

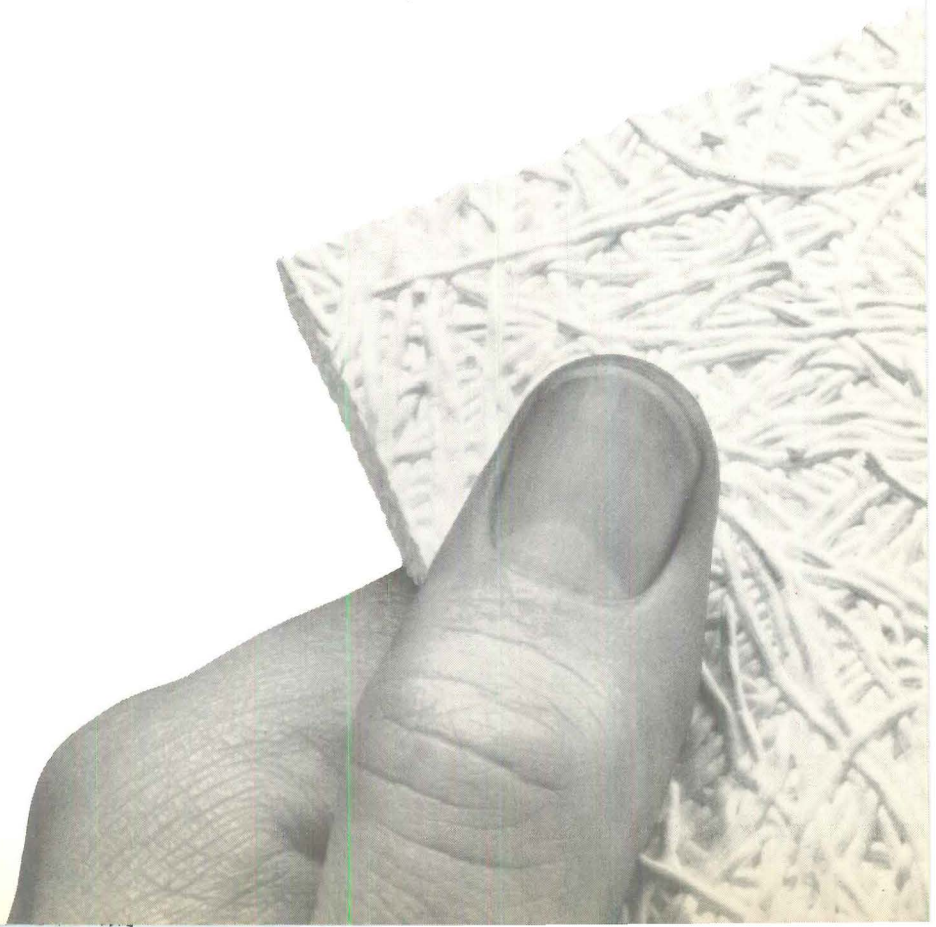
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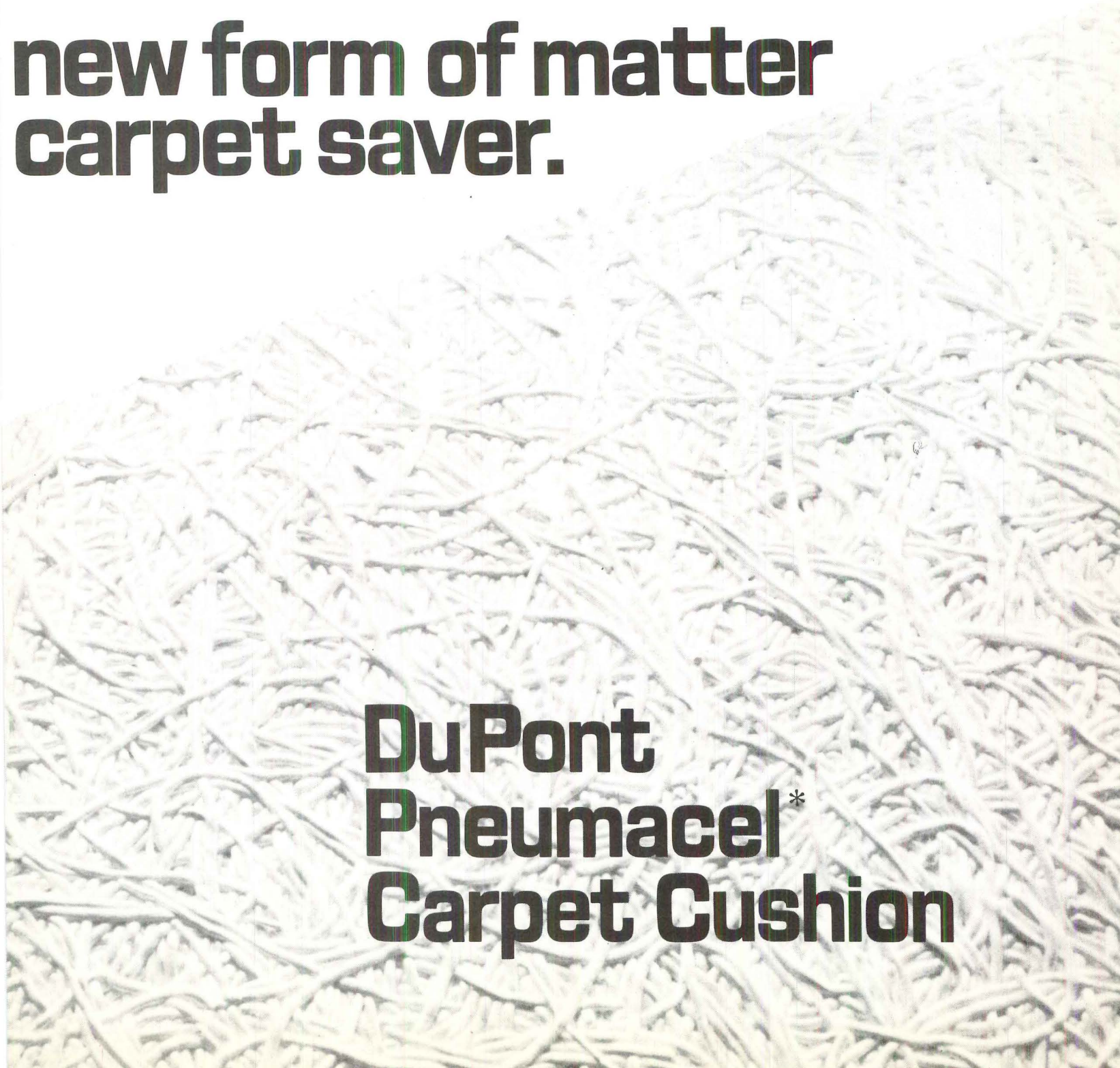
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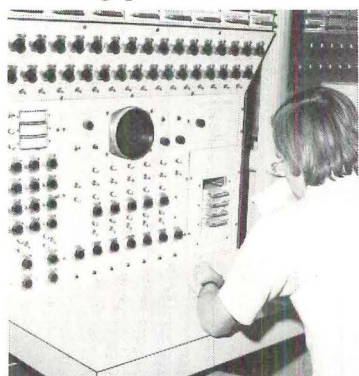


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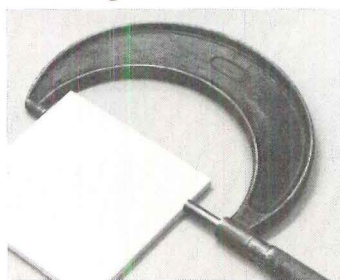
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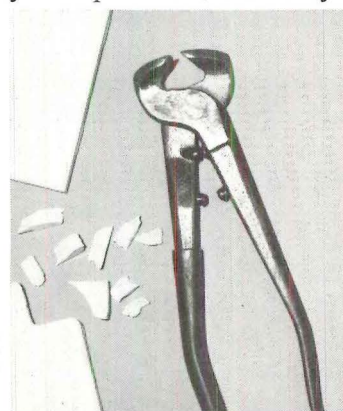
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ARCHITECTURE PLUS NOVEMBER 1973 VOLUME 1 NUMBER 10.

Published monthly by Informat Publishing Corporation, Richard A. Hashagen, President; Richard W. Shaver, Executive Vice President; Paul M. Wehrin, Vice President; Richard J. Gash, Treasurer, Executive and Editorial offices at 1345 Sixth Avenue, New York, N.Y. 10019. Phone: 212 489-8697. Telex: RCA 224232 CIC-UR.

Business Publications Audit, Inc. (BPA) applied for July, 1972. Publication available, without charge, to all qualified, practicing registered architects and/or association-affiliated specification writers throughout the world. Paid subscriptions for individuals in the field served available at an international rate of \$18/1 year, \$27/2 years, \$36/3 years. Others at \$24/1 year. Students and faculty members of accredited schools of architecture, \$12/1 year. Single copies, \$3 per issue. Controlled circulation paid at Washington, D.C. and pending at New York, N.Y.

For all subscription information, including change of address, write Circulation Department, Architecture PLUS, 1345 Sixth Avenue, New York, New York 10019.

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Sydney Opera House

Since Jørn Utzon's resignation in 1966, I have worked in partnership with two other Sydney architects, Lionel Todd and David Littlemore, to complete the Opera House in Sydney. I think Robin Boyd's article (the August issue) is an excellent one and the credit which he gives to Utzon is both well merited and good to see.

At some future date I hope you may care to publish something more on the interiors, without entering into the political history, but possibly acknowledging the contributions made by others in the completion of the building.

PETER HALL
Architect, North Sydney, Australia

Robin Boyd died in 1971, not 1972, as reported in the August issue.—ED.

Monuments

The August issue of *Architecture PLUS* was as stimulating as usual. Some of your readers are, however, bound to wonder why millions need be spent preserving an endearing, if undistinguished Bangkok temple compound in a perfectly reasonable state of repair.

The cross-legged gentleman in the photo (page 14)—an example



of Chinese export art of such poor quality that it was commonly used as ballast in ships trading with Thailand—is apparently delighted at being mistaken for a masterpiece of world sculpture: a millennium older Buddha from Borobudur. Or is he merely musing on the credulity of Western Barbarians?

WIM SWAAN
Architect, White Plains, N.Y.

The picture you showed as the temple of Borobudur, built about 1,200 years ago and which is the most beautiful and most ancient monument in the hemisphere, is actually the temple of Wat Po



The real temple of Borobudur.

in Bangkok, Thailand, built about 150 years ago by the third king of Chakri Dynasty. Wat Po is one of the most important historic temples of Thailand; it is located next to the Grand Palace of Bangkok. I am afraid that the readers might misunderstand the picture, because the temple of Borobudur is a gigantic piece of architecture; it is really a great monument, and it is in bad condition and may collapse at any time, which one can tell from the real picture of the temple of Borobudur.

VICHAJ TANTRADHIVUDH
Architect, Cambridge, Mass.

That smiling Buddha couldn't possibly be sitting in Borobudur and I do apologize for having included him among the other photographs.

LAVINIA MEDDINGS
UNESCO, New York

Frank Furness

I was initially delighted and subsequently disappointed to find an article (August issue) on Frank Furness. My delight was two-fold: that *PLUS* would run an article analyzing an architect/building of a past era; and that the past master was this justly eminent Philadelphia practitioner. My disappointment was almost total.

It seems to me the reason one would run an article on historical examples of architecture in a magazine aimed at practicing architects is to show how the elements

of architecture are handled historically to create perceivable places in our built environment. Stylistic devices, while of interest to architectural historians, are of secondary importance to the practicing architect (and probably of no interest to the layman/user). The question *PLUS* should address itself to is not Mr. Robinson's "What do we make of his career today," but rather "What can we learn from his architecture today."

Furness' architecture is worth a close look for many reasons. He organizes his buildings so that one has a sense of where he is. His hierarchical relationship of spaces simply but richly serves the activities taking place in each space—the main circulation and reading room in the U of Penn Library opens to a smaller and lower ceilinged reading room which in turn is surrounded by reading alcoves. He skillfully lets natural light into his buildings, particularly into those grand staircases. And in the series of reading spaces, the two larger spaces had clerestories and the alcoves had skylights.

The manipulation of these and other elements enabled Furness to create real, perceivable places. On his staircases you are somewhere. In his reading alcoves you are somewhere. Standing outside his buildings you are somewhere. His organization, hierarchy of spaces and elements, use of natural light, etc. as well as his striking forms and formal relationships all work towards making pleasing, comforting, stimulating places to be. This is why he is important to us today. And this is what I think *PLUS* ought to bring to its readers, if what we read is to have any but a cocktail party use.

CHARLES WARNER OAKLEY
Stamford, Conn.

Mr. Robinson replies:

Looking at Furness now most of us would see just what Mr. Oakley sees. But it is always worth noticing that we see mainly what we look for. The generation of twenty years back saw only ugly gutsiness in Furness. Mr. Oakley sees identity of place, hierarchy of spaces and skillful use of natural light. The

first two are characteristic of the work of any number of architects trained in the French tradition. The question is why it is only Furness who is published and not the others. How about a zappy article on Zantzing, Borie and Medary? Or even one on Paul Cret? Any takers?

The generation of twenty years ago had Furness doing his best work alone in his early years and then taking on partners and compromising his ideals. Each age has its style. Years back, after tycoons got shot by their mistresses' lovers, architects followed suit. We, in the age of the loudmouth or lover athlete, the fake biographer, and the whatever-he-is president, might well come up with a suitable style for architects. The architect as a man who doesn't let mere ethics cramp his style? Why not. Even there we can look back to Furness for guidance. He got his Congressional Medal of Honor by soliciting witnesses and applying for the medal. But that wasn't so bad. In his age they all did it.

As for Furness' use of natural lighting, let's take the example of that at the University Library. For one reason or another all natural lighting in the reading room but one level of clerestory windows is gone, and the whole is blasted with fluorescent tubes. In the stacks the natural lighting (still there) was apparently never much of a success. I agree with Mr. Oakley that the natural light on the staircase is fine, but then that was originally museum space. One has to take the quality of much of what one looks for in Furness' buildings, as in other older buildings, on faith.

CERVIN ROBINSON
New York, New York

Efcharisto, Merci

Both the content and the presentation of your review is very impressive; it is a truly international review important in its attempt to bridge the gap between practicing architects and theoreticians by covering both the ideas and trends in modern architecture and the significant examples of architecture's end product.

Your editorial on "informed criticism" (April issue) rang straight

continued on page 8

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Letters

continued from page 6

to my heart for we face exactly the same problems—so much so that I would like to reproduce it in *Architecture in Greece*.

ORESTIS B. DOUMANI
Editor, Athens, Greece

Architecture PLUS is a great pleasure for us. We appreciate the editor's conception (international, unlimited, critical) and find it a very handsome publication.

I was surprised and pleased to find "Pique-Assiette" in such good company (February issue).

We only wish that people who are in charge of construction budgets (what we call *les Maitres d'Ouvrages*) could know more about architecture and see your magazine for their benefit and for ours.

J.F. REINERT
Architect, Paris, France

Correction

In our May issue, p. 67, we should have credited the design of the Keio Plaza Hotel to the Keio Plaza Hotel Design Room, which consists of: Nihon Architects, Engineers & Consultants, Inc.; Architectural Design Division of Kajima Corp.; Muto Institute of Structural Mechanics of Kajima Corp.

IS 53

There is such a discrepancy between what Ellen Perry Berkeley says and what the photographs show in the August 1973 review of IS 53 that I wonder if the wrong text accompanied the photographs.

Having quoted Lundy's reference to "This bleak environment" (of the school presumably?), Mrs. Berkeley goes on to refer to the building as "a sculptured composition of richness and subtlety" around a courtyard from which the public is barred by "a portcullis" and the students, by "locked doors."

Maybe it's the absence of people in the courtyard photographs or the prison-like bars and shadow stripes of the passageway, but I see just the opposite of what Mrs. Berkeley describes.

Despite the obviously careful consideration of massing, materials and proportions by the architects, I see an environment which is

sterile, ponderous, overbearing, monolithic and desolate, partly forced on the architects, no doubt, by the program and the Board of Education.

Nevertheless, I think critics should stop trying so hard from telling us the Emperor is clothed. Please spare us from such double talk.

Incidentally, the article on Funness was a refreshing visual contrast.

BARRY BENEPE
Architect, New York, N.Y.

I relate my personal observations, and although I do not, in this letter, report as official spokesman for the Board of Education, I speak from the experience of having worked in the "design department." I take personal exception to several points in the Ellen Berkeley article on Victor Lundy's IS 53 (August issue).

The members of the ogish "design department" must consider many items that result in problems created by architects who refuse or naively neglect to acknowledge. These problems stay with the city for the life of a building, while an architect can "walk away," once the building is turned over to the city, and blame the bureaucracy for not permitting him to "do his thing."

Mr. Lundy's effort has proven to have some practical maintenance and safety headaches for the Board of Education, but these problems notwithstanding, it is seldom that architects are willing to espouse the attitudes and tenacity displayed by Mr. Lundy.

Our design department will not discourage creative or progressive design when proper considerations of the overall project are taken into account. (This includes the impact as a piece of architecture through practical use and maintenance of the structure for the life of the building.) So, this school design did not "slip" through the system. On the contrary, architects are given as much latitude as their talents or attitudes will permit and suggestions are forwarded within the framework they present toward some of the practical considera-

tions the experience with over 900 school buildings has shown must be reacted to.

ROGER A. CHILJEAN
Architect, Oceanside, N.Y.

Women in Architecture

I read Architecture PLUS from cover to cover and can say with sincerity that it is the best architectural magazine I've ever seen. I have come to the conclusion the reason for the excellence is the number of women associated with it.

I hope you may be able to tell me what to do with some historical material on women in architecture. Around 1921 the first licensed woman architect in Illinois formed a group of women in the Chicago area who were architects or associated with the profession. For years we had a very strong club and I have some of the brochures. I received my license in 1926 and am still practicing. There are three other women of that period—licensed and working.

After about 1950 there were not so many women architects in Chicago and it was hard to maintain a club. AIA asked them to become a branch and it deteriorated into nothing. The Chicago Chapter is very chauvinistic and will barely speak to a woman architect.

BERTHA Y. WHITMAN
Architect, Evanston, Ill.

Taliesin

Thank you for letting others know of the plight that Frank Lloyd Wright's Taliesin West has been placed by the pressure of adjacent development (August issue). To clarify several aspects of the situation:

The issue is not "preservation." Taliesin has always changed with the circumstances. It is ever fresh. What is needed is that every new development—whatever and wherever—be a beautiful grace to the landscape.

The Central Arizona Project with its canal and dike, besides not gracing the landscape, fails on every count. Beneficiaries of the project are the usual special interests, not to mention the Bureau of Rec-

lamation. Ralph Nader estimates the cost in excess of \$5 billion. The actual cost to the State of Arizona and to the country will be inestimable.

The 124 unit housing development at Taliesin's "doorstep" is actually inside the front gate. The property was speculated in by Sterling Rockefeller, who purchased the land for two dollars an acre and who sold it for several thousand an acre.

The Chicago "entrepreneur" who bought the land and who is developing it is in reality a Chicago ARCHITECT. Need more be said?

At issue is our relationship to the land and to life itself—the classic American conflict dating back before Jefferson and Hamilton. The profession can have preservation.

ROD ANDERSON
Taliesin West, Scottsdale, Arizona

MOMA on housing

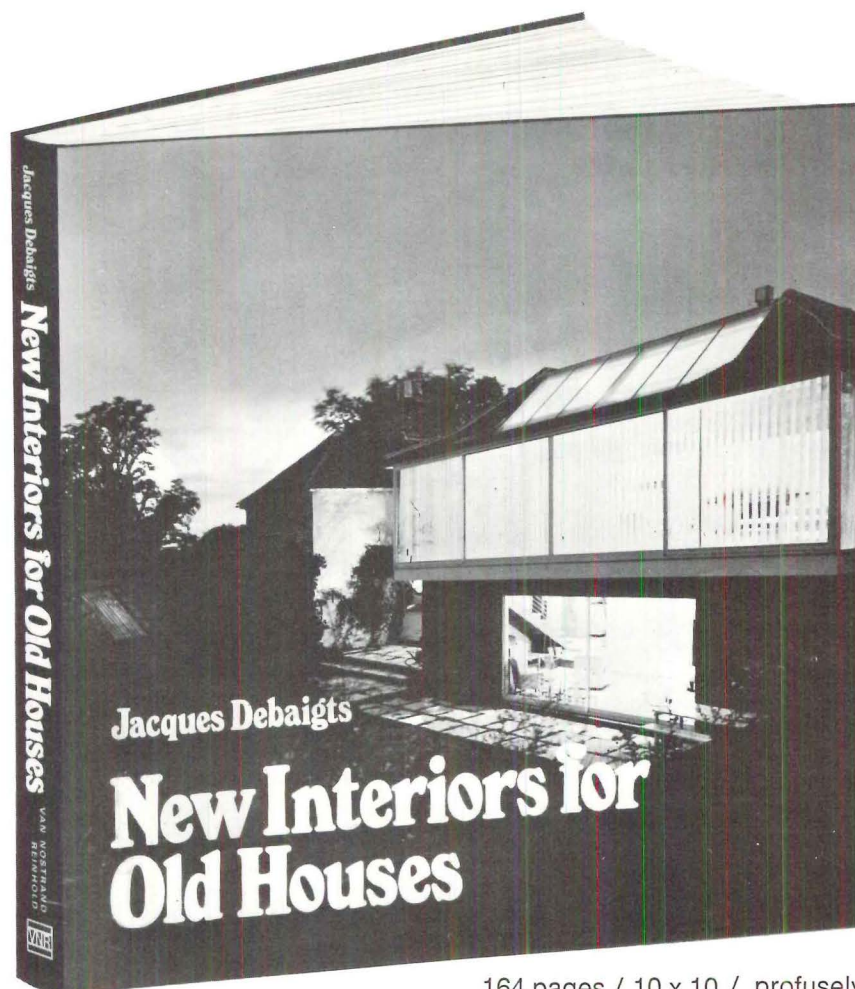
I would like to make a few observations upon James Morgan's and Thomas Killian's reporting under your title "MOMA on housing: nothing new" (August issue). I am not familiar with the self-congratulatory arrangements between the Museum of Modern Art and the Institute for Architecture and Urban Studies; but I am familiar with the thoughts upon and dedication to architecture of the Institute's Director, Dr. Peter Eisenman; and of such first rate men as Mr. Kenneth Frampton, Mr. Peter Wolf and Mr. Bill Ellis whom Eisenman has persuaded to work at the Institute.

If true, as your reporter reports, that the Fox Hills Staten Island Project will not be built, I find that a great pity—for it is something new. That is a work done by a man who possesses one of the prime intellects that America has to offer presently in Architecture...

I am well aware that the above may appear to some as an "Apologia" for one's friends but then again I do take my friends very, very seriously.

JOHN HEJDUK
Chairman, Division of Architecture
The Cooper Union, New York, N.Y.

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ABOUT THE AUTHOR...

Jacques Debaigts is a noted interior decorator and designer whose headquarters are located in Paris.

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Book Review

The Spaces In Between—An Architect's Journey by Nathaniel Alexander Owings. Published by Houghton Mifflin, Boston, 1973. 303 pages. Illustrated. \$8.95.

Reviewed by Douglas Haskell

The round cocky bird on the dust-cover, shown perched on a roof corner and ready, chuckling, for his flight, is Nathaniel Alexander Owings, the autobiographer of the book, and the O in SOM. He's an architect and a Welshman, and the "spaces between" can be the intervals he helped to shape between building or can be intervals in his "architect's journey" through life.

"SOM," Skidmore Owings and Merrill, the architectural firm that his brother-in-law Louis Skidmore and he youthfully founded, fills more than half the volume, but the cream topping at the end relates to two further careers that will surprise most readers. Creating the firm brought the two young men into the small "form giver" class of midcentury—and by a door all their own. The others were giving architecture new forms; they gave it a powerful new medium for massively propagating, disseminating, planting, and maintaining the good and the new of others and of their own.

How the two did it is the most of what the architectural enthusiast wants to read the book for. That a tiny outfit having started with nothing could attract and hold design genius or talent such as Bunshaft, Netsch, Graham, Bassett, Goldsmith, and others plus civic ability such as Hartmann's, also with backup, is obviously neither to be laughed off as "plan factory" nor narrowed to a mechanical-architectural IBM.

Happily the surviving partner is glad to recount his experiences in just that assignment of institution building, and at once he summarizes his own role: "My contributions have been—and still are—in the preparation of an environment in which others might create" and might operate fully within the SOM frame. My word "fully" is dual, including not only leeway within a rationale, but also those fantastically augmented backup services and abilities a large firm can serve up, plus the ability of the outfit—as Owings narrates—to lose a million or two on occasion if necessary in order to deliver, or rescue, an important job hit by the unforeseen. He says it pays back not only in pride sustained but in ultimate cash. He also undertakes to confine his story to those things that made him "laugh or swear or weep." And this is perfect because we are interested

Douglas Haskell, former Editor of The Architectural Forum, served as a member of the President's Council on Pennsylvania Avenue and was the editor of their first report.

in the character and the drive and the self-view of the leader rather than those screw-stripping comparisons of incomparabilities in which current architectural history abounds. Actually it looks as if personalities and stratagems, not systems, grew geometrically in importance as a managerial leader like Owings rose.

His midwestern boyhood, largely fatherless, was tough; he developed not self-pity but resourcefulness, specialized in turning Adversity into a friend, and learning to laugh at the world's ever-present Absurd, even if found within. The book is full of funny turns. Thus the first so-called opportunity that young Skid as world-unknown "chief of design" pulled Nat into was drawing water out of the desert and milk out of nails in behalf of the depression-bankrupted 1933 Chicago World's Fair. The upshot is hilarious stories such as old Brahmin John Root being the discoverer of fan-dancer Sally Rand, and how our pair, deciding soon after the Fair to found their partnership without money, found themselves offered a method of financing that can only be conveyed in Owings's language as in the book itself. As a writer especially of narrative he's tops. If our hero's career went Horatio Alger this was simply, as we gather, another Huck Finn act.

No need here to list in detail the key episodes which Owings uses to hand experiences on and explain approach. They included such as the early wartime assignment to overnight into existence the town of Oak Ridge (they learned how to handle some 400 staff, kept the best), Lever House—since copied around the world, the Air Academy (and what a fight), not only Bunshaft's see-through Manufacturers Trust in New York but Bassett's utterly different John Hancock in San Francisco, Goldsmith's nets, Owings's own Big Bird house at Big Sur, and so forth all told about mostly as client relationships rich and varied. Stress needs to be put however on careers two and three.

The cream of the crop are Owings's two latest careers: in public service and in ecological perception. They show the expansion of the "modern Gothic builders' guild" into genuine benefaction. Owings's early go as planning commissioner in Chicago had to be largely written off to experience; but the Pennsylvania Avenue Council venture in Washington and the "Design Concept Team" episode in Baltimore rate as masterpieces of architectural statesmanship. Both to all appearances continue fully successful. At Baltimore in particular, bearding the entire highway lobby that was about to wreck the downtown, toughness with imagination carried a David over Goliath victory—never mind that in order to force those in authority to listen, Owings says he borrowed wisdom from an old priest admonishing his parishioners to "follow the straight and nar-

row line between right and wrong." There were casualties that Owings does not mention, for the action continues. Such victories are rare, worth studying.

As for ecology, that came in with the great Lady, his wife Margaret Wentworth Owings. It has issued also in a separate book, not subject to review here, on "The American Esthetic" of which the important things are the sweep and the subject. "How our ecological and structural mesh" is a fit climax of concern for one who started with modern building craft and kenning carried up into form-giving, then up into public service, and finally into the realm of creature relations with their surroundings. Some of those ideas arose from the titular head of the SOM outfit helping out a humming bird.

The Human Cage: A Brief History of Prison Architecture by Norman Johnson. Published for The American Foundation, Incorporated, Institute of Corrections, Philadelphia, Pa., by Walker and Company, New York, 1973. 67 pp, 32 illustrations; \$5.95 cloth, \$2.95 paper.

The New Red Barn: A Critical Look at the Modern American Prison by William G. Nagel. Published for The American Foundation, Incorporated, Institute of Corrections, Philadelphia, Pa., by Walker and Company, New York, 1973. 196 pp, 134 illustrations; \$12.50 cloth, \$5.95 paper.

Reviewed by Mary Otis Stevens

These two books are intended to be companion pieces and so are appropriately reviewed together. Sharing a common sponsor, The American Foundation, a privately endowed non-profit organization founded in 1924 by Edward Bok, the first is a brief history of prison architecture while the second examines more comprehensively the viability of prisons as an institution for both punishing and rehabilitating society's offenders. Both studies, according to their prefaces, were undertaken at the specific request of the Law Enforcement Assistance Administration (LEAA) of the U.S. Department of Justice, but, to ensure independence from "any unconscious biases which might develop when studies are publicly financed," The American Foundation picked up the tab for the research and selected the authors as well. Norman Johnson is a professor of sociology at

Mary Otis Stevens, an architect and Director of i press incorporated, has worked for several years with an interdisciplinary team of consultants in Massachusetts Correctional Institutions. She is the co-author with Thomas F. McNulty of World of Variation, which includes sketches of prison alternatives in a section on "The Idea of Punishment."

continued on page 16

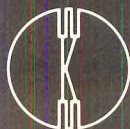
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Book Review

continued from page 14

Beaver College in Pennsylvania, and William G. Nagel is Executive Director of The American Foundation and Director of its Institute of Corrections.

Both authors worked with back-up teams for the most part identified as "a multitude of people," "dozens of architects," "scores of correctional administrators" and "hundreds of inmates." This anonymity is annoying but, given the political heat grilling prison administrators, governors and corrections commissioners, I suppose it is understandable why the text in both books reads in critical sections as if it had been censored in the Soviet Union. Not only is there the habit of quoting nameless sources but the books themselves, their glossy, heavily coated paper, wasted margins, and pretentious layouts do not gain reader credibility. The subsidized price structure and the fact that both books are copyrighted by The American Foundation rather than by their respective authors suggest another sort of bias. However, the honesty and straight accounting by Mr. Nagel overcame any skepticism on my part about *The New Red Barn*. The author thoroughly and compassionately elucidates why the prison concept, regardless of architectural or administrative accomplishments or the brand of therapy, is untenable. "It is our view, reached only after thoughtful and painful observations, that confinement, even in the Taj Mahal, is counter-productive."

Mr. Nagel and his supporting team of psychologists and architects (Romaldo Giurgola, Alfred Gilbert and Francis Prevost are mentioned in the Appendix of *The New Red Barn*) reached the conclusion that there should be a moratorium on prison construction everywhere in the United States until at least 1978 so that in the interim other alternatives can be seriously explored. One conceptual model that is approvingly mentioned has been developed by the National Clearinghouse for Criminal Justice Planning and Architecture at the University of Illinois. This research group and others have a lot going for them. For example, the 1970 Uniform Crime Report shows that 49 percent of all criminal arrests for that year were for "victimless crimes" and only 19 percent were for the "Index crimes," murder, rape, assault, robbery etc. While our prisons and jails are bursting and our 'law and order' spokesmen from the President on down are crying out for more, hardly any attention has been given to updating screening, parole, and selective treatment procedures which could, according to documentation given in *The New Red Barn*, empty most of those we already have, thereby giving relief to taxpayers and giving to our 160,000 citizens now confined in correctional institutions the chance to reclaim twisted, wasted and degraded lives.



Panopticon cellhouse of Illinois State Penitentiary.

It is interesting, as William Nagel notes in *The New Red Barn*, that prisons as such did not exist in our earlier western civilization. "In fact, Roman law decreed confinement is illegal as punishment." Both books (and Mr. Johnson's in detail) trace the origin of the modern prison to the monastic regimen of the Christian church. Those monks who in whatever ways displeased their superiors can be called the first "inmates." Hence the cell, solitary confinement, the association of punishment with penance and, what is perhaps the crux of the whole prison system, the paternal structure of authority. Neither book emphasizes this "given," yet from my own experience working as an architect on interdisciplinary teams on projects in the prisons of Massachusetts I have found this hierarchy, where information and commands are passed up and down in tight-lipped chains, to be the real 'villain' of a prison community. Informers become the crutch of administrators, guards, inmates, and counseling personnel alike; no function or person can by-pass the distorting channels of communication.

Norman Johnson spent a quarter of a century researching the evolution of prison architecture and attributes the changes in planning to the need for more efficient operation and control of prisoners by the guards and administration. (Obviously, prisons were never designed for the inmates.) From the hollow square of the workhouses of the 1600s and 1700s to Jeremy Bentham's circular Panopticon plan of 1790, to the radial prisons built by William Blackburn around London in the early 1800s, and on through the 19th and 20th century institutions exhibiting telephone pole, high rise (a vertical telephone pole plan), courtyard and campus layouts, the premises of prisons have never basically changed.

Punishment, deterrence, quarantine and rehabilitation (only the last a positive intention) have been the four objectives that have served as guidelines during every period of prison architecture and have determined as well the remote, rural location of correctional institu-

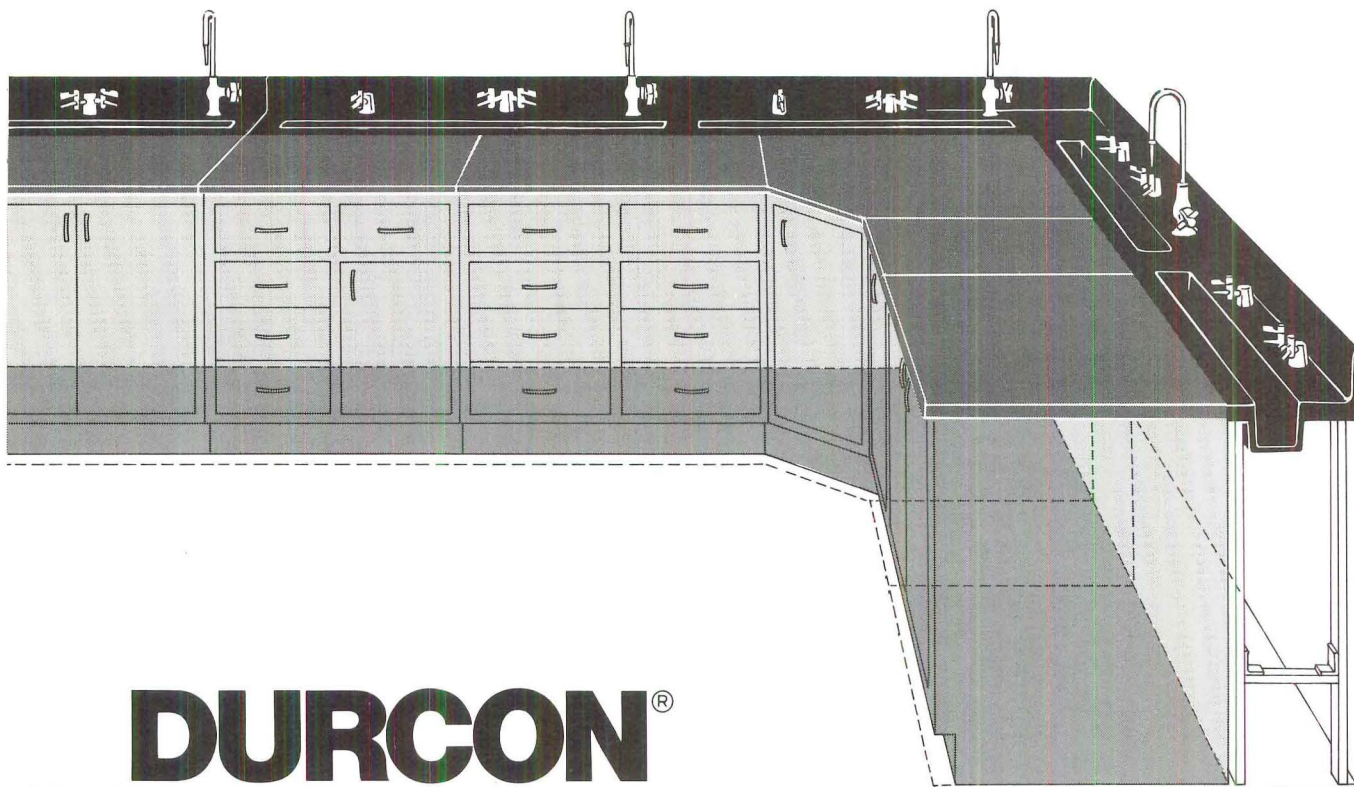
tions, despite the fact that our population is increasingly urban and long commuting distances make family visiting, staffing (except for a ready supply of low income, low-skilled whites) and programs stressing reintegration into society all the more difficult. William Nagel and his team had expected that at least some of the most newly built facilities would be located near urban centers in keeping with current penological thinking. "This hope and the reality we found were two different things. ... They were far removed from universities, unable to be reached by public transportation and seemingly designed to discourage citizen and community involvement."

Norman Johnson supplies ample evidence also in *The Human Cage* to prove that the architecture of prisons, their appearance as much as their planning, has been carefully considered "to play an active part in carrying out the functions of imprisonment itself, namely, that of deterrence of the inmates and the general public." He quotes an excerpt from the London Encyclopedia of 1826 which includes the following admonition: "The exterior of a prison should, therefore, be formed in the heavy and sombre style, which most forcibly impresses the spectator with gloom and terror."

Of course architects, many eminent in their day, had a great deal to do with the prisons documented in *The Human Cage*. More often than not these architects considered themselves agents of reform. The most pitiful account in this respect is the section on John Haviland who designed Eastern Penitentiary, built in Philadelphia 1821-26. Radial in plan, the prison implemented the Quaker philosophy of "total isolation of each prisoner night and day." The cells were so laid out that each had its own exercise yard, the ingenuity of the architect thereby accomplishing the desired goal. "Prisoners remained in their cells during their entire sentence except for serious illness." This model, which became known as the Pennsylvania Plan, was widely copied in Europe, although in this country it was rivaled by an alternative developed by Sir Joshua Jebb at Pentonville, near London, in 1842. Instead of total isolation, inmates were herded together by day in shops, exercise yards, day rooms and mess halls, while at night they were housed in minimum sized cells, often in tiers and in some institutions without exterior light or ventilation. The prisons we know today are variations of this plan, whether they are designated telephone pole, high rise, courtyard or campus plan. By whatever name, a cage is still a cage. That is the story Norman Johnson has to tell.

The narrow scope of his inquiry, however, severely limits his book, evident especially in the latter portion where the same detached method of architectural analysis is applied to prisons like

continued on page 86



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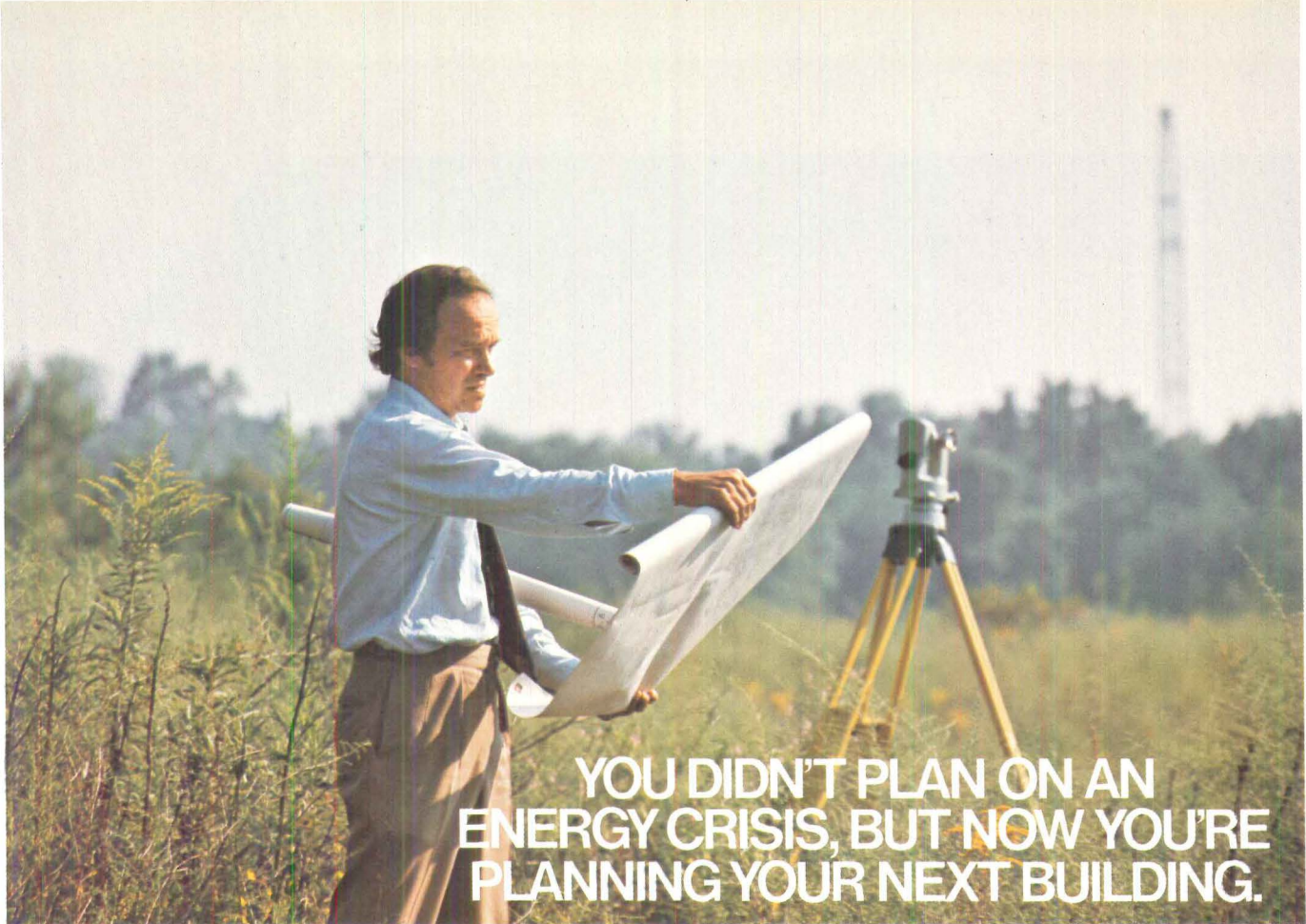
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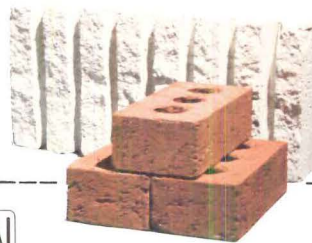
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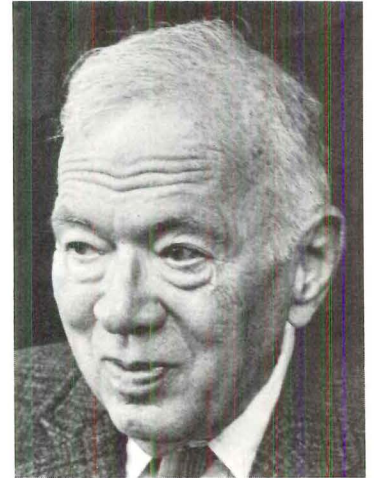
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AP

Five years ago this month, Theodore Bernardi, the San Francisco architect, wrote a few words to describe his friend and partner, William Wilson Wurster, who was then being considered for the Gold Medal of the American Institute of Architects. (Which, of course, Bill Wurster received.)

Wurster died a couple of months ago, on September 19th, after having been ill much too long. What Theodore Bernardi wrote about his friend, in 1968, is the nicest tribute we could hope to print.



In the middle '20s, William Wurster, through his work, publications and prizes, emerged as a hero to a large group of young men looking for a direction and inspiration and constructive answers to the problems that they saw emerging out of their criticisms of the stylish, commonplace and slavishly eclectic work being produced in that era, and gave them sustenance and hope for future development.

The generation was not without heroes: Frank Lloyd Wright, Bertram Goodhue, Ragnar Ostberg and others. One of my earliest heroes was Bernard Maybeck, here in California, who, seemingly an eclectic, was able to transmute simple, available machine-made cheap materials into living, vibrant, colorful forms and expressions.

But it was William Wurster who gave sustenance and hope for solutions to the problems for which this group hungered.

It was my good fortune that I eventually went to work for Wurster, and thus was exposed at first hand to the clear and exciting exposition of the ideas for which I and my generation were groping.

The fresh outlook that William Wurster forcibly pointed out to us is that buildings are for people and should satisfy human needs. But these were beyond mere primitive functions. His designs considered the dignity of approach, of entrance, of exit, of light, air, sunshine, shelter and outlook, of total development of the site . . .

Because his buildings were simple forms, sympathetic to indigenous structures, using ordinary materials in a straightforward way, his approach to living has had far-reaching influence, greater than that of more structured or exotic expressions . . .

Although his early work was mainly residential, his widely acclaimed Schuckl Office Building, the Center for Advanced Study in the Behavioral Sciences, and Ghirardelli Square are glowing testimonials that human considerations expressed in a simple idiom are basic architectural principles that William Wurster had the genius to synthesize into works of great art.

Many of the news reports and comments are from our regular field editors: John Donat (London), Gilles de Bure (Paris), Dettlef Schreiber (Munich), Vanna Becciani (Milan), Charles Correa (Bombay), Patricia Boyd and 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.

Return of the Marble

When the historic Adams Tattersall's Hotel in the heart of Sydney was demolished three years ago to make room for a multi-million-dollar hotel-commercial-residential complex, the famous Marble Bar, an Australian architectural marvel of 1893, was gently dismantled (it took four months) and put into storage.

The bar's 6,000 marble pieces were washed, the woodwork polished, the domed, stained glass skylight carefully packed, and 14 paintings by Australian artist Julian Ashton restored. All have been put back together inside the new Sydney Hilton like some giant jigsaw puzzle.

With the exception of air conditioning and lighting improvements, the interior is exactly as architect Varney Parkes designed it 80 years ago; at that time it cost \$64,000, considerably less than it cost to reassemble it. Four huge marble fireplaces grace the walls. The marble came from Italy, Belgium and Africa; and the bar counters were carved from American walnut.



An elegant place to stop in for a pint

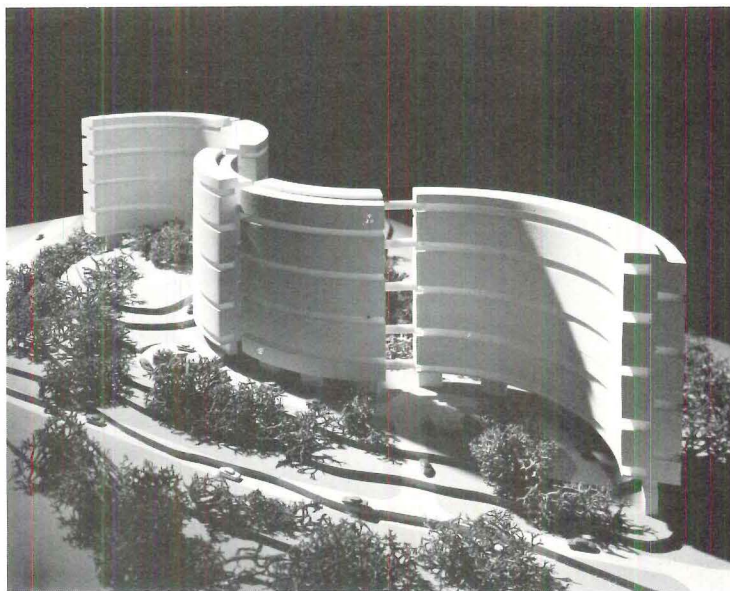
Singapore

Separate apartment buildings connected by bridges will be located on the crest of a Singapore hill covered with lush tropical vegetation. Local zoning imposed a height limit which resulted in the serpentine configuration of the structures to gain the length required for 400 apartments.

Separate identically curved segmental blocks are extensions of open landscaped access concourses.

Apartments are reached by half-flights of steps up or down from entrance halls along the concourses. Inside each apartment another half flight up or down connects living areas with bedrooms.

The project is Bushey Park Housing in Singapore, designed by Harry Seidler & Associates of Australia.



Maintaining the natural environment by covering a minimum of ground

Stay East, young man

The U.S. Department of Housing and Urban Development (HUD) has 250,000 things it doesn't want—title to or mortgage on that many houses and apartments worth an estimated \$2.7 billion. Most of the houses have been abandoned by their owners or repossessed through mortgage payment defaults. Many have been vandalized and are in various stages of dilapidation—a curious situation for a nation with a massive shortage of middle and low income housing.

HUD's new Assistant Secretary for Housing Management, H. R. Crawford, is slowly getting rid of

the houses by selling them very cheaply to responsible families, and other investors. In Detroit, for example, where HUD owns around 15,000 empty houses, quite a number of them have been sold on an "as is" basis (structurally sound, basically inhabitable, though in need of repair) for a low price to enthusiastic, would-be homeowners. Some of the houses have been sold in "bulk" (up to 25 houses in the same neighborhood) to investors on a competitive bid basis.

Several cities with a similar problem—thousands of empty, sad-looking houses on hand, (usually in rundown neighborhoods but not

always)—have recently passed homesteading acts, enabling them to give away or sell cheaply the houses to responsible takers.

In the original Homestead Act of 1862, free land of up to 160 acres was offered to anyone who would live on it for five years and cultivate it. Tens of thousands of people accepted the offer and moved West.

• Last month the City of Philadelphia, with 36,000 abandoned houses, set up the Urban Homestead Board which will offer houses for very low bids, starting at \$1, to anybody of limited income who is willing to fix one up and live in it for five years. "I think we've hit

upon something that captures the imagination," said Philadelphia City Councilman Joseph E. Coleman. "It's aimed at individual pride and the pride of ownership." To be more specific, it's aimed at people with building skills and strong backs, people who can do the work themselves and who can invest from \$6,000 to \$8,000 in materials. Foundations are encouraged to step forward with funds to assist with the financing. Several thousand families have already lined up for the houses.

• The City of Wilmington, Delaware, the first U.S. community to put urban homesteading into effect, gave away ten ramshackle houses in a lottery on August 24. If the winners repair them to meet the city safety codes within 18 months, and live in them for three years, they will be given title to the houses. Mayor Thomas C. Maloney said, as he drew out the winning names, "A lot of people think it's the craziest idea in the world. . . . There is a tremendous amount of sweat equity involved." Wilmington, with over 1,500 abandoned houses on hand, expects to repeat the lottery at regular intervals, giving away about 40 houses a year. "Why not give them away," says Mayor Maloney, "The city will eventually get out of the real estate business, tax revenue will increase, housing will be provided for families and stronger communities will be built. If they succeed, we succeed." There does exist a problem at present, where the houses are given to those who need them the most—the poor, who, strong backs or not, have not the money to invest in repairs and who stand the least chance for receiving bank loans. With these first ten homesteads in Wilmington, a local bank and four churches have been cooperative in providing low interest loans.

• Boston is also working on a plan to give away houses by lottery. A bill in the Massachusetts Legislature would underwrite a percentage of housing renovation loans. Boston homesteaders will be allowed to rent out part of the larger houses as long as the owner lives in another part of the house; this should help to alleviate the housing shortage there and also to take the burden off the city's tax bill, one of the highest in the country.

• Mayor William Donald Schaefer of Baltimore, Maryland, is selling houses for one dollar each, but he insists they are not "freebies." "It is by no means a giveaway program," he says, pointing out that estimates on repairs have averaged \$15,000 on each house. The Baltimore urban homesteading program is connected to a \$2-million Residential Environmental Assistance Loan, which provides loans up to



On Stirling Street in Baltimore the houses cost one dollar

\$15,000 at six percent interest. In the Baltimore version of the program, the homesteader has six months to make major repairs and move in. He then has 18 months to complete the repairs to meet city housing code standards. At that point, the homesteader gets the title to the property and starts paying property taxes. Ten houses were "sold" on September 17. The city plans to give out ten or 20 at a time from now on, keeping a close watch on developments. Baltimore has around 600 houses to dispose of in this manner, among them some historically unique houses on Stirling Street in East Baltimore, which had been slated for demolition under the Oldtown urban renewal plan. Baltimore Housing Commissioner Robert C. Embry, Jr. stressed that one of the objectives of the program is to

retain the present character of Stirling Street—no changes can be made to the exteriors of the houses without his department's approval. He estimated that rehabilitation might cost between \$18,000 and \$25,000 for each house. In some cases, buyers will be permitted to combine two of the houses into one dwelling.

William Grigsby, a University of Pennsylvania urban planning professor, thinks urban homesteading is a "terrible idea." "In areas where homes sell for \$8,000, an abandoned house might require \$15,000 minimum to restore. Unless there is public subsidy (for rehabilitation) the homesteader is being led into a bad deal." Wilmington's Mayor Maloney thinks, however, that it's worth a try: "I haven't seen any urban experts solve city problems."



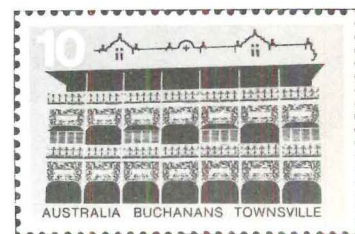
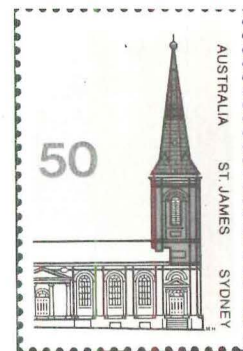
On West 10th Street in Wilmington the houses go by lottery

The architect was a convict

Australian architecture is exported, worldwide—via four new postage stamps issued in October. One of the stamps, of the Sydney Opera House, designed by Jørn Utzon (which was officially opened in October) was available for only four weeks.

St. James' Church in Sydney was designed by Francis Greenway, the convict/architect who was sent out of England to prison in Australia for some minor offense. Governor Macquarie, a Scotsman who was sent to Australia to run (from 1810 to 1821) what was at that time a British colony, New South Wales, recognized the convict's design talents, released him from prison and put him to work. Quite a number of official "landmark buildings" in Australia were designed by Francis Greenway. The outline of the church on the stamp was adapted from an original drawing by Dr. Morton Herman of Sydney.

Buchanan's Hotel in Townsville was chosen because of its splendid cast and wrought iron lacework balconies. Como House in Melbourne, built in 1843, is an excellent example of early Australian Victorian architecture. This old and graceful hotel still has all of its original sturdy furniture which was made by the local undertaker more than 100 years ago. All four of the stamps were designed by Arthur Leydin of Sydney.



The suburbs of Sweden

When you have 25,000 empty modern apartments on the one hand and a severe housing shortage on the other, you have a problem. In Sweden, the otherwise perfect country, where citizens have to wait up to ten years for the kind of apartment they want, earnest planners rushed to fill the need for housing by building thousands of concrete highrises in the suburbs throughout the country.

But it seems that Swedes who move out of the city want to live in houses with gardens, not, as one of them put it, in "concrete dormitories." So 25,000 new apartments stand empty.

The Swedish Government is attempting to solve the dilemma by offering money in the form of rent subsidies to people in the cities who are willing to move out to the suburbs. For example, a modern, three-bedroom apartment, one-half hour from Stockholm, rents for \$200 a month. A couple with three children earning \$6,000 a year could not afford it. So the family needs to pay only \$70 and the government will pay the other \$130, which amounts to 65 percent of the rent. Any takers?

Bicentennial polka

The Chicago Lyric Opera has commissioned an opera to be composed for the 1976 Bicentennial celebration of the U.S.; and in what may become one of the more interesting features of this 200th birthday party, they have chosen as composer, Krzysztof Penderecki of Poland.

American history buffs will find the choice perfectly logical: two Polish soldiers, both famed for their bravery, came to U.S. shores and helped George Washington win his war in 1776.

One was Count Casimir Pulaski, a Revolutionary general killed in the siege of Savannah; nine American towns and counties are named after him, as well as a skyway in New Jersey.

The other, Thaddeus Kosciuszko, fought to the end of the war and later returned home to lead the Polish insurrection. One town and one county bear his name. Countless roads, lanes, boulevards and statues of soldiers on horseback are dedicated to both of them. If George Washington is "the father of his country," then that country might be said to have at least two Polish uncles.

1888



Home Sweet Home

An exhibit of photographs currently on view in London traces the history of public housing in greater London—"Home Sweet Home, 85 Years of Housing by LCC (London County Council) and GLC (Greater London Council) Architects." Two British architecture journals offer their opinions of the exhibit:

If anything is going to knock the final nail into the coffin of the architectural profession's everwaving

public credibility, it is the ICA exhibition on 85 years of LCC and GLC housing.

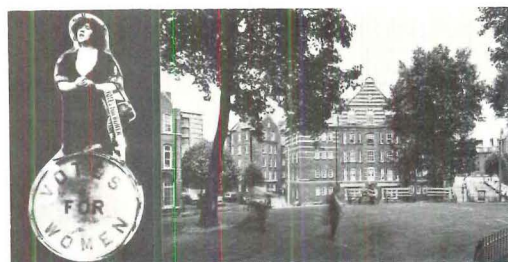
Building Design

At a time when architects generally, and public authority architects in particular, rate lowly in popular esteem, it is healthy for the profession to be reminded occasionally that it has quite a lot to be proud of. The GLC's exhibition "Home Sweet Home" provides just such a reminder. . . . It is necessary to see its 85-year history displayed in one place to realize how significant its achievement has been.

The Architects' Journal

Both are true: the mistakes are undeniable, the achievement is extraordinary—probably unmatched by a local authority anywhere in the world. The exhibition is itself a portrait of the welfare state painfully growing from philanthropy through paternalism to participation: from authority to democracy.

1888-1914



Boundary Street, Shoreditch, 1895

The first great slum clearance scheme undertaken by the LCC was inspired by the Arts and Crafts Movement—the teaching of Lethaby and William Morris and the buildings of Norman Shaw.

1919-1939



Becontree, Dagenham, Essex, 1921

China Walk, London, 1929

"The beginning of the Second World War found LCC housing completely polarized between the large cottage estates on the outskirts and beyond, and the dense five-story estates."

1940-1949



Debden, Loughton, Essex, 1947

The acute shortage of labor and materials matched by equally acute overcrowding and slums was exacerbated by war damage. Of 32,000 houses built, 13,000 involved industrialized building.

1950s



Alton East, Roehampton

Bentham Road, London, E.9

Two decades of arrogant idealism: the architect believes in giving people not what they want but what he thinks they need. The imagery is overwhelmingly committed to the modern movement, in particular to Le Corbusier. The planning is coarse-grained and usually on a large scale. The principal aim is to produce an architectural result.

1960s



Pepys, Deptford, 1966

Thamesmead

New Directions



Housing at Mildenhall, Suffolk, 1970

Brandon Estate, London

By the '70s the pressure of the environmental movement and the consumers' demand for participation are slowly recognized and belatedly championed by the architect resulting in an altogether more humble and humane approach; a recognition of the values of conservation and the need for a "fine-grained" response to local needs. The constraints, contradictions and dilemmas remain: Participation? Lip service! Delay! Quantity? Sacrifice quality! Low cost? Low standards! Conservation? No confidence in ourselves! The Housing Division walks barefoot through a field of broken glass. The "qualified optimism" of its exhibition is about right.—J.D.

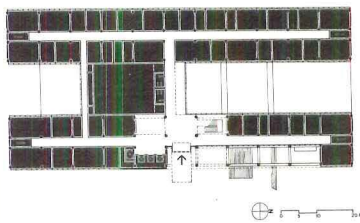
Tokyo

The Office of Foreign Buildings Operations in Washington, D.C., announced in October the construction of the new U.S. Embassy in Tokyo designed by Gruen Associates. This 245,000-sq.-ft. building will become the third largest U.S. Embassy in the world.

The new buildings will have a poured-in-place reinforced concrete frame with a precast concrete panel exterior, and will consist of a long 11-story office tower and a parallel three-story wing connected by a central court containing an auditorium, terraces and gardens—an H-shaped complex.

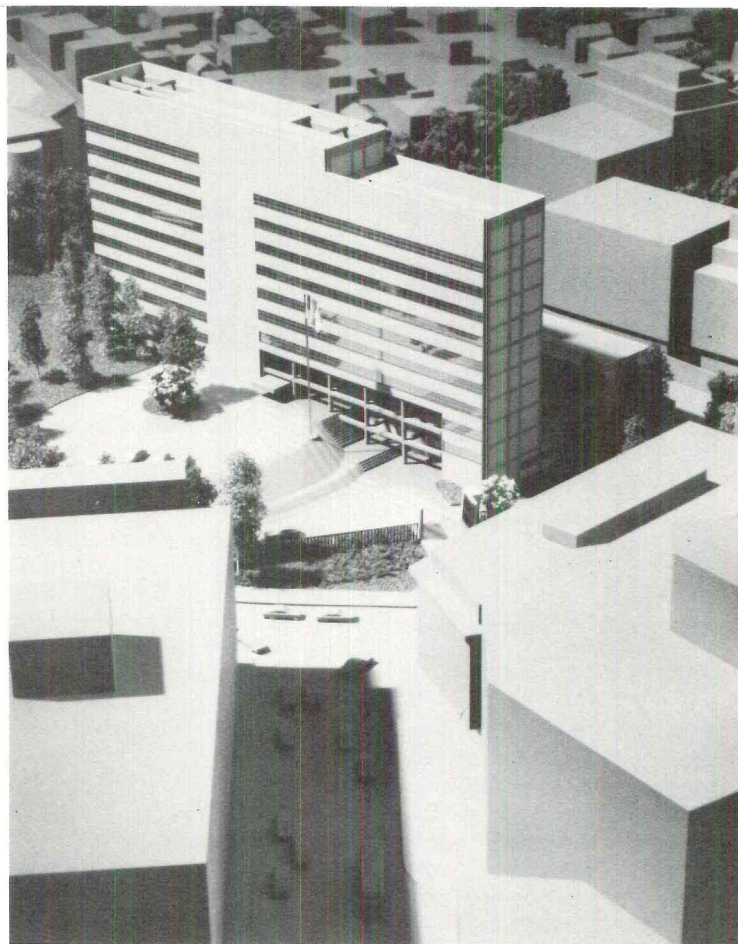
The buildings will have to withstand earthquake forces to 21 percent of gravity, a stringent requirement of the Japanese building codes.

The site, according to the architects, is beautiful, with a backdrop



of a hillside of trees—"a good site anywhere, but in the city of Tokyo, it is extraordinary." Cesar Pelli, Gruen Associates' Partner in Charge, described the design: "The linear arrangement of the plan led us to an unaccustomed architectural expression. The long facades enclose flexible, modular office space... a thin curtain of glass and precast concrete with a modular abstract grid... This wall is expressed as a membrane, thin, light, hard, with minimum reveals. A space enclosure with no structural expression."

"The linear arrangement of the plan led us to an unaccustomed expression."



Vail's free bus

The first operational Ginkelman "bus" was delivered to the ski resort town of Vail, Colorado, this spring. It was commissioned by the town government of Vail to carry skiers and skis around town on a no-fare basis and it has been running almost continuously on the transportation loop around the town ever since.

Various described as a minibus or a maxitaxi, the low-pollution Ginkelman has been designed by

planners Sandy and Blanche Van Ginkel whose office is in Montreal. It features a wide door, large windows, with a floor only 6 inches from the curb, and bucket seats.

In 1970 Van Ginkel Associates were commissioned by the Office of Midtown Planning and Development in New York City to do a study on the congestion, pollution and frustrations of life in the midtown section of town. The Van Ginkels proposed the creation of a network of pedestrian streets



closed to all traffic except for some form of public conveyance that would zip people in style and comfort for short rides. The Ginkelman was a by-product of that study

when a long search found no existing vehicle had the necessary features. In the end, nothing was changed in Midtown, and the traffic there is as congested as ever.

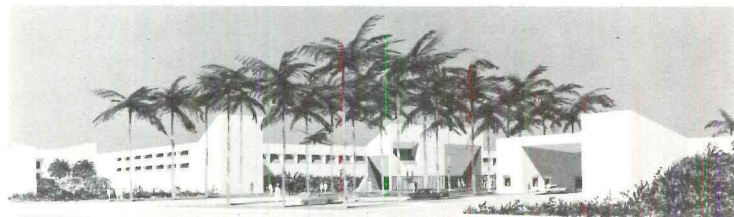
Karachi

The Aga Khan, religious leader of the world's Ismaeli Moslem community, has engaged the architecture firm of Markus Nocka Payette & Associates to design the Aga Khan Foundation Medical Center in Karachi, Pakistan. This Boston-based firm has designed more than 15 hospitals in New England.

The 67-acre center will have a 670-bed hospital, a 500-student medical college, nursing school,

student and staff housing and a mosque.

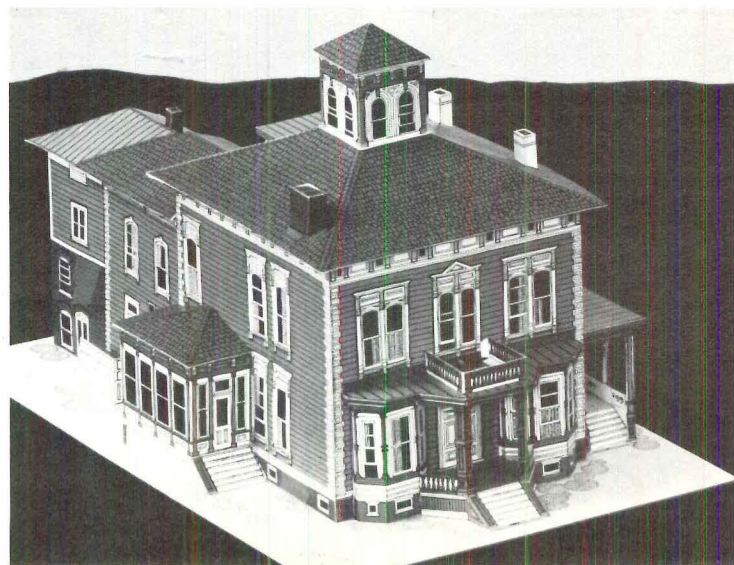
Because of severe weather conditions in Karachi (hot days, cool nights) and a shortage of energy resources, the design will take advantage of prevailing winds and will be equipped with solar energy storage devices and rooftop cooling pools. Conventional air conditioning will be limited to surgery theaters. Construction will begin in early 1974.



More models

Have you finished putting together the model kits of Monticello and the Williamsburg Governor's Palace we showed you in June? Still sitting around with nothing to do? Try, then, the kits designed by San Francisco architect Roy Killeen. Subjects vary from the 1882 John

Muir house in Martinez, California (shown here) to an old Spanish lighthouse and New Orleans' Cabildo (a tough one because of all those little dormers). Scales vary from 1/16 in. to 1/4, and the price for each is \$3.00. 101 Productions, 834 Mission Street, San Francisco, Calif., 94103.—S.A.



But the ladies hate it

This school for the blind, completed last year in Bangkok, was designed by Sumet Jumsai, a young Thai architect trained at Cambridge, England. It is a fascinating building, partially out of control, as though the architect started to formulate a grammar which then proceeded to make its own rules. This, of course, is what gives the building its interest.

The architect tells me that most of the society ladies who function on the school board are negative about the building; their reactions ranging all the way from casual dislike to an intensely passionate—almost ethereal—hatred. In short, much blood has been shed all the way down the line: in designing the building, in constructing it, and finally in its use. Jumsai, who is a witty type, will probably survive the onslaught; and, who knows, perhaps this traumatic project may well be the kind of catalyst that

precipitates a new generation in Thai architecture.

The school is essentially a two-floor box on pilotis, perforated with openings, exposed to the skeleton within or arrayed behind the brises-soleil, and arranged in shapes and angles to catch the wind.

The ground floor is relatively free, providing shade and space for the children. The second floor has an auditorium with an entrance lobby giving out onto a terrace which in turn juts onto an artificial hill with a ramp running down to ground level. The rest of the second floor is classrooms and the infirmary. The third floor contains music rooms, dormitories and laundry terraces. The building measures 3,755 sq. meters.

This is one of the cut-cost system buildings. The whole structural frame—girders, beams, floor units and columns—was transported in pieces and assembled on the site.—C.C.



You may think this is a shirt but it's really an intaglio

Print winners announced

The "World Print Competition 73" in October announced the 25 winning prints out of more than 7,000 entries which were received from 62 countries. The event was sponsored by the California College of Arts and Crafts "to discover the most innovative graphic art of the day," according to Harry X. Ford, president of the college.

Japan and the U.S. tied for top honors with each of the two country's artists winning five awards; Yugoslavia was third with four awards. England, France and Italy each had two winners, and Canada, Austria, Sweden, Germany and Uruguay had one each.

Twenty awards of \$1,500 each went to winners in Part One of the contest, who all agreed, upon entering the competition, to produce

an edition of 60 prints, if chosen. The winning signed and numbered prints will be assembled into portfolios and sold for \$2,500.

Five merit awards of \$1,000 each were for single works selected for exhibition only, in Part Two of the contest. A total of \$35,000 prize money was distributed.

Shown here is an intaglio in color called "Mrauljnci/Fourmillement" by Yugoslavia winner, Adriana Maráz.

The rich variety of contest entries included some new techniques in printmaking such as three-dimensional prints and etchings on foam rubber. Guatemalan artist Luis Dias sent a series of photographs showing how he placed paper over a manhole in the street and waited for traffic to create an indentation pattern.

Product news

Libbey-Owens-Ford, the glass manufacturers, were indicted on September 26 by a federal grand jury in Toledo, Ohio, for allegedly exporting bullet-proof windows to Portugal, "illegally."

Although we'd hate to see our friends at L-O-F sent to the clink, this indictment is very good news indeed. If any country on the face of the earth needs bullet-proof windows it is the United States of America, whose citizens are armed to the teeth with handguns, machine guns, howitzers, bazookas, and other lethal hardware, and enjoy the frequent usage of same. It is downright unpatriotic, therefore, for L-O-F to export bullet-proof windows to Portugal, and we are delighted to see that the Department of Justice is (as always) alert to traitorous acts aimed at the very heart of the American republic.

U.S. gun manufacturers are, of course, permitted (and even encouraged) to export *their* products to assorted beauty spots around the globe; and we applaud that particular routine because it automati-

cally depletes the private arsenals being assembled in the U.S. On the other hand, if American guns are to be distributed globally under various aid programs, don't Americans owe it to God, humanity, and themselves to permit L-O-F to follow up with bullet-proof windows?

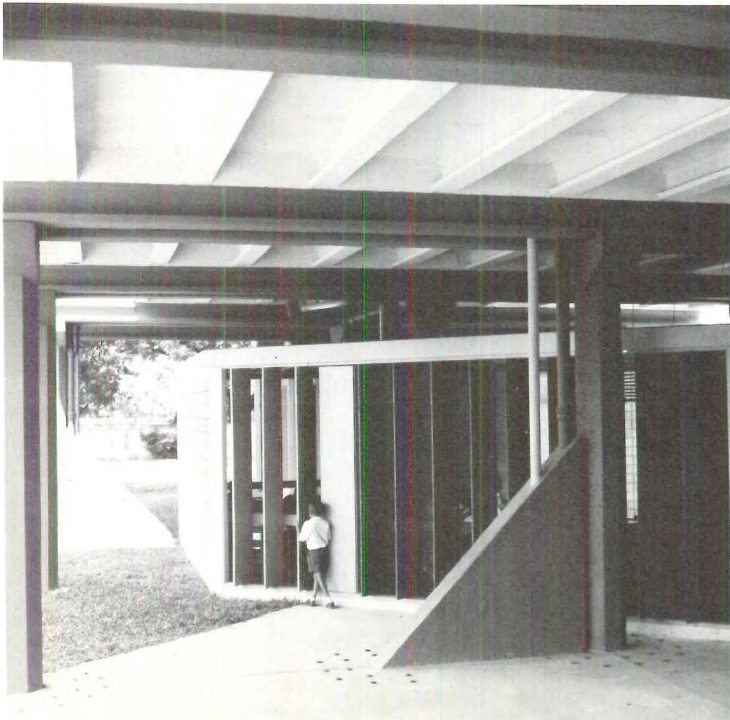
Montreal, are you ready?

Construction of two Levitt communities is about to begin near the French Canadian city of Montreal. One community, tentatively named Dollard des Ormeaux, is located on Montreal Island in the St. Lawrence River, and will consist of 240 building lots.

The second, near the town of Brossard, another Montreal suburb, will have one thousand units. The houses, to be priced from \$25-35,000, will all be "Montreal style," according to the builders. There is already in existence a Paris Levitt suburb, and last spring, Levitt moved into Spain very successfully. Has anybody talked to the Chinese?



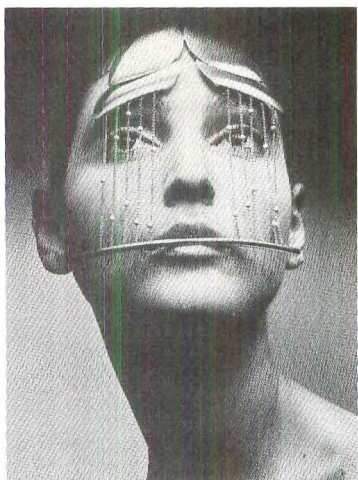
Shapes and angles that catch the prevailing southwesterly winds



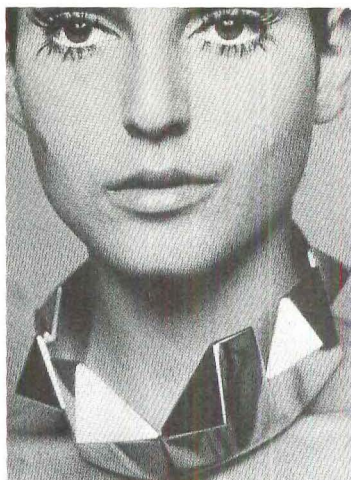
Sculpture to wear

Gem Montebello of Milan is introducing a line of jewelry this fall entitled "Sculpture To Wear." The Italian jeweler describes his wares as "a collection of objects for everyday use . . . as conceived by a group of artists . . ."

The jewels, in limited editions, numbered and signed, are designed by a formidable list of sculptors. In addition to the jewelry shown in the photographs here, there are pieces by César, Lucio Del Pezzo, Amalia Del Ponte, Claude Lallanne, Milvia Maglione, Ronald Mallory, Livio Marzot, Gastone Novelli, Giò Pomodoro, Edival Ramosa, Hans Richter, Ettore Sottsass, Joe Tilson, Lucio Fontana, Arnaldo Pomodoro, and Man Ray.



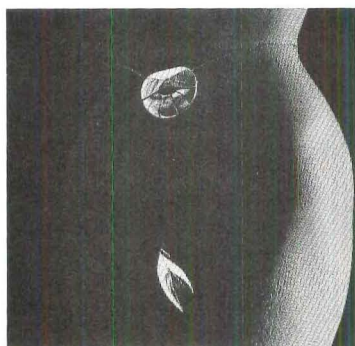
Pietro Consagra



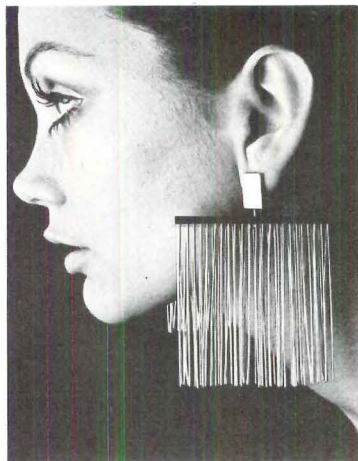
Richard Smith



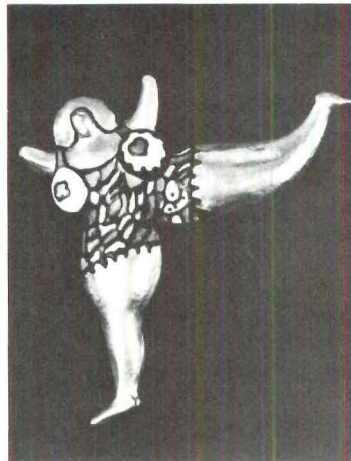
Pol Bury



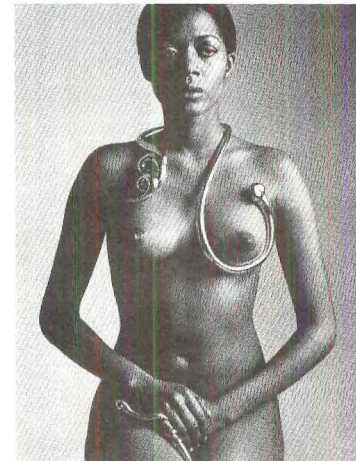
Pietro Consagra



Jesus Raphael Soto



Niki de Saint Phalle



Lydia Silvestri

Cold War casualty

W. Neil Thompson, a young architect who studied with Louis Kahn and then supervised Kahn's work in Pakistan, was recently fired by the United States Information Agency, his employer since 1970.

Thompson was the architect attached to the Overseas Planning and Services Branch of USIA. This office serves as facilities consultant to the many overseas posts of the agency (which is called the United States Information Service abroad to minimize identification with another U.S. agency that is active around the world). As part of the general administration structure of USIA, the office has limited itself mostly to quantitative matters—ordering desks, typewriters and automobiles. When architectural or interior design services are required, the USIA personnel serve as consultants to architects in the country where the post is located.

In his report of February 27, 1973, Frank Stanton, former president of CBS and chairman of the US Advisory Commission on Information, noted that "the USIS centers abroad are badly in need of coordinated (architectural) guidance and standards that reflect a thoroughly considered and well conceived policy."

That is how Neil Thompson saw things when he joined USIA. At the same time that he traveled

around the world "putting out fires" at centers that needed advice on building problems, he began pushing for an overall approach in which the architecture of USIS centers would become an expression of American life, especially its diversity. He suggested turning the necessity of operating real estate into an opportunity for displaying our culture—indeed the medium as the message. Thompson proposed that the best American architects be commissioned and in order to cover the increased costs for the better buildings that would result, devised a program for financing them through channels the USIA had not previously used. In fact his economic proposals exhibit a flexibility and creativity that match the esthetic achievement of Mitchell/Giurgola's USIS center in Brasilia, "Casa Thomas Jefferson," now under construction.

In a Washington Post article which appeared a few days after Thompson's dismissal, Wolf Von Eckhardt praised the humanistic quality of the building compared to other public structures there and noted that it was the direct result of Thompson's efforts. Thompson has also been instrumental in arranging for Louis Kahn to design a center for Rabat, Morocco. The future of that project is in doubt, unfortunately, since USIA appears to have little intention of continu-

ing any of Thompson's programs.

In a letter commenting on Thompson's work with the agency, Kahn himself wrote, "In 1965, when I was sent by the State Department to Russia, accompanying our exhibit of American architecture, I learned a good lesson. They wanted to see the architecture which reflected our way of life. It is manifest in works of architecture which express a good place to live, work, learn and meet."

There are those in the agency who see his termination as simply an expression of the fact that in his enthusiasm, Thompson stepped on too many bureaucratic toes. Others, more specific, claim it was a personality conflict between the architect and his immediate supervisor, an engineer who runs the space planning office.

But there is a deeper problem. At a time when the Administration has made solid progress toward open relations with Russia and China, USIA is still spending much of its energy fighting the Cold War. Organized in 1948 as the propaganda arm of the State Department, it has had trouble responding to diplomatic changes since then. And like anybody at war, USIA does not feel it has time for architecture and the other arts, even though dissemination of cultural matter was as much part of its original charter as the broadcasting

of political information. Had there been any interest in developing the cultural mission on the part of James Keogh, present USIA director, it appears to have been a simple matter to find a place for Thompson within the agency where his policy-oriented approach could have been useful.

Despite his recent experience, Thompson intends to continue dealing with the powerful organizations clustered in Washington. He sees them as "the most important clients in the world." As the Washington representative of McCue-Boone-Tomsick, San Francisco, he will be working with the World Bank, the International Monetary Fund and other agencies that build in places to which he traveled for USIA. He insists that few American architects are aware of the opportunities that exist for doing such projects.

He will also continue to encourage architects to work within the United States Government. As a new design critic at Catholic University, he has already sent his students off to various government agencies to find programs for design problems. Said Robert Sivard, USIA Art Director, "It was a double tragedy for us to lose Neil: he'll no longer be helping us and he'll become discouraged in his fight for what he believes." No way.—J.D.M.

continued on page 78

"Carpet of Antron® shows

Baskin, Woodfield Indoor Shopping Mall, Schaumburg, Illinois.



we care about appearance.”



“Men shopping for a look of quality are naturally influenced by the appearance of the store. At the same time, we naturally want to keep maintenance costs down. So the selection of floor covering becomes important.”

Through its corporate architect, the chain of men's stores has standardized on carpet with pile of Antron* nylon for most of its new and refurbished stores. The choice is based on the wearing qualities, soil-hiding ability and long-range maintenance savings demonstrated by carpet of “Antron”.

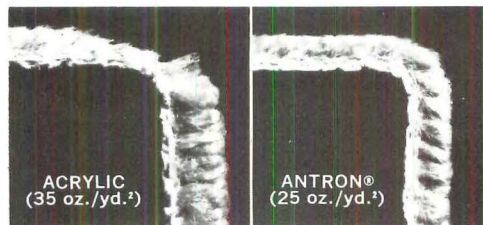
Its unique hollow filament structure optically screens out much of the appearance of soil. Instead of showing as spots, soil concentrations tend to blend with the overall color and texture of the carpet.

This, together with its crush resistance and exceptional durability (see stair-edge test), gives the carpet a lasting look of freshness.

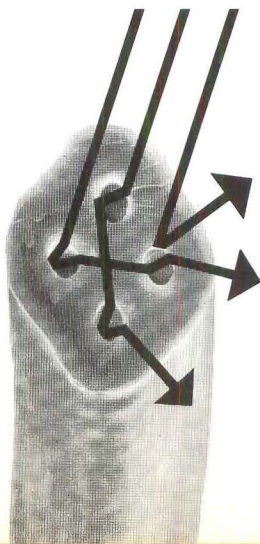
Carpet of “Antron” requires less maintenance and fewer wet cleanings than carpet of other fibers. “Daily vacuuming, occasional spot cleaning, a shampoo once or twice a year, and that's it.”

Wherever you want floors to stay new-looking with minimum care, specify carpet of “Antron”. It has no equivalent in long-term appearance retention.

For further information and a list of mill resources, write: Du Pont, Contract Specialists, Room 111AP, Centre Road Building, Wilmington, DE 19898.

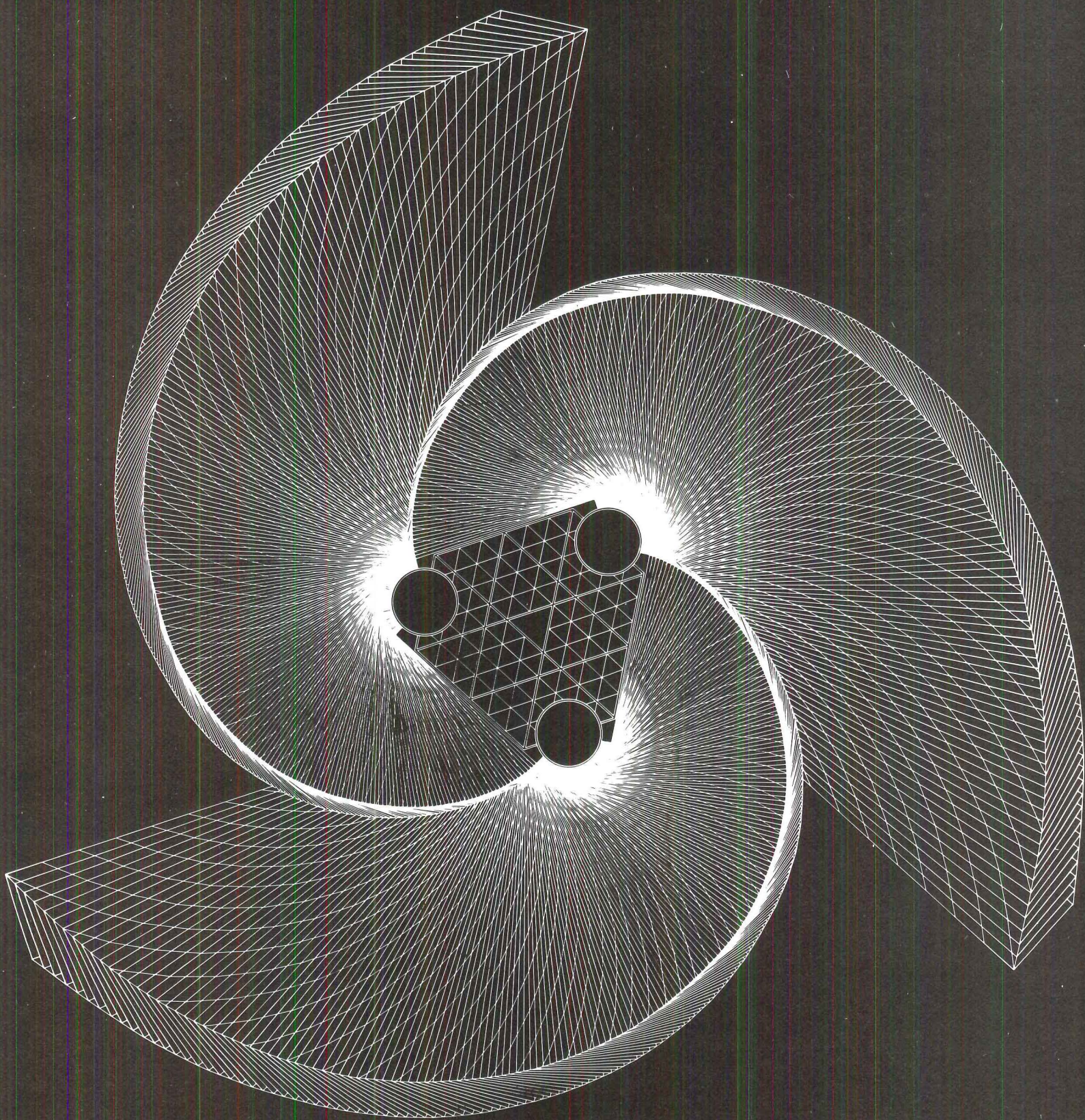


“Antron” nylon has exceptional resilience and durability. Abrasion test on simulated stair edges shows pile wear in level-loop carpets after equal exposure.



How “Antron” hides soil. Its filament structure is unique, as shown in this magnified (650X) cross section. The four precisely-placed hollows scatter light like the facets of a diamond to minimize the dulling effect of soil, while helping to retain color clarity and luster.

*Du Pont registered trademark. Du Pont makes fibers, not carpet.



Nicoletti's Tower

His Helicoidal Skyscraper was born of a dream.

By Marguerite Villecco

"To me, America has always been a synonym for skyscrapers and I wanted to invent an entirely new one, not merely as a gratuitous shape, but as an idea. Ever since my student days, I have been fascinated by tensile structures. I recall once stopping at a station to become totally entranced by some electrical wires supported by a steel cable catenary. I had not yet seen the bridges suspended over great rivers, although I would see many in America. At that time, when I had not seen many things, a catenary seemed to me a miracle of beauty and logic." As his last word indicates, however, architect Manfredi Nicoletti, who has followed his dream, is more than a visionary. He is also a practical man who has nurtured his design into a new kind of building technology.

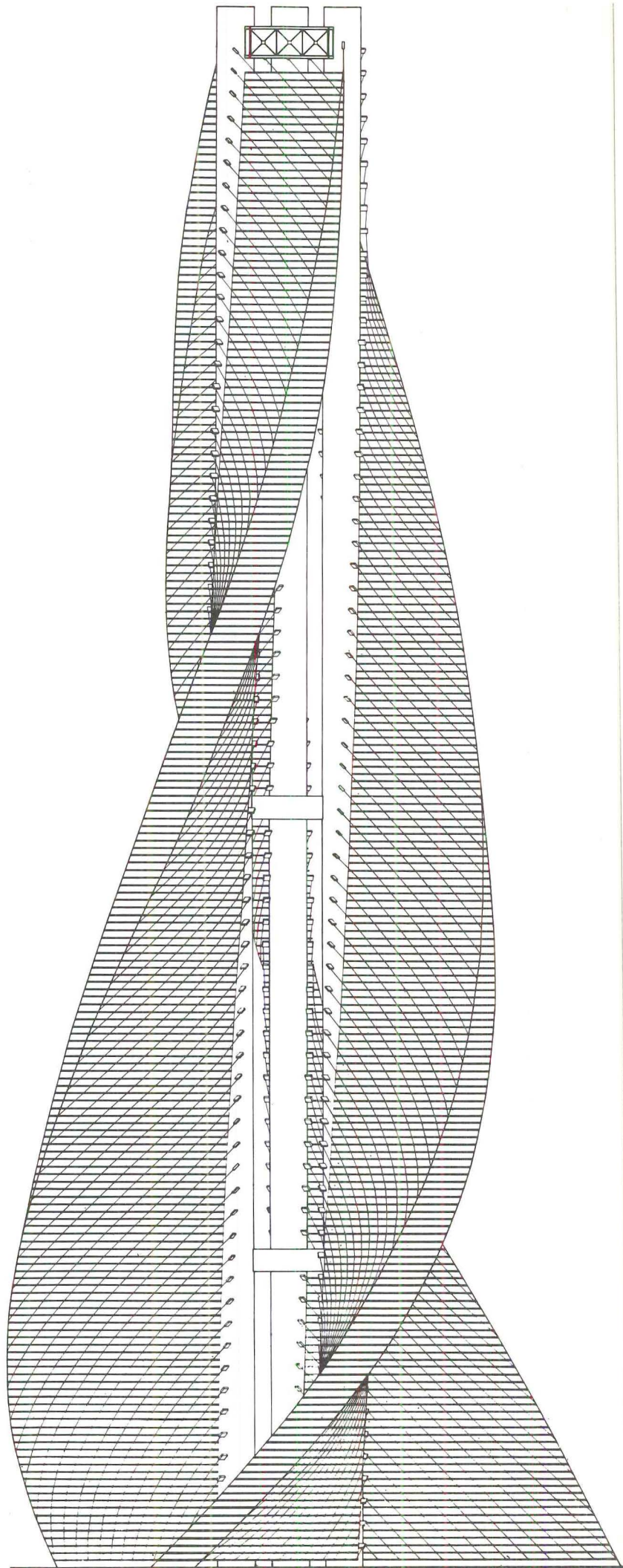
In simple terms, the skyscraper is a system of three interconnected masts that support a series of suspension cables which hold up the floors of the building. Similar to the stayed bridges common in Europe, the floors are held in compression against the masts by the cables, which act in tension to lift and transfer the load of the floors to the masts; and the masts then carry these forces to the ground.

The floors rotate around the masts and Nicoletti calls each of the resulting parabolic curves "sails" because their shape is similar to a yacht's sail as it holds its shape just before turning into the wind and starting to flutter like a flag. The curved forms were inspired in part by a book Nicoletti read about forms in nature modeled by fluids, water and wind. He found them "organic, stupendous, everlasting," in sharp contrast to the "dead" profiles of conventional skyscrapers.

Nicoletti, who attended the Massachusetts Institute of Technology before returning to Rome to practice, started work on the helicoidal tower in 1968 as part of a proposal for developing reclaimed land off Lower Manhattan. The tower was designed to contrast but not to compete with the existing skyline; he felt the form attracted and involved its surroundings, drawing people into a new urban expression of form and function. But the planning scheme was never formally submitted and the skyscraper remained a theory.

Nicoletti, however, did not abandon his idea and, despite virtually no funding, he has managed over the past several years to produce incredibly detailed drawings and to obtain preliminary structural calculations and test data. This stage of work, which continues today, began after a 1970 exhibition of Nicoletti's work in Rome. Sergio Musmeci saw the skyscraper model there and lent his abilities as a structural engineer to the project, working with Nicoletti on basic geometrical analyses and calculations. Afterwards Nicoletti spent a year developing the drawings.

Since then, numerous other people have been drawn into the project to do further testing and analysis. Some of these consultants are discussed in the following pages. And, since Nicoletti hopes his structure will be built in the U.S., he is concentrating further developmental work and testing there. Mario Salvadori, a professor at Columbia University and partner of Weidlinger Associates (New York consulting engineers) will embark on more detailed analyses. Environmental testing in the U.S. has already begun, under Walter Hoydysh of the New York University Environmental Research Laboratory. Edward T. Hall, an anthropologist and behavioral scientist, will study the psychological implications of the building's scale and swirling shape.



Drawings below illustrate the stress variations within the descending, and therefore longer, floor levels and where the 45-degree stay cables are attached at every third floor. The lower illustration depicts the building's division into three sections of equal amounts of gross floor area, using the "Fibonacci" number series. In this series, the third number equals the sum of the preceding two, thus: 1, 2, 3, 5, 8, 13, etc. In the skyscraper, the division is in sections of 108, 162 and 270-m. (354, 531 and 885-ft.) heights. This division led to the placement of pedestrian bridges between the masts and to elevator exchanges, as well as to a structural solution to the buckling tendencies of the masts.

Nicoletti's tower is as exciting to the structural analyst as it is to an artist. It is not only boldly romantic, but aggressive in trying to solve the greatest problems facing designers of tall buildings. These include the need to provide adequate stiffness against wind and to carve out enough usable floor area, versus support structures, to justify construction. Deflections must also be kept to tolerable limits. If the helicoidal skyscraper is built, it may well be the tallest building in the world. Estimates of its height range to 2,000 ft., but even a smaller version of the building will challenge designers with a whole new range of structural, esthetic and urban considerations.

The building has three basic structural components. The first is a structural frame made of three welded steel plate cylindrical masts, with connecting bridges. Second, it has steel suspension cables and wind brace cables located on the external surfaces and edges of the three sail elements. And, third, it has horizontal floor elements suspended from, and statically interacting with, the cables.

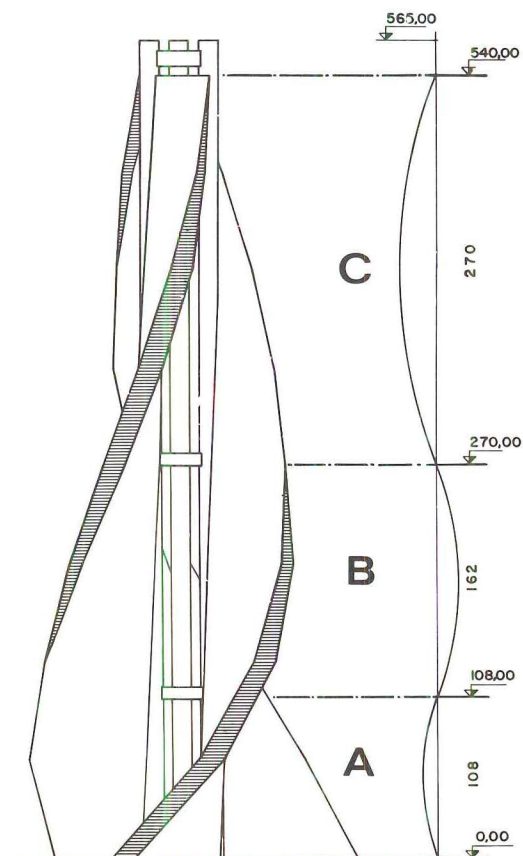
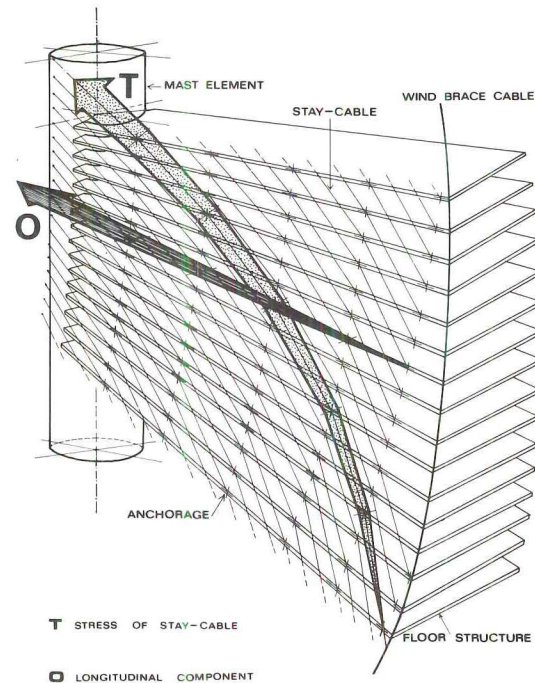
The masts contain the elevators and primary mechanical systems and carry all loads into the foundations. Made of A 52 Steel ($40,000 \text{ T/m}^2$), the masts are 14 m. (46 ft.) in diameter and are formed by two 70-cm. (28-in.) spaced concentric steel structural skin plates, connected by other vertical and horizontal steel plates. The plates' thickness gradually decreases toward the top of the structure.

The bending and torsional rigidity of these masts absorbs the stresses transmitted by the floors, which are pushed against the masts as they are lifted by the suspension cables. The three bridges connecting the masts reduce any tendency to buckle and cause the masts and bridges to act as a single structural frame.

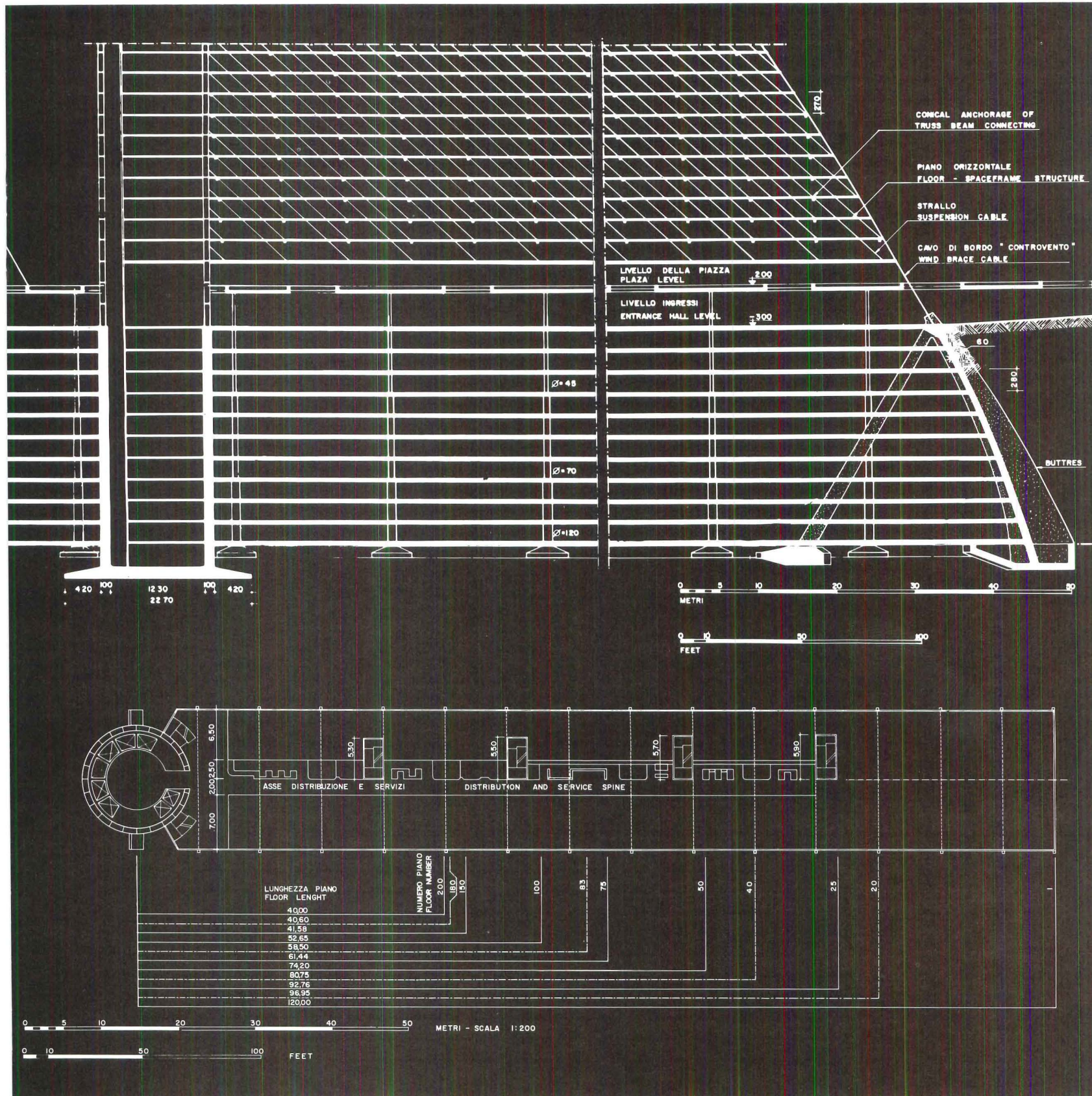
The cable system is made of high-yield-point (100,000 psi) steel wire rarely used in buildings, but common in suspension bridges. The suspension cables run at 45-degree angles from the masts, either to a wind brace cable or to the outer portion of a floor. These cables support the floors by lifting the load into the masts, which then ground it. The suspension and wind brace cables form a system that effectively resists wind loads. The relatively short length of the suspension cables tends to minimize thermal or live load deformations. The suspension cables are spaced 2.7 m. (9 ft.) along the length of the masts. The wind brace cables run from the top of the masts and are anchored to the two exterior corners of each floor before being grounded in a concrete base.

The floors, which rotate 1.2 degrees in plan at each level, play a smaller structural role than either the cables or masts. Designed to be as light as possible, they are tetrahedral double-layer spaceframes, filled with polyurethane foam, and welded top and bottom with steel plates. They are made of regular A 36 steel. The structural module is determined by the conical clips for the suspension cables, which are welded to the exterior of the spaceframes at 8 to 10-m. (26 to 33-ft.) intervals. Each floor varies in length, but is uniformly 18 m. (60 ft.) wide and this span is reinforced by steel trusses running across the floors between opposite cable anchorages.

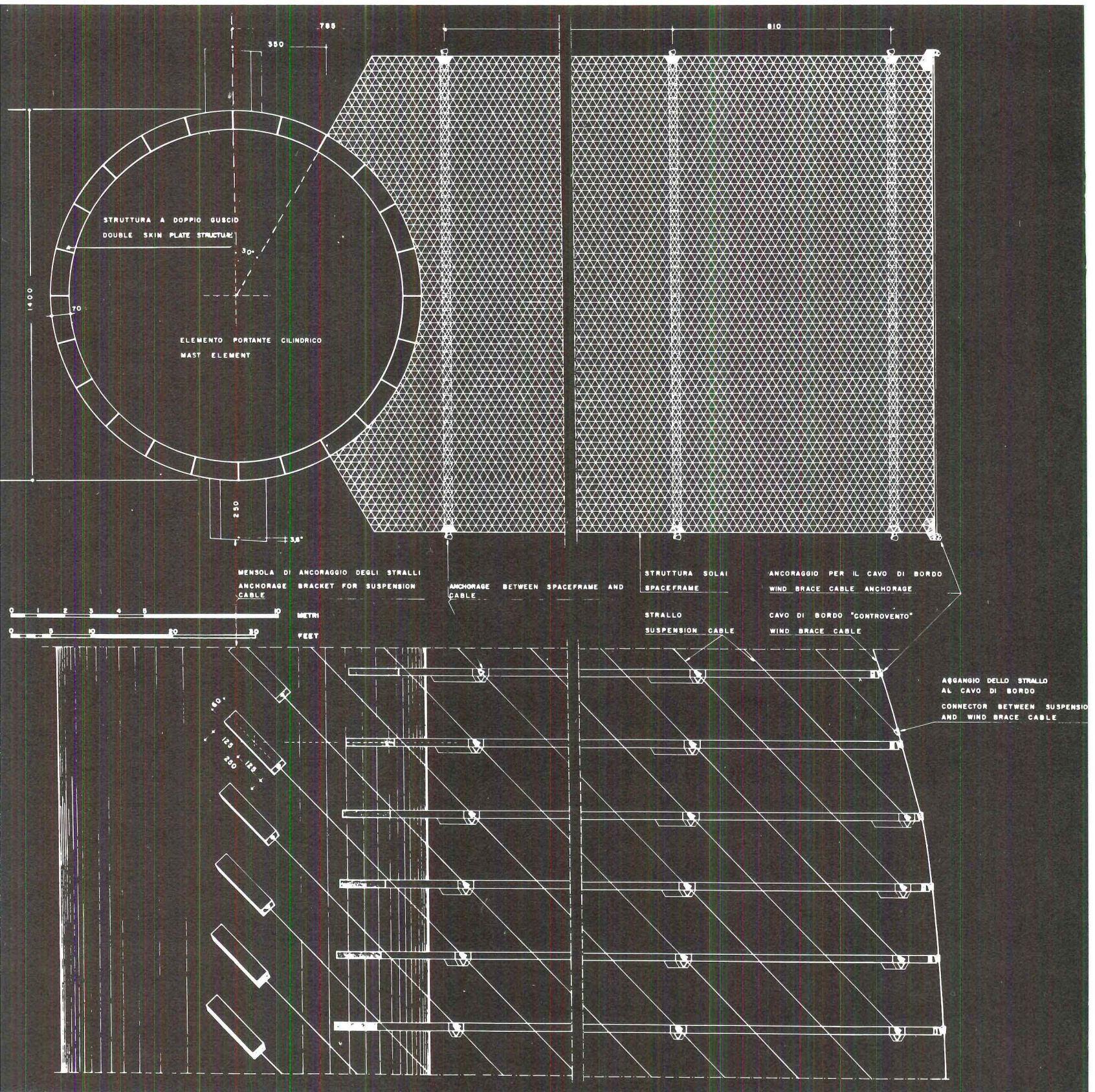
The foundations include a central reinforced concrete base support for the three masts and six perimeter anchorages for the wind brace cables. These anchorages are incorporated into a retaining wall.



The section (below) is taken through one of the three "sails," starting with the building's column base, 10 floors below ground, and running up through 11 typical office floors. It includes the retaining wall and struts, which double as an anchorage for the wind brace cables, and the steel mast base, which is also anchored in reinforced concrete. The building's main entrance level is slightly below grade and there is a plaza level above. The plan (bottom) is typical for the floor level indicated. The floors become shorter as they ascend, so the service spines diminish in length also. The figures below the plan indicate the varying floor length, from 40 m. (131 ft.) long on the top, 200th level, to 120 m. (395 ft.) long at the first-floor level.

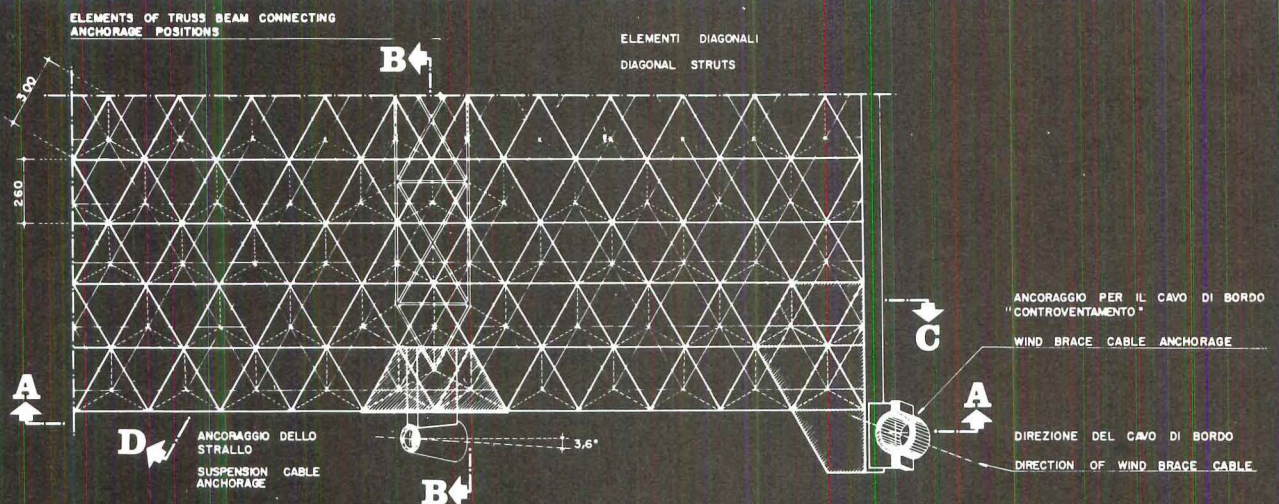


Below is a plan and elevation of the structural floor elements and their connection to the mast and cable supports. Each floor is a spaceframe, reinforced by a steel truss where the 45-degree suspension cables intersect. The wind brace cables are attached to the outer corners of each floor level. The elevation also illustrates that where the natural termination of a suspension cable and floor would fall just past the end of that floor, there is a connector between the suspension and wind brace cables. The mast itself is a double-skin, steel plate structure.

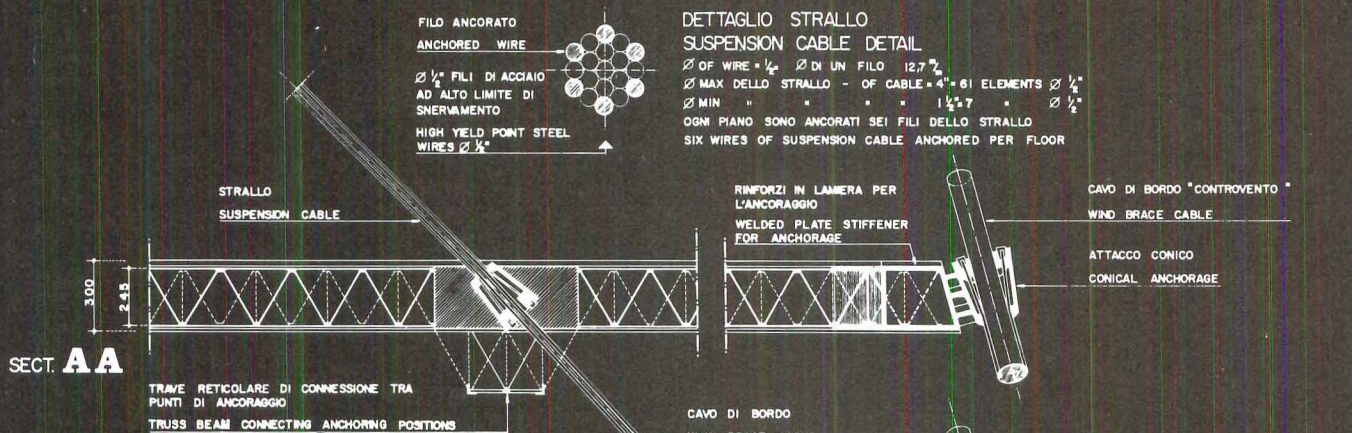


Below are a series of typical details in the structure of the helicoidal skyscraper. Reading from the top: the plan details a floor spaceframe and its truss beam, the anchorage for a suspension cable and wind brace cable. Below this is a section of a proposed suspension cable consisting of six strands of high-yield-point steel wires. Next are longitudinal sections of a truss beam and cable anchorage for a suspension cable (left) and a wind brace cable (right). The conical grip system is further detailed below. At bottom are a detail of the flooring system (left) and of the connection (right) between a suspension cable and wind brace cable (see elevation on facing page for reference).

PIANTA DELLA STRUTTURA DI UN PIANO
TYPICAL FLOOR STRUCTURE PLAN - SCALE 1:10



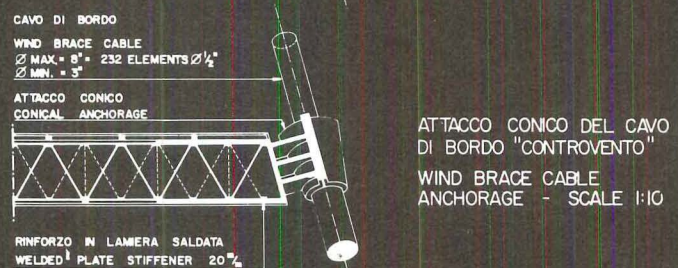
SEZIONE LONGITUDINALE
LONGITUDINAL SECTION SCALE 1:10



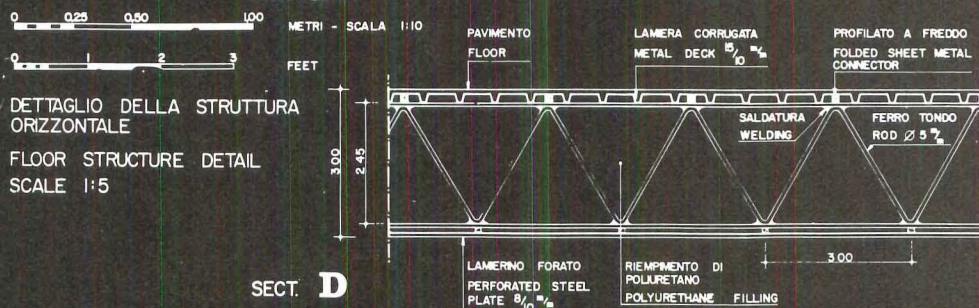
ATTACCO CONICO DELLO STRALLO E STRUTTURA DEL PIANO IN CORRISPONDENZA DELLA TRAVE RETICOLARE
CONICAL ANCHORAGE OF SUSPENSION CABLE AND FLOOR STRUCTURE AT TRUSS BEAM - SCALE 1:10



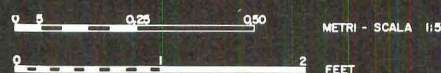
SECT. C



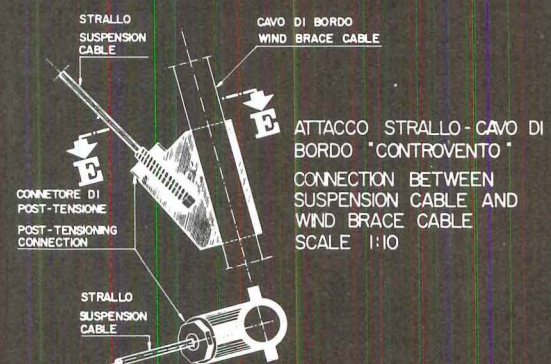
SECT. BB

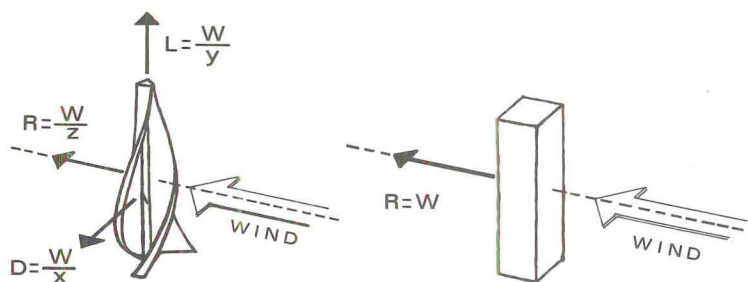


SECT. D



DET. E





As structures become larger and new forms emerge in increasingly complex urban environments, the interplay of site orientation, building shape and structure, materials and the natural elements of wind, light and heat must be investigated. When the proposed building is as unconventional as Nicoletti's helicoidal spire, testing every aspect becomes critical.

But environmental and other testing costs money and the helicoidal project has had little of this. It is almost entirely the result of the structure's power to fascinate that any testing has been performed at all.

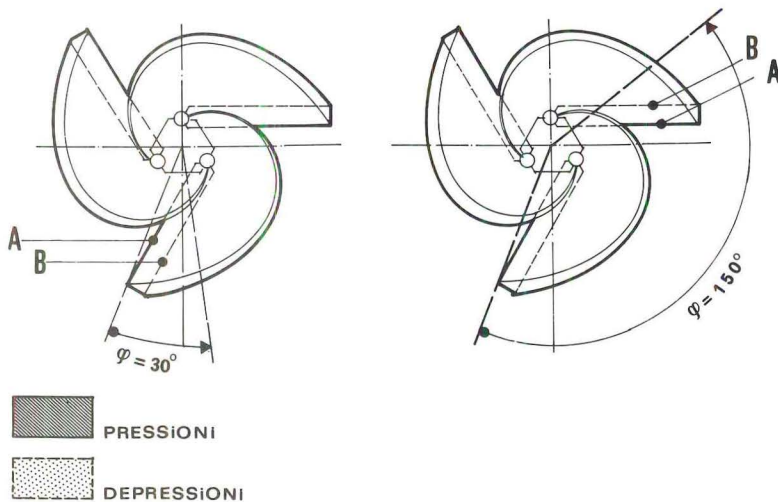
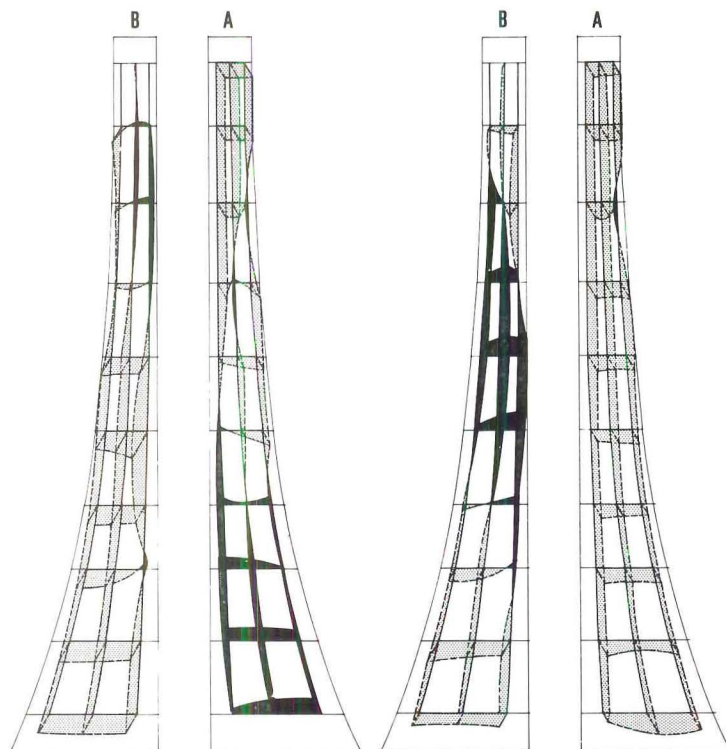
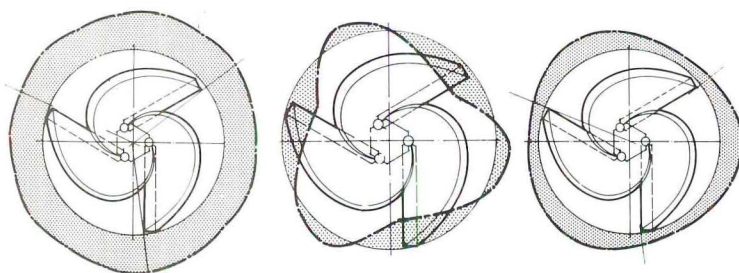
The first aerodynamic tests were done in June, 1971, by Prof. Luigi Napolitano, head of the Aerodynamic Institute of the Polytechnic University of Naples. His work resulted in the 45-degree inclination of the suspension cables, in the wind brace cable system, and in definition of primary wake characteristics.

In fall, 1971, four graduate students from the University of Turin approached Nicoletti about another project, but his helicoidal scheme led them to abandon their original plans and they eventually produced a thesis that included a structural and geometrical analysis of the helicoidal skyscraper, as well as research on the facade; heating, ventilating and air conditioning systems; elevators; and sewerage. Their work also involved Prof. Giulio Pizzetti, who then went on to construct a 5-ft. (1:400) model of the helicoidal tower and make further wind tests. Unlike a prismatic structure (above right), when the helicoidal form is subjected to wind pressure it creates both horizontal drag forces in two directions and vertical lift forces (above left) in addition to resistance.

Dr. Walter Hoydysh, of the New York University Environmental Research Laboratory, is now performing wind tunnel tests not only on the structure, but taking into account its interaction with urban surroundings. These tests will help resolve such questions as whether or not the building would cause huge wind flows at street level, or prevent pollutants between smaller surrounding buildings from rising.

The most exotic version of these tests uses a water chamber, which has previously been used to trace thermal or chemical pollutants in water or to trace atmospheric flow around obstructions. Hoydysh submerges a helicoidal model, injects fluorescent dyes along each sail (a different color for each), uses the water to simulate air flow, and so traces the course of wind through and by the tower. So far, he has tested only the downwind effects under normal wind loads. But he plans to test the dynamic response of the structure under critical wind loads and the convective (or chimney) characteristics of the structure under simulated calm conditions.

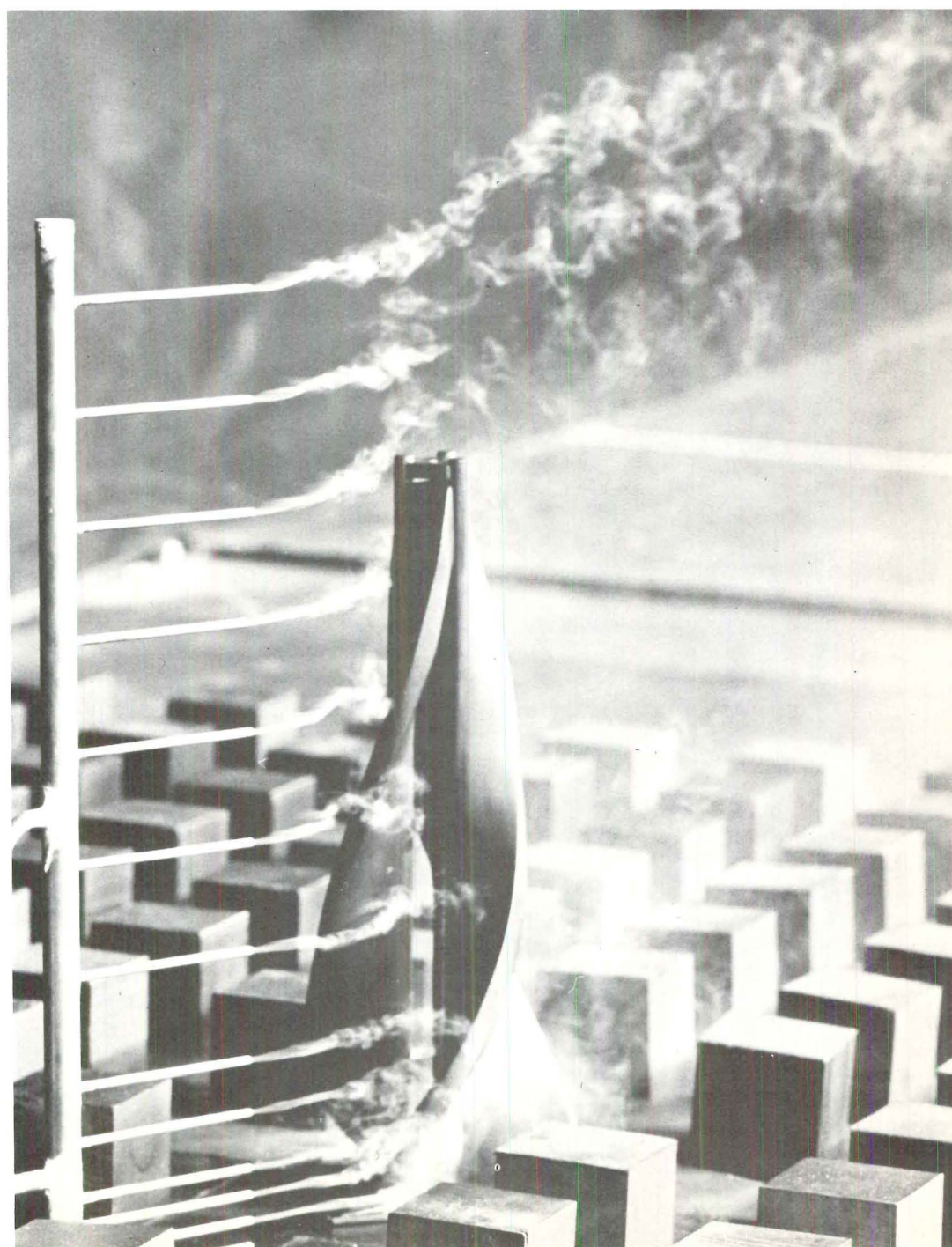
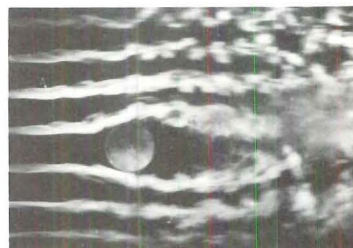
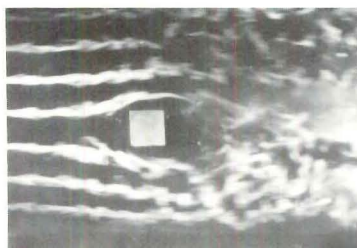
Nicoletti has even brought a technique commonly used to detect tumors into the testing process. Called thermography, this process uses special photographic equipment to transform caloric infrared radiations onto a black-and-white or color television screen—in other words, the camera photographs heat. Done by the Istituto Superiore di Sanità of Rome, simple versions of this process helped establish the relationship between geometry and solar radiation. Ultimately the system (see next two pages and cover) can help determine thermal variations causing convective motions, the dispersal of urban pollutants, and how or whether to build on a given site.

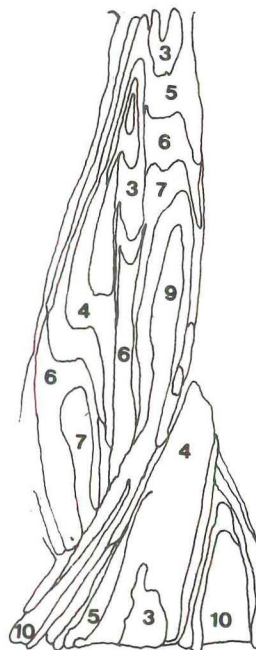
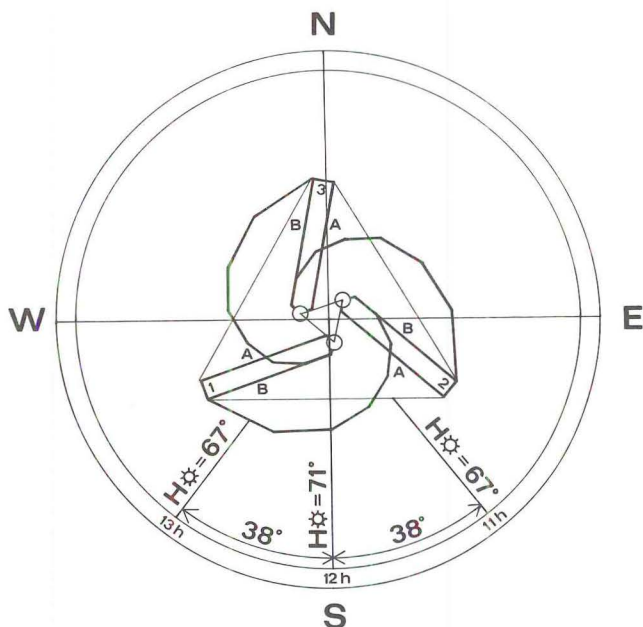


Polar diagrams (top left) attest to the structural efficiency of the helicoidal shape against wind. Left to right, the diagrams illustrate the effects of drift, drag and lift as tested in the Turin wind tunnel. The nearly circular shape of the diagrams indicates that the structure is subject to similar forces in all directions. A contrasting example is a rectangular structure, which would have an elongated, oval polar diagram because the long sides are subject to the greatest wind loads. The polar diagrams of the helicoidal structure indicate that it experiences strong drift forces; that drag varies a little, according to wind direction (although the variance is high, compared to tall buildings of prismatic shape); and that the effects of lift are quite strong.

The Turin wind tunnel was also used for tests to determine dynamic pressures resulting from wind loading. These resulted in the sail analyses shown at middle, left. The tests consisted of putting pinholes on the sail edges and recording the local pressures. The plans at bottom indicate the test conditions: wind pressure over 30 degrees (left) and over 150 degrees (right) on sides A and B of the sail elements. The resulting analyses indicate that the helicoidal structure tends to balance out depression and high pressure areas; that it shows the greatest variations at the top of the structure; and that local disturbances register strongest along the outer edge of the sail, where local pressure soars up to 3.8 times wind loads.

The three photographs at top right illustrate (left to right) the flow of air around a square, cylindrical and helicoidal structure. These tests were conducted by Professor Luigi Napolitano at the Polytechnic Institute, in Naples. The most significant result is that the helicoidal building dissipates wind forces by causing a great deal of non-directional turbulence on the lee side. Further wind tunnel tests are now being conducted by Dr. Walter Hoydysh at NYU. The photo at bottom, right, illustrates a recent wind tunnel test Hoydysh performed to study the effects of the skyscraper's turbulence on surrounding buildings and streets. It has demonstrated that the structure tends to ventilate, or cause a slight uplift, on downwind streets.

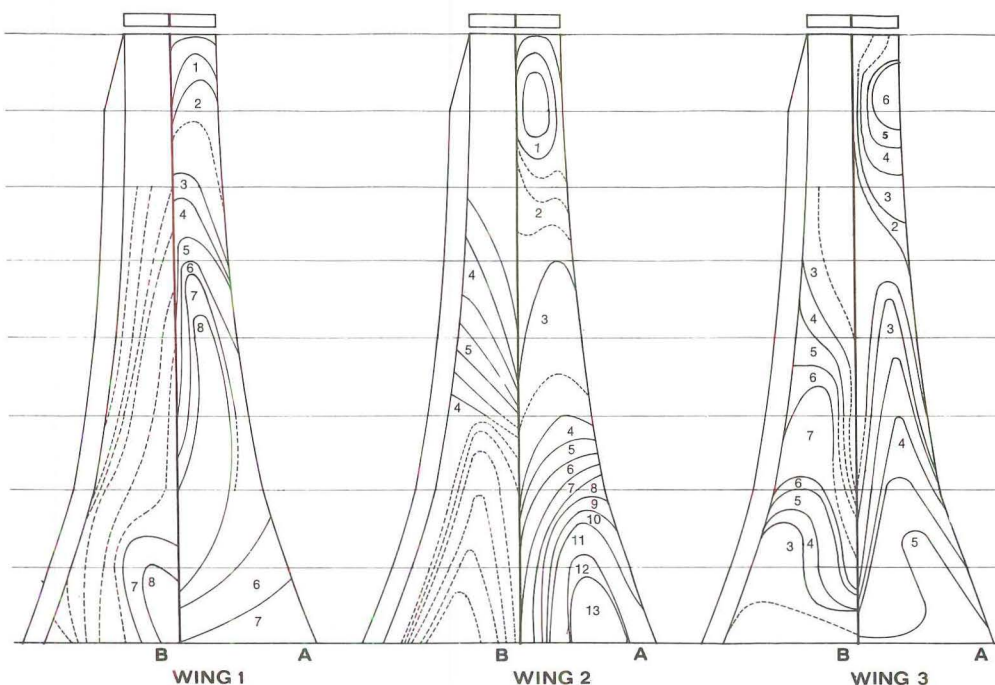




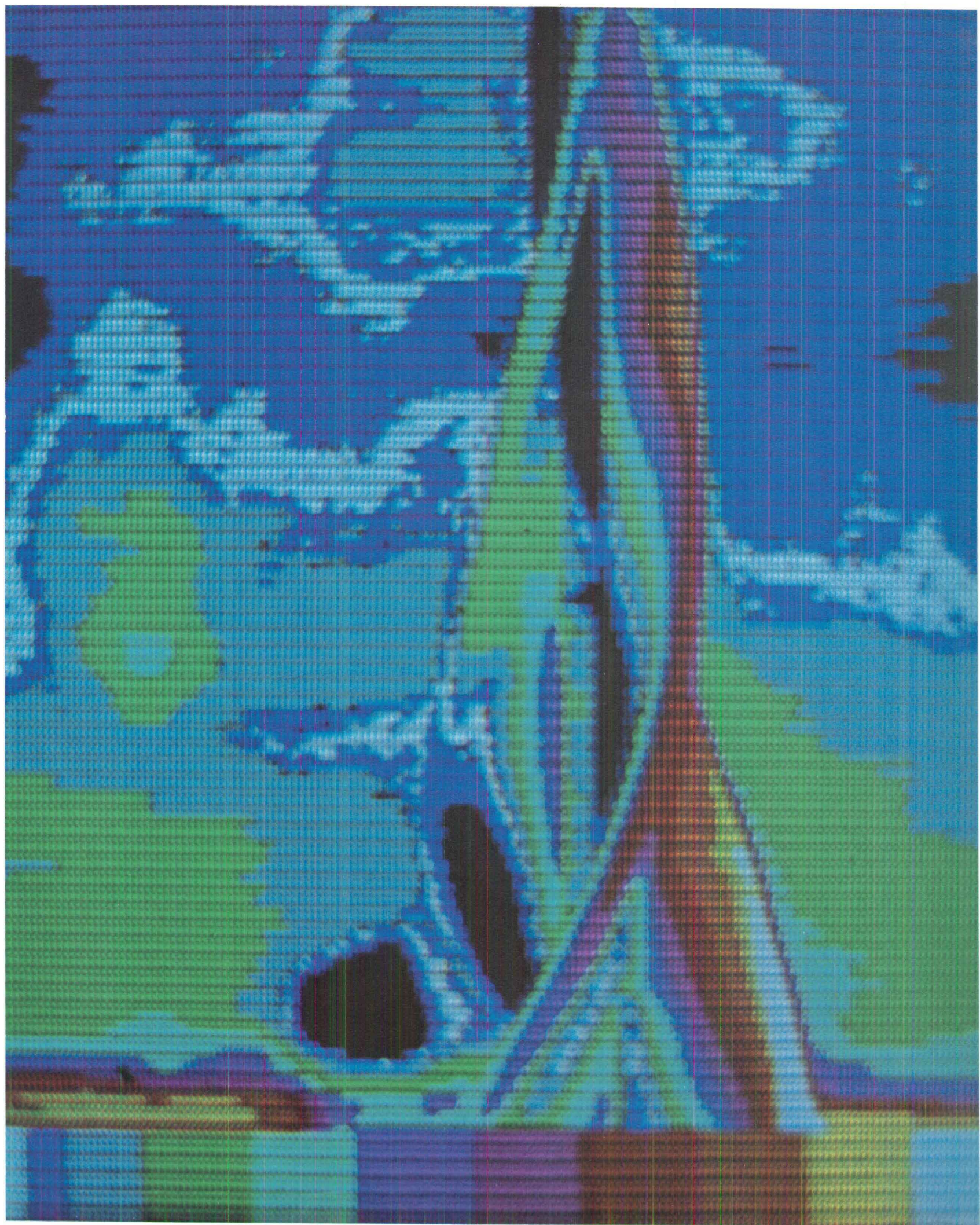
All of the illustrations on these two pages are of the thermographic tests performed in Rome as the culmination of an ecological survey of the city by Nicoletti, Prof. L. Mammarella and some students from the University of Rome. The figure at far left illustrates the thermographic test conditions. The experiments were performed between 11 am and 1 pm solar time on June 11, when the sun travels 76 degrees from east to west. The model, which is made of heat absorptive black plastic, is oriented as shown and photographed from the four primary compass points. The process employs a fast-scanning AGA-Thermovision camera which uses a liquid nitrogen crystal to transform electrical impulses given off by caloric infrared radiations (heat) from the surface of the model into photo images on a television screen. For analysis, the sails are labeled 1, 2 and 3, and each is divided into sides A and B.

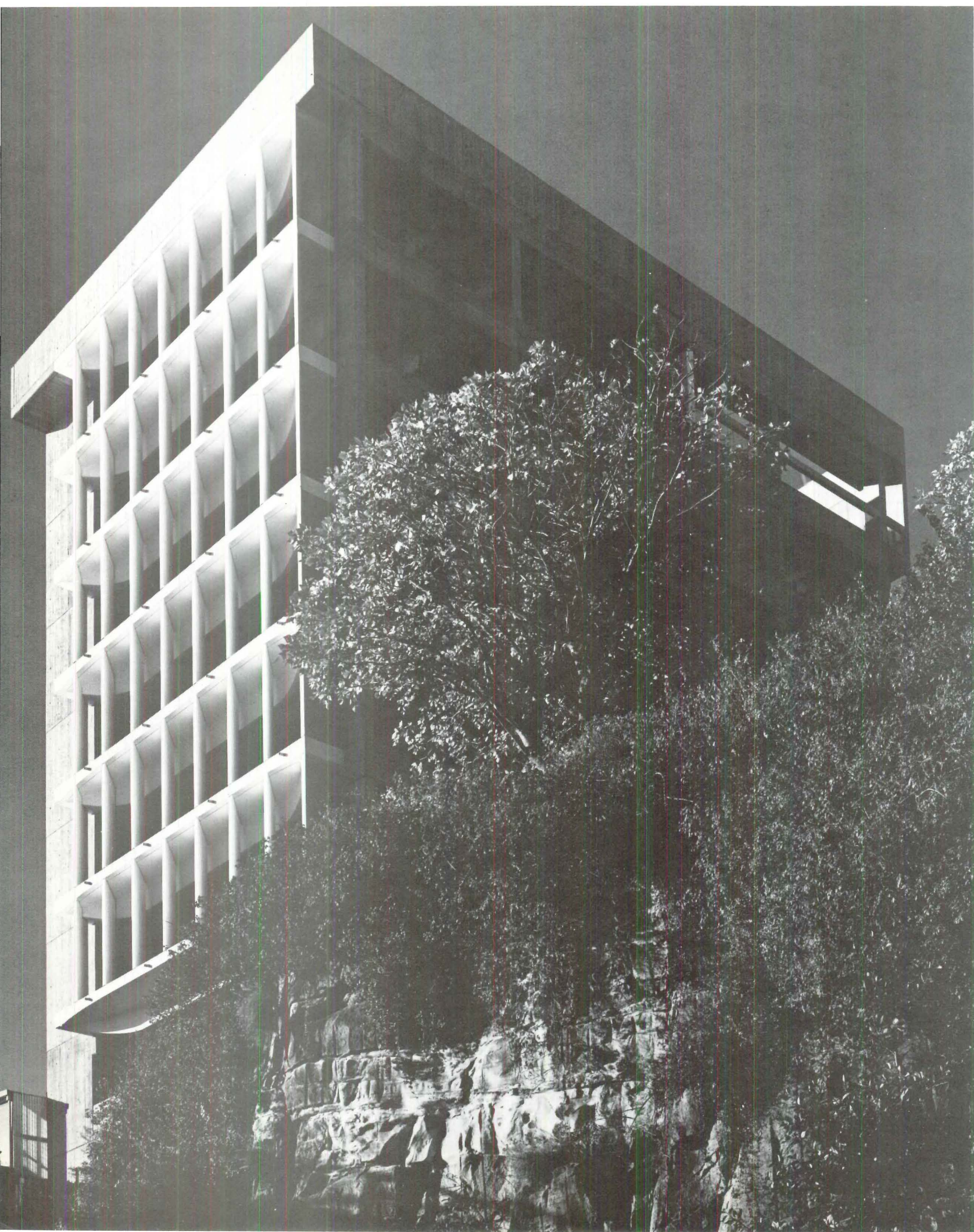
The model takes about 40 minutes to heat up after it is first exposed to the simulated sunlight. During this period, experimenters recorded the heat zones at 10-minute intervals to trace the heating process. The illustration at left was charted from the south view after 20 min. of exposure to the heat. The numbers indicate temperature zones, with the higher numbers assigned to higher temperatures. A series of these charts indicate that the structure heats first at its base and that differences between temperature zones grow as exposure lengthens. The charts are made by compiling photographs made by cameras sensitive to single temperature zones, which reproduce as white shapes on a black background.

The warped shape of the three sails is a highly complex configuration for analysis. Each of the six surfaces can reflect the infrared radiations of the others, in addition to the heat on it, and the temperatures vary accordingly. The three diagrams below (left) are planar (flattened) maps of the three sails (wings) made from calculations and data interpolated from camera readings of the actual model. Sail 1 shows a temperature peak between 2/8 and 4/8 of its height, strongly decreasing toward the top and slowly toward the base. Only the base of side B is exposed to the sun and so the highest reading is there. Sail 2 shows a constant increase from top to bottom on side A, ending with the model's highest reading anywhere—a value 13. The warmest portions of side B occur in the middle. Sail 3, side A, is coolest between 5/8 and 6/8 of its height, with the highest temperature at the very top and a continuous increase toward the base. Side B is the hottest in the middle.



The color photograph at right depicts the different temperature zones. The special thermovision camera scans the model's surface and then translates heat zones into assigned increments of a color spectrum. In this photo, the color scale (bottom) is divided into 10 intervals, from black and blue, to white and yellow. Isothermic points in the middle of the selected temperature range are shown in white (light blue in reproduction).





Box camera in concrete

Architect's own offices take in a panoramic view of Sydney Harbour

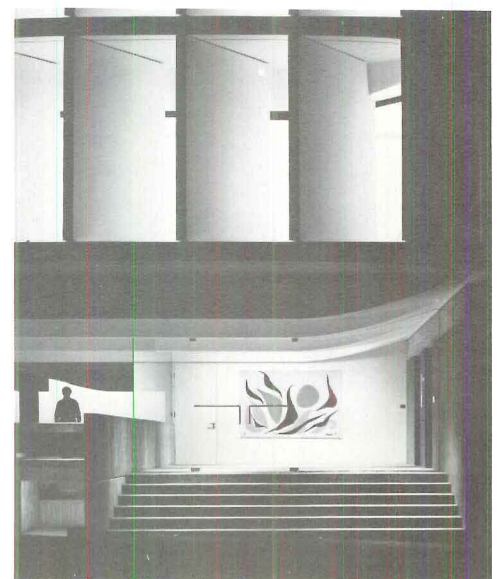
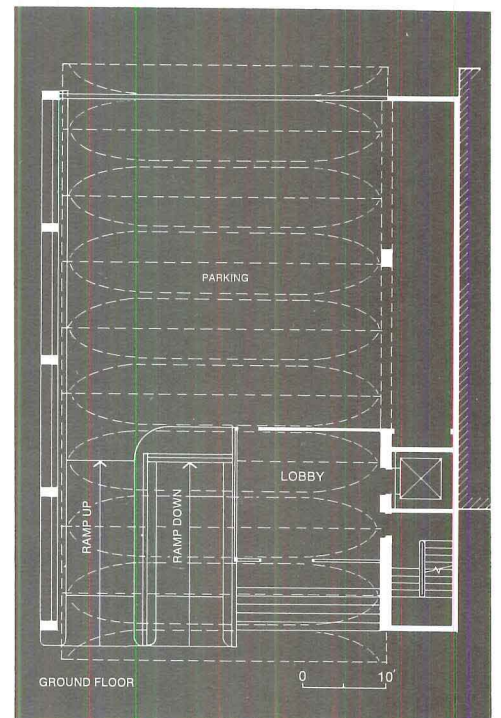
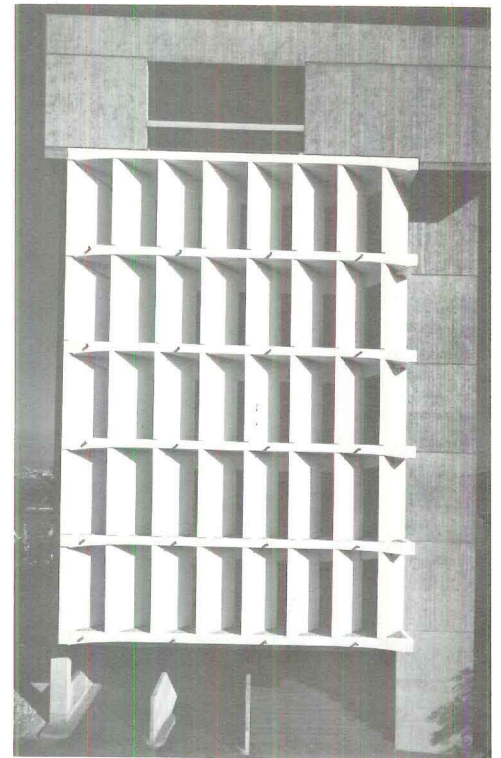
It takes a great deal of nerve for an architect to build his own house, and to live in it. To follow this by building his own office (and to work in it) seems like tempting fate. Harry Seidler, who lives and works in Sydney, Australia, has done both. Having designed and built his own, beautiful house in 1967 (in collaboration with his architect-wife, Penelope), Seidler has now completed a little office building on a rocky site overlooking Sydney Harbour, and his firm occupies the top floor, including a mezzanine and a granite-paved roof terrace. It is a very good space to work in.

One reason it is such a good space to work in is that Seidler, in effect, made his building a kind of reinforced concrete "camera" pointed at one of the more spectacular views to be found in the modern world (see next page). The view is toward the south, of Sydney's harbor and new skyline, some of which Seidler has helped to create. The immediate foreground is an amusement center, the "Luna Park"—a typically colorful Ferris wheel-type operation, full of fun and games; beyond that, in the middleground, is Sydney's Harbour Bridge; and beyond *that* is Jørn Utzon's just completed Opera House (see our August issue). Not a bad grandstand seat in which to be sitting while you work.

The site is, of course, the one element of this neat little office building that Harry Seidler did not make. But he chose it, having always been drawn to this harbor with its special magic. What he *did* design was the reinforced concrete "camera" that is focused on the harbor; and it is a very clean job.

It is a box-camera, and the box measures about 50 ft. by 70 ft. in plan, and it is six stories-plus-mezzanine in height, i.e. a total of seven. The long side of the box-camera faces south, toward the view, and (in Australia) away from the sun; this side is very open and glassy, divided only by free-standing concrete columns. The east and west sides of the box-camera are protected by angled louvers (top, right) that control the morning and afternoon sun. And the north side of the building is a solid and blank shaft, 8 ft. wide and 70 ft. long, approximately, and containing all vertical services and utilities. This blank-faced shaft faces the mid-day sun, and cuts it out.

So much for the basic organization of the plan. To the south of the vertical service







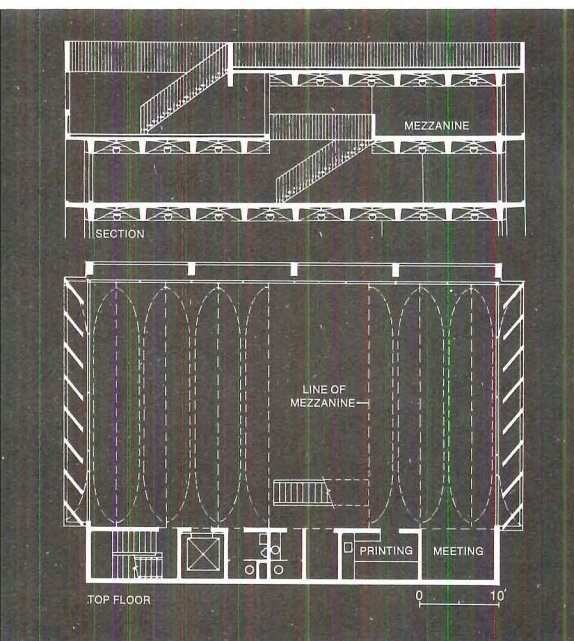
shaft, the building is a column-less loft space, measuring about 40 ft. by 70 ft., and 10 ft. high, floor-to-floor. The ground floor has the entrance lobby and a parking garage for half a dozen cars; the next four floors contain rental space; and the top two floors are the Seidler office.

Although the basic box (including the top-floor enclosure) was cast in place, the T-shaped concrete planks, and the vertical sunshades, were precast in smooth steel forms, and then painted white. Seidler has long worked with Italy's Pier Luigi Nervi, and the elegance of the T-shaped planks reflects Nervi's structural geometry. (They were designed by Seidler's long-time structural consultant, Peter Miller, whom Nervi considers "tremendously intelligent.")

The drawing at the top of this page, and the photographs at left and on the last page of this story, portray the sculptured elegance of Miller's structural forms. But there is more to the engineering of this building than structure alone: the tubes suspended between structural Tees supply conditioned air to the office spaces, and further contain fluorescent light strips that bounce light off the concrete ceilings, which then diffuse the light into the working areas. It is a very clear and convincing expression of the arteries of the building, as well as its bones. And the "back-lighting" produced by these and other fixtures (some of them designed by New York's Edison Price—see our August issue) balances whatever glare might come in through the glass walls aimed at the spectacular views.

The top, double-floor that contains the architect's offices has a drafting room and related spaces on the lower level, and a mezzanine space overlooking that. The mezzanine contains Seidler's own office (left) and a conference room; and that balcony area is connected, by way of a bridge, to the paved roof garden, with its panoramic views. "Harry is invariably downstairs, in the drafting room," Senior Associate Colin Griffiths said recently. "The upstairs areas are really for clients." The clients, it seems, are impressed.

The view is not the only thing that impresses visitors. Seidler and his wife are sophisticated art collectors (they are members of the International Council of New York's Museum of Modern Art), and Seidler's office boasts a beautiful Morris Louis painting, a delicate Albers tapestry, a



Frankenthaler print, a sculpture by Perry, and another by Carlberg—all illuminated by Edison Price fixtures. The two photographs at left show the Albers tapestry and portions of the Morris Louis painting, behind the stair leading up to the office mezzanine.

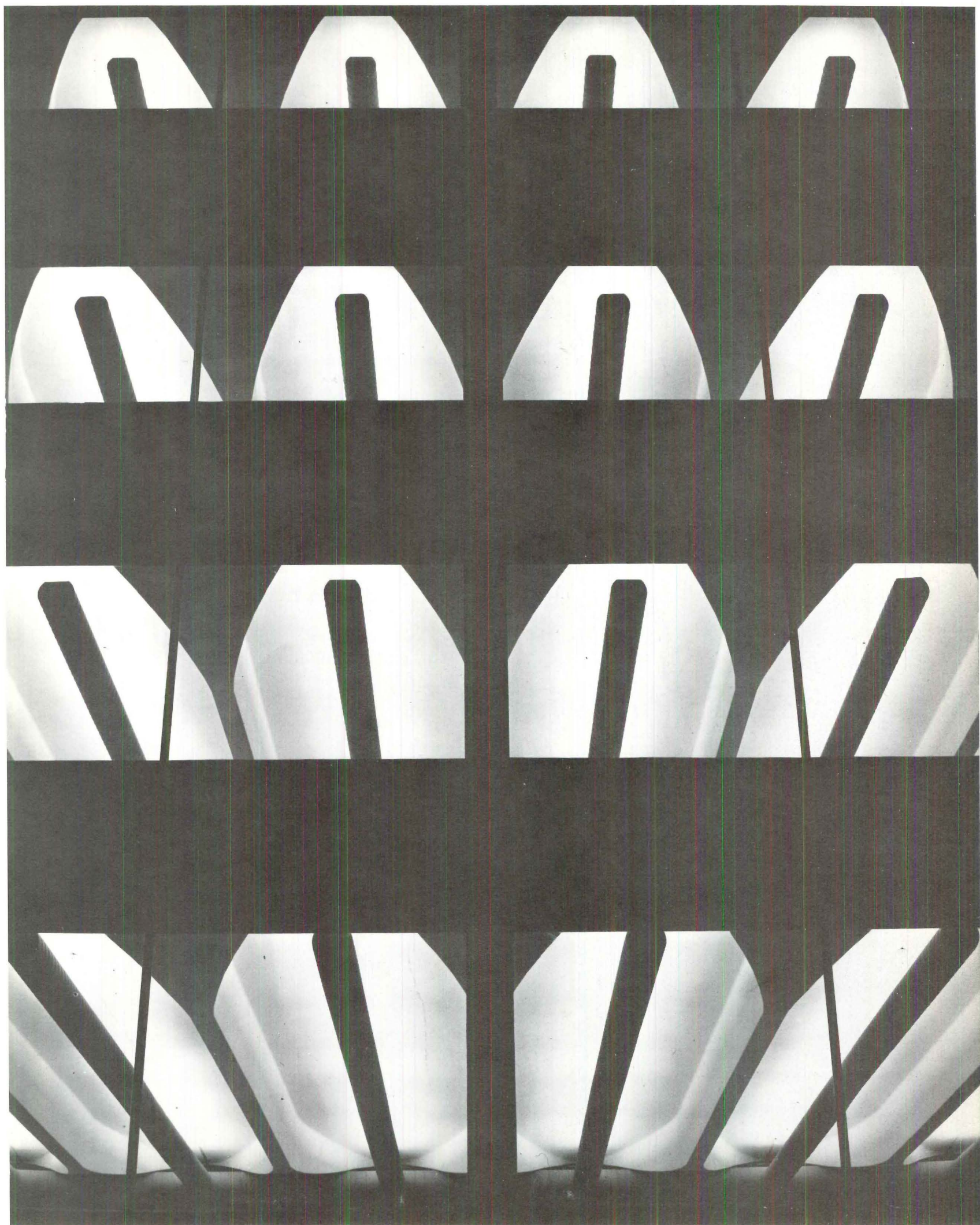
Seidler's associates are obviously proud of their new quarters. "The building expresses what we believe in," Colin Griffiths says. "Clean and resolved geometric form; severe structural discipline; elementary and clear segregation in planning; response to sun and shadow; textural richness; negative/positive reversals; and the integration of works of art." All these are tried and true objectives, of long standing, of the International Style. It is interesting to see them work so convincingly after all these years of stylistic horseplay in other places, and by other architects.

Facts and Figures

New offices for Harry Seidler and Associates, 2 Glen Street, Milsons Point, NSW, Australia. Owner: Contec Properties Pty. Ltd. Architect: Harry Seidler & Associates. Engineers: Po Miller Milston & Ferris (structural); Norman Disney & Young Pty. Ltd. (mechanical); Addicoat Hogarth Wilson Pty. Ltd. (electrical). Landscape Architect: Bruce Mackenzie & Associates. Interior Designer: Harry Seidler & Associates. Quantity Surveyor: John Campbell. Contractors: Contec Properties (general); Accent Ventilation & Engineering Pty. Ltd. (mechanical); M. W. Bartley Pty. Ltd. (electrical). Building Area: 21,986 sq. ft. gross, including plant and car parks. Construction Cost: Australian \$450,161.

Building suppliers listed on p. 88.





The Wesleyan Grove Campground

This may be the largest, best preserved, and most interesting of all the 19th century Methodist campgrounds that were a unique phenomenon in American architectural history

By Ellen Weiss



Campgrounds were considered vice-free watering places, proud of their temperance regulations and high moral tone. Communal tents of the early 1800s gave way in the 1850s (and later) to individual cottages of special construction and varied decoration. These contemporary photos are from a collection of about 1,000 glass negatives taken between 1870 and 1880 by a photographer named Woodward who operated from his family's dry goods store in the campground.

Somewhere near most American towns there are bound to be the remains of the area's nineteenth century Methodist campground. These were special sorts of places, consisting of communally owned land with rows of tiny houses arranged in various configurations about parks, a kind of community form not thought to be part of America's planning traditions. No one has counted all that once existed, or remain today, but some index of their density is given by the fact that in 1870 thirty campmeetings—intensive religious revivals lasting several days—were called for various sites in the Pittsburgh Conference alone. By 1875 there were eight permanent campgrounds spaced across Massachusetts. On the island of Martha's Vineyard, Wesleyan Grove, today a quasi-religious summer community, is one of them.

In the earliest days of the last century, campmeetings were rustic affairs that took place in four or five days of August. Participants came by horse and wagon, bringing provisions for the period, and slept on straw in large communal tents which ringed the preacher's stand and seating area. Meeting itself was a rigorous regime of preaching, singing, and praying, morning through evening, all punctuated, at increasing tempo as the days wore on, by dramatic conversions—falling, jerking, weeping, speaking in tongues—as well as the quieter “quickenings” experienced by those already saved. Special provision had to be made for the more violent conversions: a straw-filled fenced area in front of the preacher's stand known as the “altar.”

Campmeeting as an institution lasted the century and continued deep into our own. By mid-last-century meetings were settling on permanent sites. Associations were formed for the purchase of land. Permanent structures were erected. The straw of the altar was replaced by benches, and after the Civil War a new invention, the campground cottage, appeared on the old tent sites.

Post Civil War meetings were probably fewer in number than earlier ones, but they were definitely larger, for railroads offered a greater constituent territory for each



meeting. Seaside meetings, such as Wesleyan Grove, on Martha's Vineyard, or the later Ocean Grove, New Jersey (1869) and Pacific Grove, California (1875), were perceived as vice-free watering places, appropriate for the restoration of physical as well as spiritual health of ministers. Though originally founded in uninhabited areas, these campgrounds quickly spawned larger resorts about themselves, resorts which prided themselves on their temperance regulations and high moral tone. Thus by 1866 crowding at Wesleyan Grove suggested the obvious to six enterprising developers, and by the following year there was a summer community growing to the campmeeting's south called Oak Bluffs, laid out to a plan by the Boston “landscape artist” Robert Morris Copeland. The development and the campground were the nucleus of a new town, Cottage City, created in 1880, renamed “Oak Bluffs” in 1907.

Wesleyan Grove was probably the largest, most successful, and most famous of all campgrounds in the 1870s and '80s. Because of its happy island circumstances it is today beautifully preserved in its nineteenth century condition. Founded in 1835 on an isolated wooded tract some seven miles north of the prosperous whaling town of Edgartown, it began with a half-acre of meeting ground, preacher's stand, and nine “society” tents, large communal structures erected by each of the participating Cape Cod and New Bedford area churches for their members. From its inception the meeting seemed specially favored for the sheer beauty of the site, for the pleasant psychic dislocation that comes with an island, and for the very practical protection the Vineyard Sound afforded from marauding town rowdies—a real threat to early campmeetings. Its history, with the exception of one year in which the meeting was moved to Cape Cod, was of steady growth in space, tents, numbers of people attending and numbers of conversions. In 1842 there were 40 tents holding 1,189 people. By 1854 there were 180 tents, 36 of them the large society tents and the rest either victualing stations or, now, the numerous small family tents that had been multiplying during the last decade. One had to have special permission from the

Ellen Weiss has taught architectural history at the University of California, Berkeley, at the University of Manitoba, and now teaches at the Boston Architectural Center.

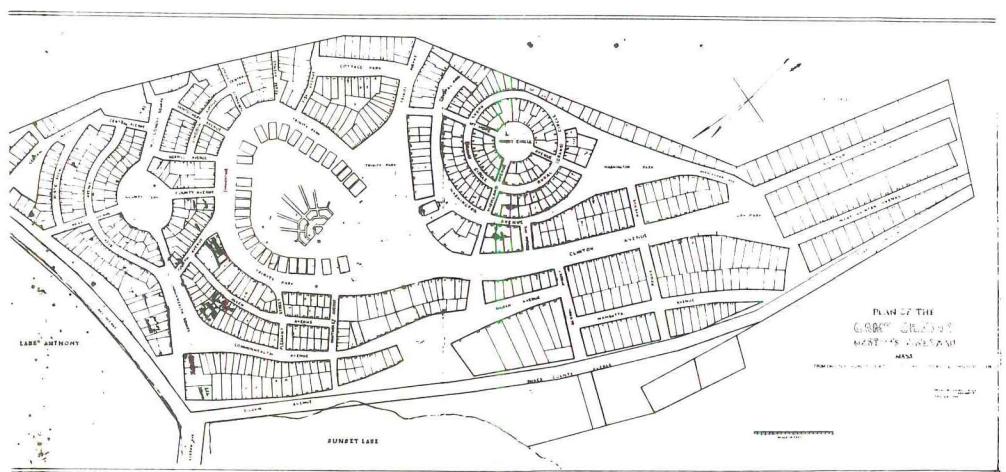
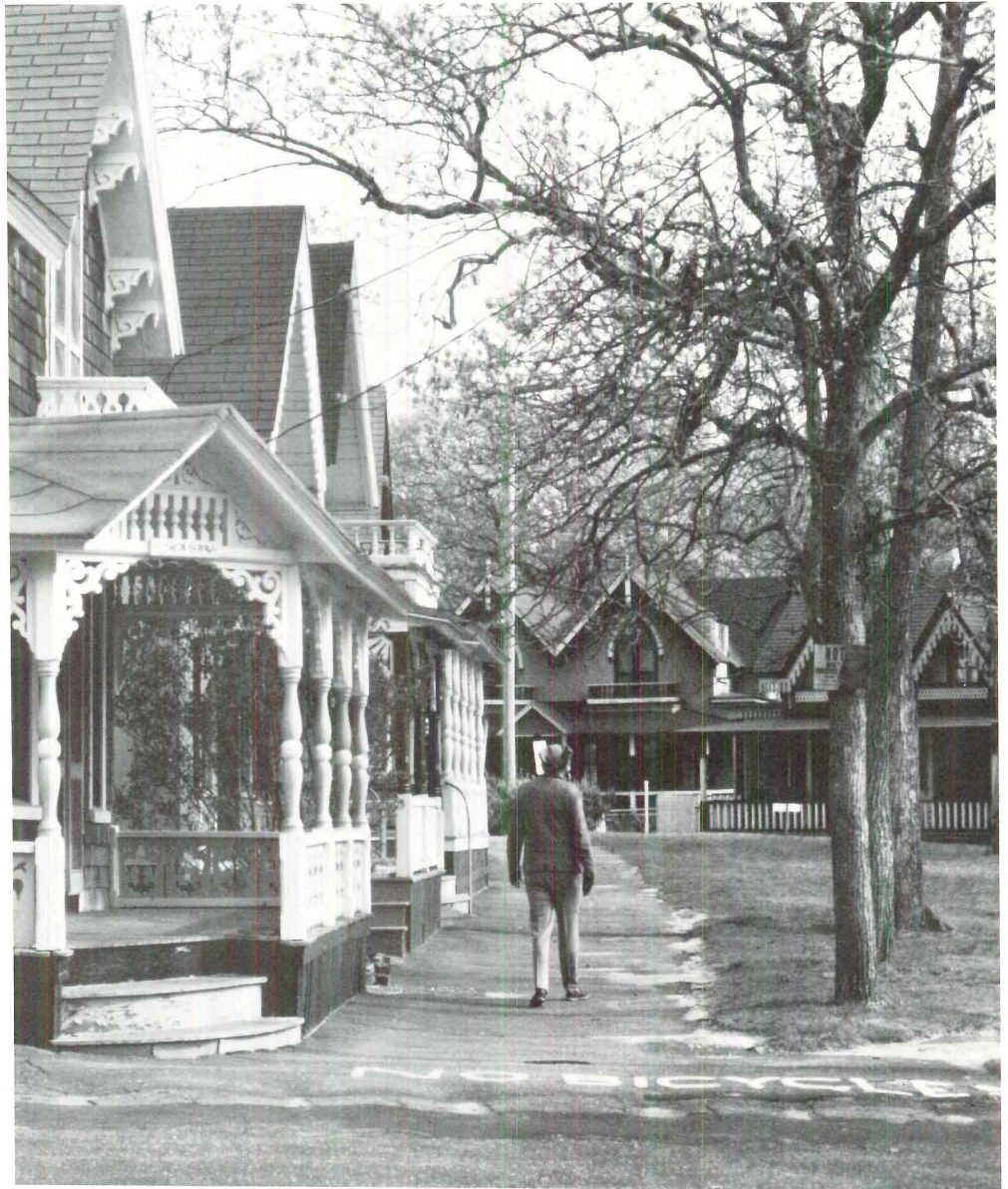
Site plan shows the "sweet disorder" of paths and lanes laid out in the 1860s. Walking through the campground, one is constantly surprised by the discovery of small park forms as they emerge from the seemingly random jumble of wooden houses. Order and disorder emerge and dissolve.
Photo by Ellen Weiss.

tent-master of one's supervising society tent to have a family tent, for it was felt that they contributed to a weakening of the campmeeting regime.

Decisions governing the plan of the grounds for all this expansion are, to us, anonymous. The original circle of society tents was kept rigorously intact and separated from the family tents in the rear by a 40-foot-wide service road, known once as Broadway, now as Trinity Avenue. Radial lanes were laid out from this larger circle and tents faced each other across these narrow ways, as well as onto the principal circle. A miniature of this tent-surrounded circle was created in concentric form in 1864 with the layout of little Forest Circle, with Rural Circle surrounding it; and the following year a second circle satellite, County Street Park, was made. All of these little units, as well as the triangular residual parks between them, could be used for extra preaching spaces when crowds at the main stand outpaced the human voice. Boulevard-like Clinton Avenue was created in 1868 by the closing of what had been the principal entrance to the grounds. The final extension, a dreary double row to the southwest, was laid out by the island surveyor who made the only lot plan of the grounds still existing, the plan of 1873.

The result of all this is marvelous. One nineteenth century writer saw it as a lesson in "sweet disorder," with the rows of cottages "lying in unintelligible radiation from some imaginary center, or huddled together according to some undiscovered law of affinity." The more analytical modern observer, with plan in hand, will see a catalog of shape possibilities in small cottage-bordered parks, all flung about the great central Trinity Park. One is constantly surprised by the discovery of these small park forms as they emerge from the seemingly random jumble of wooden houses. Order and disorder emerge and dissolve, but just as one is getting used to this alternation of small-scale sense and nonsense in one's travels about the grounds, one finds oneself back in the magnificent great space of Trinity Park. Large and small spaces refer back and forth to one another.

Campground cottage construction began in the late 1850s with simple one-story huts, really wooden tents, and at least one

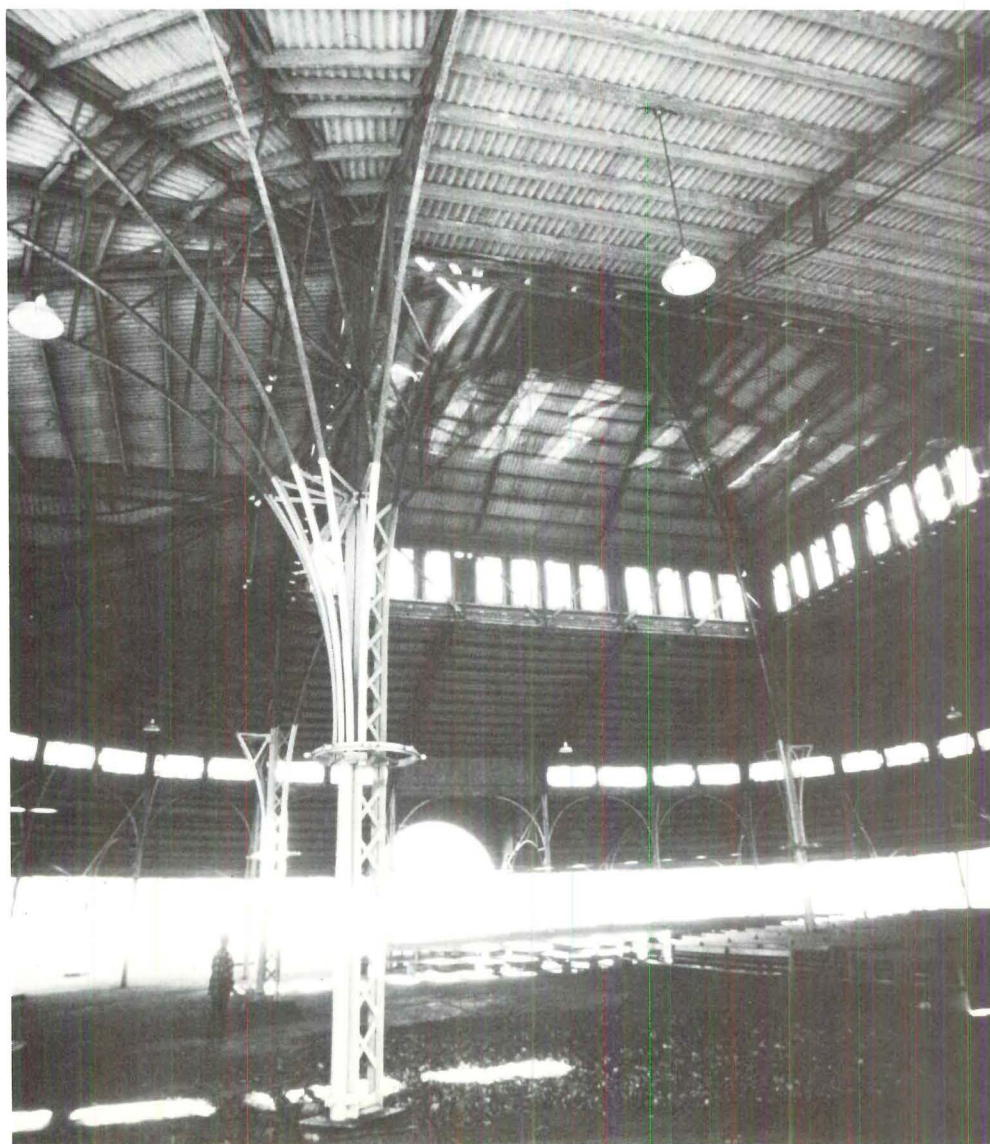


The tabernacle is a successful monumental center for the community and an important American building. It was assembled during the summer of 1879. Today it is the largest auditorium on Martha's Vineyard and is used for the high school graduation as well as for campground services. Photos by Niel Levitt.

"gothic" cottage of considerable artistic pretension, which had been shipped to the Vineyard from Providence. By 1864, the year of the making of Forest Circle, half a dozen Edgartown builders were producing the new building type, the classical campground cottage, in quantity. Forty were constructed that year, and contemporary newspapers record the production of from fifteen to fifty in each successive year for a decade. Several cottages were constructed as late as 1905 in virtually the same form as those of 1864.

The classical campground cottage is a simple rectangular shed, 11 to 16 feet wide, a story-and-a-half high, and about twice as deep as wide. The gable is always to the front. On the facade there is a central double door, square, round, or ogiveheaded, and two narrow windows, one to each side. The double door repeats itself on the story above—this was necessary for getting furniture to the bedrooms—where it opens onto a cantilevered balcony. Front porches now so much in evidence were all added decades after most of the cottages were constructed. Almost all elements of architectural pretension—glazed and articulated openings and the ubiquitous gingerbread trim—were restricted to the facade. Each cottage would have two different patterns of gingerbread, one in the gable and the other suspended from the lower edge of the balcony. It is within this tiny format, gingerbread, that visual competition between the cottages took place. Forty-five different patterns of gable decoration have been counted, proving the will to variety within a rigidly ordered system. Yet, the two or three radically different cottages in the campground suggest that the surprising uniformity of the cottage type may have been a matter of consensus, reflecting deliberate unanimity of taste and purpose among the occupants, rather than fiat from higher authority.

The cottage plan, derived from that of the tents, has a room in front that is usually deeper than it is wide, separated from a shallower room behind by a decorative proscenium-like arch. This second room contained narrow stairs to the upper floor. Kitchens were usually independent of the basic cottage form, sometimes added years later if the inhabitants preferred to eat in the popular boarding tents. Some kitchens antedate the cottages, having been built onto the rear of a tent previously occupying



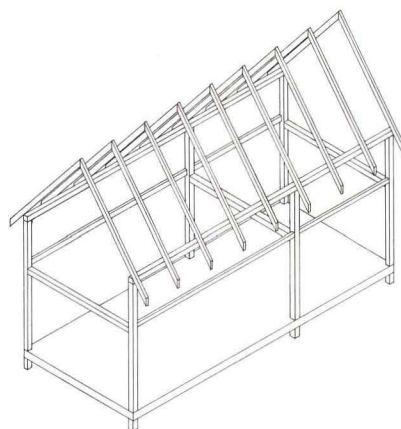
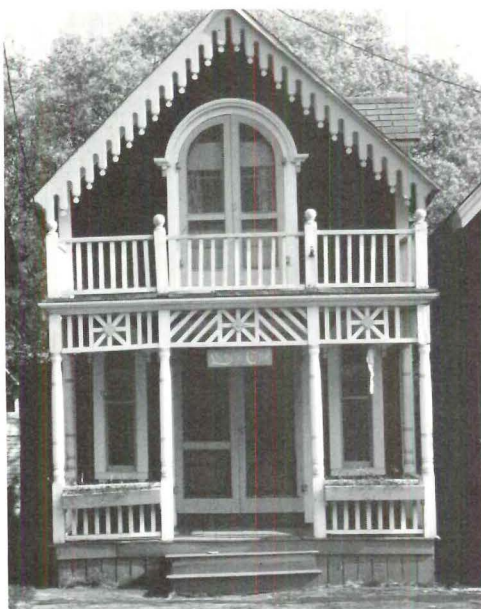
The campmeeting cottage is unique in American architecture. This construction is known to Martha's Vineyard carpenters today as "bath house construction." It is not balloon frame as we know it—studs 16 in. o.c.—but some historians have mentioned the existence on the East Coast in the mid-nineteenth century of something else called "balloon frame" construction, and this just possibly was it. Drawing by James Batek. Photos by Ellen Weiss.

the site and used for winter storage of utensils and furniture.

Without the front porches almost the entire ground floor of the cottage would have been visible to passersby when the doors were open. Family life was certainly on display, as proud contemporary descriptions noted often enough, and visitors were amazed at the unselfconsciousness of the women as they went about their domestic tasks in full view of strangers. It must have had about the same appeal then as life today in National Park Service campsites or in crowded boating marinas: the miniaturized household routine executed in a more gregarious and challenging setting than home.

Structurally as well, the cottages are unique in American architecture. The frame's vertical members are six 4 by 4 posts, spaced about 11 to 16 feet apart, and fastened to floor and eave framing members by notch and dowel joinery. Horizontal support for this lightweight structure is provided entirely by the skin itself, a single layer of $\frac{3}{4}$ -inch random-width tongue and groove boarding fixed vertically in unbroken lengths from floor to eave. As pointed out by Michael Glickman, an English architect who has studied the cottages, the friction of the tongue and groove joints must be acting as stiffener for the frame, for there is no other intermediary bracing. Walls were completely boarded during construction, and doors, windows and eave edges cut later, leaving as byproduct window and door-shaped sections of walling to cover the glazed areas during winter. This thin skin is the entire wall and thus both interior and exterior cottage surface. Such shingling, clapboarding, or interior finishing that now exists was added at a later date. All of the cottages and service buildings within the campground, and all of the cottages in the later adjacent summer community of Oak Bluffs are constructed in this "bath house construction," as it is known to island carpenters today. The three architectural pattern books of the 1870s and '80s which show "Martha's Vineyard Cottages" give no indication of how the buildings were to be built, and the means by which the cottage type got from campground to campground from Maine to California has yet to be found.

The campground's other architectural monument, the tabernacle, is a beautiful



but little-known structure of cast iron that straddles the site of the old preacher's stand and seating area. It was assembled in several weeks of the summer of 1879 by George Dwight, a Springfield dealer in galvanized iron and builder of fireproof buildings, and his partner, John Hoyt, a campground resident. At the center the building is a square in plan with the arches at the top spanning 61 feet. Three great layers of what were corrugated iron roofing hover over a system of incredibly delicate supports, all composites of angle iron, T-irons, and pipes, most of which are only two or three inches in their largest dimension. The building measures 130 feet across, and 100 feet to the top of the wood cupola, which campground legend says was sent from Germany to the Philadelphia Centennial Exposition, and then sent north when it was not usable there. Whether the cupola tale is truth or fiction, the tabernacle remains a successful monumental center for the community and an important American building.

By the 1860s and '70s, Wesleyan Grove was an active temporary community before and after campmeeting, a veritable Christian summer resort. The sense of specialness it had from its inception—the white-tented "celestial city" in the woods, of so many early descriptions—was not lost in the era of cottage construction. This is the triumph of the cottage type, that it could keep the quality of tents-in-the-woods magic without making the meeting look like a "railway workers' shanty town," as one critic felt it might. Contemporaries did complain, of course, about the loss in intimacy with nature—the straw below and stars above roughing it of early days. But they also complained about the brain-softening effects of croquet, a new obsession which eventually had to be regulated, and about the social and even commercial atmosphere of the whole enterprise. Two commercial zones had opened within the grounds, with little shops, variants of the cottage house but with the door to one side of the facade to make room for a large shop window. These shops offered not only necessary foodstuffs, but fancy clothes, ice cream, a campground newspaper, and photographers. Defenders of the campmeeting in these ebullient years cited the successes of "ancient Jewish festi-

vals" and extolled the values of social and physical as well as spiritual renewal. And any account of the intensive meetings themselves (which can be read today) shows that it would be a mistake to think religious fervor had diminished just because recreational fervor had grown. Strong men still fell silent, women wept, and conversions and quickenings were reckoned with the enthusiasm of true purpose. The Power was still very much there.

Today the Martha's Vineyard Camp-meeting Association still owns the land and orders life in the community. The oak-shaded grounds, some 20 acres, slope gently toward their own center, increasing the sense of enclosure initially defined by the circles and triangles and lanes of cottages. Even the "artistically" arranged adjacent Oak Bluffs subdivision, created in 1866, with its curved roads and interior parks does not achieve the physical sense of community interior that the campground always had. Automobiles may enter the grounds, but must move at a crawl and are, in any case, visually overpowered by the density of cottages and vegetation. It is truly a pedestrian environment. Three hundred twenty cottages remain, 52 of them winterized and permanently occupied. Most of the permanent residents are elderly and live on to very advanced ages in their own homes with only occasional aid from the Association staff. Many of the cottagers, summer and winter, are descendants of the original campers.

The community is above all gregarious. Porches are filled with residents on warm summer evenings ready for a chat with neighbors or with anyone else passing by. Porches give more privacy to the lower floors of the cottages than once pertained, but add new living space, which belongs, however, as much to the walks and community areas in front as to the cottages behind. Visitors and residents, walkers and watchers—there is plenty for all to see. The tabernacle, as the largest auditorium on the island, is used for concerts, meetings, the island's high school graduation, as well as for the campground's Wednesday night sing and Sunday service. Unlike the many other campgrounds which degenerated into rural slums as the last crest of Methodist revivalism passed, and are now obliterated or threatened by expanding metropolises, Wesleyan Grove's future seems secure.





Shelters for senses

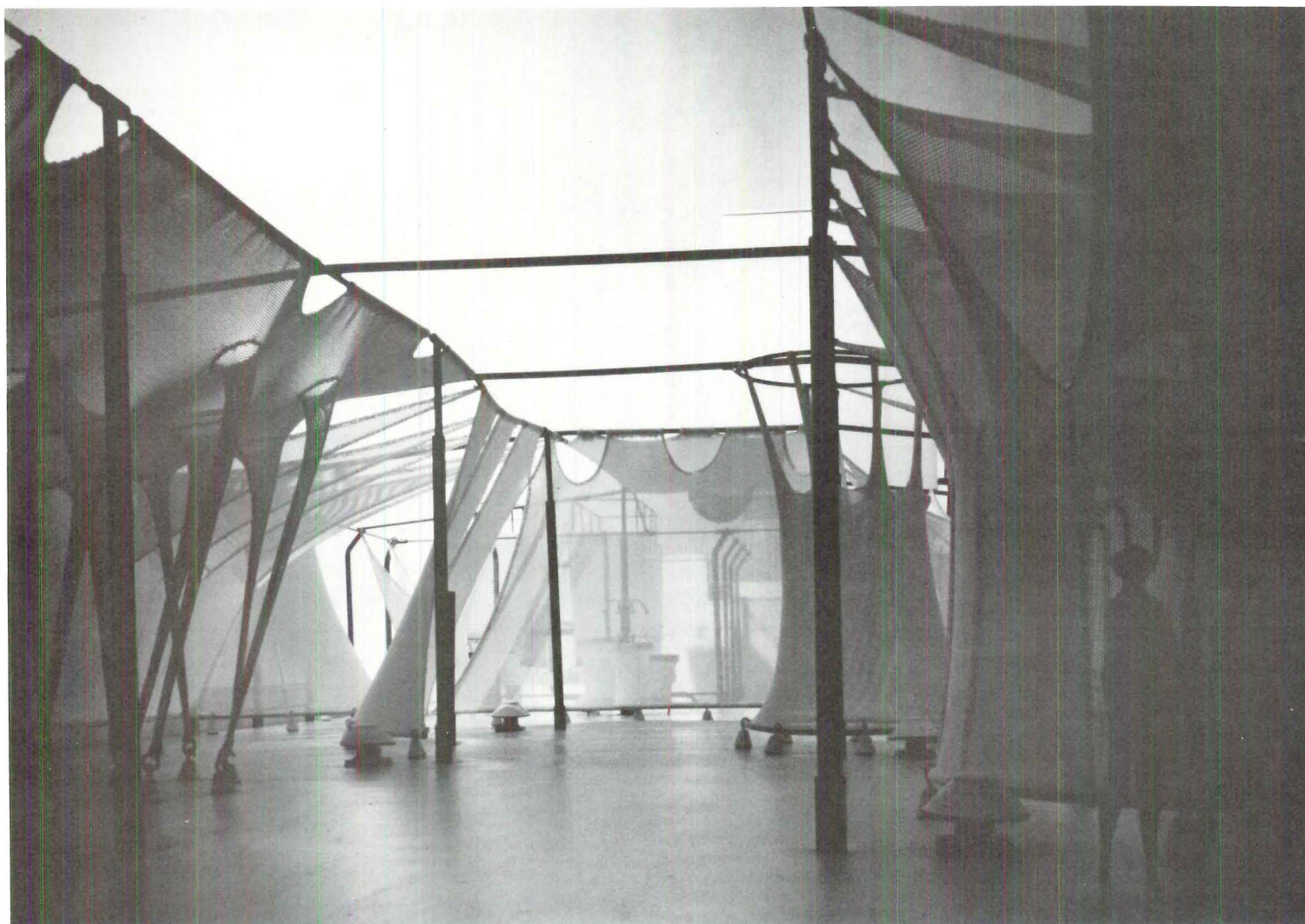


When Aleksandra Kasuba, a New York City artist, built the first model of her 1971 exhibit, *Space Shelters for Senses* (above and left), she used undershirts for the fabric. From this experiment, she has brought the techniques for using nylon stretch fabric to a unique level of sophistication.

During the sixteen months that the environment existed, almost 2,000 people, ranging from children's play groups to ESP investigators and including many architects and interior designers, experienced its other-worldly sensuousness. For most of them it was exciting and stimulating. For a few people unsure of their emotions, it was a disturbing and disorienting shock. It

was a place where everyone whispered and moved about on tiptoe, as though they were in the presence of forces they could not entirely comprehend. And for anyone lucky enough to return, the mystery remained.

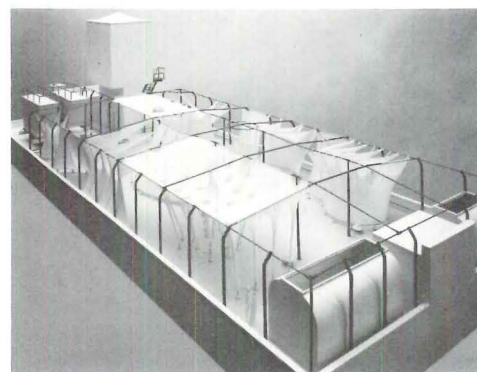
Although the environment was widely published, for a long time no one expressed serious interest in using these techniques for other applications. But about a year ago, a series of interesting commissions materialized which gave Mrs. Kasuba opportunities to continue her work with stretch fabric. The first of these projects to be completed was the *Blue Color Structure* (opposite), the result of a three-week student workshop at the State University Col-

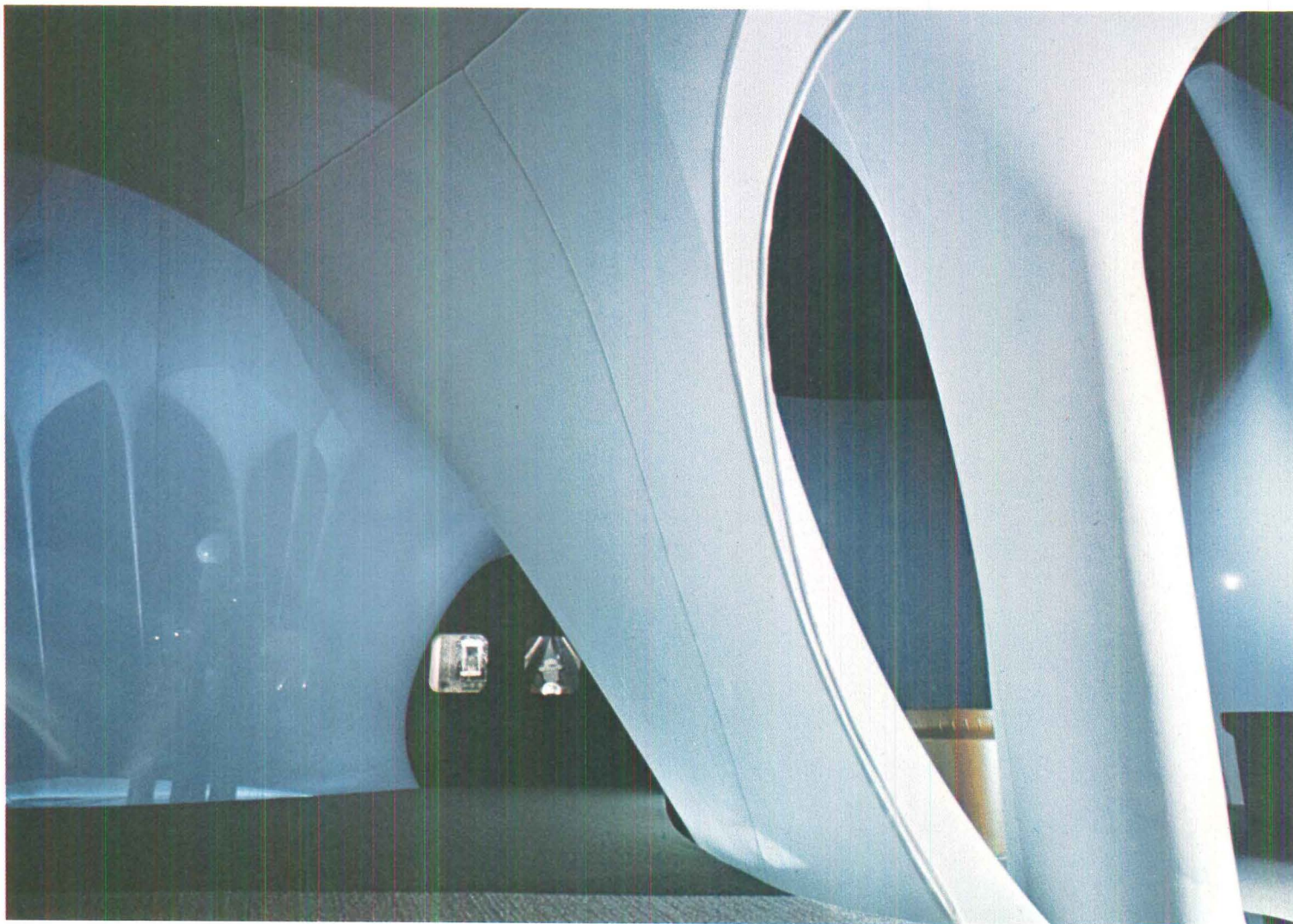


lege at Potsdam, N.Y. In the art gallery designed by architect Ed Barnes, the students erected several stretch fabric forms and placed small colored light sources behind them. To everyone's surprise, including Mrs. Kasuba's, the fabric assumed an overall glow at night that filled the tall space with soft and gentle light. The Potsdam structure showed that even when the stretch fabric is fastened in straight lines top and bottom, it assumes complex curvilinear forms nonetheless.

Two of Mrs. Kasuba's recent projects were arranged by William Hodgson, an Australian architect who is director of the Open Space Collaborative. The first con-

tains three classrooms at the Wave Hill Center for Environmental Studies in Riverdale, N.Y. (not shown). The spaces are formed by a single undulating wall that has unusual acoustical absorption even though the fabric has an open mesh. The second project, a series of stretch nylon "structures for wind, light shadow and rain" (above and right) will be built atop the Manhattan Rehabilitation Center for Women Drug Addicts. The 7,200 sq. ft. environment will utilize an existing overhead pipe grid for support. Construction will begin when DuPont has completed final development of a special flameproof nylon which will meet applicable fire standards.





The design was developed from attachment techniques and the effect of natural elements, especially the winds off the Hudson River says Mrs. Kasuba. No functions have been specified for the spaces other than to give the women inmates a relief from the jail-like isolation and restraint of the center. Showers and a pair of greenhouses designed by Hodgson will also be located on the roof.

The rooftop project and the 20th Century Environment at the Carborundum Museum of Ceramics in Niagara Falls, N.Y. (above and pages 54-55), the largest Kasuba environment completed so far (5,400 sq. ft.), have both been designed to allow the fabric to be easily taken down for wash-

ing. At the request of the Carborundum Museum's director, A. Richard DeNatale, two sets of stretch fabric walls have been supplied so that replacement can take place overnight and will not inconvenience museum visitors. Minor structural modifications in the SOM-designed building were worked out in cooperation with David Johnson of Johnson-Hehr-Nehim, Buffalo, N.Y., design consultant for the Museum.

It is in the development of demountable attachments for the stretch fabric that Mrs. Kasuba has made her most important refinement in the technique. At the rehabilitation center she visualizes the inmates removing the panels themselves for washing

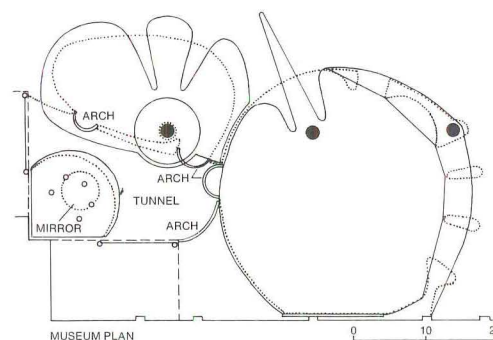


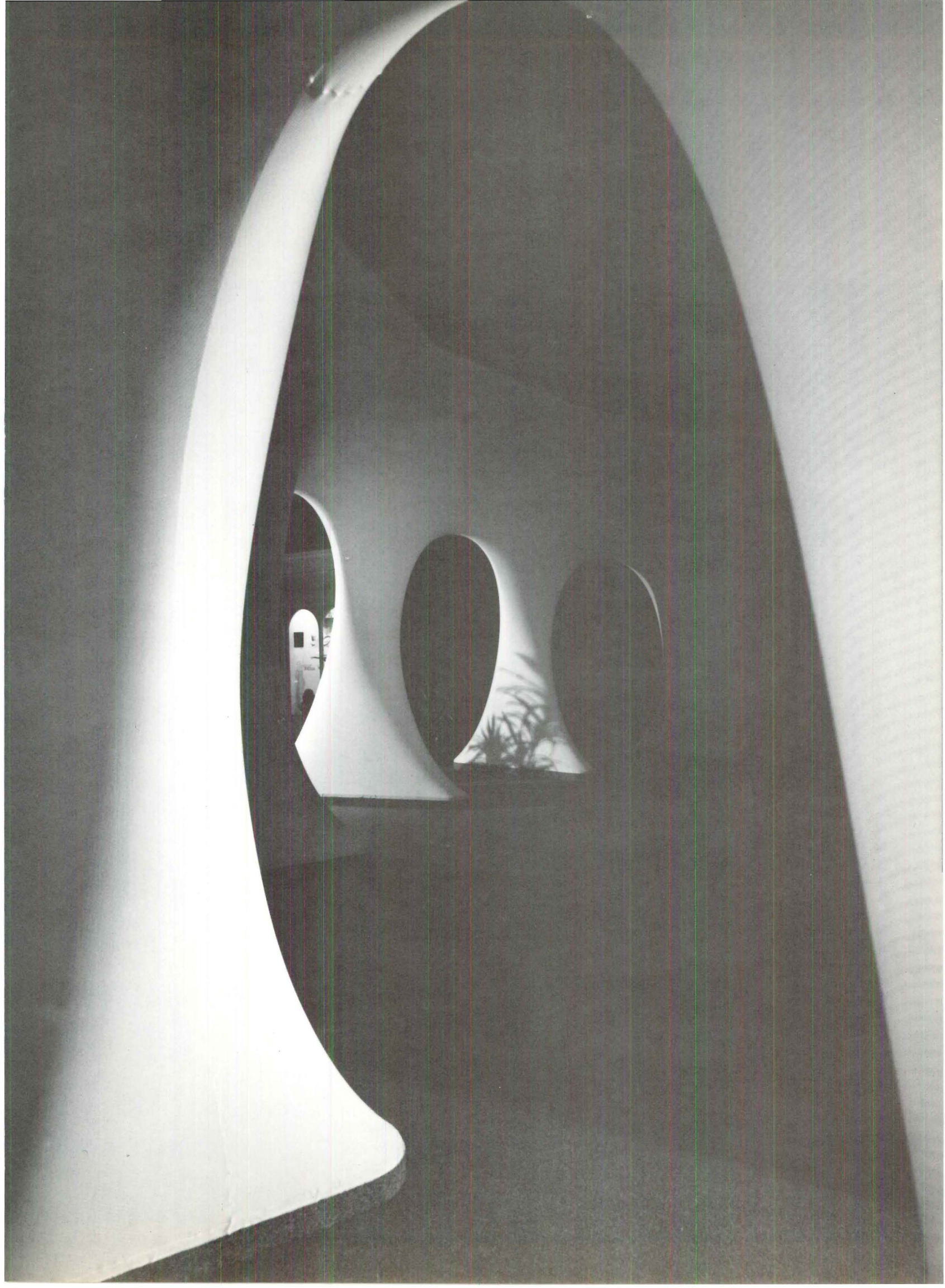
and reshaping the forms by moving the concrete weights about on the deck. At the Museum, the panels are fastened to floor and ceiling with Velcro fabric fasteners. In some cases the reinforced fabric seams are pressed into split vinyl tubing that runs neatly along the floor and ceiling.

But it is not the details which matter in these constructions. Unlike fabric structures designed by architects and engineers (October issue), these are not self-supporting. They therefore do not require the mathematical analysis on which Frei Otto's work, for instance, depends. Instead, it is the sculptor's approach to form, and is the result of Mrs. Kasuba's close collaboration

with her husband, Vytautas. Each environment so far has contained some unforeseen elements, usually felicitous. Mrs. Kasuba explains that she derives the floor plan from programmatic and circulation needs. It is in the ceiling plan that she follows her intuition. "That's where I get reckless," she says. The ceiling plan (the wildly twisting solid line) of the Museum environment (right) is a good example. The floor plan (dotted) is relatively restrained. What happens in between has an effortless sense of gravity and resistance to gravity. Stretch fabric has come a long way from undershirts and pantyhose.—JIM MORGAN

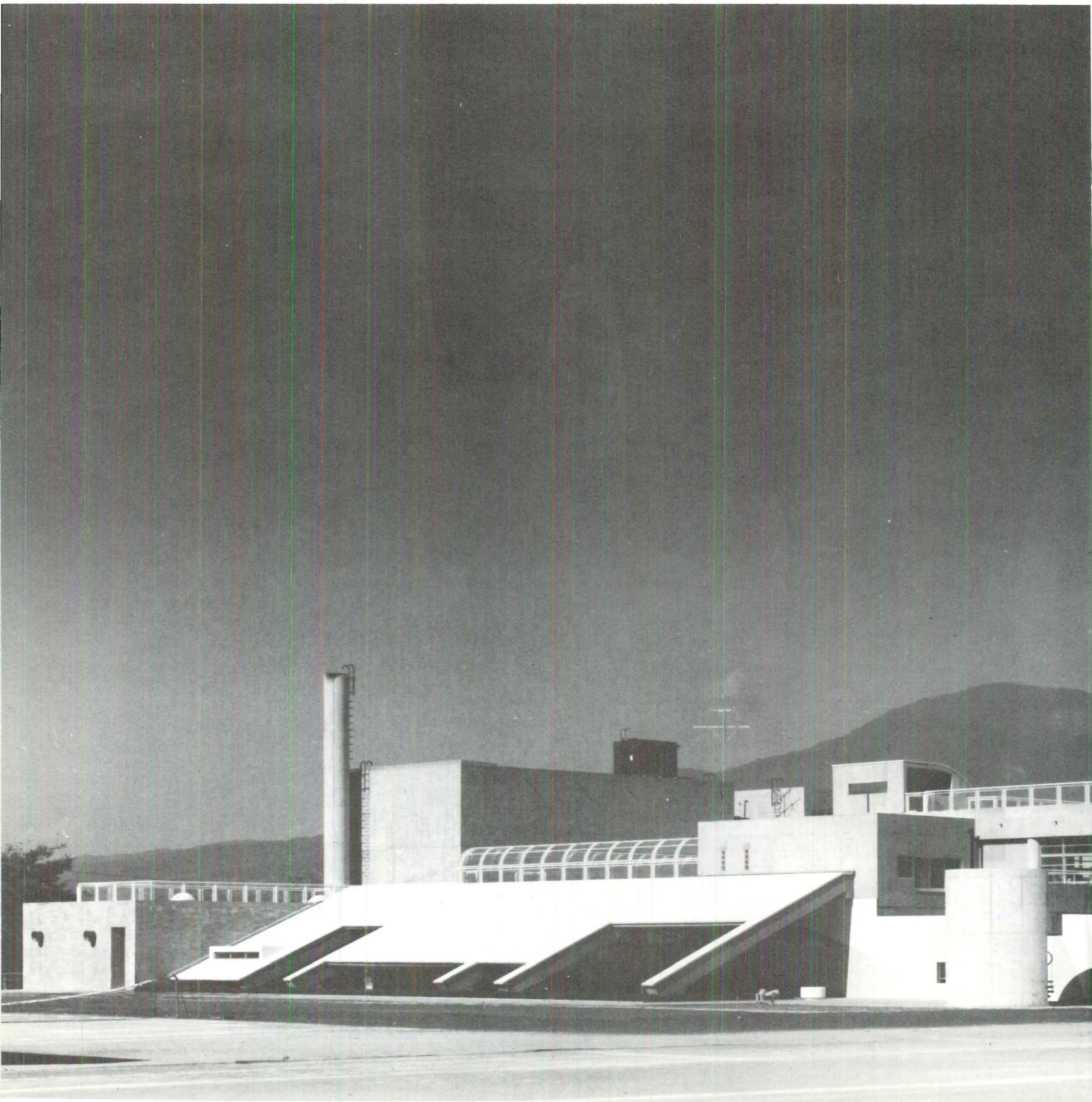
Photographs: Todd Watts

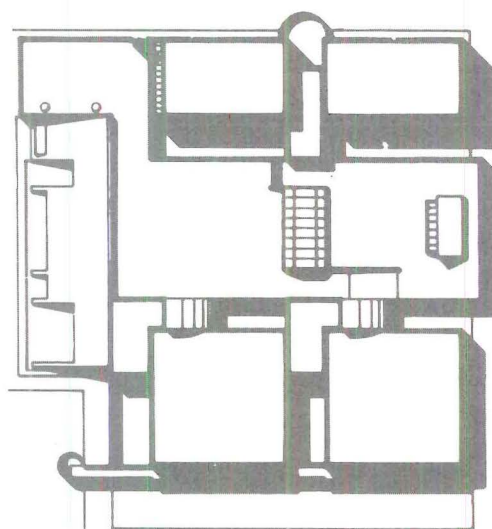




Kato Gakuen

At the foot of Mount Fuji, a school of abundant variety





Frequently, revisiting as adults the places which impressed us as children, we are amazed to see how things have shrunk: spaces and distances which seemed vast are now seen to be quite close.

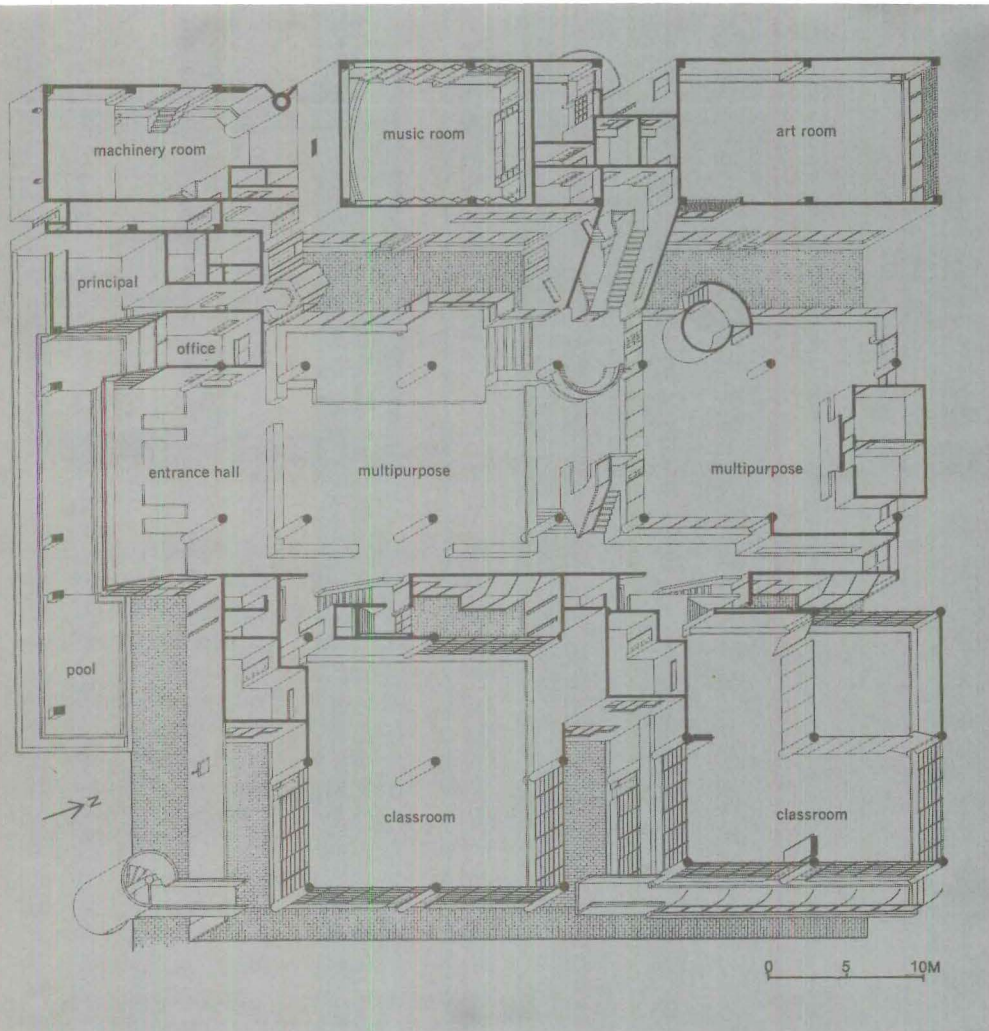
It is not often, however, that buildings for children (schools) are designed in accordance with a child's sense of scale. An exception is Kato Gakuen, a new private elementary school in Numazu, Japan, by architect Fumihiko Maki. Within a building which is really very compact, and, on the exterior even somewhat factory-like, Maki has provided an almost magical richness of visual and spatial articulation—a multitude of minor changes of level, for example, which, to an adult, might seem merely a nuisance, but which, for a child, may create valuable impressions of intimacy and change.

A basic element of this child-scaled articulation is the network of seven tiny courtyards which separate the major building elements. These not only bring light into the heart of the school, but also—important for a child's sense of orientation—allow adjacent elements to be seen from the outside, almost as if they were separate neighboring buildings. In Maki's words, they give "a feeling of here and there." They serve further as unusually effective sound barriers between classrooms.

Kato Gakuen is unusual in other ways as well. It is Japan's first school to adopt an "open" teaching system, with informally organized groups of students learning by doing, without arbitrary divisions into grades and classes. Such a flexible teaching program naturally required flexi-

Axonometric plan of the school shows its division into small elements by narrow courtyards open to the sky. At the top of the plan are special-purpose laboratories for music and art. One floor below them are similar laboratories for language and science. The central wing of the building is one floor high, with the entrance at left (including banks of lockers for shoes, which students remove upon entering), a major multi-purpose space and, raised half a level at the right, a quieter library area. The blocks at the bottom of the plan house general classrooms on two levels. Each can be subdivided, by means of sliding partitions, into four smaller areas.

The school entrance, seen under an exit bridge from the second floor, is intentionally scaled for children. It is flanked by a quiet pool of water under the low concrete roof beams. The ceramic tile mural at right is by Ray Komai.



ble space, a requirement which Maki met without the loss of character that a "universal" loft space typically suffers.

Furnishings, as well as spaces, are flexible in Kato Gakuen: desks and chairs, designed by Seiichi Endo, are not only movable, but also adjust to a variety of student sizes. A mountain of interlocking cubes in each classroom provides not only locker space and opportunity for clambering about, but can also be used as bleachers for lectures and film shows. The most flexible of all parts of the school, however, is its floor. The Japanese tradition of sitting on the floor or on cushions is encouraged here by the level changes which can also serve as seats, and by the widespread use of carpeting (also, of course, an aid in sound absorption).

The plan of the school is in three parts. In the center are a multi-purpose teaching space for assemblies of many types and sizes and, raised half a level beyond it, a quieter space for reading and audio-visual work. The western third of the building houses four specialized laboratory-classrooms for art, music, science, and language. The eastern third houses four general classrooms, each capable of being subdivided into four smaller areas by means of sliding partitions. In good weather, extensive roof decks are used as play areas.

The structure of the school is reinforced concrete, much of which is left exposed, but some of which, both inside and outside, is faced with glazed ceramic tiles. The patterns of these tiled surfaces, as well as the colors and graphics used throughout, are the bright contributions of Ray Komai.

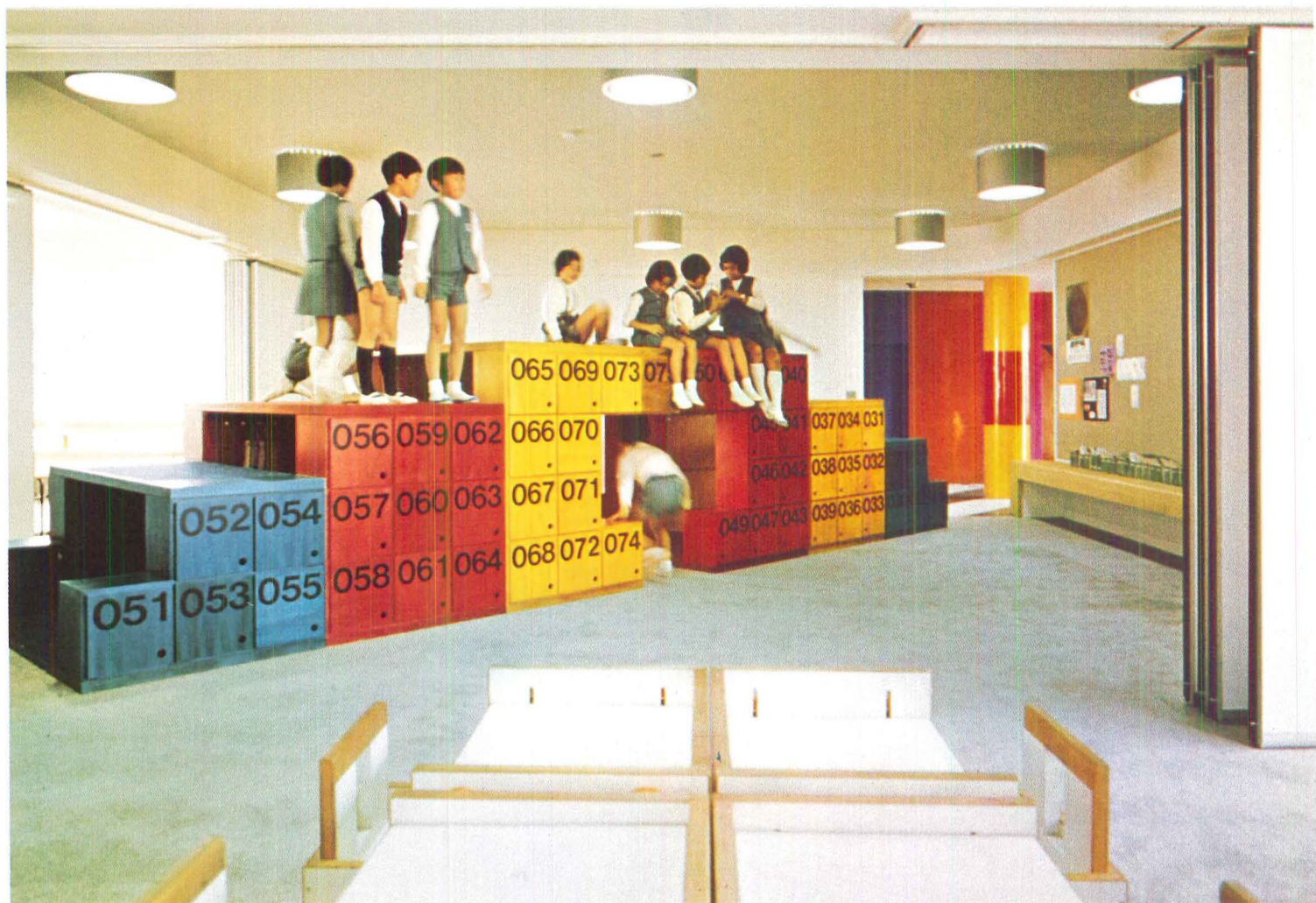
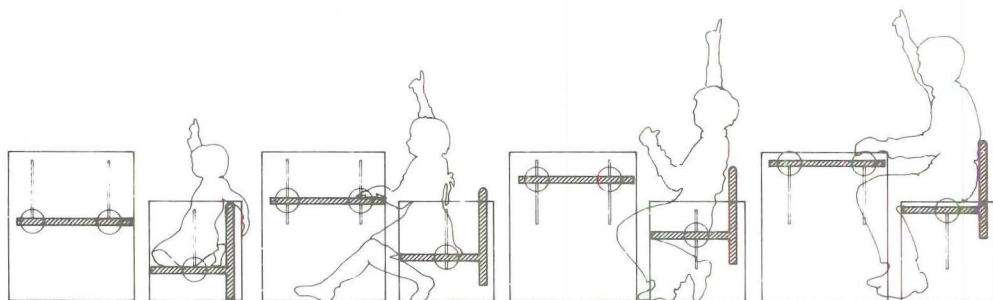
In Kato Gakuen, architecture, furniture design, and graphics all seem to be working toward a common end: an environment of particularized variety. For those of us accustomed to the arid regimentation and repetition of typical school buildings, this one is educational indeed.

Facts and Figures

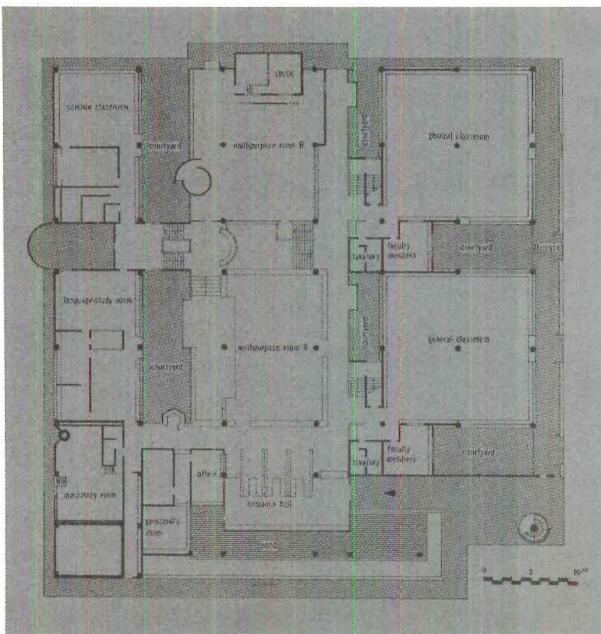
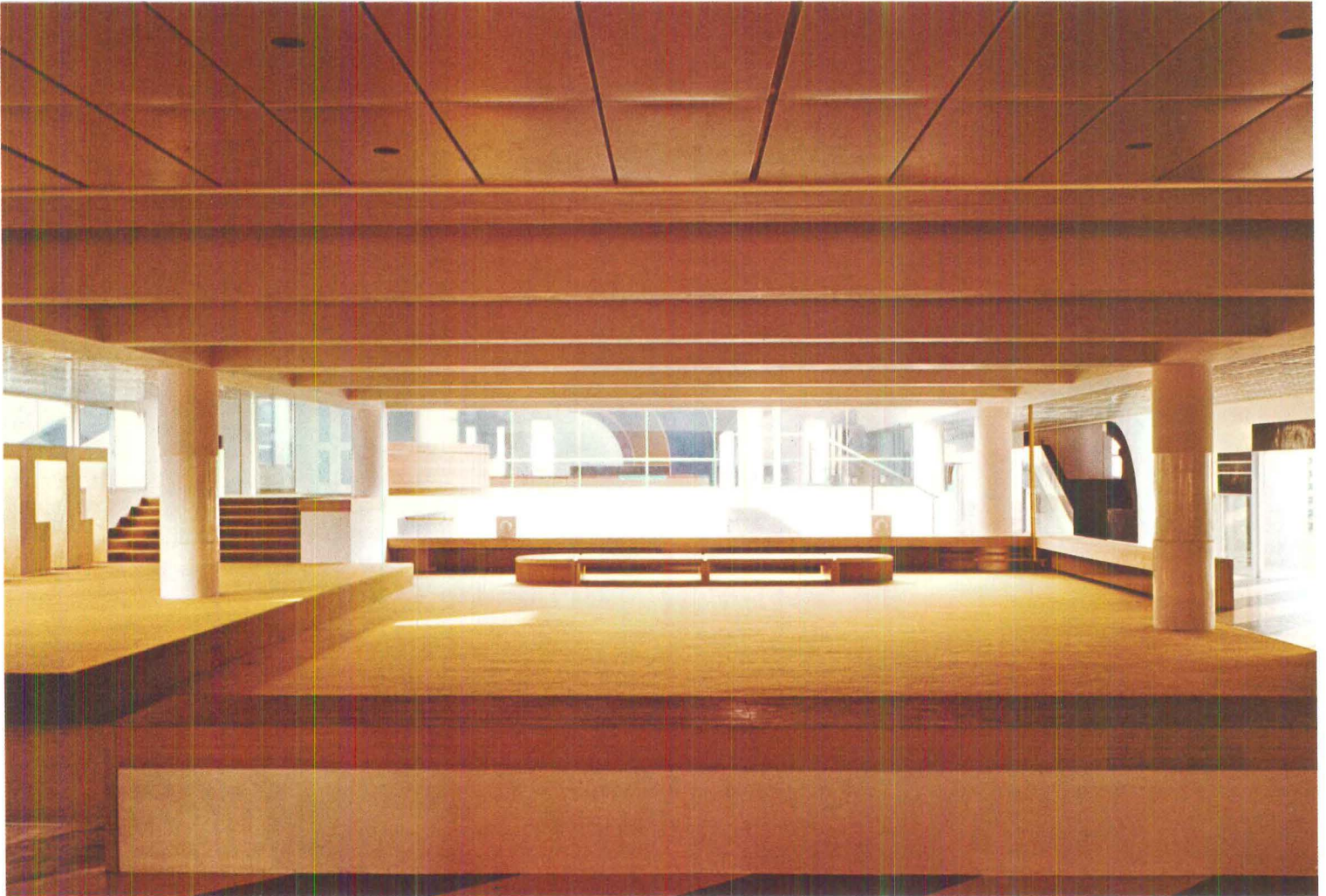
Kato Gakuen elementary school, Numazu, Shizuoka Prefecture, Japan. Architects: Maki and Associates. Associate in charge: Tomoyoshi Fukunaga. Engineers: Kimura Structural Engineers (structural), P. T. Morimura & Associates (mechanical). Graphics consultant: Ray Komai. Furniture design consultant: Endo Planning Co., Ltd. Contractor: Tekken Kensetsu Construction Co. Building area: 43,300 sq. ft. Photographs: Osamu Murai, except p. 56 and 58 Yasuhiro Ozawa.



The diagram at right shows the range of flexibility possible in desks and seats designed by Seiichi Endo. Below, three views of the general classroom spaces in use. The brightly stained wooden cubes are individual storage units and interlock to form bleachers for seating. An open tunnel between rows of cubes is lined with coat hooks and serves as a cloak room. With the use of magnets, the sliding partitions can be used as bulletin boards as well as space dividers.



The central multi-purpose room of the school is a vast carpeted area surrounded by a variety of steps and low walls which can be used as raised seating. Individual wooden study carrels line the courtyard wall at left, and the raised library area is beyond the skylighted corridor at the rear. Below, plan of the ground floor, and a view down the tiled corridor south of the multi-purpose room. Right, the corridor east of the multi-purpose room, looking towards a secondary entrance at the north. The corridor ceiling is of perforated metal, with mechanical ducts visible through the perforations.







An aerial photograph of New York City, showing a dense cluster of skyscrapers in the background, transitioning to a mix of mid-rise buildings and residential structures in the foreground. A multi-lane highway runs horizontally across the lower third of the image, with a body of water in the bottom foreground. The overall tone is a muted, slightly desaturated color.

New York housing breaks the mold

By Stanley Abercrombie

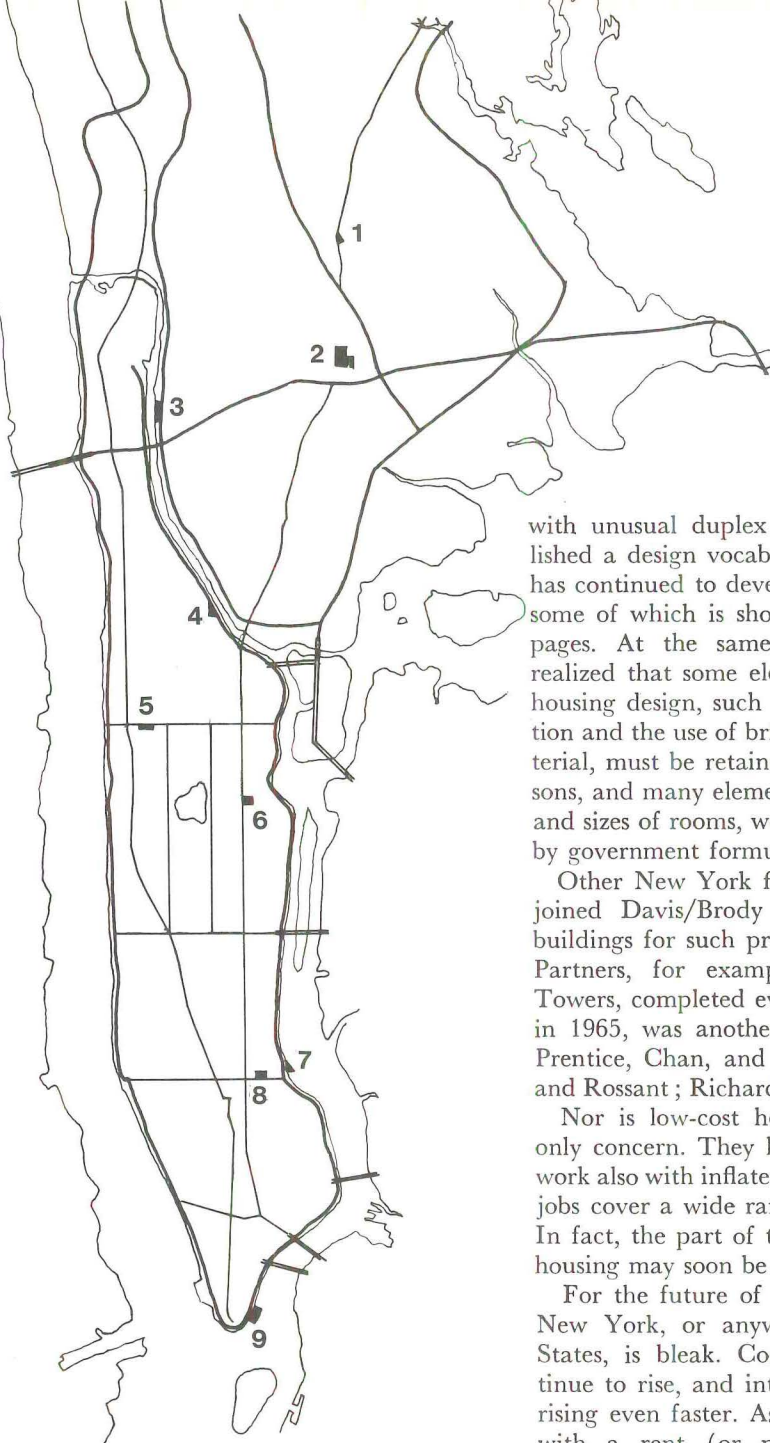
In Waterside, now under construction on a man-made platform over the East River, and in a series of other remarkable buildings already built in Manhattan and the Bronx, the New York firm of Davis, Brody and Associates has broken from the patterns of the past and proved that even subsidized housing can be architecture.

Davis, Brody and Associates' blocks of subsidized apartments, built or under construction all over Manhattan and the Bronx, are remarkable for several reasons: primarily, because they are handsome buildings offering really enjoyable places in which to live; and, secondarily, because it is something of a miracle that they exist. New York construction costs, the red tape of multiple government agencies, the infamous New York apathy towards "architecture" in housing, and the powerful inertia of mental attitudes which assumed that publicly-assisted housing was *supposed* to be ugly—these were obstacles not easily overcome.

"When we started Riverbend in Harlem in 1962," Lewis Davis says, "anything with over a hundred units of housing was called a 'project'." The word brings to mind a hideous vision of drab brick slabs marching along in strict regimentation, a visual bore relieved only by concrete playgrounds surrounded by chain link fencing—Le Corbusier's *Ville Radieuse* reduced to its meanest possible form. Now, because of work by Davis/Brody and by a handful of other architects, both the image and the reality of such housing in New York has changed.

Davis, Brody and Associates was formed in 1953 as Davis, Brody and Wisniewski, and took its present name in 1957 when Celestyn Wisniewski left for private practice. Lew Davis and Sam Brody still consider building design their personal responsibility, and there is now a third partner, Alan Schwartzman. The firm's housing work was not accomplished by the firm alone, of course, but in cooperation with many others—with people in government agencies (such as the late Sam Raten-sky of New York's Housing & Development Authority) who, when offered a housing design better than the routine, were willing to fight for it; and with powerful builder-developers such as Fred DeMatteis of the DeMatteis Organizations and Richard Ravitch, President of H.R.H. Construction. It was Ravitch, in fact, as owner-developer of both Riverbend and Waterside, who brought Davis/Brody their first opportunities in housing.

Riverbend, the first of these to be finished (in 1967), was one of the earliest revelations of how civilized low-cost housing could be. Its siting was sensible, not mechanical, its building masses were varied,



A map of the New York boroughs of Bronx and Manhattan shows the distribution of Davis/Brody's housing now built, under construction, or proposed. From the north are:

- (1) 2440 Boston Road, 235 low-income rental units, completed in 1972. (See p. 68)
- (2) Lambert Housing, 731 middle-income units built under the FHA's 221-D3 program. Under construction.
- (3) Harlem River Housing, an Urban Development Corporation-sponsored development with 1654 moderate- and low-income units. Under construction. (See p. 74)
- (4) Riverbend, 625 middle-income co-operative units, completed in 1967. (See next page)
- (5) Cathedral Parkway Housing, designed in association with Roger DeCourcy Glasgow, 309 moderate-income units. Under construction.
- (6) Ruppert Housing, 1800 units under the FHA 236 and Mitchell-Lama rental programs. Under construction.
- (7) Waterside, 1470 units for a wide range of income levels, subsidized by many local and Federal agencies. Under construction. (See p. 66)
- (8) East Midtown Plaza. The first stage, completed in 1972, has 512 middle-income units; the second stage, under construction, will add 225 more. (See p. 70)
- (9) Manhattan Landing, still in the planning stage.

with unusual duplex units, and it established a design vocabulary which the firm has continued to develop in its later work, some of which is shown on the following pages. At the same time, Davis/Brody realized that some elements of traditional housing design, such as flat slab construction and the use of brick as an exterior material, must be retained for economic reasons, and many elements, such as numbers and sizes of rooms, were strictly prescribed by government formulae.

Other New York firms, of course, have joined Davis/Brody in producing good buildings for such programs—Gruzen and Partners, for example (their Chatham Towers, completed even before Riverbend in 1965, was another fine early model); Prentice, Chan, and Ohlhausen; Conklin and Rossant; Richard Meier; many others.

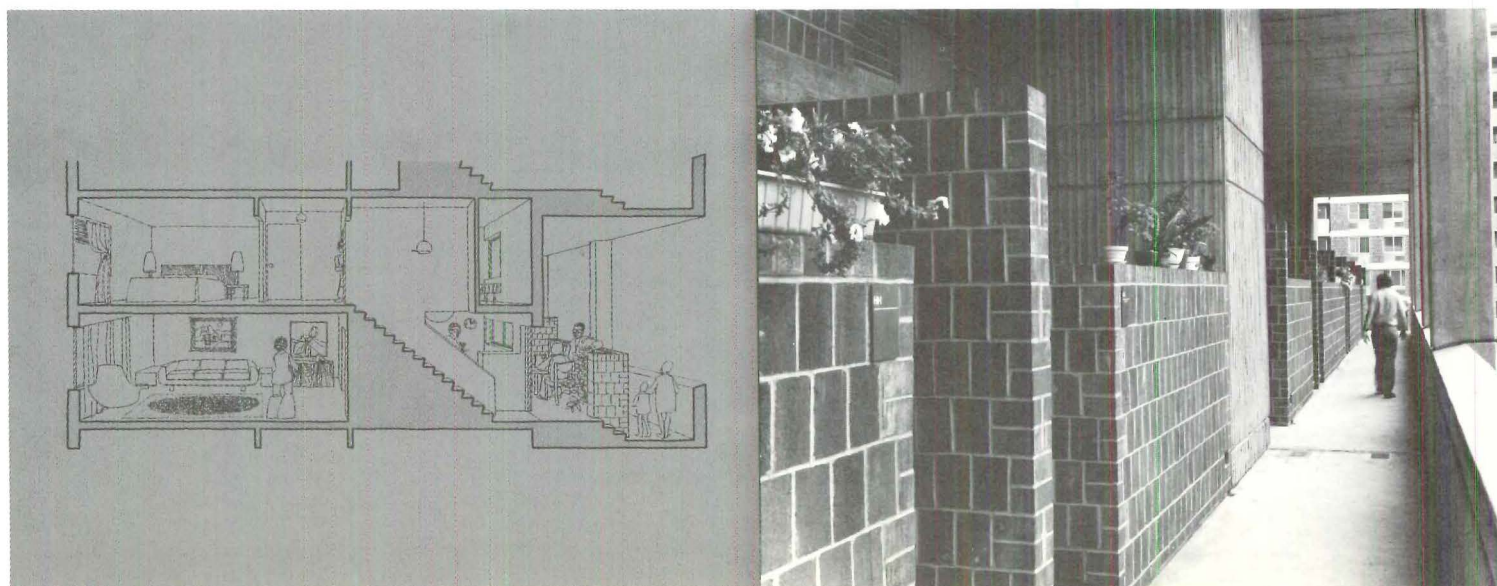
Nor is low-cost housing Davis/Brody's only concern. They have done pioneering work also with inflated structures, and their jobs cover a wide range of building types. In fact, the part of their work devoted to housing may soon be curtailed.

For the future of subsidized housing in New York, or anywhere in the United States, is bleak. Construction costs continue to rise, and interest rates have been rising even faster. As a result, apartments with a rent (or monthly maintenance charge) of \$30. per room only six years ago (such as those at Riverbend) would now have to rent for \$100. per room. A further, critical obstacle, of course, is the Nixon administration's monumental misunderstanding (see page 79) of the urban housing problem. "It is no longer possible," Richard Ravitch says, "to build housing for the overwhelming majority of New Yorkers without federal aid. There is no sign that any aid is forthcoming, and the result can only be a housing famine—for builders, for architects, and for those who need shelter."

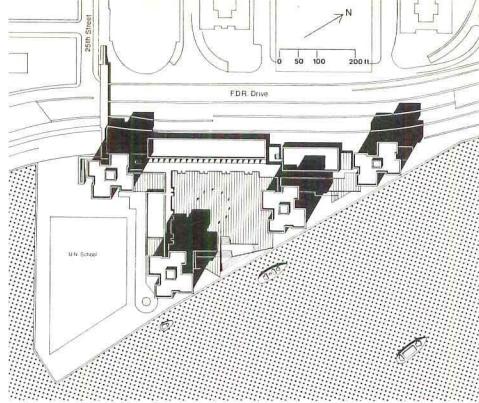
As the difficulty of building new housing in our cities increases, however, the skills pioneered by Davis, Brody and Associates become increasingly valuable, and, to whatever extent it *will* be possible to answer New York housing needs in the future, it is clearly Davis/Brody who have set the important precedents for answering those needs with good building. The housing "project" is dead, and, probably more than any other single group of architects, it is Davis, Brody and Associates who killed it.

Riverbend

Riverbend, the first Davis/Brody housing to be completed, is massed to take maximum advantage of the river view. It is in striking contrast to the slightly earlier "projects" around it—Metropolitan Life's Riverton Houses seen just to the left of Riverbend, and Franklin Delano Village (like Riverbend, built under New York's Mitchell-Lama program) just behind it on the right. Below, a section through one of the innovative duplex units, and a view of an exterior walkway linking them. The 5½" x 8" brick unit developed for these buildings has proved both handsome and economical, and is now in common use. Photographs here and on page 62: Robert Gray.







Waterside

The Englishman, in the old joke, regrets the fog over the channel because "the Continent is isolated," and future residents of Waterside may come to think of Manhattan with the same condescension. The most audacious of all the Davis/Brody schemes so far, it has suffered the most lengthy trials in seeking city approval. Not surprisingly, for it is built on a site over which no city housing agency seemed at first to have any possible jurisdiction—a site originally part of New York's East River. Even now, it rests not on land, not even on fill, but on 2,000 concrete pilings going down eighty feet and more through the water to bed rock.

Having effected an alteration of city bureaucracy so that such building sites can be created and approved, Waterside has made it easier for other uses of the Manhattan waterfront to follow—for example, Davis/Brody's (and others') own hopes for the 110-acre Manhattan Landing project.

At Waterside, no physical integration of the new housing with its neighborhood was possible. The site is clearly, dramatically cut off from Manhattan proper by the East River Drive. Waterside has, however, made the friendly gesture to its landlocked neighbors of constricting itself generally to tall, narrow towers, thus obstructing the river views as little as possible.

The most northern of the four towers at Waterside, 31 floors high with 12 apartments per floor, is financed primarily under the Federal 236 program which provides a mortgagee (in this case, the city) with a subsidy which reduces his interest rate and, therefore, the rents he must charge. The other three towers, 37 floors high with 10 apartments per floor, have been aided by New York State's Mitchell-Lama law, permitting the sale of tax-exempt bonds, the proceeds from which can be loaned to limited-profit housing companies.

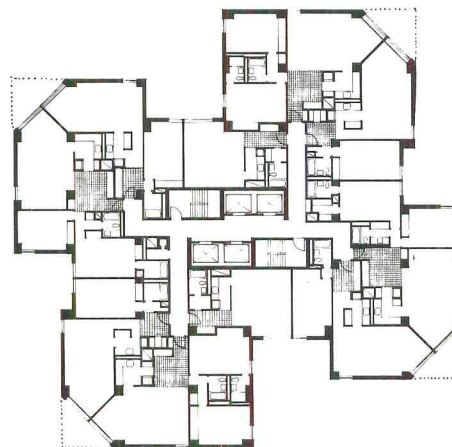
Construction will be completed in 1974.

Facts and Figures

Waterside, East River Drive between 25th and 30th Streets, New York. Architects: Davis, Brody and Associates. Associate: Jack Lebduka; Project Architect: Herb Levine. Engineers: Robert Rosenwasser (structural), Cosentini Associates (mechanical and electrical). Lighting consultants: Herbert Levine and Howard Brandston. General contractor: HRH Construction Corporation. Photograph: Robert Gray



Typical upper floor



Typical intermediate floor



Typical lower floor



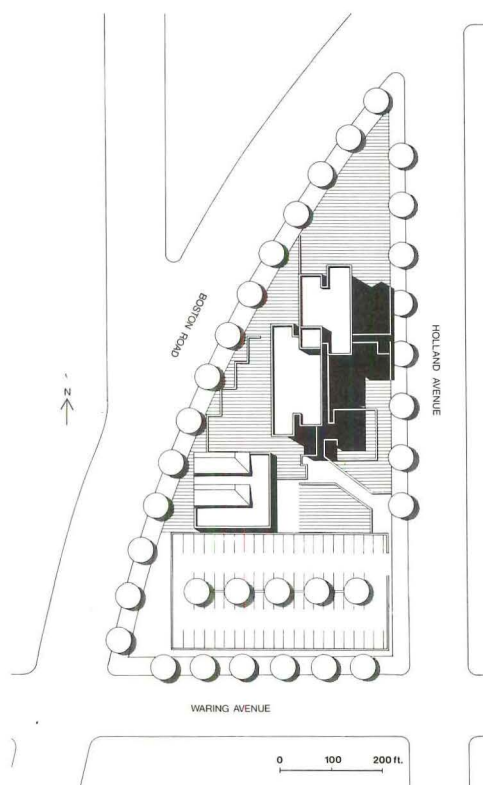
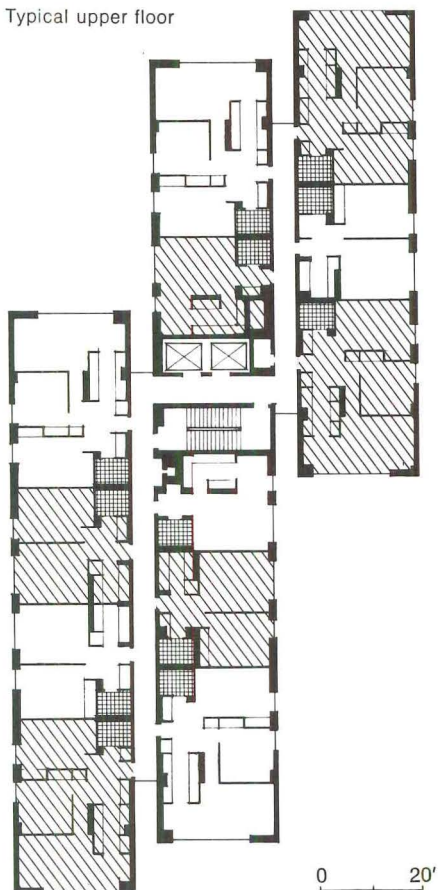
2440 Boston Road

The staggered massing of the Boston Road tower provides a striking silhouette and, as shown below, a floor plan with unusually short, daylighted corridors. The jagged roofline at the foot of the tower covers a community center, and the concrete wall shields adjacent parking. The tower's upper floors, stepped out at different levels, contribute to the picturesque profile and allow much-needed flexibility in accommodating several different apartment sizes in one envelope.

2440 Boston Road, a single building on the busy Boston Post Road in the North Bronx, was designed for the most minimal budget of all, under the low-cost housing program of the New York City Housing Authority, and with a requirement of 235 apartments (200 of them for the elderly), on a relatively small, steeply graded, triangular site—a requirement which precluded any low-rise design that might have fit inconspicuously into its surroundings. Instead, the Boston Road tower makes a spirited show of itself in a neighborhood which badly needed a little spirit. Not only is it a surprisingly handsome building, considering the limitations under which it was built, but it also boasts a highly ingenious floor plan: with apartments in three narrow blocks, the corridor area is broken into two lengths between those blocks, each length being relatively short and having natural light at both ends—an extremely rare amenity in an apartment building at any income level.

At grade, a lower, separate building provides space for a community center, a facility which is a functioning link between the housing and the neighborhood around it. Its skylighted roof is a pleasant formal complement to the angled brackets under the larger upper floors of the housing block.

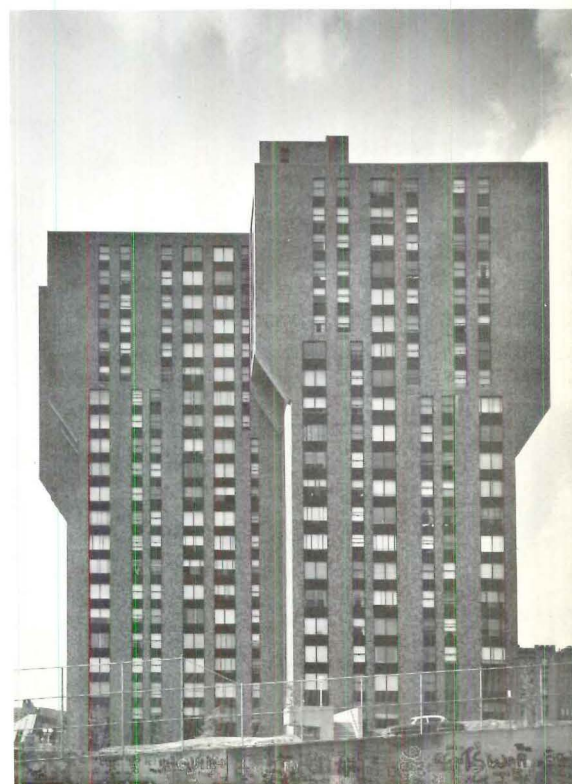
Typical upper floor



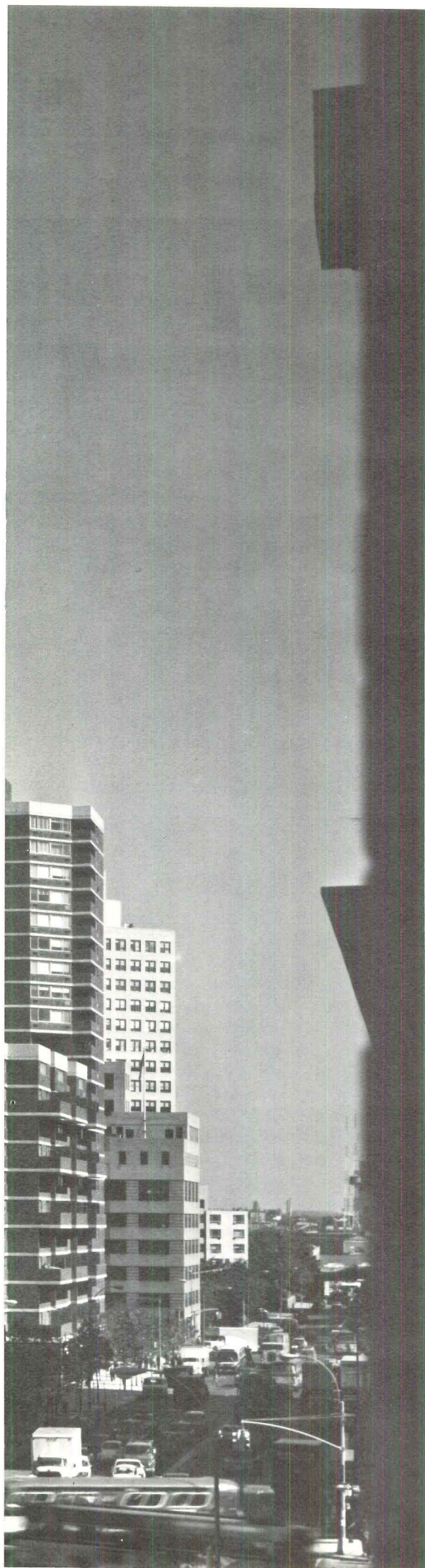
Facts and Figures

2440 Boston Road Apartments, Bronx, New York. Architects: Davis, Brody and Associates. Project Architect: Norman Dorf. Engineers: Sadler Associates (structural), Cosentini Associates (mechanical and electrical). Landscape architect: M. Paul Friedberg and Associates. General contractor: A. D. Herman Construction Co., Inc. Building area: 175,390 sq. ft.

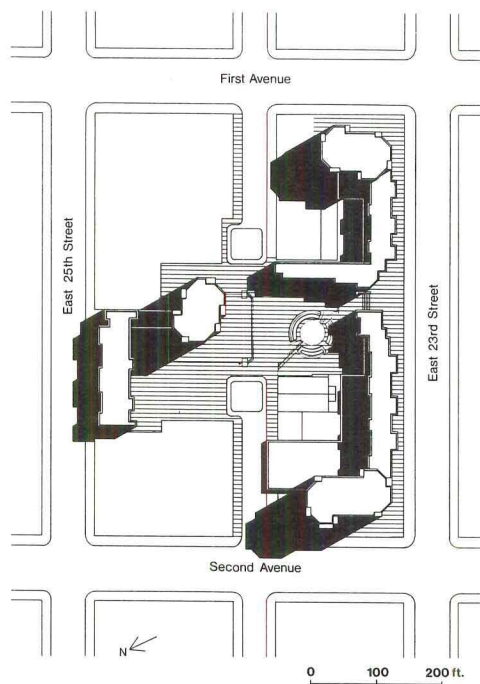
Photographs: Norman McGrath
Building suppliers listed on page 88.







East Midtown Plaza



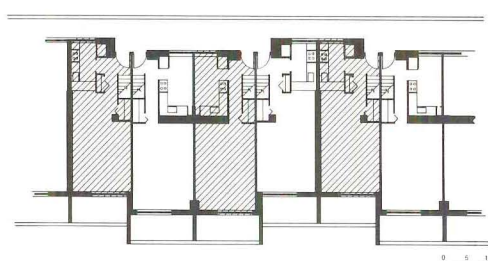
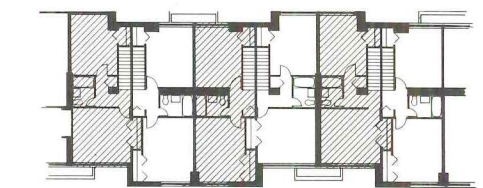
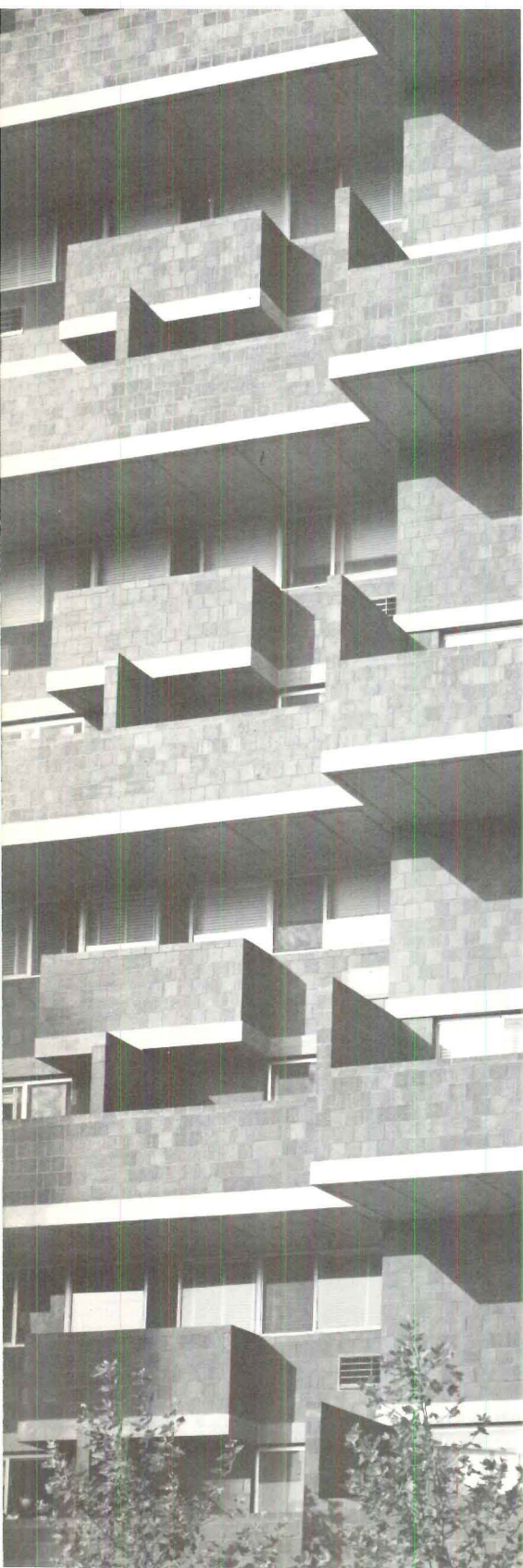
The first building stage of East Midtown Plaza in Manhattan was completed in 1972, and its second stage, adjoining it directly to the north, is now under construction. When completed, 24th Street, which separates the two stages, will be closed, and the existing public plaza at grade level will be extended.

East Midtown's buildings, like those of the earlier Riverbend, but here more carefully integrated, are a mixture of 22- and 27-floor towers and lower, longer buildings of duplex units. It is primarily the presence of these lower blocks that makes East Midtown such a comfortable part of its neighborhood.

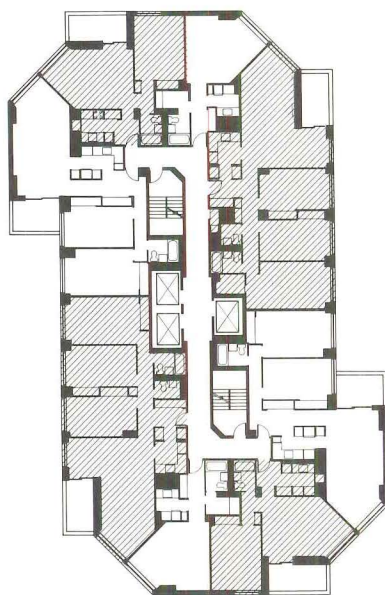
Davis/Brody's conscientious effort here to respond to existing conditions has not been without irony. The East Midtown buildings, on a curiously shaped site, partially surround the existing Institute for the Crippled and Disabled, and were also designed to accommodate another building, St. Sebastian's Roman Catholic Church, founded there in 1918. In a master plan prepared by Davis/Brody in 1968 for the area which now includes both East Midtown and Waterside, they wrote that some older buildings had "a permanent lease on life and a vital function—to guard insofar as possible the spirit of the old community while the new community [was] being erected," and that "these 'guardian' buildings" included St. Sebastian's. Many basic decisions, from site planning to selection of a matching brick color, were made in the church's behalf; then, without warning, the diocese demolished St. Sebastian's and sold the land to a private developer. Its place is now taken by a new apartment building of the most banal type, but, despite this disappointment, East Midtown's siting remains extremely agreeable.

East Midtown affords as good an opportunity as any for looking at the general vocabulary of forms which Davis/Brody has developed for housing. The Davis/Brody buildings are so skillful that any listing of formal devices must be an oversimplification, but the buildings do all seem to have one or more of these design characteristics:

First (and least interesting) is the somewhat hackneyed device of connecting windows into bands by means of panels between windows in materials (such as cement plaster or anodized aluminum) different from the material (brick) typical of the exterior



Typical duplex floors



Typical tower floor

wall. In the case of East Midtown Plaza, these bands are horizontal; in most other buildings shown here, vertical.

Second, a similar but much less artificial device, used on Riverbend and East Midtown, is the interruption of the brick wall at each floor level by an exposure of the concrete slab.

Third, less easy to define but common to all the Davis/Brody housing, is an attention to scale: the breakdown of large masses, for example, by means of balconies which are repeated only every second floor and by duplex apartments which are also, naturally, given an every-other-floor expression. The large facing brick developed first for Riverbend (in some cases $5\frac{1}{2}'' \times 8''$; in others, $8'' \times 8''$) is also a major contributor to the fact that these buildings, despite their size, have a quite humane and comprehensible scale.

Fourth, in the cases of Waterside, Boston Road, and Harlem River, the cantilevering of upper floors beyond lower ones responds to the need for accommodating in one block many different apartment sizes as well as to the need for visual variety.

Fifth is the use of diagonal corners. In their simplest form, at East Midtown, they give an unusual character to living rooms which, otherwise, would be necessarily somewhat pat, and they give these rooms views across intersections and down streets rather than shorter views directly across streets. In the more complex buildings of Harlem River, Waterside, and Ruppert, floors with such diagonal corners provide transitions between smaller floors (with re-entrant right angles) below them and larger floors (with projecting right angles) above them. As these modulations provide larger corner apartments, the change in layouts is seen on the exterior in a shifting of window locations, providing further variety.

A sixth device, on a site planning scale, is the rotation of plans, so that a group of towers, such as those at Waterside, may share a common plan without the visual repetition so common in earlier "projects." This rotation suggests a disregard for orientation to sun, but buildings with as many as fourteen apartments per floor must obviously have windows facing in all directions, and the irregularities of Davis/Brody's floor plans have given them the opportunity to provide all but the smallest apartments with at least two orientations.

Opposite, on one of East Midtown's rows of duplex units, one of the sculptural patterns created by balconies and exterior access walkways. The small balconies on the upper floors of the duplex units, like their predecessors at Riverbend, are designed to meet fire safety requirements for egress by allowing escape, in emergencies, to adjoining apartments. On this page, a more distant view of one of the duplex buildings and the mid-block public plaza fronting it. The view is taken from a window in the new tower of smaller units now under construction. Manhattan's East 23rd Street is seen through the opening at the left.

Facts and Figures

East Midtown Plaza (Stage 1), 23rd Street between 1st and 2nd Avenues, New York. Architects: Davis, Brody and Associates. Associate: Harold Rolls; Project Architect: Lynda Simmons; Designers: Alec Purves and John Edelbaum. Engineers: Robert Rosenwasser (structural), Cosentini Associates (mechanical and electrical). Landscape architect: M. Paul Friedberg and Associates. Lighting consultant: David A. Mintz. General contractor: Cauldwell Wingate. Building area: 824,650 sq. ft. Photographs: Norman McGrath. Building suppliers listed on page 88.



Harlem River Park

The two buildings of Harlem River Housing rise like a surreal and richly modulated wall on the Bronx riverfront. They are built on a strip of land between the Major Deegan Expressway and the Harlem River, a strip quite isolated from the University Heights community nearby and, until now, a wasteland of small industrial buildings. Both in this physical isolation and in its architectural vocabulary, it closely resembles its predecessor, Waterside.

Harlem River, however, has made a major effort to attach itself to the community across the Expressway. A new bridge over the traffic, now under construction, will supplement an existing bridge to the north and provide access to the development's parking structure; an elaborate recreational complex of pools and gymnasium,

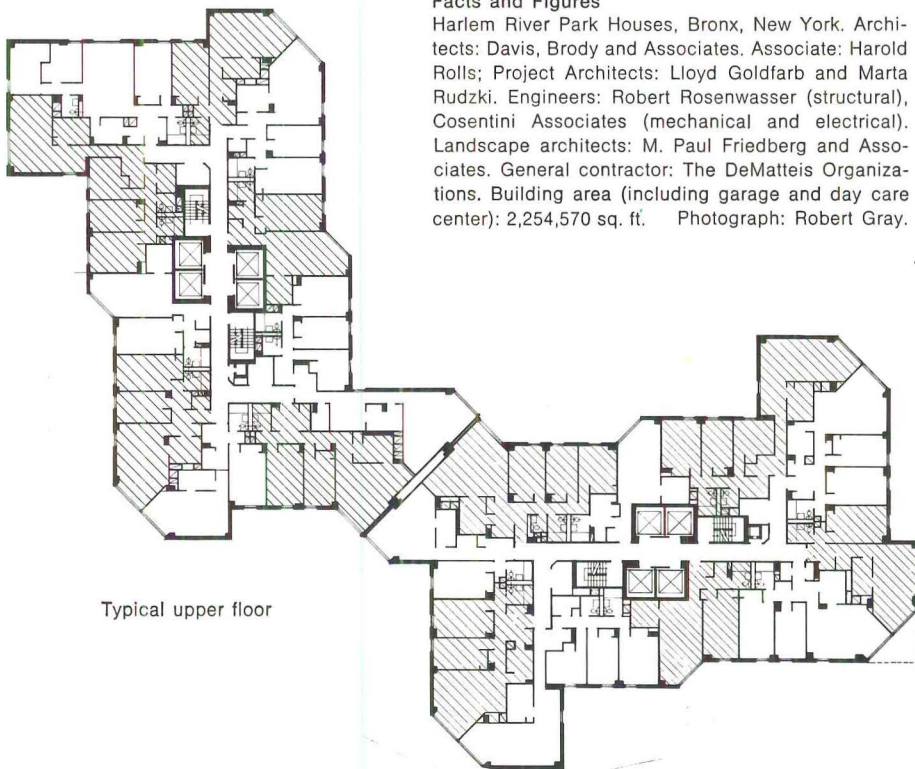
designed by Paul Friedberg, is already in operation just north of the housing and has been very happily received by the community; and a proposed school by Caudill, Rowlett, and Scott, spanning the railroad tracks which parallel the Expressway, will be a further tie. The waterfront is being developed as a pedestrian promenade.

Harlem River's towers are sponsored by New York State's Urban Development Corporation, and the entire 22-acre strip of land in which they are sited has been designated a state park.

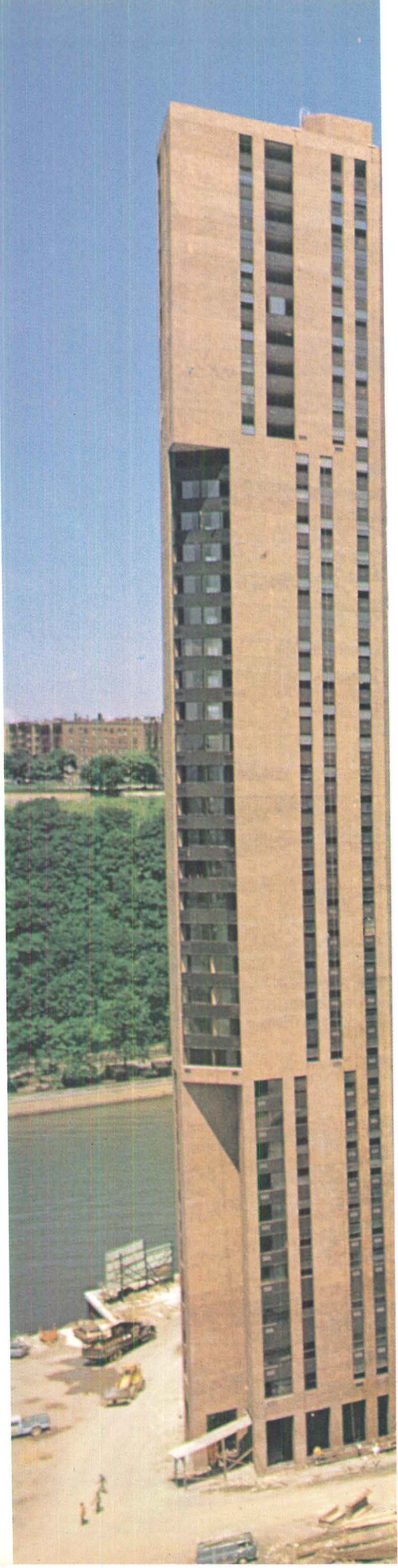
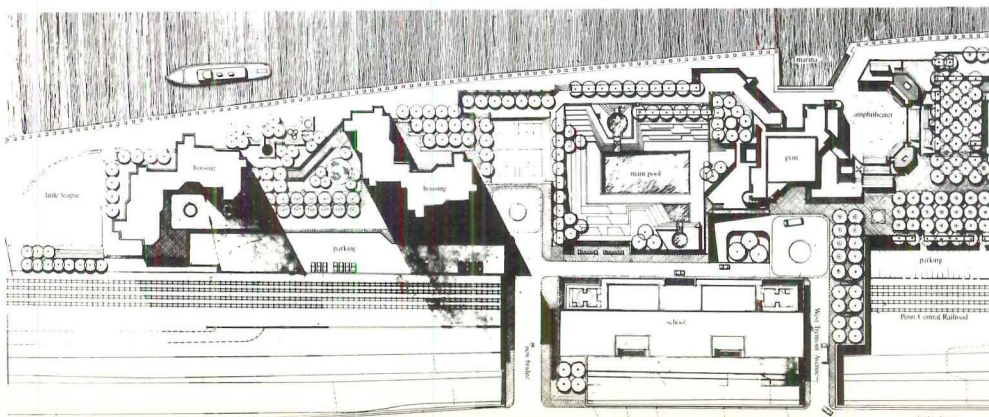
Harlem River and the other housing groups shown here are by no means ends in themselves, but are early steps in a continuing creative process by Davis, Brody and Associates, a process of potential value to everyone who lives in a city.

Facts and Figures

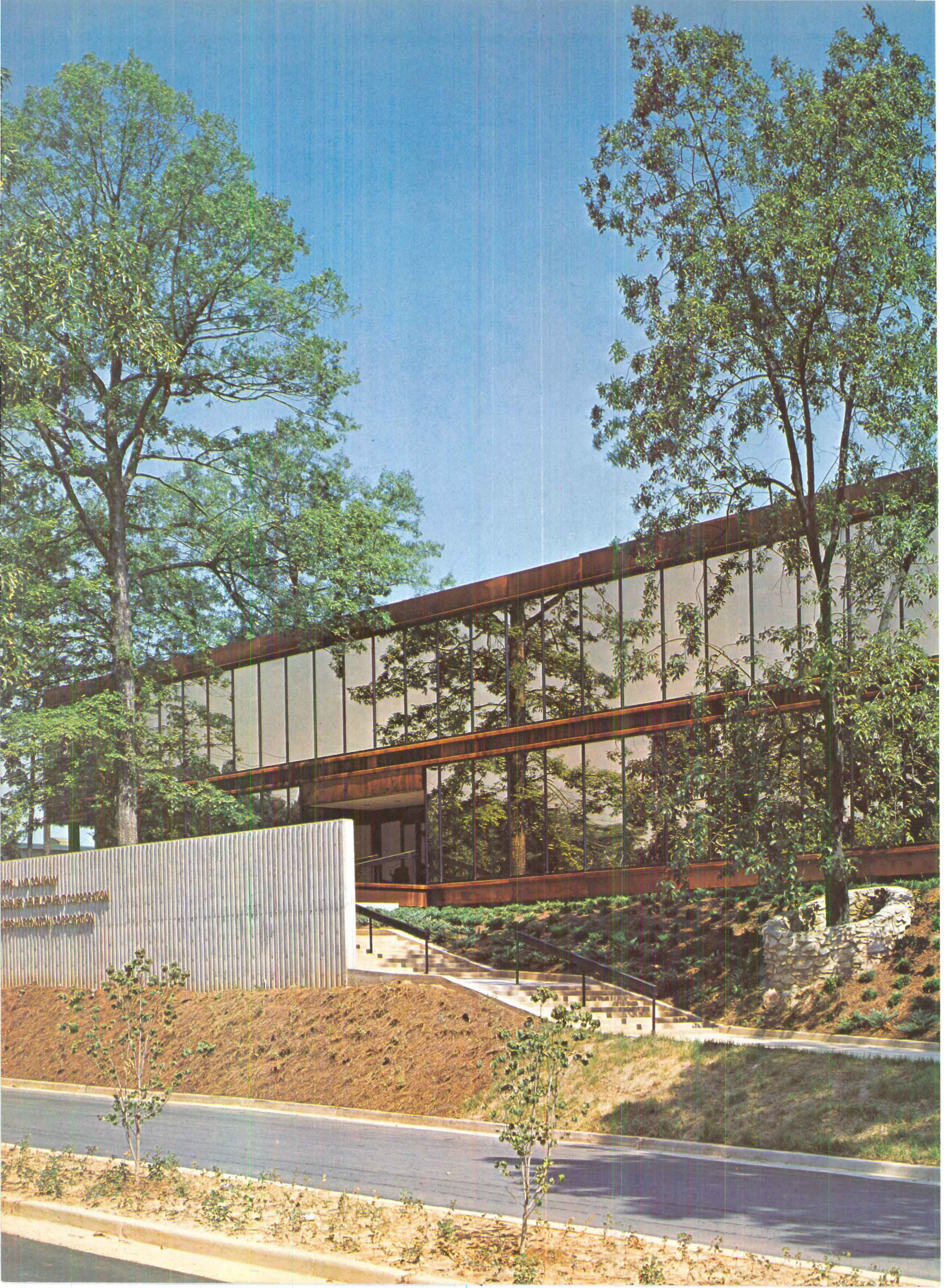
Harlem River Park Houses, Bronx, New York. Architects: Davis, Brody and Associates. Associate: Harold Rolls; Project Architects: Lloyd Goldfarb and Marta Rudzki. Engineers: Robert Rosenwasser (structural), Cosentini Associates (mechanical and electrical). Landscape architects: M. Paul Friedberg and Associates. General contractor: The DeMatteis Organizations. Building area (including garage and day care center): 2,254,570 sq. ft. Photograph: Robert Gray.



Typical upper floor







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Circle Reader Service Card Number 104

Owner: Phipps Land Co.
Architect: Toombs, Amisano & Wells
Stopray #2016 glazed by PPG, Atlanta

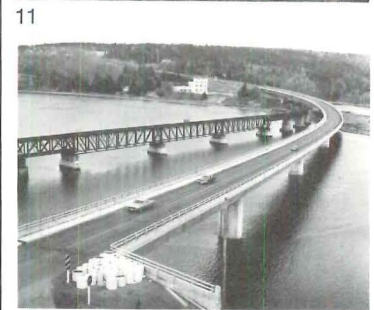
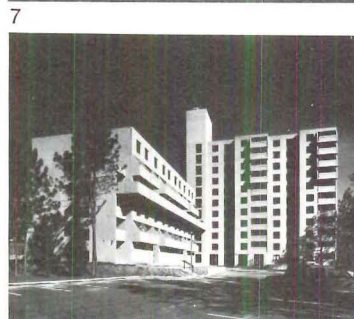
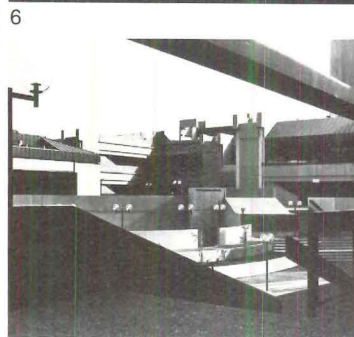
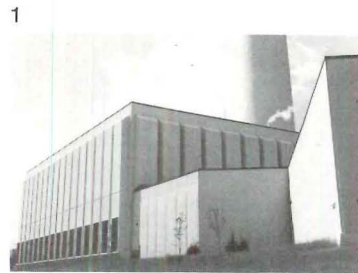


continued from page 25

Prestressed concrete awards

Equal awards have been given to 17 winners in the 1973 U.S. Prestressed Concrete Institute Awards Program. The winning entries were chosen for the quality of esthetic expression, function and economy. The winners are:

1. Atlanta Steam Heat Generating Plant, Atlanta, Ga. Lockwood Greene Engineers, Inc.
2. Christian Science Church Center, Boston, Mass. I. M. Pei & Partners and Araldo Cossutta, architects.
3. Dallas/Fort Worth Airport. Hellmuth, Obata & Kassabaum, Inc. and Brodsky, Hopf & Adler, architects. Harrell & Hamilton and Preston M. Geren, Jr., assoc. archts.
4. Hancock Place Garage, Boston, Mass. Nichols, Norton and Zaldastani, Inc., engineers. I. M. Pei & Partners, architects.
5. The Law Building, Greeley, Colo. Larry E. Steel, architect.
6. Mount Royal College, Calgary, Alberta, Canada. Stevenson, Raines, Barrett, Hutton, Seton & Partners, architects and engineers.
7. Operation Breakthrough, High and mid-rise apartments, Macon, Ga. Keyes, Lethbridge & Condon, architects; Sulton & Campbell, assoc. archts.
8. SCOPE/Convention and Cultural Center, Norfolk, Va. Williams and Tazewell & Associates, Inc. architects.
9. Syd Solomon Residence, Sarasota, Fla. Gene Leedy, architect.
10. United Air Lines Regional Reservation Center, Dearborn, Mich. Rossetti Associates Inc., architects.
11. Bear River Bridge, Digby, Nova Scotia, Canada. A. D. Margison Associates Ltd., designer.
12. Kern River Bridge, Kern County, Calif. California Division of Highways, architects.
13. Martin Bridge, Brookings, Ore. Oregon State Highway Division, engineers.
14. Old Miramar Road Overcrossing, San Diego, Calif. California Division of Highways, architects.
15. Papillion Overpass, Sarpy County, Nebraska. State of Nebraska, Dept of Roads, engineers.
16. Priest Point Park Bridge, Olympia, Wash. Arvid Grant and Associates, Inc., engineers.
17. Redmon Bridges, Yakima County, Wash. Ken R. White Company, architects.



A glimpse, but not a vision

This fall, the Nixon Administration released its much pre-heralded housing program—and it went over about as gracefully as any trial balloon made of solid lead.

Too bad; for the Nixon program, while not remotely as novel as its framers claimed, deserved some serious consideration.

In January of this year, the Administration had put a stop to all housing subsidies, except those enormous subsidies that, in the U.S., almost exclusively help the rich: the FHA mortgage-insurance subsidy that has enabled tens of millions of American families to buy comfortable suburban houses. Most of those suburbanites are white; most of them are reasonably well off (or downright rich); and most of them voted for Nixon in 1972. So their subsidies were left on the books when the Administration cut off all the subsidies to housing for the poor—and so was that other giant subsidy that helps well-to-do suburbanites: the tax deductibility of mortgage payments, which amounts to about ten times the total public housing subsidy doled out by the Feds every year.

Having put a sudden stop to all housing subsidies to the poor, the Nixon Administration had to come up with some sort of sop. The program announced a couple of months ago is it.

Its premise is reasonably sound: institutionalized public housing generally stinks. It stinks because it is ugly, expensive, ghetto-esque, and because its inhabitants lack the "housing mobility" that might enable them to live closer to better jobs, better educational and cultural opportunities, and in a more racially integrated society.

The Nixon Administration proposed that rent and home-purchase subsidies should replace all present or past public housing programs. Such subsidies would permit the private sector to build housing for the poor (and the private sector, in the U.S., has often been demonstrably more efficient than have public agencies); and it would present the poor with much wider housing options than they now possess.

All of these are admirable and persuasive objectives. They have been pursued successfully in certain Scandinavian countries, and they were explored extensively in the Administration of John F. Kennedy, a predecessor many of whose other innovations Mr. Nixon might now find to his liking also.

But, sarcasm aside, the Nixon people deserve credit (and liberal support) for having, at long last, had a glimpse of the truth. The trouble with the new program is

that it is only a glimpse and not a vision.

These are the principal flaws in the Nixon program:

1. The Nixon plan is long on rhetoric, and very short indeed on cash. In fact, the rent and home-purchase subsidies proposed hardly exceed what is on the books in those areas already—so the hoopla seemed to many critics to be just that.

2. Rent subsidies are a lovely thing—socially desirable, and desirable in other ways as well—but they can only work where existing housing stock is plentiful. Obviously, for poor people to move into apartments or houses of their choice (and near desirable jobs) it is essential for such housing to exist. And in many U.S. cities the shortage of housing is so great that the "choice" would, in fact, be no choice at all. In short, the Nixon subsidies will only work if coupled to subsidies to actual construction—at least during a considerable period of transition. But no such subsidies to actual construction were proposed.

3. Rent coupons lend themselves to spectacular racketeering; and the savvy black Borough President of Manhattan, Percy Sutton, pointed out that rent subsidy coupons might easily end up making slumlords rich. This is, of course, entirely possible—though safeguards could and should be provided to minimize that danger.

In any event, the *principle* of the Nixon proposal is one that most liberals who have struggled with housing philosophy might support.

Unhappily, the proposal is not entirely convincing in political terms. Not only does the Nixon Administration's plan call for too little money to make the program work; but, worse still, the Nixon people clearly understand that a Congress, dominated by representatives of white, fairly well-to-do suburban and rural areas, is not very likely to support programs that might enable "those people" to move in next door.

So the cynics (some of them veterans of the still-born Richard Nixon/Pat Moynihan welfare reform proposals) have a sneaking suspicion that the Administration is once again advancing an admirable program that it knows, in its heart, will be rejected by a (Democrat-controlled) Congress. Perhaps it is time for Congress to call that political bluff.—P.B.

Aspiring to greatness

A reputation as the industrial and administrative center of Silesia, Poland, was not good enough for the city of Katowice. It aspired to be the leader in cultural and recreational activities as well. So, to

make its point, the city has just completed construction of a 5,600-seat stadium, with "the largest movie screen in Europe," as well as convention hall, theater, and facilities for hockey, boxing, volleyball and basketball.

The stadium was designed by architects Maciej Gintowt and Maciej Krasinski and looks a bit like a concrete flying saucer, especially since there is a row of windows between the roof and wall structures.

The architects used the rectangular form of the hockey rink as their starting point for interior layout and they designed the wall to rise to a peak opposite the movie screen, which gives the seating plan a directional rationale.

A 32-meter dome covers the performance area and allows light and ventilation inside. It and the sloping roof are suspended from cantilevered perimeter ribs by steel cables.—M. Z. Augustniak, architect, New York City.



The stadium of Katowice is a tilted saucer

The octagons of London

The Westminster City Council has just spent £60,000 livening up Carnaby Street, though one might not have thought that was necessary in such a charming pedestrian precinct. (John Stephen, a merchant who began it all with one small boutique in 1957, is now a very rich man.)

In September, black, yellow, white and orange nylon tiles were

inlaid in a neat row of colorful, wall-to-wall octagons (and, here and there, triangles) down the entire length of Carnaby Street, and into all the nearby alleys and courtyards and byways as well, further enhancing what has become the mecca for seekers of trendy clothes.

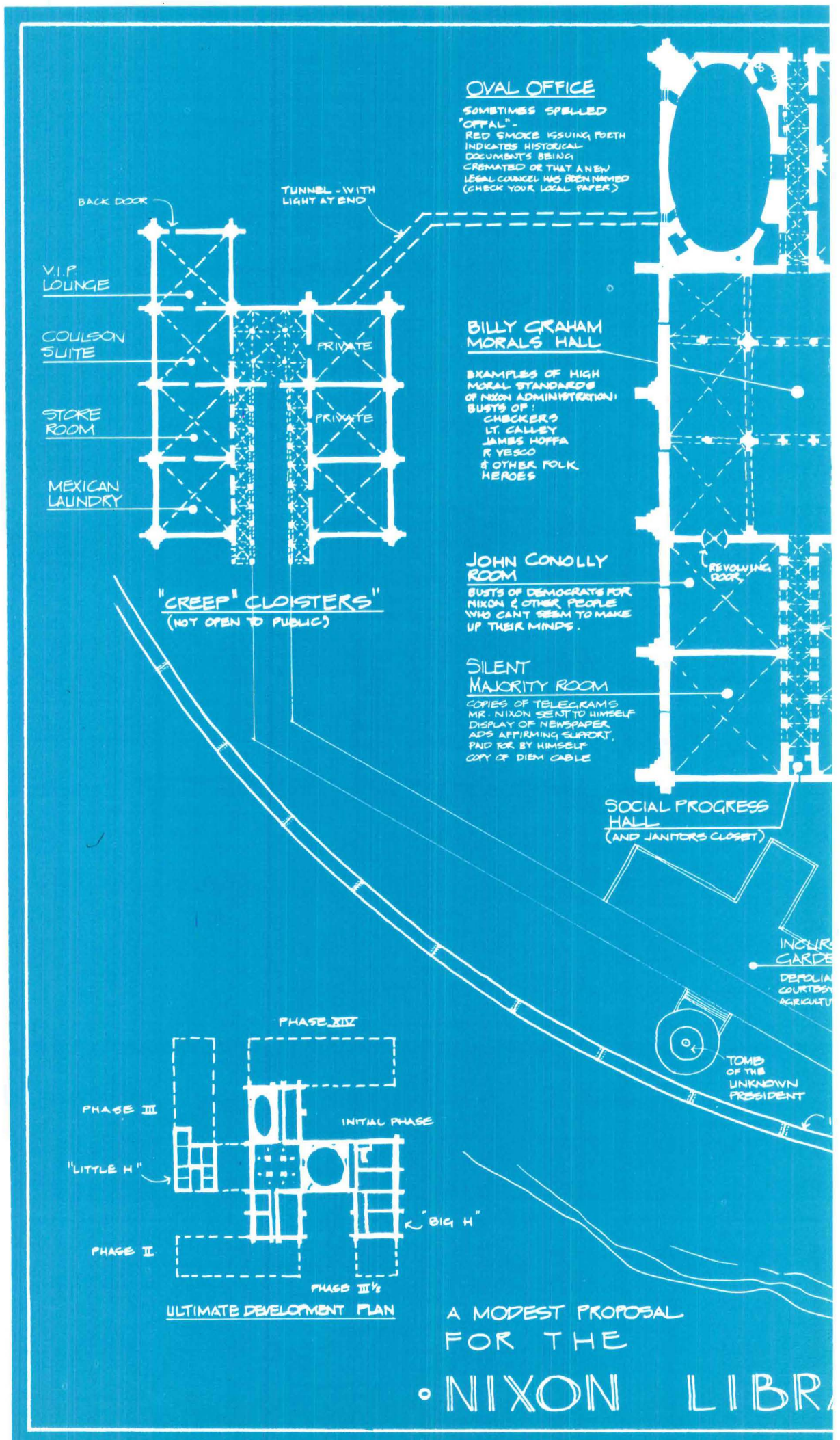
Westminster Council, cheered by the enthusiastic response of the strollers, has promised to add trees to the street next year.



Winner of the first annual Architecture Minus award appears on this page, and we don't mind telling you we think it's a jolly good building. Richard D. McFarland, an architect who practices on (from?) Pier 3 in San Francisco, calls his submission a "modest proposal," which is clearly too modest a description.

Our thanks to Mr. McFarland for his efforts in the cause of the advancement of architecture. Our thanks, in fact, to all those who dropped everything, at this point in time, to send us a proposal. Special mention goes to Glenn A. Vander Sluis of Menlo Park, Calif. (whose perspective, "putting the Nixon Library into the perspective of history," was a barely discernible dot on an otherwise clean sheet of paper) and to Robert L. Miller of New Haven, Conn., whose structure "takes the form of a white double dome supporting a monumental flagstaff, surrounded by a monumental reflecting pool, and encircled in turn by a monumental freeway." On closer inspection, says Mr. Miller, the perfectly clear waters of the pool reveal the rest of what is, in fact, a colossal statue of the President. It's all in the "great American tradition of inhabitable statues—elephant hotels, ducks, etc.," says Mr. Miller.

Mr. McFarland, as the first Architecture Minus award winner, will receive a rubber T-square or, in the event that he already has one, another prize of his choice. Our list of alternate prizes has unfortunately been shredded.



DITA BEARD ROOM

TAPE STORAGE
PAPER SHREDDERS, ETC.

NORMAN (NORTH AMERICAN) ROCKWELL ROOM

EXAMPLE OF CULTURAL ADVANCEMENT
UNDER NIXON ADMINISTRATION (IF ONE CAN
BE FOUND)

BOB HOPE ROOM

FUNNY MEMORABILIA FROM THE VIETNAM WAR

EXECUTIVE PRIVILEGE ROOM

JOHN WAYNE INTIMATE THEATRE

CONTINUOUS SHOWINGS OF
THE GREEN BERETS
PATTON
SOUND OF MUSIC
AND MR NIXON'S OWN
PRODUCTION, "THE POW'S
RETURN"

57 CRISES ROOM

A CONTEMPORARY EXHIBIT,
REVISED DAILY.
TODAY'S EXHIBIT:
"HOW I MADE MY HOME SAFE
FROM BURGLARS FOR ONLY TEN
MILLION DOLLARS, I NEVER
SPENT A PENNY"

CARSWELL HALL

EXAMPLES OF PASSAGES DELETED
FROM THE CONSTITUTION
EXAMPLES OF HOW TO USE THE I.R.S.,
F.B.I., C.I.A., & OTHER AGENCIES.

PEACE WITH HONOR HALL

(CONTRIBUTED BY LOCKEED & BOEING)
DISPLAYS OF WHAT TWO BILLION
DOLLARS A MONTH COULD BUY IN THE
EARLY '70'S.

REFLECTING POOL

(IF ANYONE WANTS TO
REFLECT ON WHAT'S
HAPPENING IN AMERICA)

LET US NOT
WALLOW IN WATERGATE
LET US MOVE ON TO THE
IMPORTANT MATTERS
GET ME THE REDSKIN'S
COACH ON THE PHONE....

REDSKINS FORMAL GARDENS

READERS DIGEST GALLERIA

DISPLAY OF MR. NIXON'S PHILOSOPHICAL
LEADERSHIP

WATERGATE FORMAL GARDENS

SAN CLEMENTE THORNY PRINET

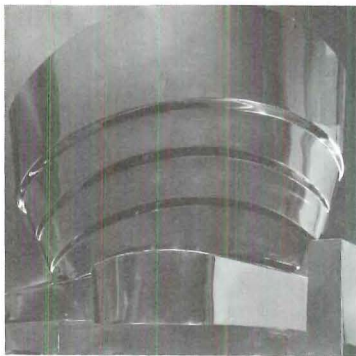
PAT GRAY MOBILE -
DESIGNED TO TIMET SLOWLY IN THE WIND

PRIMROSE PATH

RICHARD D MCFARLAND
a r c h i t e c t

People

- Pulitzer prize-winning architecture critic Ada Louise Huxtable of *The New York Times* was named to the exclusive Editorial Board of her paper September 25.
- French painter/sculptor Jean Dubuffet is collaborating with New York architect I. M. Pei on the creation of an environment to be constructed at La Défense, the super-complex on the edge of Paris which looks like Houston's gift to the French Republic.
- Harry Seidler, the Vienna-born, U.S.-educated architect based in Sydney (see pp. 38-43) is about to start work on a new Australian Embassy building to be constructed in the French capital.
- Richard Hamilton, the British painter, opened in a one-man show at Manhattan's Guggenheim Museum. Prominently featured in the show was a hard-edged Hamilton portrait of the Guggenheim, which made the real thing look just a little squishy.



- Architect Philip Johnson, Art Director Allen Hurlburt, and Photographer Richard Avedon were each awarded a medal by The American Institute of Graphic Arts, for their performances in their respective professions. The release photograph (clearly *not* taken by Dick Avedon, since he's the one in the middle—with Hurlburt at left, Johnson at right) shows the medalists lined up against a wall just prior to their execution.



- Architect Jaquelin Robertson, formerly head of the New York Mayor's Office of Midtown Planning and Development (who resigned a year ago because he couldn't pronounce OMPD)—and who subsequently became a New York City Planning Commissioner—quit *that* job as well and became a Vice President of a Real Estate Company engaged in translating some of Jaque Robertson's innovative theories of yesteryear into innovative practice today and tomorrow.



Jaquelin Robertson

- Frederick Bernard Pooley was inaugurated as the 55th president of the Royal Institute of British Architects on October 30. As one of his first tasks in office (a 12-month period, usually extended for a second year) Mr. Pooley plans to promote the importance of appointing good architects to top-level management positions.

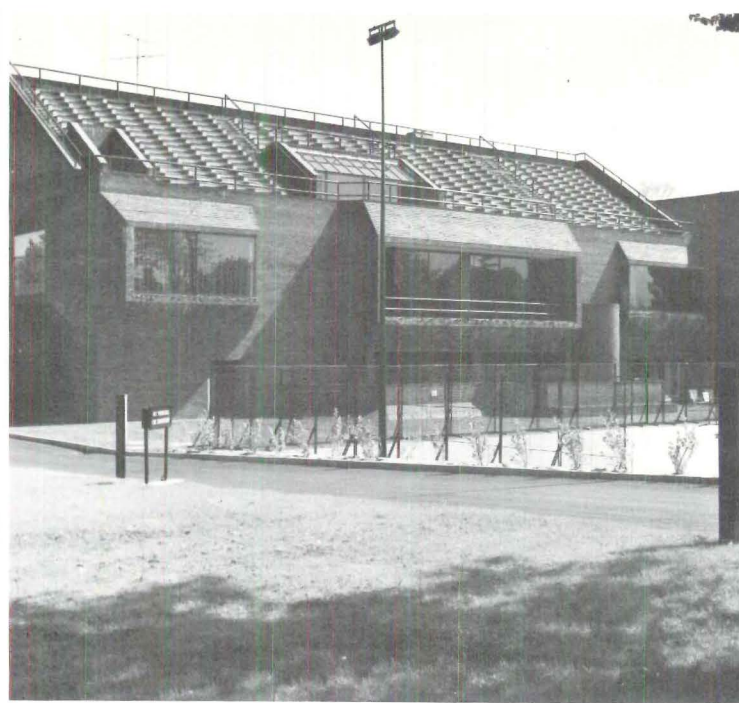


Frederick Bernard Pooley

England's new "Z Wagon"

Illegally parked cars can be very politely lifted from London's streets onto a recovery vehicle in three minutes for banishment to a police pound, thanks to the new and zippy "Z Wagon."

The truck-mounted unit can remove any offending vehicle from either side without disrupting traffic or causing any damage to the insubordinate car. Basically, Scotland Yard's new device is a hoist

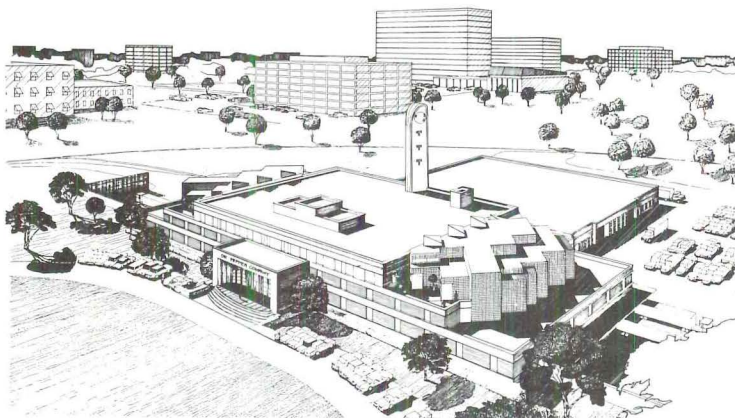


The seats for the spectators are on the roof

Dublin

The Fitzwilliam Lawn Tennis Club in Dublin, Ireland, is lavishly equipped with indoor and outdoor tennis courts, as well as squash courts, a billiards room, and

a swimming pool. The curious roof pattern is actually seating for spectators of the tennis matches. The architects are Stephenson, Gibney & Associates of Dublin. —J.D.



Fourteen interior gardens to delight Dr. Pepper's helpers

Dr. Pepper's potted plants

The three-story national headquarters in Dallas of the soft drink company known as Dr. Pepper, is going to add sweeping glass masonry extensions at each end of the top floor. Each addition will have

one exterior and seven interior gardens under 20-ft. high skylights inside bronze glass walls which form translucent volumes of angular shapes. The new work is being designed by the Dallas firm Ralph Kelman and Associates.

with hydraulically operated lifting arms, joined by a connecting beam along which two secondary cross beams run. A pair of rope slings fitted with rectangular bars is attached to each cross beam. The lifting bars are positioned under the car, and it's goodbye, Charlie.

Two of these "Z Wagons" are currently operating in London's streets. Scotland Yard also finds them very useful in removing vehicles for fingerprint purposes.

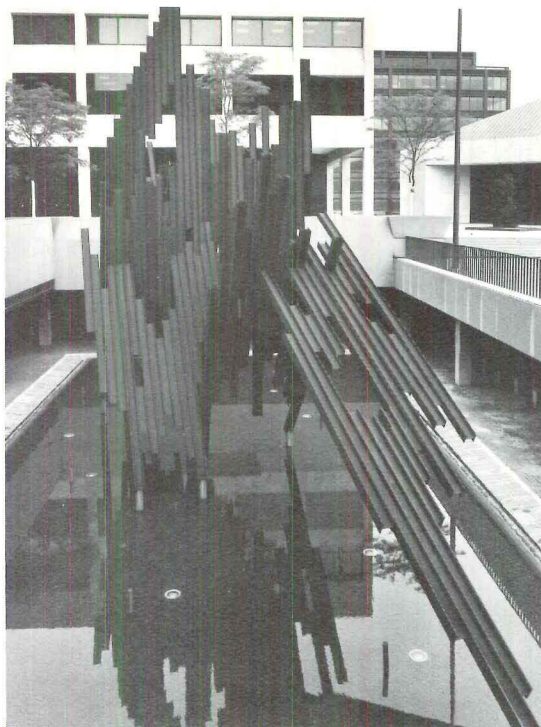


Wet art and corkscrews

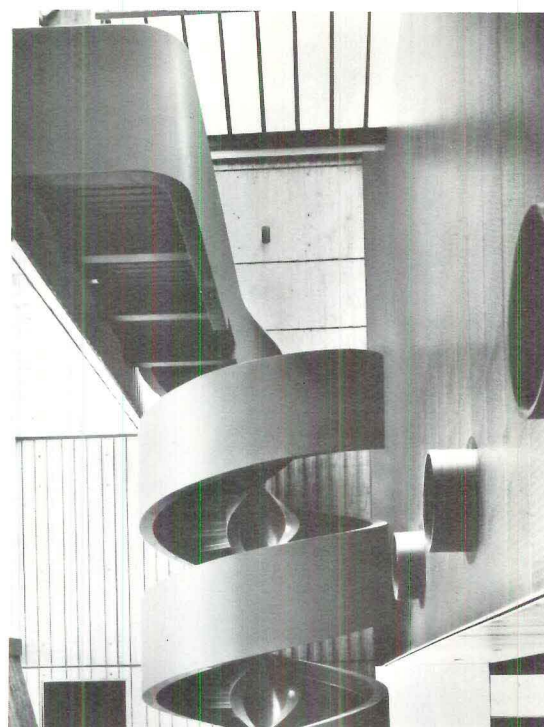
Three hundred pieces of wide-flange beams of weathering steel are welded together in this sculpture for the central public plaza in the Binghamton, N.Y. Civic Center. Masao Kinoshita, the architect/sculptor in the office of Sasaki, Dawson, DeMay Associates, Inc., designed the 35-ton art work.

Twenty-six jets of water spray mists on the pool, making the flowing lines of the sculpture come alive. "A constant variety of air currents will stir the mists," says the architect. "People will look at the wafted waves of water and soon the entire scene will be animated."

A ten-ton corkscrew serves as a stairway in the Broome County Arena in Binghamton's Civic Center. The bright red steel spiral rises 2½ stories connecting the concourse with the gallery level. The architects, Elbasani, Logan and Severin of Berkeley, Calif., designed it in concrete, but the builder insisted on steel.



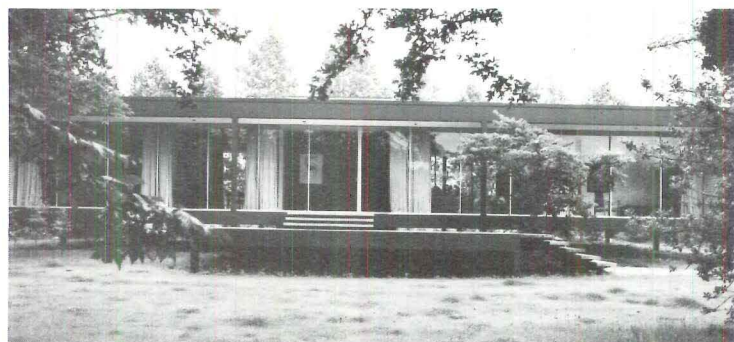
Twenty-six jets of water make it come alive with mist



The staircase as sculpture

An Irish house

The architect's own house at Foxrock, Dublin, designed by Ronald Tallon of Michael Scott and Partners, is planned with the children's domain at one end and the parents' domain at the other, and with a family room, kitchen and living room between joined by open circulation along the two glass walls. The effortlessly detailed steel frame is raised off the ground and approached across a low wooden deck.—J.D.



A quiet house in Dublin

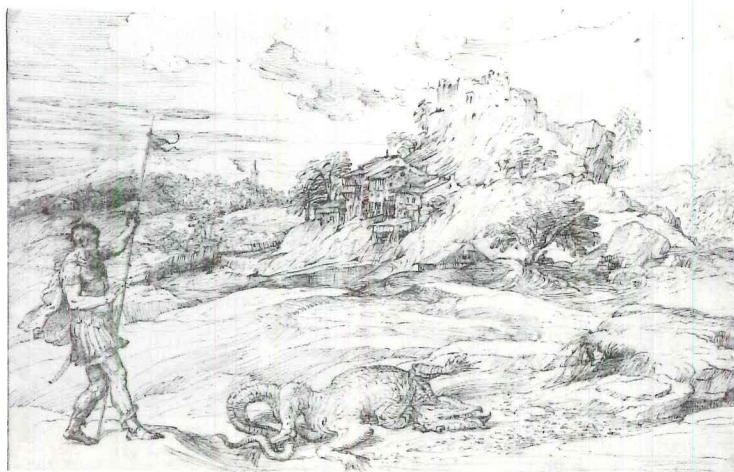
Photographs: Page 19 Imogen Cunningham. Page 20 Australian Inform. Ser.—Alex Ozolins. Page 21 (top left) Ralph J. Kueppers; (bottom) T. J. Healy II. Page 24 (right) Betty Jane Nevis. Page 25, #4 Nini Mulas; #6 Parolini; all others, Ugo Mulas. Page 79 (top) B. Baranska; (bottom) Keystone. Page 82 (left) Guggenheim Mus; (Pooley) Peter Eaton; (top right) John Donat. Page 83 (top left) Hutchins; (top right) Carriage House; (center) John Donat; (bottom ctr.) Metropolitan Mus.

Drawing and photographs

The National Gallery of Art in Washington, D.C., is currently exhibiting "Sixteenth-Century Italian Drawings from the Collection of Janos Scholz." This collection has singularly beautiful examples of Italian schools of the period.

Konrad Oberhuber, the Gallery's Curator of Drawings, states in the catalog: "As every traveler to Italy knows, cities there still preserve a striking individuality, often immediately noticeable in accents and building style. . . . For the art historian, the drawing styles have the distinct characteristics of a regional accent."

An exhibition of rare photographs opened at the Metropolitan Museum of New York in September, with 100 works of eight early British and French photographers who went into exotic lands with their heavy cameras and fragile glass plates: "Early Photographers in Egypt and the Holy Land, 1848-1870." Several are by the French writer, Maxime Du Camp, who inspired Gustave Flaubert's famous trip to Egypt.



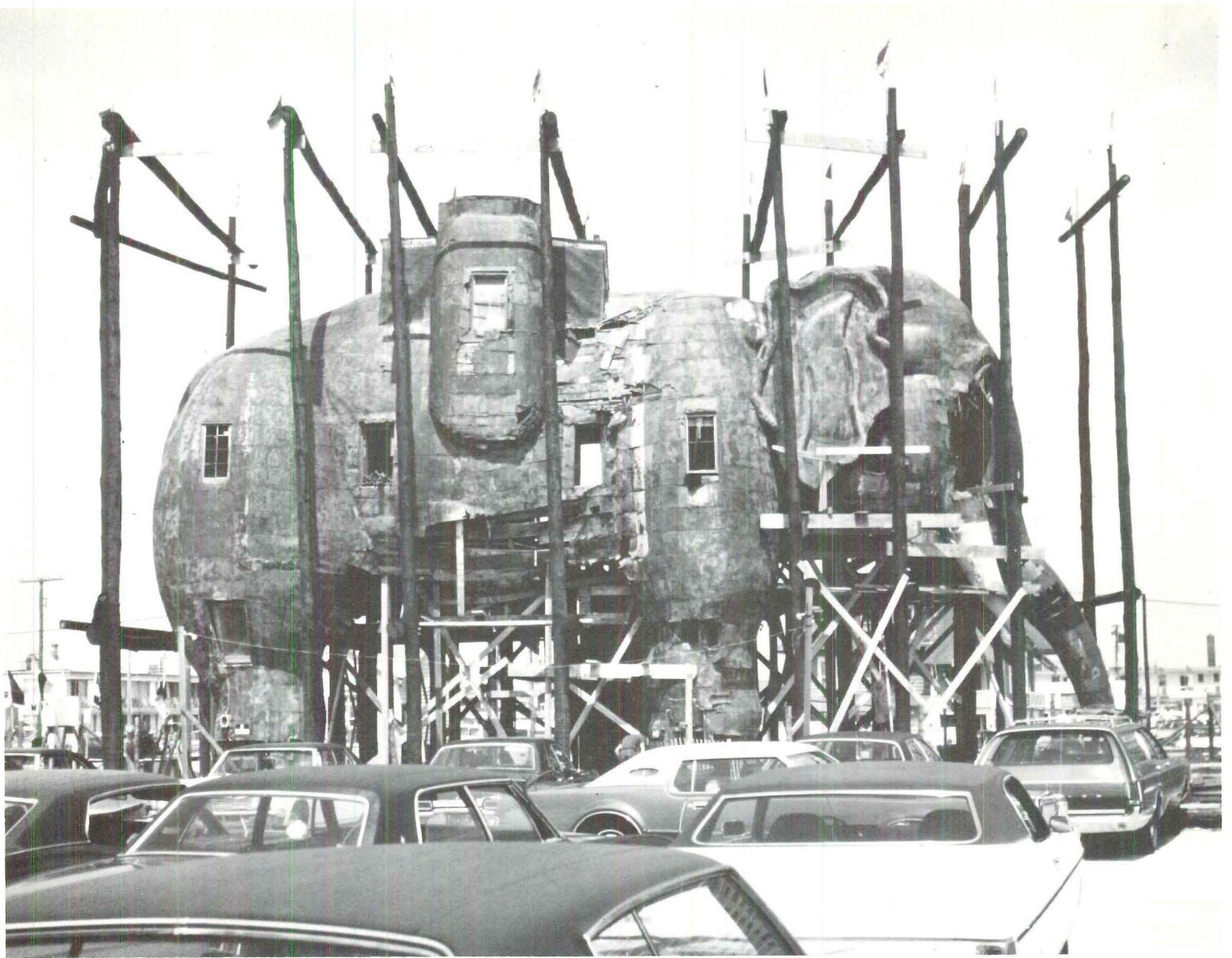
St. Theodore and the Dragon by Titian



1870 photograph by Maxime Du Camp, Pyramids at Giza



Standing Male, Tintoretto



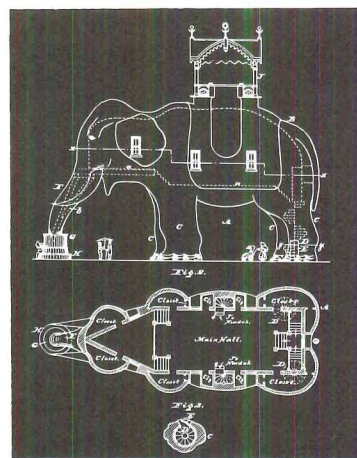
Footnote

PLUS ran a news item in the September issue on various elephants, yet-to-be-built and proposed-but-never-built. Architect Herm. DeJong, Jr. of Philadelphia responded to that story immediately with photographs of Lucy, the Margate Elephant, a detailed history and a report on her health (alive and getting better).

Lucy is an architectural folly, commissioned in 1881 by one James V. Lafferty of Philadelphia. William Free of Clifton Heights, Pa., designed her. Tall as a six-story structure, she is made of wood, has tin skin and contains 11 rooms. She was built on a desolate, lonely stretch of beach as a real

estate promotion to lure people south of Atlantic City, N.J.; and she served, quite nicely, as a real estate office for Lafferty. The *howdah* was a good vantage point from which he could point out the lots for sale. Lucy was a success—within months a restaurant appeared in her belly, and by the end of her first year, an advertisement in the *Public Ledger*, a local newspaper, ran: "...magnificent view ... from the *howdah* observatory of the Elephant Hotel of South Atlantic City ... the only hotel in the world in that novel shape ..."

Soon, the newly prosperous Mr. Lafferty began to visualize animal-shaped hotels virtually lining the Eastern Seaboard of the U.S., and he rushed to patent his elephant hotel, causing some consternation in the U.S. Patent Office: "My invention consists of a building in the form of an animal, the body of which is floored and divided into rooms, closets, etc., and the legs contain the stairs which lead into the body, said legs being hollow so as to be of increased strength ... the building may be of the form of any other animal than an ele-



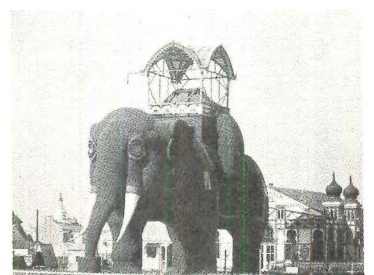
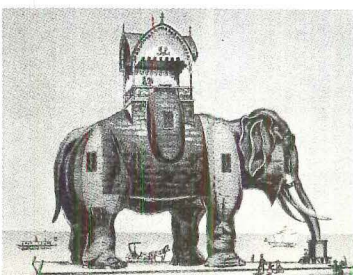
phant, as that of a fish, fowl, etc."

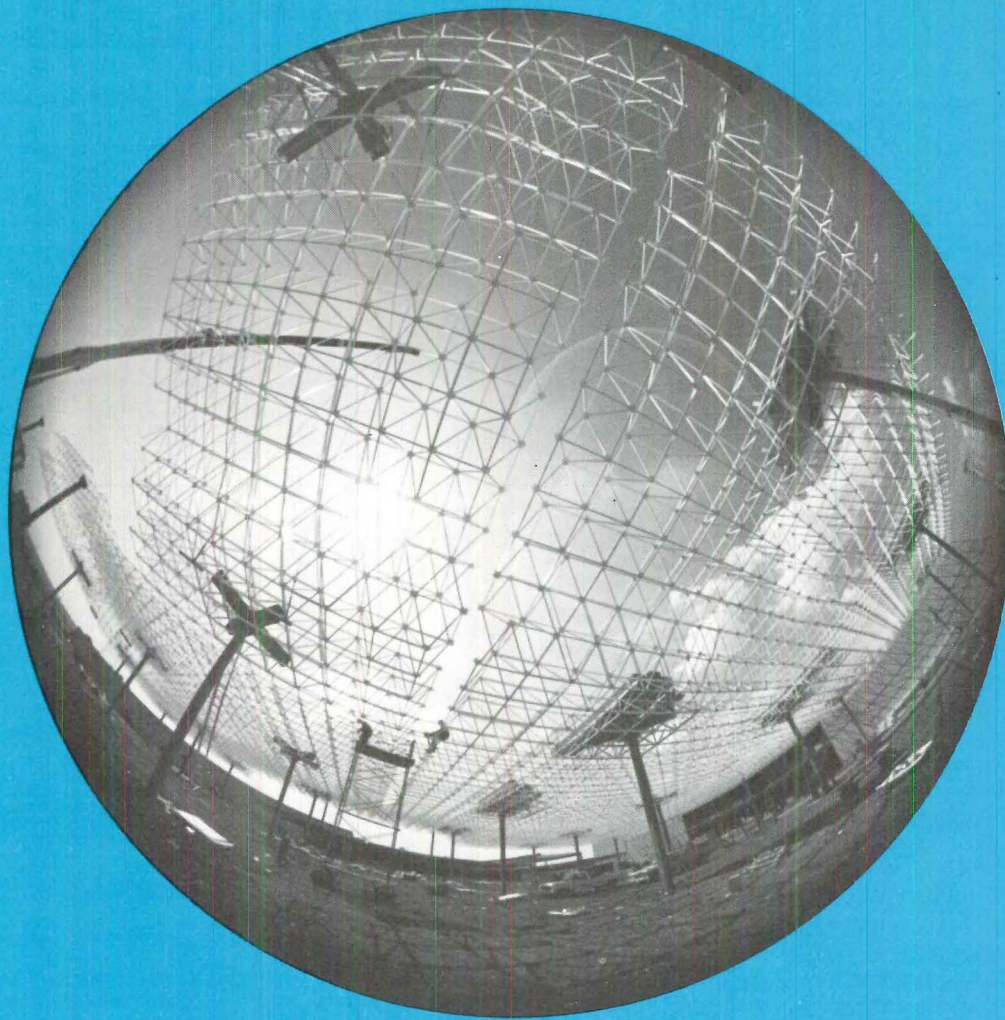
Lucy measures 80 feet in circumference, her neck is 48 ft. around and her legs are 22 feet tall. She weighs an impressive 90 tons. She is held together by 200 kegs of nails, four tons of bolts, 12,000 sq. ft. of tin, and more than a million pieces of wood. She had two younger "sisters," one in Coney Island and the other in Cape May, but both were accidentally "cremated."

A violent storm in 1903 caused

Lucy to sink to her knees, from which position she was dug out and moved back a bit from the shore. Her *howdah* blew off in another storm in 1928 and was replaced with a more humble one. Lucy is listed in the U.S. National Register of Historic Landmarks, and will soon be good as new, due to the unflagging fund-raising efforts of the Save Lucy Committee of Margate, N.J. Their plans for her interior include a children's library, a museum of Southern New Jersey history, and a souvenir stand. Restoration estimates on the 91-year old ridiculous-but-charming Lucy run as high as \$150,000.

Photographs: (top) Herm. DeJong Jr.; (bottom) from the book "Lucy The Margate Elephant."





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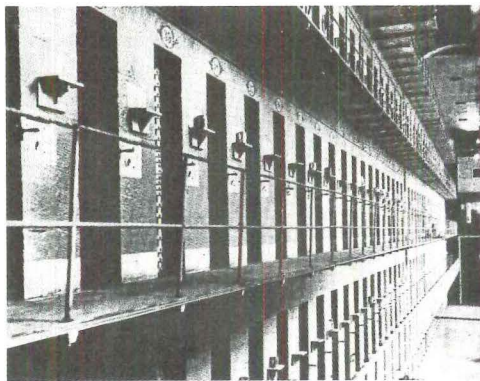
continued from page 16

Attica and Soledad. Here the simple presentation of architectural plans and details turns simplistic as other associations become increasingly difficult to screen out. For some readers literary references, like Charles Dickens' *Bleak House* and Peter Kropotkin's *Memoirs of a Revolutionary*, will impinge themselves on earlier sections as well as hasten the recognition that is openly owned up to in *The New Red Barn*: concentration on bricks and mortar is in invidious ways a cop-out.

The two books therefore present us with a very useful comparison offering two very different approaches for the architect to take towards his profession. Norman Johnson exemplifies the traditional where architects are seen as the instruments of their clients. In *The Human Cage* he analyzes prisons as a building type per se without regard to larger and confusing social contexts. Not surprisingly, then, his book ends with such guidelines for the future as "Prisons must be designed with a realistic understanding of the pressures and consequences of group living in institutions. This may mean consultations with not only policy makers in administration but also guards and prisoners." He goes this far with conscience in his parting words: "Architects in the future must share some responsibility for the unintended indignities made possible by their works."

Where Norman Johnson leaves off William Nagel begins in *The New Red Barn*. Although he includes material and quotes occasionally from *The Human Cage* he treats it entirely differently. As an author he works, too, from a different base. An insider, so to speak, with eleven years of firsthand experience with correctional institutions (principally Bordentown in New Jersey where he was for a time Deputy Superintendent), Mr. Nagel is principally concerned with how prisons work. Although plans and photographs point up his remarks on every page, he does not place his emphasis on form as much as on content. How do prison environments affect those involuntarily confined? How important is the architecture? Not very, seems to be the finding of his book.

No corner or facility of prison life is left unobserved by the author and his team. They begin with jails and show that despite their purpose of holding persons awaiting trial and therefore presumed, according to legal precedent, to be innocent, this arm of the correctional corpus is no less brutal in architectural and administrative character than any other part of the system. Jails, old and new, deny citizens their basic rights. For Mr. Nagel "The local jail is the most inexcusable part of our entire criminal system." His survey includes adult and juvenile facilities located in all sections of the country and housing inmates classified from maximum to minimum security risks. The most



Cells of South wing of New York State Auburn Prison.

positive environments he found were some of the new juvenile centers where a less punitive philosophy prevails, and, interestingly, he found the most regressive institutions to be those for women. (In Massachusetts, however, this is not the case; The Women's Reformatory in Framingham has always been more advanced in its policies and recently turned co-ed.)

The critical link in the correctional chain is considered to be the reception center which takes those freshly sentenced from the courts. I share Mr. Nagel's criticism of these facilities from a brief involvement (our firm turned down the job) consulting with administrators of the Massachusetts Department of Corrections who were planning to house such a facility in the segregation unit at MCI Norfolk, a medium security prison in Walpole. I was struck by the overriding fear in those charged with dealing with the incoming prisoner, even though unarmed and stripped of all possessions, except one, inborn in us all: human unpredictability. Bars, fences, panic hardware, electronic gadgetry are all useless before the terrorizing ordeal of deciphering the human being, man to man. But it is not man to man in prison situations, for one of the parties has been re-classified to not-man, not-human. "You never know when a guy's gonna turn into a wild animal," I was told by the future deputy.

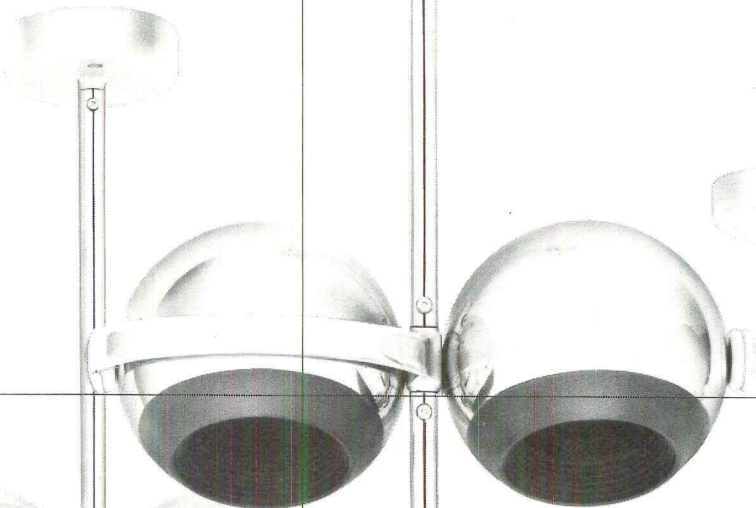
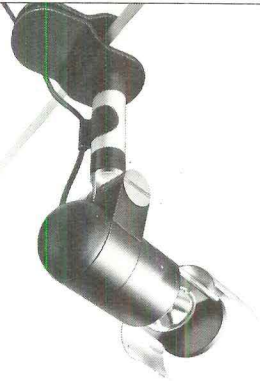


The author of *The New Red Barn* knows full well how this stalking game is played out to deadly ends by inmates, guards, therapists, and administrators and why no one ever wins. Society, of course, is the principal loser because "few, if any, correctional programs have noticeably affected the recidivist rate." That means more crimes, not less, committed once the inmate is out because destructive behavioral patterns are not reformed by the prison experience. If anything, they are fostered by it. "Many scholars have tried to understand why institutionalization seems not to work. [F.E.] Haynes, in 1948, found the inmate community to be distinctly antisocial and that it worked against the goals of the larger society and thereby against

rehabilitation efforts." And still another century back Charles Dickens responded the same way after he visited our country's model prison, Haviland's at that time. "I believe it, in its effects, to be cruel and wrong. In its intention, I am well convinced that it is kind, humane, and meant for reformation; but I am not persuaded that those who devised this system of prison discipline . . . do not know what it is they are doing. I believe that very few men are capable of estimating the immense amount of torture and agony which this dreadful punishment . . . inflicts upon the sufferers . . . I hold this slow and daily tampering with the mysteries of the brain, to be immeasurably worse than any torture of the body."

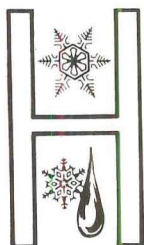
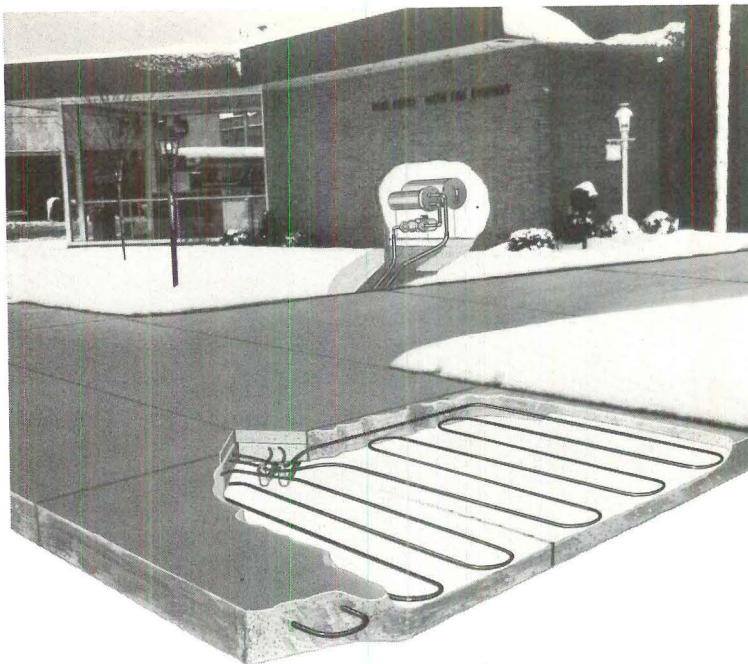
Why, then, with so much prior warning and advice have we continued up to the present to construct prisons? (A new federal penitentiary, by the way, is about to open at Camp Butner, North Carolina, and will base its chances for success on transactional analysis described by Eric Berne in *The Games People Play*.) The reader will not find this question directly answered in *The New Red Barn*, but the author comes to the brink of it when he discusses the population of inmates. "The warden can be reasonably sure of one thing. Most of his clients will be poor and members of one or another of the current outgroups." Mr. Nagel goes further: "If we look at the characteristics of these outgroups in America over a span of time we can see that certain qualities have been dominant. They were usually poor, troubled, dispossessed, foreign-born, and uneducated. There is currently one major change, however. Immigrants no longer monopolize society's correctional attention. Today the predominant outgroup is native born, but black."

If we take the findings of *The New Red Barn* seriously, what should be the response of the architectural profession to this social situation? A moratorium on prison construction until the system (which the author sees as hopelessly fragmented between federal, state, county and municipal authorities, each with its own budget, administrators and political clout) has been cleaned up and reorganized, means, hypothetically at least, that architects should turn down jobs. Should the A.I.A. as the national body of U.S. architects then officially deny their coverage by contract and code to prisons as a building type? Such possibilities are not confronted directly by Mr. Nagel and his team, perhaps guided by political discretion, but they nevertheless present themselves. Think of Albert Speer, Hitler's chief architect, and those others who contributed their skills to the concentration camps and gas chambers of the Third Reich.

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