible for the Holiday Inns.

2. Galerias España

3. condominium apartments

Soon our critic would decide that if he cannot find anything especially complimentary, or distinctive, or even horrible to say about Guatemalan architecture, he might as well say nothing at all. The silence of politeness.

But mistaken. A quick tour is not enough to discover all the buildings—and there are some of considerable merit. Nor does a summary glance consider the constraints on Guatemalan architects today. "Today, we do an economical type of architecture here," one leading practitioner told me. "Because we must. No client wants to spend a cent more than he has to. The most expensive buildings in the country cost $10 a square ft." About 70 percent of total construction cost is for imported materials like steel and aluminum. But labor is inexpensive; a mason gets $3 and an electrician $6—a day. Another real saving comes because there is no need for air conditioning in Guatemala City, which is 4,500 ft. above sea level and has a year-round temperate climate. All in all, building is a bargain, with design an optional extra.

That option nowadays is nearly always taken, which helps to explain why there may soon be 500 trained architects in the nation, or slightly more per capita than in the U.S. The offices are generally small, seldom with more than ten employees. "It's like the old days of architecture," says Jorge Molina Sinibaldi, an architect trained at the University of California at Berkeley. "The architect keeps control of the whole job, keeps an intimate touch. It's nothing like the approach of Skidmore, Owings & Merrill. And good or bad, the end result is your own. That can be very satisfying."

Peter Giesemann, a recent arrival on the Guatemalan scene, puts it another way. Before returning to his native country, he had graduated from the Harvard School of Design in 1963 and worked for three years in Cambridge, Mass. with two distinguished firms: The Architects Collaborative and Benjamin Thompson Associates. "Up there," Giesemann says, "we did a lot of paper architecture, studying and restudying a building, which ended up well studied, of course. Down here, the client wants to see his building up the next day. You do the studying as you go along, and a lot of things are left to chance.

"In the U.S., you were part of a team. Here you are everything: architect, contractor, psychiatrist, sometimes engineer and salesman, too. When we build condominium apartments, for example, buyers don't trust the salesman on the spot. They come into the office and want to ask the architect about ceiling heights and closets.

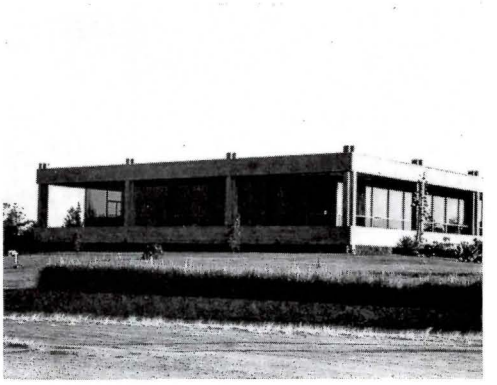
"There's a third difference: everything is accessible in the U.S. You pick up the phone and call a materials manufacturer and get a list of the colors and prices by return mail. In Guatemala, you have to spend so much time running down materials. I have waited six months for doorknobs."

On balance, though, Giesemann is delighted that he came back home, because he caught the building boom and has some fine buildings to his credit: the "Topke" showroom, whose exterior concrete shaft houses stairs and an elevator (6), for example, and his own stunning glass house (7).

Indeed, talking to Giesemann or any other architect, one gets little idea of how recently architecture came to Guatemala. But Roberto Cordon, now 70 years old, vividly remembers launching his career in 1926. He had received the then typical Beaux-Arts training of Yale University's architectural school, worked in New York and returned to Guatemala full of the kind of confidence that an evangelist must have had in entering a heathen land. The entire country was virtually virgin territory for an architect; Cordon recalls only one other practitioner in the nation.

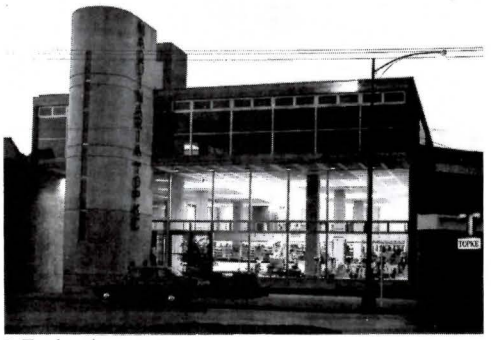
Engineers did all the building, he says. The structures they produced could withstand the rumbling jolt of the frequent earthquakes, and they were built somberly, without frills. The descriptive word for the structures is dark. Even though the buildings were almost invariably planned around central courtyards, the rooms managed to be simultaneously substantial and gloomy.

"There was nothing to do. I had no jobs," Cordon says. Yet he persevered. Because his father was in charge of public medical services and parks, he began by patching up old buildings that had been damaged in the tremendous earthquake of 1917, then moved on to designing park pergolas and gatehouses. His big break came when the other architect died, leaving a major church unfinished. Instead of following the original design, which included a gold dome and two gothic spires, Cordon removed the excesses and created the austere, handsome church in use today.



4. Upjohn headquarters

5. Abbott Laboratories



6. Topke showroom

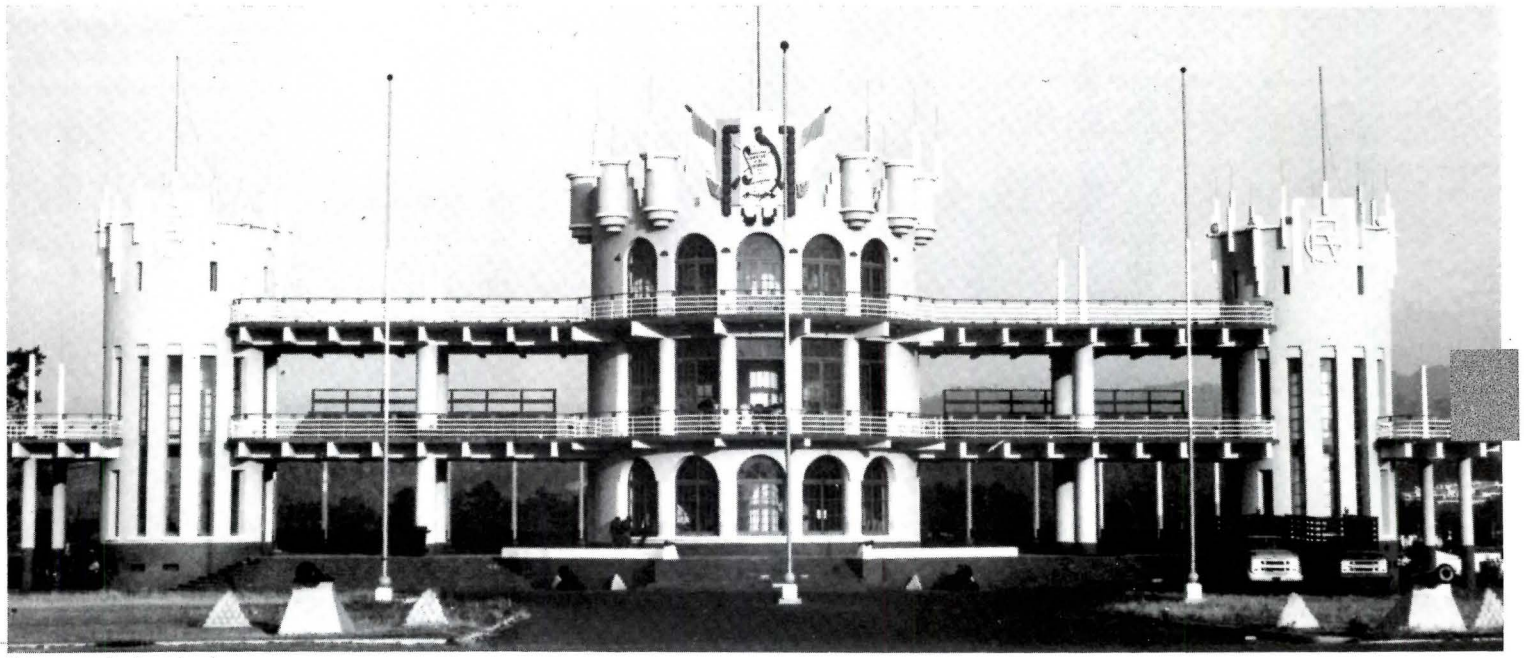
7. Giesemann house

The 1930s brought several changes. For Cordon, the most significant was meeting a Spanish-born electrical engineer–architect named Jose "Pepe" Minando. The two became partners, Cordon's gentle, thoughtful nature being complemented by Minando's energy and fire. "How we fought!," Cordon remembers fondly, "And how stimulating those fights were!" The results appeared in a series of large, graceful houses that usually updated Spanish Colonial architecture but sometimes had flat roofs, glass brick, curving walls and ample windows. Inside, the rooms were well-proportioned, with one space flowing elegantly into the next, sometimes over two shallow steps.

Minando and Cordon also designed every detail down to the pattern of the wooden floors, and insisted on perfection. Labor was proficient and cheap—80¢ a day for a mason. "The craftsmen cared," says Cordon. "A bricklayer had to be an apprentice until he was 30 years old. Plasterers waited days until the plaster dried properly before they plastered again." In brief, the partners set high standards—and defined the difference between engineering and architecture.

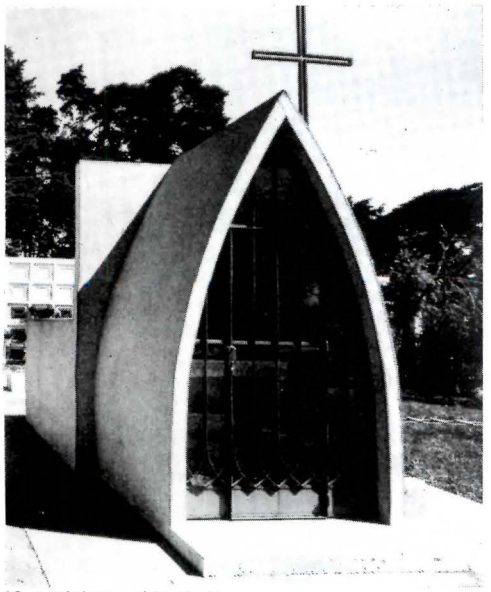
Meantime, Guatemala had acquired another in its long line of dictators. General Jorge Ubico, who took office in 1931, was a fascist and, like others of that breed, loved braid on his uniform, loud martial music and things done well—his way. When it came to building, he favored a style that architects cannot name. The best tag I heard was *tipico,* which, loosely translated, means something like *spécialité de la maison.*

One example is the National Palace (really an administrative office and ceremonial building) located on Guatemala City's central park. A three- and four-story, pistachio-green structure inspired by Cordoba's city hall in Spain, it covers a whole block and was designed by architect Rafael Perez de Leon. Like Mies, Perez knew that God was in the details, and on those details he lavished an extraordinary care; every lock on every door is embossed with the Guatemalan crest showing a quetzal bird above the date of independence from Spain, September 15, 1821. Unlike Mies, he felt that more is more: he created bombastic spaces, mixed materials, commissioned murals and, all in all, succeeded in making a

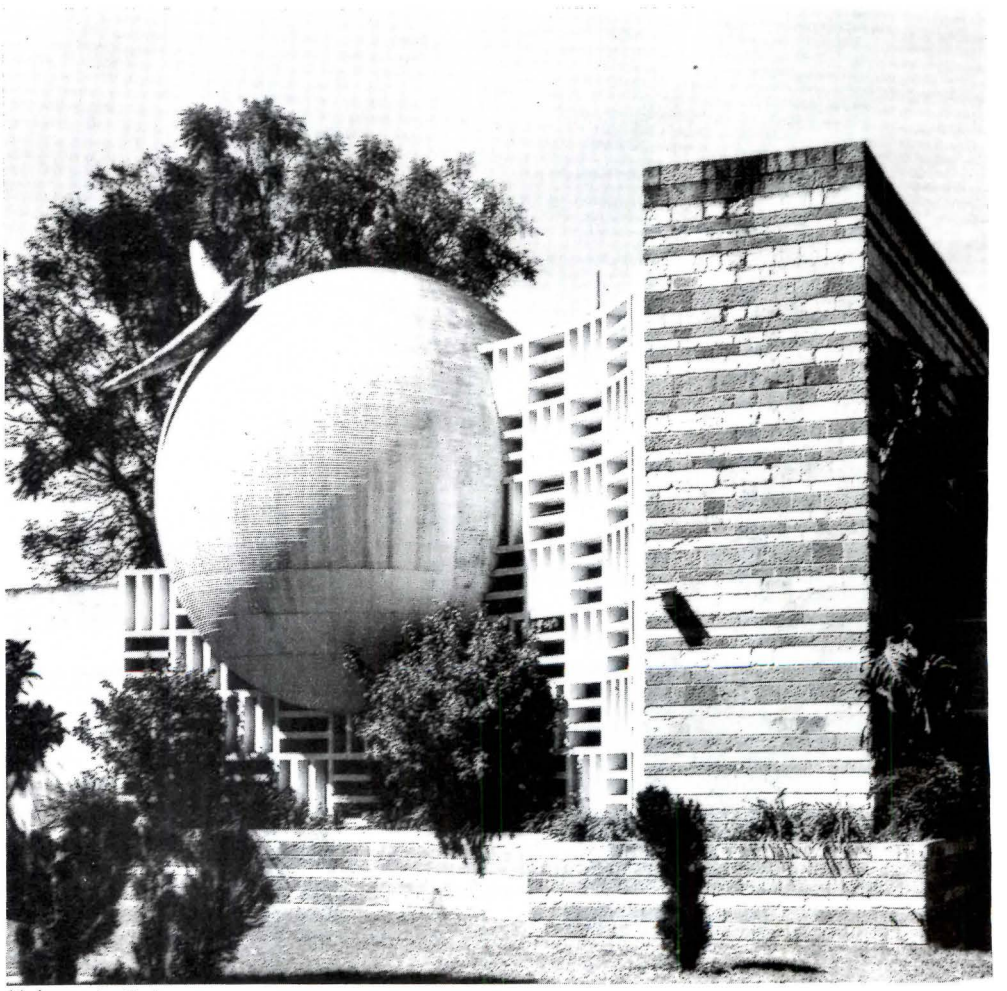


8. troop reviewing stand

9. a tomb in Egyptian style



10. a miniature thin shell



11. house by Krebs

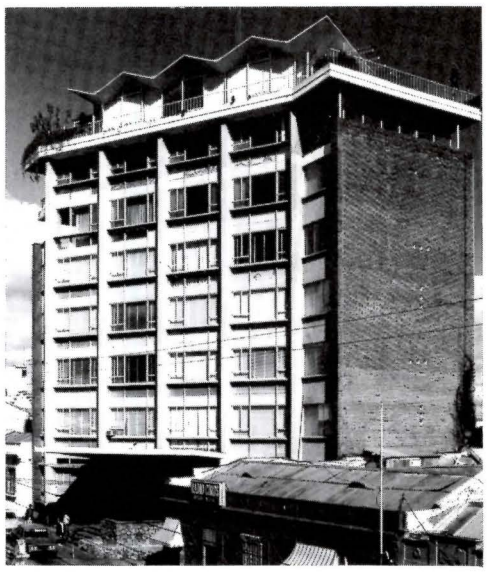
building to the greater glory of government.

Similarly, the pink, four-story central Post Office by Manuel Moreno has a cavernous interior to evoke the intended feeling of awe for mail and mail handling. But the best *tipico* building is a gingerbread and lace reviewing stand from which the General could watch his parading troops on the flat expanse of "The Field of Mars" (8). Even now, each merlon along the roof wears a lightning rod, as if to show that Ubico might take chances with men but not with God. All three of these buildings are beautifully maintained and represent an official, quite splendid moment for architecture in Guatemala.

By the time that Ubico was overthrown in 1944, the number of architectural offices had swelled to perhaps six, and architecture began appearing in unlikely guises in unlikely places—Guatemala's main cemetery, for instance. Indeed, the tombs that line the cemetery's grid of streets record every step of Guatemala's design history, from turn-of-the-century, disingenuous, almost folk works (columns bearing bas-relief portraits of beloved patriarchs) to the 1940's splendor of a pharaonic tomb for a Roman Catholic family (9) and even a little exercise in concrete thin-shell construction (10). The cemetery does not appear in any guidebook, but it is not to be missed.

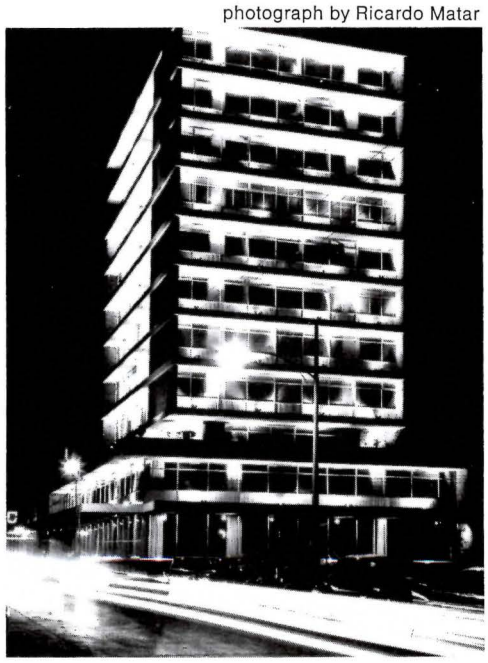
Also worth a detour is a pair of adjacent houses designed by a German mason-architect, Wilhelm Krebs, on the then suburban Avenida de la Reforma. One is still a home (11), the other became a steak restaurant. The architecture is unique, at least in Guatemala. Call it Krebsian, the molding of a house to look like a garden ornament or paperweight. Such architecture involves a conscious act of taste and daring, and if, admittedly, the taste is rather special, like a fondness for pigs' knuckles, Kreb's work is still much better than the typical houses of the time.

Those were still designed by engineers. Sturdy as ever, they began bearing the traces of "style": windows that look like ship's portholes, three parallel stripes down the facade, a profusion of knobs and projections. The source of inspiration was industrial design in the U.S. In the form of toasters and radios, a new esthetic was being exported to Guatemala, and it was one that solved the styling problems of the engineers —at least on the exterior of the houses. Not infrequently, interiors were marred by the late addition to working drawings of an essential ingredient like a back staircase or a downstairs toilet that had been forgotten in the first flush of creativity. In Russia, that sort of oversight is punished; I remember reading of the architect who neglected to include an elevator in a 15-story apartment house. He was promptly given a penthouse apartment. In Guatemala, the engineer just walked away.



12. Centro Medico building

photograph by Ricardo Matar



13. Blue Cross headquarters

True change started after World War II when a few young Guatemalans decided to become architects. Jorge Montes, Max Holzheu, Raúl Minando, Carlos Haussler, Pelayo Llarena—these men were to study in Mexico, Europe and the U.S. They brought back new ideas, idealism and an international idiom to match.

Raúl Minando, Jose's son, went to Harvard just in time to catch the last days of the Gropius era. When he returned in 1949, he found, like Roberto Cordon before him, very little to do, though for a different reason: "Clients were not ready for Harvard," he says. But he kept himself busy by working for his father and Cordon—and by designing his own house, Guatemala's first good glass-walled house, completed in 1952. A nice translation of the Breuer-Gropius houses in Massachusetts, it was sited on a slope in the shadow of a lovely old Spanish aqueduct. As can be imagined, it caused quite a stir—and not only among architects. Indian peasants learned that by waiting patiently in the street below, they could look into the house and, occasionally, up women's skirts, a feature surely not taught at Harvard. A high wall now hides the house and makes it impossible to photograph.

In 1955, another first-class building appeared on the southern edge of Guatemala City. It was the new City Hall, designed by Roberto Aycinena and Pelayo Llarena—a long, lean, glassy building with a jaunty upward curve to its roof. It was followed two years later by a nearby complementary, but much less successful, headquarters for the Social Security agency (architects: Carlos Haussler, Aycinena and Montes). Downtown, Raúl Minando completed nine floors of clinical offices in his Centro Medico building, which was for a short time the city's "skyscraper" (12). But the height record was taken in 1958 by a neat headquarters for the Blue Cross insurance company (by Molina Sinibaldi), which rises all of 12

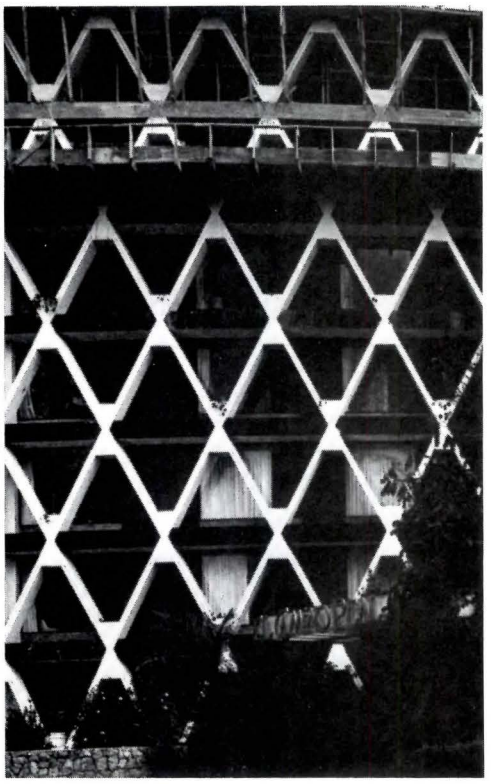
stories above a site overlooking the central park and National Palace (13). These buildings set a whole new look for Guatemala City and made nearly every other building seem old-fashioned and dowdy.

Even so, the architects had to resolve the many difficulties posed by their use of expanses of glass, especially as the buildings grew taller. To shade each floor from the bright tropical sun, the architects often cantilevered the slab above it. But the merciless sun heated east and west facades anyway (north is shaded), turning interiors into ovens. In response, the architects tried everything: they installed curtains and blinds; they planted greenery on the overhangs. But most of all, they added sunscreens.

If I had a camera and the patience, I would do a special photographic essay on Guatemala's sunscreens. Concrete, brick, aluminum, steel—they come in every possible variation, size and shape. The best are even part of the structural system, as at the new Camino Real Hotel (by Minando, 14). In the course of the daily play of light and shade on these screens, one can see, if one watches, the letters of the alphabet. My essay would capture these apparitions and then assemble words to spell out something. Would anyone be interested in an assemblage saying GRACIAS CORBU? It can be done, even the "B".

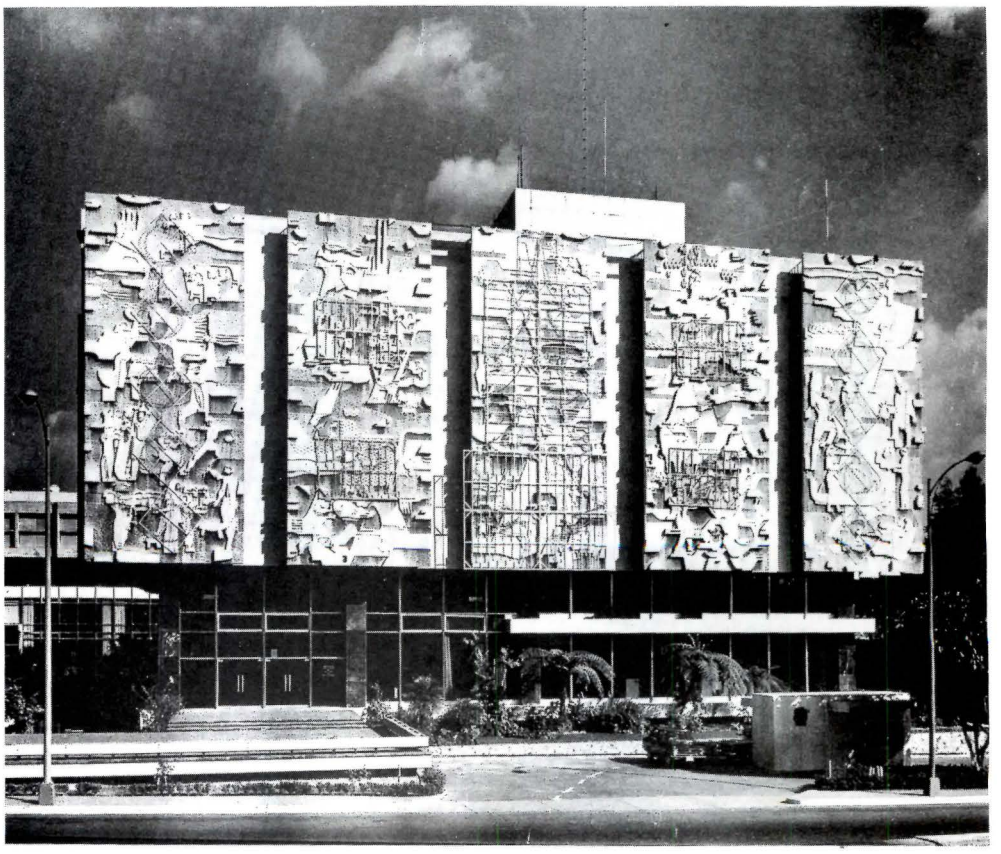
Another way to cope with that implacable sun, of course, is to leave east and west facades blank. But since a blank wall is anathema in Guatemala, some architects looked north to Mexico, recalled the University's mural-encrusted buildings and tried something similar. The best examples are on a pair of buildings across the street from the new City Hall. The Bank of Guatemala (15) and the Credito Hipocetario (16), a savings and loan institution, both wear two full walls of bas-relief sculptures. These murals work quite well as decoration; as works of art, however, their theme disappears into a mass of sun-etched shadows. Both buildings were designed by Montes, Minando and Haussler in collaboration.

They collaborated in order to pool the available manpower in their small offices. "Each of us makes an original sketch," says Minando. "We get together and choose the one we like best. Then we modify it and build it." Just like that. No more fights or professional jealousies than if the design



14. Camino Real Hotel

15. Bank of Guatemala



16. Credito Hipocetario

partners of a big U.S. firm all pitched in on a big job.

Some of the most interesting projects are done this way. Giesemann, for instance, has joined with Minando several times. One scheme, as yet unbuilt, is for a hotel in Tikal, the ancient Mayan capital in the Yucatan jungle. Instead of building a conventional structure, the architects want the client to lease one temple, then cover it and its environs with an enormous Frei Otto-like tent. The temple's plaza would thus become a lobby, restaurant and bar; the guest rooms would be individual wooden huts with thatched roofs. It is, in effect, nonarchitecture and it could be splendid. But the client is still mulling the idea over (and over).

The same two architects have produced a lively two-level shopping center in the busiest section of Guatemala City's shopping district, just a block from the central market (17). "Since the site slopes, we were able to put street-level entrances to the shopping center on either end of the building," explains Giesemann. "We wanted to put an office tower over the shopping center, too, so that it would generate even more internal life. Every afternoon when workers go home, they would be able to shop also. But the client has not built the tower. He might some day."

The reason for the delay is money. Ambitious builders often order a design in two or three phases, only one of which they build immediately, because long-term financing is very hard to raise. As a result, commercial structures must start making money as soon as possible. One of the most common sights in the city and its suburbs is the half-finished building, whose bottom floors bustle with stores, boutiques or even lived-in apartments. Above, construction sometimes continues, or else is stopped short, leaving as evidence of future intentions truncated columns terminating in a thicket of exposed reinforcing rods.

"Architecture can be very satisfying in Guatemala," Molina Sinibaldi has said. But it can be the opposite just as easily. As the buildings themselves show, clients are often architecturally naive. While now demanding design, they usually march to a different drummer. They are arbitrary. Sitting on top of a mountain near the city is a perfect example. A local, commercial TV station (18) wanted to create a "jewel" of a build-

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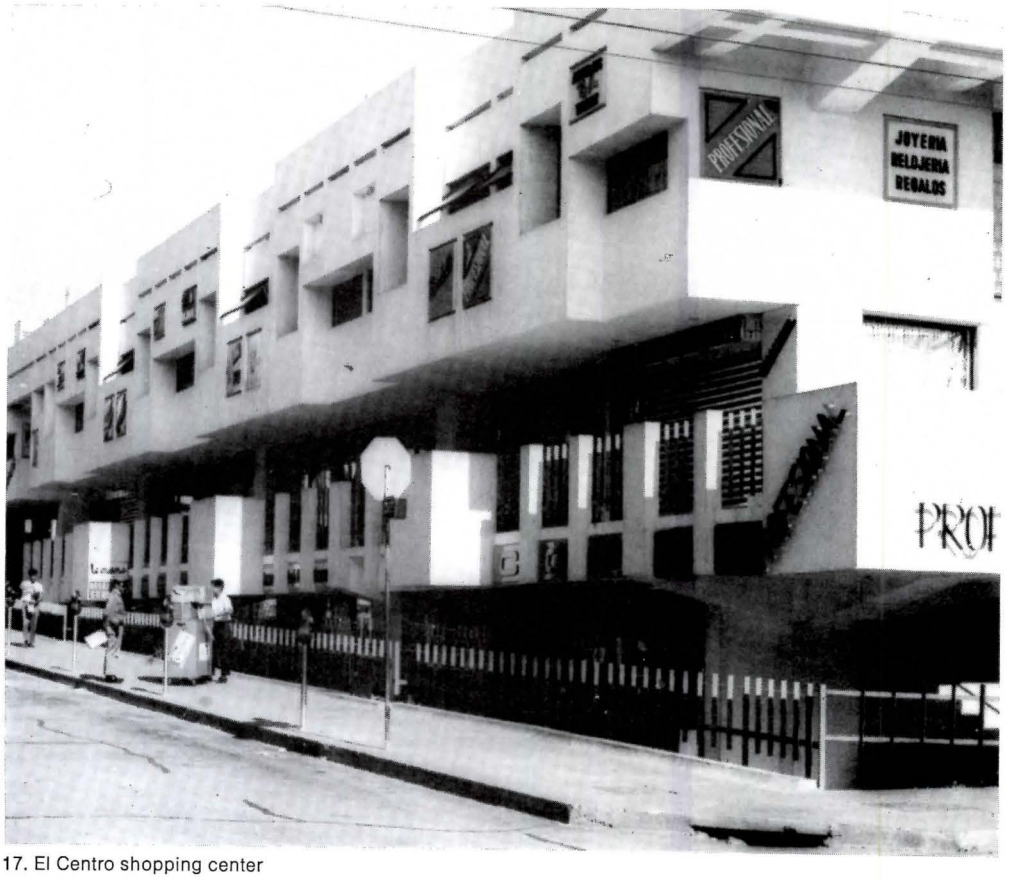
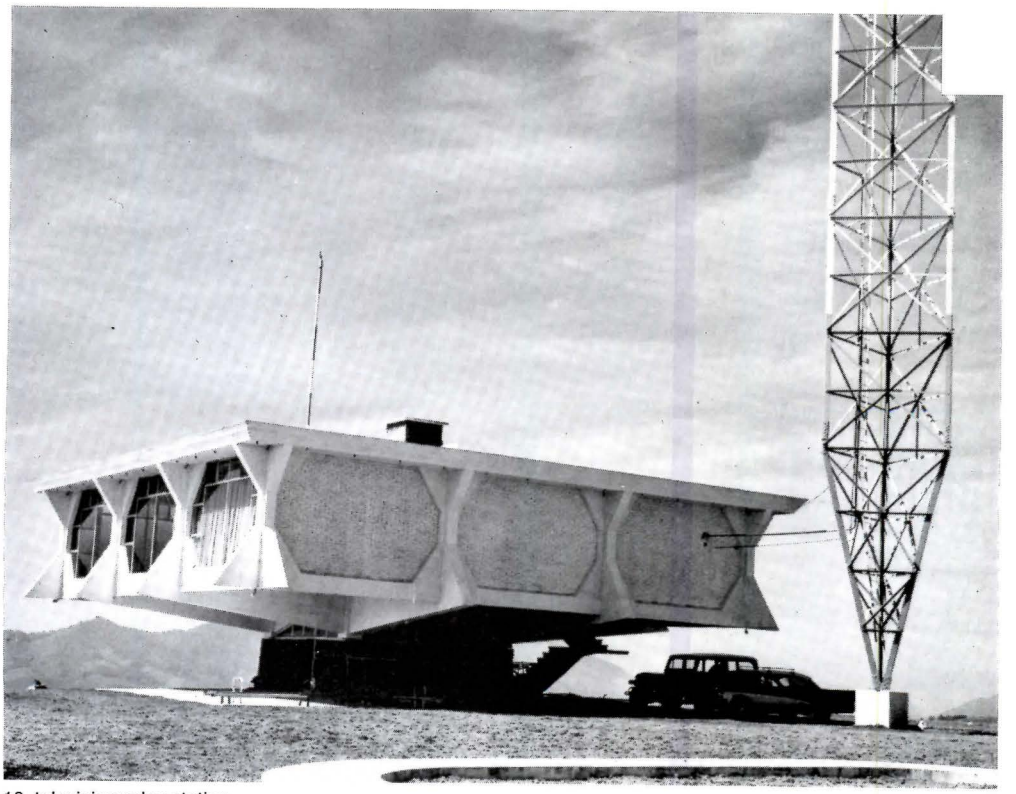


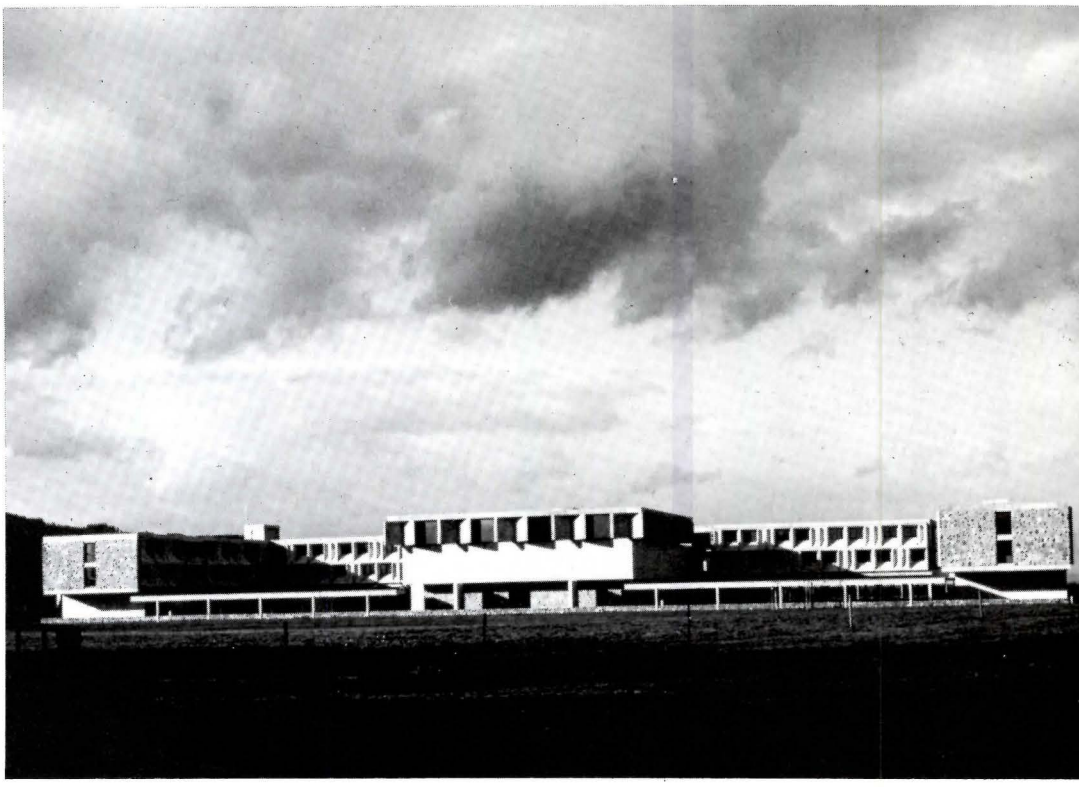
17. El Centro shopping center



18. television relay station

T swi gi sisters of aldegg

Small alcoves off the long glazed corridors that connect the wings of this convent are used by nuns for informal meetings. Abstract painting is by Rolf Rappaz. Below: view of the complex from the south. Central block, with its diagonally framed concrete roof, contains the chapel. The three major wings are connected, at ground level, by open arcades. Site plan at bottom of page shows relationship of new complex to older buildings of the convent to the west.



The four Franciscan nuns holding a powwow under a stunning abstract painting by Rolf Rappaz inhabit the Motherhouse of a new convent designed by U.S. architects Marcel Breuer and Robert Gatje, and completed a couple of months ago in Baldegg, near Luzern, Switzerland. It is not the first complex of buildings Breuer's firm has designed for the Catholic Church; but in some respects it is the nicest.

It is, actually, a single building—or, rather, four buildings joined by glazed passages and arcades, and grouped to form four distinctly different courtyards, in a sort of checkerboard pattern.

The central block in the complex contains the tall chapel and sanctuary at one end, and the kitchen and dining facilities at the other. The chapel, with its rugged stone, concrete and wood surfaces, and its mysterious lighting through clerestories and skylights, shows Breuer at his best.

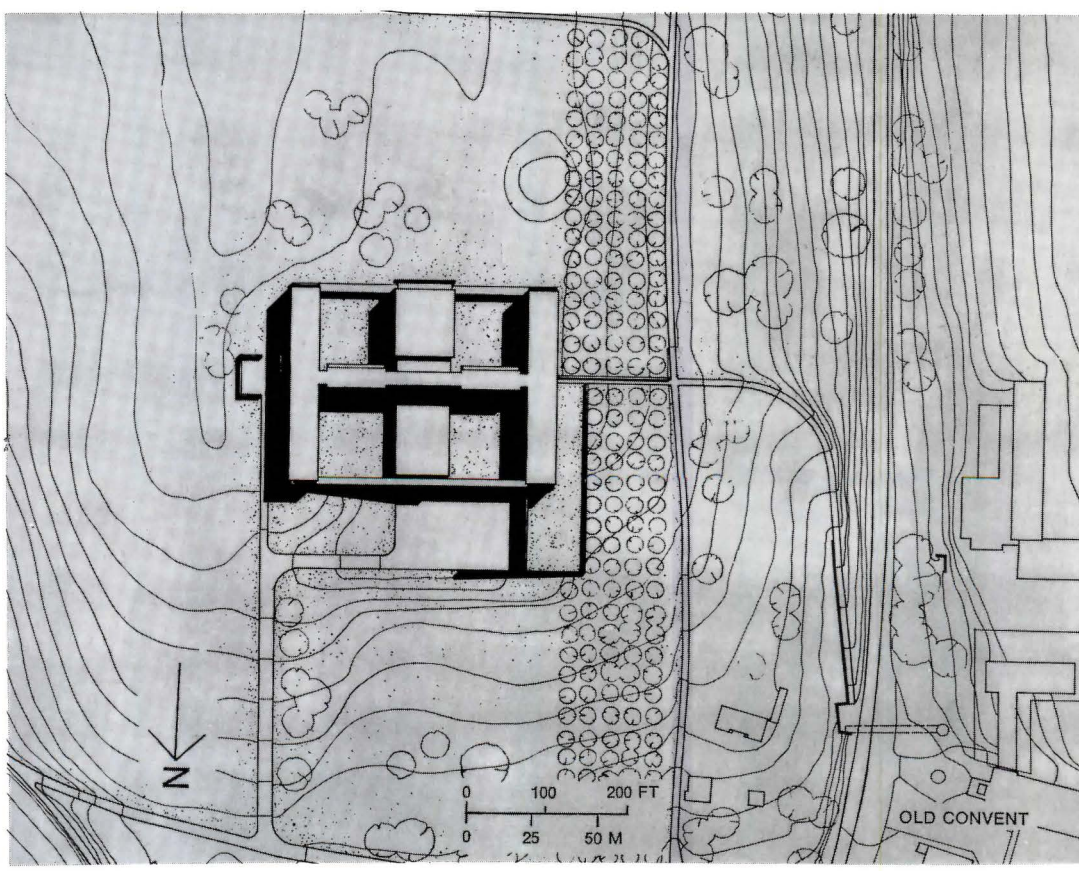
To the west of the central block is a three-story residence wing for novices as well as postulants; and to the east of the central block is a somewhat similar residence wing that also contains spaces for guests and for administrative offices.

These three blocks are tied together by a central spine that contains the convent's library. On the perimeter, the blocks are connected by walkways at ground level.

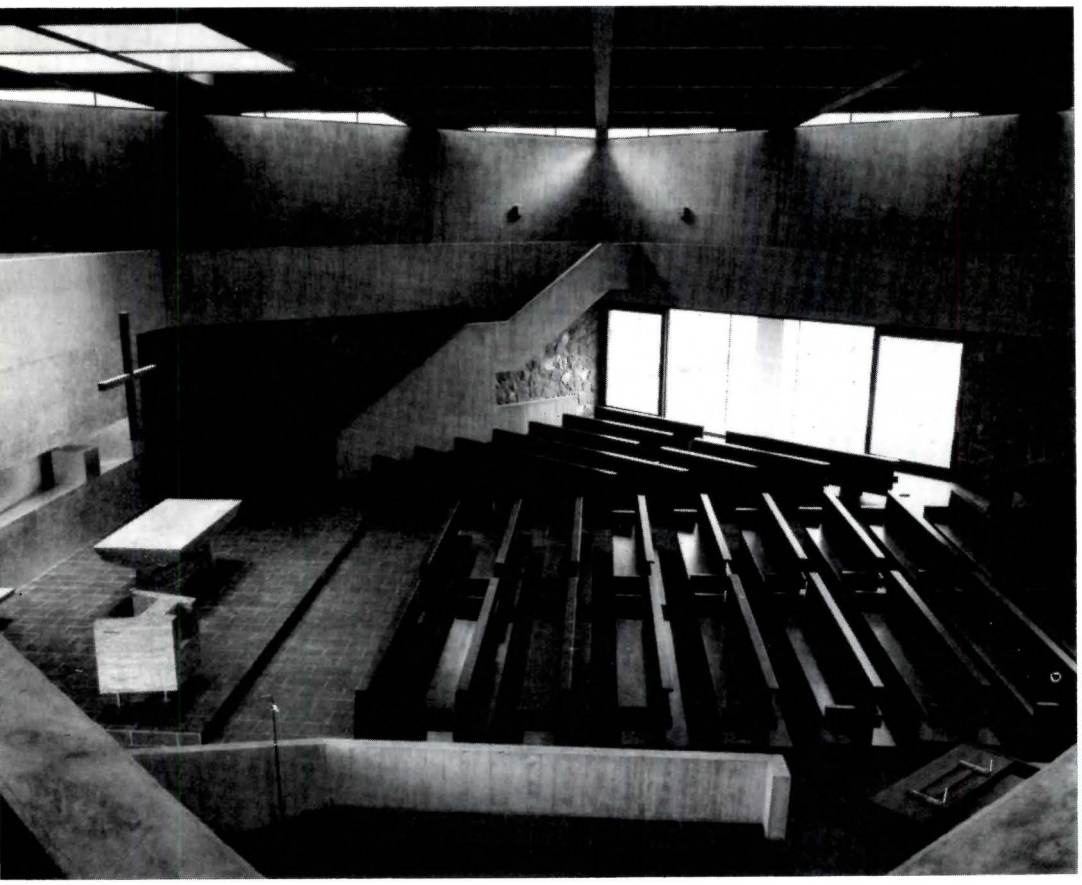
The whole plan ends up as an assemblage of four square doughnuts; and the holes in those doughnuts—the four interior courts—are as carefully designed as the connected buildings themselves: one of them is a kitchen garden, another a courtyard for meditation, still another a garden for informal encounters, and the fourth is a space for communal meetings.

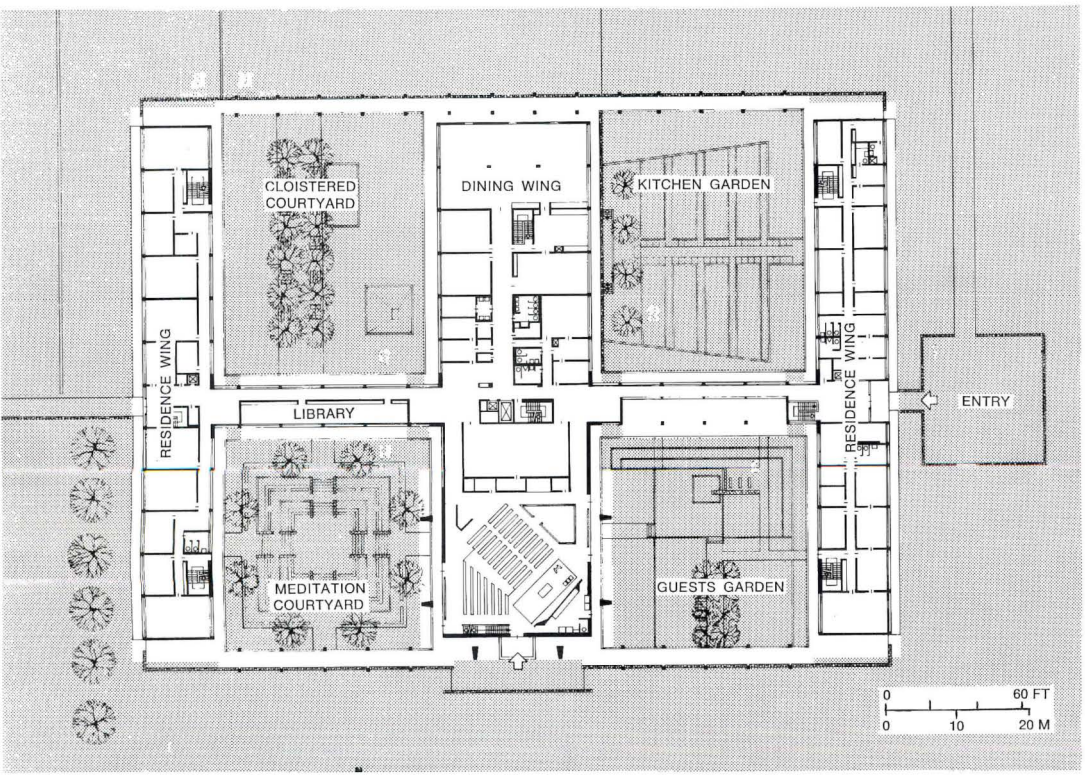
"The Motherhouse may be seen as a quadrangular island floating in a sea of apple trees," Breuer said recently; for the setting, in what he calls a "human and mild Swiss landscape, with a far view of the mountains," is indeed in the midst of many orchards, on rolling land, not far from the old facilities of the convent.

The most interesting space in the new Motherhouse is the chapel, which seats 200 nuns. Its walls are natural stone, concrete, glass, and a gold-leaf mosaic; and the roof structure is a deeply coffered concrete frame, set on the diagonal. It is a rather surprising, but highly successful arrangement—setting the space apart in import-



The chapel, which seats 200 nuns, is planned on the diagonal to set it apart from more mundane buildings and give it added importance. The triangular enclosure off to one side of the main seating area was designed to hold the choir and the organ. Altar, pulpit, and bench behind it are of granite, and the wall behind them is covered with a gilded tile.





ance from other, more mundane rooms in the Motherhouse, and giving it a distinctively sculptural form. The chapel is, in fact, a kind of *interior* sculpture court, almost a stage set, in which all the elements and surfaces—the altar, the pulpit, the squared-off pews, the choir enclosure, the organ and even the suspended crucifix—have been transformed into landmarks in an abstract landscape, lit largely from above. And when those 200 Franciscan nuns, in their black-and-white habits, occupy the pews, the ritual play is ready to begin.

When looking at this beautiful little chapel, one realizes how few really successful public spaces—auditoriums, theaters, assembly halls, and so on—have been designed by modern architects. Of the few that are really good, Breuer has done a remarkably large share. One reason may be that so many of his public spaces have been connected with a rather well-defined ritual: the UNESCO Assembly Hall in Paris is one example, and his earlier monasteries and convents are others. Where some architects have spent vast resources on decorative surfaces and complicated lighting and acoustic devices, Breuer has understood, almost instinctively, that in a place of public assembly it is the presence of those who use the space that really decorates it most effectively. At Baldegg, the charming, penguin-like figures of the Franciscan nuns, in their black-and-white habits, are the principal decoration. The framework—austere, geometric, and abstract—is just that: a frame within which human beings perform a ritual of their persuasion.

Although the plan of the Baldegg Motherhouse seems diagrammatic at first glance, it is really anything but that: the long, glass-walled passages that remind one of ancient, arcaded cloisters, are interrupted now and then by little alcoves in which nuns will meet and sit down and chat. And the thoughtful planning of the four courtyards makes each of them much more than a leftover space for a light-well; each is a very special outdoor room, designed to serve a special function.

For Breuer, this commission was, obviously, a labor of love. "To design this house for the *Schwestern von der Göttlichen Vorsehung* may be called an architect's dream," he says. "I like to think that all this irregular stone, and all these sculptural

Dining room (below) is located in the central block, at the opposite end from the chapel. Views at bottom of page and opposite show some of the outdoor spaces created between the different wings. On this page, a view of the so-called "Meditation Courtyard"; opposite, a corner of the "Kitchen Garden." Wall elements of the residence wing are of precast concrete.

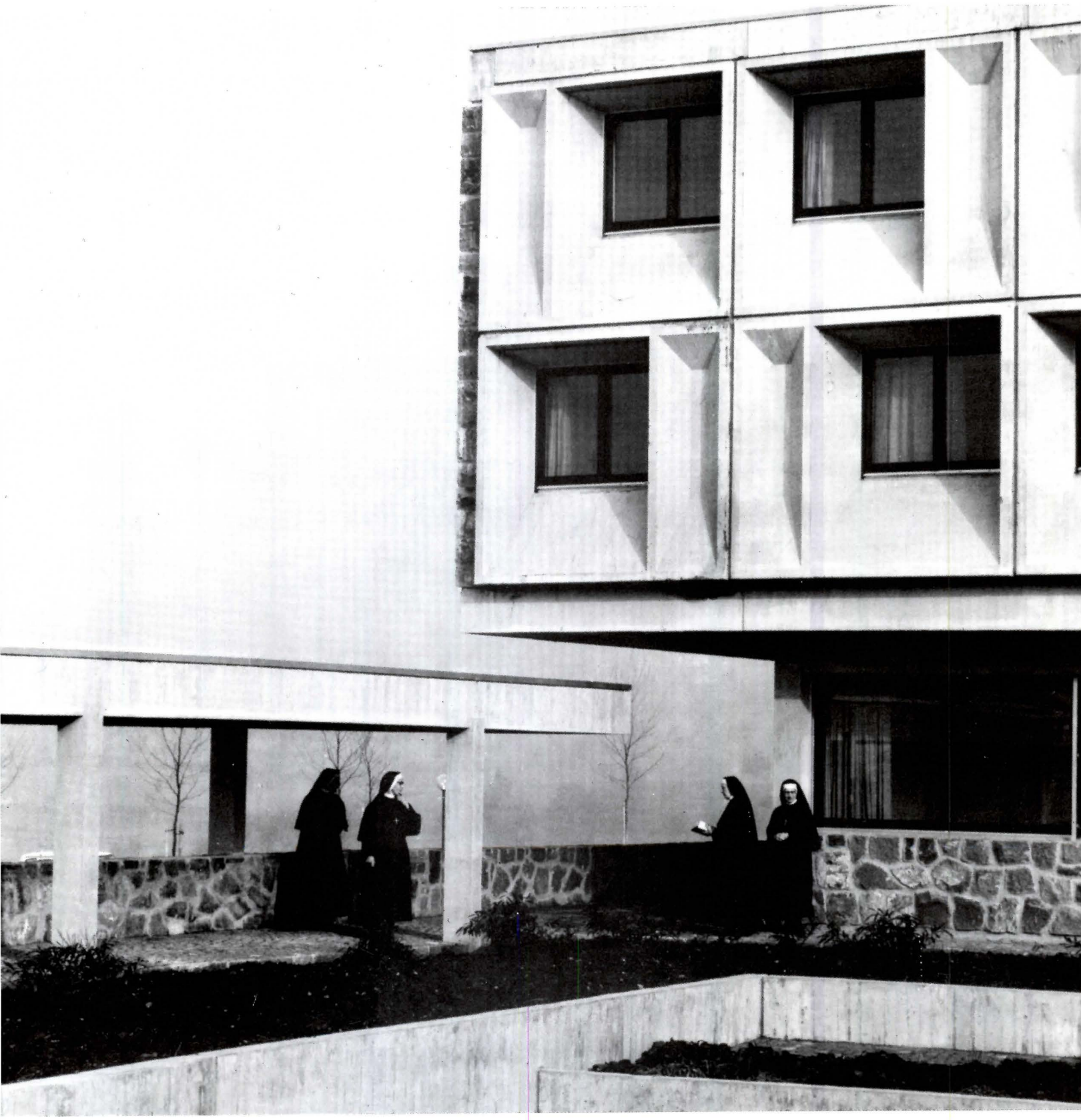
concrete facades with their recessed windows—I like to think that all this is serene and gay, like those friendly and optimistic nuns, who gave immeasurable help to their architect. They were always trusting and understanding."

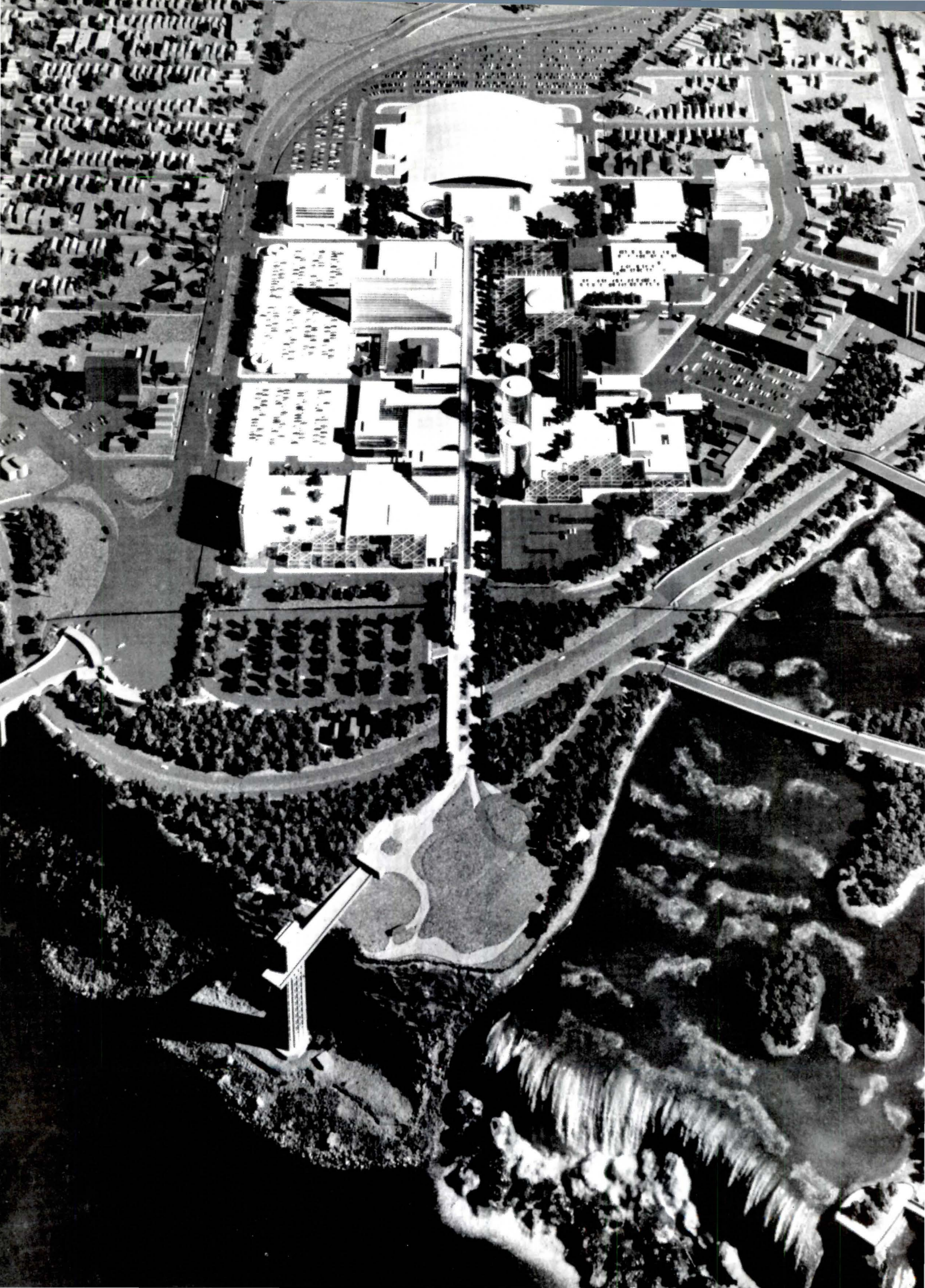
Those of us who, for reasons of gender or ideology, cannot join the Sisters of Baldegg in their beautiful new house, must surely regret it.

Facts and Figures

Motherhouse for Franciscan Nuns, Baldegg, Switzerland. Owner: Verein Schwesterninstitut, Baldegg. Architect: Marcel Breuer and Robert F. Gatje. Associated Architect: Beat Jordi; Supervising Architect: Walter Birchmeier. Engineers: Basler and Hofmann (structural); Firma Hälg (mechanical); Firma Schwerler, A. G. (electrical). Consultant: Beat von Segesser (coordination).

Photographs: Kurt Blum.





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A Competition, Not a Honeymoon

By Charles A. Hilgenhurst, AIA

Niagara Falls, N.Y., established in 1678, sits on the brink of the world-famous falls; but the city, some years ago, felt itself to be also on the brink of downtown decay. Despite five million visitors per year, its population and economic base were dwindling.

The city's reaction was aggressive downtown redevelopment. This redevelopment is planned and partly accomplished: Gruen Associates have done a master plan for an 82-acre area in which Skidmore, Owings and Merrill have already completed a major office building, and for which Philip Johnson and John Burgee have designed a convention center which will open next year. The focal point of the Gruen plan is a public plaza intended to act as a forecourt for the convention center and as a place of assembly. It was, in the master planning stage, very big (300 by 700 ft.) and very bleak, an open area that might become either a windy wasteland or a popular focus for the whole downtown.

Niagara Falls asked the New York State Urban Development Corporation (UDC) to be its developer, and UDC's head, Edward J. Logue, decided that, because of the plaza's key role in the master plan, it should be the result of a competition open to both architects and landscape architects of both the U.S. and Canada. Logue had been instrumental in both the Boston City Hall and Copley Square competitions and so was well aware of the advantages and the dangers of a competition. Mayor Lackey of Niagara Falls approved Logue's decision.

As the professional advisor appointed by UDC, I had long held the opinion that the virtue of competitions—*competition*—is often compromised, consciously or unconsciously, by stacked juries. By selecting jurors with known tastes, an advisor can pretty closely preordain the character of the winner. To avoid such a slant, I purposely chose jurors who might be expected to have different viewpoints (for example, Pietro Belluschi and Paul Friedberg)—and they did! For the layman's view, I also included several nonprofessionals who knew the city.

The competition attracted the unusually large number of 292 submissions, but—one of the risks of competitions—quantity does not guarantee quality. When the jury assembled to see the submissions at the end of last November, their first reaction was one of disaster. If an analogy could be made between the design profession and the medical profession, one would have been very hesitant, after seeing the general level of competence, to visit his family doctor.

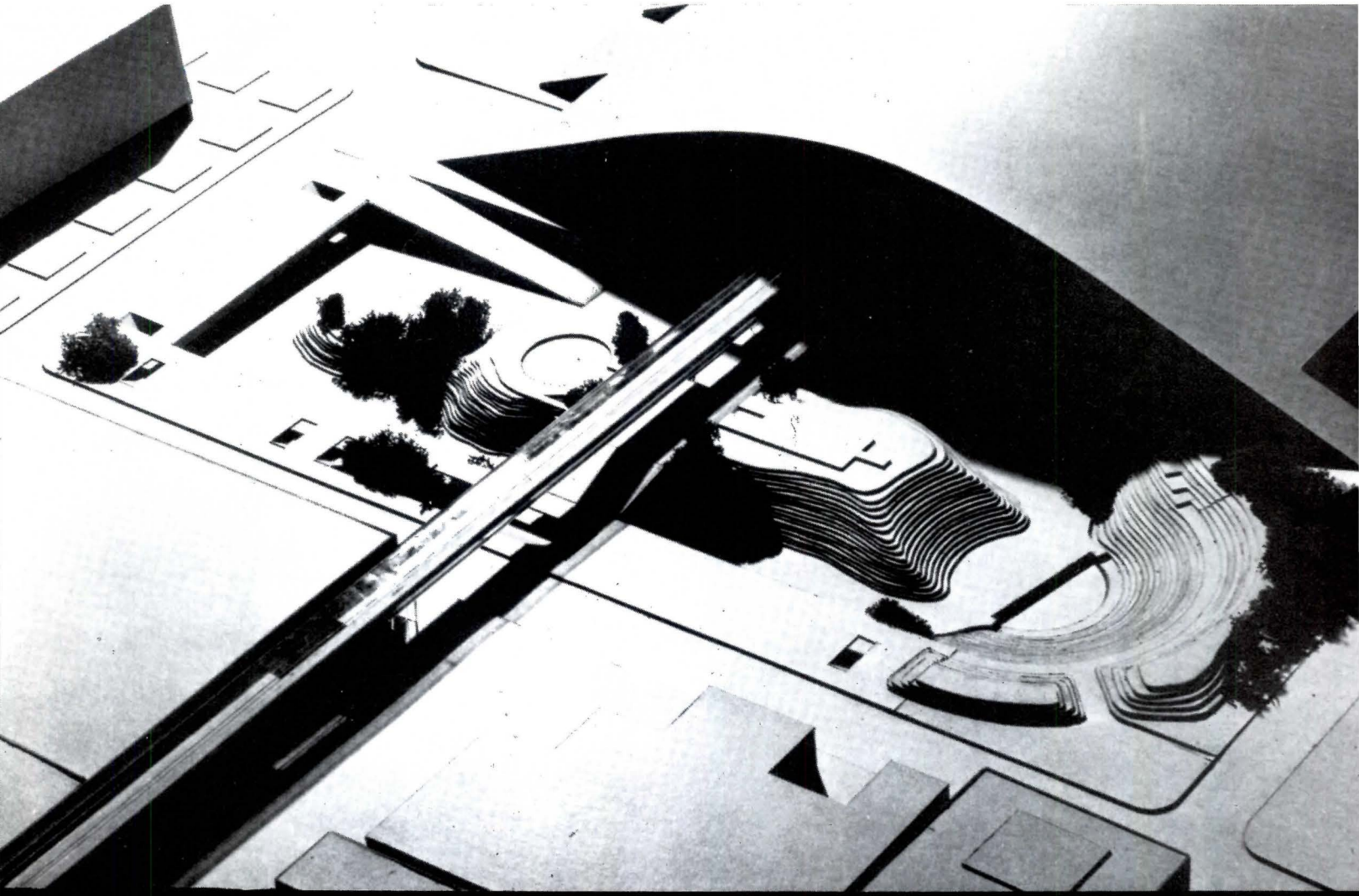
The author was Professional Advisor for the competition. He heads his own architecture and planning firm and is a consultant to New York State's Urban Development Corp.

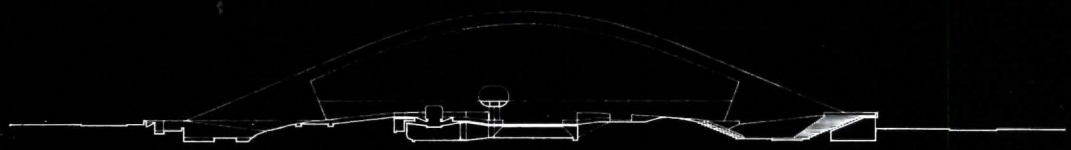
A great many entries perpetuated the dreary blankness which had been felt as a possible danger in the master planning stage. One scheme was a war protest filling the site with bomb craters; when peace was achieved in Viet Nam, the architects said, they would submit a revised plan. One entry took the liberty of suggesting a new facade for the SOM building at one end of the plaza. Another proposed a ten-story building for the site, completely blocking, from Falls Street, any view of the convention center. And, of course, as in any competition, there were entrants who protested the program. It asked only for the design of the plaza and only within the context of the Gruen plan already established. Its scope did not include consideration of any other goals for the area, such as rejuvenation of Goat Island in the middle of the river or the elimination of any part of the Robert Moses Parkway, now a barrier between town and river. Without such limits, however, we might well have dissipated our efforts and produced not even a plaza design.

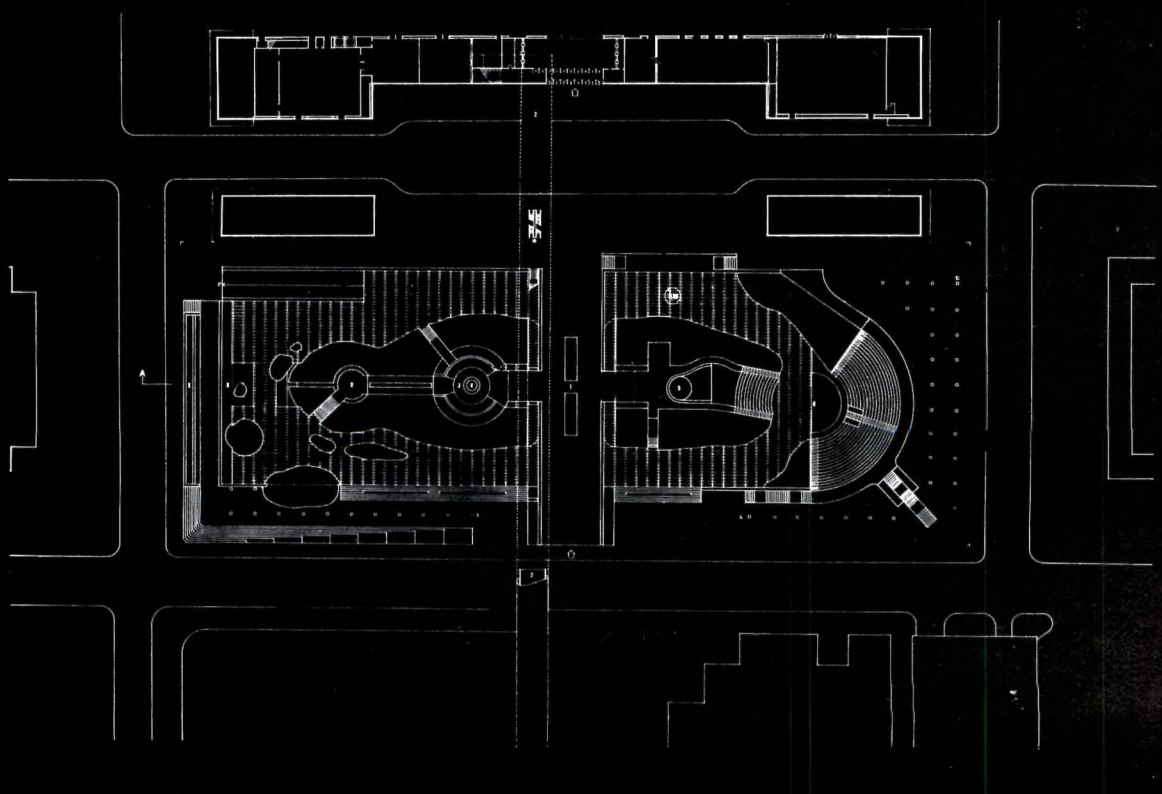
After three days of work, the jurors culled from the 292 entries about 30 worthy of serious consideration and, from these, nine to be given prizes or honorable mentions. Despite initial shock at the general mediocrity of the submissions, they felt that the quality and variety of these finalists justified the competition and reflected its open nature. Best of all, unlike some competitions, this one has had a happy ending: assurance that the winning design will be built. After the winning team made minor refinements to their scheme, I presented a detailed model of it to the City Council of Niagara Falls on February 26, and the Council voted unanimously to proceed.

The bi-national competition program was approved by the AIA, the American Society of Landscape Architects, and the Royal Architectural Institute of Canada.
The complete jury was:
R. T. Affleck, RAIC
Pietro Belluschi, FAIA
Armand J. Castellani of Niagara Frontier Service, Inc.
M. Paul Friedberg, ASLA
C. Richard Reese of Niagara International Center, Ltd. (Canada's Skylon Park)
Mrs. John E. Runals of the Niagara Falls Gateway to America Corporation
R. T. Schnadelbach, ASLA
Benjamin Thompson, AIA
Beda Zwicker of Gruen Associates was a nonvoting advisor, and Seymour H. Knox, Chairman of the New York State Council on the Arts, was to have been a juror but did not participate.
First prize was $20,000 plus a contract for construction documents and supervision; second prize was $10,000; third, $7,500. Honorable mentions (without cash awards) were given at the jury's discretion.

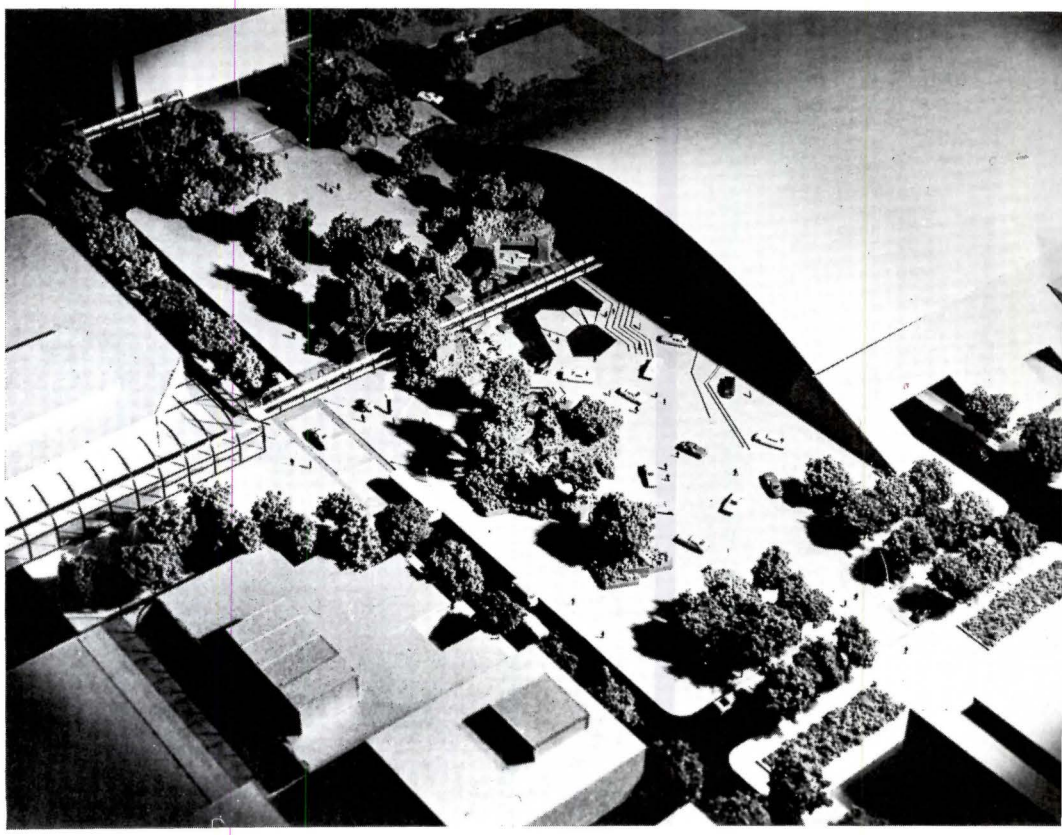
Model of the Niagara Falls master plan by Gruen Associates. At the top is Johnson and Burgee's convention center, and, directly below it, the open plaza area which was the subject of the competition. Left of the plaza area is Carborundum Center by SOM. In the foreground are the famous falls.



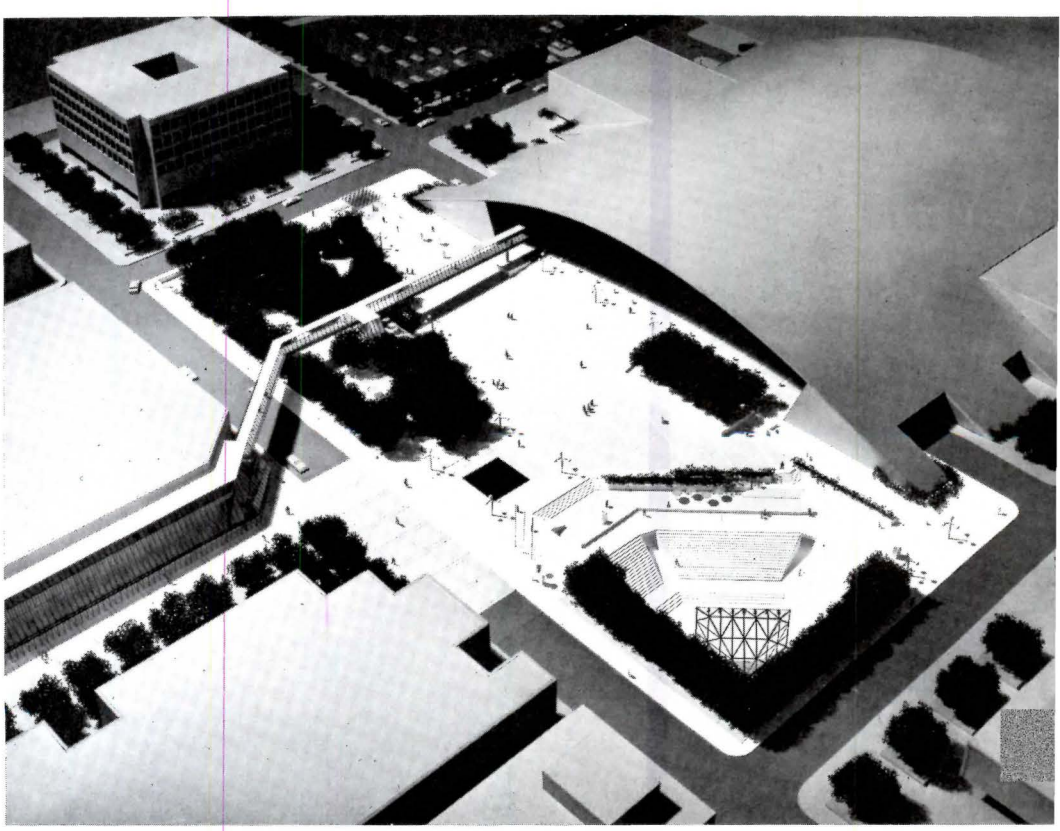




The competition rules specified a construction budget ($4 million) and warned that the competitors should expect rock under the surface. The winning entry, at left, by the New York team of Abraham W. Geller, Raimund Abraham and Giuliano Fiorenzoli, was unique in considering that the provision of a complete lower level was worth the expense of blasting the rock. This lower level, protected from the wind, will effectively extend the seasonal use of the plaza; it will be paved, but its southern half can be flooded and frozen for winter skating. From the lower level will rise a naturalistic island, planted and terraced, an amphitheater at its southern edge. The island is split by a pedestrian bridge which serves as the required connection between the major street and the convention center.



The second prize submission (at right, above) was by Dean Abbott, a young Project Designer in Lawrence Halprin's New York office. Abbott left most of the plaza open to accommodate both planned and spontaneous uses. Level changes and water were introduced to provide a sense of place appropriate to Niagara Falls. The jury greatly admired this scheme for its human scale. They agreed it had the potential for sensitive development and the flexibility to handle future change. They concluded, however, that it lacked the compelling originality of the first place winner.



Tarapata-MacMahon-Paulsen Corporation of Bloomfield Hills, Michigan, was given the third prize. Theirs was an exceptionally polished entry (at right, below) which the jury recognized as the product of a large and competent organization. The composition is asymmetrically arranged to relieve the axiality of the convention center's great vaulted form. An amphitheater is accessible from the plaza, and beneath its seating is an information center and cafe. A park of trees softens approximately a third of the site and contains other amenities. Most of the plaza, however, is a vast paved area at ground level.

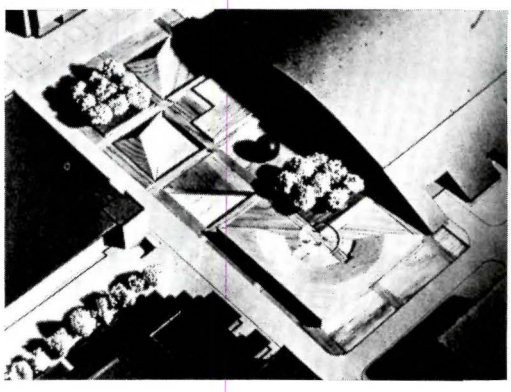
There were also striking and highly regarded entries among those not given an award.

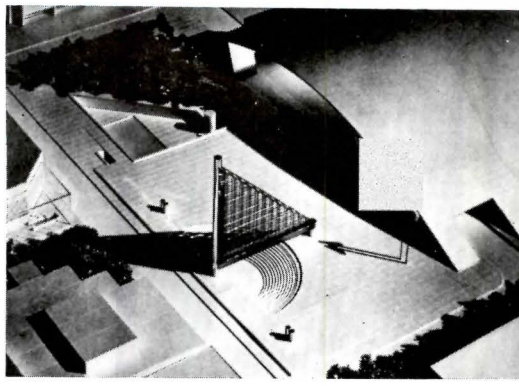
Paul Willen of New York proposed an exuberant display of solid geometry (top left). In this case, access to the cenvention center was underground.

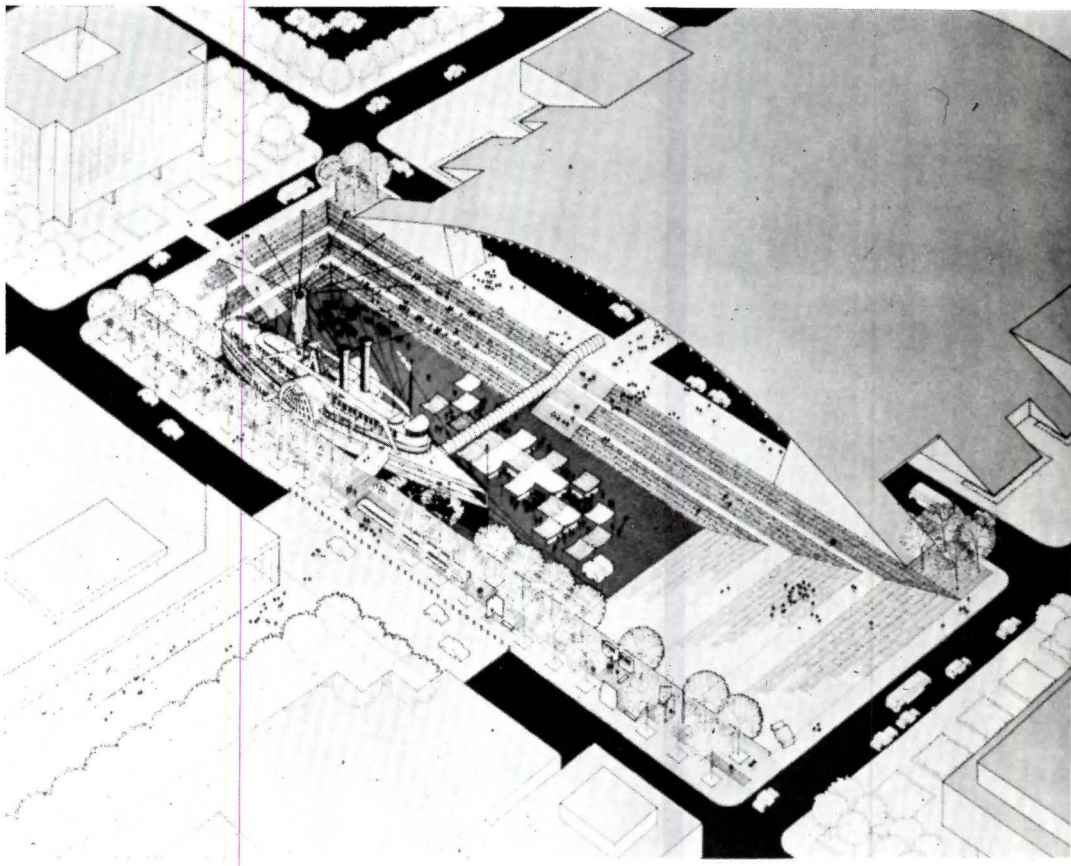
The polished entry (top right) by Copelin, Lee, and Chen, New York, featured a folding roof which could cover the amphitheater below it or stand erect as a giant pennant.

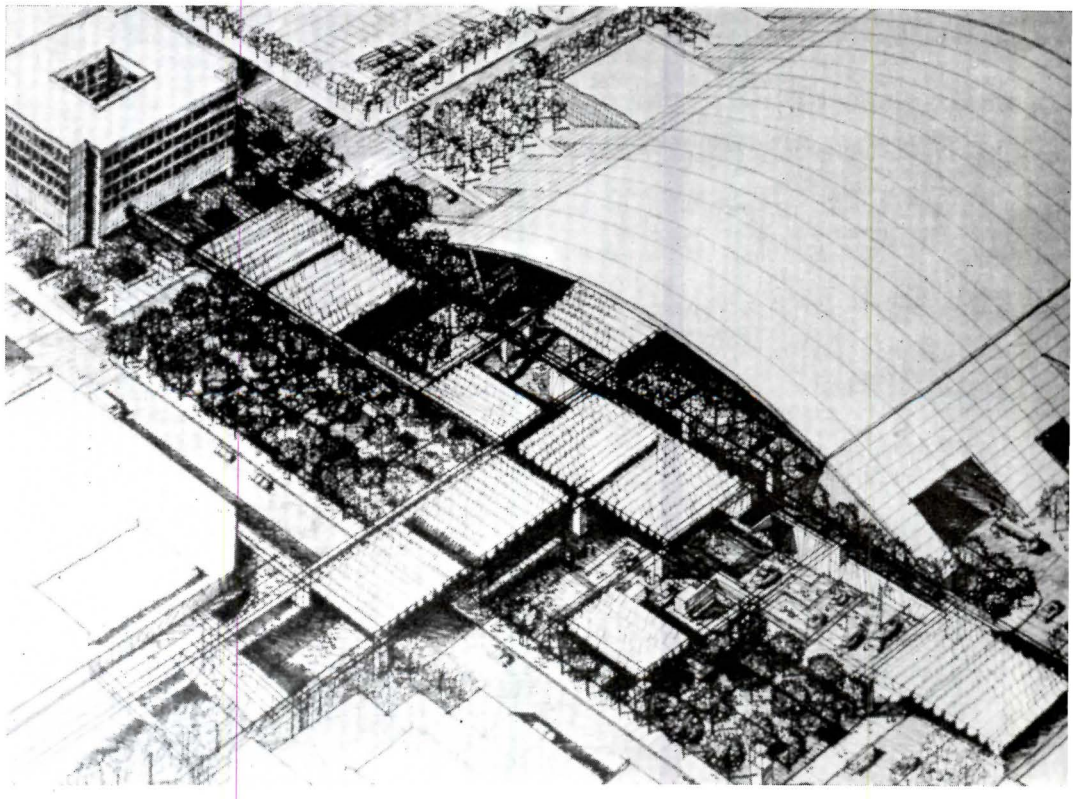
The proposal by Russell C. Lewis of Troy, Michigan, (center) was a permanently moored steamboat punctured by a pedestrian bridge.

An entry by Ralph Rapson & Associates, Inc., Minneapolis, (bottom) offered great flexibility with a grid of overhead tracks on which roofs could unfold and slide.









news+

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Sack or Consummation

Rome is the oldest city of political and religious importance in the world.

Eight hundred display units of photographs, films, paintings, photomurals, transparencies and other media appear in a show at the University Art Museum, Berkeley, Calif., titled "The Third Rome, 1870-1950: Traffic and Glory."

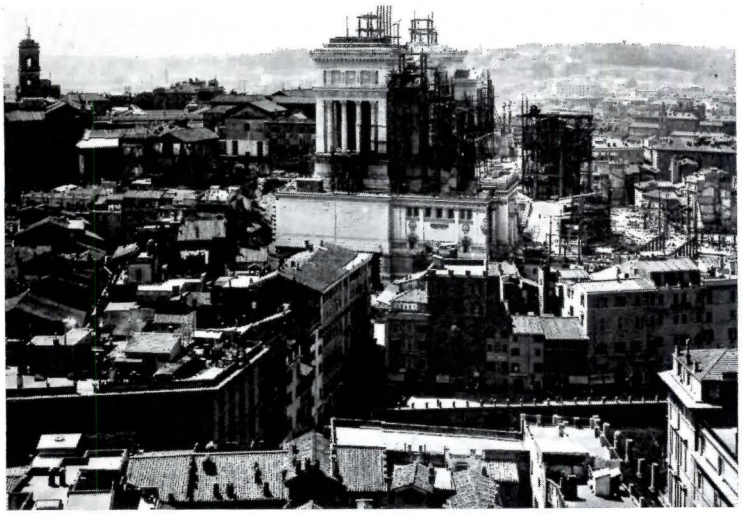
The show, organized by University of California graduate students (under the direction of Architecture Historian Spiro Kostof and E. Marc Treib, designer of the installation) recounts how city planners, traffic engineers, and politicians sought to rebuild a modern Rome out of a unique historic city where nearly every building is a landmark with a rich history.

The installation is noteworthy: the entire exhibit is under its own column-supported roof, and 130 photo-panels will be hung between the columns.

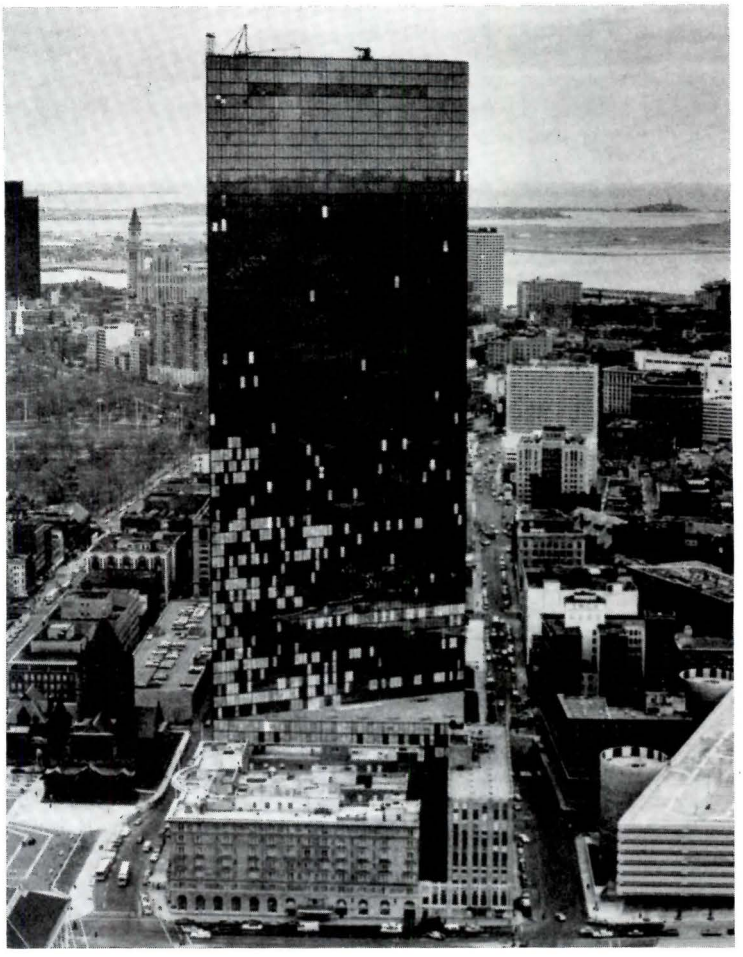
For a complete Roman holiday, visitors to the exhibit, which is in the Museum's Gallery 1, can continue on to Gallery 2 for a major showing of ancient Roman art, which focuses on the period 27 B.C. to 325 A.D. The Gallery 2 exhibit was organized by the Art Galleries of the University of California, Santa Barbara. Both shows opened on March 28 and will close on May 13, 1973.

In connection with these shows the University-Extension, Berkeley, will present on April 27-29 a crash course, "The Third Rome: Sack or Consummation."

Victor Emmanuel Monument under construction, 1900



Piazzale Marconi, built for Fascist World's Fair 1942, never held



Where have all the windows gone? The answer is blowing in the wind

The window in the tower

Last month, as part of a major story on I. M. Pei & Partners, we published a detailed description of the firm's John Hancock Tower, in Boston, Mass. Like everyone else, we were aware that the reflective glass skin of the building was in serious trouble. We decided not to comment on the problem, since nobody in or outside Boston had the remotest idea of why this was happening; it was obvious also that lawsuits were sure to follow and we did not want to prejudice them in any way. Following is a report of what actually happened.

Some of the most lively cocktail party conversation in Boston today concerns the sighting of flying glass objects around the new John Hancock Tower. The objects, according to popular rumor, are huge panes of glass that come swooping down on unsuspecting pedestrians whenever a brisk breeze blows up. While such stories are untrue in their more spectacular versions, the fact is that the new tower has had severe problems with its reflective glass façade.

The 60-story building, which was estimated to cost $95 million before the current problems arose, first suffered glass breakage last fall, before the curtain wall was completed and the floors enclosed. A John Hancock spokesman, Jack Feely, gave us a rundown on problems since then.

According to Feely, the company attributed early problems to construction logistics and thought that when the floors were enclosed, the problems would end. Most damage at this time was attributed to flying debris from the open floors above the glassed-in areas; few lights (panes) seemed to have suffered direct wind damage.

In mid-December, 43 lights of glass on floors 9 through 16 on the southwest side of the building were damaged by other than flying objects. The company removed and replaced them with temporary plywood covers; it also put bridges over the sidewalks below, made arrangements with the Boston police department to cordon off the street if wind at the top of the building exceeded 45 mph and urged the contractor to complete the curtain wall installation.

On January 20, between 7 and 11 p.m., high northerly winds gusting to 75 mph at the top of the tower caused severe damage to 63 lights on the incomplete wall of the tower. Sixteen of these appeared to have been broken by wind; the remainder were broken by flying glass. All have been replaced. In addition, 1,000 other panes of glass were scratched or suffered other damage.

Public and media alarm has grown with the numbers of broken lights and the John Hancock Company has hastened to define and solve the problem, as have all

others involved with the building.

John Hancock (at an estimated $75,000 to $100,000, it says) has hired the Cambridge consulting engineers Hansen, Holley & Biggs, to do on-site and laboratory testing. MIT has installed over 20 pressure sensors on the curtain wall and a number of windows have been instrumented to measure deflection of the glass and supporting mullions. Accelerometers, temperature gauges and wind-speed indicators will also be used. The engineers have even broken some panes of glass by enclosing them and then load-testing them to failure. They have laid more than eight miles of instrument cable and must now wait for properly inclement weather to complete test data. Other testing has included wind tunnel tests for "50-year-winds" done (and since redone) at Purdue University before construction began.

At this point, no one can say who is responsible or how. Unless the errors prove to be the architects'—and there is yet no evidence to suggest this—insurance (with a deductible clause, of course) will pay for the glass damage and replacement (at 52 sq. ft. each, the panes are the largest of their kind for this type of installation). But who will pay in the end remains to be seen.

In the meantime, work has largely stopped on the building. Interior finishing work has ceased pending bidding and installation of a sprinkler system and the exterior work is confined to plywood installations where once there was glass. And Hancock still must wait. Every delay past its original February moving date is very costly; the minimum delay is now estimated to be six months.

New town on a cliff

One of the largest hydroelectric works in Latin America, the Chocon dam, was recently opened. Located across the Limay River of Argentina, it is part of the Chocon-Cerros Colorado hydroelectric complex that regulates the waters of the Limay and Neuquen rivers, both of which are tributaries of the Rio Negro.

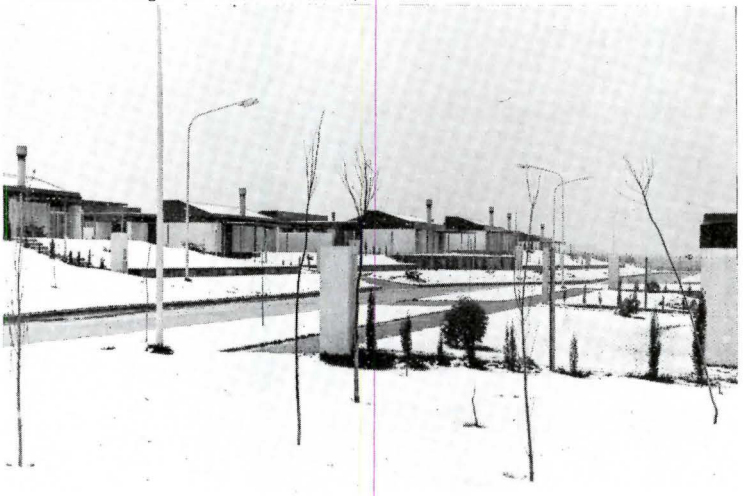
The Rio Negro flows through the valley of the same name, irrigating the richest fruit-bearing lands of Argentina. The Chocon works consist of the dam itself (2,400m in length and 80m in height, creating an artificial lake 825 kilometers square) and a town called el Chocon Village, comprised of 200 housing units and a cultural and commercial civic center.

El Chocon Village is designed to accommodate the personnel for the hydroelectric installation, and is located on a plateau on the edge of the Limay River valley, at an altitude of 80m above the river. Because of the extreme winds and the cold and hostile climate of the zone, the architects settled on a compact urban complex.

The team consisted of Llauro & Urgell, Antonio Antonini, Schon, Zemborain and Firpo. The engineers are Fernandez Long and Reggini, Camba, Bignoli, all from Argentina, and Sir Alexander Gibb & Partners of England.

The village is made up of independent living units, each with its own plot and garden. The houses are in two parallel sections with some 100 units per section. Between the sections is an intermediate zone containing the civic center. The living units are of two and three bedroom configurations. Landscaping was a vitalizing element and climate modifier, and is an important feature of the design.—L .A.

El Chocon Village: for a harsh climate, houses in clusters



Italian Art at the Plaza

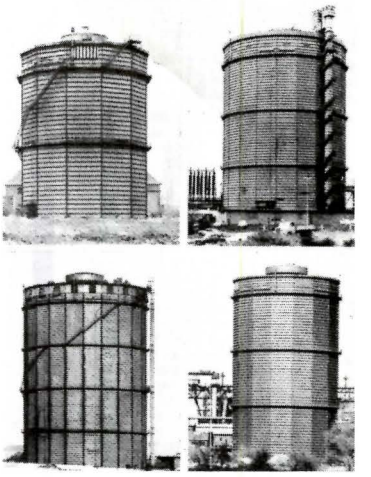
More Streets for People is an "environmental program dealing with the pedestrianization of congested city centers"—which means it's pushing malls.

The Italian Art & Landscape Foundation, in cooperation with the Institute for Environmental Action is presenting an open-air, audiovisual exhibit in Manhattan.

The exhibit, consisting of a structure based on an eight-ft. modular system supporting large panels, will sit in Grand Army Plaza, a spot at the corner of Central Park, just in front of the Plaza Hotel. More than half a million people walk through the plaza during the day.

The exhibit was designed by Architects Roberto Brambilla, Igor Josza and Gianni Longo, with a little help from their friends in the Office of Midtown Planning, the Parks Department and Columbia University.

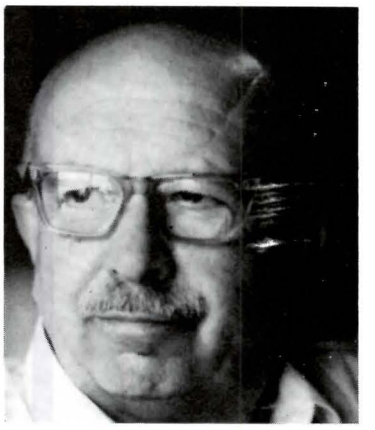
Photo montage with sound-and-light show, corner of Central Park



The eye of the beholder

Two German teachers, Bernd and Hilla Becher, both artists, have a passion for water towers, silos, windmills, and mine sites. They take pictures of them and present them as works of art.

The Galerie Sonnabend in Paris held an exhibition of their work from February 13 to March 15. It was very nice.—G. de B.



Obit

Buenos Aires Architect Alfredo Agostini, who died two months ago, worked in partnership with Santiago Sanchez Elia and Federico Peralta Ramos, forming perhaps the most important architecture firm in Argentina, both in terms of quantity and quality of projects. The Bank of London, the Sheraton Hotel, the newspaper building for *La Naçion,* and the Abbott Laboratories are only a few examples of their work in Argentina. He was deeply respected by his colleagues, not only by virtue of his professional excellence, but for his naturalness and great modesty. He was much sought after to serve on design juries.—L. A.

Photos: P. 9, Royal Academy of Art. P. 10 (bottom) *The New York Times.* P. 11 (top) Pierre Joly, Véra Cardot; (lower left) Maddock Photos. P. 12, Selwyn Pullan. P. 13 (top left) Edward Leigh; (lower left) John Donat; (upper right) Sandak; (lower right) Nat'l Trust for Historic Pres. P. 14 (top) G. Maréschal. P. 15, Herbert Seiler. P. 76 (upper left) Cabinetto Fotografico Nazionale; (top) Jack Irwin. P. 78, Keystone.

Footnote

Quiz: This is a picture of—

1) a baked potato stand
2) a fertility totem
3) a prize ear of corn
4) a lighthouse with barnacles
5) the world's largest artichoke
6) an apartment house with life-boats waiting for the flood.
7) a heap of bagels
8) or a giant pine-cone

The first ten readers who respond with the correct identification will receive a free subscription to PLUS.

ctric Heat Pump System Provide R search Center with Economical ear-Round Space Conditioning

Zotos International's Research Center in Darien, Connecticut, is a three-level structure.

PROJECT: Zotos International Research Center, Darrien, Connecticut. ARCHITECT: Michael Schimenti, New York, New York. CONSULTING ENGINEERS: S. M. Limoggio, P.E., & Associates, Great Neck, New York.

DESIGN CHARGE: To design a research facility containing laboratories, offices, a computer room, employee lounges, and shipping and storage areas for a firm engaged in the manufacture of lotions and other products used primarily by professional hairdressers.

DESIGN RESPONSE: Architect Michael Schimenti designed a handsome structure featuring wide expanses of glass, bronze curtain wall panels and red brick piers. The building has 50,000 sq ft of floor space on three levels. The ground floor contains offices and a computer room; the second floor has several offices, three research laboratories and an experimental beauty shop. The level below grade houses a mail room, conference room, mechanical room, lunchroom, employee lounges, and shipping and storage facilities.

When a feasibility study, prepared by consulting engineer S. M. Limoggio, indicated that an all-electric heating/cooling system would be versatile and reliable, save on installation costs, provide maximum cleanliness, and be competitive in operating costs with systems using other sources of energy, the owners decided to condition the building electrically. The system designed by Mr. Limoggio divides the building into 12 zones, each served by an individual network of ducts and an electric split-system air-to-air heat pump. The heat pumps are supplemented by electric duct heaters and by sill-line heating units installed beneath the windows. All air is returned to the air handling units through the basement space which, thus, serves as a common mixing plenum. The resulting load-sharing effect means that the entire system is kept balanced automatically at all times despite such variables as shifting solar effects, changes in occupancy and other internal gains. Each zone has its own wall-mounted thermostat and all are under the control of a clock programmer which sets back temperature during unoccupied periods.

The system has lived up to all expectations, Mr. Limoggio reports, and has performed most satisfactorily.

SEE REVERSE SIDE FOR DETAIL INFORMATION

1 CATEGORY OF STRUCTURE:
Commercial—Research Building

2 GENERAL DESCRIPTION:
Area: 50,000 sq ft
Volume: 429,000 cu ft
Number of floors: two plus full basement
Number of occupants: 125
Number of rooms: 72
Types of rooms: private and general offices, chemical laboratories, computer room, storage areas, beauty shop, mail room, conference room, employee lounges

3 CONSTRUCTION DETAILS:
Glass: double
Exterior walls: 12″ brick and block cavity wall, loose insulating fill (R-5), U-factor: 0.13
Roof and ceilings: built-up roof on concrete deck, 6″ mineral wool batts (R-19), suspended acoustical tile ceiling; U-factor: 0.05
Floors: concrete slab
Gross exposed wall area: 14,472 sq ft
Glass area: 5803 sq ft

4 ENVIRONMENTAL DESIGN CONDITIONS:
Heating:
Heat loss Btuh: 1,283,500
Normal degree days: 5800
Ventilation requirements: 8350 cfm
Design conditions: 0°F outdoors; 75F indoors
Cooling:
Heat gain Btuh: 1,560,000
Ventilation requirements: 8350 cfm
Design conditions: 95F dbt, 75F wbt outdoors; 78F, 50% rh indoors

5 LIGHTING:
Levels in footcandles: 50 to 100
Levels in watts/sq ft: 2-4
Type: fluorescent

6 HEATING AND COOLING SYSTEM:
The building is divided into 12 zones, each with a compact duct system and an electric split-system air-to-air heat pump. Supplementary heating is provided by electric duct heaters and sill-line heating units located beneath windows. Air return for all zones is through the basement which serves as a common mixing plenum and place of entry for ventilating air. Outside air is admitted to the basement through thermostatically controlled dampers which are fully closed during times of setback.

7 ELECTRICAL SERVICE:
Type: underground
Voltage: 480/277v, 3-phase, 4-wire, wye
Metering: secondary

8 CONNECTED LOADS:

Heating & Cooling (166 tons)	572 kw
Lighting	153 kw
Water Heating	12 kw
Other	120 kw
TOTAL	857 kw

9 INSTALLED COST:

General Work	$ 837,200	$16.74/sq ft
Elec., Mech., Etc.	367,300	7.34/sq ft
TOTALS	$1,204,500	$24.08/sq ft

Building was completed 2/70

10 HOURS AND METHODS OF OPERATION:
8 a.m. to 6 p.m., five days a week.

11 OPERATING COST:
Period: 2/70 through 1/71
Actual degree days: 6033
Actual kwh: 1,033,200*
Actual cost: $20,517*
Avg. cost per kwh: 1.98 cents*
*For total electrical usage

Month	Degree Days	Demand	kwh	Amount
2/70	951	308	86,400	$ 1,802
3/70	914	336	117,600	2,388
4/70	498	284	71,600	1,426
5/70	184	288	72,000	1,442
6/70	33	312	70,800	1,504
7/70		300	82,000	1,558
8/70		320	88,000	1,666
9/70	84	316	82,400	1,609
10/70	298	312	68,400	1,485
11/70	681	272	70,000	1,378
12/70	1082	380	105,200	1,984
1/71	1308	416	118,800	2,275
TOTALS	6033		1,033,200	$20,517

12 FEATURES:
All air return to the individual blower units is by way of the basement which serves as a mixing plenum common to all zones. This provides the energy-conserving benefits of heat recovery and keeps the entire system in balance despite changing heat gains and losses in the various zones.

13 REASONS FOR INSTALLING ELECTRIC HEAT:
A feasibility study indicated that the electric space conditioning system would cost less to buy and install than comparable systems using other sources of energy, would be competitive in operating cost, and would require less maintenance.

14 PERSONNEL:
Owner: Zotos International, Inc.
Architect: Michael Schimenti
Consulting Engineers: S. M. Limoggio, P.E. & Associates
General Contractor: Samuel Grasso
Electrical Contractor: Serico Electric
Mechanical Contractor: D'Orso Co., Inc.
Utility: The Hartford Electric Light Company

15 PREPARED BY:
Robert Shaw, Commercial/Industrial Sales Supervisor, The Hartford Electric Light Company.

16 VERIFIED BY:
Michael Schimenti, AIA

S. M. Limoggio, P.E

ENERGY MANAGEMENT PROGRAM
A Resource Conservation Activity Of The
ELECTRIC ENERGY ASSOCIATION
90 Park Avenue, New York, N.Y. 10016

The 1973 International Design Conference in Aspen, June 17th through June 22nd

The Idea

A week-long series of performances exploring "Performance" will serve as content and format for this year's International Design Conference in Aspen.

From the great to the sublime, performance characterizes man's striving for achievement, recognition, identity and immortality. For the designer it is at the core of his work. Designing a building, an object, a poster or an event is itself a performance. What makes a great performance? What motivates the performer to pursue quality, perfection or self-fulfillment through his work? What forces in our society shape mediocrity in performance? What aspects of performing does the designer share with the artist, the writer, the musician, actor, scientist?

Performing, and viewing performances, puts the design process in new perspective and ultimately provides the best insight into the intricacies of design performance.

Performances:

☐ To illuminate the confrontation between the designer's expectations as encouraged by his education, and the realities of the social realm and corporate economic system.

☐ To reveal the underlying impetus of our own performance as revenge, the search for power, the confirmation of our identity, or as gesture expressing sexuality, guilt, remorse, etc.

☐ To provoke some thoughts on the audience (broadly defined as the spectator, the user, the consumer, anyone who experiences any kind of performance), and the presumed mediocrity ushered in by the passivity of spectatorship in post technological society.

In short, the exploration of performance through performances—direct, experiential, participatory and introspective. Co-designers and directors of the conference are Milton Glaser and Jivan Tabibian.

The Performances

Therapist George De Leon will explore the erosion of self from school to work by probing the feelings of a group of practicing designers.

Illustrated presentations on the decline of audiences in theater and film will be given by John Simon.

Anti-human architecture will be analyzed by Reyner Banham.

Robert Rauchenberg will plan a major art work and execute it in full view of the conference in team performance with 50 or 100 Aspen conferees.

The Julliard Brass Ensemble will hold public rehearsals every afternoon and a full-length concert on the last conference day.

J. Paul Friedberg will design a garden to be landscaped by all conferees for their own use.

Miralda will direct a food event, infusing color and pattern into thousands of dishes of rice.

Marie Cosindas will extend the limits of instant color photography, performing with a Polaroid.

Bob Benton will screen *Bonnie and Clyde* and *Bad Company* and discuss his role in creating them.

Brendan Gill will show and discuss films and sequences from his extraordinary collection of blue movies.

J. R. Worsley will take pulse readings of conferees.

Posters from an international competition encouraging people to perform for their own well-being will be exhibited.

Gerald Sykes will explore the positive contributions technology can bring to people seeking more individual control over their lives.

Tai' Chi Master Marshall Ho' will tune the minds and bodies of the conferees.

Films from Columbia University's film festival on "The Built Environment" will be shown.

Richard Goldstein will focus on performance in journalism.

We will all perform at our own dances on three evenings.

The Cast

Everyone attending the conference.

Robert Rauchenberg, called the artist who in this century has invented the most since Picasso.

Bob Benton, co-author of *Bonnie and Clyde* and *What's Up Doc*, and director and author of *Bad Company*.

George De Leon, therapist at New York City's Phoenix House.

Gerald Sykes, author and Professor of Interdisciplinary Studies at the New School for Social Research.

Miralda, artist and culinary esthetician.

Marie Cosindas, photographer

M. Paul Friedberg, landscape architect.

Brendan Gill, theater critic for the *New Yorker*.

Reyner Banham, architectural critic, historian, and educator.

The Julliard Brass Ensemble.

Professor J. R. Worsley, Master and Doctor of Acapuncture M. Ac., DR Ac., F.C.C. Ac. (China), F.R. Ac. President: College Chinese Acapuncture (U.K.).

Milton Glaser, graphics designer; co-founder of Push Pin Studios, design director of *New York* magazine, faculty member of the School of Visual Arts.

Jivan Tabibian, social planner and social scientist; lecturer in social psychiatry at UCLA, urban and regional planning at the University of Southern California, and design at California Institute of the Arts.

Marshall Ho', Tai chi master; Chairman of the National Tai' Chi Chuan Association, President of the National Acapuncture Association.

John Simon, drama critic of *New York* magazine and *The Hudson Review* and film critic of *The New Leader*.

Richard Goldstein, writer on new politics and popular arts, former pop/rock critic for the *Village Voice*.

Robert Simon, planner and developer of Reston, Va.

Aspen Notes

Aspen, Colorado, scene of the annual International Design Conference since 1951, is located in a beautiful valley high in the Rocky Mountains. It has an abundance of excellent hotels and lodges with a wide range of summer rates. There are generous camping facilities as well.

Aspen is renowned as an outdoor sports center, and boasts such cultural resources as the Aspen Music Festival and Music School, the Physics Institute, and the Institute for Humanistic Studies. These facilities combine to make Aspen an ideal setting for the 23rd International Design Conference.

Daytime temperatures range from pleasantly cool to warm. Because of the mountain setting and high altitude (7908 feet above sea level), Aspen's evenings are often quite chilly. Heavy sweaters and jackets are recommended. Otherwise, dress is informal and casual throughout the week.

REGISTRATION

Reservations by mail only. Deadline is May 28 or cutoff number, whichever comes first. Your check will be your receipt.

Due to limitations of conference facilities, all conferees *must be* pre-registered, or they cannot be admitted.

Registration fee, $100
Companion, $50
Student (school registration proof required), $35

Make your check payable to IDCA and send it with this coupon to:
IDCA
P.O. Box 664
Aspen, Colorado 81611 USA

The Coupon

Please reserve _____ places for Performance, IDCA 1973

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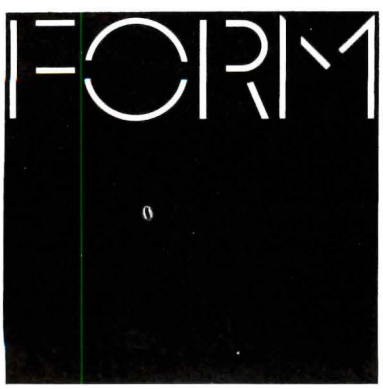
My check for _____ is enclosed.

PERFORMANCE



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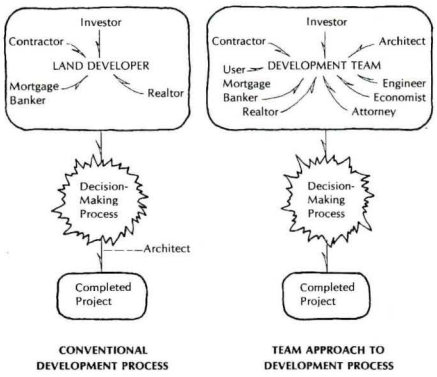

CONVENTIONAL DEVELOPMENT PROCESS

TEAM APPROACH TO DEVELOPMENT PROCESS

Development Building: The Team Approach by C. W. Griffin. Published by the American Institute of Architects; distributed by Halsted Press Division, John Wiley & Sons, Inc., New York. 130 pages. Illustrated. $15. Available to AIA Members through AIA, Washington, D.C.

Reviewed by William Frederick Schacht

Does the architect perform a significant function in the American Society of the '70s? As we tenaciously grip our T-squares, is the technological electronic world around us spinning rapidly away? Some time back, we—as Copernicus—discovered that others in our world—the financiers, real estate experts, lawyers, contractors, engineers, public officials, developers—do not revolve around us. Rather, we are some far-off planet spinning around the American nuclear family: Efficiency-Economics-Politics. And we are sending back rather weak radio signals.

As *Fortune* magazine has recently stated, we lost control of our leadership some time ago—around the time of the industrial revolution. The A.M.A. has seen to it that the hospital attendant, the bandage manufacturer, or the health-insurance company does not operate on the patient. We have not made our case for the right of decision in community health. Perhaps we have not earned it.

"Essentially, we are a noncaring, littering people, monumentally unconcerned with our environment."—Thomas Hoving

"From a consumption-obsessed society in which the standard of living is measured solely by the Gross National Product, the United States has climbed to a higher, more sophisticated cultural level. Americans are beginning to appreciate quality as well as quantity. They are demanding environmental amenities and public beauty."—Author C. W. Griffin

Thomas Hoving, the cultured realist. C. W. Griffin, the romanticist. Perhaps Griffin senses something far more pervasive than Hoving and other cultists. However, there are basically two ways of turning the ugliness and waste of this country around: (1) fight them (2) join them.

We need both. The author represents the latter in a compilation of some very illuminating data uncovered by a task force organized in 1971 by the AIA: The Task Force on the Architect in the Development Team. The AIA has thus recognized some of this disintegration of purpose and to its credit has begun to address itself to the new role of the architect. Or should we begin to call ourselves environmental developers? When the day is soon reached when all buildings are systematized prefabricated components, will we all be working for the manufacturer, the builder, the planner, the politician, or the developer?

Every architect in the profession should have access to this book for a rudimentary understanding of the *real* front end of a project. It is indeed a breath of fresh air and makes an important milestone commitment. The *raison d'être* of the publication is for better design (environmental) control. It has a twofold intent: to alert architects and other design professionals to the opportunity for expanding the scope of architectural practice as members of project development teams; and to explain the mechanics of the development process itself.

The most eloquent plea made in the book deals with the architect's Number One dilemma. "Programming and budgeting decisions made in the Decision stage (in the 3-D process of Decision-Design-Delivery) without the architect's participation can strip him of effective design control." "The essential point is not whether the architect is a co-owner, but whether he *participates in the basic preliminary decisions* that shape the project's design."

It should be mentioned that Griffin does not delegate this involvement only to the larger organizations with their semi-autonomous development corporations. He spends a good bit of time opening the eyes of the more local practitioner to very lucrative and real possibilities.

The book is well illustrated with helpful charts, process guidelines, and illustrative examples for the professional to transpose unto himself. The impact of the book is to do a major analytical job on the architect. This Griffin has done in a clear and concise manner. Still, there seems a need to further expand the reasonableness of the architect-as-developer concept.

The change being called for here is simply illustrated by the development process diagram shown. The development tasks of the initial or Decision stage are concerned with: (1) economic design (market, appraisal, and feasibility studies) (2) land acquisition (3) project financing.

"The traditional building process, with its many communication gaps, its fragmented responsibilities, and its slow pace of execution slowly is yielding to the team approach, promoted by the architects and other design professionals seeking better ways to serve their clients." This transformation is being actualized because of the following irrepressible forces: (1) industrialization of building technology (2) increased size of development projects (3) increased need for good economic planning to assure financial success (4) growing economic importance of construction speed.

We are warned of concerns in ethics (conflicts of interest) and liability (architect-as-owner suing owner-as-architect). With added opportunities come added hazards. We are constantly reminded to go slow in this new area and to be aware of growing complexities stemming from project size and financing alternatives.

Consider the book as a kind of general tour guidebook to one new area—development. The trip needs expansion into other new areas—guidebooks to community advocacy, manufacturer research and development, urban design, construction management, political action. This AIA guide could well be restructured as one entry into a much needed series on the changing role of the architect in this country.

Perhaps in the last analysis the major question remains unanswered. To what extent shall the architect join the world of the capitalist? It has never been proven that to make a profit is un-American. It has also never been proven that painful and exhaustive study into the enrichment of human experience through architecture will make a profit. Or do we really care, Tom Hoving?

William Frederick Schacht is a practicing architect and urban designer in New York City.

Frank Lloyd Wright by Charlotte Willard. The MacMillan Publishing Company, New York, 1972, 103 pages. Illustrated. $5.95.

Reviewed by Edgar Tafel

During the '30s at Taliesin, while we were working on Fallingwater, and later the Johnson Wax Building and Wingspread, the Johnson house, Mr. Wright would walk from his studio into the original eight-tabled drafting room and read to us from his writings; he wrote constantly—articles, pieces for books, letters. We apprentices would put our pencils down and listen with excitement to his latest thoughts—often barbs against whatever Establishment may have been in control at the time. Some of us were there long enough to watch the switch of his ire, which had been aimed first at the Beaux-Arts, and later at the American edition of the Bauhaus.

Once he dropped on a drafting table a draft of a book an author had sent for his comment, saying: "Read this and tell me what it is about. . . ." Several of us read the novel, thought it little more than a diatribe. Our opinions agreed, but it turned out that the book became *The Fountainhead.*

After the authenticity of FLLW's writings, there is little value in what Charlotte Willard has written, an inadequate and brief sort of condensation of *An Autobiography,* of the kind that a journalism major might whip up. It

Edgar Tafel is a New York City architect who was apprenticed to FLLW 1932-41. While at the Taliesins he worked on and supervised Fallingwater, the Johnson Building and house, and other projects.

consistently misfires on almost every aspect of Frank Lloyd Wright's exciting life, though she couldn't go entirely wrong paraphrasing so much of what has found its way into this short-form attempt. Yet even when she quotes from this reviewer she manages consistently to miss the main point. One wonders indeed for whom the book was written.

The main Willard omission: no serious book on FLLW can be written now without a knowledge and first-hand appreciation of the vital role of Olgivanna Lloyd Wright, his wife, constant companion and buttress during the last 35 years of his life. Without her equal partnership there could not have been the inception of the Taliesin Fellowship, or its continuance during Mr. Wright's life and ever since. Professionals in the Establishment intent upon serving their own interests generally can have no conception of anything created outside of their own educational experience; when Taliesin produces the extraordinary, it is beyond the realm of the usual writer. Mrs. Wright always stood for the individual, for the grace and truth of life, without which Taliesin would not have achieved its great heights and continuity of performance, accomplished moreover without the benefit of universities, foundations, governmental commissions, etc. A clear definitive study of the Fellowship has yet to be adequately written. This constant painstaking endeavor on the part of two pioneers, working together, brought forth an idea, which after 30 years draws more appretices to Taliesin than it did 25 years ago.

Willard quotes Peter Blake at length, much too much, or misquotes him, for I cannot believe Mr. Wright "kicked out" exceptional apprentices. There are many excellent architects all over the world who studied at Taliesin and more who if they became part of the Establishment could have obtained bigger commissions. Even as a "who's who" or "what who thought about FLLW," the book misses the point that some 1,500 of us went there for something special we couldn't obtain anywhere else.

Perhaps writers wish to put FLLW, and all about him, into some commonly preconceived pattern that would be more readily understandable to an Establishment mentality. How ludicrous to lump him with those in the minor leagues.

Rumors abound of all sorts of books on FLLW about to emerge. Certainly there will always be a need to understand and clarify the forces that made FLLW so creative that we are aware of him as though he were still alive, as he always will be to those who seek the reality of the inspiration that flows from the true artist. What we await is the definitive edition of his *An Autobiography*. And why not wait to have it from the source?

rodu Li rature

BUILDING SYSTEMS

Three new systems brochures for selecting and specifying building materials have been released by Sonneborn Building Products Division of Contech, Inc.
Reader Service Number 238.

CEILING SYSTEMS

Installation and specification data for the Gold Bond Panelectric ceiling system, comprising a radiant heating system as an integral part of a gypsum drywall ceiling, is given by Gold Bond Building Products Division of National Gypsum Co.
Reader Service Number 239.

Eastern Products Corporation announces that new and up-dated literature on its lines of suspension ceiling systems and demountable wall systems is now available.
Reader Service Number 240.

CERAMIC TILE

Cava of Salerno, Italy has available brochure describing their design and architect oriented decorative tiles.
Reader Service Number 241.

The Japanese-based Daibutsu Tile Co., Ltd. offers booklet describing and showing installations of their artistic and glazed roofing tiles.
Reader Service Number 242.

Available patterns of colorful ceramic tile by the Italian company Ceramica Majorca are illustrated in pamphlet now offered.
Reader Service Number 243.

CONCRETE

The Hebel-Gasbetonwerk, located in the Federal Republic of Germany, now is offering a 23-page booklet giving manufacturing and technical information on Hebel cellular concrete.
Reader Service Number 244.

DECORATIVE GLASS

Pittsburgh Corning Corporation 15-page booklet contains selection and application information on decorative and functional glass block.
Reader Service Number 245.

Seraphic Pty. Ltd. of Australia provides information on their Cameo Clad, a custom-made material for use in hotels, office buildings, schools or clubs.
Reader Service Number 246.

DOORS

The 1973 RubbAir Door condensed catalog, issued by RubbAir Door Division, Eckel Industries, Inc., provides detailed information on the advantages of these shock-absorbing, insulated traffic doors.
Reader Service Number 247.

From Osaka, Japan, Nakamura Takiya Co., Ltd. offers brochure including descriptions and specifications of door-viewers and accessories.
Reader Service Number 248.

FIRE PROTECTION EQUIPMENT

The Viking Corporation offers 32-page booklet illustrating their line of automatic sprinklers, pipe systems, alarms and accessories.
Reader Service Number 249.

A new automatic fire sprinkler that goes into action almost twice as fast as any similar device has been developed by Star Sprinkler Corporation.
Reader Service Number 250.

FLOORING

GAF Corporation, Floor Products Division, has available color brochure describing and illustrating new patterns of Vinylglo sheet vinyl floors.
Reader Service Number 251.

Liskey Aluminum, Inc. offers 16-page booklet including illustrations and specification data on access floor systems.
Reader Service Number 252.

FURNITURE

A sling chair group and new shapes in executive seating are among new items introduced by Harter Corporation.
Reader Service Number 253.

HARDWARE

A data sheet outlining porcelain, crystal, timber, pottery and stoneware door furniture is now offered by the Australian manufacturing firm Gainsborough Hardware Industries Pty. Ltd.
Reader Service Number 254.

Ever-Strait Division of the Pease Company has available a data sheet on their high-performance hinge, combining into one package self-closing operation, adjustability, trim appearance, and easy door removal.
Reader Service Number 255.

Newlite Industry Co., Ltd. of Japan is offering pamphlet and technical details on Doorlite plastic hinges.
Reader Service Number 256.

Hayakawa Hardware Manufacturing, Ltd. of Osaka, Japan provides specification data for their complete line of hardware.
Reader Service Number 257.

HEATING/COOLING EQUIPMENT

Donmark Division of Northrup, Inc. has made available data sheets on their heating and cooling equipment including illustrations, specifications and prices.
Reader Service Number 258.

INSULATION

A brochure outlining shipping information and specification data on Johns-Manville glass fiber building insulation can now be obtained.
Reader Service Number 259.

LIGHTING

A budget-priced line of emergency lighting units, providing the desired protection during power failures, has been announced by Tork Time Controls, Inc.
Reader Service Number 260.

PANELING

Quarter-panels finished in various wood tones are presented in color brochure being offered by Alliance Kesarya Polymer Industries, Ltd. of Israel.
Reader Service Number 261.

Formica Corporation has added three new decorative laminate designs for 1973 to the panel system for high-moisture areas.
Reader Service Number 262.

Toyo Bamboard Manufacturing Co., Ltd. of Japan makes available details on their newly developed natural veneer bamboo plywood.
Reader Service Number 263.

Wilsonwall® paneling is illustrated and described in color brochure released by Ralph Wilson Plastics Company.
Reader Service Number 264.

The history and development and architectural applications of Mallotex veneer paneling are described in brochure available from the Australian manufacturing firm West Coast Mosaics Pty. Ltd.
Reader Service Number 265.

PARTITIONS

Modern Partitions, Inc. gives construction and specification data for bank rail partitions in recently issued brochure.
Reader Service Number 266.

PLUMBING FIXTURES

The Moen catalog of plumbing accessories, containing photographs and detailed drawings, is now available.
Reader Service Number 267.

PLYWOOD

A new full-color brochure introducing Finnish plywood is offered by The Finnish Plywood Development Association-USA.
Reader Service Number 268.

ROOFING

Automated Building Components, Inc. provides information on Decramastic® roof tile which lends esthetic quality and built-in durability to buildings of all kinds.
Reader Service Number 269.

SECURITY SYSTEMS

Tighter home security is the result of a new radio coding/decoding accessory for Genie electronic garage door opener systems announced by The Alliance Manufacturing Company, Inc.
Reader Service Number 270.

Hager Hinge Company has published "Building Security into Building Plans." The booklet lists facts about major components, installation and optional security equipment available from Hager.
Reader Service Number 271.

STEEL LOCKERS

Republic Steel Corporation announces availability of catalog containing application, specification and installation information on their lockers, accessories and locks.
Reader Service Number 272.

STRUCTURAL FRAMEWORK

Photographs of space-frame systems and components are included in brochure released by Unistrut Corporation.
Reader Service Number 273.

Letter

continued from page 7

of a hypothetical, untrained eye.

As things stand, revival of the functionalistic doctrine is esthetically reactionary and socially futile. Even in its heyday the doctrine was bitterly denounced in the only socialist country then existing, where Stalin's Neo-Baroque Socialist Realism held sway. One should add that the functionalism of Mies and Corbu needed a lot of defining before becoming recognizable as such; but it inspired them to design magnificent buildings. Regardless of its social validity, the slogan coined by the elite of our grandparents' generation has probably lost in the half century it took common taste to catch up, some of its ability to inspire excellent design.

If builders and users insist, buildings in the style of the future can also be serviceable. Congratulations to Architecture PLUS for having set out in its first issue to include this side of architectural development in its coverage.

THOMAS D. SCHOCKEN
Boston

A quick review of your first issue here at the office reveals that you have done an outstanding job. I hope to get better acquainted with the issue at home where I'll have time to thoroughly go through it.

NEAL ENGLISH
Executive Director/International Masonry Institute, Washington, D.C.

The absence of trite architectural cliches and weird concepts was very refreshing. We hope that you will continue with this format and look forward to receiving the succeeding issues.

LOUIS A. ROSSETTI
Architect, Detroit

You should be awarded an *A-Plus* for the great achievement.

KENNETH M. NISHIMOTO
Architect, Pasadena, Calif.

A recent airline flight afforded me the opportunity to have an uninterrupted hour, reading your first issue of Architecture PLUS. I was most pleased.

The international variety was of real interest. Too often we are only exposed to the work of a select few of our American firms. Your broad-based exposure of subject and designs, will be of real benefit. Also, the in-depth editorship of a firm, project or special subject is also appreciated. The I. M. Pei story, the Boston City Hall commentary and the China Today, were three feature stories that were of interest to me. I look forward to the forthcoming issues.

ROBERT J. SCHAEFER
Architect, Wichita, Kansas

It was with the same feelings of anticipation as when I was in school as a student of architecture that I opened your new magazine Architecture PLUS and I did something I had not done in quite a long time, which was to spend a relaxing Sunday afternoon going over all the wonderful work incorporated in your new international opus.

I wish you success.

JOHN HEJDUK, CHAIRMAN
Div. of Architecture/Cooper Union, New York City

A welcome breath of fresh air: Architecture PLUS looks clean. Reads clean. Is clean. The first cover-to-cover reading I've done since *Arts & Architecture*. Congratulations to all of you who edit and design the magazine.

CRAIG ELLWOOD
Architect, Los Angeles

Can you possibly keep up the pace you set? Your first issue is superb. I am already looking expectantly for the second. To escape from the confines of the U.S. is to throw the windows open wide. Congratulations!

JAMES T. POTTER
Architect, Madison, Wis.

Congratulations and a few comments on your stimulating first issue.

I am struck by the way your contents divide into two distinct categories: 1) the "Plus" part dealing with global environmental issues and questions of environmental program (the articles on China, sound architecture, the review of the Boston City Hall and most of your news coverage) and 2) the "Architecture" part (including the Oxford Dormitory, the Woolners' house, the Austrian broadcasting studios and the article on the Pei partnership) which however rationalized, still continues to celebrate the architect as a superstar hero, single handed maker of environmental miracles.

The first set of articles were highly informative and clearly justify your claim of being an expanded architectural magazine in conceptual approach as well as in geography. In the second set, however, in spite of your selection of some very interesting buildings and presenting them with good visual coverage, your texts lapse into the kind of architectural journalism that seems all too familiar from our national professional magazines.

My point is that your subjects all seemed quite good enough to stand on their own without this kind of partisan boost. It seems ironic that while Ellen Perry Berkeley was intelligently and thoroughly debunking one piece of heroic architecture your other writers were hard at work mystifying three others.

Your magazine could be helpful if it were willing to consistently examine the roles architects play with a sympathetic but objectively critical eye, to show what we are really doing, not just what we think we are doing or would like to be doing.

I am aware of the problem that such an approach might create considerable discomfort among some of your readers for it is not pleasant to be de-mystified. But in the long run I can't see how the profession can survive and be relevant to the future human environment without such de-mystification.

LAJOS S. HEDER
Architect, Cambridge, Mass.

Letter from Guatemala City

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ing to house relay equipment and also to serve as an elegant place to entertain visiting dignitaries, advertisers and investors. To take advantage of the panoramic view over Guatemala City, architect Minando designed a handsome little concrete structure with glass walls on every side. After the building was completed, however, the TV men changed their minds and bricked up several windows and the jewel box looks as if it is on the way to becoming a coffer.

Alas, there is no recourse. Even architects who join developers in financing projects gain only a little control over their work. "The man who puts up most of the money calls the shots," Minando says. And public clients are hardly better. Consider the new headquarters of Guatel, the government-owned communications monopoly. Containing sensitive cable, radio and microwave equipment, the building had to be able to withstand any tremble of the earth without the instruments being harmed. Architects Giesemann and Minando, therefore, designed a bold building whose bastions and beams clearly express a brawny structural system. Halfway through construction, though, Guatel bought the local telephone company and demanded more space in the headquarters building. The architects obliged by adding two concrete wings at the base of the tower. Next, the monopoly got a new manager, and he wanted some changes, too. Box-shaped protrusions appeared on the upper floors (19).

19. Guatel headquarters

Smaller things suffered as well. The Guatel building is made of exposed concrete, which is a material (perhaps the only one) that has not caught on in Guatemala. In order to soften the building's visual impact, the designers sheathed some bastions with that native marble (an esthetic mistake) and painted three horizontal elements with broad bands of blue, yellow and red. Unhappily, those happen to be the official colors of one of the minor political parties, so the stripes were repainted—all blue this time. And there will be more changes as time goes on, which will serve to make the finished building a different product from the one shown in working drawings.

An even more depressing history concerns a valuable block of real estate about half way between the city center and the airport. The owner approached Jorge Molina Sinibaldi and asked him to design a two-phase complex: first an office building,

20. Maya Building and Conquistador Hotel

then a hotel. "It was a marvelous opportunity," Molina Sinibaldi says. Never a flamboyant designer, he drew up plans for the T-shaped "Maya" building, with eight stories of offices clad in somber bronze-anodized aluminum over ground-level shops. But did the owner retain Molina Sinibaldi for the second phase? He did not, and the next architect designed the Conquistador Hotel to compete with, and overwhelm, the sober office building (20). (The architect also provided a 400-man convention room on the hotel's penthouse, with access provided by two elevators—each with 12-man capacities.) The result is a needless blotch on the cityscape, just the kind of thing that makes a visiting critic wince and lapse into silence.

Yet to date the building boom has taken the sting out of such misfortunes; there has always been another client with another job. To youths, indeed, architecture now seems to wear a halo of both financial success and glamour. Perhaps too much success and glamour, at that. The post-World War II generation of architects founded an architectural faculty at the University of San Carlos, and this year's graduating class will number 800 aspirant architects.

"The market is already terribly flooded, and you know what happens then," says Roberto Cordon, who is still designing serene, lyrical houses. "The youngsters go out to make a mark. They try to be as sensational as possible. That's why so many new buildings use so many materials—to impress people. We are forgetting that architecture is above all a philosophy, that a house is only a structure in which people must live. We are losing our heritage here."

Strong words, and at least partly justified. For one thing, workmanship, especially in concrete, has deteriorated since Cordon and the elder Minando launched architecture as a distinct profession in Guatemala. For another, egregious design mistakes are not hard to find. Perhaps the most obvious is a tower at the end of the suburban Avenida de la Reforma. The Medical Building is a first work by two young Guatemala-trained architects and it is an eyesore. Clumsy and obtrusive, it heeds neither the site (semi-open country) nor the clients' needs (the clinics inside are laid out awkwardly). The only excuses for the building are the designers' inexperience and their stated motive: to call attention to themselves. In that aim, they have succeeded. The Medical Building led to another, bigger job, which they handled with some constraint.

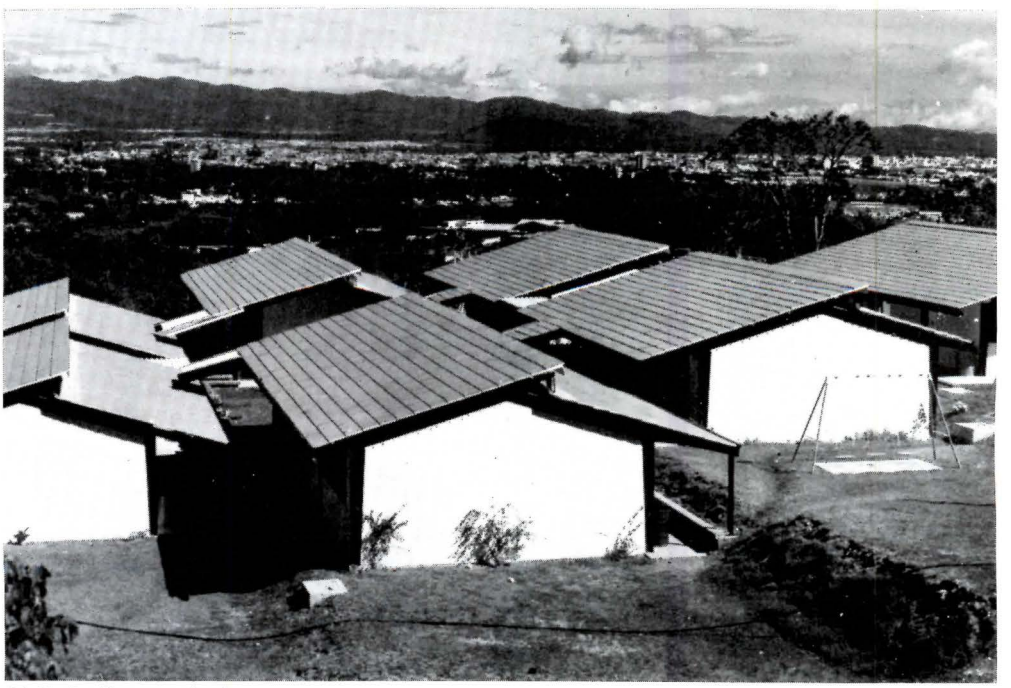
There is a pleasant daring about some of the other new buildings, however. For instance, a recent upper-income development contains a house shaped literally like a doughnut around a central patio. It has the rounded rooms and flowing spaces of Frederick Kiesler's "endless house," which give it a welcome, almost Krebsian experimental flair. The Evelyn Rogers School in another new suburb makes another point. It is a cluster of "classhouses"; the "hallways" between these rooms are outdoors, protected from rain by overhanging eaves. And the benefit is not only the low construction cost of $2 per sq. ft.; the school also recognizes the most neglected commodity in Guatemalan building—simplicity (21).

One thinks of the advice offered by Jorge Luis Borges in a different context. The old Argentine master of short stories was asked what advice he had for a young writer. "Not to think about publication but about his work," Borges answered. "A writer ought to be skillful, but in an unobtrusive way. When things are extremely well done they seem inevitable as well as easy."

Amid the frenetic bustle of new building and the behind-the-scenes din of new design effort, something quite extraordinary has taken place, almost without being noticed. Raúl Minando muses about the changes in the profession since he started out 24 years ago. "Back then," he says, "architects got about 10 percent of the design work in Guatemala City and the engineers did the rest. Now the ratio has reversed. Architects do 90 percent of the designing here and engineers 10 percent." His colleagues do not disagree with those figures.

It is a prodigious achievement. Once one knows it, the real story of contemporary Guatemalan architecture seems to be not about great buildings or startling innovations, but about a small, optimistic profession that has somehow entered the life of the city. Where else are $3,200 houses in big subdivisions for the growing lower middle class designed by architects? Where else do gas stations show the architect's touch? It makes a visitor see the brash new buildings in a different light. Their flaws merely serve to show that architecture is a fledgling profession and still very wet behind the ears.

Experience will probably correct those flaws. Meantime, the profession, having reached critical mass in the capital city, is expanding. Before I left Guatemala, the Government had announced a school-building program in 16 provincial towns. Every one of the schools was to be designed by an architect.



21. Evelyn Rogers school

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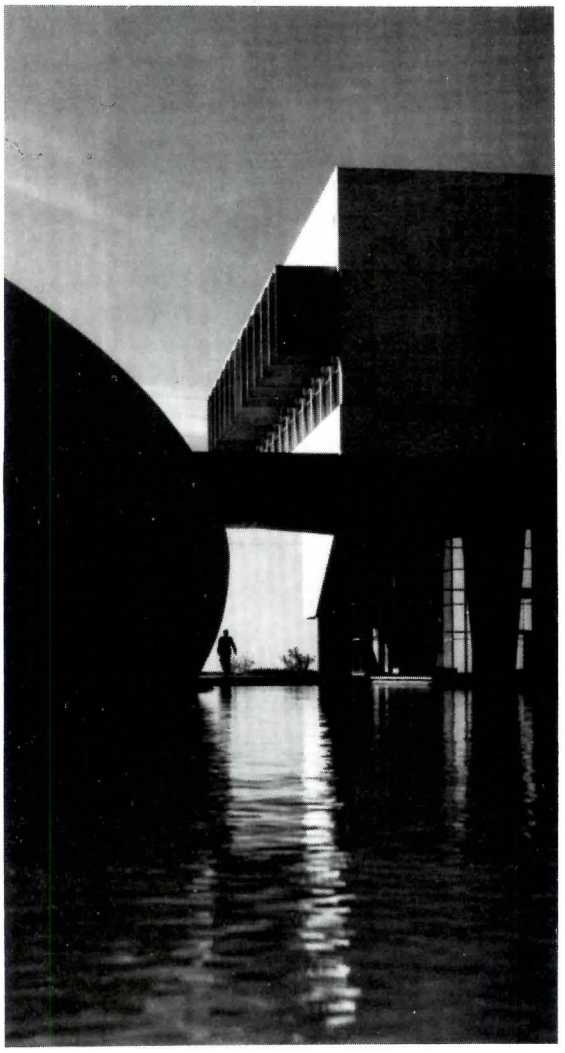

On one of the ridges
dropping from Mount Lebanon to the sea
with the city of Beirut
sprawling below, sits a serene complex
of new buildings for
the Lebanese Ministry of Defense.
The work of French architect
Andre Wogenscky and his Lebanese
collaborator, Maurice Hindie,
these buildings will be evaluated in
the May issue of PLUS.

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