PROGRESSIVE ARCHITECTURE *April 1966*

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Progressive Architecture ® *April 1966*

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EMBASSY HOUSE, DENVER

Architect: De Gette and McMichael. General Contractor: Irwin Horwitz

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VIEWS

Design Awards Issue Still Hotly Debated

Dear Editor: Re your Thirteenth Annual Design Awards Program (JANUARY 1966 P/A): One is prompted to quote Perry Smith (quasi-hero of Truman Capote's nonfiction novel, *In Cold Blood*) upon being sentenced to death: "No chicken-hearted jury they."

A completely outspoken jury is a joy to behold. Their comments were sound, to the point, and I find little to criticize on that account. However, their damning of exhibitionism, though correct in context, seems unfortunate. The exhibitionism of today is healthy, something that has been lacking amongst architects for too long. There is no doubt in my mind that those same designers criticized for overemphasis today will, upon reaching a level of maturity in their work, have a much stronger influence in shaping their environment than their less venturesome predecessors.

DENIS M. JESSON
Lincoln, Mass.

Dear Editor: I have read, and done a good deal of rereading, of the Editorial in the Design Awards issue. It is all packed with food for thought; not easy food with which quickly to agree!

I am still thinking, but it suddenly occurred to me that I should not benefit silently, but rather thank you for the stimulation granted me.

There were a few young men who, together with me, felt grateful.

RICHARD J. NEUTRA
Los Angeles, Calif.

Dear Editor: When a man starts calling his apartment his castle, I will bow to Vincent Scully, urbanization, and undifferentiated living, and sadly leave this withered earth. Until then, I will endure the "embarrassment" of living in an "individual house."

J. ANDREW LEE
Cambridge, Mass.

Dear Editor: As usual, I was looking forward to the January issue of your beautifully presented journal.

However, I am shocked by the attitude of your 1966 awards jury. It displays complete bankruptcy of criticism. No jury could have failed to pick Pelli's dynamic town design as a virtuoso performance. The point is not whether the selections made are designs deserving acclaim—they all do—but what was it that the jury complained about or was looking for?

Evidently, they were looking academically for style. They found the situation confusing and added their share to the confusion. Because of prejudicial dislikes (even with these few designs to which they did give awards), they made statements the drawings easily disprove. Perfectly functional shapes are thought of as "pop art"; the box is a "seriously considered" statement; and lip service is paid to "romantic expressionism." They invent a "monumentality of the 50's" and let it die now at the same time.

There is no context sought with socio-economic determinants, biological needs, and technological developments. Pure aesthetic hogwash is dished out to us from a position of high taste-making.

H. H. WAECHTER
Creswell, Oregon

Dear Editor: Concerning Hobart Betts' Beach Cottage: Let this design be an experiment in form, let's even call it a *house*; but it sure doesn't look like, feel like, or even make me think of a *home*. What influenced the designer's thinking?

I can imagine canals—and Reed grass and beach plums—but where in the hell is the connection? The drawbridge? You must be kidding.

Of course, we are arguing taste, and that is hard to do. But if we are looking for a trend in *home* building, that is something that we don't seem to have. (Excuse me, we have the rectangular box.)

By giving a citation to another box, all you'll get is more boxes—unless architects read the jury comments, and even those won't discourage a guy from trying for a citation next year.

This design is made to fit the Sawtooth Mountains in the Trinity Alps, and for that it should get an award; but not in its present location.

Let's not encourage work simply on the basis of design. Let's encourage those who achieve quality as a result of combining design with function and landscape (urban or otherwise) to get away from the ugly rut we are in right now.

HENK G. ZOLL
Weaverville, Calif.

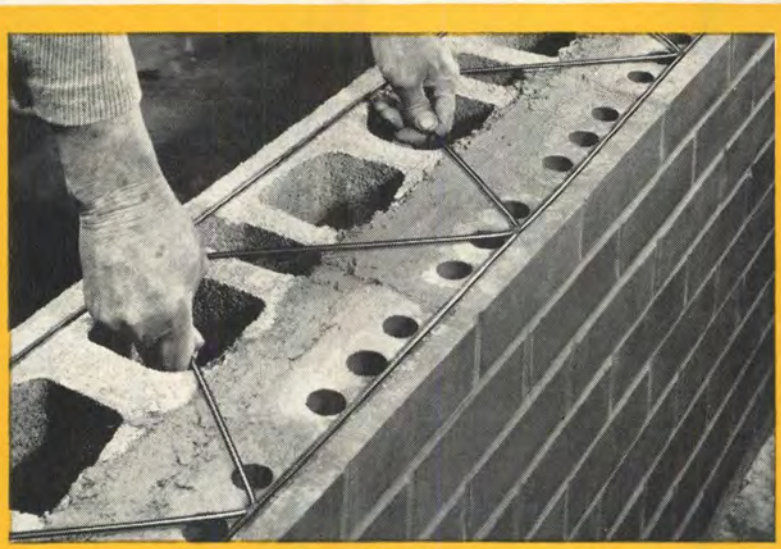
Dear Editor: This year's Design Awards issue managed to convey, at least to this reader, a strong sense of frustration and malaise. In its totality, it communicated, in an unprecedented manner, the present state of alienation of our profession from the life of our urban society.

Having looked through the awards and read the jury comments over several times, a sense of ambivalence persisted as the strongest message: on the one hand, complete agreement with the jury concerning "overdesign," unrelatedness, and the criticism of the "building type" mode of assessment; on the other hand, an overriding feeling that the roots of the malaise were being overlooked—that possibly neither in the architect's submissions, nor in the jury's responses, were the really significant questions being asked.

One point repeatedly made in the jury discussion was the lack of serious submissions in the field of urban design. The term "urbanistically speaking" keeps recurring with annoying frequency. As a first step, I would suggest we drop such a mouthful as, at least, a contribution to verbal communication if not to the problems of the city.

If I understand Professor Scully correctly, he seems to be proposing, as one remedy for our urban ills, a form of inside-outside dualism in architectural design. This proposal strikes me as particularly inappropriate today. The contrary position, that "buildings must be a clear reflection of what happens inside," certainly offers very little more. The problem lies much deeper: In fact, the proposal betrays a mode of thought that, in my opinion, is no longer capable of dealing with the city as a living phenomenon. This technique of rigid and exclusive categorization is typical of the thought processes that have got us to where we are today, but it is highly doubtful that such concepts can equip us to grapple with today's world-city; or, for that matter, with any other significant contemporary activity. This view seems to see the city as a latterday Renaissance stage set, which relegates urban architecture to a primarily visual —or, worse still, pictorial—role. This concept is more apt to lead to an architecture that is "somehow Beaux-Arts, or academic, or Fascist, or bad" rather than in the opposite direction, as inferred in the jury discussion.

If one attempts to perceive the contemporary city in its complex relatedness, one is forced to observe that, in many ways, the safe old categories such as inside and outside have, in fact, been turned inside-out; rather than being isolated phenomena, they interpenetrate one another in a complex manner. How could an architect, trying to follow the jury's suggestions, design a rapid-transit



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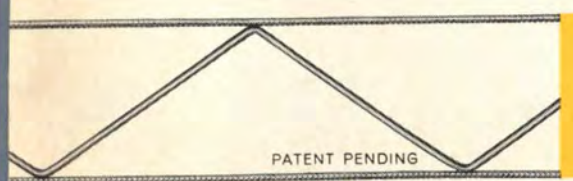

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system, an airport, or a weather-protected retail area, to name only a few examples.

The questions raised by the jury have, of course, been around for a long time in the works of poets, philosophers, painters, and theologians. The architect today is not alone in finding himself suddenly out of touch with life, in sensing that the old techniques of fragmentation and rationalism that have stood him in good stead since the Renaissance are no longer valid. Obviously, if our profession is to make any worthwhile contribution to the present situation, many changes in outlook and organization are required. I would suggest that one necessary step involves the attempt to conceptualize contemporary problems —the city, architecture, etc.—in philosophic terms appropriate to the new situation; and then to develop techniques and artistry capable of coping creatively with these conceptions.

Many words can be used to express these concepts. What in effect is needed is an attempt to "get with it," to catch up belatedly with our fellow artists and thinkers. In terms of thesis and antithesis, some of these constituent concepts can be expressed as follows:

- *simultaneity*, not linear sequence
- *identity*, not alienation
- *pattern recognition*, not pattern imposition
- *communication*, not "presentation"
- *architecture as a multisensual experience*, not as pictorial diagrams
- *systems design*, not only building design
- *effective form*, not superficial form

The process of urban design involves many of the above concepts, and is characterized by a "general field" mode of operation involving conflict exposure, quality-quantity interweave, and rigorous interdisciplinary dialogue—in effect, the professionalization of all participants. If, through this process, we can begin to participate in the action of the city, we can then again begin to grasp architecture as the celebration of urban activity.

Returning to P/A's January issue: After much digging, one gem finally came to light, buried in Nathan Silver's review of Victor Gruen's recent book on the core of the city. Silver used the vehicle of this review for a perceptive commentary on Christopher Alexander's ideas of "overlap" and the "lattice grid." Bravo for reviewer Silver and of course for Christopher Alexander.

The quality of Alexander's insights do indeed stand out in the present situation in our profession, and provide significant clues to some meaningful directions in research and design.

Doubtlessly one of the strongest statements made in the context of "the perception of the sense of order" is to be found in the work of the great American poet Wallace Stevens. Particularly pertinent are his "Man on the Dump" and "Connoisseur of Chaos," both of which might well be quoted in full if space permitted. However, a few lines from the latter poem might serve to stimulate the appetite:

"A great disorder is an order, Now A
And B are not like statuary, posed
For a vista in the Louvre. They are things chalked
On the sidewalk so that the pensive man may see."

RAYMOND T. AFFLECK
Montreal, Canada

Dear Editor: May I say how much better and healthier the Awards made by the last two juries have been than previously —vigorous, forthright, and without particular bias or prejudice.

J. R. WOODRUFF
Chester Springs, Pa.

Dear Editor: Your Design Awards Program screams aloud, "The Emperor's New Clothes." The premiated projects are architecturally vacuous, devoid of real architectural thought and of architectural space and form as it is defined in the jury comment for the second project "honored." The jury comments are equally hollow. Led by Vincent ("Urbanistically Speaking") Scully, the comments amount to little more than high-minded, worthless verbiage. Frought with clichés and platitudes, it is pure commentary, not architectural criticism. It dwells at length on matters which are of little interest or significance, makes egregious blunders and is self-contradictory.

Architecture is not about urban design. Long before urban design was born, buildings had a responsibility to their environs, which in some cases was fulfilled. Urban design with bad architecture is just bad architecture on a grander scale. The critical issue is not the need for things that fit in with the urbanistic whole, nor the need for quieter statements, nor whether the form is expressive of the function (the last is only an issue if so intended by the architect). It is not whether or not architecture is an applied art. It is, simply, that architecture is an art only when performed by an artist.

The critical issue is the need for a clarity of thought on the part of architects, teachers of architecture, critics, and professional journals that do not foster projects such as those shown in the Awards Program. Clarity of thought prohibits comments that confuse strength with false monumentality and ask for weakness in its stead; and comments which, on the one hand, condemn Soviet and Fascist architecture and housing projects, and on the other hand claim that the only validity and justification for a house as an architectural problem is as a "prototype for mass urbanistic housing," or as a "breakthrough in plastic imagination" (whatever that means).

The need is to re-examine history as formal precedent, not to cast it aside as dead; to carefully examine the principles of Frank Lloyd Wright, Mies van der Rohe, and Le Corbusier, and to see where these might lead; to look not to Paul Rudolph, an exhibitionist at best, nor to Minoru Yamasaki, who claims he put the beauty back into architecture that Le Corbusier took out, nor to I.M. Pei, who calls himself a revolutionary. This is about as valuable as reading a high-school book-report by way of trying to understand Shakespeare.

Perhaps the Palladio submission, rather than being dismissed merely as an entry from some "joker," should be seen as poignant comment on the projects that today are winning awards and citations from a leading architectural journal.

ALAN CHIMACOFF
Newfield, New York

Soiled by Politics?

Dear Editor: Whoever wrote the articles on the Kennedy Memorial and U.N. East (pp. 45, 48, JANUARY 1966 P/A) is an architectural critic with somewhat of a political flair and a loyalty to your own U.N.

Let us leave out the political aspect of this article and just critique the architectural qualities of each building. Certainly the Kennedy memorial is no better, if as good, as the Jakarta project, which you so severely criticized.

GEORGE A. JACKSON, JR.
Shreveport, La.

Happiness, Joy, Creativity

Dear Editor: We wish to express our appreciation for the very wonderful article on the American Republic Insurance Co. Building (FEBRUARY 1966 P/A).

It is wonderful to be quoted accurately. Someone has said that news is a spectacular distortion of the truth—words written to create responses in the mind of the reader, which, while spectacular,

Continued on page 12

How big were the savings at Thrall Car when PANELBLOC Gas infra-red heaters were introduced?

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FORT WAYNE, INDIANA: 30-room, 18,750 sq. ft. Immanuel Baptist Church. *Architect/Engineer:* Orus Eash. *Electrical Contractor:* Henry Electric Co.

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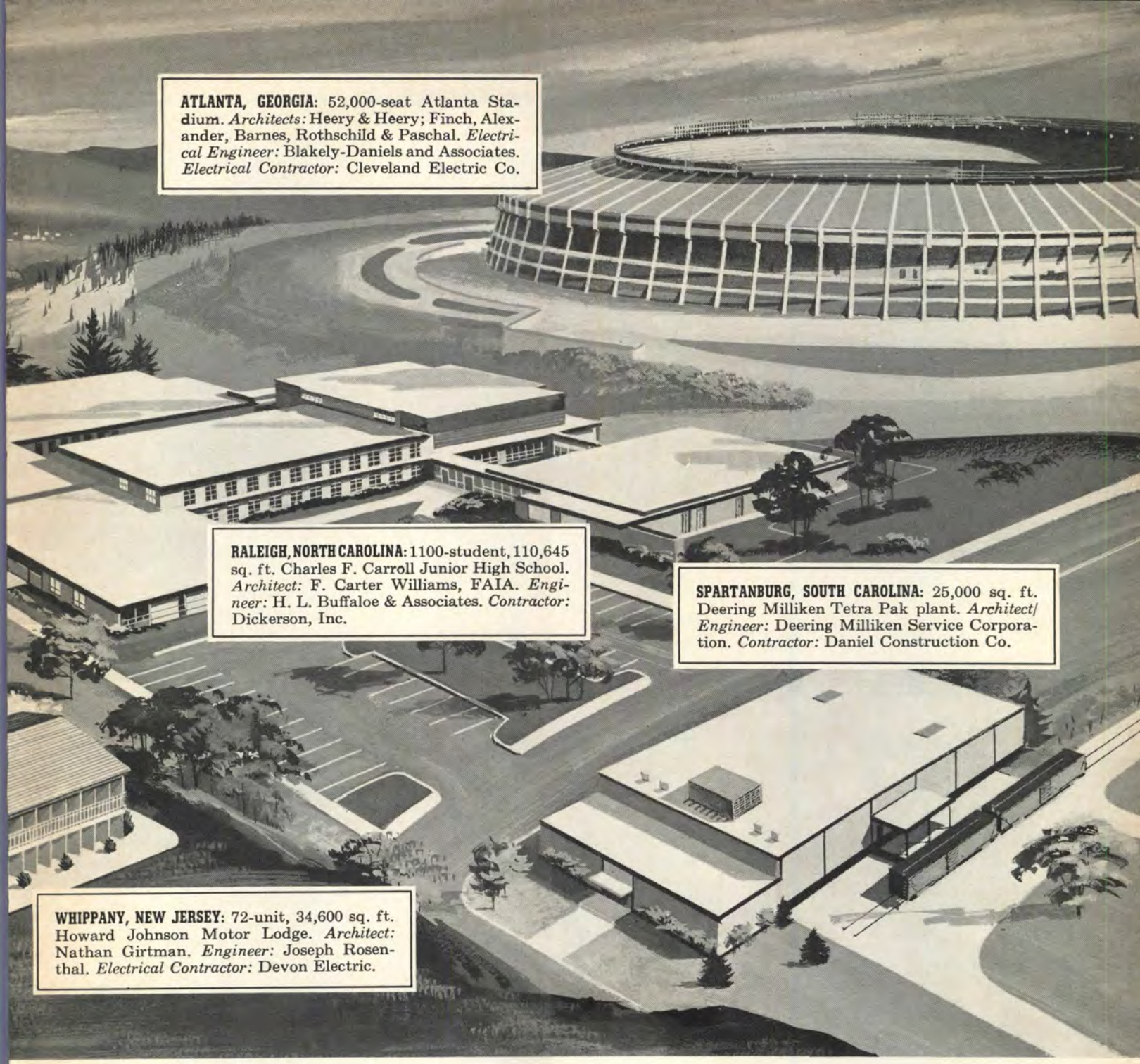

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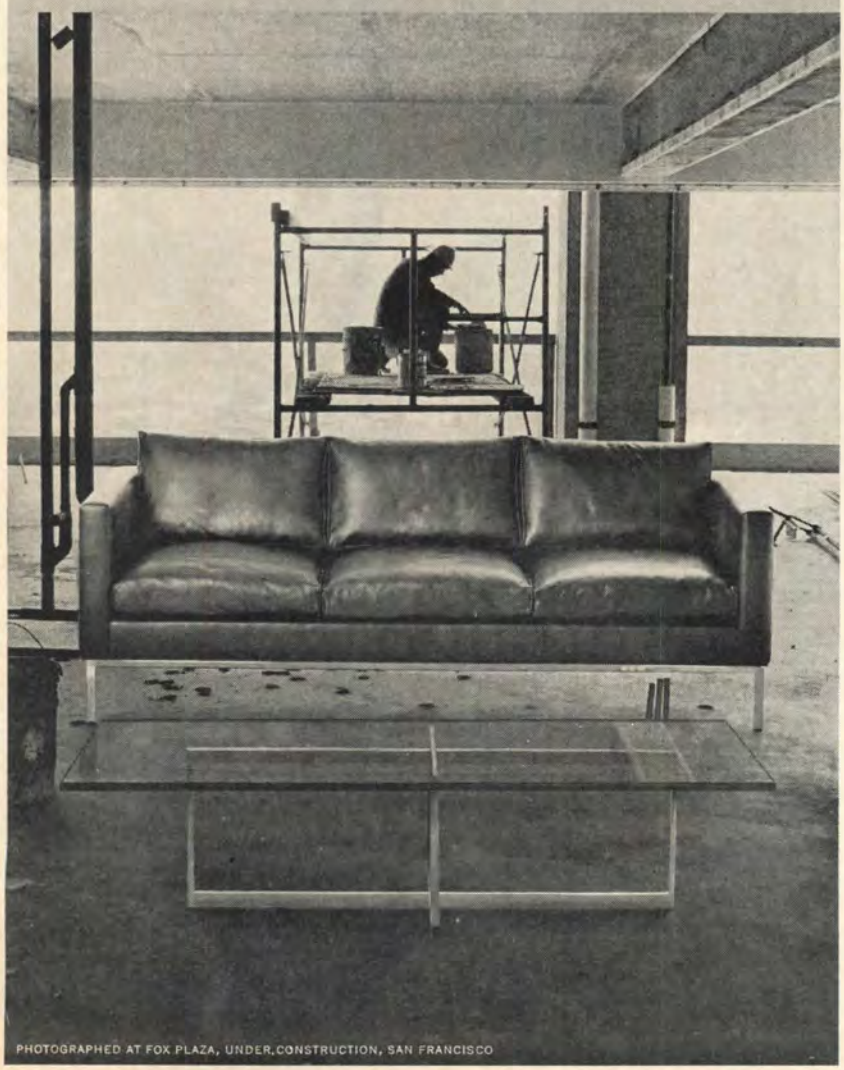


PHOTOGRAPHED AT FOX PLAZA, UNDER CONSTRUCTION, SAN FRANCISCO

Continued from page 8

are not accurate. Certainly this is not true at P/A. I do want you to know that I feel flattered by your article, and I am most grateful for the way you have written about us and have quoted us.

The inevitably heavy moments of any business project can be lightened by times of fun and pleasure. I think the tone of your article conveys the real enjoyment we at American Republic felt in working with the marvelously creative people at S.O.M. I doubt that there has ever been an article in an architectural magazine that so wonderfully expressed the rapport between architect and client that was felt between S.O.M. and ourselves. Architects who have the good fortune to read this article will be thrilled by the spirit expressed, and will be happy to see that professional reportage, while being technically and scientifically factual and accurate, can be accompanied by a text that is stimulating and happy.

I hope we shall have the opportunity to meet again, so that I may express our appreciation to you in person. Until such opportunity presents itself, please do accept our heartfelt thanks for your wonderful article.

WATSON POWELL, JR.
President
American Republic Insurance Co.
Des Moines, Iowa

Explanations, Explanations

Dear Editor: Regarding your article on Chatham Towers (FEBRUARY 1966 P/A): It's interesting that the architects are thinking of having a session with all the tenants, explaining the buildings to them. Are you aware, however, that the tenants may be planning a session for the architects, explaining life to them?

ROGER KENNEDY
Los Angeles, Calif.

Berkeley's Wurster Hall

Dear Editor: Strong, purposeful superphilosophies, such as those expounded by Joseph Esherick & Co. regarding their Berkeley "Environment" (p. 163, JANUARY 1966 P/A) are always a source of annoyance to me, not because of the great conflict with mine, but because of their failure to realize their claim.

To presume that most informed people would believe that another "brutalistic" concrete box is real, imaginative, free from ego-directedness, or, in this case, "environment," is, at the very least, naive.

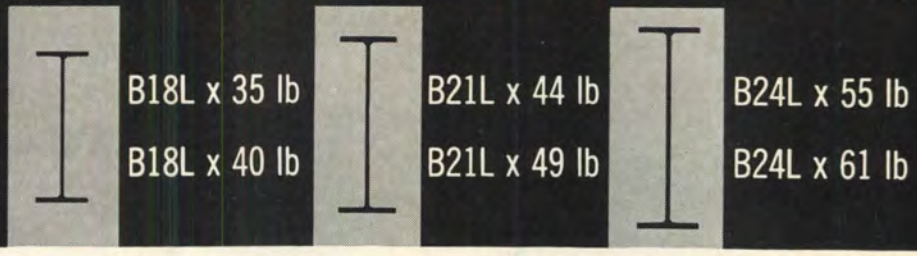
Basing a design on such a rigid set of rules discourages needed improvement.

I'm going to get myself one of those

Continued on page 16

Bethlehem announces...

6 new lightweight sections



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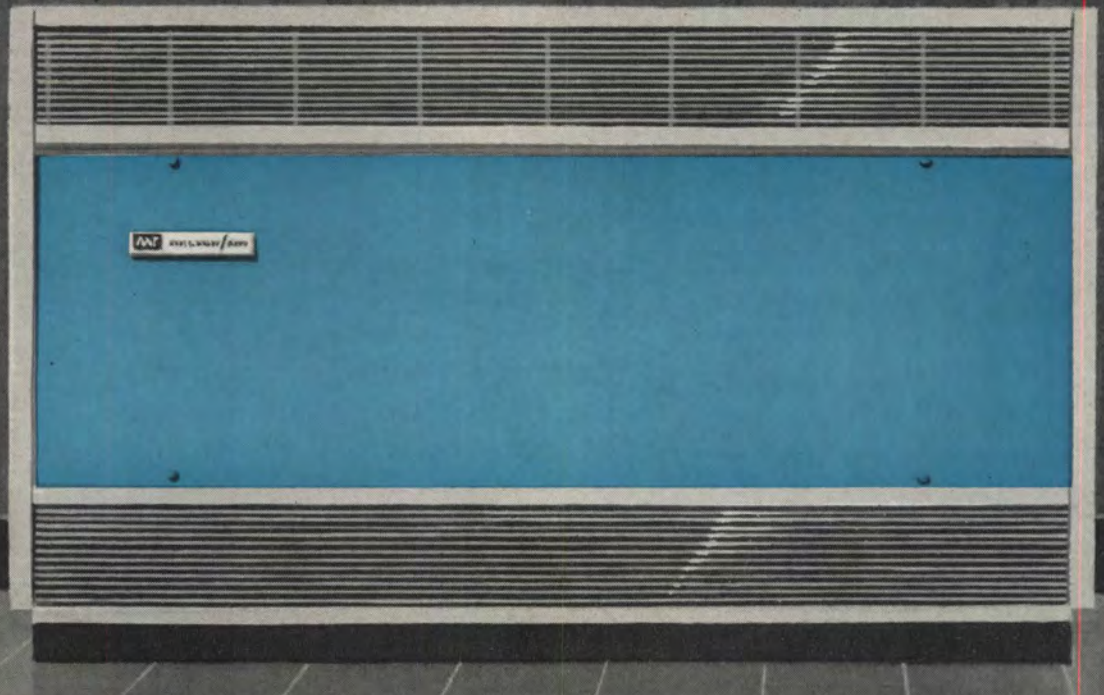

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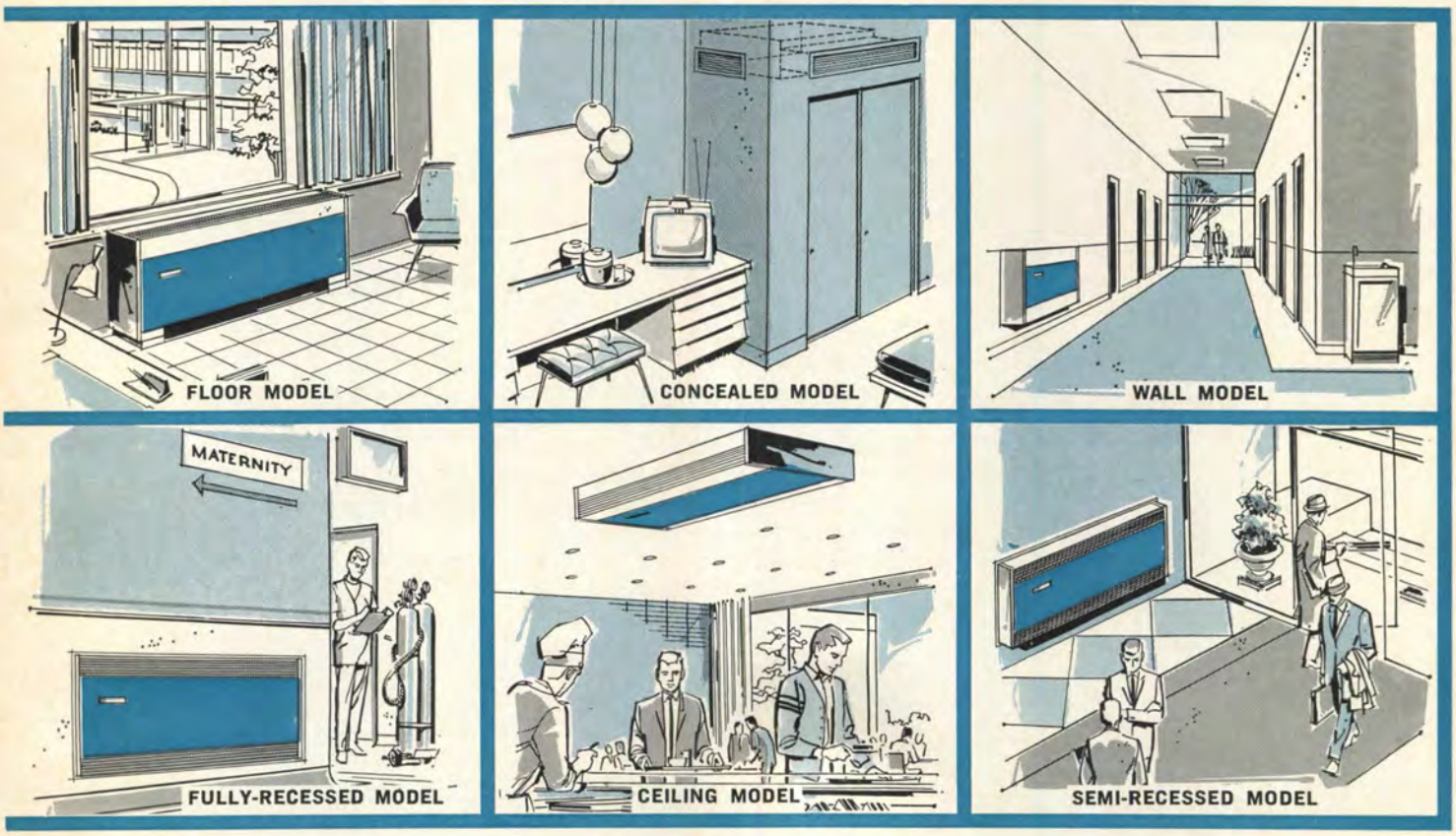

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Continued from page 12

old pseudo-Spanish Mediterranean buildings while there are still a few left.

ROBERT BEAUCHAMP
Santa Monica, Calif.

The Landscape Architect: Providing the Glue

Dear Editor: As a landscape architect, I must voice my complete agreement with Robert A.M. Stern's criticism of the Constitution Plaza at Hartford (DECEMBER 1965 P/A.

To move through the Plaza does not in fact give one the sense of order or continuity. The courts represent capricious playing of materials against one another for contrast, rather than balance or acceptance of the impact of the buildings, the autos, or the general flow of people.

Contrary to Richard J. Julin's letter in the FEBRUARY 1966 P/A, it would seem that the great masters, Mr. Lin and Mr. Zion, have in fact sensed the basic order of the "value" of things and applied it.

Technology has changed, materials have changed, styles have changed. However, the deep-rooted needs of people have remained the same, as have their basic space needs.

Of all professions, the landscape architect is the one most critically required to establish this basic order, to amalgamate dissimilar elements and generally supply the glue holding the "monuments" together.

JOHN RAKENKAMP
Philadelphia, Pa.

Homage to Olmsted

Dear Editor: Re the CAN-Clarkeson project (p. 198, FEBRUARY 1966 P/A): The design is no more—unmourned by us, and others such as Walter Gropius, Benjamin Thompson, Hugh Stubbins, Charles Eliot, Sidney Shurcliff. Together, we argued for the best compromise: burial. The Bureau of Roads, urged by Governor Volpe and Public Works Commissioner Sargent (who are both sensitive to human needs) approved a full tunnel the whole width of the Fenway.

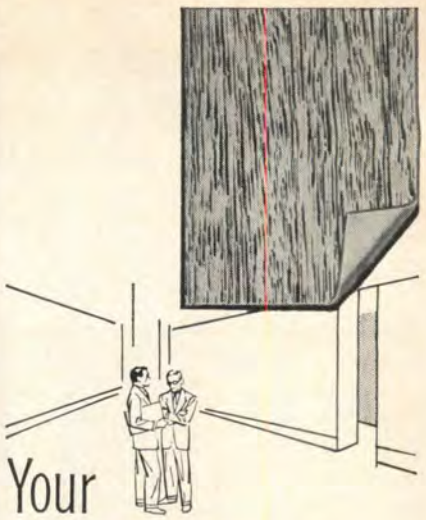
The subtitle of the drama is: Homage to Olmsted—and to man.

DIGGORY VENN
Head, Division of Education and Public Relations, Museum of Fine Arts, Boston, Mass.

Exceptional Graphics

Dear Editor: I can't resist congratulating your art director, and whoever else was concerned with the graphic layout of the story on Robert Morris Junior College in the FEBRUARY 1966 P/A.

Continued on page 20



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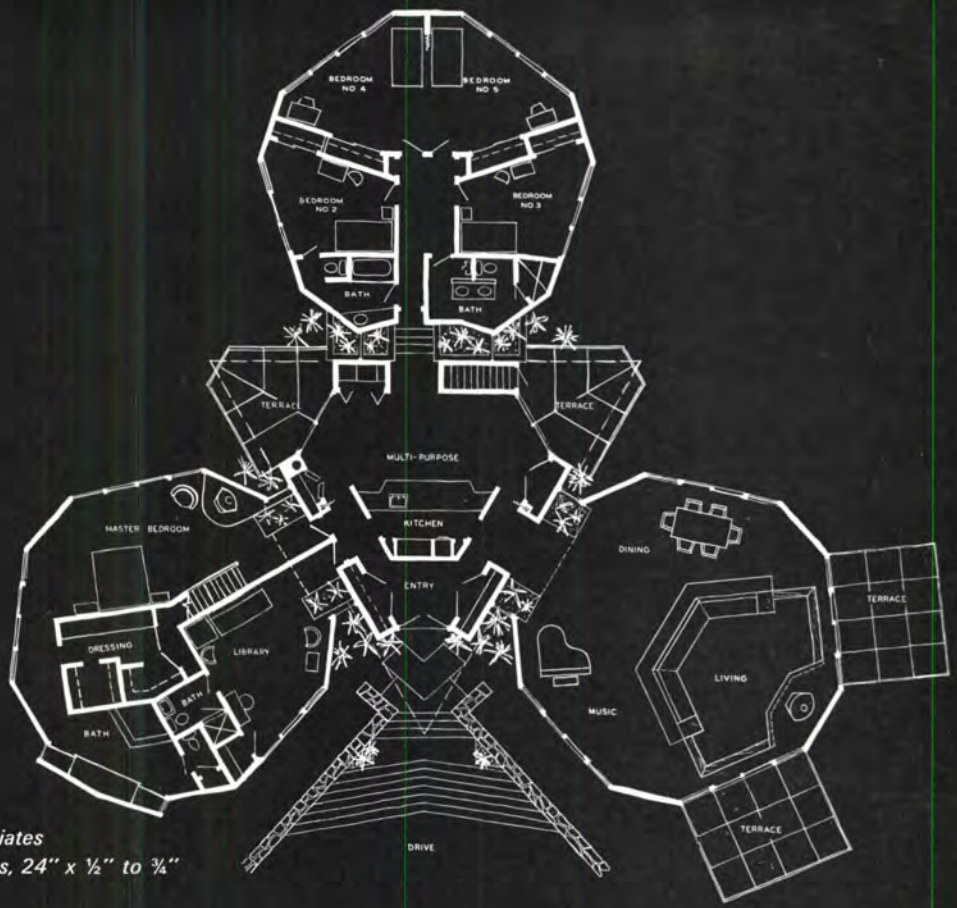

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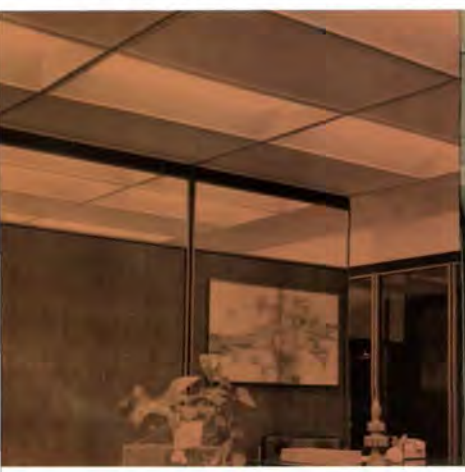

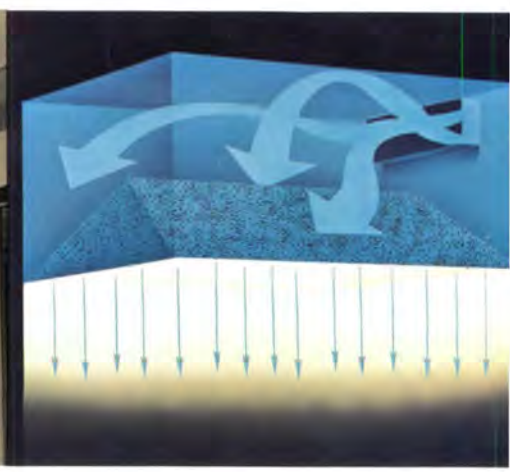

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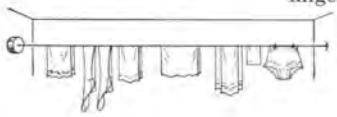

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Continued from page 16

The look of the entire editorial section equalled or surpassed your usual graphic excellence, but I found this particular feature to be exceptional.

JAMES W. PLUMB
Publicity Supervisor, American Plywood Association, Tacoma, Wash.

Violated

Dear Editor: It is terribly disconcerting to read your caustic comments relative to the "Top Totem" (p. 60, FEBRUARY 1966 P/A). This type of cheap journalistic satire violates the basic form of reason and logic—two elements responsible for good criticism. If you have a criticism of the building, then give your readers the justification for your analysis. Nobody or no organization is big enough to react arbitrarily as you have in this instance.

It is most improper to classify the other architects of Nebraska in a "flat" context as indicated.

DONALD M. MULLINS
Omaha, Nebr.

A Point Well Taken

Dear Editor: In your article on two of my buildings in the FEBRUARY 1966 P/A, I would have been disappointed had P/A not criticized the kitchen and the entrance to Little Harbor. Your point is well taken. However, I feel that the two entrances, at opposite poles in the formal sense, can accommodate deliberate "inconsistency." The kitchen form is particularly important. In fact, even more than as a marker, I felt that this form had to reach to keep the horizontal and descending movement of the entire form from burying itself. Form for form's sake is always dangerous, however practiced. It is only decadent as an idea, I think, when used as a substitute for central ideas.

I like your new series on detailing very much. This approach gives meaning to the details reproduced. Rather than simply printing details to tempt imitation, I think that your series will enhance the idea that detailing is contributive to and part of the whole. I'd love to know how the plaster, in Pope's jamb, remains attached at the adjacent corner to the strike.

RALPH E. HARRIS
Hampton Beach, N.H.

[The strike plate of Pope's detail (p. 165) was surface-mounted to a ground, trued to the corner beads, and plastered flush. Good point, Mr. Harris. Omitting the grounding in the drawing was our goof; you have grounds for complaint. —ED.]

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Duranodic finishes reflect the subtleties and intensities
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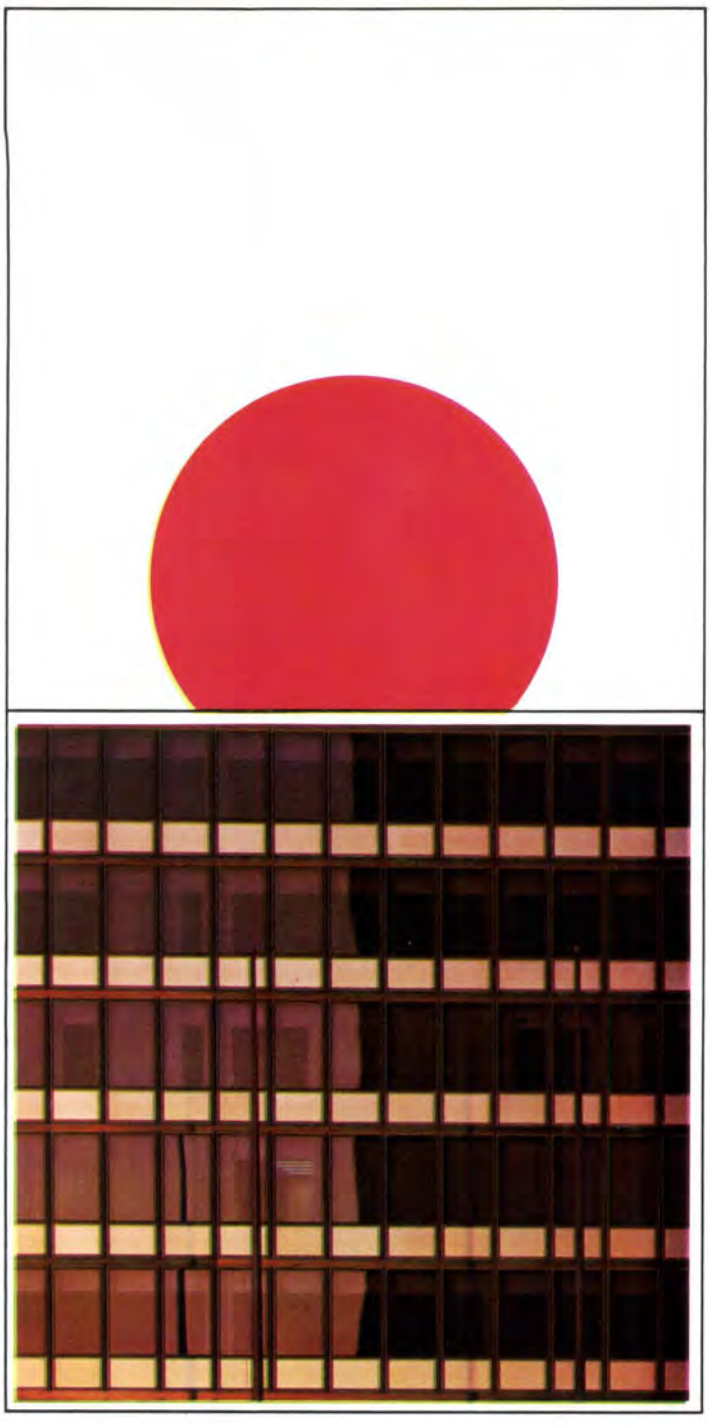
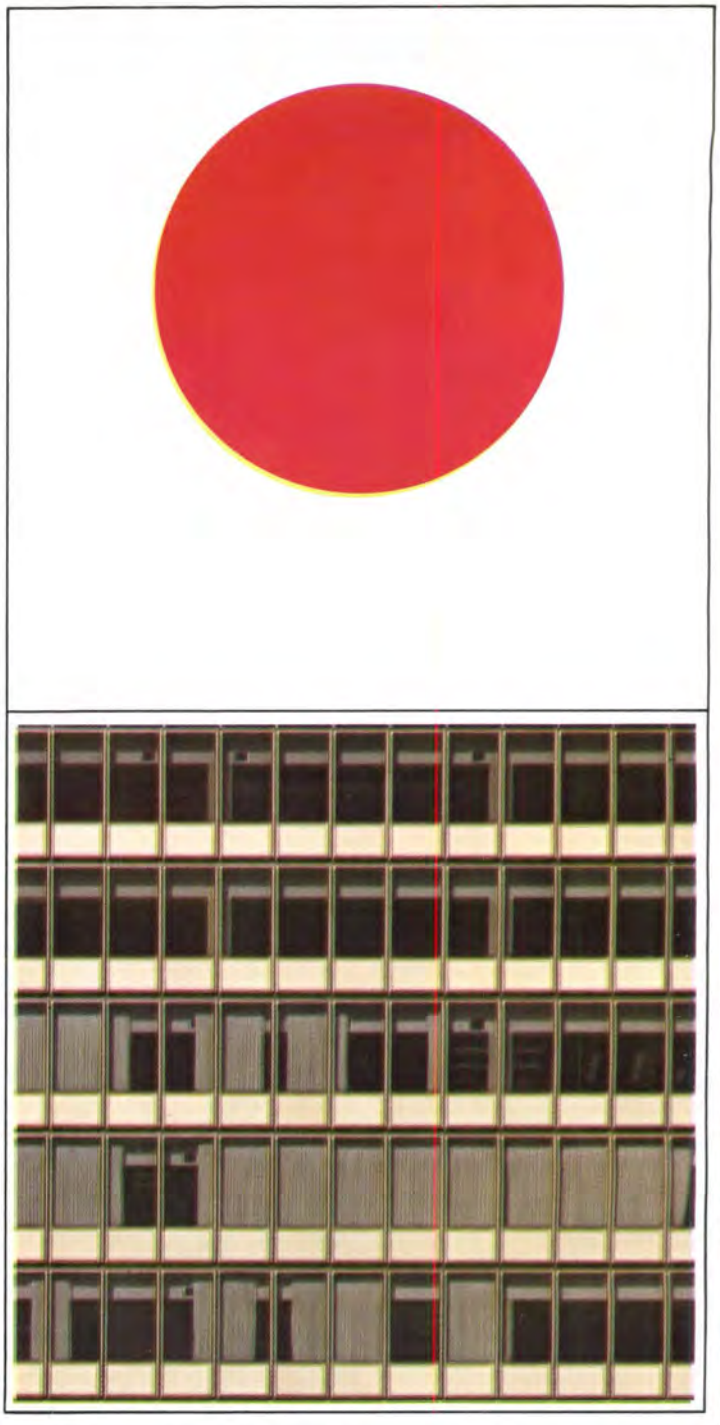


7:00 A.M.

An early morning sun emerges, and the city reveals a new vitality. Duranodic* 300 finishes blend handsomely and reflect the excitement of a new day.

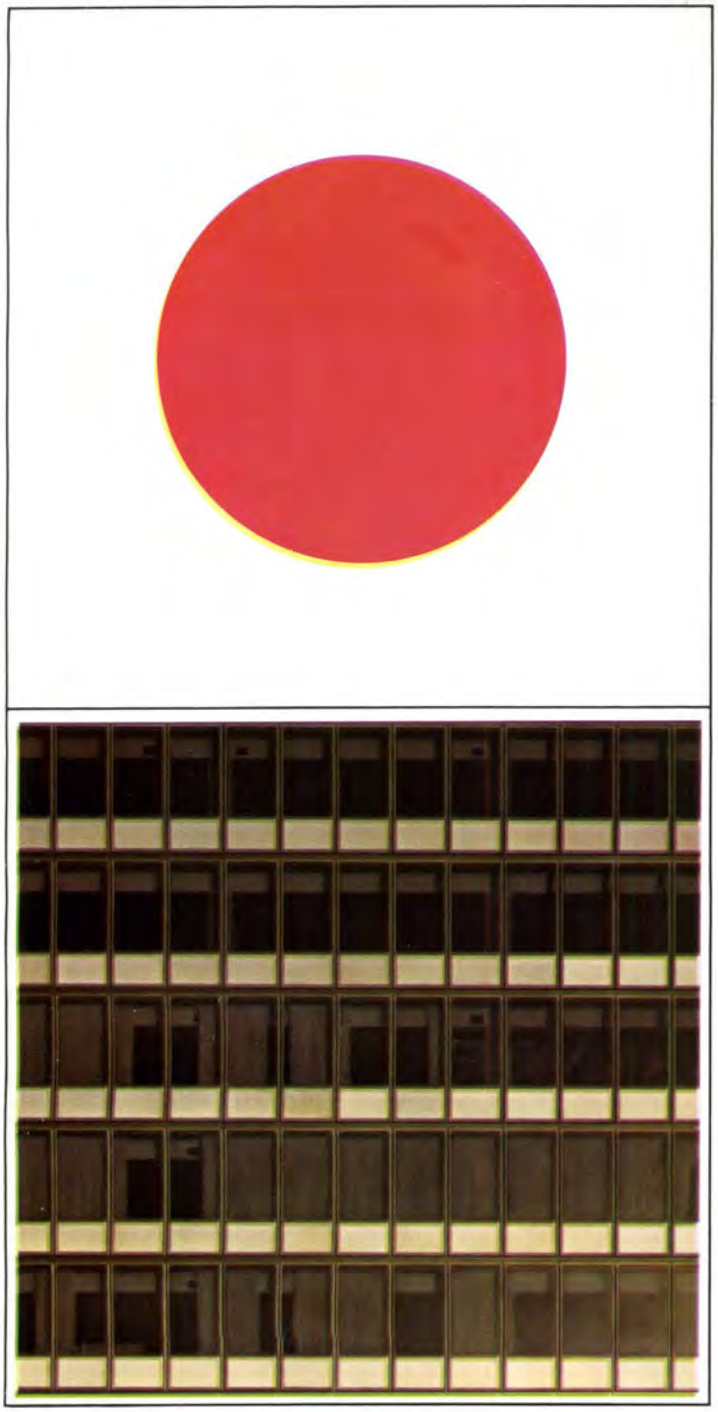
Natural reflectivity is an integral part of the Alcoa® Duranodic 300 character. Unlike other finishes, Duranodic 300 finish is neither a dye nor a pigment. Its color permeates the entire cell structure of the aluminum oxide so that hue and alloy become an inseparable unit.



11:00 A.M.

Activity quickens and the day's light becomes a gleaming whiteness. Duranodic finishes keep pace with the bustling late-morning tempo, changing naturally to a new boldness.

Duranodic 300 finishes are virtually unlimited in application. In any type building—apartments, offices, schools, industries—for either practical or ornamental purposes, the lasting beauties of Duranodic finishes prevail.



4:00 P.M.

Sunlight wears on and penetrates the city with a deep bronze. And Duranodic finishes change with the hour, mellowing to a rich, golden brown.

Working with, or in contrast to, any other material, Duranodic 300 finishes provide a striking complement. Duranodic finishes enhance the natural beauty of wood, glass, concrete, aluminum and other metals with constantly changing patterns of light and design.

7:00 P.M.

A silent darkness settles on the city. And Duranodic finishes blend with the hushed subtleties of night as the day ends.

During any day, throughout any season, Duranodic 300 finishes will withstand the sting of sunlight, the punishment of salt air and spray, and the barrage of contaminated industrial atmospheres by resisting chipping, corroding or fading.

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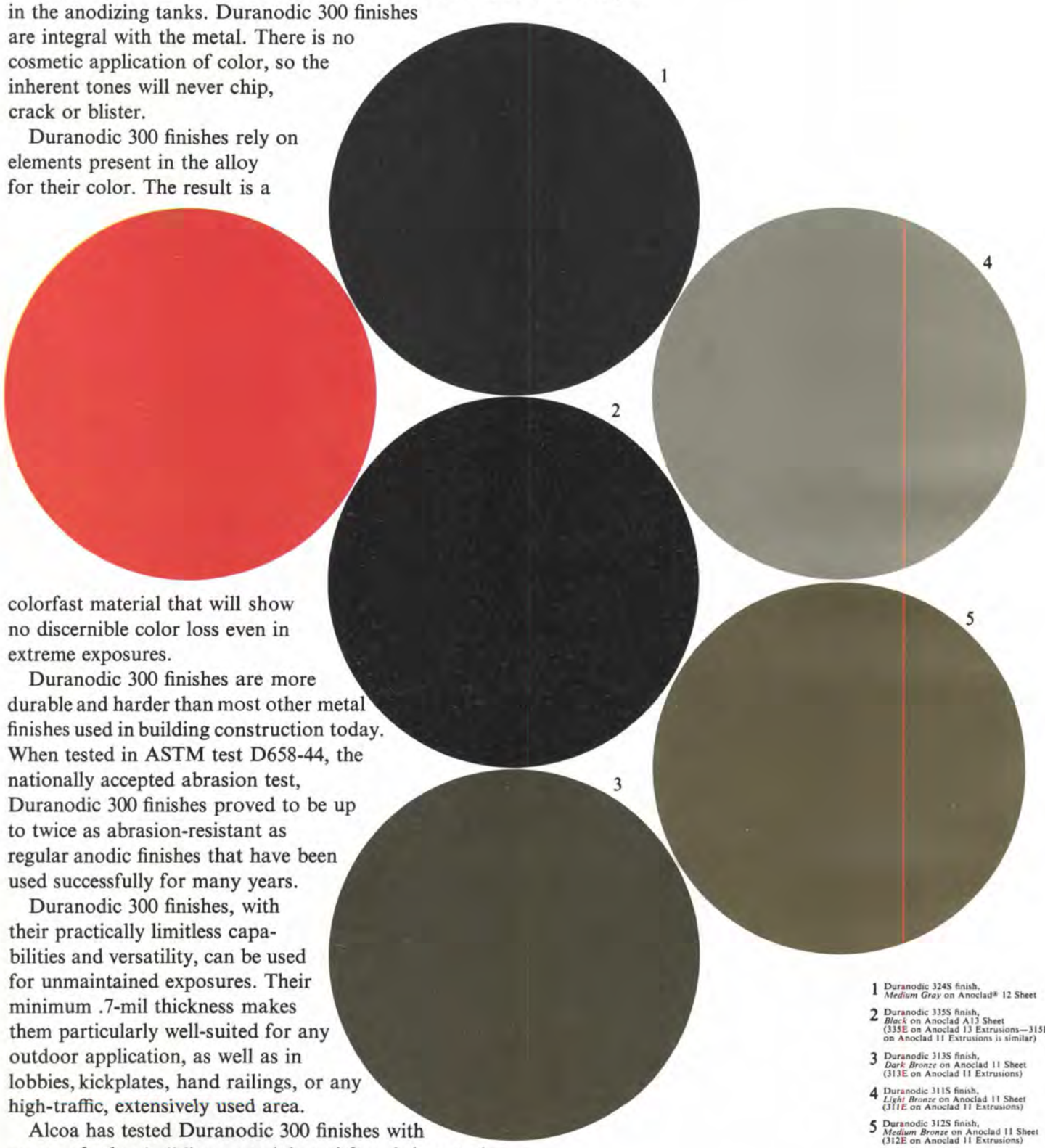
Duranodic 300 finishes rely on elements present in the alloy for their color. The result is a colorfast material that will show no discernible color loss even in extreme exposures.



1 Duranodic 324S finish, *Medium Gray* on Anoclad® 12 Sheet

2 Duranodic 335S finish, *Black* on Anoclad A13 Sheet (335E on Anoclad 13 Extrusions—315E on Anoclad 11 Extrusions is similar)

3 Duranodic 313S finish, *Dark Bronze* on Anoclad 11 Sheet (313E on Anoclad 11 Extrusions)

4 Duranodic 311S finish, *Light Bronze* on Anoclad 11 Sheet (311E on Anoclad 11 Extrusions)

5 Duranodic 312S finish, *Medium Bronze* on Anoclad 11 Sheet (312E on Anoclad 11 Extrusions)

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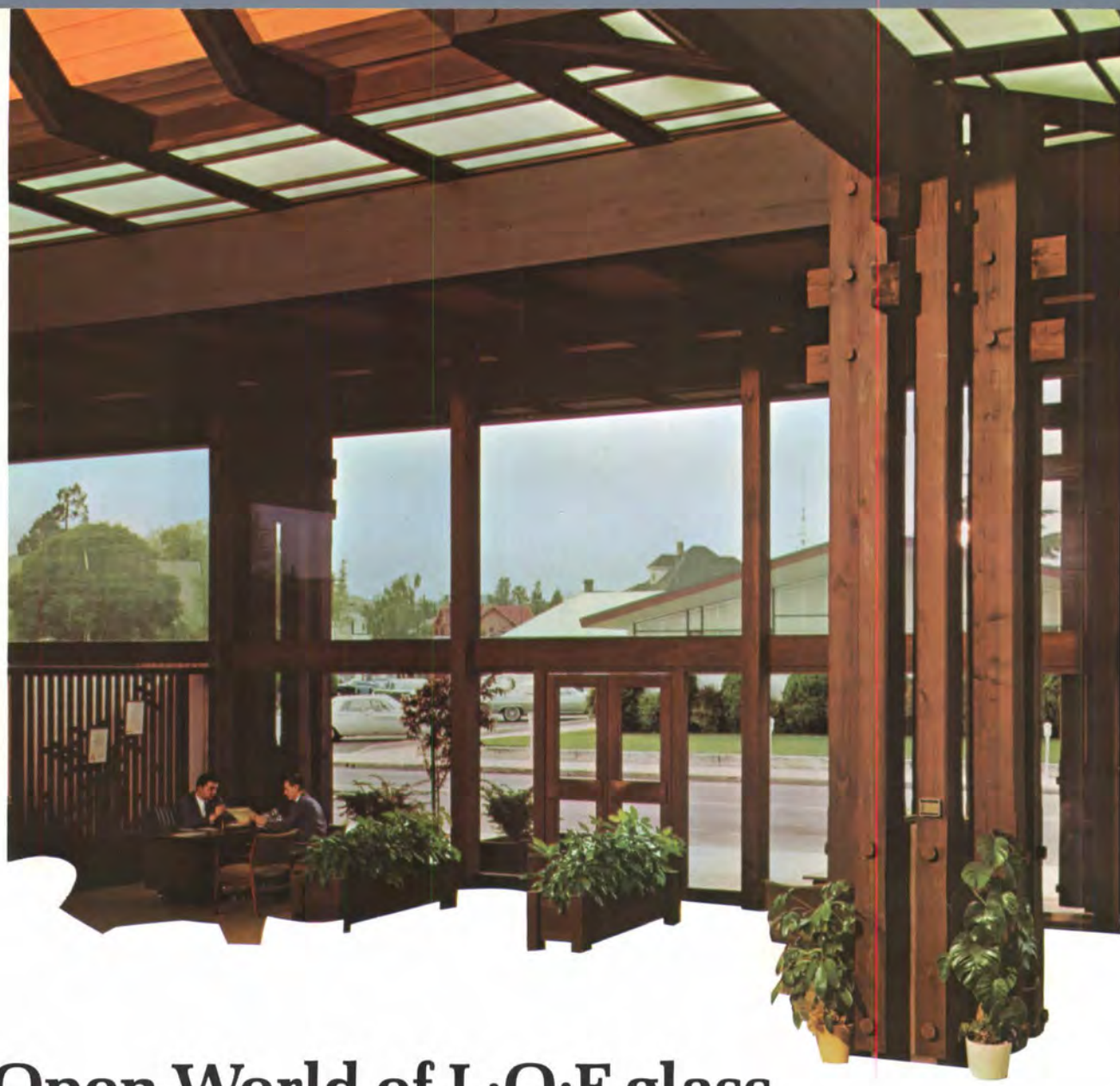

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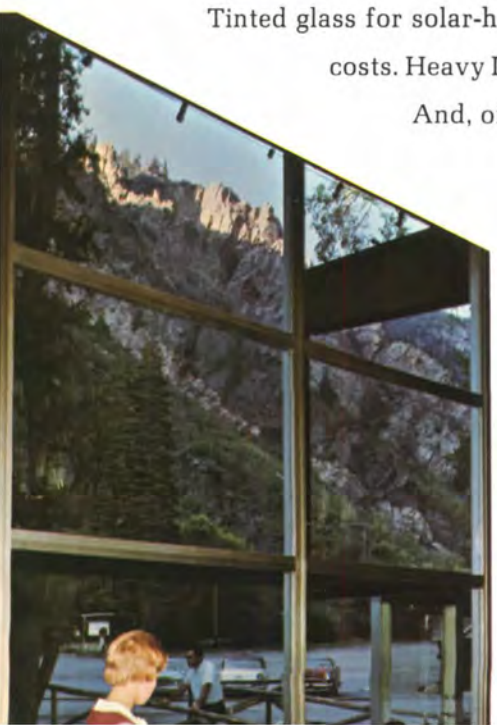

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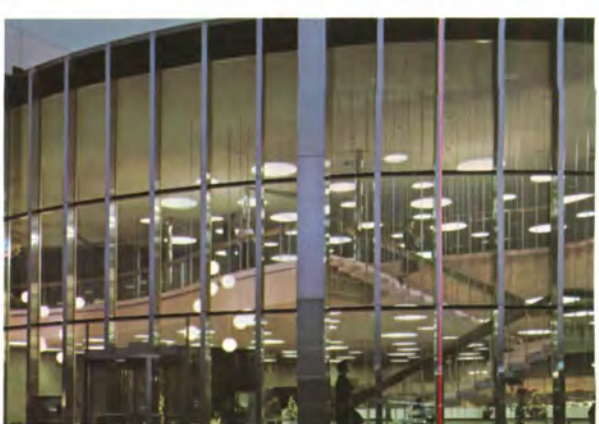
Architect: Paul Lemoine, Salt Lake City.

Brookfield, Federal Savings & Loan Assoc.
Brookfield, Ill. *Thermopane*®.
Architects: Pavlecic & Kovacevic,
Chicago.



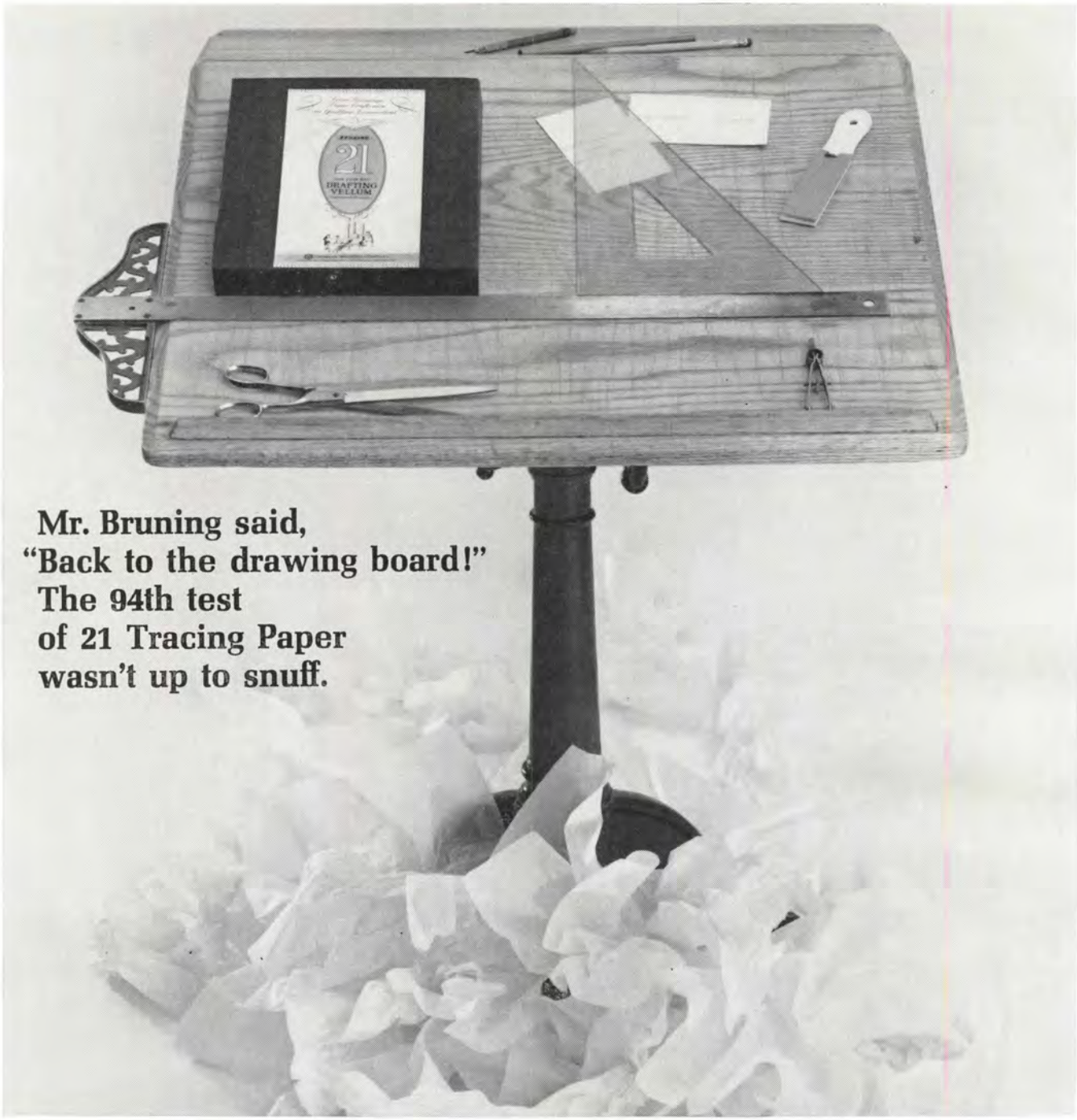
Olin Library at Washington University, St. Louis.
Parallel-O-Plate® glass.
Architects: Murphy and Mackey, Inc., St. Louis.

Redwood National Bank, Napa, Calif.
Parallel-O-Bronze® plate glass.
Architects: Neill Smith & Associates,
San Francisco.

North Shore Congregation Israel,
Glencoe, Ill. *Parallel-O-Plate*.
Architects: Minoru Yamasaki and Associates.
Associate Architects: Friedman,
Alschuler & Sincere, Chicago.

Residence in eastern
Pennsylvania.
Thermopane®
insulating glass.

Mister A's Restaurant, in the
Fifth Ave. Financial Centre, San Diego.
Parallel-O-Grey® plate glass.
Architects: Freeland | Bird
& Associates, San Diego.



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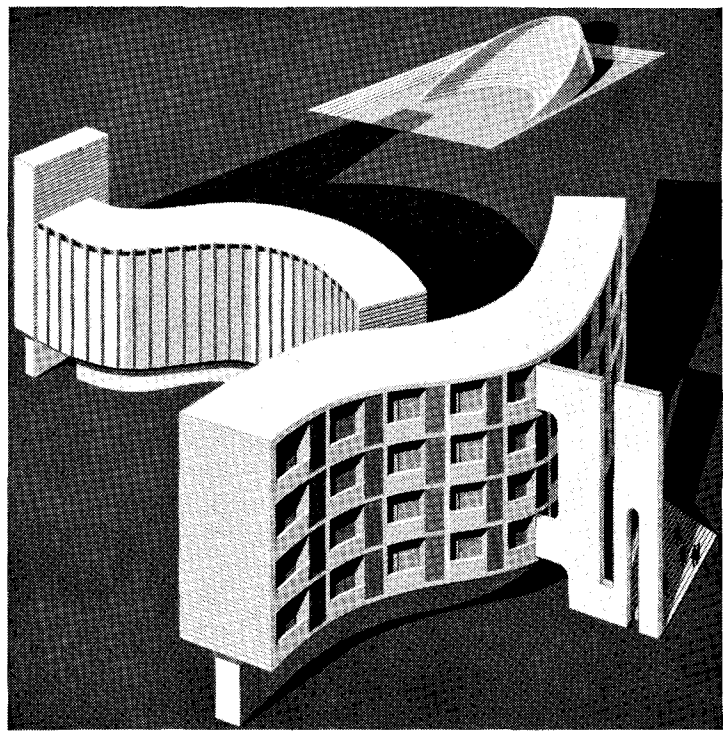

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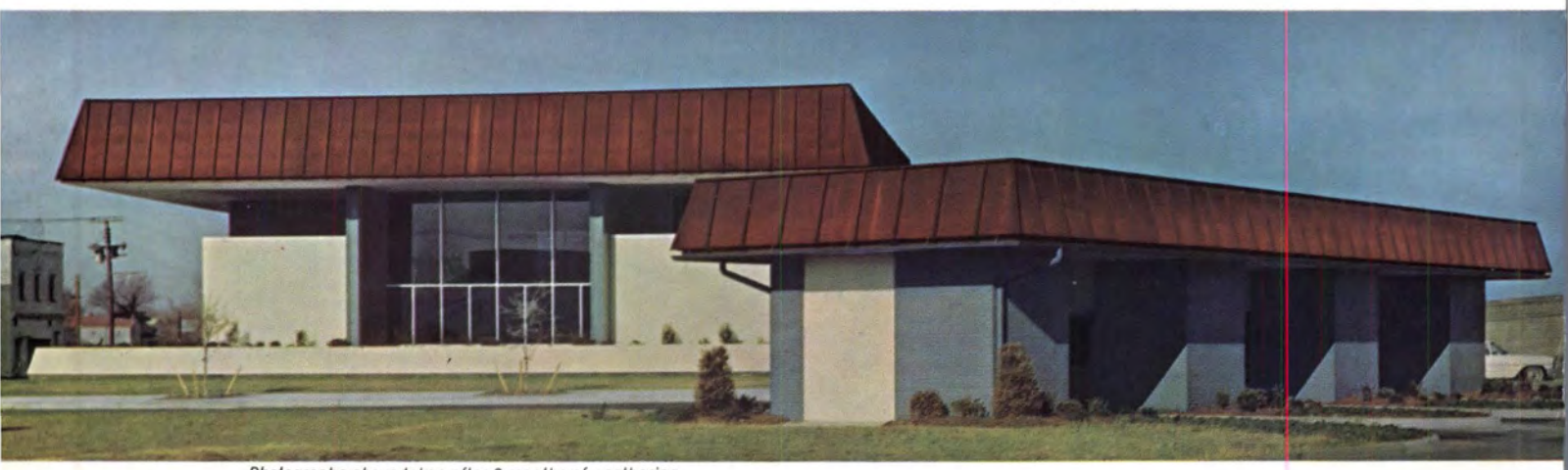

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Photographs above taken after 12 months of weathering.

Nature wraps Weathering Steel in a maintenance-free protective coating . . . and provides a rich, earthy beauty in color and texture that lends itself to distinctive architecture.

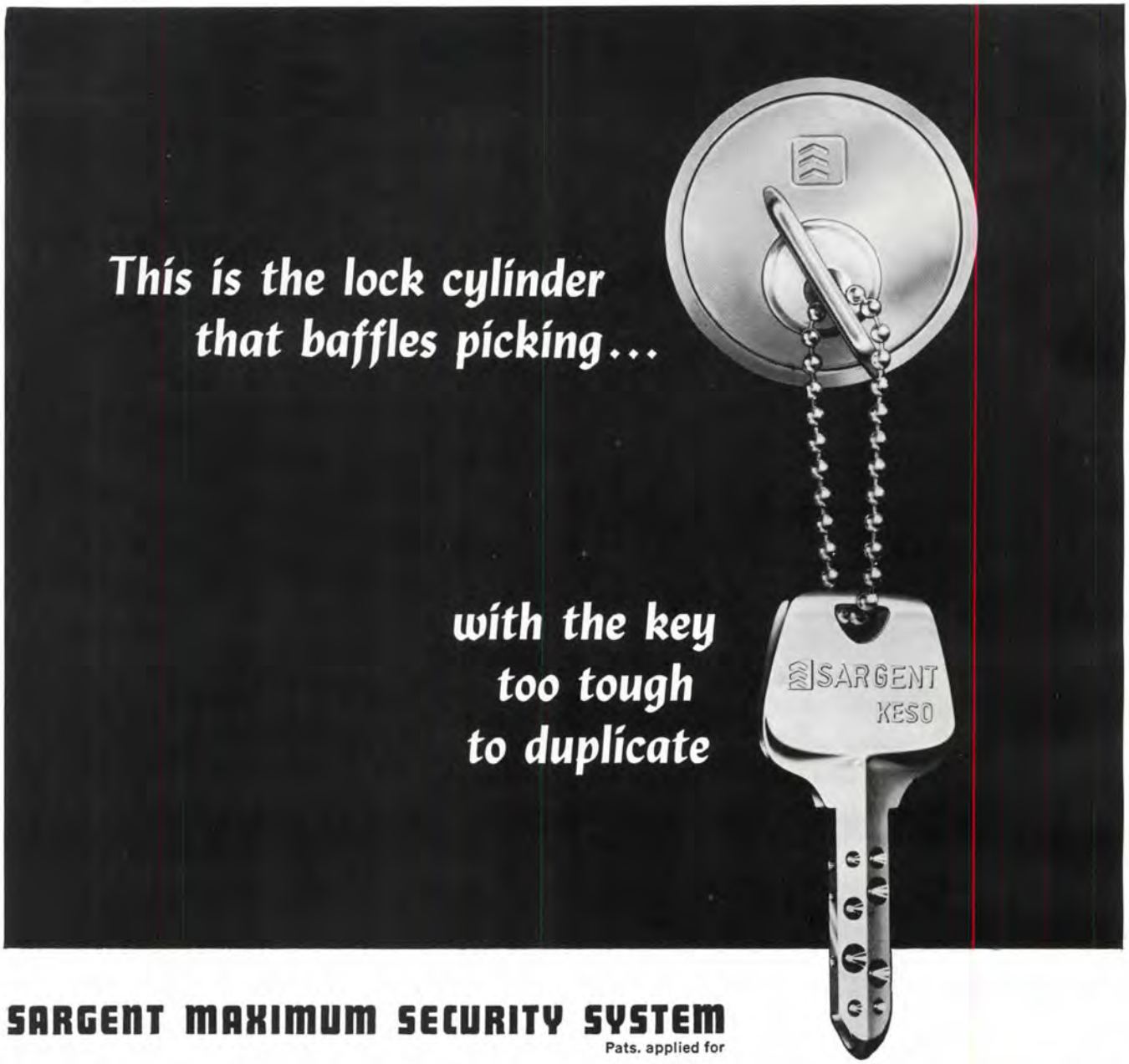
The longer it weathers the richer this steel's deep-brown oxide coating becomes. And what a remarkable coating it is. Closely grained and tightly adherent, it builds up to about the same thickness as a coat of paint. It inhibits further corrosion of the steel. It heals its own wounds.

The full potential of this material can be realized only by careful design considerations. We will be happy to review these with you when you plan to use Weathering Steel. Simply call or write our nearest sales office.

BETHLEHEM STEEL
BETHLEHEM STEEL CORPORATION, BETHLEHEM, PA.

(Left Page) BRANCH BANK, CHESAPEAKE, VA., VIRGINIA NATIONAL BANK.
Architect: Oliver & Smith.
Engineer: Fraioli, Blum & Yesselman.
General Contractor: W. B. Meredith, II, Inc.
Roofing Contractor: Virginia Sheet Metal & Roofing Company of Norfolk, Inc.
Steel Fabricator: Globe Iron Construction Company, Inc.

(Right Page) FRENCH CREEK VALLEY ELEMENTARY SCHOOL,
Coventryville, Pa. Owen J. Roberts School District.
Architect: Wolf & Hahn. *Engineer:* Quentin Bowers.
General Contractor: H. C. Grau Co.
Steel Fabricator: W. H. McArdle & Son.

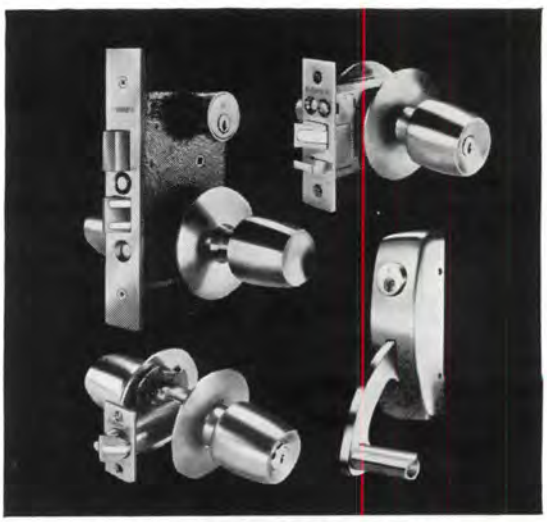


SARGENT MAXIMUM SECURITY SYSTEM

Pats. applied for

The new exclusive lock cylinder shown above baffles picking because multiple rows of interlocking pins bar the way to any picking tool. These new SARGENT MAXIMUM SECURITY SYSTEM lock cylinders can be opened only with unique special keys which cannot be duplicated on conventional key-cutting machines. Building owners, therefore, retain complete and proprietary control of all keys in their systems. And, since every installation is one-of-a-kind, there's never a chance of your keying system duplicating any other.

The SARGENT MAXIMUM SECURITY SYSTEM is particularly suited to installations where future expansion is anticipated, or where many levels of masterkeying are required. The building owner has the benefit of fifty times more safe key changes than in conventional cylinders, as well as four new levels of masterkeying never before available in any system. This means that you can expand the system without the necessity of rekeying or changing cylinders. For complete information see your Sargent distributor, or write: Sargent and Company • 100 Sargent Drive, New Haven, Connecticut 06509 • Peterborough, Ontario • Member Producers' Council.



SARGENT MAXIMUM SECURITY SYSTEM cylinders are available in all Sargent architectural locks and exit devices . . . whether standard, removable core, or construction core cylinders.

SARGENT®

DRAMATIC. Sophisticated glamour was created for this penthouse restaurant with ceramic tile. American Olean's scored tile is combined with richly textured crystalline tile to create a dramatic plaid design on supporting columns. Blue ceramic mosaics add more drama to the floor and brazier hood. For a wealth of design ideas with ceramic tile, send for Booklet 1100, "Ceramic Tile in Architectural Design." Write American Olean Tile Company, 2117 Cannon Avenue, Lansdale, Penna.

CERAMIC TILE
American Olean
A subsidiary of National Gypsum Company

On Readers' Service Card, circle No. 327

If you thought the old Fesco® Board was windproof . . . look what's on deck for you now!

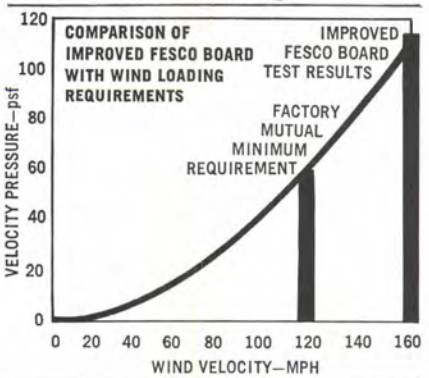
New Improved Fesco Board exceeds the Factory Mutual velocity pressure minimum of 60 psf by 100%. That's equivalent to resisting uplift from 160 mph winds! (Competitive insulations barely meet this minimum.)

Other wind stresses? Improved Fesco Board has *twice* its previous shear resistance to the tearing force of wind across a roof. *Three times* as much tensile strength to overcome internal stresses generated by wind or structural movement. And a tough new Top Coating that bonds the insulation tightly to the built-up roofing.

double hurricane force winds

That's not all. Improved Fesco Board has 100% greater resistance to punishing foot and wheel pressure. It handles better, with minimum breakage . . . mops easier, installs faster. As always it bears the Underwriters' Laboratories "incombustible" rating. As always, it's essentially waterproof, even under prolonged soaking.

Wind Loading



Results shown above are obtained under controlled laboratory conditions without consideration for the possible effect of air foil or other wind forces.

Wind-safe, fire-safe, water-safe, Improved Fesco Board outperforms other roof insulations on practically every count.

Write for complete information to Johns-Manville, Dept. PA, Box 111, 22 East 40th Street, New York, N. Y. 10016.

Johns-Manville

On Readers' Service Card, circle No. 369

Clear, lustrous Starlux plate glass relieves a powerful facade of concrete

Architect: Paulsen, Gardner and Associates

© American Saint Gobain 1966

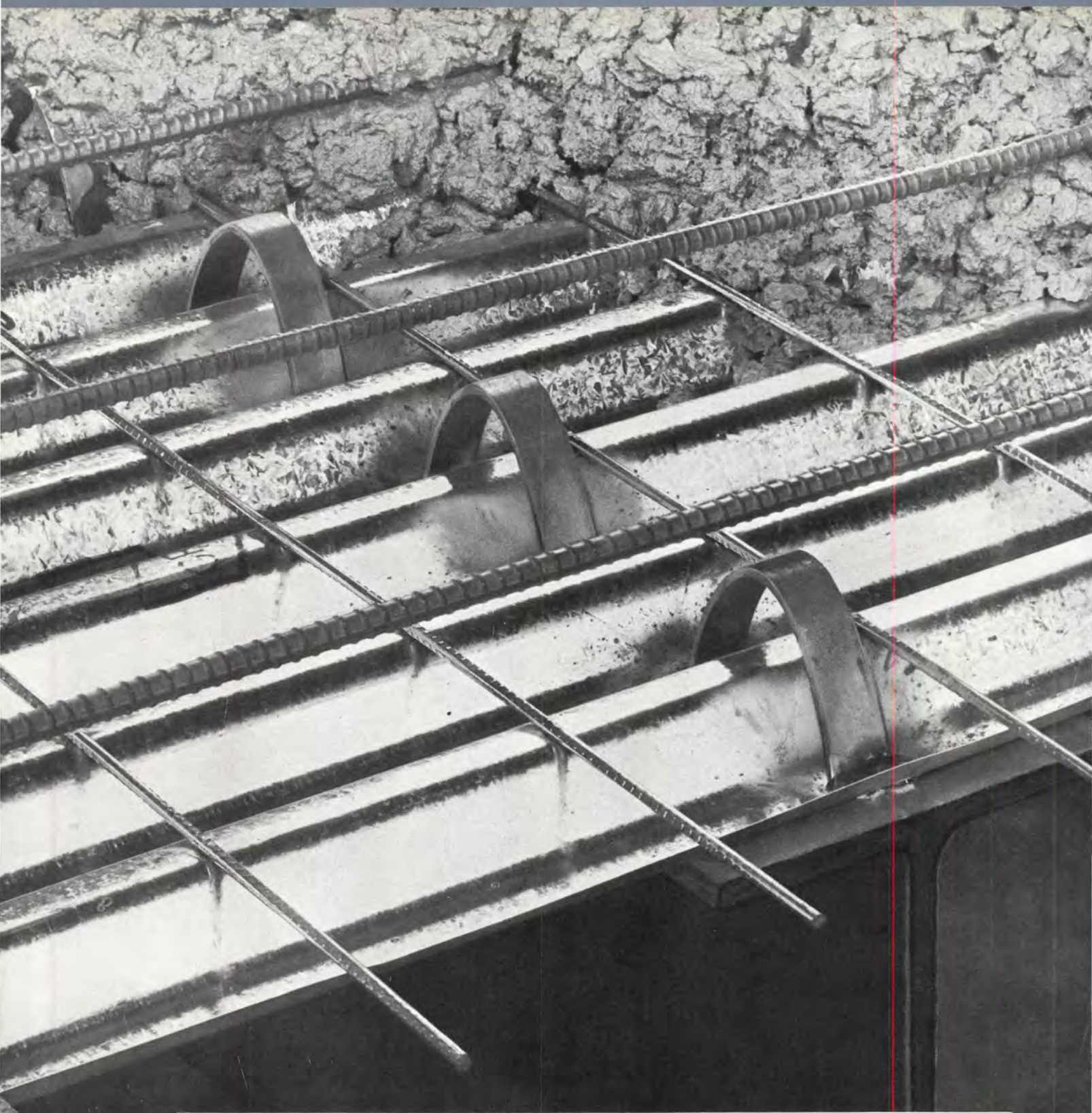
Its upper windows aglow like firing slits of a fortress, Shapero Hall of Pharmacy at Detroit's Wayne State University makes a bold silhouette against the dusk. The building's upward-and-outward configuration is completely functional. It places those activities most in need of space and isolation (such as animal quarters and large laboratories) in the top levels. Heavy traffic activities are centered in the two-story base which includes a lobby and 160-seat lecture hall.

Shapero Hall is glazed with ASG's Starlux® twin-ground, polished plate glass. Floor-to-ceiling lights of Starlux ring the lower floors, making them open, light-filled and inviting. After dark, these extensive walls of superbly clear glass form a pedestal of light for the building's powerful superstructure. Here, slim Starlux windows help relieve the weight of the massive concrete tiers.

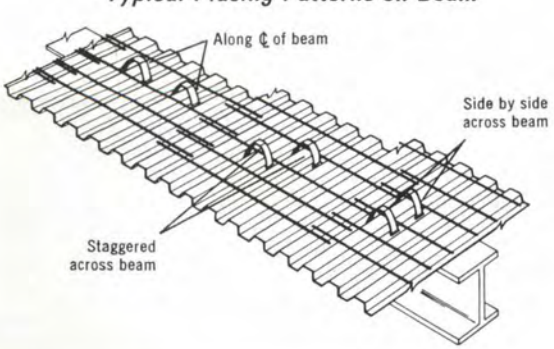
Starlux contributes to this unusual building the unique qualities of the finest polished plate glass—superior clarity, visual fidelity and lustrous transparency. Starlux is the premier product in the full line of architectural glasses manufactured by ASG. For complete information about Starlux, write: Dept. E-4 American Saint Gobain Corporation, P. O. Box 929, Kingsport, Tennessee 37662.

Starlux twin-ground plate glass by...

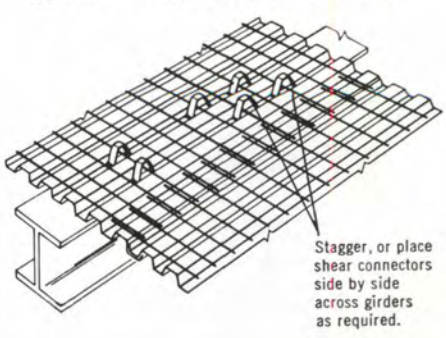
ASG
CREATIVE IDEAS IN GLASS



Typical Placing Patterns on Beam



Typical Placing Patterns on Girder



REDUCE THE COST OF COMPOSITE CONSTRUCTION

with this new Cofar Shear Connector utilizing new AISC specification

Here's how to put even more economy into an already economical floor system. This new shear connector from Granco was designed specifically for use with Cofar, Granco's combined form and reinforcement for concrete slabs. It permits designers and builders to use Cofar in composite construction, the structural design which unites the concrete floor slab and supporting members into a single working unit of greater strength and stiffness. Composite design provides reduction in weight of steel beams as much as 30%. The cost of steel frame and beam fireproofing are substantially reduced.

Now look at the even greater cost-saving of Cofar and the new shear connector:

1. Provides the only shear connector with 11.0 Kip capacity which can be welded through steel sheets with 1.25 oz. specification galvanized coating.
2. Requires only one welding operation to fasten connector and Cofar to frame.
3. Shear connector can be placed without cutting holes in deck.
4. Permits welding of connectors in the field with conventional arc welding equipment.
5. Simplifies detailing and erection.

See Sweets file, or write today for literature with complete details about Cofar composite design utilizing the new shear connector. Granco Steel Products Company, 6506 North Broadway, St. Louis, Mo. 63147. A subsidiary of Granite City Steel Co.

GRANCO®

IMAGINATION IN STEEL

On Readers' Service Card, circle No. 362

Steel

When imagination lights a room, Westinghouse provides the fixtures

Imaginative design demanded new ideas in lighting fixtures for the Bank's quarters in the Chemical Bank–New York Trust Company Building in New York City. Westinghouse supplied three types of lighting fixtures. Westinghouse Luminous Ceiling creates the soft, low-level brightness that the architect had specified. The Westinghouse Stripliner fixtures above the ceiling are the light source. Available in 1-, 2- or 4-lamp widths and 4- and 8-foot lengths. Stripliners are easily installed on hanger mountings.

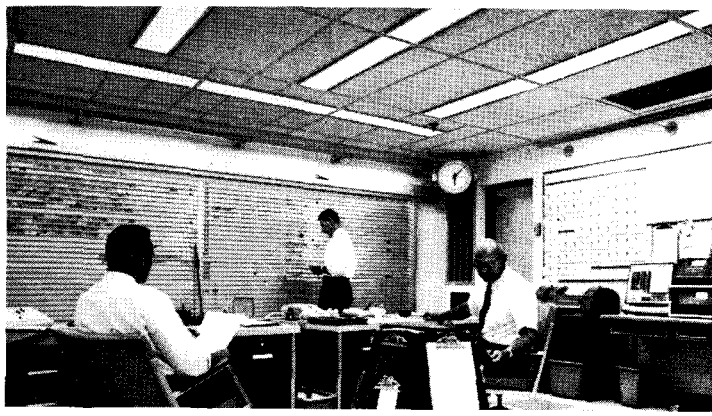
Two types of Westinghouse Mainliners brighten individual offices. Fixtures fit flush with the ceiling to blend unobtrusively with the room design. Some Mainliner door frames are formed 16-gauge steel with corner brackets to add rigidity and prevent light leaks. Versatile Mainliners come in several sizes, with a choice of shields for precisely the effect you want. The balance of the units in this installation are the new Frameless Lens.

Westinghouse-Frink downlights highlight conference rooms in the new building. These downlights are gasketed to prevent light leaks. The housings are installed first. Frame assemblies, which are self-adjusting for tight ceiling fit, are snapped in later. The snap-in wiring box is prewired.

Whatever your requirements or innovations, your Westinghouse Lighting Sales Engineer offers the widest choice of fixtures. Call him, or write Westinghouse Electric Corporation, Lighting Division, Dept. PA-65, Edgewater Park, Cleveland, Ohio 44101. J-04009

◀ Chemical Bank—New York Trust Company Building, New York City
The office of Alfred Easton Poor, Architects
Consulting Engineers: Ebner Associates. (Bank Floor)
Jaros, Baum & Bolles (Building)
Builder: Cauldwell Wingate
Electrical Contractor: Zwicker Electric

More lighting news from Westinghouse



Air and light from one fixture. The Mark II Airliner is an integrated unit featuring light by Westinghouse and air diffuser by Anemostat Corporation. In the Allegheny Airlines Headquarters and hanger buildings, Pittsburgh, Airliner fixtures save space, facilitate maintenance. Airliners mount quickly, provide quiet, even air and soft, even light—from one complementary fixture.

Westinghouse Frameless Mainliners fit flush with ceiling. Mainliners are fully gasketed to prevent light leak, have integral cantilever hangers to simplify installation. Shown in J. C. Penney store, Pittsburgh, Mainliners give bright, nonglare light, help display merchandise to best advantage.

You can be sure if it's Westinghouse

On Readers' Service Card, circle No. 435

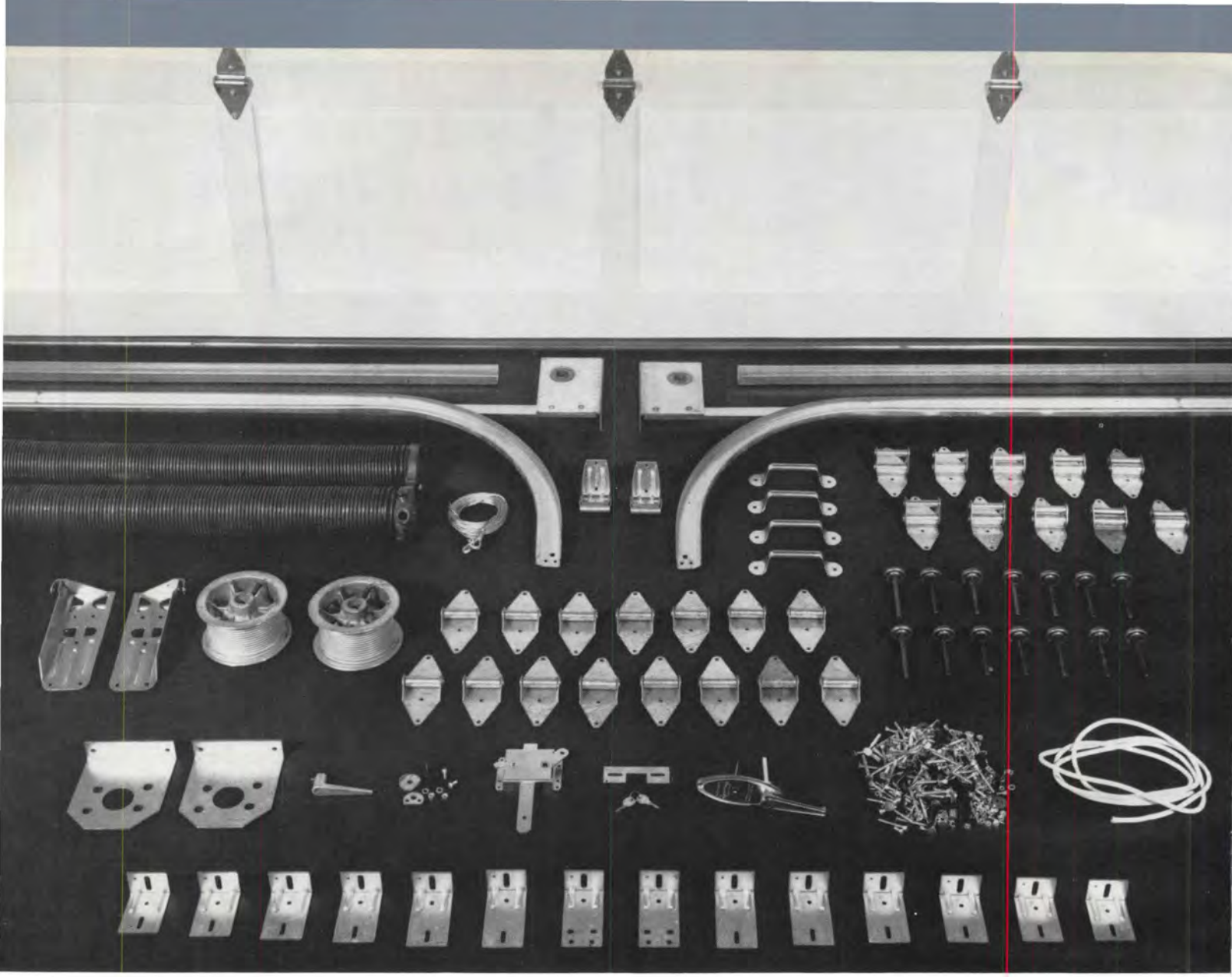
The men in front of The "OVERHEAD DOOR" also stand behind it.

Specify The "OVERHEAD DOOR" and get much more than just a door.
Get the industry's widest choice of materials, styles, sizes and designs.
Get the dependability of the finest electric operator, matched to each individual door.
Get the experience of the company that originated the upward-acting door.
Get the confidence of the firm that's built more than eight million doors.
Get the assistance of our architectural consultants and engineers on any standard or special door requirements.
Get the service of the largest, finest, network of factory-trained door specialists.
Get the number of your minutes-near distributor listed under "OVERHEAD DOOR" in the white pages of your phone book.
Give him a call and get an expert. For more of what's behind The "OVERHEAD DOOR", turn the page.

Fully transistorized, portable transmitter with color-coded selector, controls up to 8 doors individually by radio control.

THE "OVERHEAD DOOR" TRADE MARK
SINCE *the original* 1921

OVERHEAD DOOR CORPORATION
General Offices: Dallas, Texas 75202
Manufacturers of The "OVERHEAD DOOR"
and electric operators for residential and commercial buildings



What's behind The "OVERHEAD DOOR"?

Counterbalance design for easier opening. Longer life because it's made of the finest materials. The confidence of a name known and trusted since 1921. A service-minded distributor within minutes of most any job site in the United States. The "OVERHEAD DOOR" and electric operator save your client money because they are installed and warranted by a factory-trained distributor of The "OVERHEAD DOOR." Specify the genuine and original; The "OVERHEAD DOOR." It's the door you can stand behind, because we do. For further details call your local distributor listed under "OVERHEAD DOOR" in the white pages of your phone book; or refer to our catalogue in Sweet's Architectural File. Another open and shut case for The "OVERHEAD DOOR."

THE "OVERHEAD DOOR" TRADE MARK

the original

OVERHEAD DOOR CORPORATION • General Offices: Dallas, Texas 75202 • Manufacturers of The "OVERHEAD DOOR" and electric operators for residential and commercial buildings

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APARTMENTS FOR ELDERLY PERSONS, Scarborough, Ontario. Chapman & Hurst, Toronto, Ontario, Architects. One of two similar buildings both painted 100% with Pratt & Lambert products.

ENTRANCE HALL, BREBEUF HIGH SCHOOL, Willowdale, Ontario. Cox & Moffet, Islington, Ontario, Architects. P&L products used: Primafil, Lyt-all Double Duty Primer, Cellu-Tone Satin, Effecto Enamel, Vapex Masonry Paint, Tonetic Wood Stain, "38" Pale Trim Varnish, "61" Floor Varnish.

WAITING ROOM and DOCTORS' ROOM, AJAX & PICKERING GENERAL HOSPITAL, Ajax, Ontario. Craig, Zeidler & Strong, Toronto, Architects. P&L products used: Lyt-all Double Duty Primer, Cellu-Tone Satin, Lyt-all Flowing Flat, Tonetic Wood Stain, "38" Pale Trim Varnish, Exterior Rustic Stain, Alkatite Cement & Stucco Paint.

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The extraordinary qualities of Pratt & Lambert products make them favorites with architects. Accurate, scientifically controlled and tested formulations yield paint and varnish which apply well, look attractive and last long on job after job.

Exclusive P&L Calibrated Colors® offer the architect ample choice. They are scientifically selected for their decorative correctness, both traditional and contemporary.

Pratt & Lambert Architectural Service Departments are eager and able to assist architects. They will offer recommendations for painting or finishing any interior or exterior surface, or develop a complete color plan for a building. Call or write your P&L representative or the Architectural Service Department nearest you. No obligation, of course.

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Pratt & Lambert-Inc.

Made and Sold Throughout All of North America

consider the versatility that COOKSON side coiling grilles contribute to any structure

At Night: Protected

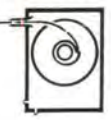
By Day: Unrestricted

These two Cookson Side-Coiling Grilles close-off a full 200 feet of store-front.

In the closed position (left) these grilles provide effective security, because they are fabricated from steel rods and links that are strong and durable.

Ready for business (right) the grilles are coiled into compact enclosure boxes to leave the entire store-front fully open for freedom of entrance and vision. Retailers value highly this maximum exposure for product display.

Cookson Grilles—Rolling or Side-Coiling—offer a practical and decorative answer to many closure problems. For concessions, store-fronts, hallways, stairways, courtyards, driveways or garage entrances, the clean lines blend attractively with contemporary design while providing effective protection. Write today for Bulletin 6501, or see us in Sweet's.



When not in use, Cookson Side Coiling Grilles "disappear" into compact enclosures.

COOKSON®

"Best Way To Close An Opening"

THE COOKSON COMPANY
700 PENNSYLVANIA AVE., SAN FRANCISCO, CALIFORNIA 94107

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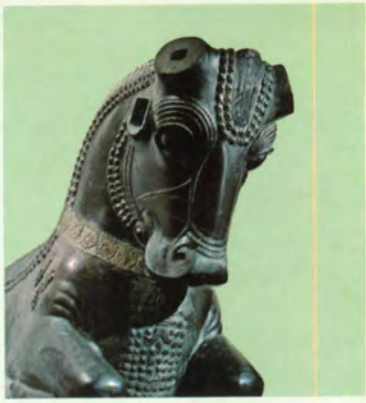
CONWED™ PRODUCTS | **LO-TONE®** enduring beauty ceiling products

Bull Capital from Achaemenid Dynasty (486-423 B.C.), found at Persepolis, Persia. 28" high, of bituminous limestone. (Nelson Gallery—Atkins Museum, Nelson Fund, Kansas City, Missouri.)



Beauty that endures

Artistically inviting theatre features a beautiful travertine marble pattern ceiling—Lo-Tone Fissura F-R mineral acoustical tile.

PROJECT: *Cinema I & II*
LOCATION: *Framingham, Massachusetts*
ARCHITECT: *Wm. Riseman Associates*
GENERAL CONTRACTOR: *Joseph E. Bennett Co.*
ACOUSTICAL CONTRACTOR: *Acoustic Installation Co.*

Beauty that endures

. . . affords fire protection and acoustical control

Fire resistance and coordination of ceiling design with interior motif are important, particularly in areas where people gather. That was, of course, why Lo-Tone FR (fire-rated) Fissura acoustical tile was selected for the ceilings in this distinctive theatre. Lo-Tone FR products are manufactured under Underwriters' Laboratories, Inc. inspection and carry the U.L. label. They have a listed U.L. fire rating when used as a component of an approved structural design. So used, they afford protection against flame passage and heat transmission. Often these Lo-Tone FR products save money in construction and design, too. More expensive methods of fire protection are eliminated, completion dates are accelerated, and lighter weight construction can be used. Remodeling work is faster because of the dry application. What's more, low insurance rates are possible as Lo-Tone ceilings often provide fire resistance beyond local building code requirements. Lo-Tone FR board and tiles have high acoustical efficiency. They provide a beautiful solution for room-to-room noise transmission problems, another feature affecting the decision to use Lo-Tone products. There is, in fact, hardly a ceiling need that can't be solved within the range of functions and design patterns of Lo-Tone products. Lo-Tone vinyl-coated tiles and boards are washable—important in clean room areas, computer rooms, laboratories and kitchens. Easily-cleaned surfaces are sealed and static-free and do not attract dirt. Lo-Tone ventilating tiles and*

CONSTELLATION®

boards integrate with heating and air condition systems. Unique, adjustable jet slots allow high plenum pressures, assure remarkably efficient air distribution. Lo-Tone lighting products, too, can be integrated with Lo-Tone ceilings. A variety of translucent panels and lighting fixtures is available for the ceiling you select. For complete Lo-Tone product specifications, see AIA File No. 39-B in Sweet's. Your local Lo-Tone Acoustical Contractor can supply you with samples. Consult the Yellow Pages or write Wood Conversion Company, St. Paul, Minnesota 55101.

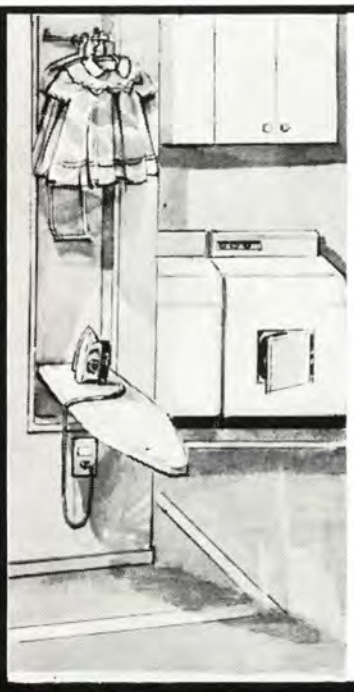
**Consider International Testing Laboratory, a subsidiary of Wood Conversion Company, for any acoustical evaluations you may require. Write for details of equipment, testing facilities and rates.*

CONWED™ PRODUCTS | LO-TONE®
ACOUSTICAL, VENTILATING, LIGHTING CEILING PRODUCTS

Plug Slater
functional receptacles
for modern convenience living

ARCHITECTURAL FACE WIRING DEVICES RECEPTACLE #6242

Architects and engineers are emphasizing beauty of design, as well as performance. Buildings must be both esthetically and functionally attractive. The Medalist "Decorator Group" offers the most advanced design for residential and commercial applications, plus the finest performance of any spec grade wiring devices available.



PILOT INDICATOR LIGHT RECEPTACLE #675

Whether it's a laundry iron or a soldering iron... when it is plugged in you'll know it... a constant, safe reminder. The red pilot light indicator receptacle has innumerable applications in residential, industrial or commercial installations.

STA-KLEEN CLOCK HANGER RECEPTACLE #S-371

Whether for a wall timepiece or for an illuminated oil painting, the clock hanger receptacle serves an important function. It eliminates ugly wires... gives a built-in look. Slater makes them in NEMA grounding types, parallel slot, T-slot, with brass or Sta-Kleen plates.

WEATHEPROOF FLIP-LID #M3780

This is the most beautifully designed, skillfully engineered duplex outlet weatherproof cover. It provides protection from the elements for switches, receptacles or combinations. Lids open to 90° and 180°; non-corrosive aluminum die-casting; stainless steel springs; weatherproof sealed gaskets; in grey, green, yellow, white.

Slater
MANUFACTURER OF MEDALIST
SLATER ELECTRIC INC. • GLEN COVE, N.Y.

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the store front that rolls away

Kawneer Sliding Hide-A-Wall Front Permits Wide-Open Merchandising!

■ Now you see it. Now you don't. Like magic, the Kawneer 1070 *Sliding* Hide-A-Wall disappears, including the "190" swinging doors and overhead concealed closers. During inclemency, it functions as a normal front, with traffic passing through the doors. In fair weather—or in enclosed malls—it rolls away for unobstructed access to the entire front. Designed for indoor or outdoor application. ■ Transformation from closed to open front is done with unparalleled ease. The wall slides in a *single,* flat track set flush with the floor. No cover-plate necessary, eliminating a twice-daily chore. No switches.

even the doors!

No overhead hangers. ■ *Kawneer 1040 Sliding Front.* Similar to the 1070, except without swinging doors. The panels can turn 90 degrees. This cornering ability permits flexible floor plans and stacking arrangements (even closets or at rear of store). Both are available in Permanodic* hard color finishes. ■ Whether you are designing an enclosed mall or an auto showroom front or a church, school or institutional building requiring movable partitions, *consider* Kawneer 1070 or 1040 Sliding Hide-A-Wall.

Kawneer

Kawneer Co., Inc., a Subsidiary of American Metal Climax, Inc.

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A KAWNEER ENTRANCE

Beauty that never fades....

Style Leader 125 Entrance Package—shown in Permanodic Medium Bronze No. 28.

and precision performance that never stops!

Now with **PERMANODIC*** *color*

Whatever you're planning—skyscraper, storefront, apartment, hospital, school or salon—Kawneer has an entrance package designed to meet your requirements for performance and appearance.

Independent laboratory tests and on-the-job installations prove Kawneer aluminum entrances last longer and are engineered to deliver superior performance—even after years of vigorous traffic and extreme weather conditions.

Now, there is an additional advantage to specifying Kawneer—Permanodic colors! These anodic hard color finishes add new warmth. And their beauty is *lasting*. Permanodic finishes are created from alloys, not dyes, and therefore are non-fading, resist corrosion and abrasion. These new entrance packages also offer exciting, new hardware options including Permanodic bars and new grips in teal, earth or black.

For superior performance, permanent beauty, and the savings these features afford, specify a Kawneer entrance package. Write for specification file, number P. E. 64, or Sweets File 16 E/KA.

Full Vision 128 Entrance Package—
shown Permanodic Light Bronze No. 26.

Narrow Stile 190 Entrance Package—
shown in Alumilite No. 204 A1R1.

Wide Stile 500 Entrance Package—
shown in Permanodic Black No. 29.

Extra Duty 350 Entrance Package—
shown in Permanodic Medium Bronze No. 28.

All entrances illustrated with concealed overhead closer. 190, 350 and 500 available with 5 closer options. 125 and 128 with concealed closer only.

Kawneer

KAWNEER COMPANY, a Division of American Metal Climax, Inc.

Niles, Michigan • Richmond, California • Atlanta, Georgia • Kawneer Company Canada, Ltd., Toronto, Ontario • Kawneer de Mexico, S.A. de C.V., Mexico City, Mexico • Kawneer Company (U.K.) Ltd., London • Kawneer GmbH, Rheydt, Germany • Showa Kawneer, Tokyo, Japan.

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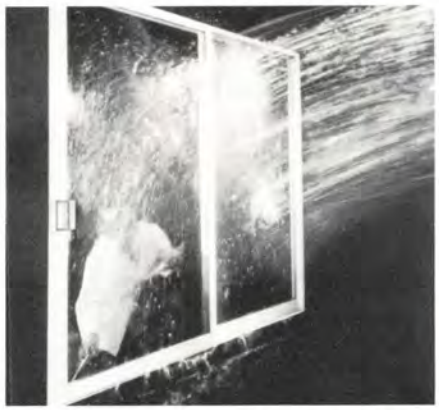
beautiful sliding doors that will not leak . . . .

The Kawneer 990 Doors Match Metal Curtain Wall Weathering Performance!

Kawneer 990 sliding doors will not leak—even when subjected to simulated wind of 63 mph and 8 inches of rainfall per hour. The tests, certified by an independent laboratory, were identical to those for curtain wall systems as outlined by NAAMM. This superb performance is ideal for low-rise and high-rise applications, (often subjected to higher storms and winds). The 990 prevents water damage to floors, carpeting, draperies, and interior walls. That's because an exclusive pressure equalization chamber, consisting of a non-siphoning sill, equalizes pressure within door sections and outside. With no pressure difference, there is no siphon action and no leakage. The popular priced 890 sliding door for residential and light commercial application offers similar weathering features. Both are now available in your choice of Permanodic* hard color finishes. Write for technical file. Address Kawneer Product Information, 1105 N. Front St., Niles, Michigan.



even in a hurricane!

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NEWS REPORT

Architecture's Monthly News Digest of Buildings and Projects, Personalities, New Products

Johnson's Ellis Island Plan Announced

NEW YORK, N.Y. Announced last month were Philip Johnson's design plans for Ellis Island, converting the 27.5-acre New York harbor island into a National Immigration Museum and Park. Writing in *The New York Times*, critic Ada Louise Huxtable stated: "There is no question about the superior design quality of the solution, or its particular historical sensitivity. It is light years ahead of the routine reconstructions and predictably pedestrian memorials usually tendered by Government agencies." For photos and comments, see this month's P/A OBSERVER.

Architects Must Have Licenses for Planning Work in Jersey

TRENTON, N.J. A New Jersey lawsuit, recently concluded, may have far-reaching effects for architects and the services they offer. The direct result is that, in New Jersey, architects cannot call themselves planners, nor presumably offer that service themselves, unless they are formally registered as such. In an hour-long oral opinion at the conclusion of *New Jersey Chapter, AIP* vs. *New Jersey State Board of Professional Planners,* a case that had dragged on for a year, Judge Frank J. Kingfield ruled that city and regional planning is a different profession than architecture and engineering. Training and experience in the latter fields, he said, does not produce a competent city planner.

The disputed issue was Section 11, paragraph 4, of the New Jersey Professional Planners Licensing Act of 1962. The act requires anyone preparing a comprehensive master plan to take an examination, demonstrating his competence, and to obtain a license. The paragraph in question exempted architects, land surveyors, and professional engineers, granting them an automatic professional planner's license. As a result of the decision, the paragraph was "severed" from the act and deleted from the statute.

According to Judge Kingfield, the paragraph was unconstitutional under both the state and Federal constitutions. "The fact," he said, "that, historically, planning evolved from architecture and engineering is of little or no consequence. This may be an unfortunate fact, but it is now recognized that the profession of planning is a separate and distinct profession. The evidence does not bear out the fact than an engineer, architect, or land surveyor, by the education he has received and simply with training in his respective field, possesses the qualifications of a professional planner. Even this is admitted by some of the defendants' own witnesses. . . . Going again to the primary purpose of the law, namely, to see that qualified persons undertake planning and recognizing the law that professional planning is a separate profession, it should necessarily follow that only persons educated and trained in professional planning be licensed. If the legislation is to be of any benefit to the public at all, it seems to me that this condition has to be a prerequisite. If this section were to remain in the law, it would result in many incompetent persons being granted a license."

New Jersey is the first state to require licensing of planners. Architects who wish to gain licenses must have 12 years of planning experience and pass a written exam. The act specifies that this exam must test applicants on the history of urban, rural, and regional planning; fundamental theories; research methods and common basic standards in professional planning; administrative and legal problems; instruments and methods; current planning design and technique; and the history, principles, and requirements of planning and zoning procedures in New Jersey.

Weese To Design Capital Subway

WASHINGTON, D.C. Chicago architect Harry Weese was named last month to design stations and provide "conceptual plans" for Washington's proposed 25-mile subway. Selected by the National Capital Transportation Agency, Weese, designer of the Arena State Theater here, will have working plans of the $431-million system ready for the start of construction sometime next year.

Easier Said Than Dome

HOUSTON, TEX. Domes on structures as large as baseball stadia are easier said than done. The one on the Astrodome here has had more problems than Pandora. Last month, Harris County, its owner, got a bill for $500,000, the cost of the first year's "minor repairs." According to Houston's Sports Association, which operates it, the dome leaks, the roof steel has rusted, and the walls and floors have cracked.

Utzon Resigns in Sydney

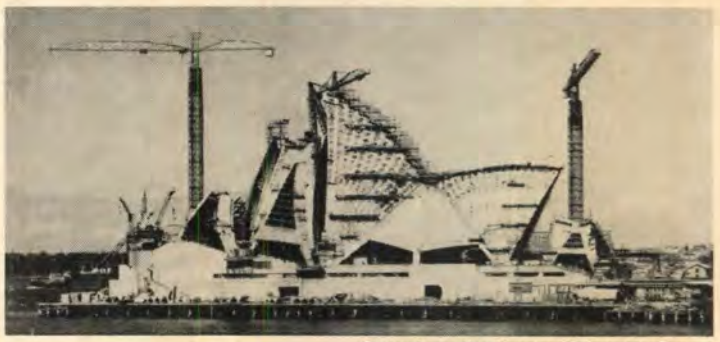

Photo: Australian News and Information Bureau

SYDNEY, AUSTRALIA When Joern Utzon won an international competition in 1956 for the design of the Sydney Opera House, no one was sure quite how to build it, but they thought it would cost about $7 million. By October last year, these estimates were up to $35 million, and, by last month, they had ballooned to $50 million. As costs soared so did danders, and in early March Utzon walked off the job.

Some seemed unconcerned by his resignation. "Construction is nearly finished now," said consulting engineer Ove Arup. "We can carry on without too much difficulty. But it has been a very difficult eight years. So many problems . . . but we solved them. Now I am off to the south of France for a bit of a holiday." Others were not so laconic. R.W. Askin, Premier of New South Wales, was besieged by telegrams and petitions urging him to get Utzon back. And at one point, a group of architects and students marched in protest through the streets of Sydney to Parliament House. In a cable to P/A, Askin was hopeful: "My government has expressed the earnest hope that he will agree to withdraw his resignation on conditions mutually acceptable."

Ostensible reason for the resignation was the government's desire to curtail Utzon's free hand with the Opera House's construction. The mushrooming costs were a political issue in last year's elections, and Askin, in his election campaign, had promised to control them. But government suggestions to appoint a committee of architects to complete the work are unpopular. Utzon's staff has refused flatly to work with

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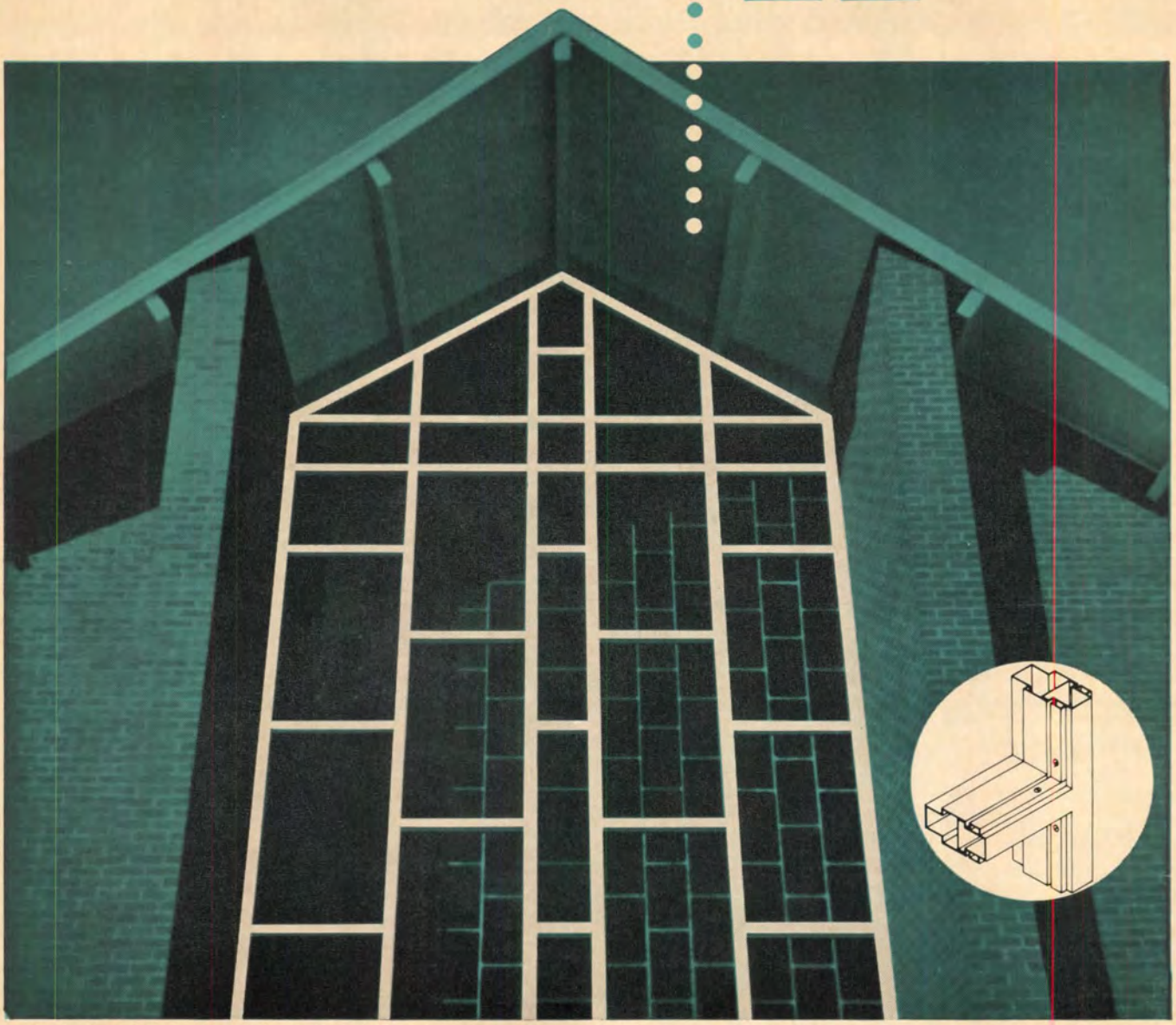

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a committee. One New South Wales architect, Harry Seidler, echoed local discontent with the plan when he said: "It is my very strong opinion that the suggested consortium would be unethical. We are not dealing with an ordinary routine sort of building. It would be unethical for an architect to have the audacity to take on such a work."

"Mutually acceptable" terms seemed unlikely as P/A went to press. Aside from the question of authority, other issues included Utzon's request for $102,000 in back fees (he has received about $1 million in fees so far), and his demand that $2 million worth of plywood be purchased from a dealer said to be in financial trouble rather than submit the order to competitive bids.

NSW's Minister of Public Works, Davis Hughes, seems firm in his desire to limit Utzon's participation to that of a consultant and to set up a construction time/cost table.

Just what is at stake in this quest for design by committee is not clear, since funds to pay for the Opera have been raised so far by public lottery.

It is hoped that the project, an impressive architectural achievement, can be completed as conceived, and that it can be done without further hoopla. Already, cynics Down Under are suggesting that the hall's opening performance be a comic opera about the building of the opera house. Suggested titles: "Joern's Driving Me Crazy," "The Biggest New South Whale," and "Danish Pastry Blues."

Beale Street Blues

MEMPHIS, TENN. Beale Street, the place "where the blues began," was immortalized by W. C. Handy in his "Beale Street Blues." A Prohibition song, it bemoans the passing of booze: "Going to the river, And there's a reason why/Because the river's wet, And Beale Street's done gone dry." The street of sin and sincopation never really shook the pall of Prohibition, and, today, the remembered live beat of jazz and blues are drowned out by the juke box, the bars and chit'lin joints closed down. The pawnshop balls are about the only things that glitter now.

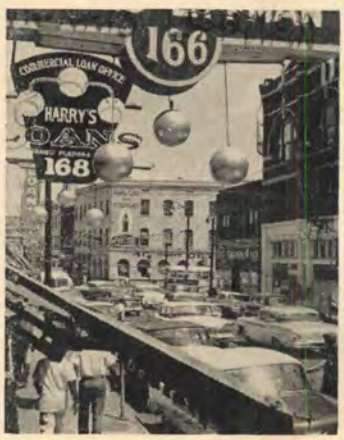


Photo: Charles Nicholas, "The Commercial Appeal"

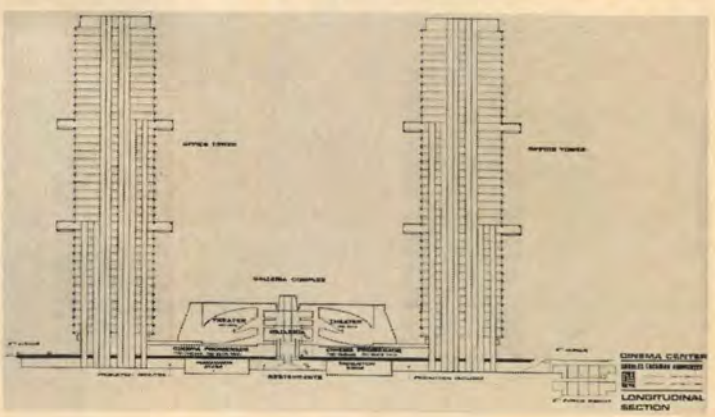
The street, which took its name in 1849 from some military or naval hero—no one quite knows—grew along with Memphis, taking its life blood from the Mississippi. Later, a change in the river's course curtailed Beal's activity as a point of entry and exchange. But for the Negroes coming up from the Mississippi delta and the cane fields of Arkansas, Beale and all its hustle was their first "urban experience."

There was Gallina's Exchange, built in 1891 (and destroyed by fire in 1932), which housed a saloon, a burlesque theater, a restaurant, and a hotel. Gallina took pride in providing his clientele with every necessary service and facility under one roof. There was PeeWee's, opened in 1894 and celebrated as being the place where W.C. Handy, leaning against a cigar counter, wrote the "Memphis Blues." If PeeWee's (a bar until 1912, then a pool hall, later a laundry, now renovated and vacant) was the most famous, the Panama was the most colorful: Its bartender, Bill Bailey, was the street's snappiest dresser and may have been the inspiration for the well known plea in music for him to "come home." On the second floor of the Panama, Mary the Wonder practiced voodoo—with some success. In 1910, the Monarch opened and joined the list of Beale Street emporiums. It was soon to be known as "the castle of the missing men." Bouncers Cousin Hog and Bad Sam would dump dead gamblers in the alleyway, to be picked up that night by the undertaker next door.

The 167.2 acres that make up what is known as Beale Street bounced with jazz, color, and crime. Handy said of it, "I'd rather be there than any place I know." But the Beale days as such are gone now, and the Memphis Housing Authority is faced with the job of renovation (91.2 per cent of the structures now standing are substandard ones), restoration, and general clean-up of the area. Renewal plans call for preservation of some of the old Beale landmarks, as well as new housing, stores, theaters, and offices. Though much of the new Beale Street planning is still up in the air, the Memphis Light, Gas and Water Company will build a $5,500,000 multistory facility that will serve as "the anchor structure for the entire area."

One hopes that Memphis can clear the street of its present clutter, and, with restoration and careful planning, give Beale back some of the life it had before.

TV SCORES TKO ON GARDEN SITE



NEW YORK, N.Y. When the present Madison Square Garden was designed in 1925, it was conceived primarily as an arena for boxing. And it was that, for many years; all the big fights were held there. Joe Louis, Barney Ross, Sugar Ray Robinson, Henry Armstrong, Rocky Graziano—all thought of it as home. But even in the days of the big fights, other events were needed to keep the Garden going, and with TV's inroads in recent years, Garden fights have become fewer and other events more frequent. Unfortunately, too many of

the Garden's 15,000 permanent seats have obstructed sight-lines to anything not held in the center of the arena floor.

The new Madison Square Garden will change all that (see p. 76, MAY 1964 P/A). And, ironically, the complex of buildings proposed last month to take the place of the present MSG will give succor to the enemy: TV. The winner: Television, by a technical knockout.

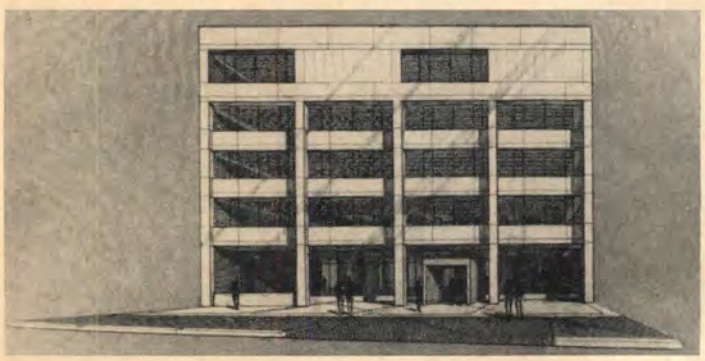
Actually, the Charles Luckman Associates-designed buildings are being billed as a Cinema Center. If built as planned, they will provide what its promoters call "the only completely integrated modern facilities in New York for the production, recording, and processing of motion picture, television, and commercial films."

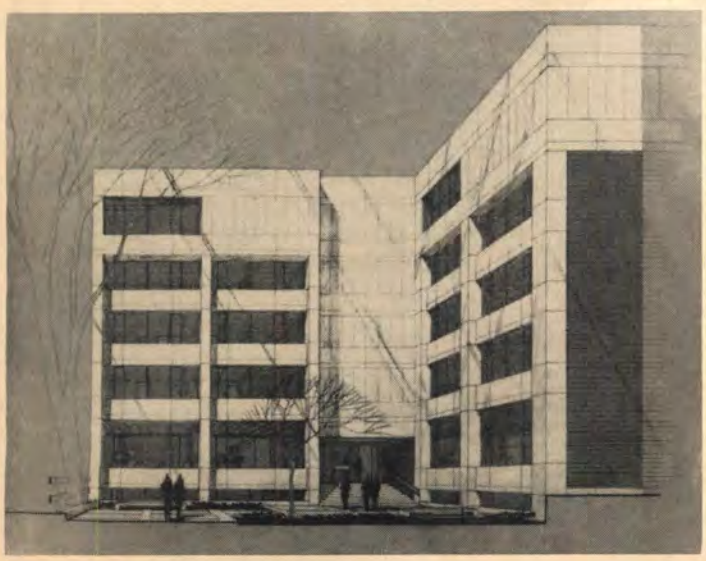
What Luckman and developer Irving Mitchell Felt, president of the Madison Square Garden Corporation, have in mind is a four-acre, full-block complex with twin 39-story office buildings at either end, and, between them, two connecting seven-story structures containing film and recording studios, two legitimate theaters (each with 1500 seats), and four motion picture studios (each with a 750-person capacity). Between these two latter buildings will be a glass-covered galleria, offering an eight-story sweep from its glass roof to the plaza-level dining facilities. Around the galleria will be promenades and walkways.

Luckman's design shows each high-rise office tower supported by load-bearing corner fins, which house all mechanical equipment.

Although financing has not yet been arranged for the $50-million project, and although no tenants have signed up, the developers are confident that construction will begin with the opening of the new Madison Square Garden in late 1967.

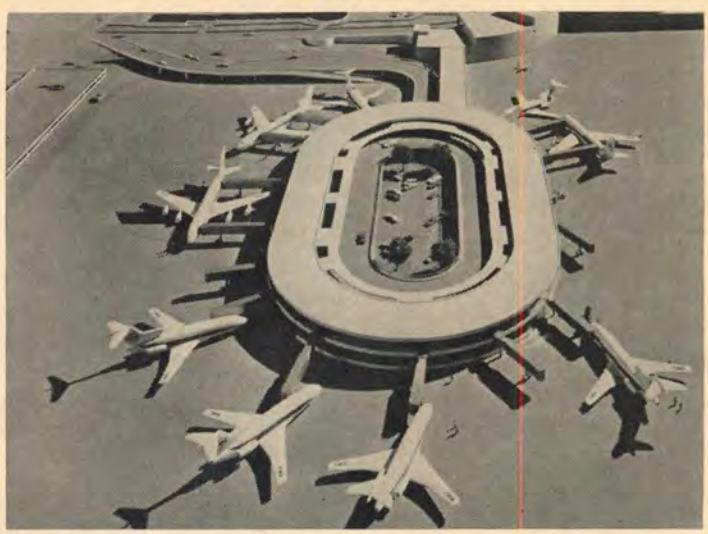
The House That TAC Built





CAMBRIDGE, MASS. Nothing pleases an architect more than to design a house he can live in, except maybe designing an office he can work in. The Architects Collaborative is enjoying the latter type of building—with two floors to spare. TAC will occupy the basement and first three floors, and will rent the upper two. The 74′x36′ building will have an exterior of bush-hammered, cast-in-place concrete with the formboard and tie marks left for detailing. A dark-brown brick, set in dark mortar, will be used on the end walls of the building. All glass will be of the gray, glare-resistant variety. The entrance from Brattle Street will be through a sunken (land- and fountain-scaped) courtyard, with the added nicety of brick that will be matched for color with the standard brick of Boston sidewalks. Construction will cost $535,000; completion is scheduled for late this year.

TWA Plans Pittsburgh Gateway



PITTSBURGH, PA. "When you talk about airport terminals today, you are really talking about gates. You no longer need the conventional monumental terminal building, just gates," says Arnold W. Thompson, who, as a registered architect in White Plains, N. Y., specializes in airport facilities consulting. For 10 years, Thompson was chief architect with American Airlines. In his most recently released airport plan, Thompson has proposed a two-level TWA terminal for the Pittsburgh Airport. TWA wanted a facility that would bring passengers arriving by bus, limousine and car as close to the airplanes as possible. Thompson's plan puts them about 40 paces from one another. As shown in the model, the $13,700,000 structure would be racetrack-shaped, linked by a straight arm to the existing central terminal. An upper-level, four-lane road would bring vehicles into the structure's infield, where they would discharge passengers and baggage at any of several curbside check-in gates. A lower-level roadway would take deplaning passengers out.

TWA plans either one or two multilevel parking garages connected to the structure to supplement the limited infield parking. These garages would be connected to the terminal by moving sidewalks and moving baggage ramps, so that check-in and baggage claim could be done where you park your car. Departure lounges, one for each of the dozen planned telescopic, enclosed passageways that lead directly to the airplanes parked by the terminal, will be only steps away from the curbside check-in counters. Thompson has suggested a roof overhanging the oval infield roadways to protect arriving and departing passengers.

TWA, whose link with Pittsburgh goes back to 1930, when three companies (one of which

was Pittsburgh Aviation Industries Corporation) merged to form the first transcontinental airline, foresees a 30 per cent passenger increase in its facilities here by 1968—up to 1,750,000 passengers from a present 1,300,000. By 1975, they expect their passenger load here to reach three million.

Thompson's proposal was presented to the Allegheny County Board of Commissioners for approval and authorization last month. Once the plan is okayed, Thompson, whose role is advisory, will work with the architects selected to prepare a final plan. TWA expects to put up about a third of the money needed for construction, with the county providing the rest.

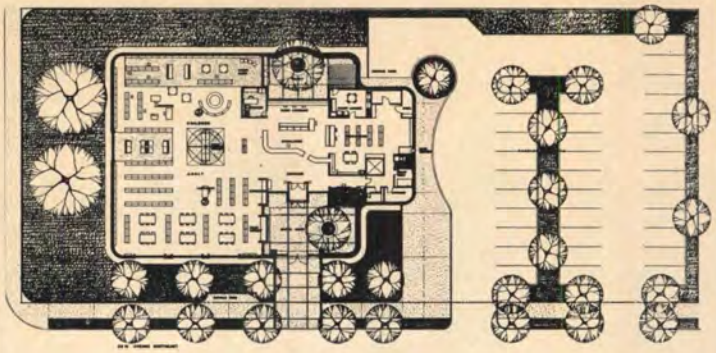
The terminal should be ready by November 1968.

Coming Up in the World

MERRITT ISLAND, FLA. NASA Complex 39, the Apollo-Saturn V assembly and launch complex, has been selected as the "Outstanding Civil Engineering Achievement of the Year." The annual award of the American Society of Civil Engineers is given to that project "which demonstrates the greatest engineering skills and represents the greatest contribution to civil engineering and mankind." And that's saying a lot for a launch complex that is still in its final months of construction, and has yet to launch a rocket anywhere, let alone to the moon. But Complex 39, engineered by Giffels & Rossetti, Inc., of Detroit, does hold a record. The Vertical Assembly Building is the world's largest. If you were so inclined, you could slip the U.N. Building through its 426′ 73-ton doors. Architect is The Office of Max O. Urbahn.

Introverted Library

Photos: Hugh Stratford



SEATTLE, WASH. When John M. Morse was asked to design a public library in what he calls "a confused commercial center"—an area of parking lots, gas stations, etc.—he did *not* put up an ivory tower that might have separated the books and their users from the crass world around them. Instead, he created a façade that keeps the outside out without keeping the inside in. His curving fortress-like reinforced brick masonry exterior wall is pierced by arched, ground-level windows and a larger arched entrance gate that leads from the hodgepodge and bustle of the Seattle streets to a quiet, sheltered entrance courtyard. The steel truss roof has wood shingles. Both the warmth of these shingles and the warmth of the red brick, together with the fabricated bronze entrance gate by artist George Tsutskawa, make the building inviting, despite its appearance of protective strength. Finished early this year at a cost of $289,000, the Lake City Library is an appropriate home for its 40,000 volumes.

Stadium in Philly Gets Architectural Referee

PHILADELPHIA, PA. When preliminary plans for a new, all-purpose city stadium were announced here last summer, what one observor calls a "great hassle" developed over its appearance and its functional arrangement. In announcing the Stonorov & Haws design, P/A commented that, with its surrounding parking lots filled, it was in danger of looking like "a great, boxlike ship floating on a sea of cars" (pp. 49–50, JANUARY 1966 P/A). But, by then, the members of a Stadium Advisory Commission appointed by the mayor were preparing a report. After talking, in separate, closed sessions, with the city administrators, the architects, and the two would-be tenants (the Philadelphia Phillies and the Phildelphia Eagles), they issued a report in mid-January.

In it, they stressed the need for a distinctive design that would bring credit to the city, and cited fears that Robert Carpenter, owner of the Phillies, would not let his team play in the stadium as it is now designed. Carpenter objected to the appearance, the aisles, the angling of the seats toward the infield, the loading areas, the entrances, the exits, the escalators, and the location of the parking. In view of all this, the commission made five recommendations:

"(1) The stadium must be constructed to serve its patrons. In this respect, it is no different from building a factory or the Academy of Music. If the work and the performance cannot be accommodated, it will not be successful. The public then will feel they were misled in voting for the bond issue.

"(2) It must be of such architectural quality as to warrant the kind of public endorsement that brought over 300,000 people to view the Houston Stadium and pay $1 each even when no game was in progress during 1965. Unless it has all these qualities, the two principal tenants—baseball and football—will not be able to draw big enough crowds to supply the cash necessary to attract outstanding players and to build a championship club.

"(3) We recommend that you ask the Philadelphia Chapter of the American Institute of Architects to select a nationally recognized architect who will be employed to cooperate on a consulting basis with the architects now employed by the City. You will recall, this was necessary to resolve the long and bitter dispute in connection with the Federal Court Building [see pp. 48–49, SEPTEMBER 1965 P/A].

"(4) We recommend that there be a new start which might well require a completely new design. In the event of any difference between architects, it should be understood that the consulting architect shall have the final decision and authority on all architectural questions.

"(5) We recommend that the architectural designer make a *complete design, including a dome, preferably retractable.* Unless this is done *now, in the design stage,* we do not believe it is feasible to determine the location, numbers, and design of pilings, footings, foundation

walls and superstructure. The heating, ventilating and air-conditioning designs must be evaluated for a dome construction. Also, the need for electrical power will be affected by the ultimate addition of a dome."

Acting on the Commission's recommendations, the city last month appointed Hugh A. Stubbins, Jr., of Cambridge, Mass., architectural referee. He was selected from a list of three prepared by the local AIA chapter. Stubbins will work with the original architects, George M. Ewing Co., Stonorov & Haws, and the structural engineers, McCormick-Taylor Associates. If further disputes arise among the architects, the Phillies, and the Eagles, Stubbins, who plans to open a Philadelphia office, will make the final decision.

Redesign is expected to delay the stadium's opening two years beyond the original 1967 date.

In November, Philadelphia voters will decide whether or not to issue $18 million in bonds to finance a roof.

Hartford Building: Right and Wrong

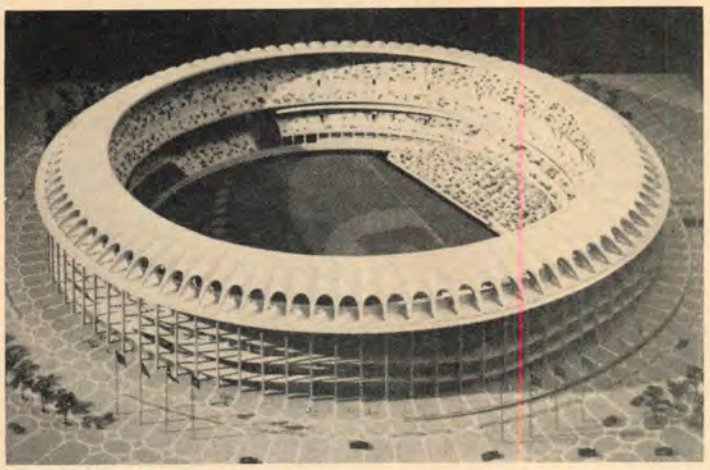
Photos: Morley Baer

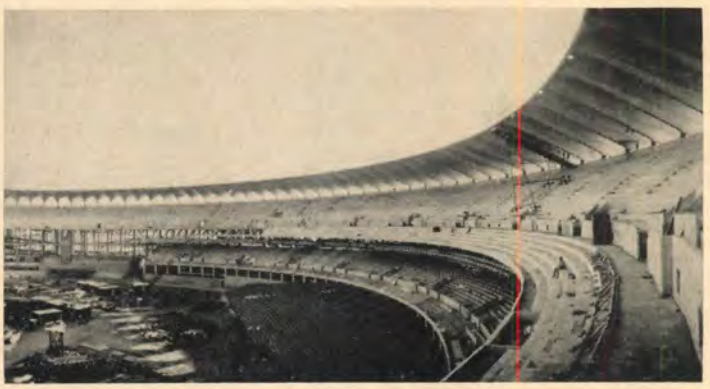
SAN FRANCISCO, CALIF. Rising proudly from a site half way up Nob Hill, the San Francisco headquarters of the Hartford Insurance Group—the Hartford Building—is a monument of carefully detailed design. Its clean lines thrust 33 stories into the sky—blocking many of the views from the hilltop structures above it. Designed by Skidmore, Owings & Merrill (San Francisco office), it is the maximization of the SOM look. But despite its clean lines and the white cast stone of its façade, which blend well with San Francisco, it is the right building in the wrong place. It dwarfs St. Mary's Church next door, and, although SOM is designing a church rectory that is planned as a transitional element between the office building and the church, it is doubtful if the two can be tied together, so disparate are they in size and style. Can David and Goliath be friends?

Even SOM is not sure. "We will have to wait until it is finished to tell," says Edward C. Bassett of Skidmore, Owings & Merrill.

One pleasant feature of the Hartford Building is a restaurant in a separate structure at the rear. Even without completed landscaping, the Plaza Cafeteria forms a pleasant terminus for the building's rear courtyard.

Stone's St. Louis Stadium Opens





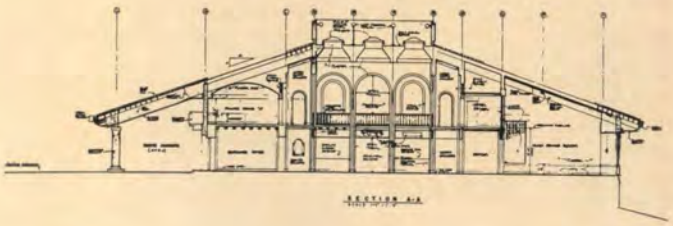
ST. LOUIS, MO. Opening this month, with the start of the 1966 baseball season, is the soon-to-be completed Busch Memorial Stadium designed by Edward Durell Stone. Stone's 50,000-seat stadium has a façade of repetitive concrete arches, reiterating the graceful loop of Saarinen's Gateway Arch, which overlooks it. It also has a cantilevered concrete roof above the upper deck.

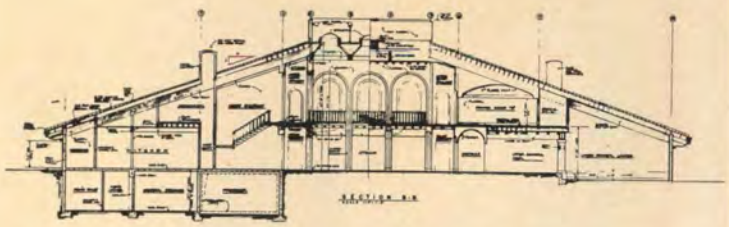
When the St. Louis Cardinals take the field on opening day, they will be the descendants of a host of baseball greats, performing in a contemporary showcase. Dizzy Dean was a Cardinal. Enos (Country) Slaughter was a Cardinal who scored the winning run of the 1946 World Series by sprinting all the way home on a base hit as Boston's Johnny Pesky stood frozen in astonishment, unable to throw the ball.

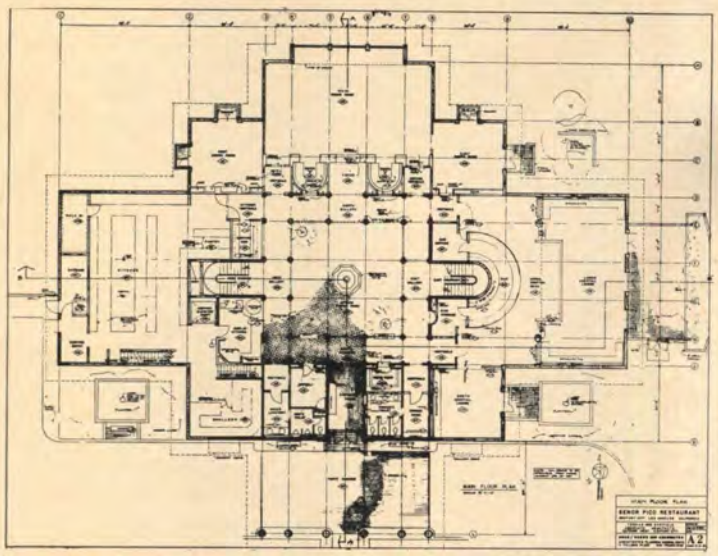
Like most new stadia, Busch Memorial Stadium is circular in form. Writing in *Sports Illustrated* magazine, Robert Creamer pointed out: "What the old ball parks do have to their credit is personality. Think of Ebbets Field's right field wall, the high green barrier in left at Fenway, the too-short foul lines and too-long center field in the Polo Grounds, the jury-box bleachers in Braves Field. The new stadiums have none of these idiosyncracies. They are all shining and pretty and perfectly proportioned, like the girls in the cigarette ads. They all look exactly alike: 330′ down the foul line, 410′ to center. In a few years, a visiting player won't know what park he is in, unless he first stops to check the schedule. Everything will be neutral and fair and

antiseptic. Maybe even boring." One can't imagine Ed Stone's stadium being boring. The Cardinals won't let it be.

The Flavor Is Spanish







LOS ANGELES, CALIF. Nestled in the midst of the sparkling white, high-rise buildings that will compose Century City, will be a relatively small, low-rise restaurant with a sloping red tile roof. In a way, its architecture, a sort of electic neo-Spanish colonial, will be entirely appropriate. For it sits on a site that was once Spanish soil, in the midst of buildings that have completely rejected that past in favor of a gleaming contemporaneity. Señor Pico's restaurant is trading blatantly on the nostalgia of the past. The second in what may become a line of Señor Pico restaurants (the first is in San Francisco's Ghiardelli Square), it is financed by Trader Vic, whose restaurants now dot the country. And it is the first of these to have its own building. The Trader conceived Señor Pico's as middle-priced restaurants, and unlike their higher-priced cousins,

they rely more on interior (and in this case exterior) structure for their mood, less on decoration—baubles, trinkets, fish nets, and anchors. As executed by San Francisco architects Chan/Rader & Associates, with Tendas & Garfield as associate architects, Century City's Señor Pico's will have a relatively simple façade of vertical form boards and sandblasted concrete beneath the large, hovering tile roof. Inside, the plan is cruciform. At the center of the cross will be a two-and-one-half story atrium dining court. Surrounding this, a two-story gallery provides vistas and circulation to kitchen, other dining areas, and service areas. To create the rich, warm atmosphere that has become the Trader's trademark, the architects will rely on handicraft glazed clay tiles in many colors and patterns, carpeting, wooden beams, textured plaster walls, decorated twig ceilings, carpets, paintings, and decorative lighting fixtures.

Currently in working-drawing stage, the building will go out for bids in about two months.

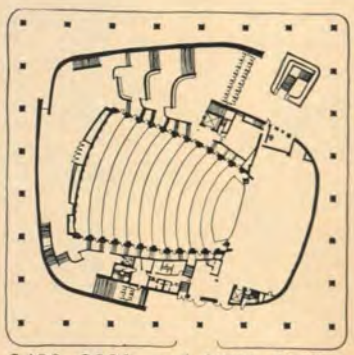
Jerry Lewis to Play Architect on Broadway

NEW YORK, N.Y. As we go to press, news reaches us from the theatrical world that Jerry Lewis may play an architect in a Broadway comedy this fall. If negotiations are completed satisfactorily, Lewis will open in October in *The Hero of the Whole World,* in which he plays a Long Island architect with five wives, each of whom is in charge of a different domestic duty. According to P/A's sources, Lewis will be the sole backer of the Mac Benoff comedy, which is expected to be capitalized at $140,000. Only on Broadway would this be enough to support five wives.

Theater-in-the-Drum

HOUSTON, TEX. Houston is going in for culture the way it goes after oil: big. Shown above is the Caudill, Rowlett & Scott-designed Jesse H. Jones Hall for the Performing Arts, which will be the first building completed in Houston's $40-million Civic Center Complex. Houston, which has the world's largest domed stadium, three major museums, three year-round theaters, four ballet organizations, and seven chamber music groups, will use the $6,600,000 hall (which will house the city's largest stage) as the permanent home for the Houston Symphony Orchestra, the Houston Grand Opera Association, and the Houston Ballet Foundation.

Architects Caudill, Rowlett & Scott have designed a hall which, with visual and acoustical adjustments, will be suitable for each of the performing arts. The hall will accommodate a maximum audience of 3001, with alternative capacities of



2400, 2000, and 1800. Ceiling panels can be lowered electronically to the balcony-rail level for the first seating change (3001 to 2400). For 2000, the mezzanine area will also be sealed in with panels. The minimum number of seats can be obtained by cutting off the last five rows of the orchestra floor.

As for its unusual and questionable 85′-high, travertine, drum-in-a-box form, the architects maintain that it was an outcome of the nature of the site. Sitting on a full city block,

the site of the former City Auditorium, the hall will be accessible from all sides, and the curvilinear shape was thought to be more conducive to movement around the building. The contrast between the straight lines of the walk-through colonnaded lobby (called in Texanese "The Texas Porch") and the curves of the drum enclosing the theater proper, were thought to add an element of visual excitement.

The hall is scheduled for an October 2nd opening.

Station KGW Coming Through Clear, If Not Loud

PORTLAND, ORE. The KGW Radio and Television Building in this city broadcasts from the street without static. The two-story building, designed by Fred Bassetti & Company of Seattle for the Bullitt Foundation, is the result of that growing phenomenon—the client who cares. The Bullitt Foundation requested that the building reflect its business ethic: "The pursuit of ideals and the fulfillment of responsibilities." For once, these high thoughts are not *hand-stitched* into a parlor-chair pillow: The architect has built them of concrete and brick. With an exterior of reinforced concrete and ¾" brick tile (laid vertically to distinguish it from standard brick), the building makes us want to see more radio and television stations—building instead of talking.

Wondering Whillakers! Washington Watergate!

Photos: J. Alexander

WASHINGTON, D.C. Watergate East, the first of five buildings in a multipurpose $44-million community (model shown above) unfolds like a mud worm in Foggy Bottom by the Potomac. Designed by Luigi Moretti of Rome and Milton Fischer of the Washington firm of Corning, Moore, Elmore & Fischer, Watergate, by the time it is completed in 1968, will have three cooperative apartment buildings (the 13-story Watergate East, with 240 apartments and 167 different floor plans, is the first), a hotel and shopping mall—all great curvacious hulks. An underground network of roads will handle all traffic. Only the office tower will pay homage to the straight line (no doubt because of its business image). For prices ranging from $30,000 to $300,000, apartments will offer tenants a view of the Potomac, acres of flora, at least one marble-topped lavatory in each apartment—and just about any other luxury you can name.

Quiet Building for the Arts

WEST NYACK, N.Y. The Rockland Foundation (the 20-year-old Rockland County guild for instruction in and exhibition of the arts) has announced the winner of its competition for a design of its new home on a semirural, 10-acre site. John Way, Jr., 1960 graduate of the Cornell School of Architecture, and resident of New York City, was judged winner by jury members Georgio Cavaglieri, Lo-Yi Chan, James M. Fitch, Paul Rivet, and Charles H. Warner, Jr. Way has worked with Marcel Breuer, I.M. Pei, and is presently associated with Percival Goodman. The Rockland Foundation plans to start building immediately.

Landmark Becomes Home of AIA Chapter

ST. LOUIS, MO. In a move as striking in its wisdom as in its appropriateness, the St. Louis Chapter of the AIA set up offices this winter in the Wainwright Building. Completed in 1892, the Wainwright Building was what Chapter president Angelo G. Corrubia calls "the first satisfactory expression of a skyscraper," and, as such, it set a structural precedent that is still the bulwark of modern skyscraper construction. Frank Lloyd Wright, who was a young assistant in the Chicago offices of Adler & Sullivan when the building was conceived, told this story at a lecture at Princeton University:

"Our peculiar [American] invention, the skyscraper, began on our soil when Louis H. Sullivan came through the door that connected my little cubicle with his room in the Auditorium Tower in Chicago. He pushed a drawing board with a stretch of manila paper on it over onto my drafting table and, without a word, went back into his room and closed the door. There it was, in delicately-penciled elevation. It was the Wainwright Building in St. Louis, the first human expression of a tall steel building as architecture."

Ellis Wainwright, who commissioned the building, found it an almost instant financial success, for its 250 offices were rented almost as soon as the building was completed. But for Wainwright, the success was sour. In 1891, with the building almost finished, his beautiful young wife, Charlotte, died, a blow from which Wainwright apparently never recovered. In his grief, Wainwright once again turned to Sullivan and asked him to design a mausoleum in his wife's memory. The Wainwright mausoleum in St. Louis's Bellefontaine Cemetery is still a showplace—a significant Sullivan structure. After his wife's death, Wainwright was an unhappy man. He became involved in a sensational stock scandal. Indicted,

THE PRESCON MEMO NEWS

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SPACE—THE RESULT OF ELIMINATING 211 COLUMNS IN WEBB BUILDING BY POST-TENSIONING

More rental space, greater space flexibility, reduction of number of required columns, and shallow floor depth were considerations analyzed before selecting post-tensioning for the Webb Building in Arlington, Virginia. Three structural systems were evaluated before a decision was made. In the final design, the few columns required allowed such space management efficiency that the owner, M. T. Broyhill & Sons Corp., reported requests for office space totaling 212% of rentable space!

The structure was originally designed for 70 psf live load, but was later changed to 125 psf live load for the first five floors above grade, and 100 psf live load for the remaining four floors. The load factor was changed to accommodate heavy office equipment.

The roof slab and the nine floor slabs above grade were post-tensioned using PRESCON positive end anchorage tendons. The slabs were 8½″ thick, cast of 3500 psi regular weight concrete. Each slab was divided into three pours.

Floor slabs measure 123′8″ x 153′8″ with approximately 19,000 square feet to each floor. Slabs were designed as rectangular flat plate panels spanning 20 feet in the N-S direction and 25 feet in the E-W direction between column centers. All main reinforcement in slabs was Prescon post-tensioning tendons except for the addition of conventional reinforcing bars over the columns. The total structural frame cost was $3.28 per square foot, including all structural change orders.

Conduits were not included in the floor but with the Prescon post-tensioned slab, telephone and electrical outlets could be placed within a 2″ point desired by the tenant without fear of cutting steel reinforcing. Another advantage of post-tensioning the slabs was the elimination of deflection in the slab which reduces problems in the placement of partitions.

The Webb Building in Arlington, Virginia.

Prospective tenants were particularly impressed by the speed and ease in placing partitions and the higher floor loadings possible.

The Webb Building is a joint venture of M. T. Broyhill & Sons Corp., and Dr. Clifford A. Webb, Sr. The Architect is Michael G. Kasen, Annandale, Va.; structural engineers—Ellers & Reaves, Consulting Engineers, Memphis, Tenn.; Contractor—Allen Bros. & O'Hara, Inc., Memphis, Tenn.; tendon placement and stressing—East Coast Steel Placing Co., Arlington, Va.

The Prescon System offers numerous advantages.
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Prescon tendons are available in two types: the grouted type and the mastic coated type. Either can be used in cast-in-place or in precast structural members. Your Prescon representative can show you many examples of applications in foundations, compression rings, cast-in-place slabs, beams, girders, as well as precast tees, girders, etc., in structures designed for many different uses.

If you are not already receiving the PRESCON NEWS, a tabloid paper, which discusses many of the structures using the Prescon System, write PRESCON to include your name on our mailing list. Other Prescon publications include general and technical brochures, and one devoted entirely to applications in parking garages.

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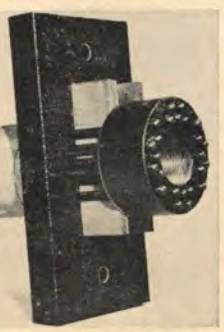
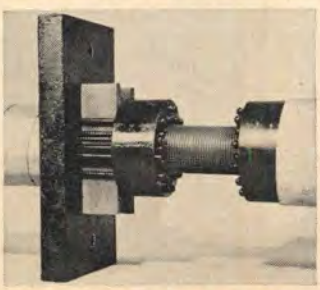
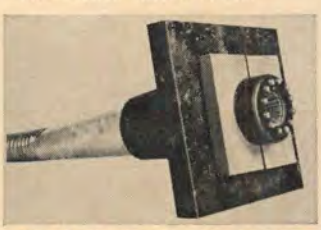


Example of the stressed end of a coupled tendon.

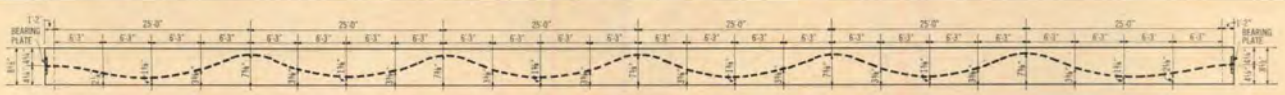


Here two tendons have been coupled. In final stage the ends and threads are mastic coated and covered with a sleeve.

With limited working area and/or coupled tendons, the donut hardware is used. This is the unstressed condition.



The donut washer and bearing plate in a grouted tendon with split shims in place after stressing.



Typical Tendon Profile Utilizing "Load Concept of Prestressed Concrete Design"

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A66

he fled to Europe before he could be tried, living there in self-imposed exile for 10 years. When he returned to the U.S., the old charges were dropped, but Wainwright was never the same. He sought release in a life of gaiety and abandon. Tiring of that, he became a recluse. In his final years, he lived quietly, a man of mystery so remote that even the maids who cleaned his hotel apartment were never permitted to see his face. He died in 1924, at the age of 74.

The building that bears his name has a base of Missouri red granite. Its next two levels are Indiana red sandstone. From the third to the ninth story, the façade is red-pressed brick with ornamental terra-cotta trimmings on the pilasters and in panels between window lintels and sills. Above the ninth story, the facing is ornamental terra-cotta frieze with an elaborate foliage design, interspersed by small round windows.

The St. Louis Chapter, AIA, will help provide information on the building to visitors. The Chapter is to be congratulated for making a move other Chapters would do well to emulate.

Awards

The Ford Foundation has awarded a $1 million grant in support of the further excavation of the Agora, the civic center of ancient Athens that sits at the foot of the Acropolis. The grant was made to the **American School of Clasical Studies . . . George Nelson,** founder and president of George Nelson & Co., industrial design consultants of New York City, has received the 1965 Alcoa Industrial Design Award for his "notable achievement in the imaginative and effective use of aluminum" in his designs for action office furniture manufactured by Herman Miller, Inc. . . . **Morley Baer,** West Coast photographer, won the 1966 AIA Architectural Photography Medal . . . **William Ballard,** architect, city planner, and chairman of New York City's Planning Commission, received the Woodrow Wilson Award from Princeton University . . . **Ludwig Mies van der Rohe** will be the first winner of the University of Virginia's Thomas Jefferson Memorial Foundation medal in architecture . . . **William W. Eshbach** of Philadelphia has been namd recipient of the Edward C. Kemper Award given annually by the AIA for "significant contribution to the Institute and to the profession of architecture" . . . **Seymour H. Knox,** past chairman of the New York State Council on the Arts and president since 1938 of the Buffalo Fine Arts Academy, was awarded New York's Architectural League's Michael Friedsam Medal in Industrial Art . . . **George Anselevicius, Roger Montgomery and Dolf Schnebli,** members of Washington University's architectural school, won the university's competition for the design of a new School of Law building and a Social Science Center. Judges for the competition were Thomas Eliot, chancellor of the university, G. Holmes Perkins, and Harry Weese.

Sullivan to Yamasaki

BUFFALO, N.Y. Architect Minoru Yamasaki, and the resident firm of Duane Lyman & Associates, have designed a 21-story tower for Buffalo's Manufacturers & Traders Trust Company. The model shows finned columns rising from the 35′-high lobby, which is fronted by a 200′x75′ landscaped plaza. The bank will occupy the first half of the $15-million building and lease the remaining floors. On the twentieth floor, a restaurant will promise a view with every meal.

It is almost as if Yama took his plan, if not the expression of it, from Louis Sullivan, who 72 years ago, at age 39, graced Buffalo with one of the finest examples of office buildings in this country—the 13-story Guaranty Building.

Sullivan's thesis on the Guaranty appeared in *Lippincott's Magazine* in 1896. The building's internal functions, he commented, would determine its external forms . . . a ground floor for those businesses (banks) requiring access, light and space . . . and above this two-story base an indefinite string of offices, each like the other, in cellular form. "It must," he went on, "be every inch a proud and soaring thing, rising in sheer exultation that from bottom to top it is a unit without a single dissenting line."

Student Protest

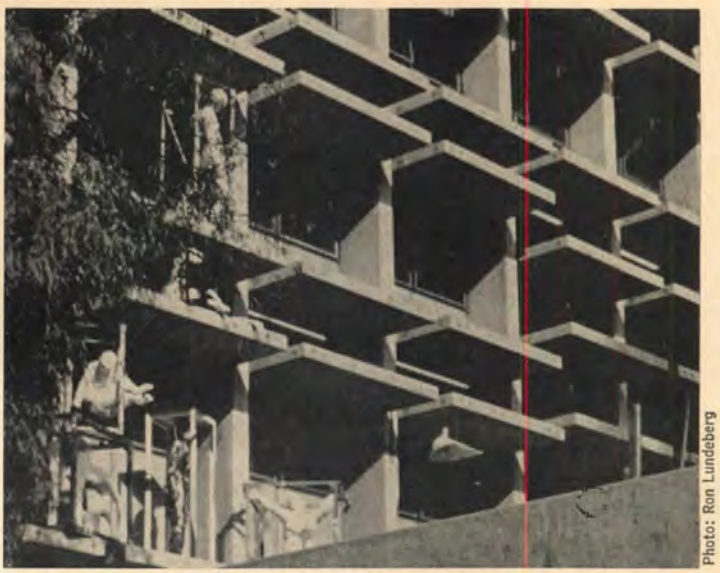

Photo: Ron Lundeberg

BERKELEY, CALIF. Those outspoken Berkeley students can protest visually as well as vocally, it seems. On a recent visit to Wurster Hall, the new Environmental Design building at the University of California (see Neill Smith's critique, pp. 162–167, JANUARY 1966 P/A), P/A's Senior Editor found that budding sculptors in the art department have livened the institution's brutalist façade with plaster bodies decked out in gaily painted bikinis. The effect is something like a feather boa on an old-maid school teacher.

Educational Circles

PHOENIX, ARIZ. They're going in circles in Phoenix. With the aid of a $20,000 grant from the Ford Foundation, Phoenix architects Cartmell and Rossman designed what is called a "multiuse learning center." It is a series of classrooms, arranged in concentric circles, which can be converted into an auditorium at the push of a button. Built on turntables at the peri-

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phery of a fixed 600-seat auditorium with a stage, the classrooms revolve separately, opening onto the main auditorium and each adding in turn their 200 seats to it. According to the Educational Facilities Laboratory, a branch of the Ford Foundation, a lecture-hall/classroom complex with the same seating capacity, separated by movable partitions, would cost about $700,000. The learning center could be put up for about $600,000; moreover, it would be about 25 per cent more efficient. With this arrangement, one teacher could teach 200, 400, 600, or 1400 students.

If funds become available, high schools in the Phoenix Union High School System will build a center based on the model.

CALENDAR

On April 26–28, the national conference on **Religious Architecture** will be held at the Sheraton-Palace Hotel in San Francisco. This year's theme will be "An End to False Witness." . . . The **Consulting Engineers Council** will hold its annual convention at the Civic Center Assembly Hall, Tulsa, Okla., from May 4–6 . . . A conference on **"The Future of Architecture,"** from May 13 to 14, will officially open the doors to the Boston Architectural Center's new building. For further information, write J. Robert Wolf, Boston Architectural Center, 338 Newbury Street, Boston, Mass. . . . **The Building Research Institute** will hold its spring conference at the Statler Hilton Hotel in Washington, from May 10 to 12 . . . There will be an architectural exhibition of **general hospitals and service facilities** at the Middle Atlantic Hospital Assembly May 17 to 19, Convention Hall, Atlantic City, N.J. . . . From June 13 to 17, Wayne State University, Detroit, Mich., will hold a seminar on the **Flammability Characteristics of Polymeric Materials,** from June 13–17. Additional information may be obtained from Conference Chairman, Department of Chemical Engineering, Wayne State University, 701 West Warren, Detroit, Mich. . . . The **World Prestressing Conference** will be held June 11–18 in Paris . . . Pratt Institute will offer a seminar from June 20–25 on **Space Planning and Business Interiors**. For further information write: Director, Division of Continuing Professional Studies, Pratt Institute, Brooklyn, N.Y. 11205 . . . **The sources and resources of the 20th Century** will be the subject of the International Design Conference in Aspen Colo., from June 19–24. Additional information is available from International Design Conference, P.O. Box 664, Aspen, Colo. . . . On June 20–24, a second seminar in the **Use of Plastics in Building and Construction** will be held at Wayne State University . . . **The National Council of Instructors in Landscape Architecture** will hold its annual meeting June 29–July 2 at the University of Wisconsin at Madison . . . Dr. Nathan M. Pusey, president of Harvard University, will give the second annual Purves Memorial Lecture at the **AIA Convention** in Denver, Colo. The convention will run from June 26–July 1, and will have as its theme "Technology, Environment and Man" . . . The Athens Center of Ekistics has organized an international seminar on **Ekistics and the Future of Human Settlements** to be held in Athens from July 4–15. For information and application forms write: Dr. D. Iatridis, Director, International Seminar on Ekistics, Athens Center of Ekistics, 24, Strat. Syndesmou St., Athens 136, Greece . . . On July 5–9, Stanford University will hold a **secondary school planning seminar.** Information is available from Coordinator, Secondary School Planning Institute, School Planning Laboratory, School of Education, Stanford University, Stanford, Calif.

Adventure in Space

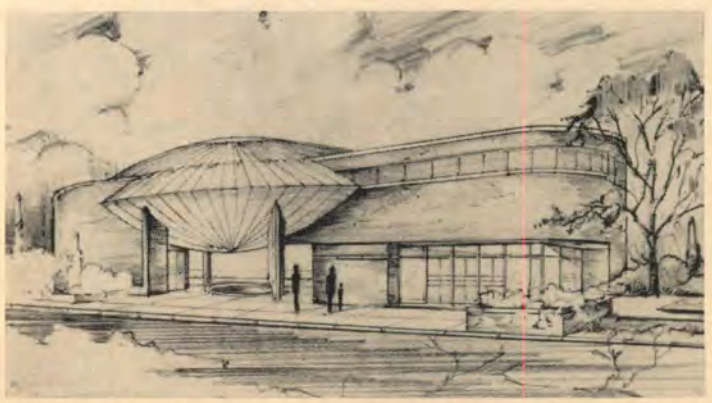
CAPE KENNEDY, FLA. Plunged into the middle of the Space Age by a quirk of geography, catalyzed by Governmental group decision, Cape Canaveral, as this Florida coastal community was once officially known, has become synonymous with space exploration. Never one to pass up the excitement, especially if the weather is good, the Hilton Hotel Corporation plans to manage a 200-room hotel here, between the Atlantic Ocean and the Banana River. According to informed sources, "architectural experts" of Shuford Mills, Inc., a Hickory (North Carolina) development group, and Hilton Hotels are working on plans.

Obata Designs Office Tower Near Gateway Arch

ST. LOUIS, MO. Ground was broken last month for a 20-story office building on the St. Louis riverfront between Saarinen's Gateway Arch and Stone's Busch Memorial Stadium. Designed by Gyo Obata of Hellmuth, Obata & Kassabaum, the building is a joint development effort by subsidiaries of the Columbia Broadcasting System (KMOX-TV and KMOX radio) and Transurban Redevelopment Corporation. Obata's design shows a 17-story tower rising from the north end of a three-level base. The roof of the base will be a promenade deck. Cantilevered around the glass walls of the tower will be continuous balconies whose beige aggregate cast-stone facing will offer sun protection and reiterate the cast-stone facing of the base. Each floor will encompass 10,000 sq ft on 5′ modules. The tower's placement insures permanently open views on three sides: These take in the river and the arch, the Old Courthouse, and the Mall entrance to the Jefferson National Expansion Memorial; and, to the south, Busch Memorial Stadium.

Charles Luckman Associates are Associated Architects.

A Poem Lovely As A Pin-Cushion



RACINE, WISC. "A good building is the greatest of poems when it is organic architecture," said Frank Lloyd Wright. Perhaps the Johnson Wax Company was thinking of this when they called their movie theater at the New York World's Fair the Golden Rondelle, for a rondelle, besides being a circular object (the shape of the theater), is also, of course, a form of poem. Inside the theater, they ran almost continuous performances of Francis Thompson's and Alexander Hammid's award winning movie, *To Be Alive!* H.F. Johnson, chairman

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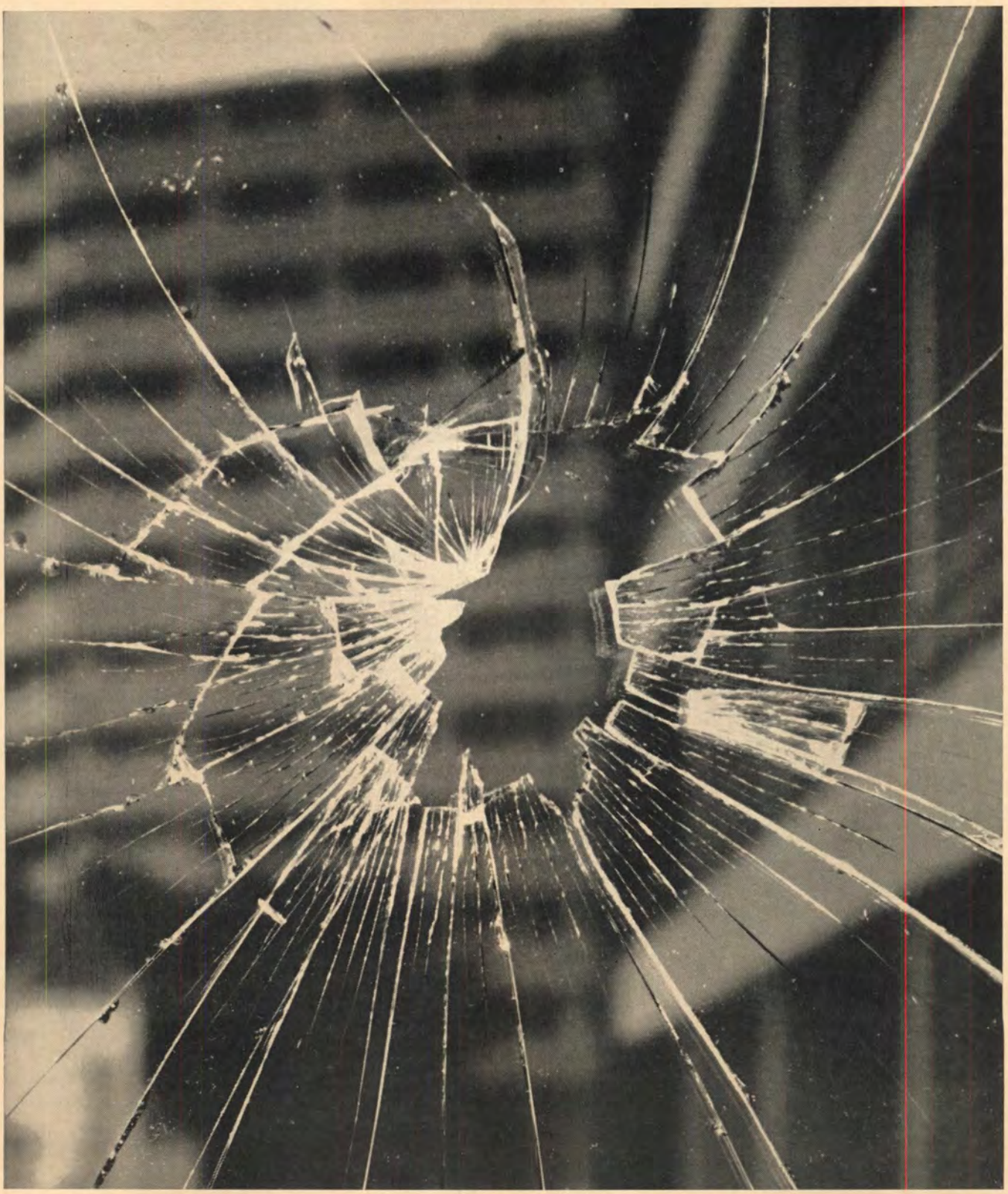

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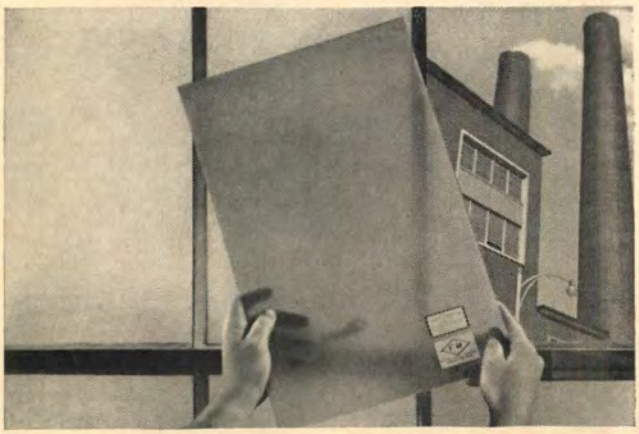

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of Johnson Wax, had gone to them and wisely told them only to "make a film that would adhere to the World's Fair theme of 'Peace Through Understanding.' " The resulting film was compellingly beautiful. Now plans are underway to move the film and the Golden Rondelle to Johnson Wax headquarters here.

Instead of the distinctly nonorganic, soaring, 90′ concrete-petal-topped columns that supported the theater at intermediate level at the World's Fair, it will be supported on four pylon-type columns. And to give it some compatability with the Wright-designed Johnson's headquarters, Taliesen Associates have designed two auxiliary buildings, with curved red brick walls and horizontal bands of glass, which will abut it. Although the Golden Rondelle looks more like a water-filled pin-cushion than a poem, its auxiliary buildings only make it look more awkward. One can almost hear the master thundering in his wrath.

It All Started in a Carpenter's Shop...

WASHINGTON, D.C. The National Presbyterian Church has come a long way. In 1793, its services were held in a carpenter's shop on what are now White House grounds. In the summer of 1969, the same church will move into a $4,100,000, 14.4-acre limestone and marble complex of "contemporary Gothic" architecture. Included in the complex will be a sunken garden—complete with a fountain sculpted in the shape of the church seal—a fellowship hall for feeding 650 or lecturing 760, a 173′ high bell tower, a chapel seating 200, and a church proper seating 1218. Historic items from its previous home will also be preserved and installed in the new building (including pews used by Presidents Jackson, Polk, Pierce, Buchanan, Cleveland, Grant, and Eisenhower).

This fad for world's fair architecture in churches, is, we hope, a passing one. It is as if all those people who visited the Billy Graham Pavilion at the New York World's Fair went home and told their pastors: "We want something like that."

EAVESDROPPINGS

"Irrespective of the quality of the food [in American hot dog parlors], this kind of interior can be a remarkable performance on the part of its designer. A particular environment or atmosphere has been engineered with a skill, and a degree of success, comparable to the way in which atmospheres of ecstatic piety were engineered in Roman baroque churches, like Sant' Andrea al Quirinale or the Cornaro Chapel. But if these works of Bernini are architecture, is the restaurant? The problem is one that must increasingly concern any student of the American scene, because that scene is increasingly composed of buildings—motels, supermarkets, bowling alleys, filling stations, hamburger stands, even private houses—conceived in this mode of emotional engineering. Yet if one takes the problem to U.S. architectural critics and journalists their normal response is the same as to American food, and they start to talk about Le Corbusier or Gropius instead." *Reyner Banham, writing in* Landscape, *Winter 1965–1966.*

"[Louis Sullivan's] contemporaries thought his ornament saved his off-beat solutions from cold and incomprehensible unfamiliarity. His heirs of the 1930's rejected it as traditional trimming and preferred to admire the bare upper stories of his buildings. Today we return to it with gratitude for its undeniable sensuous beauty, seeing it as the catalyst between structure and expression that made Sullivan's famous dictum 'form follows function' neither the sterile nor the limited doctrine of its later interpreters." *Ada Louise Huxtable,* The New York Times, *January 27, 1966.*

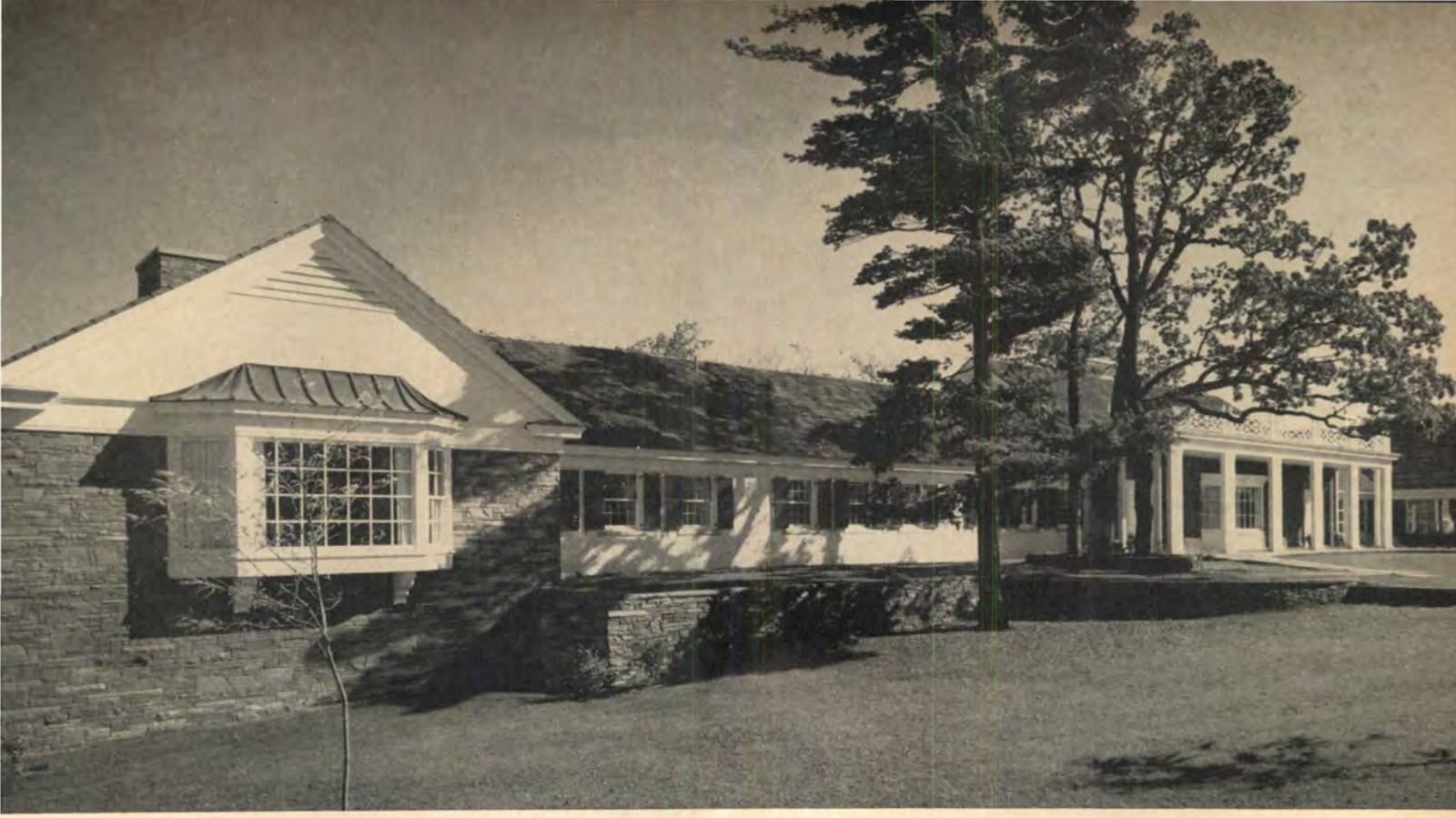
"The absolute essential beginning point before any city can be made non-obsolescent is the development of a program that is going to do the job. A total, complete, comprehensive program that has: (a) a plan of what that city's metropolitan area is going to be; and (b) a schedule for executing the plan that says: We believe the plan; here is the financial backup for the plan; this is what it will cost to eliminate slums; this is what it will cost to develop a transit system and an expressway system; this is what it will cost to develop the neighborhoods; these are the values that will be created; this is the assessable phase; here are the revenues; this is the relationship between the revenues and the capital investment. It is economically viable; we will do it and here is the schedule for doing it." *James Rouse, speaking at the First International Conference on Urban Transportation.*

Personalities

Sim Van der Ryn was *not* made a permanent member of the University of Pennsylvania faculty, as announced in FEBRUARY 1966 P/A. He was Visiting Professor of Civic Design at that University last fall but is presently fully entrenched at the University of California's (Berkeley) Department of Architecture. Apologies. . . . **Glen Paulsen** is the new president of Cranbrook Academy of Art, Bloomfield Hills, Mich. He will continue to head the Art Academy's Department of Architecture . . . **Keith Mcpheeters,** 10 years a faculty member at the University of Arkansas, will head Rensselaer Polytechnic Institute's school of architecture. **Felix Candela** will be the second Jefferson Professor in Architecture at the University of Virginia, succeeding Pietro Bel luschi this spring . . . **William H. Liskamm,** a principal in the San Francisco firm of Okamoto/Liskamm, Planners and Architects, will become vice-chairman of the University of California, Berkeley's Department of Architecture . . . **Dennis W. Madden** has been elected president of the Maryland Council of Architects. With the words ". . . the Franco-American studio will bring American architectural techniques and French instruction closer together," Minister of Culture André Malraux has launched a Franco-American architectural studio at the Paris Fine Arts Studio, to be directed by the American architect, **Paul Nelson . . . Dr. Pietro Belluschi,** former dean of the School of Architecture at MIT, has been named the first Thomas Jefferson Memorial Foundation Professor in Architecture at the Universiy of Virginia, a position he will hold for the first half of the spring semester . . . **Robert A. Little** has been made president of the Cleveland Chapter, AIA . . . The Institute of North American Studies in Spain has recently given its John Fitzgerald Kennedy Award to **Edward Durrell Stone** . . . Yale University has made **Vincent J. Scully, Jr.,** the first John Trumbull Professor of the History of Art . . . Architect **Jose Luis Sert** has become a member of the National Institute of Arts and Letters, where **Philip Johnson** is serving a second term as a vice-president.

Competitions

All those wishing to enter the American Institute of Steel Construction's annual architectural awards of excellence program must do so by May 1. All steel-framed buildings in the U.S. that were completed



ALBANY COUNTRY CLUB, Voorheesville, N.Y. Architect: W. PARKER DODGE ASSOCIATES, Rensselaer, N.Y. General Contractor: JOHN P. SEWELL, INC., Albany, N.Y. Ready-Mix Concrete: PORT CONCRETE CORP., Albany, N.Y. Masonry Cement Dealer: PETER McCABE, INC., Albany, N.Y.

Exclusive Country Club Elects Lone Star Masonry Cement for Beauty and Durability

The Albany Country Club is one of the oldest in the country. And now, with a magnificent new $1-million-plus clubhouse, it is one of the most luxurious.

The clubhouse, a modified colonial design, is 310 feet long with 40,000 square feet of usable space. The architect used concrete, brick, stone and wood to achieve an unusually attractive combination of contemporary and traditional styles.

The exterior walls are of stone and brick, and the interior walls of masonry block. The roof is constructed of precast concrete plank and tile, adding a rustic effect in the country setting. In all, more than 2,000 cubic yards of concrete made with Lone Star Portland Cement were used in the floors and walls.

Lone Star Masonry Cement, to which the mason only has to add sand and water to produce a stronger, more uniform mortar, was used exclusively in laying up all masonry in this beautiful clubhouse.

Member PCA 50th year PORTLAND CEMENT ASSOCIATION

Concrete combined with Pennsylvania Bluestone and rough red brick painted white are joined in the new clubhouse to achieve a look of luxury and dignity.

LONE STAR CEMENT CORPORATION

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as of January 1, 1965, are eligible. Details are available from AISC, 101 Park Ave., New York, N.Y. 10017.

Made in America, Bought in Germany

COLOGNE, W. GERMANY. U.S. furniture manufacturers visited this city two months ago and did their part to reverse the balance of payments flow. For the first time, American wares were shown at the International Furniture Fair in Cologne; and the tester beds, the La-Z-Boy chairs, and carriage lamps stole the show.

U.S. exhibitors report that floor orders totaled $800,000 and that expected sales during the year will exceed $3,500,000. With housing starts in the next three years expected to total $10 billion in Germany alone, the American estimate would seem to be a sure thing.

The appeal of the American styles—notably neo-Colonial—was certainly not in their prices, which, with mark-ups, shipping, taxes and duty, jump a good third over domestic prices. What the Europeans saw was a "difference"—the lady from Grand Rapids—not as old as Louis XV, nor as gracious as Queen Anne, but ever present.

Roche to Design Wesleyan Arts Center

MIDDLETOWN, CONN. Wesleyan will get a new Creative Arts Center that will house 9000 sq ft of exhibition area, an art, music, and theatre library, a 400-seat theatre, a 500 seat recital hall, and an outdoor arena. Kevin Roche of Eero Saarinen & Associates hopes to complete the $5 million project by early 1968.

Expressway Is Out

NEW YORK, N.Y. "The city is for people, not for cars," proclaimed New York's Deputy Mayor Robert Price, reiterating a long-forgotten truth. With it, he sounded the death knell for the Lower Manhattan Expressway, a proposed eight-lane highway that was to knife 2½ miles across Manhattan, connecting the Holland Tunnel with the Williamsburg and Manhattan Bridges. "The project is out, as far as the Lindsay administration is concerned," said Price, and his statement may mark a turning point for this country's most populous city. Under fire from critics since it was first proposed 25 years ago, the expressway, its detractors pointed out, would only bring more cars into an already auto-clogged urban area. What is more, its construction would have meant the destruction of the several cast-iron-façade office buildings, among them the Haughwout Building, which was made a landmark by New York City in January (see p. 62, March 1966 P/A).

The Kiosk & the Curator

NEW YORK, N.Y. During his recent campaign for the mayoralty, John V. Lindsay released a series of "position papers" on various city problems, among them one called *Parks and Recreation,* prepared by Thomas P.F. Hoving, who has since become Parks Commissioner. Referring to Huntington Hartford's threatened café in Central Park, Hoving noted, "A certain type of restaurant is needed in Central Park, but not necessarily the complex structure Mr. Hartford envisioned. In many areas it is impossible to obtain as much as a hot dog. I would recommend a series of colorful restaurant kiosks surrounded by small tables and chairs. . .

"In order to prevent the thoughtless and tasteless alteration or destruction of some of the universally good original features of the Olmsted design, I propose the appointment of a Curator of Central Park. This would be an individual who knows intimately the history of the park and who would be able to give professional advice on the repair and reconstruction of its original elements . . .

"The Curator would also study in detail and gather together all the sketches, plans, watercolors, and charts of the original plan of Central Park, in order to have exact reconstructions made of certain of the now missing elements, in the same accurate manner that Colonial Williamsburg has been brought to life."

Lindsay and Hoving are fast fulfilling these campaign pledges. The architectural antiquary Henry Hope Reed, Jr., was appointed Curator of Central Park, and if there was ever anyone who would delight in bringing back past forms, it is he.

In February, architects in the New York metropolitan area were invited to compete for a $2000 first prize and assurance of the commission for a prototype refreshment kiosk for the park. Horn & Hardart, the automat people, have put up the prize money, as well as up to $12,000 for construction costs, and will presumably be concessionaires. The program is being written by New York Chapter, AIA, which will select the jury, together with Horn & Hardart and the Parks Department (which presumably means H.H. Reed).

On the face of it, reaching out to the architectural community for its ideas is a refreshing departure for New York City, whose history of design by department is unutterably dismal. During the suffocating regimes of Robert Moses and Newbold Morris, the Parks Department was characterized by an unwritten policy of no design, leaving it to the control of highway engineers, sewer experts, and maintenance men.

The new emphasis on good planning and design is gratifying, but it is to be hoped that historicity will not be confused with the continuation of a fine Olmstedian tradition. The previous regimes delighted in accepting not only the notorious Hartford café, but also things that actually got built: the Snow-Whitish Lehman Children's Zoo and the new cuckoo clock in the main zoo, for instance. Lindsay and Hoving, in their determination to respect the Olmsted design, are on firm ground, and they are correct in assuming that respect does not prohibit fulfilling some present-day needs, as the kiosks probably will. But the dangerous influence of a curator exclusively oriented toward the architectural past, and the stated aim of having "exact reconstructions made of certain of the now missing original elements, in the same accurate manner that Colonial Williamsburg has been brought to life", should be matters of intense concern to architects. The outcome of this competition will deserve serious scrutiny, for it will indicate to what extent good campaign intentions survive the fires of actual execution, and hint at the city's future architectural attitudes.

New Home for the Pirates

PITTSBURGH, PA. Since 1909, Forbes Field has been the home of the Pittsburgh Pirates. Forbes was the British general, who, with young George Washington acting as scout, took over a deserted French stronghold at the confluence of the Allegheny and Monongahela Rivers, renaming it Fort Pitt. Forbes Field holds only 35,000 spectators—a mere handful in terms of today's soaring interest in the national pastime.

Now Deeter & Ritchey–Beker-Osborne are the architects-engineers for a new circular Pittsburgh Stadium that will accommodate 52,000 for both baseball and football. The Stadium Authority of the City of Pittsburgh is building it at an estimated cost of $25 million. An April 1968 completion date is being aimed at by Mauchly Associates, a firm using a com-

Architects: Shaw, Metz and Associates, Chicago, Illinois Contractors: B. G. Danis Company, Dayton, Ohio

Bayley Windows hold up the bank

Bayley aluminum windows support the architects' imaginative design, and help make the Springfield Bank a bold landmark in downtown Springfield, Ohio. To achieve this striking treatment Bayley engineers worked closely with the architects to create a special curtain wall. Marble sun screens control light and add textural interest.

Bayley service means joining your creative team, applying sound engineering, delivering steel or aluminum windows on time, and sticking up for high quality. The William Bayley Company, Springfield, Ohio.

BAYLEY

puter to schedule and control construction. Like many new stadia, it will have a section of center-field seats that move on tracks to convert the baseball field into a football field.

When they move into their new computer-planned home, one hopes the Pirates can take some of their old time glory with them. They played their first game on April 30, 1887 (before that, the team was known as the Alleghenys), beating Chicago 6–2. Playing center field that day for Chicago was Billy Sunday, who was later pirated away to play in Pittsburgh, and who, still later, turned from belting baseballs to belting out sermons. Probably the most glorious day at Forbes Field was October 1, 1927, when the Pirates clinched the National League pennant on the next-to-last day of the season with a 9–6 win over Cincinnati. Not for 33 years did a pennant come to Pittsburgh again. Pittsburgh Stadium will become a proving ground for the descendants of Honus Wagner, "Pie" Traynor, and Ralph Kiner.

COMMERCIAL CONDOMINIUM

CORAL GABLES, FLA. Although it has been around for some time, the condominium concept of ownership has been slow to take hold. It makes a purchaser direct owner of a piece of a building, an office, or an apartment, rather than an owner of shares in a corporation, which in turn owns the building, as is the case in cooperative arrangements. In recent years, state laws have clarified condominium legality and the arrangement has proliferated. Most usually found in apartment houses, where condominium purchasers have the advantage of recourse to mortgage loans, condominiums are now cropping up more and more frequently in commercial buildings.

According to developers of the First Professional Condominium shown here, the building is thought to be the first condominium for commercial use in the South.

Dade General Savings and Loan of Miami has guaranteed $500,000 in first mortgage monies to any qualified purchasers.

Designed by Houston and Albury of Coral Gables, the 37,000-sq-ft, four-story building is of reinforced concrete. Windows are recessed behind a rectangular grid frame. At street level is 12,500 sq ft of covered parking area, made possible by positioning the building on story-high concrete pillars topped by radial arms. Both north and south façades have light wells cut into them, running the height of the building.

Construction is now underway, with occupancy planned for the fall.

Collaboration Report Approval

WASHINGTON, D.C. Approved in February by the Architect-Engineer Liaison Commission was the soon-to-be-published document on "Professional Collaboration in Environmental Design." It outlines principles of professional relationship between architects, engineers, and landscape architects, and is the joint work of the American Institute of Architects, the National Society of Professional Engineers, and the Consulting Engineers Council. Approval has also come from the American Society of Civil Engineers and the American Society of Landscape Architects.

Reynolds Aluminum Students Prize

WASHINGTON, D.C. William R. Mitchell, a fourth-year student at North Carolina State University, is the winner of the 1966 Reynolds Aluminum Prize for Architectural Students, an AIA-conducted competition for the "best original design of a building component in aluminum." Mitchell and his school will divide the $5000 prize award.

The subject of this year's competition was, "An Educational Facility for the Peace Corps." Mitchell's entry used a lightweight, 6′x6′, "nestable," stretch-formed aluminum module. Connected by key pins, the modules can be put together to form almost any type of three-dimensional space-frame. Because the modules are easy to transport, assemble, and can accommodate almost any type of service system, the jury (H. Samuel Kruse, James W. Elmore, Richard W. Snibbe) felt the design uniquely suited to the Peace Corps use. Entries from 29 architectural schools throughout the country were of such a high quality that the jury went on to say, "If this is representative of the skill with which the emerging generation of architects will delineate their concepts, we are sure that the new generation of architects will be able to communicate."

WASHINGTON/FINANCIAL NEWS

BY E. E. HALMOS

A series of moves on the part of Government and municipal officials are evident in Washington that are of concern to architects: steps toward the establishment of some type of national building codes and building standards.

There's no formal bill to this effect yet before Congress (though there may be before the current session is over), but there is enough evidence around now to give a picture of what's afoot.

For example:

(a) Several months ago, the six-year-old Committee on Intergovernmental Relations (created by Congress in 1959, and consisting of a group of Government agency and municipal officials) came out with sweeping recommendations. Among them: a national program for development of performance standards; a national program of research in building construction; development of a national model code by a national commission; state licensing of building inspectors.

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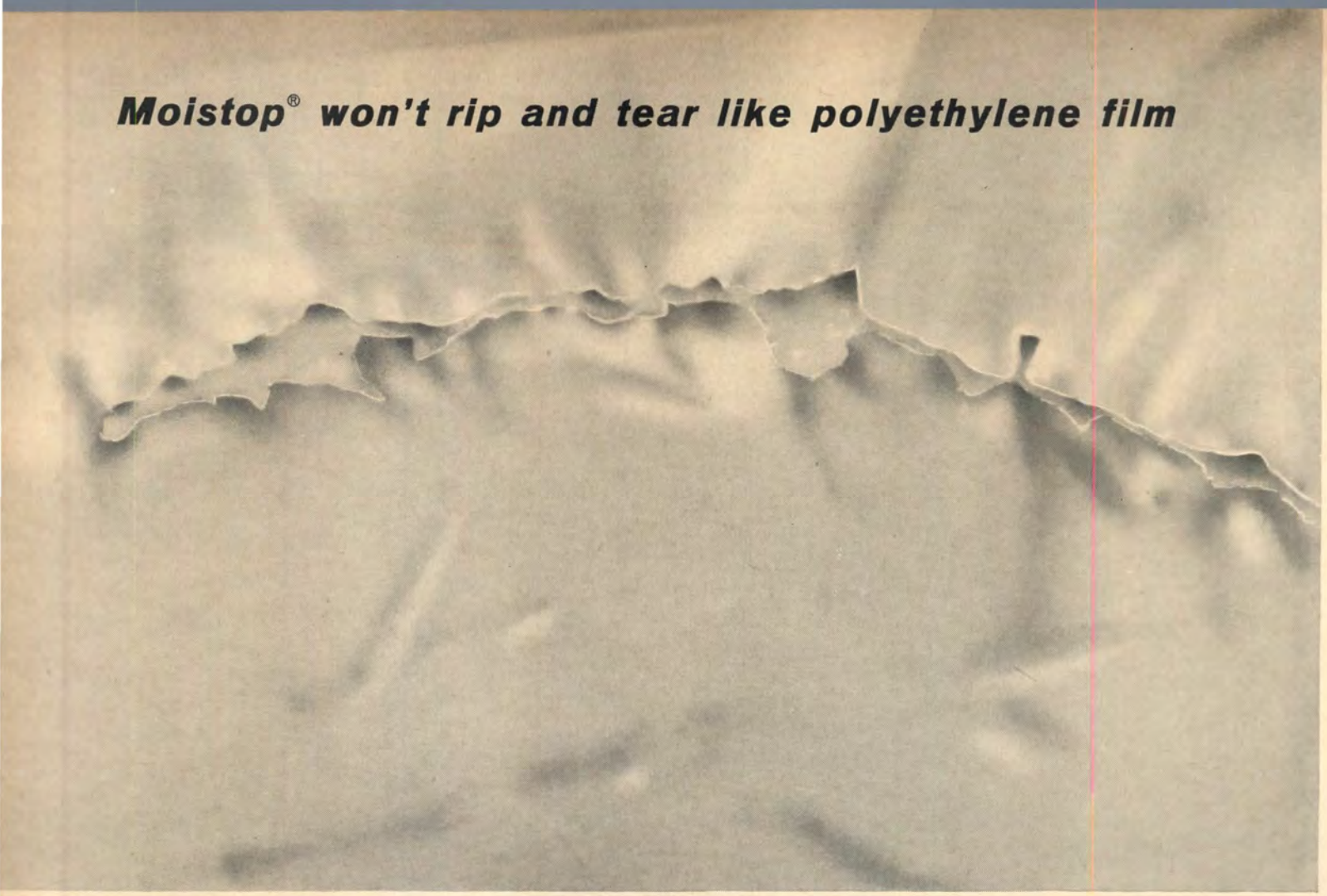

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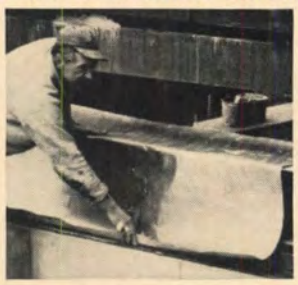

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(b) The President, in his message calling for a $2,300,000,000 "Demonstration Cities Program" (to rebuild and rehabilitate city core areas), devoted a whole paragraph to the problem of "archaic and wasteful building practices (and codes) which have inhibited the use of modern technology and inflated the cost of rebuilding."

(c) A bill now before the Senate would make the Intergovernmental group a permanent body, with a salaried director, and would strengthen its directive to "develop sound legislative recommendations" (S. 2927).

(d) By administrative action, many Government agencies are now enforcing national standards—through directives and requirements of Urban Renewal, sewer and water construction, highway, housing, and other Federally-aided work.

Some organizations, notably the AIA, strongly approved of the President's "Demonstration Cities" idea, but made no comment on the reference to codes or its consequences. However, the whole idea of nationally-written codes and performance standards has received a far from enthusiastic appraisal from many industry groups, including the Associated General Contractors, the National Association of Home Builders, the National Forest Products Association, and others.

These groups have pointed out that the Intergovernmental group's recommendations seem to ignore completely the efforts of such groups as the Building Officials Conference of America, which has been developing model codes for voluntary local acceptance for many years; and the fact that, though many local codes cannot be defended very strongly, a national code cannot take account of local conditions, preferences, and the like.

From what has emerged so far, which also includes employment of a "building code specialist" by the new Housing and Urban Development Department, it would seem architects might: (1) work to update local codes to obviate the need for national standards, if that's their idea of the best solution; or (2) insure that professionals are well represented on any group that may be empowered to write such national rules.

Senate Bills Aimed at Cities

The Presidential program on housing and planning for this session of Congress took shape rapidly, as Congress received a flood of related messages, and a number of bills with the "Administration" label on them.

Chief among these, for architects, were a group of three measures introduced in the Senate (S. 2977, 2978, 2979), which contained some controversial suggestions that were inherited from proposals made a year or more ago. Key bill is S. 2977, the "Urban Development Act," which contained a number of provisions that even the Senate sponsor (Alabama Democrat John Sparkman) said he didn't approve: FHA loan assurance of up to $25 million to private developers for construction of "new towns"; added money for mass transit assistance and research; grants to state and metropolitan area agencies for establishment of "urban information centers" to gather information on progress of local programs.

It should be noted that the program covered by the bills is aimed at major metropolitan areas almost exclusively. New, privately owned communities could get FHA aid if they "make a substantial contribution to the sound and economic growth of the area," can show "substantial" economies through large-scale development, have easy access to metropolitan centers of employment. FHA aid would also be available for water and sewerage systems, if such facilities are not available otherwise.

(With a group of other bills already before Congress—notably S. 2842, the "Demonstration Cities Act," and S. 2804, which covers aid to mass transportation—the "package" of housing and urban development matters is already well in hand. In addition, Republicans in the House have introduced their own version of the "Demonstration Cities Act," principally aimed at keeping control more firmly in local hands.)

Federal Air Pollution Control?

Factory and industrial building design could be affected by a provision in Administration-backed moves to limit air pollution (part of President Johnson's "Preservation of Our National Heritage" message).

Admitting that much remains unknown about air pollution and its causes, the President said he plans to issue an executive order shortly, dealing with air pollution caused by Federally-owned installations. This would certainly have the effect of setting a pattern for private industrial projects as well.

Pollution experts so far agree that there are two principal ways in which pollution from industrial processes can be controlled: dust and other trapping devices at the outlet flues, and extremely high "stacks" that would discharge possible pollutants high enough to insure dilution before the material again comes to earth.

On the Boards for O.C.

Three newly planned structures—all of them controversial to some degree—moved toward actual construction in late February:

Congress seemed about to give final approval for construction of the $40-million "National Air and Space Museum" on the Mall, after a bill passed the House with only one dissenting vote. Hellmuth, Obata & Kassabaum, architects, are expected to complete plans by mid-year; some $11 million will be spent on the structure during the 1967 fiscal year (which starts in July, 1966).

The Navy's Bureau of Yards and Docks said it had selected a team of architects, headed by Yamasaki & Associates, to design a $75-million "little Pentagon," which will be located in southeast Washington and will house some 10,000 Defense Department employees. Others in the "team" include Emery Roth & Sons; Worthington, Skilling, Helle & Jackson; and Joseph R. Loring.

And finally,, despite usual criticism, the City of Washington was apparently ready to give a go-ahead to construction of a new central public library building by Mies van der Rohe (see photo).

Financial

• Of major concern to the construction industry is the adamant refusal of building trades union chieftains to accept any Federal dictation of "guidelines" on wages in the industry. During 1965, average wage settlement topped 7½ per cent above previous wages; some 400 major wage contracts are up for negotiations this year—mostly in the next few months. Indications are that unless some drastic action is forthcoming, demands will run even higher.

• Note that the Department of Housing and Urban Development has raised the maximum interest rate on FHA mortgages to 5½ per cent—up ¼ from the previous high. This could be the explanation for an unseasonal spurt in housing starts in the last two months of the previous year—a spurt that continued into January, when "new starts" were at an adjusted rate of 1,500,000—up 7 per cent over a year ago.

• The January housing figure was part of a generally encouraging picture for the industry for the month. Over-all value of new construction put-in-place was set at $4,900,000,000—up 8 per cent over the previous year.

• Construction costs, as reflected in highway work at least, showed some signs of easing, though they were still at record highs. For the last quarter of 1965, according to the Bureau of Public Roads, highway costs dropped by the tiny fraction of 0.1 per cent from the third quarter, to 106.6 per cent of the 1957-59 average. The index figure, however, was still within easy hailing distance of the all-time high (in the second quarter of 1965) of 106.9.

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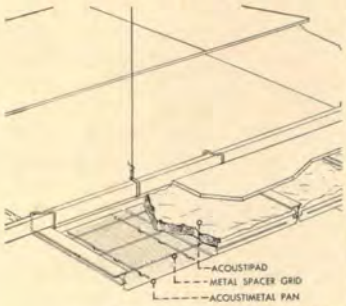

. . . sandwiches mineral-fiber "Acoustipads" between gypsum board backing and standard acoustical metal pan assembly to reduce sound transmission. Perforated pan units are 1′ wide by 1′, 2′, 3′, or 4′ long. Noise Reduction Coefficient range is .75 to .85. National Gypsum Co., 325 Delaware Ave., Buffalo, N.Y.
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Air/Temperature

Outdoor Sensor

Control for hydronic and warm-air heating systems combines time switch for day and night temperature levels with an outdoor thermostat that starts the heat earlier on a cold morning. Manufacturer says this is the first control to combine the two functions. Control Devices, Inc., 1007 Ferry Rd., Doylestown, Pa.
On Readers' Service Card, Circle 101

Modulating Control for Electric Heating

A recently developed economical solid-state controller for electric heating maintains even temperatures in commercial buildings. Instead of full-on or full-off, the new control decreases the current input as temperature rises, and increases it as temperature falls. Although such controls have been available before, the price has been high. This controller, according to the manufacturer, is comparable in price and performance with modulating controllers for hydronic and hot-air heating systems. Manufactured in 2 sizes: 2 kw (3″ cube) and 6 kw (6″ cube, shown). Honeywell Inc., 2727 S. Fourth Ave., Minneapolis, Minn. 55408.
On Readers' Service Card, Circle 102

It's a Small Thermostat

Pneumatic room thermostat, 1⅞″ x 3″, is smallest on market says manufacturer. "Powerstar" can be set to automatically lower temperature at night, and is sensitive to room-air changes of O.1 F. Manufactured in a variety of cover finishes. The Powers Regulator Co., 3400 Oakton St., Skokie, Ill.
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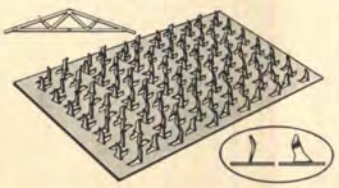
Construction

The Connection

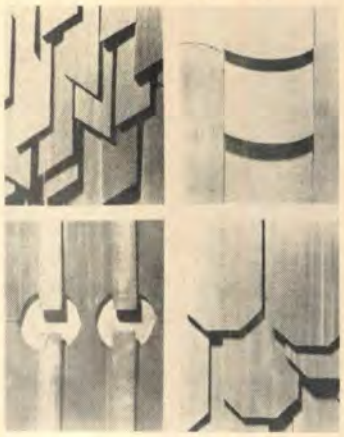


"Fibre Grip" truss connector is designed for trusses spanning between 20′ and 50′. Teeth punched out of the connector plate at a 20° angle spread the wood fibers and lock the plate on the joint. Installation is through hydraulic pressure from both sides of the truss joint. Timber Engineering Co., 1619 Massachusetts Ave. NW, Washington, DC. 20036.
On Readers' Service Card, Circle 104

Concrete Bricks

Marble, limestone, and granite aggregates, bonded with cement and colored with oxides, produce concrete bricks with a rough, exposed-aggregate face. The bricks are laid in mortar like conventional bricks. Said to have high compressive strength and density and low moisture absorption, the brick is manufactured by local franchise agents in a wide range of fade-resistant colors. Miami Stone of America, Inc., 4550 Bluff Rd., Indianapolis, Ind.
On Readers' Service Card, Circle 105

The Cutting Caper



Ideas for cutting and patterning wood shingles for interiors include the "fish-scale" wave, "crazy quilt," "half cove" butts, and the "toothy" look. Shingle walls are suggested for reception or recreation rooms, vacation houses, and other interiors. The new patterns are said to be inexpensive and easy to install. Red Cedar Shingle and Handsplit Shake Bureau, 941 White Henry Stuart Bldg., Seattle, Wash. 98101.
On Readers' Service Card, Circle 106

Shingle Switch

Mineral-based roof shingles are textured and colored to look like weathered cedar. They can be cut with a saw and nailed, but will not burn. Manufactured in 16″ lengths, and in 6″, 8″, and 10″ widths. Johns-Manville, 22 E. 40th St., New York, N.Y. 10016.
On Readers' Service Card, Circle 107

Doors/Windows

Folding Door Bars Noise

Dual, accordion-fold wood door, "Scale/12 STC (Sound Transmission Class) 25," was developed to stop noise at large openings. Made from $\frac{13}{16}$″-thick, high-density wood core panels with wood or Formica veneer, the door operates on a ceiling track. It is sealed top and bottom with "sweeps" to stop sound. Panelfold Doors, Inc., 1090 E. 17th St., Hialeah, Fla. 33010.
On Readers' Service Card, Circle 108

Electrical Equipment

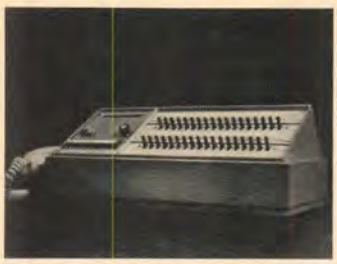
Warm Light Coat

A phosphor coating gives mercury lamps a warm light suitable for indoor use in commercial and institutional applications, claims the manufacturer. The new lamps, called "DeLuxe White," are available in 175-, 400-, and 1000-w sizes. The manufacturer says the color of the light is better than color-improved mercury lamps or cool-white fluorescent lamps. General Electric Co., Nela Park, Cleveland, Ohio 44112.
On Readers' Service Card, Circle 109

Kitchen Compact

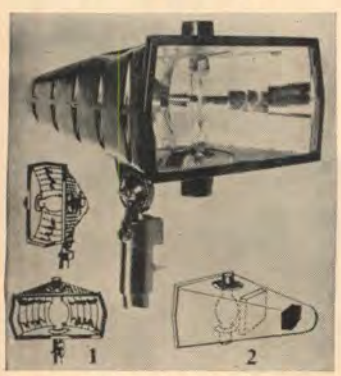
A small kitchen unit combines an electric cooking range and oven with an electric hot-water heater. The oven is at eye-level, above the burners of the 30″-wide unit. The 47,600-Btuh water heater under the range feeds a 28-gal storage tank that can be connected to radiating or convecting heating units. Electrotemp "Medalist" is manufactured in six colors. Heat-Timer Corp., 115 Fifth Ave., New York, N.Y. 10003.
On Readers' Service Card, Circle 110

Nurses' Aide



"Audio-Visory," a communication system to link patients and nurses in hospitals, is expected to be practically maintenance free, since its electronic circuitry is solid state. Two-way voice communication is provided between nurse on duty and patient in bed, and the desktop master station has both light and buzzer indicators. Emergency calls trigger a continuous buzzer, which can be turned off only at the patient station. For remote control, units are pre-wired for hookup with television or radio. Motorola Inc., Communications Div., 4501 Augusta Blvd., Chicago, Ill. 60651.
On Readers' Service Card, Circle 111

New Housing for New Lamps



Segmented reflector for outdoor lighting has been designed for use with new light sources (such as G.E.'s "Lucalox"; see p. 39, DECEMBER 1965 P/A) or with mercury vapor lamps. The aluminum housing mounts vertically or horizontally atop masts. Wide-Lite Corp., 4114 Gulf Freeway, Houston, Texas.
On Readers' Service Card, Circle 112

Finishes/Protectors

Long-Life Finish for Metal

Projections of exposure and abrasion tests on metal finishes using "Kynar 500," a fluoroplastic base, indicate a 30-year life—at an initial cost that is lower than comparable forms of metal protection. Baked-on finish can be retouched on the job. Color stability and color matching are said to be excellent. The manufacturer offers information about companies supplying building components coated with Kynar 500. Pennsalt Chemicals Corp., 3 Penn Center, Philadelphia, Pa. 19102.
On Readers' Service Card, Circle 113

From the Monastery

"Monastite," a cementitious, breathing-type masonry coating developed in a Trappist Monastery in Georgia, contains plasticizers and adhesives that increase the strength of its bond. Available in white, gray, rose and buff. Grace Construction Materials, 62 Whittemore Ave., Cambridge, Mass. 02140.
On Readers' Service Card, Circle 114

Nonfade White

Top coat covers asphalt and shingle roofing with white or pastel colors to increase heat-reflectance and improve appearance. Paintlike coating has up to five-year life-span and contains curing agents that reduce discoloration when applied to Butyl or similar sheet materials. Chemical Coatings & Engineering Co., Inc., 221 Brooke St., Media, Pa.
On Readers' Service Card, Circle 115

Furnishings

Chrome Bars

An impressively neat series of utilitarian tables and benches is available from Dick Stambaugh, Inc. Table legs are of solid cold rolled steel bars with a mirror chrome finish and baked enamel black steel; they have self-leveling glides and are guaranteed against breakage. Tabletops in plastic laminates (Formica, Textolite, or Parkwood), edged in ¼″-thick wood (no mean feat on a round table) as well as laminates; for industrial use, an edge of solid black Formica. Variety of heights, sizes; price list. Dick Stambaugh, Inc., Ada, Ohio 45810.
On Readers' Service Card, Circle 116

Elegance Outdoors

Knoll's Leisure Collection is an elegant indoor-outdoor furniture group that is impervious to rain and weather. The furniture was designed by Richard Schultz and is composed of several technical innovations: a nylon-Dacron mesh especially developed for the collection, combines the good looks of steel mesh with the comfort of a hammock; seating is reinforced along the sides with a new leather-like vinyl that has a good "hand"; frames are of both die-cast and extruded aluminum elements that are coated with a corrosion-resistant, textured-plastic finish. The group includes: both an adjustable and *contour* chaise lounge, rectangular and square dining and coffee tables, dining and lounge chairs with or without arms. Available in white or beige finishes; tabletops in four colors. Knoll Assoc., Inc., 320 Park Ave., New York, N.Y.
On Readers' Service Card, Circle 117

Elementary Furniture, My Dear Watson

A unit for science at the elementary level is offered as a learning-working-storage center. Designed to provide a learning environment in depth (by exercising the tactile and auditory, as well as the visual senses), the unit is structured to scale for the younger student, and features electric supply for use of turntable and projector, white plastic write-on top (printed with various graphs), and student panels with corkboard and magnetic surfaces. A most useful, if not graceful, piece of schoolroom furniture. E. H. Sheldon Equipment Co., Muskegon, Mich.
On Readers' Service Card, Circle 118

Prints for Architects

It was once said that when the fabric designs by C. F. W. Voysey were introduced in the 1890's, "It was as if spring had come all of a sudden." The same might well be said of the first *fabric* collection of the newly reorganized Jofa, Inc. The tight configuration of many of the bold, flat patterns in bright colors makes many of these representational designs seem abstract when hung in folds or seen from any distance. Sources for the fabrics range from 19th-Century botanical drawings to ancient Chinese screens, but the ab-

On Readers' Service Card, circle No. 348 ➤

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stract quality should make them appealing to architects. Most of the prints are cotton, thus making them suitable for many installations. The collection is supplemented by a group of solid-tone textures correlated with the colors of the prints, Jofa, Inc., 351 Park Ave. S., New York, N.Y.
On Readers' Service Card, Circle 119

Library Stacks Updated

Aluminum feet get bookcases off the floor, and wooden end panels soften institutional look of library shelving. Shelves are metal. Estey Corp., 1 Catherine St., Red Bank, N.J. 07705.
On Readers' Service Card, Circle 120

Latest by Arne Jacobsen

A new series of chairs and conference/dining tables designed by architect Arne Jacobsen is available from Fritz Hansen, Inc., including: a high- or low-backed swivel armchair with contour back (comfortable!) on a five-pronged aluminum base. Other pieces of interest: an expandable dining table whose carefully balanced leaves appear or disappear (from beneath the unit) without strain, designed by Aage Schmidt Christensen; and a neat multiple-seating unit with tip-up seats designed by Erik Herlφw for lecture halls and lobbies. Joined at the arm, the auditorium chairs may be separated (just pull) and stacked when not needed; may be used as individual units as well. Fritz Hansen, Inc., 305 E. 63rd St., New York, N. Y.
On Readers' Service Card, Circle 121

Three Fibers, Five Carpets

Available from Downs are: two wool carpets, one a two-tone extra-high pile with a shag effect, the other in tightly tufted three-ply wool loop; two Acrilan carpets, one a slightly striated pattern for commercial and residential use, the other of cut and loop piles for traditional furnishings; and the fifth, a two-color design in two-level Cumuloft nylon. Variety of colors, 12′ and 15′ widths; $6.95 to $12.95 per sq yd. Downs Carpet Co., "A" and Indiana Ave., Philadelphia, Pa.
On Readers' Service Card, Circle 122

New Way for Fabric Walls

Any fabric—in fact, even any casement fabric—can be laminated to a paper backing and then hung like wallpaper. The method should be considered for museums and art galleries, since tacks and nails can be removed without leaving visible holes. The laminated material can be cut with a razor, the seams then butted. Also available is a wallpaper in 17 patterns which, because of its porosity (through rayon-fiber reinforcement), can be removed from the walls simply by peeling; no soaking or steaming is necessary. F. Schumacher & Co., 939 Third Ave., New York, N. Y.
On Readers' Service Card, Circle 123

And Away We Go

Interesting design ideas by Milo Baughman are executed by Thayer Coggin, Inc. for the conspicuous consumption crowd. Ideas do not rival the gutsy honesty of the pipe-valve in the Pop setting shown. Among furniture offered: a vast buggy-tufted sofa upholstered in black Naugahyde and a pair of ottomans with curved back rests supported by metal brackets painted lime green. Another series is "cube" style furniture of peel cane, including a section unit and an all-but-on-the-floor chaise lounge. Thayer Coggin, Inc., High Point, N.C.
On Readers' Service Card, Circle 124

Organization, Man

Compartmentalized storage units are featured: a chest designed by Edward Frank occupies only 36″ of wall space, has 10 see-through plastic drawers; a service cart with "slate" Formica top and double-shelf library case with concealed storage designed by John Caldwell. Other units, from dining tables and side and occasional tables to a revolving book/record storage table, are also offered in this collection. Both ensembles are made of American black walnut. Brown-Saltman of California, 15000 S. Figueroa, Gardena, Calif.
On Readers' Service Card, Circle 125

Services

Custom Ceramics

Dutch manufacturers offers custom service for building ceramics of any size, shape or color. Fired at 3200 F, the products are guaranteed weatherproof. The ceramics may be designed by the customer or by the manufacturers' 150-man staff of artists. Royal Delft Designs, 30 N. La Salle St., Chicago, Ill.
On Readers' Service Card, Circle 126

Special Equipment

Operation Automate

Simplicity and economy are said to be two of the advantages of the "Servo-Communications" system for schools. The system centralizes controls for communications, clocks, and utilities at a desk-size console; it combines all wiring in single conduits. A durable belt of punched mylar plastic tape inside the "master clock" can be programmed with pegs by a nontechnical person. Beside controlling intercoms, clocks, heating/cooling equipment and lights, the system can turn shop equipment off and on and provide vandalism protection. DuKane Corp., St. Charles, Ill.
On Readers' Service Card, Circle 127

Cissell dryers are efficiency sized too!

Like well-planned efficiency apartments and compact kitchens, the Cissell Petite Dryer is designed to give the best possible convenience in the smallest possible package. Here's how it's "big". Holds a full 16-pounds dry weight. Offers two temperature settings, 150 degrees and 185 degrees, with de-wrinkling cool-down period at end of drying cycle. Has a 28″ drop to provide soft, fluffy drying. Dries fast — approximately ten pounds in twenty minutes. And here's how it's "small". Stands only 48″ high, affords "look-over" spaciousness, does not require special high ceilings. Takes up floor space only 30″ deep by 28¾″ wide, is light enough to make upper floor installation fast and easy. The Cissell Petite operates on either gas or electricity, has all safety controls and is simple to vent. In any color you desire. Want bigger capacity for special applications? Cissell makes a full line of laundry dryers, including the 25-pound dry weight capacity Compact. W. M. Cissell Mfg. Co., Inc., Louisville, Ky.

On Readers' Service Card, circle No. 340

Petite

Compact

CISSELL®

Drums Along the Bay

Big brother to last year's "Fire Drum I" is, appropriately enough, "Fire Drum II." This free-standing, pedestal-type steel fireplace is fully lined with 2″ cast refractory that reflects heat out the opening. The 32″-diameter Fire Drum is 35½″ high, made of 14-gage steel, and uses a 7″-diameter pipe flue. Available in all black or black with choice of six porcelain enamel color baffles in red, blue, green, umber, ochre, or gold. Fire Drum Corp., 1415 Yosemite, San Francisco, Calif.

On Readers' Service Card, Circle 128

Free-Standing Fireplace Features Silent Butler

Conical shaped steel hood of free standing fireplace is welded to 24″ x 36″ rectangular base resting on three self-leveling legs. It features a removable silent butler ash drawer with sliding cover for tidy emptying. A 1″ firebrick plus ¼″ asbestos sheet insulates fireplace floor. Hood meets 8″ flue 4′ above floor level. Available in three porcelain-enamel colors or in matte-black enamel. The Majestic Co., Inc., Huntington, Ind. 46750.

On Readers' Service Card, Circle 129

Pencil Points

Flashlight batteries power lead pointer for drafting pencils. High-speed steel cutters are replaceable and batteries last up to a year. Carbon dust collector is nonspill. International Engineering Co., 126 Merrick Rd., Amityville, N.Y. 11701.

On Readers' Service Card, Circle 130

Smooth-Ride Sidewalk

Moving sidewalks or ramps give smoother ride by using belting that requires no center support. A 1″-thick belting is stiffened laterally with wires and rides on rollers that extend only 4″ on both sides. Balustrades are either stainless steel or stainless steel and glass. Installation shown is at San Diego Zoo. Stephens-Adamson Manufacturing Co., Transportation Equipment Div., Aurora, Ill. 60507.

On Readers' Service Card, Circle 131

Surfacing

A Little Goes a Long Way

Hardwood veneer, laminated between clear vinyl top sheet and aluminum-vinyl-asbestos backing, makes a flooring only .08″ thick. "True Wood" installs like vinyl tile and is said to be tough, durable, and resistant to common stains; it can therefore be used in kitchens and bathrooms. Walnut, cherry, and oak are the standard woods, available in random widths, in squares, and in special parquet and herringbone patterns. Wood-Mosaic Corp., 5000 Crittenden Dr., Louisville, Ky.

On Readers' Service Card, Circle 132

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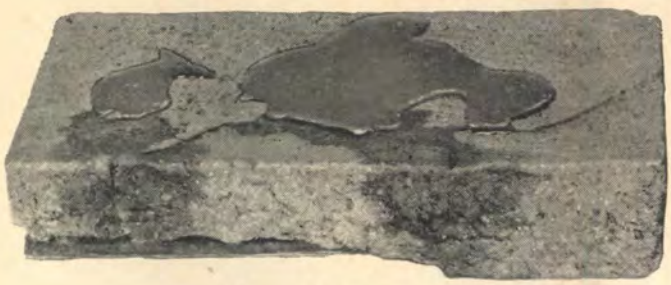
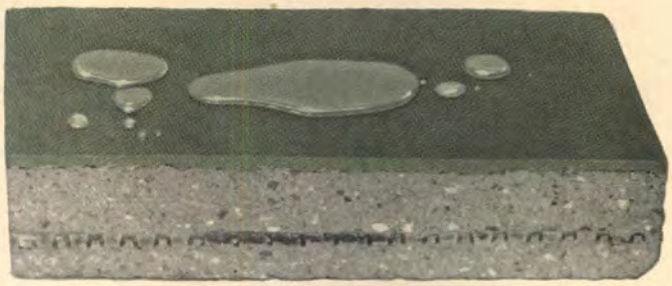
GENERAL ELECTRIC

Concrete disintegrates...





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Acoustics Overhead

New catalog, "Ceiling Systems/1966," includes information on "Ceramaguard," an acoustical material suitable for high-humidity situations, such as indoor swimming pools, and the integrated "C-60 system." Both of these are recent additions to Armstrong ceilings. Other integrated systems and specialized ceilings using fire-retardant or membrane-faced materials for clean rooms are also included, plus a section on mineral-fiber ceilings and low-cost installations. Color and black-and-white photos illustrate descriptive text, engineering data charts, and installation details. 74 pages. Armstrong Cork Co., Dept. P.I., Lancaster, Pa.
On Readers' Service Card, Circle 200

Anti-Flame

Fire ratings are given for "Celotex Protectone" ceilings using acoustical tile and lay-in panels. Data sheets chart ratings for various Protectone materials used in ceilings suspended from steel or wood joists supporting concrete or wood floors. Detail drawings. 39 pages. The Celotex Corp., 120 N. Florida Ave., Tampa, Fla. 33602.
On Readers' Service Card, Circle 201

Air/Temperature

Plug-in Diffusers

Aluminum T-section runners for supporting ceiling tile or light fixtures are coordinated with air diffusers that "plug in" to ducts. Available for either a grid or a strip pattern layout. Detail drawings. 20 pages. Titus Manufacturing Corp., Waterloo, Iowa 50704.
On Readers' Service Card, Circle 202

Cool and Certified

Directory lists 55 makes of through-wall and window air conditioners with their certified Btuh cooling capacities, amperes, and watts. Voltage is also listed but is not certified. National Electrical Manufacturers Assn., 155 E. 44 St., New York, N.Y. 10017.
On Readers' Service Card, Circle 203

Construction

In Suspense

"Cable Construction in Contemporary Architecture" illustrates applications for cable-suspended and cable-supported roofs over sports arenas, plants, hangars, and exhibition halls. Preceding these descriptions are contributions by two consulting engineers, Richard M. Gensert and Lev Zetlin, discussing the history of cable construction, the theory of using cables, and, with design examples, how to overcome the problem of flutter. Another section of the booklet gives properties of cables and tabulates dimensions of cable hardware. 78 pages. Bethlehem Steel Corp., Bethlehem, Pa.
On Readers' Service Card, Circle 204

"Plexiglas in Architecture"

Full-color booklet illustrates with photos the uses of transparent and opaque Plexiglas for large domes, window glazing, modular bubble skylights, vaulted ceilings, and "sculptured" facings for exteriors. Tables give breakage resistance, light- and heat-transmittance, deflection, recommended thicknesses, etc. Booklet discusses sealants and illustrates framing details. Rohm & Haas Co., Independence Mall West, Philadelphia, Pa. 19105.
On Readers' Service Card, Circle 205

Handy Book . . .

. . . contains charts, graphs, and diagrams illustrating architectural products such as glass and glass block; metal curtain walls, moldings, etc.; doors; sealants; fiber glass and Foamglas insulation; and paints. Cross sections, short specs, photos, and color samples accompany descriptive text. Table of contents is broken down into sections and book is well indexed. 133 pages. Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh, Pa. 15222.
On Readers' Service Card, Circle 206

Face-Lifting Screens

Four aluminum-screen refacing systems are described in a full-color bulletin on exterior renovations. They include an open, cellular grille; a vertical blade that allows light and air to filter through; a large module, "Sculptura-Panel" system; and a small-scale textured open-work screen. Photos, cross-sections, and installation details are included. 12 pages. Construction Specialties, Inc., 55 Winans Ave., Cranford, N.J.
On Readers' Service Card, Circle 207

Open the Ceiling to the Sky

Dome, barrel-vault, pyramid and other types of transparent overhead structures are detailed and specified in two illustrated brochures: "Glazed Enclosures and Skylights" and "Glazed Enclosures and Greenhouses." Domes are built with tubular aluminum framing, thermoformed cast acrylic panels, and aluminum connections that eliminate exposed clips, lugs and bolts. Ickes-Braun Glasshouses, Inc., 1733 N. Western Ave., Chicago, Ill. 60647.
On Readers' Service Card, Circle 208

Steel Scene

Booklet called "Steel Abstracts for Construction" is first issue of a new abstracting service. It includes 53 abstracts of articles from 18 U.S. and foreign technical publications, divided into 4 categories: research and design, buildings, bridges, and miscellaneous

structures. Complete table of contents. 24 pages. Committee of Structural Steel Producers, American Iron and Steel Institute, 150 E. 42 St., New York, N.Y. 10017.
On Readers' Service Card, Circle 209

Down Under

All-steel floor system for rooms requiring underfloor access and plenums comprises 2′ x 2′ standard panels and adjustable-height pedestals. A stringer system for increasing lateral stability is also manufactured. Brochure contains cutaway views, installation details and specifications. 8 pages. Tate Engineering, Inc., 516 S. Eutaw St., Baltimore, Md. 21201.
On Readers' Service Card, Circle 210

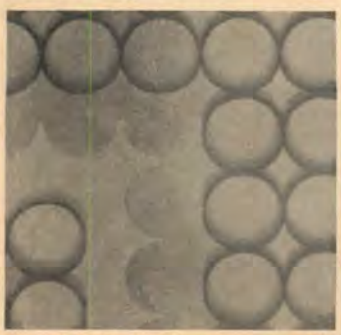
Doors/Windows

Controlled Doors

Five systems for automatic door opening include control mechanisms concealed under floor mats, control by photoelectric beams or by manually operated switches. Charts aid in selection of the system; accessories are cataloged. 14 pages. Norton Automatic Door Operators, 372 Meyer Rd., Bensenville, Ill 60106.
On Readers' Service Card, Circle 211

Electrical Equipment

Small Cylinder Ceiling



A grid of 1″ diameter acrylic plastic rings designed for suspended luminous ceilings diffuses light and cuts down glare from fixtures placed above it. Standard 2′ x 2′ panels are locked together with plastic clips to conceal seams. Rings can be open with interlocking edges, or bonded at the top to a plastic sheet for closed ceilings. Leaflet describes the two systems, gives short specs and hanging details. 4 pages. United Lighting and Ceiling Co., 2828 Ford St., Oakland, Calif. 94601.
On Readers' Service Card, Circle 212

Skinny Silhouettes

A series of lamps for lighting gardens and walkways has a clean, linear look. Slim aluminum posts finished in matte black enamel range between 10″ and 16′ high. They support fixture arms that show a minimum of translucent white plastic lens profile. Some designs incorporate the light into the post. Photoelectric controls for automatic on-at-dusk, off-at-dawn lighting are optional. Other post- and wall-mounted units are also shown in attractive brochure with photos, dimensioned drawings, and lamp wattages. 20 pages. Prescolite Manufacturing Corp., 1251 Doolittle Dr., San Leandro, Calif.
On Readers' Service Card, Circle 213

Furnishings

Cumulative on Cumuloft

Cumuloft nylon carpet fiber is examined in 24-page brochure —from the multilobular shape of its cross-section (resulting in elimination of sheen and appearance of soiling) to a chart of its general properties, and a description of an innovational and economical dyeing process that permits two or three colors in one bath. This is a technique worth thinking about. Chemstrand, 350 Fifth Ave., New York, N.Y.
On Readers' Service Card, Circle 214

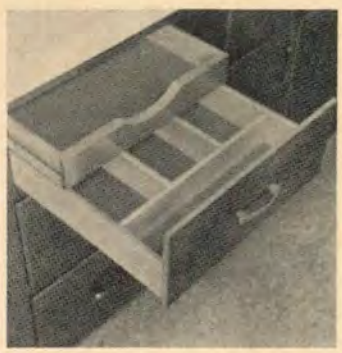
On an Even Keel

A four-page brochure illustrates and states specifications for settees, tables, and chairs—all with metal bases available in various finishes. Of particular interest is a tablet armchair that has a pedestal base with a 4° bevel, so that it can remain vertical on a sloping grade, such as might be found in an auditorium or lecture hall. Chicago Hardware Foundry Co., 2500 Commonwealth Ave., N. Chicago, Ill.
On Readers' Service Card, Circle 215

Have a Harter

A fold-out brochure introduces the "Forum" seating and table group. Four seating units and two tables have a common base of high-tensile steel rods (mirror chrome finish) arranged in a "diaxial" pattern with electric arc welded joints. Tables are 14″ high, with 24″ and 32″ square tops in polished clear plate glass, solar bronze glass, white Italian marble, and white onyx. Photos, specifications. Harter Corp., Sturgis, Mich.
On Readers' Service Card, Circle 216

Wood Kitchens



Special-purpose drawers, swivel cabinets, adjustable shelves, accessories, and a large variety of cabinet sizes (all with beveled edges) are suggested for efficient kitchen planning. Catalogue features some real cute kitchens, but you can also get plain good design. Measurements, specifications. Kemper Bros., Inc., Richmond, Ind.
On Readers' Service Card, Circle 217

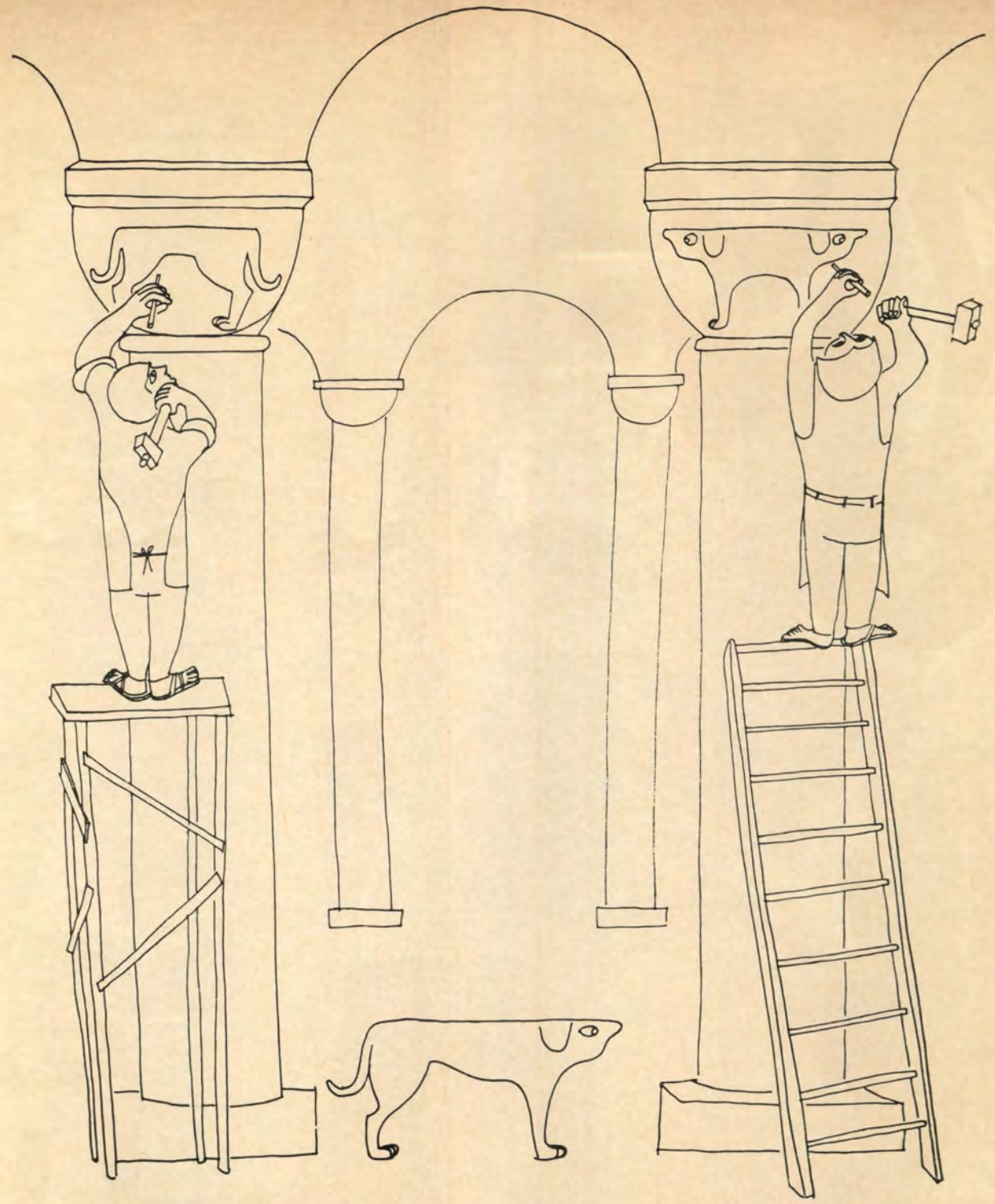
Chandeliers To Eat By

If you want to know where all those restaurant chandeliers come from, this is your catalogue. The catalogue also contains information on NL's custom design and engineered lighting consultant services for individual designs. Color photos, specifications. NL Corp., 527 Madison Ave., New York, N.Y.
On Readers' Service Card, Circle 218

Flood Control

Two basic types of "Cylinderlites" are shown, each available in three mountings (surface, wall, and pendant) and four finishes (baked white enamel, satin aluminum, anodized pale gold, and anodized statuary bronze). One type uses a black Alzak reflector, eliminating

Continued on page 96



NEXT MONTH IN P/A

There is a growing recognition among architects that housing design must go beyond the element of the unique. The profession recognizes the need to play a more aggressive role in community planning.

The May issue of PROGRESSIVE ARCHITECTURE points up the pressing problems of the architect in assuming a broader responsibility for all kinds of housing —from custom homes to shelters for migrant workers; from vacation houses to mobile homes for older folks.

The exciting, colorful May "Houses" issue of P/A . . . plus eleven more exciting issues when you fill in the "Subscriptions" section on the Reader's Service Card bound in this issue. (See Table of Contents for page number of Readers' Service Card.)

In corridors

In classrooms

In washrooms

NO OTHER FIXTURES CLEAN SO MANY, SO WELL, FOR SO LITTLE!

BRADLEY WASHFOUNTAINS

What do you look for in wash fixtures? Space saving? Then look to Bradley. On an average, Washfountains save 25% on floor and wall space. That means, in a given area, they serve many more students than conventional lavatories.

Want sanitary fixtures? Washfountains are foot-operated. Hands touch only clean running water, never soiled faucets.

Looking to keep costs down? Washfountains serve as many as eight students with one set of plumbing connections, cutting installation costs as much as 80%. And they cut water consumption a whopping 40 to 80%!

You get a lot to like with Bradley Washfountains. No other wash fixtures clean so many so well, for so little! In 36 and 54-inch diameter circular and semi-circular models, popular two-person Duos, and counter-type fixtures.

For details, see your Bradley representative. And write for latest literature. Bradley Washfountain Co., 9141 Fountain Drive, Menomonee Falls, Wis. 53055.

Bradley

On Readers' Service Card, circle No. 335

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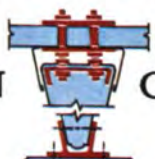
WALL SUPPORTED Sanymetals

. . . CLEAN IN CONCEPT DESIGN AND FUNCTION • THEY PROVIDE FOR EVEN, EASY LIGHTING  AND FAST, SANITARY CLEANING  BECAUSE THERE ARE NO CEILING OR FLOOR SUPPORTS • SOLID DESIGN  OFFERS BUILT-IN, RECESSED  ACCESSORY UNITS • CRAFTED IN BAKED ENAMEL • PORCENA • STAINLESS STEEL AND . . .

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BY THE Sanymetal® PRODUCTS COMPANY, INC.
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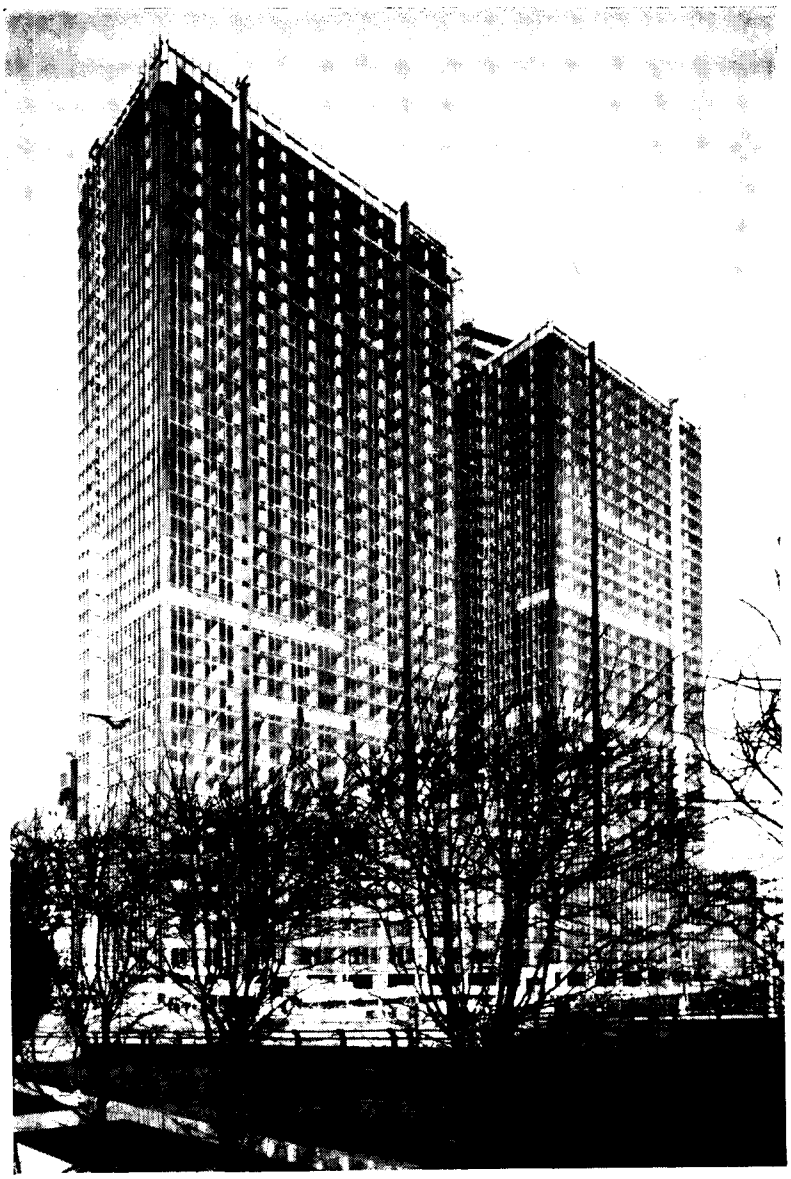

Photograph by Felix Gilbert

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New York

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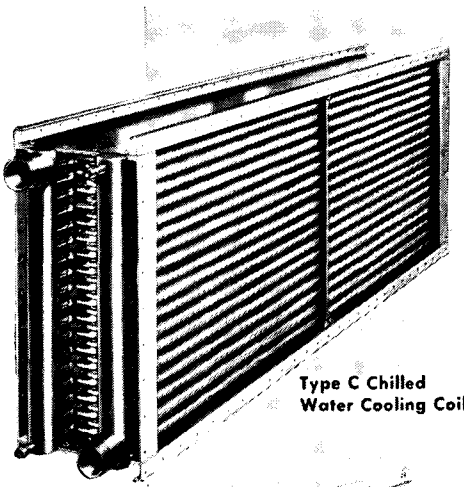
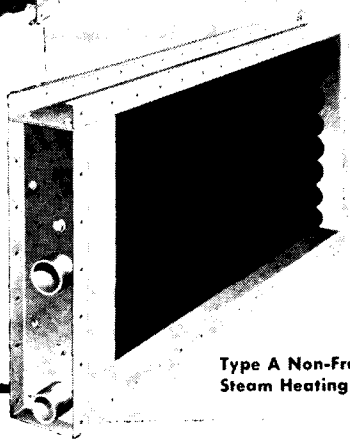


Type C Chilled Water Cooling Coils



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Modern smooth-fin design of Aerofin coils permits ample heat-exchange capacity in limited space – permits the use of high air velocities without turbulence or excessive resistance.

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Aerofin is sold only by manufacturers of fan system apparatus. List on request.

ENGINEERING OFFICES IN PRINCIPAL CITIES

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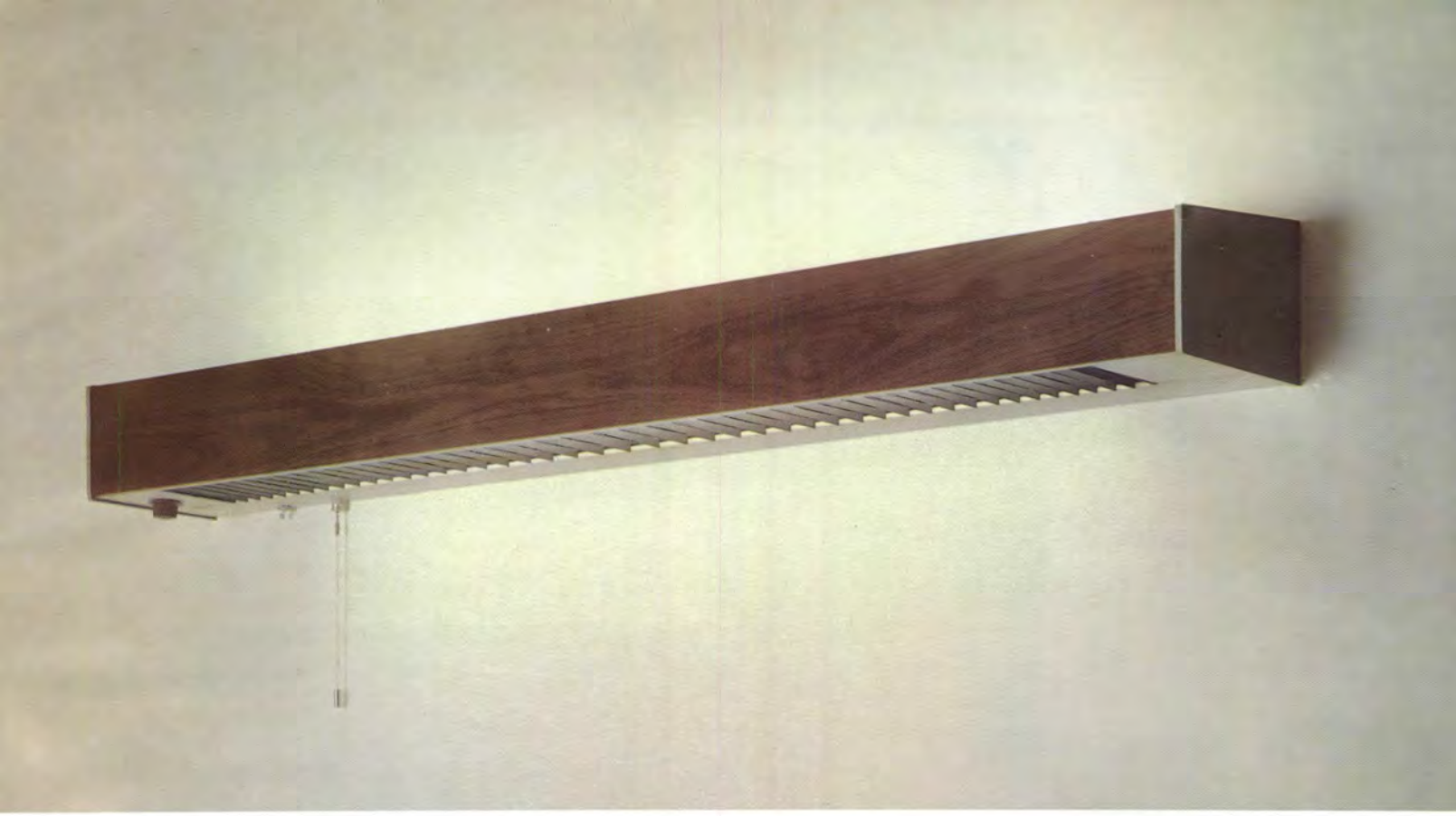
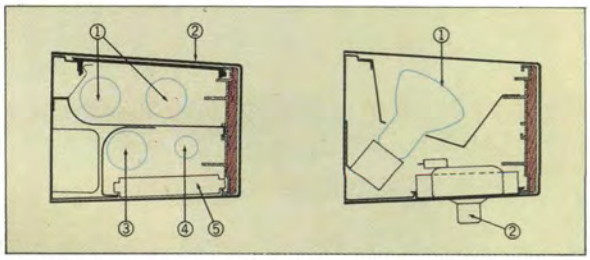


Rx for better hospital lighting

Four separate, yet integrated, light sources in a simple compact form: general light, reading light, examination light and night-light. Completely self-contained with no movable extension arms or other troublesome mechanical devices. Available in two basic types—with or without examination light—each in a choice of genuine walnut or baked enamel finish and in 30-watt and 40-watt lamp sizes, plus optional choice in type and location of switch controls. Housing is ruggedly constructed of die-cast and extruded aluminum. Louver shielding is of molded, high-impact acrylic in charcoal gray with variably spaced baffles for maximum efficiency, minimum brightness. Another lighting innovation from Lightolier—designed to offer you the widest possible latitude in the planning and specifying of effective, functional lighting for hospital-patient rooms. See the Yellow Pages for nearest Lightolier distributor or write to Lightolier, Jersey City, N.J. 07305 for brochure 48.



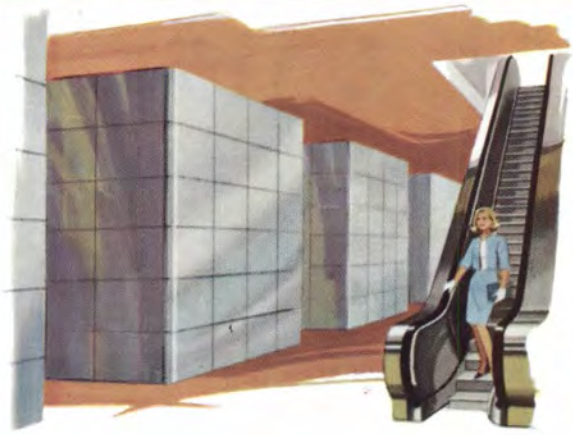
(1) Indirect fluorescent general light. (2) Acrylic dust cover. (3) Direct fluorescent reading light. (4) Low-level incandescent night-light. (5) Acrylic louver.

(1) Indirect incandescent examination light—reflector photo-flood lamp. (2) Examination light interval timer.

LIGHTOLIER®

Showrooms: 11 East 36th Street, New York; 1267 Merchandise Mart, Chicago; 2515 South Broadway, Los Angeles; 1718 Hi-Line Dr., Dallas

Movable steel partitions adapt to changing occupancy needs, permit any desired room arrangement.



Stainless steel retains its beauty forever, so tough it resists damage, and requires an absolute minimum of maintenance.

Structural steel tubing replaces bulkier structural members, often with major savings in construction costs.

Economical steel forms for poured concrete slabs stay in place, add the strength of steel to the structure.

Gallery of ways to build for the future and save now

If you're worried about construction costs . . . future upkeep . . . the ability of your proposed building to meet tomorrow's occupancy needs . . . take heart.

An army of steel building products is available *now* to replace heavier, slower, less reliable products and systems that cost too much to buy, too much to erect or install.

Today's steel building products are cutting deadweight, speeding construction, reducing initial cost. Tomorrow,

they'll be saving even more money—in lower maintenance and operating expense, and in minimum cost remodeling.

So take a long look at the dozens of steel building products manufactured by Republic customers that are waiting to give you a higher return on your building investment. For information on the products shown above, write Republic Steel Corporation, Dept. PA-1324, 1441 Republic Bldg., Cleveland, Ohio 44101.

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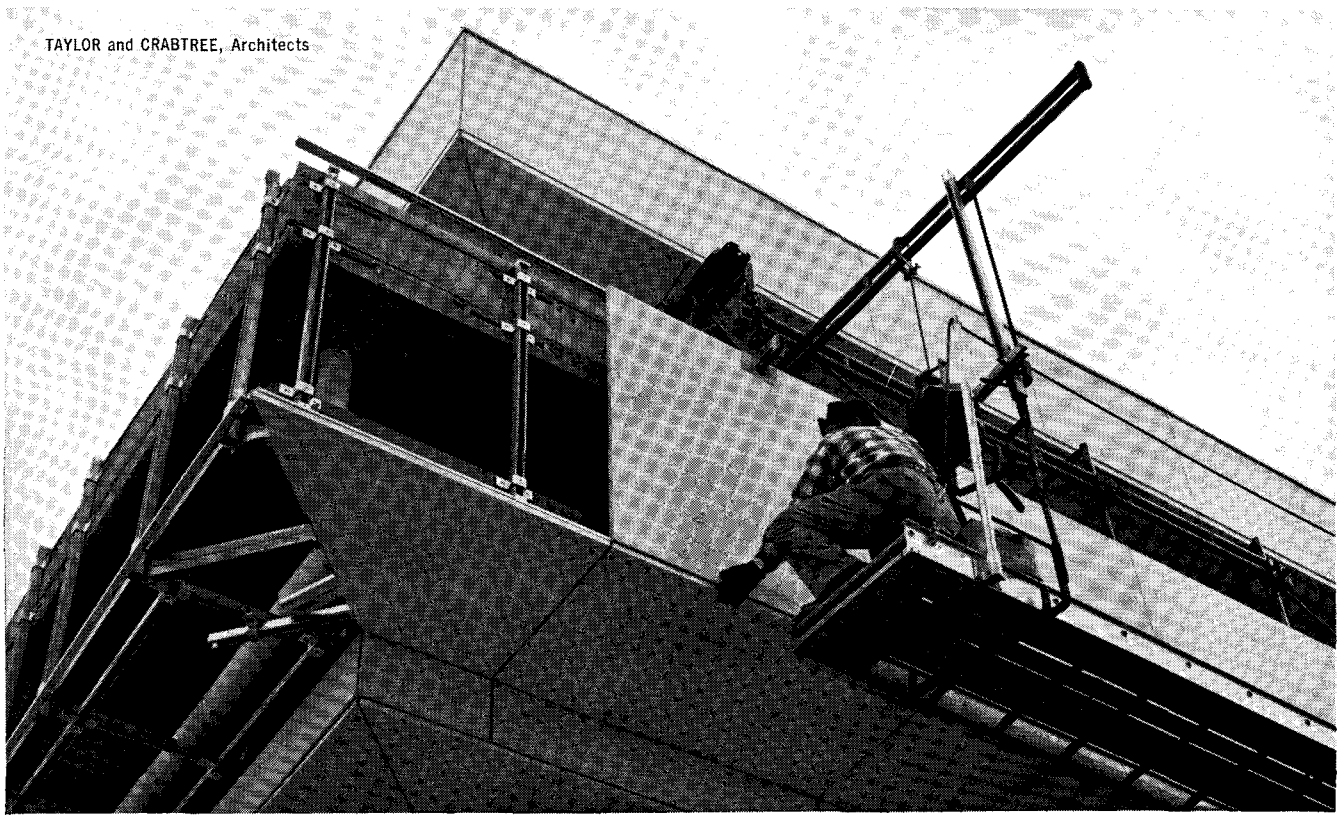
This STEELMARK of the American Steel Industry on a product assures you it is made of modern, versatile, economical Steel. Put it on the products you sell. Look for it on the products you buy.

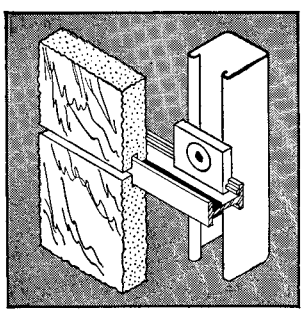
Had the soffits and fascias in the Nashville Library been installed in the conventional way, heavier material would have been required, along with a more massive supporting structure to take the weight. Thin marble on Zibell struts saves weight, saves cost.

TAYLOR and CRABTREE, Architects



In New Work or Remodeling

THE ZIBELL SYSTEM CUTS COSTS AND GIVES NEW VERSATILITY TO MARBLE



The Zibell System is a unique arrangement of metal struts and fastenings for installing marble as thin as 7/8". A Zibell installation goes up quickly and creates a light, weathertight wall that requires no structural backup. Besides the obvious economies, the Zibell System gives the architect new freedom in designing. He can now make marble do things that were impractical or too costly before. But most important, he may find that he can pass up less desirable materials in favor of marble, the finest of all facing materials.

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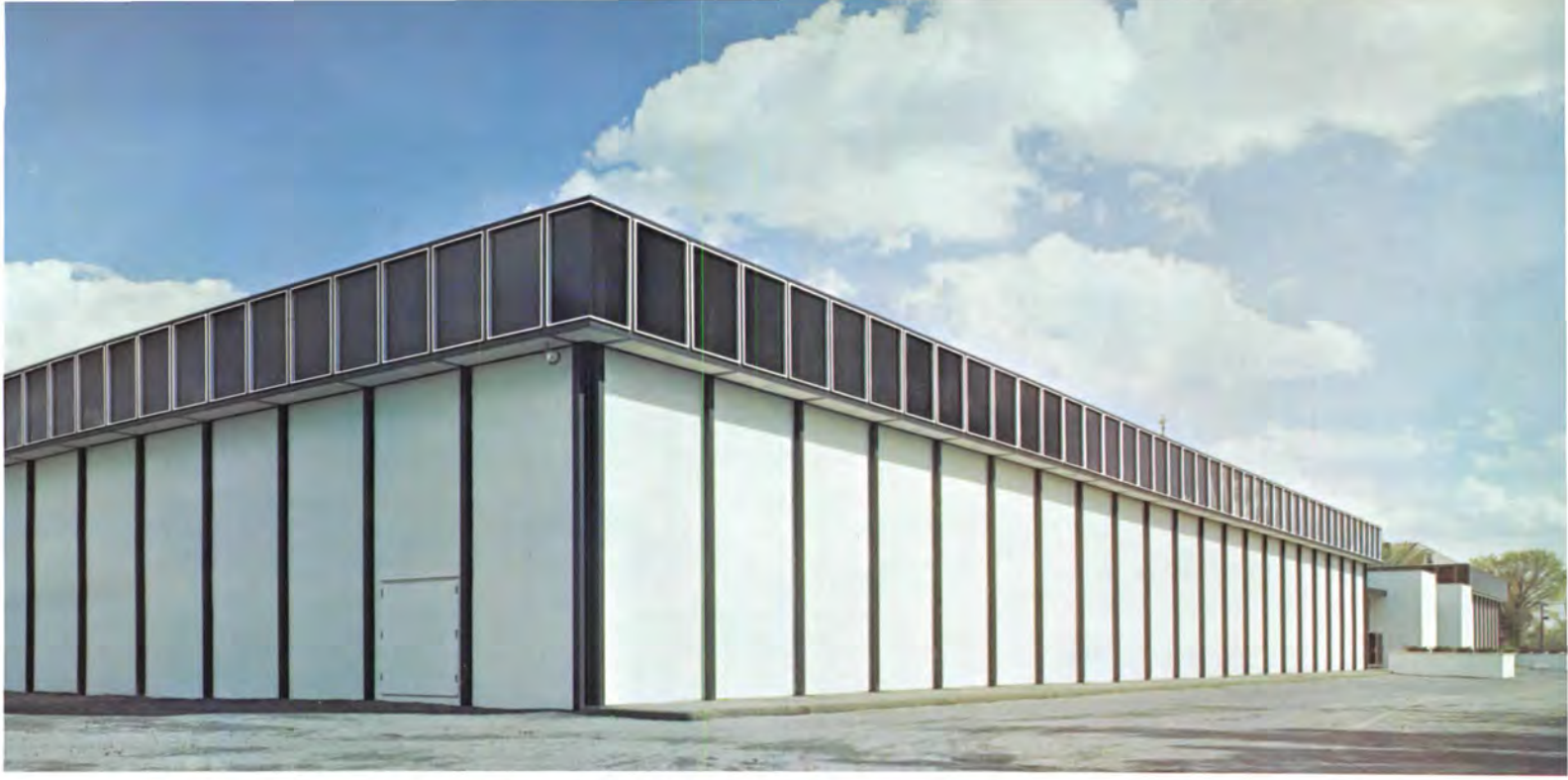
COAST-TO-COAST CONSULTING SERVICE Our engineers stand ready to assist you any time anywhere on any subject involving marble or limestone. A phone call will put one of our men across the desk from you in a matter of hours. No obligation, of course.



Architects: Donald J. Stephens Associates, Loudonville, N.Y.

Glazed with PLEXIGLAS® for control of breakage, glare and solar heat

The windows in the new athletic building of Albany Academy, Albany, N. Y., are glazed with transparent grey #2064 PLEXIGLAS acrylic plastic, ¼″ thick, framed in aluminum in light sizes of 4′8″ by 6′. The window design and the PLEXIGLAS provide a comfortably daylighted interior environment with low initial, operating and maintenance costs.

Solar Heat and Glare Control—Grey #2064 PLEXIGLAS transmits only 44 per cent of total solar energy with a light transmittance value of 27 per cent. The light filtering characteristic of this acrylic plastic reduces sky and solar glare with the effectiveness of sunglasses.

Breakage Resistance—One-quarter inch thickness PLEXIGLAS has nearly *twice* the breakage resistance of tempered glass in the same thickness, based on falling ball tests. Test data available on request.

To Get Further Information—For technical, specification and installation data on the full range of transparent PLEXIGLAS tints to suit varying solar energy and light transmittance values, just write to us for our new catalog, "PLEXIGLAS in Architecture, PL-688".

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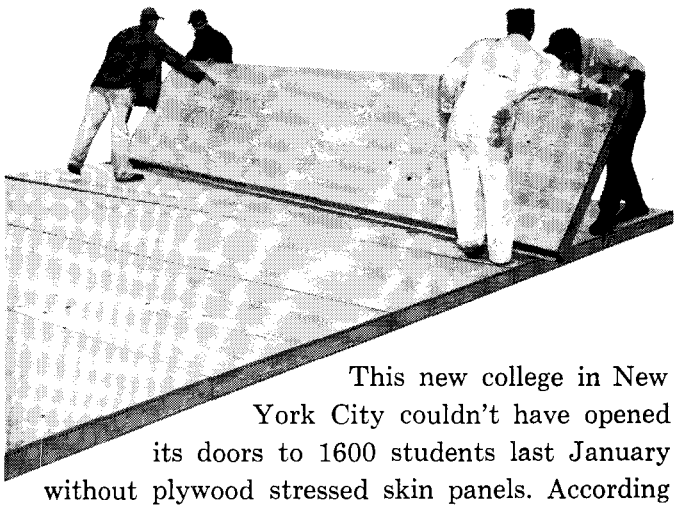
The hurry-up school.

Queensboro Community College. 22 buildings. 62 days from footings to completion.

How?

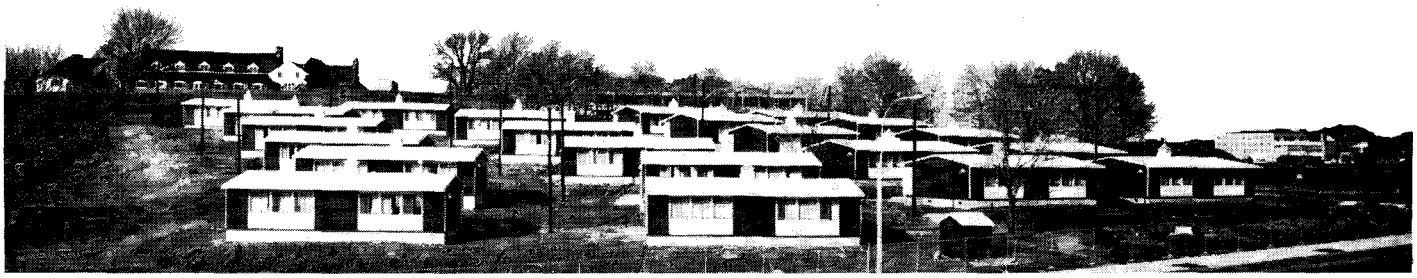
Plywood components.



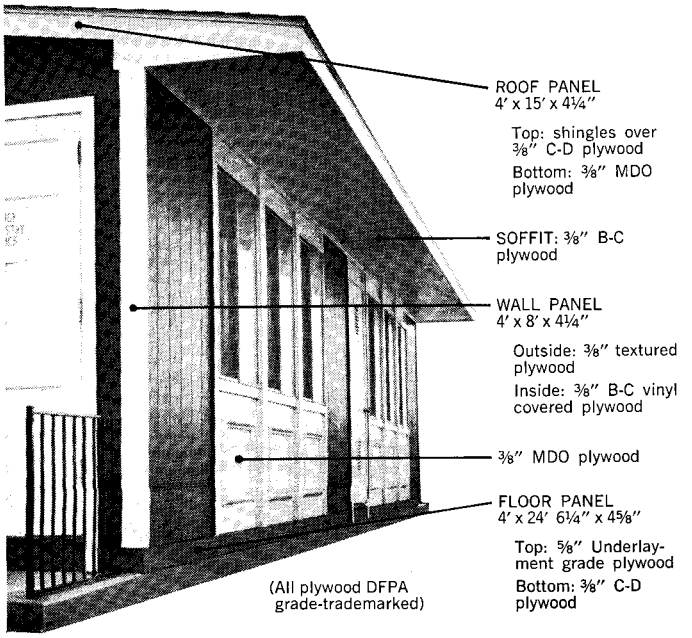
This new college in New York City couldn't have opened its doors to 1600 students last January without plywood stressed skin panels. According to the contractor's architectural department, the plywood component system was the best possible solution to the tight schedule – less than three months from plans to finish. The panels were used for floors, walls and roof.

The 22 buildings were prefabricated in Tulsa at the rate of one a day. Panels were prepainted, then trucked or piggy-backed to New York. Floor components are 24 feet long, the full width of the building. Roof panels span 12′ 6″, and are supported by a ridge gluelam, 7″ by 17⅞″.

On-site finishing consisted largely of installing carpet, furniture, plumbing, and equipment. Actual site work took just over two months.



Queensboro Community College, Queens, New York City/Owner-Lessor: CIT Educational Buildings, Inc., New York City/Fabricator and Contractor: Southern Mill Fabricators, Inc., Tulsa/Architects: H. A. Tucker, Southern Mill Fabricators, Inc.: M. J. Goodman, consulting architectural engineer for CIT



The 18 classroom buildings are 24x40; the library, faculty offices and rest rooms are 24x32.

This is another example of the way plywood components can provide simple, good-looking structures in a hurry. But they're also versatile enough to solve sophisticated design problems involving unusual shapes such as curved roofs, folded plates and space planes. For more information on plywood components and other plywood building systems, send the coupon.

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Please send me your portfolio of information on plywood components and plywood construction systems.

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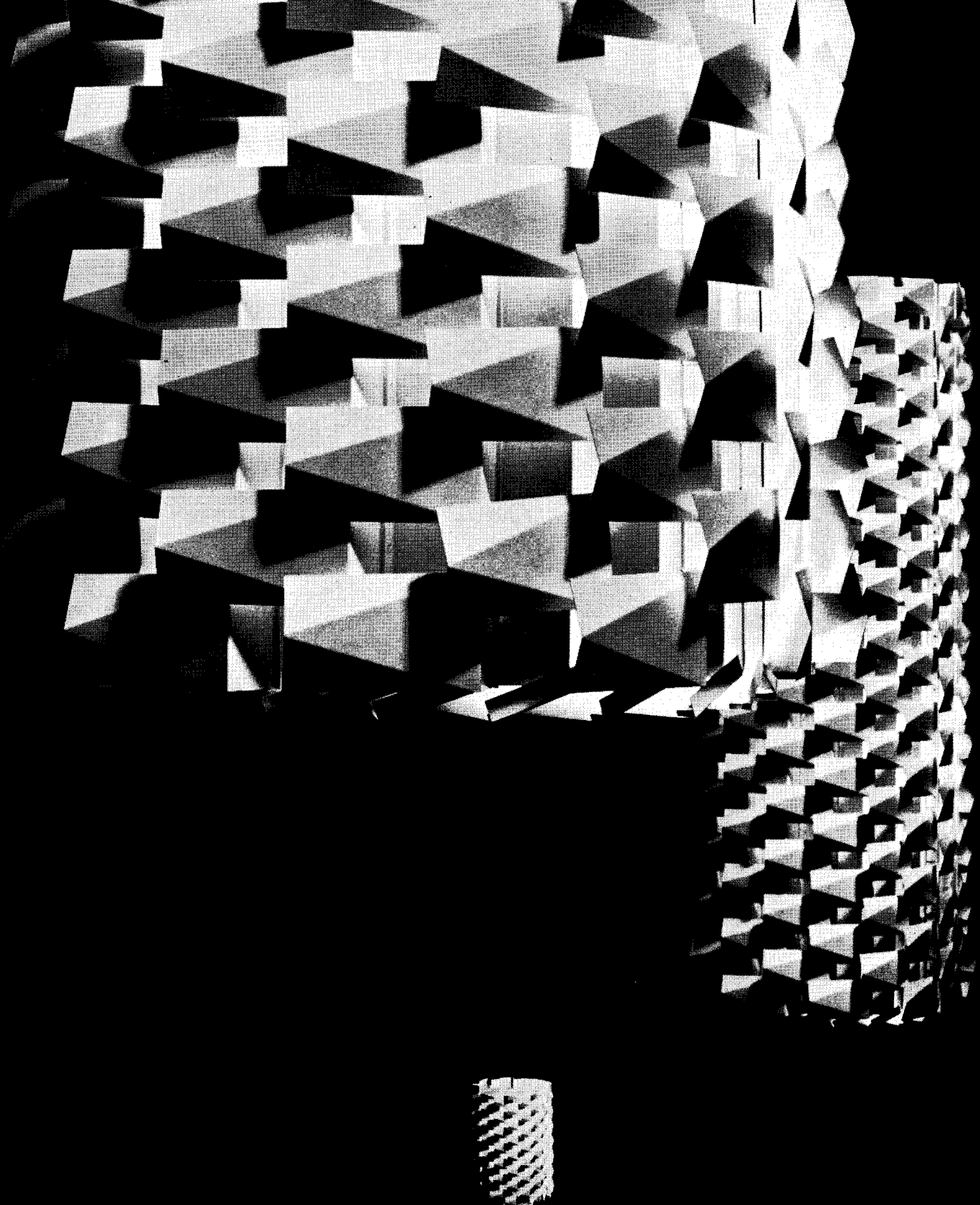

LIGHT

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Ask your terrazzo contractor about Medusa White. Or write us direct.

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New Pre-engineered Wall Systems

Fenmark wall systems offer pre-engineered answers to a variety of design requirements for one, two and multi-story buildings; for example, carrying the massive area of grayed glass on this Lowell, Massachusetts office building designed by Gensemer & Barton of Cambridge. Only steel is strong enough; only Fenestra offers a five-year performance warranty, and only Fenmark has all these features: hundreds of component combinations and sizes; watertight integrity; no exposed fasteners; condensation draining design and a rugged new oven-cured, two-coat, silicone-alkyd copolymer finish.

Performance begins with fast installation and compatibility with other systems: 1) To shear walls, add any of a variety of Fenmark units. 2) On one and two story buildings, top it off with D-Panel, the lightweight, longspan structural deck that provides a finished ceiling, plain or acoustical. You get the ultimate in simplicity and strength — one product, one trade, one responsibility. For the full story, check with your Fenestra engineering representative or write Fenestra, Inc., 1101 E. Kibby Street, Lima, Ohio.

FENESTRA FENMARK GRID WALL SYSTEMS

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DOUGLAS SPACE SYSTEM CENTER... A TIGHT TIMETABLE MET WITH PRESTRESSED CONCRETE

Thanks to cooperative planning on the part of the owner, designer, contractor and fabricator, construction of the new Douglas Space System Center at Huntington Beach, California, has established some unique records. For example, just three weeks after the start date for the structural design, production of the first prestressed concrete members had started. One unit of the big complex, a 180,000 square-foot, three-story structure was erected in 19 working days. A similar unit was erected in 13 days.

The structural framing systems of the concrete buildings in the Center consist of precast columns, prestressed concrete girders and prestressed concrete double tees spanning the girders. The relatively large bays of 25'x 50' afford excellent flexibility for space use. In addition, prestressed concrete provided the established advantages of economy—long spans, repetitive use of a few basic members, and fire resistance.

This project suggests some of the reasons for the growing acceptance of prestressed concrete. And the project is one of a growing number employing TUFWIRE Products for pretensioning or post-tensioning. A comprehensive booklet on TUFWIRE Products for prestressed concrete is available. Write for it on your business letterhead. TUFWIRE and other Union Wire Rope Products are made by Armco Steel Corporation, Department W-2016, 7000 Roberts Street, Kansas City, Missouri 64125.

Owner: Douglas Aircraft Company • Architect/Engineer: Daniel, Mann, Johnson & Mendenhall, Los Angeles • Contractor: C. L. Peck, Los Angeles • Prestressed Concrete Fabricator: Rockwin Prestressed Concrete Corporation, Santa Fe Springs

ARMCO STEEL

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Bell Telephone Laboratories, Holmdel, New Jersey. Plant Design and Construction: Western Electric Co., Inc. Architect: Eero Saarinen and Associates.

mirror, mirror, on the wall...

How better can a structure harmonize with its environment than by reflecting that environment from its walls — changing with it hour by hour, season by season — yet preserving the purity of the architect's original design. Kinney architectural glass is precision vacuum coated with a metallic film. From the interior, one sees an unobstructed view through its transparency. From the exterior, a gold or silver mirror reflects the surroundings concealing the full range of interior activities. And it's as practical as it is beautiful. This glass rejects up to seventy percent of the solar heat!

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Tel. 609-665-9364

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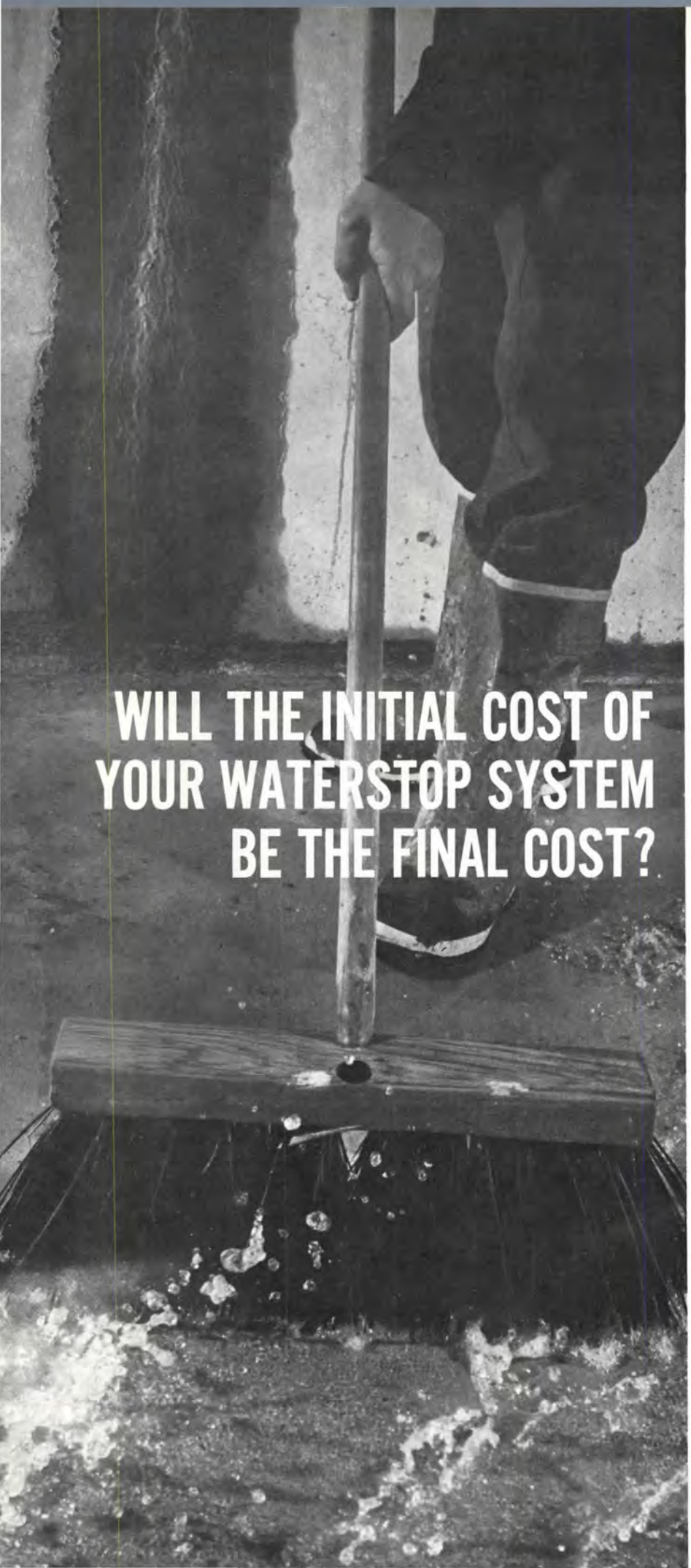

Waterstop systems -- less than 1% of construction cost -- must deliver total performance or major structural problems are inevitable.

In heavy construction jobs, the massive pressures of water on expansion and construction joints call for completely integrated systems of compatible, proven products. On a single project a variety of systems may be required. A simple sealing strip may fill one need, while a more critical area may demand a deluxe superior joint system such as Grace's 3-part system: Self-expanding Cork Expansion Joint Filler/ Polyvinyl Waterstop/Vertiseal Polysulfide Sealant.

Whatever the waterstopping problem, you'll find the complete and proven answer in the complete Grace line of heavy construction products: 7 premolded joint fillers. Polyvinyl, rubber and neoprene waterstops. Joint sealers, sealing strips, and curing compounds.

And the new Grace Spec Kit makes specification complete, simpler and more accurate. A concise, central source for a wide range of specialty products, the Kit lets you select products quickly, spec out entire systems in minutes, actually write specs in a few words. It includes:

(1) **Preprinted Specification Work Forms** for waterstops, premolded joint fillers and sealing strips. Simply tear out and fill in your brand choices.

(2) **Ultra-condensed Product Selector Guide.**

(3) **140-page Product Handbook.**

Get your free Spec Kit by writing on your firm's letterhead to: Grace Construction Materials, 6051 West 65th Street, Chicago, Illinois.

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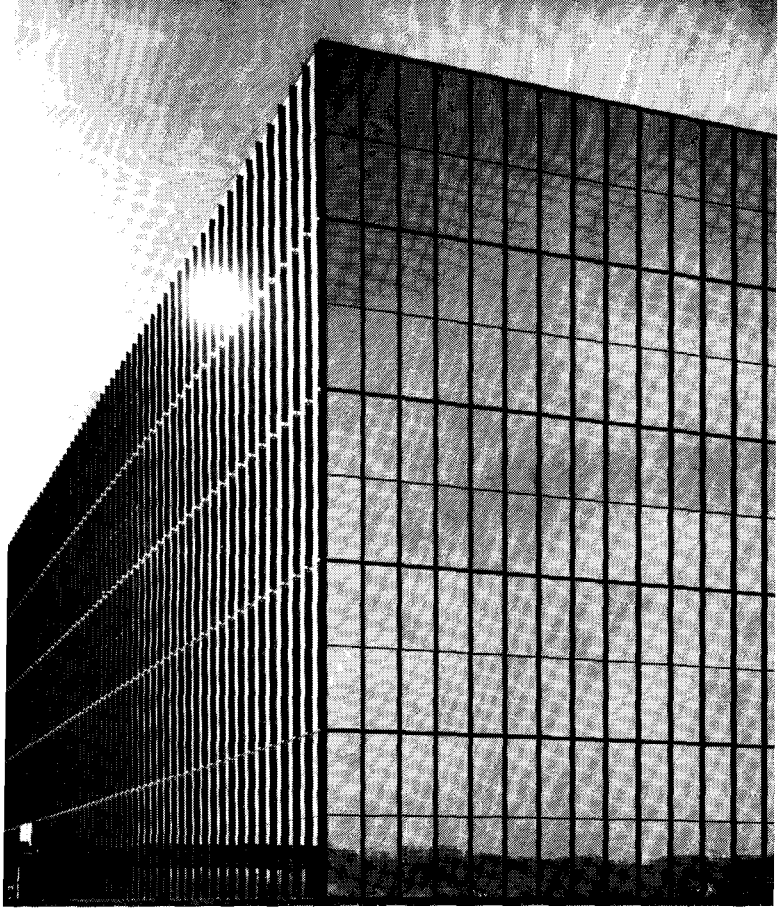
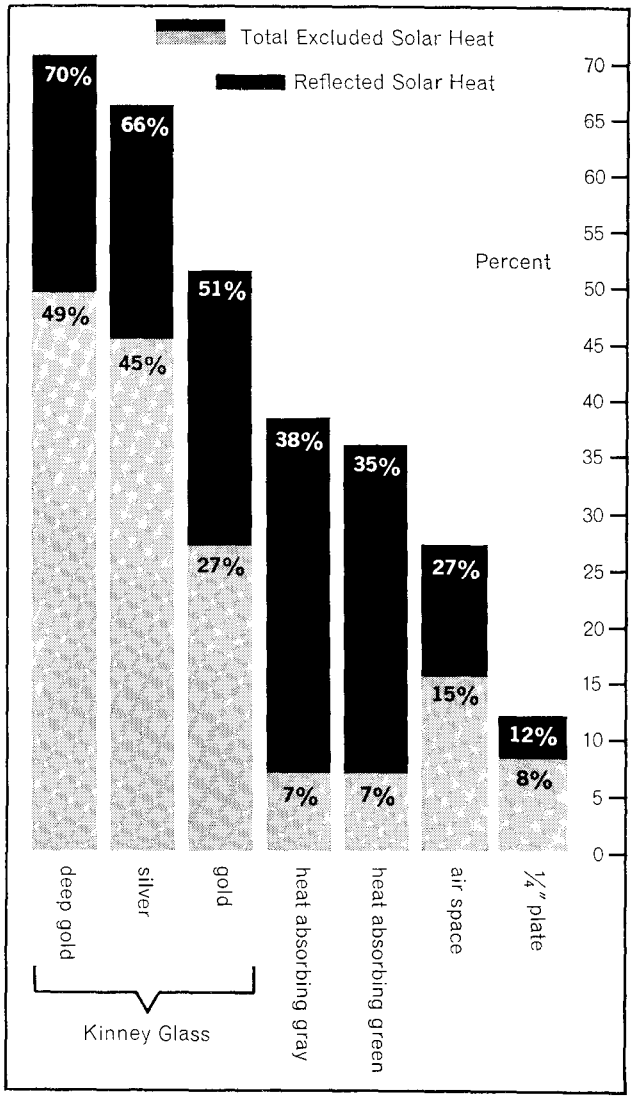


Bell Telephone Laboratories, Holmdel, New Jersey.
Plant Design and Construction: Western Electric Co., Inc.
Architect: Eero Saarinen and Associates.



...who's the fairest of them all

Kinney architectural glass reflects — not absorbs. Up to seventy percent of the solar heat striking the surface is rejected. This fact alone will affect your air conditioning design requirements, reducing installation, maintenance and operating costs and minimizing the need for exterior or interior shading. Full utilization of interior floor space is possible because peripheral areas are usable in full sunlight and furnishings can not be seen from the outside. Available in silver, gold and deep gold. Kinney glass has been extensively tested and the comparisons shown above are confirmed by five years of prominent installations. Kinney glass is manufactured in ¼", ⅜" and ½" thicknesses, 60" x 96" maximum size, in laminated safety glass.

KINNEY VACUUM COATING DEPT.
Kinney Vacuum Division
The New York Air Brake Company
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Tel. 609-665-9364

On Readers' Service Card, circle No. 448

Why would an architect be interested in a new Arcadia 'loose stick' window wall system?

Everyone knows an architect is only supposed to think about aesthetics.

He's not supposed to care that Arcadia S-45 snaps together without screws or clips of any kind...

Even if it means installation time and cost are cut from ⅓ to ½.

Why should an architect notice that S-45's new non-stretch glazing vinyl simply won't pull out of position... ever!

He's too busy making sure that the slim 1¾" sightlines are maintained throughout. (They are.)

And finding out if S-45 is available in genuine Duranodic® colors. (It is.)

It's no skin off an architect's nose that an installer can cut and stack S-45 "sticks" on the job.

He's more interested in knowing the system is designed to make open joints impossible.

And that he can flush glaze glass and panels from ⅛" to 1½" thick... in any combination.

And that S-45 can be glazed from inside or outside... or half and half.

And that it works equally well as storefront or window wall.

Of course, an architect worries about windload capacity... and weatherproof design...

But then he knows Arcadia wouldn't offer a product that didn't measure up.

Everyone knows what an architect thinks of most loose-stick systems... that's why he's apt to get excited about the new

ARCADIA S-45

... the first loose-stick window wall with everything an architect wants!

Send for complete new details and installation data.

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PELLA

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PELLA ROLSCREEN CO.
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To divide space decoratively and to keep sounds within bounds, genuine wood is **your** material. And, the best way to use it is in the form of PELLA Wood Folding Doors or Partitions. Choose them in soft-spoken wood veneers of OAK, ASH, PINE, BIRCH, PHILIPPINE MAHOGANY or AMERICAN WALNUT. We'll finish them in natural tones at the factory, or, you can have them stained or painted on the job. Long years of effortless operation are assured by **patented** steel spring hinging . . . an exclusive PELLA feature. Stable wood core construction **prevents** warping. Select PELLA Folding Doors for any width opening and in heights up to 10′1″. Or make it PELLA Wood Folding Partitions (with large 10⅜″ x 1 1/16″ panels in heights up to 20′1″) to divide space in schools, churches, restaurants, clubs or offices.

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ARCHITECT: JOHN J. FLAD & ASSOCIATES – CONTRACTOR: CAMOSY CONST. CO.

ARCHITECT: CHARLES VINCENT GEORGE & ASSOC.

ROLSCREEN CO.
PELLA, IOWA

YES, via first class mail, rush me more color pictures and information about the following PELLA products:

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- ☐ PELLA WOOD CASEMENT WINDOWS
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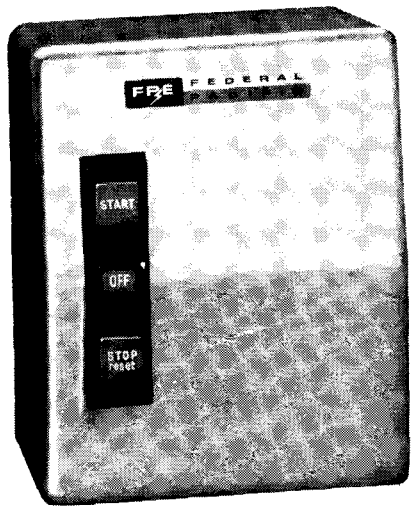
WANT MORE INFORMATION ON PELLA PRODUCTS? Mail the postage-paid card at the left. Or, call your PELLA distributor. You can find his name in the Yellow Pages of your telephone directory. Or, see SWEET'S Architectural or Light Construction Files for PELLA product details. **ROLSCREEN COMPANY, PELLA, IOWA.**

PELLA

WOOD FOLDING DOORS & PARTITIONS

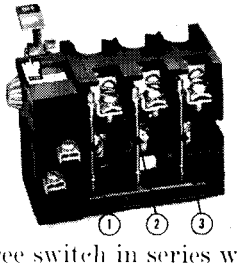
PELLA MAKES QUALITY WOOD WINDOWS, WOOD FOLDING DOORS & PARTITIONS AND WOOD SLIDING GLASS DOORS



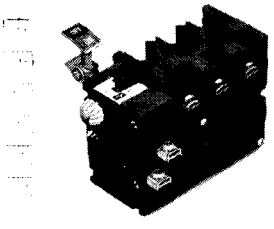
The new GA 4000. The only motor starter that provides total motor protection.

For the first time in the history of motor starters, *total* protection is built into a single overload relay. The exclusive new relay assembly includes the *four* functions needed for total overload protection, eliminating costly motor, burn outs and down time.

Three trip elements



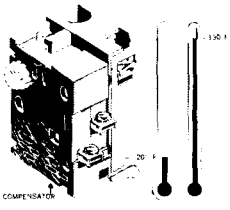
The GA 4000 3 phase overload relay assembly has three bi-metal trip elements instead of the usual two, at no increase in cost. Any or all of the trip elements operate through a common trip bar to actuate a single, trip-free switch in series with the magnet coil.



Adjustable trip

Heater coil stocks are eliminated because, in the GA 4000, adjustable overload relay assemblies are factory installed and calibrated. A simple twist of the dial selects exact seting for each motor horsepower rating within the range of the relay assembly. Only 6 overload relay assemblies are needed to protect all motors rated to 5 HP, 22 V., and 10 HP, 440 V.

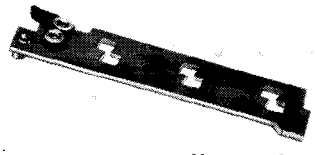
Ambient compensation



This automatic feature is standard in the GA 4000 overload switch. It makes practical, precise protection of a motor when the starter is located remotely and is subjected to different or varying ambient temperatures. Nuisance tripping is eliminated.

Single phase sensor

This exclusive feature detects load unbalance caused by single phasing of even lightly loaded motors. A sensor bar working with the regular common trip bar to adjust automatically the normal trip point for load unbalance. No other types of overload relays provide this protection for your motor.



For more information about FPE's GA 4000 general application motor starter call your local distributor or your local FPE field office. Information can also be obtained directly from Federal Pacific Electric Co. 50 Paris Street, Newark, N.J. 07101.

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Spring

Fall

1 mo.

3 mo.

6 mo.

1 yr.

2 yrs.

Weather Report: USS Cor-Ten Steel

When USS COR-TEN Steel comes from the mill it looks like any other steel, but after blast cleaning and exposure to the elements, dramatic changes occur. When used bare for building exteriors, COR-TEN Steel gradually weathers through a spectrum of oranges, russets, browns and charcoal blues until it attains a dark, rich color and even texture that only nature can impart. This distinctive oxide inhibits further corrosion and preserves the structural integrity of the steel and, unlike most man-made materials, becomes more handsome with age. COR-TEN Steel's ability to weather beautifully is graphically illustrated on the facing page.

The samples at left were cut from a single COR-TEN Steel plate. Each piece is 4″ x 6″. The samples were placed out-of-doors on weathering racks inclined at a 30° angle at United States Steel's Applied Research Center, Monroeville, Pennsylvania. One set was exposed in the spring, the other in the fall. At the intervals indicated, the samples were removed until progressive sets covering a two-year period were obtained.

Note that while the set started in the spring weathered more rapidly in its earlier stages due to increased rainfall, both sets exhibit virtually the same color and texture after approximately two years' exposure. Also evident in the early stages of exposure is the slightly lighter drip line which occurred at the lower edge of each sample. This, too, disappeared between the six-month and one-year exposure periods. The rich, natural color exhibited by the two-year samples can be expected to darken still further with longer exposure.

The atmosphere in which these samples were exposed can be classified as semi-industrial. The time period required to attain these colors in other locations may vary depending on weather conditions, degree of air pollution, and direction of exposure.

USS COR-TEN Steel offers an added bonus. It is a high-strength low-alloy steel up to 40% stronger than structural carbon steel, so it can be used in thinner sections to cut weight. It is also weldable.

USS COR-TEN Steel is available in all rolled steel products—plates, structurals (including wide flange), bars, sheets, strip, and tubular products.

A word of caution: Bare COR-TEN Steel may not be appropriate for all applications. A thorough understanding of its properties and limitations is important for its satisfactory use. *While COR-TEN steel is available in practically all forms produced in carbon steel, the designer should avoid specifying it where the quantity will be less than one ton of a size. This will help minimize procurement problems.* Write for our new booklet, "USS COR-TEN Steel for Exposed Architectural Applications," or contact a USS construction representative through your nearest USS Sales Office. United States Steel, Room 7374, 525 William Penn Place, Pittsburgh, Pa. 15230. *USS and COR-TEN are registered trademarks.*

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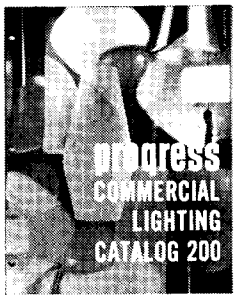

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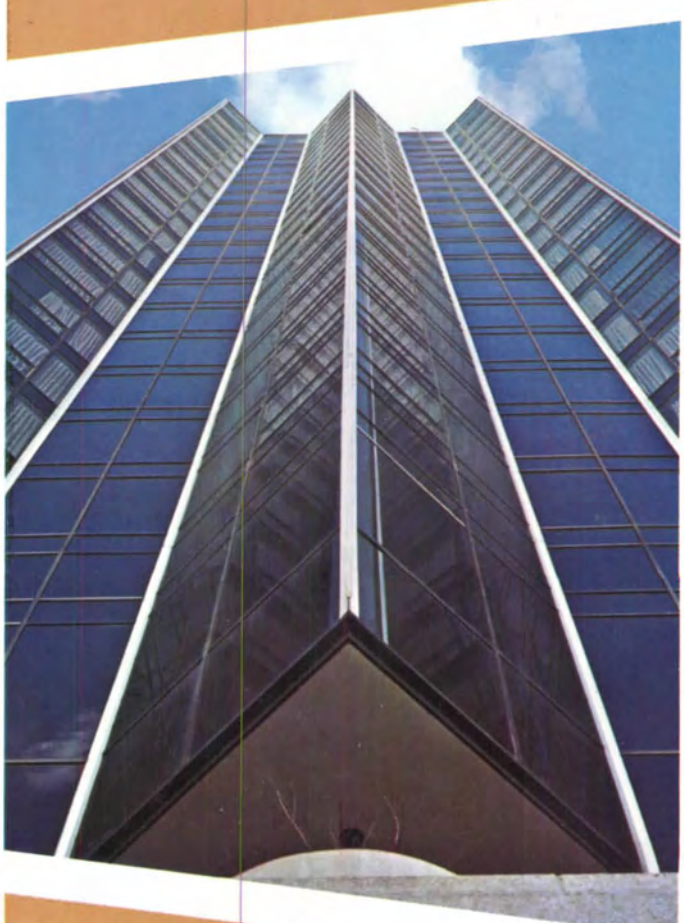

VISUAL DRAMA WITH GLASS


Pontchartrain


Pontchartrain

If it weren't for rain, you wouldn't need Dow Corning 780 building sealant!

Rain can spoil everything.

It can even change your prized building design into a "leaker" overnight.

You can battle this problem of leaks with windscreen, weep hole, gasket, tape, caulk and a good measure of hope. But why not choose a real weapon—Dow Corning® 780 building sealant. The finest of elastomeric sealants, it's an honest-to-goodness rain beater.

Dow Corning 780 building sealant is a true silicone rubber. It's tough, elastic and permanently flexible. Sun, weather and age won't dull its glossy surface or its blue ribbon performance. After one hundred thousand expansion-contraction cycles, it will still stand guard.

You wouldn't need performance like that if it weren't for leaky, embarassing rain.

FREE RAIN BEATER. Pit your most annoying rain against our professional rain beater—Dow Corning 780 building sealant. Write for prove-it-yourself sample kit.

Available in cartridges and in bulk.

Address Dow Corning Corporation, Dept. 8704, Chemical Products Division, Midland, Michigan 48640. For nearest distributor, see Sweet's Architectural File.

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A Good Fire Extinguisher Doesn't Have to be Ugly!

A tastefully designed building deserves an attractive fire extinguisher. Unfortunately architects haven't had much choice in the past.

The new Ansul ENSIGN was designed to complement your architectural design —not to create an eye-sore. If the classic lines of the extinguisher aren't sufficient proof, try color. It's available in 48 different decorator colors.

The ENSIGN'S Beauty is more than skin deep. It's made of fiberglass . . . in fact, it's the world's first U.L. listed pressurized fiberglass water extinguisher. It will perform better, last longer and look better than the traditional metal water extinguishers. Nor will it dent, corrode or explode like the old-fashioned units.

Write for our new brochure on the ENSIGN . . . or call your local Ansul Man for complete information. He's listed in the "Yellow Pages."

THE ANSUL COMPANY, MARINETTE, WISCONSIN

Prestressed concrete single tees swing into place

Exterior walls erected in five days

Up so fast the community called it an "instant church"

Sacred Heart Church, Prosser, Washington—Architect: Doudna, Williams, and Phipps—Engineer: Lyerla & Peden

EXPOSED PRESTRESSED CONCRETE COMBINES STIMULATING DESIGN WITH ULTIMATE ECONOMY

The dramatic, contemporary design of this church illustrates an inspired use of exposed single tees. It is an outstanding example of an imaginative architect's use of exposed prestressed concrete to achieve a striking effect coupled with measurable economy. On-site labor costs were reduced, and future maintenance of the exposed concrete will be negligible.

Original concepts and creative designs can be fully expressed with prestressed concrete. Simple techniques of manufacture permit virtually unlimited variations in economical standard sections. Prestressed concrete—a truly cooperative architectural-structural material—accommodates the most imaginative designs.

Send for our free booklet—"Prestressed Concrete—Applications and Advantages"

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ARCHITECTURAL STRUCTURAL

838 Apartments, Springfield, Ill.
Architect: Ferry & Henderson

Exposed precast prestressed concrete single tees create a pleasing architectural pattern. Tees become both ceiling and the floor above it. Fewer elements to handle during erection keep costs down.

Kessel's Bakery, St. Paul, Minn.
Architect: Stanley Fishman
Engineer: Meisch & Stevens

Lighting fixtures and ductwork are channeled conveniently between exposed structural double tee stems. Prestressed concrete's long spans eliminate columns, give more useable floor space.

Dimensional Fiberglas* acoustical products are made with beauty in mind. Textured with deep grains and roughness variations. And now in a great new line of Glass Cloth Faced Designs. Like "Nubby," star of the line. With a new depth in texture that's abuse and damage resistant. Means lasting beauty. Won't shrink, warp, buckle. Guaranteed. Quiet beauty. Acoustical rating is tops. Look to us on your next job. Make it a Nubby beauty.

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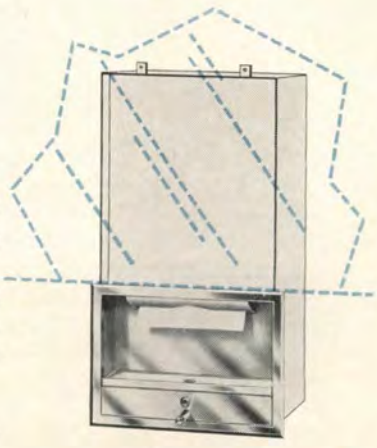
BOBRICK

New 3-in-1 Recessed Unit for use with wall to wall mirrors

These new Bobrick stainless steel Multi-Purpose Units are ingeniously recessed behind a conventionally mounted, continuous mirror. Combined in each unit are a paper towel dispenser, shelf and soap dispenser. Paper towels are loaded into a compartment, concealed behind mirror, by opening the locked towel tray above shelf.

For detailed information on this new 3-in-1 unit and 300 other matching stainless steel washroom accessories, write for A.I.A. File 29-J.



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Since 1906 Designers and Manufacturers of Washroom Equipment

Surface mounted, recessed or suspension track types, available with all accessories.

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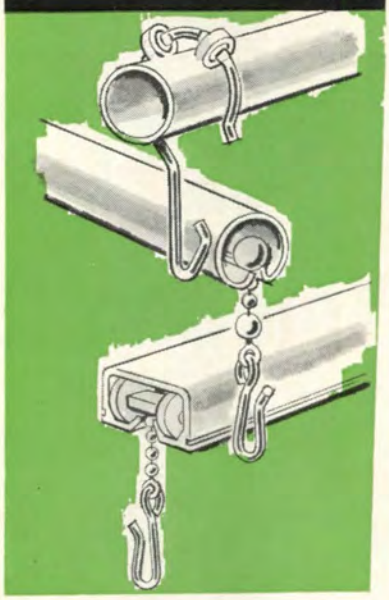
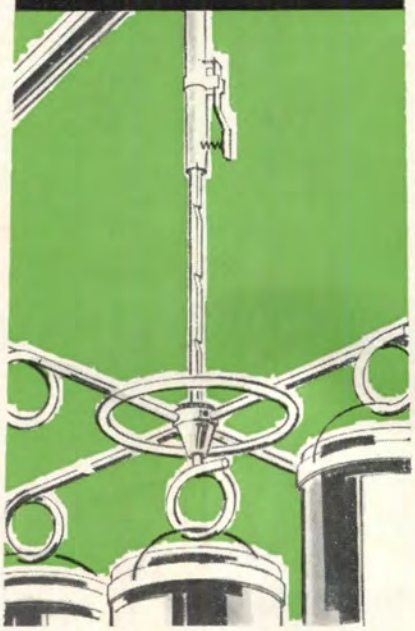


Intravenous feeding device with overhead track for mobility and vertical position settings for gravity flow.

I.V. FEEDING SYSTEMS



Curtains are available in wide range of colors. Permanent vat dyes insure color fastness. All curtains are sanforized.

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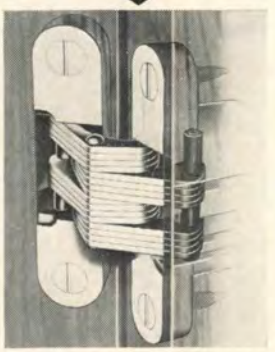

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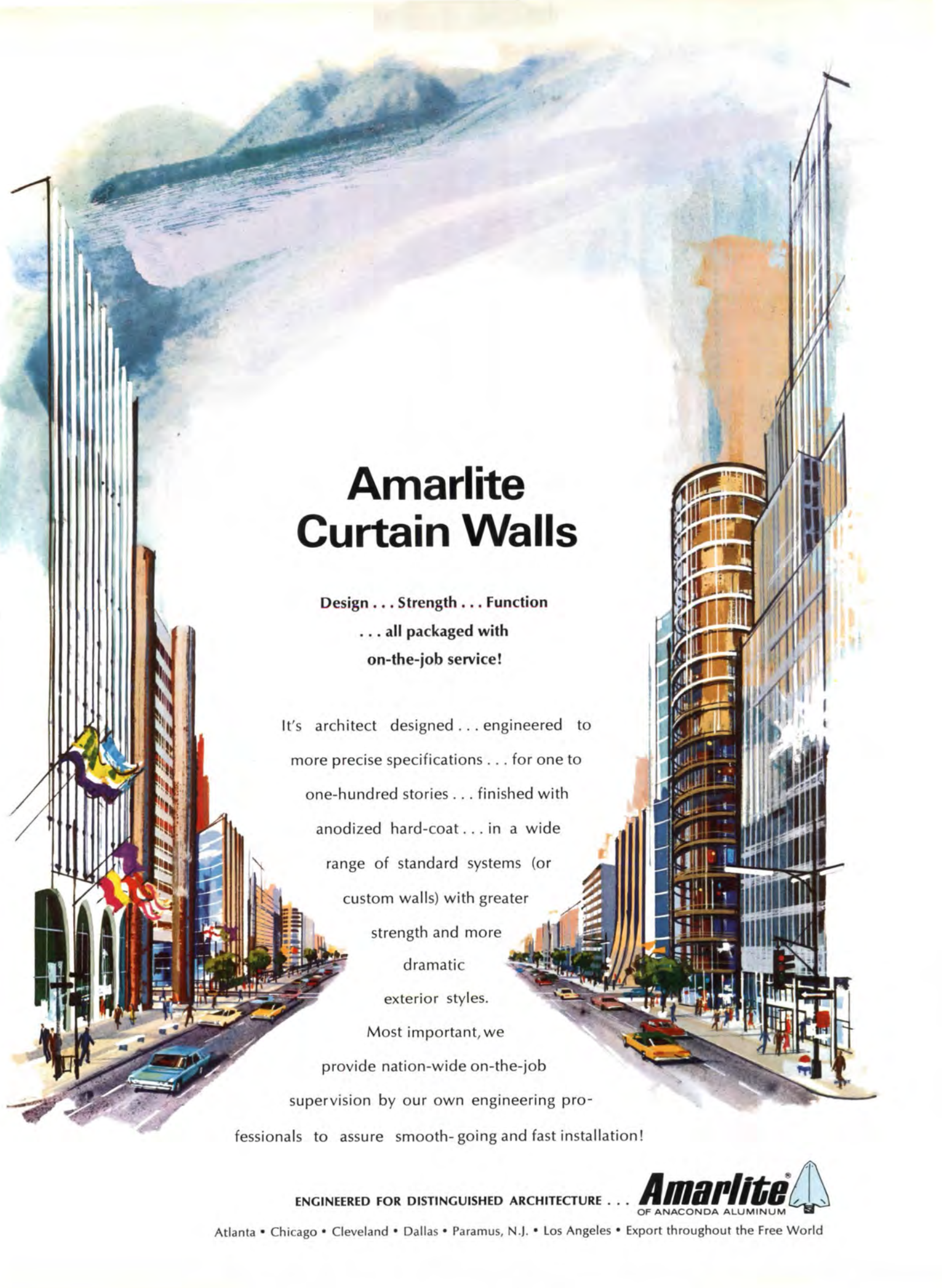

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Design . . . Strength . . . Function
. . . all packaged with
on-the-job service!

It's architect designed . . . engineered to more precise specifications . . . for one to one-hundred stories . . . finished with anodized hard-coat . . . in a wide range of standard systems (or custom walls) with greater strength and more dramatic exterior styles. Most important, we provide nation-wide on-the-job supervision by our own engineering professionals to assure smooth-going and fast installation!

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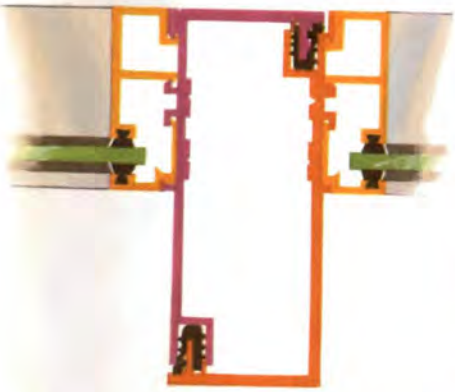
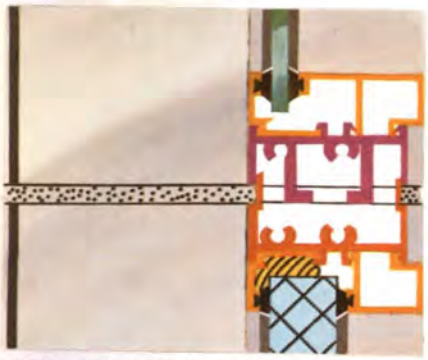
Amarlite 800 System is the 2-WAY STRETCH Curtain Wall

Our 800 System curtain wall is designed to MOVE! Smooth-faced 800 Systems are architect-conceived with a two-way-stretch to expand and contract . . . to hold their weather-tight seal despite severe temperature changes.

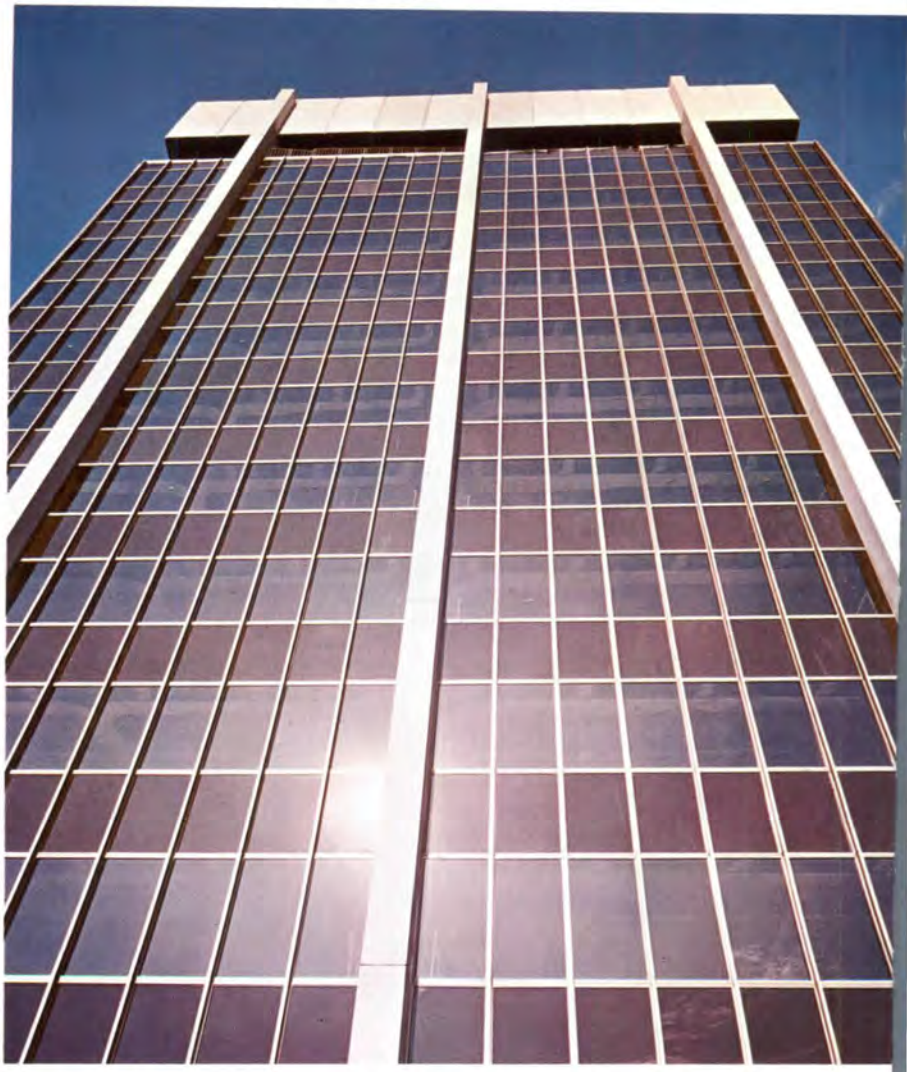




800 System Curtain Wall expands due to extreme summer heat . . . . . contracts due to severe winter cold . . . all expansion and contraction takes place within the module, both horizontally and vertically.

The curtain wall vinyl joint seal adjusts itself to the pressures of the "moving" wall modules . . . keeping pressure right and the wall weather-tight!

PROFESSIONAL PLAZA, DETROIT, MICHIGAN; ARCHITECTS: CRANE & GORWIC

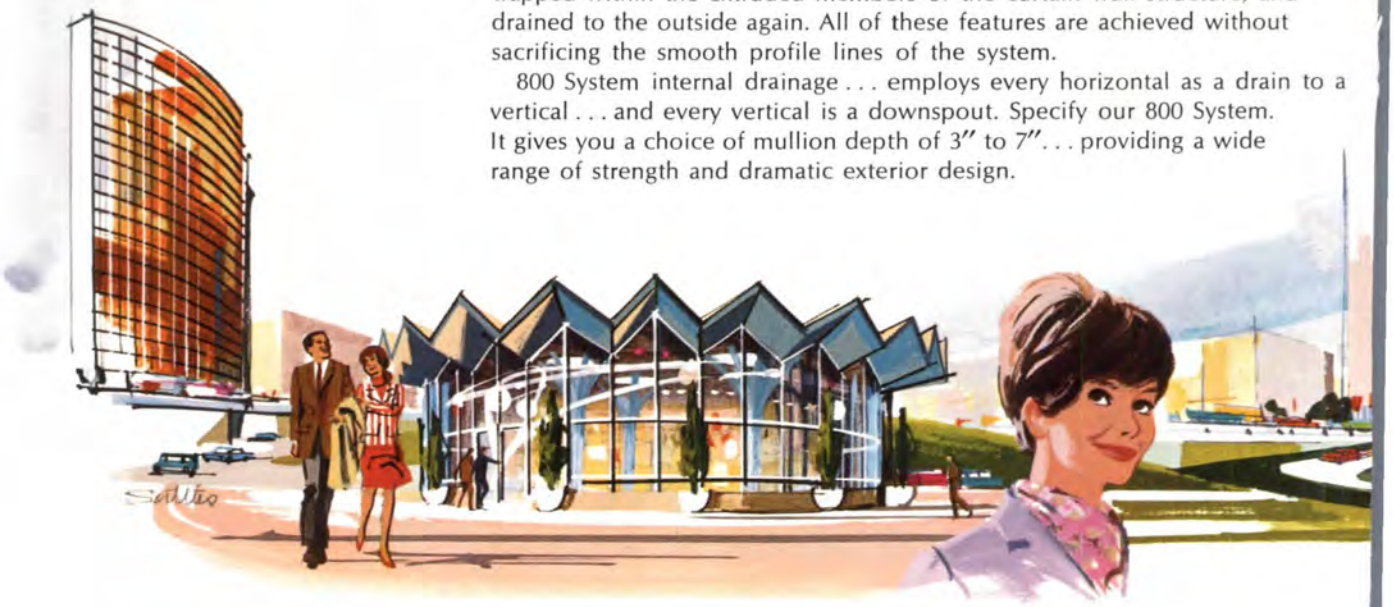


Amarlite 800 System Curtain Wall is Architect-designed to keep buildings dry...

Every fabrication precaution has been taken to keep water outside of Amarlite 800 System walls.

However, if moisture should penetrate this seal, it is automatically trapped within the extruded members of the curtain wall structure, and drained to the outside again. All of these features are achieved without sacrificing the smooth profile lines of the system.

800 System internal drainage . . . employs every horizontal as a drain to a vertical . . . and every vertical is a downspout. Specify our 800 System. It gives you a choice of mullion depth of 3″ to 7″. . . providing a wide range of strength and dramatic exterior design.



Next time you set your mind to dreaming... think of Amarlite Curtain Walls!

Here, you'll find a team of aluminum manufacturing professionals who can turn architect's dreams into realities! So, create what you will . . . we can build it! We can deliver! ▪ We'll work with you on any size job . . . an industrial, commercial or monumental custom concept! And, if one of our many tested and versatile standard systems won't fill the bill . . . we have the plant and test facilities — one of the largest and most modern on earth — to create the job you want! And remember, we'll deliver on time and provide on-the-job supervision by our own engineers to make your job go fast and easy!

marlite 808 . . . is a heavy duty flush glazed version of the 800 System.

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We make it all, and more . . . and we price it competitively . . . so, the next time you set your mind to dreaming . . . think of us.

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With its roots firmly planted in American heritage, American Butternut has long been a paneling favorite with discerning architects of virtually every persuasion. Even a momentary glance at its elegantly graceful grain inspires the creative eye to search out design possibilities for this quietly beautiful masterwork of nature. To the restless imagination of the architect who seeks beauty within function, freedom within structure, American Butternut becomes an affirmation of creative form.

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precast concrete panels

...in color

Precast concrete panels can be any color—or combination of colors—that suits the function of a building, the climate, or the aesthetic requirements of the job. You can have:

1. One over-all color by simply adding pigment to the Trinity White Portland Cement mix.
2. The sparkling effect of an exposed *colored* aggregate in a *white* matrix.
3. The uniform color of *matching* aggregate and matrix.

In addition to the variety of colors available, there are unlimited textures that can be achieved by varying the size, type, and depth of exposure of aggregates. Texture affects color by the way it receives light and shadow.

In all cases, Trinity White Portland Cement protects the purity of the color simply because white accepts the color best.

Trinity White was used in the spandrels of the two new Residence Halls of the University of Wisconsin. Texture and color was added with a buff quartz aggregate. Vertical accents were achieved by using fins colored with dark red and black flint gravel.

Trinity White
PORTLAND CEMENT

CREDITS: *Panel Manufacturer:* Badger Concrete Company, Oshkosh, Wis. *Architects:* J. & G. Daverman Company, Grand Rapids, Mich. *General Contractors:* J. L. Simmons Company, Inc., Chicago; J. P. Cullen & Son, Inc., Janesville, Wis.

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On Readers' Service Card, circle No. 428

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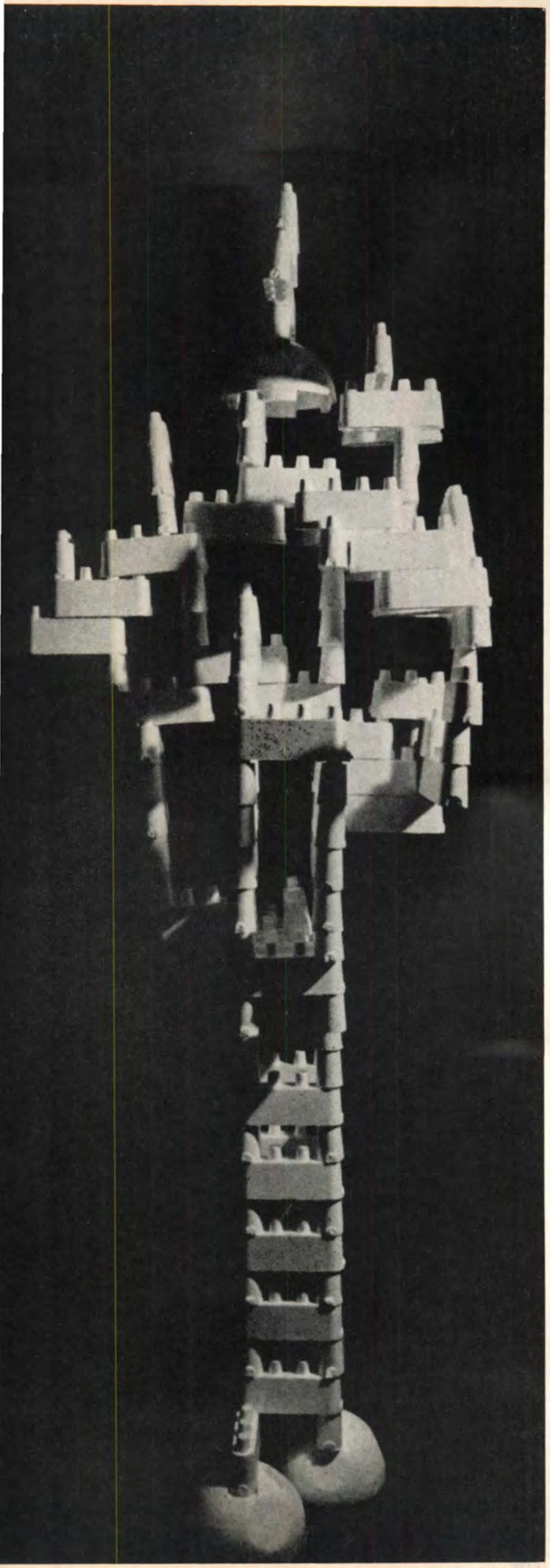
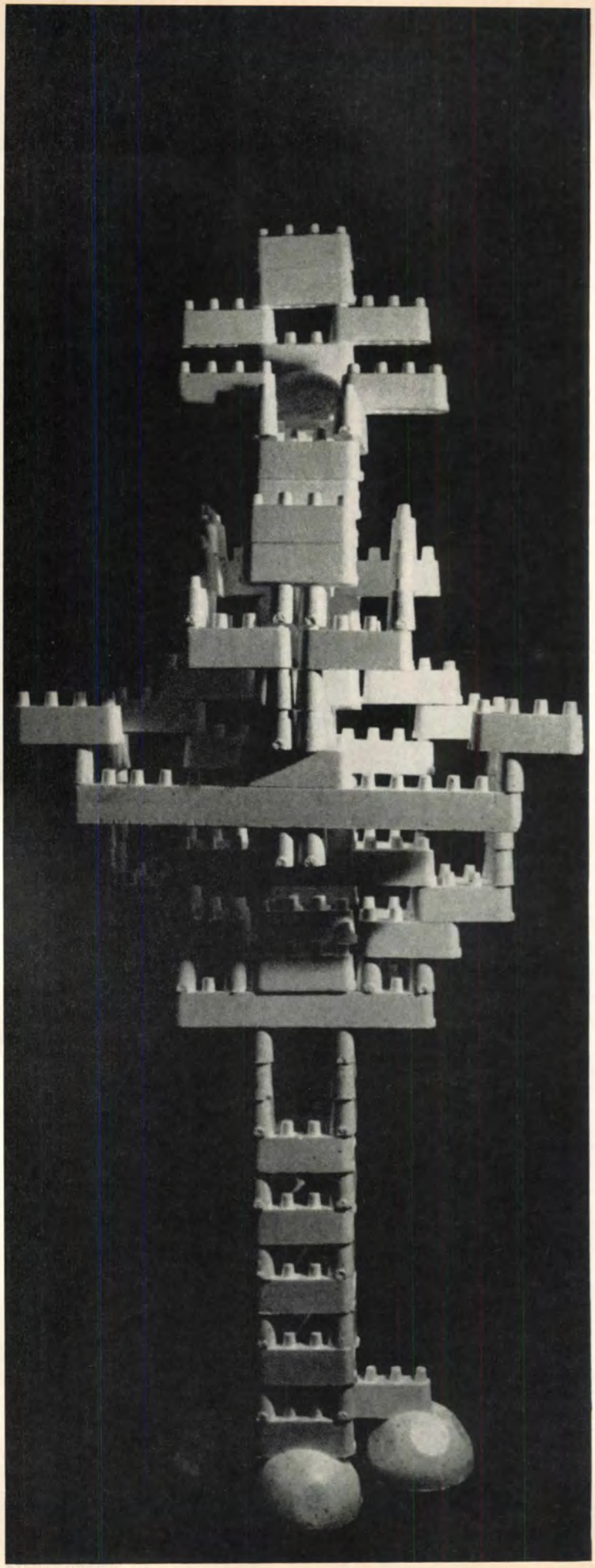
"We ran into the peculiar dilemma of city building in America; and that is, that, although it is the biggest single industry in America, there are no big corporations engaged in it as a main *business. Alcoa has a redevelopment business, but Alcoa is not primarily in this business. There are no Alcoa's or G.E.'s or U.S. Steel's in the city building business. They are all little companies."*

JAMES ROUSE





EDITORIAL

Can jurors be impartial? This question is on my mind right now because I am experiencing a prolonged sit-in most of us who live in Manhattan face every two years or so. Although architectural juries are not required to declare anybody's guilt or innocence, they do pass judgments that bear some resemblance to verdicts reached in a court of law. And since, as an involuntary guest of the Supreme Court of the State of New York, I was listening to the lengthy jury selection proceedings, it occurred to me that if the same methods of selection were applied to architectural juries, none could ever be formed.

If one were to follow procedures used in the courts, then an architect submitting a project would be represented by a lawyer empowered to interview the prospective jurors. Since this is not quite practical, someone would have to fulfill this function by acting as a collective attorney. And so, while the interminable days in the jury room dragged on, I had a reverie about such an imaginary encounter. It went something like this:

Do you disagree with any of the laws of delight?: "Yes, indeed. Only too often, delight is a cover-up for a weak concept, sugar-coating of a mediocre solution. I have nothing against delight as such, but the laws of delight say that delight makes a building good, and non-delight makes a building bad. This I cannot accept. And, in any case, one man's delight is another man's poison." [The juror is challenged because he is not able to judge all the delightful submissions.]

Do you consider bricks to be a valid architectural material?: "Urbanistically speaking, bricks do not make any sense. They are acceptable only when they are stacked up high enough to pioneer a new aesthetic break-through; when they are jumbo-size and thus become a significant urban prototype; or when they are laid in an intricate pattern and demonstrate the irony of labor." [The juror is challenged because he does not understand the nature of materials.]

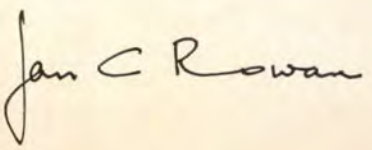
Do you believe in single houses?: "Certainly not. They are socially desirable. I live in one and my social life is completely ruined; all this maintenance leaves no time for anything else. Come to think of it, I used to design houses for years when my office was small, but all the time I was hoping for bigger jobs. Wouldn't *you* hate them? [The juror is challenged because of emotional instability.]

Are you able to judge urban design?: "I cannot judge urban design unless I spend months analyzing the problem. Even then I would not be able to reach a verdict, because nobody knows the correct solution to today's urban ills. This is, of course, the fault of architectural magazines, which constantly muddy the waters in their search for novelty." [The juror is challenged because of an antagonistic attitude.]

Do you know any of the architects and/or consultants who might be connected with the projects submitted?: "I know hundreds of them and take a dim view of most. It would be interesting to find out what their latest abortions look like." [The juror is challenged because of a vindictive nature.]

In fact, are you in any way whatsoever associated with the defendant, the art of architecture, or do you have any strong opinions about him?: "Of course! I am an architect." [The juror is challenged because of his prejudicial relation to the case; so are all other potential jurors, architects and even non-architects.]

Although jurors in the courts of law have that bland, noncommittal look attorneys seem to like so much, there is much hidden behind the mask. We are all full of prejudices built up over the years, the result of our upbringing, our education, our work, and all our other life experiences. Whatever their answers are, all one can hope for is that jurors will try to be as objective as is humanly possible. Even so, guilty men have often gone free and innocent ones were hung on the scaffold. In our imperfect world, there are no perfect jurors —only jurors who are as perfect as they know how to be. ▪



TRANSLATING THE ROOT FORM FOR TODAY'S CAMPUS

With current interest in campus planning so high, P/A investigates three contemporary versions of a seminal form of this genre in England. These buildings act as paradigms to prove that imaginative use by contemporary "neo-Brutalist" architects of a viable tradition can produce distinguished architecture. P/A's commentary on the Cambridge buildings is based on a report from Nathan Silver, a New York architect now Visiting Lecturer and Design Critic at Cambridge University, whose book on urban conservation, Lost New York, will be published this fall.

"Surely our best chance of maintaining a high standard of building lies in going about it in the way that is most natural for us. To imitate antique styles because we are building in a University town or Cathedral city is an insult to the very architecture we hold in such respect." J. M. RICHARDS, An Introduction to Modern Architecture

In the United States, the design and planning of individual buildings and groups of buildings for colleges and universities —even entire new campuses—has occupied the minds of more and more architects in recent years. Some of their solutions— the Stiles and Morse Colleges by Saarinen at Yale, for example —have been based on traditional forms. Others, some of the California new schools for instance, have tended to become more spread out and gimmicky. In England, where the tie to continuity of basic forms has been stronger, the contemporary translation of these forms has come to contain instructive meanings for Americans involved in campus work today. Three of the most notable of the recent college buildings in Britain are examined here.

The most striking element of the English collegiate plan is the courtyard pattern. At Cambridge, many of the old colleges had evolved around courts for reasons of social grouping and because they furnished a principle of growth; new elements could easily be added to the chain over the years. St. John's College at Cambridge, for example, provides architectural specimens from every century since the sixteenth, along an axial development of three courts. However, it is the courtyards and not the styles which "read," relating parts as dissimilar as the chapel, dining hall, and residential sections.

Aside from the courtyard system, the collegiate plan had a second organizing principle. At Cambridge, scholars were said to live on "staircases" in their colleges: Smith or Jones lived on Staircase F or M. This was the result of the staircase access system to the upper levels. Each side of the courtyard has vertical circulation at two or three points. Traditionally, there were no interior corridors, just landings and vestibules, and most rooms therefore got daylight from both sides. A set of service rooms is located at the landing. The staircase then formed the core of a small social group within the complex: scholars above and perhaps a Fellow's residence below; the larger community of scholars was embraced visually by the continuity of the courtyard. Architecturally, the staircase plan allowed units of different floor heights to be built side by side. Socially, it made the courtyard provide access to the various stairways, and by having people cut diagonally across the court to a number of stairs, the whole rectangle was animated, in a manner quite different from the movement under the arcades of a monastic cloister.

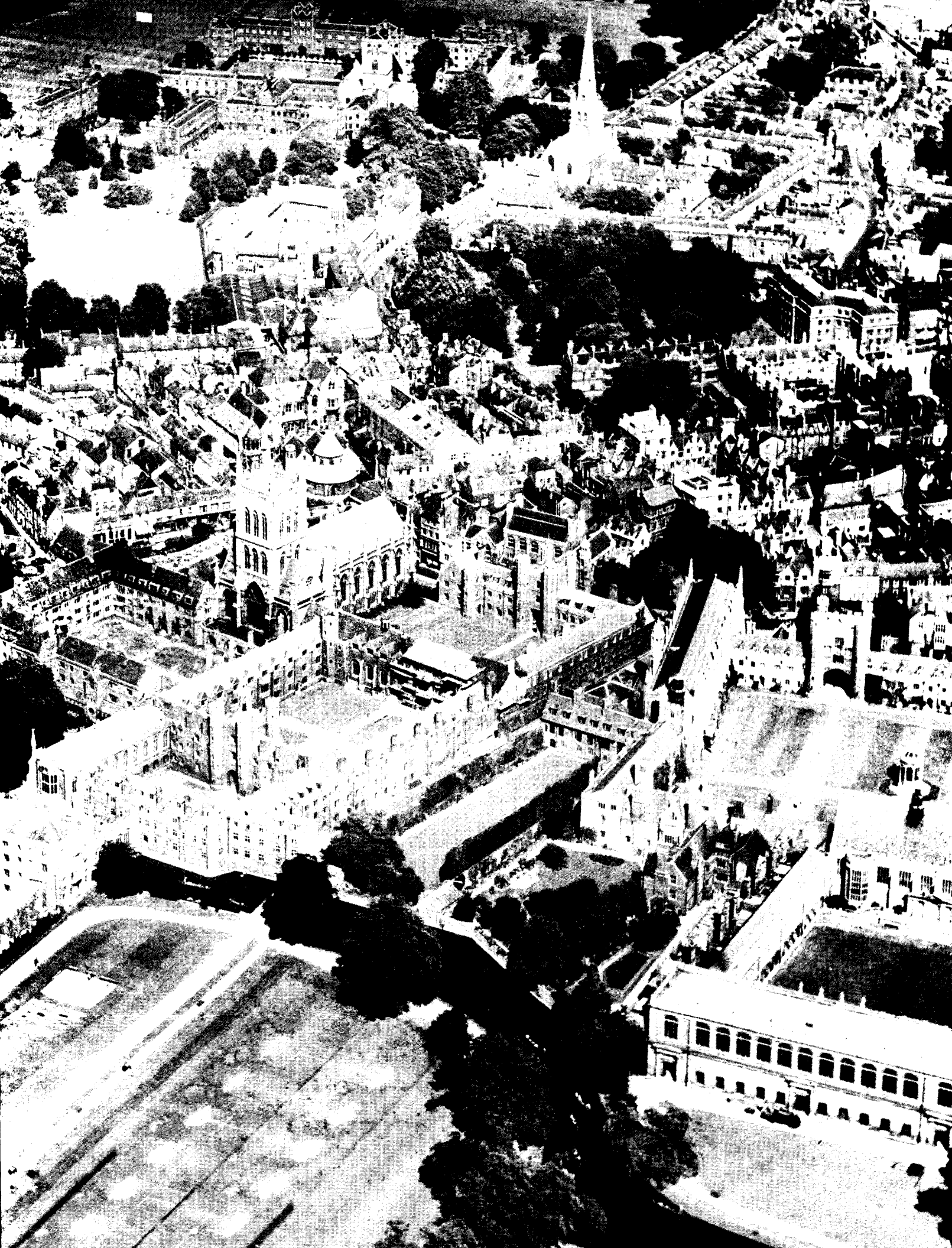
The court-and-staircase tradition has received respectful but varying contemporary treatments in three buildings completed in recent years. Investigations by the architect have allowed reduction of the multiplicity of individual staircases while retaining the very individualistic sense of "house" so strong at Cambridge in Harvey Court at Gonville and Caius College. A new way of circulation in the mold of the traditional concept was found, as it were—a singularly appropriate fact for a building named after the discoverer of the circulation of the blood.

Also at Cambridge, a severely restricted site near the Engineering School on the Backs (the greenbelt between the backs of the old colleges along the high street and the River Cam) has dictated a more high-rise solution for the William Stone Residence of Peterhouse.

The new building at Chichester Theological College, while not part of one of the great universities, is as notable a version of the court and staircase plan as the two variants at Cambridge. It is more monastic in treatment, but the use of its exterior space has the same horizontal and diagonal traffic patterns as older colleges. Access vertically is constrained to smaller "experiences" of stairway and truncated corridor, as was the case in older colleges.

These buildings certainly indicate that British architects designing university residential buildings, in what some call a "neo-Brutalist" idiom, are operating within a wonderfully viable tradition, one that, given the sensitive and individualistic interpretations illustrated here, can continue to produce the wealth of meaningfully atmospheric space for scholars it has provided since the first court of Corpus Christi took form at Cambridge in 1350.

PHOTO: HUNTING SURVEYS, INC.



1. ORDER COUNTS MORE THAN STYLE

With a few space-saving exceptions and modern variations, the basic plan for a new college nucleus at Cambridge follows the old courtyard formation.

Harvey Court, Gonville and Caius College, Cambridge University, England.
Architects: Sir Leslie Martin in association with Colin St. John Wilson; assistant architect, Patrick Hodgkinson, Cambridge.

Although Harvey Court and the William Stone Residence at Cambridge seem to exemplify the "neo-Brutalist" style, the architects themselves were more concerned with preserving a traditional building type—the college court—rather than participating in the latest architectural fashion. Both Sir Leslie Martin and Colin St. John Wilson, the architects, were grounded in a theoretical rather than a

indeed, it is through them that a culture can be defined."

To both architects, the court and staircase plan at Cambridge was the basic order of the community—the core of its formal and social organization. The courtyard system was dominant over the centuries, and it unified and subordinated transitory styles: the various convolutions of British Gothic—Lancet, geometric curvilinear, rectilinear, etc.; and diverse stages of the Renaissance, Elizabethan, Stuart, etc.

Harvey Court, built in 1962, was to provide living quarters for 100 students. Since this residence was to be located at some distance from the parent college, it was to be self-sufficient with a dining hall and common room; architecturally, it had to hold its own in a relatively isolated spot and function as a nucleus for a new college development. Finally, it was to follow the broad outlines of the traditional college plan, but not without certain space-saving modifications and adaptations. First, the common room and service areas are located below the courtyard, and the yard itself becomes a plinth, surrounded on all sides by residences. Instead of rising vertically, however, the surrounding façades are terraced back from the court, and one side turns its back on the yard and opens its terraces onto a garden to the south. This outward-facing wing is the link for another court to be built in the future.

A significant divergence from the traditional plan is in the handling of the vertical staircase pattern. Instead of having several staircases leading directly upward from doorways on the court, the entrances from the square cut through the building to the outside perimeter, where an ambulatory circumscribes the structure. From this ambulatory, staircases branch upward and outward like trees, and, somewhat like Aalto's building at MIT, unite several levels on a diagonal line. The branching form is so efficient that only about half the usual number of flights are needed to serve the upper rooms.

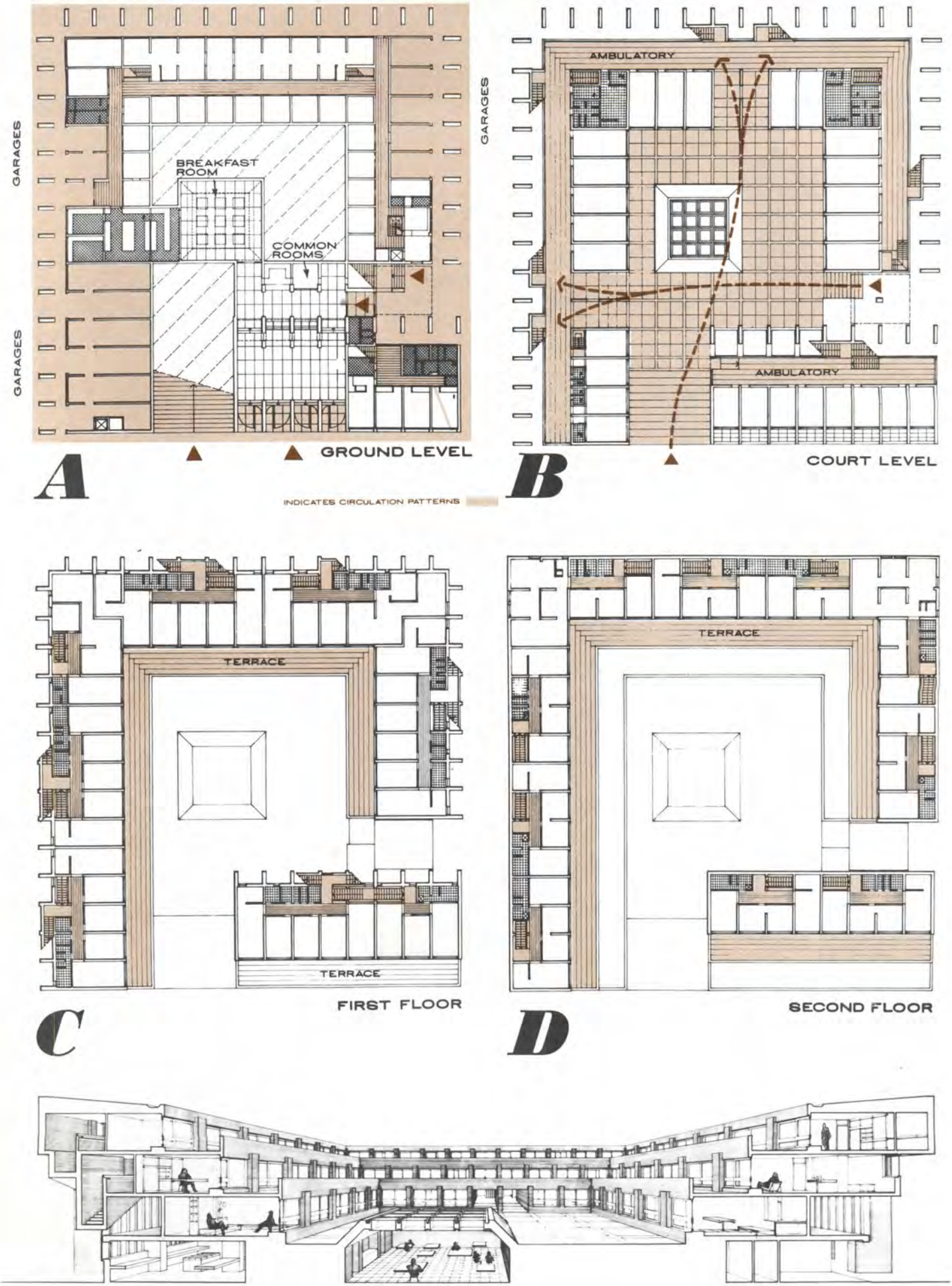

GARAGES
GARAGES
BREAKFAST ROOM
COMMON ROOMS
GROUND LEVEL
A
INDICATES CIRCULATION PATTERNS
GARAGES
AMBULATORY
AMBULATORY
COURT LEVEL
B
TERRACE
TERRACE
FIRST FLOOR
C
TERRACE
SECOND FLOOR
D

PHOTO 1, 2, 3, 4: JOHN DONAT

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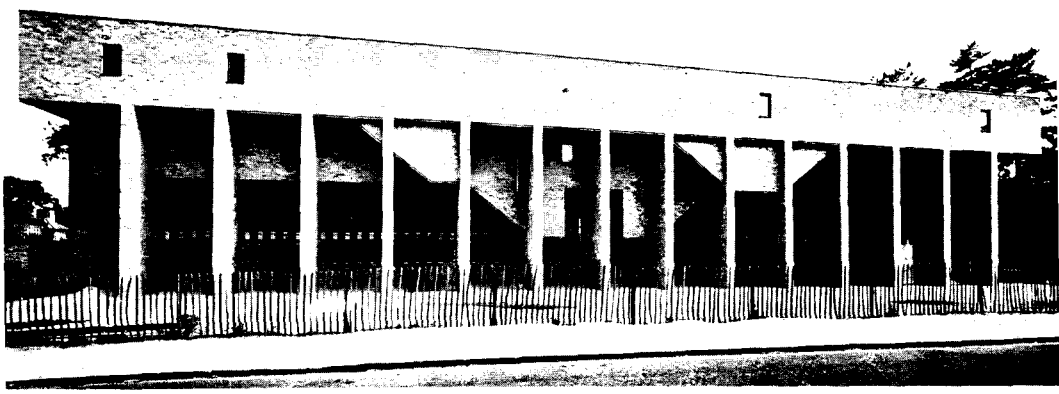

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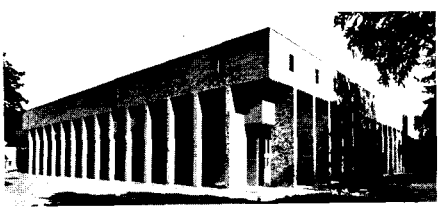

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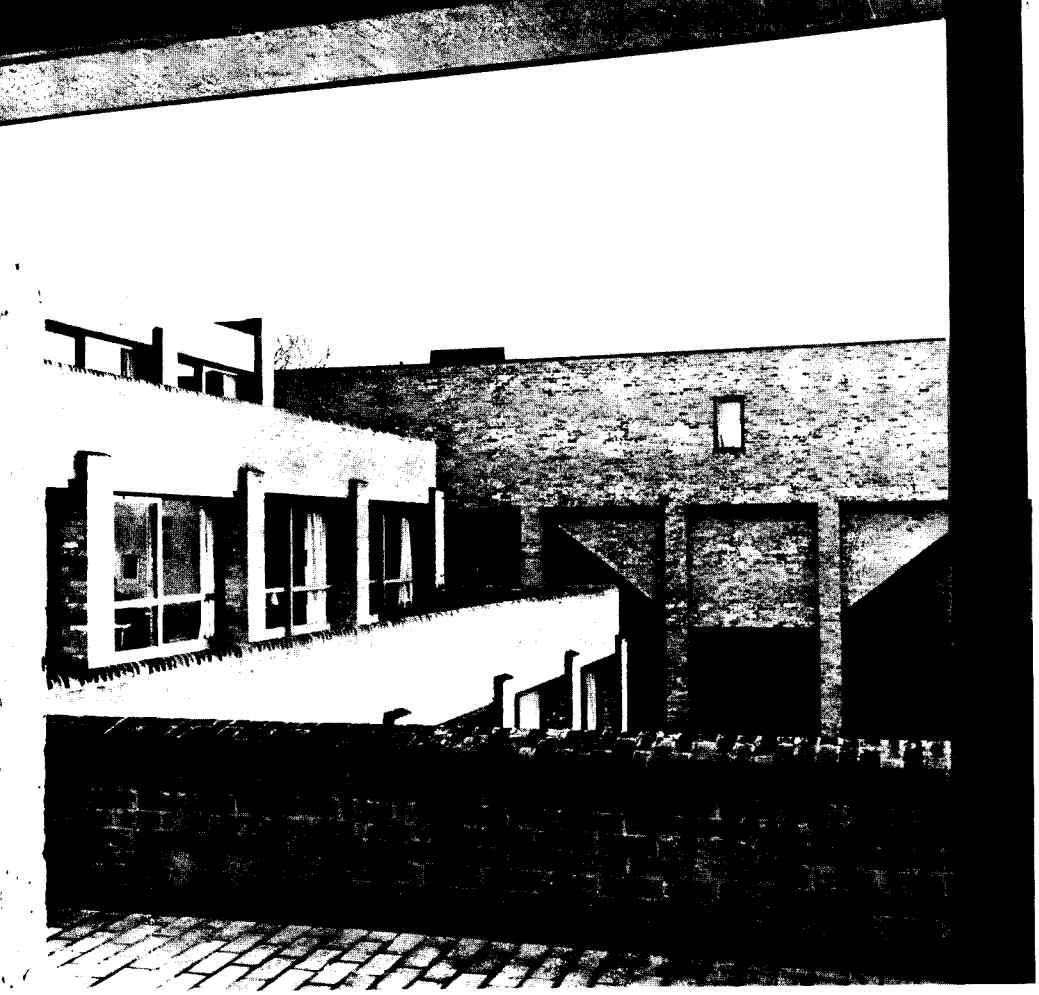
PHOTO: NATHAN SILVER

Canopy over east entry ***(1)*** *shelters staircase leading to courtyard and doors to common rooms at left in photo. View from the entrance* ***(2)****, past the porter's room, extends through exterior ambulatory showing detached brick piers that support upper levels. In north elevation* ***(3)****, setbacks and branching staircase read clearly. Fellow's suites, situated at corners of the building* ***(4)****, project slightly under the top cornice and visually tie the adjoining elevations together. Interior court* ***(5)*** *centers around plinth, which protects skylights for the breakfast room below.*



PHOTOS 1, 3, 4, 6, AND FACING PAGE: NATHAN SILVER

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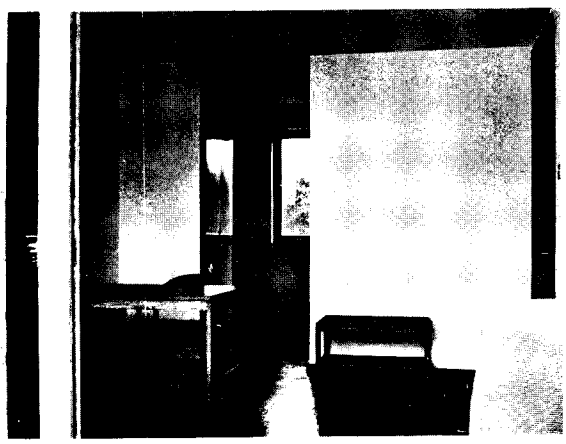
Another short circuit of the traditional circulation plan is by way of the horizontal thoroughfares of the terraces. Instead of each individual having a private space partitioned off from the others, the terraces run clear around the sides, providing ever-expandable party areas, as well as unobstructed horizontal passageways on each level. These turn out to enrich the circulation scheme immeasurably.

One of the major design aims of the architects was to show that a deliberately restricted palette of materials was not a limitation but a freedom. Brick is used throughout, both as facing and as load-bearing material. Unlike the construction of many recent English buildings, even concrete lintels and wood frames are hidden or subdued. A certain amount of a second material, vertical wood siding, appears on the outside only in conjunction with the window walls of the ambulatory. There was apparently some temptation at an early stage to handle the diagonal stairway elements in another material. But a great deal of the rightness and strength of the forms comes from the decision to use brick alone.



PHOTOS 2, 5: JOHN DONAT

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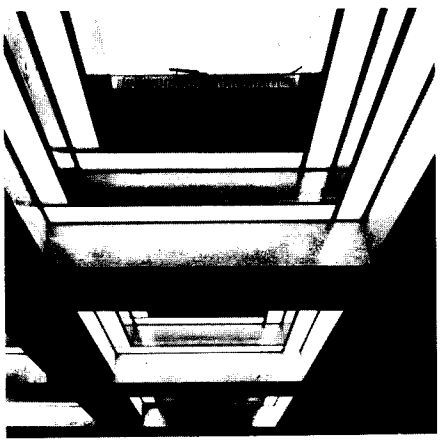

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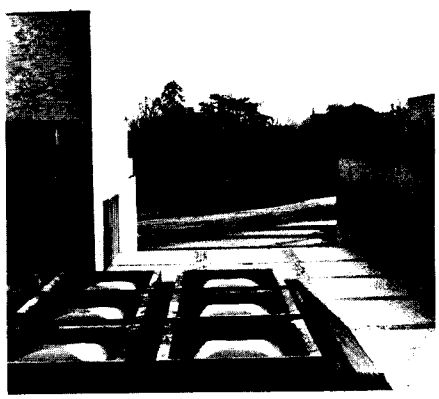

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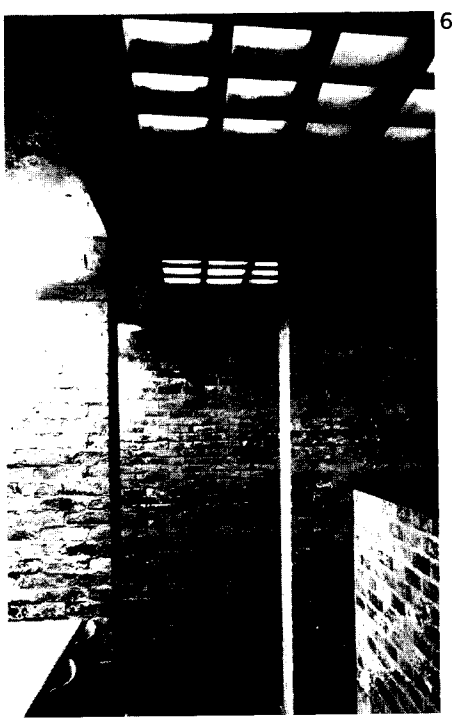

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Continuous terrace ***(1)*** *runs around three sides of court; south wing turns its back on complex. Typical study room with bedroom at rear* ***(2)****. Skylight detail* ***(3)*** *of breakfast room: plastic dome at center, fluorescent lighting strips at two levels in coffers below. Exterior view of skylights* ***(4)****: stair landing at second level with built-in seat* ***(5)****. Below courtyard level, breakfast room* ***(6)*** *is unadorned with plain brick surfaces.*

Facing page: Forms are bold, simple, and contribute to deceptive appearance of monumentality. The building's deceptive scale is apparent when the terraces are lined with people; balcony windows especially appear small and low.

2. COLLEGE TOWER: NEW FORM FOR OLD SPATIAL RELATIONS

How does a lone high-rise tower fit into the conventional courtyard plan? According to our observer, Nathan Silver, the "radical" new form carries with it the attitudes, social customs, and spatial relations of the old college quadrangle; it is a radical in disguise.

William Stone Residence, Peterhouse, Cambridge, England. Architects: Sir Leslie Martin, Colin St. John Wilson, Cambridge.

The Peterhouse block is the first elevator-access collegiate residence in Cambridge. Its appearance is as massive as Harvey Court, although it is of course considerably smaller. The requirement was for housing for far fewer people: about 24 undergraduates and suites for 8 Fellows. The site was right on the Backs, hemmed in by the massive Engineering School to the south. After some preliminary tries at a low-rise configuration of rooms in echelon, following the line of the river to the west, the building suddenly and rather literally found its place in the sun: as a high-rise building, turned like a leaf stalk to the daylight. The eight-story structure occupies as little ground space as possible and the parklike landscape is preserved.

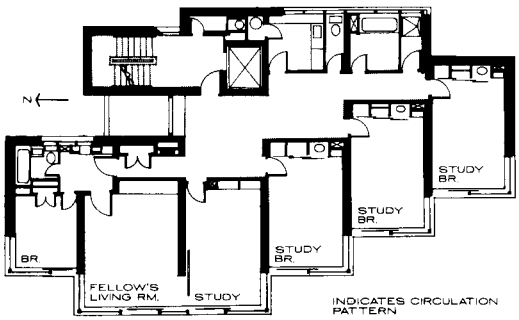
Although a high-rise tower seems to bear no resemblance to the collegiate plan, similar spatial relationships are maintained. Here it is a garden, bounded by a wall, shrubs, trees, and the river, which becomes the courtyard. In the tower itself, the single vertical access system is retained and the small number of inhabitants are still clustered around the "gyp rooms" (self-service kitchens). Each floor accommodates three undergraduate study bedrooms and one Fellow's suite.

Like Harvey Court, this is a loadbearing brick structure. There is enormous power in the confident modeling of its brick planes, which grow immeasurably in force by not being combined with other facing materials. An ingenious system of polished metal vertical fins preserves the privacy of the rooms in the echelon.

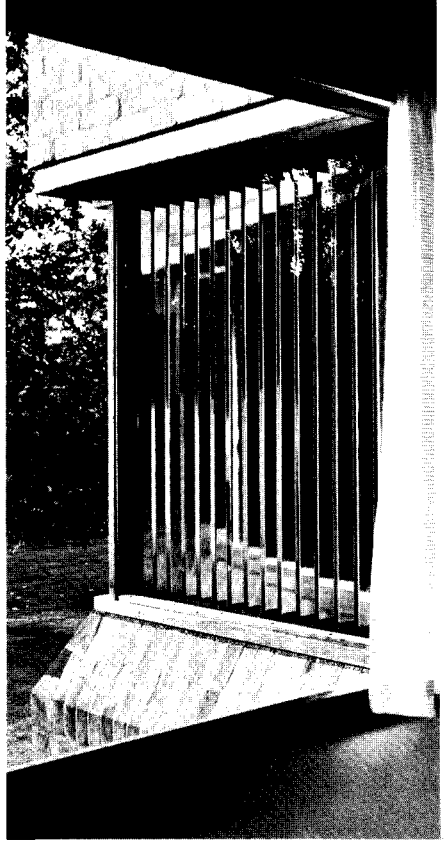
The residence has been criticized, in a purely formalistic sense, for being too squat, or not soaring enough, or at any rate appearing to be as broad as it is high. It is rather difficult to see the broad side of the building in any viewing sequence that begins in the middle distance. One compelling vista—from a car crossing a causeway alongside the Backs—reveals it as an element against other buildings, no more. There are, however, subtle but compelling relationships between the structure and the surrounding buildings that add up to masterful siting. Such minor touches as an abrupt grass rise at the foot of the building add incalculably to its presence. On foot, one suddenly arrives at it close-up. Walking around, the zigzag brick window spandrels move past each other at varying speeds, aligning and unaligning, like a visual perception demonstration of relative movement. The building seems far more significant in motion than it does in still photographs. But, even abstractly considered, one tends to conclude that the manipulation of building forms was never the most important factor in the design, but that it was the idea—the extension of the collegiate plan—which was the most compelling architectural consideration.

PHOTO: COURTESY, UNIVERSITY OF CAMBRIDGE

SITE PLAN



TYPICAL FLOOR PLAN



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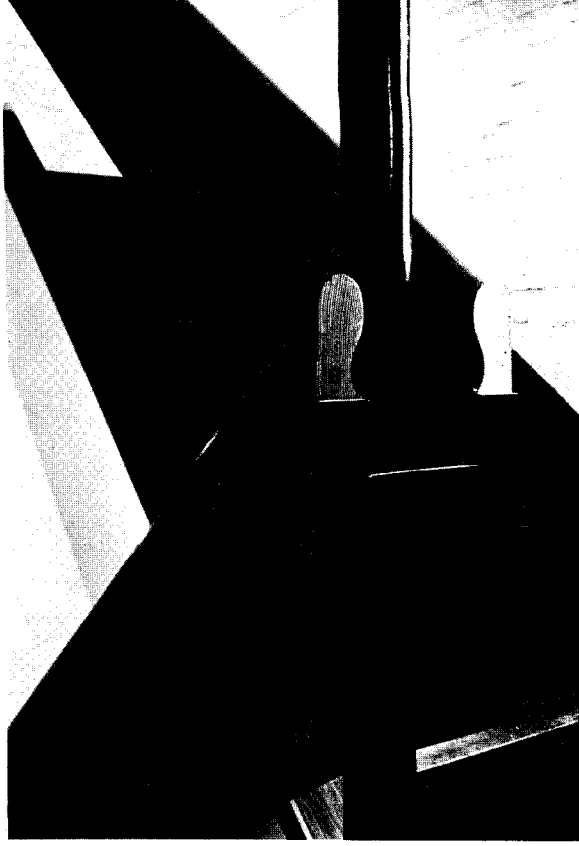

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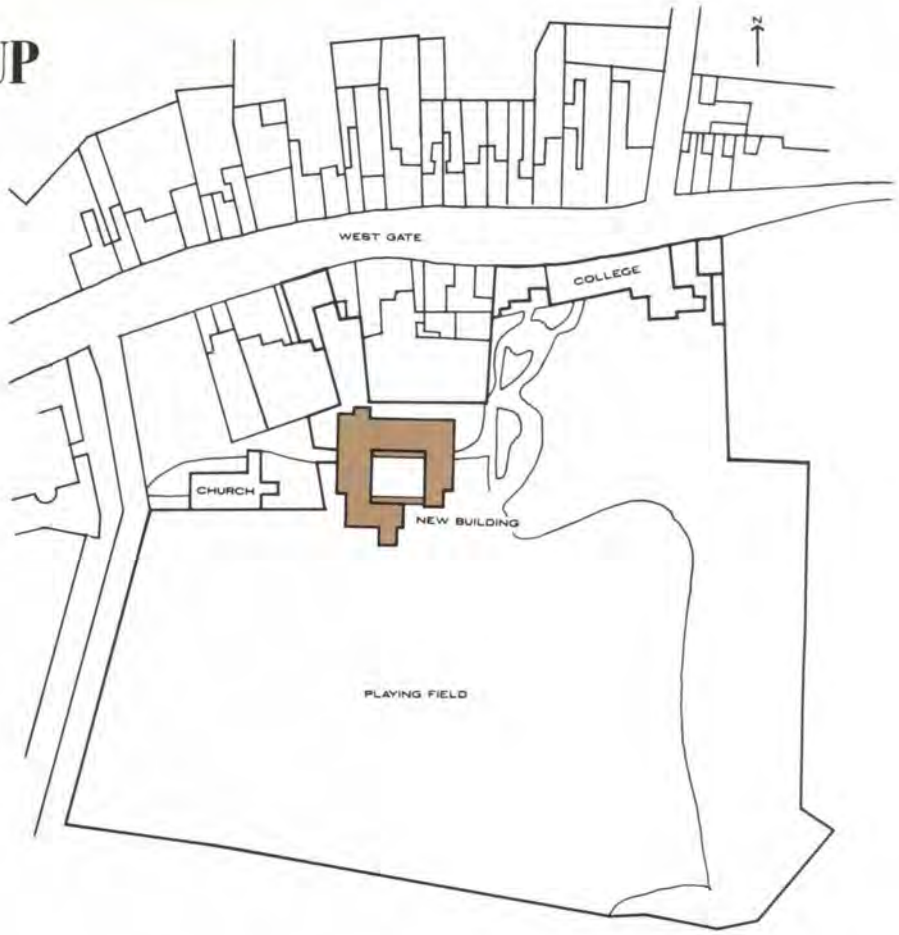
PHOTOS, EXCEPT AS NOTED: BRECHT-EINZIG

6

Metal louvers in side windows ***(1)*** *direct views away from adjoining rooms and out into countryside. New version (or no-version) of the newel post* ***(2)****. Cluster* ***(3)*** *of residential rooms on upper floors. Fellow's living room* ***(4)*** *and study* ***(5)*** *beyond. The eastern elevation* ***(6)****—like any self-respecting member of an in group—turns its back on the buildings that don't belong to the courtyard system. Facing page: detail of western façade.*

3. THE DETAILS ADD UP

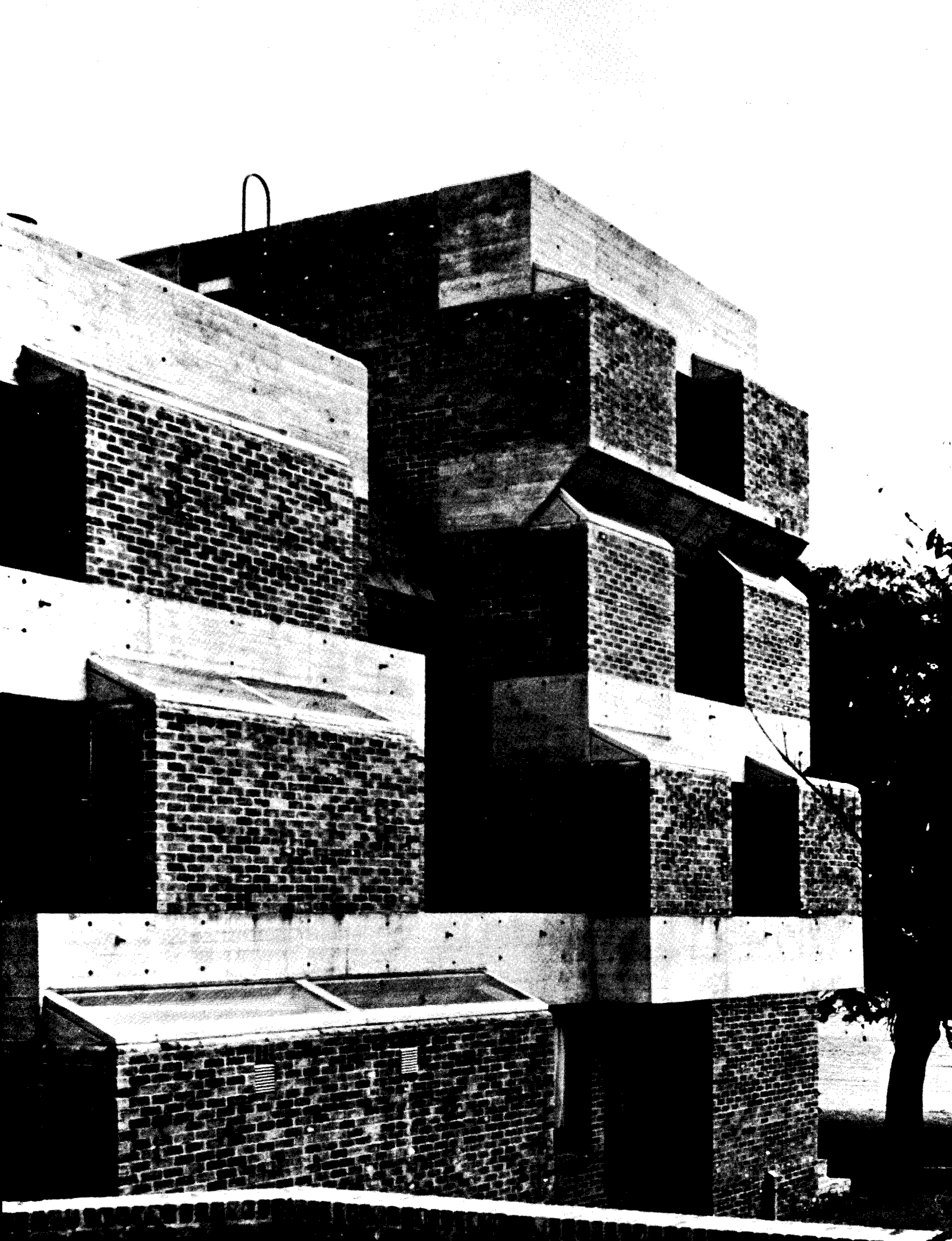


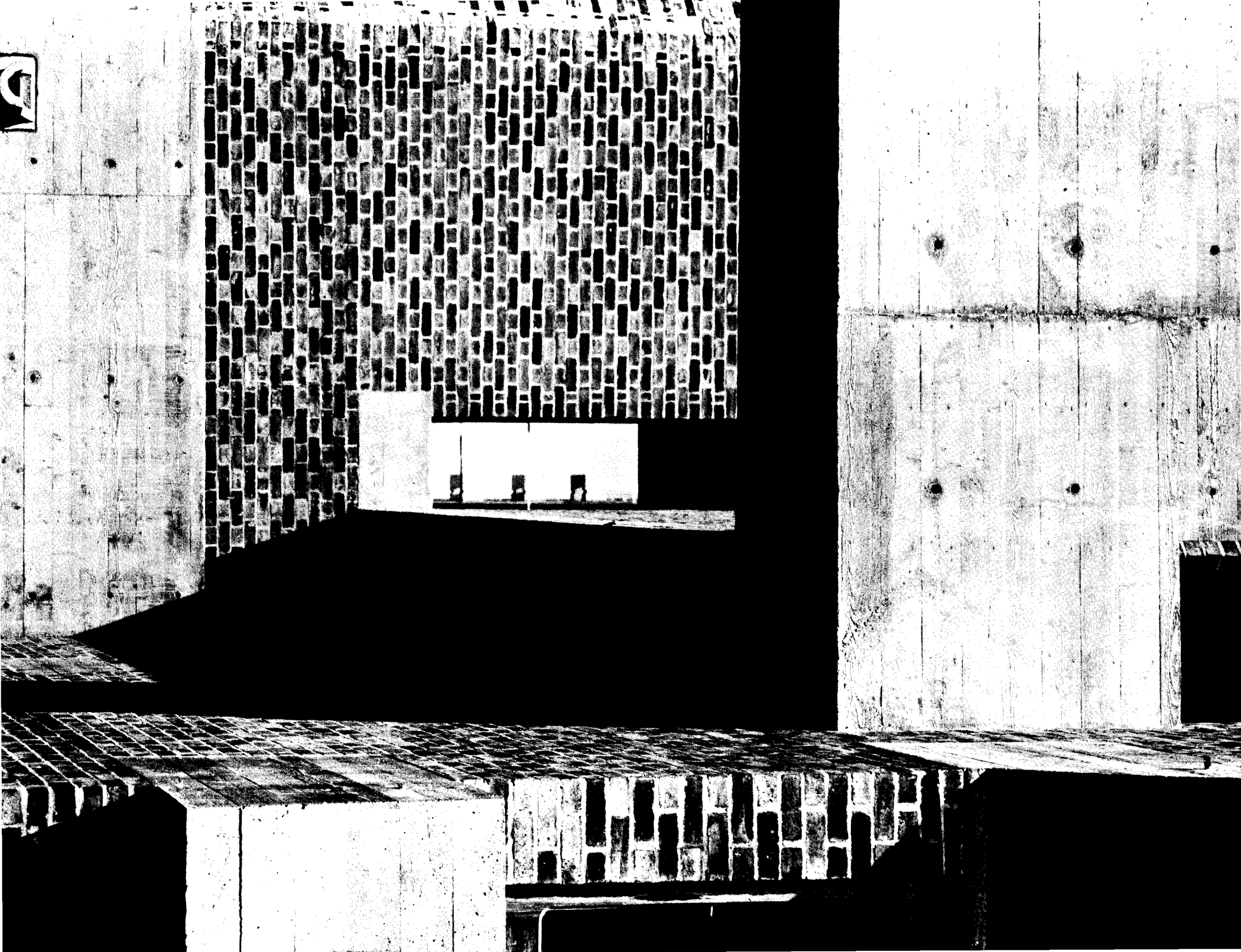
Loving attention to materials, details, and appropriate sequence of spaces has caused a small complex to become immediately an integral part of its older surroundings.

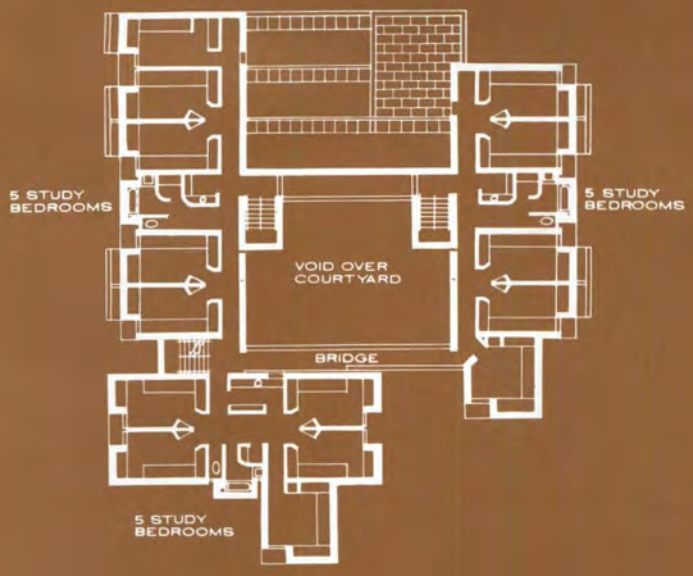
New Building, Chichester Theological College, Chichester, Sussex, England. Architects: Ahrends, Burton & Koralek, London.

The new building at Chichester Theological College furnishes 35 study-bedrooms, four staff flats, library, lecture room, and five service areas in 12,000 sq ft. The structure has bound together the existing school; formerly, it was necessary to use the public roads to go from one part of the college to another. With this building, "the College has now achieved a unity of place and all interelemental circulation takes place inside the College grounds," the architect states. Moreover, the building will act as a visual and pedestrian link between the existing school and the church (see site plan). Those enviable concomitants of English school life—interesting views and nearby playing fields—add to the charm of the site.

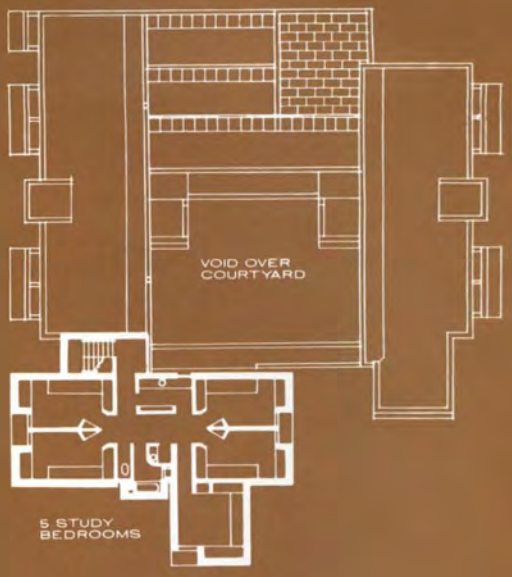
The essential part of the design here was the stepping back of each floor to create a pedestrian courtyard and toplights on the outside over the study-bedrooms. The latter rooms are on the perimeter of the building, each with a window for sun and a glimpse of view in addition to the toplight over the study area. They are grouped around service areas including a gyp room open to the short corridor on the staircase. The architect considers this a sort of social node of the common landings. Vertical movement has been treated in the traditional manner of English schools: "They connect one potential experience with another," the architect comments—in other words, the larger and more public space of the courtyard with the corridors and gyp rooms. In addition, further potentialities are created by the connection of the corridors with the linkage of outside bridges. The architect feels that these bridges can be used for sunbathing and theatrical functions. The entire court area, for that matter, was designed so that it could be covered with a removable canvas marquee on special occasions. In the future, a chapel will open directly onto one of the corridors for Mass and private prayer.



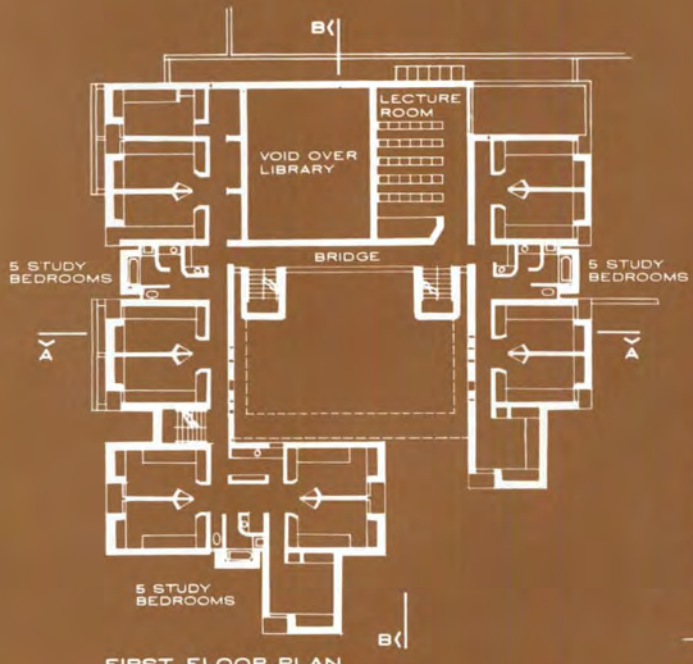




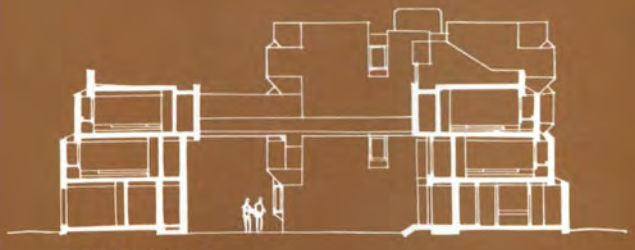
SECOND FLOOR PLAN



THIRD FLOOR PLAN

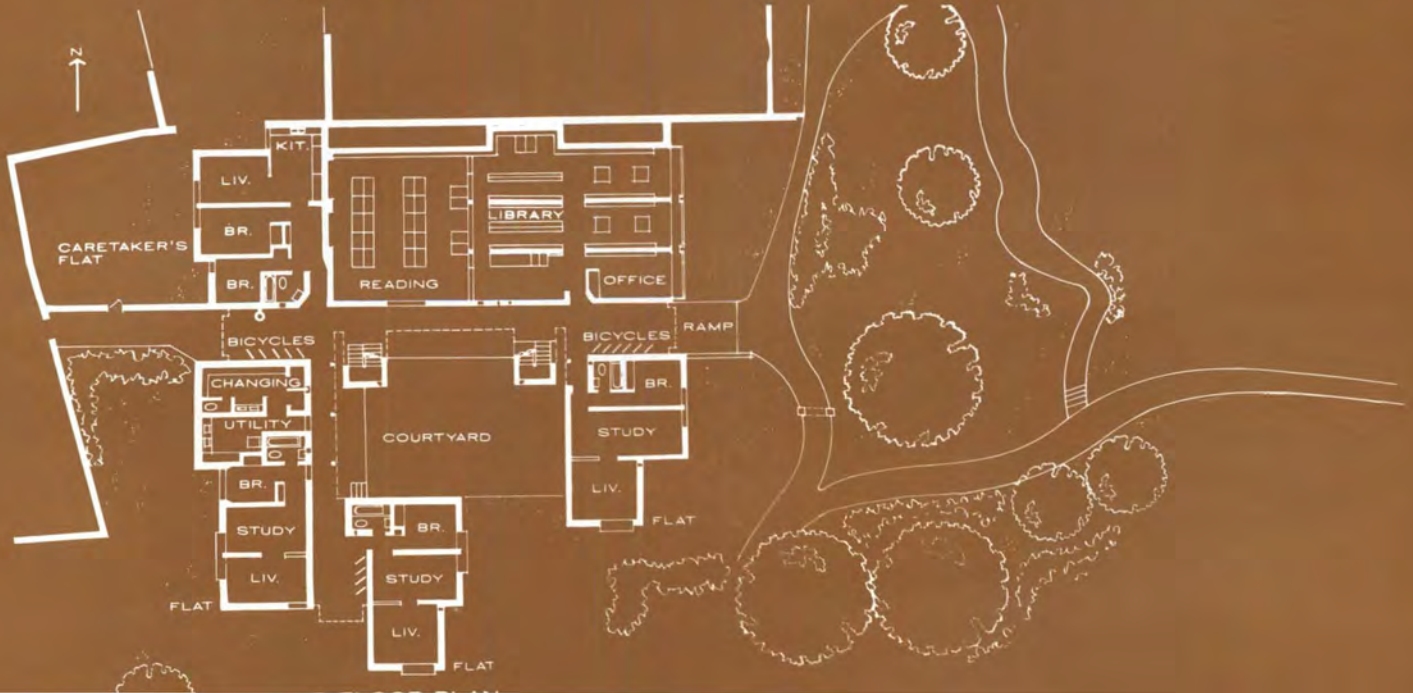


FIRST FLOOR PLAN



SECTION A·A

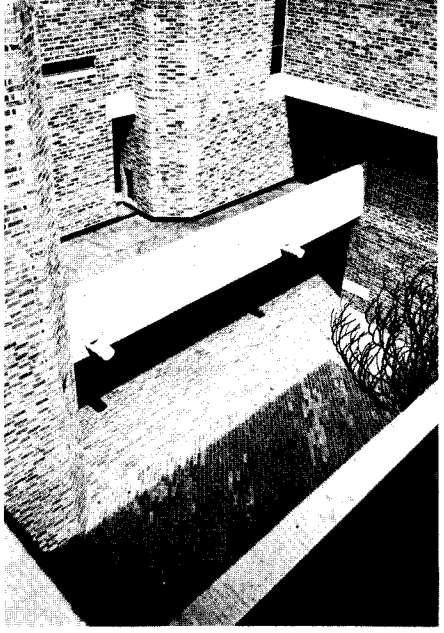
SECTION B·B



The use of toplight in the building has led to a privacy and openness in the rooms and the library, and, because of the stepped profile of the building, a strong but not gymnastic building elevation. In the study bedrooms, the toplight washes the wall behind the desk, leaving plenty of room for bookshelves and student paraphernalia, but, as the architect remarks, gives "an undefinable sense of freedom to the space like that experienced in rooms at the top of buildings." The adjacent window satisfies the psychological need for looking out. The library's principal natural lighting is from above, through 6-ft-high structural baffles that have been used to reflect and soften the direct rays of the sun.

Furniture is built-in wherever possible, creating a snug, shipshape feeling. Everything except the chairs and wastebaskets in the study-bedrooms is built-in; variation is achieved by providing a divan-mattress that can be changed into different positions, making possible different arrangements of the room.

Structure is loadbearing, 6-in. concrete-block crosswalks, with reinforced concrete floors and a timber joist roof. External cavity walls are faced local brick or reinforced concrete with an inner skin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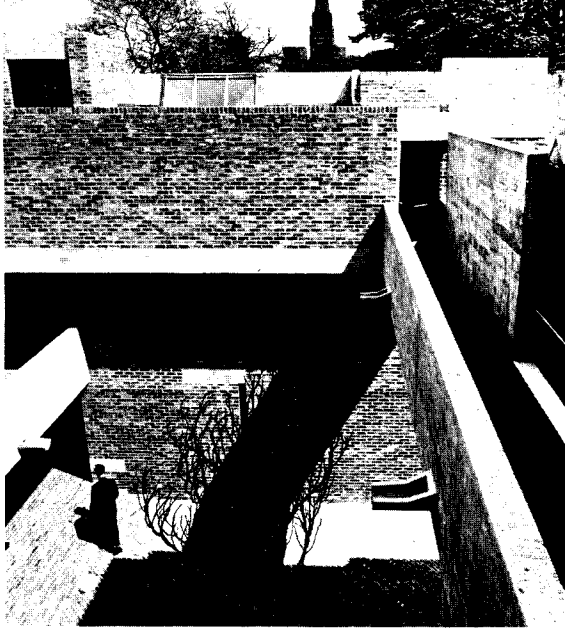
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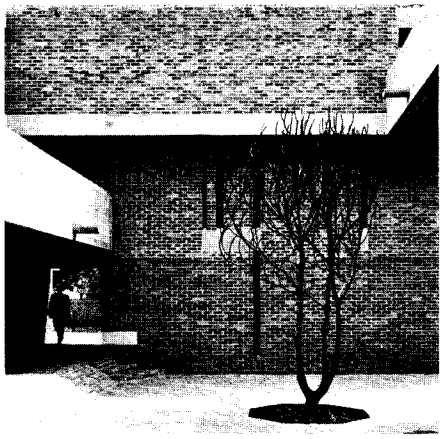
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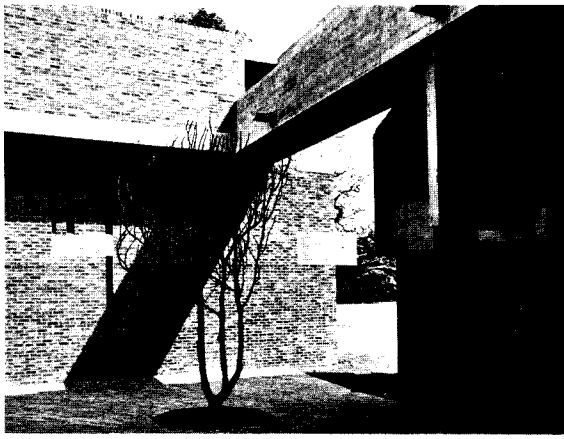
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PHOTOS: JOHN DONAT

Attention to brick and concrete details is seen in ***(1)*** *downspouts, which cause water to become coursing part of movement pattern;* ***(2)*** *diagonal pattern of court floor, giving sense of movement across space;* ***(3)*** *slit windows, allowing just enough horizontal light into library and meeting room;* ***(4)*** *interconnecting bridges, which can be used for outdoor theatricals, sunbathing;* ***(5)*** *"pull" of entranceway under low element to lighter, more open areas beyond.*

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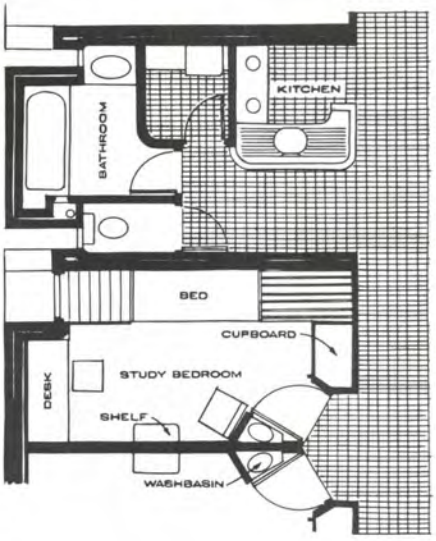
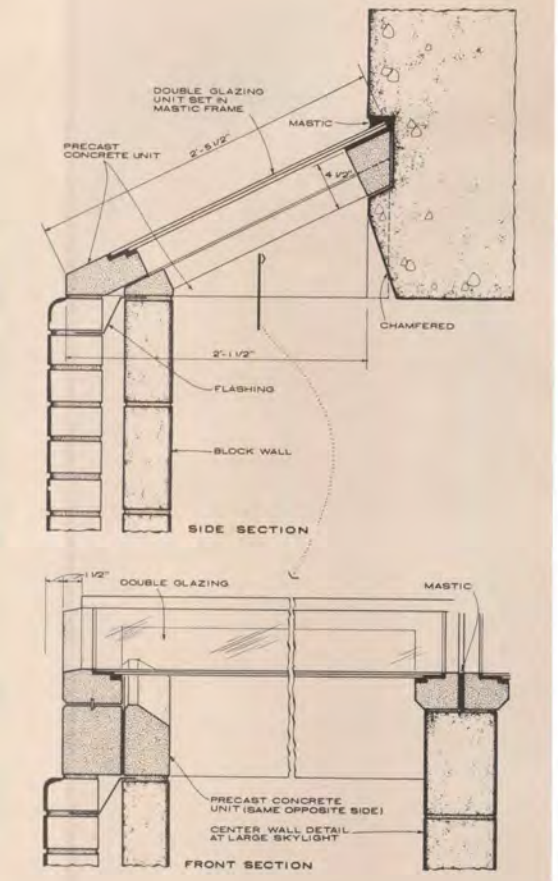


Study-bedrooms have view window plus toplight over desk ***(1)****. Detail* ***(2)*** *shows toplight arrangement. Other end of room contains built-in wardrobe, wash basin* ***(3)****. The library* ***(4)*** *is toplit through deep structural baffles. Social nodes of short hallways occur around gyp rooms* ***(5)****. Balconies and bridgeways* ***(6)*** *afford outdoor social areas.*



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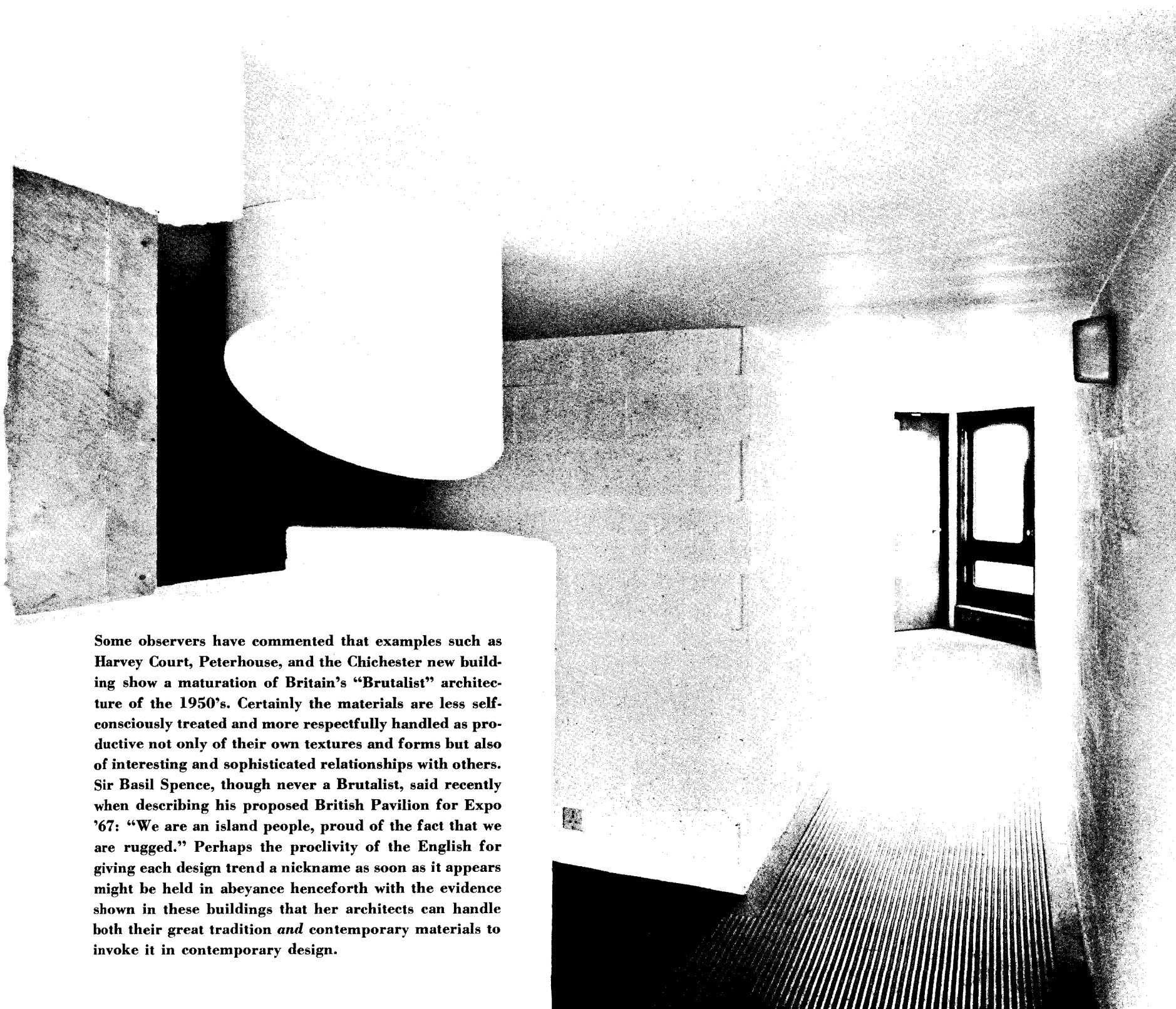
of concrete block. Cavity is foam-plastic-filled and window frames are stained softwood. Concrete toplights are double-glazed. Interior finishes are simple: ceilings are plastered and painted white; walls are blockwork painted white; doors are painted orange, blue, or yellow; joinery is either left natural or stained. Ceiling of the library is timber-lined.

It is pleasant to see a theological college observe Mies's dictum about details. The loving care given to both exterior and interior detailing at Chichester goes far toward making the building the success it is: the honest meeting of brick and concrete at beams, downspouts, and bridges; the subtle changes in pattern in the courtyard to achieve a sense of movement and direction; the thoroughly effective toplight above the desks; the humane touch of using wood to soften the library ceiling—all of these bespeak an integrity of design and execution that make this soft-spoken statement ring much truer than all the chestier campus planning pronouncements we have been hearing in recent years.

—JTB



Some observers have commented that examples such as Harvey Court, Peterhouse, and the Chichester new building show a maturation of Britain's "Brutalist" architecture of the 1950's. Certainly the materials are less self-consciously treated and more respectfully handled as productive not only of their own textures and forms but also of interesting and sophisticated relationships with others. Sir Basil Spence, though never a Brutalist, said recently when describing his proposed British Pavilion for Expo '67: "We are an island people, proud of the fact that we are rugged." Perhaps the proclivity of the English for giving each design trend a nickname as soon as it appears might be held in abeyance henceforth with the evidence shown in these buildings that her architects can handle both their great tradition *and* contemporary materials to invoke it in contemporary design.

THE LIBRARY–MUSEUM AT LINCOLN CENTER

How many times has the wrong color number on an order slip materially affected, or even ruined, a design? Yet how many times have the right initial decisions so governed a building through completion that even ungodly final details have been absorbed by the solid planning and personal vision of a strong initial concept?

The Library-Museum of the Performing Arts at New York's Lincoln Center—a forcefully simple exterior concept with a contrastingly complex interior arrangement—is a classic example of the values of early decisions. For, when Gordon Bunshaft, designer of the $8,100,000 Library-Museum, and Eero Saarinen, designer of the Beaumont Theater, evaluated the inadequate sites allocated for their separate buildings, they determined that, if they combined the two into a single structure, they could produce a work of architecture for which the site would be adequate.

The result of that design collaboration (between Eero Saarinen Associates and Skidmore, Owings & Merrill, New York, as Associated Architects) is a strong, temple-like pavilion sheltered by a faceless, overhanging attic, which is supported on pin-connected columns **(2). It is the most serene and most uncompromisingly modern gem at Lincoln Center.**

However, whereas Saarinen progressed to develop the interior theater facility into an imaginative new form (perhaps because of his knowledgeable clients and collaborating designer Jo Mielziner; see NOVEMBER 1965 P/A), Bunshaft seems to have been content to refine the exterior; for he has produced no new concept so forceful for the Library-Museum interior.

"There isn't much of a story in the interiors of this library," Bunshaft notes. "It is a series of rooms for function—nice, neat, business-like spaces for flexibility. Fortunately, they were spaces that could wrap around and make a feasible building for a theater and library."

Yet the Library-Museum, which comprises a reference department, a lending library, and a museum, all devoted to subjects related to the performing arts, is **a unique combination of functions,** and it is puzzling that what might have become a distinct new *type* of educational-research building—a facility to barrage knowledge with an implosion of electric

P/A: Mr. Bunshaft, don't you think the workings of a library are interesting?

GB: To somebody trying to build a library, it might be.

P/A: Shouldn't P/A discuss the Library-Museum for the Performing Arts in those terms then?

GB: It wouldn't interest me.

P/A: That's because now you know how to build one.

GB: Not necessarily. I think any library, like any building, is working with the people who are going to use it—and an architect. I don't think there's any great mystery to doing a library, or anything else. . . . You keep educating the owner, and you get educated. And pretty soon he has respect for you and you have respect for him. And the end result is something that is not stupid in either of your minds. It might be to other people, but at least to those two minds it's not stupid.

P/A: How do you satisfy the requirements of all the different people who use the building?

GB: I think when you come down to making the ideal building for all these various people, the main word that comes ringing through is "flexibility."

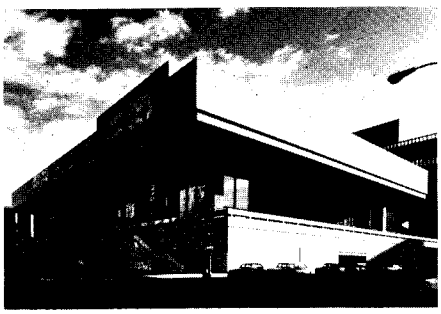
1

perceptual devices as well as with books—seems to be an ambiguous interspersing, or else an expedient juggling to squeeze the facilities for the multitude of users and activities into the established package.

The Research Library

Not all of the library facilities exhibit this questionable ambiguity, however. What is unmistakably clear in planning is the research library—the separate, scholar-oriented reference collections on theater **(1)**, music, and dance—that gave the impetus to the initial collaborative scheme.

These three research collections, which form the lifeblood of this educational heart of Lincoln Center, are the most important of their kind in the country, second only to those at the Library of Congress. The Music Division **(4, 5)** contains over 100,000 musical scores and critical and historical volumes. The Theater Collection **(1)** comprises a vast quantity of plays, photographs, clippings, designs, promptbooks, and related materials. The 26,000-volume Dance Collection **(6)**, devoted to the literature and iconography of the dance, is unique. Also in the reference department are the Archives of Recorded Sound, the country's first major sound archives (more than 100,000 discs) open to the general public **(7, 8, 9)**.



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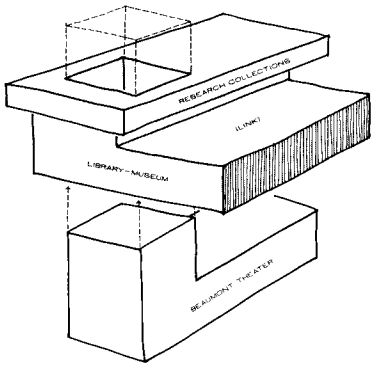

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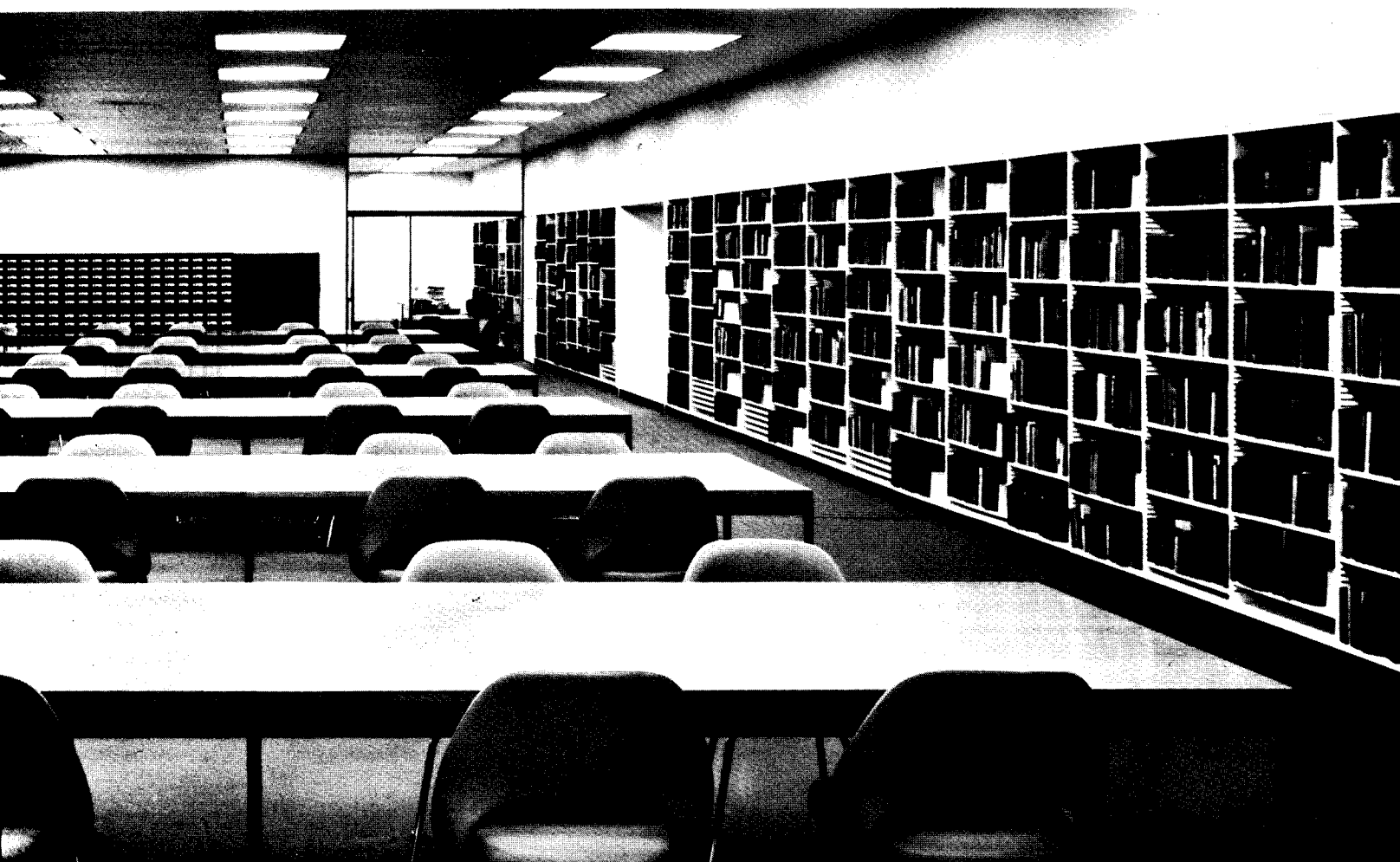
What the research library wanted, optimally, was 60,000 sq ft of closed-shelf space on one level and separate from the circulating library. The architects therefore located the three collections in an elevated, rectangular-plan doughnut that appears as the deep travertine fascia of the pavilion exterior (see isometric; **3**). **Depth of the fascia was a coincidence of the need to use 20-ft-high Vierendeels to span the 200-ft width of the floor; conveniently, the library spaces pass through these Vierendeels.**

One gains access to this floor via elevators behind the stagehouse of the Beaumont, which, incidentally, fills the hole in the doughnut that in today's libraries is customarily occupied by an interior court. Entry to the elevators is through a lobby on the Amsterdam Avenue side of the building, which also provides access to offices and to a 200-seat auditorium.

Thus the isolation required for the comparatively few scholars who will use the research facilities proved to be ideal both in terms of planning and separating circulation from the mass traffic in the lending library and in terms of achieving the "umbrella" aesthetic.

Paradoxically, what is most clear in terms of planning—this research floor—has come under most censure from architectural critics in terms of hu-



manistic environment. Since light control rather than natural light was deemed essential for the rare manuscripts, climate-controlled reading rooms that are windowless are at the center of the plan, with stack and storage space on the perimeter. (Bunshaft, who feels that the great traditional skylights of libraries would have been ineffectual here, would have liked, however, to provide garden courts that opened to the sky, if there had been room and budget available.) Yet the windowless scheme permits flexible use of the perimeter storage space by adjacent collections.

As far as interior finishes are concerned, the research floor exhibits the relatively reveal-less, spacer-less joints of the latest SOM style: clean, unarticulated white plaster envelopes dominate, with glass and aluminum partitions and lighting troffers punctuating them. White-enameled, open-shelf stacks (some wanted by the directors of their collections, some unwanted) are built into the walls of the reading rooms. **White oak furniture inspiredly updates the traditional mission oak we are accustomed to in libraries.** All furniture, of course, had to be cleared by the N.Y. Public Library and city purchasing authorities—with component difficulties.

Artificial lighting is by fluorescent tubes (requested by the library) in square troffers that have a surrounding air-conditioning vent, which is designed as a black reveal. Originally designed for SOM's Emhart Building, these now-standard troffers are unfortunately filled with tubes that are too blue, and have an anemic effect on the colors of the rooms. In time, however, they can be replaced with warm white tubes.

Critics have been merciless in their opinions of the principal color effect of the research floor: the light-orange vinyl chair upholstery combines with raspberry-red wool carpeting in a disturbing clash, and it is not even strong enough to produce a viable optical effect.

"It is there to cheer up the enclosed space," Gordon Bunshaft notes. "I don't mind it." Others find it merely too jazzy for sober study, or that it intensifies the effect of the windowless enclosure. Masses of people and book jackets somewhat dissipate that disaster, however, and for scholars used to the previously cramped and gloomy quarters of the music and theater collections, the new surroundings seem a dreamlike coral tower.

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RESEARCH COLLECTIONS

The Circulating Library and Museum

Less clear as far as planning is concerned, but much more "human" (as the phrase goes) in terms of "environments-for-people," are the intermingled Museum and Circulating Library. **These two functions are wrapped around two sides of the building: behind the stage-house of the Beaumont and in a two-story link between the theater and the Metropolitan Opera House** (see isometric; **3**).

The usual entrance to this facility for the general public is from the plaza level —past Alexander Calder's stabile "Le Guichet" ("The Box Office") **(10)**—directly into the metal-and-glass-walled link **(11, 12)**—that most curious architectural phenomenon, which is part library and part museum in its visible section **(13, 14, 15)**, and, in addition, houses a projecting transept of the opera house.

On the second story of this link is a children's library **(21)** with appropriately scaled furniture **(23)** and an auditorium called the Children's Oval **(24, 25)**, which was donated by the Hecksher Foundation. Overhead, the exposed roof structure alternates with tubular lighting and a ventilating ceiling **(22)**.

The dovetailing of the library and museum here, and on alternate floors on the Amsterdam Avenue side, is deceptively unapparent (although displays are, here and there, mixed with circulating books and recordings) yet it is somehow con-

RESEARCH COLLECTIONS

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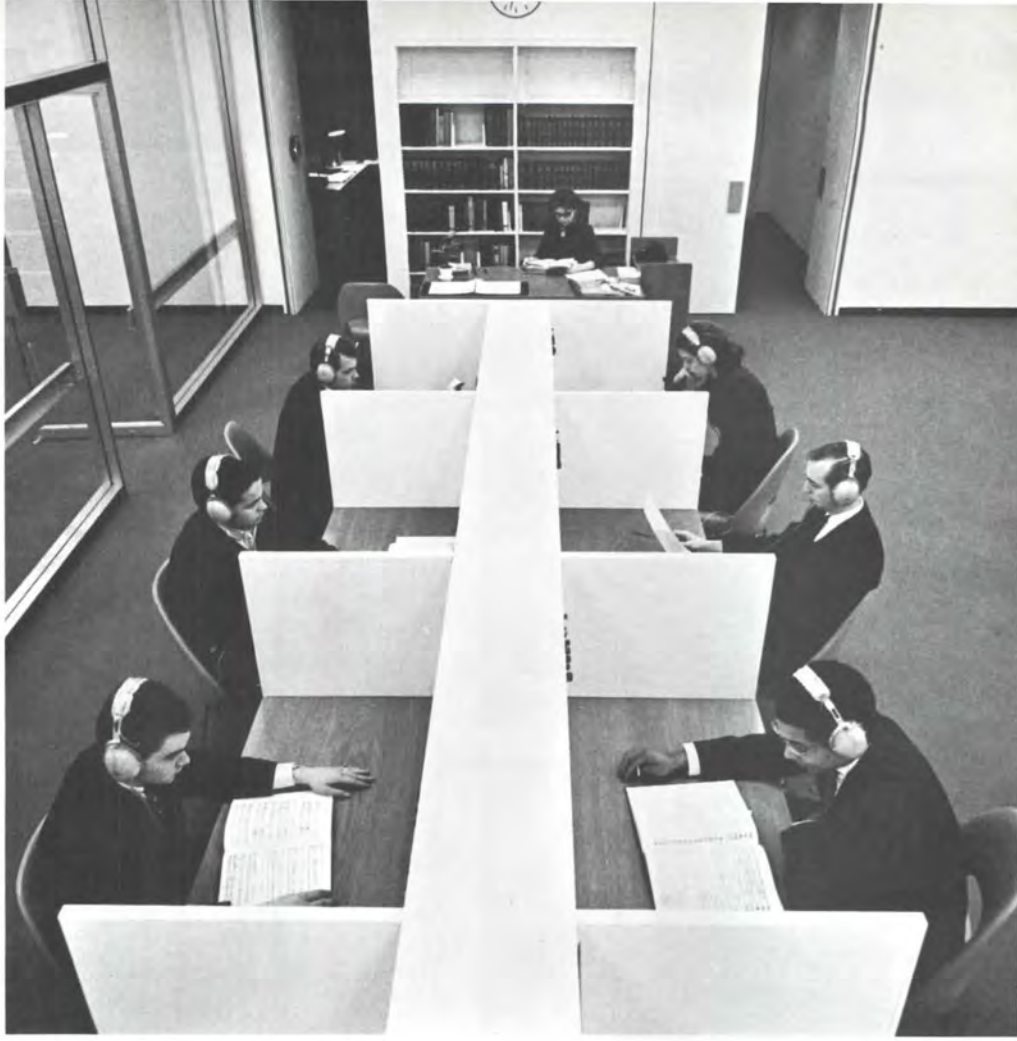

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MUSEUM AND CIRCULATING LIBRARY

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MUSEUM

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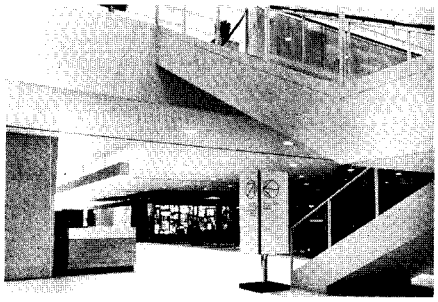

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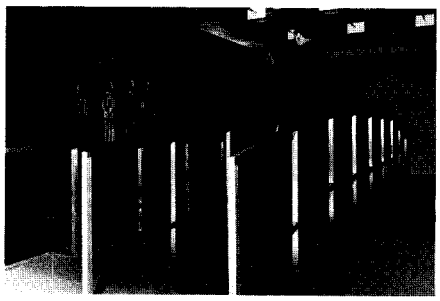

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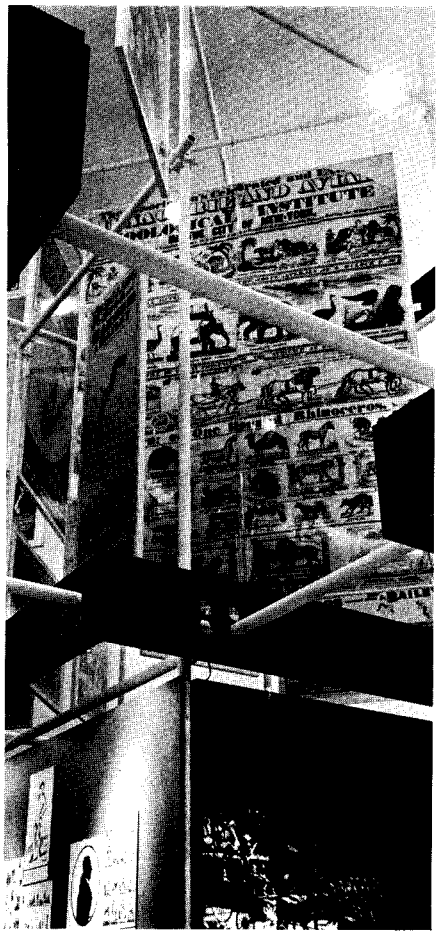

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THE CHILDREN'S LIBRARY AND OVAL

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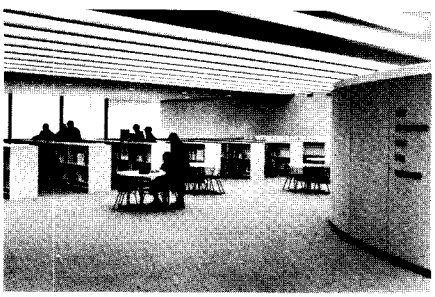

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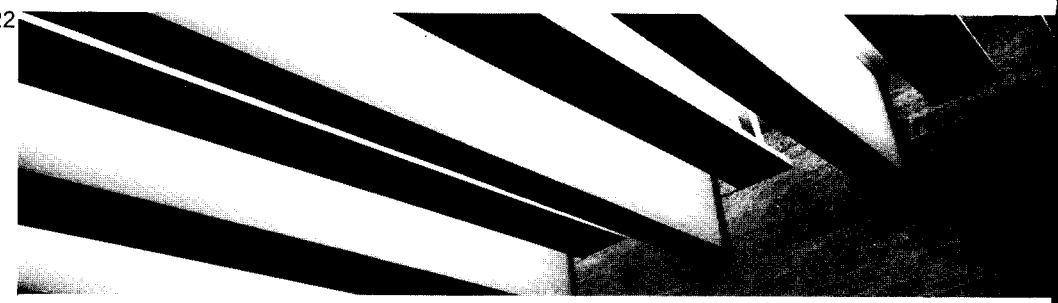

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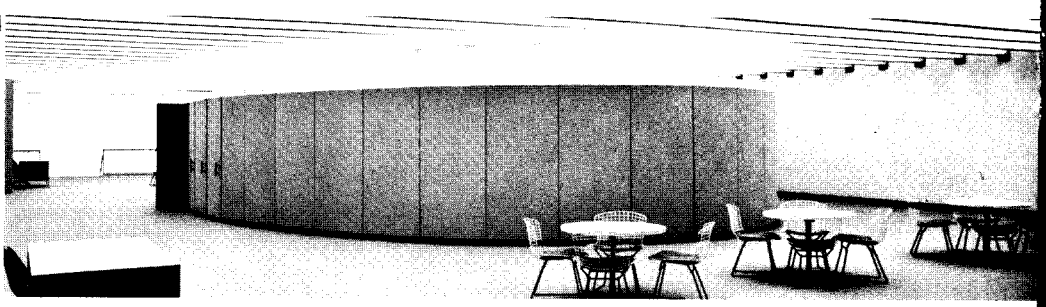

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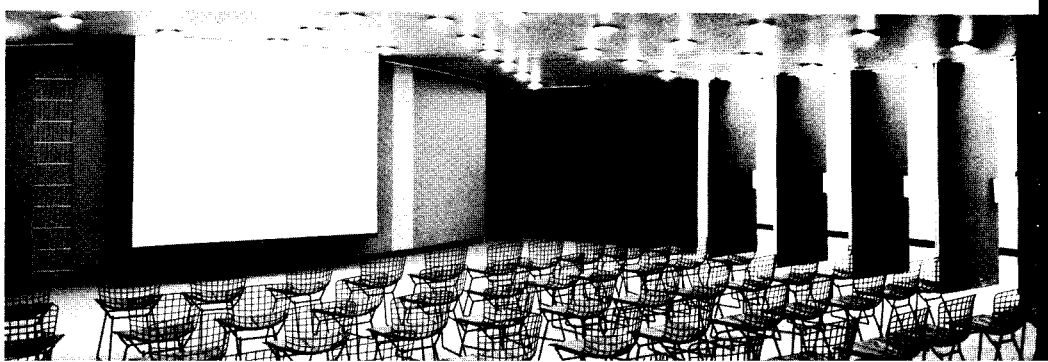


fusingly uncohesive. In this area, the architects' program was relatively open, the main concern being for flexibility.

What SOM provided for the Circulating Library and Museum, therefore, was a series of generally useful spaces, and, most ingeniously, a flexible display-and-bookstack system that can be used for exhibition of photographs and memorabilia (18, 31) as well as for storage of books (14). Displays themselves (including a sprightly circus exhibition installed on white-painted pipe scaffolding; **19, 20**) were subsequently designed by director Paul Seiz and Donn Matus of the museum staff and executed by Display Studios, Inc.

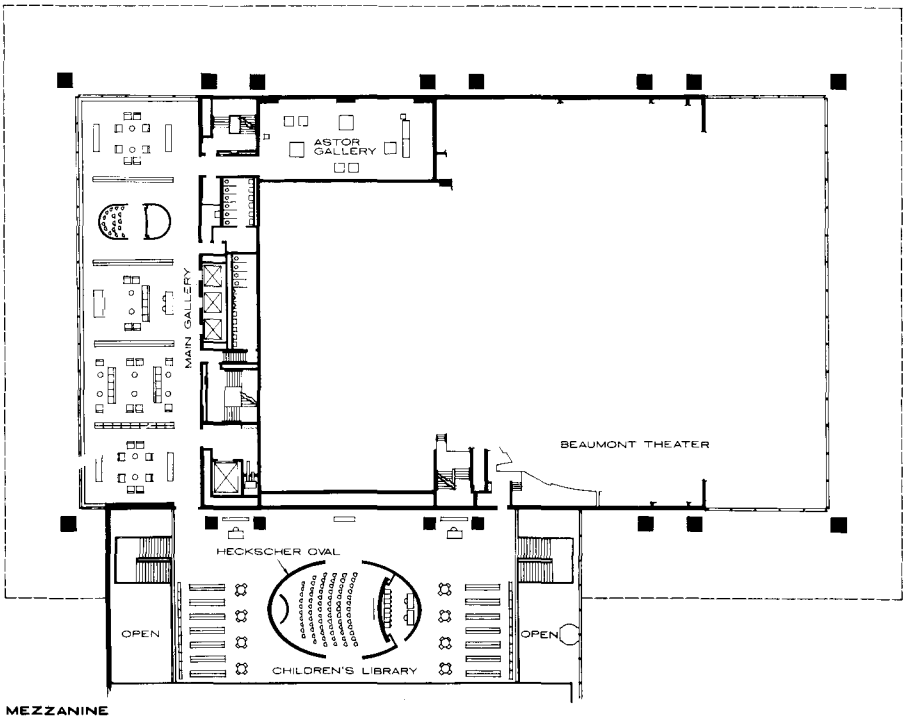
The furnishings the architects have provided on these levels include handsome built-ins of travertine and white plastic laminate **(15)** to blend with the pale, bland, monochromatic wall and floor surfaces; oak and white-enameled stacks, beige wool carpeting (used more extensively here, perhaps, than in any other public library and in a questionably impractical weave for the color) and stainless-steel and both red and black vinyl upholstery complete the scheme.

Interspersed among the bookcases and displays are audio drums where recordings can be heard through earphones by two listeners simultaneously **(28)**. Donated by the Asiel family, the drums also carry a music or drama performance preprogrammed by the staff.

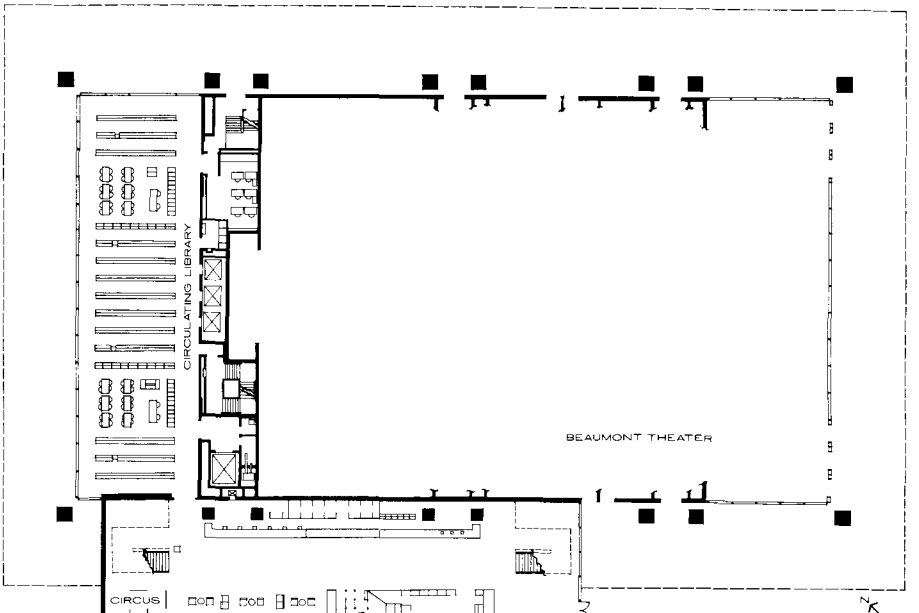
The treasures of the Library-Museum are exhibited in the ceremonial Vincent Astor Gallery **(26)**.

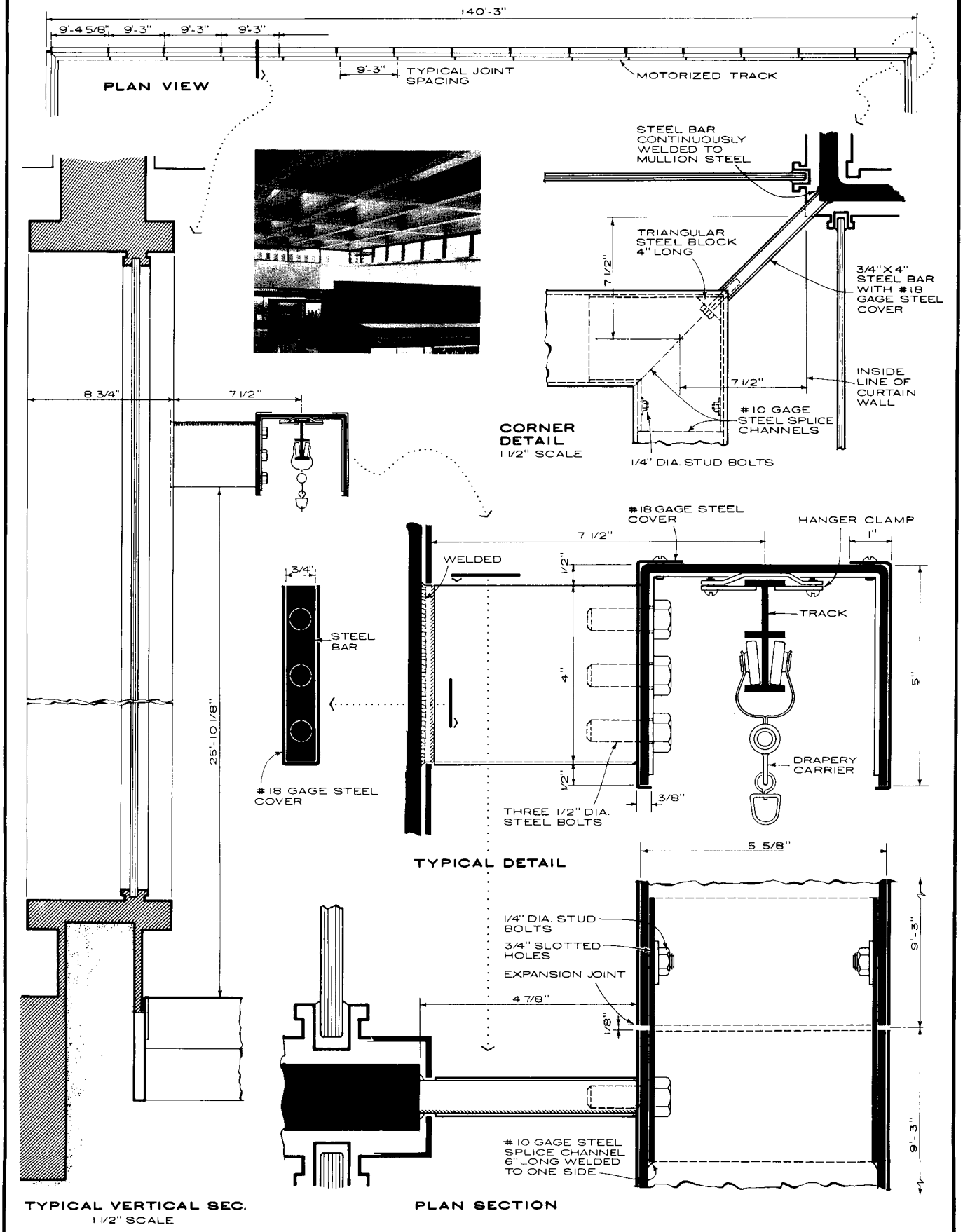
Of the spaces, only the Main Gallery **(27 to 31)** with its exposed concrete, coffered ceiling and coffer lighting (repeating that of the Beaumont Theater lobby) could have been considered as "major." The museum, according to the architects, unfortunately wanted that gallery subdivided into browzing cubicles by display cases. But surely those cases should be run longitudinally, so as to reveal the actual impressiveness of the room and give the Library-Museum at least one high-ceilinged major space.

The architectural lessons to be learned from this project are difficult to accept, for if Miesian designers cannot organize space with greater clarity and cannot detail with greater purity, then the dead end of that aesthetic is sufficiently proclaimed. However, decorating details are remedial, and therefore can only be disappointing.



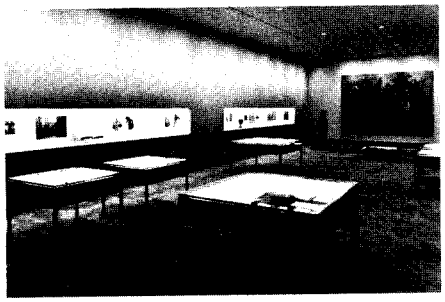
MEZZANINE





LIBRARY-MUSEUM FOR THE PERFORMING ARTS: New York, N.Y.
SKIDMORE, OWINGS & MERRILL, Architects

SELECTED DETAIL
CURTAIN TRACK



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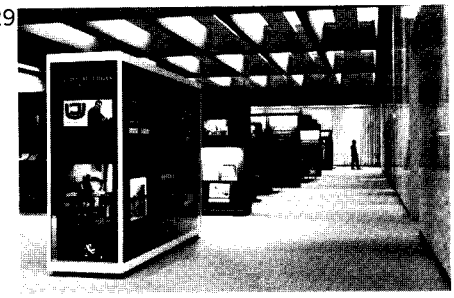

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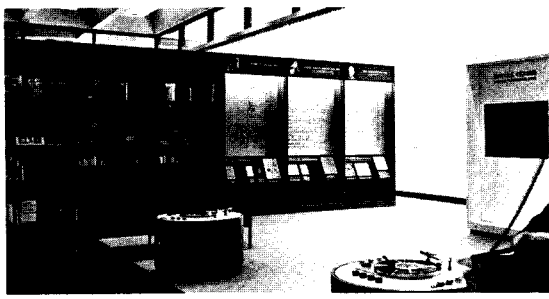

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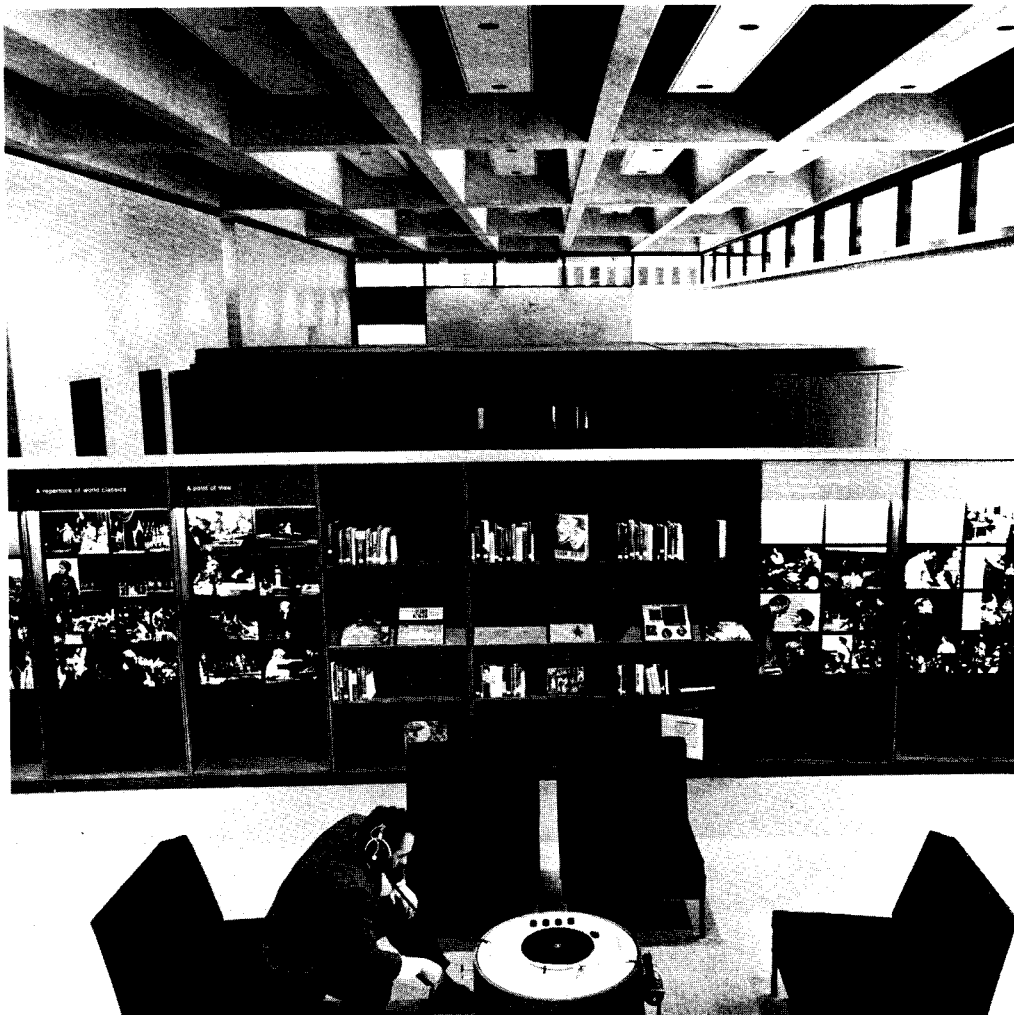

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Measured in terms of the interiors SOM has produced in the past, this project is not a milestone; measured in terms of exterior architecture—and the architecture of Lincoln Center—the Library-Museum is a winner.

For the city, however, such aesthetic considerations are relatively insignificant. **More importantly, the calm and generous, clean and unsqualid atmosphere of this civic building, and its concept of making the background of the performing arts more readily available, can be received only with gratitude and acclaim by all the citizens of New York.**—CRS

URBAN....

The major problem still facing the profession of architecture today is the mandatory shift of scale in the concept of its work—from emphasis on the single building to the larger-scale concept of planning, designing, and building entire cities. In an age when single buildings are sometimes more vast than complete towns of the past, new design techniques must be developed to cope with the design of the enormous Megalopolises of today.

Several people have, of course, made significant contributions to contemporary methods of urban design. Among the most notable are: Barclay Jones, while at Berkeley; Kevin Lynch in his *Image of the City;* Appleyard, Lynch & Myer in *View from the Road;* Philip Thiel in his "A Sequence-Experience Notation" (*Town Planning Review,* April 1961); Paul Spreiregen and others in "Guide Lines for the Visual Survey" (*AIA Journal,* April 1963); and Lawrence Halprin in his book *Cities* (Reinhold, 1963) and his article "Motation" (JULY 1965 P/A).

Architecture schools are also doing valuable research in developing such new design techniques for the notation of sequential experience in cities, and it is as a continuation of P/A's previous discussion of this subject—Urbanography—that we present some of the contributions of the University of Cincinnati's Department of Architecture, headed by Richard Wheeler. Discussions by two members of the department follow: concerning, first, the over-all problem, and then descriptions of specific class work and contributions.—CRS

BY SAMUEL NOE

An architect-urban designer, Professor Noe first became interested in sequential design while doing graduate studies at Harvard, where he was exposed to several members of Team Ten, a group of European architect-urbanists whose work emphasizes the movement system as the organizer of urban form. He was also a student of Fumihiko Maki of Japan's Metabolism Group, whose attitudes parallel those of Team Ten.

One of the by-products of the on-rush of Megalopolis and other forms of giantism (especially economic) is, of course, the increasing interest in urban design. The effects of this interest on the upper years of architectural curricula have been quite evident, for some sort of urban design option or graduate program is fast becoming essential in order to establish an architectural school among the "in crowd." Even among the strictly architectural programs, the incidence of large-scale, multiple-building studies seems to be increasing.

Yet because of inadequate early preparation, many students are unable to cope satisfactorily with work at this scale.

One of the primary causes of this inadequacy, in addition to the academic parochialism of the typical architectural school (enforced by tradition and the state board of examiners), can be traced to the "A Small" syndrome, which is traditionally characteristic of second-year design courses. By this I refer to the succession of studies entitled: "A Small House for a Painter," "A Small Hunting Lodge," "A Small Animal Hospital," etc. The intent of these problems is clear: The student

BY B. L. ABERNATHY

Architect-urban planner Professor Abernathy studied at MIT under Kevin Lynch and Donald Appleyard, where he first became seriously interested in urban design. Subsequently, he has been particularly concerned with attempting to devise a totally workable technique of sequence design in cities. In January 1966, he was appointed Chief Planner for the City Planning Commission of New Orleans, Louisiana.

The main shortcoming of the systems that are producing urban designers seems to be the lack of concern with time and motion as a basic design element. Traditionally, design schools have dealt with spatial relationships, but only recently have a very few schools become interested enough in time and motion to include them formally in academic curricula. Until these design elements are firmly entrenched, there will not be an adequate urban design method nor an urban designer.

Because of the scale of a city and because of the way people experience and perceive it, time and motion are of paramount importance in a technique of urban design, which is essentially a problem of sequence design. The crux of the problem seems to be an adequate design language, and perhaps the most critical aspect is the statement of the problem.

The requirements of an urban design technique are several. The system must be capable of being used, firstly, for recording existing situations, then, for analyzing situations, and, finally, for designing situations.

For designing, the system must be capable of rapid and

Noe (Continued)

prepared in a first-year course in basic design principles is now directed to apply them, and the elements with which he must contend are limited to a manageable few. In later years, the buildings will become larger and increasingly complex.

An unfortunate side-effect of this approach, however, is that it strengthens an already ingrained tendency of the student to conceive of a building as a lump of solid matter resting on a ground plane, and capable of summary analysis at a few glances from the street. This tendency may persist *sub rosa* in spite of the instructor's constant insistence that the essence of architecture is space.

By the time the student is allowed to undertake urban scale work, this basic thinking may have become fixed. The result is that urban design is approached as "big architecture," to be evaluated by inspection of a static, well-composed model. The real-world extension of this approach is that cities are designed to be appreciated primarily by passengers of low-flying aircraft.

In an attempt to prevent this attitude, the design sequence at the University of Cincinnati has become increasingly "motion oriented," particularly in the early years.

Abernathy (Continued)

flexible use. Furthermore, to be really acceptable, the system should be understandable and usable by laymen and less skilled technicians (although this is not an essential requirement).

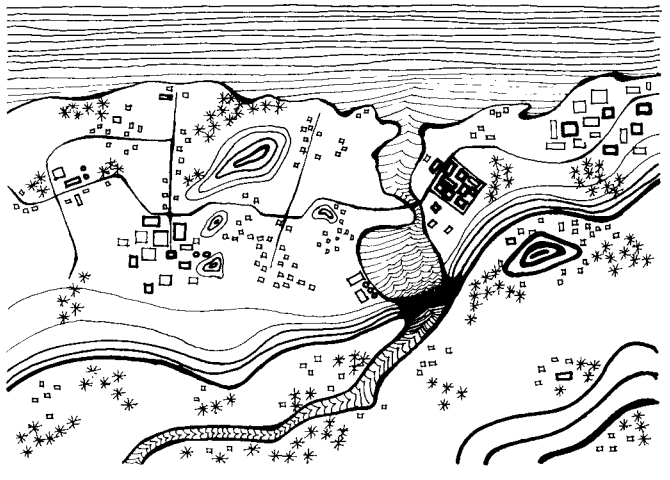
Of the notable systems already developed, although each is useful in one or more ways, none of them seems to provide a totally useful method.

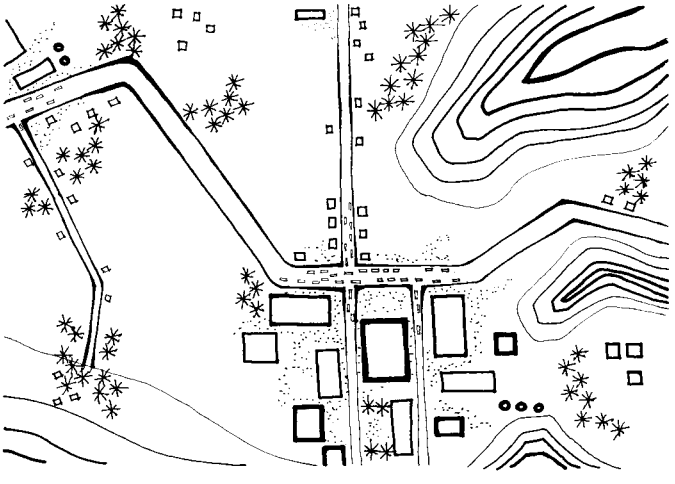
For example, Lynch's recording system, as set forth in *Image of the City*, has two apparent shortcomings: First, the system seems most useful at a very general or large scale, and second, the system as set forth seems best equipped for recording rather than for design and analysis. Perhaps the main asset of his image system lies in its simplicity—its capacity to be easily understood and utilized by laymen and technicians alike.

Because of the complexity of the urban environment and the interrelationships of individual sequences, a method capable of expressing these relationships is necessary. This requirement points up several difficult problems in the development of a comprehensive system.

While a time scale appears to be necessary for sequence design, it also appears almost impossible to use in a total system approach. (The possible development of techniques such as films and models cannot be excluded, but their utility appears severely limited.) A distance scale and plan technique seems to be almost the only possible basic method. The result is the apparent paradox of the time and distance scale. Also, the problem of incorporating a method of depicting three-dimensional or elevation differentials becomes a consideration.

In conclusion, the problems and requirements of an adequate language for urban design can be and will be satisfied in the very near future, due to the tremendous interest in the subject that has been developed in just the last five years—interest not only among design professors at various institutions, but by students, architects, planners, and, most importantly, by lay citizens, politicians, government officials, and legislators. Not only are we producing designers more and more qualified to tackle the looks of our cities; we are also producing cities in demand of better looks.





_OGRAPHY

Environmental Design Course, Master of Community Planning Program, University of Cincinnati:

Professors Abernathy, Noe, and Goetzman

In response to a four-week team problem to develop a graphic language for mapping and designing the visual form of cities, graduate students in the environmental design option of the Master of Community Planning program developed a system that, in view of other systems and previous assignments, is commendable in several respects. Typical completed maps using this system are on the preceding page.

The objectives of the study were to develop a graphic language that: (1) can be used for mapping and designing the visual form of a city in two dimensions; (2) can be understood by architects, urban planners, and lay people; (3) can be expressed simply and quickly with the use of commonly available materials, and can use black-and-white techniques in order to keep reproduction simple; (4) is capable of mapping dynamic as well as static features of a city; and (5) is comprised of symbols that can be, or are, commonly understood. Further objectives were: to explore the possibility of mapping sensory stimuli other than visual ones and to develop a technique that can easily be incorporated into other planning processes and can act as a supplementary tool to existing systems.

The major element, the city, was broken down into element characteristics, element arrangements, and element types; all of which are capable of being mapped. Chart 2 divides the element characteristcs into "Static" and "Dynamic." The charts further reveal the implied definition of dynamics, as follows: (a) those elements of a city which, by virtue of their make-up, move, either at random or in patterns (Chart 2); (b) the change of visual form that occurs as the observer moves through the urban environment (Chart 1).

When dynamic elements are mapped, they appear as stationary objects, that is, as they would appear at a given point in time. Another phenomenon in the visual form of a city is that it changes as the observer moves through it.

These factors require a mapping technique capable of showing the visual form as it changes through a given length of time and distance.

Each of the elements on Chart 2, in addition, is modified by form variables and sensory variables (Chart 3). These two charts indicate a methodical approach to specifically defining the elements, and the variables consistently found in the form of these elements.

The system also refines or expands the symbol vocabulary to enable the designer to work at a regional level or at the neighborhood-block level, depending on the specifications of his assignment (following two pages).

The element types listed on Chart 2 have been represented by new symbol vocabulary. These are the basic symbols, and in each case there will be sensory variables as indicated on Chart 3. Constants will be adopted to illustrate the modifying variables, e.g., height will always be indicated by line weight—that is, line width.

As can be seen from the maps on page 185, the system is capable of a fairly sensitive suggestion of an area's character as well as of conveying a significant amount of technical information.

As developed, it can convey the effect on the observer of movement—either his own or that of the object. It can accommodate changes within the framework of the environment. For example, if the helicopter were to supersede the automobile in popularity of use, experiences now recorded for the automobile could be recorded as they were experienced, visually, from the helicopter.

In addition, the system is logically ordered and requires a minimum of explanation to enable professionals in the field of design to use it. And it has the ability to provide a cogent whole to the varying scales and levels of investigation. This is accomplished by related symbols. The basic symbols are in themselves generative of more specific notations.

Some of the shortcomings of the system, however, are the following:

a. A more adequate method needs to be evolved of dealing with the differences between actual physical relationships of

Chart 1

CAPABILITIES AND USE OF THE SYSTEM

USE	CAPABILITIES	FORMS TO BE EXPRESSED
I. Total city scale	a. functional (static) (see chart 2)	1. land use 2. density—traffic, populations
	b. activity patterns and levels	1. dynamic elements (see chart 2)
	c. movement patterns	1. people 2. automobiles and other land-confined vehicles
	d. physical forms	1. building heights 2. topographs
	e. unique or special experience	1. visual illusion 2. night (reverse)
	f. character	1. historic districts 2. architectural atmosphere
II. Neighborhood scale	(Same as a through f above.)	
III. Sequence design	a. visual character are experienced	1. speed-re-urban form, detail
IV. Character of areas	a. speed at which areas	1. lines of sight—skyline, panorama
	b. sound	see Symbols
	c. odor	

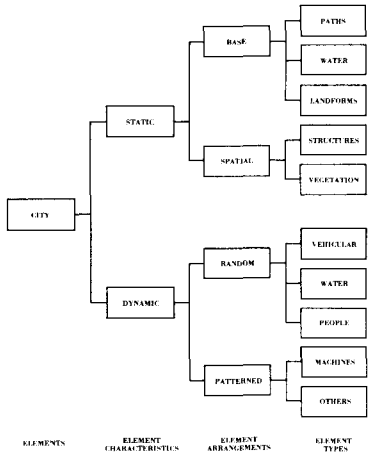


Chart 2

Chart 3

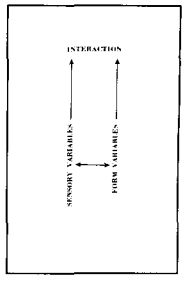
FORM VARIABLES

SIZE	SHAPE	LOCATION	COLOR	DIRECTION	ARTICULATION
LENGTH		RIGHT	HUE		HORIZONTAL
WIDTH		LEFT	INTENSITY		VERTICAL
HEIGHT		UP	SATURATION		
(DEPTH)		DOWN			
		DISTANCE			

SENSORY VARIABLES

LIGHT	SOUND	ODOR	FLAVOR	TEXTURE
INTENSITY	INTENSITY	INTENSITY	INTENSITY	GRAIN
COLOR	FREQUENCY			

PRINCIPLES OR EFFECTS



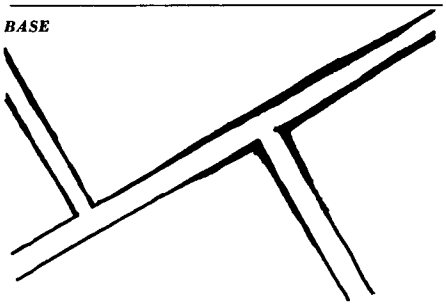
PRINCIPLES OR EFFECTS OF DESIGN

LEGIBILITY	Simplicity Continuity Contrast
DETAIL (INTEREST)	
RHYTHM	Tempo Interest
CHARACTER	Unity Repetition Contrast Congruence Physical Form

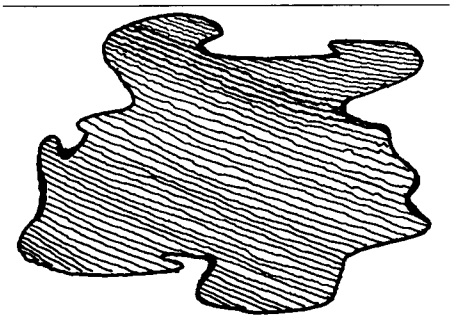
SYMBOLS

STATIC

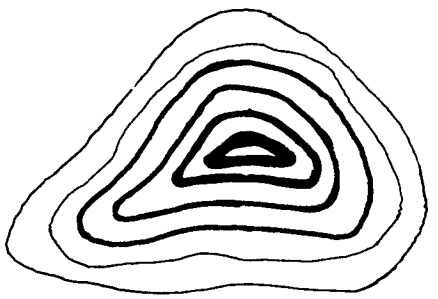
BASE



Paths: *indicated by a double line that varies according to road width. Through line weight, the less dominant topographic characteristics are reflected.*

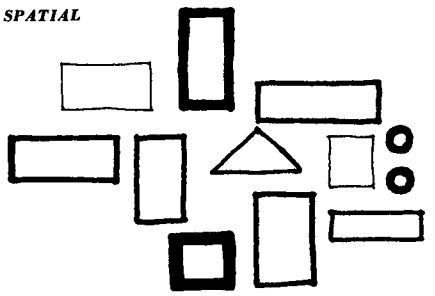


Water *(contained): a series of closely spaced, slightly rippling lines.*

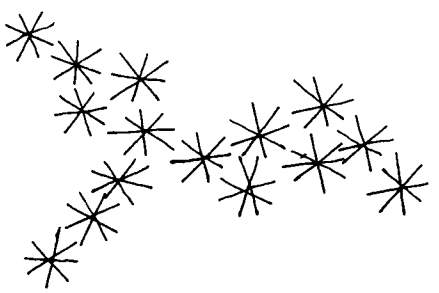


Landforms: *topographic lines become progressively darker as elevation is increased.*

SPATIAL



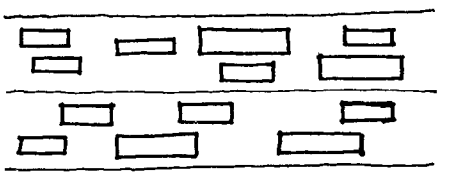
Structures: *indicated by shape; line weight is varied to indicate height.*



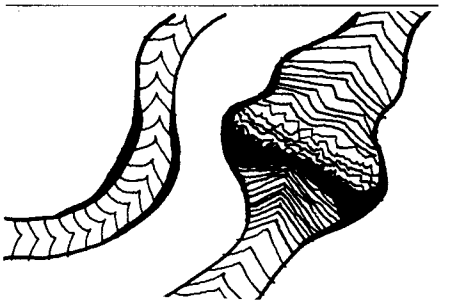
Vegetation: *a series of abstract shapes; again, height is indicated by line weight.*

DYNAMIC

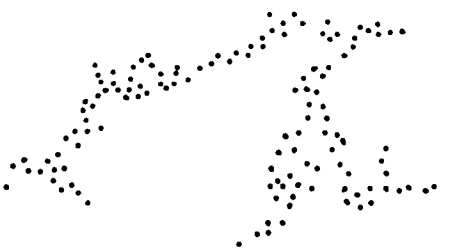
RANDOM



Vehicular: *small rectangle indicates autos; the larger, buses and trucks. This symbol is used for amount of activity, not numbers, within roadway (path).*

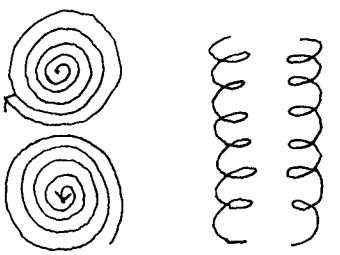


Water *(in motion): direction of flow indicated by bending the line used in "water contained." Speed (e.g., waterfalls and rapids) indicated by number of lines.*

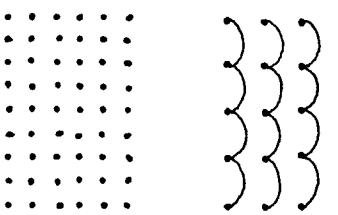


People: *dots used to indicate activity nodes, not numbers.*

PATTERNED



Machines: *symbolized according to type being mapped.*



Special cases: parades, assemblies, seasons, and other necessary categories.

GRAPHICS BY JOHN T. BEISEL, JEANNE BONHAM, STEVE GEBHARDT

elements and their apparent relationships as perceived by observers traveling at various speeds.

b. The inability to deal with the time and motion aspect of the environment as established by the observer is apparent; future studies concerned with developing a technique for urban design might therefore best concentrate on the environmental aspects and the implications of time and motion.

c. The physical size of the paper limits how much can be plotted on one map—a universal problem in mapping. Overlays can increase the information potential. USGS maps are carefully standardized, marked, and cross-referenced so that the necessity of slicing them into usable portions does not reduce their effectiveness. Attention would have to be given to this aspect of this system.

d. It requires a degree of special information to enable the user to understand a symbol system. Therefore, it would be necessary to train the people who would do the mapping. Very little training, however, would be necessary for the casual viewer; the legend would be self-explanatory. But the illustrated symbols may need more adaptation, refinement, and/or expansion, a need that may become evident when the symbols are applied in the field and when they are used in design synthesis.

It may be that applied use in subdivision layout, for example, or in conservation areas, would reveal the need for expansion of the symbol vocabulary. Use by people from various backgrounds might similarly indicate a need for further clarification or universalization.

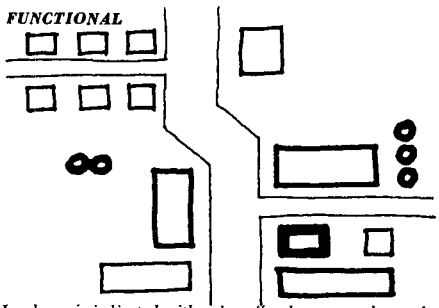
In order to create a map of a city from which selected information could be obtained quickly, investigations should be conducted into the development of a screen-filter technique. This is a refinement that would be added in the workroom, not in the field. A technique such as "photoclinometry," which was described in *Newsweek* (pp. 56–57, March 8, 1965), might be utilized to express angle of slope and resultant elevations in a more easily comprehensible manner.

The method for depicting height characteristics by line width is probably the single most significant graphic contribution of the system. However, its flexibility, rapidity of use, ease of comprehension, and apparent comprehensiveness cannot be overlooked.

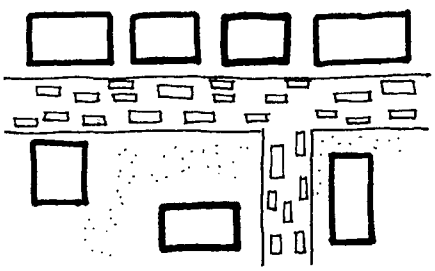
USE OF SYMBOLS

NEIGHBORHOOD SCALE

FUNCTIONAL

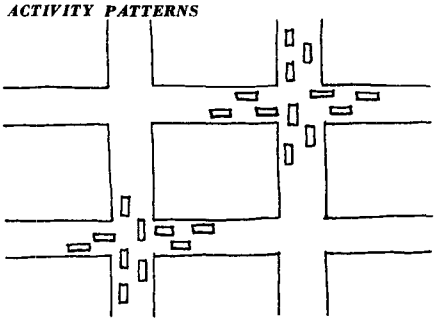


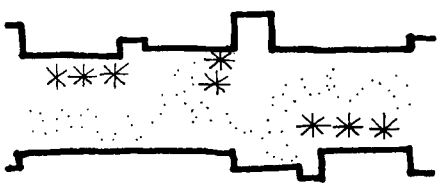
Land use *is indicated with color; if color cannot be used, shading is suggested.*



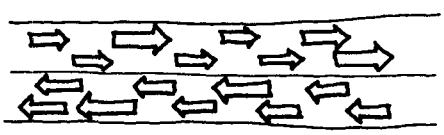
Density *of traffic is indicated by symbols for vehicles and people.*

ACTIVITY PATTERNS



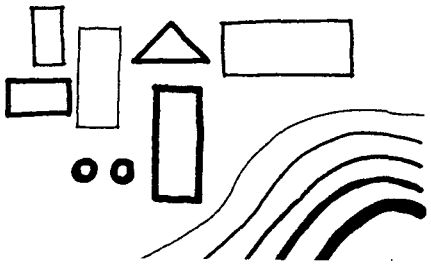


People-movement symbol.

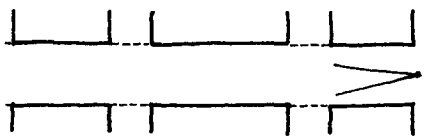


Vehicle-movement, with an arrowed front indicating direction.

PHYSICAL FORMS

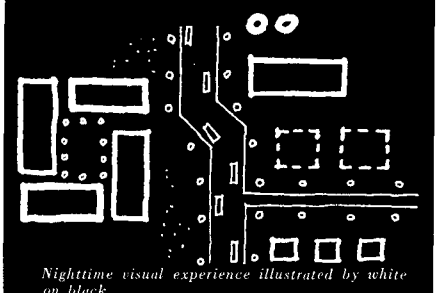


Building heights indicated by weight of the line: the heavier the line, the taller the structure. Topography similarly illustrated.



Visual illusion is illustrated by broken lines of the apparent *continuation of form.*

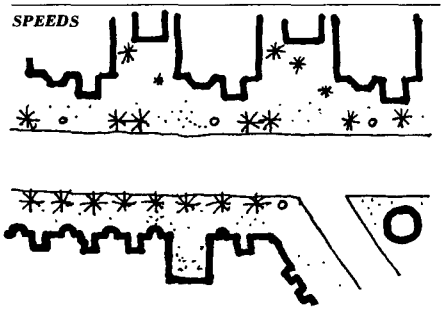
UNIQUE OR SPECIAL EXPERIENCE



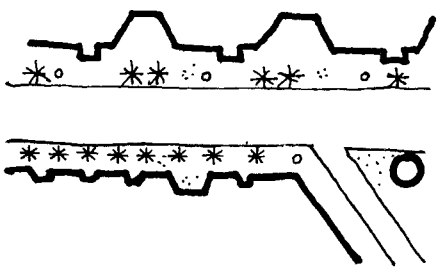
Nighttime visual experience illustrated by white on black.

SEQUENCE DESIGN

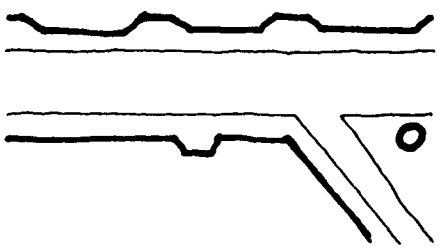
SPEEDS



Speeds determine the amount of detail perceived while in motion. 20 mph.



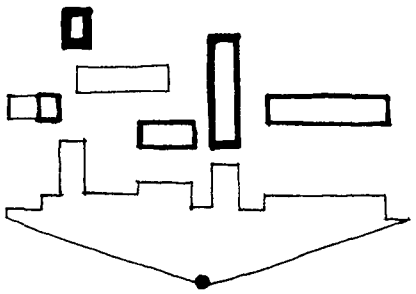
40 mph



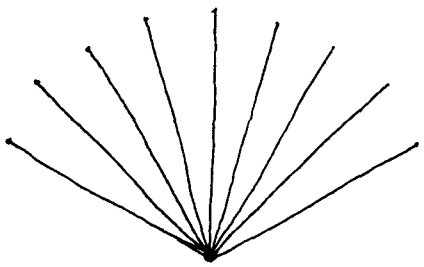
60 mph

CHARACTER

VISUAL CHARACTER

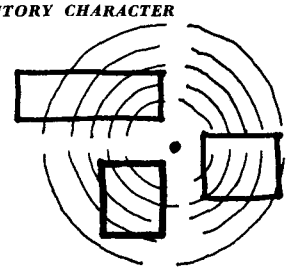


Skylines illustrated from a single viewpoint.



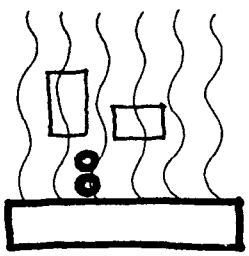
Panorama illustrated from a single viewpoint, with a series of lines radiating toward the view.

AUDITORY CHARACTER



Auditory character illustrated with a series of arcs radiating from the source; used only when sound is a dominant feature.

OLFACTORY CHARACTER



Olfactory character illustrated by means of undulating rays; pungence is illustrated by degree of wave proliferation; odor by line frequency.

Second Year Architectural Design, University of Cincinnati:

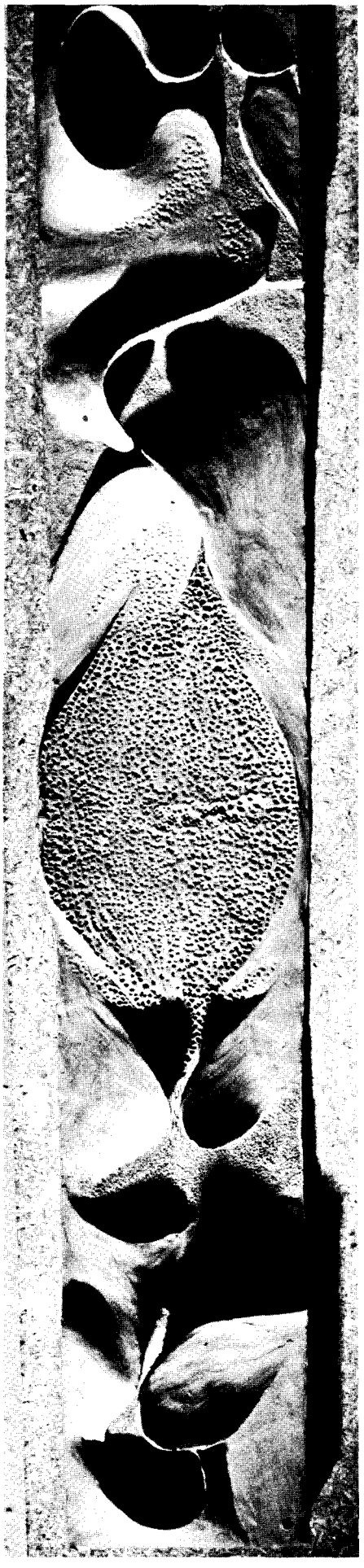
Professors Noe, Rudd, Stevens, and Williams

Design studies in the second year architecture program at the University of Cincinnati are set up to consider a particular slice of physical environment, rather than a specific building type or building object. The method of study is one of arranging sequentially those experiences of solids and voids that one might have in walking or riding through a given complex.

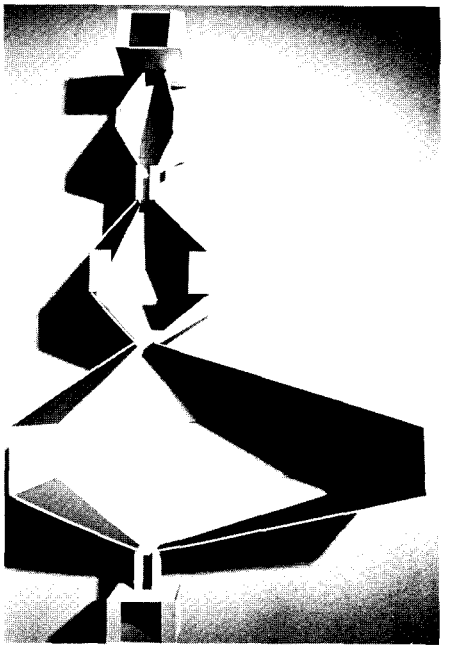
Exercises assigned are of three types: Problem 1—analysis of existing places; Problem 2—design of abstract spatial sequences; Problem 3—design of real spatial sequences that must accommodate particular functions.

Students generally experience little difficulty in approaching their studies in this manner, partially because they have had some slight exposure to motion studies in their first-year basic design work. Equally important, however, is that they have never been confronted with static design techniques. This approach to second-year design studies has not been employed for a sufficiently long time to gage its effects on advanced work; however, a similar attitude is employed in the fifth year of a six-year design sequence.

One result of this course has been a number of urban design theses in the final year that demonstrate remarkable sophistication of thought. Generally, the students producing these efforts have been those most sympathetic to the "sequential experience" approach. It is hoped that a higher proportion of the students in future classes, having had exposure in the early years, will be able to deal realistically with large-scale projects.



STUDENT DESIGNERS: JOHN BLESI, STEPHEN KENDALL.



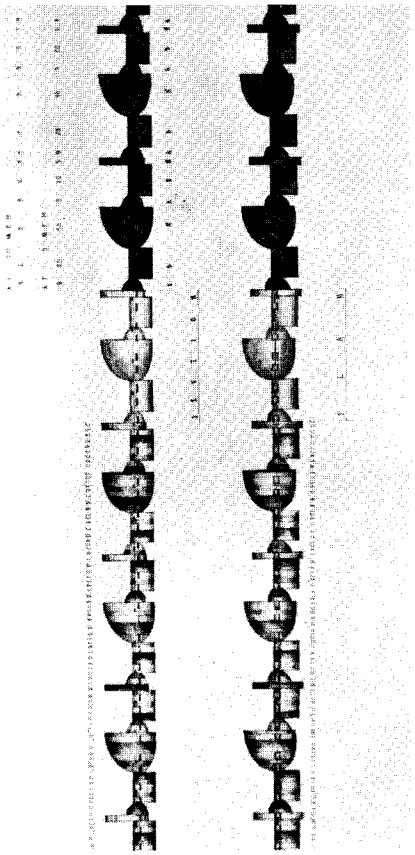
Problem 1: *Analysis of an Existing Series of Spaces: By means of a three-dimensional abstraction, the student must give expression to the experience of a walk between two points on the campus. The route passes through a number of different types of spaces. In this expression, he is to be concerned (as far as this is possible) only with voids.*

The solution to this exercise is not *to be a representational description of form (a model of the campus). It should clearly express the* effect on each student *of the spaces, rhythms, light, or any other sensations encountered on the walk. As in any artistic expression, emphasis or exaggeration of elements significant to the artist are encouraged, if the effect is more clearly expressed thereby.*

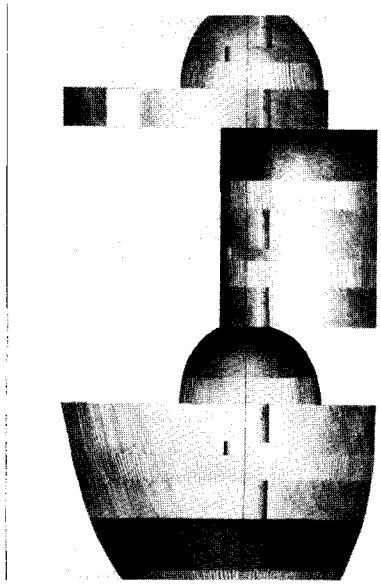
This is an exercise in perception. Each person will perceive different elements and each will respond to these elements in a different manner. The variety of the interpretation forms a basis for later discussion.

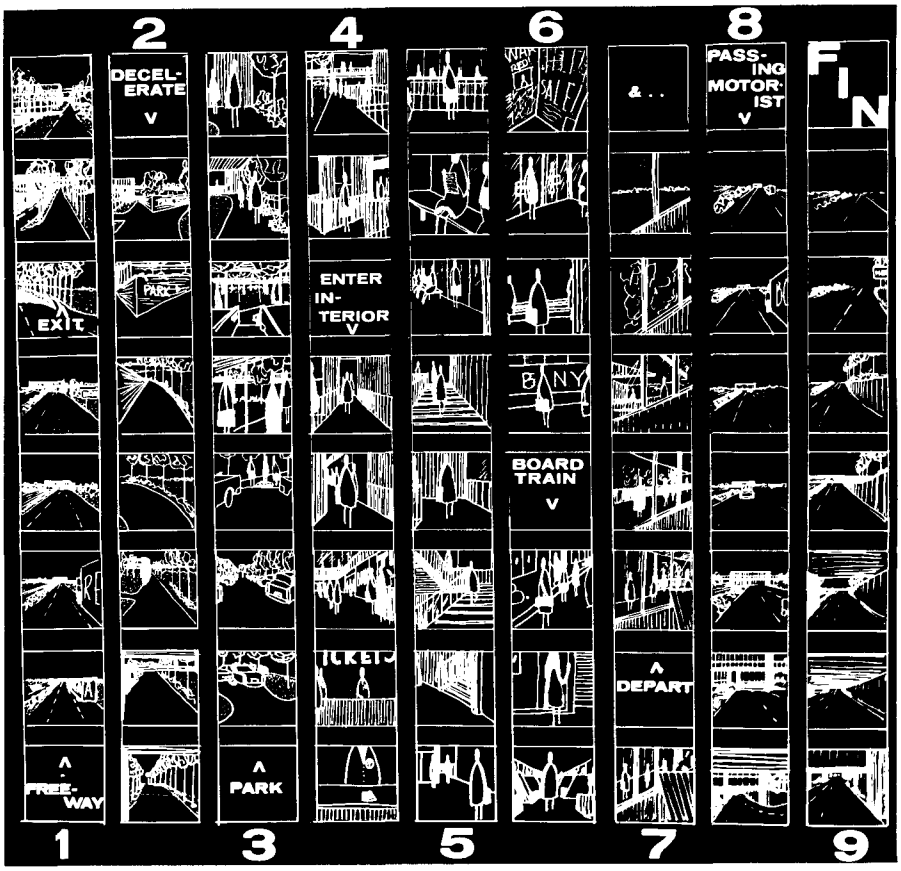
Photos above illustrate two impressions of the same walk. In one case, the student felt it necessary to illustrate nearly all spatial impressions. In the other, sufficient repetition of types of spaces was found so that the total impression was one that required the recording of only a few of these types.

Problem 2: *Design of an Abstract Spatial Sequence: In this exercise, the student explores the variations in perception as one moves through space at different speeds. The problem assumes a straight path upon which man moves at possible speeds of 30 mph or 3 mph. The student is asked to design* one *spatial sequence that will have meaning for persons moving at* both *speeds—that is, the particular rhythmic repetition of spaces must be the same for persons moving at both speeds. In the solutions illustrated below, the larger geometrical spaces are designed for perception at 30 mph; the bands of texture and tone within them (detail, bottom) are perceivable only at 3 mph. The pattern of repetitions is identical in the two sequences.*

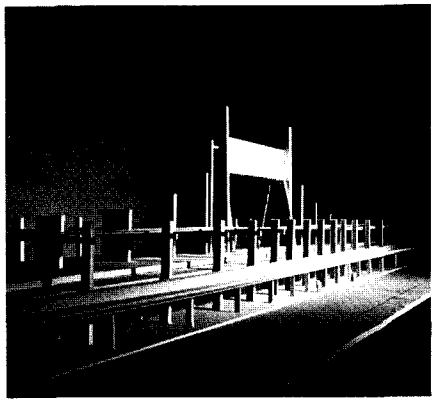


STUDENT DESIGNER: JAMES TERRELL





STUDENT DESIGNERS: DAVID COUP, DART SAGESER.



Problem 3: *Design of a Speed-Scale Transition: The means of accommodating the transition from high-speed movement to slow speed and then to high speed again are investigated by focusing on a small suburban train station, where commuters transfer from cars to trains, and where they also wait as through-trains pass. The site, dead level and featureless, is at the intersection of an interstate highway and the main-line track. The student must consider the effect of the station on through-rail and highway travelers, on the commuter, and others. Some particular considerations are the effect of the station on: Mr. A, who has been traveling for 45 minutes at 70 mph and must stop suddenly within a distance of a few hundred yards and then resume speed for three more such stops before he gets off; or Mr. B, who rides the express and speeds through the station at 70 mph, or Mrs. C, who is waiting for the local line when an express speeds through; or Mr. D, who must adapt from the long, constant, lulling experience of high speeds in a small enclosure to that of a vast, wide, open area quite active with both people and vehicles; or Mrs. E, who sees the station from the highway on her way shopping; or Mr. F, who drives to the station area itself from the highway, parks, walks to the station, and has breakfast while awaiting the 8:30 train.*

These are just a few of the possibilities of different changes in speed-scale that will result from such a complex, but they all must be understood *and dealt with. Top photo demonstrates the ciné-like perspective sequences used to describe the total experience. Photo at left shows a station building in which the structural members are varied in size and spacing to build to the climax of the waiting area; the tall glass cage straddles the intersection of highway and railroad, thus serving as a landmark for motorists as well.*

THE CHILD AT PLAY IN THE WORLD OF FORM:

A CATALOG OF ARCHITECTURAL TOYS

Plato has suggested that, from the earliest years, the future architect should busy himself with the building of houses. And Frank Lloyd Wright, as if in answer to the philosopher, has written about the importance in his own life of the Froebel "gifts"—the small geometric blocks, bright in color, honest in material, that his mother provided for him as a boy.

We are a nation of toy consumers. Retail toy sales in 1965 exceeded $2,400,000,000, more than three times what they were 15 years ago, and the prospects for the immediate future are even more promising. Half the population is under the age of 32, and thus either creating the demand for toys or creating the children who create the demand. With our increasing affluence, where a Christmas stocking would once be stuffed with a necessary item of clothing, it is now likely to contain at least one small toy, priced somewhere under $2. (Small or not, half of all toys marketed sell for $2 or less.) As a society, we are child-oriented, buying-oriented, education-oriented, and, if not pleasure-oriented, at least increasingly able to enjoy a Fun Thing without being torn by guilt. The toy market is an expanding balloon with no indication of bursting.

How many of these toys pertain to architecture, environment, construction? What do they "say"? And what impact are they likely to have on tomorrow's creators and consumers of architecture? It is not simply a question of the next generation of professionals, but of a whole design-conscious public; if clients and citizens have to be "educated" to demand good design, it is probably several decades too late by the time the architect gets to them. Is creativity in these matters being sufficiently developed in the important and impressionable years, no matter what the future occupation of the child? Is sensitivity to material, form, structure, connection, and modularity a byproduct of these toys? How will children of today react to the immense urban and environmental crisis that will be full-grown even before they are?

TOYS OF THE PAST: an elaborate folding dollhouse, patented 1894 (above); a set of brownstone blocks, *circa* 1850 (far left, top); so-called "stone" blocks, actually a clay product, from Germany, turn-of-the-century (far left, bottom); all from the extension Museum of the City of New York collection; and a put-together cardboard house (left) from the collection of Jerry Smith, recently exhibited at the Hallmark Gallery, New York City.

Perhaps this is asking too much from what are "only toys," made by manufacturers who are in business primarily to make money. It is a very competitive industry: New items are constantly sought, new styling and packaging are important in selling older items, and new marketing techniques have been employed (notably, selling in supermarkets and discount houses). A new toy can literally make a fortune: This past year's Super Ball, for example, hit the top in one bounce. Yet there are old-timers: Lionel trains are more than 60 years old, and Erector sets have remained seemingly unchanged in design for more than five decades. There are rumors that certain toys have a built-in obsolescence to guarantee a limited life, just as in the "real" world. One manufacturer, Playskool, argues against this point of view: "Obsolescence is built into the child instead; he changes radically every few months."

ADVERTISING is an important fact of life in the industry; a recent survey found that six-tenths of the adult toy buyers had decided on a particular toy before they went out to buy it, and almost half of these had been "presold" by their own children —through TV, comics, and word of mouth. But television adds a new tightness to the pricing formula; an item that retails for $1 must ordinarily be manufactured at a cost of 25¢ (the jobber buys it for 45¢, and the retailer buys it for 60¢); but with television in the picture, this 25:100 ratio can be no more than 16:100. There are some opinions that TV preselling is on the wane, however, and that the industry should try to reach parents on a sounder basis.

The Wall Street Journal pointed to another possible trend, claiming that this past Christmas witnessed a comeback of old-time and (relatively) noiseless toys. "Along with dolls and soldiers, big sellers this season include Lincoln Logs, Erector sets and wooden blocks. Creative Playthings, Inc., a Princeton, N.J., company that is one of the country's biggest sellers of blocks, says its block sales are up 100 per cent this year." Yet this was also a year of spy sets, monster dolls, the men and matériel of modern war, even an electrocution set.

WHAT are the actual figures? Again, from a recent industry study, dollhouses account for 1 per cent of the total sales; handicraft and models, 4 per cent (of which building kits are only a part); games and puzzles, including all board games, 6 per cent; preschool, including all blocks, 2 per cent. All other categories are outside the scope of this article—and include riding toys, 22 per cent; nonriding transportation (trains, trucks, etc.), 12 per cent; dolls, 13 per cent; sporting goods, 12 per cent; guns 5 per cent; musical instruments, 5 per cent; educational and scientific, 5 per cent.

"Educational toys don't sell," is the widespread opinion, and, to be sure, the figure is only 3 per cent. Yet in a sense all toys are educational, if education is defined in terms of exploring, expressing, experiencing. One firm that takes its educational role most seriously is the crusading Creative Playthings. Through its catalog, and in its showrooms (now scattered across the country, in various department stores), the firm conveys its strong respect for children as children and a matching belief in their potentialities as human beings. It is probably fitting that the Creative Playthings toys are what most architects would consider "good design." (So, too, are some of the similar-looking doll houses of the similarly named Community Playthings.) But good design for children is a complicated question. "The environment of reality is limited; only abstraction can excite the imagination," says Frank Caplan, president of Creative Playthings. But there are other firms who believe just as strongly in realism—realism not only sells best, but means more to the child. Thus, points out one toy designer, "Erector won't be able to hold out much longer before they go plastic; kids just can't feel comfortable with those parts that don't look like what they're supposed to be."

THE evaluation of toys from almost any point of view is controversial. The Toy Manufacturers of the U.S.A., Inc., has its own opinion (as a trade association with some 400 members of the industry's approximately 1500 manufacturers; these 400, however, do 80 per cent of the dollar volume). According to market research done for this association, 9 out of 10 toy buyers are satisfied with what they buy. According to others, there is little reason for contentment. A.S. Neill, of the famous Summerhill School in England, believes there are far too few creative toys on the market and that "one should never show a child how a toy works." He also believes that toy destruction is a valid form of play—it is simply to find out what's inside. Sylvia Ashton-Warner, in her extraordinary and revolutionary book *Teacher*, writes in despair about the "shiny toys" that are so alien to the spirit of adventurous and creative learning: "The shine and the color should be supplied by the child's own imagination." Most educators feel that children are far more conceptual than adults, in general, think them to be; children are easily bored or unnecessarily restricted by many of the limitations that adults impose on them.

Who has designed these toys? Several of the following group have been designed by architects, or by those close to architects (Flexagons by Fred Bassetti; the multilevel House of Cards by the many-sided Charles Eames; Lincoln Logs by a son of Frank Lloyd Wright). There are design staffs in all the toy-manufacturing firms; one firm, however—Kenner—retained an architect as consultant for its Girder-and-Panel set.

In addition, there are numerous "toy developers," the leading ones being Marvin Glass & Associates in Chicago, and Ned Strongin & Associates in New York. These offices, which are supplied ideas from designers on their own staffs and from outside "inventors," develop a toy design up to the point where a manufacturer can take it over. The Museum of Modern Art has encouraged the design of toys through various programs in its Department of Education, although the best of these toys are no longer on the market. The magazine *Art in America* recently commissioned a series of toys from a group of painters, sculptors, and architects (Bucky Fuller is reported to have been enthusiastic, but too busy to participate).

Architects have frequently been connected with the design of dollhouses, dating back to 18th-Century England, when architects would design accurate Palladian mansions for the children of their clients. More recently, the New York firm of Delano & Aldrich was gleaning a living for otherwise unemployed architects during the Depression with the design and construction of $200 Georgian dollhouses. Still more recently, Lissa Finney, the wife of a Bay Area architect and herself an architect, designed a Bay Area dollhouse *circa* 1950 that was sold by I. Magnin. And possibly the most extraordinary dollhouse of all time, the $2,500,000 mansion presented in 1924 to Queen Mary (with hot-and-cold running water, etc.) was the work of an architect—Sir Edwin Lutyens, who also designed New Delhi.

With this background as preface, P/A presents a catalog of architectural toys currently on the market. It involves a slightly

altered vocabulary—"bloks" to "lok" together, "stix" to arrange in "stax"—that has all the crunchiness of breakfast-cereal jargon and all the froth of detergent semantics. The catalog also displays an amazing range of architectural design—some of it so excruciatingly bad that its like has never before appeared in the pages of P/A; some, however, is on par with the best of the "full-scale" world. Some of it looks backward, watery-eyed, to the past; some of it is startlingly and truly contemporary. It would be unfair to evaluate solely on aesthetic terms an object that is not intended primarily as an object of beauty; a toy presents its own special criteria for judgment. Educational value is obviously prominent, using the term education in its broadest sense. Process becomes as important as product in a construction toy. Not least: Is it fun? Is it imagination-stretching? Is it a toy to live with and grow with? Is it well-designed in the sense of having appropriate materials, joints, finishes? Does it work? Does it last? And what, finally, is the message that it delivers to a child about buildings and bridges, cities and towns? A few comments on this final question will appear on p. 198.—EP

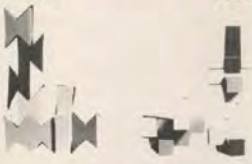
BLOCKBUSTERS (Brrr Products). Instant masonry. Ugly but easy. Same structural principle as hollow blocks by Creative Playthings, but without the variety of sizes. Medium blocks are 10″x5″x3″; a slightly larger set is also available. (Sets of 12, depending on size, $4.40 and $6.60)

BLOCKHEAD (Saalfield Publishing). Actually a game, but suitable for solitaire, and in any case only a variant of what children do with blocks anyway. This is a game of balancing; the loser is the one whose block causes the growing tower to fall. Fun. ($1)

LOCKS are an all-time favorite, lending themselves to whatever level of constructive activity and imaginative play the child has attained. There is nothing permanent about a block construction, since there are no attachments between blocks (and often little attachment between the child and his work after it is done—the fun is in the doing and the soon-after). Actually, some of the most satisfying and imaginative play occurs in the destruction of a block construction, and blocks must be durable. Blocks provide some of the earliest lessons in mass, weight, balance, and form. Little or no embellishment is needed, yet a well-thought-out decoration can make for a well-loved set of blocks. Shape, however, is perhaps the most important attribute, and even in a world of few basic primary shapes, new blocks frequently turn up.

WOODEN BUILDING BLOCKS (Import, Japan). A bag of miniscule blocks, in a two-of-a-kind distribution that calls for classical façade-making. Delightful, within these limits. Surface patterning is a good compromise between the abstractionists and the realists. Nontoxic, and too big to swallow. (75¢)

DESIGN BLOCKS (Childcraft). A set of 25 small cubes, brightly enameled in the primary colors. Nice to handle and turn over so the colors can be followed. Pleasant to build with, while they last—we've already lost one. ($1.95)



X-BLOCKS, H-BLOCKS (import, Finland). Painted wooden blocks sold at Design Research, the Cambridge, New York, and San Francisco emporium of good design that is run by Ben Thompson, many-hatted head of Harvard's department of architecture. D/R reports that although the X's are more expensive, they are also more popular than the H's. Each is the work of designer Juho Jussila. (X, $4.50 per dozen; H, $3.50)

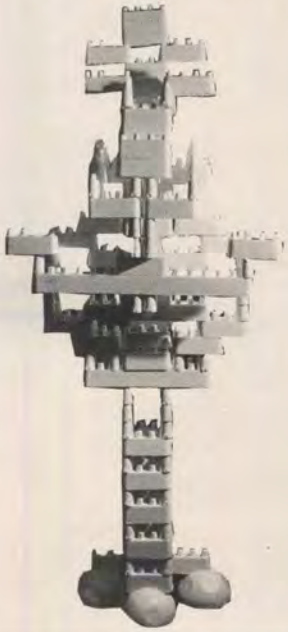
PLAY CORE HOLLOW BLOCKS (Creative Playthings). A variation on the hollow wooden blocks of the schoolroom. Inner egg-crate core will support an adult's weight, as important a lesson in structure as will be learned in later years by any architectural student. Outer part of block is gaily striped in white-on-orange, and white-on-pink. Blocks come flat, are easily assembled into three modular sizes: 5½″x5½″x11″, 5½″x11″x11″, and 5½″x11″x22″. (Sets from $6.95)

HEXAGONAL DESIGN TILES (Creative Playthings). Directions include a series of pictures as guides; by placing tiles directly on the picture, you can create an animal, car, etc. Throw these away, and enjoy the 100 plastic tiles for their patterns and colors alone. Good size for small fingers—1¼″ across. ($2.50)

THIN ARCH (Creative Playthings). A new block shape to add to standard sets. Molded plywood, 11″x2¾″. (Set of 6, $4.25)

FLINTSTONES INTERLOCKING BUILDING BOULDERS (Kenner). For those who have missed this on TV, FIBB are lightweight plastic knobby shapes, in four sizes up to 24″ long. Amazing cantilever constructions (see frontispiece) maintain their stability as long as the boulders' knobs remain intact (they are easily broken off in active play). Each set of 50, 100, or 155 boulders comes with two knock-down boulder balls, which can be used either to topple the whole thing, or to serve in the construction as half-melon feet or domes. Will stand up outdoors, will float in water, and the dog can probably eat them and live. ("About 10¢ per boulder")

ARKITEK (Princeton Educational Toys). Probably too elaborate for the very young, but excellent for everyone else, including the practicing architect, who will find them useful either for relaxation or research. Material is finely finished hardwood, dimensions are modular, forms can interlock, stack, cantilever. Putting blocks back into the correct shape of the 6″x6″x6″ container is a special puzzle. ($6.)



GIANT BUILDING BRICKS (Kid-Proof Toy Div., Donray Products). Seven vivid pastels in each box of 25 full-sized bricks. Material is an expanded polyethylene foam, unpleasant to the touch. However, they are punctureproof, will not scratch furniture, can be easily stacked, will not slide. Fun to throw around. Catalog proclaims this "a toy for the future builders of America," and it does not bode well that the cardboard carton is printed in a wood-grain texture. ($6.95)

(For manufacturers' addresses and photo credits, see p. 316.)

BUG HOUSE (Lakeside). First player to have a chimney on his roof wins. One of the cards in the deck states bluntly, "Building Inspection — Lose One Turn." ($2)

AMES "Playing house" is one of the perennial games of childhood, but its architectural implications are its least important ones. In any case, "House" can be played almost anywhere—and with many playthings or with none. (There is, of course, extensive housekeeping equipment on the market for little girls, everything **and** the kitchen sink, either in abstract form or "just like Mommy's.") Games of a more specific kind, however, are the board games that fill the shelves of every family room. Perhaps the most famous of these is Monopoly (Parker Brothers trademark for its Real Estate Trading Game Equipment). There have been 40 million copies of Monopoly sold (in all languages), and rumor has it that Parker prints more money than the U.S. Mint. The model for it all, of course, was Atlantic City, N.J. And in the face of any suggestions to renew a depressed Baltic and Mediterranean, or update the railroads to airports, Monopoly will probably go on in the future exactly as it has for the past 30 years.

The Game Game is a fierce one, with new ones constantly appearing, seeking a share in the market that is now expanding to include those over 65. A few of the current games are: Probe, Risk, Life, Aggravation, Allegiance, Acquire, Conflict, Frustration, Trouble, Zip Code, Tangle, and Sorry. Also the following:

PARK AND SHOP (Milton Bradley). Taken from the catalog: "Here's the nation's hustle-bustle traffic game sensation. The object of this exciting family game is to outsmart the other players by parking your car in a strategic place, completing your shopping quickly, and being the first to return home." ($3)

CAT AND MOUSE (Schaper). The two players guide cat and mouse from underneath with magnet-tipped wands. Mouse tries to get through a cluttered interior to his wall hole. Cat tries to get mouse. Adults try to get out of earshot. ($4)

SQUARE MILE (Milton Bradley). Not illustrated. From the catalog: "A family fun game based on land development operations. Starting with a Square Mile of 'raw' land, players take the part of developers and promoters. Using three-dimensional buildings, roads, railroads, etc., they make a thriving community rise out of rough terrain. Double-fold playing board is 23¾"x19½". Deluxe implement trays contain plastic railroads, road sections, boundary markers, subdividers, apartments, factories, a shopping center, church and school, plus pawns in four different colors to indicate ownership of tracts. Included are planning cards, zoning markers, pad of paper, value card that stands like an easel, over $4 million in play money, and extra tract cards." Item did not sell well and will not appear in 1966 line. (Originally $7)

POSTMAN, FIRE CHIEF, POLICEMAN (Selchow & Righter). For the 5-to-9 set. Postman operates in a rustic setting; Fire Chief has an urban environment that is not positively pleasant but at least has a quiet orderliness; Policeman (*above*) has a frantic and chaotic city as his bailiwick. ($1 each)

RUBBER JIG-SAW PUZZLE (Creative Playthings). One of a series, this one entitled "Cityscape." Not very accurate as a cityscape, though, with three buildings and only three cars. Wild colors—turquoise, purple, and orange—but then, everyone knows that the city is a wild place and unsuited to human habitation. The windows make good erasers. ($1.50)

UZZLES are in an exploding state, with new ideas bursting forth in all directions. In jig-saw puzzles alone, there is: (1) a jig-saw of a Jackson Pollock painting; (2) Pop-Art jig-saws in the shape of bananas and other foods; (3) a circular jig-saw puzzle of a New England church. Of more architectural pertinence are the following:

SEE-INSIDE PUZZLE (Creative Playthings). An avant-garde puzzle form, but done in the style of yesteryear. The removable plywood pieces show the exterior of a suburban home; inside are the rooms and utilities. ($2.25)

PUZZLE (import, Holland). Less than 2"x4", this tiny puzzle is diverting—and surprisingly difficult. The density of living looks a little difficult, too. ($.75)

HOUSE OF SHAPES (import, Japan). Not strictly a puzzle, except to the very young, for whom getting the right shape through the right window is a problem of some magnitude. ($1.50)

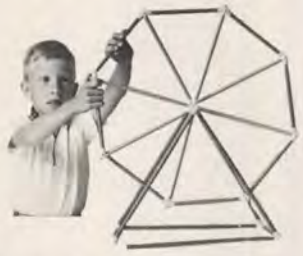
TRY-IT MAZE (Milton Bradley). A fascinating pastime, trying to work the black ball out through the intricate transparent maze. Even when you've done it, you can't remember how. Reminds us of those cities where one part of town is fairly much like the next, or of those buildings where the elevator is always down another turn in the corridor. ($2)

CONSTRUCTION, OPEN-ENDED These are the construction sets that begin with bits-and-pieces, sticks and connectors, cardboards and rubber bands, and end up as a construction—abstract or realistic. "Open-ended" does not mean absolute freedom of possibility, though, because in fact there are always limitations imposed, by the design of the parts, the number of parts, the appropriateness of materials, and the resemblance to real things.

AMERICAN PLASTIC BRICKS (Halsam Products, Division of Playskool). Five sets with from 119 to 909 interlocking pieces—full brick, half brick, coping brick, lintels, glass-block windows, cupolas, paneled doors, flagpoles, etc. Direction book says that these will build "most anything that can be imagined," then gives front elevation, rear elevation, and foundation plan for what surely must be the most prosaic group of buildings ever imagined. With luck, youngsters will either lose the guidebook, or will grow up to become biologists. (Sets from $2 to $15)

FINGER PUPPET STAGE (Creative Playthings). Same construction principle as the Eames House of Cards, in marvelous colors and sturdy cardboard. Can be assembled in varied arrangements; need not be restricted to puppet presentations. ($3.95)

GIRDER AND PANEL BUILDING SET (Kenner). Introduced several years ago, and, according to the manufacturer, "the first to build the way contemporary structures are built: You start with a girder framework and add prefab wall and roof panels and you can make a tremendous number of different kinds of buildings with a few basic parts and without any tools." Girder and beam snap together easily; but plastic skins are flimsy. Set can be combined with Kenner's Bridge and Turnpike Building Set, although each is available separately.
(G and P alone $3, $5, and $8; with B and T, $7 and $10.)



SNAP STICKS (Childcraft). Hardwood dowels fit into a connector that can receive only one dowel, but two or more connectors can snap onto each other. ($5)

SNAP 'N BUILD (Kohner). Small-sized building blocks, in yellow and red plastic, for the small-sized child (aged 3 and up). Patented snap feature was added to the design several years ago, making it possible to build floor upon floor without toppling. Most other construction toys are too intricate for this age group.
(Set of 56 pieces, $2)

LEGO (Samsonite). Another system of interlocking bricks, originating in Denmark but licensed world-wide. The manufacturer reports that it is currently accepted to a much higher degree in Europe, and must be motorized to appeal to the American market. Photo shows a Norman Mailer construction, not yet fully accepted anywhere, alas.
(Sets from $1.95 to $25)

HOUSE OF CARDS (import, W. Germany). Magnificent deck of cards designed by Charles Eames. Full of possibilities, but not for the tremulous. ($1.95)

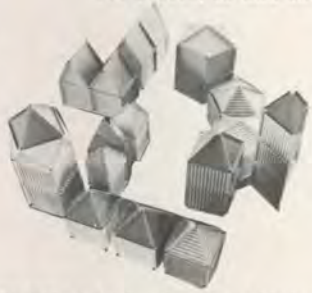
CONSTRUCT-O-STRAWS (Parker). Flexible polyethylene straws, brightly colored, fit onto the prongs of plastic joiners. The joiners are of varied design—from two prongs up to eight, all in the same plane. Straws can be cut to varied lengths. ($2, $5)

LOCK-A-BEAM (Child Guidance). Small slotted polyethylene beams, in pleasant colors. A good basic building block, with good interlocking device. Recommended for ages 4 to 7.
(Set of 86, $1.)

MOBY LYNX (Kendrey). An ingenious "mobile linkage" principle, essentially the work of the common rubber band. These rubber bands, however, are not common, being attached to each other along a spine of more rubber. The Moby-maker will cut off a segment of several rubber links, then slip a single rubber band of it over a single plastic clip, and insert this assembly into the end of a polyethylene tube. A clip-and-band is inserted into as many other tubes as come together at that joint. Materials are reusable, but, because of low price, are expendable. From the concealed joint, the Moby Lynx can project its elements at any angle, in any direction or plane, either in a straight line or a curve. An unlimited variety of geometric and free forms is possible. The inventor, Luke Kentfield of San Mateo, Calif., reports that later editions will permit encasing the frame with molded siding when a solid effect is desired. ($2.50)

LINCOLN LOGS (Division of Playskool). Not illustrated. Designed by John Wright, son of Frank Lloyd. Round wood logs, ¾" in diameter, are not to be confused with American logs, also made by Playskool, but square. Too easy to assemble. Fun would seem to lie in doing a whole town; fun for the manufacturers, too, who have six sets for increasingly larger buildings.
(Sets from $1.25 to $6.50)

CONSTRUCTIVE THINKING (Child Guidance). But not Thoughtful Construction. The method of building is to construct a full story of plastic walls, then set it over another story; difficult to keep together unless it is a simple tower or set-back structure. Catalog says that "almost every building and architectural design known to children can be duplicated." Doubtful, with these pieces, and undesirable in any case.
(Two sets, 161 and 300 pieces, $3 and $5)



FLEXAGONS (Forde). Miniature form of the Flexagon playhouse, which was also designed by Fred Bassetti, architect. In fact, the toy developed from table-top study of the playhouse in model form. Fastening technique is a simple rubber band along the length of the flange. Colorful and durable, lends itself to geometric forms, houses, towers, villages. The term "flexagon" is borrowed from an English mathematician who created it for his flexible polygons of folded strips of paper. ($2, $5, $10)

STAX (Orange). Hard plastic rods, in the usual red, yellow, blue, and green. Despite the name, these are difficult to stack; structures are shaky even when the flexible plastic connectors are utilized. Recommended for ages 4-12. Two or more children are required for some of the more adventurous constructions. ($3)

TIME WASTER SELF-LOCKING BUILDING STIKS (North Pacific Products). A bundle of same-sized notched sticks, 1⅛" x7"x⅛". Nothing elaborate, just good, clean time-wasting. ($1)

HOUSE AFIRE (Renwal). Not a toy in any sense of the word, say the manufacturers, but a hobby-kit item in HO scale, intended for use with model railroading and model racing. This accessory appears to burst into flames with the press of a button: smoke pours from the roof, and a fireman sprays a stream of water on the blackened roof as his engine pumps away. Motor, pump, lights, and smoke generator come with this kit. A pleasant enough house. Sorry to see it go. ($9.95)

BELGIAN VILLAGE (Village Creations). This photo of the Belgian Village, like many an architectural photograph, obscures more than a few clumsy connections, and some outright gaps where we could not find the B to paste our A to. ($1.50)

FIREBALL XL-5 SPACE CITY (Multiple). Curtainwall, in cardboard, for headquarters building. Easily folded and tabbed together. Comes with various missiles and launchers. ($7)

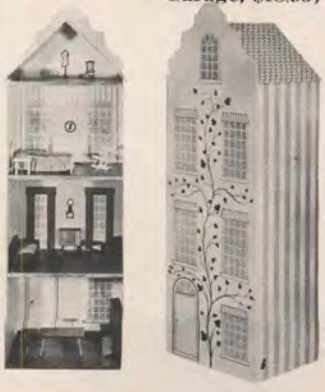
PLASTICVILLE, U.S.A. (Bachmann). More HO-Gauge accessories, these in the "modernistic" idiom. Among them are a ranch house, trailer, motel with pool, car showroom, drive-in bank (most of these look alike), and contemporary house (photo). Directions are staggering. ($2.98)

UNITED NATIONS BUILDINGS (Superior Plastics). Model kit, complete with historical fact folder. When and if fully assembled (each step is glue-and-let-dry-thoroughly), the finished size is a 10″x14″x9″ and the Secretariat can be used as a savings bank. Among other model kits produced by Superior from Superlon plastic are: the Taj Mahal, "in alabaster-like Superlon"; the Lincoln Memorial, "in marble-like Superlon"; and Mr. Bones, the Human Skeleton, in "bone-like Superlon." (each $2)

CONSTRUCTION, PRE-PROGRAMMED Wherein Our Hero Or Heroine Builds Something, Knowing from the Beginning How It Will Turn Out—If All Goes Well.

DESIGN-A-HOUSE (Pyro). A series of walls, exterior and interior, doors, wall finishes, bathroom fixtures, cabinets, and so on—to build a series of vacation houses, split-levels, and ranches. Plastic sections are notched to grip together, the surface textured to look like brick, shingle, and a few other unidentifiable materials. In ¼″ scale. ($7, $10)

PLAYTOWN FIREHOUSE, PLAYTOWN GARAGE (Creative Playthings). Two of the Playtown Village settings; others are a barn, stable, and various single-level or multi-level houses. Each unit is 12″x 16″ in plan, has three sides of maple and a floor of birch plywood. Just enough realism to such items as fireman's pole, water hose, vehicles, and elevator for rooftop parking.
(Firehouse, $17.95; Garage, $18.95)



TOWN HOUSE (Hall's). Billed as "one of our most exciting toys since the first canopy bed!" Takes very little floor space, also makes an excellent bookcase, says the manufacturer. (unfurnished, $20; furnished, $30)

DOLL HOUSE (Hallmark). Kitsch. Good value for the money—lots of punch-out activity in thin perforated paper. ($1)

PRINCESS PATTI DOLLHOUSE FURNITURE (Ideal). Luxurious furniture in various styles. Left to right: a marbleized end table with nude-lady lamp base, in what might be called Plain Old-Fashioned; a dining room suite in some sort of Empire; an occasional chair, in Genuine Grampa; and a breakfast-room set in Mawkish Modern. Many other items are available, each in its colorful cardboard box.
($1.50, $3.50, $1.50, $3)

OPEN-TOP DOLLHOUSE (Playwell). Design your own dollhouse: 19 separate wall sections permit many different floor plans. Right angles work best, unless you're not too fussy about how the corners meet. (unfurnished, $12)

BUILDINGS For better or worse, some buildings are already pretty well put together. These include everything from Mr. Kelly's Car Wash to Casey's Car Wash (by different manufacturers); from Noah's ark to a heliport; from numerous barns to a $59.95 supermarket. Then there are houses —houses for suburb, plantation, and city, houses that nest, stack, fold, roll, or just sit there. A few items from this motley cityscape:

COMMUNITY BUILDER (Community Playthings). A set of four units and four roofs with which to make any combination of houses, schools, barns, garages, etc. Each unit is scaled 1″ to the foot, and is 16″ long, 12″ wide, and 8″ high. Walls are ¾″ solid maple; roofs are tempered hardboard. Made by the Society of Brothers, a group of families working together in a spirit akin to the early Christians. They are now in Rifton, N.Y., and in several other locations, but were originally (until the 1930's) in Germany; their play equipment dates from 1954. (unfurnished, $36; furniture, $26.50)

NESTING HOUSES (import, Japan). A variant of the usual nest of dolls, boxes, etc. Despite a certain folksiness, these have all the essentials of "houseness"—roof, walls, door, windows. (set, $1.25)

***FOLDING* FLOOR-PLAN DOLLHOUSE (Creative Playthings).** Partitions can be moved or removed during play; house can be folded away for storage. Size is 30″x30″x8″ when open; 3½″x30″x8″ when folded. Outside walls and spine are ⅝″ plywood; room dividers are ¼″ thick. There is no roof. Developed especially for Creative Playthings at the Yale Child Study Center.
(Unfurnished, $21.95; 27-piece set of furniture, $31.95)

PLANTATION HOUSE (Hall's) New design. Six rooms plus a full attic, or "9 sq ft of usable floor space." Can be assembled with screwdriver alone. Southern charm includes "wrought-iron" balcony, solid-brass hinges on paneled door, and four-piece porch furniture finished in "Natchez green." Six other sets of furniture are available separately. ($30, including porch furn.)

BARBIE'S NEW DREAM HOUSE (Mattel). The very fashionable Barbie doll, who has costumes for every imaginable activity, has a house to match. A suitcase of Yamasaki arches and shutter windows opens out into a four-room house, and the layout can be changed at each laying out. Mattel's furniture also offers something for everyone — a Danish-modern living room, and an 18th-Century dining room—easy to assembly in colorful chipboard, and impossible to forget in later life. ($8)

INTERIOR DECORATING SET (Irwin). "*House & Garden* coordinated colors and 1000-and-1 interchangeable combinations." A vase becomes a lamp, a chair becomes a table, a couch becomes a bed. Pieces interlock without glue; wall panels are also interchangeable. Furniture is accurately scaled to ¾″ = 1′, and the whole is styled to within an inch of its life. ($12.95)

CONTEMPORARY DOLLHOUSE (Marx). From the catalog: "Marx has done it—gone modern with a completely new design in a lithographed steel dollhouse. The roof lifts off for direct play into the six tastefully decorated rooms. Past the plastic hanging entrance way lanterns, through the plastic operating front door, the junior homemaker finds a new world of modern living. Of course, the living-room/dining-room flow together with easy access to the kitchen. For privacy, the bedrooms and bath are in one wing. For a change, access is available through the 'sliding doors' to the rear patio. If this weren't enough, Marx includes a newly designed world of contemporary furniture: 153 pieces, making 54 interchangeable combinations of modern furniture. Such furniture is all plastic, all new and all out by Marx. There is no doubt this will be the leading dollhouse of the year." Marx also manufactures several colonial models, a split-level and a ranch-style. ($10)

MOBILE HOME (Nylint). Scale model of hypothetical trailer, 30″ long x 6⅜″ wide. Catalog enumerates its deluxe features: "Sturdy trailer hitch and retractable support; tandem-mounted wheels, extruded bearings for long axle life; smartly styled detachable tractor; heavy steel construction; smooth rolled edges, high-gloss baked-enamel finish; nonmarking white wall tires, chrome hub caps." Furniture made in Hong Kong is included, but is a let-down in every way: dull-brown plastic, badly out of scale—like a house that has been "decorated" after the architect has gone. ($9.98)

ISCELLANEOUS No survey is complete without a miscellaneous category.

DRAFT-A-PLAN KIT (Lakeside). The closest thing to a Little Play Doctor kit, this one with electric drafting desk and equipment for making blueprints. It has none of those little red candy pills, though, which may be one reason why the set is no longer being manufactured. Not illustrated. (Originally $10)

NATIONAL ROAD SYSTEM (Teach-A-Tot Toys, Division of Playskool). Jumbo and all-inclusive set in a series that begins with village roads, and goes on up to city, county, and state road systems. This one has 378 pieces, mostly in plastic, plus a design sheet with layout suggestions. ($20)

GUIDANCETOWN, U.S.A. (Child Guidance Toys). Buildings are constructed wall to wall, floor on floor, from white plastic. End result of this particular Guidancetown looks like a reformatory. Sounds like one, too. ($3, $5)

ITYSCAPE Most toy cities are actually only villages. And most toy villages are made real only by the motion that goes on inside them. Some of these are train layouts, varying from the simplest configuration to the most elaborate; a recent one imported from Germany by F.A.O. Schwarz was described as having "an overhead bridge and wires, freight yard, turntable, engine shed and commuter village, priced at $650." Some villages are magnetic, with trucks and cars sent racing through them by means of wands wielded underneath the set. One such village consists entirely of police station, fire station, gas station, and supermarket. Another, adding such buildings as church and school, nevertheless had a carwash as the largest and most central building. The city, for children, may be static in itself, but it lives on motion.

PLAYSKOOL VILLAGE (Playskool). For ages 2 to 8, says the manufacturer. Tablecloth layout is rigid and limiting, as are the buildings with their obvious labels and attributes. Best to ignore all this and improvise. ($6)

KINDER PEG VILLAGE (Sifo). Delightful from many angles. ($2.50)

BUILD-A-HOME AND SUBDIVISION SET (Kenner). Not illustrated. No one knows why this didn't sell, but despite great hopes for the set, it is being discontinued. Toys very often have no relation to reality. (Originally $10)

WOODEN BLOCKS (will be produced by Playwell). Substantial blocks designed with great freshness by Geré Kavanaugh, a West Coast designer who is also at home with interior design and industrial design. This city is truly down to a child's scale—with flowers (the cylindrical shapes), a fire hydrant, and buildings that lend themselves to imaginative play. (approx. $10)

Looking back through this catalog is like the wild-eyed look around a living room the day after Christmas. There is something for every taste, for every age group. It was obviously impossible to include in such a survey all the building toys currently on the market. (Limitations of space also prevent our including the large blocks, playhouses, and outdoor playground equipment that make up a child's special—and spatial—experience of architecture; we hope to present some of these in a later article.) Among these toys, some are "well-designed," others are not. Some will last, others will be broken or become tiresome. But children's tastes vary too, and what one will like, another will not; it may not be the fault of the toy designer that a toy is soon broken or abandoned.

TOYS OF THE FUTURE: A new block by Frederick Vogt (above), designed while he was an architectural student at Pratt Institute and involved in a $3000 research project sponsored by the Ideal Toy Company. The blocks are grooved top and bottom, to permit connection as well as stacking, and suggest the one-building city that is probably on our horizon. Newest blocks (below) in the expanding Arkitek series by Eugene de Christopher, a product and graphics designer. Although superficially similar to Frank Lloyd Wright's Froebel blocks, Arkitek has even more possibilities for creative play, with interlocking forms and varied new shapes and sizes. Baer Sticks (below, right), with a universal joint of flexible surgical tubing similar to the plastic-jointed D-Stix, made by a West Coast firm called Geodestix. Not actually a "toy," Baer Sticks were designed by 27-year-old Stephen Baer, who is seeking new ways to enclose architectural space.

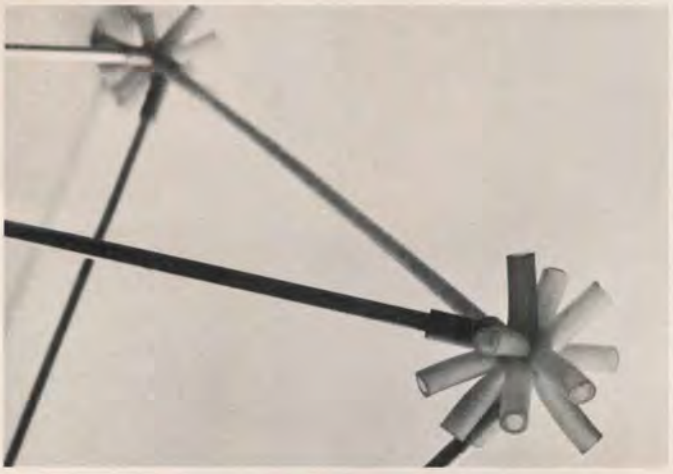
There are worse sins commited by the toy designer. Too many toys are designed as if for adults, with directions to match: too restrained, too tidy, too down-to-earth for a child's imagination. Too many toys are the product of a designer whose reined-in imagination is harnessed to the pursuit of a literalness that will always outrun him. The last thing a child needs in a toy is utter realism. But the highly competitive market makes a manufacturer aim for a first-impression exterior, often to the neglect of long-term delight and creative growth.

Some toys are more exploitative than others. If a girl is sold a bill of Barbie goods at age 10, it seems likely that she will be an avid consumer at age 20 or 30 or 40. The point is not whether she will grow up to like "modern" architecture, but whether she will be pleased by matters of form, relationship, integrity.

Contemporary architecture is no more prevalent in the world of toys than it is in the real world, and much of that is only "modernistic" in its externals. The full range of possibilities of contemporary architecture is not suggested even by the many construction kits and preassembled buildings on the market. Children construct primarily with unitary items—wooden logs, unit (plastic) masonry, and the parts for a tension structure—but nothing approximates the monolithic form, or inflatable form, that is part of the structural vocabulary of the real world.

Perhaps the best construction toys are sand and clay—and junk. An article entitled "A Dolls' Apartment House that an Up-to-Date Boy Can Build for His Sister" (*Woman's Home Companion*, 1913) combined the problems of what to do with an up-to-date boy and what to do with old grocery boxes. A recent exhibit at New York's Pepsi-Cola Building amplified this idea with an entire show of toys made from cast-offs—one cityscape was made of paper bags, each building given individuality through painted-on windows. But it would take a courageous manufacturer to admit that *real* junk might be better than the elaborate junk he now takes such pains to produce.

And, in the meantime, new toys proliferate. As yet, most of the "villages" are only in vaguest contact with the experience of an urban child. Perhaps the game world, being as gamey as it is, will leap into the breach. Monopoly, after all, got its start during the Depression, when people did not have much real money to play with; perhaps there are vicarious possibilities in such games (not yet invented) as Demolition, Rapid Transit, Pollution, Fight City Hall, or Housing Scandal. There might even be some intrigue to a game called Environment, although the concept is hard enough to sell in the real world.—EP



PLASTERED IN PARIS: GETTING HIGH IS HARD WORK

The Why and How with designer Maria Bergson:

WHY:

Rooms have six, not four walls. . . . Plaster is sculpture within the box.

HOW:

What you do earns the workmen's respect . . . make drawings they can't chisel on.

WHY:

A lack of fluidity is poorness of enjoyment. . . . Plaster is fluidity.

HOW:

Careful detailing . . . assures contracted work.

WHY:

We wish a charm of life; no one likes to be in a barracks.

HOW:

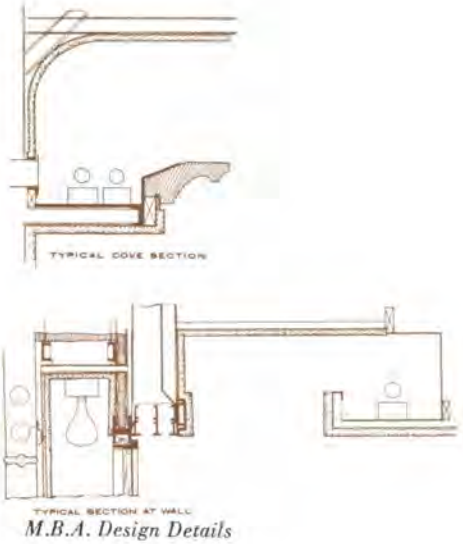
Our details force up the price. . . . Contractors think we are fussy; we are.

WHY:

Good plastering has not gone out of fashion.

HOW AND WHY:

Make prideful work for both designer and contractor.



M.B.A. Design Details

If beauty is skin deep, then the beauty of interior design can be measured to the depth of its plaster. As the skin covers the bones, sinews, and respiratory system of the human body, the plaster coat of the building's interior conceals the bare facts of structure and the awful nakedness of mechanical systems.

The extremely difficult problem of coordinating work on the mechanical systems and plaster framing to keep the skin unblemished is complicated by a series of not necessarily compatible premarital concepts held by the trades prior to their "Marriage of Convenience" on the construction job.

Mechanical Contractor: "Get there fustest with the mostest."

Architect: "You can't rent mechanical space."

General Contractor: "Coordination, spoordination. . . . Everything will come out in the end."

Detailer, Alias the Artist: "All masterpieces should have an air of mystery enhanced by the things left unsaid."

It is a wonder that, with this combination of concepts, ceilings are not built on the floor. The fact that they are actually

constructed so that a person can walk erect beneath them is the wonder of the age. However, there is no denying that, in the doing, there does result some of the longer, more interesting job deliberations accompanied by some of the shorter tempers.

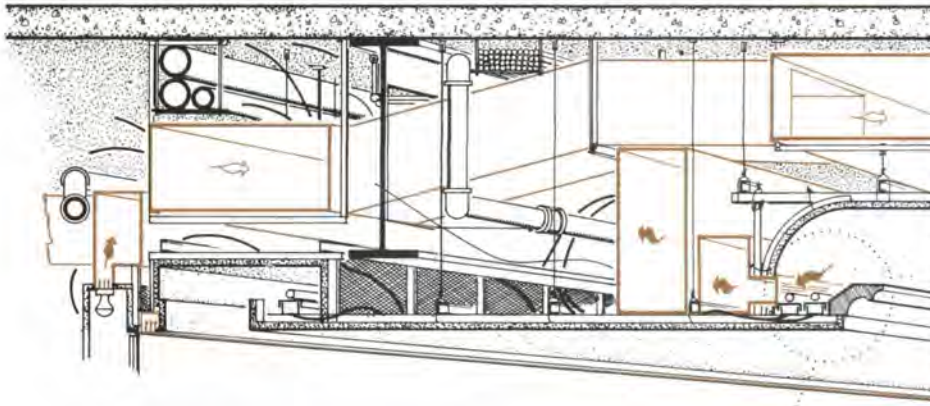
The ceiling details shown here are an example of the approach to the joys of plaster as a medium and a menace by a competent designer and her staff. They are important because they reflect careful consideration of the factors involved. However, drawings cannot solve all of the field problems, as the as-built illustrations show, although they are a fine first step.

Careful detailing is probably the only honest method of alerting the contractor to the designer's intent. It is unfortunate that a certain amount of confusion often results, due to several types of construction being lumped into one job. Wise contractors know that when interior designers are called, special conditions must be met. The contractor will price accordingly and watch for trouble. Another name for trouble is coordination.

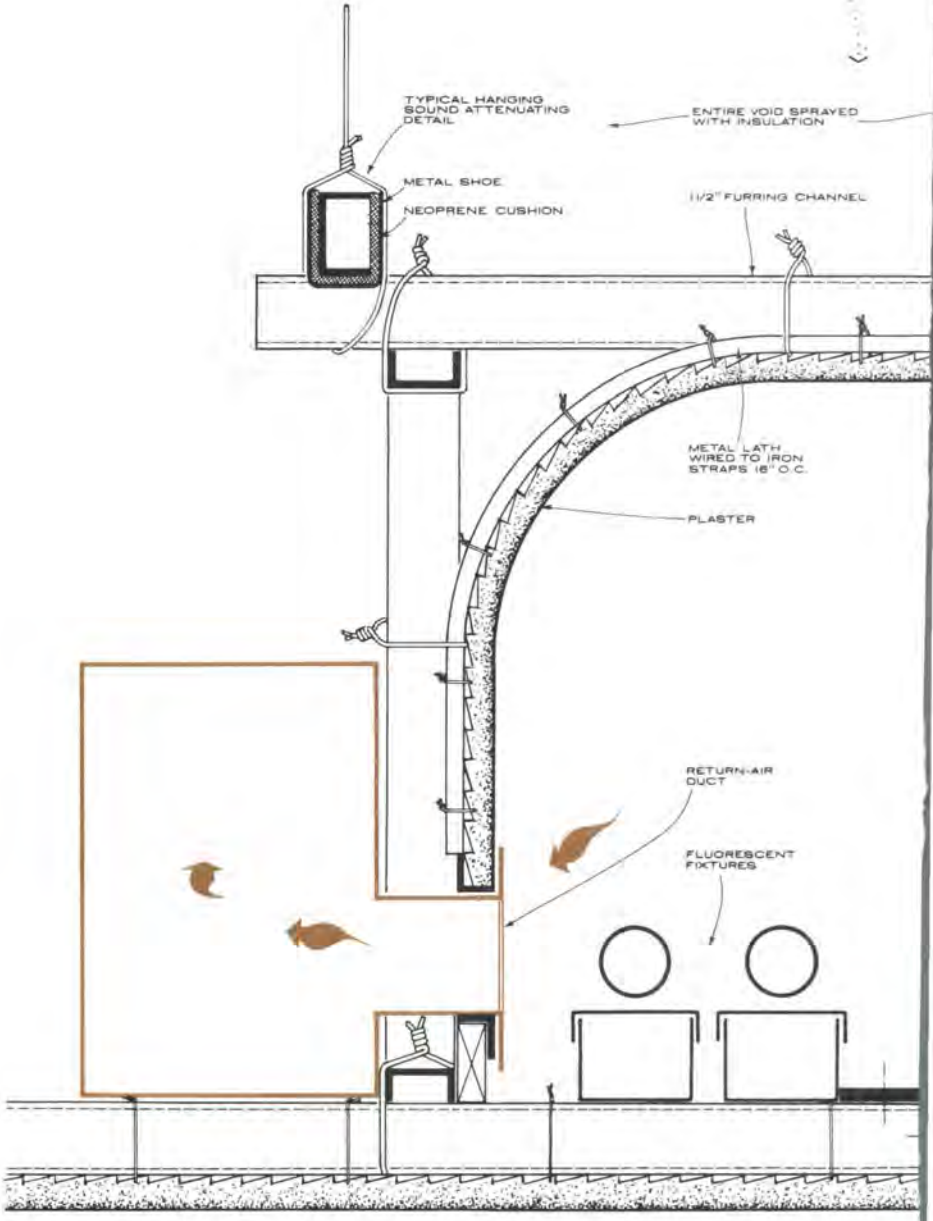
The question has been raised—and, it seems, with justice—that the contractor should be compensated for additional coordination. This form of coordination is an essential corollary of careful detailing; it is a factor that should certainly be considered if quality work is to be produced. No matter how well the job is detailed, without coordination the right details will be in the wrong place.

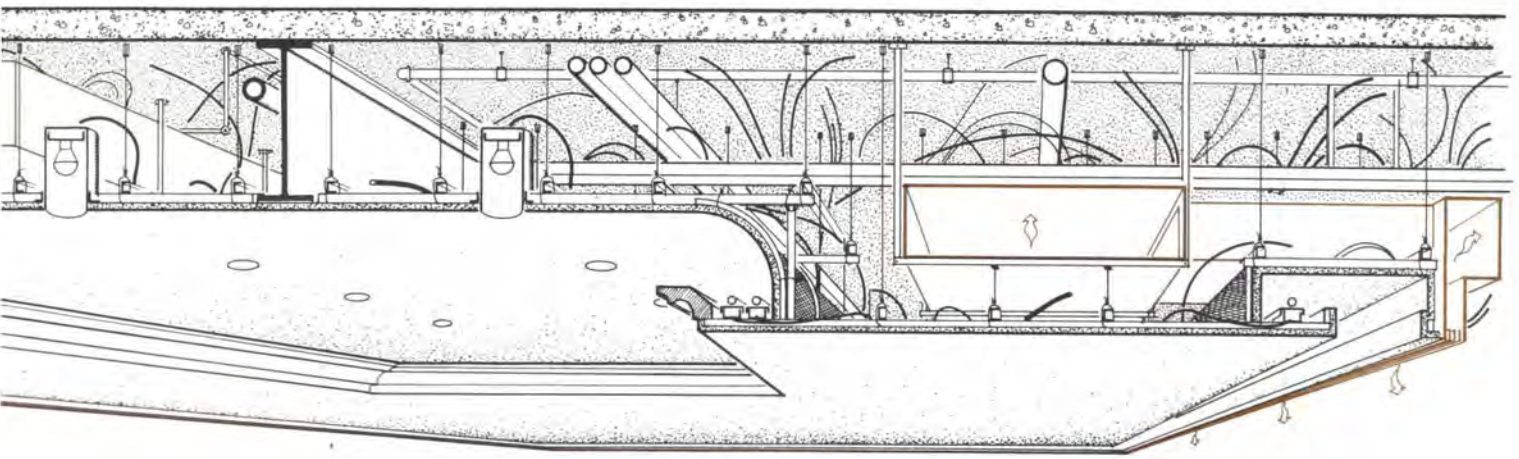
The detailed drawings shown here should illustrate some of the reasons that interior design and construction is so fascinating and often so difficult to contain within the building for which it was designed. The as-built drawings have been added to show that, despite the excellent and careful detailing of the designer, these are the actual conditions the artisans had to coordinate.

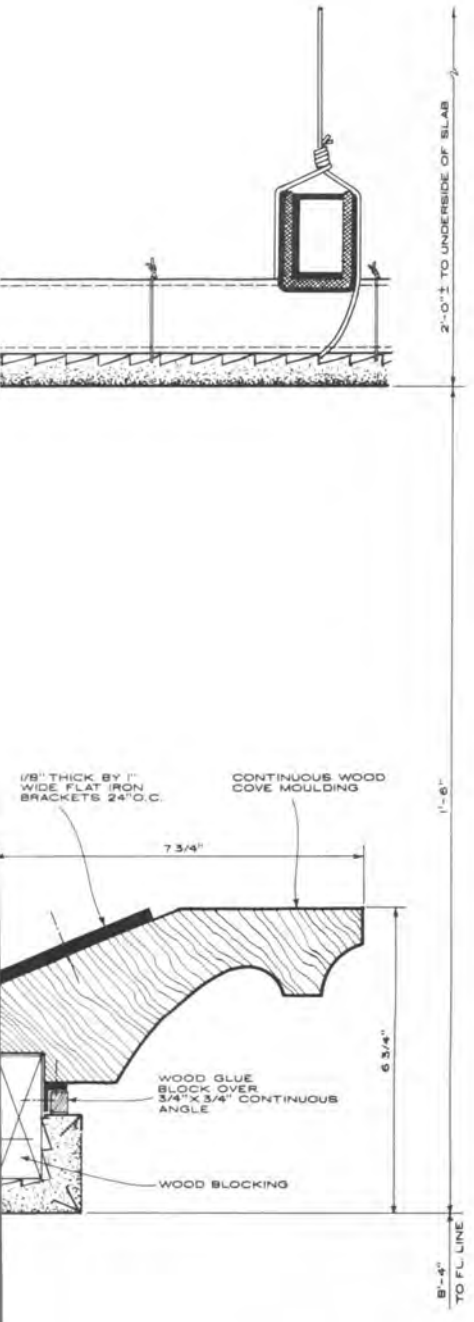
From the drawings, it would seem that the designer managed by the skin of her teeth to keep the skin-deep beauty of the interior from becoming a beast. It is hoped that all coordinating parties were thick-skinned enough not to be skinned. In summation, I would like to quote an old construction stiff, Chips the Dowel Knocker, whose immortal words seem to sum up the situation: "No matter how hard we work, they seem to finish the job anyway."—FW

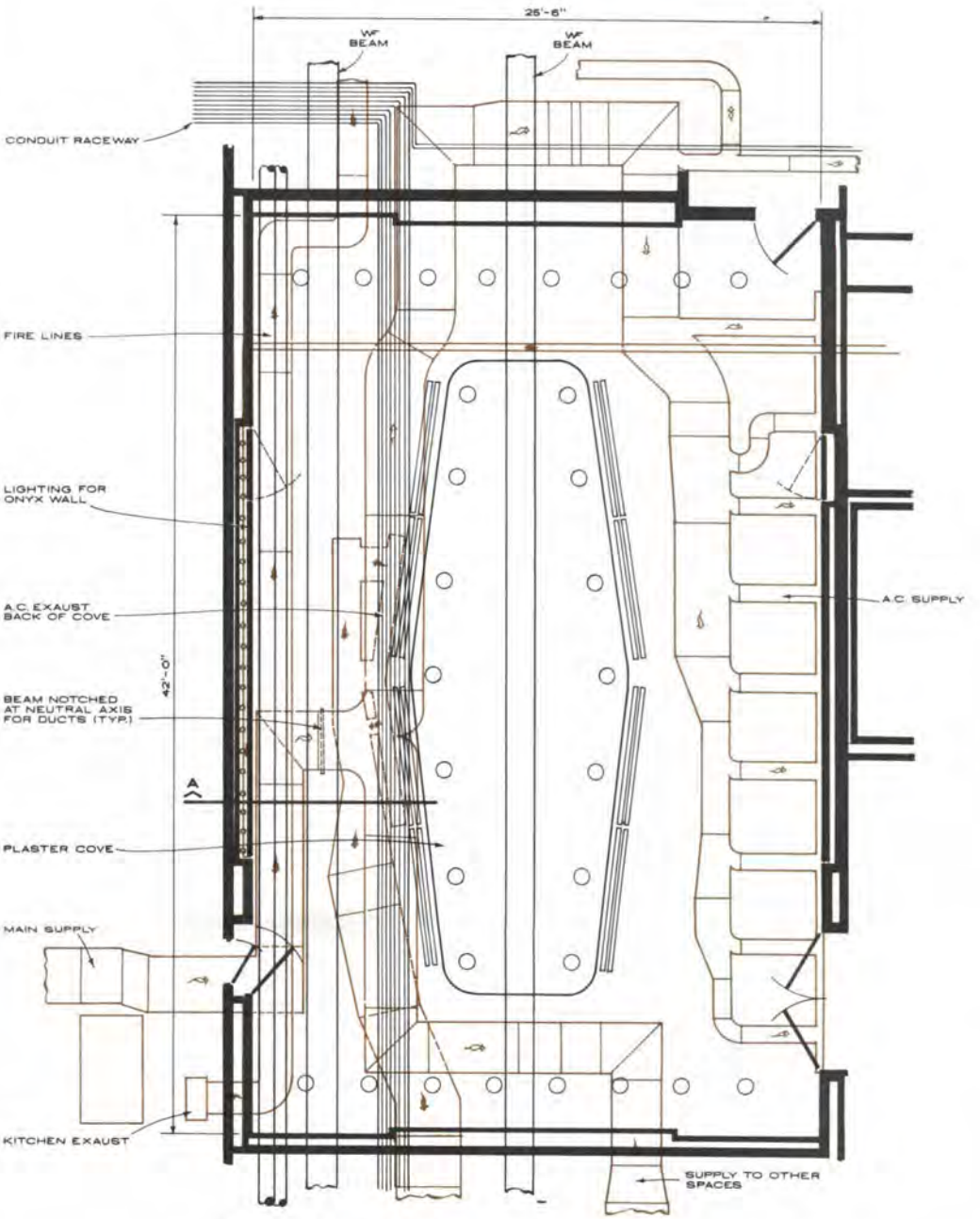


AS BUILT CUT-AWAY PERSPECTIVE (AT A)









MECHANICAL LAYOUT

PITTSBURGH TRIES OUT NEW TRANSIT TECHNIQUE

Driverless vehicles, spaced two-minutes apart, travel a two-mile track to demonstrate a transit system suitable for medium-size cities.

With $5 million and an eye to the future, Government and industry have built a demonstration transit system near Pittsburgh, Pennsylvania, to study a new method for moving large numbers of people through a medium-size city.

The system, called Transit Expressway, carries passengers in driverless, rubber-tired vehicles that ride on concrete tracks. Three of these vehicles travel an approximately 1¾-mile-long test circuit at South Park near Pittsburgh. Most of the track and one station is elevated; a second passenger station and a control station is at grade level.

Transit Expressway is testing schedules for running vehicles singly during slack periods and connecting the cars into trains during peak fare periods. At all times, the time interval between vehicles will be kept constant. Thus, a passenger will know that, whatever time he enters a station, the next vehicle will be no more than, say, two minutes away.

With an attractive service such as this, transportation planners hope to induce motorists to use public transit instead of overloading streets with cars that sometimes carry only one person.

Vehicles on the Transit Expressway tracks seat 28 persons and carry 42 standing passengers. Each vehicle is 30½ ft long by 8½ ft wide, weighs 9 tons, and travels at 50 mph on a straight track. At curves, it slows down to 20 mph.

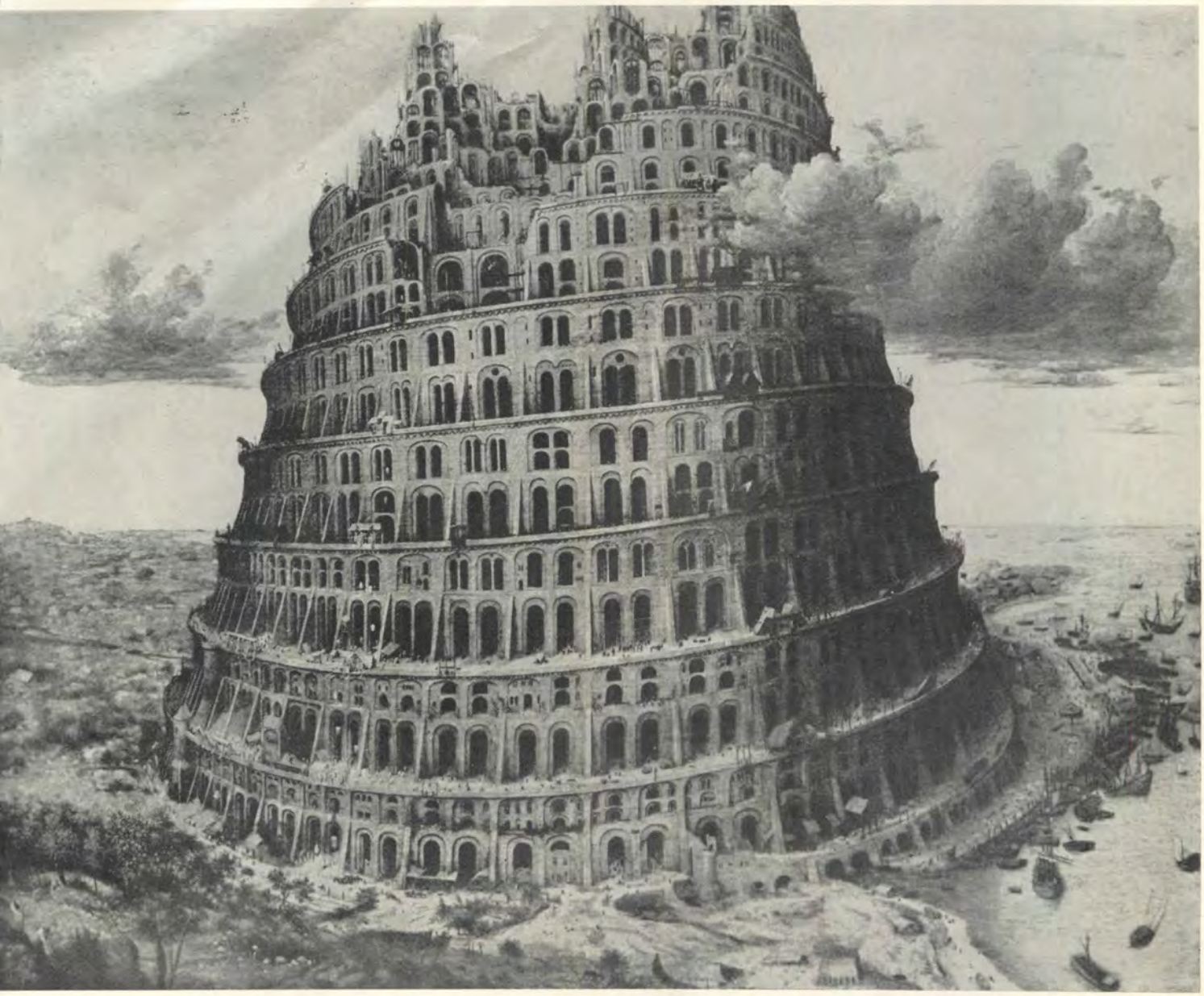
Engineers modeled the riding quality of the vehicles on the performance of a high-quality automobile on a new interstate highway. However, vehicles differ from automobiles in that there is no steering mechanism. A transit car drives on eight rubber tires mounted on two axle assemblies that swivel when the vehicle enters a curved section of track. A set of horizontal wheels, also mounted on the axle assembly, holds the vehicle against a center guide beam.

A system of mechanical and air springs located between an axle assembly and a vehicle body cushion the ride and also prevent the horizontal guide wheels binding on the guide beam when the vehicle enters a banked curve. Steel safety wheels superimposed on the guide wheels stabilize a vehicle against any overturning forces.

Who Paid the Fare?

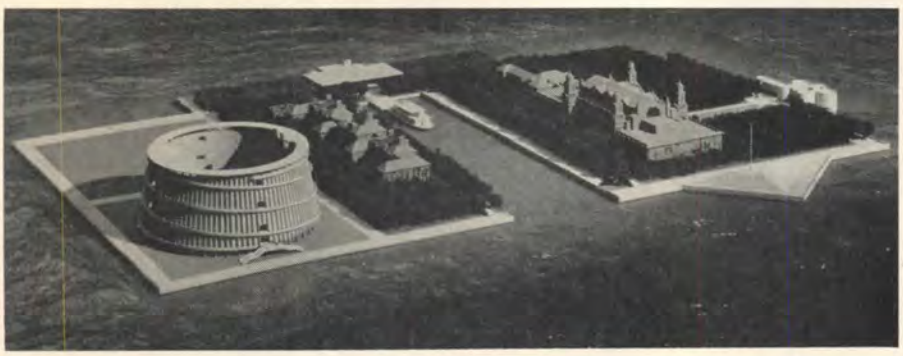
Federal, state, and county agencies financed nearly 80 per cent of the $5 million project. The Federal Housing and Home Finance Agency contributed the major share: $2,872,000. The Port Authority of Allegheny County gave $886,000, and the Pennsylvania State Department of Commerce, $200,000. Industry supplied the remaining $1,042,000.

A BABEL TOWER AND GOTHICK RUINS



Presumably, Philip Johnson's truncated hollow pyramid for the Ellis Island national shrine will not suffer the same fate as the Tower of Babel —unless it chances to give Robert Moses offense—though we wonder about the strong reference of a monument designed to celebrate the absorption of many languages and many people by the U.S. to a form and a time thus celebrated in the Bible.

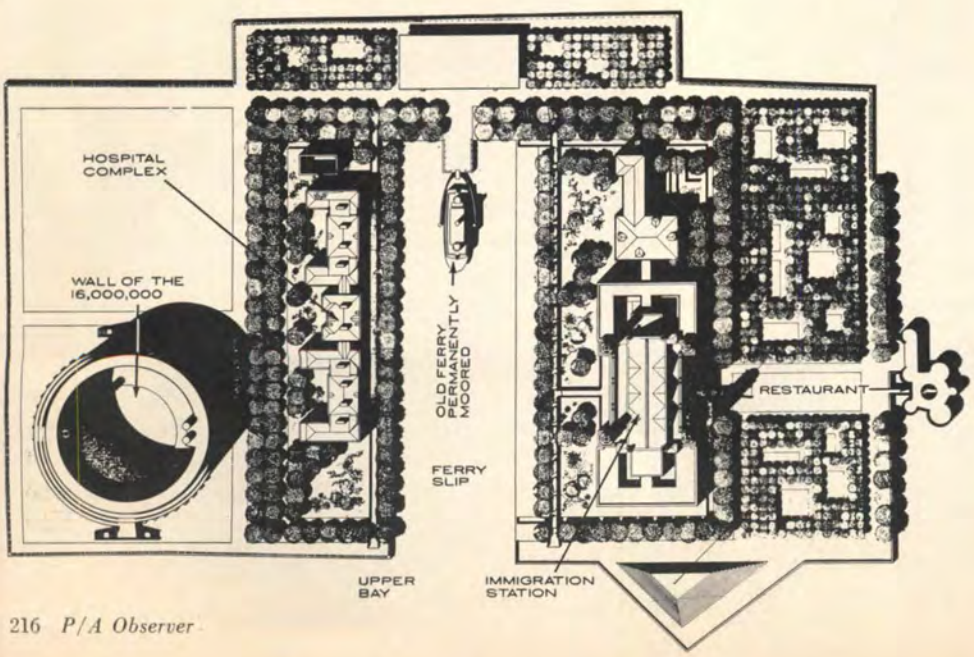
The monument is actually part of a larger plan for the Island and 400 acres of New Jersey swamp 1300 ft away. On Ellis Island, the immigration station building and hospital group (designed in 1898 by the New York firm of Boring & Tilton) on either side of the ferry slip will be preserved as "romantic" ruins, with most of their interiors removed and trees, vines, and other foliage planted around and encouraged to grow up and into the old structures. A system of raised walkways around and through the buildings will "let the spectator . . . recreate the feeling of those hard times," according to Johnson. Paths will thread through this portion of the site. A moat will separate the old group from the rest of the island. In stark contrast will be the "Wall of the 16 Million," a 130-ft high (20 ft short of the base of the nearby Statue of Liberty), 300-ft-diameter concrete structure rising from a bare, crew-cut grass plain. Sixteen million refers, of course, to the number of people who entered this country through Ellis Island.



The cone will be spiraled within and without by 8-ft-wide ramps ascending to viewing platforms at various points of the structure. Johnson hopes to have plaques bearing the names of the immigrants who entered the U.S. through Ellis Island mounted between the vertical, prestressed concrete ribs of the building. A 100-ft-diameter pool will be located at the interior of the great court.

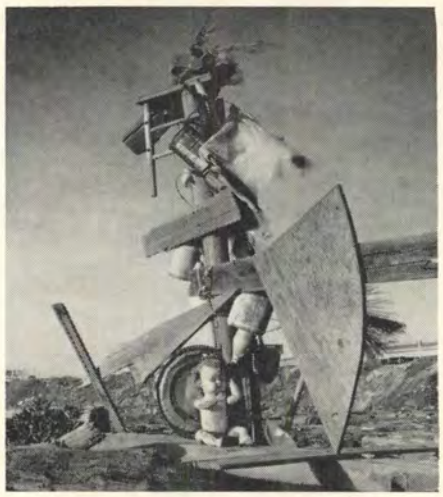
Another new building, this one described as "fortress-like," will contain an off-shore restaurant and will be placed north of the immigration station looking at the New York skyline through slit windows. The 400 acres in New Jersey were dedicated by Secretary of the Interior Stewart Udall as "Liberty State Park" at the same ceremonies that saw the unveiling of Johnson's plan. They may eventually be connected to Ellis Island by a footbridge. Landscape architect is Zion & Breen.

Reaction to the project in New York was somewhat mixed. Even *The New York Times*, the only local newspaper with an interest in architure, was somewhat schizophrenic: critic Ada Louise Huxtable coming out mostly in its favor one day, and an anonymous editorial questioning the appropriateness of a "wailing wall" symbol for this entrance to democracy in the following edition, and calling for a restudy of the monument's design. Babel, indeed.



LIKE, IT'S JUNK...BUT THE GOOD KIND

You are seeing the constructions on this page in the wrong manner. If you hold the magazine at arm's length and pass it rapidly in front of your eyes, you will get a sense of the way it really is on the shores of East Bay not far from the Berkeley campus of the University of California. There, between the bay and the Nimitz Freeway near the approaches to the Bay Bridge, students have been using flotsam and jetsam found along the shore to create giant-size junk sculptures, some of which could stand comparison with many current exhibitions in New York and San Francisco art galleries.

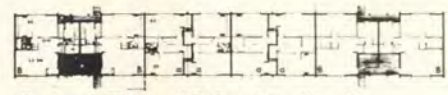


There is the requisite—for Berkeley—amount of comment and protest: ban-the-bomb insigne, "Peace" signs, and what looks like a bomb about to hit a babydoll over the head. One suspects, however, that most of the creation done here was out of sheer high spirits and a what-the-hell-it's-going-to-fall-down-in-three-days-anyway kind of abandon. And that ebullience comes through splendidly.

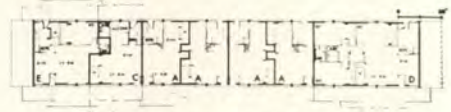
Commuters on their way home from a Market Street job to the consolation of that first Martini probably do not think much of these objects as they zip by, not as much as they mull over the merchandising impact of the cigarette billboard they just passed. But the two artifacts by the side of the road are both products of the same culture, and, of the two, we prefer the one with the guts and life in it, transient though it might be. (The sculptors will probably be zipping home to their own Martinis in a few years!)

Photos: Morley Baer

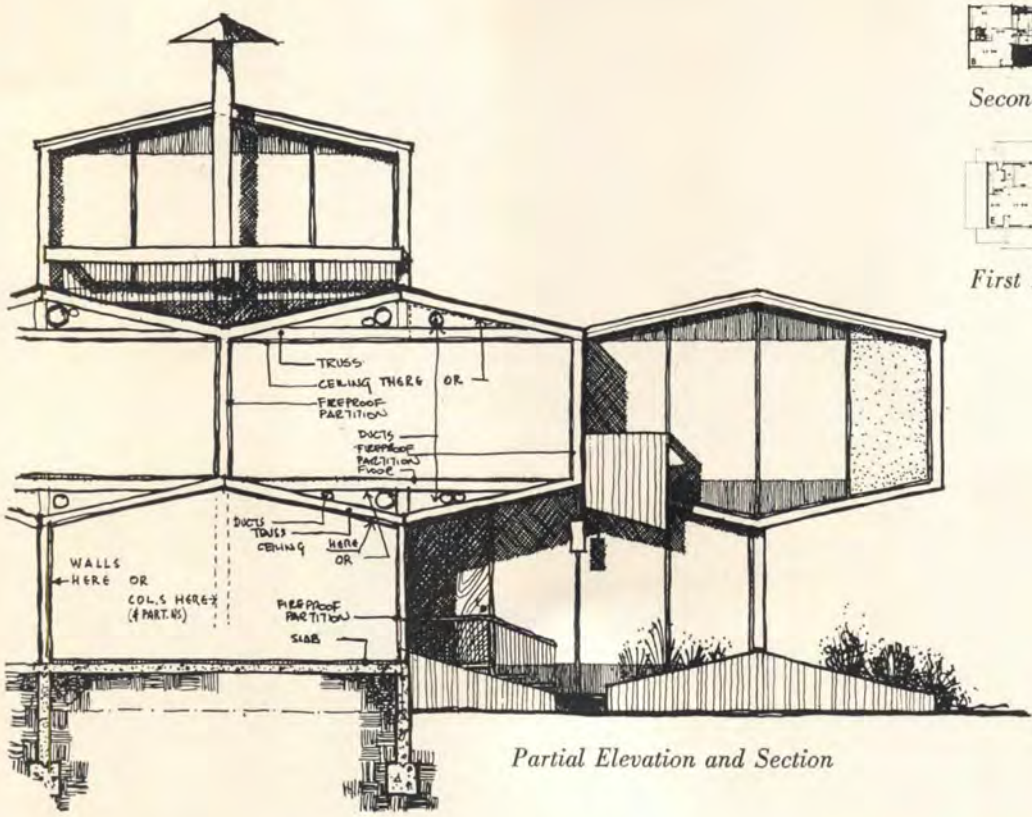
MINISCULE MONT-ST.-MICHEL



Second Floor (Colombia Plan)



First Floor (Colombia Plan)



Partial Elevation and Section

In 1962, William Mileto was asked to design housing for Colombia that could be erected simply, efficiently, and economically. His solution was a system of right-side-up and upside-down trusses and connecting walls that could be slid against each other both backwards and forwards and up and down according to the dictates of varying topography.

That project never went through, but when Mileto, now New York partner of the Rome-New York firm of McMillan, Griffis & Mileto, was commissioned to design a proposal for housing on a wooded, partially swamp-like site in New Haven, Connecticut, he brought out the drawings for the Colombian venture and found that, with updating and maturation of his original scheme, the concept fitted the new problem admirably.

According to Mileto, the New Haven design is an attempt to create "a tight, a very tight, urban feeling" for the development. He has therefore clustered the units at the central portion of a site approached over a kind of "causeway" past the most swampy portion of the site. Parking areas are found at either end of the central circulation spine; both the parking and traffic are slightly below grade—about 3 ft—so that residents will be aware of cars and delivery trucks, but will not be intimidated by them. "Ladies like to look out of the kitchen window and see what's going on," he says. There will be little landscaped "experiences" in the unbuilt portions of the property: tiny islands, bridges, and footpaths.

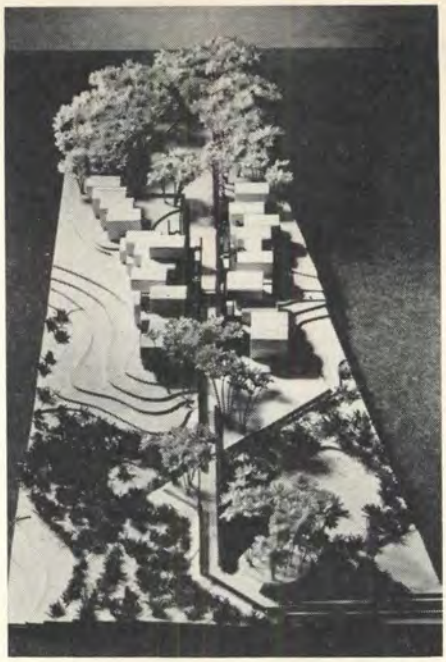
A sense of entrance into this little community will be emphasized by overhead footbridges that will connect third-floor elements near the beginning of the "street." These upper units will be reached by outside stairs—"suitable for bachelors," the architect says. As one progresses along the lowered main street, the units will splay out and become lower. A guest parking lot screened by trees will preserve the line of the street.

The architect feels that the truss system of construction, aside from the merits of economy and flexibility, can be exploited for variations in interior treatment. There can be the expected, exposed "cathedral" ceiling effect, a plain dropped ceiling, a half-and-half arrangement, an exposed, reverse truss arrangement on lower units, or, where the truss is interrupted by a partition, an exposed and concealed bottom truss.

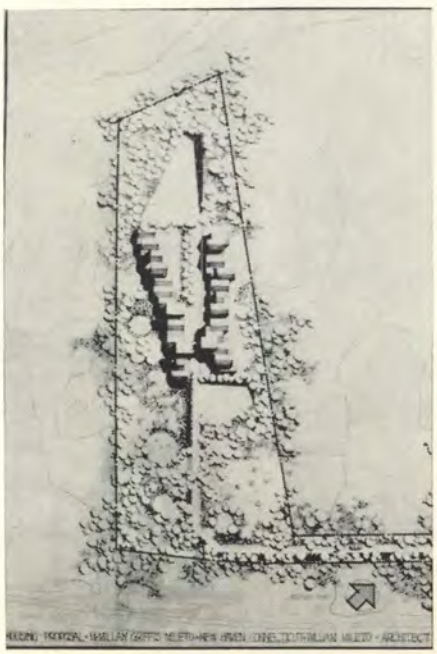
As in the Colombia design, the units slide easily against each other horizontally and vertically. The emphasis on creating a compact hamlet in the New Haven project has lead Mileto to place all entrances on the

street side, where miniature sidewalks would parallel the depressed roadway. Unlike the Colombian plans, all living rooms here would face the rear, overlooking views of the common woodland.

The project's major attribute, one feels, is its search for a "tight" community experience. The site seems particularly well suited for such an experience, allowing an approach over a marshy space to the gateway (bridges) for a communal block. A miniscule Mont-St.-Michel, so to speak. It is to be hoped that this project, or a similar one, could better realize the possibilities of the plan by extending it to a greater number of units, and therefore a larger variety of urban spaces. This observer is less happy with the design of the individual elements. Aside from their acknowledged economy and fluidity, they have, in drawing and model form at least, a repetitious similarity of silhouette and elevation, recalling the "roof play" of the late 50's and early 60's. The architect states that the use of color, balconies, stairs, will tend to give life and variety to the project, and it is hoped that these elements will also answer this objection.



Model photos: David Hirsch



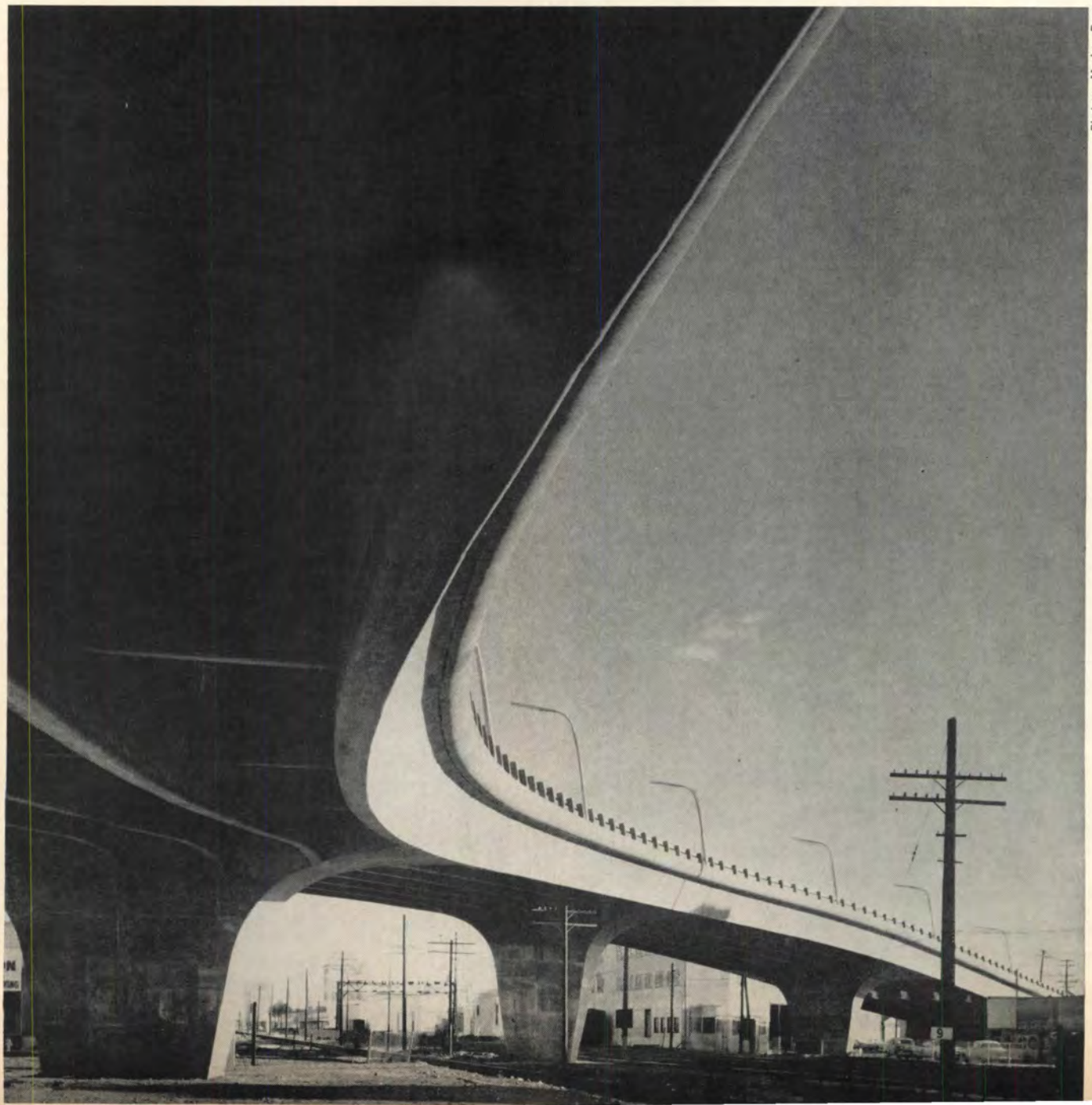
Site Plan

OAKLAND OVERPASS: A BEGINNING

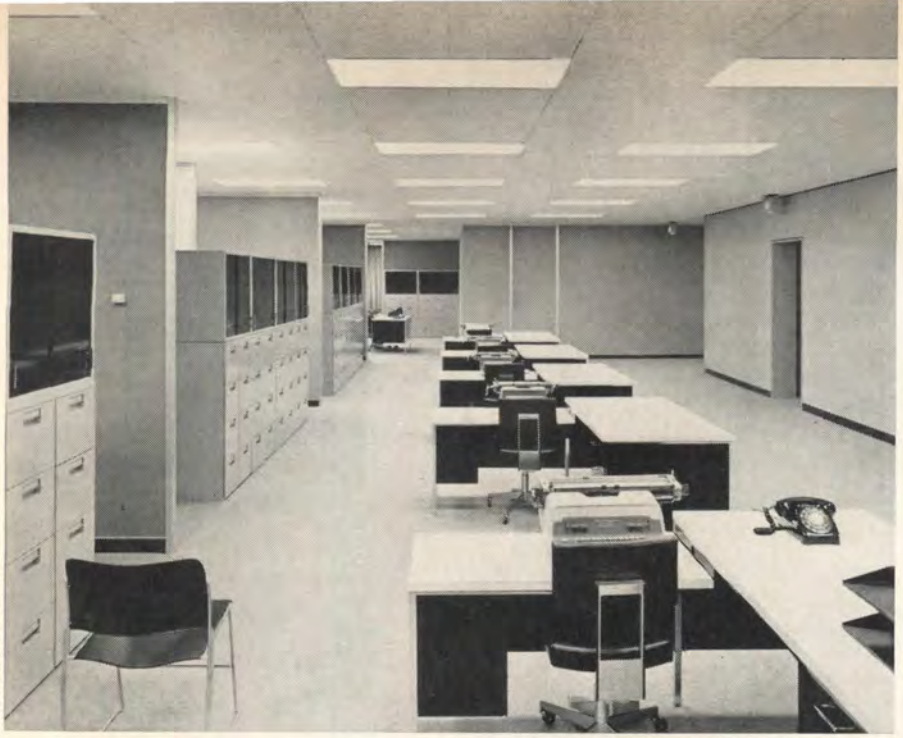
When the 23rd Avenue Overpass in Oakland, California, won a Public Use Citation in the 1963 P/A Design Awards Program, the jury comment was that this was "a commendable design effort by a team of architects, engineers, and landscape architects in an area of construction activity seldom explored architecturally."

Since that time, California has launched a number of transportation projects involving architects, such as the use of Mario Ciampi in designing highway bridges and the program of using different offices for stations on the Bay Area Rapid Transit System. The Oakland Overpass, however, has the distinction of being one of the first projects completed, and it successfully proves the value of the interprofessional dialogue lauded by the 1963 jury (Paul Rudolph, John Johansen, Robert Geddes, Aline Saarinen, John Skilling).

The original solution, unfortunately, seems to have lost some of its refinements along the way, no doubt in the name of expediency and economy. The landscaping has yet to appear, and there are reportedly no plans to proceed with it. Also, and probably more importantly, an integrated handrail-luminaire (see detail sketch from initial Citation-winning design) that removed those omnipresent lighting stanchions that so often contribute their unique form of weediness to the civic bouquet, has disappeared, and, in its place, we find a gaggling procession of gooseneck highway lamps. (Protection against vandalism also figured here.) A pity, for what re-



Photos: Morley Baer



Photos: Balthazar Korab

its vertical compactness, loses power and becomes diminished. One wishes that some means of terracing, burying, or otherwise concealing the parking structure could have been employed.

A professional who recently visited Durham reports to P/A that he found the structural idea bold but somewhat obvious and self-consciously handled. The vertical rhythm of the exterior columns, reiterated by the repetitive vertical elements in the truss floors, he felt were misleading and not representative of all the interiors.

Nevertheless, this building is yet additional evidence of what has evidentally become a decided trend in the past few months: the re-emphasis on design as a major factor in architecture by many of our large, "business" firms. In Chicago, in Los Angeles, in Detroit, in New York, we have become aware that big and/or old-line firms notable for a steady if not-too-exciting production of buildings have suddenly started turning out some pretty exciting designs. In some cases, it is the result of hiring new talent and giving it its head (*cf.*, this year's First Design Award, JANUARY 1966 P/A). In others—and this is the way the North Carolina Mutual Life Insurance Company Building looks from here—it is the case of a wealthy, dependable outfit maturing in the design sense. A very heartening development, and one we will watch with deep interest.—JTB

Architect: *Welton Becket & Associates;* ***Associate Architect:*** *M. A. Ham Associates;* ***Structural, Mechanical, Electrical Engineer:*** *Seelye, Stevenson, Value & Knecht;* ***Landscape Architect:*** *Richard C. Bell Associates;* ***Food Service Consultant:*** *Howard A. Post Associates.*

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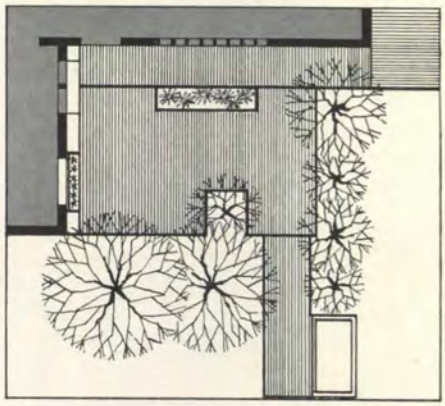


Fuel Cells for Houses

BY WILLIAM J. McGUINNESS

Small chemical batteries fed on natural gas may generate power for a house and use the excess heat to good advantage. McGuinness is Chairman, Department of Structural Design, School of Architecture, Pratt Institute, Brooklyn, N. Y.

Overhead power lines will be eliminated from future housing developments if the natural gas industry realizes its ambition to develop an economical, domestic-size fuel cell. A fuel cell is a form of chemical battery that silently and continuously generates electricity.

The American Gas Association believes that fuel cells fed with natural gas will be commercially available in 1975, and should produce electricity for half the price of conventional power sources. These new energy sources would do the same job in houses as the gas-turbine, total-energy installations that heat, air-condition and generate electric power in large buildings. Eventually, fuel cells may be perfected for replacing the gas turbine generators in commercial and industrial buildings.

Proponents of fuel cells list among its advantages silence, low-cost operation, and small size. The cells, or, as the Institute of Gas Technology prefers to call them, continuous feed batteries or galvanic combustion engines, are silent because they contain no moving parts. This, in turn, reduces maintenance. Space requirements are minimal: A cell suitable for a house would occupy less than 2 cu ft, and cost about $50.

Much smaller fuel cells are installed in spacecraft. Research into this application of power generation led to the subsequent development of fuel cells for domestic use. However, the fuel cells in space capsules are quite different from earthbound models because they are designed for a limited life, and because the cost of miniature cells is extremely high.

A cell to serve the total power requirements of a building would have to be low in cost and suitable for long, continuous operation. It would use natural gas, which contains hydrogen, and air, which contains oxygen. The IGT is investigating two types of cell: a high-temperature cell, and a low-temperature acid fuel cell.

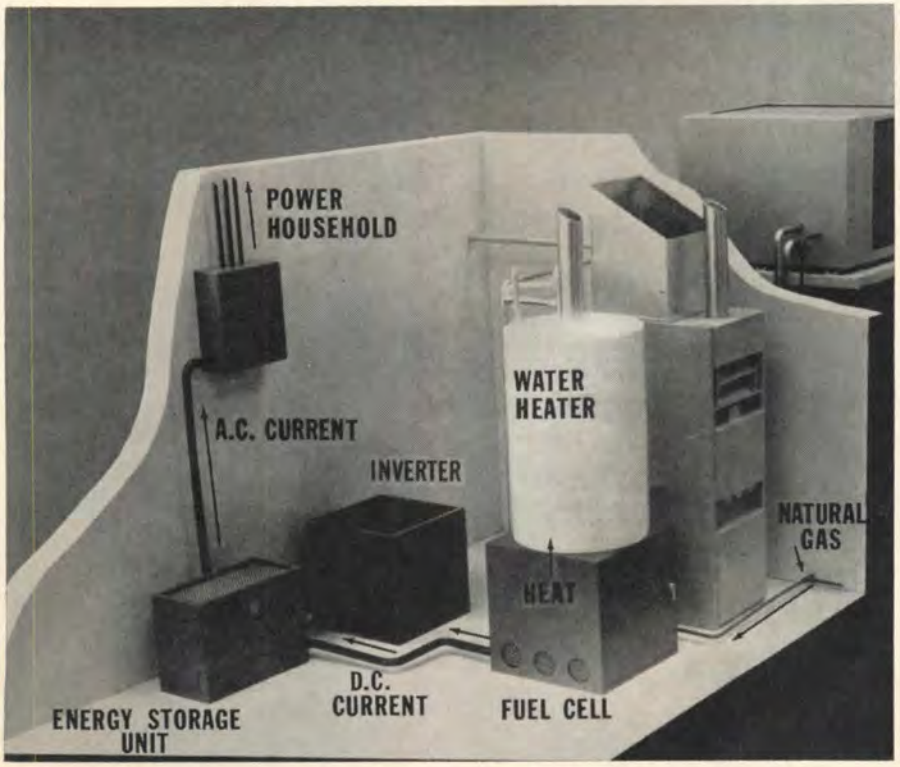
The high-temperature fuel cell is expected to be available commercially within 10 years. Current is produced by a flow of electrons from a cathode to an anode. These electrons are liberated by passing oxygen and carbon dioxide from air over a porous copper cathode. A ceramic, molten-carbonate electrolyte heated to 1200 F envelops the anode and cathode in a cell. (An anode consists of porous nickel.)

The natural gas supplies heat and gases; it is used to make steam for a process called steam-reforming, which produces hydrogen by mixing natural gas and steam over a catalyst. The hydrogen is then consumed at the anode of the cell.

Refinements in development of this cell have increased its performance and reduced its cost, as shown below:

PERFORMANCE: MATERIAL COST		
	watts psf	per kilowatt
1962	12	$6000
1963	20	200
1965	100	40

The second system, a low-temperature acid fuel cell, is in a more advanced engineering stage than the high-temperature cell, but its components are more expensive. Both types are in need of further development, but the sponsors are sure of the feasibility of fuel cells for supplying power and heat for homes.



The schematic illustration shows (from right to left): a 5-ton, gas air conditioner; a 100,000-Btuh gas furnace, a 1-kw high-temperature natural gas fuel cell, topped by a water heater that uses the fuel-cell's excess heat, a 10-kw d-c to a-c inverter for supplying the house from the 25-kwh energy storage unit charged by the direct current produced in the fuel cell.

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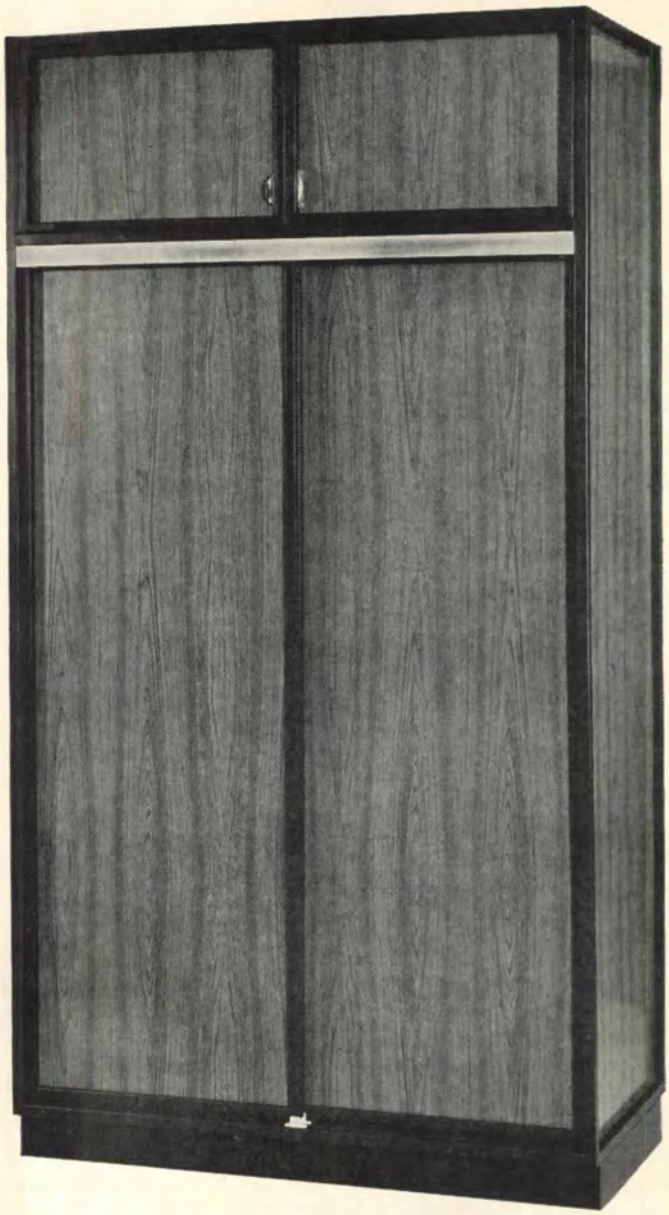

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Ten Years: A Summing Up

BY HAROLD J. ROSEN

On the occcasion of his tenth anniversary as columnist for P/A, Harold Rosen reviews the highlights of developments in specifications writing in this period, and looks toward the future. The author is Chief Specifications Writer at Skidmore, Owings & Merrill, New York, N.Y.

This issue marks the tenth anniversary of this column. Such an occasion justifies a review and an analysis of its originally stated purposes, its subsequent fulfillment, and a look into the future.

In the APRIL 1956 P/A, the column opened with this prologue: "From time to time, this space will be used as a clinic to diagnose materials that appear in specifications. Formats for specifications are plentiful, but information on the chemical and physical properties of materials and combinations of materials, while available in voluminous reports from many sources, requires considerable time to digest, evaluate, and incorporate in new specifications. Carefully planned designs require materials which will not cause the loss of a client because your dream house leaks, doors warp, calking sags, built-up roofs blister, paint peels, and plaster pops."

Looking back, it would appear that, although some of these objectives have been fulfilled, new areas have also been explored in order to keep pace with an expanding technology. Looking to the future, it seems that perhaps even newer concepts may have to be evolved to deal with both the materials explosion and the system under which projects are constructed.

Ten years ago, we stressed that information on the chemical and physical properties of materials, and combinations of materials, was essential for avoiding failures. Many articles appeared concerning the properties of materials and their interaction in a composite design. The need for this type of information will be never-ending, because an expanding industrial technology, fed by research for the space and missile program, provides new data that finds its way into products for the building industry. The realization that more and more building materials will be the products of chemistry, has focused attention on the educational curriculum for future architectural students. There is an urgent need for educators to recognize that future professionals will require a more basic understanding of man-made materials if they are successfully to incorporate these materials into composite designs. A license to practice architecture carries with it a responsibility to be conversant with all aspects of the profession, including familiarity with the products selected and specified. The profession today is handicapped by its inability to obtain men properly grounded in the science of building materials.

Another area occasionally reported in this column covers the basic principles of specifications writing. We originally thought that formats for specification writing were plentiful, but we mistook an excess of methods for adequate methods.

As far back as 1957, this column advocated a system of organization of specifications on a national basis. Such a system was promulgated in 1963 by the Construction Specifications Institute with its Format for Construction Specifications. This principle will be further extended into a nationwide system of data filing that involves the cataloging of products and manufacturers' literature and codifying contractors' estimates. This enlarged system will be forthcoming this year. Called the Uniform System, it was sparked by the AIA, under the leadership of James Hemphill, and with the backing of CSI, the Associated General Contractors, and other groups in the building industry.

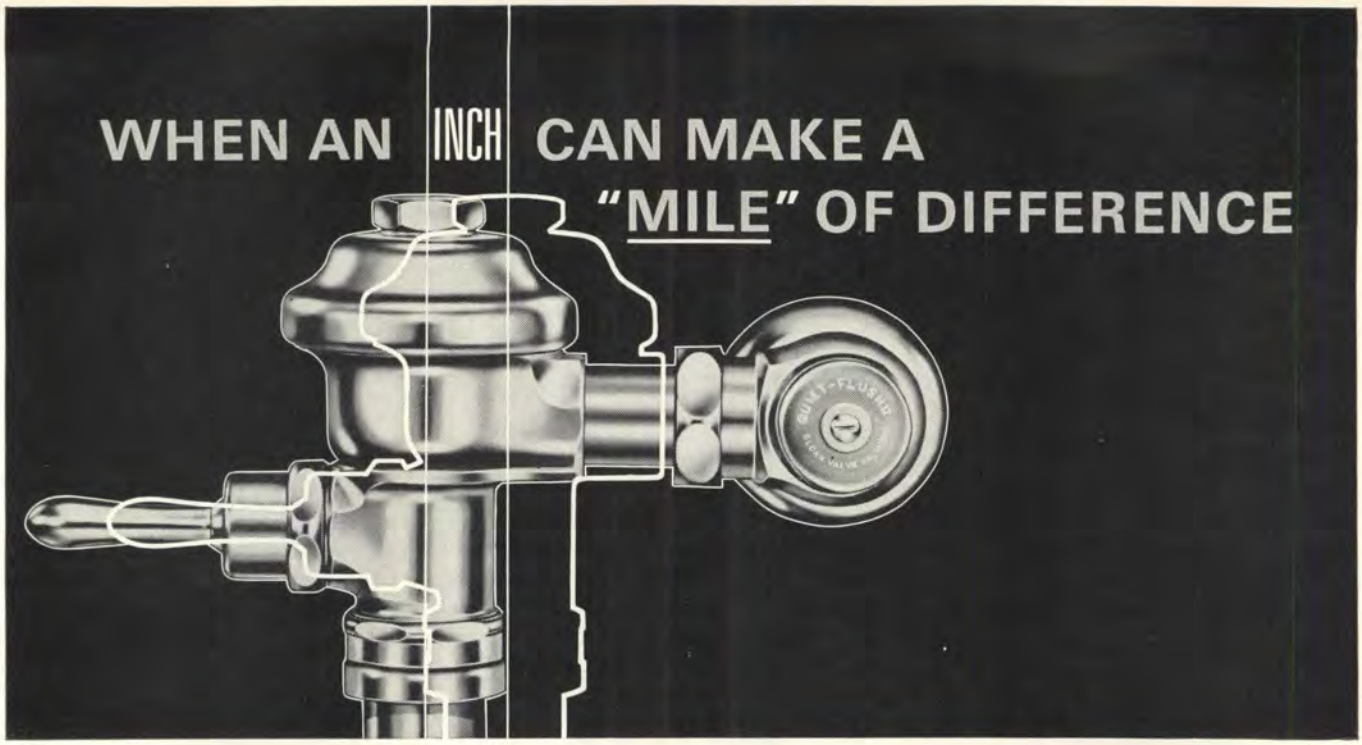
The arrangement of material in the Technical Section, a generally neglected area, was discussed in this column last July. Such an arrangement will serve a useful purpose when attempts are made to use the computer as an aid in writing specifications. Systems engineering will only work when there is order and arrangement. And standardization of the arrangement of the Technical Section will be the next order of business to be formalized and agreed upon.

A materials specification method that encourages competition but does not have the drawbacks of the pernicious phrase "or equal" was the subject of a new concept, "Product Approval Standards," in the MAY 1962 P/A. This method permits competition during the bidding stage but stops the auction after the contract has been awarded. Control over the selection of material thus rests with the architect.

In the November 1962 column, we suggested a method for presenting product information by manufacturers. We called it "Product Data Sheet," and, since then, the CSI and the Producers Council have evolved a "Spec-Data Sheet" that will provide a more meaningful system of communication between the producer and the specifier. This system of product information will be administered by CSI and will be available this year.

It is difficult to forecast what direction specifications writing will take in the years ahead. Will the architect be the master builder and retain control? Or will others—namely, those responsible for product manufacture and building construction—understand their responsibility and share in the team effort that is required in the coordination, integration, and accomplishment of the completed structure? CSI believes that, insofar as improvement in specifications writing is concerned, success can only come through a joint effort by specifiers, manufacturers, and contractors.

If I were to restate the objectives of this column, it would be simply to keep readers fully informed on the latest developments of basic principles and materials engineering that affect specifications writing.



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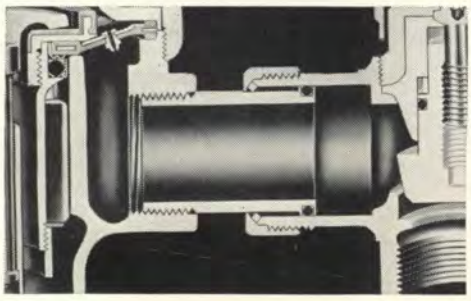

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Warranties and the Home Builder

BY BERNARD TOMSON AND NORMAN COPLAN

Is a builder's warranty, express or implied, merged in the transfer of title at the time of purchase and thus extinguished, or does it survive acceptance of the deed of title? P/A's legal team discusses the legalities involved.

There has been much controversy and litigation involving the measure of liability of a builder in circumstances where defects in the building project are discovered or revealed after it is sold. The sale of homes in residential developments has been a particularly fertile field for controversy. The legal issue generally centers around the question as to what warranties, implied or express, survive transfer of title to the buyer.

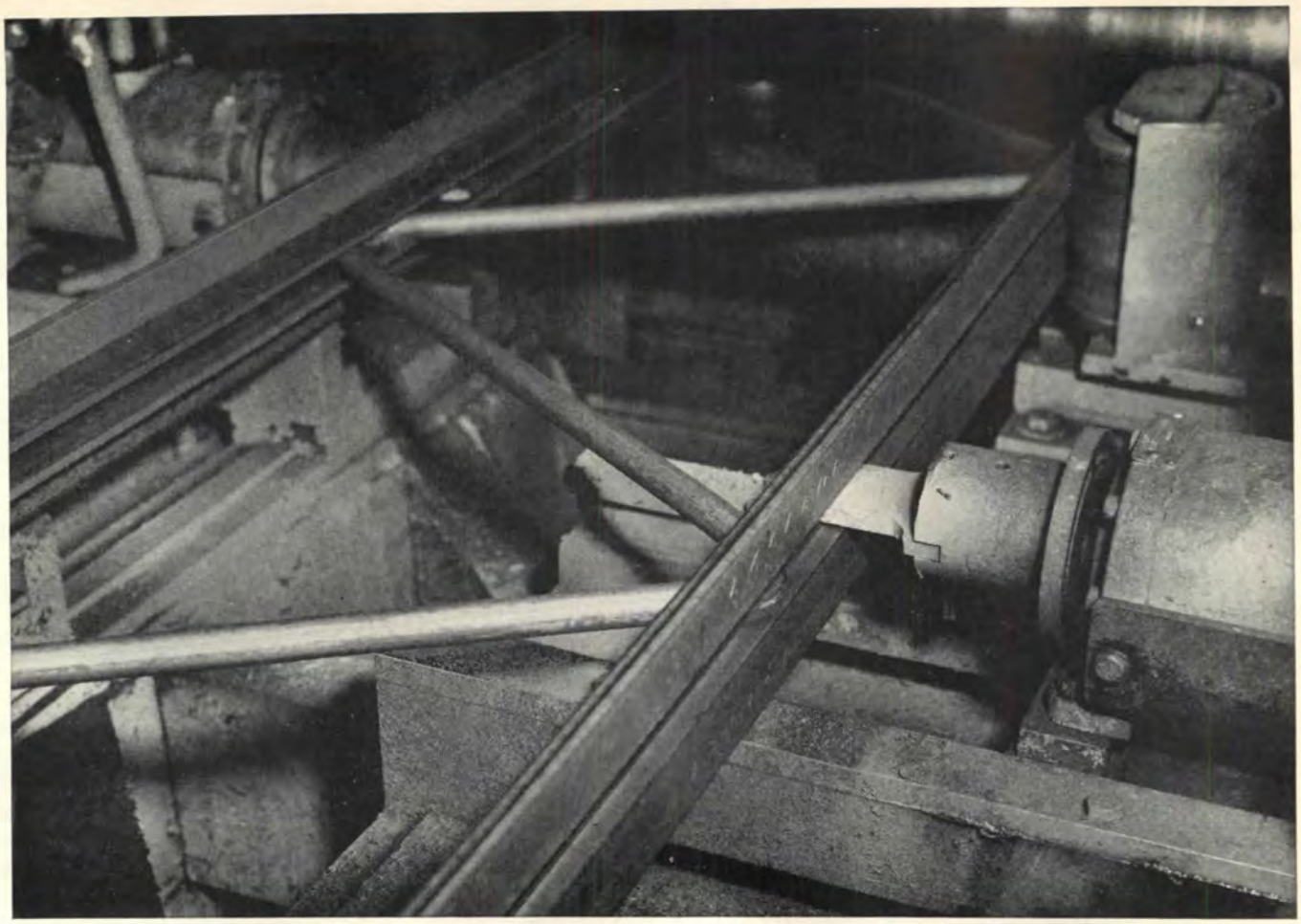
The general rule is that the seller of a completed residence makes no implied representations or warranties of its fitness for habitation, even if the house is new and has not been previously occupied. The buyer purchases such a house at his own risk and must rely on what his own inspection reveals. This rule is generally followed in Alabama, Arizona, Georgia, Illinois, Indiana, New York, Ohio, and Oregon. Many states, however, have followed the principle that an implied warranty arises when the seller is the builder and the house is incomplete at the time of contract of sale. Some of the jurisdictions following this rule are Colorado, Illinois, Indiana, Louisiana, New Jersey, Ohio, Oklahoma, Texas, and Washington. This implied warranty is described by some courts in terms of a guarantee that the house is "fit for habitation" and by other courts in terms of an undertaking that construction has been performed in a "workman-like manner."

If a builder, when entering into a contract of sale for a project yet to be constructed, furnishes express warranties guaranteeing a standard of performance, or, under the law of the state involved, is subject to implied warranties, such builder may nevertheless escape liability for failure to satisfy such warranties if the project has been accepted by and title conveyed to the purchaser. The legal issue presented is whether or not the builder's warranties, express or implied, have been merged in the transfer of title and thus extinguished, or whether they survive delivery and acceptance of the deed of title.

Typical of litigation in this area is a recent New York case, *Staff v. Lido Dunes, Inc.*, 262 N.Y.S. 2d 544. In this case, the purchaser of a one-family home entered into a contract with a development company whereby that company contracted "to erect and complete a one-family dwelling substantially similar to the Model House Type Victorian on exhibit by the Seller, which dwelling shall be constructed in accordance with the requirements as to materials and workmanship of the municipality wherein it is . . . located." The contract also provided "that the acceptance and delivery of the deed of conveyance at the time of the closing of title . . . shall be deemed to constitute full compliance by the seller with the terms, covenants and conditions of the contract on its part to be performed" and "that none of the terms of the agreement except those specifically made to survive title closing shall survive such title closing." After the conveyance and acceptance of title, the purchaser asserted that he had discovered defects in the shower tiling, the result of faulty installation of the sheet rock behind the tile; that the dining room and den flooring were improperly laid, without proper allowance for expansion and in the same direction as the subflooring; that the sill plate was below ground level, in violation of the Building Code; that the footings were not of the required depth; and that the piers were not centered on the footings. The purchaser claimed damages based on the seller's breach of express and implied warranties, and the seller defended on the ground that any such warranties were merged in the conveyance and acceptance of title as specifically provided in the contract above-quoted.

The Court ruled that the builder was obligated under its contract to furnish a structure that met the requirements as to materials and workmanship of the municipality in which it was constructed, and that the Building Code required that "workmanship in the fabrication, preparation, and installation of materials shall conform to generally accepted good practice." The Court held that if the defects complained of were the result of the failure of the builder to meet this standard of "good practice," and were latent or undiscoverable as of the time of the conveyance of title, the express promise or warranty of the builder to meet the standand of "good practice" survived the conveyance of title and his liability continued. The Court stated:

"Whether obligations of the purchase contract are merged in the deed is generally a matter of the intention of the parties.... Under paragraph 24 (of the agreement) .... none of its terms except those specifically made to survive title closing shall survive such title closing.... To the extent that construction defects are discoverable at the time title closes public policy is not violated by enforcement of the contract provisions because the purchaser can protect his interest by either demanding a 'specific written agreement' covering the defect or refusing to close until it has been corrected. With respect to latent defects, however, the provision if enforced is an absolute bar to action with respect to defects which by hypothesis are unknown at the time barred ....It is with respect to latent defects, the cause of action is extinguished at the moment it is created. It has long been the law of New York that while limitations may be 'prescribed by written agreement' an unreasonably short limitation period is against public policy and unenforceable .... The court concludes that as concerns defects not discoverable at the time of title closing paragraph 24 does not bar this action."



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Architects Without Architecture

BY SIBYL MOHOLY-NAGY

PERSPECTA 9/10: THE YALE ARCHITECTURAL JOURNAL. *Edited by Robert A.M. Stern. Published by the School of Art and Architecture of Yale University, New Haven, Connecticut, 1965. 336 pp., illus., $6.00. The reviewer, Professor of Architecture at Pratt Institute, is author of* Carlos Raul Villaneuva and the Architecture of Venezuela. *She is lecturing this month at New York's Museum of Modern Art on "The Past In the Present."*

The Connecticut State Capitol, by Richard M. Upjohn

"The Center Piece of this overloaded table."

Architectural criticism finds itself today in the same boat with the body rental service. Both are threatened with extinction through unfair competition from their own clientele.

This is not the place to mourn the decline of the oldest profession. What concerns us here is the peril to the second oldest: architecture. Its death by verbalization becomes staringly apparent in this issue of *Perspecta*—large, heavy, and expensive enough to rate as *vade mecum* of contemporary architecture. Despite a variety of themes, architects Robert Venturi, Charles W. Moore, Romaldo Giurgola, Philip Johnson, Edward L. Barnes, and Louis I. Kahn have as their common denominator a more or less total break between theory and practice. Not that these vast expositions of architectural and city-planning theory are incompetent; they are almost painfully soul-searching and carefully formulated, illustrated with historical and contemporary selections that would carry the message if the reproductions were larger than windshield stickers. What is so startling is the frantic effort to justify architectural performance through historical evidence that is totally unrelated to the actual results. Robert Venturi, in "Complexity and Contradiction in Architecture," flings a massive challenge at "the powerful orthodoxies of 20th-Century architecture" by advocating **". . . forms that are impure rather than 'pure,' compromising rather than 'clean,' . . . ambiguous rather than 'articulate,' allusive rather than simple, perverse rather than impersonal."** Whatever one might think of a definition that identifies personal and perverse, Venturi's exposition of architecture as grandeur and delight, from Karnak to Chandigarh—with a predictable preference for the Baroque—is fluent and erudite. The 23 pages of buildings designed by him that follow this ringing proclamation of architecture as art constitute such a blatant contrast to the splendor of complexity just expounded that it would be ludicrous if it came from a man less committed and less innocent than Robert Venturi. His little villas, shown without a trace of environmental context, belong to that peculiar contemporary school that has replaced the functionalist basement-above-ground with the attic-in-search-of-an-elevation. These cardboard models, which retain their cutout two-dimensionality even when they have been built, are as unambiguous as the pilgrim houses of Dedham, shooting their 45° roofs straight from the ground, and as articulated in exterior-interior relationships as the most sinful of the Bauhaus master-houses. Most of all, they are totally devoid of that "perverse" delight in visual complexity and aesthetic intoxication the architect demands so eloquently in the long introduction to his own testimony.

This let-down from lofty intellectualism to tangible proof continues in Philip Johnson's "Whence and Whither." One of the most educated of architects comes up with the proclamation that: **"Architecture is surely *not* the design of space, certainly not the massing or organizing of volumes. These are auxiliary to the main point, which is the organization of procession. Architecture exists only in *time*."**

In a thoughtful article in the same issue, "What Can Historians Do For Architects?," George Kubler explains why architects are concerned with space and historians with time. It looks good on paper to stand his theory on its head and assert that it is the architect who deals with time. The trouble is that 5000 years of evidence prove this whimsical liquidation of space and form as *first causes* of building wrong. Timelessness, immutable permanence in the flux of time, distinguishes architecture from all other concepts of a man-made world. The generous credit Johnson gives to the preciously few Great Spaces created in our time defeats his own thesis. They, as well as what work of his own he shows, are spaces defined by form, and form in exterior space. Not one of them shows "movement in time" beyond a

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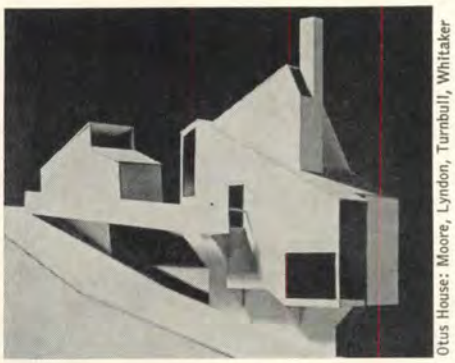
more or less successful building approach. All lack the processional aspect claimed for laboratory "temenos" and penthouse alike, because the meaning of *processum* is a declaratory ritual, continuous and self-purposive, whose architectural definition is without functional destination—like Imhotep's colonnade at Sakkarah, the Via Triumphalis at Timgad, or the open-ended axis of a Byzantine palace compound.

It is not actually the individual *idea* that is so puzzling in these intellectual confessions by architects turned their own critics; it is an almost frightening blindness to visual coordination. Edward L. Barnes contributes "Remarks on Continuity and Change" that start with a fine exposition of historical continuity and a sensitive analysis of his own response to the flow of the natural building site. When he projects tradition and transformation into the contemporary urban landscape, he advocates the earliest Corbusian fallacy of 'the vertical village'—**". . . large comprehensive units where the cycle of daily life, the shopping, schooling, working, and worshipping are all expressed in one neighborhood structure . . ."** —as if this were not the ultimate death of the city, of historical and social continuity, of *inter*change that generates the forward changes of mankind. His final appeals for "a common visual plane" and against the "building by building approach" lack any corroboration in the presentation of his own work, which emerges as anti-urban and additive-Euclidian, setting the theme for the city planning analyses of Romaldo Giurgola

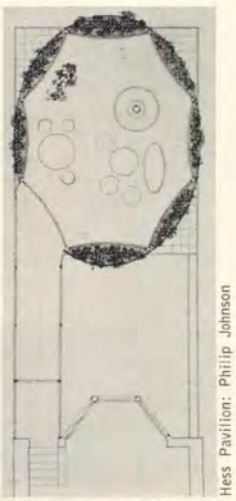
Scene at Disneyland

". . . taking possession of or agreeing upon extraordinarily important places."



Otus House: Moore, Lyndon, Turnbull, Whitaker

"Attics in search of an elevation."



Hess Pavilion: Philip Johnson

". . . like Imhotep's Colonnade at Sakkarah."

Continued on page 240

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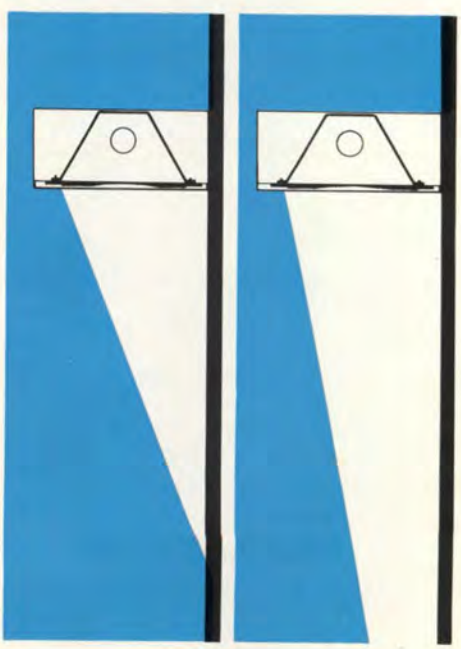

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Continued from page 236

and Charles W. Moore. Giurgola's "Reflections on Buildings and the City," with the subtitle, "The Realism of the Partial Vision," is the hardest piece to appraise in this collection of essays. Such effort, such profusion of facets and definitions of that spectral image—the city! The historical references, verbal where they were pictorial in the other pieces, devaluate rather than enhance the weight of some profound and constructive insights. The scale at which cities in history were torn down and rebuilt exceeds anything we are attempting today, and there is nothing "voluntary confused" or romantically "private" in the uniformity of residential street elevations from the Renaissance Grandes Places to the Baroque Isle St. Louis, Georgian London, or the rank and file of Hausmann's Paris. It is this devaluation of pragmatic experience by inept historical criticism that weakens the significance of the contemporary argument, reducing design, in Giurgola's own words, "to a search for evidence of predetermined theories." When he approaches the city directly he comes to fresh and unequivocal conclusions: **"Order comes, rather, from . . . facts that extend from the historical experience of human events to the functional logic of its structures."**

and

"Buildings are the formative element of the city."

His call for spontaneous growth and "the city as a complex of poetic essence" seems strangely defeated in the published plan for Tel-Aviv, in which serried ranks of high-rise boxes and Kahnesque block patterns of oppressive formalism defeat every promise made in his 12 long, verbal columns.

This imprudent exhaustion of the reader's patience by overstatement is even more deplorable in Charles Moore's contribution, "You Have To Pay for the Public Life." He appropriates 29 columns of fine print and 62 illustrations, in addition to a 17-page portfolio, to make the excellent and much-needed suggestion that we avert our gaze from the housing and redevelopment problem to consider "monumental architecture as part of the urban scene." In the name of THE PEOPLE, modern city developments have been robbed of **". . . the act of 'marking' . . . as a function of society's taking possession of or agreeing upon extraordinarily important places on the earth's surface, and of the society's celebrating their pre-eminence."** *Public buildings* that are "monsters of equivalent rootlessness" have destroyed a sense of urban identification without which civic existence cannot flourish. As proof of the continued effectiveness of an architecturally expressed public life, Moore concludes his monumental exposition with a portfolio of—*Disneyland!* This schizophrenic split between a rare insight into the true architectural essence of city planing and the nonarchitecture of Fantasy- and Tomorrow-Land lies in the aesthetic nihilism of this "enormously important" pastiche, creating for the planner-architect a spurious equation between the historical scale of preservation and the electronic scale of communication. The split deepens with a selection of executed work by Moore's office. Here are the same grounded attics, hanging like bird cages from the California slopes; they are the unmodified descendants of Harvard's Snake Hill colony of 30 years ago. Even the one urban apartment project that could bridge the gap between Moore's splendid urban theories and his own con-

Continued on page 246

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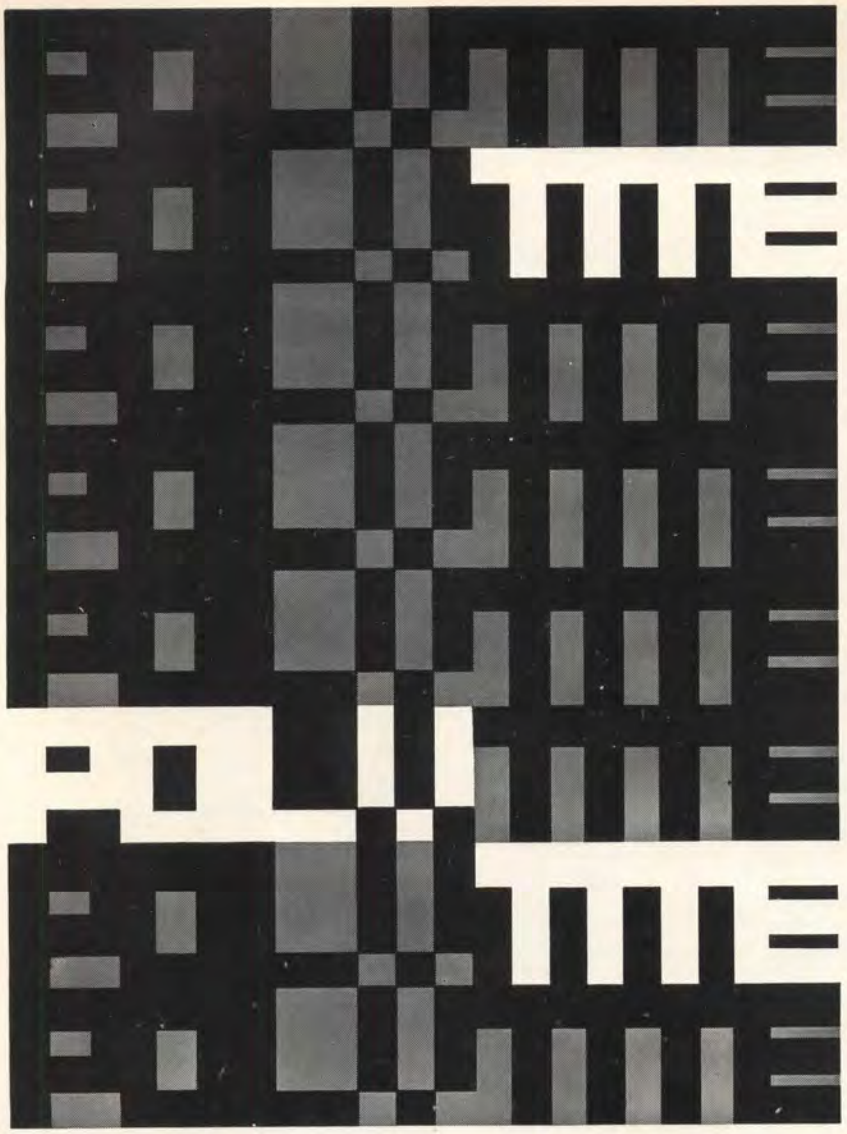

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Continued from page 240

tribution to the urban landscape remains a diagram, giving no hint of its three-dimensional context.

Disneyland could be explained as illuminating the urban architectural failure by paradox. The Center Piece of *Perspecta's* overloaded table proves unfortunately that the fashionable contradiction is a base theme. A treatise, "Replication Replicated, or Notes on American Bastardy," gives itself away at the start by its facetious title. The author, G. L. Hersey, is, to the reviewer's sorrow, a bona fide historian whose specialty, however, is Pre-Raphaelite Painting. If, as the *London Times Literary Supplement* recently asserted, American Scholarship is "a battle of the typewriters," here is a predictable winner. In his endeavor to make the Connecticut State Capitol (1872) by Richard M. Upjohn the pivotal event of 19th- and 20th-Century architecture, he accompanies the genesis of this Victorian monstrosity with a plethora of footnotes that would make Panofsky flush with envy. It is characteristic of this approach that it must overlook the obvious, such as the direct descent of the "radically" original New England street village from the Anglo-Saxon solskift divisions into toft and croft lots, or of Upjohn's final plan for the Hartford capitol from Benjamin Latrobe's plan for the rebuilding of the Washington Capitol after the War of 1812. It is not the pompousness of "let us consider" and "now we may look" that is so tedious; it is the silly fashion peculiar to the Yale faculty to bend everything to a serviceable prototype and reduce every contemporary achievement to a derivation. It raises the roof on any sound architectural criticism to make the vulgar style thievery of Upjohn into the "patrimony of Kahn and Rudolph" and to carry the precious concept of "replication" (read Eclecticism) into a Mendelian ratio where fractured corners and details prove two parts derivation and one part originality. Someone should tell Mr. Hersey that the lying façades and meaningless spaces of the 19th Century were defeated by the best efforts of very great men, laboring for almost a century to disprove their ghastly good taste, and that it adds pernicious confusion to an already confused profession to boost this devaluated stock.

What remains after an exhausting journey through all this undisciplined verbalization is some solid architectural meat—too scant to save the magazine-to-end-all-magazines, but edifying and

Continued on page 254

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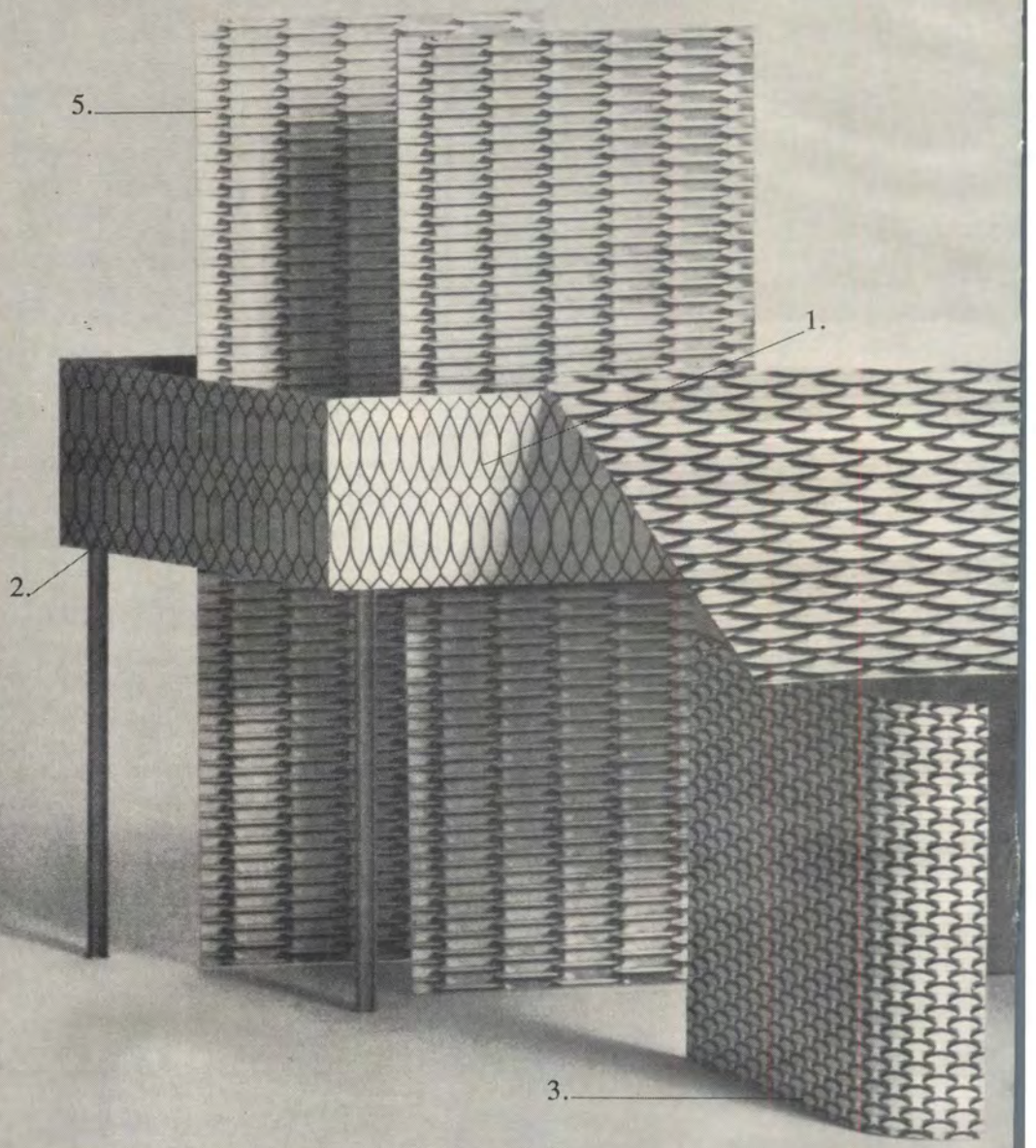

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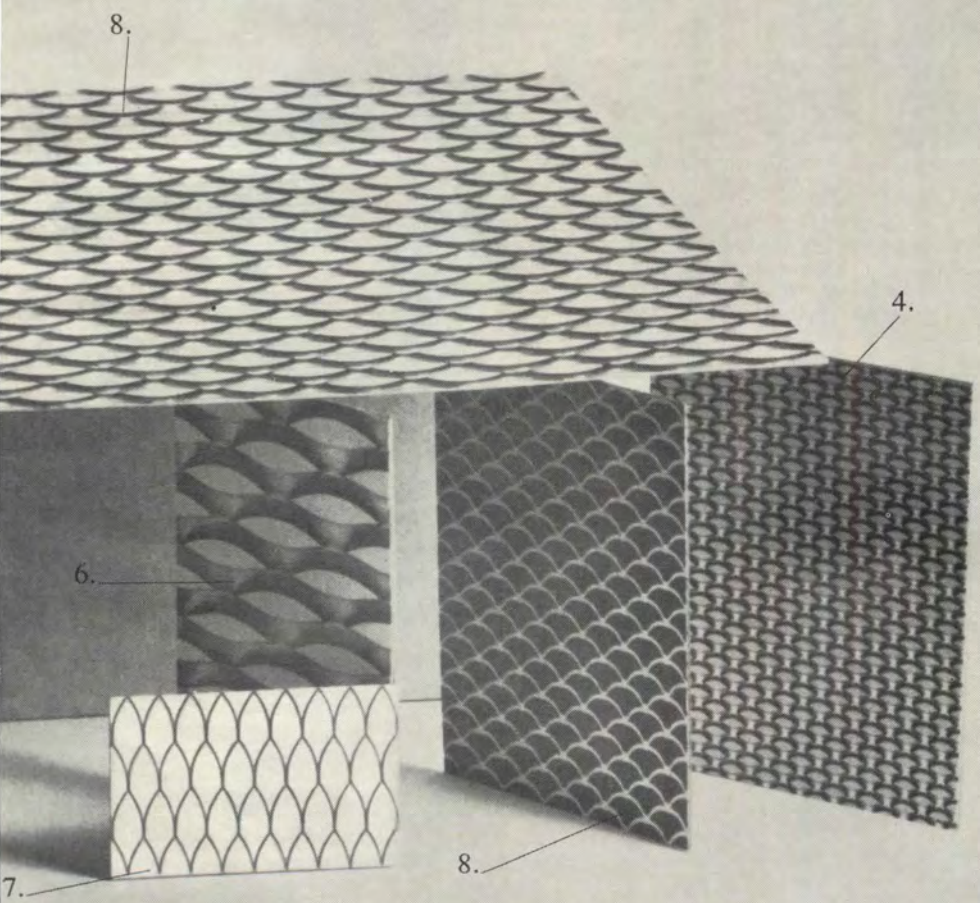

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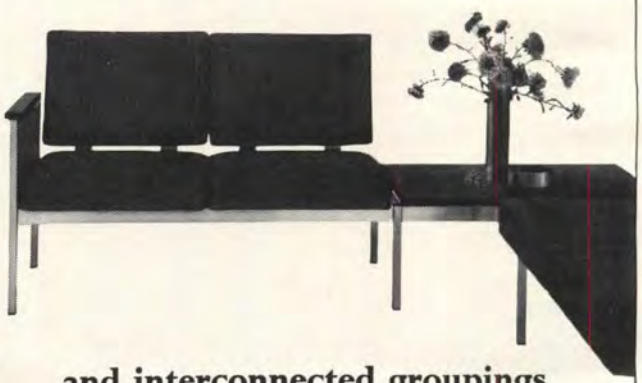

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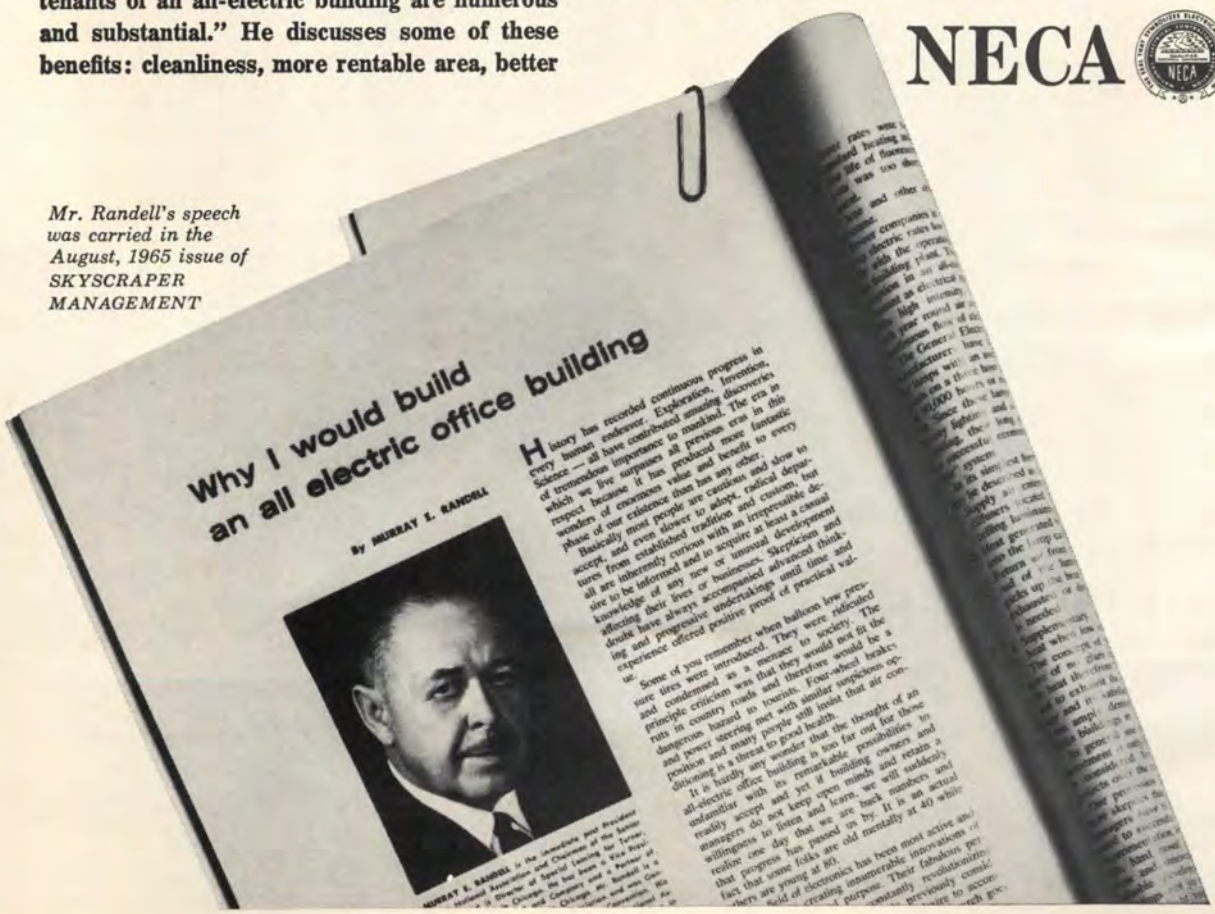
Why I would build an all electric office building

By MURRAY L. RANDELL

History has recorded continuous progress in every human endeavor. Exploration, invention, Science — all have contributed amazing discoveries of tremendous importance to mankind. The era in which we live surpasses all previous eras in this respect because it has produced more fantastic wonders of enormous value and benefit to every phase of our existence than has any other.

Basically, most people are cautious and slow to accept, and even slower to adopt, radical departures from established tradition and custom, but all are inherently curious with an irrepressible desire to be informed and to acquire at least a casual knowledge of any new or unusual development affecting their lives or businesses. Skepticism and doubt have always accompanied advanced thinking and progressive undertakings until time and experience offered positive proof of practical value.

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Mr. Randell's speech was carried in the August, 1965 issue of SKYSCRAPER MANAGEMENT

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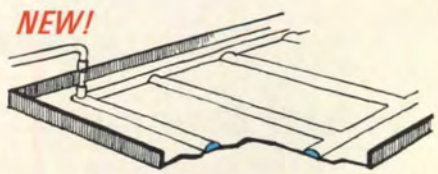

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Continued from page 246

enjoyable when one finally comes upon it. On the highly professional side of architectural criticism is an instructive piece by Vincent Scully entitled "Doldrum in the Suburbs." He offers a much needed clarification of the "de-urbanization" of American architecture in the 30's that cut off concern with the cityscape at a date when it would have been of the most critical importance. After an astute evaluation of the American Bauhaus influence on the diminution and disperson of urban scale, it comes, however, as a shock to find Mies van der Rohe glorified as the savior who led American architecture **". . . out of the suburbs, back into the city, to make monumental architecture once more."** Scully, like every Giedionesque architectural historian, pretends that there never was a Second Skyscraper Age in America. He ignores that the suburban designers of the 30's turned their backs on the truly urban monumentality of Albert Kahn, John Root, Raymond Hood, and that superb achievement of a new city scale, the Philadelphia Savings Fund Society—all created a decade before Mies van der Rohe started his own monumentality.

Henry-Russell Hitchcock's "Aalto versus Aalto" could teach the architects bent on becoming critics what a critique should be: terse, objective, factually precise, and thoroughly, exclusively architectural. From a critic's viewpoint, this is the redeeming contribution to the *Perspecta* issue. Anyone wanting to know about the curious path of Alvar Aalto's architecture from a fresh regional interpretation of functionalism to a latterday self-plagiarism will have to take Hitchcock's analysis as his guide.

The *visual* sustenance of this volume comes from excellently reproduced architectural drawings that underline the deadly schematism of the diagrammatic renderings illustrating the treatises. It is sheer pleasure to study the eloquent wordless genesis of The New City Hall at Boston by Kallmann, McKinnell and Knowles, furnishing environmental, spatial, and structural information, and to compare it with "Some Unpublished Drawings" by Henry Hobson Richardson, on the one hand, and Louis I. Kahn's sketches on the other. What emerges is a kinship between Richardson and Kahn that could perhaps best be characterized by paraphrasing Wright. His "Sullivan's ornament became my structure," here becomes Kahn's 'Richardson's elevations became

Continued on page 258

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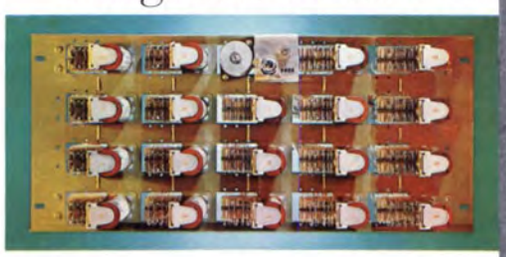

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Continued from page 254

my plans.' The ornamental configurations of Kahn's "spaces within spaces" retain that same graphic surface quality that made Richardson the greatest façade jongleur in American architectural history. Kahn's accompanying "Remarks" are by now the bedtime stories of the profession. No matter how often one has read or heard the tale of the $20 million art center or the battle between the mosque and the supreme court, they never lose their guileless charm. When it comes to the umptiest transfiguration of Comlongan Castle, this time in the guise of the Adele Levy Memorial Playground, appreciation wears thin: **"I did not speak in terms of architecture. He did not speak in terms of sculpture."** When Kahn tells about his collaboration with Noguchi, one can only sigh: "Would they had!"

In a thoughtful, *concise* biographical analysis, Adolph Placzek compares "Youth and Age in Architecture," coming to the documented conclusion that the architectural maturing process cannot be shortened and that the greatest design achievements have been the fruit of long years of anonymous apprenticeship. We shall take heart from this fact and hope that the young architects of this issue will mature and develop a unity of idea and performance. We also hope that future editors of *Perspecta* will not continue the dangerous trend toward glorification of architects without architecture. The only justification of an architect is his building. It is not up to him but to the critic to weigh his performance against the historical perspective, testifying, as Kubler writes, whether it . . . **"communicates a pattern that was invisible to his subjects when they lived it, and unknown to his contemporaries before he detected it."**

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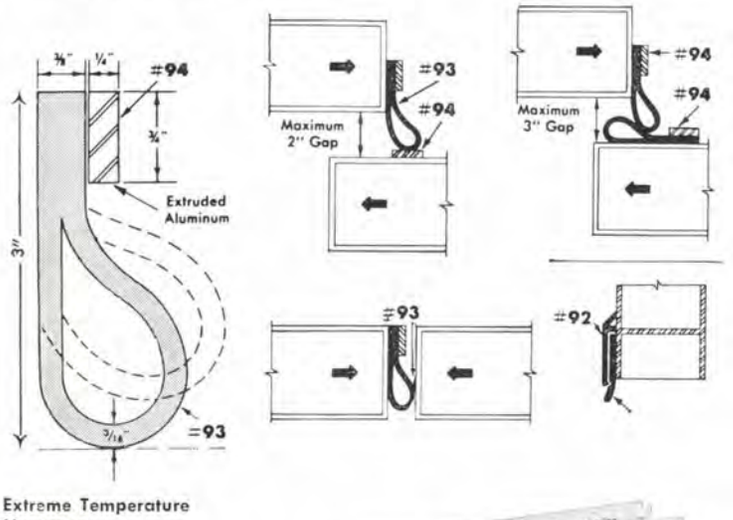

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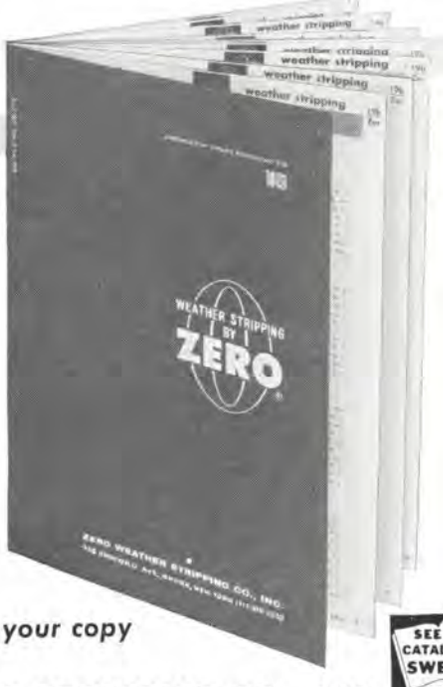

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A Static Gallery

BY ROBERT A. M. STERN

WORLD ARCHITECTURES *II. Edited by John Donat. A Studio Book published by the Viking Press, 625 Madison Ave., New York, N.Y., 1965. 250 pp. illus., $15. The reviewer, presently holder of the J. Clawson Mills Fellowship of New York's Architectural League, edited the most recent "Perspecta" (see preceding review) while at the Yale School of Architecture. He is now organizing a number of exhibitions and seminars for the League.*

Though the second volume of John Donat's yearbook, *World Architecture*, is more beautiful and more complete than the first, it is really no better. The same pretension and confusion of purpose that gave the first volume little value save as a picture book become evident from the opening sentence of Donat's introduction: "This second issue of *World Architecture* continues the aims and objects of *World Architecture One* published a little over a year ago: to bridge the gap between architects and people and to provide a platform for the confrontation of ideas between a new generation and the established masters."

Such a duality might have been resolved if Donat had written a text as well as the introduction. As it is, he divides the writing chore among 37 editors (approximately one per country), and the many more architects whose work is illustrated. Not surprisingly, few take Donat's call for a criticism addressed to the general public very seriously. Save for David McKay's nearly heart-breaking account of the "Rape of Spain" by tourists and other postnuclear phenomena, and a loving discussion of a

Continued on page 266

College Dormitories

a report from Bethlehem Steel

BETHLEHEM STEEL

American colleges and universities face a tremendous challenge in housing their students, despite record-breaking building programs now under way. The problem: current enrollment —6,200,000 men and women. Total residential accommodations are adequate for handling about 1,300,000 students*. Around the country architects are busy designing new college dormitories. And many of them will be steel framed.

**Figures from Office of Education, U.S. Department of Health, Education, and Welfare, and projected from 1964 data.*

HEDGES HALL—Montana State University, Bozeman, Montana

Two 11-story towers, one complete, the other under construction, will provide dormitory space for a total of 1,300 students. Between is a circular dining room. The steel-framed towers, which so well express the beauty of steel framing as an architectural element, are placed on lower ground than the rest of the campus.

ARCHITECTS: *Berg & Grabow, Associated Architects*

ENGINEER: *Hurlbut & Kersich*

STEEL FABRICATORS:
(*First tower and dining facility*) *Paper-Calmenson & Company*
(*Second tower*) *Crown Iron Works*

STEEL ERECTOR: *Industrial Steel, Inc.*

GENERAL CONTRACTOR: *Haggerty-Messmer Co.*

HENDRICK HOUSE—University of Illinois, Urbana, Illinois

A luxury, seven-story dormitory for 249 men, air-conditioned, soundproofed, with two elevators. Tinted windows on west and south. Dining room, lounges, barber shop and four-man suites are included.

One of the main reasons the architects chose a steel frame was speed of erection. They were not disappointed. Total time between arrival of steel on the site until the frame was complete—including joists and solid centering: seven weeks.

ARCHITECTS:
Doyle/Brotherson
GENERAL CONTRACTOR:
Skoog Construction Co.
STEEL FABRICATOR:
International Steel Co.
STEEL ERECTOR:
Casserly Construction Co.
OWNERS:
Hendrick Dorms, Inc.

PROSSER HALL—Muhlenberg College, Allentown, Pa.

This steel-framed structure houses several hundred women, yet blends into the residential character of the neighborhood. Triangular bay windows run the full height of the building.

After a nation-wide survey of costs for dormitories housing over 200 students was made, it was found that steel framing gave the architects a better price—lower than the national average.

ARCHITECTS: *Everett Associates*
GENERAL CONTRACTOR: *Thomas A. Armbruster, Inc.*
STEEL FABRICATOR: *Reading Steel Products*

BETHLEHEM STEEL

DORMITORY
Canisius College, Buffalo, N.Y.

This 298-student dormitory was constructed with a steel frame of about 400 tons. The L-shaped building contains a 12-bed infirmary and a student lounge on the street floor. The steel frame permitted large expanses of open space in the social areas of the building. Service facilities are housed in the basement.

ARCHITECTS:
Pauly, Hauck & Welch
STRUCTURAL ENGINEER:
Duchscherer and Oberst
STEEL FABRICATOR:
Rebco Steel Corp.
GENERAL CONTRACTOR:
Balling Construction, Inc.

CHARLES EVANS HUGHES RESIDENCE HALL
Cornell University, Ithaca, N.Y.

Built for students in Cornell's law school, this 60,000 sq ft dormitory rises six stories at its highest point, though the architects adapted it to its multi-level terrain. Some 200 tons of steel are in the framing. The residence hall is a good example of how steel framing can be adapted to traditional architecture as well as to completely contemporary buildings.

ARCHITECTS:
Eggers and Higgins
ENGINEER:
Distasio & Van Buren
STEEL FABRICATOR:
Bethlehem Contracting Co.
GENERAL CONTRACTOR:
A. Friederich & Sons Co.

S. TOWN STEPHENSON RESIDENCE CENTER
Washington State University
Pullman, Washington

These two dormitory towers (with a third slated for the future) were designed with structural steel and composite slab. Steel framing was chosen because it offers architectural flexibility and decreased clear-height requirements. The towers are the University's latest high-rise structures.

ARCHITECTS:
Walker & McGough
ENGINEER:
Lyerla & Peden
STEEL FABRICATOR:
Artistic Iron Works
GENERAL CONTRACTOR:
Max Kuney Construction Co.

TWO DORMITORIES—State University Agricultural & Technical College, Alfred, N.Y.

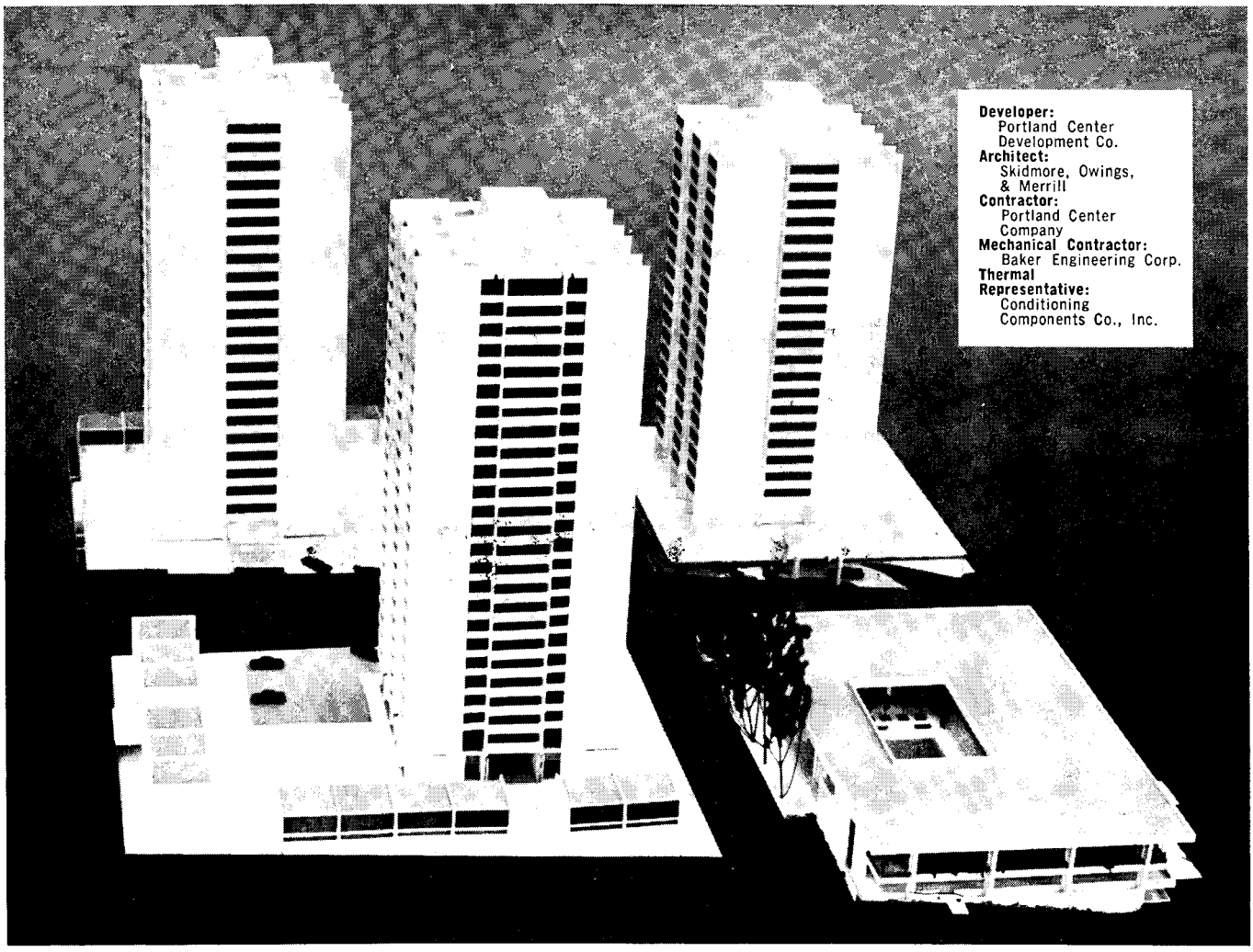
Designed and built for the Dormitory Authority of the State of New York, each of these two 4-story units at Alfred, N.Y., houses 200 students. The architects selected steel framing because structural steel helped simplify erection on the site, which has a 30 per cent grade. Each of the four floors contains lounges as well as student rooms.

ARCHITECTS:
John S. Burrows
ENGINEER:
Goldreich, Page & Thropp
STEEL FABRICATOR:
Rogers Structural Steel
GENERAL CONTRACTOR:
Decker Construction Corp.

BETHLEHEM STEEL

Bethlehem Steel Corporation, Bethlehem, Pa.

BETHLEHEM STEEL



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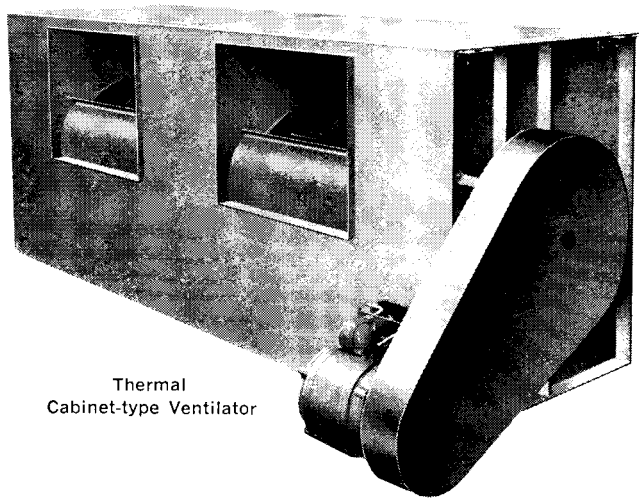

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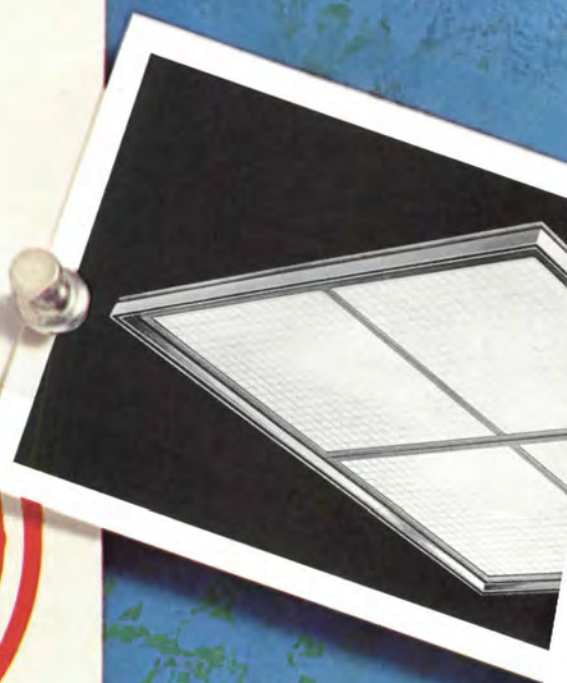

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Continued from page 258

popular housing project in South Africa, most of the presentations seem recherché to the extreme.

Even as the book addresses itself to architects, a wave of obscurantist intensity of expression prevails and renders a good deal of the verbiage useless and downright unreadable. The real problem, however, is that most of the editors and many of the architects feel impelled to go beyond straightforward reporting or even criticism toward the creation of whole philosophical systems phrased in highly complex vocabularies relating to Zen, Existentialism, and the doggedly precise thought-patters of Wittgenstein.

Though the architecture shown is, on the whole, superior to the words lavished on it, Donat's failure to edit vigorously and to provide a continuing commentary make it difficult to relate the extreme diversity of styles and postures presented to the second of the "aims and objects" already referred to. Donat seems unable to decide whether he is editing a magazine of record or one of opinion. In short, to the layman and the architect alike, the absence of context that finally reduces most heavily illustrated books on architecture to coffee-table literature prevails, and, high-sounding ideals notwithstanding, *World Architecture II* is just another one of these. Too bad, because some of the individual projects illustrated (Tange's Tokyo Plan of 1960; Sea Ranch; Nottingham Centre; Philharmonic Hall, Berlin; Scarpa's work at the Querini Stampalia Palace, Venice) give testimony to a validity and vitality of expression prevalent in architecture today that goes beyond the parochialism of revisionist philosophy ("confrontation of ideas between a new generation and established masters") toward a full recognition and rejoicing in the multiplicity of means now available. There is yet hope that we shall have so many slogans and positions, eventually, that architecture, all means of talking around it having been exhausted, will prevail and then once again buildings will be discussed on their own terms.

A Dowager's Biography

BY C. RAY SMITH

THE GOLDEN HORSESHOE: THE LIFE AND TIMES OF THE METROPOLITAN OPERA HOUSE. *By The Editors of "Opera News." The Viking Press, Inc., 625 Madison Avenue, New York 10022. 1965. 319 pp., appendices, index. $16.50. The reviewer, an associate editor of P/A, is chairman of the committee on theater architecture of the U.S. Institute for Theatre Technology.*

For this last season in its 83-year-old, Renaissance-palazzo home, the Metropolitan Opera Company—and all opera lovers—have been provided a splendid commemorative volume by the editors of *Opera News* magazine about the soon-to-be-demolished house. Next year, the company will open at Lincoln Center in its new home, designed by Wallace Harrison.

Of specific interest to all concerned with the design of theaters and auditoriums is the over-all view of the life of an opera house that this biography provides.

The Golden Horseshoe is a book about the architects, clients, managers, musicians, designers, dancers, audiences, and events that have influenced—and have been influenced by—the beloved dowager of American opera houses. It is a dewy-eyed and jellying record. Even

Continued on page 280

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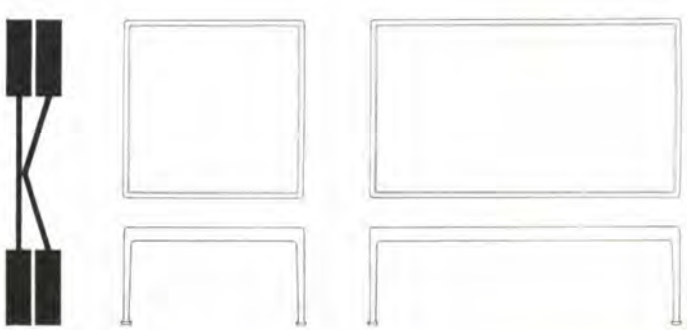

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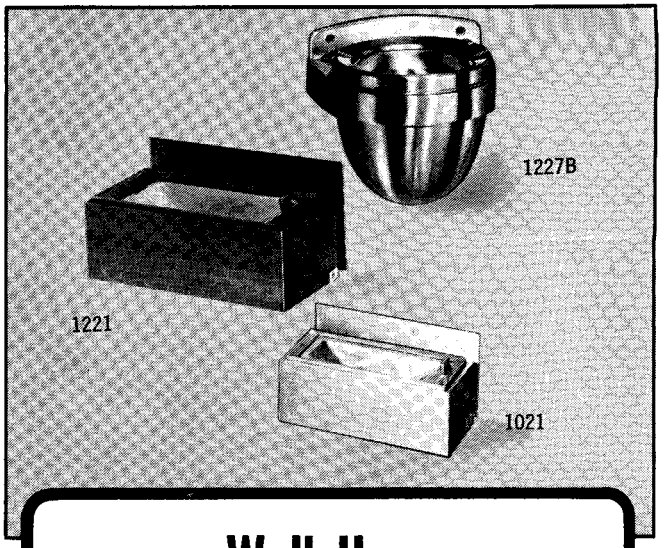

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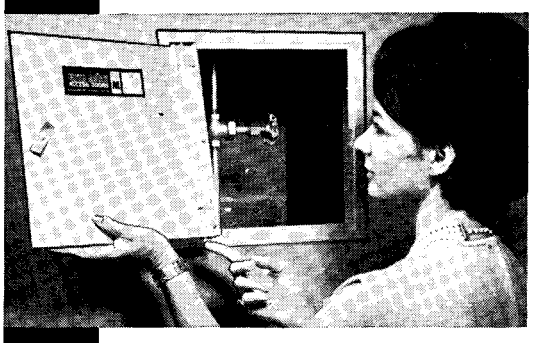

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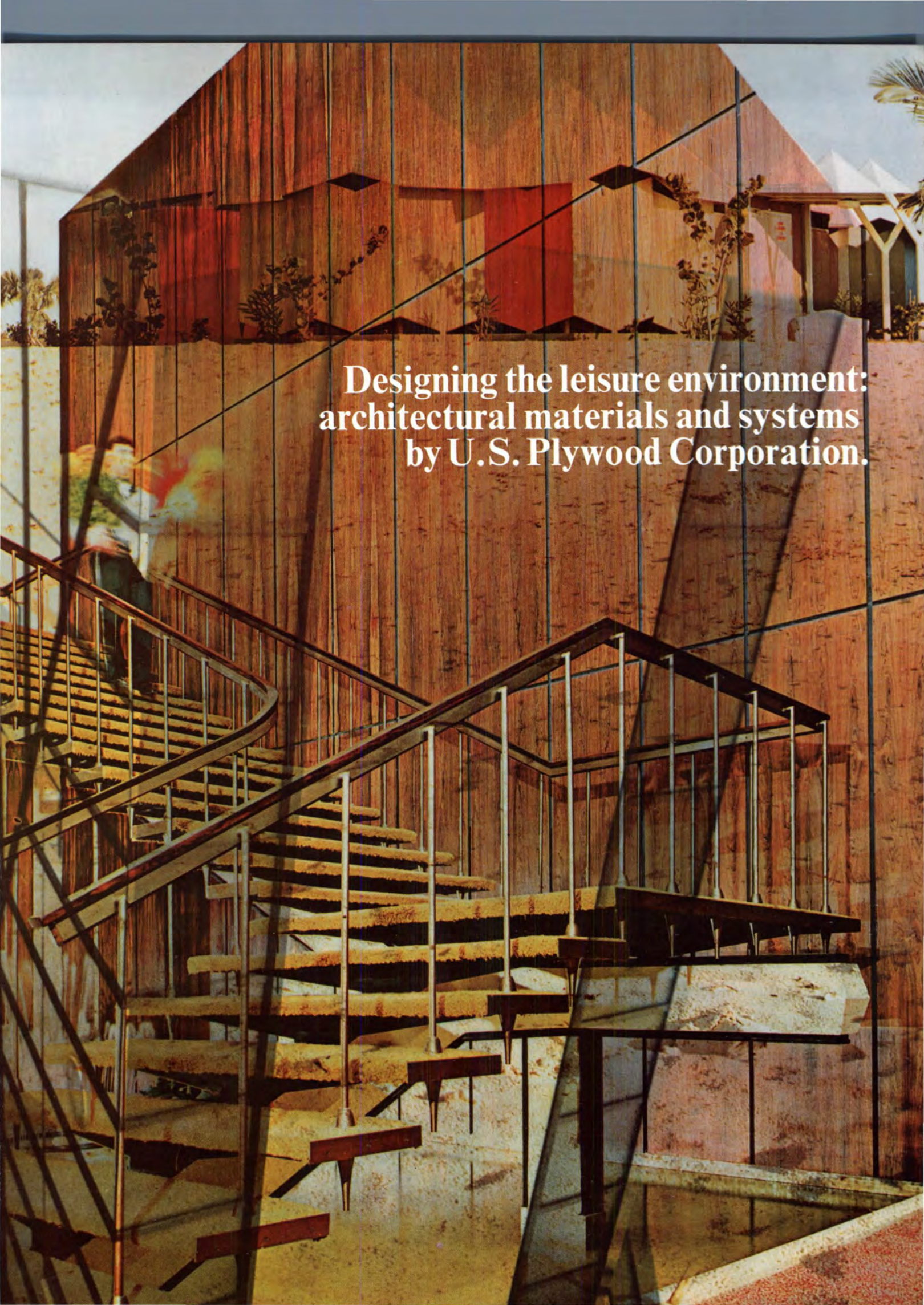
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Door schedule of a tall order.
For the entrance to the Constitution Ballroom in the Sheraton-Boston: 12-foot Weldwood doors with bronze-framed ebony panels set over rosewood. The door faces were cut from the same rosewood flitch as was used on walls and columns. Architects can specify a wide range of Weldwood doors to meet virtually any requirements, including fire doors, doors overlaid with resin-fiber Duraply® for smooth long-lasting painting, tough clear Permagard® for invisible protection, even doors prefinished with permanently colored Vigilar®, a polyvinyl fluoride film for which there is no known staining agent and no known solvent. Doors can be supplied in a full range of sizes, premachined to order for hardware and openings.

A beach club of Glasweld brightens a Bahama beach.

Like the Arab tents it colorfully emulates, the Beach Club at the King's Inn and Golf Club, Freeport, Grand Bahama Island, can be folded and quickly moved away. (See detail on following page.) To fulfill the client's wish for a light, cheerful structure with a gay and carefree atmosphere, architect Philip R. Braden of Miami specified permanently colored Glasweld® panels on the exterior and interior of the units. Glasweld, an all-mineral panel with a colorfast mineral surface, is especially valuable in climates where sunlight, salt air, wind and rain are all frequent and severe. Glasweld is inert, virtually maintenance-free, appears optically flat, and is 100% incombustible.

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The new Sheraton-Boston Hotel offers its guests an exciting contrast to their at-home routine. Prominent throughout the first three public floors is a remarkable demonstration of Weldwood architectural rosewood paneling's range of colorations. On the grand staircase wall in the main lobby, the wood is warm golden-brown. In the Pavilion Coffee Shop (top) it is a deeper purplish red laced with dramatic figures of jet black. Throughout the hotel interior, the rosewood in each panel face was sequence-matched to the designer's blueprints and personally selected by him from more than 300,000 sq. ft. placed at his disposal. Architects: Charles Luckman Associates, Inc., New York and Los Angeles. Interiors by Roland W. Jutras Associates, Inc., Boston. Installer: L. Vaughn Co., Providence.

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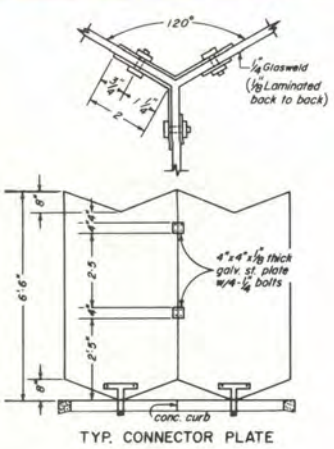

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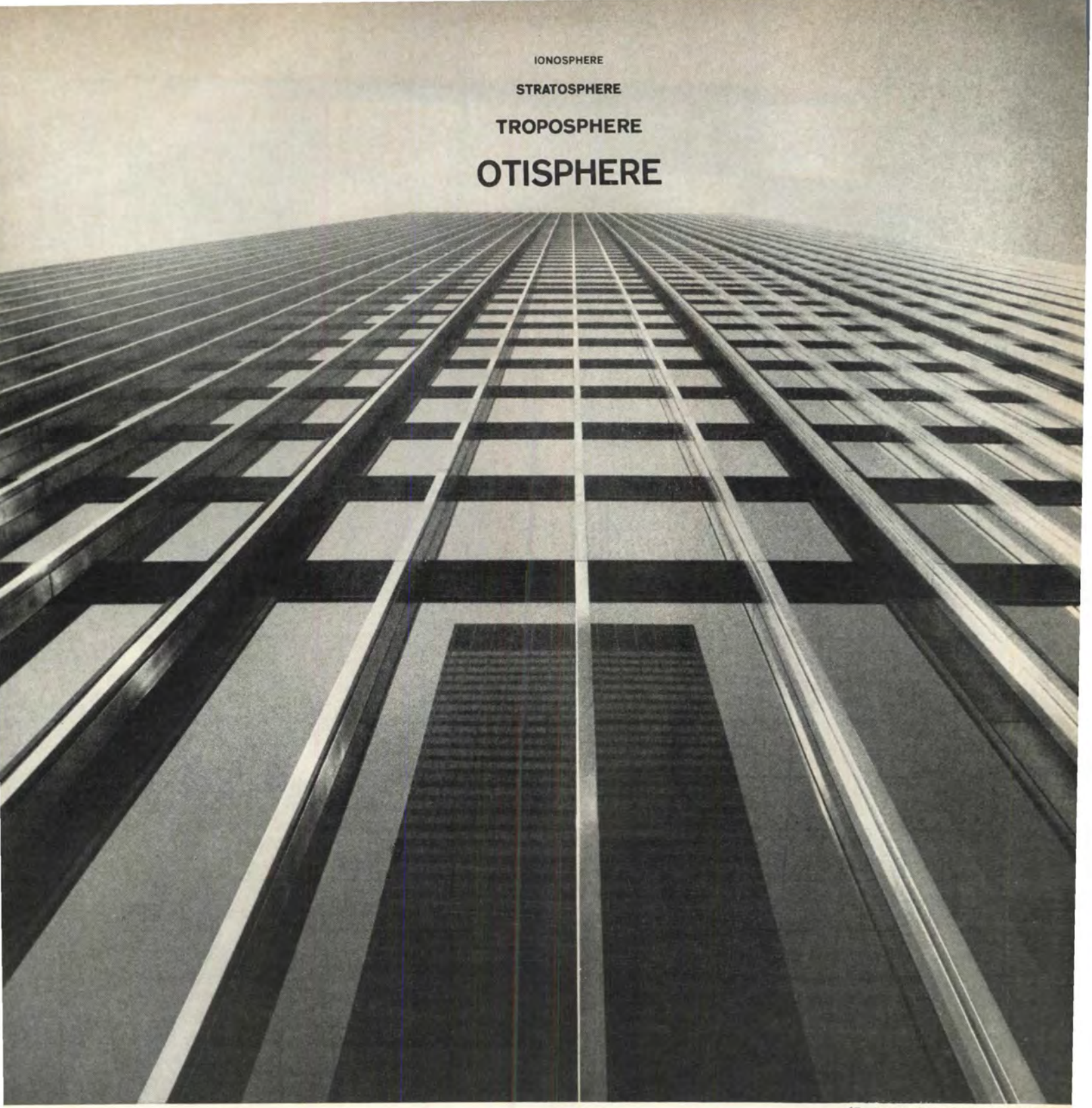

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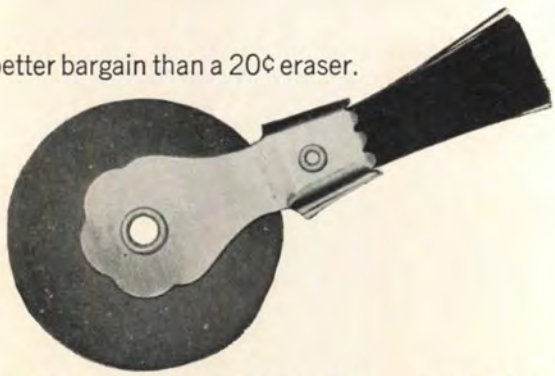

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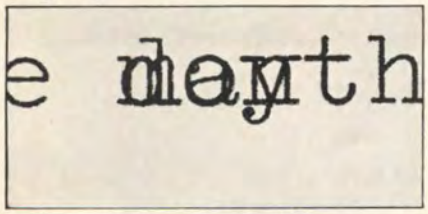

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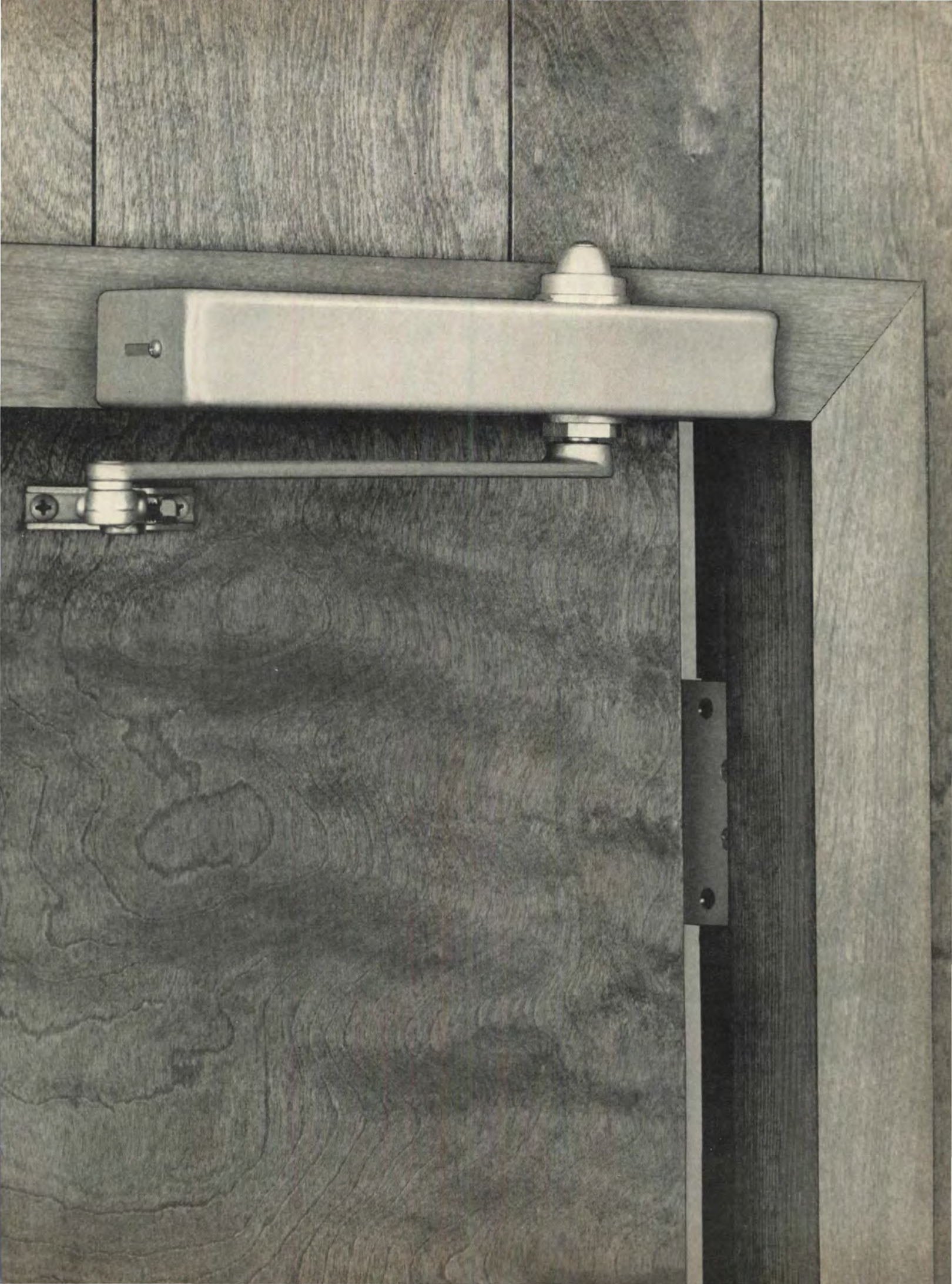

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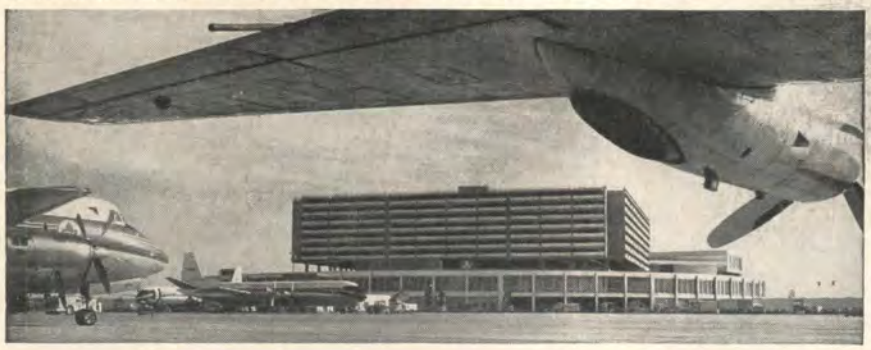

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Continued from page 266

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OTHER BOOKS TO BE NOTED

The Architect in the Nuclear Age: Design of Buildings to House Radioactivity. By James F. Munce, A.R.I.B.A. Hayden Book Co., Inc., 116 West 14 St., New York, N.Y., 1965. 241 pp., illus., $22.50.

An excellent volume that calls for the emancipation of the architect. It includes a chapter on "The Physics of Nuclear Fission" and another on "The Architectural Opportunity of Nuclear Fission" that expresses the author's hope that a new "fundamental and honest" image of architecture will emerge as a result of architects' efforts to unify and make beautiful the massive housings required for a highly complex, dangerous, and unfamiliar process.

Architectural Renderings, By Winners of the Birch Burdette Long Memorial Prize. Edited By Minor L. Bishop. The Architectural League of New York, 115 East 40 St., New York, N. Y., 1965. Illus., $4.75 (paperbound)

A collection of drawings, etchings, and paintings by leading architectural delineators of the past 40 years. Hugh Ferriss, Theodore Kautzky, Otto R. Eggers, Robert Schwartz, George Cooper Rudolph, and Helmut Jacoby are among the artists represented. The book provides a recent history of rendering and shows how changes in the design of buildings have affected the manner of illustrating them. It contains information about each artist and his work, plus a Foreword by Edgar Williams.

Buildings for Industry. Volumes I and II. By Walter Henn. Hayden Books Co., Inc., 116 West 14 St., New York, N.Y., 1965. 410 and 355 pp., respectively, illus., plans, drawings. $22.50 for each.

Volume I contains 3000 dimensioned diagrams, plans, and details divided up into 10 logical sections. The book covers structures external to factories (canals, railways, etc.), building work (wind resistance to steel problems, reinforced concrete), principles of construction, interiors and circulation, natural and artificial lighting, heating and ventilation, and fire and lightning protection. Industrial building constructions from all over the world are illustrated.

Volume II includes hundreds of photographs, plans, and evaluations of 140 typical industrial and commercial buildings by architects around the world. These are divided according to individual industries: food and drink, textile, iron and steel, machine tool, automobile, optical, electrical, woodworking, papermaking, printing, pottery and ceramics, rubber and plastics, heavy chemical, and pharmaceutical.

Commercial Timbers of the World. Third Edition, enlarged version of "A Concise Encyclopedia of World Timbers." By F. H. Titmuss. Published in London by The Technical Press. Distributed by The Chemical Rubber Co., 2310 Superior Avenue, Cleveland, Ohio, 1965. 277 pp., illus.

The structure, properties, characteristics, and use of nearly 250 different kinds of commercial timbers are described in detail: photomicrographs are included of some 34 of the woods most commonly used.

Construction Scheduling and Control. By George E. Deatherage. McGraw-Hill

Continued on page 288

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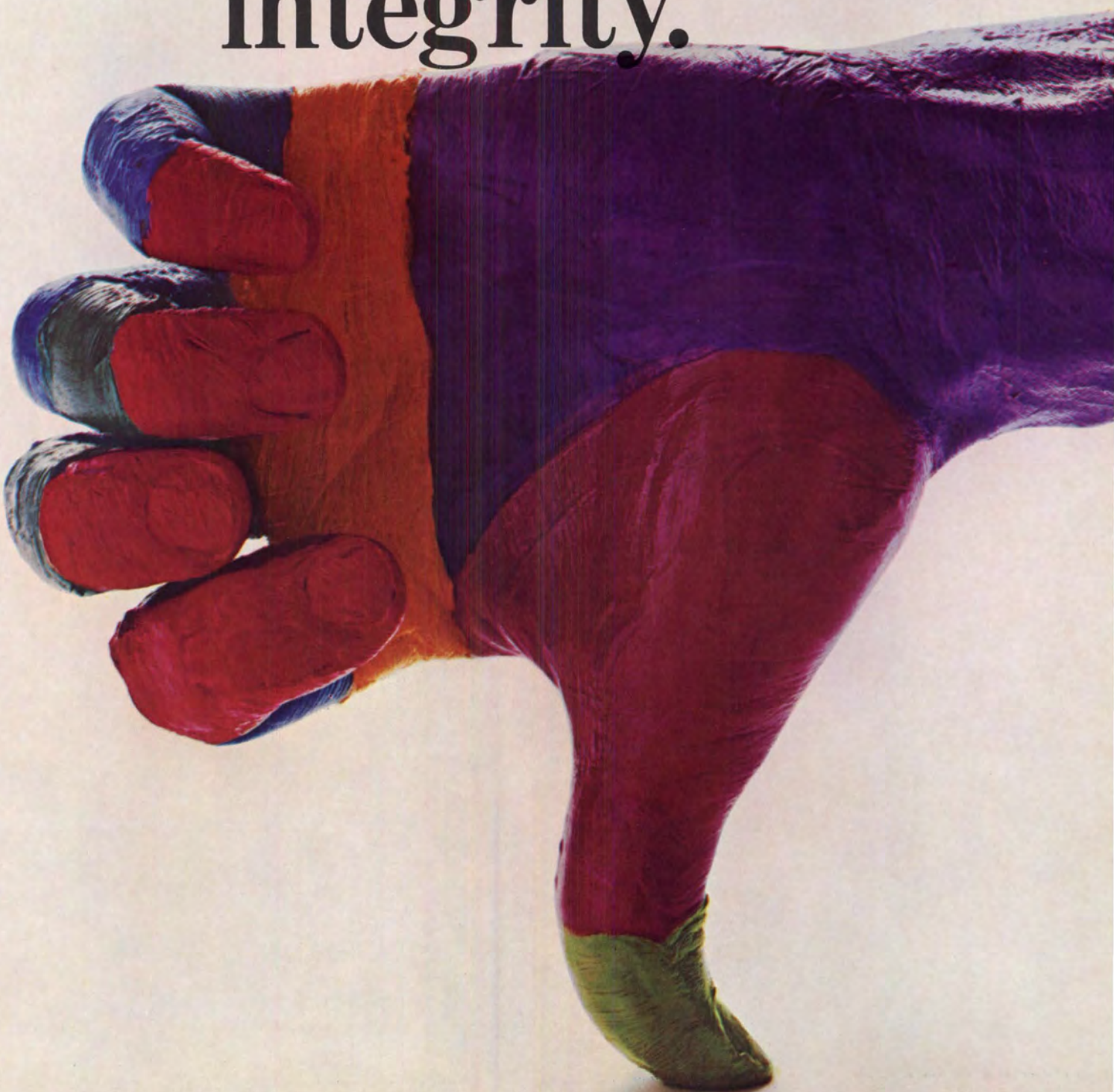

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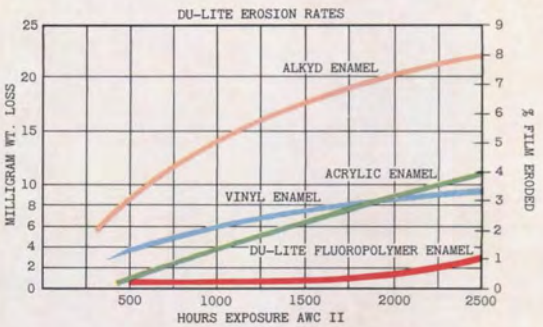

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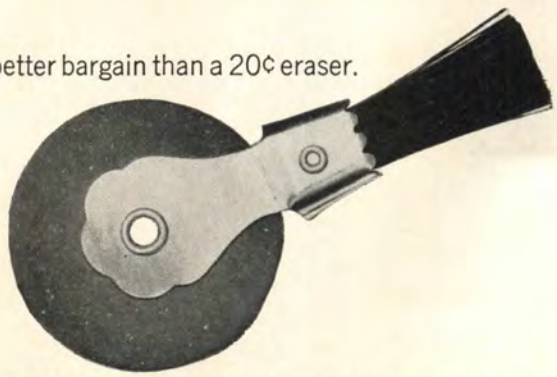

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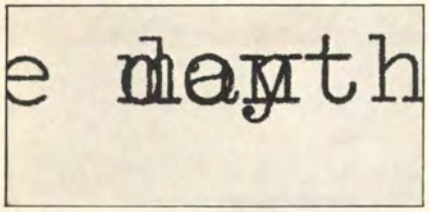

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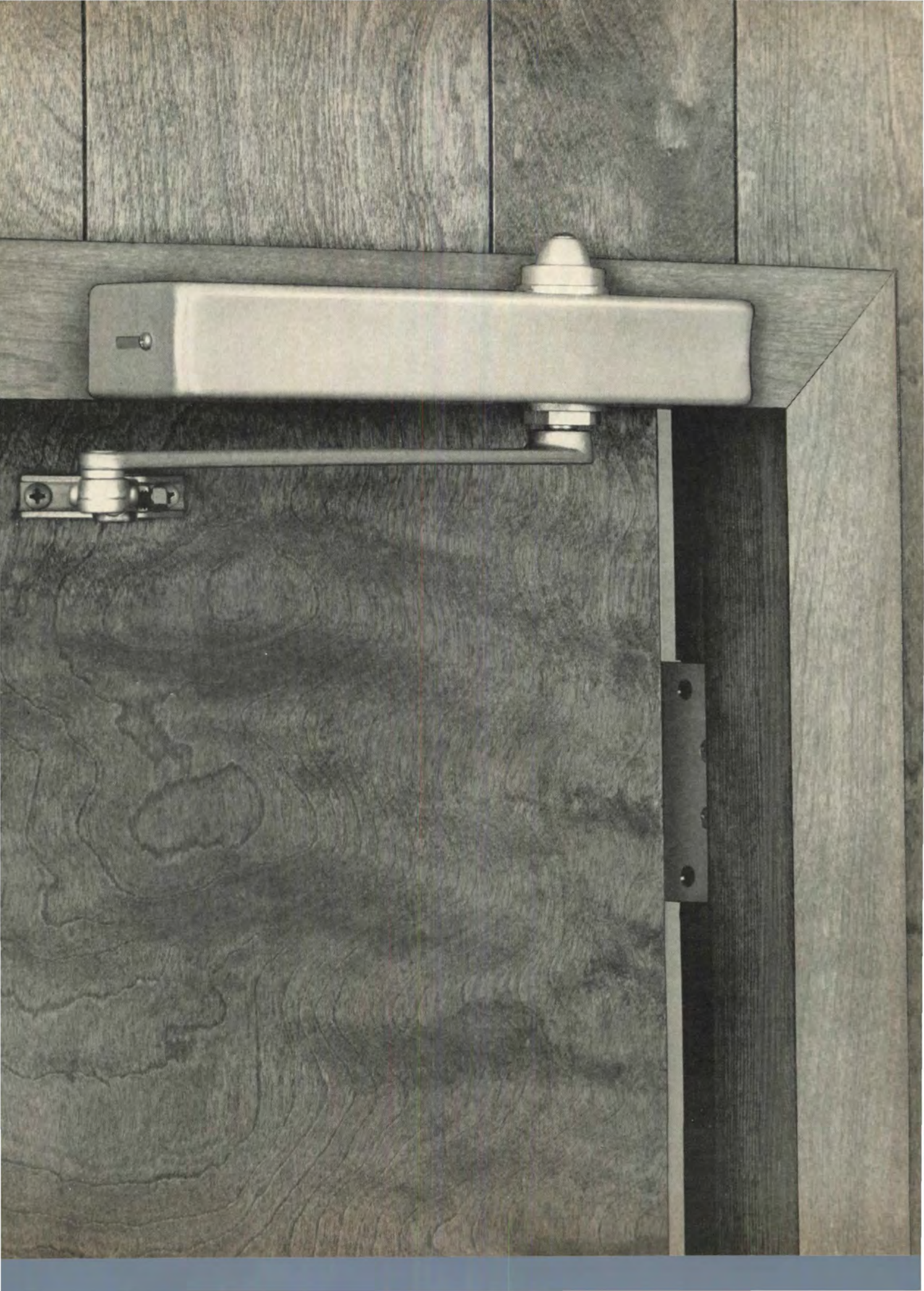

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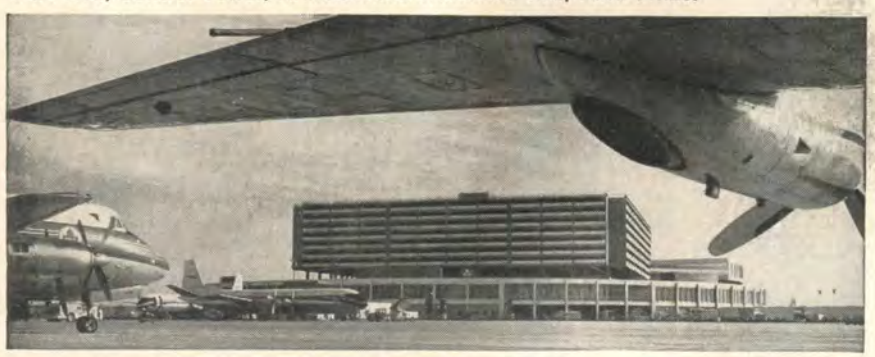

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Continued from page 266

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electric lights were first added). Next, the redesign of the auditorium in 1903 by Carrere & Hastings, of New York Public Library and Frick Mansion fame ("their Midas Touch" provided the present Edwardian Imperial splendor of claret plush and gilt putti). The first gold curtain arrived in 1905; counterweights were installed only at this time. And so the Met grew.

The authors and their co-credited art director have produced, however, not only a sprightly, readable, factual record of the personalities, causes, changes, and events of the house in text and photographs (many spectacular ones in sumptuous color), but also a broad spectrum of the rich and lively background of these years—full explanations and full-page pictures of tangential but vitally related subjects—which secures the events to their proper periods and gives a wider meaning to the entire history of the house, just as the book can give a wider understanding of the development of individual theaters.

if you want elegance, buy a castle . . . or specify Bordeaux

Floor coverings come and go, but elegance in wood like this Bordeaux pattern will be as unmistakable in the 23rd century as it was in the 17th. Based on a design in one of the great French castles, Bordeaux is one of many Wood-Mosaic masterpieces for those who believe every fine home should be unique. These floors last for generations with little upkeep, flatter every decor. And they cost no more than other fine floor coverings! Write for brochure showing all patterns.

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OTHER BOOKS TO BE NOTED

The Architect in the Nuclear Age: Design of Buildings to House Radioactivity. By James F. Munce, A.R.I.B.A. Hayden Book Co., Inc., 116 West 14 St., New York, N.Y., 1965. 241 pp., illus., $22.50.

An excellent volume that calls for the emancipation of the architect. It includes a chapter on "The Physics of Nuclear Fission" and another on "The Architectural Opportunity of Nuclear Fission" that expresses the author's hope that a new "fundamental and honest" image of architecture will emerge as a result of architects' efforts to unify and make beautiful the massive housings required for a highly complex, dangerous, and unfamiliar process.

Architectural Renderings, By Winners of the Birch Burdette Long Memorial Prize. Edited By Minor L. Bishop. The Architectural League of New York, 115 East 40 St., New York, N. Y., 1965. Illus., $4.75 (paperbound)

A collection of drawings, etchings, and paintings by leading architectural delineators of the past 40 years. Hugh Ferriss, Theodore Kautzky, Otto R. Eggers, Robert Schwartz, George Cooper Rudolph, and Helmut Jacoby are among the artists represented. The book provides a recent history of rendering and shows how changes in the design of buildings have affected the manner of illustrating them. It contains information about each artist and his work, plus a Foreword by Edgar Williams.

Buildings for Industry, Volumes I and II. By Walter Henn. Hayden Books Co., Inc., 116 West 14 St., New York, N.Y., 1965. 410 and 355 pp., respectively, illus., plans, drawings. $22.50 for each.

Volume I contains 3000 dimensioned diagrams, plans, and details divided up into 10 logical sections. The book covers structures external to factories (canals, railways, etc.), building work (wind resistance to steel problems, reinforced concrete), principles of construction, interiors and circulation, natural and artificial lighting, heating and ventilation, and fire and lightning protection. Industrial building constructions from all over the world are illustrated.

Volume II includes hundreds of photographs, plans, and evaluations of 140 typical industrial and commercial buildings by architects around the world. These are divided according to individual industries: food and drink, textile, iron and steel, machine tool, automobile, optical, electrical, woodworking, papermaking, printing, pottery and ceramics, rubber and plastics, heavy chemical, and pharmaceutical.

Commercial Timbers of the World. Third Edition, enlarged version of "A Concise Encyclopedia of World Timbers." By F. H. Titmuss. Published in London by The Technical Press. Distributed by The Chemical Rubber Co., 2310 Superior Avenue, Cleveland, Ohio, 1965. 277 pp., illus.

The structure, properties, characteristics, and use of nearly 250 different kinds of commercial timbers are described in detail: photomicrographs are included of some 34 of the woods most commonly used.

Construction Scheduling and Control. By George E. Deatherage. McGraw-Hill

Continued on page 288

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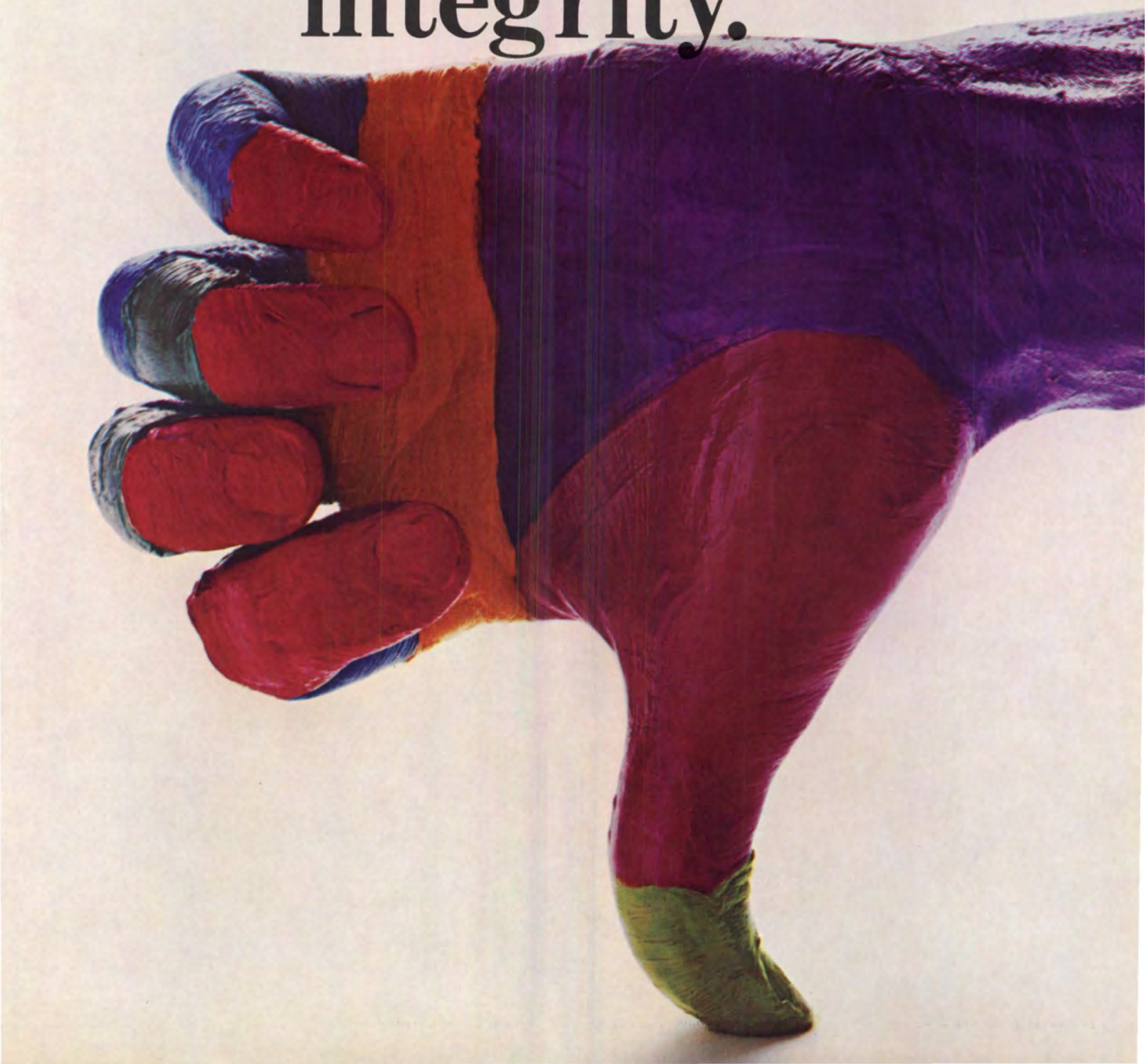

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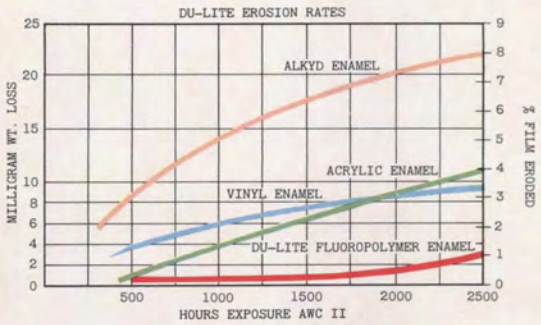

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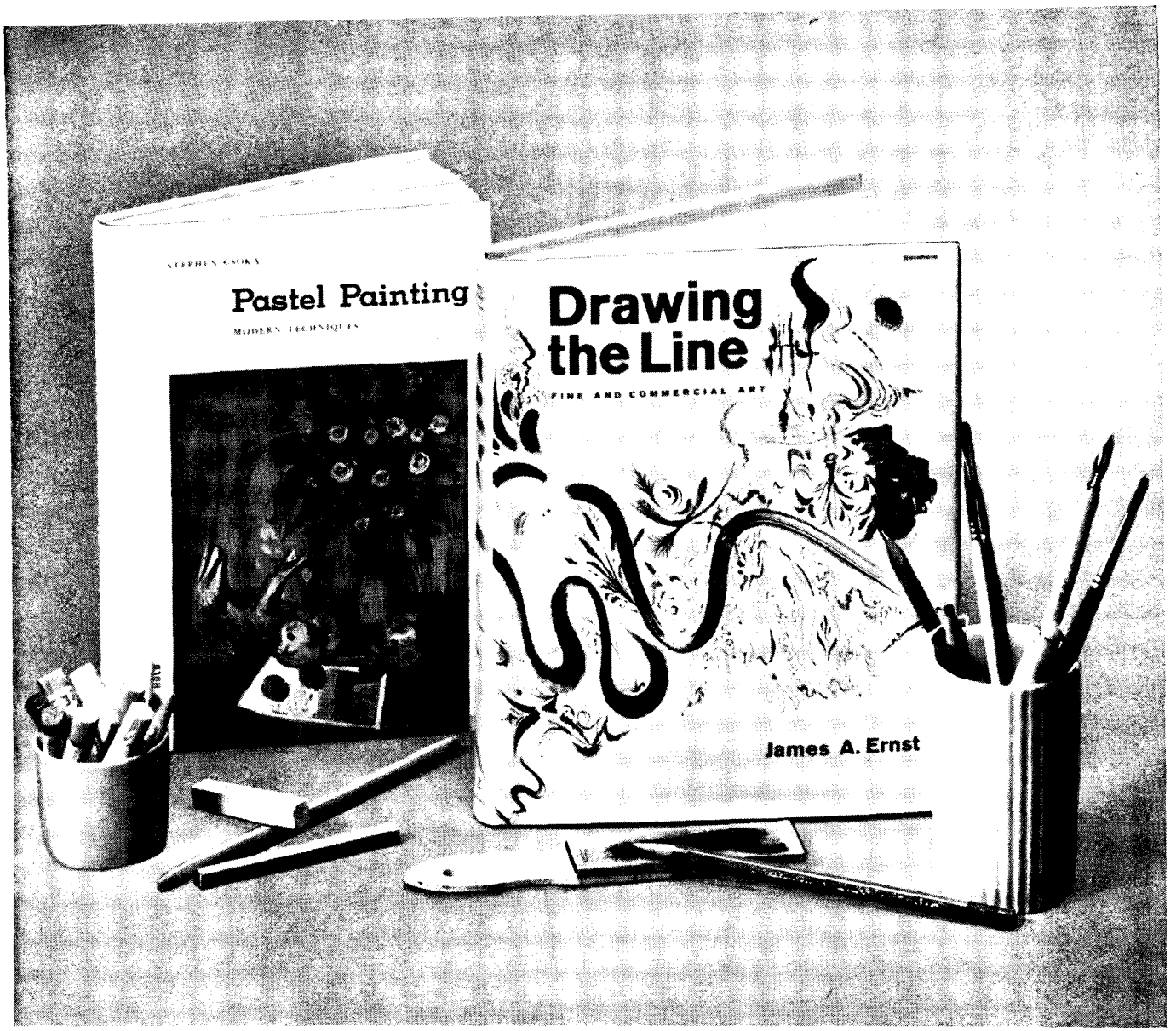

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PASTEL PAINTING by Stephen Csoka. A comprehensive guide to this brilliant medium. Complete information on: materials and tools—how to select and use them; technical and artistic problems, including choice of paper and colors; sketching and composition; tips on how to blend and apply color, how to create highlights, how to make corrections. The author reveals secrets discovered in his long years of experience, to help you express yourself better in this easy-to-learn, inexpensive medium. Over 150 black and white illustrations (many step-by-step demonstrations), 8 full-color reproductions, all with lively, informative captions. Chapters on: Landscapes, Texture, Perspective, Still Life, The Human Figure, Babies, The Head, Abstract Painting, plus a Portfolio of Sketches. Beginners as well as experienced artists will find pastel a satisfying medium to work in. Commercial artists, designers and decorators will find it particularly useful for quick visual and color combinations. PASTEL PAINTING, Modern Techniques by Stephen Csoka, 128 pages, 7 x 10, 150 illus., (8 color). $9.95

DRAWING THE LINE by James Ernst. With special emphasis on its application in commercial art, this book demonstrates all the techniques of line drawing: pen and ink; felt-tip-pen; brush and paint; combination pen and brush; lead, carbon, litho, grease and wax pencils; charcoal, pastel; scratchboard. Each of these techniques is discussed in great detail and illustrated by the author with many concrete examples. Discover the hundreds of exciting and different effects you can achieve . . . how to make the line crisp or suggestive, sharp or blunt, sweeping or meticulous . . . how to simulate tone with line . . . how to combine lines or vary effects with rough or smooth surfaces. The right implement for drawing each kind of line is specified, and valuable hints are given for making corrections and preserving equipment. Profusely and beautifully illustrated, this easy-to-follow, informative book will prove an invaluable reference for graphic designers, advertising personnel, architects, students and professional artists. DRAWING THE LINE by James Ernst. 160 pages, 8¼ x 10¼, 148 illus. $10.

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Continued from page 282

Book Co., 330 West 42 St., New York, N.Y., 1965. 316 pp., illus., $15.

A clear, well-written explication of CPM is included in this treatment of every aspect of construction management.

The Destruction of California. By Raymond Dasmann. The MacMillan Co., 60 Fifth Ave., New York, N.Y., 1965. 247 pp., illus., $5.95.

Another book about the national rape of nature; buy it if you care about what becomes of California.

The Elderly in Older Urban Areas, Problems of Adaption and the Effects of Relocation. Paul L. Niebanck and John B. Pope. Institute for Environmental Studies, U. of Penn., 3400 Walnut St., Phila., Pa. 1965. 174 pp., $4.

Describes elderly residents subject to relocation and the general impact of relocation on them. Enumerates some of the programs that are being and might be used to improve the relocation process.

Electrical Space Conditioning Concepts. The Lighting and Integrated Space Conditioning Subcommittee of the Competitive Service Committee, Commercial Group, Edison Electric Institute, 750 Third Ave., New York, N.Y., 1965. 65 pp., illus., $2.

The committee defined "integrated space conditioning" as: "The coordinated design and utilization of heat-producing sources to provide year-round comfort control with quality lighting for the most economical owning and operating cost." Includes articles by specialists from GE, the AIA, and engineers.

Handbook of Air-Conditioning System Design. Carrier Air Conditioning Co. McGraw-Hill Book Co., 330 West 42 St., New York, N.Y., 1965. 800 pp., illus., $25.

Practical and complete information for designing climate control systems is presented in a well-designed handbook. In addition to material covering load estimating, air distribution, piping, refrigeration equipment, and selecting an air-conditioning system, the authors present original design data for including heat storage in heat-load calculations.

Landscape in Distress. By Lionel Brett. The Architectural Press, 3-13 Queen Anne's Gate, London, S.W. 1, England. 159 pp., illus., $4.20.

A book written by a dedicated architect who is worried about the destruction of the rural landscape. He used Oxfordshire as his focus because it is an area certain to be invaded by thousands of people in the coming generation. Brett's purpose of writing the book was to explore what will happen to the area if the "normal processes of local planning, designing, financing and executing development are to continue, whether it be in the southeast or anywhere else. . . . Such a survey can no longer be a one-man job, and we mean to show, among other things, what can be done on the fine evenings of a single summer by a small architectural office."

Le Corbusier: 1957–1965. Vol. 7. Edited by W. Boesiger. George Wittenborn Inc., 1018 Madison Ave., New York, N.Y., 1965. 239 pp., illus., $18.50.

Plans, sections, and photographs of Cor-

Continued on page 304

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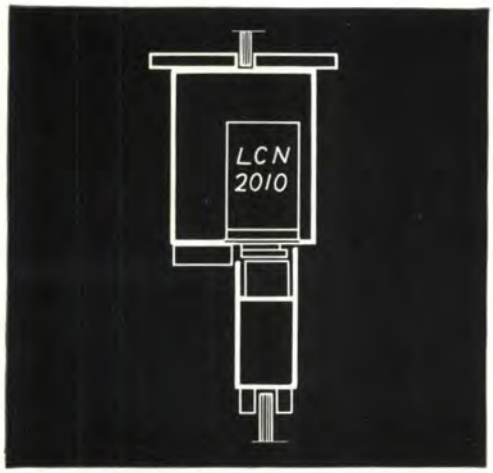

Detail at head for LCN overhead concealed closer shown in photograph

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1 Provides efficient, full rack-and-pinion, complete control of the door

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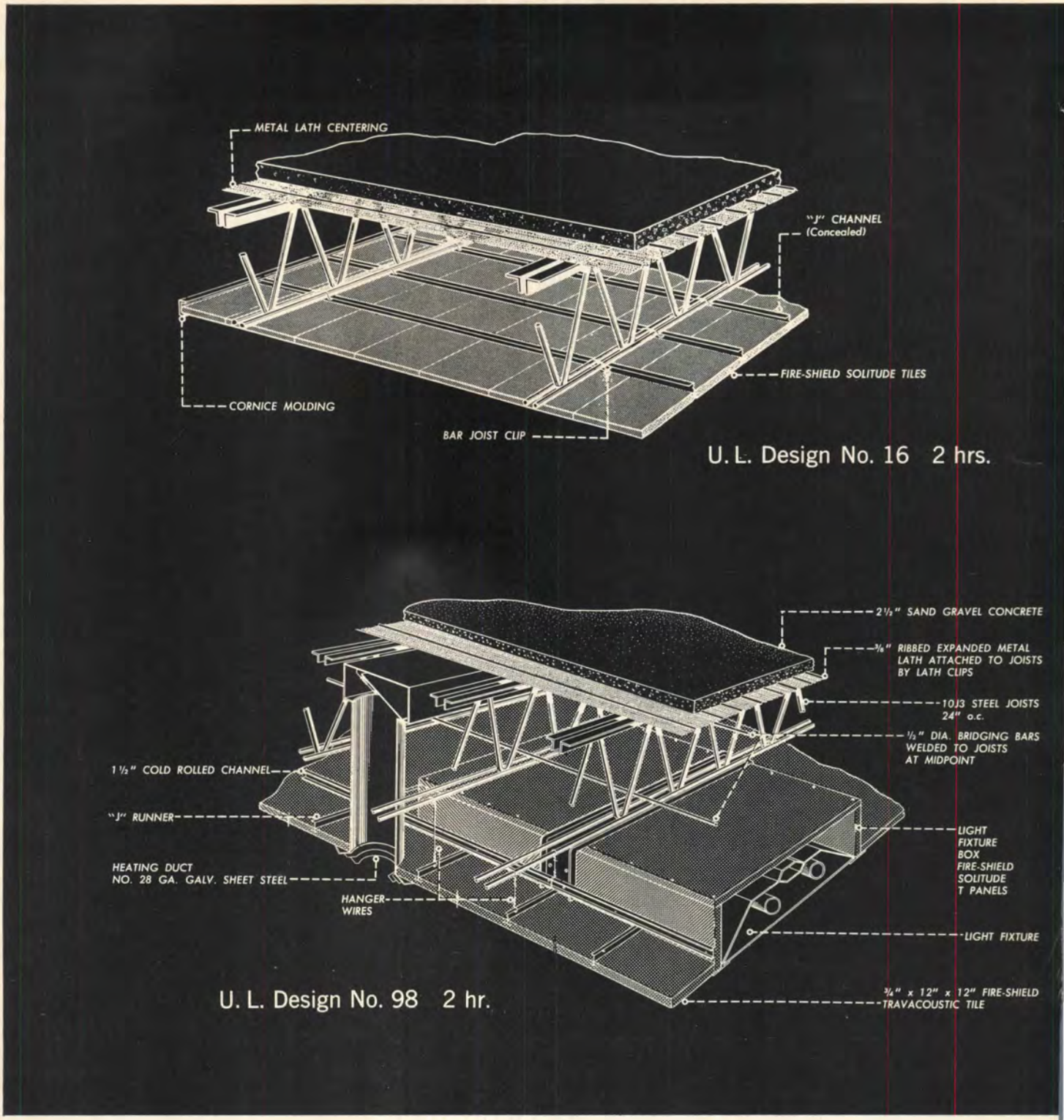
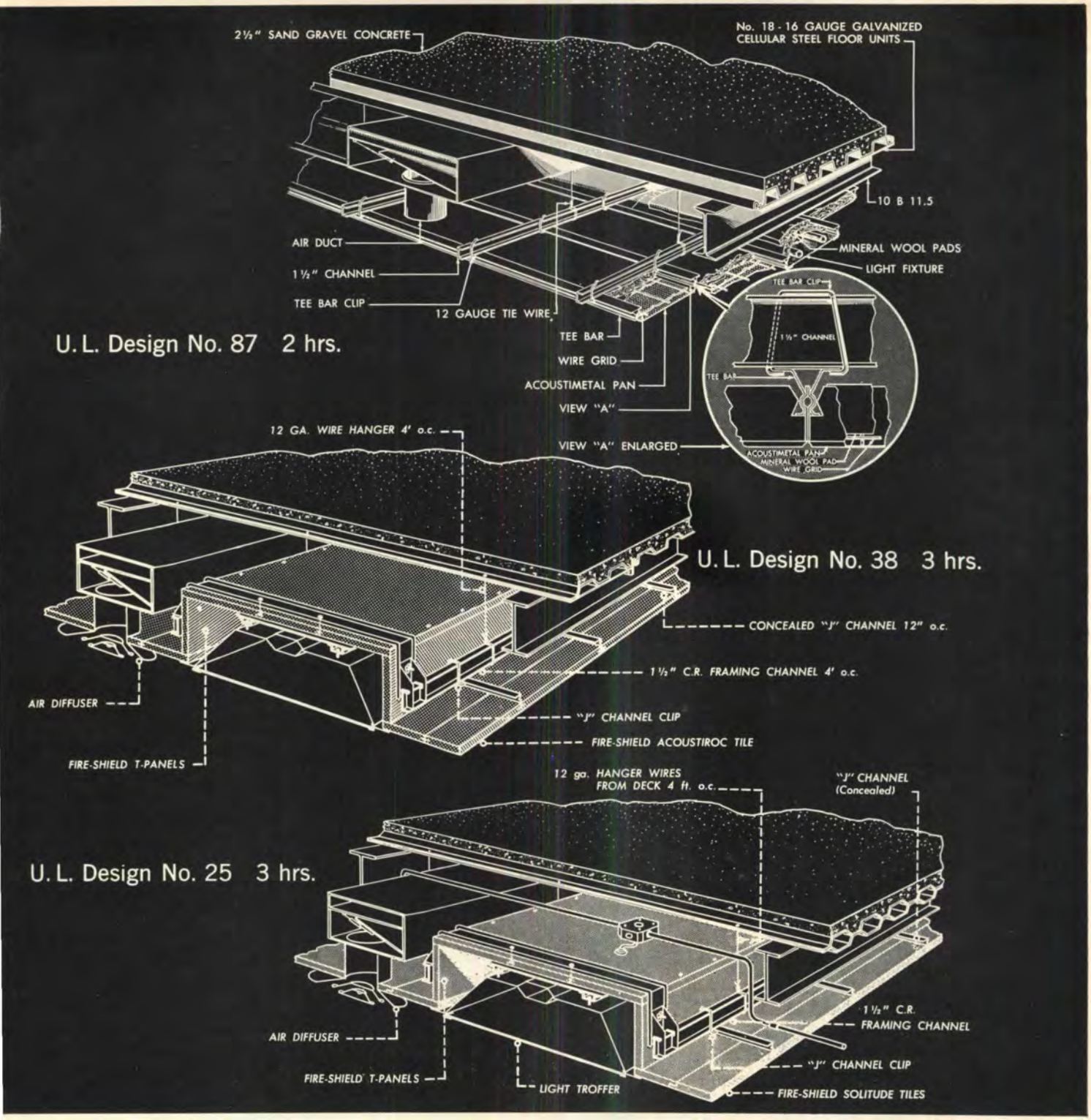
PHOTO: National Headquarters Building, American Society for Testing and Materials, Philadelphia, Pennsylvania; Carroll, Grisdale & Van Alen, Architects, Philadelphia



How many ways are there to build a safe,



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There are 27 published Gold Bond ways; 27 systems for erecting quiet, 1, 2 or 3-hour Fire-Rated floor or roof and ceiling constructions. Here are five examples. Gold Bond systems provide a complete selection of acoustical tiles and panels in a broad range of patterns and finishes, sizes and edge details. When you are specifying Fire-Rated systems call your Gold Bond® Representative. He can save you time and money. Or write National Gypsum Company, Department PA-46C, Buffalo, N. Y. 14225.

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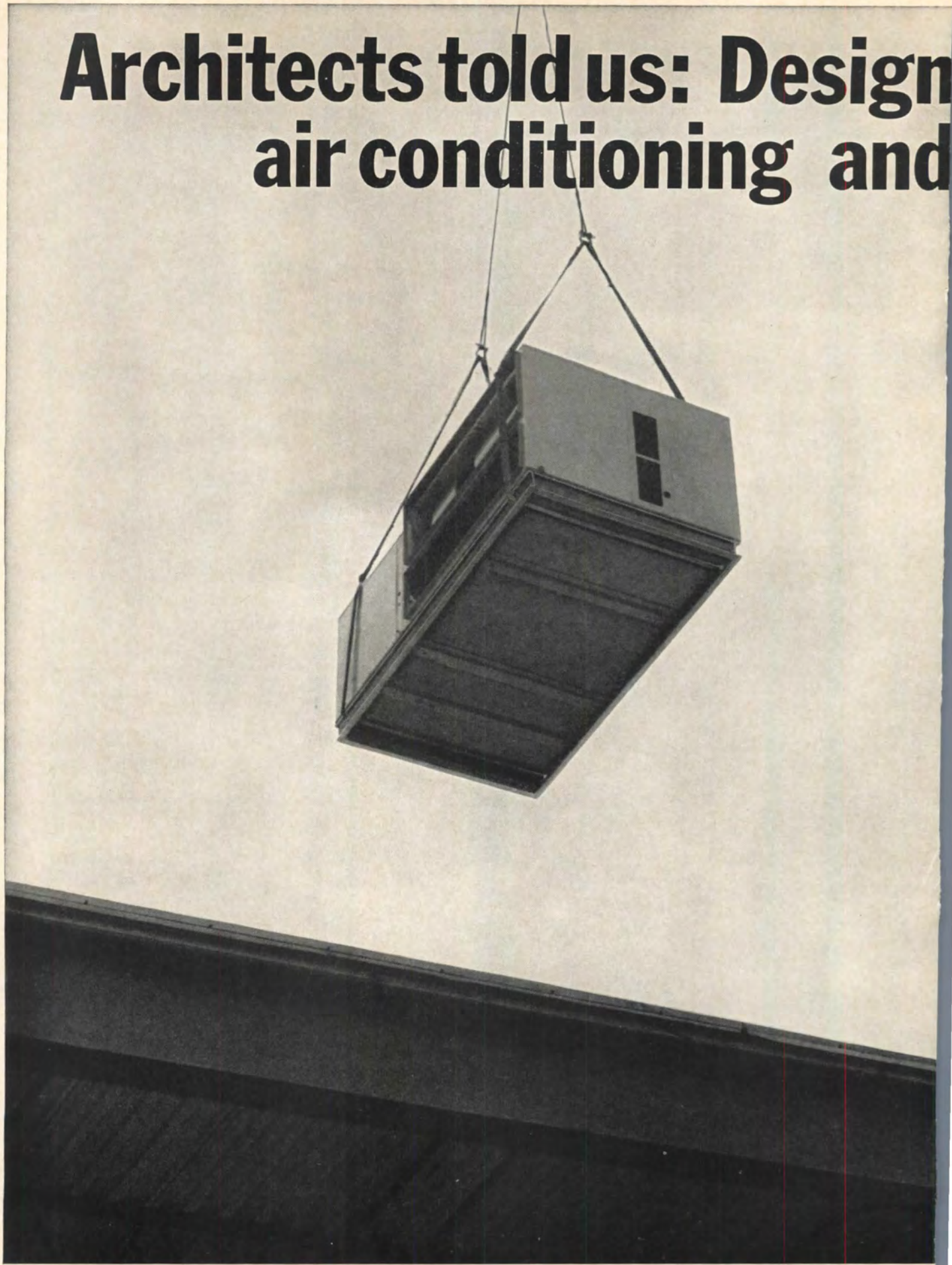

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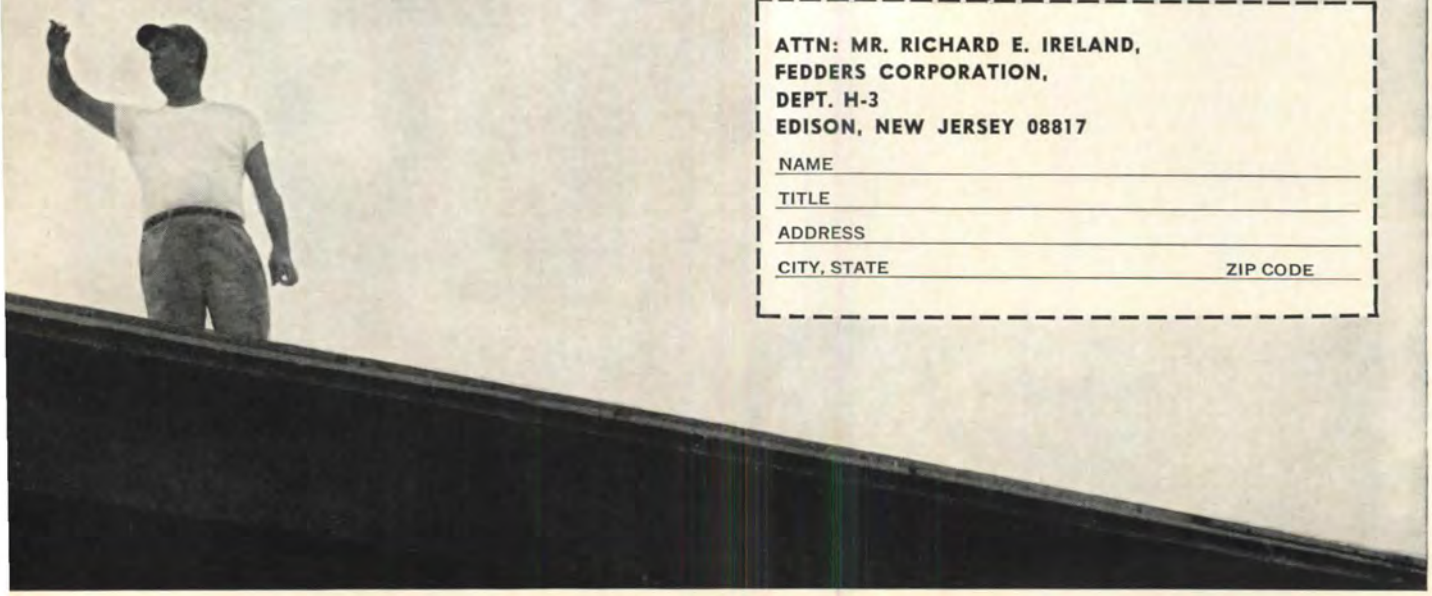

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Zonolite® lightweight insulating concrete roof decks can now be applied with amazing speed. The result; you can get the fire rating you need at surprisingly low cost.

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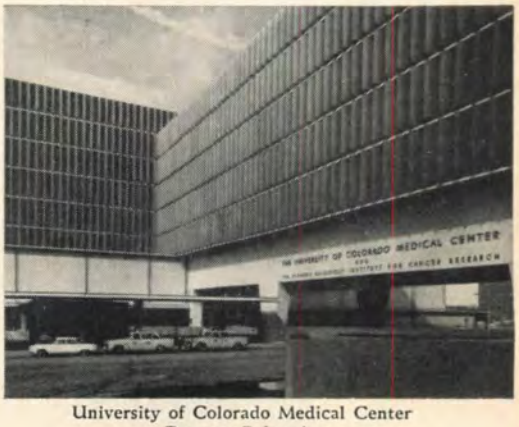

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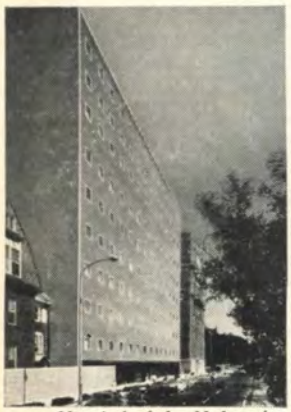

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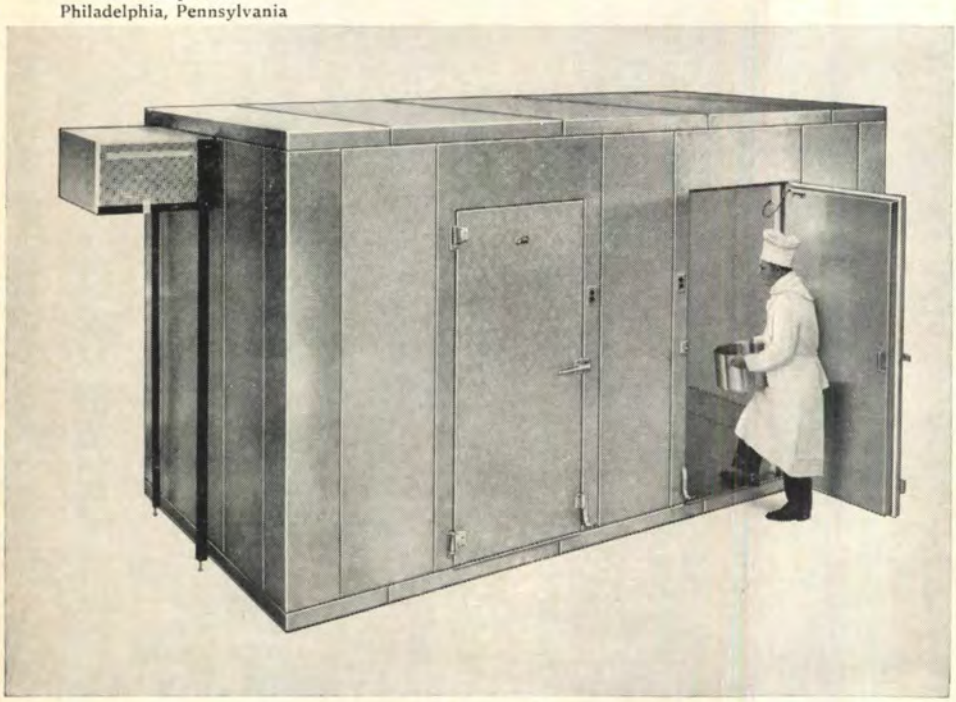

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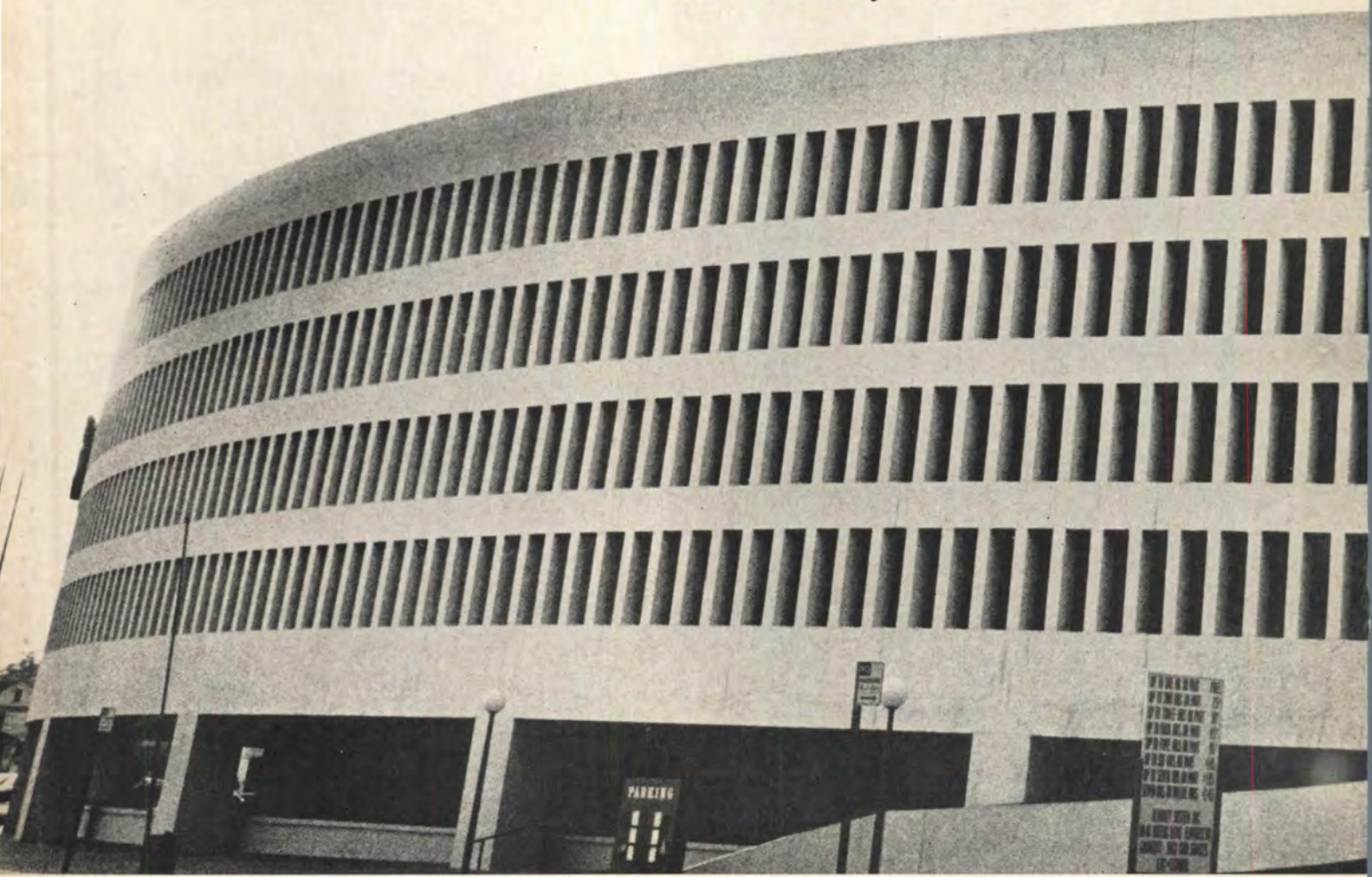
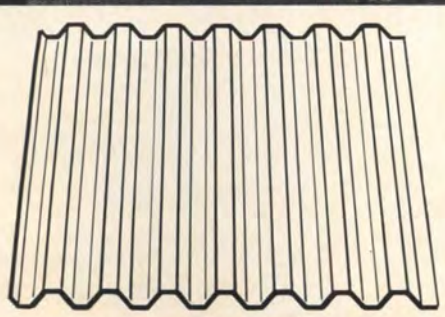
Wheeling sold Macy's 335,000 sq. ft. of for its spectacular new store in Queens,

(We wish they'd tell Gimbels.)





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Have you looked at Wheeling lately?

Wheeling

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A four-pipe system isn't always the answer.

Why waste a penthouse view on a cooling tower?

There's a rent-paying tenant atop this new office building—because it's heated and cooled with G-E Zoneline.

At first, the F&A Development Corporation was considering a four-pipe system for the new People's Savings Bank office building in Bridgeport, Conn. "But as plans evolved," says Bennett Delle Bovi, project engineer of F&A, "it became obvious that General Electric Zoneline would do everything a four-pipe system would do—and free an extra 5% to 10% in usable, rentable floor space."

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40% SAVINGS on first cost, compared with the estimates for a four-pipe system.

CHOICE OF STYLE in exterior grillwork. A special grille was designed for the Peoples's Savings Bank to complement the building's architectural styling.

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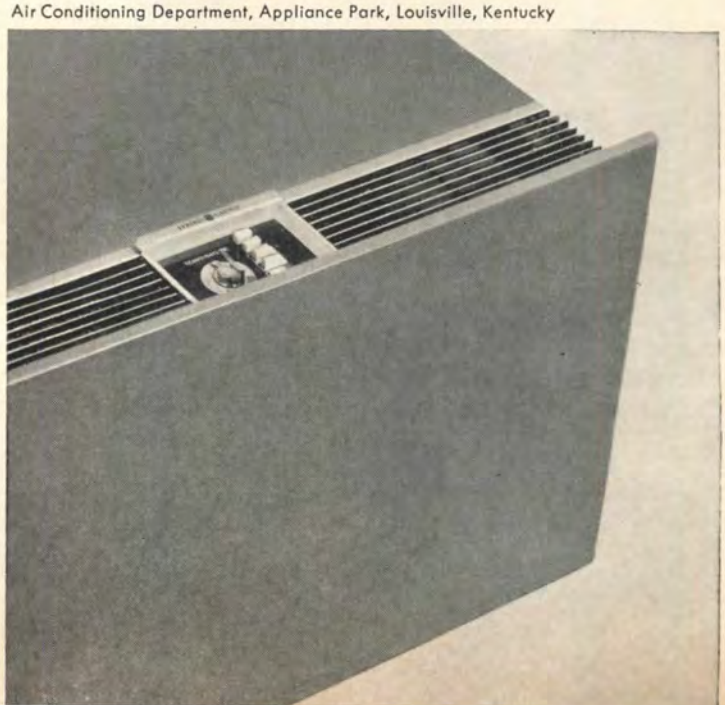

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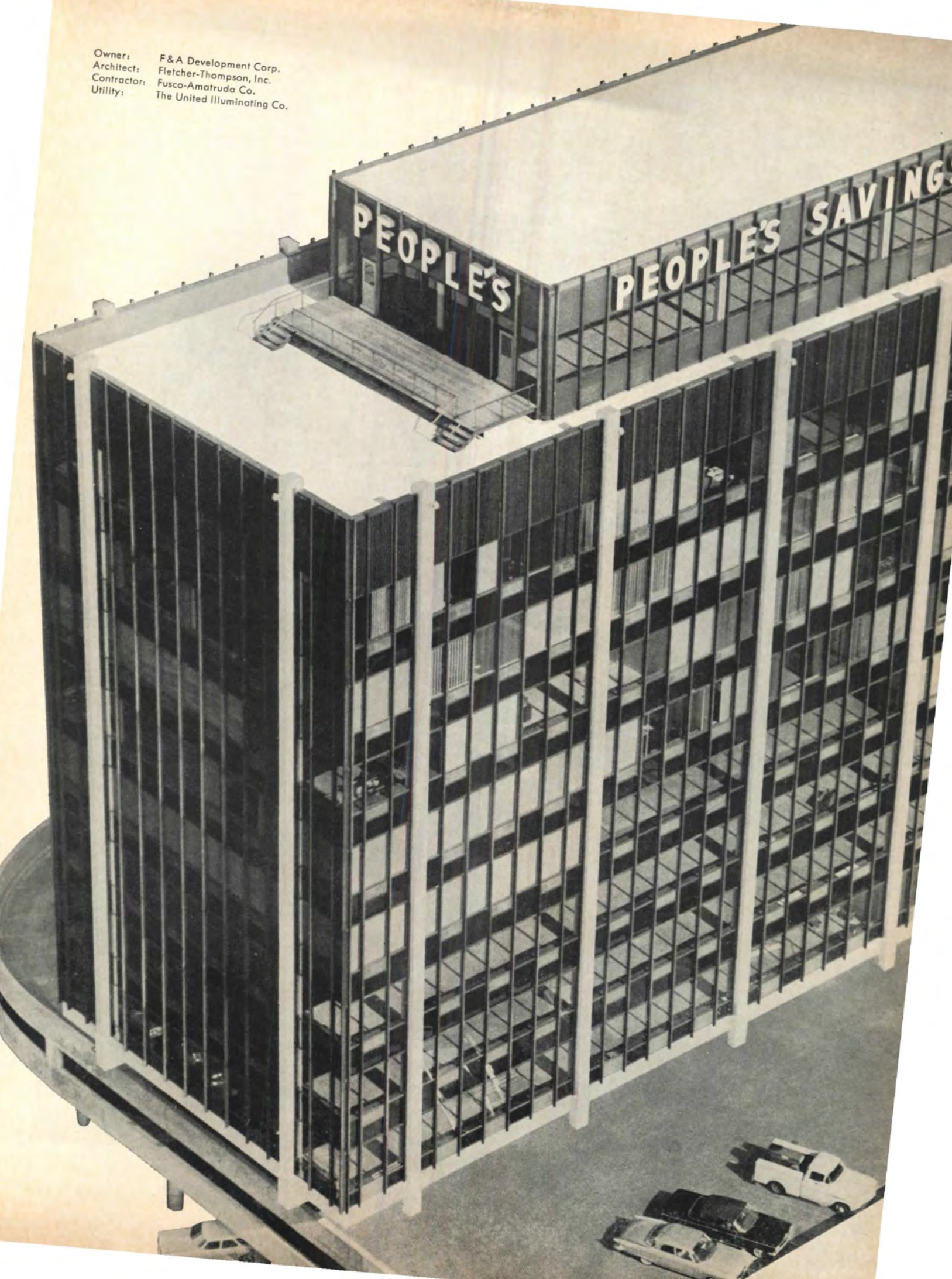
Owner: F&A Development Corp.
Architect: Fletcher-Thompson, Inc.
Contractor: Fusco-Amatruda Co.
Utility: The United Illuminating Co.



Continued from page 288

bu's last works. Text in French and English.

The Making of Urban America: A History of City Planning in the United States. By John W. Reps. Princeton U. Press, Princeton, N.J., 1965. 574 pp., illus., $25.

The development of town and city planning from its outset till the beginning of World War I is described and illustrated with 300 maps, plans, and views. The author set out to discover to what extent city planning was rooted in the nation's tradition and to trace the main influences that have determined what America's cities look like, as well as to document his belief that not all cities were designed on an undeviating gridiron pattern.

Modern Architectural Detailing, Volume II. By Konrad Gatz. Reinhold Publishing Co., 430 Park Ave., New York, N.Y., 1965. 284 pp., illus., $17.50.

An excellent book for architects who need some stimulation and for beginners who want to know how to plan. It illustrates clearly the design of structural and decorative details, specifically floors, ceilings, stairs, fireplaces, doors, etc. Unfortunately, the metric system is used throughout.

100 Most Beautiful Rooms in America. Revised Edition. Helen Comstock. A Studio Book. The Viking Press, 625 Madison Avenue, New York 10022. 1965. 210 pp., illus. color. $12.95

This richly illustrated volume should more properly be called "100 (plus others) most beautiful rooms (along with gardens, hallways, and building exteriors) using antique furniture in America." No furniture later than mid-19th Century is featured, and it is all distinguished. The aesthetic quality of the rooms varies, however, so the book provides both a sometimes rich, and a sometimes static pictorial tour.

Museums U.S.A.: A History and Guide. By Herbert & Marjorie Katz. Doubleday & Co., Garden City, N. Y., 1965. 395 pp., illus., $6.50

In explaining why museums are where they are and who was responsible for them, the authors have written a social history of the United States, from 1748 to the present. Appendix lists more than 2500 museums by city and state, and briefly indicates what a visitor may expect to find. Useful for general reference.

Practical Application of Dynamic Symmetry. By Jay Hambridge. The Devin-Adair Co., 23 East 26 St., New York 10, N.Y., 1965. 128 pp., illus., $4.95.

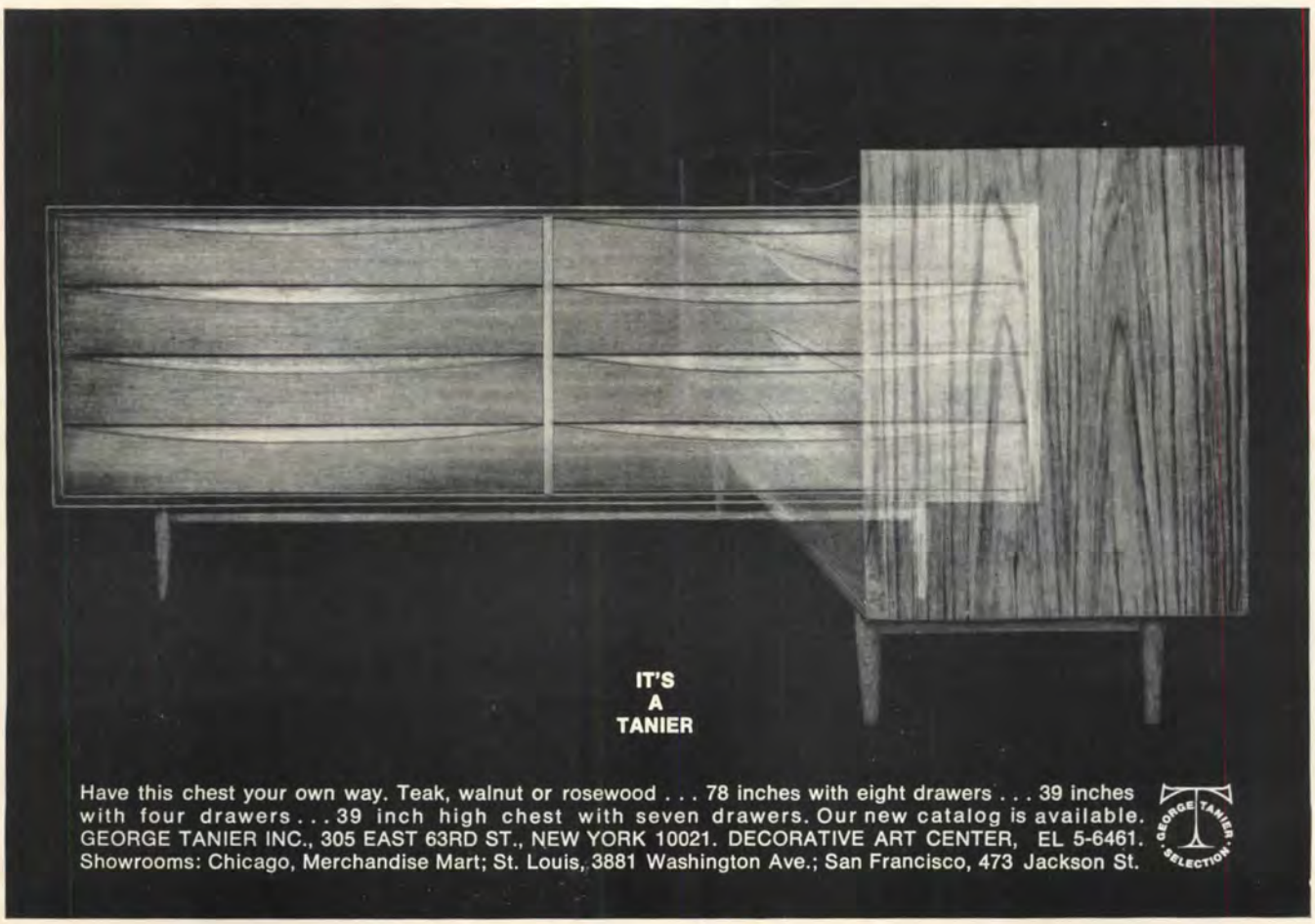
This is the first publication of lectures by Jay Hambridge in New York during the winter of 1921. Drawings of natural forms were selected from his unpublished material and included here to make the distinction between static and dynamic symmetry clearer. Students are urged to develop an understanding of mathematics and to apply the Greek method of area analysis in order to make their buildings seem to grow organically—the way trusses grow into a maple leaf. "The Greek way is the New Way; not to accept the appearance of things but always to search for the inner truth."

Stained Glass: An Architectural Art. By Robert Sowers. Universe Books, 381 Park Ave. S., New York, N.Y., 1965. 128 pp., illus., $12.50.

The author discovers for the reader that the basis of the "lost art" of stained-glass design is not the coloring of the glass but the effective placement of compositions of colored glass in front of a light source. Sowers examines the problem of whether art of any kind can be incorporated successfully into contemporary architecture and the problems of creating a viable religious art in a secular age. A beautifully illustrated book by a thoughtful writer.

Survey of Architectural History in Cambridge: East Cambridge. Cambridge Historical Commission, 57 Inman St., Cambridge, Mass., 1965. 104 pp., illus., maps, $3.

A book consisting of two parts: The first is a thumbnail summary of the architectural development of the city from early times to the present; it comprises the frame of reference for the six subsequent studies that will be made. The second part is devoted to the topography, economic growth, and the architectural evolution of the area of East Cambridge as evidenced mainly in its houses and tenements.



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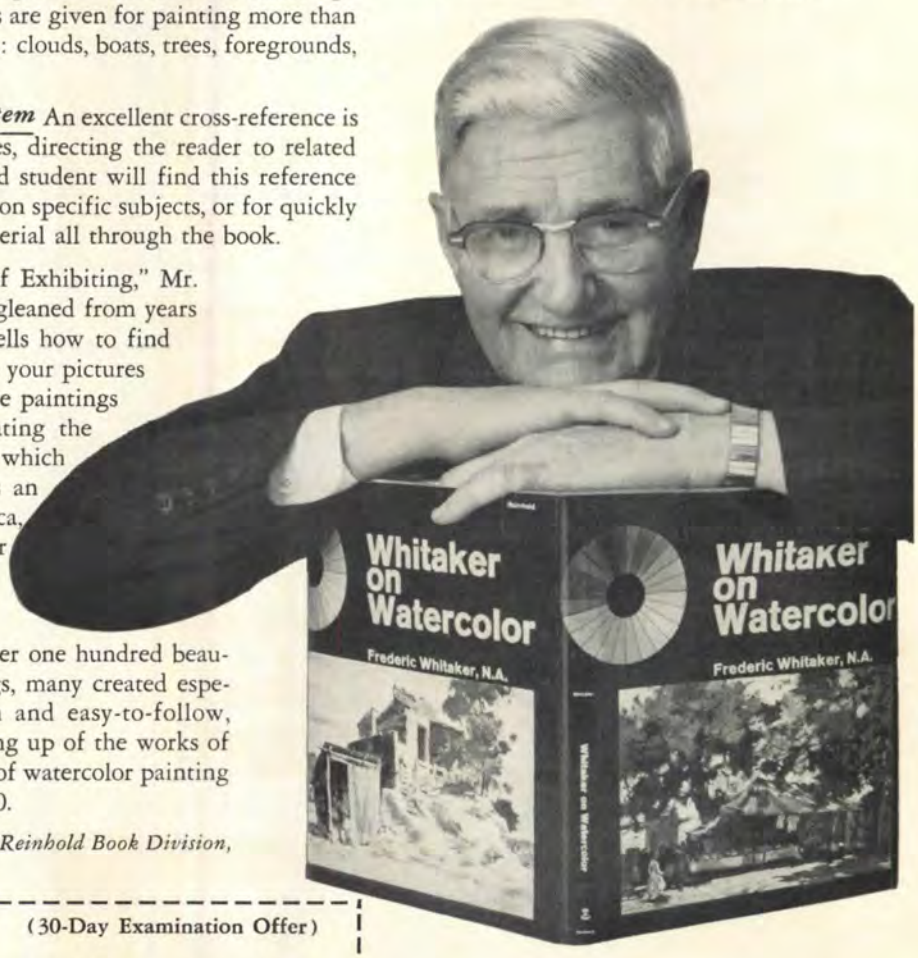

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