ARCHITECTURE **plus**

The International
Magazine of Architecture
February 1973
Volume 1 · Number 1

There's a Wilsonwall

System 610

A Class 1 fire hazard classification panel system, featuring acrylic coated extruded aluminum moldings.

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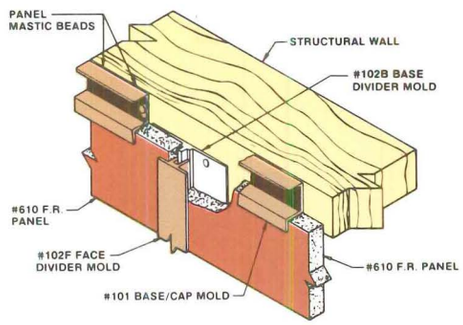
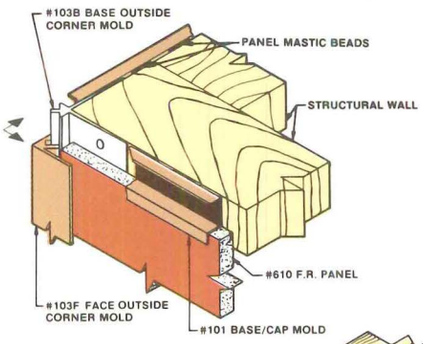
Wilsonwall paneling systems. Helping complete The Wilson Art Look . . . where your ideas and our ideas look great, together!

Wilsonwall System 610 Installation Detail

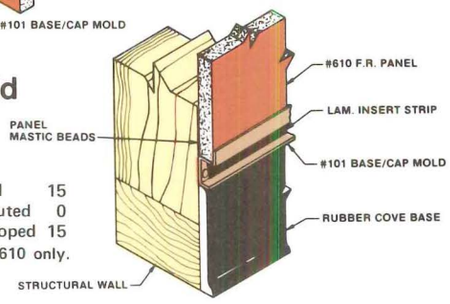
Divider Mold



Outside Corner Mold



Base/Cap Mold



UL

Flame Spread 15
Fuel Contributed 0
Smoke Developed 15
Applicable to 610 only.

Wilsonwall System 610 Specifications

Panels:

thickness: 7/16"

surfacing: 1/32" Wilson Art fire retardant laminate, Velvet finish, all Wilson Art woodgrains, solids.

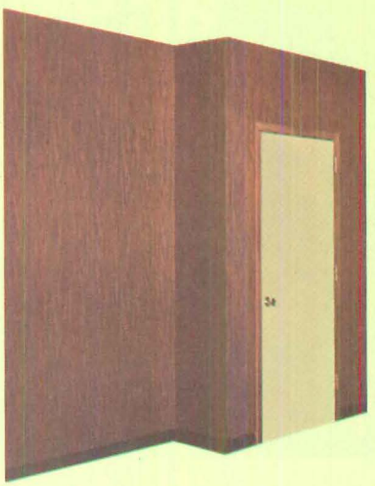
core: 3/8" mineral composition

sizes: 47½" x 96" and 47½" x 120" (other sizes quoted on request)

moldings: extruded aluminum (hidden base moldings, mill finish; face moldings, acrylic coated standard in Lt. Bronze, Dk. Bronze, Brown and Black)

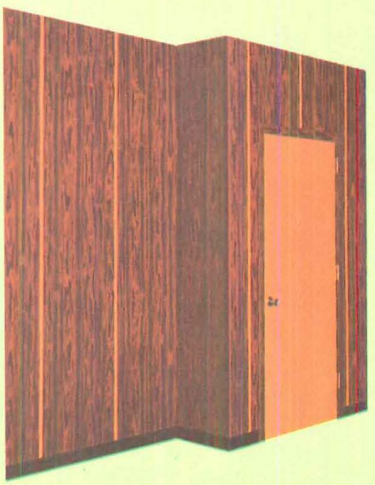
System 310

Smooth fitting V-Groove joints give the appearance of a continuous wall . . . utilizing a hidden extruded aluminum system.



System 210

Featuring a standard V-Groove joint system . . . allows continuity of woodgrain where desired.



System 110

For an unusual esthetic effect, the laminated plastic reveal strip accents the panel.

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or 215-923-5542

NEW YORK
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Reader Service #101

USS Cor-Ten+fluid-filled

In California, two separate architectural firms decided on boldly exposed USS COR-TEN Steel exteriors for two neighboring rental complexes in Newport Beach.

In order to retain the visual honesty of bare steel, conventional fire protection techniques were rejected, and both firms arrived at a solution that is gaining increased application across the country. The solution was hollow, fluid-filled columns of bare USS COR-TEN steel. Briefly, here is how the system works.

Michelson Plaza: A bold exterior and column-free first floor were two of the prime objectives for this four-story office building. Both were achieved by the use of bare fluid-filled USS COR-TEN Steel box columns and roof girders, and by suspension of the upper three floors. The girders are also filled with fluid and represent the first use of the internal fire-protection technique in a horizontal plane.

Owner: Michelson Associates, Newport Beach, Calif. **Architect:** Riley & Bissel, Newport Beach. **Structural Engineer:** Robert Lawson, Newport Beach. **Contractor:** B. H. Miller Construction Co., Newport Beach.

columns=fire protection.

Should the columns be exposed to flame, the fluid inside the columns absorbs the heat, and convection currents circulate the water solution within the closed-loop system. Heated fluid rises and cooler solution replaces it, literally giving heat the run-around.

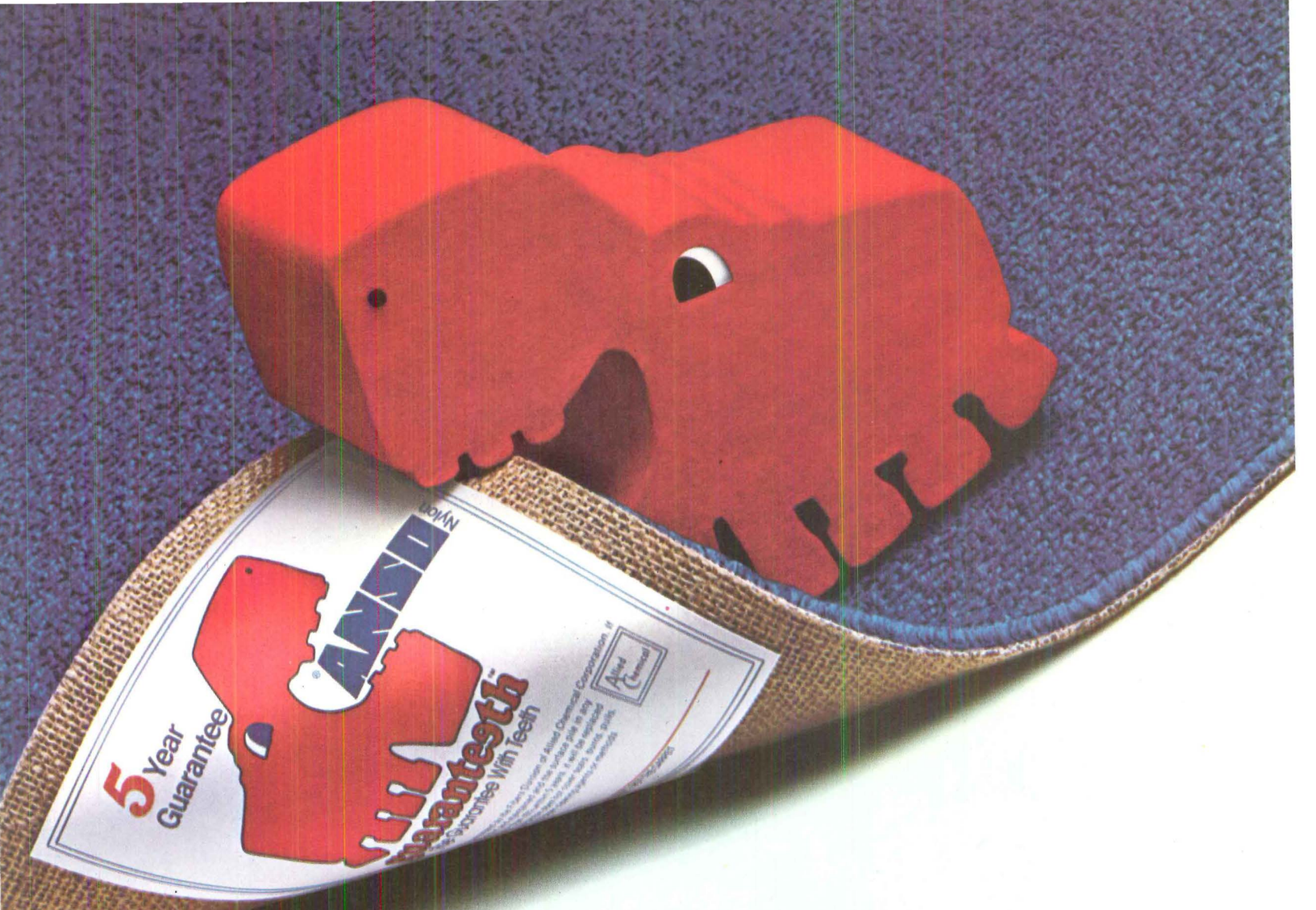
For information on fluid-filled columns or USS COR-TEN Steel, contact a USS Construction Representative through your nearest USS Sales Office or write United States Steel, Dept. 7614, Box 86, Pittsburgh, Pa. 15230.

USS and COR-TEN are registered trademarks

Airport Business Center: This handsome, four-building complex comprises two four-story office buildings and two one-story branch banks. All exterior steel is bare USS COR-TEN Steel, complemented by bronze-tinted glazing. Perimeter columns of all four structures are 6-inch x 4-inch hollow structural tubes. Columns in the two larger buildings are fluid-filled.

Owner: The Irvine Co., Irvine, Calif. **Architects:** Craig Ellwood Associates/James Tyler and Robert Bacon, Los Angeles. **Structural Engineer:** Norman-Epstein, Los Angeles. **Mechanical Engineer:** (Liquid-filled column system design) Paul S. Bennett, Los Angeles. **General Contractor:** J. B. Allen & Co., Anaheim. **Fabricator/Erector:** Lee & Daniel, Azusa.

USS Cor-Ten Steel



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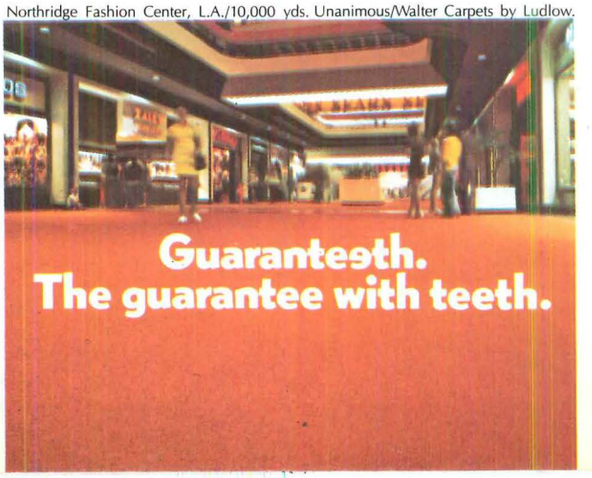
ANSO Nylon Allied Chemical

Northridge Fashion Center, L.A./10,000 yds. Unanimous/Walter Carpets by Ludlow.



Reader Service #103

ARCHITECTURE **plus**

The International Magazine of Architecture February 1973

Architecture PLUS February 1973 Volume 1 Number 1.

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

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

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

Letters to a new publication

Your international publication on architecture and urban design is really necessary. Instead of dashing through too many periodicals I would like to find the things which matter in one publication which really watches the international scene. Good luck.

WERNER DUTTMANN
Architect, Berlin

My daughter Lisa Licitra Ponti, vice-editor of Domus, and I, we both know Peter Blake, with admiration. I congratulate you for your new initiative, Architecture Plus, the great magazine 1973.

I send you all my best wishes for Plus, which mainly directed by Blake and together with the staff of the brightest editors that you announce already working in eight cities, will certainly have success.

GIO PONTI
Architect/Editor, DOMUS
Milan

I think the idea of an international publication on architecture and urbanization is very necessary and it would be a great thing to get going. I have for a long time been looking for such a magazine but have not been able to find a decent one. Best wishes.

JAMES STIRLING
Architect, London

Great news! We've needed a well-edited international architectural and planning journal for a long time and Peter Blake is the best man I know to start one.

It's just too expensive and exasperating to have to deal with those $5.50/copy, 2-lb. French and Italian glossies—all pics and no content—and the English jobs had gotten to be either all "cobble-stones-and-bollards" or "cardboard-living-cells-for-the-city-of-tomorrow" stuff on illegible gray paper with the texture of monk cloth—all content and no pics. And almost nowhere the authoritative presentation of the art within the confines of the real. Since we all get the international stuff watered down sooner or later, why not get it right firsthand?

I look forward most to a coverage, on an international basis, of those very real problems of growth, planning and development which are the parameters of architecture. For more than anything else in architecture today, I think we need to critically examine real world problems and alternate solutions on both a pragmatic and an esthetic basis. This is rarely done in the so-called "design oriented" journals, but you can, and I know will, and I'm truly excited by your opportunity.

JAQUELIN T. ROBERTSON
Former Director, Midtown Planning and Development, New York City

Great idea! Especially under Peter Blake's capable direction. Will look forward to publication with much interest. Wishing you success,

HUGH STUBBINS
Architect, Cambridge, Mass.

I had been wondering how long it would take for someone to initiate a truly international architecture and design magazine. Now I have my answer! I shall very much look forward to receiving your "opening" copy.

ALEXANDER H. GIRARD
Architect, Santa Fe, N. Mex.

We are many architects here in Europe who feel that only through an international publication of architecture would we again arrive at the same desirable situation as when CIAM was active. Only through an international publication would we have an international forum.

JORN UTZON
Architect, Hellebaek, Denmark

I have wondered why there does not exist a first-class international publication on architecture and urban design coming out of the U.S. I think it would not only interest my European and Japanese friends, but would be rather important for the U.S. itself to see what is going on beyond its shores.

DOLF SCHNEBLI
Architect, Zurich

We in Australia (as I am sure others in similar small-population countries) feel remote from the closed-shop talk that national magazines invariably contain.

An enterprising publishing venture of your kind—dedicated to showing only the best from anywhere and reporting on it penetratingly with articles of critical insight into visual and environmental problems—is really needed.

HARRY SEIDLER
Architect/Planner, Sydney

Though there are lots of architecture magazines published all over the world none is truly international. I am assured that the magazine will be of high quality and intellectual integrity.

I would hope that such a magazine could encourage lively discussion and even confrontation of views and permit comparative evaluation of projects in different parts of the world. It could even play a broad role by encouraging and organizing international meetings and debates.

GEORGE ANSELEVICIUS
Dean, School of Architecture
Washington University, St. Louis

Some magazines are labeled as international but, on the contrary, they are not: they put together events from many countries but they don't have a broad comprehension of motives and effects which is needed for the definition of an international point of view. Or else their point of view takes root in the academic and formalistic ground, and their exploration comes out as a contraction of perspectives which is the contrary of what an international approach should be.

After the death of CIAM and the falling asleep of Team X, the architectural debate has made a detour towards national concerns. I am not saying that everything of this period has been unfruitful . . . But the danger is that, going ahead this way, we risk to fall into a new kind of provincialism. It is time to have some international point of reference which can make possible first a confrontation and then a synthesis of a new comprehensive direction.

Only an international publication can give that point of reference.

GIANCARLO DE CARLO
Architect, Milan

Having spent the past two years in the same area, we at "i press" welcome your journal's international focus. We further hope that you will give particular attention to third world societies, to supporting their indigenous design and planning efforts.

Specifically, I would like to stress the potential strength that your journal can develop in presenting society with *alternatives*. We can find in the history of social change, just as clearly as it has been recognized in the tradition of law, that what are often the pioneering efforts of a minority turn out in time to be accepted precedents of the majority.

MARY S. MCNULTY
Architect/Director, i press, inc.
Boston

An international magazine dealing with the issues of man and his environment is of crucial importance, now more than ever. Such a magazine directed by Peter Blake assures us of a quality of architectural journalism that will guarantee a great success.

JAMES STEWART POLSHEK
Dean, School of Architecture
Columbia University, New York

An international magazine of this nature has been long overdue and I prophesy that it will flourish.

EDWARD DURELL STONE
Architect, New York

I am sincerely pleased to tell you that an international magazine in our profession is almost a minimal requirement for being aware of what is happening in the environment today. That Peter Blake will direct it not only means that the magazine will fill a desperate need but will fill it superbly. I look forward to subscribing to it, I know I will learn from it, and, hopefully, I look forward to contributing to it.

WILLIAM N. BREGER
Architect, New York

There is absolutely no question about the desirability of a single, serious periodical to cover—to provide an international overview of architecture.

An impossible program, one might say, but the fact is that there is no one place that even

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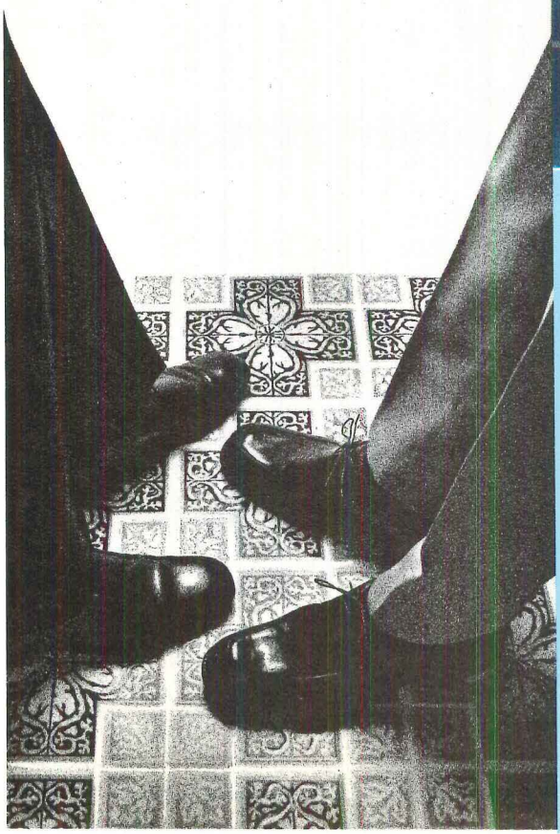
GAF MAKES FLOORINGS FOR ALL KINDS OF FEET.



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Reader Service #104

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Knoll International operates in 31 countries.

Letters to a new publication

Continued from page 6

tries to make this proposal pertinent and promising. The editors will, of necessity, be reviewing an immense gamut of thrusting ideas —so that the very richness of their exposure will inevitably result in a cross fertilization of designers around the world!

The magazine will be responding to a basic need and, more importantly, in the hands of experienced publishers and editors, it cannot help but become a significant force for improving environment everywhere.

With enthusiasm,

RICHARD M. BENNETT
Architect, Chicago

I am sure a new international publication on architecture and urban design will be a great thing and very useful. Really, there is no international magazine which can give regularly all the documentation you need, with a good choice and presentation.

ANDRE WOGENSCKY
Architect, Paris

I feel very positively about a new, international publication dealing with architecture and urban design —so long as such a publication is truly "international", up to date, and well put together. For there really is a great deal in these areas that is new, including some interesting ideas that are rarely expressed elsewhere.

HANS SCHAROUN
Architect, Berlin
Prof. Scharoun wrote this note shortly before his untimely death late in 1972—ED.

It's great news—an international publication on architecture and urban design. Every now and then, when I get out of this corner of the world in which I live, I run across architects and planners in other parts of the globe working on similar lines; or on diametrically opposite paths, which is equally thought-provoking. There really is a crucial need for an international publication which would serve as a vehicle for cross-fertilization around the world. In the old days —I almost said the golden age of the early 50's!—this was done largely by two or three journals like the *Architectural Forum* and the *Architectural Review*. Today everyone seems to be in his ivory tower doing his own thing, and that's a pity.

C. M. CORREA
Architect, Bombay, India
Charles Correa is the Indian Field Editor of ARCHITECTURE PLUS

I am indeed very intrigued by your international publication on architecture and urban design; even if it only surveyed what was published in all the other magazines around the world so that I would not have to read them and yet I would be kept in touch, it would be of enormous service. However, knowing Peter Blake and his standards, it would be far more than that. But suffice it for me to say that I find the effort of trying to keep up with the many magazines that come into our office a chore, and therefore tend to ignore them altogether. Certainly a single publication of the most exciting things happening on the international scene is all that I would ever need, and I am surprised that it has not been done before now.

ARTHUR ERICKSON
Architect, Vancouver, B.C.

If design less and less fits into national categories or into an "international style," it is because of the complete international communication of ideas and concepts. I think this is a good thing and I think the existing American magazines . . . have not really kept abreast of this fluidity of interchange.

WARREN J. COX
Architect, Washington, D.C.

If the selection of projects and ideas from all over the world is as good as I suspect it will be, we shall cheerfully cancel our half-dozen or more subscriptions to the magazines of our overseas architectural friends.

J. ROY CARROLL, JR.
Architect, Philadelphia

Thinking over the developments of the past two decades, it has become more and more clear that a truly international movement in architecture, planning and design is emerging, fostered by both communications and building technology. While national flavors, so to speak, show themselves from time to time, the dominant theme is really a kind of unanimous agreement on optimum solutions. What we are approaching, I think, is a full three-dimensional expression of life in the global village. Given such a situation, it seems inevitable and highly desirable that an international magazine should emerge. I congratulate you and wish you well.

GEORGE NELSON
Designer/Planner, New York

With the world becoming smaller by the minute and the need to improve the quality of our environment, I think the idea of an international magazine on architecture, planning and design would be of tremendous value to everyone concerned with improvement of our environment.

GYO OBATA
Architect, St. Louis

The international magazine is an intriguing idea, particularly since our times and economy seem to be returning us to the architectural vibrance of the 1920's and 30's. Good luck.

CHARLES COLBERT
Architect/Planner, New Orleans

From talking with the many visitors that we have from all over the world, it is evident that there is an urgent un-met need for better communications in the architecture and planning area. Also, in our visits abroad, we see that there are many interesting things going on, about which we are relatively uninformed.

WILLIAM E. HARTMANN
Architect, Chicago

An international publication on architecture and urban design will fill a badly needed gap. I know of no magazine which gives a true picture of what is being built all over the world. I am reminded of a little girl who wrote to an author about penguins. She said, "I have just read your book about penguins. I learned a great deal about penguins. In fact I learned more than I wanted to know about penguins." That's somewhat the way I feel when I have to plow through American, British, French, Italian, etc. magazines, and read more about their national architecture than I want to know at the cost of never seeing much that would have interested me. A truly international publication will fill that need.

THEODORE WADDELL
Architect, Florence, Italy

The need for interchange at the international level is acute and the problems we, as architects, are facing in America are being repeated on a worldwide scale.

JOHN CARL WARNECKE
Architect, San Francisco

I am delighted to hear that you are planning to publish an international magazine on architecture, planning, and design. I look forward with great interest to your new magazine. As there are other magazines which deal primarily with American architecture, I welcome your idea for the new publication.

HERBERT BAYER
Architect, Aspen, Colorado

It seems only proper that Peter Blake should be the one to direct the first international magazine on architecture: no one knows more of the international architectural scene.

GENE R. SUMMERS
Architect, Chicago

A book of this kind is clearly needed and I can think of no staff better suited for such a task.

DR. KARL SCHWANZER
Architect, Vienna

Architecture, planning and design are international in character. To me, it is important to know what is being done in other great centers in these fields.

KARL KAMRATH
Architect, Houston

The whole idea is great and such a magazine is a very important venture, particularly today when the situation has developed in this country where our concerns on planning and architecture have been somewhat restricted by our current crop of publications. Today it is doubly important that your magazine be based on an interna-

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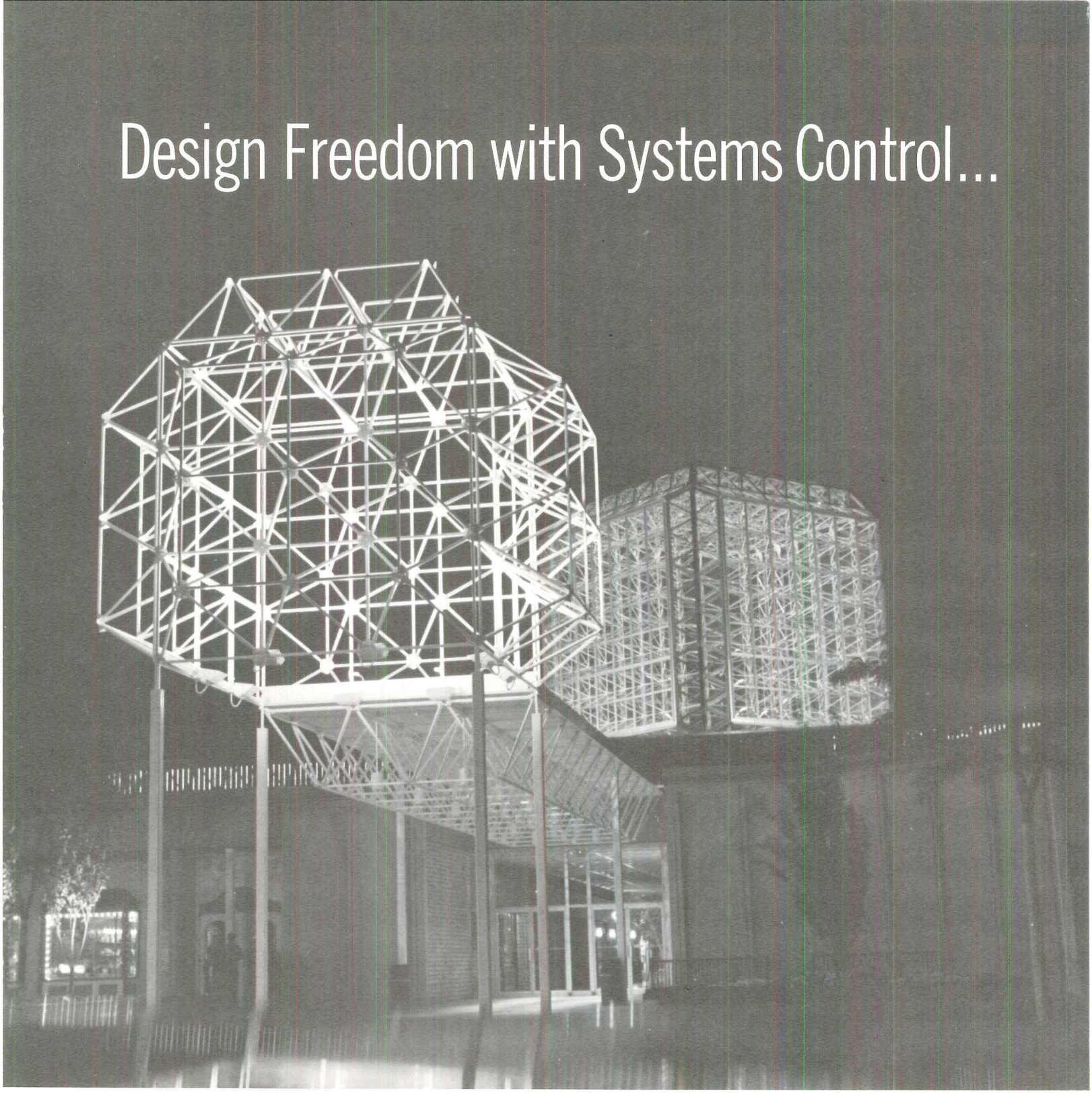
Design Freedom with Systems Control...



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1923 // 50TH ANNIVERSARY // 1973

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Reader Service #106

Letters to a new publication

Continued from page 10

tional view of the problems because we no longer can think in the isolation of just the United States.

I know that the way you will handle such a venture will have a great impact on all of the countries that are involved, but by its nature of being international will become more meaningful to finding solutions to our problems at home.

A. QUINCY JONES, FAIA
Architect, Los Angeles

The concept of an international magazine on architecture, planning, and design is most exciting. Architecture has no geographic boundaries, yet the architectural magazines have by and large limited themselves to one region or continent.

MACDONALD BECKET
Architect, Los Angeles

It is exciting news about a new international magazine on architecture, planning and design.

MORRIS KETCHUM, JR.
Architect, New York

My experiences this year at the 1972 International Design Conference in Aspen convinced me of the need and desirability of an international publication concerned with design.

What convinced me was the ready availability of a vehicle that would enable me to sense an international response to an idea of international appropriateness. As you know, the idea was the use of the urban environment for learning, the implications of making the invisible city visible.

Assuming that your new publication will be able to measure a broad look and evaluation, I applaud its inception.

RICHARD SAUL WURMAN
Architect, Philadelphia

I think the idea of an international magazine on architecture, planning and design is a marvelous idea but I think what is really sad is the fact that there is no first class architectural magazine in the United States —this is especially strange when we realize that for the past ten years or so architecture has been recognized as a force in the general press, and while all this is developing the professional magazines seem to be folding up, which to me is strange and unfortunate.

GORDON BUNSHAFT
Architect, New York

As more men spend a great portion of their lives in environments of their own making it is of increasing importance that they become informed of historical precedents and current practices that can lead to more delightful, productive, useful, fulfilling lives—your venture would seem to me to be an important contribution to that aim.

NEIL MARTIN NEHRBASS
Architect, Lafayette, La.

The new magazine will be thankfully received by those of us (and that's most of us) who try to keep up with the international architectural and planning scene but can't because we have neither the time to wade through six or eight journals nor the language skills.

As for me, I look forward to giving up guessing what the Poles and the Swedes, the Russians and the Japanese, the Hungarians and the Israelis are saying.

PERCIVAL GOODMAN
Architect, New York

A "worldwide" publication on architecture and urban design is badly needed because nonexistent and I am sure that it will be very successful because extremely useful.

LANFRANCO BOMBELLI TIRAVANTI
Architect, Barcelona

The international scene won't be the same.

PAUL RUDOLPH
Architect, New York

Our own magazines have been entirely too parochial, covering almost no work abroad.

The only magazine that seems to have some international flavor is AD from London.

HOWARD BARNSTONE
Architect, Houston

I manage to visit Europe and Great Britain once every two years. However, my recent visit dramatized for me the need, not only for a magazine reporting what's happening in Europe, but for one which will take a critical stance of much of the work. I was particularly appalled

Continued on page 14

Efficient building idea: Recent report tells how to solve the acoustical problems of open offices.

Good news for architects who like the design freedom of open offices—but don't like the acoustics.

Tests by an independent acoustical testing agency show you can get excellent open office acoustics by using these three things (with the help of an acoustical consultant):

1) An acoustically non-reflective ceiling—so the sound won't bounce off to other areas.

2) Sound-controlling screens—to stop the sound from going directly from one work area to another. (Either directly or by reflection.)

3) A masking sound system—technically designed to fill the sound voids without increasing the overall ambient noise level. This makes it possible to hold personal conversations in a normal voice—without being overheard.

Of all the ceilings tested for Owens-Corning Fiberglas—including expensive coffered and baffled systems—the best was Owens-Corning's Nubby II Fiberglas* Ceiling Board in a standard grid suspension system.

If you'd like the whole story, send for our free design guide, "Achieving Acoustical Privacy in the Open Office."

Write to Mr. P. H. Meeks, Owens-Corning Fiberglas Corporation, Fiberglas Tower, Toledo, Ohio 43659.

*T.M. Reg. O.-C.F.

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Reader Service #107

Letters to a new publication

Continued from page 12

to see the rampant, U.S.-style, laissez-faire development of the southern and coastal sections of France. Even the spotty highrise clusters in Paris were not as appalling as the clumsy, highrise implantations on the Mediterranean coast east of Marseilles. It should be obvious, therefore, that I think that there is a definite need for such an international magazine, and Peter Blake is a natural to be its director.

RAI Y. OKAMOTO
Architect/Planner
San Francisco

The critical issues of architecture and planning have, for some time, been international in scope. The thoughts and ideas of designers and planners in Japan or England have as much impact as those of a colleague next door in our practice. It is therefore high time that this international dialogue will be reported and commented upon in one magazine.

ULRICH FRANZEN
Architect, New York

A new international magazine on architecture, planning and design is a splendid idea—and I hope it happens soon. There are so many interesting things going on all over the world but there isn't time to get through all of the many publications in many languages. Now—soon I hope—I'll be able to find the best collected in one place, and—selected and studied by you.

CHLOETHIEL WOODARD SMITH
Architect, Washington, D.C.

I think a new architecture magazine, hopefully dealing with the realities and aspirations that we all face professionally is needed.

Do let me know if I can be of help in any way.

DANIEL SULLIVAN
Architect, St. John
U.S. Virgin Islands

Thank you for the opportunity to see and explore the architecture of the world through "Architecture Plus".

Please, send me that international magazine!

LUIS ALONSO ESTRADA
Architect, San Salvador

The need for a new magazine on a truly international basis should be recognized, as the planning and architectural profession is working at an international scale. The interaction of this effort should be reflected in professional reportage that Peter Blake can bring to the scene... The effort is needed.

WALTER A. NETSCH
Architect, Chicago

Congratulations! It will take a while to mentally disassociate you with Architectural Forum; but directing a new, international magazine on architecture, planning, and design sounds like a challenge you can well handle.

A magazine of this type, which will cover the globe in a language we can understand, also sounds like a splendid idea in these days when most of us are internationally oriented.

MAX URBAHN
Architect, New York

The hop, skip and jump of the architectural press as it now stands in most countries, leads to a frayed and exhausted readership (if indeed those that seek an overview can still be counted). What could be more worthy than another stab at an international compendium.

JAMES LAMANTIA
Architect, New York

Two days ago the London Times published the text of the draft declaration of the Stockholm Conference. Here are three quotes: "Man has the fundamental right to adequate conditions of life in an environment of a quality which permits a life of dignity and well-being and bears a responsibility to protect and enhance the environment for future generations."

"Research and free exchange . . . of scientific and other knowledge and experience must be promoted to the fullest . . . in order to facilitate the solving of environmental problems."

"States shall ensure that international organisations play a coordinated, efficient and dynamic role for the protection and enhancement of the environment."

What more evidence do you need that an international publication on Architecture and Urban Design is, of course, needed?

DENYS LASDUN
Architect, London

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THE name, ARCHITECTURE PLUS, means what it says: this will be a magazine that interprets architecture in the broadest possible sense—geographically, conceptually, technologically, philosophically.

It will be an international magazine, and the contributions of our Field Editors in every part of the world will be evident in every issue. (This first issue, Volume One, Number One, contains major stories from Britain, France, Austria, Italy, India, the People's Republic of China, Australia, Okinawa, the U.S., and elsewhere.)

It will be a critical magazine, in the best sense of the word—interpreting intentions, successes, and failures of major buildings and projects as only experienced professionals can interpret them.

It will be an informed magazine—as informed as its editors can make it. It will never talk down to its readers; it will try to talk up to them, discussing some of the most significant issues—far-out or down-to-earth—in architecture and all the related arts and sciences.

And it will be a handsome magazine, because we know that our readers are visually literate and deserve better than what they have been getting graphically and typographically.

What will be our editorial direction? Frankly, I haven't the remotest idea.

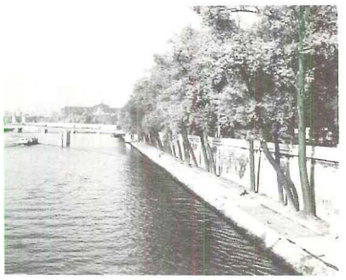
I do know that it would be silly and, indeed, myopic to try and predict what we are likely to publish tomorrow, or the day after. A magazine is exactly as good as its staff; for, after all, this is where ideas are perceived or generated. The names on our masthead are familiar to most of you. No other magazine in our field, to the best of my knowledge, is put together by people so totally involved in, and so cognizant of the architecture, planning, design, and technology of the man-made environment. ARCHITECTURE PLUS, like any other adventurous medium, will stand or fall on the perceptiveness, professionalism, and imagination of its editors.

So I am unconcerned.

In doing our job—in doing what we really enjoy doing more than almost anything else—we hope to do a little to enrich your lives, as so many of you have enriched ours.—PETER BLAKE.

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

Left bank



Right bank

Where are you, Jane Jacobs, now that we really need you?

Whoever runs Paris at the moment is obviously suicidal. Having permitted the construction of the grotesque skyscraper city of La Défense, the erection of an offensive, 50-odd story, American-financed tower on the site of the old station at Montparnasse, the destruction of the best of Les Halles, the impending destruction of the Pont des Arts, and the closing (and equally impending destruction) of the Hôtel d'Orsay, this luminary is about to replace a good part of the lovely, pedestrian Right Bank of the Seine with an express highway similar to the one already built along part of the Left Bank. The photo of the remodelled Left Bank, next to the one of the Right Bank idyll speak for themselves.

The proposed highway will shoot past Nôtre Dame and the Hôtel de Ville, and separate the Ile de la Cité from the north channel of the Seine.

Bringing automobiles into the center of a metropolis creates certain problems—parking being one. The Ile, already a parking lot much of the time, will shortly require multi-level parking garages (which could, of course, be installed inside Nôtre Dame and Sainte Chapelle); after that these parking garages will have to be fed by even wider expressways so as to make the Nôtre Dame and Sainte Chapelle parking garages economically viable. At that point, the River Seine could, of course, be covered entirely by a superhighway, a solution rather cleverly implemented in Tokyo (below). This should make American (and Japanese) tourists feel comfortably at home; and so the Hôtel de Ville might be profitably converted into a Holiday Inn.

The Count d'Etretat, quoted in the San Francisco Chronicle, was unconcerned. "Paris doesn't die. It changes ugliness into beauty." The evidence, to date, is slim.

Road over the river, Tokyo

Call a screaming halt

Perhaps we have gone too far with our highways and byways and high-rises. Citizen groups and officials here and abroad are shouting loudly and voting down many "progress" proposals:

• The citizens of Toronto (who call themselves Torontonians) voted in as mayor, David Crombie, a 36-year-old lecturer on urban af-

University Avenue, Toronto

fairs at Toronto's Ryerson College. The previous administration in City Hall had been under attack for being too chummy with the land development interests. Mayor Crombie who campaigned on a grow-now-pay-later platform, has said, "We're the only big city which hasn't lost its neighborhoods. That's why Toronto is civilized, cosmopolitan and alive."

Two years ago citizen groups (Mayor Crombie was one of the leaders) successfully battled the $200-million Spadina Expressway which had, at that time, already laid to waste two miles of Toronto's neighborhoods to the northwest.

Metropolitan Toronto, like New York City, has five boroughs, and that is where the antidevelopment reformers would like the similarity to end. Reformers were voted in as mayors in four of the five boroughs, causing city-watchers all over Canada to praise that metropolitan community which put on the brakes.

Mayor Crombie's tasks are waiting for him. Among other massive construction proposals on his desk, one now before the Toronto City Council calls for a $250-million, full-city-block, complex of office towers and stores on a parcel of land adjacent to City Hall. This plan was submitted by the T. Eaton Company (the biggest department store chain in Canada, now grown so large they build entire suburban shopping centers). Trinity Square, with its charming cafes and its beautiful church would, unfortunately, have to go since it is inconveniently located where the commercial complex will sit, though there were later reassurances by Eaton that the church could be saved.

Toronto's charming York Square

How far this plan gets in the hands of avenging angel Crombie will be interesting to see. Its fate could well affect Toronto's other construction projects now on the drawing board, estimated to cost between $2 and $3 billion.

• Massachusetts Governor Francis W. Sargent cancelled plans for everything even faintly resembling encouragement to the use of the automobile in Boston. He announced that the highway Interstate-95 would wend its way around Boston and not through it. And then he laid to final rest the plan for an inner belt, I-695, which was to carry traffic through the city.

He decided no new parking spaces can be built in downtown Boston or at Logan Airport, and said that a two-lane expressway for buses would be created to encourage the use of mass transit between the city and the airport.

He further announced that $800 million would be spent on new transit facilities linking Boston to its suburbs, and another $400 million devoted to improving existing transit facilities.

Said Gov. Sargent, ". . . we have been caught in a vicious cycle—more cars meant more highways, which meant more traffic jams, and more traffic jams meant a need for more highways . . . and we failed to solve the problem that started it all, how best to get from one place to another."

Gov. Sargent, a Republican moderate in a traditionally Democratic state, has cancelled $1 billion of planned urban expressways, and proposed instead $1.5 billion for the mass transit effort.

Over the last two years Massachusetts has reluctantly forfeited to the feds $200 million in unspent Interstate funds, since the governor imposed his 1970 moratorium on the Boston section of Interstate-95, the highway which runs from Maine to Florida.

Sargent is now seeking access to this money, as well as to Massachusetts' share of the $800 million which the Federal Government has allocated to "urban systems" highway development, so he can spend it on rail mass transit.

He can expect a hard time from the highwaymen, when he asks the Massachusetts Legislature some time next month to approve a bond issue (of $100 or $200 million) to help pay the transit bill. He might get a little flak from Washington, too. The new Department of Transportation (DOT) Secretary is Claude S. Brinegar, a Union Oil Company vice president.

"Frankly", says Sargent, "I'm apprehensive."

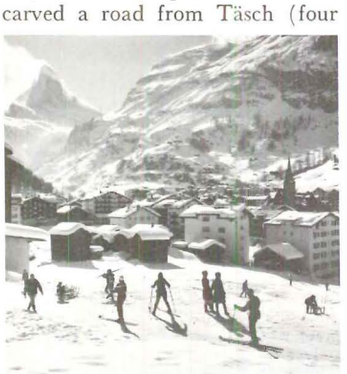
The Environmental Protection Agency supports and applauds Gov. Sargent's "no build" policy, though, ironically—even with all of this drastic cutting back—it is doubtful that Greater Boston can meet the EPA's 1977 Clean Air Act deadline.

• In Denver, where bumper stickers warn: "Don't Californicate Colorado," a group calling itself Citizens for Colorado's Future overpowered a stronghold of business promoters, and sent away the 1976 Olympic winter games.

Learning that the Munich and Sapporo games had each cost host cities more than $100 million to mount, Coloradans became sufficiently alarmed at the possible financial disaster (not to mention the ecological damage to be caused by the necessary massive construction) to vote a final no.

Where, then, will the 1976 winter Olympics go? The International Olympic Committee is accepting bids and will make a decision in February.

• In Zermatt, a Swiss mountain village whose only direct link with the rest of the planet is a narrow gauge electric train, citizens voted on December 17 to keep things that way. An earlier plan would have carved a road from Täsch (four miles down-mountain) to the edge of Zermatt ending in a giant parking lot. No motor vehicles would have been permitted beyond that.



Where cars may not enter

But Zermatters, nestled in at the foot of the Matterhorn, decided that such a road would bring the outside world and its vehicles too close for comfort, and killed the planned road for good.

London mall

Late last year, one half of London's Oxford Street was closed, experimentally, to all vehicular traffic (except buses and taxis) during peak shopping hours. The photographs show, first, the typical melee of people, cars, trucks, taxis and buses that filled the entire length of Oxford Street—the busiest shopping street in the world—before traffic restrictions were imposed. Next, a view of a portion

of the street near Oxford Circus, after most of it was turned into a pedestrian mall. Only one lane was

left open for buses and taxis. The third photograph shows the rather desultory attempt on the part of the authorities to "Parisianize" the street with tub trees, benches, and a sadly solitary column of posters. London's bleak midwinter hardly helped—but Christmas shopping was at least granted a welcome increase in elbow room for the first time ever.—J.D.

No more money for housing

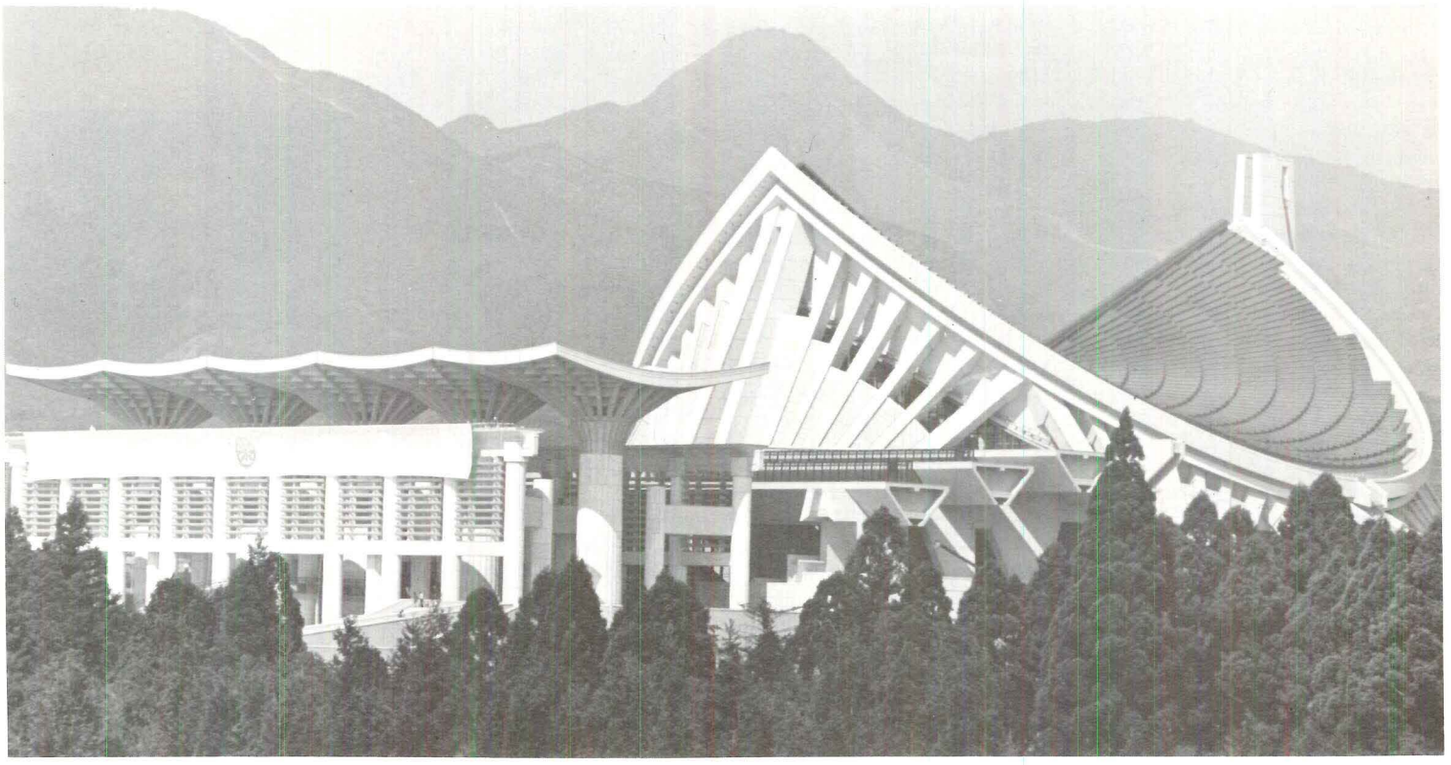
Richard M. Nixon, who occupies fairly luxurious dwelling units in Washington, D.C., Florida, California, and Camp David, Maryland, may not be especially aware of the world's housing shortage. In fact, he has recently made his own contribution to the reduction of housing stock in Indochina—with the noblest motives in mind, of course. Last month, Mr. Nixon turned his strictly anti-constructionist zeal upon the United States of America.

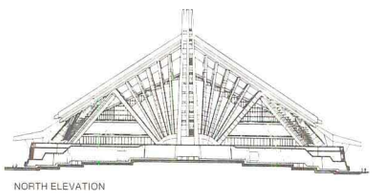
On January 8, his outgoing Secretary of Housing and Urban Development (HUD), George Romney, was dispatched to Houston, Texas, to inform the convention-exhibition of the National Association of Home Builders (NAHB) that his boss had just cut their throats—and the throats of

Continued on page 20

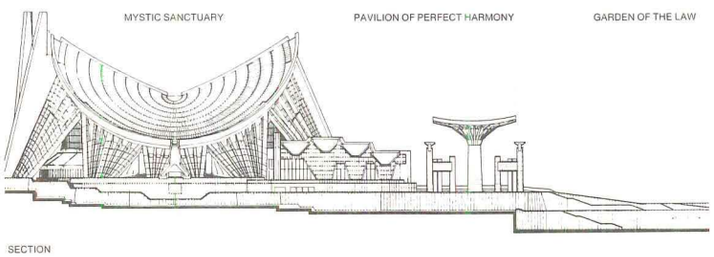
Tokyo

Standing at the foot of Mount Fiji is Sho-Hondo, a temple for prayer and meditation for peace. The complex, which took five years and many computer calculations to complete, includes four romantically named blocks: The Garden of the Law, or front plaza; the Pavilion of Perfect Harmony, or entrance; the Temple of Purification, or entrance hall; and the Mystic Sanctuary itself, designed to hold 5,400 of the faithful. The roof over the sanctuary is a semi-rigid suspension structure designed by Sho-Hondo's architects, Kimio Yokoyama and Associates, to look like a huge white crane flying towards a better life.





NORTH ELEVATION



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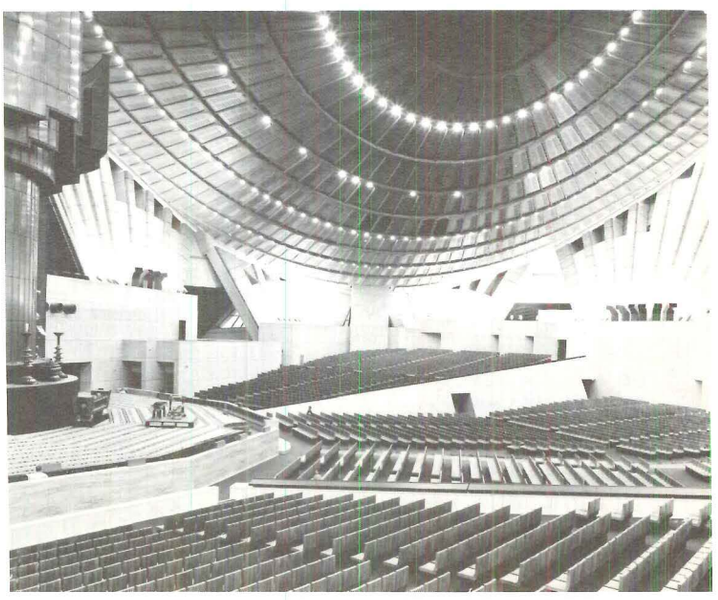


several hundred thousand other Americans. Mr. Romney, who believes in God, the Flag, Loyalty, and a number of other praiseworthy things, was clearly subdued. He told the Home Builders that the Nixon Administration's new budget would cut $3.2 billion from housing, affecting nearly all existing programs. This has had far-reaching results: as of January 5, a "temporary hold" (understood to mean an 18-month moratorium) was imposed on all applications for subsidized housing assistance not yet "feasibility approved." This freeze also applies to water and sewer grants, open-space grants and public facility loans.

Mr. Romney said the freeze will be in effect "until these activities are folded into the special revenue sharing program."

Since Congress refused to enact the President's revenue sharing program last time around, this halting of funds looks like a strong-arm effort to see that Congress will not get uppity again. In any case, Congressional dissenters will now have a good long time to think it over, it being generally agreed that nothing short of a "miracle push" could get the legislators to enact revenue sharing before July 1974.

Mr. Romney, upon resigning as Secretary of HUD after the presidential election last fall, caused a storm of his own by publicly knocking his own department's role in both subsidized and public housing. He had called for an all-new set of federal programs, and pronounced the present situation a mess. In the past, he had let it be known that he would like to see public housing programs as such dropped altogether, and replaced with personal cash subsidies to low-income families that would enable them to find their own dwellings in the private sector. The Administration doesn't think much of this idea, either.

Said Stanley Waranch, outgoing (and outspoken) president of NAHB: "The Nixon Administration has no alternate housing program; all it wants to do is stop."

In the meantime, virtually all U.S. cities can watch the housing situation deteriorate. Avrum Hyman, deputy commissioner in the Housing Division of New York State, said, "When it gets to construction, that's the end of the road. It will take . . . maybe 40 months to get going again; developers won't sponsor projects when they know the subsidy is not available."

Deputy Mayor Edward K. Hamilton of New York City called the act "grossly irresponsible" and said it was already impossible to build anything but luxury housing in his city without federal help.

Rep. Wm. A. Barrett (Dem. Pa.) said the Administration "presumes to single-handedly terminate the nation's existing housing and urban development programs."

Norman Watson, a Georgia Republican who has served as assistant HUD secretary in charge of Housing Management, said, "Since HUD represents a social area that is out of step with the White House, there always was that sense of . . . being out of step with the politics, of being unable to communicate."

Senator William Proxmire (Dem. Wis.): "President Nixon has decided to spend several billion dollars more in bombing Asia, and to spend several billion dollars less for housing. The effect is to increase the housing shortage both in Asia and the United States. That is reorganizing priorities with a vengeance."

And, as we go to press, the U.S. government's Farmers Home Administration field offices have just received telegrams from the Nixon Administration announcing a further devasting withdrawal of funds from the housing budget "until further notice." This latest cut-off of money amounts to $2.07 billion which were to have financed 117,000 housing loans to low and moderate income rural families. The ruling also affects programs providing credit for farm labor housing, rural rental and cooperative housing, and grants to small communities for building water and sewer systems.

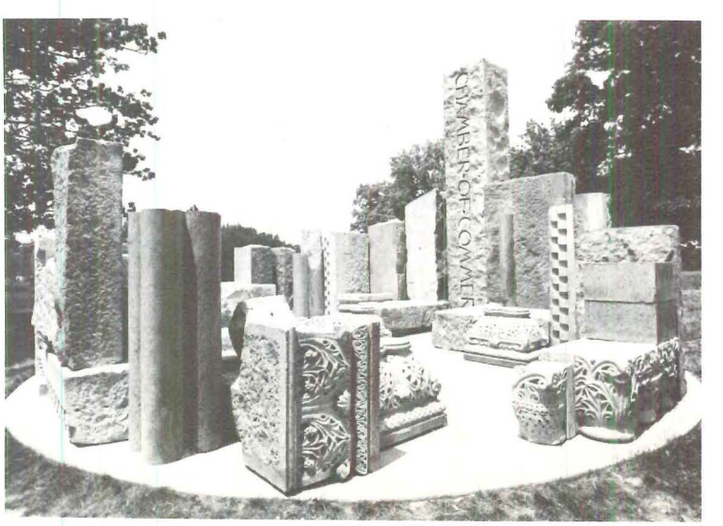
The Farmers Home Administration, which grants single family home loans for both low and moderate income families had estimated that 70,000 of those loans would have gone to families with incomes under $7,000.

Resurrecting Richardson

In 1967, Ted Hammer, an architecture student at the University of Cincinnati, stumbled over some beautifully carved stones lying in scattered piles outside of town on a hill overlooking the Ohio River. The stones turned out to be fragments of a building H. H. Richardson had designed for the Greater Cincinnati Chamber of Commerce, and which, unfortunately, burned in 1911, 25 years after it was built.

In 1927 the Cincinnati Astronomical Society acquired the stones for use in a proposed observatory, which was never completed.

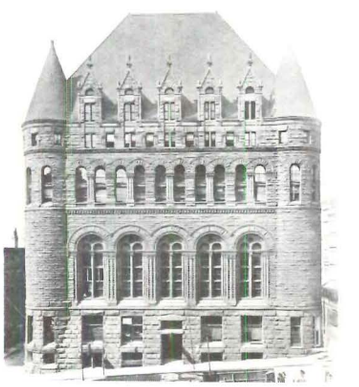
Ted Hammer and some architecture student friends of his decided to re-erect some of the stonework as a monument to the renowned architect, and in 1968 a design competition, called "Operation Resurrection" got underway. To raise prize money for the winning design, the students sold sweatshirts imprinted with a picture of Richardson (who resembled a huge bearded monk).



Winner of the $200 prize was architecture student Steven Carter, whose design called for approximately 125 of the pink Milford granite stones to be erected in a basically circular arrangement. The jury, which included Richardson's grandson, Joseph, liked the design and voted to go ahead.

Ted Hammer tried to raise money in the community through 1969, with meager results; and when he left Cincinnati that year, Robert M. Eury of the University of Louisville's Urban Studies Center took over. A slab for the monument base was poured in 1970,

H. H. Richardson



Cincinnati Chamber of Commerce

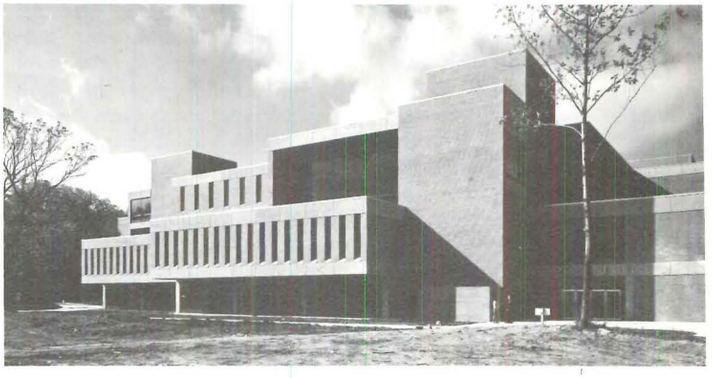
and then the project bogged down for lack of money and enthusiasm.

The Chamber of Commerce finally raised some money and got the monument built last summer.

Now the community is most enthusiastic about their open-air architecture museum, situated on a knoll in Burnet Woods. The monument (which in the modified design used only 51 of the stones) has, in fact, received the ultimate tribute that can be awarded by the public—a Cincinnati couple recently had their wedding ceremony performed there. Henry Hobson Richardson, who died in 1886 (and never saw the original building) might have been pleased.

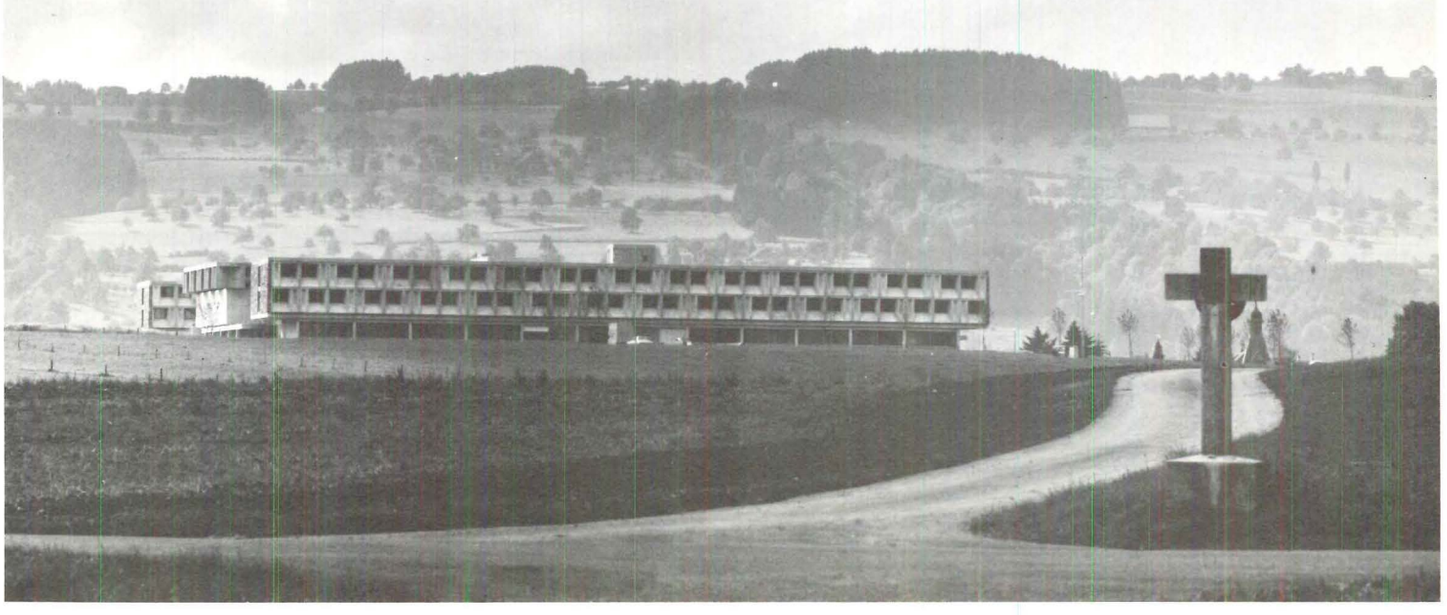
Kenosha, Wisconsin

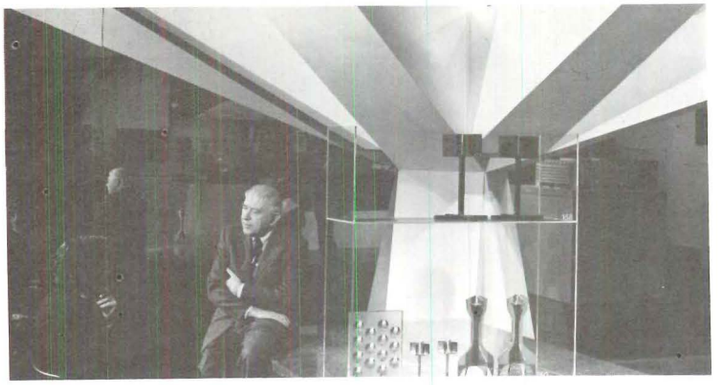
The so-called Library-Learning Center shown here was designed by Architects Hellmuth, Obata & Kassabaum for this campus of the University of Wisconsin. The idea was to create a central, skylit space (left) where walkways from surrounding academic facilities would intersect. This, according to the architects, is to be a major landmark and the meeting place for the entire campus. The building includes audio-visual facilities, in addition to shelves for 245,000 books. Its capacity will be almost doubled in the future.



Luzern, Switzerland

This convent in Baldegg, near Luzern, was dedicated late in 1972. Designed by Marcel Breuer and Robert Gatje, architects of New York, it is the fourth major complex they have done for the Catholic Church. Like the earlier ones in the U.S., these buildings are of exposed concrete, stone and glass; and the emphasis is on light, space, and austerity. At right is a glimpse of the chapel; below is an overall view of the convent in its setting. (The building will be published in detail in a forthcoming issue of ARCHITECTURE PLUS.)



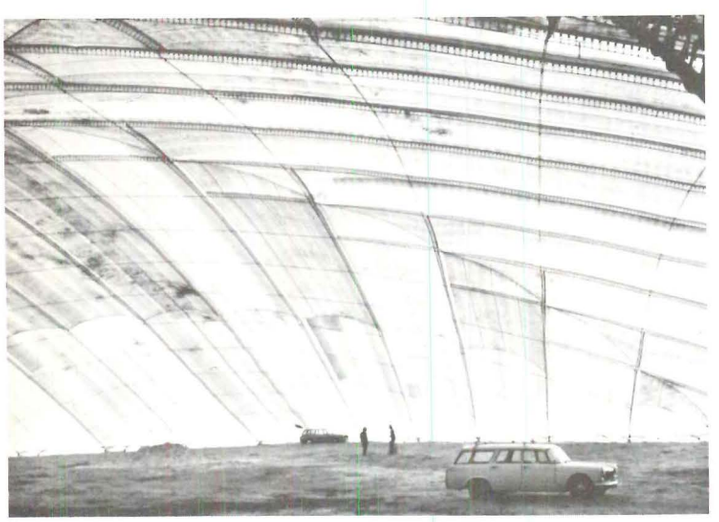


Breuer at the Met

Late in 1972, New York City's prestigious Metropolitan Museum of Art opened the first exhibition it has ever devoted to the work of a modern architect during his lifetime. The show was staged in the Museum's three most splendid galleries, and devoted to the accomplishments of Marcel Breuer, one of our century's most influential designers of everything from chairs to cities, and one of the century's most beloved and creative teachers.

Hungarian by birth; Bauhaus-trained (and later one of the most successful teachers and designers at that school); a practicing architect in Germany, Switzerland, Britain, France and elsewhere; then, with Walter Gropius, the man who stood Harvard on its head in the 1930's; Marcel Breuer became perhaps the first world-architect of his generation. His gutsy buildings stand in Latin America, in Washington, D.C., in France, Switzerland, and in Minnesota and the Dakotas; his former students are among the best of *their* generation: Edward L. Barnes, Ulrich Franzen, Philip Johnson, Harry Seidler, and too many others to list.

He designed his own exhibition at the Metropolitan Museum, and it was full of photographic blow-ups, of scale models, of seemingly ever more beautiful, early furniture, of great mock-ups of concrete columns, and even of Breuer-designed tapestries. There was a raucous dinner in Breuer's honor on the night of the opening, and all his friends were there—some of them, former students and former clients, having traveled thousands of miles to attend. It was a great show, and he took all of it in his stride, having the time of his life.



Blow up

Laurent Kaltenbach, a specialist in inflatable structures, chairman of the society "Air Structure", and teacher at the Ecole Nationale Superieure des Beaux Arts in Paris, has just designed what he says is the biggest inflatable in the world, near Paris. Its highest point is 15 meters. The entire demonstration structure is reinforced by metal cables. The skin is a strong synthetic fabric, coated with PVC on both sides. Using this technique, Laurent Kaltenbach says he can build a structure whose size would be truly stupendous—something like 500 meters wide and several kilometers long.

To build such structures, Kaltenbach went into partnership with two other French companies: Zodiac, well known in the field of inflatables, and Pennel et Flipo, European leader in the field of coated fabrics. The new partnership is called Airal.—G. de B.

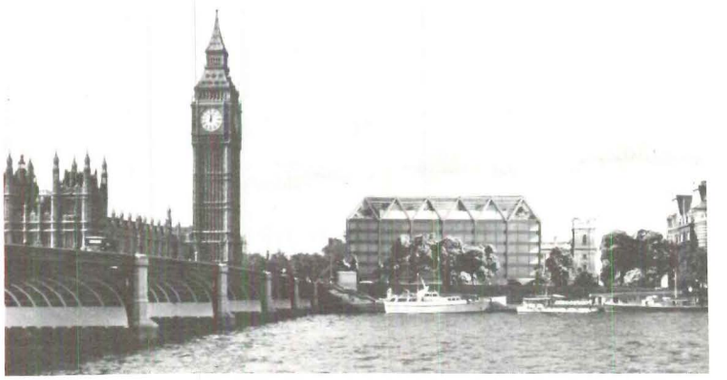
Social note

Two of the largest architectural firms in the U.S. have been holding hands ever since last summer; and just before Christmas they walked down the aisle. The firms: Kahn & Jacobs, of New York City; and Hellmuth, Obata & Kassabaum, primarily of St. Louis.

Between them, these firms have been responsible for the design of a fair percentage, over the past century, of man-made America; a fact which none of the wedding guests wished, particularly, to hold against them. After the marriage was consummated, it was indicated (without explanation) that the newlyweds were interested in adopting firms in Southern California, Denver, Chicago, and the Southeast U.S.

As of this writing the name of this new firm has not been announced. KJHOK (which reads just as nicely backwards) is not acceptable under the rules that govern Scrabble; so there will have to be some other solution. The newlyweds, shown in this snap (George Hellmuth with, and Bob Jacobs without hair) were clearly unconcerned. They were, instead, examining their wedding gifts: a stuffed fish and a skinned zebra.

Hellmuth and Jacobs



Will London ever have a Parliament building?

Photo montage of Thames with the new Parliament in place (top); a montage of the future MP roof garden (bottom)

Two young architects, Robin Spence and Robin Webster, won the competition for the New Parliament Building last March and were awarded the tax-free first prize of £8000.00. Since then, though still not commissioned to carry out their prize-winning scheme the architects have spent months modifying their original design to meet the criticisms of the House of Commons Services Committee. The principal changes have been to reduce the overall height of the building, simplify the structure, and align the facade with the cornice of the Treasury Building in Whitehall that has recently been cleaned.

The modified designs have been on exhibition at the House of Commons and will be in public view at the Royal Institute of British Architects from January of last year.

As *The Times* put it, "the architects who have not yet been commissioned continue to work in a limbo world." It is obvious that Spence and Webster simply want to get their building built—all the extra work they have been required to do has long since absorbed the prize money and a great deal more. It seems curious that one should hold a competition, select a winning team, and then spend months carping about the results. User-participation can, of course, modify a design even after a jury has made its selection; but changes commissioned by users are normally paid by those commissioning them. In this case they are not.

Meanwhile the Mother of Parliaments continues to despoil the most famous neogothic building in the world by filling every available spare cubic foot of space with mean little huts that insure that Westminster's Members of Parliament must work in the least environmentally satisfactory conditions of any legislature in Europe.—J. D.

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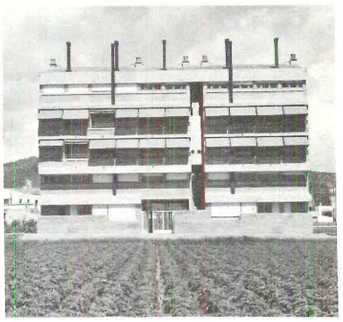
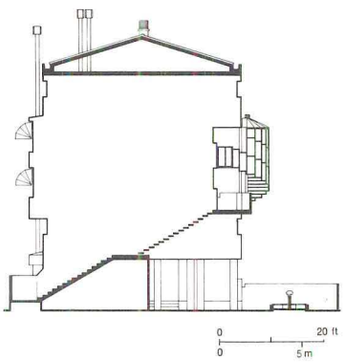
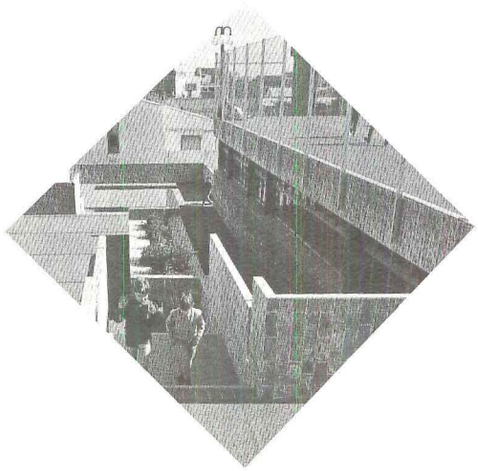
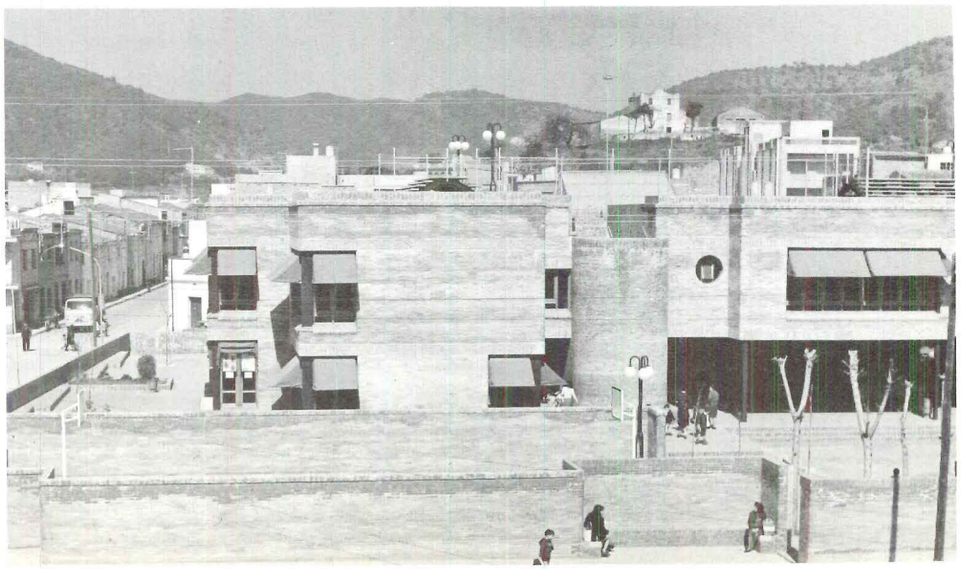


Barcelona

The two buildings shown here were designed by the Architects Martorell, Bohigas and Mackay, whose work has enlivened the Barcelona scene for some years. The building shown above, at left and in partial section is a teachers' residence consisting of twelve "houses" stacked on top of each other and reached by way of outdoor "streets" on several levels. The building shown below is the school in which they teach—a structure of several interlocking levels grouped around a tall central space lit through clerestories. The most interesting aspect of the school is its multi-level roof which serves as a playground, and includes a basketball court and other facilities on different terraces. Materials throughout are exposed concrete, brick, local tile and glass.



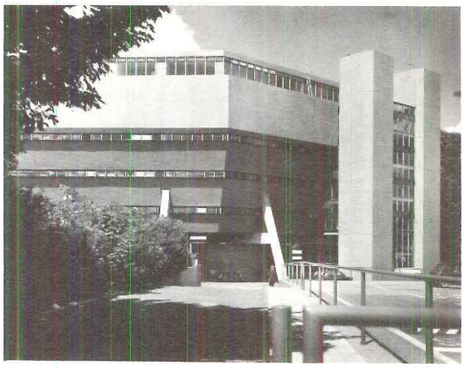


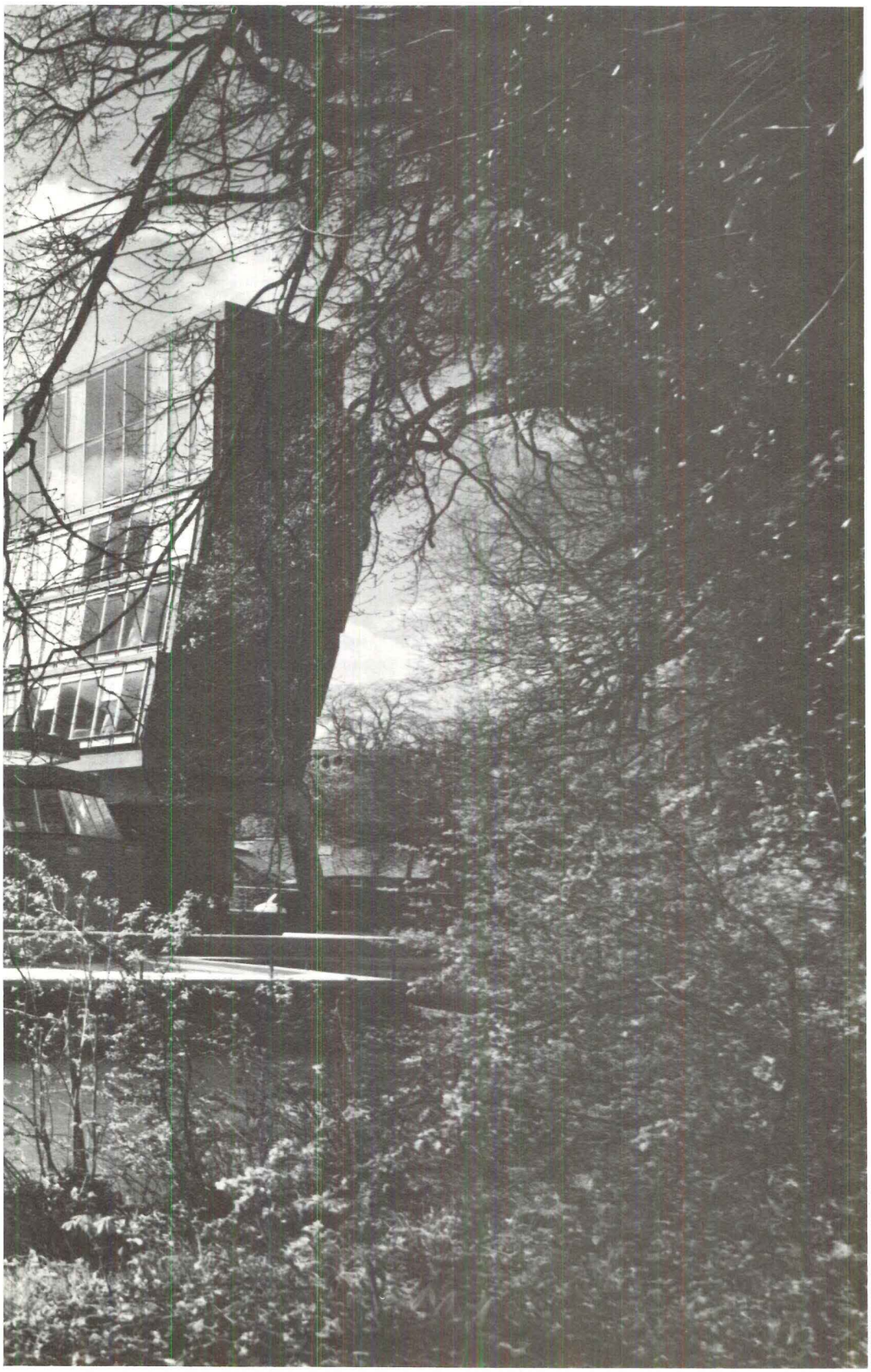


A rakish dorm confronts Oxford

Queens College freshmen find more than academic challenge in Florey, a new dormitory by James Stirling

By Robert Maxwell





Robert Maxwell, who is Reader in Architecture at the University College in London, makes his case for James Stirling's latest building, a dormitory at Oxford's Queens College, in three parts. The first part deals with the building itself; the second part with user criticism; and the last section with the antecedents for the building in Stirling's earlier work. The article is, quite obviously, a biased essay by a devoted partisan of the architect's work. We publish it as such, recognizing that both the architect and his partisan deserve our respect.

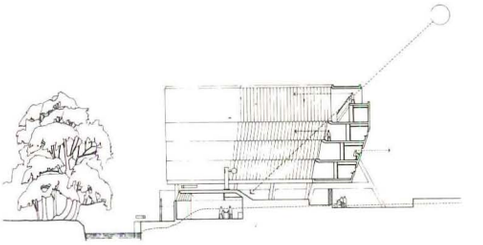
THE EDITORS

The Florey Building by James Stirling stands in sharp contrast to the traditional dormitories of Queens College, in Oxford, England. Separated from the main college by a meadow, streams and trees, it is surrounded in back by a huddle of nondescript two-story pubs and shops. But Florey is not in the idiom of modest brick boxes, snuggling together in suburban bliss, nor is it in the idiom of the ivy-covered stone structures of the college. It claims a heroic genesis and insists on a heroic past; its entirely unorthodox form heaves up to the level of the treetops and fixes its outward gaze firmly on Queens College and the spires and towers of the Oxford skyline.

It is interesting to look back over the architects' early sketches. From the beginning we find the idea of a courtyard open to the north, where a wall of trees could complete the enclosure with some shelter from the wind, while still admitting views of the parent college. But the first sketches, although certain of that point, remain uncertain of others. They are at first rectangular layouts; then come two separate L-blocks with the entrance at the break; then a mainly rectangular court with curves in the internal corners. Finally, angles appear, and suddenly there occurs the idea of a courtyard formed by bending the extremities of a linear building together. Zap—we have the embryo complete in all its rudimentary organs in a sketch the size of a large thumbnail.

The concept is imposed, but the final form of the building is circumstantial—the architect has looked to all the surrounding circumstances that could provide useful determinants. Although the site was originally largely open (it was used as a municipal car park) and widely exposed toward the

Instead of a solemn statue of its benefactor, Florey boasts a whimsical kitchen ventilator (opposite) as the visual highlight of the courtyard podium. The building is angled (see section at right) to admit maximum sunlight on the podium. Below, plans of the building and courtyard illustrate the 45° angles between building modules, as well as the double module that gives the plan its curious asymmetry.



street, the architect knew these conditions would change. The site was bought from the city after the university had negotiated an agreement that would allow it to expand east along the south bank of the meadows. The city reserved the right to develop the remaining zone between that and the street, and it also insisted that a public walk should be maintained along the riverside.

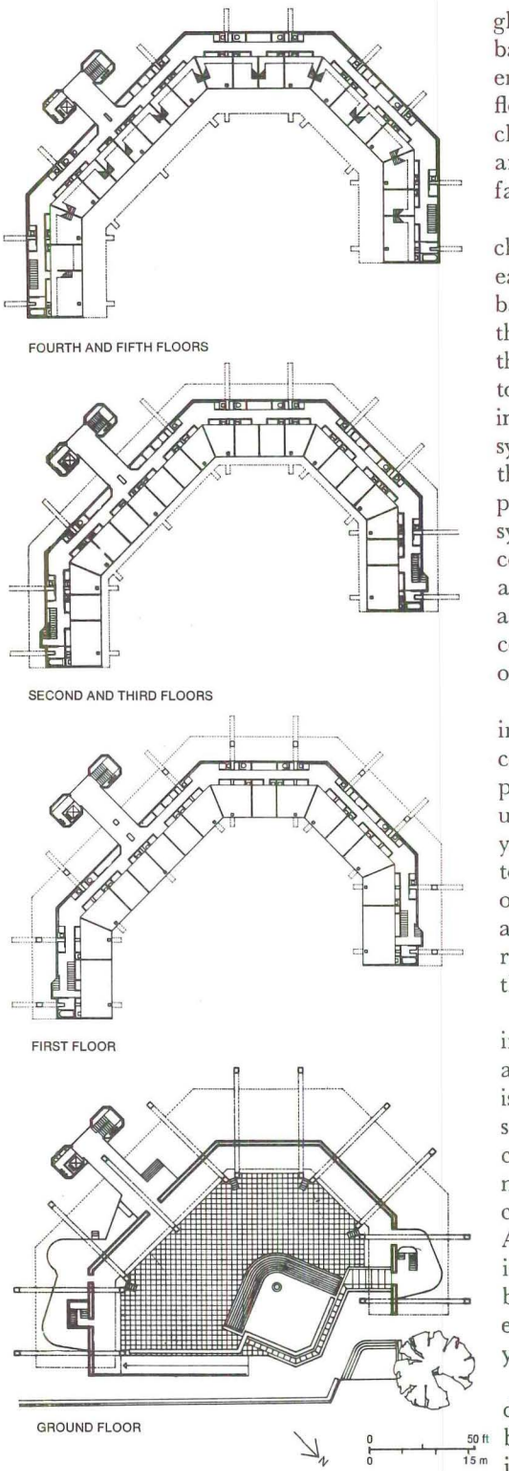
It seemed justified to orient the building to the riverside walk rather than to the street approach, but this presented problems of privacy for the architect. Raising the courtyard as a podium, so that the immediate passerby cannot see in directly, protected inner privacy enough so that the architect felt free to allow the building to turn its back on the Town and face firmly towards Gown.

We see him thus justifying a difference between front and back that will enable him to build up expectation and surprise as we approach the building, enter under the overhang, and see or glimpse through the barred gate the special world created within.

There is a single principal point of access, about two-thirds of the way along the bent linear spine, which has additional escape stairs located at the outside ends of the two wings. The entrance is marked by twin totems, or squarish towers joined at the base by a brick plinth. One contains the lift, the other stairs. The lowest floor of rooms is raised up off the ground to form an open cloister, but above it there are a mere four corridor levels, plus an added mezzanine, which gives the building a total height of just six stories. It is not a large building, but it is full of muscle. When I first set eyes on it, I experienced shock not at its grandeur, but rather that it was so neat and compact. There is no padding here.

The drama comes from the way in which a loose-limbed linear organization has been strung together to define the volume of the courtyard. There was no reading room in the program, or brief, but the idea of a collegiate courtyard is perfectly suited to such a limited site. Only here it has been transformed by the energy implied in compressing the linear organization with the intersection of many lines of sight at the center of the space thus formed. All the angles, splays, and leanings take on added drama through the compression of the nearly closed form.

The building leans back on struts. The



glass wall which sheathes the rooms leans back too, but at a lesser angle, the difference being made up with setbacks at each floor level, which serve to carry the window-cleaning gantries. The angles in the section are made evident by the return to vertical faces in the top double story.

The angles in the plan are made by changes of 45°. This happens regularly for each structural bay. But one bay is a double bay, with the entrance towers centered on the additional intermediate column, and as this bay is one of the angled ones relative to the open side of the courtyard, the building acquires its careful balance between symmetry and asymmetry. To underline this, the breakfast room occupies a central position while being off-center. It is aligned symmetrically on the central pair of main columns, but attached nevertheless to one arm of the cloisters, blocking the way out at that end and leaving the bulk of the courtyard and the other arm of the cloisters open to the riverside walk.

The cloisters are in a sense the social integrator of the building. They circle the courtyard, but at a lower level, and offer protection and direction in contrast to the undefined activities implied by the courtyard itself. From the cloisters there is access to the breakfast room from the main gate, or to the riverside walk via the ramp. They are the intermediary between the private realm of the rooms and the public realm of the courtyard.

Heroic the building is, but there is nothing inflated about it. Everything is snug as a bug, and the roof of the breakfast room is here happily walkable-on. Even cooking smells, however slight and generally welcome at breakfast time, have been recognized and dealt with. The kitchen vent comes up as a funnel, like a ship's ventilator. A vane mounted on a ball-race insures that it always leans smoothly away from the breeze. Its simple movements provide a literal focus of attention as well as a formal, yet witty, hub.

The shape of the building is subtle in detail, but simple in concept. All the study-bedrooms have been raised off the ground into a privileged stratum. Lined up rationally behind the all-glass facade, the students are directed towards the trees, the spires of Oxford, their careers. But, more immediately, they are directed towards the theater of action implied in the group space placed

The top floor of the dormitory contains duplex suites for the college's fellows and graduate students. Stairs connect he rear mezzanine, largely used for study, to the larger living and sleeping area (below). Descent can be a somewhat awesome experience as one looks directly through the two-story glass wall into the courtyard below (opposite).

inescapably under their noses. The architect, in fact, thinks of this space as an amphitheater rather than a college courtyard and the roof of the breakfast room is intentionally raised as a stage.

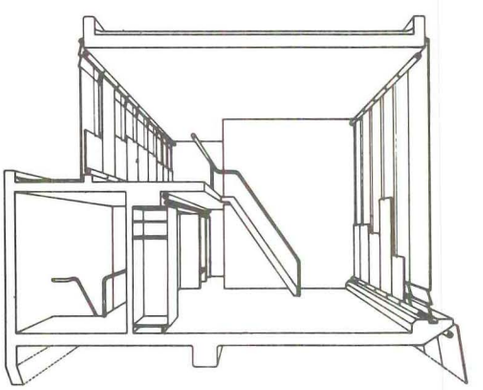
The modest rooms out of which all this drama is created are neatly arranged in a single depth of space backing the window wall. The inner face is formed of built-in storage and wash cupboards that serve as insulation against corridor noise. The corridor is narrow, no wasted space, and finally, the band of service spaces is narrow too. But at the corners where the corridor bends, it expands into the service zone, forming "lay-bys" where students can mingle and have tea in small ad hoc groups. The continuous strip window on this side is sunny and gives views of the entrance, and even, in some places, through the felicity of the raked volumes, affords glimpses of the river.

A remarkable aspect of this building is its concentration. The courtyard is the focus of the building form, the courtyard itself focuses on the stage platform, and the sculptural vent occupies the precise center of the field of focus. Yet for all this intentness, the dislocation of the geometry, which as we have seen arises from the introduction of a double-bay measure in the entrance side, is sufficient to break the inward symmetry and allows the space to overflow outward to the river and beyond. Here is the special Stirling genius for combining open and closed forms. The inherent formality is ventilated through the loose-limbed movements of the animal. Never stuffy, never flaccid, Stirling's buildings generate their own particular kind of conglomerate regularity as they go along.

Educating its users

There is no gainsaying the *strenuous* quality of Florey. Its assurance is a little startling considered as the apotheosis of a mere residential unit. One critic has censured it for its "cruel esthetics," asserting that the undergraduates are not a party to the drama, and suffer agonies of noise and overexposure. A dean of an American ivy league school of architecture has assured me that the building is, simply, fascist. Has the architect thrust greatness upon tender shoulders unable to bear it?

Even as outsiders we can feel small. Approaching, we are likely to be somewhat intimidated by the massive overhang and the token towers of the entrance; scanned by amateur gunmen distributed along the continuous strip windows of the redoubt, only momentarily safe while passing under the cloister, finally subjected to multiple crossfire if we mount the podium and dare to take our stand on the raised terrace. To experience this building even as a visitor is to become conscious of scrutiny and exposure. Does it not expect a degree of self-confidence and social assurance which may not come easily to undergraduates?

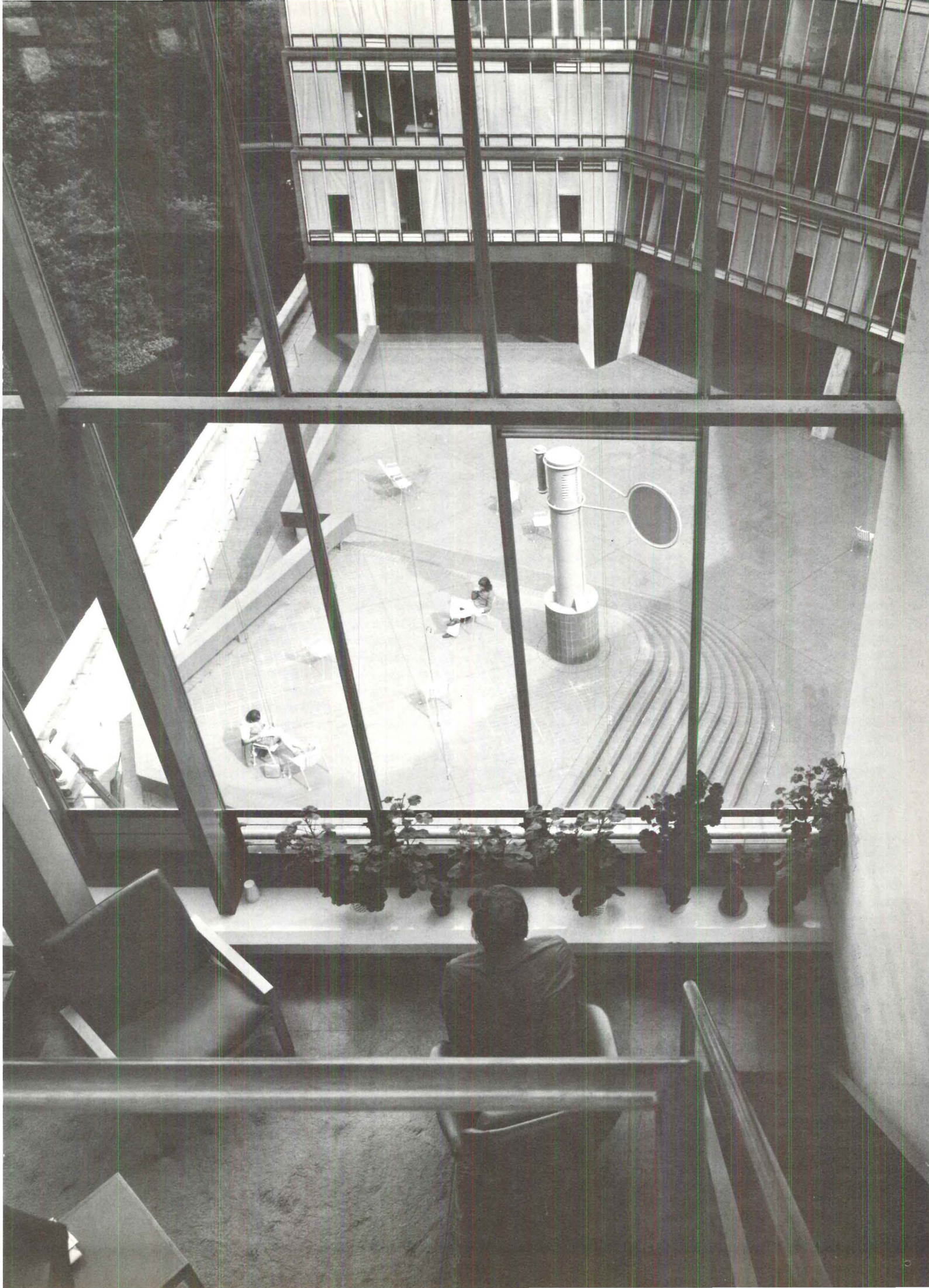


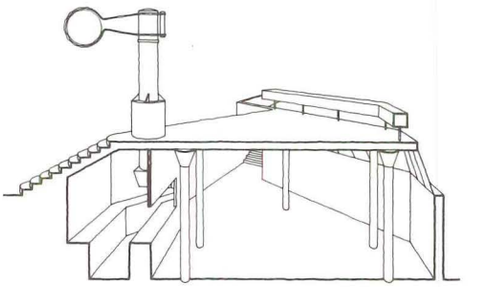
SECTION THROUGH DUPLEX SUITE

Inevitably there have been criticisms. One problem has been sound leakage between rooms. This appears to happen in two ways: first, through the single-skin webs where the room partitions meet the glazing mullions—a fault easy to remedy, and currently being dealt with by the addition of insulating pads to either side of the web. More difficult is the spill of airborne sound between adjacent rooms due to the ventilators being concentrated in two parallel rows, at bottoms and tops of windows, and this is most noticeable in warm weather when all the ventilators are likely to be standing open.

But more crucial is the sense of outraged privacy, and this seems to derive from the visual aspects. The all-glass wall which forms one side of the not-very-deep and fairly small individual rooms would be a source of exposure were the building to be in the form of a straight block. The looped form of the block intensifies the exposure, both as regards visual privacy from the court itself and from the other rooms across the other side.

The architect's answer is to point to the regular system of rollerblinds. Each segment of glazing has its blind and every inch of exposure can be canceled at the expense, naturally, of views out. Originally, the blinds were intended to draw up from floor level, so the occupant could make a sill at intermediate positions. This would clearly have been better and it is a pity that this solution had to be shelved to cut costs. The architect had thought of his responsibility to provide the technical means to operate the building in line with its implied lifestyle. However, it appears that the inmates are so far strangely passive in seizing the opportunities they have been given to modify their environment. The architect had certainly hoped that the students would





The breakfast room (shown in section at left) is enclosed except for a clerestory area that looks out on the riverbank trees. It is located under the stage portion of the courtyard. Stirling formed a sheltered walkway under the building by raising the entire courtyard to waist level (opposite). Interior floor landings offer views of the breakfast room and courtyard (bottom).

make more varied and imaginative use of the blinds.

It is difficult to be sure, but it seems possible that the lack of privacy which some students have complained of is as much due to psychological conditioning as to actual physical conditions. Because the glass wall is expressed so nakedly, it seems impossible to reduce it to a mere window, room by room. A thousand tiny windows in the traditional college could just as easily harbor private eyes or FBI agents, but they don't appear so ostentatiously directed at *us*. Few users are sophisticated in their understanding of relative light levels, or understand that when one can see out, it does not follow that others can see in.

A clue that suggests conditioned responses to the unfamiliarity of the building comes with the strange complaint, voiced by a few students, that "the showers are too low." In fact, the shower compartments are of normal room height. But the horizontal window strips cut across them at chest level and it sounds as if some students feel they must crouch below the line of view so they could offend no chance spectators with their hairy chests. (Some of these windows were blown out by a nearby bomb explosion—not directed at Florey—and have been replaced with opaque glass, thus becoming mere cubicles again.)

Perhaps most stressful is the very rigor with which the architect has classified and located the different functional zones. In old college quadrangles, rooms are generally fitted together in a haphazard way, with little sense of direction. At Florey there is the possibility of total exposure and total exclusion. This is a range of choice most students have not been offered before and don't know how to use. It draws attention to details that would normally be ignored. And there are sensuous overtones in the blatant ordering of every detail which could make it disturbing to an adolescent.

One student expressed his criticism of his room by kicking the structural column. "I'd like to get rid of this," he said, "do you think it could be managed?"

At the level of wall posters and toasted buns it may indeed seem reasonable to complain about sharing one's room with a structural column. It is inconvenient. Yet Architecture (big A) is tolerated in traditional decors where removal of Ionic pilasters would ease furnishing. Such features are rarely complained of, however, because their status as symbolic objects is recognized. Articulated structures and the free-standing column are not yet so appreciated. When columns are exposed, this is thought to be the inefficiency of the architect. Perhaps it is time for the modern architect to come clean and confess the formal content of his designs as much as their utilitarian aspects.

It is possible that some students in Florey are still suffering from a special disorientation during their stay in this building. They are all freshmen, half of them on scholarship; not only is this an entirely new atmosphere, it is also different from what they expected to find at Oxford. Graduate students who have had their fill of casement windows and low oaken beams would probably respond better to this new lifestyle. It is certainly a pity that plans to put counters, stools and easy chairs in the wider parts of the corridors were cancelled halfway through the building's construction; these could have provided a congenial group area.

On the other hand, the breakfast room has entered into a more extensive use. It increasingly serves as a social room and seminar space. Critics have asked why, placed as it is on the riverside, it has been given no views of the river. In fact, it is the lack of immediate view (other than through clerestory views of trees) that gives it intimacy and privacy.

It seems possible that in spite of earlier misunderstanding, the character of this building is becoming more acceptable. The occupation of a new building is chancy at the best of times. Pre-existing expectations may have been shaped by other buildings and if the social group is newly formed, there will be no tradition or ritual to incorporate the new situation.

In the case of Florey, the impression made by the building is so strong that it may appear to be imposing rather than facilitating certain social activities and attitudes.

Aspects of a building which at first appear strange to users not familiar with the conceptual framework of the architect may cause them to misjudge and misuse the new environment. But providing the symbolic realm has a basic practicality, the building will become absorbed into daily life. A class of students has now passed through Florey and survived. It turns out that the building may not be any more than the more venerable parts of the college, an instrument of torture nor an exposure meter.

The culmination of a form

Florey (1967-71) seems to be the last of a series: it completes a set of four major projects by James Stirling of which Selwyn College (designed 1958, but never built) was the first; the Leicester Engineering Building (1959-63) the second; the History Faculty at Cambridge (1963-68) the third.

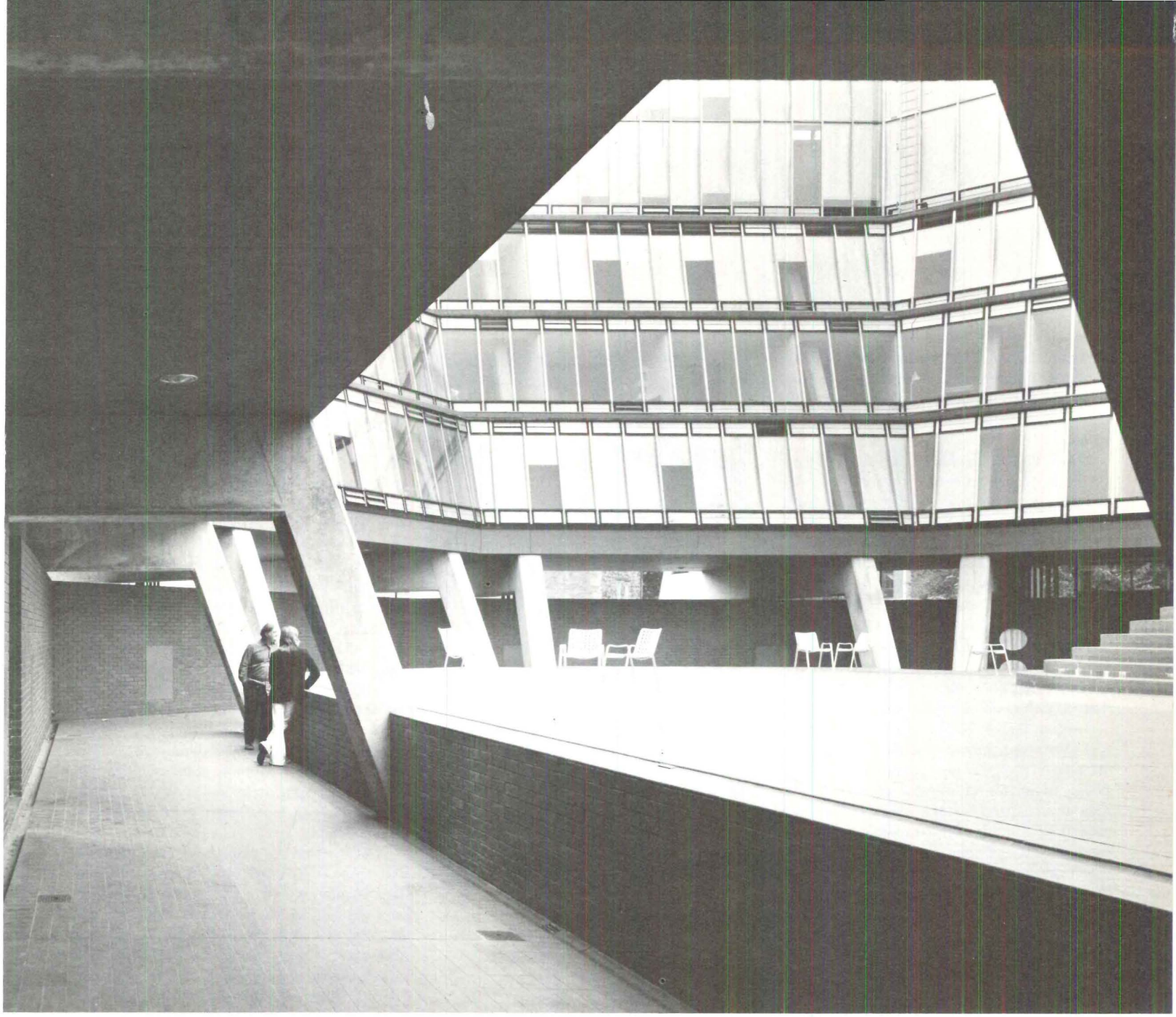
The common factor in all of these is the constructional vocabulary: a concrete frame sheathed variously in red brick or tile and glass. That they form a series has been acknowledged by Stirling. It is Florey's position as last in a series that perhaps accounts for its assurance—and also for a certain insouciance—the throw-away character of an easy masterpiece which has not specially taxed the resources of its designer.

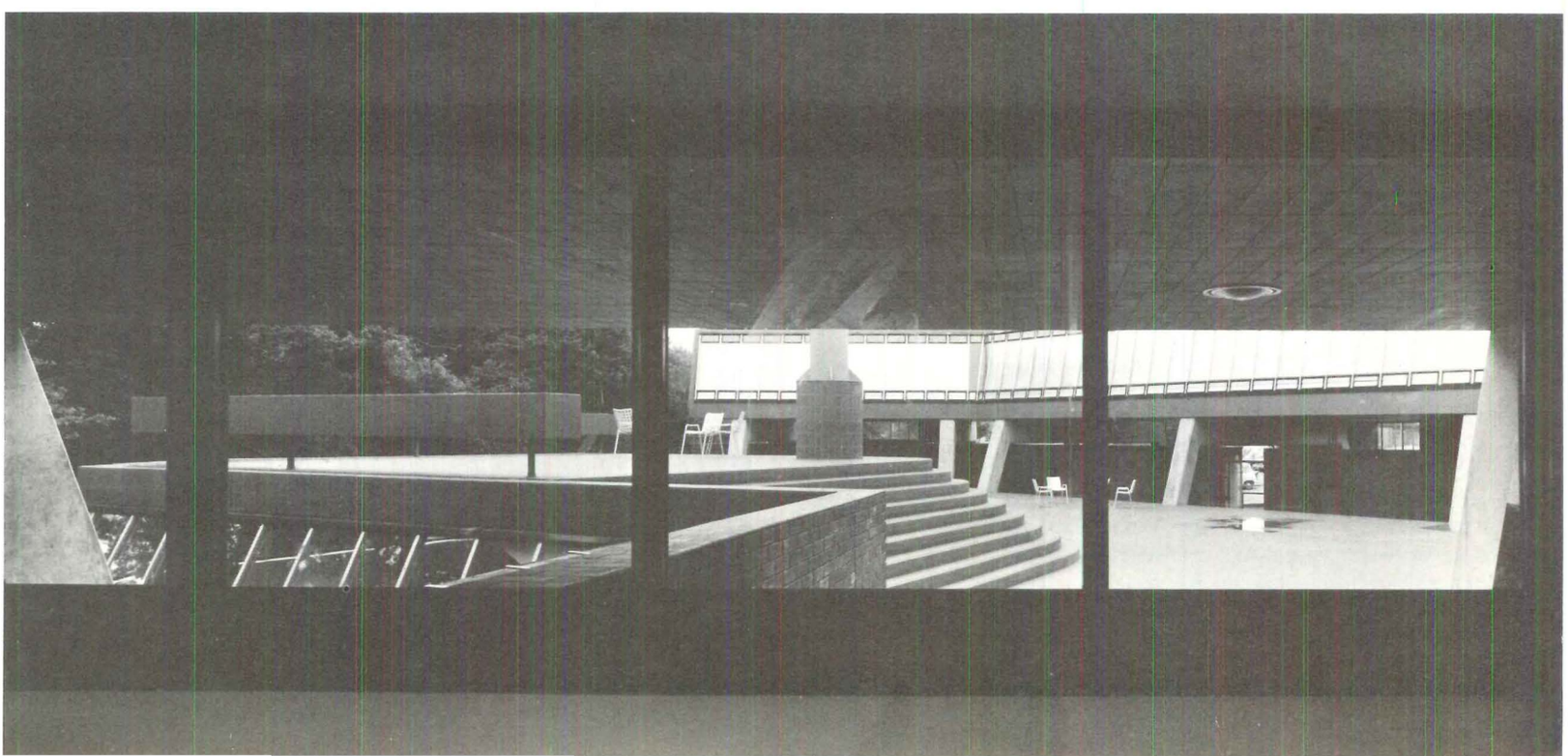
The red-tile style is not the only common factor in these four projects: they are all part of a larger story. Whatever the range of materials used, this architect shows himself to be obsessed with the expression of functional elements selected from the program, and with the creation of self-sufficient plastic entities, defined by a selection of structural elements whose technology is insistent and explicit.

Still, the main concern, which shows up in all of Stirling's work is an insistence on the prior organization of the building program in terms of differentiated functions united by a circulatory system. The circulatory system—corridor, lifts, stairs and halls—is seen as the primary organizing principle.

In commenting on the Stirling and Gowan design for an Old Peoples Home (1960-63) Stirling has said: "the corridor-route through the building is the organizing element of the plan. As it moves around the building, it swells out or reduces according to location, widening where it is also the lift lobby and when it becomes the entrance hall, narrowing between bedrooms and service rooms."

Along with the idea of the corridor as an organizing route, this comment reveals a further concern which has manifested itself ever more clearly in subsequent designs. The corridor swells and contracts according to its localized function—more important spaces





Except for the entrance towers (see plans) the whole building cants backward from the courtyard, visually and structurally propped up by the splayed columns that project from the rear of the second story. The building is oriented toward the river, which has a public walkway along one bank (opposite) and separates Florey from the rest of Queens College.

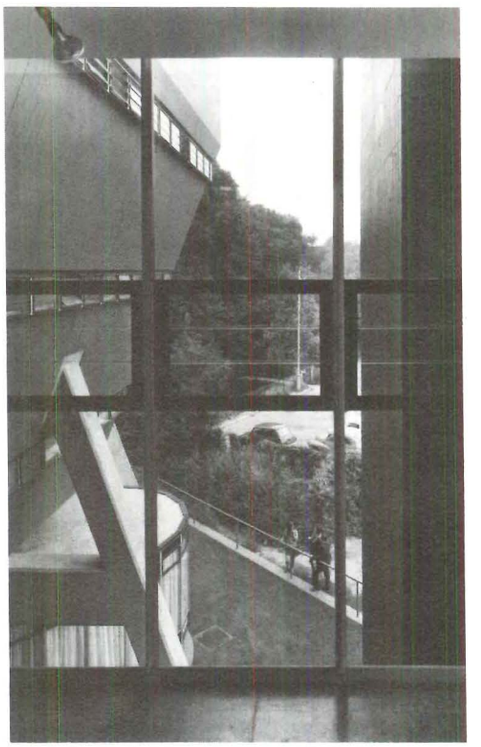
are achieved not by gratuitous addition, but by squeezing them out of the essential circulation. It accounts for a quality of leanness and tautness which has become a Stirling hallmark.

The Old Peoples Home is especially interesting as an antecedent to Florey. Although individual rooms occur on both sides of the corridor (at Florey the corridor is more strictly single-loaded) it is formed into a not-dissimilar closed courtyard to provide a common outdoor space for the residents. As at Florey, the angles are formed at 45°, allowing opposite faces to register as parallel. The geometry is looser, but combines a surface freedom with an underlying discipline, with localized regularities in the shapes of the principal common rooms.

Another aspect of this design, and a second consistent concern of the architect, is the deliberately limited range of constructional materials employed, along with a regular structural system. The windows are contained in long vertical openings so that the character of the brickwork as primary structure is not compromised. But each floor, as it rises, occupies less of the plan area, and this is made clear through floor-level setbacks in the brick face. As with the sparing use of space, the sparing use of constructional means converges to the point of demonstrating the organization of the building. The setbacks in each floor, indicate a fastidious measure of the vertical dimension. It is both structurally and functionally that the building contracts as it stretches upwards.

Stirling's interest in brickwork and glass stems at the rational level from his sense of economy. Both have traditionally been cheap materials in the British way of building. (Bricklaying is just now becoming relatively expensive.) The argument for economy, however, is not just a money argument —it clearly relates to the architect's feelings for economy of means. His strict measure of space and structure are the twin generators of a value system. His buildings stretch into existence from the original abstract diagram taking on meaning progressively along with their concrete particulars. This is the secret of Stirling's morale. Form with him is the result of a process of realization, not an end state to be imposed whatever the circumstances, nor an image to be sought.

As noted, Selwyn College has not been built, but it is the first of the red-tile projects



for university clients which were to establish Stirling's reputation as a free-thinker. It consists of a string of residential rooms and suites, organized in horizontal groups of four units per landing, approaches by the traditional Cambridge staircase with service rooms alongside. These "sets", however, appear as distinct groups only on the staircase side, where the service rooms are arranged above each other in towers. On the room side, the suites form a continuous band of accommodation with a continuously glazed wall. Although there are only four stories, each one is set back slightly on the corridor side, with corresponding projections on the room side. In addition, the glazing surface breaks forward at the half-room height, making in all, eight steps forward from the brick plinth. In the plan dimension, different angles in the glazing for each room combine with bends, at each staircase point, to produce a long protein-like chain of a building which can loop freely around the extensive site.

It is fascinating to pick out the rational and romantic elements in this design. The organization is exact; the rooms, the storage cupboards and the clerestory windows all proceed in bands. The all-glass facets are allowed to vary, relative to the structural crosswalls, by the insertion of a rectangular room at intervals. This swinging glass wall becomes a free element which does not betray the regularity (on the hidden side) of the staircase sets. Stirling can choose very precisely where to relax the demands of regular form so as to keep the scene moving and us guessing. The device of dividing the glass wall by half-story heights creates an ambiguity of scale, which sufficiently detaches the building from its normal measure and allows it to emerge as a plastic object, in a sense incredible and for the moment inhuman, a shock to mind and eye.

But with the shock of something extraneous comes also a prompting of the memory. There is also a suggestion of

Continued on page 94

Facts and Figures

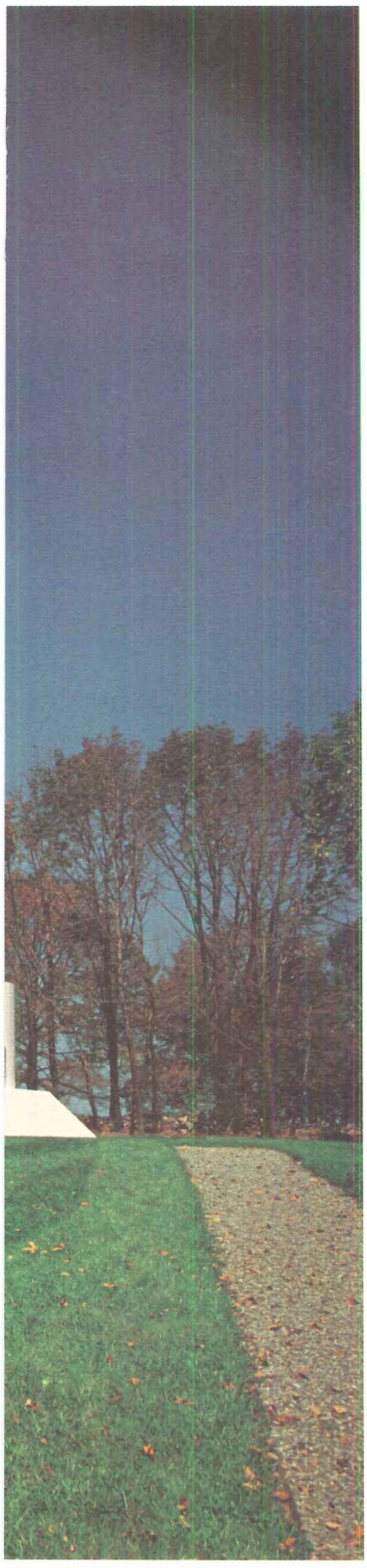
Florey Building, Queens College, Oxford, England. Architect: James Stirling; Roy Cameron, associate-in-charge. Engineers: F. J. Samuely & Partners (structural); H. Bressloff & Partners (mechanical and electrical). General Contractor: W. E. Chivers & Sons. Building area: 26,000 sq. ft. Construction Cost: £ 320,000.

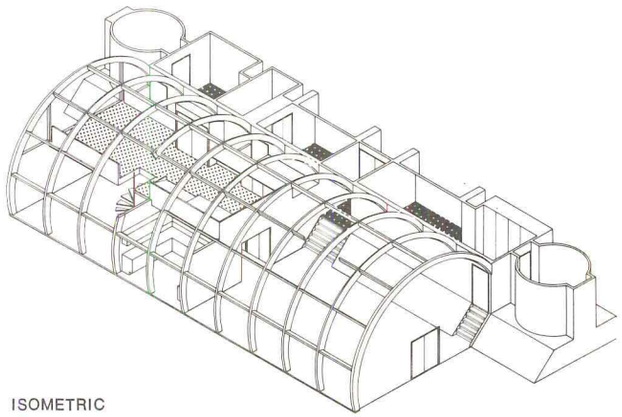
Photographs: Richard Einzig.

Building suppliers listed on page 99.

A benign machine for living

Despite its rural setting, this house was designed by its owners as a prototype for a linear city





ISOMETRIC

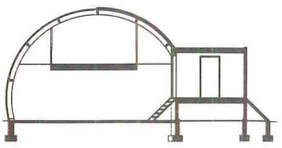
Anne and Tony Woolner are two young graduate architects who believe designers should experiment on themselves first. Their new home (for which Tony did the design concept and Anne worked out the structural calculations) is actually a prototype for a new urban structure, using new forms, methods and materials.

Ironically, the house is located in the country, in North Salem, N.Y. It sits on a meadow on top of a gently rolling hill and is surrounded by farmland, broken up only by a distant reservoir. But, say the Woolners, the house is deliberately adaptable for urban and commercial as well as rural and residential use. The present site is on a north-south axis with Manhattan and, theoretically, if the south end of the house were extended 61 miles, it would create an extension of the city, both residentially and commercially.

The two most striking features of the house are its interior organization and its vast expanse of clear plastic. Both are indirectly traceable to the Woolners' experiences as students at the Rhode Island School of Design and, surprisingly, as employees of the architectural firm of John Lautner, a flamboyant Californian specializing in residential wood construction with large expanses of glass. At the college, the Woolners were directed toward working with large-scale urban problems. At Lautner's they were impressed with his bold handling of wood and glass, but also rebelled against him. Combining the material skills they had gained with their early college ideals, they produced the first sketches for their urban-prototype house in the fall of 1969.

The organization of the house is based on the separation of "private" and "public" areas. The major, arched section of the house contains public spaces, including the living area, kitchen, workspace and a freely suspended studio balcony over the workspace. The rectangular portion of the house is the private area and contains bedrooms, baths, a utility room and a darkroom.

The contrast between the public and private areas is sharp and logical. If it were built at full urban scale, the public, or arched section would contain commercial activities, while the rectangular portion would contain residential spaces.



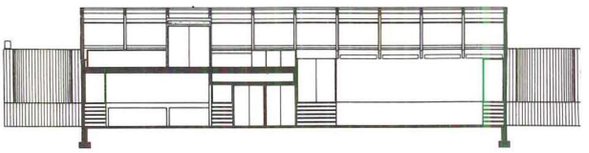
CROSS SECTION

The logic of the division is maintained by the structural forms. The arched section is essentially open and accessible, with a free interplay of indoor and outdoor effects under wide expanses of clear plastic. The Woolners can have dinner and watch a sunset; they can turn off the lights and enjoy an evening under moonlight; they can experience the subtle variations of raindrops and wind. On sunny days, the house is bathed in warmth (some removable opaque panels solve most excess heat problems); even on cloudy days, the house reflects enough light for the Woolners to live without electric light support. These special effects, say the Woolners, give their home soul.

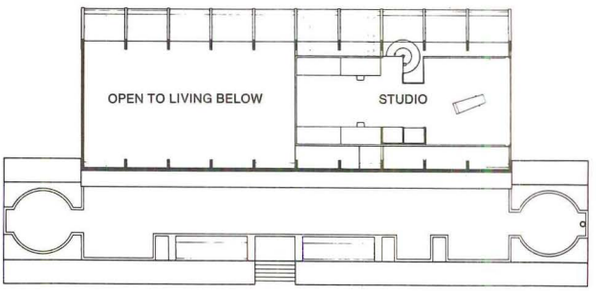
The arched structure is 70 ft. long and consists of 11 laminated wood arches spaced 7 ft. on center, for a total of ten bays. Five of the bays are the living area, two are the kitchen and utility area and the last three are the workspace. Heat-formed, ½-in. clear plastic sheets start at the floor and rise to the midpoint for the arches to lend a greenhouse effect. Purlins and planks, commonly used for spanning churches and sports facilities, complete the structural form.

The private, or rectangular part of the house is of standard wood construction. It sits on a 4-ft. high pedestal base with sides that slope at a 45° angle. (This becomes a crawl space for mechanical systems in the Woolners' concept for a future city.) In definite contrast to the open, arched form, the rectangle encloses the private areas in a largely windowless facade broken by an entry and notches, which correspond to the three areas within. The first area is a master bedroom, bath and dressing area; the second, a guest bedroom and bath; and the last, the darkroom and storage area. The bedrooms are exceptional because they do have windows, but the windows are set at chin height to assure interior privacy, then inclined up and back at a 45° angle (an echo of the pedestal shape) to increase the Woolners' view of the outdoors.

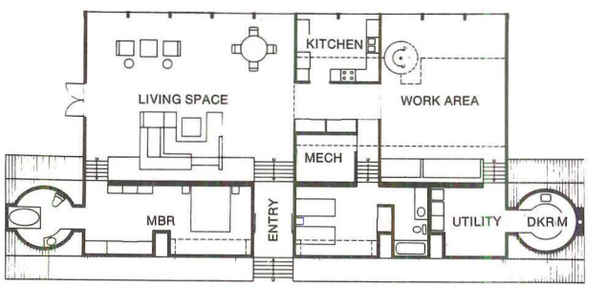
Inside and outside, the house is white. Under the arches, the floors are of white asbestos and the walls are painted white to increase the bright and spacious ambience. The white tones tend to



LONGITUDINAL SECTION



BALCONY



FIRST FLOOR

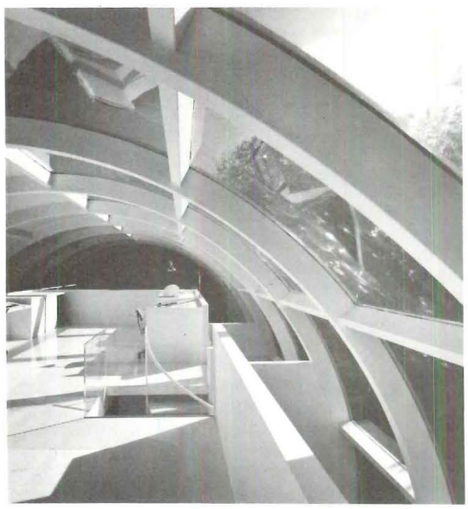
At far left is a view of the living room from the elevated studio, which sits over the kitchen and workspace (see plans and sections). The view is similar to one from inside a terrarium, but in this case the trees are outside, the living areas inside. The furniture seems to line up in square contrast to the cylindrical shape of the structure. Below, the opposite view of the living room shows the geometry of the partitions between it and the workspace and kitchen on the same level, the studio above.

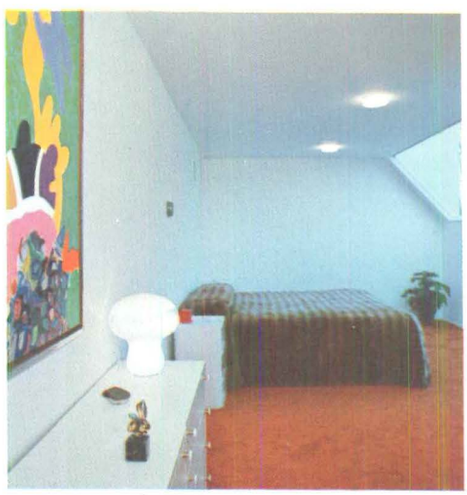
The studio is shown from both ends (below and right) and reveals a spacious sunlit area equipped with drawing boards overlooking the trees, and with lounge furniture for creative interludes. The wide scenic vistas of the cylindrical portion of the house are in sharp contrast to the enclosed privacy of the rectangular wing, which includes the bedrooms (middle photo below). A visual compromise seems to be the kitchen (lower photo), which is faced by clear plastic on one side, yet gains a feeling of enclosure and hominess from the cantilevered overhang of the studio above.

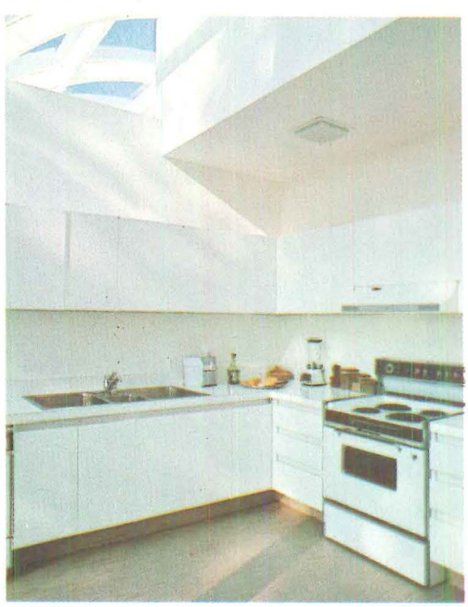
obliterate differences in surface textures, making the building seem as if it were cast from a single plastic mold. In the bedroom areas, the furnishings and rich Italian carpeting work with the slanted window enclosures to create a warm, protective environment that is brightened but not made cold by the surface whiteness.

Ideally, the building should have been built of plastic or some other material heavy with technological connotations—at least that is what the Woolners wish. Even using relatively conventional procedures for this prototype, the Woolners found themselves in a constant hassle with suppliers and engineers who kept telling them they were trying to do the impossible. The Woolners fired an engineer when he insisted that the arch to steel connection (hidden in the wall) could not be made without distorting the shape of the arch. (The connection was made successfully.) They were told that the roof over the arches could not be white using wood, but the Woolners managed this too. They were told that numerous details would never work: the 45° windows; the balcony; using wood on the horizontal; bringing wood down to grade; putting in a white floor; omitting sunscreens and using clear, not tinted plastic. The Woolners—with the support of a contractor who doggedly maintained the faith—persisted and they got what they wanted, eventually.

Construction began in spring, 1971, and did not move until fall, 1971. For two months there was only one carpenter on the job. All through the winter of 1971-1972, the plastic leaked because the wrong sealant was used, and at times the Woolners thought they might have to give up their waterlogged folly. But a new sealant solved the problem and the Woolners' optimism returned. They moved into their new house, where they rise with the sun to a constantly changing, living environment that each day begs to be explored all over again.



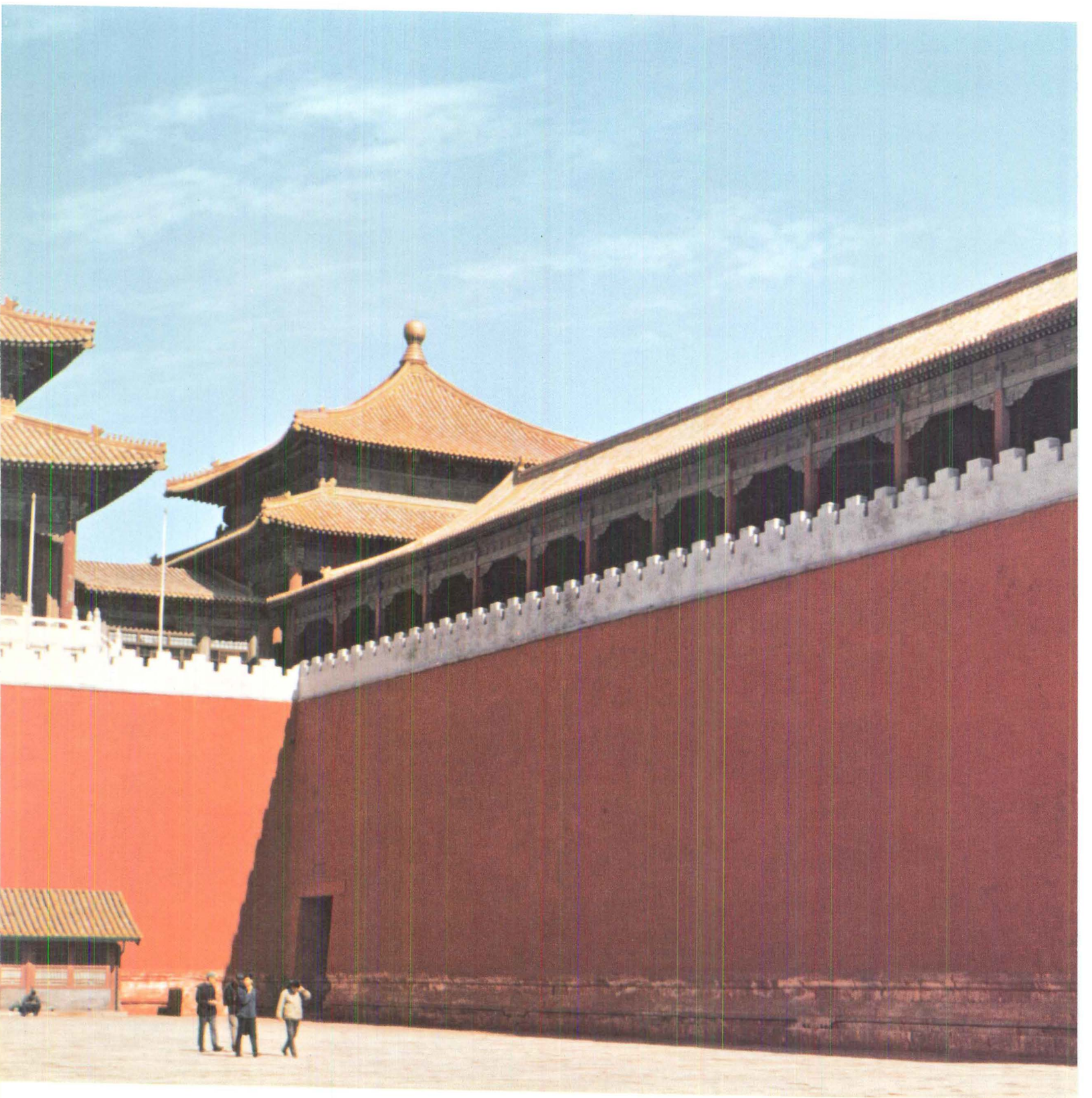




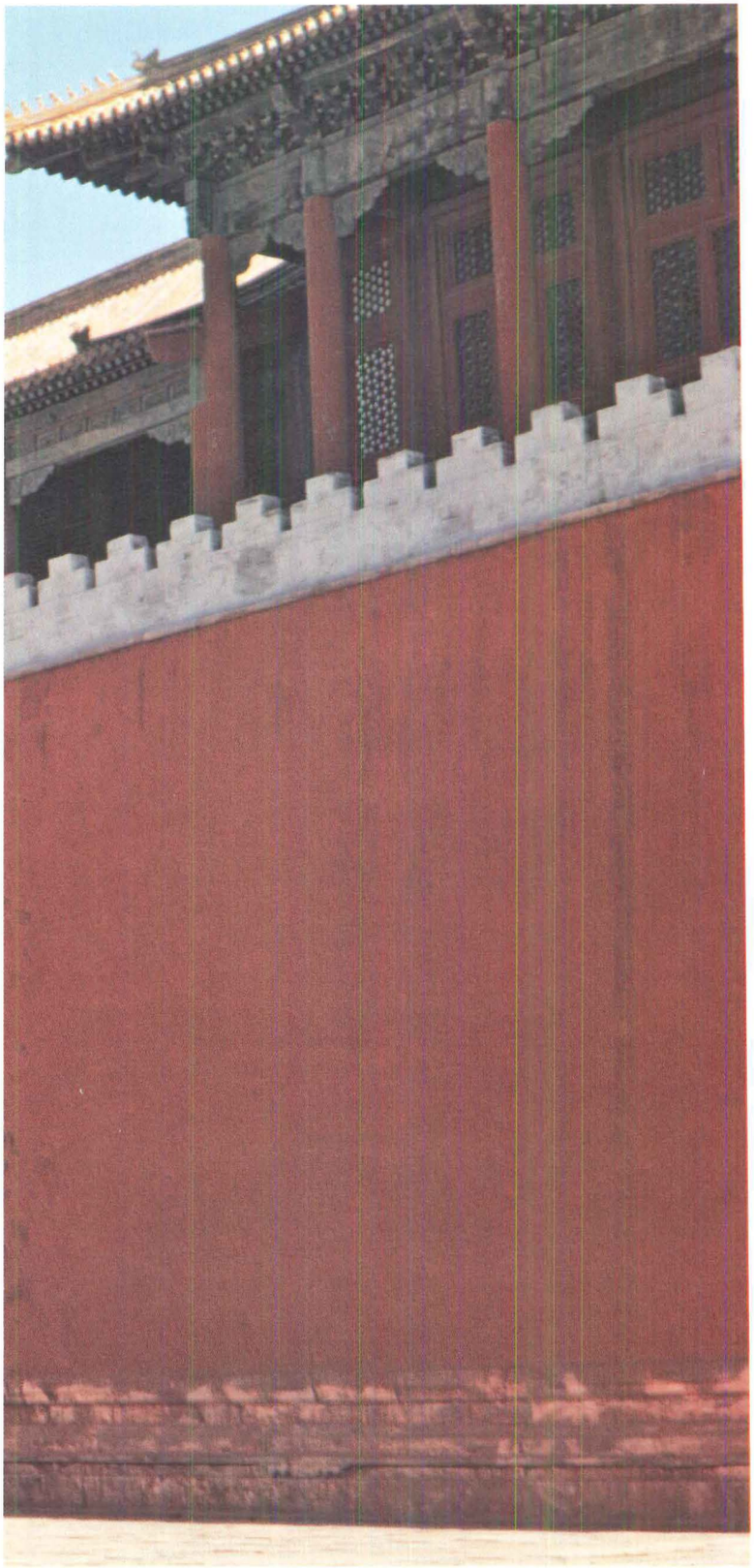
Facts and Figures
Woolner House, North Salem, New York. Designers: Anne and Tony Woolner. Engineers: Henry Gorlin (structural); Charles MacDonald Associates (mechanical and electrical). Contractor: August Nelson Inc. Building Area: 3,500 sq. ft.
Photographs: Louis Reens
Building suppliers listed on page 99.

China Today

An architect's photographs and commentary



Below, one side of Wu Men (Meridian Gate) at the entrance to Kukung (Palace Museum), Peking, 14th century. Right, mural of a poem by Chairman Mao Tse-tung, Tientan (Temple of Heaven), Peking.



Henry C. K. Liu lived in the southwest of China from 1941 to 1946 before coming to the United States in 1950 from Hong Kong, where he was born. Now a practicing architect, president of Liu Urban Design Associates, New York, and a faculty member at Harvard University, Mr. Liu has just returned again from China, after an enviable five-week tour of the mainland. He speaks fluent Chinese as well as English, which allowed him to "feel" China, its people and their aspirations as few other westerners could. We asked him to share his architectural reactions with us—China's new buildings, the ancient monuments, the education of its architects. Robert Jensen conducted the interviews and their editing; he is an architect and architecture historian now teaching at Queens College, New York.

Architecture Plus: Could you first tell us the circumstances that took you to China, and the places you visited?

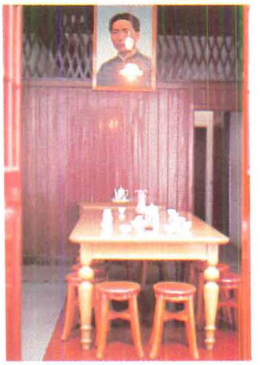
Henry Liu: I was in China from September 25 to October 22 of 1972 as a guest of the Ministry of Foreign Affairs, my client, for whom I redesigned the Mission Building of the Chinese Delagation to the United Nations here in New York. I was in Peking for October 1, which is the National Day celebration marking the establishment of the Peoples Republic of China in 1949. I had fairly extensive meetings with planners and architects, I visited universities in Peking, a people's commune outside Shanghai, had some enlightening visits to housing projects and factories, and also went to Nanking, Hangchow and Canton. During all the trip I was able to photograph freely—buildings, street scenes, the countryside and people.

Q: There seem to be quite a few new buildings in your photographs, which perhaps we should talk about first. How should we interpret the neoclassical Washington, D.C. feeling of these new public buildings, hotels and schools? Would you say they are authoritarian?

Liu: China today is far from an authoritarian society, which I hope will become clear in this interview, but of course there are expressionistic problems with these buildings. First, it's a worldwide problem of official buildings. I mean, with American pride regarding individual expression, we could produce a disaster such as the Kennedy Center. A second problem is the Chinese have had little time for reflection about architecture as symbolism. It will take some time for an architecture responsive to the new social conditions arising in China to emerge. But I'm not terribly concerned; I suspect that as the Chinese economy develops there will be a flowering of architecture in their own style for their own needs, rather than the transplanting of Western influence. I had long discussions with architects and others about how one expresses this new society architecturally, but it's a problem no outsider can solve. I pointed out to my colleagues in China that the direction they have been going in architecture would not, in my opinion, lead to a satisfactory solution, and they more or less agreed. They have to seek their own architectural solution, and it's a matter of diverting energy at the proper time. I have no doubt that they can do it.

In the meantime the Chinese do things pragmatically, for instance in a housing project designed by the students of Tsinghua University . . .

Hungchow tourist attraction, the 40-ft.-high Buddha, no longer used for worship.



The room where the first National Congress of the Chinese Communist Party was held, Shanghai, 1921.

Q: Students in the School of Architecture?

Liu: That's right. It's a prefabricated project, and the windows were inserted at the factory within wall panels. The students got practical experience in designing a real project and then building it, making and learning from mistakes and best of all, making real decisions. In this building, they had the idea of installing the windows at the factory to cut construction time, but the glass kept breaking during site assembly, so there was a big discussion about why it broke. Some argued that it should be installed on the site but then finally it was decided the glass needed to be thicker. Architects, workers, truck drivers, representatives of the glass factory—all involved participated in solving the problem. The Chinese today have a very healthy attitude about mistakes: they know mistakes will be made, they don't hold mistakes against people, and they learn. There is a lot of talk about "the three integrations": the integration of the political leadership, the workers, and technical experts to solve problems, at all levels. Not one of these three groups have a superior position in making decisions: it is a common and equal collaboration of the three.

Q: Many apartment projects look like similar housing anywhere in the West. But there are interesting signs of individual expression occurring on balconies, for instance.

Liu: You know, the Chinese have such an individualism about them, that the last thing you have to worry about in China is losing it. You see small piles of brick on a sidewalk—they are constantly adding to these buildings, putting adjunct structures on the open areas, all done pragmatically based on local residents' decisions. I would call this approach utilitarian; they're still struggling to overcome certain traditional attitudes, but you can sense that the relationship between individuals and the relationship of the individual to the group is something new. My experience in the United States has not seemed to prepare me for fully understanding these relationships.

In the United States we admire and make heroes out of people who distinguish themselves, while at the same time being suspicious of anyone who claims a denial of self-interest. In China today, and this is a very basic point, it is quite impossible for the individual to alienate his self-interest from that of the group or to advance his own welfare at the expense of the group. Decisions necessary for the national interest are made centrally, but decisions about what work to do and the organization of daily life are made within the very smallest groups in a decentralized manner.

Q: In making these decisions about work and daily life, it would seem crucial that the individual agree with the group's assessment of himself.

Liu: That's right. And he normally does because he participates in the assessment within his group. This may be a good time to describe a particular urban hierarchy in the city of Peking—to give an idea of an individual's relationships to the social system. Peking, with a population of seven million, is administratively divided into four urban districts and five suburban districts. In one of the urban districts (the West District) there happen to be nine main streets, as they call them, and one of these main streets has about 60,000 people or 14,000 families living within its limits, and governed by a street "Revolutionary Committee", composed of democratically elected representatives. This particular street has 132 alleys leading off it to residential compounds; and about one hundred families reside off each alley in, say, ten to twenty compounds, either older buildings grouped around a central court, or new apartment-style housing, both of which you see in these pictures. There are ten elementary schools for this main street, seven local factories of about 300 workers each, with the remaining work force working in other parts of the city. Home production brigades of three to five families also make products such as embroideries. An urban dweller lives in a compound of thirty to forty people—eight to ten families—that operates as a local committee; that committee decides on what the compound should consume and what it should contribute in terms of the national economy, on a pragmatic basis. If an individual wants more than he's been getting, or a change of work, he can discuss it with his local committee, and if the committee thinks his request is just, it will be granted. A person subscribes to those decisions because he participates very directly in making the decisions. Not everybody is doing what he wants to do in China today, but if someone is dissatisfied with his conditions, he has confidence that the system will accommodate his wishes as best it can. Every citizen can appeal his complaints to the highest authority directly if he disagrees with the decisions of the hierarchy of committees. There is little dissatisfaction about their social or economic development, and individuals know how far China has come in the last twenty years. Before, our comparisons of them in the West might be with India or Southeast Asia: now China is more frequently compared with the United States, the Soviet Union or Japan.

Q: Tell us a little about the universities and their organization; particularly, what is the structure of the architectural schools?

Liu: The universities are not exclusively academic, in the way ours are. For instance everybody is sent to the countryside periodically to work with the peasants and the masses . . .

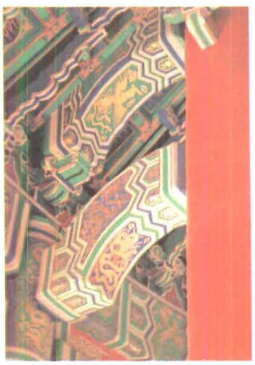
Q: Literally everyone?

Liu: Yes, literally everyone. Applicants from peasant backgrounds and worker backgrounds and soldier backgrounds can have priority in entering the university, and applicants are also screened on the basis of their political attitude.

Q: It must be very difficult to screen such attitudes.

Liu: Well, again it's a decentralized judgment. An applicant is nominated by his local committee, and when you live with a person for ten years you know what his attitude is. You know if his aspiration for a university education is based on a disguised desire for personal privilege. Most applicants to be considered seriously must have had no less than two years of physical labor; the Chinese believe it purifies one's attitude. By doing physical labor and living with peasants, workers . . . you begin to understand their problems as well as their aspirations and the strength and beauty of their values. In Chinese universities, especially since the Cultural Revolution, everyone is encouraged to guard against the so-called "three alienations"—alienation from the masses, from "the correct political attitude", and from reality, a term that might be compared to American pragmatism.

Architects are trained in universities, of course, and generally



Flying buttress in Qinian Dian (Hall of Prayer for Good Harvests), Tientan (Temple of Heaven), Peking.

An interior of the Peking Railway Station, erected 1959.

more than one month of an architecture student's year would be spent in the countryside. About four weeks are spent working on construction in the countryside and about two weeks are spent in farming. In architecture schools they have instituted open exams with questions that are known beforehand by the student.

The faculties work closely with the students, with both academic learning and learning by doing of equal importance. You don't wait until you finish school before you do productive work as an architect. Students design real buildings under faculty supervision, and participate in construction, as with the apartment project we just talked about. The four tasks of a university student are theoretical knowledge, working on real buildings, farming, and the fourth is military training, which is universal. Five percent of their time is military training.

Q: Besides the five percent military training, how long is an architect in the university environment?

Liu: His curriculum has been shortened to three years. Actually the architectural curriculum is three and a half years, because half a year is at the high school level; a sort of pre-architecture for those who know they want to become architects. Once in the university, they have much the same curriculum that we have. I have a feeling that the architecture curriculum in China is in a state of flux, as it is in America today. The major difference is the relationship between theory and practice.

Q: Once an architect is graduated after his three and a half years, does he receive a diploma? And what is the nature of his work?

Liu: He receives a diploma, a degree in architecture. There is another degree in construction, under another curriculum; they're not the same thing but they're not as separated as in American universities. It is not possible to practice as an architect in China today without being involved in construction; field supervision, construction management or physical labor.

Q: Of course there are examples in the United States of a man graduating from architecture school and going into an allied field like construction, or even an entirely different field.

Liu: That's right. Except, in America he has to make a choice. More importantly, when he goes into construction management he is leaving design. In China that choice is not necessary. The Chinese architect doesn't have to leave design to work in another field of building.

Q: What are architectural offices like, within this unity of design and construction you describe?

Liu: There is no such thing as a private architectural office. A graduated student goes into one of the municipal government architectural institutes, not unlike the British London County Council. The one in Peking I visited is called the Peking Architectural Design Institute, and it has 1,000 plus workers, of which there are 540 technically trained people—architects, engineers, etc. —and the rest clerical or management. There are seven units in this institute of roughly a hundred persons each—some are bigger, some smaller—and in each unit there are three sub-units. These sub-units are almost like project teams. There is a national program projecting and specifying the work to be done by these municipal institutes; the national program is based on coordinated adjustments of programs submitted by the local institutes themselves defining the amount and location of housing, schools, factories, which are to be designed and built in each city or rural area. For example, the Peking Institute designs about 1,800,000 square meters of buildings a year of which 60 percent would be housing and schools, 17 percent would be industrial, about 4 percent would be commercial, with the remainder being miscellaneous special projects.

Q: Would the Peking Institute specify which projects for Peking it wanted?

Liu: Only within the allocations of the national program. There are so many resources allocatable to the projected need, as defined by the national plan. Each city is given its share of these resources —the ability to purchase materials, machinery, divert manpower, etc.—and the local institute then decides how to implement its sub-program.

Work phases are divided into preliminary design, definitive design, working drawings, the same as in the United States. But the project team of about twenty people would go into the field and help build the building. The design institute has a working relationship with a construction agency (a government agency like the institute) which has the responsibility of building; the two work very closely together, and the architect participates in construction, although it is not his major responsibility. The three integrations I mentioned earlier are analogous here to the user organization, the construction agency and the design institute.

Q: So there are pragmatic changes in the working drawings and contract documents as the building goes up, based upon construction and user decisions?

Liu: That's right. Maintenance and repair work is carried on in this same manner. The Chinese don't have construction bids and don't have the contractor working in a business relationship with the client, with the architect as independent supervisor. Everybody's in the same boat: if the building goes over budget it's everybody's problem, not just the owner's. The construction agency does not sign a lump-sum contract and then try to load everything on as extras.

Q: What were the building materials and construction techniques you observed?

Liu: The concrete prefabrication plant is one mechanized unit for producing industrialized building elements. They locate these to minimize transportation in regions throughout the country. The standard buildings are generally built from precast concrete while special function buildings are usually cast-in-place concrete. Big span roofs are steel. The People's Assembly Hall in Peking, for example, has a large dining room and a 10,000-seat auditorium spanned by two-way trusses made of steel. Prefabricated and standardized schools are semi-mechanized in construction, and in such medium-sized standard buildings, structural beams, columns and walls are all concrete. They use a lot of brick and a lot of concrete block. Wood is used, but mostly as finish and decoration; there is little evidence of new structural timber. The buildings for

Continued on page 46

Female bronze lion guarding the entrance to Ch'ien Ch'ing Men Gate (Gate of Heavenly Purity), Kukung (Palace Museum), Peking.

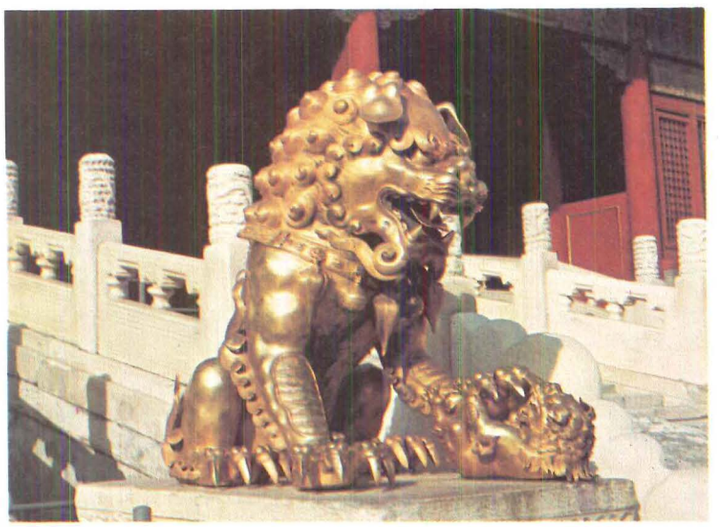
Plaque depicting the May 4th student movement, a major political event in the 1919 revolution against the Ch'ing Dynasty. Monument of the Peoples' Heroes, Tien An Men Square, Peking.

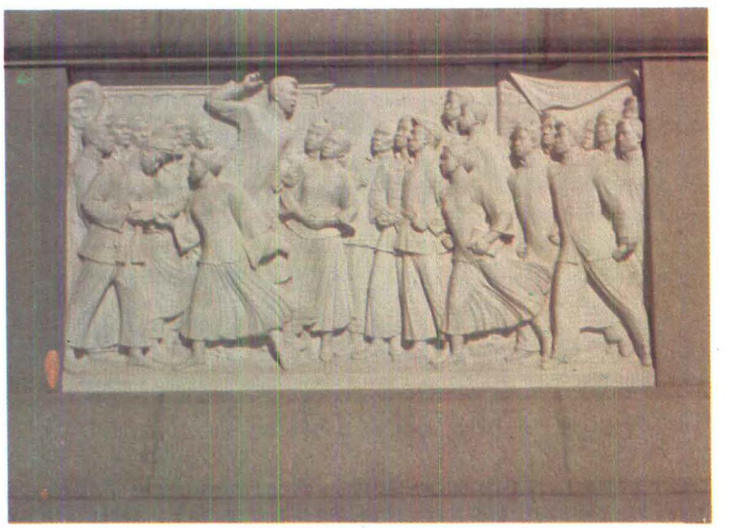
Pavilions at Yihoyuan (Summer Palace), Peking, 12th century.

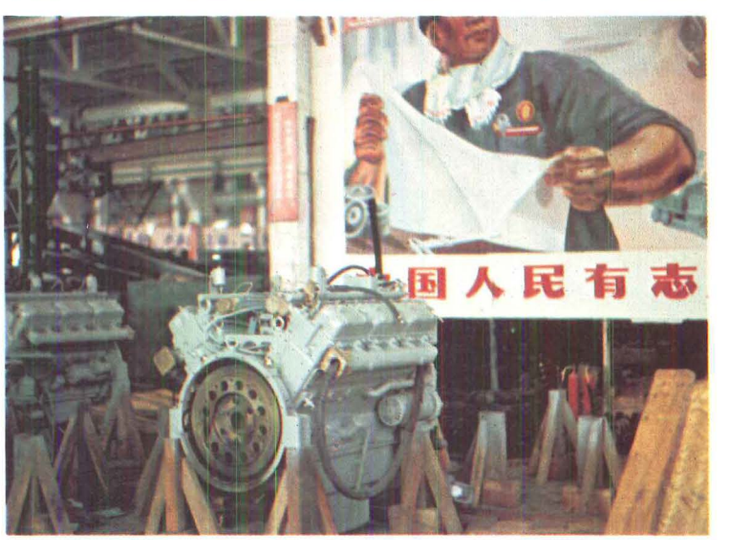
Academic building on the campus of Tsinghua University, Peking.

Basket-making on a self-sufficient rural commune—one of many production activities.

A truck factory in Shanghai with a Chinese-made engine, foreground.







A typical housing project in Peking for workers, constructed from precast concrete in the 1960's (top).

Interior of the Peking Railway Station; the background sign reads "In Service to the People."

Academic building, Tsinghua University, Peking.

Staff members of a commune outside Shanghai with Henry C. K. Liu, second from right.

industry such as factories are mostly precast concrete. I think these are the highest quality buildings technically that I saw in China. Then there is the continuation, on a local level, of traditional building techniques, the vernacular architecture of China.

Q: This vernacular building would not necessarily have an architect as a designer, and would not be developed by the institute or be allocated nationally, is that correct?

Liu: That's right. These buildings would be constructed by the local community on a supplementary basis in the traditional ways they've always constructed them. There are some adjustments because of technological progress such as incorporating electricity in the building, the use of certain precast beams replacing the old timber beams, and so on.

Q: What vernacular techniques are traditional in China?

Liu: Well, it changes according to location. In Peking it would be oversized clay bricks with tile roofs and light timber structures. Some bricks are glazed and some are just earth clay, some are layered with mortar and some are dry laid, depending on the construction quality involved. In every rural commune there is a construction unit: commune buildings are almost all the result of vernacular activities but they too are affected by the introduction of technology.

Q: What about this rural system? How is it organized politically?

Liu: Well, again I'll talk about a particular situation, the place I visited. It was a People's Commune—the basic production, social and political unit in the countryside—of 23,000 people, about 5,400 families. That's a typical size I believe, but some communes may be 100,000 people. The commune I visited outside of Shanghai was established in 1958. It has 30,000 acres of land and 12,000 workers. The rest of the people were above or below working age. The commune was subdivided into brigades and then into production units so that each production unit has about 40 families. There is a medical clinic with a staff of 26, half of whom are doctors. In addition, each brigade has four health technicians and every production unit one. There are four high schools and 22 primary schools on the commune. It is self-supporting and produces enough surplus food to feed 8,000 additional people.

Q: Tell us a little about the land you saw, the crops and how they compare with what you saw in the 1940's.

Liu: The Chinese have definitely solved their agricultural production problem, and amazingly so, because the geography of China is not very amenable to cultivaiton. Agriculture means irrigation. The phenomenon of the American Midwest where you sow your seed and it springs to life doesn't exist in China. Agriculture requires organization, unity, will power and handwork. You will find that every piece of land is utilized with care and great respect. Right next to a housing project might be light industrial and agricultural production activities; and this ties in with China's policy of decentralized and diversified self-sufficiency. If they grow wheat in the north, and wheat only, the entire north is without food in a wheat failure. Food would have to be shipped to them, overloading the transportation system. But if the north's agricultural activities are diversified, as they now are, there will be other crops to cushion any crop failure and reduce unnecessary freight volume.

Q: Can you see the results of the new crops in the diets of the people? In their faces, perhaps?

Liu: Oh yes. Food is abundant. You see in these photographs that everybody looks very well-fed, clean—the children especially. I should say something more about the children. They spend a lot of time with their peers at child care centers and schools and other activities with adult supervision, but the adults are staff members of the school or day care center rather than mothers or parents of the children. Married women use their maiden names, a woman does the same work that she did before she was married, and the marriage itself only has an effect on her personal life, not her place in society. It is a woman liberationist's paradise. Today, women in China do not have guilt complexes about neglecting family responsibilities when they become the equal and independent members of society that they are.

Q: When a child is born to a husband and a wife, how long does the child stay with the parents?

Liu: I think at a very young age, say three to four, the child goes to various child care centers during the day, and returns home after working hours. Young adults, generally after age 20, live in dormitories where they begin full-time work until marriage. The average age for marriage is about thirty.

Q: What about the public environment in China? What have they done to landscape a city street, or even a rural area? From what you say, these issues must be related to crops and agriculture, at least in the country.

Liu: Up and down the boulevards, in little courtyards, along country roads, everywhere are new trees that have been planted in the last ten years. When other plantings occur, they are some useful crop, rather than decorative grass. Along an irrigation ditch, for instance, you see some special crop being grown at the rim of the ditch itself, right to the edge of the road, then a different crop in the fields. No land is wasted; China can't afford it. The landscaping around buildings and the landscaping in parks obviously receive a lot of attention. In the southern part of China you see more use of grass in courtyards and public spaces, but in Peking grass is very difficult to grow without sprinkling, which is reserved at this time for food production. What you don't see is the phenomenon of the American suburbs where everybody keeps his very neat pad of lawn but there's little common landscaping. In China that situation is quite the reverse.

Q: The older buildings are marvelously maintained as well as landscaped. What is their commitment to restoration and preservation of architecture?

Liu: At the time of the liberation there were only a handful of craftsmen left who had the skill to restore historical buildings. The new government established a training school and the graduates from this school are now working on a full-time basis to restore the major historic buildings.

Q: How long does a restoration architect study at this school?

Liu: In the old days it was a lifetime apprenticeship, at least 20

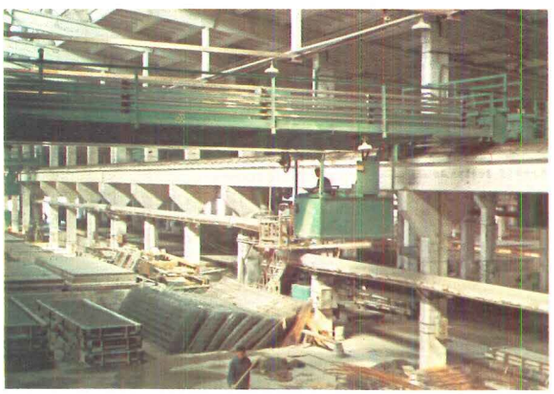
Continued on page 97

Entrance to the Peking Department Store

An irrigation channel in a commune outside Shanghai, showing newly planted trees and mixed crops.

The Institute for National Minorities, Peking, where students are taught their own minority cultural traditions.

A factory outside Peking producing concrete panels.



School children visiting Yihoyuan (Summer Palace) in the northwest portion of Peking.

Australian Superspans

Harry Seidler's new Trade Group office building in Canberra is an impressive assemblage of precast concrete elements

By Neil Clerehan

The first stage of the Trade Group Complex is well under way, and the second stage was approved a couple of months ago. Thus the double hollow-square, with its six cylindrical service cores, will be a reality in 1974. How far along the building is to that reality is shown in these dramatic construction photos.

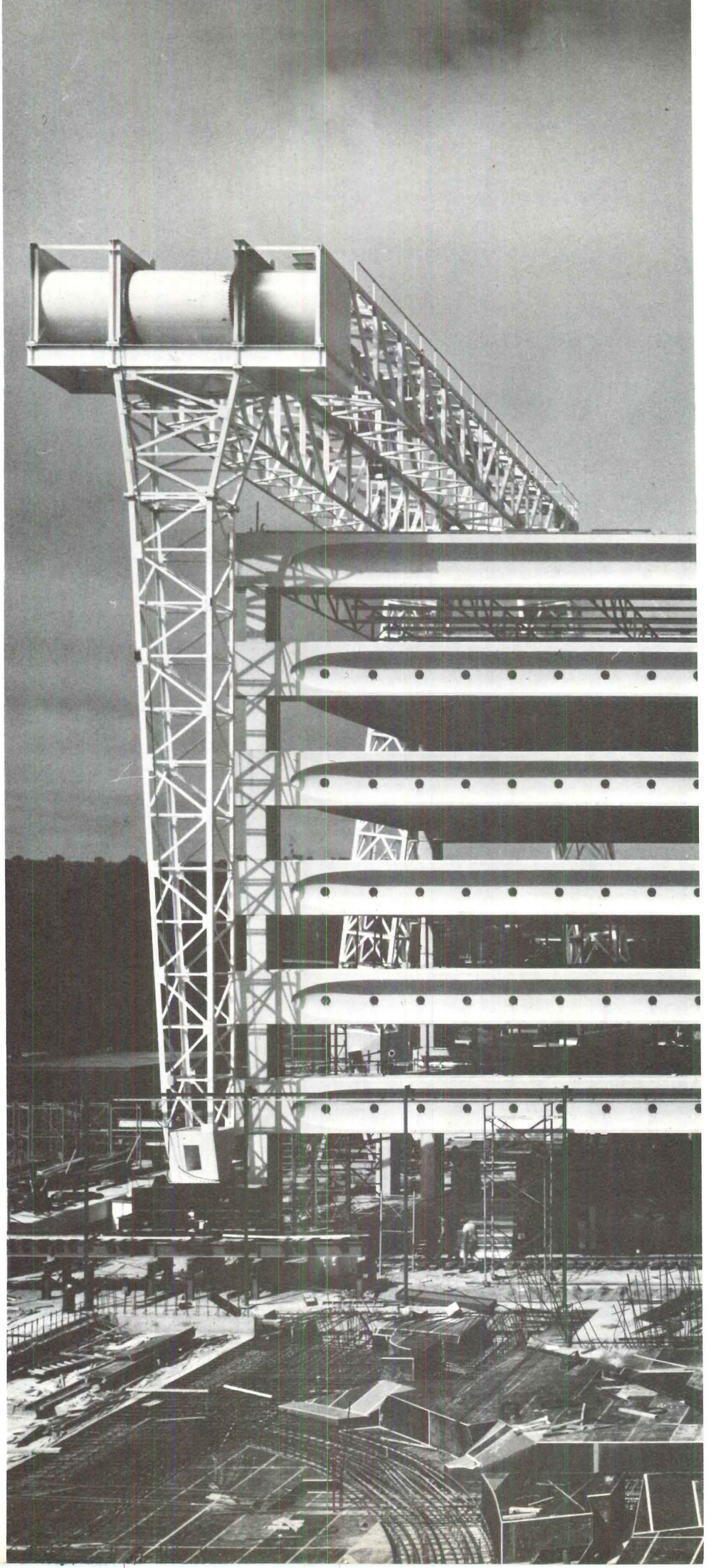
Crawler cranes were specially designed for this job; they silently lift and drop the precast concrete members into position. An occasional hammering (usually a tradesman joining air ducts) is the only familiar building sound—other than the whirring of the crane and the monosyllabic instructions (very apt in a notably monosyllabic country like ours).

The precast concrete girders or I-beams are 80 ft. long, perhaps the longest precast girders ever used in conventional buildings. The presentation drawings originally made by the architect, Harry Seidler, of Sydney, showed side scallops in the I-beams with circular ends; now the ends are elliptical. Seidler, who has worked with the Italian engineer, Pier Luigi Nervi, before, went to Rome to consult with Nervi and to ask him to refine the structural profiles. Nervi did. The legs of the T-planks that rest on the 80-ft. girders were also given a curvilinear form more indicative of the stresses within them.

Unhappily, much of the boldly molded floor-and-ceiling structure in the Trade Group Complex will be hidden by hung ceilings. Seidler is fighting to have some of the structure left exposed. These T-shaped floor sections and the I-beam girders are the dominant elements in the design. The columns, which were once an important, H-shaped design element, have had to be reduced to nondescript, precast stubs. Their job appears to be merely to separate the glamorous horizontal elements.

The height of the Trade Group Complex of offices was determined by Canberra's National Capital Development Commission. Since 1957, that Commission has been charged with implementing and updating Walter Burley Griffin's Canberra Plan. (Griffin, an early associate of Frank Lloyd Wright, won the 1912 International Competition for a capital for the then 12-year-old federation of Australian states.) Over the ensuing 45 years, including two world

Neil Clerehan is our Field Editor in Melbourne.



wars and a depression, the original plan was never fully executed.

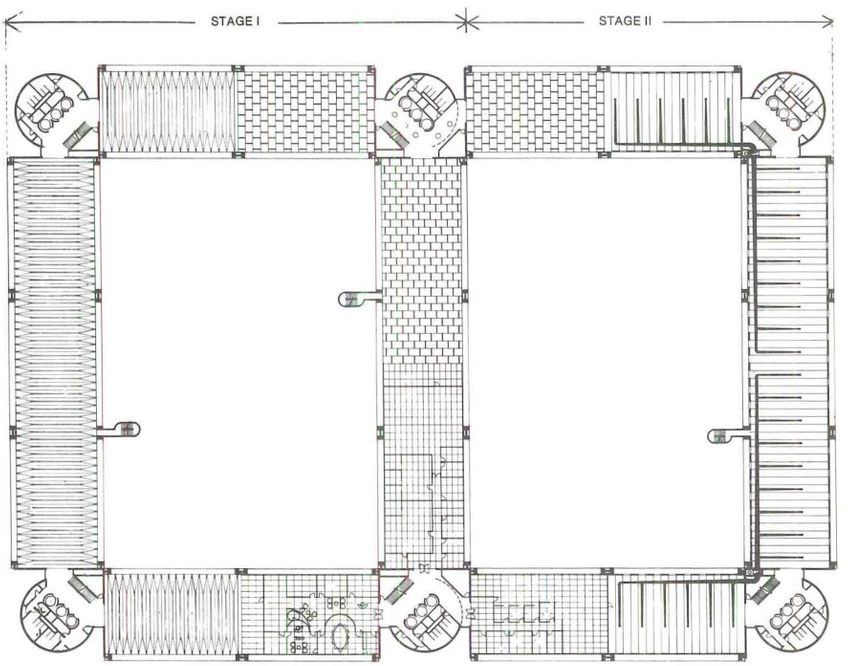
The Commission controls the form (and much else) of every building now built in Canberra, and its controls are never more strict than within and around the hallowed Parliamentary Triangle. This area overlooks Lake Burley Griffin (an original feature of the Griffin Plan, but not formed until 1964), and it will be dominated by the future Parliament House, and flanked by the grandiose/gruesome National Library, the National Gallery now abuilding, and by the High Court, now the subject of a competition. (The present "temporary" Houses of Parliament were built in 1927.)

NCDC permitted the Trade Group Complex a roof level that would have made it a four-story building more than a thousand feet long. Seidler, an experienced and thorough lobbyist, made a convincing presentation, citing civic design considerations, and making his points with height markers. NCDC thereupon permitted him to go up to five stories and down to a length of 850 ft. Still, each of the loft spaces that make up the wings measures 50 ft. wide and 260 ft. long. They are a piece of structural virtuosity which I liked to visit but would not like to work in. But, then, I find most offices unsuitable for both visiting and working.

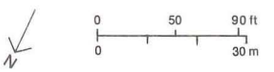
Note: Field Editor Clerehan reports that another office block is going up about five miles away, in the new center of Belconnen. It was designed by John Andrews, the architect of Scarborough College, Toronto, of Gund Hall at Harvard, and of other structures in Canada and in the U.S. "It couldn't be more dissimilar from Seidler's building," Clerehan reports. "It follows a slope with slim wings entered at half level and separated by narrow, open-ended courts across which the structural elements continue." A report on John Andrews' latest effort will appear in a forthcoming issue of Plus.

Facts and Figures

Trade Group Offices, Canberra, Australia, for the National Capital Development Commission. Architect: Harry Seidler & Associates. Engineers: Norman & Addicoat (mechanical and electrical); Miller, Milston & Ferris, P. L. Nervi, consultant (structural). Landscape Architect: Strong Moorhead Sigsby Pty. Ltd. Sculptor: Norman Carlberg. Quantity Surveyors: Rider Hunt & Partners. General Contractor: P.D.C. Constructions Pty. Ltd. Building Area: Stage 1—428,000 sq. ft.; Stage 2—300,000 sq. ft. Construction cost: Stage 1—Australian $9.3 million; Stage 2—A$6.7 m. Photographs: Max Dupain

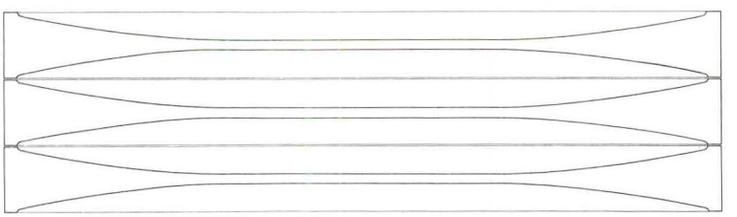


TYPICAL FLOOR PLAN

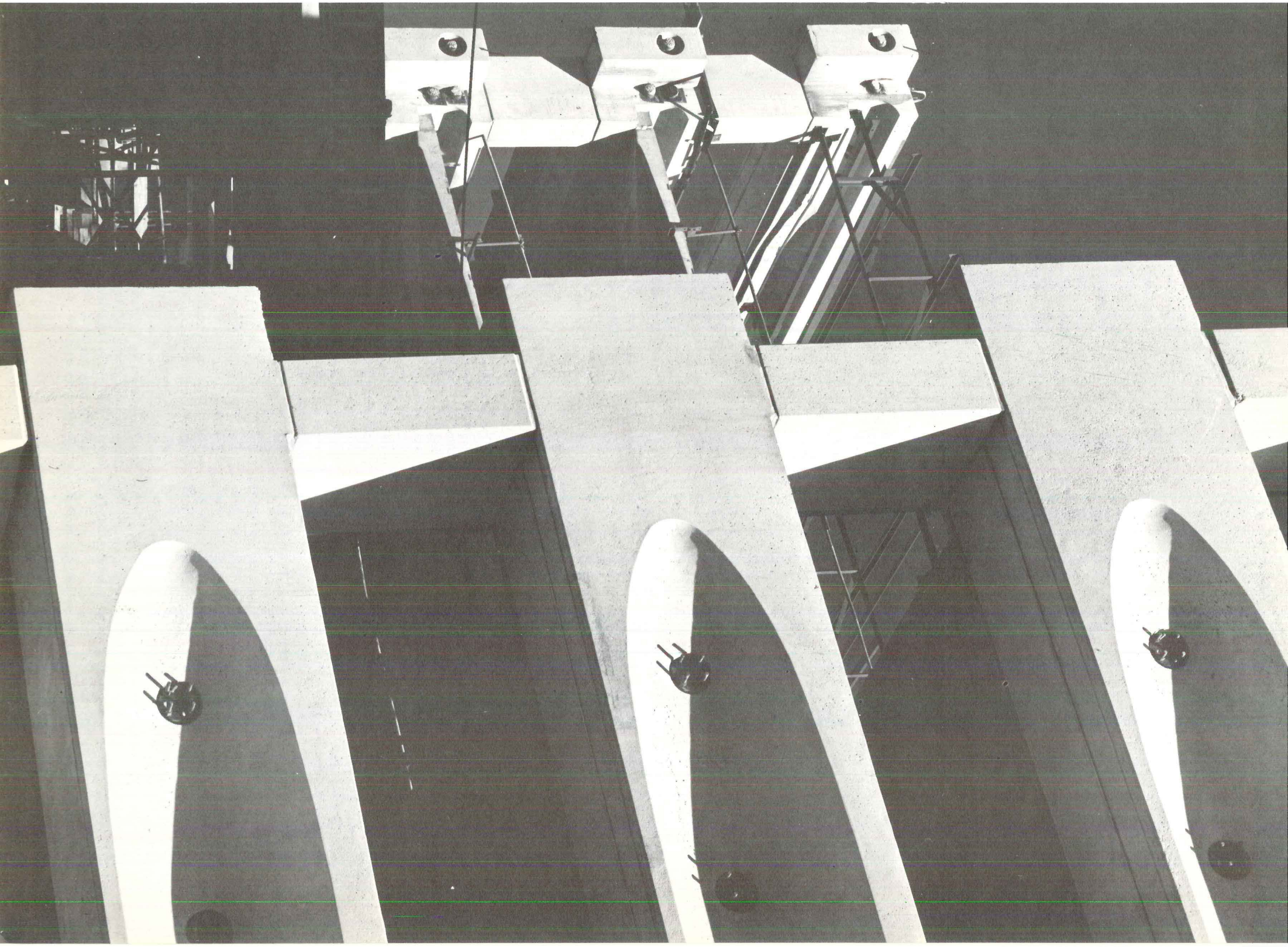


Stage 1 of the Trade Group Offices is already well into construction (right) and Stage 2 (see plan above) has been approved for final completion in 1974. The beams (detailed below) are of concrete and 80 ft. long—perhaps the longest precast girder ever used in a conventional building. Seidler consulted with Pier Luigi Nervi on the structural profiles.

DIAGRAMMATIC SECTION



REFLECTED CEILING PLAN



I. M. PEI & PARTNERS

General Partners

Ieoh Ming Pei FAIA
Eason H. Leonard FAIA
Henry N. Cobb FAIA
Araldo A. Cossutta AIA

Associate Partners

Leonard Jacobson AIA
James I. Freed AIA
Werner Wandelmaier AIA

Senior Associates

Theodore J. Musho AIA
James P. Morris AIA
Robert Lym
A. Preston Moore AIA
August T. Nakagawa AIP
Shelton R. Peed AIA
Kellogg Wong AIA
Pershing Wong AIA
Michael D. Flynn
Harold Fredenburgh AIA

Associates

Owren J. Aftreth
Lien C. Chen AIA
Theodore A. Amberg AIA
Paul E. Crocker, Jr.
William J. Jakabek
John Laskowski
Bernard Rice
Michael Vissichelli
Bartholomew Voorsanger AIA
Ralph D. Heisel AIA
John L. Sullivan, III
Robert C. Bates AIA
H. Alan Hoglund AIP
Robert H. Landsman
Joseph Morog
F. Thomas Schmitt
Abe Sheiden
Richard Smith CSI
Yann Weymouth

Business Manager

Robert J. Hagelin

Most architectural offices in the U.S. (or anywhere else, for that matter) do not perform as well as they might. Some of them are headed by one-man Superstars, and staffed by small bands of devotees willing to bask in the light of the Great Man (or vegetate in his shadow); others are horizontally organized like General Motors or some comparable industrial giant, with the top layer staffed by salesmen, the next by managers, the third by designers, and the fourth by production experts—with little if any vertical communication between echelons; and, finally, there are some architectural offices that are neither particularly good in the quality of their work, nor particularly efficient in its production.

The Superstar Office, if run by an inspired artist, can usually be depended upon to produce fine works of art; but the range of its work is frequently limited by its human resources.

The "General Motors-type" office can usually be depended upon to turn in an efficient, responsible, cost-conscious performance; but the quality of its performance, in the eyes of the critics, may vary from the uneven to the awful. It will rarely make the history books. (The one exception to this rule in the U.S. is SOM —which, in some ways, is indeed a "General Motors-type" office and horizontally organized; its successes, however, are due to the fact that SOM puts its designers into the top layer.)

And the run-of-the-mill-type office can be depended upon, alas, to build about 90 percent of the man-made environment that gets designed by architects in the first place.

The firm of I. M. Pei & Partners fits into none of these categories. Its Table of Organization, printed above, lists four General Partners, three Associate Partners, ten Senior Associates, nineteen Associates, and one Business Manager; these names make up the top echelon—but the list, in itself, does not tell much about the firm's organization, or its uniqueness in the practice of architecture.

For the partnership, is, *indeed,* unique in the U.S., and possibly in the world. It is easily as big, in terms of man- and woman-power, as some of the biggest "General Motors-type" firms operating today (160 heads or more at latest count); and yet the consistently high standard of the work of I. M. Pei & Partners ranks it, in critical esteem, with the best of that produced by the familiar and much smaller Superstar offices. In fact, *The New York Times* architecture critic, Ada Louise Huxtable, recently wrote that I. M. Pei's firm was probably the best practicing in the U.S. today—and this at a time when such Superstars as Louis Kahn, Paul Rudolph, Philip Johnson, and several others were causing quite a stir among the critics.

The reasons for this unique combination of architectural excellence and extraordinary, in-house capability are complex, and so this is a complex story. It will therefore be told in two parts: the first, which follows, is concerned with the manner in which the Pei partnership functions—its very special resources, and its unusual organizational structure. The second part, which will occupy the bulk of the March issue of PLUS, will document the extremely varied work recently completed by the partnership, or currently under way.

Pei talking to Associate Partner Jim Freed (left). The firm's offices are in an undistinguished, midtown Manhattan investment building. Within this framework, the all-white offices are a cool and quiet environment.

The single, most important reason for the uniqueness of this firm is, of course, Ieoh Ming Pei himself. According to his partners, Pei is a complex but extraordinarily well-integrated human being, and his closest associates, some of whom have worked with him for twenty years or more, believe that it is the *synthesis* of several distinctive qualities in him that has made possible his unique initiative in architecture. As a gifted artist, he has adhered to a rigorous standard of excellence in everything he has put his hand to. As a highly pragmatic intellectual, he knows that significant professional activity today demands simultaneous involvement in a broad range of problems, including some of very large scale—a range well beyond the capacity of any one man, however accomplished. And as a very self-assured but also very responsive person, he has been able to forge close and long lasting working alliances with other gifted individuals, thus creating the essential vehicle for the pursuit of his and their mutual goals.

Pei could, of course, have chosen a typical Superstar practice. But he saw the limitations of that sort of practice very early in his career, and chose a different course: he chose to create a pool of talent, integrity, and expertise capable of taking on all comers and all problems. He and his partners have been remarkably successful in that effort.

Thus the second factor that makes their firm unique is the impressive talent assembled in it from the top on down. The seven partners and their associates are graduates of some of the best schools and studios around the world. They are, quite simply, a collection of first-rate architects, many of whom, if they wished to do so, could probably compete in critical esteem with the best-known of the Superstars.

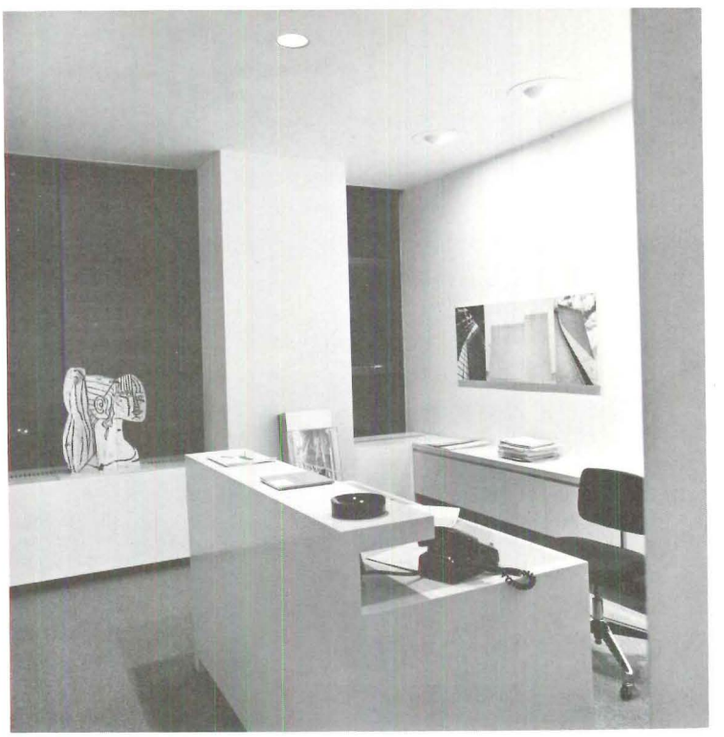
Harry Cobb was asked the other day why he—a really very special talent—was willing to accept the relative anonymity of a group practice. Cobb replied that the intellectual and technological resources of I. M. Pei & Partners could never be matched by a single architect, operating on his own.

And this is true. But it would not be sufficient reason for these talented people to efface themselves, at least in part, if there were not a third factor that sets the Pei firm apart from others of its size. From its inception, the firm decided that it would be a fellowship of artists and intellectuals who shared a common devotion to the highest possible standards of architectural excellence. And they have pursued those standards, often successfully, occasionally not quite, but always forming teams of creative talents devoted to the same objectives of excellence. This idealism persists; it attracts the best among the young, and solidifies earlier loyalties.

At this point in our story, it may be useful to recapitulate some of the basic concerns and some of the history of the Pei partnership.

It has long been a truism among architects that the "single building" in the cityscape is of no particular interest; that each commission should be viewed in the context of its neighborhood and, indeed, of its city. Yet very few architects have done more than pay lip service to this principle.

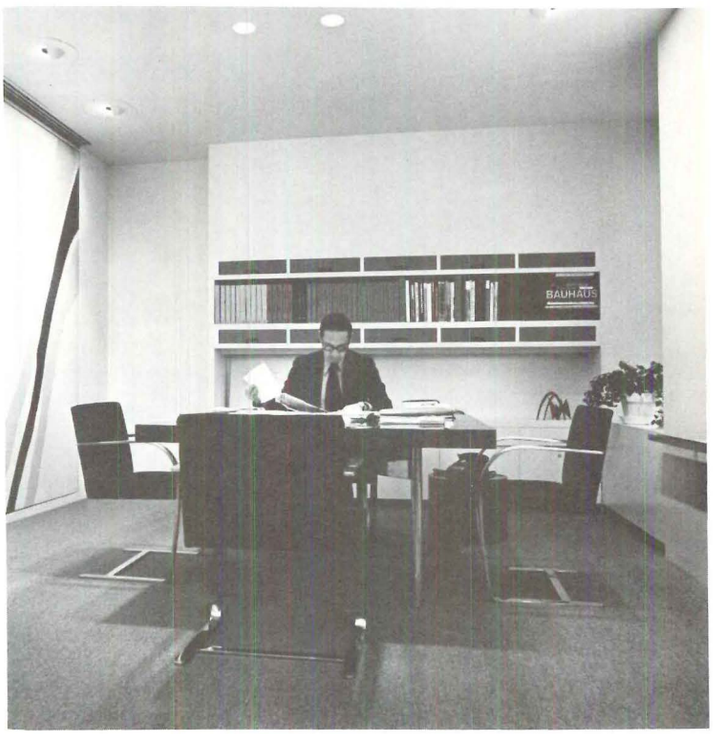
Circulation spaces are interrupted by small alcoves that serve as waiting areas for visitors. Wall decorations include blow-ups of work done by the partnership (in photos and sketches), models as well as illuminated transparencies. At bottom right, General Partner Harry Cobb and Senior Associate Shelton Peed. At far right, Pei in an office that boasts a beautiful large Morris Louis painting.



I. M. Pei & Partners is probably the outstanding example of a firm whose consistent concern is with the broader context. Although Pei and his partners have successfully tackled everything from a small, isolated museum on an isolated site, to very large complexes that, as in the case of Boston, are transforming and will continue to transform entire cities, the firm seems to thrive on political and economic complexities that would baffle most of its contemporaries. And their clients know that, when they retain these architects, they are certain to get much more than just a very good building—they may, in fact, end up by generating the spontaneous self-renewal of the entire urban fabric.

"A great deal of credit is due to our clients," Pei says. "Many of them really come to us because their aspirations parallel ours. We may *refine* our clients' goals—but those goals are usually quite ambitious even before we come into the picture." He points to the former mayor of Dallas, Erik Jonsson, as a good example. "Jonsson had formulated some very far-reaching 'Goals for Dallas' long before he talked to us. So when we began working with him on the new City Hall, it took very little persuasion on our part to convince him that the City Hall could be turned into a generator of really significant public and private renewal." The building is under construction now, and it has already transformed a sizable portion of its city. (This story will be told in detail in the next issues of PLUS —as will be other stories of similarly impressive "generators" in Toronto, Boston, Philadelphia, Melbourne, and elsewhere.)

Occasionally, the Pei partnership has turned down interesting commissions because the architects felt that the context in which



they would be permitted to operate was too limited. "I discussed the Welfare Island project with I. M.," Edward J. Logue, head of the New York State Urban Development Corporation recalled the other day. "But he was determined that the Island had to be connected to Manhattan by major bridges to make the project work. Everybody I talked to said this was physically impossible—the currents in the East River being one of the many problems—but I. M. was unconvinced. So he put himself out of the running." Logue and Pei are close friends and admire each other; but Pei and his partners, in effect, turned down what might have been their most spectacular commission because they thought they could not work within the limitations imposed by circumstance.

In many other places, however, I. M. Pei and his unusual partners have accepted a serious challenge because it could be used to generate a truly spectacular renewal. Harry Cobb, who was the design partner for Place Ville Marie, in Montreal, not merely created a distinguished group of buildings, but completely changed the center of gravity of Downtown Montreal. Cobb and the planner, Vincent Ponte (a long-time associate and now a consultant to the firm), together with their imaginative developer-client, William Zeckendorf, demonstrated to all the private and public powers with a stake in Downtown Montreal that their common interests demanded a joint effort. "It was really Bill Zeckendorf's doing," Pei and Cobb say, modestly. But although Zeckendorf showed great vision and even greater courage (in the face of some highly pessimistic "expert" prognoses), it was the architects and planners who gave his vision a compelling form. Today, PVM and its great shopping concourse, all tied into Montreal's new Metro system, and into suburban railroad lines, have proved to be the most persuasive generators of urban form that city has encountered since God made Mount Royal, and channelled the St. Lawrence River.

"What makes I. M. and his crew different from most other architects," Logue says, "is that they are so articulate and so clear-sighted in matters that govern urban development. Take just one, seemingly small example: they build these detailed scale models of whole sectors of the city, and these models demonstrate to *any* layman the implications of a given project—much more clearly than drawings ever could." Pei gives a great deal of credit for this special operational expertise to Zeckendorf. "We started in 1948, as Bill Zeckendorf's architects," he has said. "And because Bill was a developer first, and a visionary second, we learned a great deal from him about the way cities are really put together." What Pei and his partners learned from Zeckendorf was, basically, the rules of the building game in a free enterprise society—and how to work within those rules to achieve objectives that they and Zeckendorf considered socially, economically, and esthetically desirable.

Architects are notoriously illiterate in matters of finance; but the Pei firm found the mysteries of money not all that mysterious after all. An even more important lesson they learned from Zeckendorf was a lesson in diplomacy—how to identify all the self-interests involved in, or affected by, a given project, and how to try to persuade those interests to join forces so as to achieve a common objective. And, having joined forces for such an objective and, hopefully, for the common good, how to recognize the wider implications of what

Half of office floor and one full floor below is occupied by design and production areas. (A model shop is located in another Manhattan building.) Here, Pei and several of his associates are seen discussing a project in the design stage.

was being planned, and how to explore the further implications of those implications.

There are innumerable examples of this kind of pragmatic vision in the work of the partnership: the manner in which the Christian Science Church, in Boston, is proceeding, with Aldo Cossutta as the design partner, to forge a significant link between the city's prestigious Back Bay area, and its run-down South End; the manner in which John Hancock, also in Boston, is going far beyond its original need for two million sq. ft. of office space, to strengthen an important public square, to create a lively cultural center, to create a setting for a significant, historic landmark—and, incidentally, to add thousands of jobs and millions in annual tax revenues to a city that needs both; and, finally, the manner in which the new Kennedy Library, in Cambridge, Mass. (now approaching final design) developed from what is to be primarily a national shrine, into a generator of urban form, of housing, of other, peripheral development—and even, indirectly, into one of the forces that is helping to preserve the scale of Harvard Square.

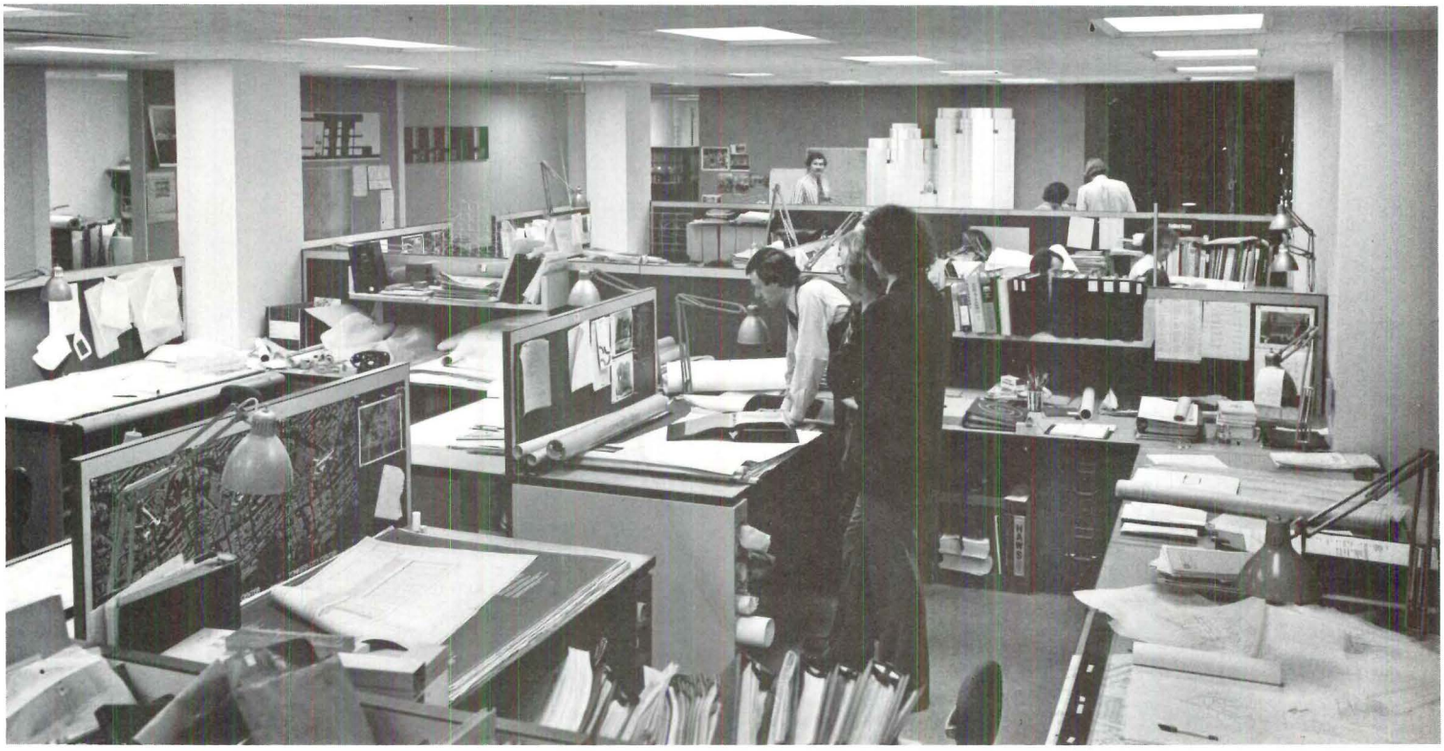
Almost every one of the commissions carried out by the partnership seems to grow—often at the client's insistence—into something much more significant than originally envisaged. The Rogers Memorial Library in Columbus, Indiana,—a single building—became the occasion for a public square with one of the finest pieces of public art (the Henry Moore arch) in the U.S. And the project for the *Tête de La Défense,* in that mammoth office development on the edge of Paris, became an effort to save the grandeur of the Louvre-Concorde-Etoile axis—the so-called "sacred way." The project is dormant at present, but its persuasive power continues to dominate the public debate over a later and rather less sensitive scheme. Pierre Schneider, the highly regarded critic for the Paris *L'Express,* has written that Pei and Aldo Cossutta (a product of the Ecole des Beaux Arts and, briefly, of Le Corbusier's studio) "presented a project of a classical symmetry worthy of a *Prix de Rome* winner." Schneider pointed out that it was the American architects, rather than their French colleagues, who understood the broader urbanistic context. (Schneider was polite enough not to mention some American architects who have recently shown less understanding in their work in the French capital.)

Political and commercial savvy do not, of course, necessarily produce great buildings. What is it, then, that accounts for the consistent excellence of the firm's work?

Three factors have been mentioned earlier: the thoughtful and forceful leadership exercised by I. M. Pei himself; the impressive pool of talent he has attracted over the years; and the firm's absolute commitment to architectural excellence.

There are other factors of varying importance. When this story was being researched and written, the partnership was, in a sense, forced to face itself, perhaps for the first time, consciously. It was almost an exercise in group therapy, and out of it came some intriguing insights, both for this writer and for the Partners themselves.

The one thing that seems to differentiate the Pei firm most clearly from its contemporaries is its organizational structure. While most



firms of this size in the U.S. tend to be topheavy with managerial talent, the Pei partnership is headed by designers—and by managers and technicians totally devoted to design excellence. Moreover, the firm is vertically organized—which means that Pei and/or one of his design partners will form a team that controls and monitors a given job from the very beginning to the very end—from the initial programming, in collaboration with the client, to the final moment of truth, when the building is checked out, like a laundry list, before it is turned over to its owners.

Other offices of comparable size will usually tell their top designers to "lay off" after the basic design drawings have been completed, and then hand the job over to a production department that knows how to turn out the necessary working drawings and specifications. The Pei partnership, however, is project-oriented—it works in teams, headed by a Design Partner, and staffed by managers, technicians, and younger designers all of whom are involved from start to finish. Eason Leonard, a graduate of the insufficiently appreciated office of the late William Lescaze, and one of Pei's earliest associates, manages somehow to make this unusual organization work extremely well. The problems that Leonard has had to face would seem insurmountable—because the vertically-structured design teams are almost capable of making some design changes even during construction.

It is an extremely flexible system; but it also runs counter to most accepted notions of manpower management. "I simply don't understand how that office has ever been able to make any money," Bill Chafee, once an associate of the firm, and now the Chief Architect for the Welfare Island Development said recently. "They refine everything, and revise it, all the way down to the wire." The answer, clearly is the managerial competence and commitment to excellence of Eason Leonard and his associates, Leonard Jacobson and Werner Wandelmaier.

A second aspect that differentiates the firm from offices of comparable size is its great stability. Not only the top partners have been together for a long time; but the younger designers in the firm are developing into similarly creative and stable talents. "The reason we are able to attract these bright people, and hold on to them," Pei says, "is that we don't hesitate to take on relatively small commissions that the other big offices generally turn down. We are able to involve our younger designers in carrying out an entire building —and once they have had that experience, they are able to advance to larger commissions." In most offices of comparable size, a young designer is usually given a subordinate role in a mammoth project, a frustrating experience at best. In the Pei firm, a young designer may become significantly involved in a relatively small museum or arts center, and work very closely all through the project with one of the design partners. After that sort of opportunity, not many of them want to quit.

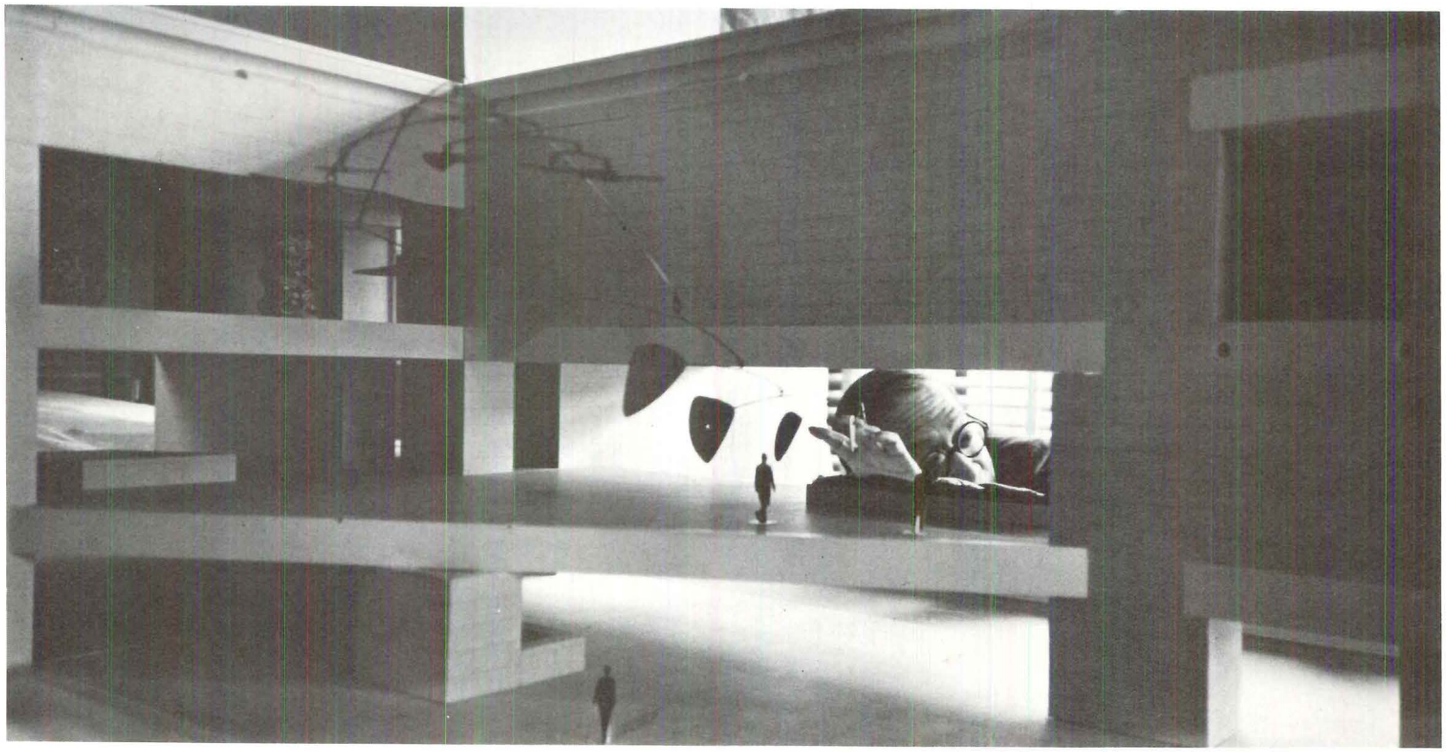
A third aspect that distinguishes I. M. Pei & Partners from some of its peers is a certain professional commitment. Often, the partnership will involve itself in problems that are predictably troublesome, because the architects feel that they owe it to someone (perhaps themselves) to take a stab at solving such problems, however difficult and unprofitable. Their long commitment to housing is a

The firm never tackles a project without making elaborate models—not only of the buildings themselves, but often of the broadest possible context in which they will exist. Some of these models are constructed at very large scale, as in the case of the working model of the National Gallery Annex being examined by Pei at far right.

case in point. When they designed and built Kips Bay, in Manhattan, I. M. Pei and Jim Freed knew that an exposed-concrete building, with infills of glass, was sure to run into trouble with everybody from the FHA to the conventional New York City contractors who "knew" that apartments had to be big brick boxes, with little holes in them. But because Pei and Freed were sure that a breakthrough into more modern housing technology was long overdue, they refused to give in—and managed to build these first-rate apartments at a cost of only two-thirds of what New York's supposedly knowledgeable contractors had estimated. Since then, in New York, in Philadelphia, and in Boston, the partners have refined their plans and details and built what may be the neatest modern highrise housing in the U.S. And the impact of their work in these places has significantly changed FHA's attitudes and regulations.

Freed, who came out of Mies van der Rohe's school in Chicago, with its dedication to the development and refinement of prototypes, was design partner for the new office tower at 88 Pine Street, in lower Manhattan. The painted-aluminum-and-glass skin of that building owes much to Miesian detailing, but it has a distinctive elegance of its own. Here, too, the partners felt they should involve themselves in a predictably troublesome and unprofitable area—the standard investment office building, with its rigorous cost constraints. At 88 Pine, they demonstrated that such buildings need not look the way they usually do.

And, finally, there is a point made earlier by Harry Cobb: the human resources that a partnership of this size is able to bring to-



gether. Over the past 24 years, ever since Zeckendorf chose I. M. Pei to be his in-house architect (an arrangement that ended, very amicably indeed, in 1960), Pei has been able to attract the most impressive collection of experts that has been seen in any one office in the U.S. "We must have the top technicians in our field," Pei says. He is very proud of these associates—they have saved a brilliant design more than once as, for example, in the case of an expansion-contraction problem in the marble walls of his National Gallery Annex in Washington, D.C. "If we had not solved that problem with a very special, neoprene gasket," Pei said the other day, "there would have been no building." God, Mies van der Rohe used to say, is in the details. God, however, is not one of I. M. Pei's partners; but Pei does have some plausible substitutes.

The bigness of the Pei firm permits it not only to draw upon large pools of design and technological expertise. It also assures that there will always be teams of first-rate planners, interior designers, market analysts, and transportation experts, either in-house, or just around the corner. All of these teams have played crucial, indeed decisive roles in such projects as Pei's Kennedy Library, as the Bedford-Stuyvesant rescue operation, as the Columbia University master plan, as at *La Défense,* in Paris, and in many other places. Few architectural firms have—as Harry Cobb put it—been able to draw upon such broad, intellectual and technological resources.

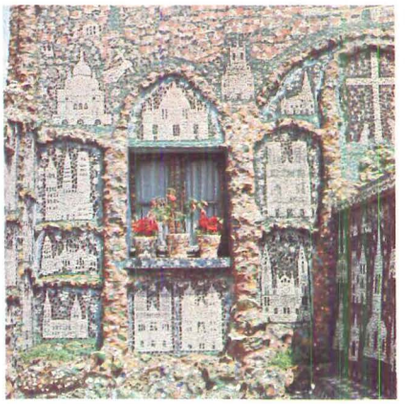
Which brings us back full circle: for the reason this firm has been able to build up such an impressive pool of professional resources is that it has, from the start, been dedicated to the highest possible standards of design excellence. Firms that are more management-oriented invariably submit to the demands of expediency; to a firm like that created by I. M. Pei, the only acceptable demands are those of quality. It is this kind of dedication that attracts the finest talents, and holds them.

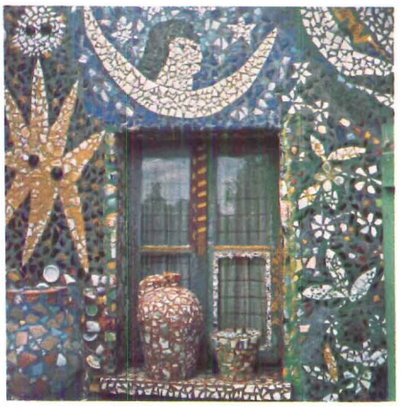
A few weeks ago, Ieoh Ming Pei told a friend that he thought he and his associates might be the last of a generation of conventional architects—that a very different kind of professional might soon emerge to shape the man-made environment.

Possibly so. But it seems more likely that this very special team put together by I. M. Pei will be considered, in retrospect, not the last professionals of an outdated system, but the first of a new breed of architects and planners, with concerns, commitments, and above all with technical and intellectual resources much broader than those previously imagined. A new breed whose concerns and commitments he has identified more clearly than anyone else.

The story of those concerns, commitments, and of those technical and intellectual resources will be documented in the buildings to be shown in the next issue of PLUS. And so will the successes, the ambitions, and also the failures of this unique team. All of these are matters that should concern every architect and planner now trying to make the transition from a fairly comfortable past into an uncertain and, really, a very interesting future. PETER BLAKE.

Photographs: Pages 53, 54, 55 (left), 57 (bottom); Norman McGrath. Pages 55 (right), 56, 57 (top), 58, 59; Dorothy Alexander.





The other Chartres

Text and photographs by Annegret Beier

Raymond Isidore, nicknamed "Pique-Assiette" (*piquer:* to steal; *assiette:* plate, in this case, chinaware) was born in Chartres, just south of Paris, in 1900.

He worked as a caretaker at the main cemetery of Chartres until his retirement, and built this house for his wife and for himself. He died some years ago; his wife is still alive.

He started building this modest, one-story house around 1928; and he also began to collect broken porcelain ornaments in his cemetery, and bits of plates, glasses and bottles, all of which he found on the cemetery premises and in garbage dumps.

After a while, and noting that more and more one-story houses similar to his own were being built in his neighborhood, Pique-Assiette thought that he would like to personalize his home. He got the idea of decorating his rather ordinary house with mosaics and sculpture, all made of the material that he had collected and stored.

His technique was simple: with a general concept in mind, but without preliminary sketches or other preparation, he began his creation by applying cement directly to the surfaces he planned to cover. He then started to design and arrange his collected items of porcelain and glass as long as the cement remained soft enough to accept these fragments. He first decorated the insides of his house, including the walls, ceilings, floors, chairs, tables, beds, vases, the kitchen stove and even the flower pots. Then he covered the exterior walls and the doors.

His subject matter varied from one extreme to the other. At one end, there are strong, metaphysical interpretations; at the other are scenes taken from daily life. There are demon-like figures, as well as orthodox, Catholic symbols. To please his wife, who did not appreciate her husband's efforts very much (and still doesn't) Pique-Assiette also included several mosaic portraits of her. Within an entire section of one wall he chose to complement his complicated images with simple geometric shapes and symmetrical floral patterns.

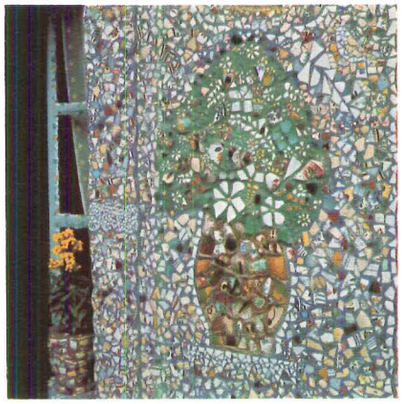
His colors, as you can see, were harmonious and tastefully chosen. Warm shades were used for positive elements in realistic illustrations; and cold colors were used to express forces of darkness. There is an obvious preference for ultramarine-blue, especially in the repetitious floral ornaments. Light gray shades return always to symbolize churches and cathedrals, and are used as well to depict the panoramic views over the roofs of the town of Chartres. He had this thought: "To keep body and soul close together, even though separated by death." So Pique-Assiette extended the backside of his house and built there a small chapel, containing two symbolic tombs: one for the body, the other for the soul.

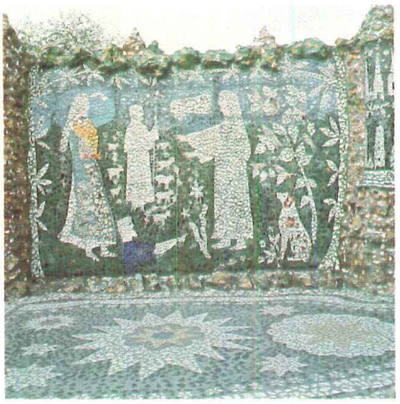
There is only one doorless opening that leads out of these tombs into a large garden, in which bizarre, quasi-human figures stand among cherry trees, low bushes, and flowers. A small pond is surrounded by grottos, and these are filled with miniature figures and other, curious objects. Two majestic thrones stand in opposite corners of the garden, close to the walls of the house; and these thrones are important: Pique-Assiette used to sit on the more modest one, which was covered with mosaics of black and gray glass, and survey his work. The other throne, covered with shiny, deep blue and white ceramics, was reserved for visits from some imagined, supernatural being—an apparition that he waited for all his life.

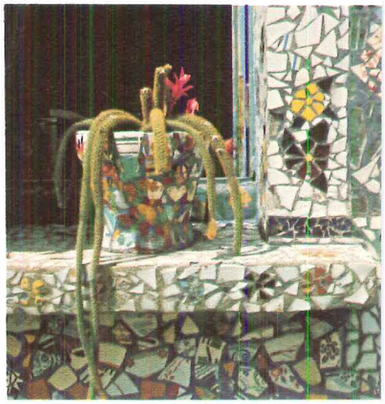
High walls surround the property. Paintings of landscapes and of scenes from daily life cover the surfaces of these walls. There is no indication at all whether or not the walls were supposed ever to be decorated by mosaics.

Pique-Assiette worked all his life to realize his visions. He was, he said, "guided by supernatural forces."

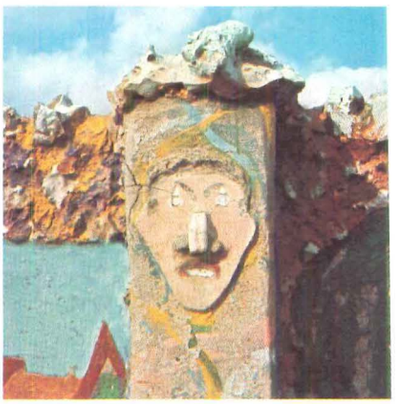
Annegret Beier, a young graphic designer, is head of the Lubalin-Delpire Design Studio in Paris.



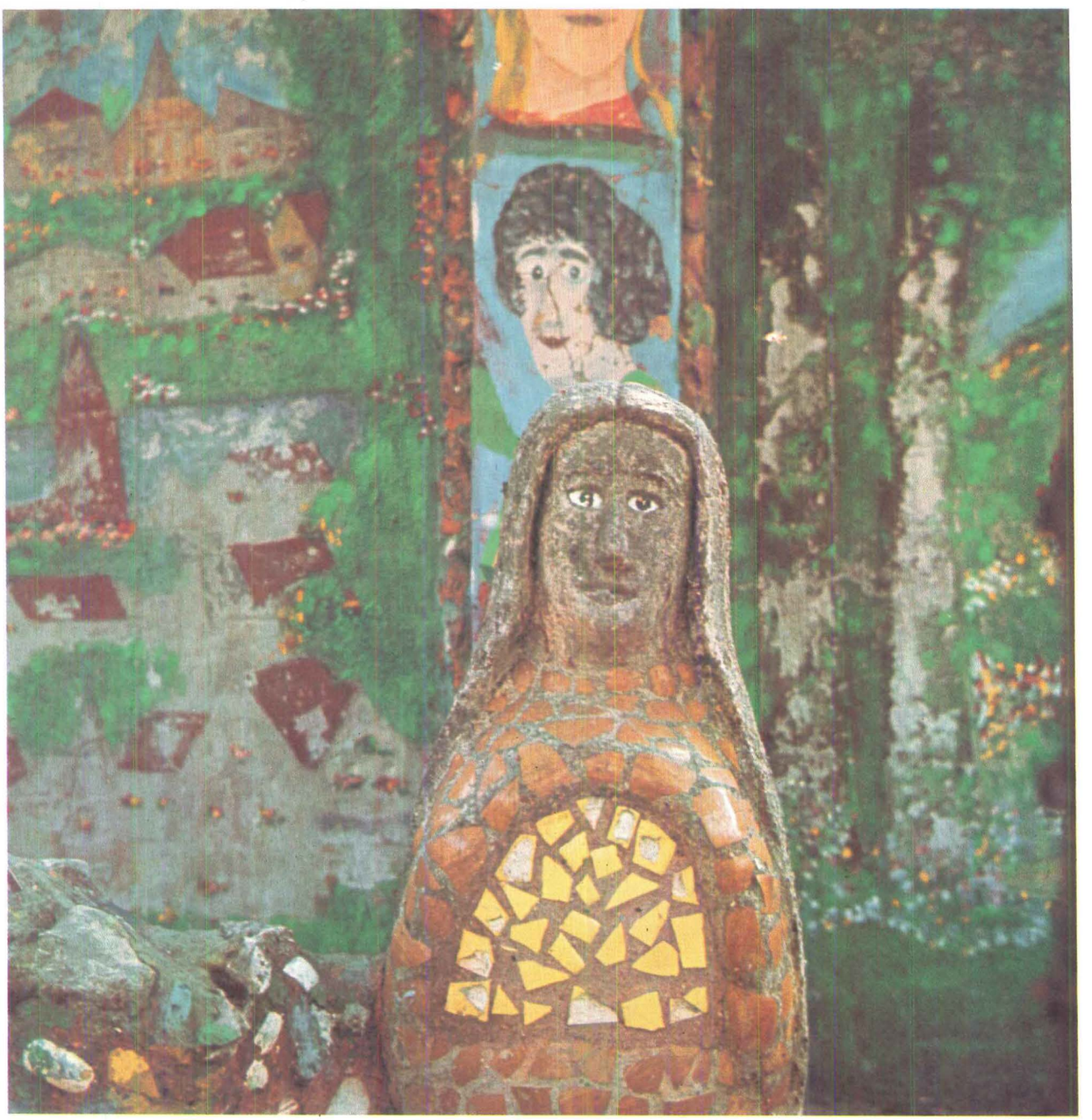


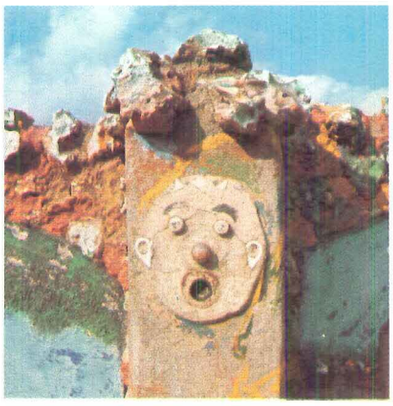
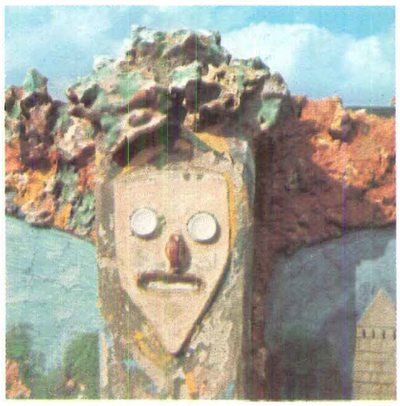
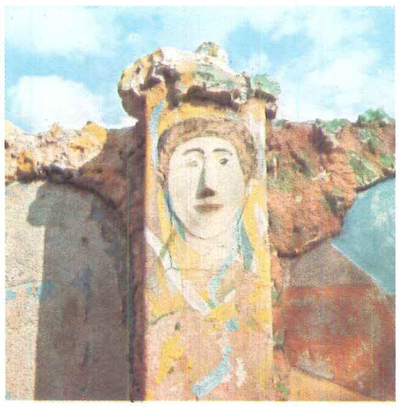


To please his wife, Pique-Assiette included several mosaic portraits of her. At right, he and she stand together. Above are details of the house and (top center) a view of angels in the garden.

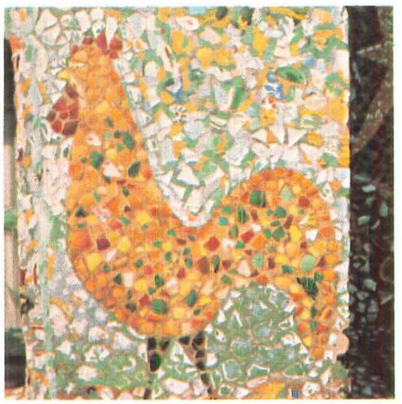


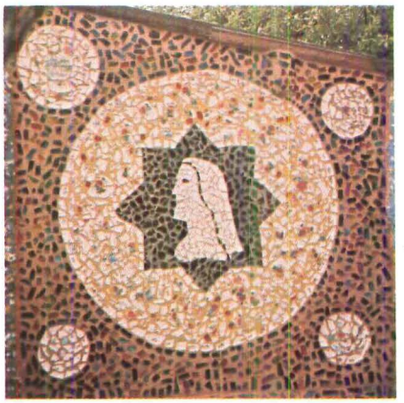
Pique-Assiette's garden is inhabited by personalities (above and right) of his own imagination and beliefs.

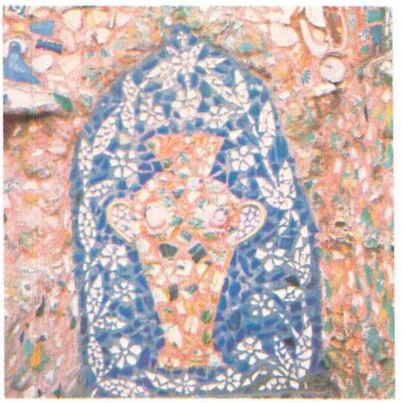


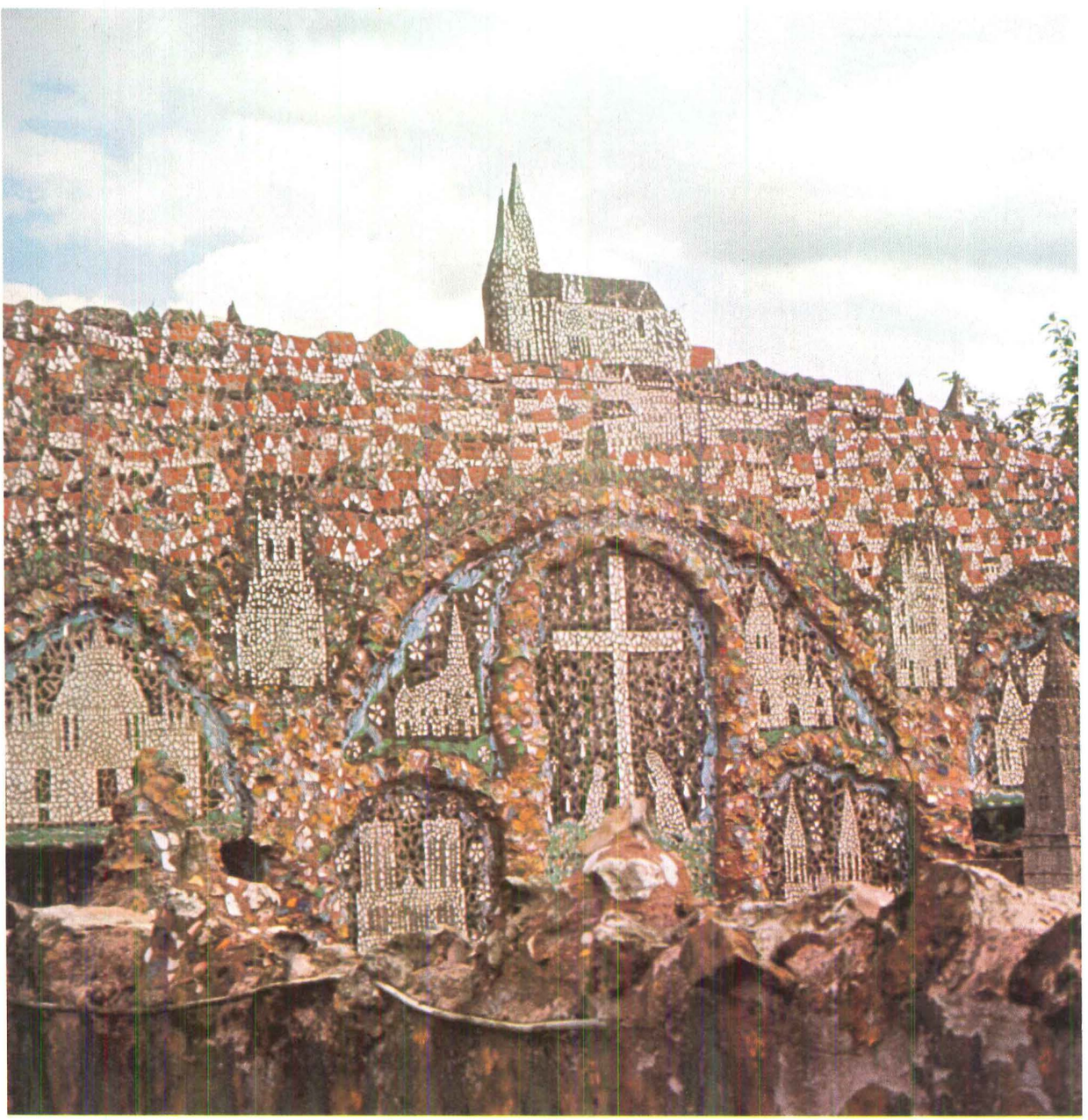

The garden wall is lined with posts (above) carved in the images of Catholic saints and demons. In the garden (right), he surrounds his work with cherry trees, low bushes and flowers.

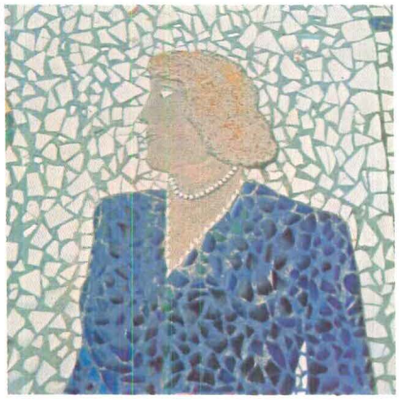






One of the walls of the house is a mosaic of Chartres Cathedral and the town nestled beneath its spires. Above are more details of the house.





Wives and saints and demons in every scale and proportion are among his subjects—a curious blend of the supernatural, religious and mundane.

Sound creates a new architecture

The pattern of moving sound makes space you hear but cannot see with boundaries you perceive but cannot touch

Architecture, defined as the creation of space, has long been considered largely a visual art. But now Bernhard Leitner, a young architect born in Vienna and practicing in Manhattan, tells us that he is creating architecture with sound, that he defines space by sound. And when the sound disappears, the space disappears; when the sound movement changes, so does the space.

The notion does not seem so strange if one considers that the blind, who have no visual faculties, nonetheless perceive space. Their sense of space has to rely on acoustic (and sometimes tactile) definition. What Leitner asks in "sound architecture" is not that we ignore our visual senses, but that we add our ability to hear to our ability to perceive space.

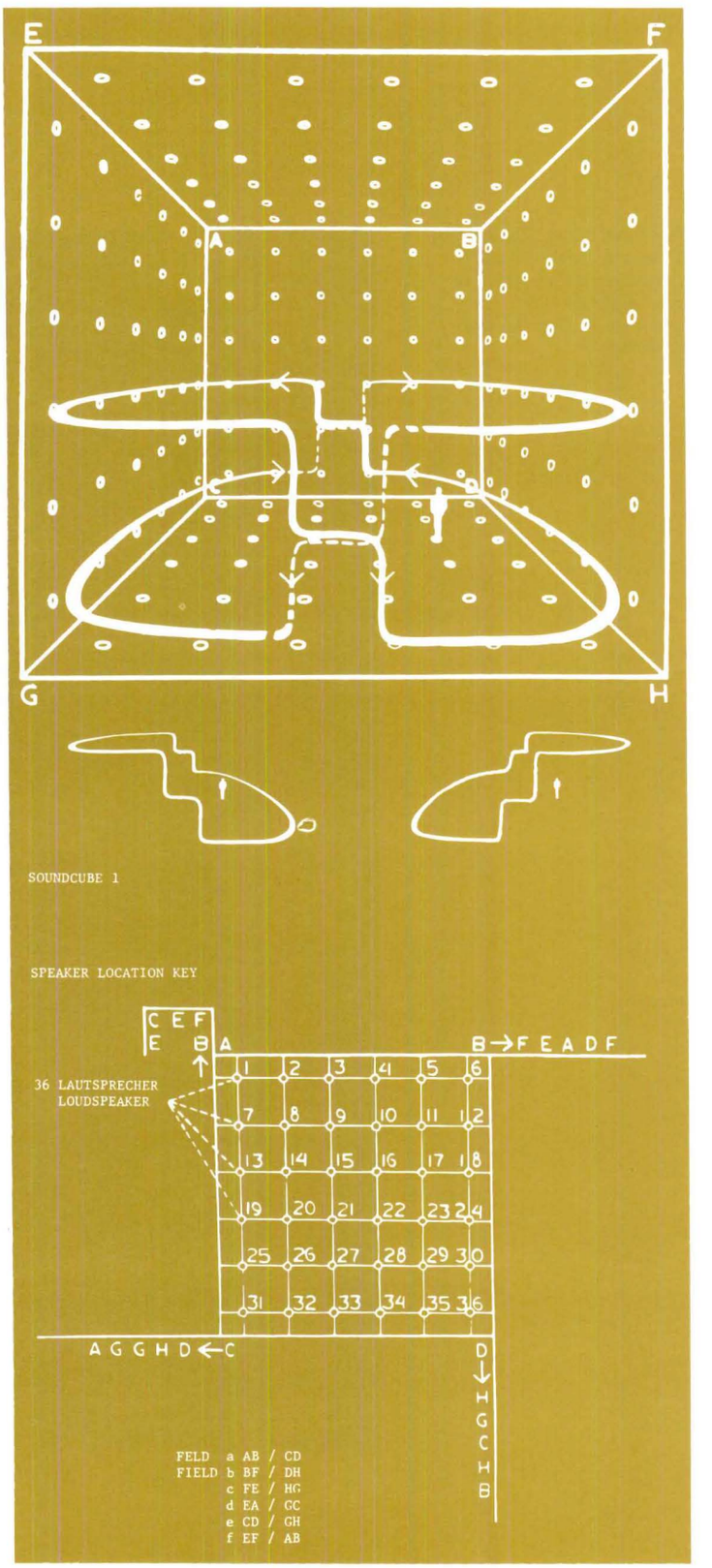
It may require some reeducation on our part, since many of us have trained ourselves to tune out on the sounds around us; but if we follow Leitner's ideas we may find the visual space around us greatly enriched by sound. The long, white corridors of many of our new, giant structures may become quite exciting if we allow ourselves to hear Leitner's program of swinging space, narrowing space, opening space or circling space.

Leitner is convinced that using the vocabulary of sound, as he calls it, for architectural purposes can open up a whole new spatial experience. We have all, at one time or another, reacted to our sense of hearing (if we hear a bee circling in the night, actual room space becomes unimportant because we feel we are in a narrowing cylinder), but few architects have consciously used this as an element of design.

Leitner says that sound architecture allows him to correlate the movement of space, or the sensation of movement, with the speed of a pedestrian, thus exploring the interaction of man with space. He refers, therefore, to the speed of a corridor. By this, he means: if the walls of a corridor have a grid of speakers programmed so that sound bounces up and down along the corridor at the general speed of a walking person, then the person will tend to move with the sound. A corridor so programmed may then cause a pedestrian to vary his direction and speed, should the sound change. If the sound is programmed to move toward and away from his feet, he will have the feeling that the walls are moving in and out from him, that the physical space is in motion, like waves.

The basic experimental concept for sound architecture is what Leitner calls the soundcube. This (see illustration) is essentially a square room with all its surfaces gridded by speakers. By programming these speakers, Leitner creates moving space. The soundcube is valuable as a laboratory concept because it is dimensionally a very neutral space—so neutral that the physical, visual walls become irrelevant to a person's perception of space. Leitner took two years to develop its concept and he continues to build on it.

Sound architecture has its own version of blueprints and specifications. Drawings illustrate the physical location of speakers. Then graphic notations record the special factors that affect the space. Since sound architecture is defined by cycles of sound, the first notation describes a single cycle. The sequence of speakers and the pattern of sound; the speed of sound, or how long a given speaker is on; the pitch and color of the sound (the sharp, stimulating trumpet vs. the mellow tone of a cello or deep tone of the trombone); the volume or intensity. The next notation deals with the repetition, variations, sequence, rhythm, pulse and overlays of the initial cycle.



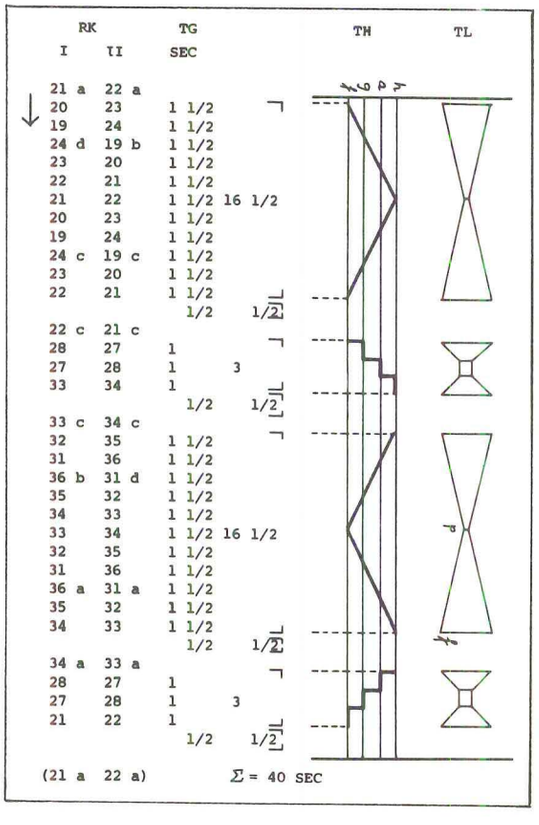
SOUNDCUBE 1

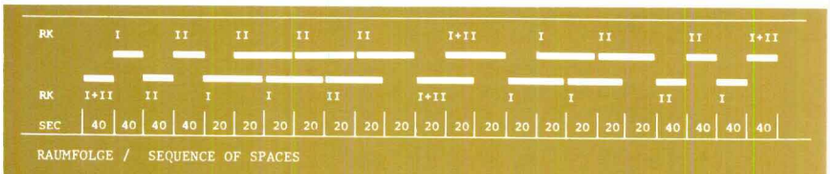
The soundcube (left) is conceived as a laboratory for experiments in sound and space. The cube form is intended to be a dimensionally neutral space that can contain an almost limitless variety of shapes. The walls are labeled by letters and the speakers are indicated by dots; these dots and letters correspond to the key (below the cube), which also assigns numbers to each speaker location. Sound architecture is created by programming speakers sequentially, so that the sound appears to move in a certain shape. In the cube illustration, the curved lines indicate the two patterns of sound travel (see details I and II below the cube) that create this version of sound architecture.

NOTATION 1

Below is the first of the two notations required for sound architecture—the blueprints for the space to be created. Column RK tells what speaker is on and in what order (patterns I and II are programmed simultaneously). Column TG tells how long each speaker is on. Column TH uses a conventional musical notation to describe pitch, and the last column, TL, describes volume levels.

RK Raumkomposition
Definition of space
TG Tongeschwindigkeit (Sec/M)
Speed of traveling sound
TH Tonhoehe
Pitch
TL Tonlautstaerke
Intensity of sound



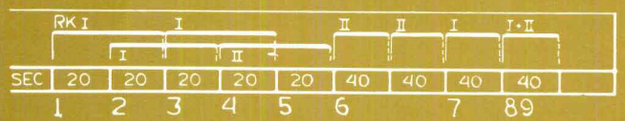


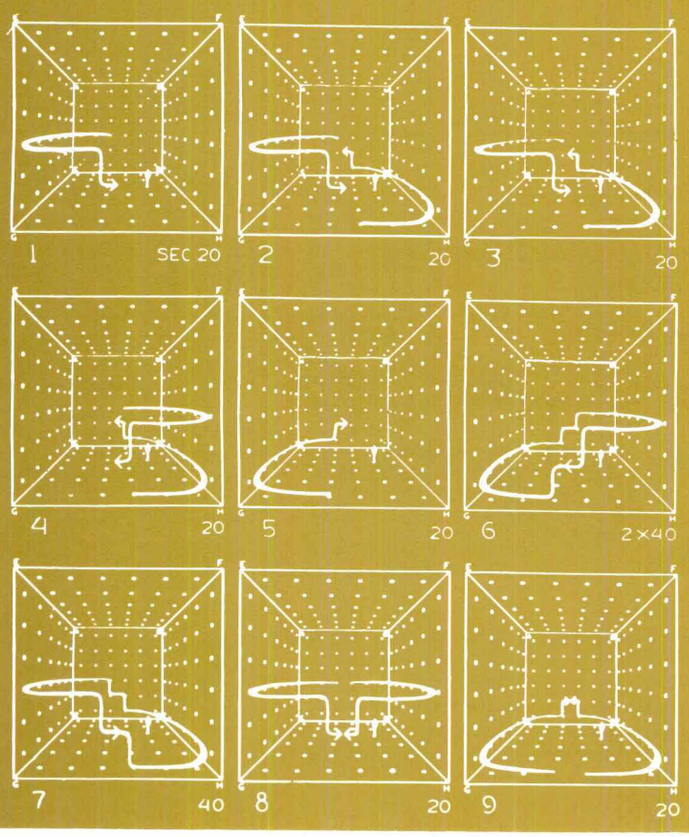
RAUMFOLGE / SEQUENCE OF SPACES

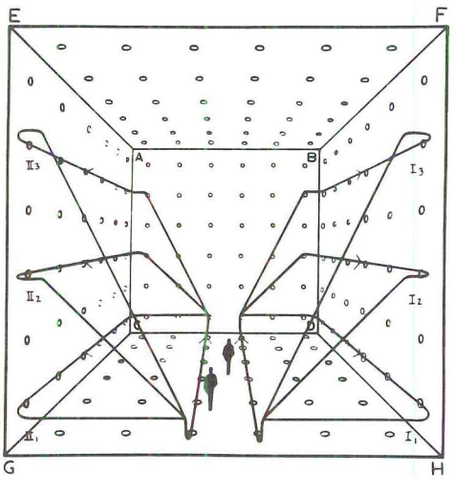
NOTATION 2

Above is the second notation for sound architecture; it describes the repetitions, variations, and overlays of the cycles in notation #1. Patterns I and II in the soundcube each take 40 seconds to complete; the table above covers a 10-min., 20-sec. time span, starting with the simultaneous programming of the two basic patterns (a repetition of the first notation). The table below is a detail of the last 260 seconds covered by the table above and it numbers the final sequences. The sketches at the bottom of the page illustrate these final sequences.

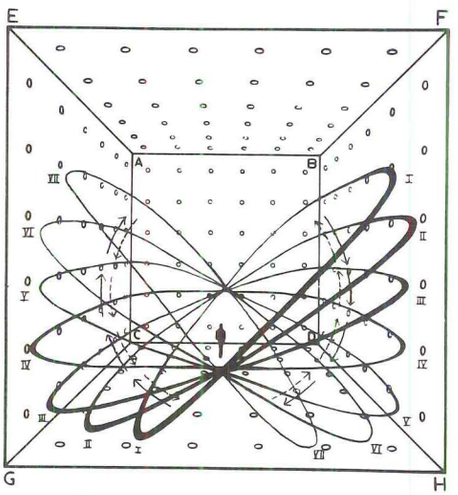
DETAIL RAUMFOLGE SC-K#3



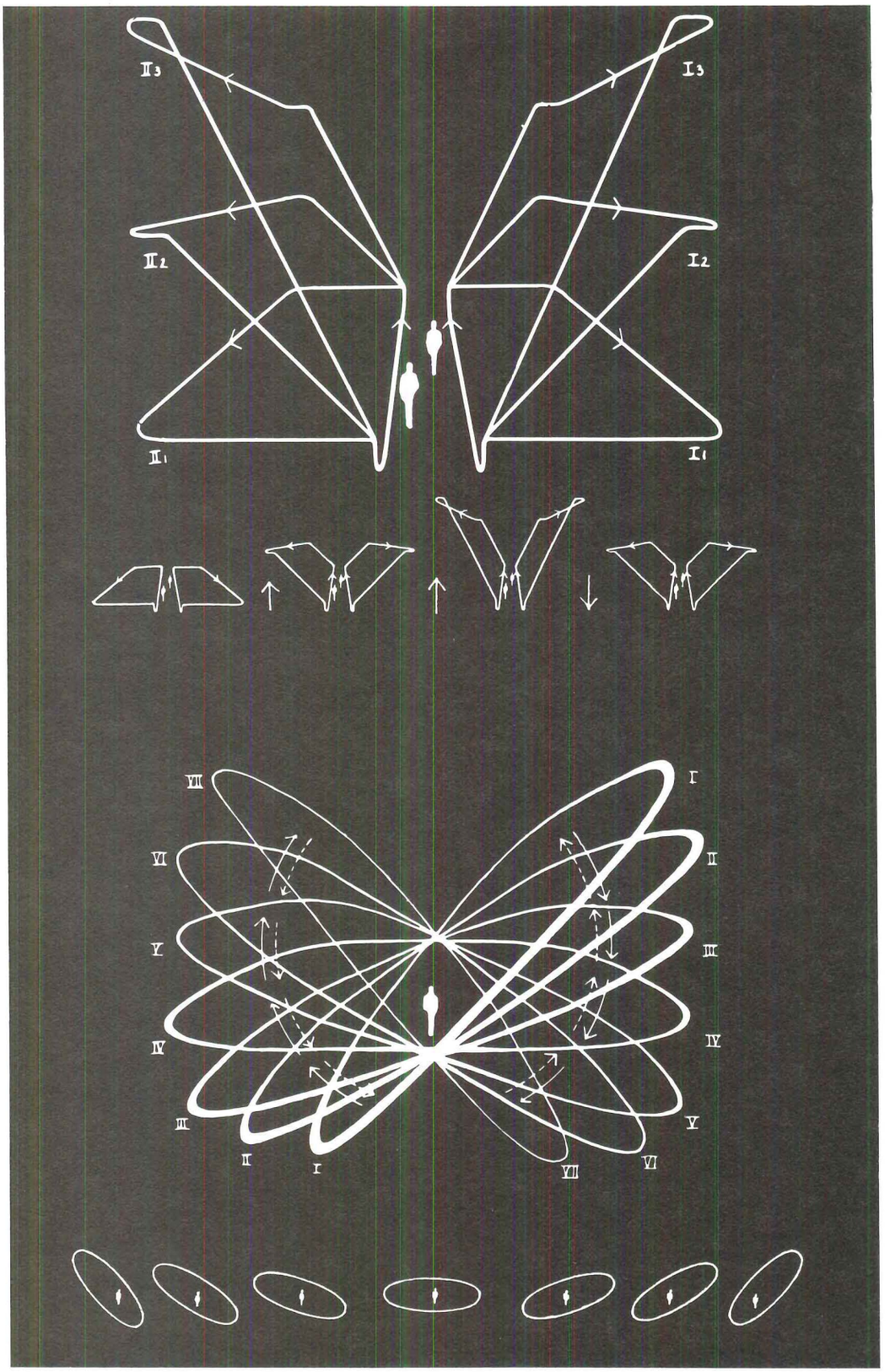


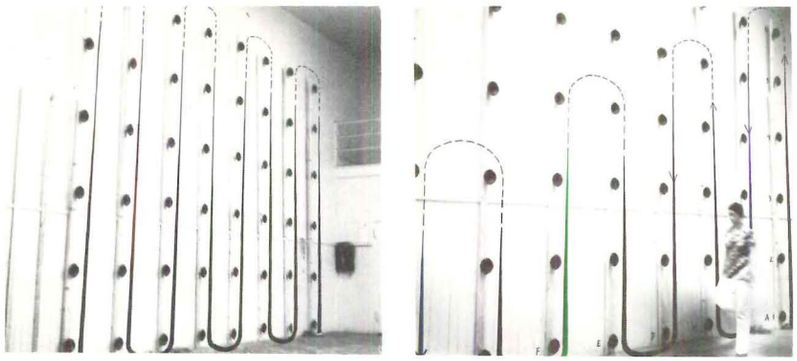


SOUNDCUBE 2
Here the space created within the soundcube, or the actual sound architecture, is made of walls that move up and down like wings flapping. One walks in a plain, then in a valley through constantly moving and changing space so that even the ground seems to move as you walk on it. The pattern consists of three cycles of sound on each side of the cube.

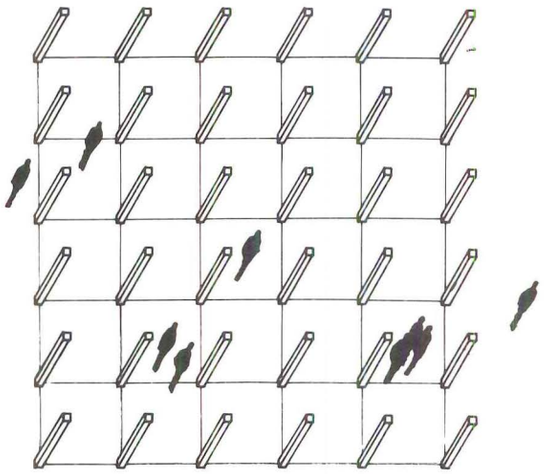


SOUNDCUBE 3
There are seven cycles of sound comprising this third variation of the soundcube (many more variations are, of course, possible). Here the sound circles the central figure at constantly changing angles of incline. The result is space that swings—up down and around and, again, the floor would seem to do the same.

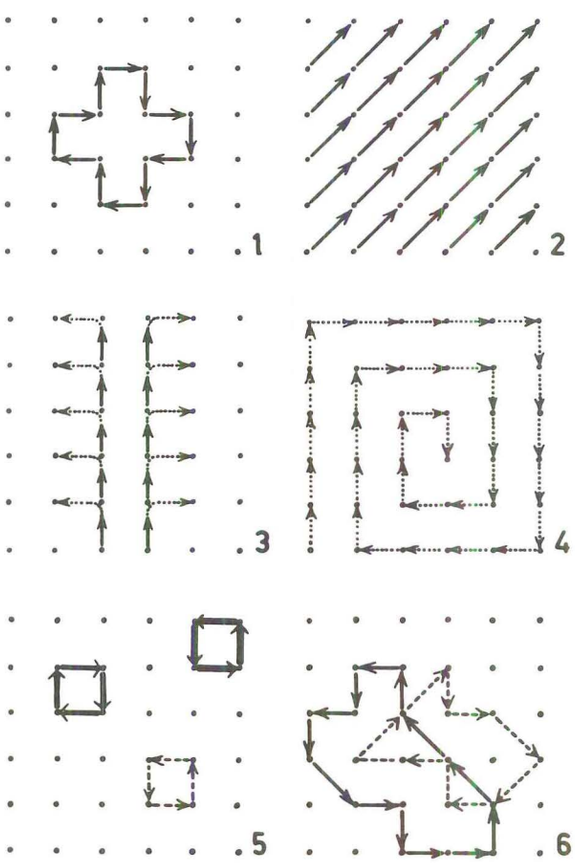




WALLS OF SOUND
The full-scale mock-up illustrates a grid of wall-mounted speakers programmed to change the perceived height of a corridor. In the photo at far left, the wavelike movement of sound peaks consistently, so the ceiling height remains constant. At right, the sound program creates the sensation of an inclined ceiling that opens up or closes down on pedestrians beneath it.



FIELD OF SOUND
Proposed for the Madison Ave. Mall experiment in New York City, this version of sound architecture calls for a grid of column-mounted speakers. The columns can be equipped so that sound travels up and down as well as between them, but the illustrations below are of purely horizontal patterns. 1) A specific sensual area with singular shape and enclosure. 2) Diagonal direction for the entire field. 3) A branched corridor. 4) Increasingly diminishing space, leading one to center. 5) Individual zones of energy reflecting the speaker grid. 6) Changing amorphous space that continuously redefines itself and the apparent speaker locations.



Leitner started his design career conventionally enough. He studied architecture and planning at the Technical University of Vienna, finishing in 1963, then went to Paris to work. After two years, he returned to Vienna for a year, then on to the United States to work in the Urban Design Group of the New York City Planning Commission until 1970. He now teaches an interdisciplinary seminar in city planning to non-architects at New York University.

He has, however, always been interested in experimenting with architectural concepts. Choosing sound as a "new language" may have some precedent in the general musical ambience of Vienna. In the late 1950s Vienna was at the forefront of the modern music movement; its residents, Leitner included, became sophisticated in the conscious perception of sound. (Vienna is among the first cities to install audible traffic signals for the blind.)

Leitner's real love became sound architecture. He has devoted much of his time and money to that since he came to the U.S., spending the first two years on its theory and the soundcube concept, and more recent years on its implementation and further development. He produces precise and beautiful drawings and notations, some of which are illustrated here. He also maintains working space in a former gymnasium on Manhattan's West Side. Here he builds full-scale working models of his schemes and invites his friends to walk through and comment on them.

While he has yet to test their effects on old men, children and the blind (perhaps the most perceptive of space defined by sound), the scale models have allowed Leitner to identify the objective and predictable aspects of sound architecture. "It is important to test each thing at full scale. There is no way to guess the results from a picture. Sound architecture is not visual," he emphasizes. The tests also prove that it is not a subjective experience. For all who walk his invisible paths, he is able to create space in motion—real space that disappears with the sounds that define it—Leitner's architecture is an event in time.

The sounds Leitner programs are not musical and there is intentionally no composition to them. He is not out to create a mood or amusement or to make environmental muzak; his sounds are simple and include pulsating tones, rolling beats (like a drummer's), the pure notes of a trombone. They are abstract so that musical preconceptions will not interfere.

Fortunately, things electric are a comprehensible tool for Leitner (he once proposed electro-magnetic, electro luminescent furniture for houses in the year 2000). The spaces he creates may be invisible, but their technology is not.

The full-scale prototypes require precise timing and electronic control. A wall of Leitner's Manhattan work space is striped by long pieces of lumber on which speakers are mounted at regular intervals—the structural framework for distributing speakers. He has about 50 commercial 8-in., 8-ohm speakers of "as good quality as possible" and a tape recorder for a sound source. An impressive console that looks like a computer with blinking lights contains electronic relays that control the sequence and timing of the speakers; it can control 24 or 48 positions and can vary the speed of the relays between 8 and 60 seconds for 48 positions. Leitner wires and constructs his own experiments and records his own materials. An electrical engineer who is a specialist in digital computers builds the relays.

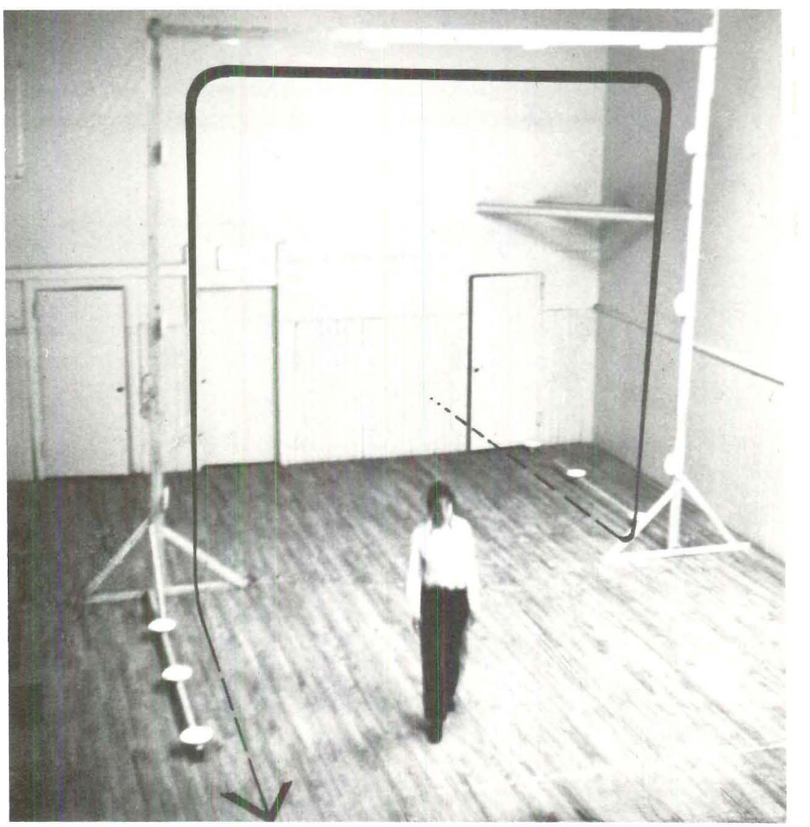
Leitner says he is not trying to compete with visual architecture. "Sound architecture is not on 24 hours a day, and I am not trying to design living rooms or bedrooms. I am just trying to expand the dimensions of architecture, at least in one direction."

There are immediate, practical applications for sound architecture. Leitner particularly talks about using it to rescale the sterile corridors of airports or similarly boring interior spaces. Within the halls' visual dimensions, different zones of sound could provide a variety of spatial experiences.

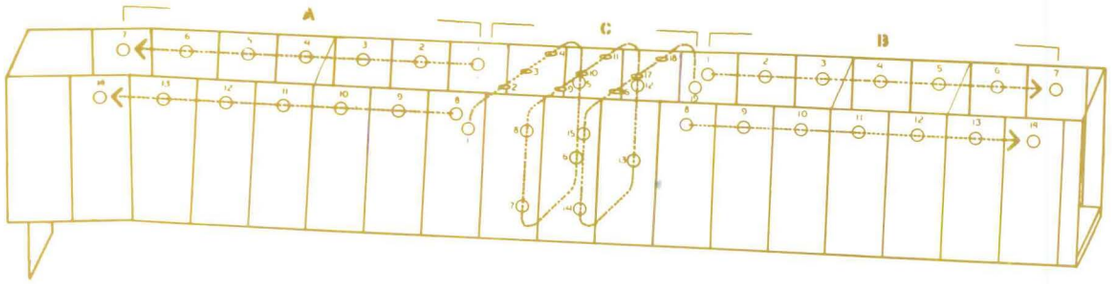
Leitner also talks about sound architecture to accentuate an entrance or an exit to a building or other visual zone. The spaces thus created can be used to propel a person in one direction or the other, to create excitement at a threshold, or provide various and alternating sensations of push and pull along the way. Pedestrian streets and other large, open areas can receive spatial identity (albeit invisible) with sound architecture. The result can give singular coherence to the whole area, or divide it into specialized and multiple sound and space experiences. Each space can be in constant change and so continuously redefine itself; directions can be reversed, making a person want to walk backwards or in the other direction.

Looking to the future, Leitner denies specific project goals. Some psychiatrists have suggested that certain applications might serve in therapy, that in a world that moves too fast, sound architecture could provide oases of relaxation. But much more research will have to be done. Leitner hopes the research will be done by teams of psychologists, biologists, doctors and the industrial and design professionals who affect sound and its transmission. The investigation should go beyond decibel levels, likes and dislikes, or only readily marketable concepts. (Leitner wryly notes that a lot of research has been done for stereo buffs.) At present, there exists no true science of sound or the relation between sound and space perception.

All of the drawings and illustrations shown here cannot duplicate the experience of walking through sound architecture, but—hopefully—many people will have this experience in the future. Says Leitner, "A visual corridor is a visual corridor is a visual corridor. I want to enrich visual architecture and create a space that moves, where you don't necessarily move with it. I want space that has expandable and changing boundaries, space that becomes defined by time, with a beginning and an end."

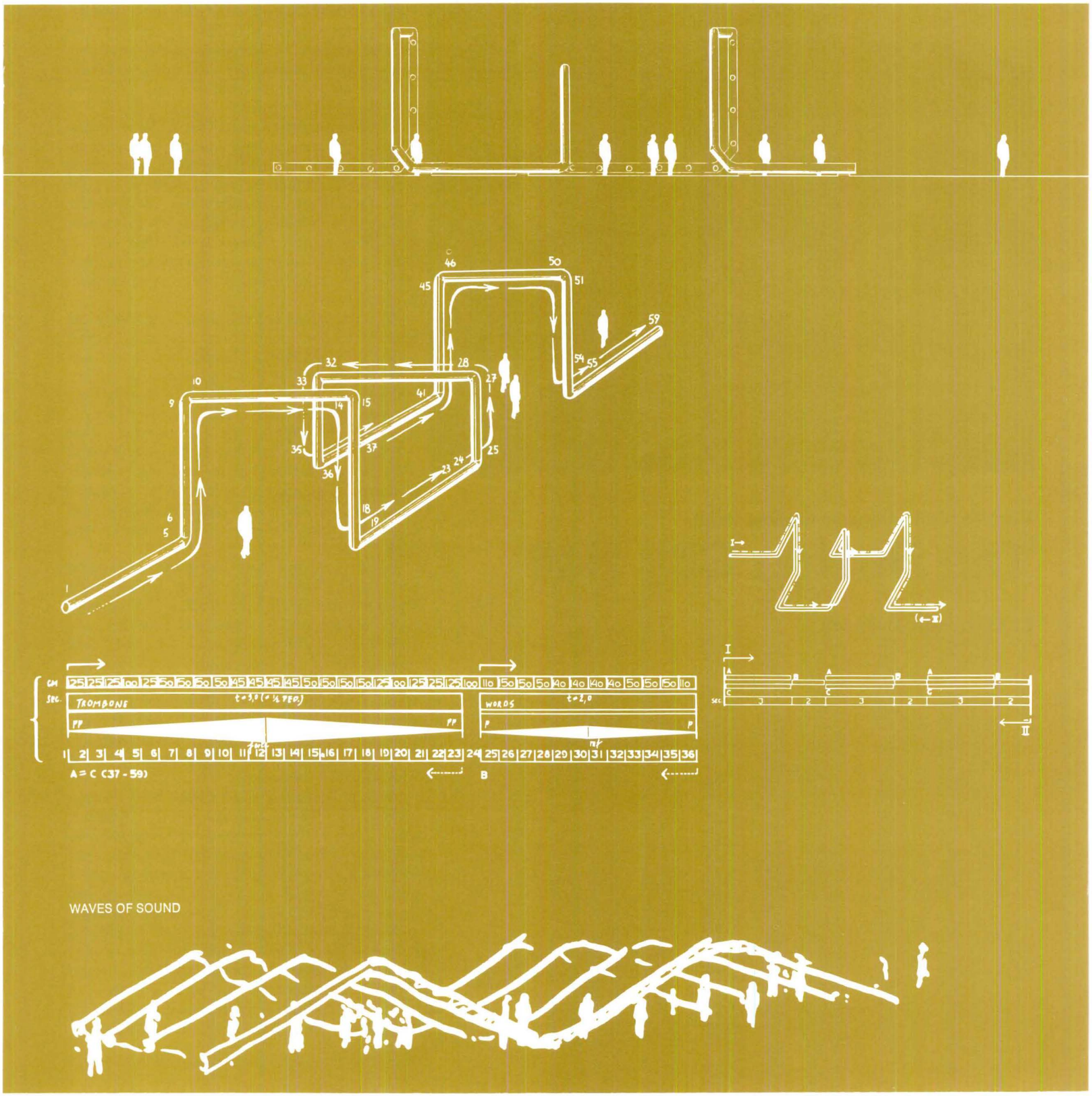


GATES OF SOUND
The reverse drawings (right) and the model photo (above) are part of a proposal for the Olympic Games in Munich. Leitner and 14 other designers were invited to join an international competition to create a dramatic entrance to the stadium from a nearby subway. This proposal called for three gates, in which the sound of a trombone would move alongside, then up and over pedestrians, enclosing and leading them into the stadium. Volume, speed, direction and the chosen sound may vary (one version would program the second gate with words of welcome).



CORRIDOR OF SOUND

Proposed as the exit and entrance to an Austrian radio station, it calls for a 50-ft.-long, 8-ft.-high and wide corridor. The movement of sound breaks up the corridor's volume into three spatial experiences. A person starts by walking against the sound, then into a central, reverberating spiral of sound activity, and finally into the third stage, where the direction of sound leads and pulls one out of the corridor.



WAVES OF SOUND

More than you may want to know about

The Boston City Hall

By Ellen Perry Berkeley

"How do you *like* our monstrosity?" a woman asked me cheerfully, imagining from my camera and leisurely pace that I was a tourist entering Boston's City Hall for the first time.

She was wrong, of course. I had been in the building a number of times since its completion in 1969, and had found it a building of memorable spatial experiences and extraordinary sculptural power. I was now spending the better part of a week giving the building a closer look, top to bottom. For this "second" look, I spoke to various people responsible for the building's design, maintenance and unique program of public events. I also spoke, more briefly, to many people who have a special intimacy with the building—people who work in City Hall or come to it on official business. I asked these people in as neutral a manner as possible: "How do you like the building as a place to work in?" and "What do you think of this place?"

It was undoubtedly not a "scientific" investigation—I did not stop every tenth person, for instance—and these brief interviews went off in whatever directions seemed a good idea at the time (and many ended abruptly). Nevertheless, I found it enormously interesting and not a little disturbing to get to know a building from so many points of view, and to sample the views of people who don't usually write or read architecture criticism.

This particular building had been widely celebrated in the architectural press since 1962, when the competition-winning design was first revealed. It was the first competition for an important public building in the U.S. in more than 50 years (the last one was for the San Francisco City Hall, in 1909). I was curious to see what was happening in the building. How was it used? How was it working? How well was it liked? I was quite stunned to find a body of opinion that was overwhelmingly negative. Many people know what they like and it isn't the Boston City Hall.

Words frequently used to describe the building were "weird," or "odd," or "cold," or "not lively enough," or "not finished-looking." One man explained that it came from the time of the many fallout shelters. "It's built to last 400 years," said another man, "unless of course some rival architect says 'here's the one column that holds the whole thing up, and . . .'" Another group of descriptions were these: "Strong" (neither negative nor positive), "very strong" (still neutral), "awesome" (still neutral?), and "too strong" and "overbearing" (negative).

One young woman volunteered, "Well, it's very nice—if you like modern architecture." Another woman looked for illustrations of her uneasiness with the building's modernism: "Those windows for instance" (pointing to the unevenly spaced mullions); "they're supposed to look like rolling waves, but I don't see it." (They were explained as "a movement called the 'sea wave' created by French architect LeCorbusier" in the brochure given out in the entry lobby). Only the college girls from Northeastern University, who serve as tour guides, repeated the brochure rationale as if they believed it. "The brick from the plaza,"

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one young woman recited, "comes directly into the building as a welcoming gesture," and we watched people try one glass door after another as they looked for the few unlocked doors that were deemed safe to use without sending a draft of air rushing toward the Information Desk. This is what another worker in the building called "Russian Roulette with the entry doors" (not uncommon in public buildings).

The architects, Gerhard M. Kallmann and Noel M. McKinnell (who, with Edward F. Knowles, won the competition unanimously in 1962), have an office three blocks away. "We'd never hear derogatory remarks," they said. But the architects told proudly of learning in a taxi that the building was something of a "Pop icon" —"the driver took out a penny and said 'turn the Lincoln Memorial upside down, there's our City Hall.' " (Try it!) One woman I spoke with in City Hall, however, revealed that she didn't like the building because it reminded her of "a wedding cake dropped upside down." Pop icons are in the eye of the beholder.

"One measure of the building's success," said McKinnell, "is that people *notice* it, which is quite apart from the fact of liking it or not liking it. People in Boston know what their City Hall *looks* like."

It could be argued that the woman referring to the building as "our monstrosity" was proud of having something that, to her, was so monstrous as to be distinctive. Perhaps, too, she really "liked" it but couldn't say so in launching a conversation with a stranger. I didn't answer, but asked another question: "Why do you think it's a monstrosity?" and she was ready: "It's ugly, it's dirty-looking, it's so dark inside, and it's just a lot of wasted space." (She gestured in all directions—we were standing at the foot of the staircase in the South Hall). "We the people of Boston," she said (grand phrase), "with one of the highest tax rates in the country, we pay to *heat* this space."

The subject of "wasted space" came up frequently, and one security guard who may have been making his own survey put it this way: "Seven out of ten of the old Boston people don't like this place, and it's mostly because of the wasted space. We're careful with money up here."

The architects don't give credence to the popular complaint about waste space. "When some workmen were interviewed," said Kallmann, "they said it was the finest building they'd been in, *but* it had waste space. I say it was *because* of the waste space it was so fine. These spaces were not in the program—the South Hall and the North Concourse—and these spaces are given to maximum contact between people."

Kallmann and McKinnell reported an explanation given by the Mayor to a foreign dignitary on the matter of waste space: "it's a great saving to have open area, and not offices, because otherwise we'd have to fill all that space with working people and have to pay their salaries." (Perhaps this gained something in translation, but it does not seem the sort of logic to soothe a complaining taxpayer.)

Many people working in the building have special gripes. "I think of the building in two parts," said one young woman; "the public spaces had an enormous amount of creativity poured into them, but the rest of the offices are poorly designed and poorly ventilated. It's the kind of building you're glad you didn't buy." Employees in one agency (which gets few visitors) found themselves working in a windowless, airless space and they made a complaint to their union. The result: "the boss got a bigger office." A professional person at the Boston Redevelopment Authority suggested that the bay dimension made the smaller offices too big for one person, and not big enough for two, while the larger offices were too big for two and not big enough for three. "And what a political scramble to get those outside places."

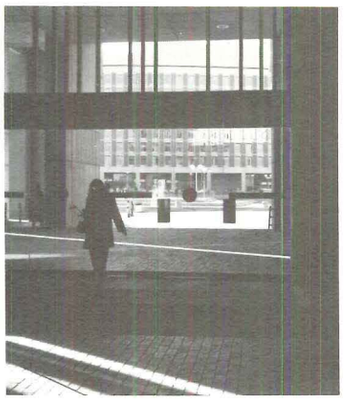
"It's too easy to get lost up here," said a great number of employees on these upper floors. "It's the meandering corridors—you lose touch with the outdoors," explained one planner. The building is right-angled but slightly askew on its site, and many people seem to find themselves disoriented. Entering from the plaza into the third level is apparently a constant source of confusion to visitors; being unable to reach the Council Chamber and the Mayor's office from the north elevator is another bewilderment. One councilman is reported to be "still hopelessly lost" after three years of public service in the building. (This problem is not unique to the Boston City Hall. At the University of Illinois, in the intricate Art and Architecture Building of the Chicago Circle campus, a visiting critic in the jury room wanted to go to the men's room. Students attempted to give him directions, then gave up; a student finally accompanied the critic to the place and waited to take him back.)

Official guides or security personnel are stationed at every point in the City Hall, and the main Information Desk handles about 1,000 questions a day. But you're on your own above these levels. The signing system is no help. Lettering of the same size will direct one, on upper floors, into a large hearing room, a small office, or a fire hose or electrical cabinet. People today are making their own signs.

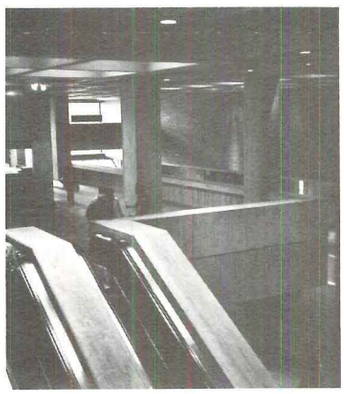
I wondered, with a planner from the BRA, about the possible effect on citizens of this spatial and directional confusion. Would it make people angry, hostile toward government? "No," was the considered reply; "most people in Boston spend their lives being lost. Remember what Kevin Lynch said in *The Image of the City?* This building is no different from all the rest of Boston."

But in fact it *is* a different kind of building from what Bostonians are used to. History surrounds the Bostonian at every turn, and especially so in this part of the old city where the Freedom Trail identifies and celebrates many historic buildings. Here are simple buildings: Faneuil Hall, the old State House, King's Chapel —even the old City Hall, for all its lavish overlay of "style." But the new City Hall, with its spatial and structural complexities, is different in kind from the earlier buildings.

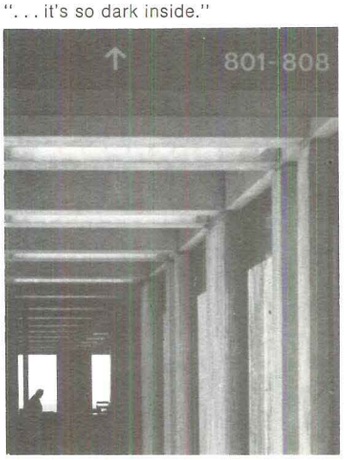
It is not surprising, therefore, that many Bostonians, unfamiliar with the articles of faith of modern architecture, should consider this building a grandiose, extravagant and ultimately distasteful work. But I found similar views expressed



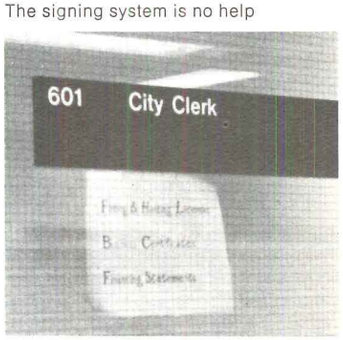
"The brick from the plaza comes directly into the building"



"... it's so dark inside."



The signing system is no help



"People are making their own signs"

by design professionals, too. (Maybe the program alone made this City Hall a "monstrous" building, and only decentralized government could produce buildings of a bearable scale.) "It's a delusion of grandeur, that's what the City Hall is," said an architect who had worked for an agency in the building. "These are 1960's mistakes, these spendthrift buildings. Can you imagine putting those free-wheeling, outrageous councilmen in that pompous parlor they call a Council Chamber? Can you imagine paying your taxes in that medieval dungeon? We needed that foyer space, to meet in and perform in and commune in, but it should have been something more common, a place where people could perform and not become *little* in the space. Still, it could have been a Colonial imitation, which would have been worse. But surely there's an architecture for our times that isn't this City Hall."

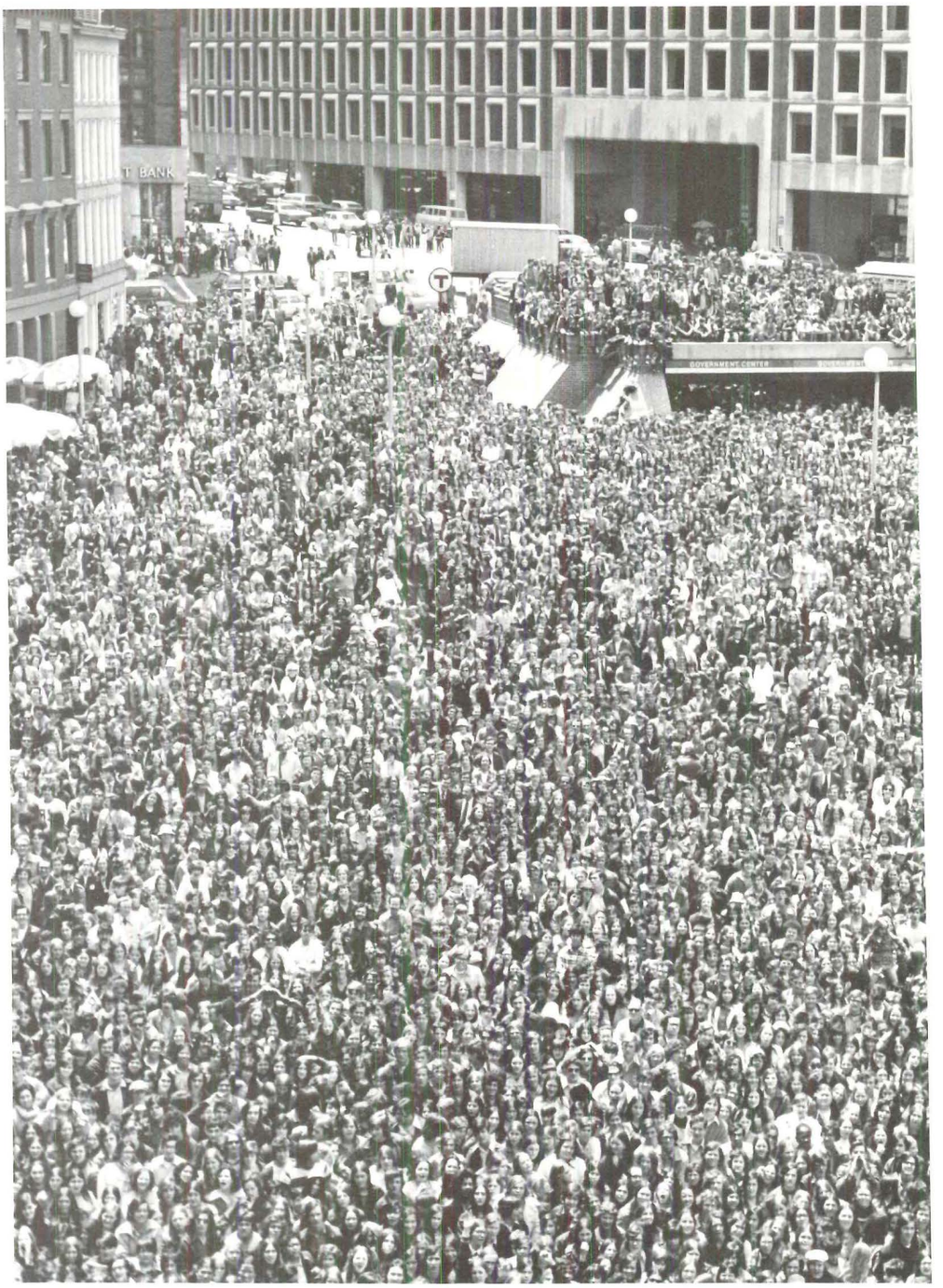
In asking what people thought of City Hall, I found that their primary—and often only—response was to the *building*. If few people seemed to think positively about the interior space, fewer still seemed to think at all about the exterior space, a plaza "comparable in size to St. Peter's" (again from the brochure given out in the lobby) and a creation that has been hailed by just about everyone, as (in Ada Louise Huxtable's words) "one of the best urban spaces of the 20th Century." Even those I questioned outside the building—on several bright, balmy, unhurried days of fall—often registered quite explicit reactions to the building and not to its surroundings. The interior space was felt to be extravagant or awesome or confusing or oppressive, but the exterior space was often not consciously felt. Can a space of such magnitude, and subject to such careful design attention, be regarded by people as "left-over space"?

People *do* use the plaza, for a variety of activities casual and formal. "I've seen it look just like a rendering," exulted one architect who viewed it from the BRA. (How rarely does life imitate this art!) There have been performances during summer lunchtimes by a great variety of musical groups, professional and amateur. There have been exhibits, festivals, contests, "give-aways," instruction—and more—all scheduled by the Mayor's Office of Cultural Affairs.

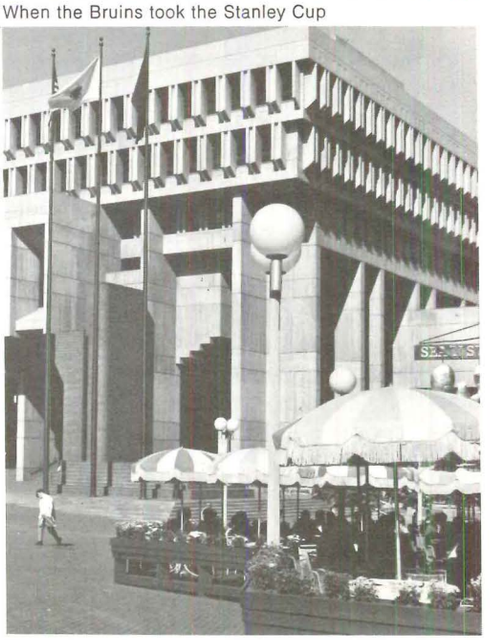
"The great gatherings are those that end up here, like the anti-war rallies," said a young woman who worked in City Hall; "there aren't many gatherings that originate here as civic ceremonies." But a great many Bostonians recall the occasion when the Bruins took the Stanley Cup in ice hockey and the plaza was sardined with fans—"all the Bruins were out on the balcony, along with all the politicians who could get out there, too."

"The openness of the plaza was designed to get demonstrators off the narrow streets where they would smash windows," said the official in charge of the building, Anthony E. Forgione, Assistant Commissioner for Real Property. "Whatever you want to demonstrate against, it's all here (he pointed around him) : federal, city, state." (There are also TV cameras here, pointing into the plaza to monitor these demonstrations for the police.)

This extraordinary urban space has an un-



When the Bruins took the Stanley Cup



The restaurant . . . is successful

The Boston Symphony Orchestra

usual potential for public use—everything from anti-establishment protest to establishment campaigning and programming, with street theater, happenings, commerce and the whole human tragicomedy thrown in. ("We have our crazy couple in the plaza," said one young woman, "they come to tell everyone how they got evicted by the city. Nobody listens, and they keep getting crazier.")

But this potential for human use does not cause everyone to rejoice. "We'd just as soon forget *that* kind of publicity," said an official City Hall photographer, about protest rallies. And the so-called "*crepes* lady" gave another offense to propriety: she was an enterprising woman who pulled up to the edge of the plaza in a small van and began cooking and selling *crepes Suzette*. She was soon run off the place. "Forgione hates people and doesn't want them on his plaza," stated one City Hall employee, a planner by profession and an official-watcher by instinct.

Forgione told me he's had a number of "vending approaches," which he has "strongly resisted." There's good wholesome food on the eighth floor and in the basement, he argued. "It's a sad commentary on our society that you don't 'humanize' a place until you bring in a commercial venture." Kallmann and McKinnell had tried to get concessions into the plaza, and would have put their services underground as in Rockefeller Plaza. "We asked all over, but no one was interested. Now, of course, they wouldn't be able to charge enough for it," said McKinnell, mentioning that the restaurant in the renovated Sears Crescent is so successful in its plaza operation that the restaurant has asked to have its outdoor cafe area enlarged.

Use undoubtedly makes problems. It is odd, though, in this meticulously designed plaza, to have a truckload of blue and white trash containers added as an afterthought, themselves littering the brick paving. One designer finds these touchingly human, a poignant commentary on the impossibility of designing the total environment. Another element that "got away" from the architects was joyfully pointed out to me by another architect—it is a large diamond pattern on the plaza, created by a bricklayer with a mind of his own: he carefully hoarded the dark-color bricks from his random-color allotment, to create this design. I learned later, from another architect, that there are about 35 of these special creations in the paving, a triumph of folk art that will surely astound the architectural historians some years hence, just as it infuriated City Hall's architects a few years ago.

Informally, "the corners and edges of the plaza are very intensively used," said my official-watcher, who is also a people-watcher. "But the big empty plaza between City Hall and the Federal Office Building is not used. People shun it or scuttle across it." Kallmann and McKinnell said they "still have reservations" about the size of the plaza, and in fact tried to make that portion of the plaza belong more to the federal building; "we broadened out the terraces for that building to narrow our plaza."

The size of the plaza was fixed by the master plan for the entire Government Center that I. M. Pei & Partners were commissioned to do (by the Boston Redevelopment Authority, then newly under Edward Logue's leadership) in 1960. According to the Pei design, the City Hall was to be 275 feet square, in plan, and between 100 and 130 feet in height. The Pei master plan, in turn, was a restudy of an earlier plan, commissioned by the previous city administration in 1958-59, and done by a team of planners, architects and landscape architects that included Lawrence Anderson, Frederick Adams, Kevin Lynch, Hideo Sasaki, and John Myer. That plan was the first to posit a large plaza as focal point of the Government Center, with a square low City Hall as focal point of the plaza. One young urban designer who worked on that project, Paul Spreiregen, said later that the subsequent design by Pei "may have demeaned certain key aspects of the original plan." Spreiregen felt that changing the shape of the plaza to an L was unfortunate, since the L didn't lead down to Faneuil Hall, but "off to the other side—the locale of a future motel." (This was done to avoid dwarfing Faneuil Hall in too broad a vista.)

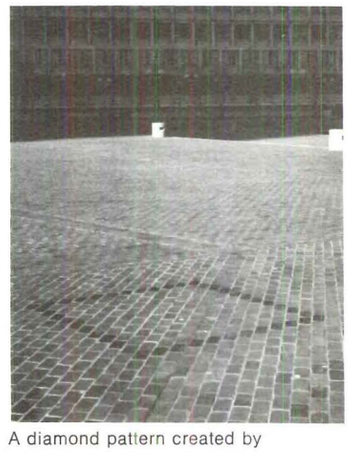
Kallmann and McKinnell made their own revisions of the Pei plaza. Instead of a sheer drop at the north (facing Faneuil Hall), the plaza is terraced from street level at the south to street level at the north, forming a continuation—and termination—of Beacon Hill. "We wanted not a static place," said the architects. The building is thus on the same level as Faneuil Hall, not elevated as in the Pei plan. It was Kallmann and McKinnell's idea, too, to have a hard plaza. "You're never far away from a variety of experiences in Boston—the Common and the Public Garden and others—and the only missing one was a *civic* plaza. We didn't want another green place. Besides, it would be trampled."

One man who has worked in the building commented that the plaza "isn't made for people, it's made for the building." He cited the uncomfortable pavement, which has little shade, and the uncomfortable seating, which retains heat and cold at the wrong seasons, and gives no back support. He, among many, referred to the emptiness of the plaza on weekends and evenings. Kallmann and McKinnell know the plaza is empty during these times and worry because there is "not a policeman in sight." But they don't apologize for the emptiness. "I'm not sympathetic to the idea that every place should be the same," said McKinnell, and he mentioned the special quality of Wall Street on a Sunday afternoon. "The presence of people is so intensive everywhere today that a positive value attaches to emptiness."

I saw a fair number of people short-cutting through the plaza on a Saturday, after their shopping. But I found the place a strange sight just after nightfall on a weekday with a thousand lights glowing cheerlessly from the empty offices nearby and from the lighted gumballs on the empty plaza itself. I was surprised, on the one evening that I crossed through the deserted space (hearing only my own footsteps, and heartbeat), to see three figures huddled near the building. I discovered, the next day, that they had discovered a huge hot-air exhaust.

Winter is undoubtedly the worst time for people on any plaza, and the wind, snow and ice in Boston last well into spring. From all reports,

Blue and white trash containers littering the brick pavement



A diamond pattern created by a bricklayer with a mind of his own

however, the maintenance staff seems to be coping with winter more adequately year by year, clearing a network of paths 10 to 12 feet wide through each snow. The snow-clearing trucks have rubber blades instead of steel, to avoid ripping up the plaza. A built-in snow-melting system would have been too expensive to maintain, I was told by Forgione.

"It's truly pitiful to see older people struggling through the plaza in winter—they cling to anyone they can find," said one young woman. Logue was able to persuade the transit authority to rebuild the old subway station serving the new Government Center, and the subway entrance is a handsome and sculptural event at one corner of the plaza. But why was this subway not linked directly to City Hall, the most heavily frequented building of Government Center? "Bureaucratic and economic problems," the architects told me.

An average day brings some 5,000 people to City Hall—just visiting—and 2,000 people to their jobs in the building. The Mayor's office runs several tours a day. ("We realized we had to do something to explain this marvelous 26-million-dollar building," said Betty Cook, program director in the Office of Cultural Affairs.) Her office also arranges for the building to be used by a great variety of groups. For several weeks before Christmas, schoolchildren sing during lunchtime from the grand stairs of the South Hall. Numerous receptions are held in the building throughout the year. Art exhibits are constantly changing—in the main gallery, the mezzanine, the North Concourse.

"No other public building in the country has this," said Betty Cook. The work isn't necessarily top art, nor should it be. But the attendance at one exhibit topped 7,000, after an unusual fracas in which two works in a group show were considered obscene by the Assistant Commissioner for Real Property. (His office must approve all exhibitions, and he tried, unsuccessfully, to have this one closed down.) The offending items were described to me, by one woman, as "a pair of buttocks, you couldn't tell man or woman, and a flying man with a flying penis. Pretty weird."

"You can have major public contact with the building and it doesn't disturb the people working there," the architects said to me. "Some high school students marched in to storm it, but it didn't close down the building." I saw this myself on one day of my visit, when all-day elections were being held for directors of the employees' credit union. Campaigning filled the open corridor on the fifth floor, and throughout the day city employees came in from other buildings to vote and talk.

City Hall is visited almost daily by a special group of old men, some of them civil service pensioners, who meet behind the Information Desk to spend an hour or two in a coffeeless kaffee-klatsch. "The mayor sent these chairs down," said one man. No one had a kind word to say about the building, but they were happy here ("well, it's warm inside"), and the familiar smell of City Hall must come through even in a building they find strange. This seemed one of those fortuitous uses of a building that perhaps can never be fully anticipated. I had the uneasy feeling that if this use *had* been foreseen, the resulting accommodation of it might have been too formal to be used. The men were enjoying these lightweight chairs, moving them around easily to make new conversation groups. But any designed seating for such an heroic foyer could easily turn out to be an immovable line of backless benches.

What else has changed in the use of the building in these first three years? The directory in the main lobby announced the many recent shifts among occupants—17 departments were moved in the past few months.

Some offices are crowded, some are relatively empty—and they look emptier, with many of their staff out on regular field inspections. Expansion of 25% was written into the program for each department, but it seems unlikely that space needs can be predicted accurately in a field as unpredictable as government. The old City Hall, in fact, had similar problems, when the role of government suddenly expanded beyond all anticipation. Finished in the year when the Civil War ended, it was already hopelessly overcrowded within 10 years. In 1912 the ungainly City Hall Annex was completed.

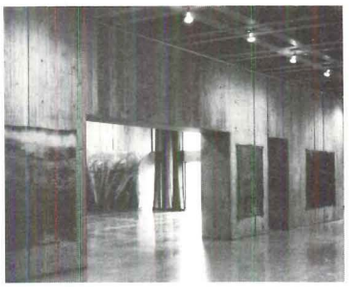
The new City Hall won't have an annex on this site (although 15 Little City Halls and four Special Field Offices now exist throughout the city, some in trailers). But there is change from within, as people "settle in" to the building and mark off their territories within it. The Urban Design Department of the BRA has the most personalized space: a system of hollow-core doors painted a bright green or blue and hung either horizontally or vertically—or close to these coordinates! (This system is actually the second generation of dividers, replacing an earlier and cruder work that was not permitted to remain.)

I asked Kallmann and McKinnell for their reaction to the BRA interiors. "We wanted people to have the view to the outside from all parts of these office spaces, although with glass at the corridors no one is ever far from the outside. But they've valued privacy more, in walling off the outer layer of offices." Kallmann said you have to have "detachment about squatters," and believes that a building can take these changes, if it is tough and rigorous. The architects have "a whole folder" on how space division should be done.

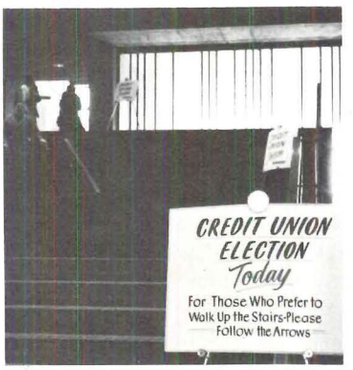
Kallmann was hardly detached, however, when he mentioned the partitions being constructed by students at Gund Hall, the new home of Harvard's Graduate School of Design, where both he and McKinnell teach. "The students are so bloody envious of a talent so near. I say to them, if *you* don't care about good architecture, how do you expect other people to? It's like a decorator saying don't listen to the great sounds of architecture, listen to Muzak."

But the concept of architecture as "frozen music" leaves many people cold. Jan Wampler, an assistant professor of architecture at MIT, was part of a Planning Design Group at the BRA early in the history of the City Hall; the group was trying to get the city to respond in more humane ways to the needs of human beings. "I was trying to initiate something called Community Architecture," said Wampler. He considers

Children sing carols at lunchtime

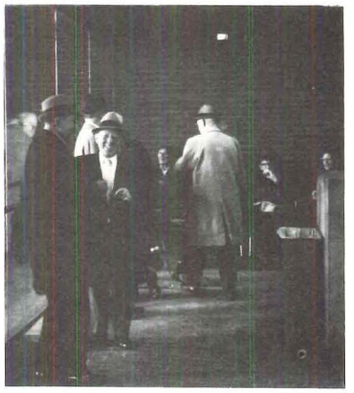


Art exhibits are constantly changing



Elections of the credit union

City employees came to vote and talk



Visited daily by
a special group of old men

City Hall "one of our worst buildings—it's devoid of any human qualities."

To bring life to the building, the group wanted to see flower markets and flea markets—and anything else—on the plaza, and victory gardens and recreational activity on the roof. They wanted exhibits in all the hallways, and the main exhibition space given over to day-care. They wanted the people in City Hall to be able to see children at art classes, instead of simply exhibits of art works. And along the inner ring of terraces at the upper levels, they wanted restaurants (the space is one table wide) so that citizens, visitors and city employees could mix. They also wanted graffiti and tack space, mirrors, a newsstand.

The group had some transitory successes. A presentation of these ideas remained on exhibit a few days before Forgione took it down. A bandit coffee wagon, designed by two of Wampler's architecture students, ran for about a month, reappearing suddenly in one place after another before it too was closed down. The woman selling crepes on the plaza was "our first guerrilla action," said Wampler. They had lasting successes too: there are now two "restaurants" in the building—a small sandwich concession with a few tables on an eighth-floor corridor, and a coffee shop run by a blind man in the subterranean first floor. (There was no cafeteria planned for City Hall because the idea was "to try to encourage people to get out for an hour," Forgione told me.)

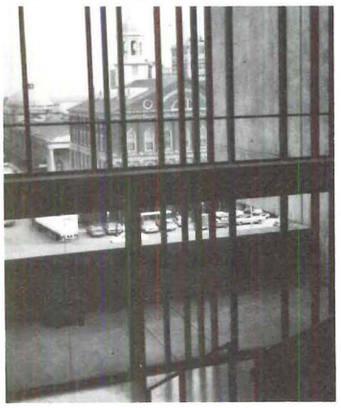
There is some vandalism according to the Department of Real Property—"mostly in the lavatories, and by kids running on top of the plastic skylights," said Forgione. "It's surprising, we don't have too much trouble with the open mound," said a junior member of his department; young couples and old men apparently take refuge there quite regularly. On the days I was there, the doors between this courtyard and the building itself were locked, and a window was newly broken. (The door to the balcony overlooking Faneuil Hall was also locked—as it always is. "Some kids were once standing on the edge of the balcony," said Forgione.) I learned from one of the guards that the parapet on the fifth floor was causing a problem: youngsters would hide behind it and shoot paper clips down at people on the levels below.

Other practical problems? There are not enough elevators in the South core, and employees have been urged to use stairs if their destination is only one floor above or below. Kallmann and McKinnell expect that the North entrance will increasingly be used, with redevelopment and rehabilitation in that area. The glass across the plaza entrance was a problem to the nearsighted, until "Boston City Hall" was plastered across the doors. Revolving doors will be built at this entrance, to cut the wind. I asked the architects about these revolving doors. We should learn to expect mistakes in buildings that will last, is the philosophy of the architects, "just as we anticipate that the mechanical equipment can be torn out. The Hancock Building here in Boston is marvelous, but it can't change; it will become obsolete as an aircraft does." McKinnell is disappointed with the City Hall primarily because "we always envisioned the terraces and the inner courtyard as full of flowers and planting, but they've never done it. There's capital to build these buildings but not to keep them up."

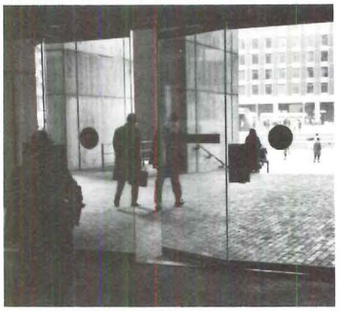
A system of hollow-core doors

Small sandwich concession . . .

. . . a coffee shop run by a blind man



Door to the balcony overlooking Faneuil Hall was locked



The glass at the entrance was a problem to the near-sighted

In more positive terms, the architects suggested that this building—with its high visibility for the office of Mayor—brings him into a position of equality with the State House. The new City Hall has always been discussed in terms of its symbolic value. How ironic, then, to have several Boston taxpayers complain to me about the poor economy of buying a small, expensive City Hall and then paying an additional $5 million a year to rent space around the city for other municipal employees. Symbolic value is in the eye of the beholder.

But what does the City Hall say about local government and the relationship of the citizen to his government? James Marston Fitch, writing in *The Architectural Review* in 1970, suggested that any of the frequent allusions to Corbu's La Tourette or the piazza in Seina were beside the point. He found more significance in the resemblance of this building to the *palazzi municipali* of the Renaissance—the same hollow square, the same monumentality. But there is not the same tradition of government; we have "no comparable ceremonial apparatus either of custom or costume," and local government in the U.S. is not seen "as the spokesman and mediator for the whole population." To Fitch, our "genial cynicism" has been replaced by a "savage disaffection," and he questioned whether *any* city hall could act "as a regenerative force in municipal life."

Kallmann and McKinnell alluded to spatial similarities, in our conversation, but did not draw socio-political implications. They felt that the building owed more to Mies and Perret than to Le Corbusier. They told me that their City Hall is like the 19th Century public buildings in England—the law courts—"where there are never finite spaces but a network linking all other spaces." They mentioned the Doge's Palace, with markets below. They spoke of movement, as in Kahn's basilica, as distinct from the static space of the temple.

Yet people seem not to "read" space in the City Hall, and what they *do* read says something quite different about government than was perhaps intended. City Hall is unfamiliar, forbidding, confusing—"a bit grim but you get used to it," as one woman said to me. To another of my informants, the Mayor and Council seemed deliberately inaccessible from below in the grand hall, hidden behind their parapet. To other observers, the Council Chamber says that "the people" are supposed to stay in their place and, in any case, that not too many of them should show up because they won't fit into this small chamber ("in the old City Hall, the more crowded it got, the closer to the councilmen you got"). The architects felt that they *were* bringing the people closer to the councilmen—"the old City Hall was like a zoo keeping the dangerous animals away."

Writers on architecture don't often view a building through the "untrained eye" of those who use the building. Sibyl Moholy-Nagy, dis-

Continued on page 98

New Austrian dream machines

Standardized broadcasting studios now serve four Austrian provinces

In case nobody has paid any attention lately, Austria is fast becoming the Number One hotbed of far-out European design. Names like Hans Hollein and the Haus-Rucker Co. are not exactly unfamiliar; but now there is the name of Gustav Peichl to add to this illustrious list. He is the architect of not one, but four almost identical broadcasting studios that opened in Austria late in 1972; and these stations are little short of spectacular.

They are located in Dornbirn, Innsbruck, Linz and Salzburg, respectively. Each serves one of four of Austria's nine provinces. The one shown here stands in Salzburg; the other three, as indicated earlier, are substantially identical with it.

The programs carefully developed for these stations envisage four groupings: a full service basement containing an elaborate heating/air-conditioning plant, plus other technical facilities; above, a flexible and expandable broadcasting facility, largely for radio, but potentially also for TV; an office wing with related rehearsal rooms next to that; and some staff amenities in a penthouse.

Peichl translated this program into a plan-form as organic as that of a snail, and as rational as that of a Wankel engine. The basement is the service infrastructure, with tunnels (containing ducts, pipes, etc.) radiating from the core like the spokes of a wheel, and clearly extensible. The main floor is two elements, joined by a skylit, circular lobby (opposite page). From this lobby extend pie-shaped studios of different sizes and configurations—in a plan that, in effect, sweeps around 270 degrees of the circle; the remaining 90 degrees are occupied by offices arranged on two floors in an expansive, rectangular geometry. Finally, on the top floor, over the office block, there is the staff penthouse. The plans are shown in detail in the next pages.

These plans are fascinating, because they not only *permit* expansion—they seem to *welcome* future growth (including additional and large TV studios, and additional offices and other supporting facilities). In a complete break with any degree of formalism, Peichl has made a prototype that will accept change and expansion, and become perhaps even more interesting when this occurs.

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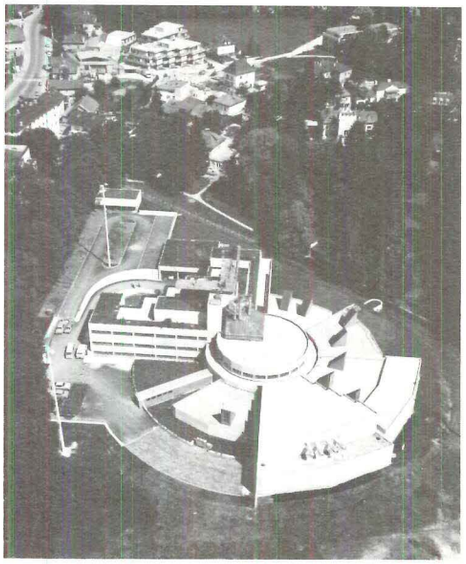
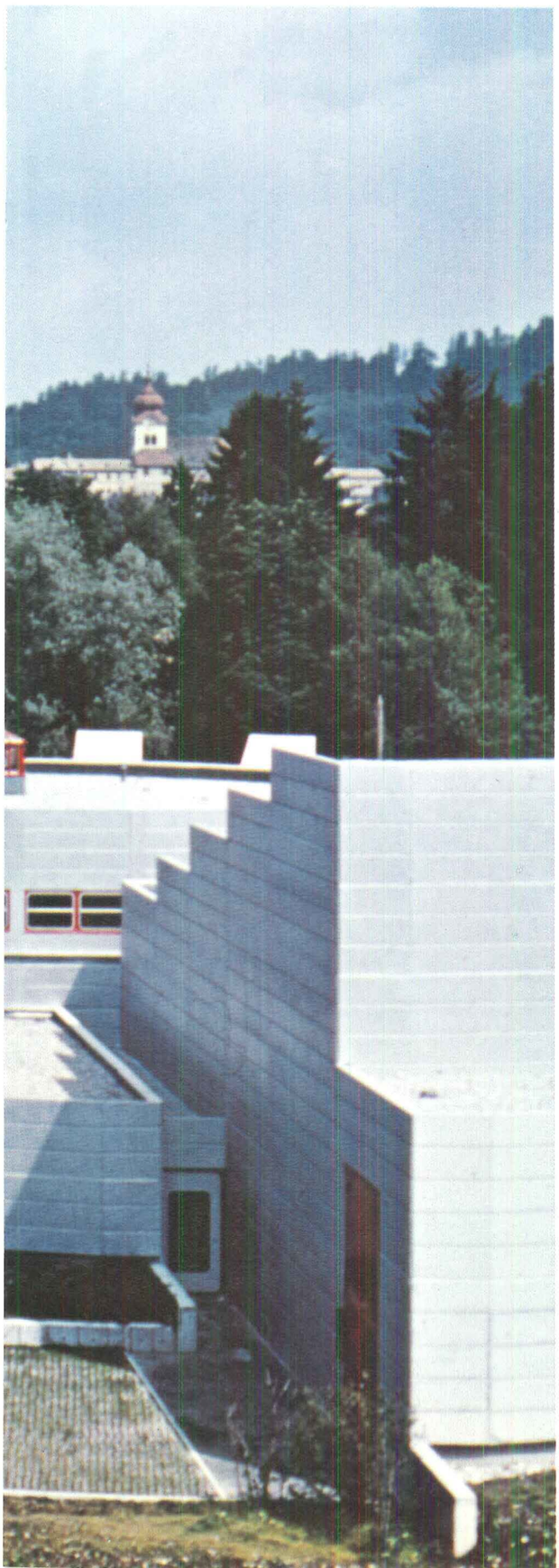
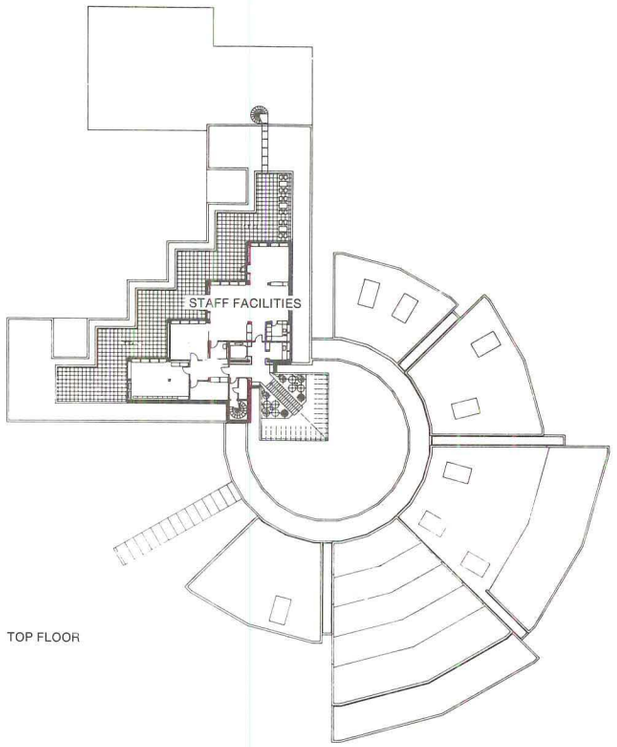


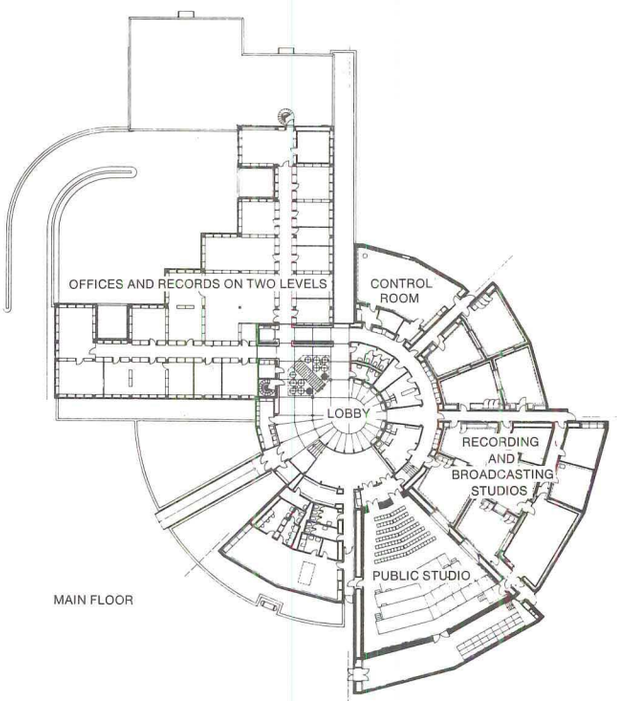
Circular lobby (opposite page) is a skylit organ loft, with polished pipes that are the air-conditioning ducts—exposed as they rise from the mechanical equipment rooms in the basement. The lobby affords access to the pie-shaped broadcasting studios, and the rectangular office floors. The bird's-eye view (above) explains the basic organization of the broadcasting studios.

The Salzburg radio station, which is similar to the ones designed and built by Peichl in three other Austrian provinces, is shown below, with Salzburg's castle on the horizon. The entrance tube, with its porthole windows, is at the center; the "log-cabin-type" precast concrete structure, with its aluminum and steel sash, flanks it. The superstructure—tubes and antennae—are straight science fiction. The major plans of the Salzburg station are at far right.

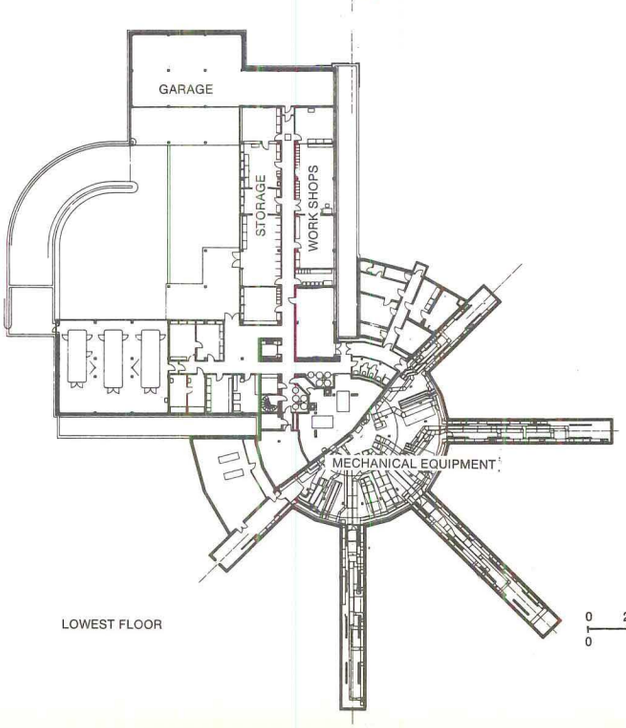




TOP FLOOR



MAIN FLOOR



LOWEST FLOOR

Broadcasting studios and offices (below) are brightly color-coded; and the detailing of doors and windows would do credit to any naval power. The shining tubes on the opposite page guard the corridor into the office wing.

Everything about these buildings (except the infrastructure) is prefabricated. Ironically, the superstructure could be prefabricated because Austria's building industry is small and flexible enough to permit flawless prefabrication even on a very limited scale. The basic enclosure of the buildings is precast concrete, but the inserts are steel, aluminum and glass. All services—ducts, pipes, etc.—are exposed in brightly polished metal. The buildings look, inside, like what is under the hood of a Rolls Royce; and from the outside they have the ad hoc esthetic of an oil refinery, or of some of the gantries at Cape Kennedy. The bright colors used to articulate the different elements in these dream machines recall the color-coding used in those late-20th-century structures as well.

In a number of details—the entrance-tube, the ocean-liner windows, the missile-launcher exhaust barrels that project from a studio roof—these buildings are almost hysterically funny parodies of modern science fiction. Now that these dream machines have been built, Austria will never have to worry about launching a navy. Peichl leads a double life as one of his country's foremost cartoonists. One senses that the humor of the situation did not escape him.

Nor would the historic context have escaped his perceptive vision. To late-20th-century architects and artists, Vienna's Adolf Loos (1870-1933) is becoming an increasingly interesting member of the machine-art generation. Loos, like Peichl, was fascinated by undesigned American technology. He believed, according to the Belgian critic, Robert Delevoy, that "good form must find its beauty in the degree of usefulness it expresses." Peichl, in describing his broadcasting stations, said recently that the "characteristic and unmistakable form of the broadcasting stations is their inner function, outwardly expressed . . . ducts and vents are not concealed behind massive walls; they are left visible, as isolated elements, precisely where they functionally belong." Adolf Loos, in short, seems to have been vindicated once again.

These structures were commissioned and built by an agency of the Austrian government. They put most other contemporary government agencies in the rest of the world to shame.

Facts and Figures
ORF Landesstudios, Salzburg, Austria. Client: Österreichischer Rundfunk Ges. m.b.H. Architect: Gustav Peichl. Landscape architects: Karl Schmidhammer, Wilfried Kirchner. Graphics: Tino Erben. Engineers: Firma Allplan Ges. m.b.H., Nikolaus Amiras (mechanical); Wolfdietrich Ziesel (structural); P. Arni & Knit, Helsinki (acoustical); Rudolf Gschnitzer (lighting). Electrical equipment: Siemens AG Österreich. Power installation: Brown Boveri Werke AG. Building Area: 7,679,000 sq. m.

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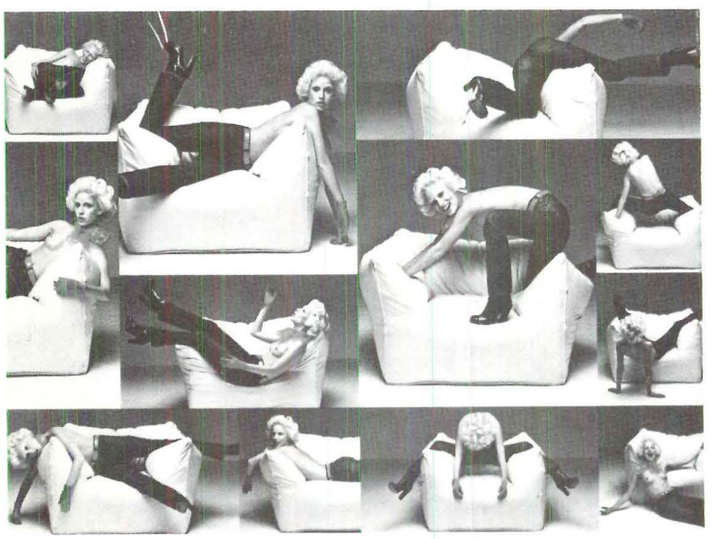
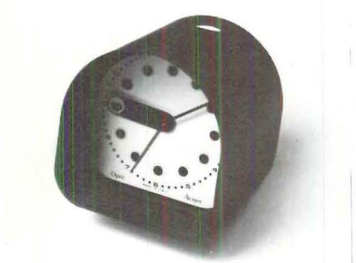


How to turn a so-so chair into the hit of the show



Joe Colombo's "Optic"

Studio DA's "Sport"

Italian design scene

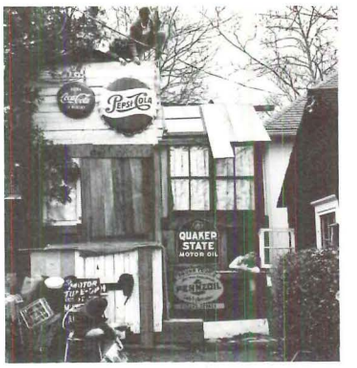
Although the general consensus on last September's Salone del Mobile Italiano was that it was a disappointment because of the lack of any really new ideas or products, people are still talking about the display design of the C&B stand. Designed by Enrico Trabachi who used Olivieri Toscani's spectacular photographs to create a whole event, the display was most exciting from a marketing point of view. The product presented was Mario Bellini's "Le Bambole" (The Dolls) a new line of soft seating, upholstered in canvas or prints which came to life because of a designer's sleight of hand, proving that there really is an art to showing furniture and that it can still be done creatively, tastefully and with flair.

Other noteworthy products at the Salone included Ritz-Italora's growing series of clocks. Three new ones are now on the market. "Rocket", designed by Richard Sapper is a sleek digital table top clock; "Optic", designed by the late Joe Colombo is a table/alarm clock; and "Sport" by Studio DA is a battery powered, suspension-mounted electronic clock for use in cars and boats.—Suzanne Slesin

Suzanne Slesin is a freelance writer on design.

Landmark crumbles

Woodrow Wilson, who used to run Princeton University and the United States of America, was (among other things) a lawyer; but he probably would not have appreciated the Majesty of the Law as it manifested itself at his erstwhile university town last month. There, the Zoning Board of Adjustment, after careful consideration of pros, cons and in-betweens, ordered the demolition of the three-story structure shown here—a "fort" erected by two boys, Fritz Karch (16) and Billy Sapoch (10)—on the grounds that their



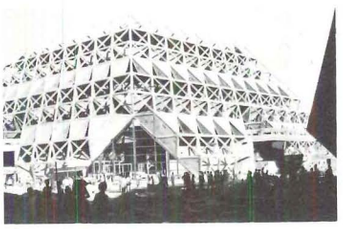
sturdy and rather Venturian edifice violated the local ordinance that forbids "accessory buildings" on properties in the district. The "fort" consists of a prefabbed, one-story log cabin topped by two floors of ad hoc junk; and it is clearly superior in design, decoration, and human scale to certain buildings currently on the Princeton campus, including some that bear Woodrow Wilson's name.

India's first fair

The Third Asian International Trade Fair opened on November 3, 1972 in Delhi amidst great excitement. This is the first international fair hosted by India, and because of several cataclysmic events over the past calendar year (the Bangladesh refugees, the Pakistan war, the monsoon drought, etc.) there were times when everything looked pretty shaky. However, by a truly remarkable all-out effort—literally at the eleventh hour!—the organizers managed to deliver the show on time. And it certainly is a mammoth show. Though many of the pavilions compete with each other in the usual zoo-like ambience which seems inevitable in most international fairs, still a considerably high standard of architecture and engineering is evidenced, and for this, credit should go to the Chief Executive Director, B. Ramadorai and the Chief Consulting Architect, Habib Rehman (Chief Architect to the Government of India).

The main central complex will be a permanent feature of the fair grounds; it consists of the "Hall of Nations" and the "Hall of Industries", and was designed by Architects Raj Rewal and Kuldip Singh, together with the structural engineer, Mahendra Raj. Sixteen-foot rcc octahedrons are used to form space frames, varying in size up to 260 feet in clear spans.

Engineer Mahendra Raj is also involved, this time along with Architect Jasbir Sawhney, in the pavilion for the Delhi Cloth Mills—a truncated cone 90 feet high with a base diameter 140 feet across. The entire structure of steel was shop-fabricated and erected on site within ten weeks. It is clad in teak particle-board, fiberglass, and clear glass. Later it will be moved to a new and permanent location.

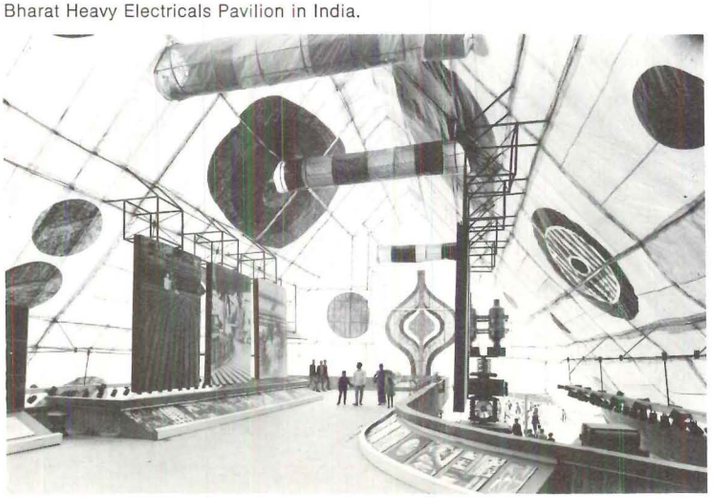


India's permanent exhibition structure

Delhi Cloth Mills pavilion

Without doubt, one of the outstanding exhibits of the fair is the pavilion for the Bharat Heavy Electricals Corporation by Architects Sachdev, Egleston and Rajinder Kumar. A crisp and iridescent metal structure holds up a diaphanous plastic membrane—the only decoration being the sky murals painted by fabric designer Riten Mazumdar. These luminous shapes, all based on heavy electric machine parts bathe the inside in a limpid, translucent light.—C. C.

Bharat Heavy Electricals Pavilion in India.



Return of Okinawa

There will be an International Ocean Exposition in Okinawa in 1975, to celebrate the return of the Okinawa Islands to Japan. The theme will be "The sea we would like to see," which suggests a vision of the oceans as mankind might wish to use them in years to come.

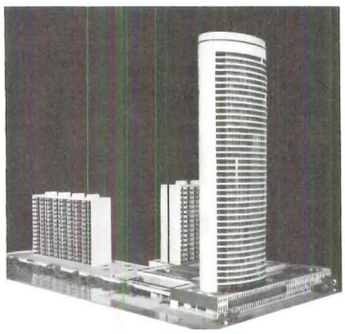
One portion of the Exposition will be *Aquapolis,* a man-made island-town in the sea, to be built by the Japanese government. Other exhibition themes will deal with fish, ships, science and technology as they relate to the oceans, and the "ethnic history" of mankind.

The budget is ambitious—$150 million—and so is the size of the Exposition, one million sq. meters. The Exposition grounds will be located 60 km north of Naha City, on the main island of Okinawa, near the islands of Io and Sesoke. The Japanese government is sending invitations to 140 countries and to 34 UN and other international organizations, asking them to participate. Expectations are that some five million visitors will come to Okinawa for the Exposition. The dates: March–August 1975—Y. U.

La Defense

The first apartment tower at La Défense (the major and most controversial highrise development west of the Etoile in Paris) is now under construction. The ellipse-shaped residential tower rising beside the Seine is to be 125 meters high, and is the first building in Europe constructed of "concrete monocoque" (or monolithic-skin concrete).

This 41-story building, called "France" will be escorted by three others of 17, 14 and three floors. The four buildings, when completed, will have 505 apartments.

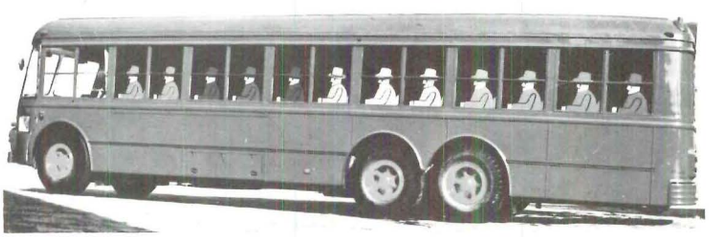


The architect, Jean de Mailly, has also designed the completed Nobel tower at La Défense. In 20 years this should be the tallest slum we have ever seen.—G. de B.

The Triennale

Plans for the Fifteenth Triennale are now being formulated. To be held exactly fifty years from the first Triennale, this international exhibition invites all countries to participate, through both proposals and projects in elaborating on its theme "pinpointing ways of living based on a better use of habitable space and on new structures capable of enriching the life of contemporary man."

Ettore Sottsass, Jr., Roberto Guiducci and Aldo Rossi have already written some proposals. Final dates and plans for the event are now being made.—V.B.

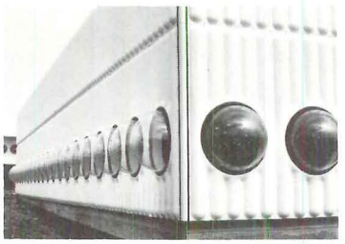


Art in a Pullman bus

Things are moving in Italy. One of the most recent and imaginative art happenings is the formation of "art-buses". Sponsored by the Municipality of Milan and called "Pullman dell'arte", the buses are scheduled to stop for two-week periods in front of three Milan public schools and offer students a different art experience. Designed and painted by Jean Michel Folon and Elio Santarella, the buses are exciting from the outside and interesting on the inside.

The first bus exhibited a show of engravings "I maestri dell' incisione" with works by Luigi Bartolini, Giorgio Morandi and Guiseppe Viviani while the second show presented "Realismo in Germania" and included works by Otto Dix, Peter Foster, Kay Nebel and Rudolf Schlicter.

The art-buses are the first in a series of educational events designed to bring art out of the museums and galleries and to a broader public.—Suzanne Slesin



Aluminum new look

The French research and design office of Cegedur-Pechiney is promoting new uses for aluminum. One example, shown here, is the bug-eyed Mamouth Supermarket built in Clermont-Ferrand (in the center of France) by Architect M. Rognon.—G. de B.

New chairs from old

If the past has never looked so handsome in the furniture world as it does today, one reason might be that the old chairs are new, or rather the new chairs are old.

The graceful chair shown was designed 45 years ago in Russia, but never manufactured until now, by Nikol Internazionale of Italy, and distributed in the U.S. by Stendig. Its designer, the painter/sculptor/architect Vladimir Tatlin (1885-1952), was a bright light in the revolutionary design group known as the Constructivists which was active in Moscow during the years immediately following World War I. The movement was gaining momentum in Russia at about the same time as the Bauhaus was flourishing in Germany. The sculptors Antoine Pevsner and Naum Gabo (who were also brothers), wrote the Constructivist "Realistic Manifesto" in 1920, setting forth the aims of the movement. Tatlin is best remembered for another design which was never executed—his 1920 Monument to the Third International in Moscow, a leaning spiral tower 1,300 feet high, made of steel and wire.

• Gerrit Thomas Rietveld (1888-1964) was a member of the Dutch De Stijl movement (founded by Theo van Doesburg) until 1931, when *De Stijl* stopped publishing and the group dispersed. His early houses, brilliantly accented in the primary colors red, blue, and yellow, were among the most important products of De Stijl. Members of the group were involved specifically with problems of space and color—color acting as a space-molding element.

Shown here is Rietveld's famous Red Blue chair, designed 55 years ago, and the Zig-Zag chair he designed in 1934, both now being manufactured by Cassina of Milan as the first efforts of its forthcoming Masters Collection. All the pieces in this series will be distributed in the U.S. by Atelier International.

• Marcel Breuer designed this chair 45 years ago, at about the same time he did his famous S—or cantilever chair, now called the Cesca. This "new" chair (chrome tubing with leather) which Knoll International calls the Spoleto is a close cousin to the 1928 Mies van der Rohe MR chair in that they both use leather slings.

The Tatlin chair

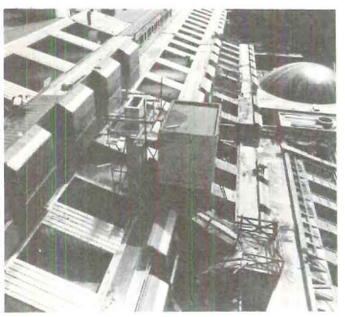
Rietveld's Red Blue chair

Rietveld's Zig-Zag chair

Breuer's Spoleto chair

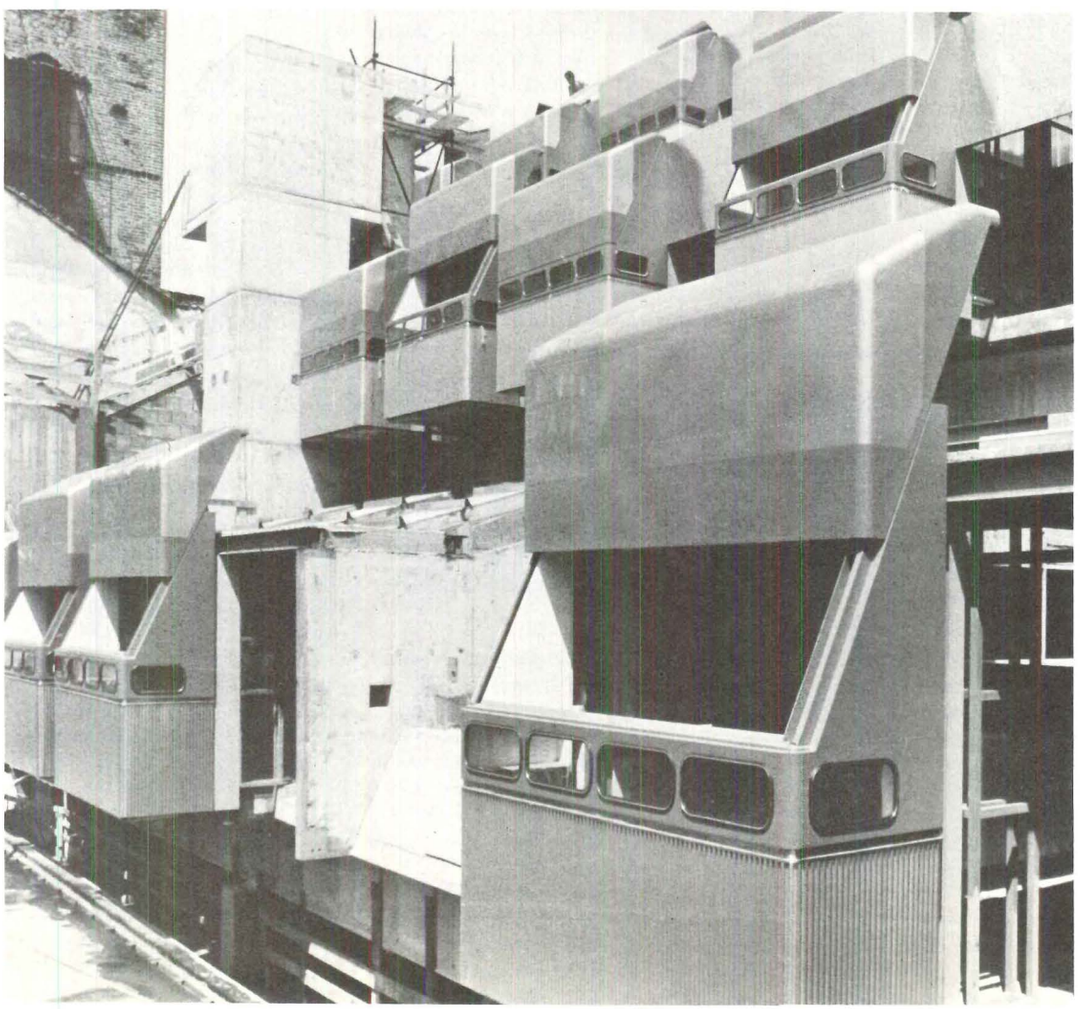
Washington, D.C.

The new Martin Luther King Memorial Library in downtown Washington, D.C., designed by The Office of Mies van der Rohe, was dedicated last fall. A typical Mies structure—arcaded, all glassed in, with pedestrians passing within feet of readers deep in their books—it is an inviting and most approachable building. The library has large open floor areas on the four floors above grade, with built-in feasibility for a fifth floor. Three floors below the street are used for returning books, parking and maintenance. The library has records and microtexts, projection rooms for its films, and spaces for watching TV. The neighborhood is enthusiastic; many new "regulars" had never used a library before.



Ivrea, Italy

This Italian residence, built by C. Olivetti & C., S. p. A. for its visiting employees, was designed by Architects Cappai and Mainardis. While it looks like a technological experiment, it is actually a humanistic one. About half the building was designed for 55 apartments, which extend into windowed, metal cantilevers visible outside (the glass slides back to create a balcony.) Also exposed are the ramps, steps and bridges that connect various levels and functions in the building, plus 12 points of access. Control of access is important because the second half of the structure is open to the public, and has (underground) an auditorium for 600, parking, a pool, gymnasium and sauna. On the ground level is a circular domed cultural center, a restaurant with a glass veranda and two bars. Stores are located on several levels.



Scharoun's Berlin Philharmonic Hall

Obit

The following note was contributed by the Editor of PLUS;

I first met Professor Hans Scharoun in the summer of 1957, in the raw concrete shell of his absolutely unbelievable Berlin Philharmonic Hall. The scaffolding had been removed on the previous day, and the acoustics experts had fired off their pistols inside the shell to check on the reverberation time. It was perfect, although nobody except Scharoun would have bet a pfennig that it would be. He was chuckling over that—in fact, Scharoun always chuckled out of that cherubic face, with that little cigar, under his black, porkpie hat . . . he just beamed at the world out of those little eyes, and grunted, and made no intelligible sounds in any language that I even remotely understood. He just made really beautiful buildings that were unlike anybody else's buildings, and that made no sense at all except that they touched your heart.

Scharoun was an enchanting man, a sort of north-German Churchill in appearance, complete with the cigars and the snifters of brandy. Some of his buildings and lamps and interiors were, I thought, really awful. But they were awful in the way Gaudi's buildings and furniture must have seemed awful to mid-cult architects (like myself) of *his* time. Scharoun once told me that his Philharmonic Hall, in West Berlin (the one with the pistol shots) was, in fact, a vineyard, descending into a valley from which the music rose to the uppermost reaches. I loved to listen to this crazy talk of his—he was really so irresistible. What the hell—why *not* build a vineyard to play music in?

What Scharoun did in and for 20th-century architecture is in the history books. No need to list it all. What he did to encourage and inspire and amuse young architects and artists cannot be put on the printed page. He died in November, 1972 at the age of 79, and much too soon.

• For 25 years Architect and City Planner Samuel Ratensky worked for the city and state governments of New York. He was deeply involved in the West Side Urban Renewal Area Project in upper Manhattan, a program that turned a decaying and demoralized neighborhood into a respectable one.

At the time of his death on December 28, at the age of 62, Sam Ratensky was director of the Water Edge Development Study, a plan for the construction of a platform over part of the Hudson River. This platform would have incorporated a new West Side Highway, and housing as well as public parks.

He believed the future of New York City depended upon keeping middle income families from fleeing to the suburbs, leaving only the very poor and the very rich for New York City to cope with. He battled valiantly for construction of low and middle income housing.

A graduate of the University of Pennsylvania, he was also a student of Frank Lloyd Wright. He worked for FDR in the Housing Resettlement Administration of the 30's.

In 1952, after working in that agency for six years, he became the planning director of the City Housing Authority; and in 1958, was named Director of New York's Urban Renewal Board.

An editorial in the New York Times said the city was diminished by his death, and called him "an uncommon bureaucrat . . . a rare administrator, a man of high standards and humanitarian impulses, the kind of man needed most by any city and most sorely missed."

Peter L. Gluck is a young American architect working in Tokyo for a year and, during this period, had occasion to collaborate with Japanese Architect Lio Kenmochi. Mr. Gluck has written this piece on the occasion of the sudden and shocking death of his friend.

• Lio Kenmochi died in an automobile accident this past summer at the age of 34. At that time he was on a European lecture tour promoting the international integration of building systems among architects and manufacturers.

Since his graduation from Tokyo University in 1961, Kenmochi had attempted to implement rational theory in the practice of industrial and architectural design, and his work was just beginning to have an impact on the Japanese design world. He was deeply committed to improving the quality of the environment and he felt this could only be done on a significant scale through the use of industrial processes. But his enthusiasm did not blind him to the difficulties.

The combination of an almost romantic delight in design and a

Lio Kenmochi

rational resolve to play the most hardheaded role in mechanizing the building industry made him an unusual architect.

Kenmochi saw the danger of all-encompassing independent "super solutions," and being wary of the tendency of design professionals to oversimplify, he pursued a theory and practice based on well-thought-out methodology. Kenmochi felt it necessary to understand the entire building process.

He felt that world integration of building methods would eventually lead to the kind of componentization that he favored. He envisioned sophisticated buildings that could be assembled easily; ultimately a new trade of workers skilled in the installation and replacement of parts, and even supermarkets that would sell components to do-it-yourself homeowners.

Energy and the architect

The conservation of energy is fast becoming the hottest architectural concern this year and U.S. corporations are not to be left behind. Several have sponsored award programs, with notable jurors, for achievement in this area.

Led by Vice President William Carpenter, the Pittsburgh Plate Glass Industries Foundation invited ten schools of architecture to compete for a $25,000 grant "to improve the education of architecture students in subjects relating to energy." The University of Pennsylvania was named the winner, and has announced that it will use the money to produce a much-needed textbook (each chapter written by an authority in his field) on energy conservation and to expand courses in this area.

The judges were Robert F. Hastings of Smith, Hinchman & Grylls Associates, Inc. (Detroit); Gifford H. Albright, head of architectural engineering at Penn State University; and Sital L. Daryanani, of Syska & Hennessy, Inc., N.Y.

The second notable contest was sponsored by Owens-Corning Fiberglas. OCF's Energy Awards Program presented awards of a Steuben Crystal Triangle to the owners, architects and engineers of buildings in three categories that demonstrated outstanding energy conservation features. OCF has a natural interest in the subject, but its awards went far beyond commercial consideration:

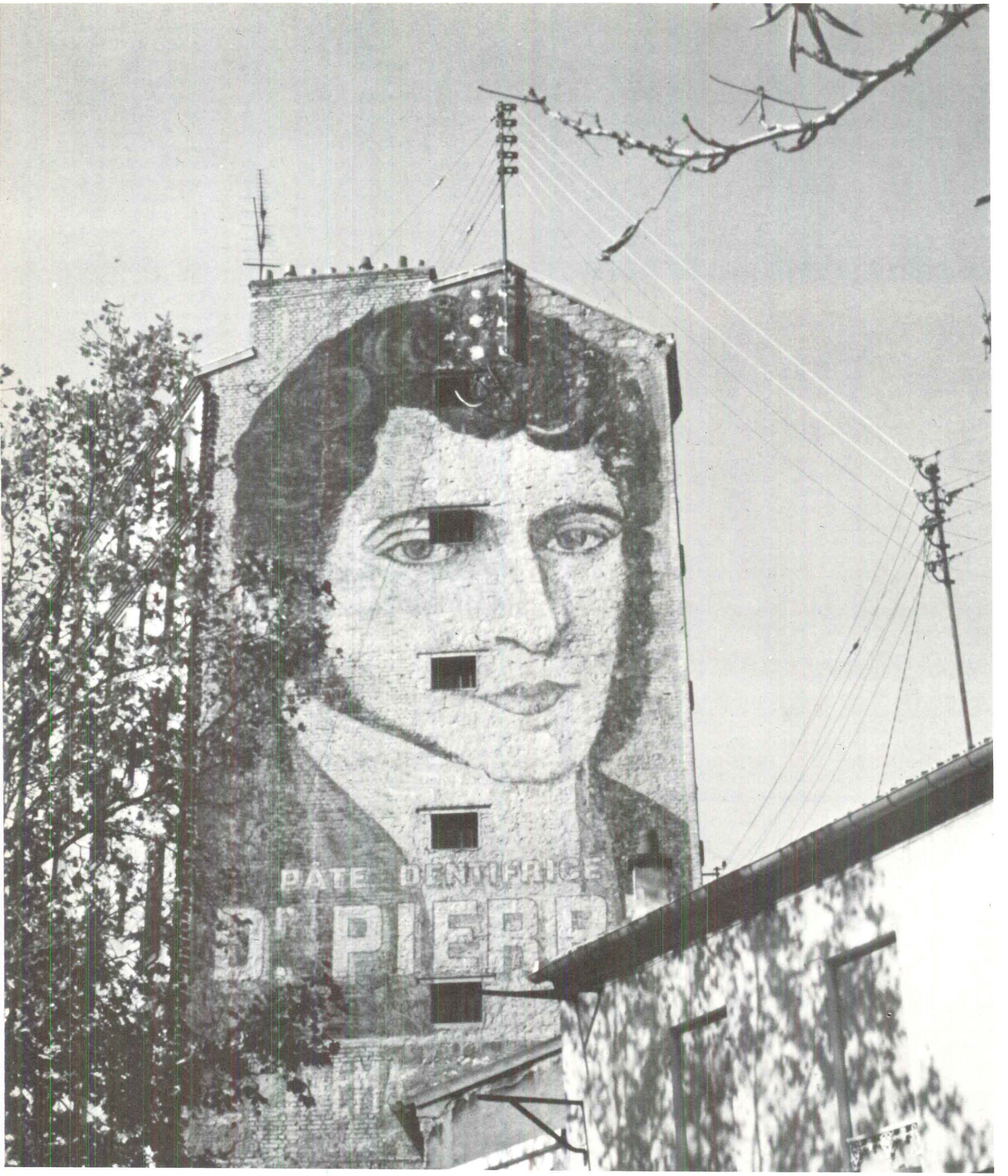
• *Commercial:* Westinghouse Nuclear Center, Monroeville, Pa., designed by Deeter Ritchey Sippel Associates, for its use of "heat-of-light recovery and careful attention to performance of the envelope and air distribution systems."

• *Institutional:* Mercy Hospital II, Coon Rapids, Minn., designed by S. C. Smiley Associates, for (among other points) its successful "reduction of the energy requirements by the use of a radiant heating-cooling ceiling." This hospital cut its energy consumption 33⅓ percent.

• *Industrial:* Energy Center, Mount Sinai Medical Center, Miami Beach, Fla., designed by The Smith Korach Hayet Haynie Partnership, for "achieving the lowest possible owning and operating costs through use of the most efficient equipment. . ." All boiler and chiller equipment was built into a central plant, which was found to be more efficient than putting equipment into individual buildings.

Jurors were: MacDonald Becket, Welton Becket Assocs., N.Y.; Leander Economides of Economides & Golberg, N.Y.; Harold S. Lewis of Jaros, Baum & Bolles, N.Y.; Charles E. Sepsy, Ohio State Univ.; and Herbert H. Swinburne, Nolen-Swinburne Partnership, Pa.

Photos: P. 18 (top) Can. Gov. Travel Bur.; (middle Swiss Nat'l Tourist Off.; (top right) Brit. Tourist Auth.; (middle and lower right) John Donat. P. 20 (bottom) Tom Hubbard; (right) Cin. Chamber of Commerce. P. 21 (top) Alexandre Georges; (bottom) Kurt Blum. P. 22 (top left) Tom Breuer; (bottom left) Airal; (middle and lower right) John Donat. P. 23, F. Catalá Roca. P. 84 (top left) Olivieri Toscani; (top center) John A. Leone; (middle right) Studio New Light; (bottom) Mahatta & Co. P. 85 (bottom left) Ugo Mulas. P. 87 (top left) German Information Center.



Footnote

Paris landmark threatened! The five-story portrait of Dr. Pierre, who lent his name to a French toothpaste, is one of the last three remaining likenesses of the good dentist left in Paris. It was painted around the turn of the century. The building is about to be torn down. Photograph: Annegret Beier.

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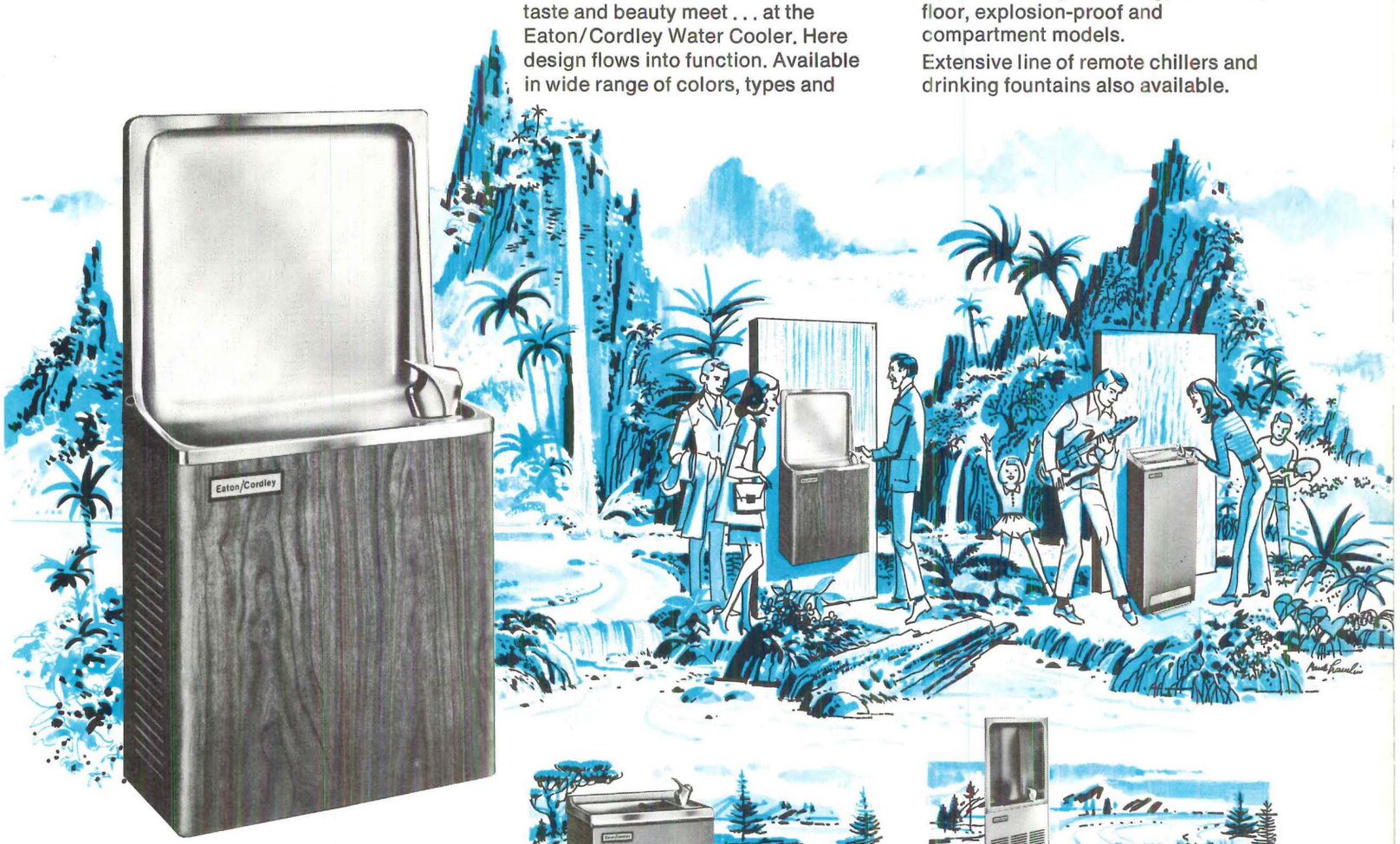

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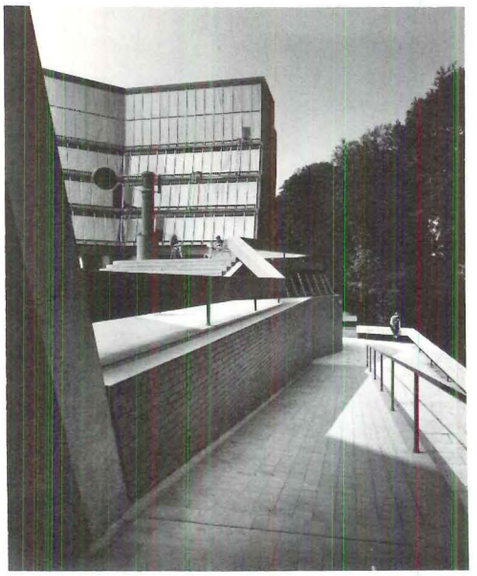
Reader Service #110

A rakish dorm confronts Oxford

Continued from page 32



something familiar and localized. The brick towers of the sets are grouped in pairs, with rounded corners. They mark the entrances, although the doors are not actually between them, but around the side. They have the proportion and blankness of medieval turrets. This feature of paired turrets, entrance-like yet not exactly an entrance, is to be found again at Cambridge and Florey. They have some quality in common with the Towers of Kahn. But Louis Kahn's buildings are generally rectangular all through, whereas with Stirling the rigidity of the vertical forms is generally set in contrast with dynamic splays and angles in the rest of the cross-section.

The middle two in the series of four—Leicester Engineering and Cambridge History—were built and have been widely published. This is not the place to examine them again in detail. In any case, Selwyn and Florey, being residential blocks, are deprived of the divers elements which in both of these produce such dramatic juxtapositions of forms—a limitation which did not prevent the architect from looking for other elements of drama. In both Leicester and Cambridge the structure is a concrete frame. The brickwork, like the glass, is conceived as a cladding skin, and so are the famous red tiles. It is sufficient for now to identify again the strictness of economy exhibited in both space and structure.

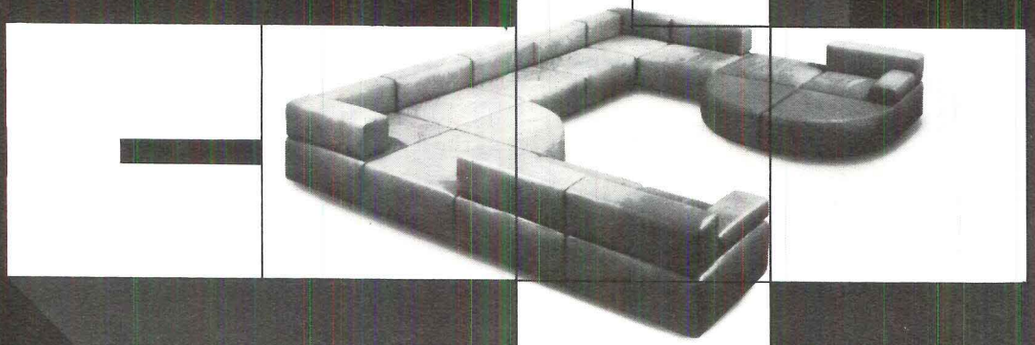
At Leicester the limitations of site dictated concentrating the differentiated spaces into a group of towers. But although the staircase tower, carrying aloft as it does a great head of water in the storage tank, plunges straight to the ground, the landings, which are minimal at the top, stretch out as we come down through stages. The organization is not an extrusion vertically of a single plan form, but is pyramidal, with large numbers of students needing to move vertically only in the lower three stories, while fewer people, mostly staff, have to use the lifts to go to the top. Again, we have a recognition of the effort implied in stretching up from the ground, emphasized by the exposure of the landings through the sheer glass cladding.

Again, at Cambridge, space is strictly rationed. The large and glorious reading room is a lean-to shed, maintained in position by the thrust of the entire rest of the building against which it leans. The corridors pass, floor by floor, into the ambience of a big tent, and narrow as they are, are amplified at intervals by the formation of passing places that project as bay windows into the upper space of the reading room. Space and structure are stretched into a common arc culminating into the apex in the peak of the internal triangle. The spaces are once more distributed in pyramidal organization, so that only the staff, or small groups of students, go right to the top. The staff rooms contract above the seminar rooms on the outside of the L-block, making a stepped wall of glass to complement the glass cascade of the reading room roof. Elements which at Leicester were dispersed in an episodic way are now drawn together into an intensely unified form. The single-mindedness of expression indicates both a stricter conceptual model and a more naked will. This is Stirling, self-sufficient and going it alone.

With Florey then, we come back to the simpler program of student study-bedrooms. Common elements in the brief are limited to a breakfast room, a porter's lodge and entrance. Unlike Selwyn, the site is restricted and separated from the main college.

Whether or not the next generation of students will take the measure of Florey remains to be seen. Stirling's earlier Leicester Engineering Facility is equally strenuous and ingenious, and required acclimatization. But afterwards, the students were able to write in their magazine that although they had criticisms in terms of taste, "all the contributors ended by saying that it was tremendously stimulating to be in . . . and that they felt intensely alive working and studying there." Unlike Leicester, Florey is a dormitory, but there seems little reason to doubt that it too will come to be appreciated by its users as much as by its visitors.

CUBO



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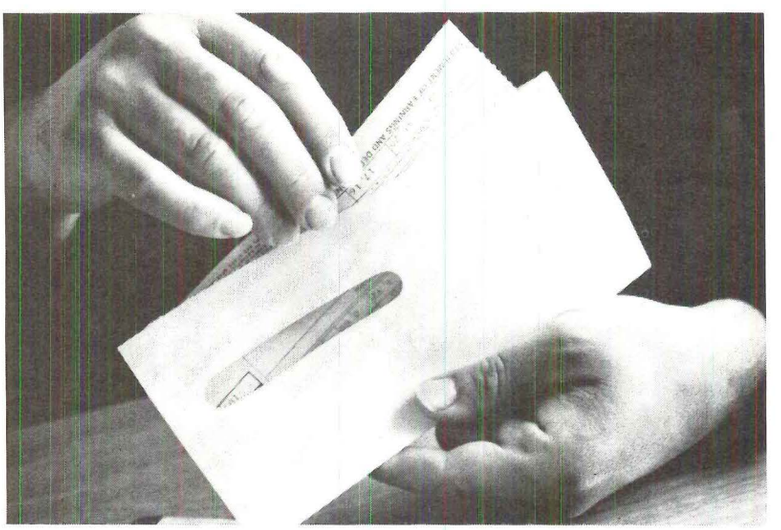

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China Today

Continued from page 46

years, but now I think it is probably shortened. Restoration involves historical study as well as learning traditional craftmanship. I heard one story involving the *Qinian Dian* of the Temple of Heaven in Peking. Craftsmen took down the centerpiece of the temple ceiling for cleaning (a circular relief of a dragon) but they forgot which way the circular design faced. The restorationists consulted architectural historians at Tsinghua University and were able to restore the piece authentically. The Chinese government feels that historic buildings of artistic value are really the property of the Chinese people and evidence of the creativity of the people, even though these buildings were erected under the oppressive feudal system. It is the people who produced these buildings and not their oppressors, who were only non-productive consumers.

Q: Do they rehabilitate old buildings for new uses?

Liu: Yes. In those cases accurate restoration wouldn't be as important as making them functional in the present. It would be done either locally or by the institute. The institute might take the house of a former landlord and turn it into an embassy building, for instance.

Q: The answer to this question would seem obvious, but is the architect a figurehead in society? Is his work revered or better compensated than other work?

Liu: No. That would be very inconsistent with the new society that China is building. No one aspires to be elevated or to elevate himself about the masses. To assume elitist attitudes would be a contradiction of the struggles against the "three alienations" I mentioned earlier.

Q: Would an architect, say, in his fortieth year, who has been practicing, return to the farm as a laborer occasionally?

Liu: Quite possibly. You see, to be in close contact with physical labor and with the masses (peasants, workers and soldiers) is the basis of the new order in China. The reward for an individual in place of money or status is the respect of his peers and the security of his immediate daily life, along with the satisfaction of having contributed to the common good. This social attitude is not unilke that upheld by early settlers in New England. It is similar, it seems to me, to the attitudes that some segments of youth in the United States are striving for today. Now China has had great economic successes, but in any society economic development will eventually have diminishing effect as a goal or as a cohesive force; what replaces that is a crucial question for China, as well as for other countries today.

The Boston City Hall

Continued from page 77

cussing this building in *The Architectural Forum* in 1969, deplored the extensive discussion about the building that had preceded the building itself. "The only justification of any building is its impact on the user who is willing to understand its intentions and solutions." But what of the user who *isn't* willing to understand, or *doesn't* like the intentions and solutions?

Like the critics, most architects have also taken a dim view of the untrained eye. ("*I'm* the architect, *I* know," is the typical reply.) Many architects tend to think of people as adorning their buildings, draped around like so many people in a rendering—architects tend to *believe* their renderings, even when they have created these fictions out of paper figures cut from the ads in fashion magazines. Architects also tend to think of people as detracting from a building. ("See it before the people mess it up," is another typical response.) The architects of City Hall recalled to me proudly that an architecture critic once told them, "this is the only public building where people look dignified." I spent a week coming to the disturbing conclusion that few of the people I talked to in the building seemed to *feel* dignified.

What does all this mean? Is it all a ghastly failure to educate, a failure to get the message across, now to be followed by a vastly increased effort to explain what constitutes "good architecture"? Can the level of popular taste be "raised" to appreciate this building? The question is an arrogant one. (And a funny one: with exquisite irony, Boston has just arranged to name this elegant plaza after the late Mayor Curley, whom the masses elected from jail, at least partly as an affront to the Establishment.)

I would personally prefer to see the effort go into learning more about the untrained eye—what it finds pleasing and stimulating, why it sees what it does and ignores (or misreads) what the trained eye has designed with such care and elaborated into such mythology, and why the untrained eye doesn't just fail to respond positively to some of the "architectural landmarks" of our time but in fact actively loathes them or laughs at them.

Partly we must learn to trust the untrained eye that is still within us. Wolf Von Eckardt, the architecture critic at *The Washington Post*, was talking about the City Hall in 1964, at the Urban Design Conference at Harvard: "At first I was a bit shocked when I saw the result of the competition in the magazines, but I have really warmed up to it." He then called it "a tremendous job" and "a truly magnificent building," as in fact did many others in those early days when the City Hall was still on paper, and later when it was built. These superlatives are not what is interesting; what is intriguing is why he originally (and briefly) found it shocking. Many professionals, today, are paying more attention to the untrained eye, and to the person behind that eye. They will have to, if their work is to exist and endure in any real way, as shelter enriching the lives of real human beings.

The architects of the Boston City Hall have given a great deal of thought to what they hope are the building's enduring values. Kallmann said to me: "It's longevity comes from the intensity and rigor of the fabric of the building. One could take a small segment and say *this* is the City Hall. It doesn't rely on its form. It would make a good ruin, like a segment of the Colosseum." And I thought wryly of the man with the untrained eye who already saw it as a ruin, in his mind's own Cecil B. DeMille extravaganza with the less-than-Biblical plot—just a rival architect who knew the one column that held it all up.

Photographs: Pages 72 and 74. Lois Bowen; others, Ellen Perry Berkeley.

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continued from page 106

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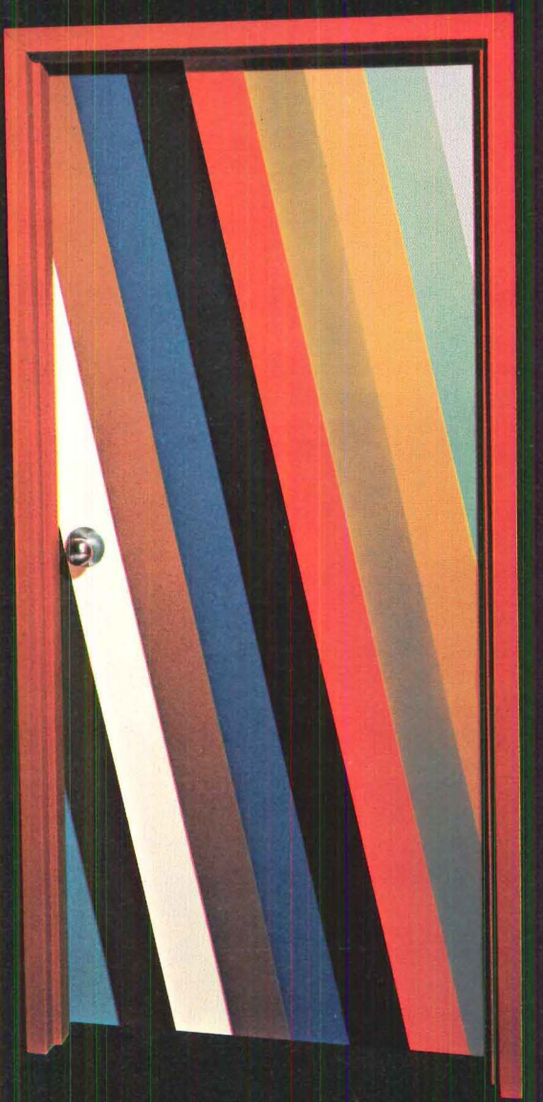

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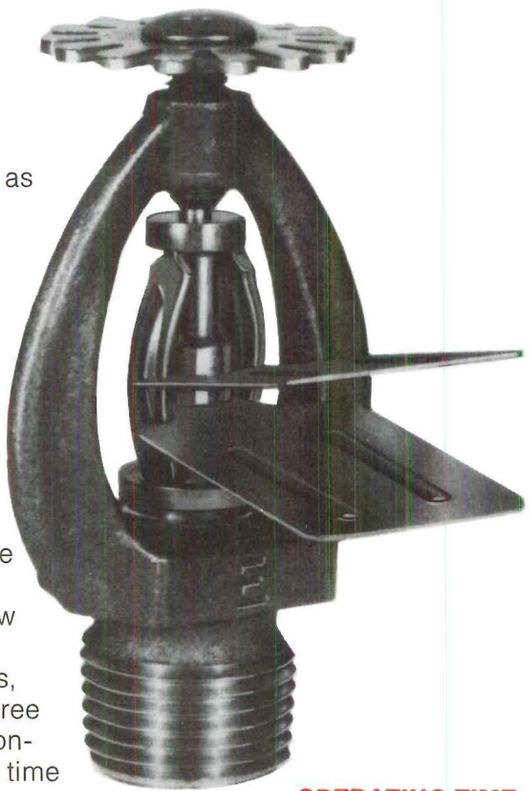

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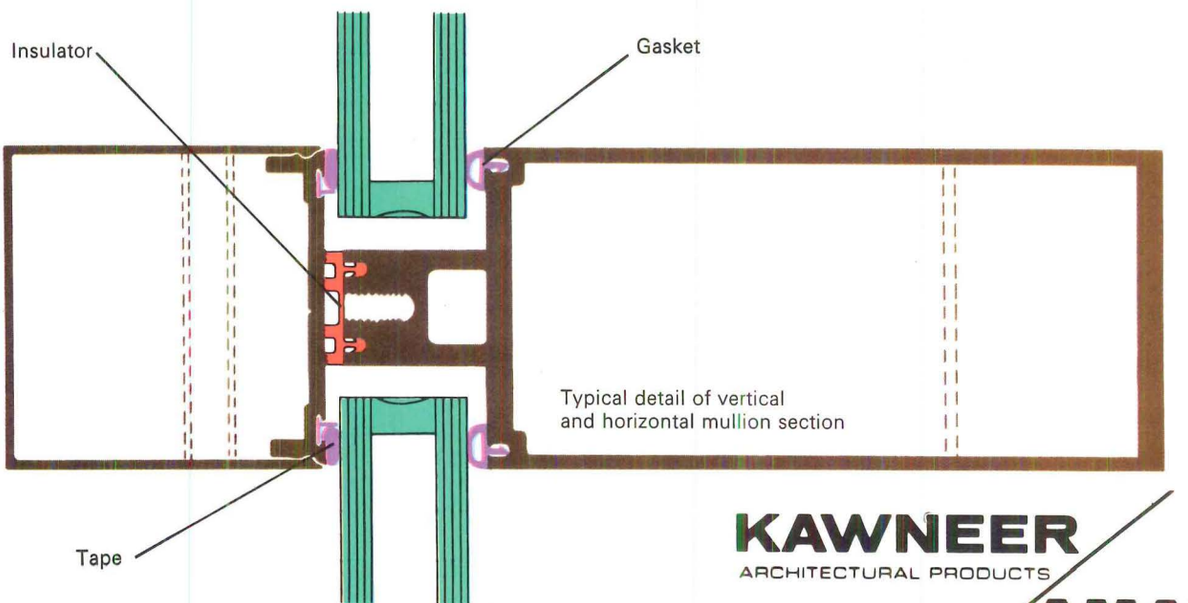

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The Fynsplanens Building System, an industrialized building system for educational facilities developed by a group of Danish architects and engineers, is described in a four-page pamphlet now available.
Reader Service #201.

Stelmo, Inc. has available new booklet outlining their many services including design and manufacture of custome-made steel formwork, tunneling shields, and special plants for system building.
Reader Service #202.

Westinghouse Home Systems offers two catalogs on subsystems for manufactured homes and service-support modules.
Reader Service #203.

CEILING SYSTEMS/ COMPONENTS

Celotex Corporation brochure on integrated ceilings gives design details and data on acoustical control, air supply and return, and lighting.
Reader Service #204.

Conwed Corporation new literature outlines two systems for suspended ceiling applications. Catalog includes specifications, technical data, and installation photographs.
Reader Service #205.

CONCRETE

Master Builders provides information on cold-weather concrete work, detailing correct temperatures of concrete and areas of application.
Reader Service #206.

CURTAIN WALL

AllianceWall Corporation announces availability of color catalog illustrating and describing porcelain on steel and aluminum panels for interiors and exteriors.
Reader Service #207.

Glaros Products, Inc. offers eight-page brochure including photographs of and specifications for their total wall panel systems.
Reader Service #208.

Elwin G. Smith & Co., Inc. has prepared color pamphlet describing and showing examples of Smith metal walls in office and commercial buildings.
Reader Service #209.

DOORS

Republic Steel Corporation has available 24-page catalog containing specification information on their complete line of doors and frames.
Reader Service #210.

FLOORING

Azrock's 1973 edition of their catalog on resilient flooring is now available. It includes useful information on sizes, gauges, uses, installations, light reflectance values, and brief specifications.
Reader Service #211.

DuPont offers architects a brochure on carpet made with Antron Nylon. In addition to color photographs of installations, it contains data on construction, acoustics, flammability, installation, and maintenance.
Reader Service #212.

Gabbianelli, of Italy, provides color renditions of their design series of ceramic tiles for flooring as well as illustrations of imaginative applications.
Reader Service #213.

Goodyear Tire & Rubber Company tile and sheet vinyl flooring data is available in catalog that provides information on styles, patterns and colors.
Reader Service #214.

Hambro Structural Systems, Ltd.'s new composite floor system for commercial and residential construction is outlined in a four-page brochure.
Reader Service #215.

Inland-Ryerson offers catalog on Inryco Floor Systems containing design data, selection charts, fire ratings, finishes, and specifications.
Reader Service #216.

FURNITURE

Simmons Company Contract Division has introduced the "O'Hare Chair", constructed of molded polystyrene, and mounted on an advanced swivel mechanism that allows a full 360° turn.
Reader Service #217.

Thonet Industries, Inc. has released information on their new "Premier" club chair created for reception areas and public lounges.
Reader Service #218.

INSULATION

Johns-Manville has developed a home insulation calculator for determining FHA requirements.
Reader Service #219.

Pittsburgh Corning Corporation makes available catalogs detailing application and specification data on Foamglas® Insulation for refrigerated structures, normal-temperature structures, and pipe insulation.
Reader Service #220.

Grefco, Inc. Building Products Division provides data on three types of rigid roof insulation in new brochure.
Reader Service #221.

LIGHTING

Day Brite brochure outlines an emergency exit sign that requires no separate circuit yet conforms with National Electric Code requirements.
Reader Service #222.

J. H. Spaulding Co. gives details on its Moderna outdoor luminaires in selector guide that provides specification data.
Reader Service #223.

Thomas Industries, Inc. offers 68-page color catalog on commercial and industrial lighting projects.
Reader Service #224.

Verilux, Inc. describes its full-spectrum fluorescent lamp, a unique solution to the color distortion and glare problems of regular fluorescent lighting, in new six-page brochure.
Reader Service #225.

PARTITIONS

Panelfold's new design group of vinyl laminate patterns are detailed in brochure on their folding partitions. Specifications included.
Reader Service #226.

Georgia-Pacific Corporation's sound-deadening incombustible gypsum board, designed for use in wood and metal stud

Continued on page 99

NEW Sanymetal®

LAMINATED PLASTIC PARTITIONS WITH STAINLESS STEEL PILASTERS ...ARE SMOOTH INSIDE AND OUT!

Sanymetal laminated plastic panels, along with Sanyplastic doors and stainless steel pilasters with exclusive recessed latches and hinges, are the ideal combination for strength, beauty, easy cleaning and economy . . . with smooth, flush, corrosion-free surfaces inside **and** out.

The new sliding Sanylatch is recessed with an inset bolt . . . no surface mounting. Hinges are fully recessed within width of door . . . no surface mounting. Factory applied toggle hinge brackets are flush with pilaster, no surface mounting or wrap-around hinge brackets. Only Sanymetal offers the beautifully smooth "timeless trio" toilet partition.

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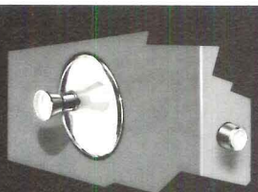
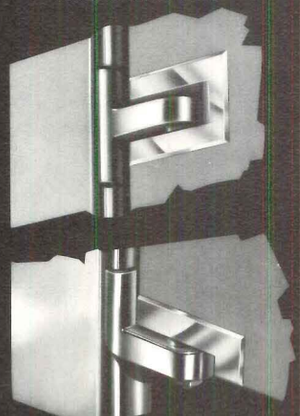
Wall Supported | Ceiling Hung | Floor Supported | Overhead Braced



CONCEALED LATCH
INSIDE AND OUT

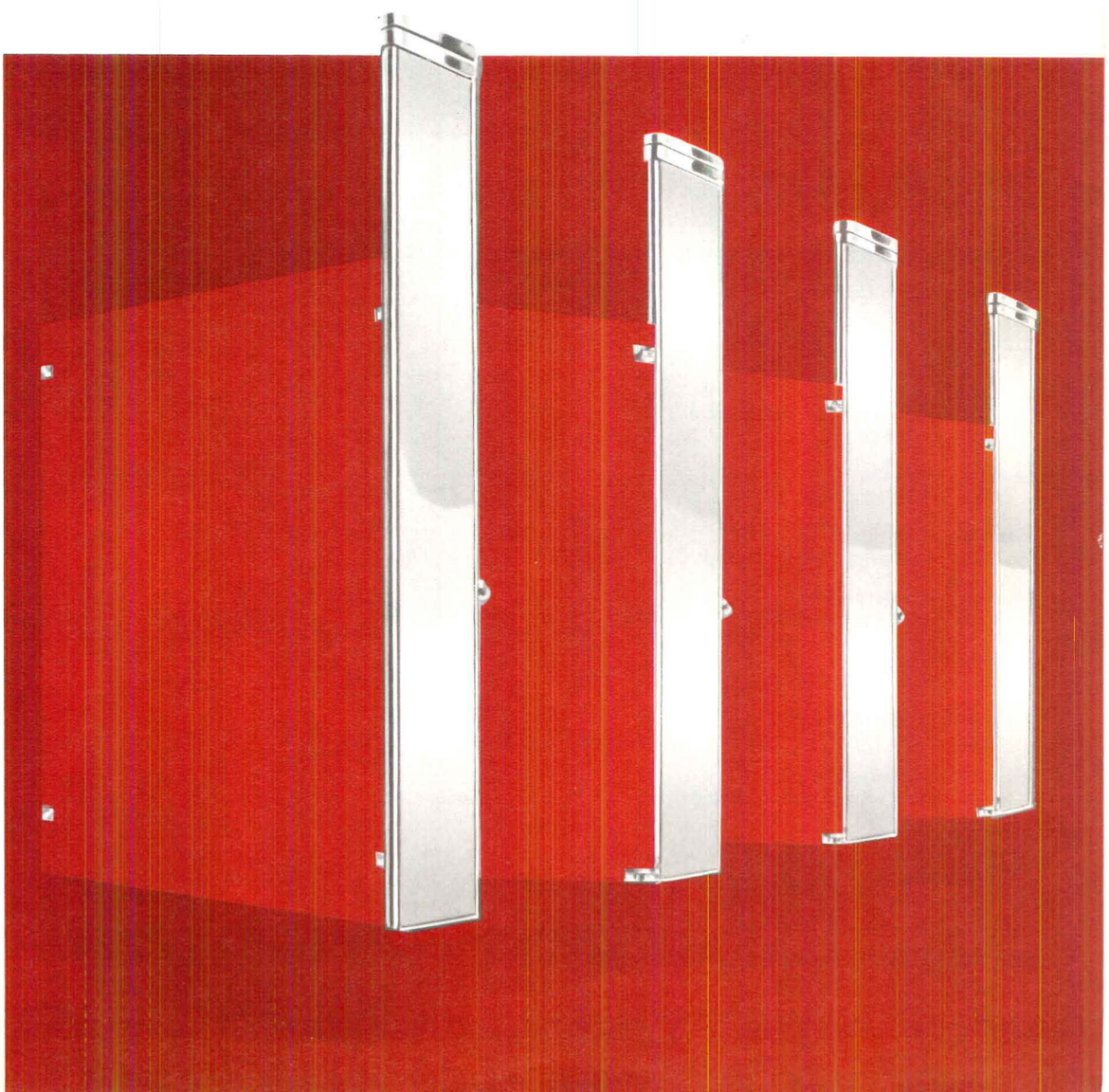
Recessed Sanylatch . . . flush-to-door surface latch plates of chrome-plated solid brass or stainless steel — both sides . . . smooth lever operation of stainless steel inset bolt.

RECESSED HINGES
INSIDE AND OUT



Recessed hinges and factory applied toggle hinge brackets . . . proven-in-use to millions and millions of swings . . . bottom hinge bearing has "power" return to pre-set opening.

Reader Service #115



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