



# FORUM





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Cover: Louis Kahn's Exeter Library, photographed by Hans Namuth, looking from the floor of the entrance hall to the cross-beams and clerestory above.

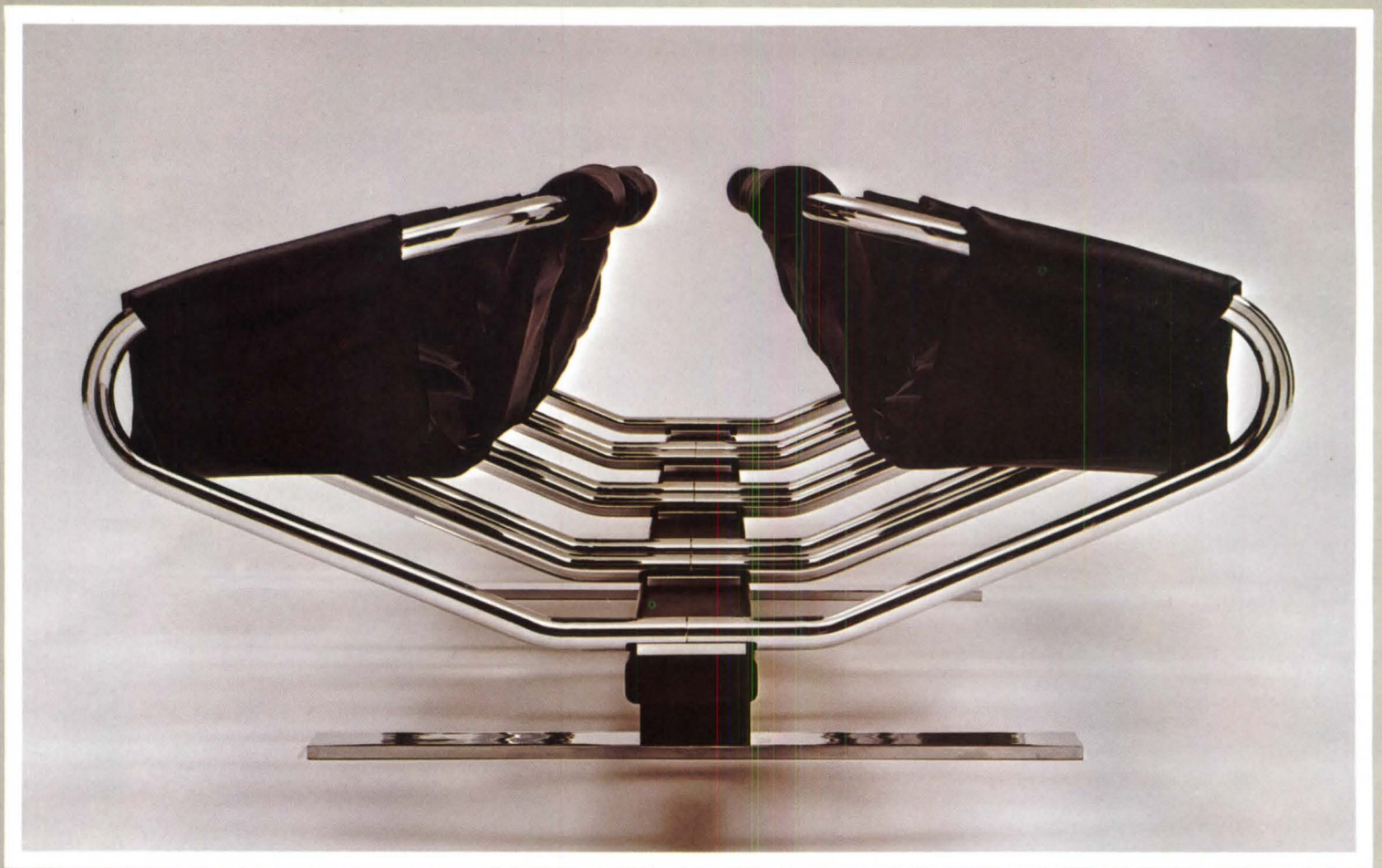
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It is a document of New York City, and an indictment.

It concerns law, design, and how the principles of both can be applied in creating a more humane, harmonious city setting. Its progress will be eagerly watched by cities across the country.

"Housing Quality: A Program for Zoning Reform" was produced by Mayor John V. Lindsay's Urban Design Council, and is about to be the subject of some hectic, heady public workshops in all five boroughs. Hectic, because rank-and-file citizens are rarely given an opportunity to review and comment on something they can understand; heady, because early indication is that the boroughs are beating a populist path toward endorsing this very pragmatic, yet very philosophical, plan to bring housing development into scale with communities and real-life people. All of which is about time, considering that New York's scale has definitely been tipped in the direction of soaring developmental profits for a few—and plummeting environmental values for the many.

Make no mistake about it, zoning designs cities. And more often than not, as in New York, it designs them into decline, sealing diverse neighborhoods into the sterile sameness of high-rises, both subsidized and luxury, most of them set in some sort of open space—"good for the people," we were told. Well, the people went stark raving mad, many to the suburbs. Many more were left behind to subsist among the tower-torn streetscapes.

The writers of New York's 1961 zoning law didn't intend this; they were merely, and monumentally, misinformed about what constitutes urban quality. Brought up in the light of Le Corbusier's "Radiant City" visions of the '20's they couldn't see why New York shouldn't be all park and plaza with ostensibly stunning towers rising from them. They couldn't see, to borrow Victor Hugo's description of the Renaissance, that it was a setting sun mistaken for dawn.

What had dawned on everyone by the '70's was that social, behavioral, and community concerns must be part and parcel of city planning, that the existing physical fabric of a city must be dealt with and enriched, not dealt out and denied, that the 1961 law, rewarding housing developers with more building height in return for more open space on the ground, was out of scale with both the measurable and unmeasurable needs of human beings.

Even in New York, there was renewed talk of getting "back to the land," back to basics. The Urban Design Council's plan is the result.

Instead of frozen regulations the plan would be to have a flexible set of performance standards—amenities, if you will—consisting of 37 "points" in four categories of concern and safety. Compliance with 22 of these is required by the plan before building approval could be granted.

Take neighborhood impact, for example. Theoretically, a developer could get up to 25 points in this category, as in each of the others: 3.6 points for sunlight retained in proposed open space, 2.85 for providing trees and landscaping, other points for matching existing setbacks, building lines and heights.

Or take the apartment as another example. There are points for daylight in halls, others for the amount of square footage provided.

The developer, in consultation with his architect and the city planning commission, would decide which arrangement of points would best meet his building requirements, and the city's. The sum of these points would be converted into a quality rating in each category. If the developer scored the maximum in all four categories, he would be allowed to

# FORUM

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build at the present floor-to-area ratio of the zoning law.

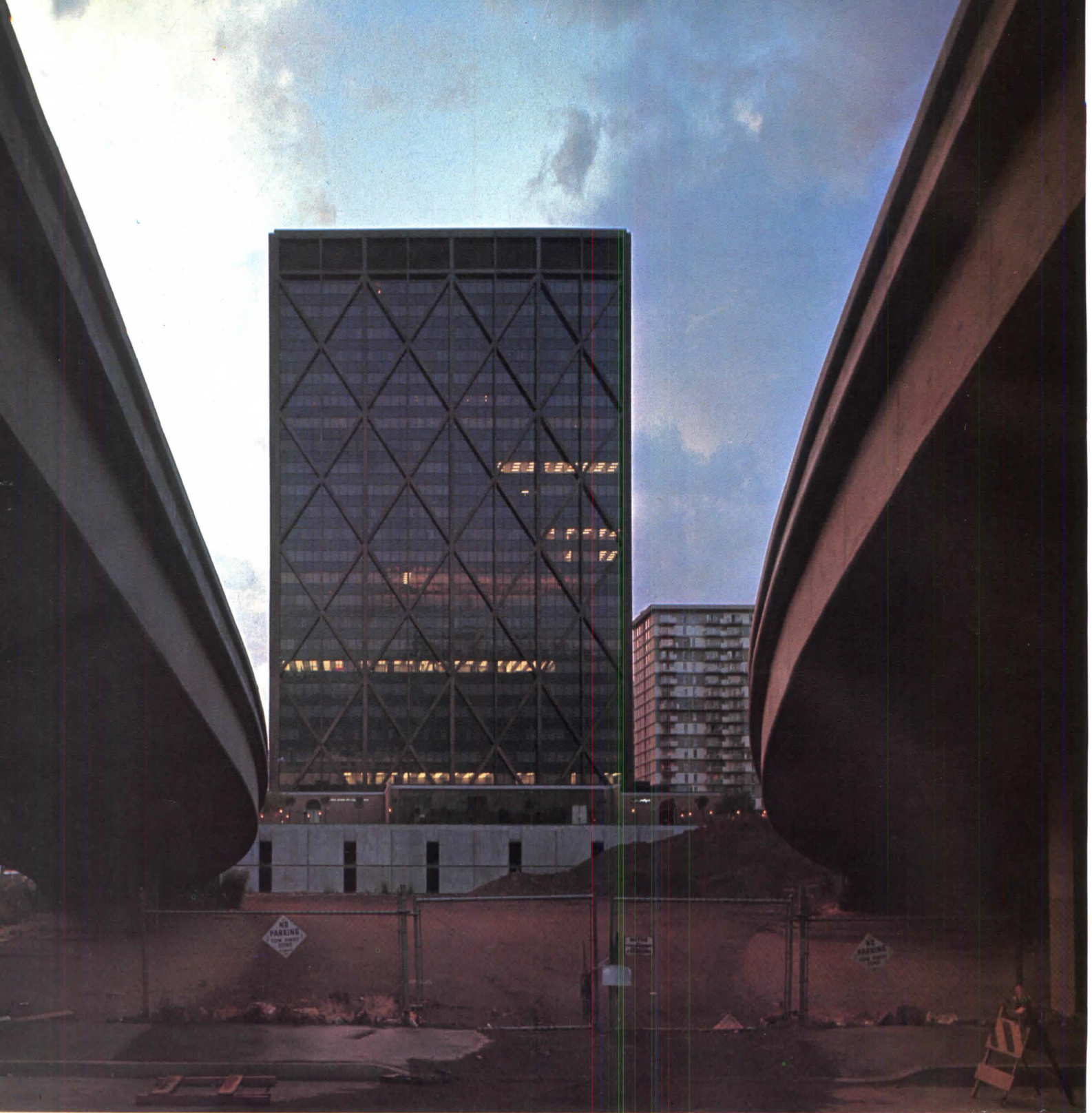
The system of points attempts something which no zoning plan has ever done—the quantification of quality into specific height and bulk guidelines. Moving beyond the concern of a building's size and shape, however, it embraces the elements of human use and experience—within buildings and between them. Only San Francisco's plan is comparable.

The tall tower in the open plaza, once a verity and almost inevitable, would become just one of many profitable avenues open to developers. Closely clustered low buildings with intimate, human-scale spaces for rest and recreation—all woven into the character of a neighborhood, these would become economically viable options. Amenity would become necessity—the ultimate necessity in architecture, buildings that are becoming to each other, to their physical and natural surroundings, to the physical and spiritual needs of people living in them. The Urban Design Council's plan would make zoning arithmetic a creative act.

Architect Alexander Cooper, the council's executive director, says that the plan's hoped-for victory could be "something in the system surviving John Lindsay, an institutional, not personal, triumph." Here is a system of defining and giving image to New York's districts, an incentive for developers to take many kinds of quality into account, and an incentive for people to cleave to and care about their urban future. Out in the boroughs, as well as downtown Manhattan, there is once again a chance for securing the sense of place, of consequence, so vital to a living city.

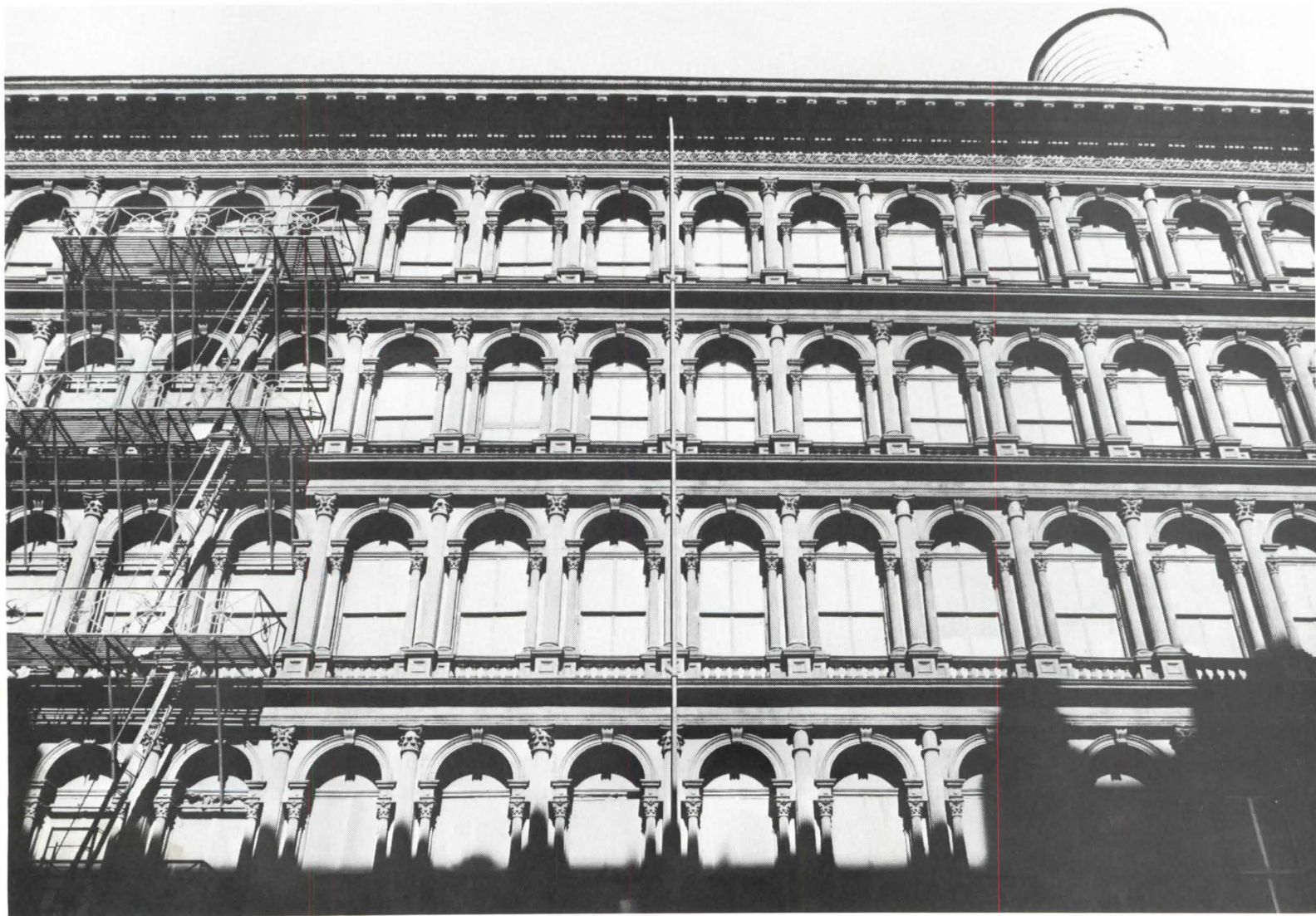
That John Lindsay created an atmosphere in which such reform- and sound-minded innovation could take place will count him in good stead, years after he has left office. Ironically, this will be so in the boroughs which least liked him, where people somehow felt that Mr. Lindsay's concern for design and architecture had no tangible meaning for them. It will have such meaning if this new zoning plan is approved. It will, if the plan is heeded by those who succeed the Mayor and who, like Abraham Beame, the leading candidate, are most identified with the boroughs. It will, in any event, have tangible meaning for mayoral, city council, and planning staffs elsewhere which are caught up in the crush of development and are eager to see what New York will do to modulate growth in the direction of human values and environmental quality.—WILLIAM MARLIN





And the building is a  
new addition to the  
city's skyline. It is a  
modern building with a  
diamond-patterned facade.  
The building is illuminated  
from within, and the sky  
is a deep blue with some  
clouds.





Alcoa Building. Skidmore, Owings & Merrill, San Francisco, 1968 (left). Cast-Iron Facade, c. 1850 (above), architect unknown, Broome Street and Broadway in New York City's Soho district, recently designated an official historic area.





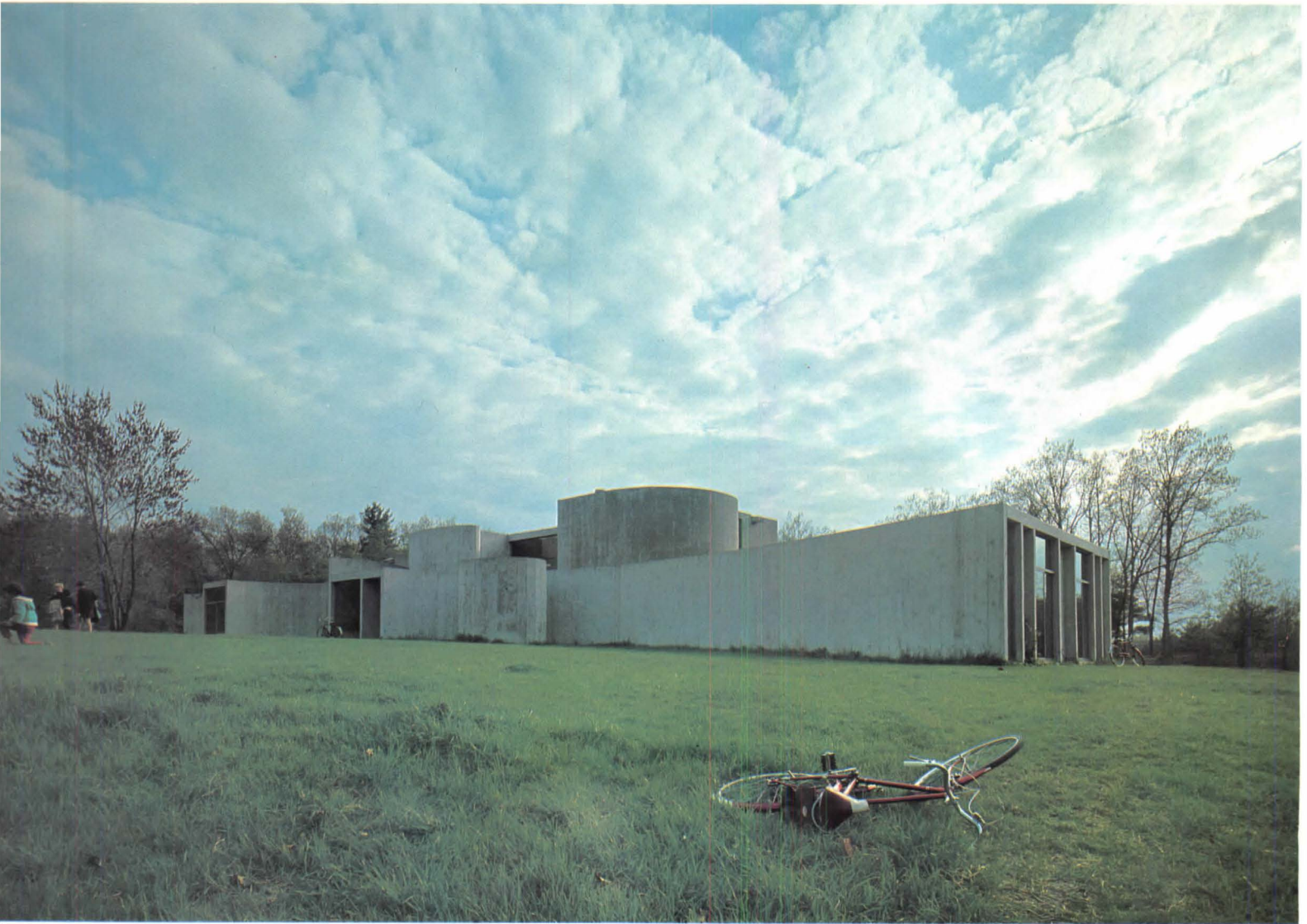
Barn at Belle Meade Mansion,  
architect unknown, c. 1840,  
Nashville, Tennessee.







McNulty Residence, Thomas F. McNulty and Mary Otis Stevens, 1965, Lincoln, Massachusetts (below). Shaker Circular Barn, architect unknown, 1823, Hancock, Massachusetts (opposite).







“There are some things which cannot  
be learned quickly, and time, which is all we have,  
must be paid heavily for their acquiring.  
They are the very simplest things,  
and because it takes a man’s life to know them  
the little new that each man gets from life  
is very costly and the only heritage  
he has to leave.”

ERNEST HEMINGWAY







# WITHIN THE FOLDS OF CONSTRUCTION

Louis Kahn's work at Exeter Academy evinces an on-going search for the essential elements of architecture

There are eight volumes of English history in Louis Kahn's office but, as he will tell you, only the first couple chapters have been read. In fact, he's read them again and again, with such varied richness revealed each time, that he's reluctant to move on to chapter three.

"I am a very dangerous kind of research man," he smiles, almost mischievously. And in a comment that would make any dyed-in-the-stacks librarian cringe, "Actually, my whole purpose has been to read volume zero, the unwritten volume, because I am certain it contains a very old, cut off, kind of beginning—a source of sources which, when reclaimed, will also be very new."

Like those occasional archeological finds which some trace to the Lost Tribes, Mr. Kahn's work traces back to lost values in architecture — work which brings us to the verge of looking up volume zero ourselves. It's a great quality, verge—especially in a work of architecture. For it sums up a capacity for serving known needs and, the touchstone for Mr. Kahn, serving up unknown ones.

His Phillips Exeter Library near Andover, New Hampshire (open about a year now), sums up this sense of verge. You won't find a copy of volume zero in the concrete-framed stacks but, embracing the books

you can check out, it is still at hand—a resource you inevitably cull just by being in the building.

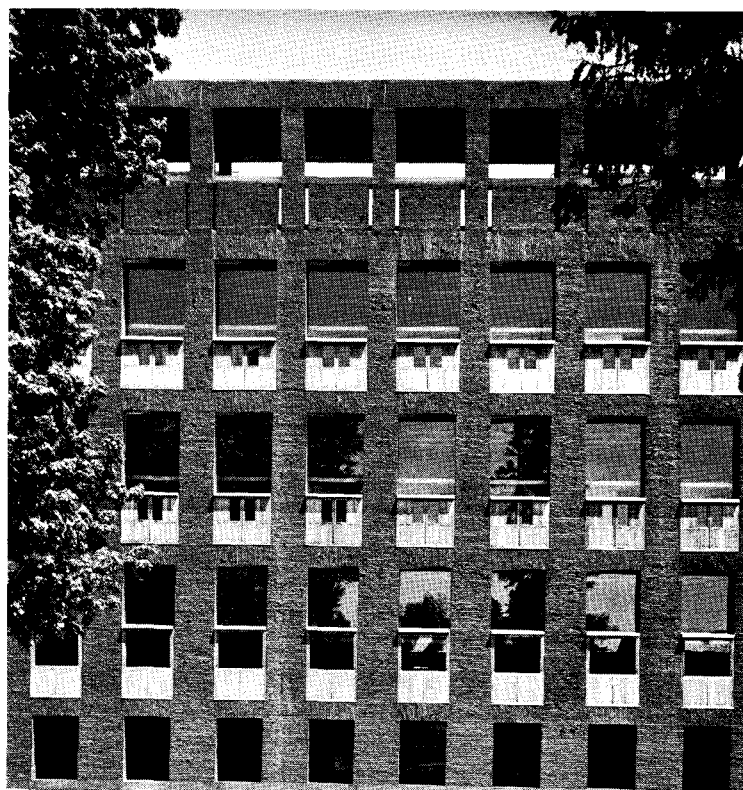
And around it.

You cull the Exeter campus first and, sure enough, there is all the rough-housing and reflection, all the boyish bents which author John Knowles so poignantly captured in *A Separate Peace*. It's a place of old trees and old bricks and, peculiarly, one of "tradition be damned"—tradition being so deep that it's not really discussed.

Mr. Kahn's Library has that kind of depth, tradition. Coming upon it, you might murmur (if anything at all), "But, of course." Quite simply, it fits—so thoroughly that you might also murmur, "Fit be damned." Sure enough, you are drawn to this work, but not because it demands it. You are drawn because, as intimated, you are on the verge. . . .

Of what?

First off (all around) an arcade, and an example of what Mr. Kahn calls an "offering." The building itself did not really need the arcade, he insists. But, in the spirit of architecture as he perceives it, the building needed to offer the arcade to the campus—a way of getting into or going by the Library, a way of conveying (he means this) gratitude for the opportunity to build. As it is, this



The subtle, expressive exterior of Exeter Library (left opposite, top right) recalls Louis Kahn's remark, "Schools began with a man under a tree, who did not know he was a teacher, discussing his realization with a few, who did not know they were students." While unassuming, the Library is a countenance of its nature. The outer envelope of brick expresses the nature of the material by the graduated size of its openings which are increasingly wide at each level. The arcade (bottom right), around the base, offers a way into or by the building.





"offering," however simple, has become an opportunity for others; something people might not have missed had it not been provided, but also something that book-laden passersby now think of as, well, a necessity.

Many of them go inside, naturally. But this inside was outside all along. One architect, looking over the early photographs of the Library, complained, "Where is the entrance to this thing? I can't tell from these how to get in." The complaint—inadequate photography or not—sort of amuses Mr. Kahn who knows, as well as anyone, that there must be places to get in, but who can also say (steady now), "The entrance is not the point of my building."

The whole of Exeter might be

termed an entrance—the campus ambiance, the Library arcade and, at the building's four corners, points of penetration. Here, the word entrance is as much a metaphor as an aperture—not only that which lets you into the building, but also that sequence of experience and space which leads you up to it, around it. Those four corners, cut off at diagonals, have openings in them, sure enough. But they do not just let you in, as noted. As part of Mr. Kahn's concept, they are part of letting you in on the essential character of the building.

Try picking up an *old text* from a library bookshelf. If the book has been there for any length of time, its pages will be dog-eared moreso in some

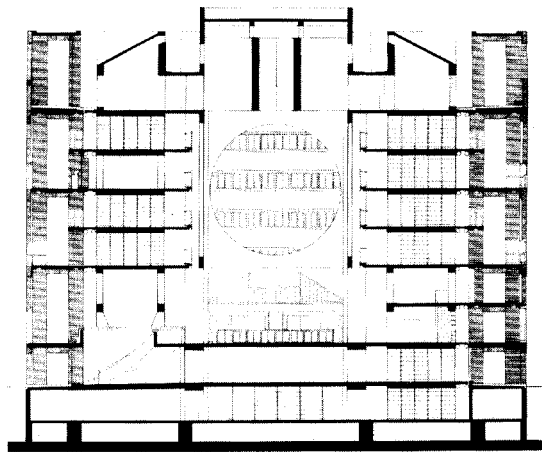
On entering the Great Hall, up the curved concrete stair (left), you pass under one of the open-beam trusses which tie the inner concrete structure together (below), and thrust into the column system supporting the stacks. The Hall (opposite) shows reference below, stacks through the circular opening and, above, cross-beams demarking clerestory light.



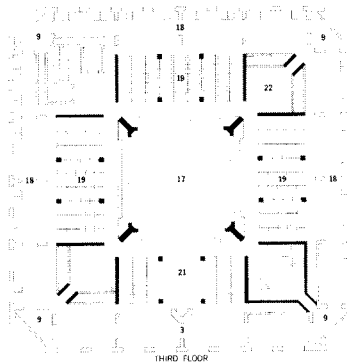
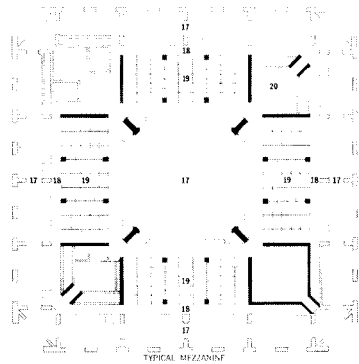
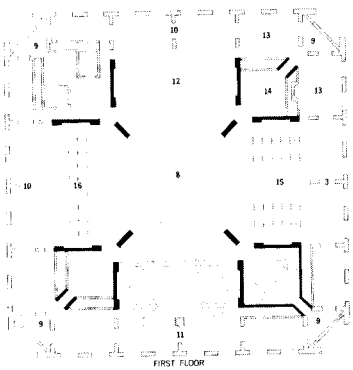








- |                     |                        |
|---------------------|------------------------|
| 1. ENTRANCE         | 12. CARD CATALOGUE     |
| 2. ARCADE           | 13. LIBRARIAN'S OFFICE |
| 3. READING AREA     | 14. LIBRARIAN'S SEC.   |
| 4. DINING ROOM      | 15. REFERENCE AREA     |
| 5. SERVING AREA     | 16. CIRCULATION        |
| 6. KITCHEN          | 17. OPEN               |
| 7. DISHWASHING      | 18. CARRELS            |
| 8. HALL             | 19. BOOK STACKS        |
| 9. PORCH            | 20. TYPING ROOM        |
| 10. STAFF WORK AREA | 21. FICTION AREA       |
| 11. PERIODICALS     | 22. LISTENING ROOM     |





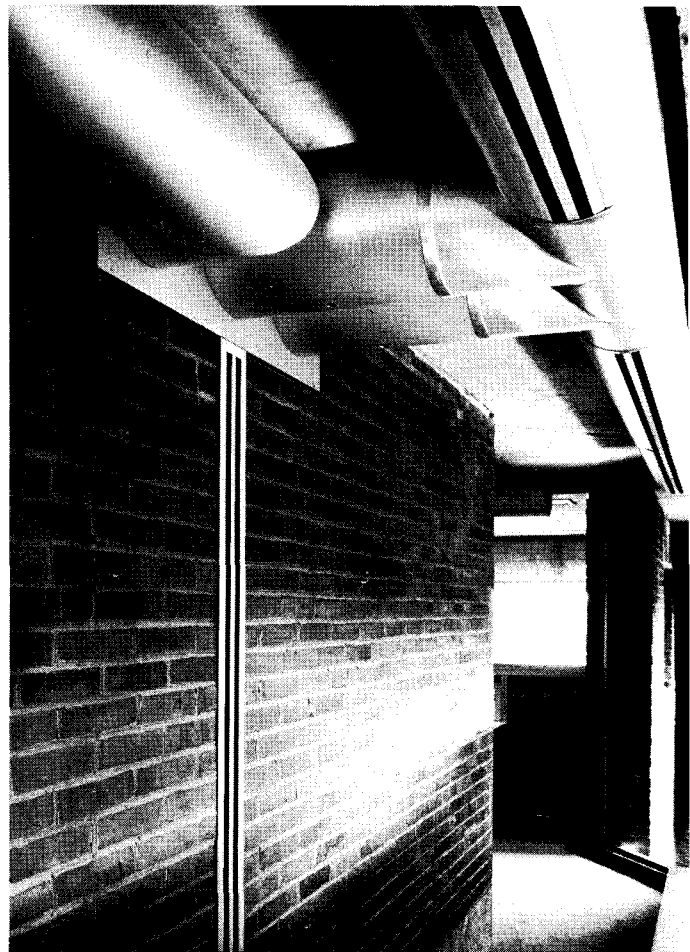
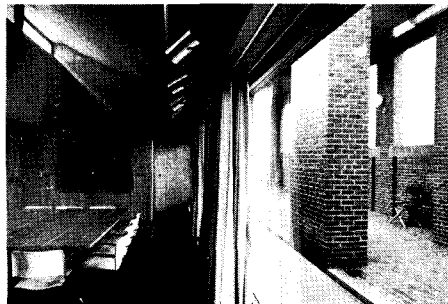
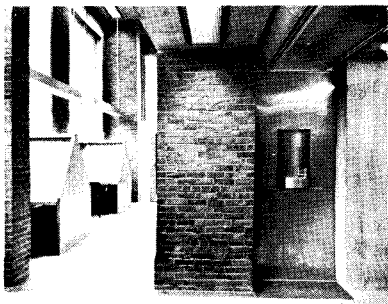
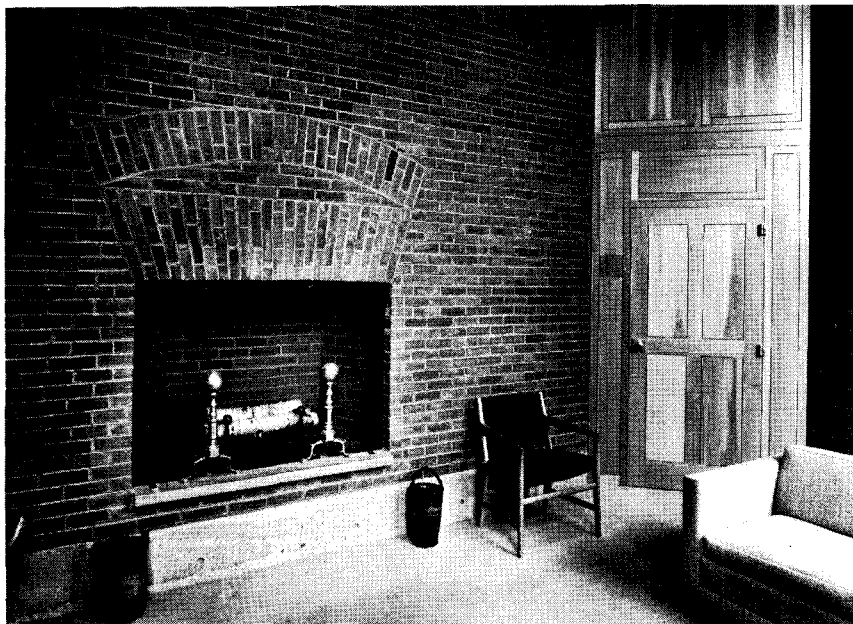


Above the card catalogue (opposite), the truss system with wood infill conceals a lounge. The reading rails along the various balconies by the stacks are comfortably positioned (above). Also note how the thrust of the big boxed arches, containing the circular openings, meet the infill of the balconies, the juncture between concrete and wood being delicately and impeccably detailed.









Carrels corresponding to the mezzanine level of stacks overlook the more private one on the main levels (opposite). Each of the latter is part of a double window unit, the lower window, at desk height, with a sliding panel. At the corners of the building, accessible from the reading areas, are brick terraces (door at rear, opposite). The librarian's office with fireplace (top left) points up the careful joining of wood and brick. Water fountains conceal mechanical shafts (just above, left) from which exquisite air-conditioning ducts, exposed throughout, lead (above, right). A seminar room in concrete opens to the brick roof terrace (just above, right).

parts than others. It's only natural that most people would turn first to the dog-eared sections, if only to find out why past readers found them so interesting. More often than not, those pages are our first points of penetration into a text.

The seemingly elusive entrance at Exeter Library is similar in nature: Mr. Kahn took this particular edition of volume zero, dog-eared a few pages in each of four different places, thereby telling the visitor where to turn first. Consequently, the entrance is not elusive at all, but is easily found by leafing through the sequence of experience which the architect has established, come upon while passing through an arcade, or straight-shot along a campus pathway. The "way in" reads

out as still another fold within the construction.

Once through the arcade and portal, into the folds, you really begin to crack volume zero and are sprung into what is called, aptly, the Great Hall. Mr. Kahn has said that a room should not be named, but should *earn* its name.

The Great Hall has.

It is not great in terms of grandiosity, but in the varied activities and encounters which it allows.

On the verge. . .

Mr. Kahn explains, "Whereas I made the outer depth of the building like a brick doughnut, independent of the books, I made the inner depth like a concrete doughnut where the books are stored away from the light." The Great Hall is born

of these two doughnuts, as it were. The inner one has immense circular openings, connecting the stacks and the center Hall. Through these, as you enter, books are visible all around. As Mr. Kahn says, "You feel the building has the invitation of books."

In use, the Great Hall invites even more. One of the first things you see upon entering now is, as might be expected, a card catalogue and, as might not be expected, a grand piano.

Concerts, chorales, poetry readings, drama—these weren't exactly part of the program. Or were they? One wonders, with Mr. Kahn, how you would ever name a room which has the capacity to program (and re-program) itself; one with "the invitation of books," yes, but also

of draping oneself over a balcony to take in Beethoven, Keats and (certainly) Kahn.

If the Great Hall is a place of sharing, the outer doughnut of bricks is a place of solitude—"the periphery, where light is," says the architect. It's the place where, coming from the low ceiling stacks, you can curl up at a carrel, "a kind of discovered place." These reading areas, each equalling two stack levels in height, have windows which become wider with each floor, offering views out to the campus and beyond—but discreetly so, through wood-frame openings at carrel height, as if to rein in concentration. If your concentration needs relief, wood panels can be slid open with a nudge of the elbow.

The progression of space is



deftly done: There is the expansive mood of the campus; then the arcade crouching along each side of the building to reveal the entrance; then the release into the Great Hall (and its goings-on) by way of gracious, sweeping stairs to the stacks; then, moving through all those dog-eared books, the reading areas—lots of students alone near those little windows, caught up in a light harkening in from (and out to) a campus you'd swear you'd never left.

Sound reflexes, these. Space into space, scale into scale, the senses are deflected to sources beyond those bare, functional contents of the building—de-

flected, beyond books, to a sense of community.

Community? This is the Louis Kahn who said, long ago, "I really look out for the nature of something. You might say if I were asked to do this or that school, I would try to solve it by looking into the nature of school rather than a school. Yes, community.

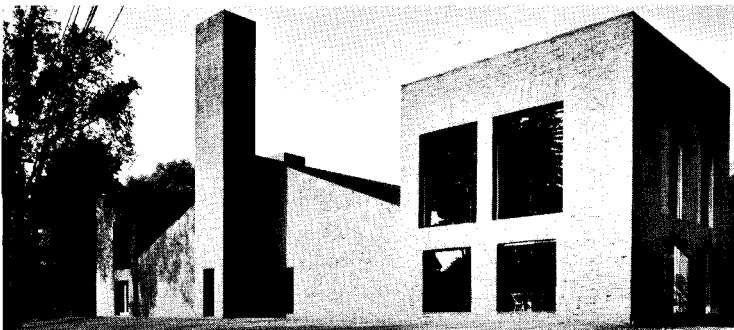
So Exeter is not a library, either. It is a searching out of library, its spirit; of that it stores, imparts; of the accumulated wisdom it stewards; of the spontaneous encounters it allows; of the needs of people who may, because of its presence, gain presence.—WILLIAM MARLIN

**THE DINING HALL** at Exeter is sited next to the Library (see plan, p. 30), their simple brick exteriors bonding in well with Georgian predecessors nearby. One of the four corner dining rooms (below and opposite), as impeccably proportioned as Palladio could hope for, is clean-cut and expansive—both of itself and in context with the campus outside. Inside, there is all the relish of *Gaudiamus Igitur*—lyrical light, memories savored. Connecting the inside and outside are windows that form crisp openings in the brick. A big, inviting fireplace is located by each of two main dining halls. Overlooking these are informal, light-filled lounges on the upper level, the ceilings above reading out as gentle gables on the four sides of the building which rise up to terminate in slender chimney-like towers.

#### FACTS AND FIGURES

The Library, and Dining Hall, Phillips Exeter Academy; Exeter, New Hampshire. Owner: Phillips Exeter Academy (Rodney Armstrong, past librarian, during design and construction; Ted Bedford, present librarian; Eli Fish, aesthetic advisor). Architect: Louis I. Kahn (Winton F. Scott, project manager; Earle W. Bolton, site manager). Engineers: Keast and Hood Co. (structural); Dubin-Mindell-Bloome Associates (mechanical and electrical). Lighting Consultant: Richard Kelly. Landscape Architect: George Patton. Interior Designer: Benjamin Baldwin. Contractor: H. P. Cummings. Area: 88,984 sq. ft. (Library); 28,902 (Dining Hall). Cost: \$3,360,000 (Library); \$1,352,000 (Dining Hall).

PHOTOGRAPHS: Joseph Molitor; except for pp. 27 (top), 28, 33 (far right) and 34 (bottom), by John Ebstel.









# MAGNIFICENT INTENTIONS

The genesis of a building's form apparently involves more conflict and intrigue than usual when it is designed by architects for architects

*"The final product, despite the fact that it was not to be an 'architectural statement', barely escapes lording over that which it was to respect. Aloof, and looking a little ignored, the Octagon has become a 'quiet backdrop' for the headquarters' building."*—William Marlin, *Christian Science Monitor*, July 20, 1973.

When *The FORUM's* Editor-in-Chief wrote the above words several months ago, he was summing up the results of one of the most critical architectural contests of the century. The contest started over a decade ago, but nobody won. At the time the AIA decided to erect a new headquarters in 1962, it had dreams of "a building of special architectural significance, establishing a symbol of the creative genius of our time,

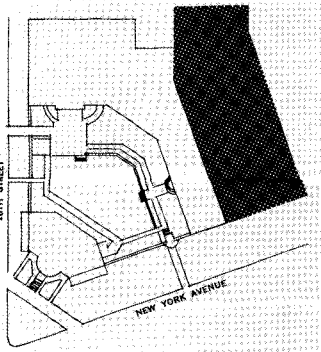
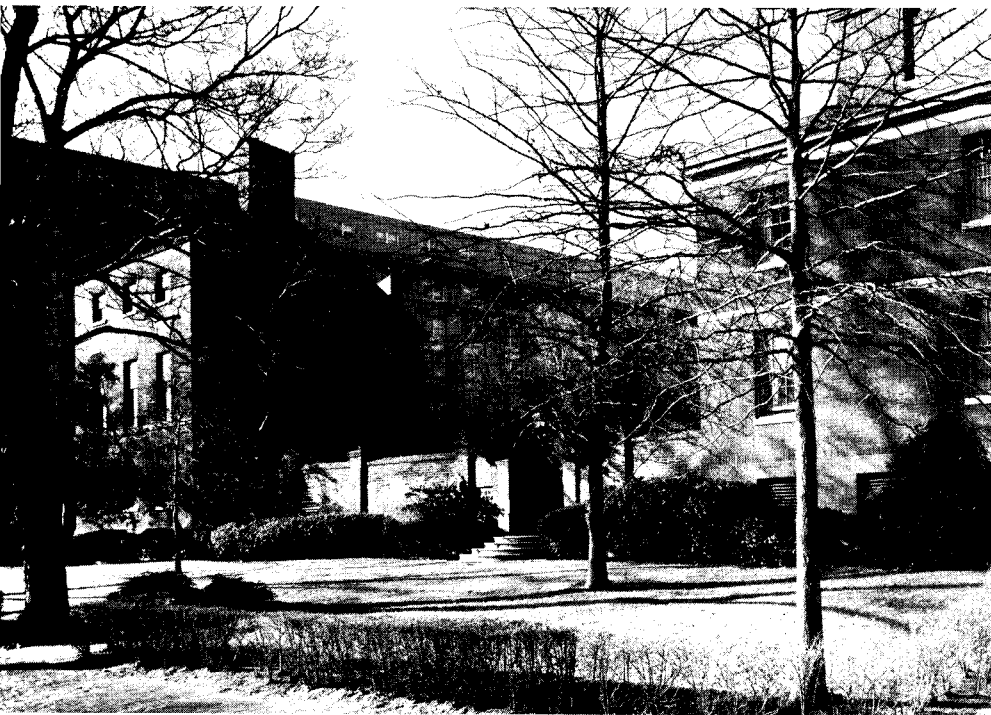
yet complementing, protecting and preserving a cherished symbol of another time, the historic Octagon House."

To achieve this end the AIA voted to have a competition—a competition that started a sequence of events ultimately leading to a finished building of "special architectural significance." But not because it is "the symbol of creative genius of our time", as much as because it embodies and reflects in physical form the sometimes good-hearted but othertimes wavering integrity of its clients, the frequent inability of architects to deal with the political realities confronting the built environment, and the general arrogance (or perhaps ignorance) the architectural profession often evidences in trying to preserve the urban fabric. It

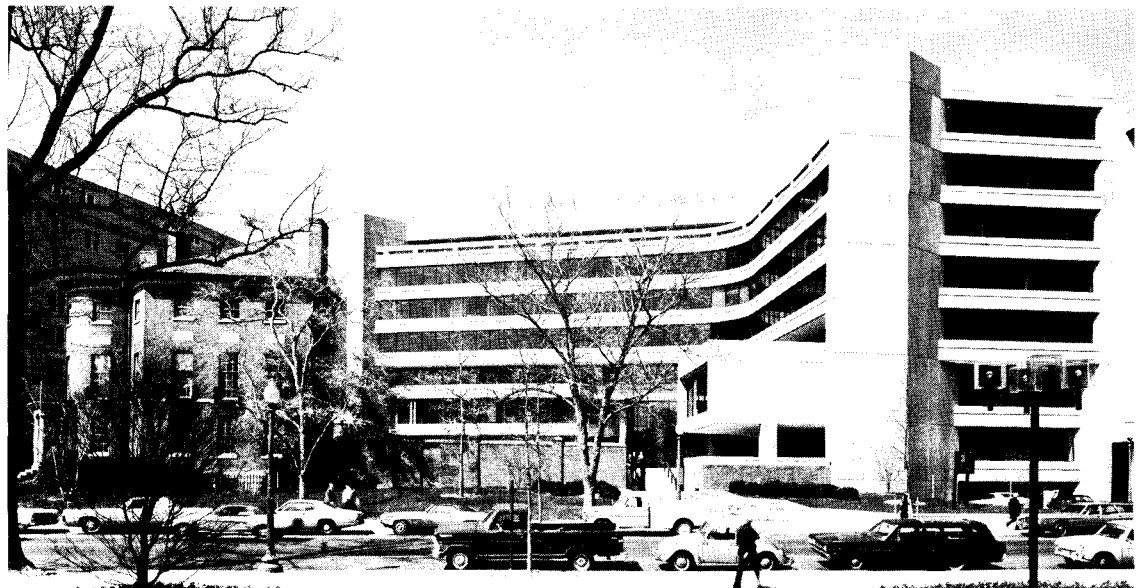
is a searing indictment.

Given other contexts, the present building designed by The Architects' Collaborative would be fine—it is a competent package, well put together with some of the usual functional shortcomings (captions, page 43). But given the particular site behind the Octagon, the physical, political, procedural and historical contexts within which it was designed, and given the meaning a building designed by architects for architects could convey to the general public, it is a disastrous disappointment.

The responsibility to the physical and symbolic requirements was only nodded to—either because they were not really understood, or because by a particular point in time, no one really cared. However, one could only blame the architects



View from New York Avenue showing 1941 Headquarters (above, left) and the Lemon Building (above, right), since torn down. The Octagon before the construction of the new Headquarters (opposite, top); the Octagon now (opposite, bottom).





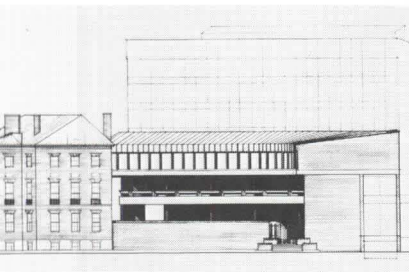




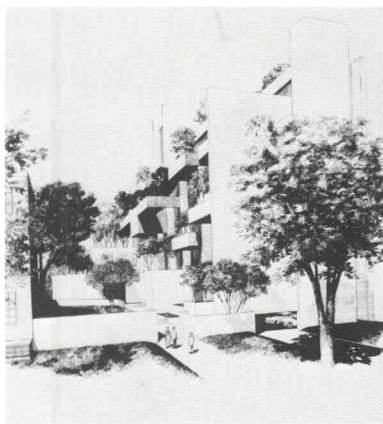
# **RUNNER-UP ENTRIES IN THE 1964 COMPETITION**

(submissions by finalists C. Julian Oberwarth and Donald Barthelme not shown.)

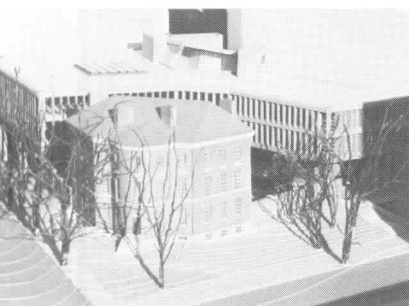
Perkins and Will



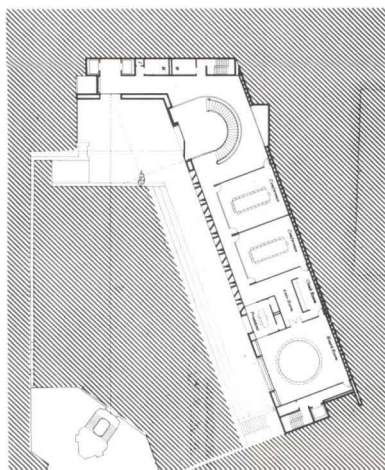
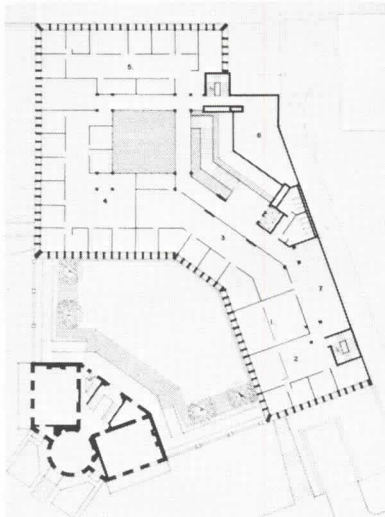
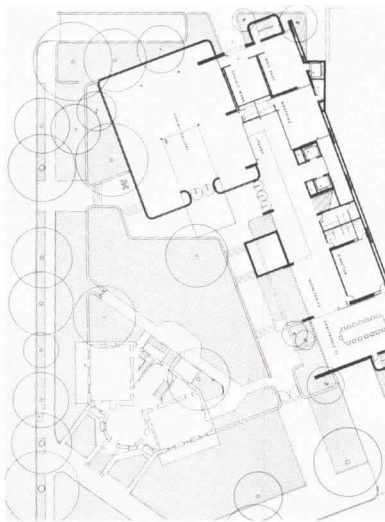
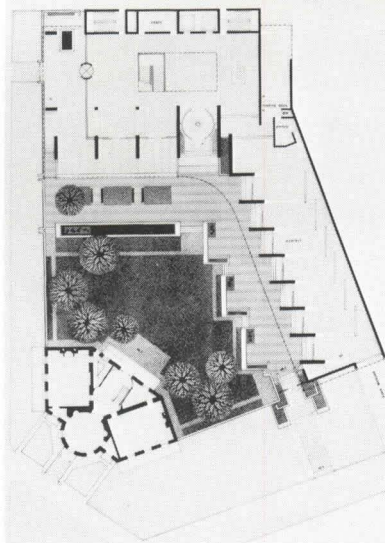
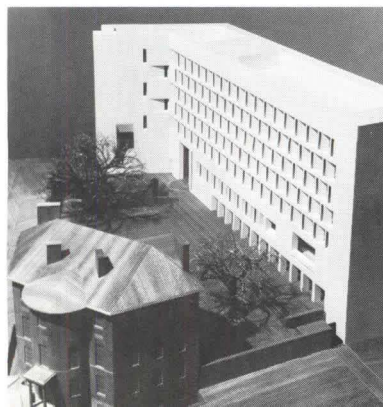
Charles Colbert



Jean Labatut and Carr Bolton Abernathy



I.M. Pei



for "just doing their job." Much of the responsibility would have to be assumed by the clients, who, despite their best intentions, let muddled priorities, political wranglings and a failure of nerve determine the design of the building. (Nevertheless, one architect comments, "TAC has been a marvelously obliging paramour.")

The history of uncertain convictions began in Miami in 1963 when the AIA voted to mortgage their land to build a new headquarters, but was split on the question of whether the site, 18,220 sq. ft. behind the Octagon and its garden (9,706 sq. ft.) was too small. Nevertheless, plans went ahead to build in order to save time (with the architects to be selected by a national competition). The program called for a 70,000 sq. ft. building with 50,000 net usable square footage, of which 17,972 sq. ft. would be rented to offset amortization costs. Budget was then estimated to be about \$1,450,000. By the summer of 1964, seven finalists were announced for the second stage of the competition, including the firms of I.M. Pei, Perkins & Will, Charles Colbert, Donald Barthelme, Jean Labatut and Carr Bolton Abernathy, C. Julian Oberwarth, and Mitchell/Giurgola.

Of the 221 entries, the jury, headed by Hugh Stubbins and including Edward Larrabee Barnes, J. Roy Carroll Jr., O'Neil Ford, John Carl Warnecke, and A. Stanley McGaughan as professional adviser, selected, as everyone knows, the firm of Mitchell/Giurgola. In those days, Mitchell/Giurgola was still little known, except for its runner-up spot in the Boston City Hall Competition.

Mitchell/Giurgola produced a design for a five-story building that would contain 84,000 sq. ft. in a brick-faced reinforced concrete frame structure with a semicircular glass curtain wall overlooking the Octagon (photo, p. 39).

Though the building was 90 feet high, the maximum allowable cornice line in this area, it did not fulfill the maximum development permitted under the existing Floor Area Ratio (5.5) of 99,700 sq. ft.

The AIA then took the winning competition scheme to the Board of Zoning Adjustment for approval on the rental floors (since the site is in a Special

Purpose zone, not only do all tenants have to be professionals or non-profit organizations, but permission for adding rental space is required). The Board also had to waive the technical zoning regulation saying that a building in this location must have a 19-foot 10-inch rear yard. It got the approval in May 1965. *Between that time when the AIA already had the go-ahead and the following December, the AIA Board decided to enlarge its program.* At this time incidentally, the Fine Arts Commission (whose later role in this effort is now infamous) had not seen the award-winning scheme. Nor did they ever see it, for the design executed after the change in program was substantially different.

No one is really sure why the AIA, at that late date, decided to change their minds. There was, however, a lot of pressure from preservationists such as the American Scenic and Historic Preservation Society during the summer of 1965 against building anything behind the Octagon. The Octagon, actually a six-sided house, was built in 1802 by the architect of the Capitol, Dr. William Thornton, and housed Dolly and President Madison for a while during the War of 1812. It is generally considered to be the third most important D.C. landmark after the White House and the Capitol. The preservationists complained that the 90-foot high building would dwarf the Octagon and that the scheme would reduce the garden from 12,204 sq. ft. to 10,548 sq. ft.

There would seem to be little reason to believe that the preservationists would have enough clout to make the AIA start all over from scratch, except perhaps for the letter Stewart Udall, who was then Secretary of the Interior, wrote to the Society stating it was "unfortunate the AIA can't preserve the setting as well as the structure of the Octagon."

The reasons the AIA offered for deciding to enlarge the program at this particular time were primarily financial: A larger site would allow a building with more rental space to better support financially the construction of the new building. Other reasons that were given were that it would permit "new freedom in land use", not crowd the Octagon, and let



the architects produce an "even better scheme."

But there exists further speculation that the changes were more or less due to the divisiveness of opinions within the AIA itself on the winning design. Sources close to the AIA assert that there had been two factions from the beginning debating the need to have a competition. One, reportedly led by J. Roy Carroll, Jr., AIA President 1963-64, was in favor of a competition as a way of unearthing new talent. The other, referred to by some as the "SOM-types" and reportedly led by Charles Nes Jr., AIA President 1966-67 and Headquarters Committee Chairman from 1964 to 1966, was urging selection of architects from already well-known qualified firms. Nes later stated in December 1967, "A competition, while often bringing to the fore a young and talented but unknown architect, is expensive, slow . . . I personally feel that unless absolutely necessary, competitions are not an entirely satisfactory way of choosing an architect." Another critic explicitly cited by the *Washington Post* shortly after the competition winner was announced was Glenn Stanton, past President of the AIA, and later to be a member of the Headquarters Fund Raising Committee.

Although the design did not please some AIA leaders, it met with critical acclaim elsewhere: Ada Louise Huxtable described the scheme as "a design of notable subtleties and marked creativity. It exhibited a particular sensibility . . . a way of making the present serve the past with elegant bravura that compromises neither and enriches both."

At any rate, in December 1965, the Board of Directors requested a feasibility study from Mitchell/Giurgola, for a building on a larger site. The original 18,220 sq. ft. site behind the Octagon's garden wall would now be enlarged by an additional 11,240 sq. ft. of the adjacent Lemon Building property (page 36 right).

While maximum built square footage allowable for the combined sites was 161,500 sq. ft., M/G advised against maximum development because it would overburden the AIA with rental space and require a heavy equity investment initially. The small-

est version reasonable, 110,000 sq. ft., was also not recommended because it would not provide enough income-producing space for the cost of the investment and would drain the AIA annually. Another factor was that "underdeveloping" a site such as this would most likely not attract lending institutions. Therefore 130,000 sq. ft. seemed the most rational solution. Yet as Mitchell/Giurgola pointed out, the compromise solution would have drawbacks: The net rentable floor space was substantially more than desirable, and at the same time the property was still underdeveloped enough to discourage money lenders, and ante up yearly AIA costs.

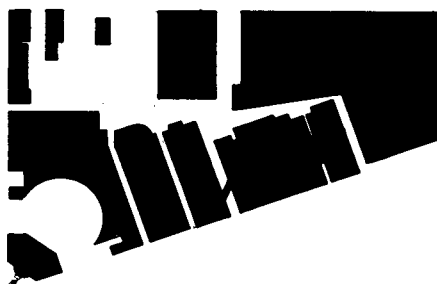
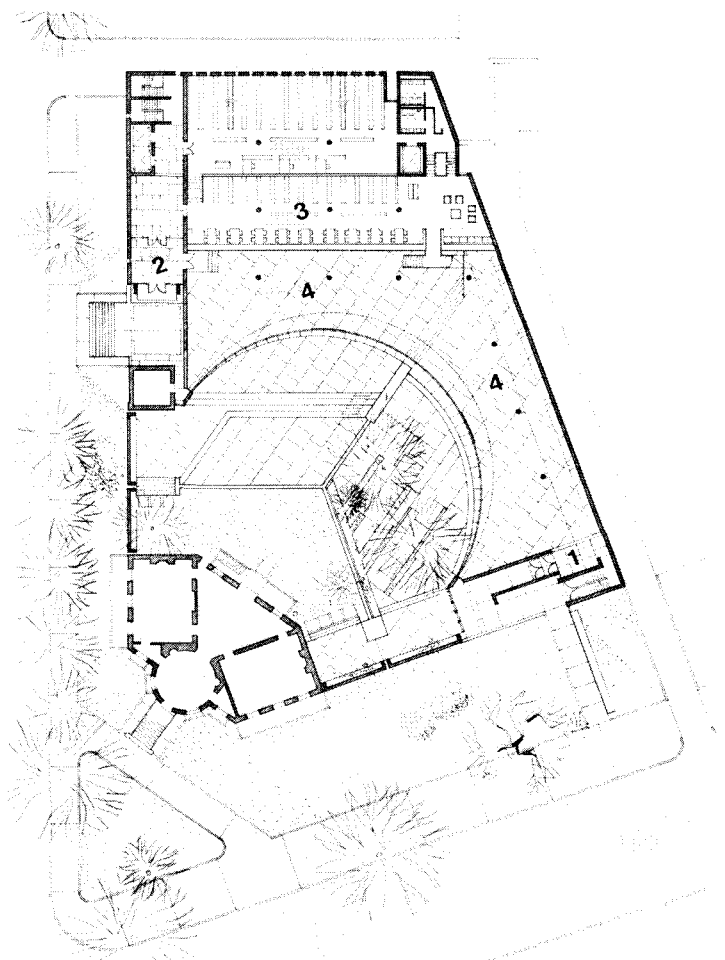
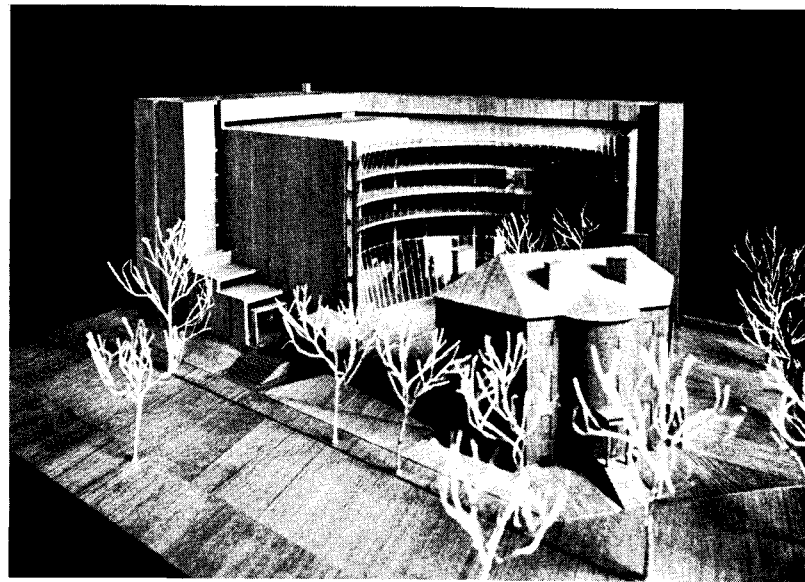
So while the AIA claimed that the larger site would lessen the bulk hovering around the Octagon, they were making a decision that would generate a building 4.6 times the size of the new enlarged site, the same ratio of the original scheme to the original site.

During this crucial decision-making time no feasibility study was conducted on the possibility of preserving the Lemon Building and renovating it for use by the AIA. Thoughts of doing so were dismissed because the building didn't have adequate space (under 50,000 sq. ft.), nor a garage. While the late 19th Century Lemon Building was marked by an excellent brickwork facade, it would cost \$2,000,000 to renovate. Besides that, it would be hard to subdivide since interior walls were load-bearing. Yet no structural engineers were called in to conduct a feasibility study on saving the building. The jump was taken without serious thought to preserving some of the urban fabric of which the Octagon was an integral part.

The old stables that had been converted to a library in 1954 never had a chance for survival. One AIA member explained that nobody could make a case for saving them. Interestingly enough, the AIA showed a sharper preservation sense in 1912 when the stables were in such disrepair that the District condemned them, and the AIA Convention voted on tearing them down. But a few architects couldn't bear seeing the stables, built in 1800, go, and donated funds.

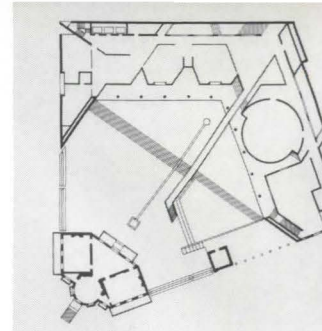
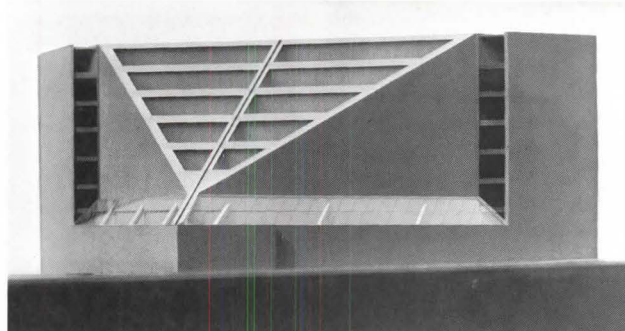
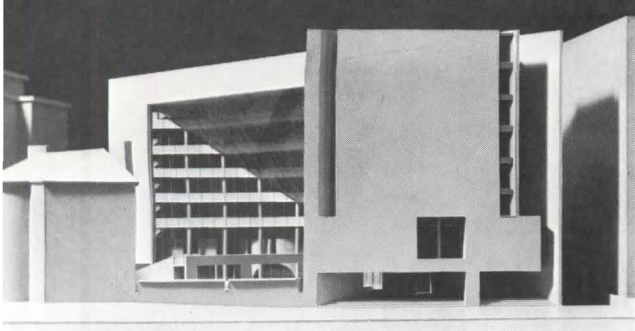
As Hugh Stubbins recalls, the

#### THE COMPETITION WINNING SCHEME: MITCHELL/GIURGOLA



1. Entrance, New York Ave.
2. Lobby and Elevators, 18th Street
3. Library
4. Exhibition Space





Scheme II by Mitchell/Giurgola

general feeling about a new building versus the old in 1964 or 1965 was that "The AIA had to make a new statement; to practice what we preach".

In June 1966, the Convention approved the purchase of the Lemon property for \$675,000. Meanwhile, Mitchell/Giurgola had been working on a larger version of the Headquarters. It is interesting to note that while M/G began with an enlarged version of the competition winning scheme, the version that was finally approved by the Headquarters Committee and the Board of Directors (both under the direction of Charles Nes), hardly resembled the original. The one the clients liked took the form of a large proscenium arch framing the Octagon. Again 90 feet high, it was to be a reinforced concrete structure with brick facing, budgeted at \$4 million. Five office floors in the seven story building stepped successively out over the garden, while the rear of the building sloped in such a way that skylights could introduce additional natural light into the offices.

Ironically the building won enthusiastic support at the June 1967 Convention, the same convention in which Skidmore Owings & Merrill walked away with five out of the 20 architectural honor awards. This was the same convention where President Robert Durham asserted that the individual architect, working alone, was the best assurance of good design.

These separate acts and deeds were to increasingly be seen as portents of the most well-known part of the contest—the contest between the AIA and the Fine Arts Commission. According to the Shipstead-Luce Act of 1930, "private and semipublic buildings adjacent to public buildings and grounds of major importance" were to be approved by a Fine Arts Commission according to matters of "good

order, good taste and with due regard to the public interest involved." Members of the seven person commission are appointed by the White House and serve for four or more years.

This segment in the history of the AIA Headquarters will always be read on many different levels. On one level, this debate tested the abilities of a professional architectural organization to make a decision that would be appropriate for a larger urban context; at the same time it questioned the extent of influence design review boards were to have in dictating the kind of architecture to be built in this context. On another level, the FAC's architectural preferences and Mitchell/Giurgola's could be viewed as embodying two separate design approaches that were only beginning to clash in the 60's. One was clean, slick and straightforward, characterized by simple massive (monumental) forms; the other a more particularized humanly scaled, accommodating approach.

On a more personal level, the contest centered on two architects with two different architectural viewpoints: One, the oft-acknowledged power on the Fine Arts Commission, Gordon Bunshaft, who, as head of the New York office of Skidmore Owings and Merrill had come to represent corporate big business architecture; the other, Romaldo Giurgola, principal designer of the AIA Headquarters who clearly stood for the "little guy." Usually Bunshaft and Giurgola were not likely to meet in professional pursuits. The year, however, that M/G's scheme was going up before the FAC for the first time (1967), M/G and SOM found themselves being interviewed for the same job—the United Nations school in New York (at that time it was first to be a renovated warehouse, and later a new school with apartment tower on East 40th Street). Mit-

chell/Giurgola got the job. And not too long before that, Giurgola was on the advisory committee to Columbia University when they awarded the contract for master planning the campus to I.M. Pei. The New York SOM office had been the other principal contender. It is thus likely that one force was slowly becoming aware of the other.

Even though Mitchell/Giurgola's scheme met with enthusiastic endorsement at the 1967 Convention, some report that not all of the AIA was pleased. A new member of the Headquarters Committee, appointed by Charles Nes, for one. Sources close to the AIA report that the new member, Nathaniel Owings, came to a meeting where Giurgola was making a presentation, criticized severely the program and plan, then wrote a letter to Nes making his position clear. A few claim that a blind copy went to Bunshaft.

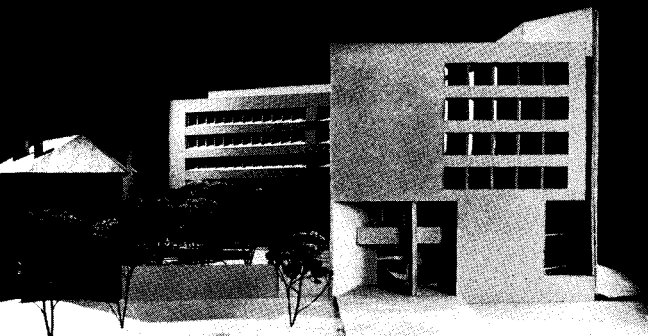
At any rate when M/G's scheme went to the Fine Arts Commission, it was turned down. This was the first scheme of the AIA Headquarters to actually come before the Commission, so the decision was a stunning blow. Members of the Commission, William Walton (chairman), Gordon Bunshaft, Theodore Roszak, Aline Saarinen, John Carl Warnecke, Burnham Kelly and Hideo Sasaki, concluded at the first meeting to view the design in January 1967, "there was a general feeling that the proposed design relied too heavily on some of the popular current stylistic idioms suggestive of Boston City Hall or other similar manneristic approaches to architecture." By June, just after the AIA Convention, the FAC turned it down. Aline Saarinen commented, "Of all the groups, the AIA should be sensitive to preserving the values of Washington architecture." And Gordon Bunshaft, selected by the chairman as the Committee

spokesman to architects coming before the FAC contended, "The design concept is totally out of scale with the existing buildings on the site."

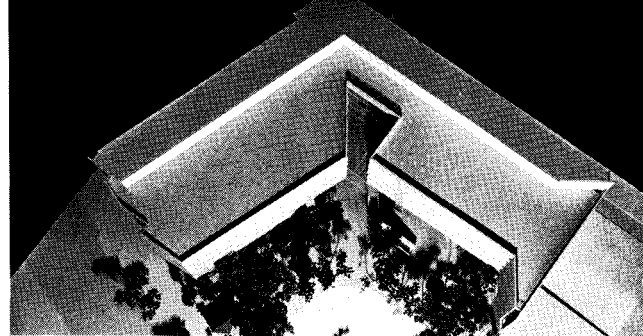
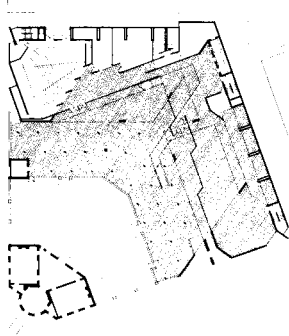
When Mitchell/Giurgola returned to the FAC in February 1968, they had changed the scheme radically. Square footage was reduced to 110,000 sq. ft. and the height of the building to 72 feet. Members of the FAC now included Walton, Bunshaft, Roszak, Saarinen plus Chloethiel Woodard Smith and John Walker. The group considered the changes in location, massing and height much more compatible with the Octagon, but felt the "facade continued to have an unresolved combination of current cliches." The facade incidentally was not at that time indicated in model form. The design—two rectangular wings connected by a glass well—was shown only in drawings. The building intrigued Bunshaft: "It actually is a small building and I personally think the idea of getting a court up there, separating the two wings could be very interesting." And he advised Giurgola, "Dig in more. Make it almost two wings."

At a later meeting in April of 1968, attended by Walton, Bunshaft, Roszak, Sasaki and Smith, Giurgola returned with new sketches that showed some changes in fenestration. This meeting, in which discussion centered again around a building not depicted in model form seems to have been critical. For the actual issue of how far the FAC could go in determining the design of a building was discussed in detail. Bunshaft at first adopted a laissez-faire attitude tentatively suggesting: "We approve the mass, materials, sense of order, facade on the street, but are not participating in approval of the exterior facade of the court, which is an AIA decision." Yet he clearly did not like the building. "I think the AIA deserves





Scheme III by Mitchell/Giurgola



this. I think it is a goulash. I think it is not architecture at all, and it will be a freak of 1967. . . . I don't think you're going to make Giurgola do a building that the FAC would agree is a fine building."

Secretary of the Fine Arts Commission Charles Atherton reminded the group that according to the Shipstead Act the building could well have limited approval. Sasaki urged: "Let's simply approve it or disapprove it," pointing out, "There's a consistency in the building. They are conscientiously trying to meet the objections we had to their first (proscenium arch) scheme." However Chloethiel Woodard Smith said "But to represent American architecture; architecture done by architects and approved by the Fine Arts Commission, it makes a curious package." At that point Bunshaft began to change his mind about *qualified* approval: "The more I think about it, you can't give a qualified approval . . . it's renegeing on its principle and establishes a precedent." Smith seconded this idea: "Other people would expect you to do the same."

The case seemed closed when Willis Mills, the AIA Headquarters Committee chairman subsequently admitted to the Commission that the design had not been seen yet by any persons on the Headquarters Committee or Board.

In June, the model form of this scheme was brought in, boasting the famous "notch"-shaped glass shaft that connected the two wings (photo, above). Bunshaft said he would not "be a party to that corner." Sasaki urged "Let's not touch on one element and make our decision on that. I'd be willing to accept the building in its entirety." Chloethiel Woodard Smith voted to reject the scheme.

So back it went. The architect was advised to come up with a new scheme by September.

When Giurgola returned (with AIA President George Kassabaum, Executive Director William Scheick, and Ehrman Mitchell), he came with a design that was apparently identical to the one presented in June. Giurgola read a statement that the notch was "an integral part of the design and belongs to the personal interpretation of the architect." The members later voted to reject the scheme six to one. Mitchell/Giurgola resigned in September 1968.

When the Board of Directors at the AIA decided to get a new architect, they also decided to start all over with a new Headquarters Committee to act as the Architect Selection Committee. The AIA reportedly wanted to begin with a fresh slate, and since the old committee had favored Mitchell/Giurgola (for the most part), there would be a tendency to compare them with the new architect. As a diplomatic gesture, Romaldo Giurgola was asked to serve on the committee (though he only attended a couple meetings) along with 1964 runners-up Philip Will Jr. and I.M. Pei.

The list of choices the Committee came up with to interview for the job was impressive: The Office of Mies van der Rohe (which refused unless the AIA could guarantee no trouble with the FAC), Gunnar Birkerts, Edward Larrabee Barnes (member of the original jury), Marcel Breuer, Ulrich Franzen, Harry Weese, and Keyes Lethbridge and Condon, plus The Architects' Collaborative. A weighted ballot was used for voting and TAC won.

By November 1969, TAC was ready for the Fine Arts Commission. And this time there was no fooling around. HQ Chairman Max Urbahn, William Scheick, Board members Russell Deeter and Max Brooks attended with TAC's Norman Fletcher, and Howard Elkus.

The AIA and TAC immediately launched into a plan for the building to link to future development of the whole block, with a series of plazas that would extend to the Federal Deposit Insurance Corporation (at the far end of the block). All they had to do was to convince the developer who owned the properties in between. Obviously, this developer did not bite, and the building that is on the site between the FDIC and AIA leaves no space for interconnecting plazas. Nevertheless, it sounded good at the time.

The AIA also reminded the FAC how virtuous they were in not wanting to build to the maximum allowable (160,000 sq. ft.) under present zoning. (Needless to say, they did not mention that the maximum floor area would overburden the AIA with rental space.)

Interestingly enough, at this late date, the Fine Arts Commission asked why the Lemon Building couldn't be preserved and renovated for AIA use or for rental space. Urbahn said it was unfeasible, at which point William Walton remarked he had never seen a feasibility study (since none existed.) The subject was dropped when Fletcher began talking about the FDIC connection again.

In general, the TAC scheme met with approval by the FAC though it too had to go through several revisions before all elements of "overblown mannerism" were ironed out. Materials for the building were debated. As with Giurgola's designs, a preference for concrete was often voiced by Bunshaft. With TAC he suggested that dark grey concrete and dark glass would be appropriate. New FAC member, Kevin Roche, hoped it wouldn't be precast concrete, to which Bunshaft replied that he didn't mean precast, but an aggregate, poured-in-place.

Today, the building is precast concrete.

When the architects were

faced with high-cost estimates from the contractors, they had to give up the poured-in-place idea, plus a triangulated structural ceiling and floor system of reinforced concrete that carried lighting in the troughs, air conditioning ducts above, and utility ducts in the floor. In addition, the plan to completely cantilever the board room was dropped. As it was, the total project costs were \$8,430,000, including demolition, financing, interim taxes, legal fees; actual construction costs \$7,486,000 (about \$39. per sq. ft.). The garden is only slightly smaller than its former size; instead of 12,204 sq. ft., it is now 12,175. But a hefty percentage is paving—only 6,941 sq. ft. of the "garden" is now actually grass and plants.

The question, of course, remains why the Fine Arts Commission approved the 90-ft. high, 130,000 sq. ft. TAC scheme after they had worked so hard to get Mitchell/Giurgola to reduce their design to the 72-ft. high 110,000 sq. ft. notch version. Some people hint Bunshaft would never have approved a Giurgola design. Bunshaft himself refutes this allegation. "I think Giurgola is a great architect", he said recently. "I'm sure he'd be surprised to hear that". Bunshaft made it clear that while he had had strong opinions about Giurgola's designs, he didn't dominate the FAC meetings: "Aline Saarinen was pretty opinionated too". He also points out the 90-ft. high Mitchell/Giurgola scheme was actually not rejected because of its height, but because the proscenium arch overpowered the Octagon.

It also seems likely that the TAC design had the right amount of traditional blandness, since the FAC most often objected to the "tricks" in the Mitchell/Giurgola facades.

Nevertheless, one senses from the transcripts that there was enough indecision in the Commission's minds regarding how



far a design review board should go in actually ruling on the treatment of specific design elements, that had the AIA truly backed the Mitchell/Giurgola scheme, one of the projects would have been accepted. To the bitter end, the AIA felt that "the principle of design review boards is the best known means in maintaining order in the face of all of the pressures leading to chaos."

Order, thus, has been maintained, at great cost and sacrifice. The design process particularly reveals the weakness in architectural judgment of two types: the competition and the "tribunal" or design review board. In his book, *Architectural Judgement*, Peter Collins discusses the limitations of competitions that select either an ideal design ("There is an outcry if an inexperienced winner makes some major alteration") or an ideal architect ("There are good grounds for the layman's assertion that only competitions limited to a few well-established practitioners will produce the desirable results.") The real weakness in this kind of judgment, Collins contends, however, is that no group can afford to spend the adequate time analyzing and debating unlimited entries. Thus "competitions restricted to six competitors are from the judicial point of view, most likely to produce reliable results."

Collins then discusses the "tribunal" form of architectural judgment where a group of experts with authority decide between two parties of dispute—the architect and the general public (represented by the commission)—much like courts of law. But the major weakness here Collins points out is that the "judges" in the architectural profession are usually practitioners at the same time (not so in the legal profession). Thus, judgment biases that may exist are not made manifest at the outset, and are more difficult to challenge without offending those deciding on the case.

It is not difficult to see in the transcripts on the hearings of the AIA Headquarters, that, because the Fine Arts Commission acted for the most part as *practicing architects*, they lost sight of their original purposes. If the FAC were truly concerned with the need to preserve the integrity of the Octagon, they should never have approved of

the final building. (Is a design that's big and bland less overpowering than one with more complicated ordering of elements?)

On the other hand, the FAC often suggested restoring the Lemon Building, but never pushed it. Why not just restore the Lemon Building (the \$2 million off-the-cuff estimate didn't turn out to be that great a chunk of the budget), and erect a new building only on the site of the old 1941 Georgian-style headquarters, to link the two? In brick, not concrete.

Because the two types of judgment—by competition and by design review board—thwarted any kind of satisfactory outcome, the weaknesses in both are embodied in this building. Ironically enough, the same course of events probably would not occur today in the same way. For the architectural biases have been realigned in their influence. Whereas the Mitchell/Giurgola approach was then so new, difficult, and without a strong platform, the SOM brand of architecture had reached its heyday in public and professional appeal and acceptance.

Today, the tables haven't turned, but they are tipping in Giurgola's direction. Furthermore, the firm has proved its talents by actually building. Perhaps, Mitchell/Giurgola sensed this destiny and thus could afford to be so silent all these years. (Ehrman Mitchell, now member of the AIA Executive Board, recently reaffirmed his belief in the AIA as a necessary and very beneficial organization for the architectural profession.)

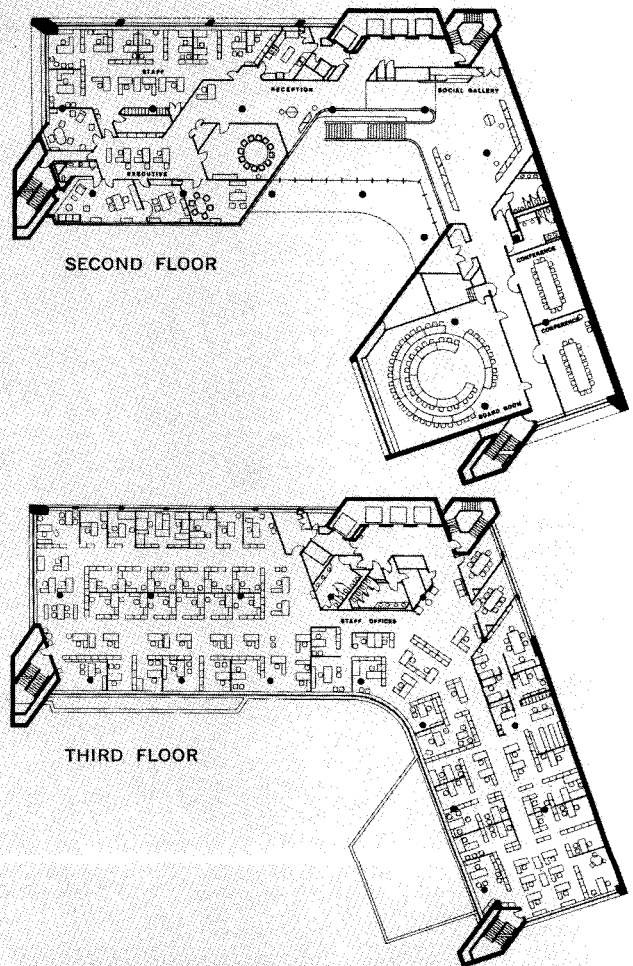
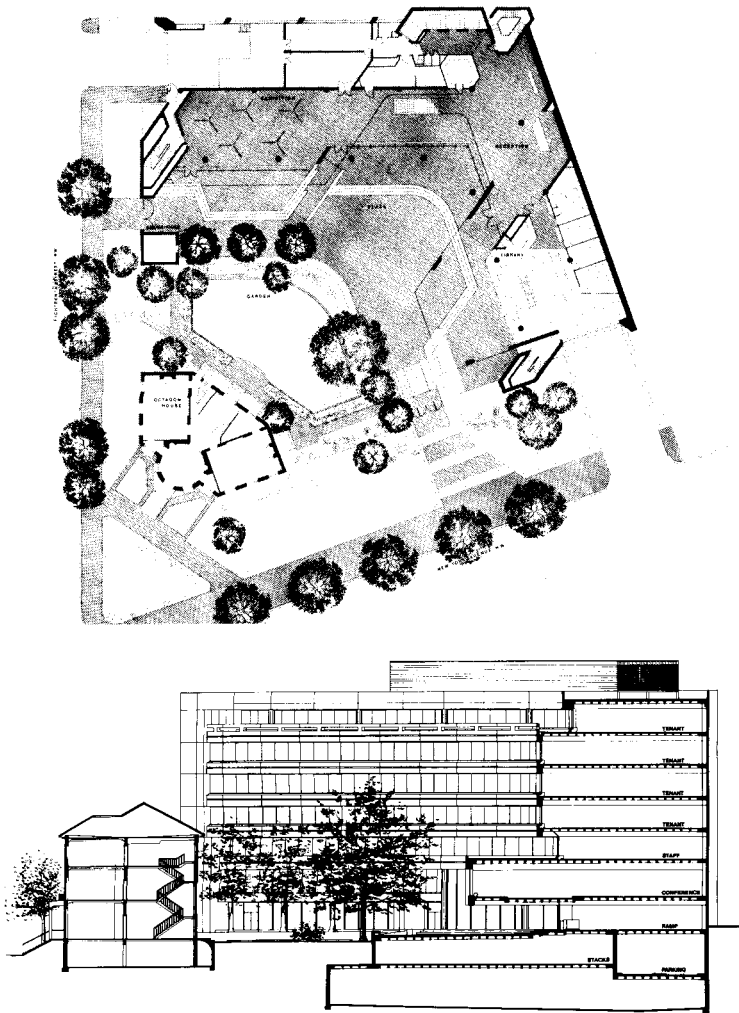
Looked at as a battle of biases, one could say these events were in fact historic. But the AIA lost its chance to make a historical statement with a building—and meanwhile showed a real lack of concern in preserving vestiges of existing history. Where once there was a true sense of place, an urban fabric that reflected the past and acted as a significant reminder to the present, now there is nothing but concrete. The AIA building fits into its context all right, but it is now one of monotonous precast concrete buildings hovering on all sides around the Octagon. The Octagon has come to occupy a false position as a focal point; and as a result, now seems a little lost.

—SUZANNE STEPHENS





The board room projects out into the garden for a view (opposite, top). Inside, a series of diagonally hung partitions allow the end wall of the board room (right) to open directly onto the corridor. The floor of the ground level exhibition space (opposite, middle) is paved in brick to relate interior to exterior spaces. The stair leads to the "social gallery" on the mezzanine and to executive offices and board room. Both levels overlook the garden and the Octagon through two-story high clear glazing separated by glass mullions. The Executive Director's office on the second floor is unquestionably lavish (opposite, bottom left). More like a suite, it contains private bath, kitchen and the only fireplace in the building. The rest of the staff occupies less impressive spaces on the third floor (opposite, bottom right). They have no kitchen (or lounge) and spaces are divided by four-foot eight-inch fabric covered partitions. Evidently the acoustical problems are still severe. There are also complaints that the dark bands of solarized grey glass don't effectively block heat resulting from the building's southwestern orientation, but the low eight-foot four-inch ceilings on the third floor in combination with the open landscape partition system does in fact limit the view of the garden.



#### FACTS AND FIGURES

American Institute of Architects Headquarters, 1735 New York Avenue, N.W., Washington, D.C. 20006. Owner: The A.I.A. Corporation. Architect: The Architects Collaborative. Partner-in-Charge: Norman C. Fletcher. Senior Associate-in-Charge: Howard F. Elkus. Job Captains: James F. Armstrong and

John E. Wyman. Landscape Designers: Knox C. Johnson and Hugh T. Kirley. Interiors: Ann G. Elwell. Construction Supervisor: Richard T. Malesardi. Engineers: LeMessurier Associates, Inc. (structural); Cosentini Associates (mechanical and electrical). Consultants: Golder, Gass Associates (soils); Bolt, Beranek & Newman (acoustics). Con-

tractors: Volpe Construction Company (general); United Industrial Associates (mechanical); E.C. Ernst, Inc. (electrical). Building Area: 192,000 sq. ft. including garage and basement. Total Construction Cost: \$8,430,000 (\$7,486,000, not including land and site development, furnishing and equipment and other secondary costs).

PHOTOGRAPHS: William Edward Barrett, page 36, top right; Rollin R. La France, 40; Ezra Stoller, pages 36 bottom, 37 bottom, 42 and 43.



# ARCHETYPAL PLACE

A theory that identifies the meaningful parts of the human environment by integrating the efforts of psychologists and social scientists with the design professions

BY MAYER SPIVAK

Our existence as city building and city dwelling men and women is marked by a tragic paradox. While we aspire to build a world which is the realization of our dreams, we grope to escape from the physical tangle and social wreckage of our urban nightmare like dreamers unable to wake.

The designers and developers of our physical environment have seen their task, as if schooled in noblesse oblige, as that of designing an esthetic system within which other men *should* be content to live. Their buildings and cities have evolved most often from idiosyncratic, intuitive fantasies in which spaces and forms are moulded by a priori esthetic principles. Architects are encouraged to conceive individual buildings in terms of their visual qualities—almost as sculpture. Buildings which meet sculptural criteria may be good—and necessary—if the environment is not to become even uglier than it is.

But they are not good enough.

Esthetics must not be our greatest urban concern. Buildings, and the cities which they in turn build, must successfully establish an environment which is capable of structuring and supporting human behavior patterns—family life, meaningful working life, education settings—at their optimum levels.

Even that will not be enough. As our urban cultures and social structures evolve and develop, our behavior patterns evolve and grow in complexity. The new environment of the city must be able to sustain the load

of the old ways and the new ways together. It must be as adaptable as man himself, and capable of rapid, sensitive adjustment.

One other factor threatens the holistic nature of the human habitat: our environments are for the most part designed and built by a few for use by the many. As absentee ownership and large scale development increase, fewer people have the opportunity or the "power" to significantly influence or even modify the form of their shelter. This practice guarantees that, in the absence of evaluation procedures, whatever omissions or mistakes are made by the designer will be repeated, and will become the burden of all to live in. This amplification of error has for many years continued unquestioned and unchecked. No doubt some of our contemporary urban crises, social and physical, are in part the legacy of this practice.

While change is one of the more obvious features of the urban scene, change frequently only adjusts the form of the environment to reflect rising land values. In order to argue more convincingly for adjustments to accommodate the humanist issues most often violated in house and city building, designers and social scientists require a coherent, common perspective and theory.

There are three parts to the theory, all three of which are conceptually and dynamically linked, yet each retains its value when considered independently, as well. First is the concept of *setting deprivation*; second, the system of *archetypal places* and human life cycle requirements; and third, the concept of the *critical confluence*.

When houses, neighborhoods, towns and cities do not adequately provide all of the components or behavior places necessary for the fullest kind of human existence, the population can be said to be in a state of setting deprivation, a state that is responsible for a considerable part of the social disorganization, some of the mental and physical illness, and much of the general human misery which exists in contemporary society.

When, as the psychologist Roger Barker has said, people live in environments restricted to a severely limited range of settings in which to carry out all the behavior that constitutes the human repertoire, their ability to function as individuals and family groups, and the integrity and quality of their society, may be impaired. People fail to maintain deep, lasting interpersonal relationships, they may suffer in their ability to work, provide or eat food, to sleep in deep renewing comfort, play, raise children, explore and protect territory, to meet with their peers, and make decisions which control the shape and quality of life. Each of the foregoing functions, and others, are associated with thirteen characteristic settings in the physical environment, with the rooms and furniture which focus and support behavior patterns in specific and appropriate ways. Such settings, taken together, in their smallest irreducible group, are archetypal places.

Each of these archetypal places is associated with a significant whole behavior, which is in turn keyed to developmental time or period in the life cycle, with a need or drive, and with the object of that drive. The combination of the drive,

the drive's object, the time and the archetypal place in which all are brought together, form what I will call the critical confluence. Thus setting deprivation results when full behaviors at the critical confluence are blocked—within the lives of individuals and populations—because their environments are archetypally inadequate.

## SETTING DEPRIVATION

The concept of archetypal setting deprivation derives from two sources. The first is the work of Roger Barker, whose conception of the behavior setting I've rather loosely borrowed. It is too early to assign to the archetypes a set of rigid parameters; we do not yet know which of the many possible criteria that could be included in a definition of the term, and the phenomenon of a setting, will turn out to be most essential, nor do we understand their combination or relative proportion. Barker's definition should therefore stand as the temporary expedient. Since setting deprivation is a testable proposition, any definition will be only as good as it is useful in the field. While Barker's work is wonderfully precise, it is also extremely detailed. (Any potential researcher of setting deprivation is urged to attempt his own definition of what criteria uniquely constitute a setting, while retaining the basic list of archetypal categories if the criteria prove adequate and exhaustive.)

The second source of the concept was suggested by my work in mental hospital settings. It became apparent that institutionalized residents lacked opportunities to be active. That the inmates' discomfort was not only a result of their various men-



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"Archetypal settings are the containers of culture. In them the spirit of a society—the identity, unity and vitality of a people—are initially and continuously moulded."



tal illnesses became quite clear when they could occasionally be observed in a different setting (swimming, for example) which offered some relief to their boredom, and a chance to test and momentarily regain their sense of personal competence, worth and identity. In a new setting, inmates behaved more like healthier people, and looked—and probably felt—less ill. A review of the settings usually available to these patients revealed that many settings open to non-inmates living normal lives were missing from their everyday environment. The sicker the patients seemed to the staff, the more restricted they were, until ultimately they were confined to the "day room", and not even allowed access to their own beds. At that point the reciprocal nature of their torment became apparent: the sicker one seemed, the more one would be confined; the more one's confinement, the sicker one seemed. Eventually the only variation in the inward spiral of experience occurred when the patient was transferred permanently to a back ward reserved for intractable patients.

In some of the more recent mental health centers which are gradually replacing the old mental hospitals, one may observe similarly ill patients who look to be much more engaged, less "chronic", and far more active. Most of these new centers feature strong activities programs and provide interesting and varied environments to house them.

Setting deprivation can result from a spatial distribution of functional places within the community which is in conflict with—or incongruent with—the desires and capabilities of the

population. Opportunities may be too far away for walking, and walking may be the most desirable way to get there. Mothers with small children want to be able to meet outside of their homes and go shopping at the spur of the moment, on foot. Access to some settings may be restricted to the wealthy, by virtue of their unprofitable nature, resulting in scarcity and privileged use patterns. Reduced access can occur if facilities are removed to distant specialized parts of the metropolitan area, such as the medical care areas or entertainment areas, shopping areas, etc. For people without a car, the trip length, the time and expense may render such trips either infrequent or impossible.

Ultimately, the most significant and frequent deprivation results when planners, developers and architects build large scale new environments such as housing projects, suburbs, downtowns, industrial parks, new towns, hospitals and schools. At this scale, major archetypal elements are often simply left out—forgotten. Our finished architecture and urban renewal efforts often resemble an unfinished jigsaw puzzle—important pieces of the whole image are missing. In this fashion, whole populations may be deprived of opportunities to develop this complete, rich human repertory. Narrow, invariant environments may develop grotesque societies and stunted lives.

While our informed behavior can, obviously, modify even the worst environment, narrow environments reduce our experience and expectations, and they must in turn modify our behavior. This is a kind of feedback loop which in good circumstances is responsible for

the co-evolution of the species' behavior and its environment, together.

In the best circumstances, this loop of environment-behavior interaction and influence works for us: we reorganize, build and rebuild, we adapt, grow and expand our abilities and horizons. In crowded conditions, in poverty, illness or oppression, it often works against us.

If individuals are under stress or in a condition of poverty or illness, it will be much harder for them to change their environment; they will probably lack access to suitable political power and authority, to actual tools, money and time. Under just such conditions lives are most vulnerable to being distorted by outside forces—the inconvenient arrangement of the city or house, the sensory poverty and social sterility of public housing or hospital, the imposition of limited housing opportunities by political decree.

#### ARCHETYPAL PLACES

The following system of Archetypal Places generically describes the fundamental collection of functional places used by man and other animals in daily life. The ethologist H. Hediger in his book *Wild Animals in Captivity* has described the subdivisions of territory in animal habitat in similar terms, and must be credited with inspiring and anticipating these spatial-behavioral categories. It is hoped this new systematic schema will organize and give additional dimensions to emerging—as well as older—information. (Chart page 48.)

Archetypal places, and the configurations they describe, denote space with highly specific

—and for some species dimensionally exact—sets of specifications. Take for example the underground sleeping place of a prairie dog (*sleeping place* is an archetype). It is a blind hollow cul de sac, perpendicular to an underground passage or route (another archetype) having approximately the same dimensions as the animal's body form, usually constructed within about three feet of the ground surface, and slightly elevated from the main tunnel floor level, or at an angle to a vertical shaft.

The archetype sleeping place is possibly universal in that nearly all species sleep (with the exception of reptiles and perhaps some antelope), and usually they sleep in a characteristically constructed or selected place, and in a typical position. The species-specific nature of the sleeping place, and in the case of man its culturally specific character as well, is not universal. Thus, we must also be concerned with the qualities of the species-specific archetypal elements in a given animal's habitat. From this kind of information, one can generate a prescriptive system of environmental design specifications which will match the complex building blocks of a species' drives, behavior patterns and social organization.

Archetypal places fall into three classes:

- *The total set of behaviorally defined archetypal places.* This inclusive group is so far comprised of 13 place types. This is the smallest mutually exclusive set of all possible spaces associated with needs, drives, and their realization, social life, psychological life motifs, biological existence, and maintenance of species population





"By referring to the archetypes and the functions they support, it should be possible to evaluate the adequacy of any habitat from the scale of a city to the elephant house at the zoo, or a lunch counter."

levels. They are conceived of as the minimum group of settings which together are necessary for support of the healthy life of a human family and the larger community. They are modified by culture.

- *The species-specific set of archetypal places.* As the behavior of more species becomes precisely known, differences will appear in their use of space to satisfy behavioral requirements. For instance, some animals sleep wherever nightfall finds them. Most birds excrete wherever they are, but will not excrete in the nest. Some animals don't use shelter at all.

- *The culturally specific set of archetypal places.* In man, cultural variation further refines and shapes the archetypal place and its emphasis in use.

### THE SPATIAL WEB OF BEHAVIOR

A connected web of archetypal places is woven by the animal and the human alike who, as the shuttle in a loom, run over their daily paths the continuous thread-stream of their behavior, connecting all the significant (archetypal) settings or places in their life experience.

For each genus and its ecological niche, there are probably characteristic kinds of social and spatial organization, and particular behavior patterns associated with archetypal places. The pattern which evolves when the behaviors in space are laid out in the home range of the species, however, may differ across species and even for local groups or "cultures". These species-specific patterns have been studied by ethologists, for some species in particular detail, with reference to where each component of the total behavioral repertoire (in non-archetypal

terms) of a species is placed in its home range. Records approaching a high level of detail also exist in the accounts of archeologists.

In any animal's natural habitat the separate functional places or archetypes may not be artificially divided, as by walls, in any way. Rather, it is the connections or routes between parts of the range that are most apparent. For any given species, some archetypes may be compressed and contained within others, or appear together in constellations. The raccoon, for example, excretes where—and often while—he drinks, "washes" and eats his food, a combination of three archetypes. The raccoon is in little danger of living in a wrong or incomplete environment. However, men, unlike raccoons, build walls, and walls are used to divide and isolate functions by subdividing space within the home range. Once these walls are up, the use of the space is relatively fixed and unchanging. If the space was poorly apportioned and designed at the outset, the shortcomings remain ever afterward.

We have lived so long in large cities and houses, that the earliest integration with our natural habitat has been overwhelmed and destroyed. The use of houses as shelters evolved in response to climatic factors, and economic and social evolution. With the development of megalopolitan scale city growth, the integration of the house on the land or the village in the countryside, and the ecological balance in which they once stood, was shattered. We have come a long way from Eden. Nor would most of us recognize the place, let alone be able to live there even as well (or poorly) as we do

in our contemporary chaos. Unfortunately, neither do we live particularly well or healthily in our predominant options—houses in cities. We have lost the skills and opportunities, but not the drives of primitive men. We have, to borrow from Rene Dubos, overadapted. We are trapped, behaviorally, physically and conceptually, in our houses.

The behavioral counterpart of archetypal place, what people do in these settings, constitutes the "meaning" in our environment. It is what makes a *place* out of a space. Living overlong in an environment composed of too few or improperly organized archetypal possibilities drains from our lives the social and psychological contexts and opportunities to act in meaningful ways. The desirable, even traditional, behavior patterns of communication, mutual government, peace-keeping and child care, recreation, courtship and family life disintegrate or disappear without the support of appropriate archetypal settings.

Mutation of social behavior, sometimes maladaptive, will result as old behavior patterns disappear in the wake of sudden changes in the environment. Populations adapt even to the most barren of surroundings. They may also maladapt, evolving to the character of uncontrolled and unecological forces.

If we neglect to provide the complete range of archetypal places within our communities, if we do not compensate in the larger community for those we no longer can contain within our homes, we may expect new social behavior patterns to arise suddenly. These, lacking the stable support of a strong archetypal setting, will change rapidly according to fad or prevailing

demagoguery.

Communities in a state of setting deprivation may produce feelings of rootlessness, disorientation and a dissolution of the cohesive bonds present in more healthy states of social organization. This is perhaps a major source of our contemporary anomic urban life with all of its attendant danger and discontent.

If an archetype is lost to a community, we should see consequent changes in the structure and location of behavior in its population, echoing the pattern of those behaviors whose accommodations have been lost, disturbed or distorted. We cannot be sure if the behavior will be displaced to another setting, mutate into a new kind of behavior in the same mode, or seem to disappear altogether, only to turn up transmuted into emotional pathology, higher divorce rates, or crime.

Archetypal settings are the containers of culture. In them the spirit of a society—the identity, unity and vitality of a people—are initially and continuously moulded. If, as a result of population growth, economic change, urbanization, war or legislation, the environment is reorganized in a way which shortchanges us by eliminating or reducing access to archetypes, the areas in which we may expect to see emergent "mutant" behavior patterns should be predictable.

Archetypal places are associated with, and resonate to, the deepest needs of the human organism. These places are the ones with which we identify strongly as "my bedroom", "my study" (work place). Obviously, the concept of territory and territorial behavior overlaps





with the concept of archetypal place in significant ways.

Each of the archetypes is in a sense a subtype of territory. When, as in the mental hospital or jail, only one or two archetypes are available at a given time, the "required but missing settings are functionally imposed upon whatever settings there are, and compressed within them. When settings are thus forced to handle an overload of functions, each orphaned from its own archetypal place, the resulting incongruence between behavior and place may appear bizarre and chaotic. The individual may become disoriented, and may respond with a variety of adaptive or maladaptive measures, most of which probably make him look "sicker" to his caretakers.

The systems of personal space, territory, and archetypal place are dynamically related: If two individuals are forced by hospital crowding to set up parts of their territory, their sleeping place for instance, within each other's personal or intimate social spaces, a strongly felt interference results which may affect the whole territory or its shape (change rooms, move the bed); personal and social behavior (fight with roommate); or the function (lie tensely awake at night, vigilant, sleep daytimes in a dayroom chair). This same circumstance can so threaten the integrity of the personal space and body boundary that withdrawal and depression symptoms may result. Alternatively, if neither function, behavior or location can be altered successfully, the "need" will be blocked and may be displaced and imposed onto some other functional place or archetype in a disguised form; for

instance, the loss of a secure sleeping place may transform as feelings of general insecurity about all one's own places and possessions. To pursue the example, in the feeding place one might perhaps observe defensive postures and retentive hoarding of food, overemphasis of "my place at table", and even greediness. Thus, the effects of a deprivation in one mode may have far-reaching effects on other archetypal places, following a typical pattern, in this case boundary-defining and hoarding.

By referring to the archetypes and the functions they support, it should be possible to evaluate the adequacy of any habitat from the scale of a city to the elephant house at the zoo. Further, by using the archetypes as a program support or a checklist of environmental adequacy, an architect should be better able to design structures that do no violence to their users' needs and ways. Used thoughtfully, the archetypes may aid in the design of a higher architecture which aspires to enrich and satisfy the enormous repertoire of human behavior. Finally, by generating and examining a matrix of archetypal requirements for a house or community, one should be able to discover and then predict the range and ratios of environmental resources which will allow and support full realization of both individual and community life.

#### THE CRITICAL CONFLUENCE

The span of human life may be resolved into developmental phases. In order to relate spatial requirements in the archetypes to the lives of individual men and communities, we must attend to these developmental

stages and their distinct spatial requirements. The diagram (right) presents a simplified life cycle schema for the human family, and relates life cycle phase to the rise and evolution of each archetype.

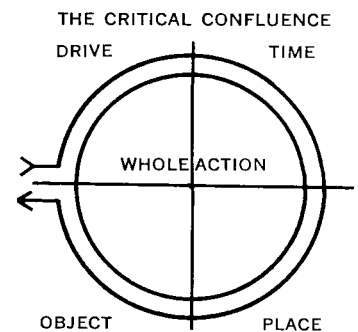
Each phase of the human life cycle has not only a central, drive-related task—such as child rearing—but also an *appropriate* (archetypal) physical environment for the proper support and resolution of behaviors related to these tasks. Thus, in the context of the right archetypal surrounding, we are free to engage in a critical set of actions—such as cradling and nursing an infant. In order to successfully engage in these movement patterns, and to experience the events fully and to the ultimate satisfaction of the drive, particular temporal and physical criteria must be met.

The appropriateness of the total setting, or environment, can be specifically described in terms of four essential boundary conditions: 1) having experienced or being in the grip of a motivating need or drive; 2) having that urge occur within an appropriate time context (developmental time, "cultural time", life cycle phase, seasonal time, circadian time); 3) having access to an appropriate archetypal space or place; and 4) having the object available—as in the case of a nursing mother, the infant. The graph (below) is a visual representation of the foregoing conditions and their interrelatedness.

The *Whole Action* occupies the center of the diagram for it is immersed within, and dependent upon, each of the four components (Drive, Time, Place, Object). Should access be prevented to one of these four key

elements, it can be predicted that the whole act will be impaired or prevented. The individual will experience a double frustration: first, by not having access to the necessary element, and second, being denied the satisfaction of a completed Drive-to-Object cycle.

Critical confluence crises are proposed as typical of, and co-emergent with, the central events of our lives. Each is the central theme of a life cycle phase.



The *critical* nature of the confluence derives from the linking of the Time and Drive criteria carrying the implications of a biological and behavioral developmental timetable and critical period phenomena.

The psychoanalyst Eric Erikson has postulated a multistage epigenetic system, in which each stage follows in regular sequence upon its precursor. There is explicit in his theory the notion that it is necessary to "satisfactorily complete" or "live through" the crucial events and life experiences which are the foci of each stage, before one may advance through to the succeeding ones. The availability of archetypal environmental situations which fit and fulfill the culturally adapted archetypal place expectations for each stage of development in the life cycle may partake of the same



## GENERALLY RELATED LIFE CYCLE STAGES

### THE TOTAL SET OF BEHAVIORALLY DEFINED ARCHETYPAL PLACES

		<b>A</b> INFANCY: Reflex control; orientation; communicate with siblings and parents.	<b>B</b> CHILDHOOD: Gain motor, social, verbal, intellectual, emotional competence.	<b>C</b> ADOLESCENCE: Forge identity; establish peer group regulations; social/sexual exploration.	<b>D</b> COURTING-MATING: Group with peers; pair-bond; obtain sexual privacy.	<b>E</b> REPRODUCTION, CHILD CARE: Nesting/nurturing; symbiosis; socialization.	<b>F</b> MIDDLE LIFE: Care of aging parents; re-emphasis on worldly affairs; redefine identity.	<b>G</b> AGING MATURITY: Maintain identity, contact, health; accent care by others, mortality.
<b>TASKS</b>								
1 SHELTER		Elemental protection; protection for nesting activities; retreat from stimulation, aggression, threat, social contact; emotional recuperation.						
2 SLEEP		Neurophysiological processes; recuperation, rest; reduced stimulation; labor and birth, postnatal care of mother and child; death.						
3 MATE		Courting rituals; pair-bonding; copulation; affectionate behavior; communication.						
4 GROOM		Washing; mutual grooming.						
5 FEED		Eating, slaking thirst; communication; social gathering; feeding others.						
6 EXCRETE		Excreting; territorial marking.						
7 STORE		Hiding of food and other property; storage; hoarding.						
8 TERRITORY		Spying; contemplation; meditating; planning; waiting; territorial sentry; defending; observing.						
9 PLAY		Motor satisfactions; role testing; rule breaking; fantasy, exercise; creation; discovery; dominance testing; synthesis.						
10 ROUTE		Perimeter checking; territorial confirmation; motor satisfactions; social and community control.						
11 MEET		Communication; dominance testing; governing; education, worship socialization; meditation; cosmic awe; moral concerns.						
12 COMPETE		Agonistic ritual; dominance testing; ecological competition; inter-species defense; intra-species defense and aggression; mating; chauvinistic conflict.						
13 WORK		Hunting; gathering; earning; building; making.						

**A** 1 Protection from elemental extremes; explore dwelling. A:2 Recognize bed; learn daily rhythms. A:3 XX A:4 Lose fear of wet face, sudden temperature change; regular grooming as primary contact ritual. A:5 Regulate feeding satisfactions. A:6 Discover excretion as separate from self; associate with setting and time. A:7 Acquire confidence in food abundance. A:8 Identify bed as primary secure place. A:9 Explore close environment; develop manipulative, cognitive skills. A:10 Route connects parts of shelter structures, provides orientation & change; motor satisfaction. A:11 XX A:12 Master frustration in competition w/siblings for attention & toys. A:13 (See A:9).

**B** 1 Differentiate subsettings; retreat from overstimulation, threat; emotional recuperation. B:2 Associate bed w/fatigue; learn volitional control of sleep; illness and recuperation. B:3 XX B:4 Learn to bathe, dress oneself. B:5 Coordinate feeding tools; communication; differentiate food from symbiotic source in mother. B:6 Autonomously control excretion. B:7 Learn to prepare food. B:8 Establish play "turfs"; orient to neighborhood; play protect territory from lookout; plan, wait. B:9 Role modeling; interact w/peers; fantasy, exercise, exorcism, creation, discovery, dominance testing. B:10 Enlarge route maps; differentiate settings, provide social encounters; learn safe wandering limits. B:11 Regular play/meeting rituals & places; elaborate functions; dominance testing. B:12 Games; fight; agonistic ritual; dominance testing. B:13 Acquire intellectual, motor skills.

**C** 1 Find alternate private shelter: auto, attic, stairwell. C:2 XX C:3 Meet w/opposite sex in private, public settings; obtain sexual privacy anywhere: autos, barns, etc. C:4 Groom for mating encounters. C:5 Communicate w/peers over food & drink. C:6 Privacy in excretion. C:7 XX C:8 Expand territory into intellectual domains, job. C:9 Learn autonomous hobbies. C:10 Provides social contact w/opposite sex. C:11 Meet w/peers, both sexes; establish new rituals. C:12 Sexual display: cars, sports, clothes (see C:3). C:13 Refine work skills.

**D** 1 Find new shelter. D:2 Share bed w/mate. D:3 Select mate; achieve couple privacy. D:4 XX D:5 Share food w/mate; increase food abundance. D:6 XX D:7 Enlarge larder for family. D:8 Expand territory to include mate. D:9 (see D:12). D:10 Maintain community of contacts. D:11 Meet w/couples. D:12 Personal display; ecological, mating competition. D:13 Apply skills toward life support.

**E** 1 Expand shelter for offspring (see E:5). E:2 Maintain sexual privacy against invasion by new young family. E:3 XX E:4 XX E:5 Increase abundance; feed family; gather, communicate w/family. E:6 XX E:7 Increase capacity & variety of food. E:8 Expand territory to include young & check frequently. E:9 XX E:10 XX E:11 Expand functions, contacts; governing, educating, mystical awe. E:12 Display in common values; conspicuous consumption. E:13 Improve capacities, performance.

**F** 1 Shelter contracts as young leave. F:2 through F:7 XX F:8 Territorial needs contract as young leave shelter. F:9 through F:13 XX

**G** 1 Maintain location or adjust to imposed change; adapt surroundings to needs. G:2 More time in bed, sleep less; possible confinement, compression of world to bedside. G:3 Adjust sexuality to changing libido; possible illness or loss of mate (see G:2). G:4 Possible inability to care for self. G:5 Arrange special diet; reduction of taste, smell spectra. G:6 Possibly require aid and equipment; lowered mobility may reduce functional dependability. G:7 Possibly require assistance gathering & preparing food. G:8 Passive observation of archetypal activities performed by others. G:9 New leisure activities to fit changing capacities. G:10 Reduction in home range scale; fear of exposure to attack. G:11 Need for contact w/& support from peers. G:12 Probable withdrawal from competition/defeat by young; defensive, evasive postures. G:13 Less active roles w/in former context; fend off retirement.





"As the need for a particular archetypal setting becomes more pronounced due to development and maturation, the availability of that place becomes more important."

sequential, "critical" quality. Spatial misfit or unavailability may retard or prevent psychosocial advances. In the earliest years, especially in infancy, there is evidence that stimulus variety and intensity of the infant's immediate spatial surroundings may play a critical part in the physiological and intellectual development of the child. Deprivation in these critical areas might result in retarded emotional or even physical development.

The successful resolution of a developmentally based physiological drive or psycho-social need is dependent upon the availability of a fitting archetypal place or its approximation in the terms of the culture. The behavior, biologically signalled, is intimately wedded to and threaded through the place. The place is supportive of the behavior to such a degree that in the absence of the appropriate place type, a drive may be severely or completely frustrated. Therefore, place, like all of the other confluence components, can be called critical in the same sense.

The behavioral differentiation of places is characteristic of nearly all species. Habitats are divided into a spectrum of specific functional places where the whole behavioral repertoire of the animal (man included) can be performed and where the Drive-Time-Place-Object conjunctions occur with dependable regularity, daily and seasonally throughout the life span. As the life cycles advance with growth and age, new drives (and their objects) supervene over old ones, with concomitant new place requirements. The components of the older conjunctions may continue to be used, but

they will no longer be critical to the further growth and health of the organism. In this way the individual's life can be described or represented as a continuing and overlapping series of *critical confluence crises*. Each of these, when frustrated or blocked by, say, too early emergence of a drive (adolescent mating), the premature appearance of an object (lunch, off schedule at 10 a.m.) or an inadequately organized or maladaptive spatial environment (restrictive public housing, slum conditions, mental hospital or other total institutional living conditions), can prevent or retard further growth or psychological advances and otherwise impair physical, psychological or social well-being.

If the boundary conditions described by a confluence crisis are met, then it can be expected that, all else being equal, the animal or man will thrive. Such a fortuitous condition can be described as a complete Drive-Object cycle, which is in the end self-extinguishing. The pressures and energy of the drive are relieved temporarily or permanently by its resolution and satisfaction under optimum environmental conditions.

Because an individual may have for the moment gained control over the forces of nature or society as they impinge upon his life, does not mean that he will keep his advantage. Walls crumble: anthills must be continuously rebuilt, the rent may be raised. The particular state of crisis, or crisis potential, may be expected to continue throughout the period of each cycle phase. The maintenance of control, and the ability of the organism to cope with changes and demands from its environ-

ment, will constantly be at issue, and will constitute its central and continuing effort.

We thus face first the necessity of recognizing, and then achieving a qualitatively and quantitatively close match between the timing and development of human needs and drives, and the features, capacities, richness and poverty of the environment. The concept of ecological balance will gain new dimensions as we discover in depth how an ecologically balanced environment produces and supports health.

The total range of thirteen archetypal places must be available to the population at all times, even if their use is periodic. They will be used by individuals and families in ways which are predictable. In the course of the human life cycle, an individual's behavior patterns may change many times at the urging of his drives, as a function of his family status, biological maturity or social condition. In accordance with these changes, one uses the space available in rather specialized ways. The species-specific (or for man, culturally-specific) archetypal place forms must vary to meet the requirements of men at different ages and life stages. For example, a meeting place for three and four-year-olds would only in a few general ways resemble a faculty club or town meeting.

As the need for a particular archetypal setting becomes more pronounced due to development and maturation, or to changes in family composition, the availability of that place becomes more important. At some point in time, the space will become crucial to successful performance of life tasks. This will oc-

cur when the object of the most pressing drive (or current life motif) occurs in conjunction with the felt need. This convergence of the dimensions of time and place with the motivating force of a drive in the presence of the proper object of the drive constitutes the critical confluence.

In the longer perspective, the lives of individuals mesh in the structure of a family: we must then understand how the family generates a life cycle of its own. An individual's life cycle is linear and sequential, resembling a song for solo voice: the life cycle of the family resembles a canon or round sung by many voices. Both perspectives, the individual and the family, are necessary if we are to project the implications of the archetypal system and the critical confluence theory into the requirements for design of houses and communities. It should be the task of the community to provide an appropriately designed variety of spatial types for individuals and families.

There may emerge within the system of the archetypes and the critical confluences, a new predictive theory of individual and social behavior with respect to space, maturational level, and life cycle position. This theory should prove useful at any scale of study, from the level of the individual through to the society, from a single room flat to the receding boundaries of the megalopolis and it should provide a decision-making hierarchy and strategy for investing the physical plans of cities and houses with greater relevance to human life.

PHOTOGRAPHS: Magnum, except for page 49 by Mayer Spivak.

# SUPER LOOP

Nearing completion in Milan is a stadium of sparse construction and stalwart elegance

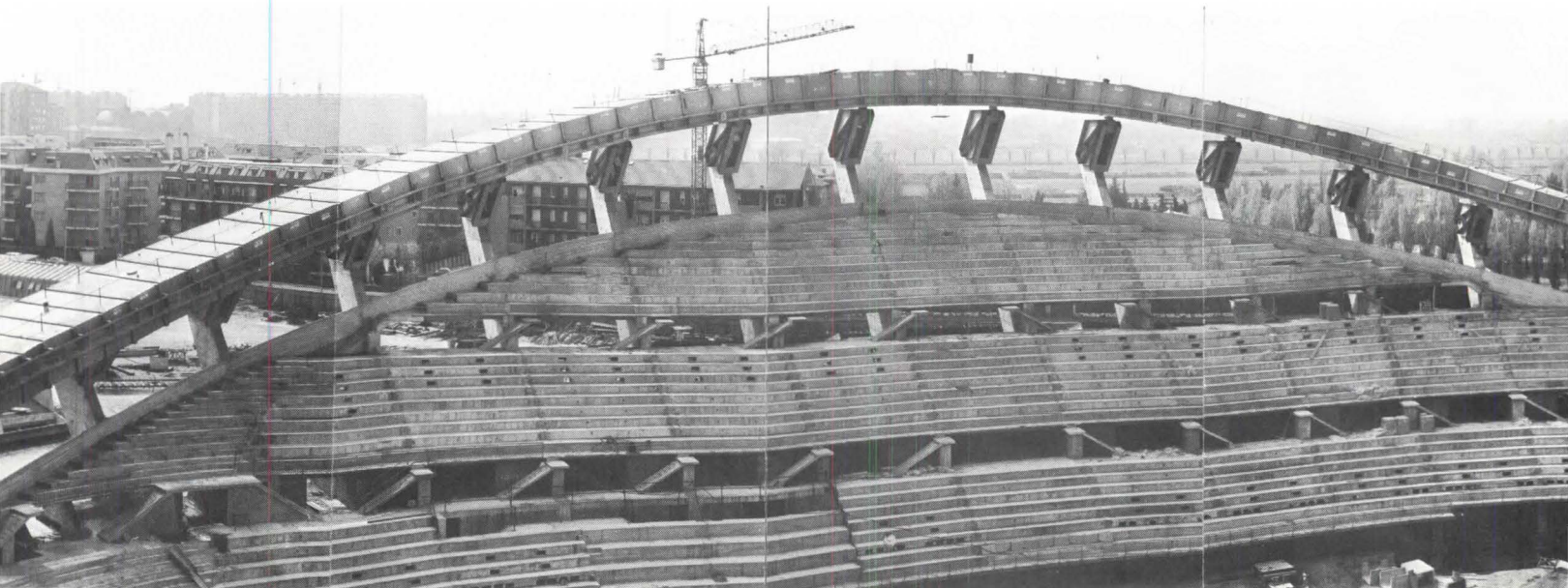
The Italians take their cycling and track events seriously. So seriously, in fact, that a covered stadium for indoor cycling and track events is nearing completion in Milan. The Palasport, located on a 147,638 square foot site in the Milan Sports Complex, will boast a race track for bikes and cars 23½ feet wide and 820 feet long, a six-lane foot track 656 feet long, and a six-lane, 262 foot long straightaway. Additional athletic events that can be accommodated in the versatile velodrome include pole vaulting, broad jumping, shot putting, high jumping, as well as basket ball, volley ball and tennis. All in all, 15,000 spectators will be able to crowd into the sports arena at one time; with 11,500 seated and 3500 standing.

Architects Gilberto and Tommaso Valle, in association with O. Accossano, designed the carefully contoured 55,289 sq. ft. seating shell to have a 930 ton zinc sheet roof supported by cables in a hyperbolic paraboloid formation. While the stadium is not completely finished, the final version (after additional touches such as raising the roof) will depart little from present appearances, for the heavy ribbed concrete structure will be exposed inside and out.

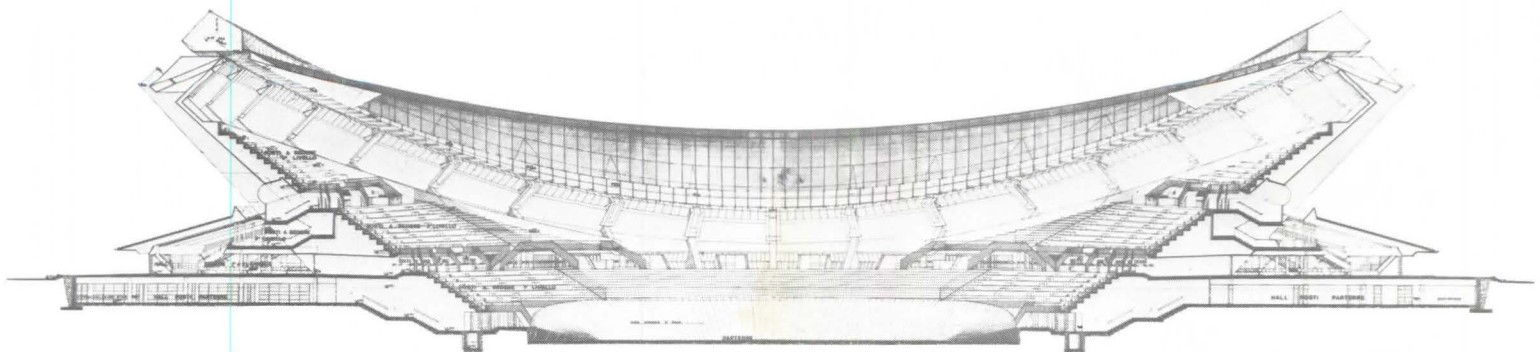
Thirty-eight reinforced concrete "gantries" resting on concrete footings support the poured concrete steps of the seating dish, and carry the anchorage ring for the cable supported roof. Pairs of metal brackets serve as hinge joints

between the concrete members and the anchor ring, thus permitting expansion and displacement according to the state of tension. The ring itself is a maximum 448 feet in diameter.

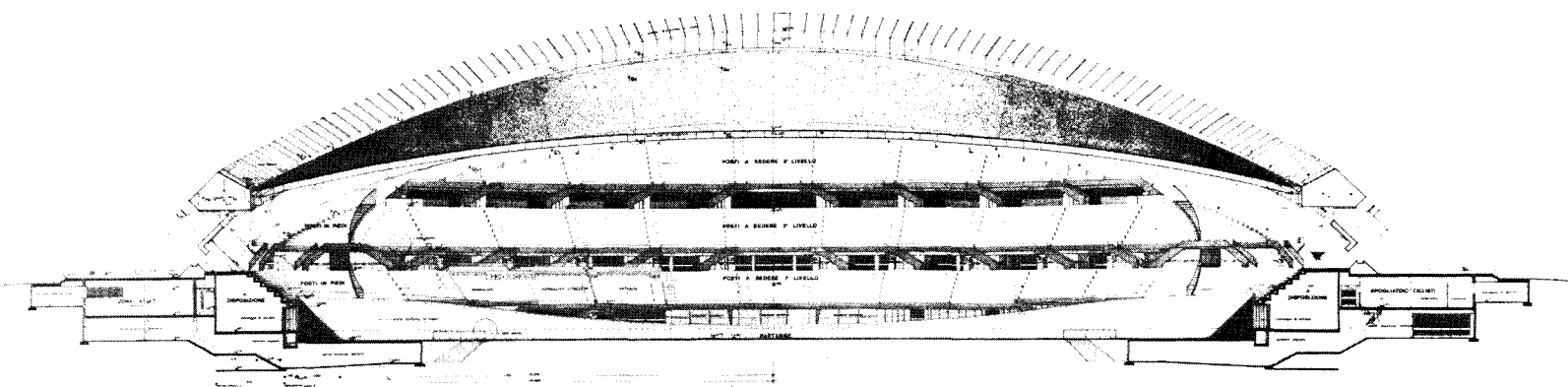
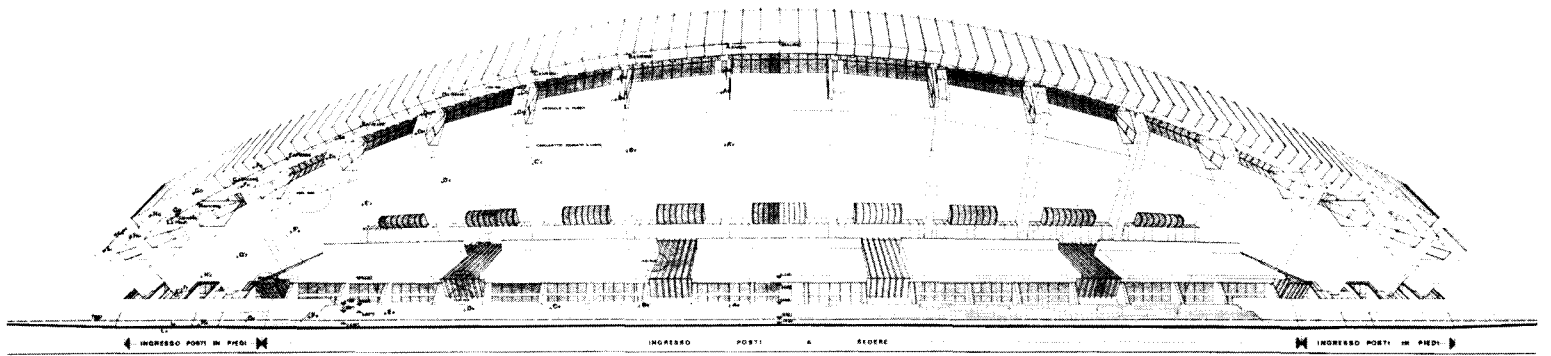
The circular stadium sits on a larger, round 21,794 sq. ft. concrete base that houses support facilities at ground level and three levels below grade. In this perimeter structure, public services plus lockers, gymnasiums, offices and mechanical equipment are located. Because the track of the stadium itself is depressed several levels below grade, the distance between the floor and the topmost portion of the roof is approximately 115 feet. To solve the problem of lighting this high a space, a problem compounded by inordinately complex illumination



The contoured, circular velodrome now in construction in the Milan Sports Complex will have a cable supported zinc roof. The anchor ring for the steel cables is carried by 38 poured-in-place concrete gantries, which also support the seating dish (elevation, opposite, top). The stadium sits in a saucer shaped base in which four levels of support facilities are contained (transverse section, below left, longitudinal section, below right).







requirements for color television broadcasting, the lighting system will be unique. A single circular strip will be suspended from the roof on which fixtures are mounted and programmed for different audience sections and sports event requirements.

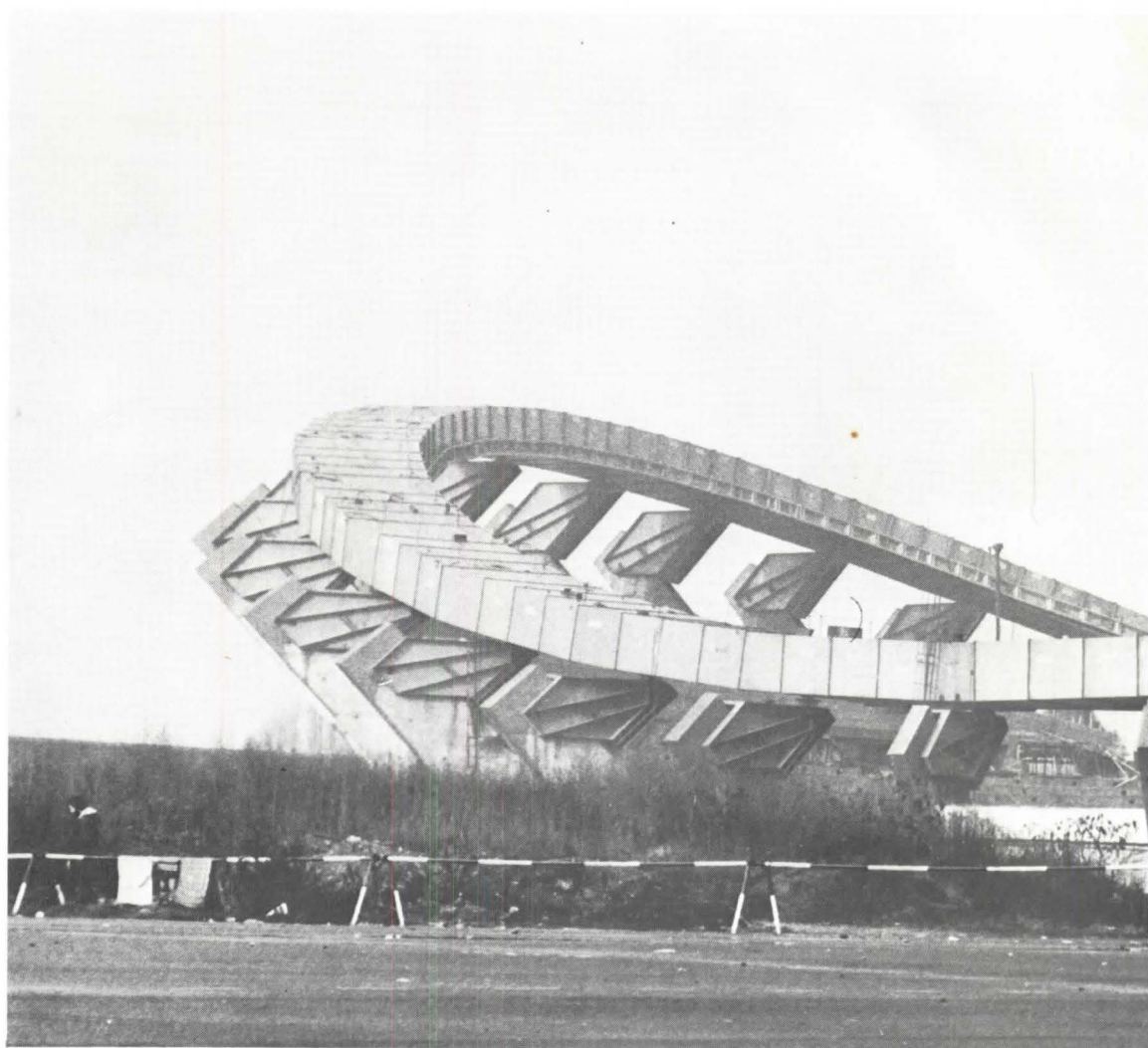
The actual form of the stadium was generated from intensive mathematical calculations executed to determine maximum visibility for the various seating sections. Also for this reason, the elliptically-shaped track was rotated on a cross-axis with the broadest portion of the two crescent-shaped seating areas (photo, opposite below). The slope of this dish generally averages a thirty-seven degree angle.

All in all, sophisticated engineering decisions created an elegant form in keeping with Milan's already well-established reputation in design. Let's see what it will do for sports.

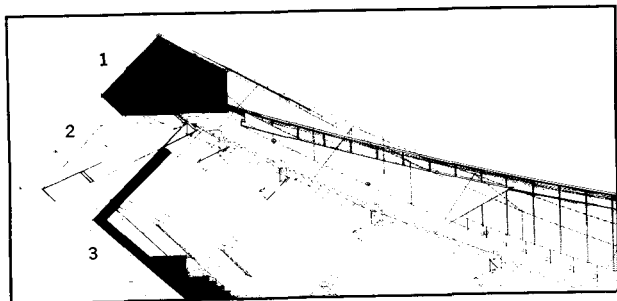
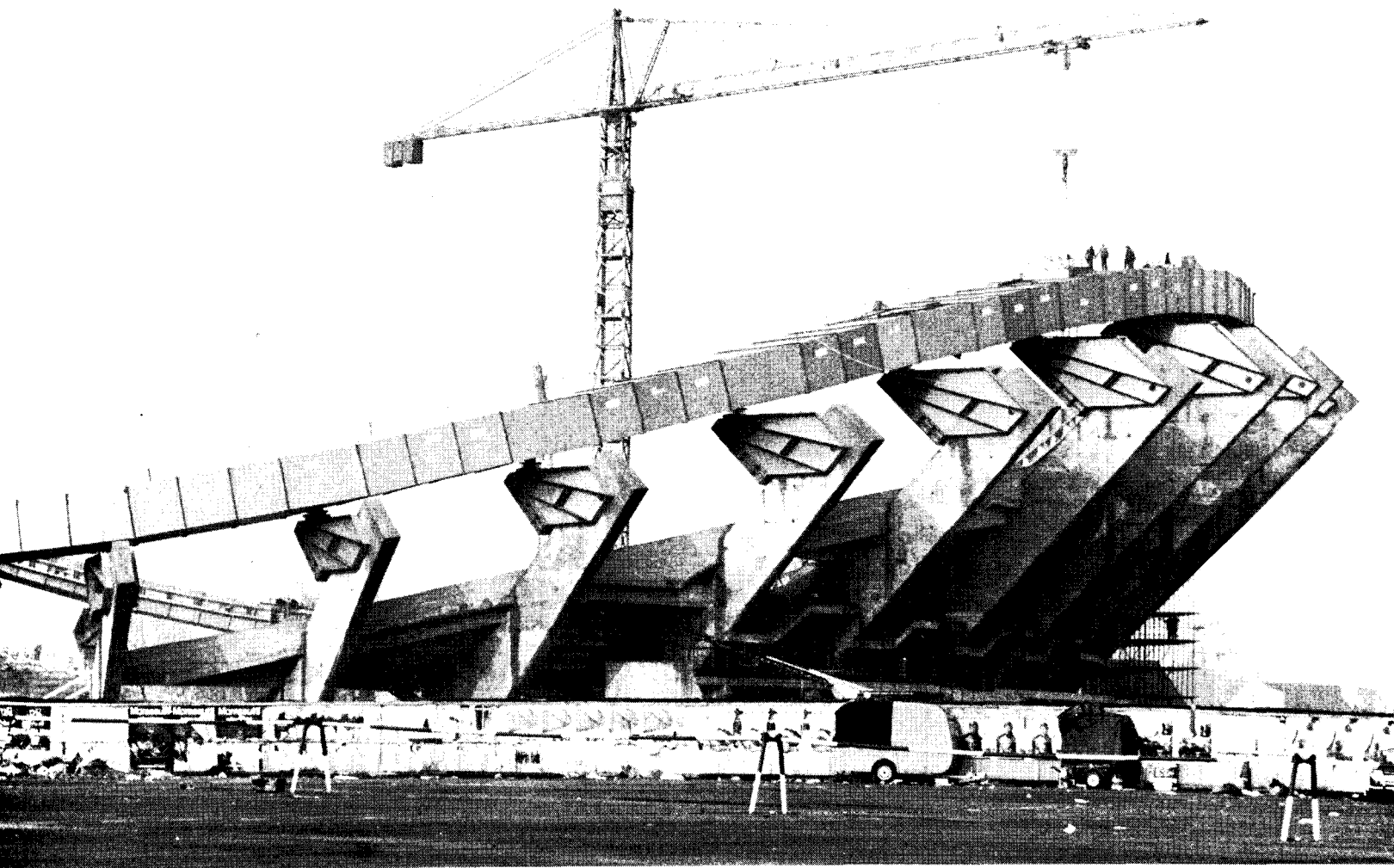
#### FACTS AND FIGURES

Milan Sports Palace, Milan Italy. Architect: Gilberto and Tommaso Valle in collaboration with O. Accossano. Engineers: Ufficio Studi e Progettazioni Societa Italiana per Condotte d'Acqua (general structure); Societa Italiana Grandi Padiglioni (tension structure). Building area: 55,289 sq ft (shell); 21,794 sq ft (service base).

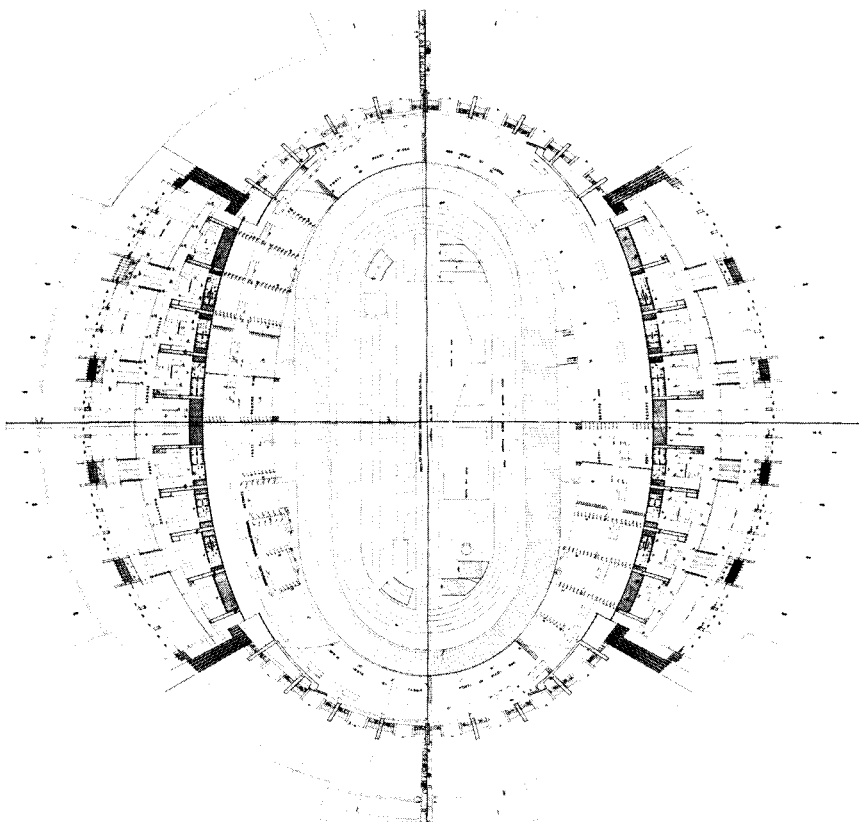
PHOTOGRAPHS: G. Chiolini and Co. pages 50 and 51, middle.







The shape of the seating dish (top) was determined mathematically by calculations that involved the slope of the track and the best sight lines for viewing sports events. The track, an elliptical shape, is placed at cross-axis to the widest portions of the crescent-shaped seating areas to afford optimal viewing. The public enters at ground level into the circular concrete base on which the stadium sits, and there has direct access to various facilities as well as the arena (plan, right). A detail of the section (above) indicates the relationship of the metal anchor ring (1) to the metal brackets (2) and the concrete supports (3).



Approaching Centre from eastern residential section (below). Western part of building in perspective with Psychiatry Building (p. 55, left). Relation of Centre to Life Sciences Building to the north (p. 55, top right). East facade of building (p. 55, bottom right).



# McMASTER: A REBUTTAL

In its June issue, The Forum published Robert Jensen's "Physician, Heal Thyself," about McMaster University Health Sciences Center in Hamilton, Ontario. Due to the response prompted by this article and in keeping with The Forum's efforts to promote a dialogue among its readers, we are publishing the following rebuttal.

BY E.H. ZEIDLER AND DR. J.F. MUSTARD

Robert Jensen's Article, "Physician Heal Thyself", attempted to put architecture into its social context and to discuss the values and images to which it should respond. We admire his approach yet feel that he discusses the social and psychological implications of McMaster's architecture in an ideological context that does not take cognizance of the situation to which the building addresses itself.

Since these issues are inter-related, we must discuss them simultaneously in lateral rather than linear sequence:

*There is first the matter of its sheer bulk on the landscape.*

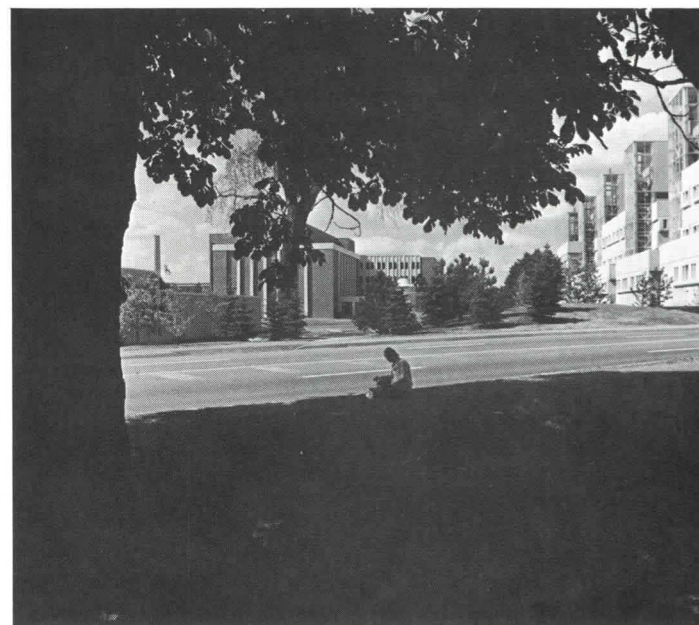
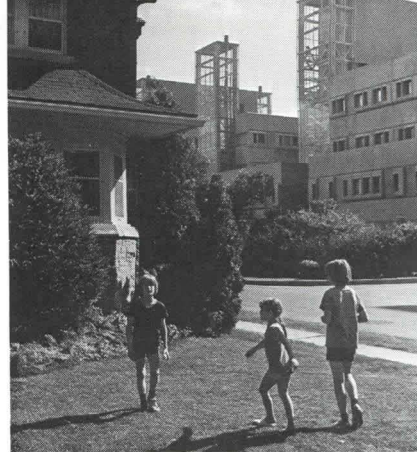
One must make the differentiation between content and appearance as they are not the same. If bulk is argued in respect to visual appearance, it must be discussed in these

terms. To reduce the appearance of the bulk is not a cosmetic attempt to make "little" an image, but to relate the massing of the building to its surroundings. This can only be judged from walking around the building. Yet to discuss bulk as content, we must understand the health care needs of our society to which this building responds. In the last 70 years, we have changed to a society with a long life expectancy and the attendant problems of psychiatric illness and degenerative disorders such as arthritis, cancer, and heart diseases.

We must focus our attention on social and health problems facing an individual in modern society. The task of focusing on the modern individual's problems includes equalization of health care; primary health care services (including preventive care) services that must be accessible, available and continuous. They are especially pertinent in places such as Ontario that have virtually total gov-

**Dr. Mustard** is head of McMaster University Health Sciences Center and **Mr. Zeidler** of Craig, Zeidler Strong, was Partner-in-Charge of the complex's construction.





ernment funding health insurance. The problem in Canada is not (as Mr. Jensen assumes) the unavailability of health care services but their inaccessibility, their excessive cost and their ineffectiveness in using resources.

At present, our health services are still fragmented throughout North America, and we can only speak conceptually of an integrated health care delivery system. The article stated: *Patient care here and throughout Ontario is conceived in three categories: tertiary, secondary and primary. And finally, primary care is decentralized in Ontario as much as possible.*

This is the one concept that McMaster pioneered in 1967 but has not yet been fully implemented in the Hamilton region, and has no official status in Ontario.

*In a larger context then, and at McMaster, we can see the contradictions. While its teaching commitment toward general practitioners and community*

*doctors points in one direction, its research function, tertiary apparatus and architectural presence points in another.*

Such dual approach is the natural dichotomy of an integrated but differentiated health system—not a contradiction.

The essential interaction between health services, health research and education demands the abandonment of their past fragmentation and physical facilities that inhibit such coordinated action. Yet it is obvious that by combining too many of these services in one institution a situation may be created where the benefits of interaction are outweighed by the complexity of its size.

A centre that is responsible for the education of nearly 100 medical students per year would require minimum facilities based on 1,000 beds. McMaster realized that the majority of these beds could be found within other community hospitals without destroying the integrity of the teaching function and

health services in the Health Sciences Center, and therefore transplanted only 420 beds into the new facility.

Health care has to include first, the management of ill health and secondly, introduce new ways of maintaining health (which is of greatest importance, and most often neglected). McMaster approaches health care under three major categories: Primary health services, specialized health services and environmental, social and economic issues of health care.

The majority of health needs exist today within the sector of primary health services.

McMaster focused its efforts to overcome these problems by creating a family medicine department and making sure that all students could recognize this area as being as important as any specialized services. It also developed a policy combining emergency and primary services since the emergency department is the only

service that provides 24 hour service while only 20 percent of all visits to emergency are of that nature.

McMaster attempted to put specialized health services into perspective with the overall health system. The development of a district health council in Hamilton responsible for the planning and operation of these services on a regional basis, with the University as a participant, was a pilot project in Ontario. The University is the focus for the region, providing the required "software" but only part of the medical "hardware" physically included in the Center. This council's control lies within the membership which is drawn from various community groups. "Doctors" are a minority on the council . . . a far cry from the "Power structure of North American Medicine."

The research concerning environmental, social and economic issue of health care is not only laboratory based, it is





community oriented; for many medical problems originate in the social and environmental problems of the community. McMaster attempted to develop an integrated educational program that would generate understanding within the health related professions of the whole system; creating facilities that would bring students into contact with patients at all stages of health care.

*These primary care facilities at McMaster represent about 30 percent of the total floor space in the Centre, about half of that being facilities shared with the hospital.*

The pure primary health care occupies 30,000 sq. ft., or 0.2 percent of the total size. It is in the centre for community and teaching reasons: first, to create a relationship between the Health Sciences Centre and the surrounding community. In its tertiary care function, the centre has only an indirect relationship to this community as it relates to a region reaching

out hundreds of miles. Secondly, it brings these so called "normal patients," people with a cold and a sniffle—early in to the education of students.

The 30 percent of total floor area referred to in the article (20 percent in fact) are tertiary ambulatory facilities related to the secondary and tertiary in-patient facilities. The reason for the large size of these facilities in the centre was to reduce the present practice of over-hospitalization.

*And of course McMaster in no way tried to take first-line medicine out of the hands of licensed MD's, a truly revolutionary idea in medical practice that the profession is not ready to accept.*

We feel that such issues cannot be solved by the health profession alone, they require the formulation of social policies through a political system. However, the feasibility of these issues must be explored by the citizens and the profession. *What has always been known*

*in medicine is the heightened emotional needs of the ill for dignity, closeness to friends and known associations, the knowledge that someone trusted is helping. . . . For the first time, it might occur to [the patient] that the culture of which he is a part appears to isolate illness from its consciousness, or place it at a safe distance among machines.*

The spatial organization of the hospital was divided into four small "hospitals" of 100 beds—each with territorially defined spaces of two times 18 beds—so that a nurse and patient will relate only to the 18 bed community within which they live. McMaster is probably one of the first acute care hospitals that has attempted to eliminate the impersonal "corridor" layout, replacing it with a "nursing commune". And despite the fact that McMaster will have close to 400,000 out-patient visits per year—there are no large clinics, rather individual waiting areas re-

lated to groups of doctors. *Perhaps this is the vague, but real and necessary image that the building does not quite get across, for it is doctrine at McMaster that staff, patients, people will change, must change, while the mechanical-technological servo-system will never alter. Life, work, values characterized as constantly shifting, contrasted to the unchangeable framework of technology in which life appears grounded.*

It is not the change of "staff, patient, people" but the change of medical technology to better serve the needs of man that demand this servo-system as a permanent infrastructure.

As architects, we can only create the environment within the means of our time — psychologically, economically and technologically. Solutions cannot be found within the concept of "disposable architecture." Instead, we have to provide permanent infrastructures in which we can create an environment capable of change;





Court play area adjacent to indoor play area (p. 56, left). Esplanade connecting University and concourse (p. 56, right). Interior of sound-proofed play area (left). View from the nurses charting area into the patient rooms (below).



thus a change in our approach to architecture.

*When discussing the building as image, the public idea of medical care is primary care—that is what we need from medicine most of our lives—and this is precisely what McMaster is not.*

Image has a purpose, for example, within the context of City Planning to help define direction and importance. Yet to use "image" as a means to express the activity of a building (for instance, the building doesn't look like primary service) is a lapse into the philosophy of architectural expression in which each element both functional and symbolical tries to find expression in form. Our response of image to form is a very changeable one, and the point could be argued that a person in need of urgent medical attention may feel more secure by the image of a large sophisticated hospital complex rather than that of a small medical clinic, despite the fact that

based on statistical records his major needs are primary ones. *Architecture cannot change the social content and values for which it was built, it can only reflect them, and at McMaster the best reflections are applied ones.*

We would like to reflect on the statement that the "best reflections are the applied ones." We agree with it but in a deeper sense than is implied. The interior design has been "applied" yet in a different meaning. The acceptance of a fifth dimension in architecture forces us to treat architectural form in a different way than we have been used to. We must build primary infrastructures that are controlled by one life cycle and we must infill a secondary space use that is controlled by a shorter cycle of change. In this secondary life cycle, the treatment of space is an applied one if compared to traditional architectural criteria. We took this concept very seriously at McMaster and attempted to make all elements that are

"infilling" the infrastructure, dispensable, changeable and "enjoyable". None of those "applied secondary elements" alter or interfere with the infrastructure. This is a serious approach—not flippant interior decoration.

The results of modern medicine, in fact the emergence of modern medicine, was a result of scientific research and related technology, which has imbalanced many elements essential to a health delivery system. Yet, the solution to these problems cannot be found in the rejection of "scientific" medicine and resultant facilities, and this, we feel, is the implication of Jensen's argument.

The problem we are facing then is not one of stopping any further scientific advantages but one of balance. We have to give emphasis again to human contact in medicine. We have to serve the neglected groups. But we also have to respond, through the environment we create, to the psychological and spiritual needs of man.

#### MR. JENSEN REPLIES:

The quotes Eberhard Zeidler and J. F. Mustard have selected above are a good summary of my arguments, and a surprisingly succinct rebuttal to theirs. McMaster Health Sciences Center is only a small bit of evidence pointing at larger issues. It is consciousness of our own lives—of what is valuable and what is not—to which the building unwittingly offers us clues—clues I tried to delineate. "... the building's failures are medical failures, contradictions in fact within the society in which we live—and subconscious to the degree that many people might argue whether they are failures at all." It is not convincing but poignant to show here, in place of the architecture, a photographic essay on trees. Evidently there is some slow understanding of what they have done, but too late.







# DEMETER AND THE SNOW QUEEN

Organic shapes mesh with geometric forms in a house built for a cold climate

BY RICHARD WEINSTEIN

*The rather extraordinary house on the following pages contradicts normal expectations of contemporary house design. Yet it evokes in its forms, massing and organization historical house prototypes from French farmhouses and chateaux to houses by Voysey, Polzeig, Wright and Aalto. Ironically, after designing the house, Richard Weinstein has since made his reputation with his forward-thinking urban design and planning work in New York City. Because the design had such personal philosophical roots, The FORUM has asked Mr. Weinstein himself to comment on this unique solution.—ED.*

Mr. Weinstein is Director of the Mayor's Office of Lower Manhattan Development for New York City.

The pleasures of counter revolution are melancholy: one is caught between the future and the past and charmed by both. We have come to like things now we were not supposed to like before, and in the process, understand the limits of our loyalty to the certainties of modernism. It is hoped this house benefits from a more relaxed attitude toward the stricter rules and regulations of modern architecture. Troubled by the perfectionist comments of a friend, John Keats once suggested that in the realm of art, one should cultivate a "negative capability," that is — "the capability of being in uncertainties, mysteries, doubts without any irritable reaching after fact and reason."



As the drive nears the entrance of the house (above), it tilts upward and the walls rise slightly to correct any sense of the house sliding down the hill. The glazed shed roof (right) forms a protected porch over the entry.



If this house aspires to anything beyond the basic business of making an owner happy, it is to being positively content with these uncertainties, mysteries, and doubts.

The complex program for this house contained several apparent contradictions. It called for a large number of separate distinct spaces, and, at the same time, asked for intimacy: The family wanted a closeness in their own living rooms, and at the same time, wished to have private territories for children and adults. Moreover, while the owner's wife enjoys cooking, the scope of the program clearly required a plan that would permit more formal entertainment with the help of a staff.

The square footage of the entire program, including swimming pool and playroom, added

up to 15,000 square feet, a large house by any measure. Yet, the clients wanted to preserve as much land as possible on an irregular site.

And the sloping site itself presented serious problems (site plan opposite). Hemmed in by indistinguished buildings at the northwest and southwest, it dropped over 80 feet and consisted of two offset rectangles. The lower rectangle contained the best trees and shrubbery and came closest to providing ample and flat ground. Therefore, despite the increased slope and the oppressive closeness of the adjacent structures, it was decided to place the house entirely in the upper quadrant, overlooking the best land through controlled, generous views.

The climate of this region is notoriously drab, the light pre-

cious, and long, heavy winters enforce an introverted life: When there is sun, the winter glare off the snow is raw and punishing. For these reasons, the house was organized around the large skylight oriented to the north that penetrates the two major living floors. Most windows are deeply set through cabinetry to allow for an intermediate surface to baffle the glare.

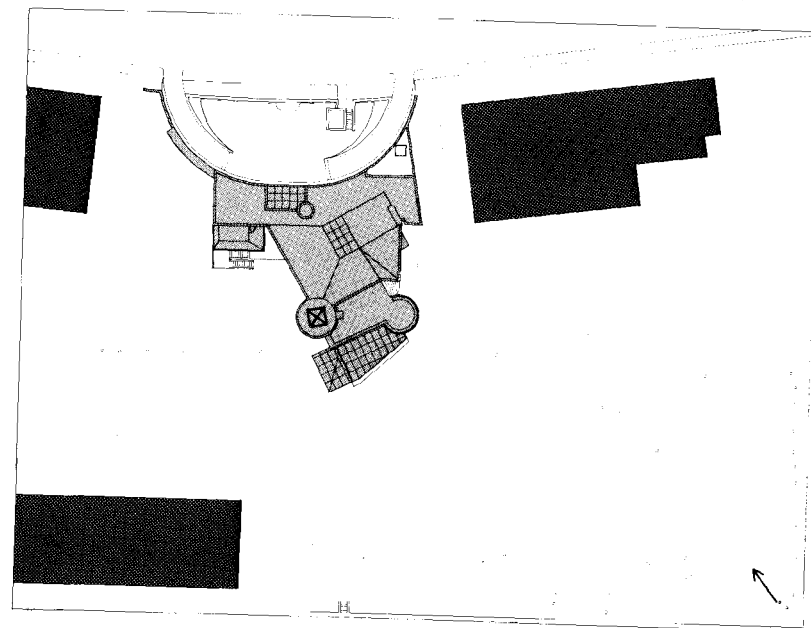
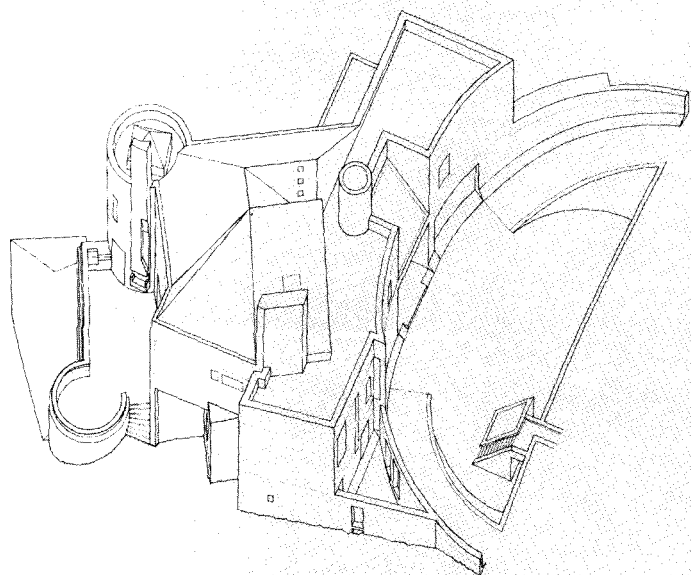
As an additional response to the climate and the oppressiveness of a secluded environment, it was decided to integrate the swimming pool within the body of the house and treat it as a greenhouse. Its glazed southern exposure, waterfalls and abundant planting create an extroverted tropical gesture, contrasting with severe northern realities of the climate. (The canted

glass wall does retract in the summer.)

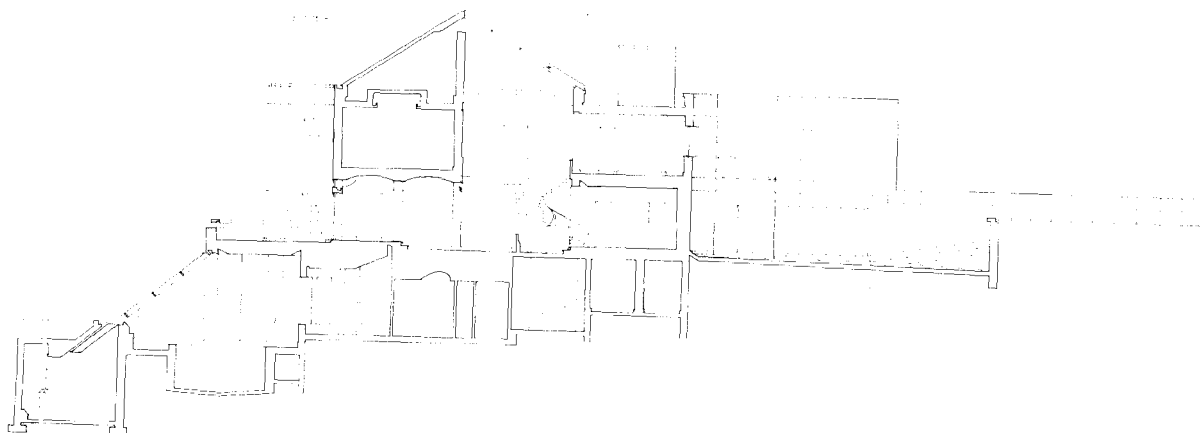
The glassed-in pool, by virtue of the size and character, dominates the southern elevation. The problems of organization and sun penetration made the pool an autonomous force, influencing the rest of the plan. In fact, the pool takes its geometric organization in plan and elevation directly from the intersection of its slanting glass wall with the sloping grade. The resultant irrational angle has prompted a series of geometric decisions that penetrate deeply into the "rational" orthogonal body of the house. Everything having to do with the pool shares this family of forms, all reference points in plane and elevation are ultimately derived from the decisions to design according to







The house presents a closed introverted elevation to the street (top), with more open views to the rear (opposite). The architect has clad the house in flame-cut granite owing to the client's preference for stone and the rough wear given to concrete by the weather. A darker colored honed granite indicates the placement of the concrete frame on the exterior, while highly polished granite forms the coping at the top.







The suspended steel plate stair at the corner of the living room is topped by a large skylight (axonometric, right). Walls of the living room are covered with silk "strie," and flooring is distressed gothic oak, sealed with polyurethane (photo, right), while exposed concrete columns are covered with epoxy (above) for easy maintenance.



configuration of the land as it existed.

The north-facing curved portion of the house relates to the programmatic requirement for an ample driveway and parking facilities.

A concrete frame structure demarcates the social spaces of the building (entry, living room, gallery), while the more private areas (studies, bedrooms) are formed by bearing walls. The open frame facilitates *penetration* and the ease of movement, which enhance social life. In contrast, the bearing walls imply protection, limited access, and privacy. The skylight, the center of the parti, further establishes a progression outward from open, light spaces to closed, dark spaces. This differentiation, according to structure, also helps to reinforce the difference between the core and peripheral activities in the program and reflects the client's desire for intimacy: Within a 45 foot square, living, dining, and cooking activities are grouped and the sitting area is given visual access to the balcony feeding onto the bedrooms above.

Thus major activities are located virtually in a "house within a house" with a due south orientation to favor the best views and afford the prime solar conditions for the swimming pool. Meanwhile, the larger armature of the "wall" construction is rotated 30 degrees—the orientation required for access to the street and driveway. It is this frame that accommodates secondary spaces such as entry, study, studio, garage, guest and servants' quarters (floor plans, right).

In this way, the inner house has been strengthened, limiting the influence of peripheral spaces by emphasizing a different geometry and treatment. The master bedroom suite, for example, is a self-contained realm with its own courtyard, private stair, study, studio and skylit dressing room. And the children's rooms have their own entry and private playroom (yet are still directly accessible to the stair).

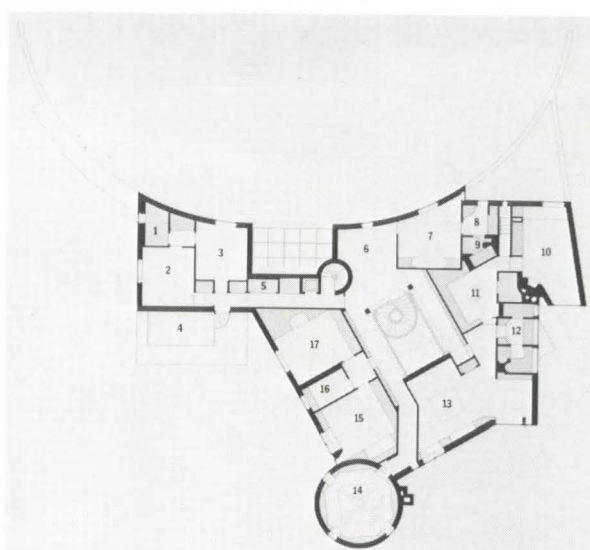
The formal pressure of each of these "internal" and "external systems" was to be resolved without sacrificing the owner's life style. In addition, the primary organization, however eroded, was to remain

strong enough so that the import of particular events could emerge against a larger coherent pattern. The strategy of isolating peripheral activities would not be possible if all parts of the plan were treated with uniformity of emphasis. The friction between competing systems, however, proved so abrasive that it was necessary to disengage the inner and outer buildings by introducing a plastic layer of space, a kind of buffer zone, so that each tissue could accomplish its separate purpose. This zone is generally made up of storage, baths or other secondary or servant spaces (grey areas in plan). At the west end of the gallery, where it was impossible to resolve the conflict between competing systems, it became necessary to invent columns for "reasons of feeling" where they didn't structurally exist, and thus "honorably" complete an idea established in the framing of the living room.

Two other interests are perhaps worth mentioning. The first has to do with finding an acceptable contemporary equivalent for ornament. Rather than seeking the simplest visual solution for the intersection of materials, an effort was made to express ideas that sometimes have only tangential relations to structural fact or the nature of materials. For example, while a brown-grey granite, flame-cut for texture, clads the exterior, the placement of the concrete slab and column structure is expressed by darker colored honed granite bands. A thin edge of highly polished, even darker granite forms the coping at the top.

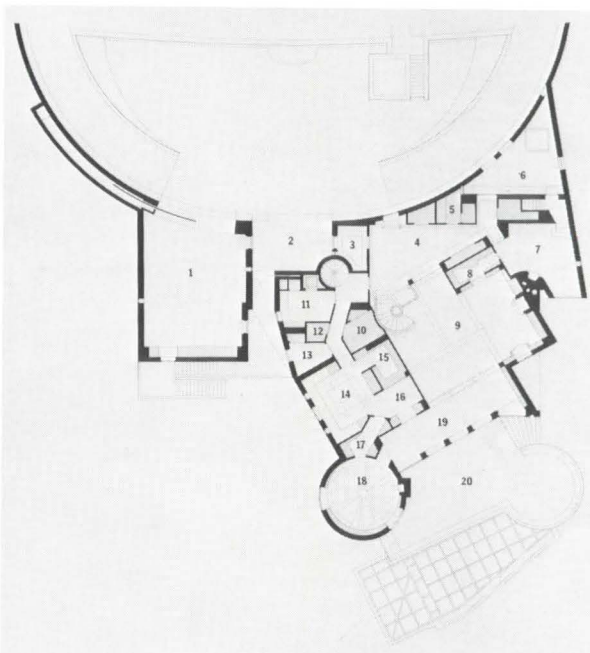
Also with regard to an ornamental equivalent, an arrangement of shapes or surfaces may be chosen because it activates the form and makes it seem to hang, stretch, bend or otherwise take on a sculptural purpose related to our perception of the way the physical world behaves (axonometric, opposite).

Another major interest involved the notion of empathy, as discussed in Geoffrey Scott's *The Architecture of Humanism*. Because architecture is seen as influencing one's perceptions, partly through the body's kinesthetic memory of postures and attitudes, Scott's concept may be extended beyond the structure of a building to include



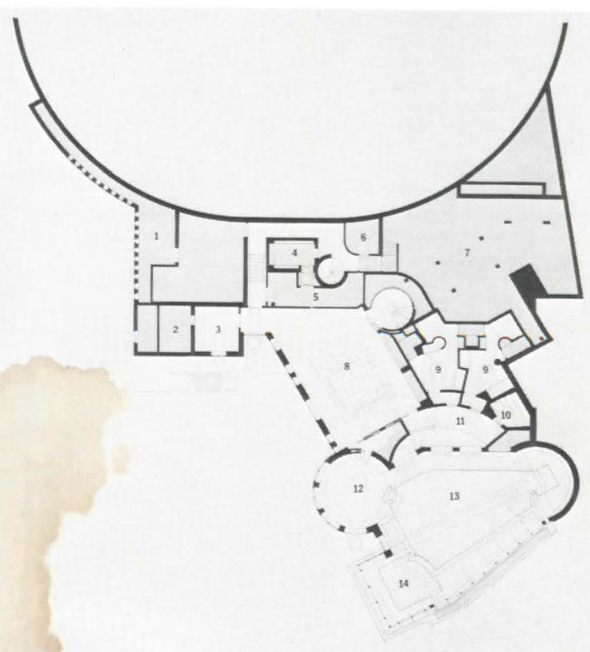
#### UPPER FLOOR

1. BATH
2. SITTING ROOM
3. HOUSEKEEPER'S BEDROOM
4. DECK
5. PANTRY
6. LIBRARY
7. GUEST ROOM
8. DRESSING
9. BATH
10. STUDIO
11. DRESSING
12. BATH
13. MASTER BEDROOM
14. PLAYROOM
15. CHILD'S BEDROOM
16. BATH
17. CHILD'S BEDROOM



#### MAIN FLOOR

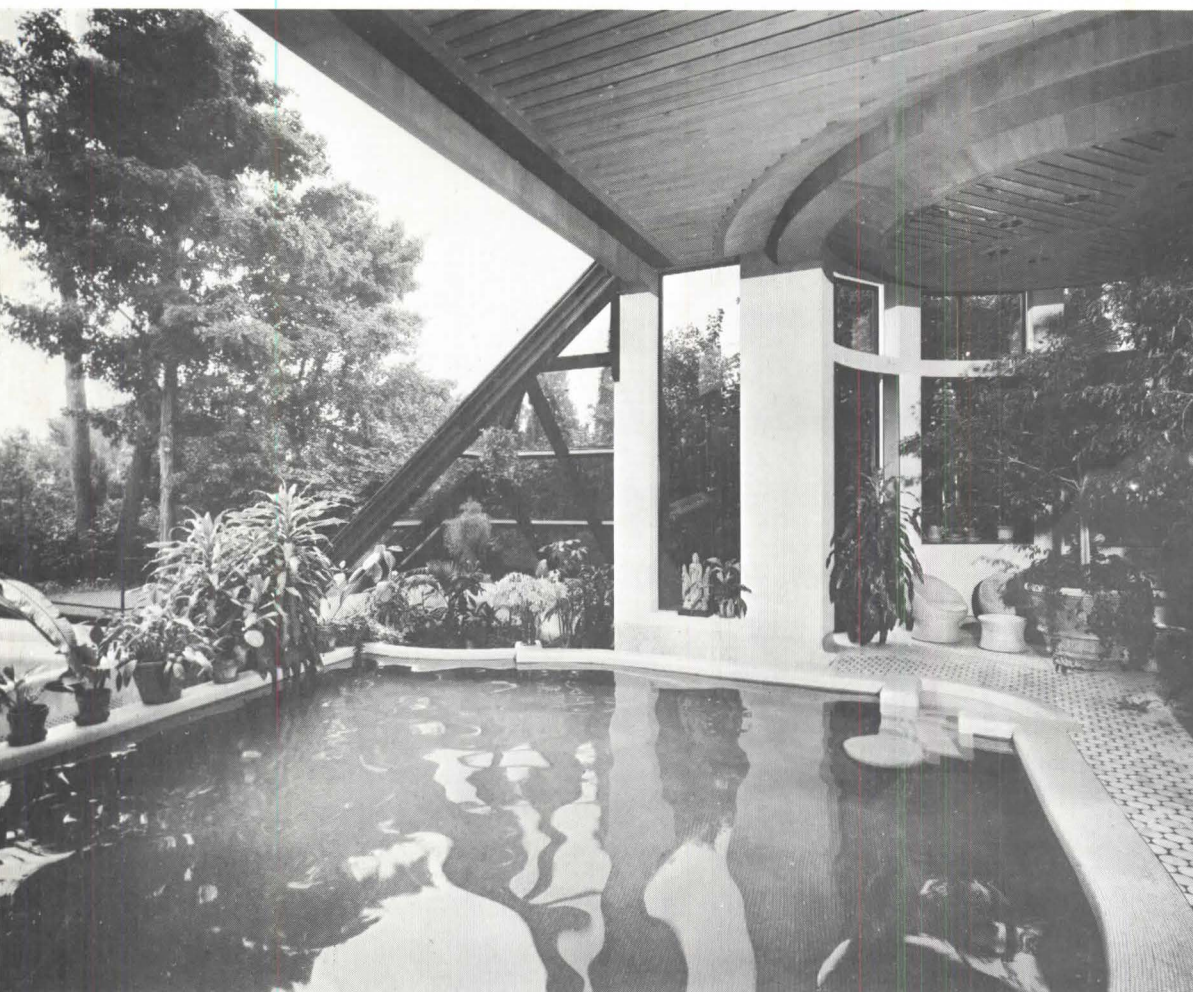
1. GARAGE
2. ENTRY
3. MUD ROOM
4. HALL
5. POWDER ROOM
6. COURT
7. STUDY
8. BAR
9. LIVING ROOM
10. LAUNDRY
11. SEWING
12. BATH
13. SERVICE
14. KITCHEN
15. LARDER
16. BREAKFAST ROOM
17. PANTRY
18. DINING ROOM
19. GALLERY
20. TERRACE



#### LOWER FLOOR

1. MECHANICAL ROOM
2. GARDEN STORAGE
3. STORAGE
4. WINE CLOSET
5. PROJECTION ROOM
6. STORAGE
7. MECHANICAL ROOM
8. PLAY ROOM
9. DRESSING ROOMS
10. SAUNA
11. LOGGIA
12. SOLARIUM
13. SWIMMING POOL
14. WADING POOL





#### FACTS AND FIGURES

House in Canada (Location and client's name withheld at request of owner). Architects: Richard Weinstein (designer) in collaboration with Edward Friedman, New York. Associate Architects: Greenspoon, Freedlander, Plachta, and Kryton, Canada. Associate in charge of Construction: Michael Plachta. Job Captain: Errol Argun. Engineers: I.S. Backler, Canada, in association with David Geiger, Horst Berger, New York (structural); I.A. Semenic (mechanical and electrical). Interior Designer: Arthur Weinstein. Landscape Architect: D. Daccord. Lighting Consultant: Feder. Contractor: S. Sura, Inc. Cost: Withheld at owner's request. Building Area: 15,000 sq ft.

(For a listing of key products used in building, see page 72.)

PHOTOGRAPHS: Hans Namuth.

DRAWINGS: Franklin Israel.



A canted glass wall encloses the swimming pool in the winter, but rolls into the ground in the summer (top). A solarium at the ground level of a circular tower adjoins the pool. On the top level of the circular tower is the children's playroom (far left), which receives sunlight through a skylight fitted with tinted plexiglass. The storage wall in the living area (left) centralizes a number of activities (hi-fi, bridge table, TV) in one spot. The wall, formed of South African rosewood, angles back against the beam and stops short of the corner column to reveal the structure behind.





walls, non-structural membranes, and even preferred paths of movement. In this sense, the behavior of form in the building is intended to refer to the behavior of the human body responding to strains on its musculature.

Therefore, the twisting of the inner house against the larger frame causes a flexure at the main stair that forms a socket in the adjacent wall. Or, the plane of the front driveway is tilted up to correct the sen-

sation of the building sliding downhill. The curved bounding walls of the driveway rise as they approach the central mass to counteract this potential downhill motion. Again, on a more abstract level, the geometry of the upstairs playroom is skewed in relation to the house to suggest a private realm of fantasy — self-contained and spinning off into space.

This house emerged from an elaborate program, complicated by a difficult site, and had

to survive the urge to nourish contradictory objectives. In part, the refusal to simplify issued from the convictions that no human purpose as contained in the program should be sacrificed to an idea of architecturally "right" conduct. And, in part, I suppose it would have been necessary to invent competing systems if they didn't already exist, in order to enjoy the effort of making them live together. Besides, there is a lusty diversity that thrives in an

environment with messy edges and takes delight in overlapping purposes.

One such purpose was to see if certain traditional forms were general enough to accommodate contemporary situations without embarrassment. To see if they could create a useful solidarity with the past.

The older, more lasting themes of architecture, scrubbed clean by seven decades of modernism, are once again reasserting their familiar power.



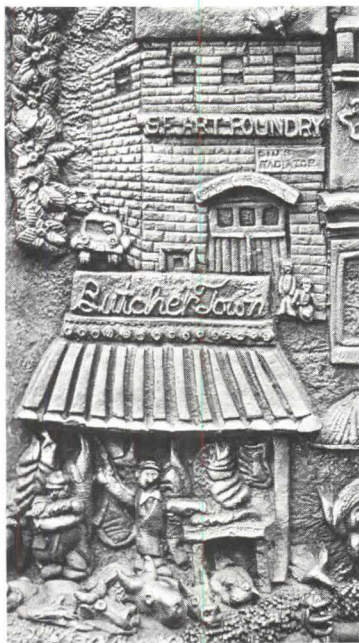
# FACETS

(Continued from page 15)

## STREETSCAPES

### THE WATER DRUM

What looks a little like a gigantic Chinese water bowl, with an intricately carved surface? Actually, it's the fountain outside San Francisco's Union Square Hyatt House Hotel, and it contains 1,400



pounds of flour and salt as essential ingredients of the recipe. Sally Woodbridge, who reported on the controversy over St. John's Presbyterian Church in our last issue, worked on the sculpture with its creator, Ruth Asawa and explained it to us on one of our recent trips to San Francisco:

The bas-relief is a panorama of the city with its landmarks, neighborhoods, people, traditions and customs on the surface of the 14-foot diameter drum. Current events ranging from newspaper headlines to Peanuts are sculpted into the surface. The drum, with its water jets, sits in the middle of a great flight of stairs leading from the street to the hotel's entrance plaza. Passersby on the sidewalk and on the plaza are caught in the fountain's web of intriguing, often mysterious detail.

The drum itself is bronze, and its method of casting is probably unique. About 12 years ago Miss Asawa began working with a dough mixture of flour, salt and water that she later called baker's clay. When stuffed into an ordinary kitchen oven, it is transformed into a reasonably permanent material. Working with her six children she developed this kitchen craft into a highly expressive medium. Friends and neighbors quickly saw its advantages: It was inexpensive; it absorbed the creative energies of the whole family; and it could be done in a cozy atmosphere.

Ruth began to take the medium seriously, everyone ad-

miring her fanciful reliefs. But sadly they were only semi-permanent. Even coated with polyester resin, the most promising of the many preservation methods she tried, baker's clay eventually decomposed. The only answer was to translate the dough into a permanent material—like bronze. Happily it was an answer that intrigued Skidmore, Owings & Merrill's Chuck Bassett, partner-in-charge of design for the hotel. When he started a search for the right fountain for its plaza, he commissioned a trial panel from Ruth.

Most artists, receiving such a commission, retire to their studios to devote themselves to the lonely process of creation. Ruth, as usual, had a different approach. Years of working with groups at home, and in school programs, had convinced her of the value of group efforts, so she longed for an opportunity to show that many hands working together could produce a major work. This fountain was her chance.

After polling a variety of people, Ruth composed a list of buildings, places, people and events which tell the city's story. The drum's surface became a map with these items disposed around it according to their actual locations. Major landmarks were used as the foci for events and the detail of local color.

Translating this list into dough took about six months. Friends and family were invited from all over the city to reproduce their house, school, themselves or something else important to the San Francisco scene. Some 100 persons did. The result is a fresh departure in architectural sculpture, and proof that many hands can support a deeply personal work.

## LEISURE

### THE ENDLESS WEEKEND

More leisure means more time for recreation—indeed in 1971, \$1.3 billion worth of construction was contracted in amusement, social and recreational building. Architects do not get into this lucrative market as far as they might, and part of the reason is that they are active (as they should be) in talking people out of building recreational facilities that despoil the

landscape. There is no fee in not building something.

Be that as it may, any architect thinking of building for the leisure market would do well to read a pamphlet entitled *The American Endless Weekend* written for the American Institute of Architects by our with-it colleague, C. Ray Smith, and containing an endless array of statistics, photographs and information on leisure, land use, population, second homes, and recreation planning.

Writes Mr. Smith: "Architects surely for their part would prefer not to have the conservation of our land impaired by having their buildings dotted throughout our majestic natural parks. Surely they deplore the fact that the Yosemite National Park authorities have permitted the building of nine stores, a bank, seven gas stations, three swimming pools, two bars, and living quarters and hotel space for some 6,000 people in a California valley that is seven miles long by barely a half mile wide."

Perhaps just because of these conditions, more architects should become involved in recreational building.

*The American Endless Weekend* can be ordered from your local AIA chapter or directly from AIA headquarters in Washington, D. C.

## CONVENTIONS

A two day seminar on Bicycle Pedestrian Planning and Design will be held December 12-14 at the Dutch Inn, Disney World, Fla. Details from Robert Cron, Jr., Manager, ITTE Extension Programs, University of California, 1301 South 46th St., Richmond, Calif. 94804.

- The 1973 National Noise Control Engineering Conference will be held at the Shoreham Hotel, Washington, D.C., October 15-17. Details from NOISE-CON 73, NBS, A147-233, Washington, D.C. 20234.

- "The Civil Engineer's Role in Environmental Impact Considerations" is the heady theme of the Annual and National Environmental Engineering meeting at the Americana Hotel, New York City, October 29-November 1. For information write American Society of Civil Engineers, United Engineering



Asawa standing beside her fountain (detail above).



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