

SARGENT.

A complete line of advanced architectural hardware, including the Sargent Maximum Security System New Haven, Connecticut • Peterborough, Ontario

71

N

E

E

[7]

(7)

THE ARCHITECTURAL FORUM / MAY 1968

13

41

64

JRBAN AMERICA, INC. STEPHEN R. CURRIER FIRST PRESIDENT 1965-1967

PRESIDENT James W. Rouse

VICE PRESIDENT C. McKim Norton, AIP

EXECUTIVE VICE PRESIDENT William L. Slayton

TREASURER Alfred S. Mills

SECRETARY Walter F. Leinhardt

BOARD OF TRUSTEES HONORARY CHAIRMAN Harland Bartholomew. AIP

CHAIRMAN Andrew Heiskell

Edmund N. Bacon, AIP, AIA George T. Bogard Albert M. Cole Roscoe P. DeWitt, FAIA* Ben Fischer Mrs. George A. Garrett* Lawrence Halprin August Heckscher Leon E. Hickman Thomas P. F. Hoving Lewis E. Kitchen* Ferd Kramer Martin Meyerson, AIP Alfred S. Mills John H. Muller C. McKim Norton, AIP J. Stanley Purnell Frank C. Rabold James W. Rouse John H. Rubel Arthur Rubloff George Russell Lelan F. Sillin Jr. John G. Simon Edgar B. Stern Jr. Julian H. Whittlesey, FAIA Whitney M. Young Jr. *Henorary NATIONAL ACTION COUNCIL CHAIRMAN John H. Muller

URBAN AMERICA, INC., including URBAN AMERICA, INC., including its National Action Council, is a nation-wide nonprofit educational orgnization combining the programs and resources of two national organizations with the common goal of improving cities—Urban America (formerly American Planning and Civic Association) and the ACTION Council for Better Cities.

LETTERS

FORUM 37 A monthly review of events and ideas.

BREUER AT ST. JOHN'S A 15-year planning and design program has brought dramatic changes to the Benedictine University.

VOX POPULI: MANY VOICES 58 Complexities of citizen participation as seen in one section of Harlem.

MUMMERS THEATER

A "fragment," certainly not from the Beaux Arts bag. By John Johansen.

IMPERIAL REQUIEM 70 Wright's Imperial Hotel legacy: a few pitiful shards. By Priscilla Dunhill.

FOCUS 76 A monthly review of notable buildings.

80 Two in a series: Baroque and Romanesque, reviewed by Sibyl Moholy-Nagy.

A SHED WITH A DIFFERENCE 82 Edward Larrabee Barnes gives a new angle to an old form in a beach house.

EDUCATION AND THE AIA 86 An important two-year research challenges both profession and schools.

HOME FOR THE AGED 88 Additions to the Hebrew Home in New York add pleasure to residents' lives.

PREVIEWS 102 Linear menagerie; U.S. Steel tower.

THE ARCHITECTURAL FORUM Vol. 128 No. 4. MAY issue. Published 10 times a year, combining Jan./Feb. and July/Aug. issues, by Urban America, Inc., 111 W. 57 St. New York, N. Y. 10019. Sent without charge to architects registered within the U.S.A. Qualified persons are invited to write the Circulation Manager on company letterhead. Please give your principal state of architectural registration, your title, and the kind of work you do. Correspondence regarding service, change of address, etc., should be sent to the Circulation Manager. Subscription rate is \$12 within the U.S.A. and possessions: Canada, \$15; Elsewhere, \$20. College Rate for students and faculty members of U.S. accredited schools of architecture, \$6. Single copies, \$1.50. Member of Business Publications Audit of Circulation, Inc. Controlled circulation postage paid at New York, N.Y. © 1968 by Urban America, Inc. All rights reserved.



BOOKS

Cover: detail of St. John's University Library. Photo by Hedrich-Blessing

PUBLISHER'S NOTE

Those of us who now and then are called upon to speak to groups of architects, or students, or advertisers, usually make it clear that THE FORUM pays little attention to the popular notion that a magazine is obliged to reflect the consensus of its audience. But that policy does not prevent us from acting on a reader's suggestion if he can convince us that in his belief there is good sense.

Last November Mr. W. N. Greer, a member of the firm of Shore & Moffat and Partners, Toronto, Canada, complained about our circulation policy which required Canadian architects to pay foreign subscription rates while his fellow professionals in the U.S.A. got our magazine free of charge. He said: "Most publications between the two countries have little or no difference in rates, and since nearly all advertisers sell in Canada, it should be an advantage to have Canadian subscribers." To that I can add:

Nor, for that matter, have the editors of Architectural Forum paid much attention to the existence of a border between us. Many major articles done in the past three years dealt with jobs in Canada—Montreal's 3-D core (Sept. '66) and Habitat (May '67), to mention only two.

Obviously the time had come to drop all barriers between us and our Canadian neighbors. So, Mr. Greer, commencing with our July/ August 1968 issue, all Canadians will be entitled to receive THE FORUM on the same terms extended to their neighbors in the U.S.A.-registered architects free of charge.

A letter from our circulation manager will be mailed in the next few weeks explaining the details to our friends to the north. Lest those who have recently paid us on the old subscription rates fear they will have been had, we hasten to assure them that these details too are being adjusted in the process of the change-over.

-L.W.M.

You're looking at homes that can be built on an assembly line.

If we're to make the world more livable, we need to find more ways to create low-cost housing . . . now.

To help find the answers, Jones & Laughlin Steel Corporation commissioned an architectural firm to develop a series of new design concepts for such single and multi-family housing.

The result is a series of designs that are architecturally and technically feasible and can be built to acceptable quality standards with facilities now existing in the manufactured home industry.

They offer the economic appeal of a massproduced, fully-furnished, ready-to-occupy dwelling which is hauled from the factory to

the homesite as a ready-to-position unit. Estimated costs of the new designs are considerably below those for conventional construction.

Note how the use of lightweight steel" box" frames makes it possible to stack, fold out, and, in other ways, add new dimensions to assembly-line housing.

For a copy of our brochure containing concept drawings and descriptions of these and other design concepts, write J&L Steel.







Basic steel frame which permits stacking.

FOLD-OUT. This concept employs a 12-foot-square basic unit with fold-out sections on all four sides. Three units fitted together provide 1152 square feet of space. Units can be added as required.



Basic steel frame. Fold-out wings also framed in steel to permit cantilevering.



Floor plan of two units in line.



IP-TOP. A manufactured unit with cathedral windows to catch the sun. The secret is a nged roof section extended on the site. Units can be combined side by side, or added in line.





Frame in shipping position.



Frame in open position.

Whether you have a few people or a storeful to serve, Halsey Taylor wall-mounted electric water coolers are designed to deliver. Capacities range from 8 to 20 gallons of cool water per hour. Units can be easily face-mounted to any type wall at any conventional height. Plumbing connections are concealed in the cabinet. Cabinets come in baked gray enamel, gleaming stainless steel, or vinylclad steel with a choice of colors and textures. Hot water dispenser (coffee bar) available. Send for 1968 catalog — or look us up in Sweet's or the Yellow Pages. THE HALSEY W. TAYLOR COMPANY, 1564 Thomas Road • Warren, Ohio 44481.

HALSEY TAYLOR

THIRST QUENCHER





WALL-MOUNTED WATER COOLER TUCKS INTO A 10" RECESS

Self-contained unit extends just 10 inches from finish wall. Receptor and back splash are gleaming stainless steel. Cabinet in choice of colors, stainless steel, or vinyl-laminated steel.

THE HALSEY W. TAYLOR COMPANY 1564 Thomas Road, Warren, Ohio 44481



BI-LEVEL ACCESSORY FOUNTAIN

Safe, practical way to serve drinking water to adults and children. Designed for left side mounting on any WM Series water cooler. Gray baked enamel, stainless or vinyl-clad steel cabinets to match adjoining WM cooler. Waste outlet and water supply are integral with electric water cooler.

THE HALSEY W. TAYLOR COMPANY 1564 Thomas Road, Warren, Ohio 44481

WRITE FOR NEW CATALOG

Latest information on Halsey Taylor electric drinking fountains and water coolers. Send for your copy today.



You don't have to worry about a thing with Republic standard doors...







Because Republic gives distinctive treatments of lights and louvres toits standard doors.

You'd hardly guess Republic full flush doors are mass-produced. Except when you see the price. Beautifully finished, these standards are smooth and trim on the outside, a honeycomb of strength inside. And they have the most unusual light and louvre treatments.

Unusual because you design these treatments. We produce them at our factories and regional warehouses. You get creative treatments at a fraction of the cost of custom modifications. We also supply a snap-on glazing bead that looks very expensive.

Republic standard doors can be used with our new Frame-A-Lite stick system . . . or with standard Republic universal door frames. These economical frames are produced in a wide variety of sizes. Steel gives added strength to the corners.

Our salesmen have a kit that demonstrates the design versatility and quality construction of Republic standard doors, Frame-A-Lite sticks, and universal door frames. To arrange a meeting, call your nearest Manufacturing Division sales office, listed in the Yellow Pages. Or use the coupon.

REPUBLIC STEEL MANUFACTURING DIVISION

YOUNGSTOWN, OHIO 44505

() Please have a sale	sman call with a	demonstration kit.
Please send literature	and specification	ons on:
() Republic full flush		Steel
() Frame-A-Lite stick		Sieer
() Universal door fra	mes	
Name	Tit	le
Company		
Address		
City	State	Zip



There's more than just a beautiful roof between this home and the weather.

Residence: Montreal, Quebec. Architects: D'Astous and Pothier. Certi-Split, handsplit shakes, 24" x 3/4" to 1-1/4" with 8" expos



When the winter wind starts whistling along the St. Lawrence River, a home needs all the protection it can get.

To provide it, architects D'Astous and Pothier designed this waterfront home like an extension of the slope on which it stands—long and low with a deep slanted roof to deflect the wind and offer as little unprotected area as possible.

For additional warmth the roof was insulated and held away from the home

on $5\frac{1}{2}$ " x 13" laminated beams, like a shell, thus creating fields of warm air between it and the walls.

To make this arrangement practical, D'Astous and Pothier needed a weathertight roofing material that would retain its attractive appearance even under the worst climate conditions. They selected red cedar shakes naturally beautiful, remarkably insulative, strong enough to withstand winds up to hurricane velocity without damage.

Perhaps red cedar has exactly the characteristics you need for your next job, too. Why not find out? For details on Certi-Split shakes or Certigrade shingles, see our Sweet's Catalog listing 21d/Re, $m_{e_{e}}$ write or call. 5510 White Building,



Seattle, Washington 98101 (In Canada: 1477 West Pender Street, Vancouver 5, B.C.)

Red Cedar Shingle & Handsplit Shake Bureau One of a series presented by members of the Forest Products Promotion Council.

Freedom

....

Simple, enduring, functional, unified, The Source Group can be a significant addition to the office environment. Brochures and catalogues on this new and totally integrated line of desks, files, tables, credenzas and modular units are available on request.

Corry Jamestown Corporation Corry, Pennsylvania



(2

1

UNA!

 \otimes



Fine office furniture

A new solution to solar heat and glare problems

PLEXIGLAS® SOLAR CONTROL SERIES



DOME ENCLOSURES SUN SCREENS WINDOW GLAZING







unfiltered sunshine







Bronze 2539



Grey 2094



TRANSPARENT GREY SERIES



Grey 2537



Bronze 2412 Bronze 2370 3. PLEXIGLAS is accepted under

most building codes as an approved, slow-burning, light transmitting material for use in glazing and domed skylights.

Write for complete information including data on how to calculate solar heat gain for the PLEXIGLAS Solar Control Series. It's contained in our new 20-page brochure.



unfiltered sunshine



Bronze 2540

The transparent grey and bronze colors of PLEXIGLAS acrylic sheet shown above have been developed by Rohm and Haas Company to help you control the sun's heat and glare. Each of the colors in the PLEXIGLAS Solar Control Series is produced in five densities from light to deep, providing a range of solar control values. Solar energy transmittance values range from 20% to 75% and visible light transmittance values from 10 to 76%. Using them for glazing dome enclosures, sun screens and windows, helps you achieve comfortable interior environments readily and economically. In addition to its high breakage

resistance, weatherability and light weight, PLEXIGLAS has three significant advantages for solar control glazing:

1. PLEXIGLAS is not subject to thermal shock-it will not crack when exposed simultaneously to hot sunlight on one portion and shade on another.

2. Solar energy and light transmittance values are approximately constant for all sheet thicknesses in each color density. Sheets of high color density need not be of greater, more costly thickness.

®Trademark Reg. U.S. Pat. Off., Canada and principal Western Hemisphere countries. Sold as OROGLAS® in other countries.









Monsanto Co., St. Louis, Mo.; Architect: Vincent G. Kling & Associates, Philadelphia, Pa.

Reflections of an Architect

Reflect a moment on buildings clad in gold or silver mirrors which image the distant hills and near-by trees, the play of clouds and sky . . . clasping the landscape. Integrally beautiful.

Kinney Architectural Glass!

From without, reflective, concealing the inner clutter of working environments. Freeing internal spaces for efficient use. Obviating awnings, screens, blinds, drapes and other shading artifices. Reducing air-conditioning requirements.

From within, transparent, permitting the undistorted, glarefree, color-true entrance of surrounding scenes.

Cool. Even to the touch on a hot summer day, because it reflects (not absorbs) up to eighty percent of the solar heat.

Exactingly vacuum-coated in gold, deep gold, or bright aluminum. Sizes to 60 x 96 inches, in three thicknesses. Insulated or laminated safety glass. Detailed descriptive literature on request.



Kinney Vacuum Coating Dept. 7030 Colonial Highway Pennsauken, New Jersey 08109 Telephone: (609) 665-9364

Kinney Vacuum Division The New York Air Brake Company 🕖

LETTERS

STRIPSVILLE

Forum: The excellent article on "The Strip" [March issue] should assist us all in learning how to achieve a rapproachment with this powerful feature of America. Below, a pun for fun, predicated on the article. It is entitled "Stripsville: Lost Wages, Nevada." Villa d'Este

of the West, made one accord by Henry Ford.

Signs contort; signs exhort, expound, exclaim Lost Wages' fame.

Let's begin: "Aladdin." (Just who in hell is Milton Prell?)

"The Compleat Place to Eat," Effendi Prell subtly doth tell.

A new start; here is Art: (Buonarroti, slightly naughty.)

See the runes of The Dunes; Bold Priapus shows he'll shape us.

See the glint of The Mint on Rue Fremont, Midas' haunt.

Caesar's Place: time and space do not exist, oh Hedonist!

As we see, all History is in focus at this locus

ALBERT G. MELCHER Consulting Engineer

AMENITY: THE SUM TOTAL

Forum: Your article, "The Airborne Stampede," in the January/ February issue was, if I may say so, way off the mark. Surely it is no longer acceptable to talk about transportation or any other aspect of planning purely in its own terms, in a vacuum. Certainly, one does not expect this from Forum.

There are two points to be considered here. New Transportation facilities usually do not relieve congestion, they breed more. . . . A STOL port on the West Side of Manhattan will put more airplanes in the sky over the city. At first there will be fewer at the big airports, but eventually there will be created a demand by this facility that will be filled by more and more airplanes.

If there is a genuine need to decrease the number of airplanes in the New York sky then a different means of transportation must be developed as a real alternative. This, of course is the railroad. Trains exist that can run at constant speeds of 125 mph on properly prepared roadbeds. If the government and the railroads were interested—and they must be made to be interested-the railroad could be the perfect antidote to the increasing air and road congestion that seems about to engulf us with its pollution, noise, and sheer physical presence. . . .

Riverside Park, which begins just north of the proposed STOL port and which is one of the major breathing areas of New York's incredibly congested West Side, will no longer be usable when planes are taking off and landing over it. Further, has no one considered that there are people living in the blocks immediately adjacent to the site? . . All of these people will be prisoners of the noise, pollution, and danger caused by the STOL port.

"Amenity" is not a word for things like flowerpots in the street, or bronze traffic lights; it is the sum total of all those conditions that make life in the city not merely bearable but desirable and satisfying. It is time we realized that we do not just "build a highway" or "erect a deck over some air rights for an airport"; any such action reacts on the city as a whole and must be considered in its most far—and near—reaching results.

Certainly it is the function of organs like The Architectural Forum to point this out. The other side has enough mouthpieces working for it.

ROBERT DILLON New York City

ARCHITECTS AS URBAN SHAPERS

Forum: Since I directed the Regional Plan Association studies and coined the phrase "access tree" [Jan./Feb. issue], I would like to reply to Edmund N. (continued on page 18)

STAIN ... OR PAINT?



Architect: Pietro Belluschi, Cambridge, Mass. Builder: Eichler Homes, Palo Alto, Cal. Cabot's Stains on exterior & interior

To answer this question, an architect weighs the advantages and limitations of each against the job at hand . . . effect, durability, and cost on wood surfaces inside and outside the home. Cabot's Stains, for example, answered all requirements for the home above. Here are the reasons for today's architect-led trend toward stains:

Cabot's STAINS

- Economical $\frac{1}{2}$ the cost of paints.
- Trouble-free no cracking, blistering, or peeling.
- Offer unique color effects in a wide color range. Grow old gracefully, may be stained or painted
- over later. • Penetrate deeply, dyeing and preserving the wood
- fibers.
- Enhance the beauty of the wood grain; leave no brush marks.
- Require no priming coat; are easier to apply and maintain.
- Need no thinning; surfaces need no scraping or sanding.

For best results, the best in Stains . . . Cabot's Oilbase or Creosote Stains.

SAMUEL CABOT INC.,

531 S. Terminal Trust Bldg. Boston, Mass. 02210 Please send color cards on Cabot's Stains.

If you want to know the truth about Durasar we'll come clean.

Durasan is fireproof gypsum-core wall paneling with a predecorated vinyl surface that never needs maintenance except for an occasional wipe. That's the truth.

And these 4'-wide, ceiling-height panels not only go up fast, they cost less than building bare walls and then decorating them with vinyl.

(That's also the truth.)

So get Durasan in your choice of 8 standard colors, 4 woodgrains, 3 random-planked designs, plus a wide range of special and custom colors and textured patterns.

Panels may be nailed to studs, laminated to existing surfaces, or inserted in Gold Bond Contempo-Wall® demountable partition systems.

And there's Monolithic Durasan for a continuous vinylsurfaced wall with practically invisible butt joints.

Durasan[®] is so versatile, it can be used in all types of commercial and institutional buildings. See your Gold Bond® Representative. Or write.



Durasan Presidential Walnut in floor-to-ceiling Contempo-Wall Demountable Partition System with aluminum battens.

Gold Bond DURASAN The name Gold Bond identifies fine building products from the National Gypsum Company. For further information on Durasan,



STIDES

Random-Planked Durasan creates an intimate atmosphere in specialty stores and boutique shops. Provides easy maintenance.

Helping you maintain your reputation is a National responsibility



Stipple-Pattern Durasan is so scuff-resistant, it is ideal for high-traffic areas such as restaurants. 40 beautiful colors.

Monolithic Durasan with butt seams eliminates joints where dirt and germs may lodge. Ideal for hospitals, clinics, nursing homes.



File folders under Z are as accessible as way out front under A — file drawers extend one-full-inch beyond cabinet front.

That's part of the Peerless story we call "total function." The rest can be summed up as long life, smooth performance, with style features that



F

Ν

F

F

C

E

F

U

0

compliment modern office intériors. For instance, consider the flush front, with recessed name plate and drawer pull, as illustrated to the left.

Our 28-page Catalog 180 gives complete detail on *all* Peerless File Cabinets. Write: Peerless Steel Equipment Company, Philadelphia, Pa. 19111. Show Rooms: New York, Chicago, Dallas and Los Angeles.

•

ĸ

N

U

Hexagonal. Square. Rectangular. Mosaic Tile has the shapes to shape up *any* setting. You get a flexibility of design for any level or any space. Mosaic is the material with a message for today.

Colorwise, Mosaic shapes up, too. Our built-in color compatibility gives you even more design possibilities. And you'll find Mosaic tile harmonizes with other materials, landscaping and decorator objects. Of course, you can't overlook Mosaic *economy* with its low-cost maintenance and unbeatable durability.

Mosaic tile. *Today's* tile. It's never been in better form for what you want to create.

Consult Sweet's Catalog, A.I.A. File No. 23-A, 11d/Mos. Mosaic tiles shown in photo are: *Walls* – Byzantile II,

3220 Light Golden Olive, 6" elongated hexagonal. *Fire-place* — Byzantile II, 3820 Parchment, 6" elongated hex. *Floor* — Carlyle Quarry Tile, 270 Colonial Buff (245 Mojave in western states).



"Mosaic" is the trademark of The Mosaic Tile Company, 39 South LaSalle Street, Chicago, Illinois 60603. In western states: 909 Railroad Street, Corona, California 91720.

Mosaic makes the scene no matter what shape it's in.



What are owners of homes with **Malt-A-Vent** Wood Windows really like?

First of all, they're **quality con**scious. They admire warm wood windows for their traditional good looks. They want the versatility Malt-A-Vent windows contribute to window groupings and unusual design beauty.

They're also **convenience minded.** Sudden showers won't panic these housewives. And they appreciate that they can clean both sides of Malt-A-Vents from inside, too.



Malta manufactures and distributes a complete line of casement, vent, double hung, glide, bow and picture groupings for the most discriminating designer. Malta's new wood framed patio door is a smooth operating complement to the home with wood windows. Snap-in exterior primed wood grids also available for most units. Send for complete catalog information — today.



MALTA MANUFACTURING COMPANY

261 Johnstown Road Gahanna (Columbus), Ohio 43020

LETTERS

(continued from page 13)

Bacon's letter to the editor in the April Forum.

In response to his two points, may I first express full agreement in principle and in practice. The continuum of design scales as experienced in a typical journey to work was in fact our conceptual point of departure for the emphasis we chose to place on the access tree and transit architecture concepts.

This emphasis was given for two very simple reasons: first, budget limitations and time constraints, and second, the great magnitude of the urban design problem as indicated by the RPA growth projections. While the former limitation will preclude for the time being the kind of detailed completion of the access tree prototype, I believe the basic framework it suggests is viable and does provide for all scales and modes of movement. I would hope there will be an opportunity. either in an academic-research context or at the realistic level of the Seattle transit study, for example, to continue the design process.

Mr. Bacon's second point has not been neglected either. As urban design consultants in Seattle, we are very much in the decision-making process together with relevant city agencies, such as planning and engineering, though not on a city charter basis. The transit liaison committee has strong policy-making powers including as it does representatives of the mayor's office.

In New York, recent organizational changes under Mayor Lindsay and Planning Director Donald Elliott, which have added a significant number of designers to the staff, have begun to be effective in making design an integral part of the development-decision process. The appointment of Walter McQuade has strengthened the design sense of the Planning Commission itself.

Similar personnel changes have been made in the Housing and Development Administration under Chairman Jason Nathan and Deputy Administrator Samuel Ratensky. Finally, of particular importance is the inclusion of Planning Director Elliott on the Metropolitan Transportation Authority board, which could assure coordinated transit-location decisions to achieve urban design goals.

The forthcoming RPA publication, while still focusing on regional scale activities, will clarify further, I think, the questions Mr. Bacon raises. What is still needed is a detailing of the concept and its implementation. His suggestions on this order as well as design criticisms are most welcome, especially in view of the precedents we recognize in his Philadelphia work.

RAI Y. OKAMOTO San Francisco Urban Design Consultant

THE URBAN SITUATION

Forum: It is my feeling that Urban America Inc., by publishing the Forum, is performing a vital and much needed service to the profession of architecture and, as a consequence, to the public.

It is a shortsighted architect who is not becoming aware of the problems and potentials of the urban situation and who is not attempting to respond to these problems and potentials. Your efforts in assisting such enlightened response are much appreciated by this writer.

EDWARD M. HEALY Worcester, Mass. Architect

TRANSPORTATION

Forum: Your special issue on urban transportation [Jan./Feb.] has been much in demand in the Department, just as it has been elsewhere.

PAUL L. SITTON Deputy Under Secretary Department of Transportation Washington, D.C.

Forum: The hectic days of the Third International Conference on Urban Transportation are now behind us, and I want to take this opportunity of expressing the Council's appreciation to you for making available your special issue on transportation.

This particular issue of the Forum was in great demand and was one of the highlights of the conference.

ROBERT L. HARDIN JR. Vice President Pittsburgh Urban Transit Council

Forum: I am most grateful to you for sending me a copy of the special issue on transportation. I find it a stimulating, interesting, and accurate reflection of current thinking.

London

P. F. STOTT Traffic Commissioner and Director of Transportation Greater London Council

Member N.W.M.A.

Paul Robinson Hunter, FAIA

designs with daylight

This non-ritualistic church auditorium, Sunday school and administrative offices are grouped about a forecourt. Here, people may gather beore and after services. The three buildings are connected by a glazed arcade that looks out upon the front courtyard.

Access to the buildings also is provided from he parking lot through skylighted porches. Both auditorium and Sunday school have glare-softening Parallel-O-Bronze[®] plate glass walls from floor to canopy facing enclosed garden courts. Generous overhangs shade the glass from glare and solar heat gain much of the year.

Walls of the upper portion of the auditorium, between the bents, are concrete panels inset with windows of tinted glass. With a north-south



axis, daylight will illuminate the interior during the principal morning service.

A skylight the length of the auditorium, gives filtered light throughout the interior, permitting easy reading of hymnals, etc.

Seating capacity of the auditorium may be increased some fifteen percent by moving the glass walls into the garden courts and placing the aisles on the opposite side of the columns.

The nursery, board room and clerk's office are

daylighted by sliding glass doors which ope upon an enclosed court.

The court is roofed in part with a retractabl wired glass skylight. Here, children may pla without disturbing adult services. Glass wall in the arcade permit friends to see the children in the nursery.

Thus architect Paul Robinson Hunter of Lo Angeles would use God-given light to create a fine feeling of

airiness, peace and beauty





L-O-F Glass for Religious Institutions

L-O-F makes a particular kind of glass for every purpose in building design. Consult Sweet's Architectural File. Or call your L-O-F Glass Distributor or Dealer listed under "Glass" in the Yellow Pages. Libbey-Owens-Ford Glass Company, 811 Madison Avenue. Toledo, Ohio 43624.

POLISHED PLATE GLASS Parallel-O-Plate®, ¹³/₆₄", ¹/₄" Parallel-O-Grey®, ¹³/₆₄", ¹/₄" Parallel-O-Bronze®, ¹/₄"

HEAVY-DUTY PLATE GLASS Parallel-O-Plate[®], 5/16" to %" Parallel-O-Grey[®], %", ½" Parallel-O-Bronze[®], %", ½"

LAMINATED SAFETY PLATE GLASS with Vari-Tran[™] Cr Coating, ¼″, ¾″

HEAT ABSORBING FLOAT, 1/4"

ROUGH PLATE (Regular, Grey, Bronze and Heat Absorbing) INSULATING GLASS—Thermopane® Regular or with Vari-Tran Cr Coating SPANDREL GLASS—Vitrolux® Vitreous colors fused to back of heat-strengthened glass HEAT-TEMPERED GLASS—Tuf-flex® Doors and sidelights WINDOW GLASS PATTERNED & WIRED GLASS



Libbey-Owens-Ford Glass Co.

Toledo, Ohio





ASK NG about Low maintenance O foerable walls!

"My job is to keep things running smoothly around here. Operable walls can be a pretty sticky problem ... for here's a product that has to keep working all day, every day ... year after year. I sure don't appreciate getting hung-up on walls that need fixing every couple of days."

That's one of the big advantages of R-W Operable Walls—little or no maintenance through the years. And there's good reason for it. The R-W wall rides

free and clear on heavy-duty overhead track, with no floor guides, floor track, or slides. There's no sagging, no binding—just smooth, easy operation semester after semester.

If you have a school in the planning stage, write us! We'll have your R-W Sales Engineer contact you. Or ask for our newest Operable Wall/Wardrobe Bulletin A-600.

MAKE NO PRICE CONCESSION WITH QUALITY... CONSULT



Gymnasium in the round with post-tensioned T-beams and Incor®

The planners for the Student Activities—Physical Education Building at New York State University's Agricultural and Technical College, Farmingdale, L. I., wanted a large gym that could be partitioned. Because the partition would operate on an overhead track, a domed roof was ruled out and obstructive columns were out of the question.

For structural and esthetic reasons, the architects chose a flat concrete catenary roof, 143 feet in diameter. The completed circular inner roof covers a 124-foot gymnasium. Precast, post-tensioned concrete T's were joined together by a steel tension ring (which was anchored to steel cables running through each T) and a concrete compression ring at the center of the building.

Twenty-four 60-foot-long, 25-ton, pie-shaped T's were precast and shipped by truck 50 miles to the construction site. "Incor", America's *first* high early strength portland cement, was used for the required 5,000-psi concrete. The unique qualities of "Incor" 24-hour cement permitted faster reuse of forms. The 250-foot outer diameter lower roof is framed with pre-tensioned T-beams, which were also made with "Incor" cement. Lone Star Cement Corporation, 100 Park Avenue, New York, N.Y. 10017.

The roof with the T's in place on an outer ring of concrete columns and steel-pipe falsework. Doweled spaces left between the T's were concreted and a 2-inch concrete topping applied to tie the roof together.



One of the 25-ton, 60-foot T-beams being placed by crane. Roof became self-supporting when tension was applied to cables at center ring.





STUDENT ACTIVITIES-PHYSICAL EDUCATION BUILDING, NEW YORK STATE UNIVERSITY AGRICULTURAL AND TECHNICAL INSTITUTE, Farmingdale, L. I.; Architects: THE OFFICE OF MAX O. URBAHN, New York, N. Y.; Consulting Engineers; SUMMERS AND MOLKE, Albany, N. Y.; General Contractor: ANDERSON CONSTRUCTION COMPANY, Huntington Station, Long Island, N. Y.; Prestressed Members: BRAENSTRESS, INC., Wyckoff, N. J.; Ready-Mixed Concrete: SAMUEL BRAEN AND SON, Hillside, N. J.



He company that brought you the famous Color Spectrum Antennas now brings you a complete line of VHF & 82 channel MATV equipment

Over 200 items including:

- Preamplifiers
- Amplifiers
- Passive Networks
- Wall Taps
- Test Equipment
- MATV Heavy Duty Antennas

Finco will work with you to plan your MATV installations *at no charge*. Send for FINCO's 45-page illustrated catalog and layout information forms.

Mail this coupon today





Send FREE 45-page illu Equipment and FINCO I	istrated catal ayout informa	og of MATV ation forms.
Name		
Company		
Address		
City	_State	_Zip

hits one side of the building, York air conditioning pours on the cool!



With this advanced Yorkaire system, there is a continuous supply of heating and cooling available for each room terminal. When the solar load—or other factors —changes room or area requirements, the system automatically gives each area the proper temperature. This is accomplished without affecting the temperature in other areas.

Advanced air conditioning systems that provide simultaneous heating and cooling are examples of York's pioneering and basic research in environment control. And your York Representative is skilled in helping you plan the best kind of system for any building. Ask him for specification data on advanced York equipment for your next job. Or write York Division of Borg-Warner Corporation, York, Pennsylvania 17405.

A better way to make people feel better





amerada / CASE HISTORY No. 420



Q: How did this school keep outside noise outside? A: With Amerada ACOUSTA-PANE®

-

Amerada's laminated Acousta-Pane glass is the special purpose glass created especially for sound-proofing noise producing areas.

Wherever disturbing noise must be kept out . . . or contained within . . . architects now specify Acousta-Pane for use in Schools . . . in Libraries, Band Rooms, Labs, Offices and Classrooms.

For technical information on Acousta-Pane and other functional Amerada Glass products, write for Case History No. 420.



ACOUSTA-PANE amerada Glass Compa 2001 Greenleaf Ave. Elk Grove Village, III. 6 (312) 439-5200		
Please send me Case H	listory No. 420	
Name		POR S
Company		14-3/16
Address	and and a second second	
City	State	Zip
B		



THE SILENCER

Aluminum sliding glass doors that carry Our Quality Certified labels are nothing to holler about. Nothing to write nasty letters about, either.

The label means

that these sliding glass doors meet specifications approved by the USA Standards Institute,
and that they are continually tested for sound construction, water leakage, structural strength, air infiltration and wind load in compliance with the specs.

Specify them and enjoy peace, blessed peace. For a complete list of aluminum sliding glass doors and windows that carry these labels, write for AAMA's CERTIFIED PRODUCTS DIRECTORY.





to design the correct lighting

environment is YOUR job...

to make it happen is ours.

ACCOMPLISHMENT IS THE PLEASURE of seeing your own designs completed. The satisfaction in specifying quality equipment and seeing this equipment meet all performance tests. It is the satisfying reward after you have mastered all problems. In the architectural field before professional recognition there is challenge, creativity and accomplishment. When you select or specify Silvray-Litecraft lighting, you exhibit the confidence that leads to accomplishment.





40 years of quality and service to architectural lighting...

You've got it made when you pick sealant with the Thiokol hioko Seal

Thiokol's Seal of Security...the only guide you ever need to total weatherproofing protection.

To keep building sealant quality in step with the advancing requirements of today's structural systems, Thiokol has established new and higher standards of excellence for polysulfide-base compounds.

Sealants meeting the standards display the Thiokol Seal of Security on the label.

To qualify for the Seal, the candidate material must be compounded with LP® polysulfide polymer. Only Thiokol, a longtime leader in building sealant technology, makes LP®, and has been its sole manufacturer and developer for over twentyfive years.

In a series of demanding lab tests, the

sealant must conform to Thiokol specifications. These are a notch above generally accepted industry standards. Only then does the Seal go on.

Subsequently, the sealant is subject to follow-up monitoring. Random samples from production runs and job sites are checked regularly to assure continuity of quality. Only then does the Seal stay on.

No program in the industry reaches so far to assure total sealant performance... complete protection against weather, wear and age. You've got it made, when you make Thiokol's Seal of Security your guide to sealant selection.



The manufacturer warrants by affixing this label that this product is a duplicate of materials independently tested and approved by, and in accordance with standards established by Thiokol Chemical Corporation



THE ARCHITECTURAL FORUM

PUBLISHED BY URBAN AMERICA, INC.

EDITOR Peter Blake, AIA

MANAGING EDITOR Paul Grotz, AIA

SENIOR EDITORS James Bailey Ellen Perry Berkeley John Morris Dixon, AIA

ART DIRECTOR Charlotte Winter Ruth Gosser (assistant)

ASSISTANT TO THE EDITOR Ann Wilson

EDITORIAL ASSOCIATES Marie-Anne M. Evans Don Peterson Eva Wyler

BOARD OF CONTRIBUTORS Robin Boyd, FRAIA, Hon. FAIA Donald Canty Rosalind Constable George A. Dudley, AIA Henry Fagin, AIP C. Richard Hatch Lady Barbara Ward Jackson Edgar Kaufmann Jr. Burnham Kelly, AIA Leo Lionni Kevin Lynch Walter McQuade, AIA Sibyl Moholy-Nagy Charles W. Moore, AIA Roger Schafer Vincent Scully Jr. Bernard P. Spring, AIA

Douglas Haskell, FAIA

CORRESPONDENTS Francoise Choay (Paris) Philip H. Hiss (Southeast) Benita Jones (London) Donlyn Lyndon, AIA Roger Montgomery, AIA

PUBLISHER Lawrence W. Mester

FORUM-MAY-1968



- 20th-century architecture in gen-

endowed center, drew the line at

brought by the Attorney General. Penalties: up to \$1,000 fine for discrimination, and up to \$10,000 fine for threat or injury to anyone seeking his housing rights.

POLITICAL PROGRESS

FIRIM

In the aftermath of the murder of

Dr. Martin Luther King, the

Congress and various state legis-

latures rushed to enact laws in

the areas of civil rights, open

Some of these measures had

been debated for years (and

shelved): others (like Governor

Rockefeller's \$6 billion Urban De-

velopment Corp .- see below) had

been hardly debated at all and,

in fact, contained some highly

dubious features; still other mea-

sures, passed in the aftermath

of the murder, were inadequate or

meaningless (renaming of streets,

It is gratifying to have some of

these laws on the books now, even

if they have come a few genera-

But is it really necessary (or

particularly civilized) for this na-

tion to have to offer human sacri-

fices at regular intervals to bring

the condition of our ghettos to

the attention of our lawmakers?

REQUIN

Exactly one week after the slay-

ing of Dr. King, the civil rights

bill that had passed the Senate in

March (April issue, page 33) was

passed by the House and signed

Opponents in the House held

out to the end, arguing that the

bill should not be considered in

the tense atmosphere following

the killing. But they lost their

attempt to send it back to con-

ference (229-195), and the final

The controversial open-housing

provision prohibits discrimination

in about 80% of the nation's

housing stock. (Exemptions are a

single-family building whose own-

er sells without a broker, and an

owner-occupied building with up

to four units.) The provision ap-

plies to federally owned and aided

apartments, as of January 1, 1969,

and will extend to privately owned

and conventionally financed apart-

ments, and to new subdivisions, at

the end of 1969. It contains an

across-the-board ban on discrimi-

nation by lending institutions, and

it forbids blockbusting. The means

for enforcement: civil suit through

federal courts, or an injunction

vote for passage was 250-171.

OPEN HOUSING PASSES

by the President.

tions too late.

squares, airports, and so forth).

housing, and ghetto housing.

Nelson Rockefeller's response to the death of Dr. King was pure politics. In Atlanta for the funeral, the N. Y. Governor learned that his proposed Urban Development Corp. had failed to pass the state assembly, 48 to 85. Arm-twisting by long-distance, Rocky had the vote reopened, and (by his own later admission) threatened to stop doing "personal favors" for legislators-approving their pet projects, and appointing their friends to office-unless the voting changed. The bill passed, 86 to 45, on the day of the funeral.

When introduced February 27, Rocky's controversial program had shifted the Rockefeller-Lindsay battleground from the garbage pile to the slums. At issue was the question of whether the state should have the power to override the city on slum clearance and renewal projects.

Rocky thought it should. The UDC will have the power of condemnation, will be exempt from local zoning and building codes, and will be able to rebuild entire sections of a city without regard to any city plan. Rocky hopes that every \$1 of public funds will bring in \$5 of private funds, for an ultimate total of \$6 billion. (Rocky has chosen Edward J. Logue to run the program as president of UDC.)

Lindsay was furious-at the violation of home rule: the plunking down of buildings "just for the sake of building something"; the lack of relationship with community development, transportation, education, and environmental protection ("all other facets of life"); and the undermining of city attempts "to give poor people a positive voice in the government." He summed up by saying, "In concept, the bill represents the thinking of 20 years ago." Lindsay had offered a counterproposal, early in March, which contained many of the same features, but would have permitted the state to override the city only where local government failed to develop its own programs.

Critics of the bill point out that the corporation has power not only to condemn private property for public use (as in eminent domain) but also *public* property for *private* use (as for example public

posium, Philip Morrison, profes-

37

39

parks). It can condemn whole neighborhoods and present them to private developers, without

sor of physics, had sliced an apple, and pointing at the seeds, had asked wistfully whether there wasn't an analogy between this endless reproduction of apples from apples and academic inbreeding. Although he received no response whatever from the audience in MIT's consecrated halls, his analogy suddenly became relevant. Reminiscent of a cartoon showing Soviet inventors bringing motorcycles, radios, and toasters to the patent office, the research fellows and post-doctoral apprentices of the new center had obviously been carefully curtained off from any knowledge of Scriabin's and Laszlo's color organs, from Moholy-Nagy's light projects and kinetic-sculptural realizations, Sean Kenny's Gyrotron, and Stern-Casson's Learycal light transfiguration-all dismissed by an epigone as 'visual toys'.

"With inexorable logic the closing speech of the symposium belonged to Buckminster Fuller. After flattening his unprepared audience with the news that the United States had used more copper in 1917 than 'the entire world copper consumptions since the beginning of history', he closed with a ringing axiom. 'Environment', concluded the master mind of 19th-century technocracy, 'is everything that isn't me'!"

UPS & DOWNS

PLANNERS' CONFRONTATION

Planners for Equal Opportunity, the group that upset last fall's AIP conference by holding an alternate conference on the terrace of Washington's Shoreham Hotel, wore the shoe on the other foot at its own annual conference March 16 in Philadelphia.

At the morning's opening session, business was interrupted by a delegation from Washington, D.C., of eight "black advocate planners." They were actually two groups of four—2MJQ (standing for Mann, Mitchell, Jayson, and Quintana) and OFEGRO (standing for Organization for Environmental Growth).

The eight had prepared a sharp statement, which was read before the 400 planners and planning students (more than 9/10 white). The PEO outlook and conference were a farce, said the eight, and the assistance of PEO was not wanted unless professional help was in aid of black liberation and self-determination, and against authors suggest the preparation of a detailed master plan, to make a coordinated restoration of what

continued black subjugation. The PEO body parried the charge, moving on to the day's workshops —on planning education, advocacy in model cities, highways vs. the poor, the Vietnam war, etc.

At the late afternoon plenary session, however, it was proposed (by a white planner) that the policy committee of PEO be changed to provide 50-50 representation between black and white. The point was debated with more heat than was felt in many of the workshops. Some argued that it might not be right but was well-meaning; that it was the least the organization could do, if it stood for equal opportunity; that it was hard enough to get people to work for the policy committee; and that resistance seemed to imply conflict between the aims of nonwhites and those of PEO. The opposition claimed that reverse racism was no answer; that the motion was not in accord with the group's democratic structure; and that not enough black planners could be found, in any case.

In the end, a substitute motion was passed by about 2/3 for a committee to think up ways to get nonwhite participation in PEO and thereby to meet PEO's obligations to nonwhites. At the close of the conference, some felt it was the end of the three-year-old PEO, which they felt had gone on record as unable to change. Others felt that the substitute motion presented the harder challenge. At latest word, PEO was still working things out, seeking to find ways to satisfy not only the blacks, but also the whites, within their group.

STUDENTS ORGANIZE

Students from twenty architecture and planning schools across the country, meeting in New York City April 12 and 13, have formed a national action organization to encourage and support student involvement with poor communities.

Gregory S. Peniston, chairman of the board of directors of the new National Association of Student Planners and Architects (NASPA), looks for a "momentous change from the academy to relevancy." NASPA will take the student "out of his academic vacuum and put him in a realistic situation for the solution of the current crisis, which is the urban black and his violent reaction to his ghetto hopelessness."

Chapters will now be set up at schools throughout the country to (continued on page 97)



MARCEL BREUER AT ST. JOHN'S

This year's AIA Gold Medalist has steadily implemented his master plan for this Benedictine abbey and campus in Minnesota. Today, some fifteen years after Breuer began to work at Collegeville, his most important building there-the famous church with its concrete bell tower-has been joined by a library, a science center, student dorms, and an ecumenical center for visitors of other faiths. This is a progress report on a remarkable, steadily evolving campus by a remarkable and consistent architect.






In March of 1953 Marcel Breuer and 11 other architects received identical letters from St. John's Abbey in Collegeville, Minn. "I am writing," said Abbott Baldwin Dworschak, "to ask whether you would be interested in preparing a comprehensive building plan and report for St. John's Abbey."

Most of the 12 were architects of international reputation, and all but two expressed interest. One by one, they were invited out to the Abbey for interviews. Breuer was the fifth—and the last. The Benedictine monks decided that he was just the man they were looking for.

Apparently, the monks have never regretted their choice: since Breuer's completion of the master plan in 1954, he has been commissioned to design eight building projects for the Abbey and for the Benedictine-administered St. John's University, which shares the same wooded site (see aerial view on facing pages). The relationship has spanned 15 years, and it is still going strong.

In the course of 15 years, St. John's has been transformed from a small collection of undistinguished period pieces to a full-fledged, modern monasterycampus. The changes have been dramatic, but the transition has been remarkably smooth. Breuer's master plan (left) is conceived as a process of "shadow building," in which a series of new structures gradually take over functions of the old, which in turn are converted to new uses until these functions can also be accommodated in new buildings. Only then are the old buildings to be demolished.

As the focal point of the plan, Breuer designed the great monumental church, with its soaring banner-bell tower. It is one of Breuer's most famous buildings, and one of the finest religious structures of modern times. The other new buildings are, quite properly, subdued and restrained, in deference to the church but they are unmistakably Breuer's. The three most recent of these—a library, a science hall, and a dormitory complex—are presented on the next 12 pages.





The Library: a low, quiet facade in deference to the towering church



FACTS AND FIGURES

St. John's University Library, Collegeville, Minn. Owner: Order of Saint Benedict Inc. Architects: Marcel Breuer and Hamilton Smith. Engineers: Johnston-Sahlman Co. (structural); Gausman & Moore Inc. (mechanical); Paul Weidlinger (advising consultant for "tree" columns). General contractor: Gunnar I. Johnson & Son Inc. Building area: 59,000 sq. ft. Construction cost: \$1,406,000. PHOTOGRAPHS: Hedrich-Blessing Symbolically, the new library at St. John's (left in photo) occupies a site second in importance only to that of the great church itself. It faces the huge concrete bell tower of the church from across a small landscaped plaza.

In form and exterior appearance, the library seems quite content with leaving stage center to the church. Architects Marcel Breuer and Hamilton Smith have given the simple, rectangular structure a quiet, almost somber facade, and they have kept its height low by putting all but one of its four floor levels below grade (see section). They have further reduced any threat of competition by placing the library off-axis to the church (see partial site plan below).

The library's exterior walls are composed of four basic materials: granite, concrete, tile, and glass. A series of gray granite panels, punctured by vertical slit windows, are set between the exposed concrete framing members of the structure. Atop the panels are wide clerestory windows set behind a sunscreen of sections of glazed vitreous flue tile. The off-center placement of the large, glassedin entrance bay relates the library to the church, and introduces a pleasant asymmetry into the modular pattern of the building's facade.

The understated exterior of the library offers no clue to the structural drama going on inside. A pair of giant concrete "trees" rise through the main, upper floor to support the wafflegrid ceiling and roof structure (see following pages). The trees, by eliminating the need for more columns on the main floor, fulfill the Benedictine's desire for a large, flexible space that can readily be adapted to different future needs.

Between the two trees, in the center of the main floor, a cantilevered concrete staircase leads down to another reading room below. Both rooms function in basically the same way: open stacks and reading areas in the center, and a system of alcoves for carrells, offices, conference rooms, and other special functions around the periphery.





REFLECTED CEILING PLAN



LONGITUDINAL SECTION



Concrete trees (photo left) rise through the upper floor of the library and branch out to support the waffle-grid ceiling and roof structure (see ceiling plan and section). The trees free the reading room of excessive columns, permitting an open, flexible arrangement of stacks, study areas, and lounges (floor plan, right).

UPPER FLOOR PLAN





The Science Hall: a modest, unassuming companion piece

FACTS AND FIGURES

St. John's University Science Hall, Collegeville, Minn. Owner: Order of Saint Benedict Inc. Architects: Marcel Breuer and Hamilton Smith, Engineers: Johnston-Sahlman Co. (structural); Gausman & Moore Inc. (mechanical). General contractor: Gunnar I. Johnson & Son Inc. Building area: 90,000 sq. ft. Construction cost: \$2,150,000.

PHOTOGRAPHS: Hedrich-Blessing

St. John's new science hall encloses the east end of what eventually will become a quadrangle shared by the church on the south, the library on the north, and a future auditorium on the west (partial plan below).

Like the library—and for the same reason — the science hall presents a low, unassuming facade. The tile sunscreens flanking its entrance project out from blank walls of exposed concrete and granite.

Breuer and Smith have organized the science hall's three major functions - laboratories, classrooms, and offices-into a simple, flexible arrangement that remains constant throughout all of the three floors above the basement (see section and plan on next pages). The core of the building is given over to laboratories, which are bisected by a central service corridor on each floor; classrooms are placed at both ends of the building (behind the sunscreens); and offices for faculty and graduate students form narrow bands behind the exterior walls at the sides.

The concentration of the laboratories around a single, uninterrupted service core permits easy adjustment of their constantly changing mechanical and electrical requirements and frees the corridor walls of pipes and ducts. Their interior location also eliminates the problem of natural light control and simplifies the control of temperature and humidity. Since the classrooms are also backed up by distribution space for mechanical systems, they can double as laboratories when natural light is required.

There are no grand spaces in the utilitarian main section of the science hall, but Breuer and Smith have provided one in the trapezoidal, granite-sheathed wing that extends out from the building's front facade (far right in photo). It is a lecture hall-auditorium, and its raw concrete interior (photo, next page) has much the same character as the interior of the church itself. The space is dominated by massive concrete trusses that cantilever out from four corner columns to support the roof.







Laboratories, bisected by a central mechanical core that slices through the building from basement to roof, form the central zone of the science hall (section and plan above). Class-rooms are located at both ends, and faculty offices are strung along the sides behind projecting precast concrete window panels that serve as sunshades. Left: interior of lecture hall-auditorium wing (right on plan).





The Dorms: precast window panels molded in high relief

NK

FACTS AND FIGURES

Student Residence Halls II, St. John's University, Collegeville, Minn. Owner: Order of Saint Benedict Inc. Architects: Marcel Breuer and Hamilton Smith. Engineers: Johnston-Sahlman Co. (structural); Gausman & Moore Inc. (mechanical). General contractor: M. A. Mortenson Son Co. Building area: 106,400 sq. ft. Construction cost: \$1,990,000.

PHOTOGRAPHS: Hedrich-Blessing

Bold, sculptured facades are, of course, a Breuer trademark, and he has designed particularly handsome ones for the new dormitory complex at St. John's. The dorms are sited above the shore of Lake Watab (photo, left), a distance of some 1,200 ft. from the church; so Breuer was free to give full play to their exterior expression, without competing with the former.

The basic building blocks of the dorms' facades are two slightly different precast panels molded in high relief. Each panel, containing a window opening and a projecting "eyebrow" for sun protection, is the exterior wall of one study-bedroom unit. The two basic panels differ only in the profile of their two-sided sunshade. They are alternated in checkerboard fashion across the facades to create a varied, diagonal rhythm in the interplay of light and shadow (see next pages). The wall sections formed by the window units are interrupted by bathroom and service bays faced in solid, but also deeply molded, precast concrete panels, and by student lounge areas with balconies protected by metal sunscreens. The concrete block end walls, and those of the connecting links between the wings, are sheathed in slatecolored brick.

Breuer traditionally uses precast concrete elements as loadbearing members, but those on the dorms are an exception to the rule. Since heavy interior partitions were required to restrict sound transmission between adjacent rooms, Breuer made them structural—concrete block walls 12 in. thick—and the precast wall panels were simply attached to the concrete floor slabs.

The new complex is the second group of student residence halls designed by Breuer for St. John's. The first group (a portion of which is visible at far right in photo) was completed in 1960. Eventually, both groups will be doubled in size, creating two informal residential quadrangles at the northwest end of the campus (see partial site plan, left). Both will relate closely to a new Breuer-designed campus center. —JAMES BALLEY



Projecting sunshades shield the study-bedrooms of the new dorms. Each precast unit forms the exterior wall of one room. Two basic units, with slightly different profiles, are alternated on the facade. The panels are anchored to the concrete floor slabs (vertical section) and join at the concrete block interior bearing walls (horizontal section), which serve as sound-restricting partitions.





-

VOX POPULI: MANY VOICES FROM A SINGLE COMMUNITY

Complexities of citizen participation, as seen in one sub-community of Harlem, seeking its role in politics and planning

Just north of Manhattan's Central Park is the Milbank–Frawley Circle urban renewal area, where preliminary selection of 13 sites for vestpocket housing has sparked a series of rifts in the community. In addition to general conflict over community representation in dealing with the city, there are specific disagreements over several of the sites—A and B, for instance, are in an already congested housing project, C is the site of a playground, and D is wanted for a recreational center. The problems—and possibilities—can be seen in some intricacy in one sector of New York's Harlem, where the interrelations of various participants have 1) halted (or perhaps only delayed) a city proposal to build vestpocket housing; 2) intensified animosities that are being exploited by the press (and perhaps by downtown politicos); 3) galvanized a community to political activity; and 4) produced a site-selection technique and an advocacy plan of some interest.

The place is Milbank-Frawley Circle (Frawley Circle being the northeast corner of Central Park) and the area includes some of the "worst" parts of Harlem according to such indices as annual income, unemployment, overcrowded housing.

Recent history

The story is complex, and grows even more complex according to the number of different people telling it.

The end of 1966 saw the origin of the vest-pocket housing idea, with New York City hoping to put 1,847 units into Milbank-Frawley Circle (771 of them public housing). By the time the money came through, however, M-FC was designated an urban renewal area. The city (embarrassed over growing criticism that the Lindsay Administration was lagging in housing) wanted to move ahead on the vest-pocket sites without delay, getting a citizen's group to consult with the chosen architects, Fischer/ Jackson Associates. Barry Jackson is a young Negro architect, trained at Berkeley.

Here began what one observer describes as "a mess, an example of what happens when a lowincome group gets a very small piece of the pie to squabble over." An ad hoc group, later to be incorporated as the Milbank-Frawley Circle Housing Council, became Jackson's contact with the community. The eity, it is said, didn't want Jackson to attend meetings until the group was sufficiently organized, but for a time no group existed because the community believed that the planning was all done behind its back. In fact, there was no site office until the Jackson proposal was almost finished.

Weekly meetings have been held for over a year, with growing hostility over issues both of substance and procedure. A faction from east of Fifth Avenue, predominantly Puerto Rican (there were several factions from west of Fifth), had come to feel that the Housing Council represented entrenched power not responsive to their wishes (there are nine Puerto Ricans among the 22 officers of the Housing Council, but they are viewed as not typical, not popularly chosen, and in any case not known to residents of East Harlem).

Harold Dolly, Housing Council president (and a social worker for the city) says, "I don't run the group, and the other officers don't; it's truly a little people's organization. Some of the East Harlem leadership is interested in politics, but our hardest workers have no political ambition."

The crisis came in the fall of '67. Elections to the Housing Council had been held during the summer (and the results thrown out because of "irregularities"), and a new election was scheduled for November. The Puerto Rican group, without success, proposed several alternativesan East Harlem resident to be nominated for chairman, two slates to be presented by the two groups, and the addition of a polling place in East Harlem. Unsatisfied on all points, the Puerto Ricans decided to split off and form a separate group-United Residents of Milbank-Frawley Circle-East Harlem Association. Although leadership positions are almost entirely held by Puerto Ricans, it is not a racial question, "but a struggle for control against elicquism," say many of the United Residents. They boycotted the November election, which received a total of 115 votes in a renewal area of 50,000, then found their own planner, Roger Katan, an environmental designer and planning consultant who is also a neighborhood resident, and proceeded to develop a counter proposal to the vest-pocket housing.

No planner has yet been chosen for the urban renewal area, although one city official says that some preliminary planning is being done. By now, there is the still larger Model Cities area, five times the size of the renewal area, and the renewal program of \$24 million is only one of the programs in it. Alone among the other Model Cities of the city, the Harlem-East Harlem area does not yet have a director, although the city has hired Barry Jackson as planner for the job. The Housing Council had been ambivalent about Jackson for some time, and the United Residents think of him as more tuned to the city's wishes than to the community's.

Latest events included a suit brought by a member of United Residents against the Housing Council, asking that the November election be declared null and void, and that recognition of the council as the designated local agency be withdrawn. The court decided in favor of the Housing Council, late in March, and United Residents is planning an appeal. The decision stated that the plaintiff was not a "member" of the Housing Council, whereas United Residents' position is that all residents of the area are members. In any event, a new election takes place in June.

On April 4, the Housing Council was approved by the Board of Estimate for an \$83,-460 contract with the city to provide planning and informational services. The United Residents plan to challenge this, too, on the basis that the Housing Council is not in a position to provide "unique services" and that the contract was given without public bidding.

With the suit apparently settled, and the contract awarded, the city hopes to move ahead at once on the vest-pocket project.



Plan of the area as drawn for the computerized site-selection study, with sites recently revised by the architect. The Housing Council, recognized by the city as the official community group, had rejected the plan as more Jackson's than the community's, but they have promised to review it again. Harold Dolly, president of the group, says, "We were preoccupied with sites, to begin with, but now these are not our greatest interest, although they are the city's. We want job training and employment first, also social agencies that are community-based and community-operated. We will now be asking people if they want housing at the expense of other things."

The vest-pocket study

"Our problem starts in the ghetto," writes Barry Jackson, "and is locked into it. Our frame of reference, which is very real, is acres of slums, endless avenues of tenements. Our problem is not abstract, nor is the demand for a solution of that problem abstract. While we may be intrigued for a moment with the ability to calculate finite answers to many of the problems confronting the designer, we are disappointed by our own solutions and depressed by the abstract solutions of others."

Seeking to find "a finite answer to a finite question," Jackson evolved a mathematical model to aid in the selection of sites for 10,000 new residential rooms in the M-FC renewal area. A mathematical model, explains Jackson, is only one way to explore information in depth; any such problem-solving technique is a step up from intuitive processes, while also including them.

The finite question here was to weigh the costs and benefits involved in each of 1,300 sitesand 1,240,000 combinations of contiguous sites-to determine whether each building should be rehabilitated, demolished, or remain in the housing stock as is. To make this analysis, the computer asks itself such questions as: How big is the lot? Is it vacant or underutilized? What type of building is on it? In what condition? How much will it cost to buy or rehabilitate it, now or next year? How much will it cost to tear it down? What can be built there? At what cost? With what financing? Will it save money to buy the piece of property next door? Can both be rehabilitated? Etc.

The technique can be used, Jackson explains, either to maximize the number of units for a given amount of money, or minimize the cost of a given number of units, and is for areas where regional housing goals have already been established.

"With this technique, we provide an answer while the question is still new; most planners come forth with solutions when the problem is no longer the same. Then, too, we aren't deciding from personal views that vary all along, but from the same objective criteria throughout. And we have a basic mass of data to use as the situation changes, or as we want to simulate new situations."

The model is not a substitute for understanding the problems of a community; it only handles a few of the variables involved, he points out. The model makes no final decision; it only points toward a solution. In fact, Jackson took 11 sites from the computer study, added two others in the middle of Taft housing project as an afterthought.

The Jackson plan was adopted last September by the Board of Estimate but delayed at the request of the Housing Council until they could be funded sufficiently to evaluate the sites. Robert Hazen, commissioner of development in the Housing & Development Administration, says, "We don't even see the sites until they go through the community."

"The community," however, has essentially rejected the siteselection study-the Housing Council by asking the architect not to return, and the United Residents by turning its back on the whole concept of vest-pocket housing. "A planner gets one vote these days, and each citizen gets one," says Jackson. He is aware of the difficulty of a professional saying "We," but finds that he probably has it easier than a white architect "who can't say 'We' at all." Jackson had thought that a simple way of making decisions would help to "teach the logic of planning," but people see things in different ways, he admits, according to whether the context is one building a man owns, or 40 blocks as viewed from downtown.

Jackson is now working up more sophisticated techniques for a similar site-selection study in the Model Cities area. New inputs—such as upgraded zoning —will permit further alternatives to be studied. And the city is hoping to break ground by summer on the vest-pocket housing; Jackson has designed a prototype (above) for the 25-ft. width of a typical lot; the housing can



be doubled for 50-ft. sites, or plugged into itself when relocation housing makes possible demolition of adjacent buildings.

The counter proposal

Roger Katan's point of departure, in the plan prepared for the United Residents, is a criticism of the eity's vest-pocket plan as a haphazard sprinkling, a rubber-stamp operation, and a philosophy of "build first and then plan." Some members of United Residents view vest-pocket housing as "dark and dingy," and suitable only as a temporary measure, although one man is against the city's plan because only four of the 13 sites are in the heavily Puerto Rican area.

Because four sites were in or immediately surrounding Taft Houses, however, Katan chose this as the demonstration area for a plan aiming at "the rejuvenation of an old public housing site, and its integration with the adjoining urban fabric." While his plan is strongly visual, however, it also grows from the social-economic-cultural background of El Barrio, the Puerto Rican quarter, known well to Katan from four years of living and working in the area. Since families tend to move out as their earnings increase, the community insisted on a good measure of new middle-income housing (in addition to low-income). Using air rights over streets would eliminate relocation (above right).

Housing would be built on a prefabricated shelf-system, with individuals buying or leasing "lots in the sky." As Katan states it: "The determination of his individual dwelling lies, as it has with residential building throughout human history, on his financial means, technical know-how,



and personal whim. Only in this way can we open the way to the essential quality of organic diversity within the urban environment which has been the natural outcome of human settlement in the past. This diversity is an imponderable no architect can foresee, only the inhabitants and time can create. The architect provides constructions whose relationships suggest a certain way of life; the people make of these shells a city." The system would lend itself well to industrialized components, he believes.

To make the neighborhood a self-sustaining one, the alternate plan includes many facilities other than housing: centers for health care and job training; office space for public and private agencies; shops arranged in cooperatives for small business: relocation and development of existing light industry. One new facility is a vocational center for training in planning, design, and construction (one-third of the area's population is under the age of 14). The center would present information about these professions, give students basic skills for employment, and direct students of special talent and interest towards professional training or nonacademic licensing.

The total cost is estimated at \$17 million—\$7 million for facilities and services, \$10 million for housing (based on \$20 per sq. ft. for industrial and commercial space; \$20,000 per dwelling unit). Much of this could be done privately, Katan suggests, selectively subsidized, or perhaps built on the turnkey basis and sold later to the government, for savings of time and money.

The Katan proposal has been called a cruelty for raising the hopes of the community. Katan replies: "Three years ago, the city could have built almost anything. Now the community wants more, and they're willing to wait. Future clients are going to be the communities, I am convinced. The people in *El Barrio* all say, 'We don't want piecemeal planning here.' They are learning planning as they go along."

The plan is also considered unrealistic. "But is it realistic to do what the city suggests," asks Katan, "and drop a building in the middle of this highrise project, where no sun will reach, no facilities are available?"

It is too soon to tell whether the plan will be realized to any extent in this area, although private sources are reportedly interested. The HDA is also interested in the air-rights aspects of the design for another part of New York City. "But the challenge is here," says Katan, "not on new turf." The challenge is also one that is well recognized in this sub-community; there are thriving block associations throughout the area (a new mini-playground on East 110th Street is the work of one of these), and a spirited group of youths calling themselves the Real Great Society has just purchased two tenements for renovation into a community center.

Process of participation

All now give at least lip service to the idea that the challenge is more than *what* is built, but in how decisions are made. Can people work with each other, the city, the professionals?

United Residents, although seemingly ready to block every recent action by the Housing Council and the city, seem ready to work with the group they identify as the West Side. They are in a position of greater strength after the March 30 election for the Model Cities assembly, when East Harlemites won four of the eight seats from Milbank-Frawley. "I'll work with anyone who'll work with me," says one leader. "We've always been integrated in East Harlem, and we wouldn't be fighting now if it weren't for the money," says another. One man reports that someone came to United Residents with the suggestion to

split it down the middle, "but we don't want that. We want it to be mutual and integrated." The differences are more complex than racial division would suggest; some members of United Residents suggest that their own group has its share of persons more interested in power than in the good of the community. Here they agree with Hazen: "It's groups and individuals vying for representation and influencenothing unusual about that." Max Bond, Executive Director of ARCH, believes that antagonisms developing in the Model Cities procedures could be minimized if the emphasis were less on securing positions (i.e. patronage) and more on giving people a veto power over plans.

"When a community fights, let them fight it out," says Wilbert Tatum, project director of the renewal. "There will be lots of fights, but the main hurdle is to keep talking to each other. The Puerto Ricans don't want to be associated with the Negroes, at this point, and I don't blame them (Tatum is himself a Negro). It's the fault of the larger society, and how badly they have kept the Negro down. It's the city's fault, too, for having chosen this boundary in the first place." Hazen thinks there is nothing wrong with the boundary-"problems have to be dealt with as a whole." (Critics then point to the vest-pocket housing as a single-minded and inadequate approach.) Also, Hazen says, since Fifth Avenue is the main route by which Harlem will be linked to the south, the urban renewal is properly located on either side of it. Many observers have criticized this boundary, some suggesting that two different plans be worked up within the area. "But the blacks don't want to swallow the Puerto Rican community," says Dolly of the Housing Council. "The need is so great let's not spend our energy fighting each other."

The President of United Residents, Robert Anazagasti, thinks the area will never function as a single area unless the East Harlem community gains full respect—through its court fights and other challenges. "We've already made the Housing Council more responsible. Puerto Ricans may not be very sophisticated, politically, but we are not afraid to challenge the leaders. Anazagasti himself is hoping to run for State Assembly against a machine Democrat (and Negro) Hulan Jack, whose former misuse of public office will probably be recalled to voters.

Citizens and the city

Among the United Residents, there is a suspicion that downtown wants to keep the citizens divided, for fear that they might otherwise exert too much effective pressure. "They want to control the whole thing - architects, demolition, construction. It really gives you little faith that you can plan for yourself when the city appoints its own people again and again. They say you're going to do it for yourself, but they already have a plan from an old campaign. So there's no choice but to try to stall it, until such time as you can exert greater political pressure. Unfortunately, this gives the city an excuse to say, 'We can't work with the poor.' "

Tatum, speaking of the \$83,000 contract just given the Housing Council, and the hope of broadening participation through community organizing, house-tohouse doorbell-ringing, etc., says, "If we have to organize against the city, we'll do so." Tatum's history includes several years as executive director for the Cooper Square group that evolved one of the nation's first advocacy plans. More recently, and up to four months ago, he was director of community relations for the Department of Buildings. He sees his present role as a positive. but neutral, one-trying to be fair both to city and community. "The only trouble will come if the city is dishonest." Unfortunately for the city, the poor can recall a history of inadequate programs and high-handed dealings from government. The new programs-a few housing units and an inadequately funded Model Cities-are not likely to breach the credibility gap.

The city, at this point, feels

it is acting in good faith. "Our recognition of the Housing Council doesn't mean that we deal exclusively with them," says Hazen. "there are hundreds of organizations; but there has to be one group designated for dayto-day communication. This is a real test, whether the Establishment can deal effectively on an operating basis with the residents. Citizen participation won't work unless there is effective decentralization of the city's staff." Hazen believes that even with delays, the timetable should be quicker than what Robert Moses managed. But Dolly says to the city: "Don't expect the community to work at your pace. You have to move at ours. We want things, too, but not to be crushed in the process. Leave us with our slums, unless we do it ourselves."

What about the professional? "He must be genuine, not taking the community for a sucker," says one man. Tatum feels that the problem is to get people to understand what is going on, "so that they can make the choices. They'll make mistakes, but it'll be their mistakes." A crucial point is whether the professionals are ready to sacrifice their traditional elitism, and not try simply to find other means for merchandising ready-made ideas. The Planner Bountiful is already resented and distrusted, however well-meaning he may be, and the problem can only be aggravated by public-relations courses in how to "sell" the client, earn the trust of the citizenry, etc. What is needed is the conviction that the real client is the community and not the city.

Each of the groups-citizens, professionals, administrationcan run its own con game on any of the others, and most of them will probably try, wittingly or unwittingly. There will be no lack of looking for scapegoats, and no immunity from feelings of self-righteousness. Like democracy, the process will be highly imperfect, but like democracy it should prove its flexibility and sturdiness. Unlike much of electoral politics, it has a vital immediacy and a tangible relevance.

-ELLEN PERRY BERKELEY



Working with a small segment of the total renewal area, Roger Katan has tried to integrate an existing public housing project with its surroundings, and express strong ethnic values. New housing would bridge local streets; new facilities would be built over the Park Avenue railroad tracks. New community facilities would move into a platform in the center of the existing housing project. Interestingly, the renewal area surrounds and excludes the 30,000 people in these public housing towers.

PHOTOGRAPHS: Jon Naar.



THE MUMMERS THEATER: A FRAGMENT NOT A BUILDING

BY JOHN M. JOHANSEN







Bird's-eye view of Mummers complex (opposite) shows 600-seat theater in three-quarter round (biggest structure); rehearsal hall and theater school (smallest structure); and 250seat theater in full round. Center court connects these three elements. Cooling tower stands above this court. Sketches on this page, by Mr. Johansen, suggest different approaches currently in vogue. The Beaux Arts is still very much with us. Nearly all major buildings currently designed, built, and each year honored by our profession, are conceived according to those standards and values which we thought we had discarded after the architectural revolution of the '20s and '30s. Whether classically geometric or romantically amorphous, most of the work by architects, including myself, over the past ten years has been faithful to that old tradition which would have us concern ourselves with the "tasteful arrangement of compositional elements."

The "form giving" period is waning. Although one can still make convincing distinctions between the forms of classicists like Johnson, Yamasaki, Stone, or SOM, on the one hand, and of the more picturesque designers like Kahn, Rudolph, Giurgola, Venturi or myself, there is really little difference: we have really all come from the same bag, when our work is seen from the vantage point of a totally new formative position now being established.

This new position is one which is concerned not with gestural form and with masterworks of architecture, but rather with processes, with action, with behavioral patterns, and how most simply all these may be accommodated. This new position is concerned with an "organizing idea," or an "ordering device." The idea or device will derive from motivating processes-processes of personal and of societal behavior, and of highly industrialized building techniques. Advocates of this position will strive to reconcile these nowmore - carefully - examined living patterns with new technology. "Architecture," as we knew it, is less and less a determinant in the organization of our buildings, of building complexes or of cities. Formalism, centrality, ordered sequence, and individuation of building design cannot deal with the demands that urban problems are now making upon the pro-

Mr. Johansen is the architect for Oklahoma City's proposed new Mummers Theater shown on these pages. fession. "Architecture" as we knew it is no longer effective in its solutions, nor even compelling in its esthetic expression.

First of all, the scale of urban design is too large for one architect to conceive or to design as a totally determinate form. Secondly, permutational or openended programming will force a new concept, that of indeterminacy, in which structures may not look the same from year to year. There will be no time to compose and continually recompose for changing needs. In fact, there will be no need to compose once we shift to the idea of free, lifegenerated assemblages rigged on an ordering device-which may be structural, transportational, distributional, or any combination of these. The future city may look like one building; it will most certainly be continuous construction. The building, as a fragment, may look like many. Except for scale, the governing principles may be the same.

Components, not composition

The Mummers Theater complex, for Oklahoma City, is not a building as we have known it, but a fragment. The ordering device, or organizing idea, evolved (not surprisingly) from the processes of theater production and theater attendance. The program, most simply stated, was a theater for 600, another theater for 300, and a school-rehearsal room, supported physically and organizationally by offices, common backstage facilities, and mechanical services.

Now one way of escaping the habits of design procedure in the "architecture as we knew it" (i.e., composition) is by feeding off cultural and technical situations in other fields. For me, the choice of another field of technology has been, as I have mentioned before, electronics. The danger in this process would lie in a mere imitation of forms. However, the borrowings of organizational systems or concepts. inspirational or appropriately adapted, may be valid. Further, borrowings from the terminology of other fields are also helpful in forming for us new thought channels. To restate the Mum-



Plans of two principal levels of Mummers Theater complex explain circulation through the plaza and, from it, into the three main structures that make up this complex. Opposite page: interior of 600-seat theater in three-quarter round, suggesting various possible stage-set arrangements. The small theater in the full round has tiers of seats on facing sides of a rectangular acting area.







mers program, then, in terms of the organization of electronics devices, it is: three "components" with "subcomponents" attached, plugged into one "chassis" or "gate," and then connected by four "circuiting systems," superimposed at separate levels to avoid eross-circuiting.

With this organizing idea, the two theaters and school draw their services from the chassis or gate, i.e., from backstage functions, having attached to them subcomponents varying in number and type-lounge, toilets, offices. And these components are connected by interlaced circuiting systems - ramps, stairs, bridges, and ductwork. It matters little, once the organizing idea is determined, what the actual number, or forms, of these elements may be, or how they are connected, as far as esthetics go; from here on it is anybody's "styling job," for whatever that is worth. The design process, if the term can be used at all, is not one of composing but of rigging or assemblage. Each element, whether enclosed functional space, conveyor tube, or structural member, goes about its work directly and independently; sometimes with utter disregard for the other elements, or for occupants it is not required to accommodate at that place or moment. The way of dealing with functional elements then might be to "position" them, i.e., to satisfy functional relationships; to "prop" them, i.e., to support with structure; and to "connect" them, i.e., to provide circulation and distribution.

Esthetics and ornithology

Departing from the now common monolithic and ponderous concrete building, the Mummers Theater complex shows a marked division of its elements into "heavies" and "lights"—concrete for major structural elements, with light steel frame and cladding for cantilevered and spanning elements.

Although, as one witty artist has said, "esthetics is for the artist as ornithology is for the birds," the visual results of such an approach are still of some natural concern. The esthetic in

this case must be a by-product of the direct solution described above. The specific programmed events and functions at work should suggest an appropriate organizing idea or device; and it is this idea or device which generates, justifies, and becomes the esthetic. As McLuhan has said, ". . . all that is required as a basis for a work of art is the brush of one idea against another idea"-in the case of habitable structure, the brush of function against function. It is action: the infusion of human beings and the distribution of services, which is expressed clearly, usually directly from one point in space to another. It is the surprise, unexpected juxtaposition, superimposition, crowding, segregation, and confrontation, of elements which accomodates the human movement patterns which give whatever architectural quality this construction may have. The concern is that of reality, immediacy, honesty, economy. As the skeptical young say, "Cut the crap!"

The ordering device or idea, with its permutative possibilities, is determined early. However, the actual and final appearance is unpredictable. Elevations, if one can say they exist, cannot be drawn or studied; in fact, facets of wall, roof, and soffit are so numerous, with interface so prevalent, that their relationships may as well be left to chance. As in the new mathematics, we deal with "sets" of symbols or images; we recognize group effects, unplanned peripheral sensations, along with selected views-what is known at IBM as "pattern recognition." The impression is generally one of what Norbert Wiener called "organic incompleteness," and is altogether consistent with the current retraining of our perceptive habits under the influence of electronic devices.

Facets, not facades, result in bombardment of composite images; yet they are held together by the ordering device. Permutation, flux, change, whether by actual reassemblage in future years, or by suggestion of this possibility in concept, give the structure an aspect of "in-process." By making this vivid, the occupants may feel they participate, that they are involved, feel empathy, identify with, have, in fact, become part of the process.

Not only is the axially fixed station-point of the Renaissance out of date, but the moving station-point of Siegfried Giedion's space-time is out of date also, in favor of multiple simultaneous station points, consistent with our present-experience world. In the Mummers building complex one will not only occupy, but assume many station points, and follow in the shaping of enclosing elements, the loci of other occupants in motion. The assemblage is volatile; elements may relate back to the same thing, yet not to each other. The relationship is organizational, not formal. Slang, not eloquence, is foremost. I choose slang because it has to do with what is brash, improvised but incisive, what involves firsthand experience, is an impulsive response to the immediate situation, and is said in a jargon that is out of accepted usage. This attitude is, I hope, free from cliché, free from overstudied form or exquisite detail.

Ordering devices, or ideas, are found in all periods of architectural history. Today, however, the complications of mechanical services, transportation, fabrication, and construction techniques. as well as complicated living patterns, will require ordering devices which will be altogether determined by these processes-and not by a warmed-over Beaux Arts esthetic. The great proving ground of the organizing idea, or ordering device, will be the city. The Mummers Theater group is a relatively small individual structure-a fragment of city, a theatrical neighborhood. As such, it may illustrate a respect for human and technical processes as a generating force, for the stabilizing function of the ordering device, and a faith in the free, unpredictable development of resultant forms.

Whatever these forms might be, they will not look like the "architecture as we know it," from the same Beaux Arts bag in which most of us still find ourselves to this day.



FACTS & FIGURES

Mummers Theater, Oklahoma City, Okla. Owner: The Mummers Theater Inc., Mack Scism, producer-director. Architect: John M. Johansen & Associates. Stage designer: David Hays. PHOTOGRAPHS: Louis Checkman.







REQUIEM FOR A MASTERPIECE

BY PRISCILLA DUNHILL

On February 28, 1968, the last of the magnificently carved Oya stone of Frank Lloyd Wright's Imperial Hotel in Tokyo was bulldozed into rubble to make way for the new order: a 17story skyscraper hotel that will look like all other 17-story skyscraper hotels, everywhere.

This is the story of the first and last days of the Imperial.

From start to finish the saga of the hotel read like a Greek tragedy. On its opening day in September, 1923, Tokyo was gripped by the worst earthquake it had experienced in 50 years. The opening culminated seven years of construction which had been a nightmare of litigation, deceit, and gangsterism.

Wright had sunk so much of himself into his building that he had lost all perspective. He refused to delegate the smallest decision, or to curb the pettiness and jealousy which consumed his staff. As a result the hotel opened one year behind schedule at a cost triple its original estimate—a total of \$43⁄4 million, an unprecedented sum in those days for a 280-room hotel!

Even the earthquake had its Greek ironies. Although the center section of the Imperial sank 2 ft. during the temblor, the main structure held fast, thus exonerating Wright's much maligned design of earthquakeproof foundations. To avoid Tokyo's perilous bedroek about 70 ft. below the surface, Wright had built the Imperial on reinforced concrete cantilevered slabs anchored to concrete piers which "floated" in a sea of mud. Wright was not even in attend-



ance to exult in this victory, having been fired a year earlier by the hotel's backers who had grown irate at his arrogance and merciless expenditures. Indeed, Wright never saw his masterpiece completed. He left Japan in 1922 never to return, declaring that it would be 50 years before anyone understood the architecture of his hotel.

As in most of his pronouncements about himself in relation to the world, Wright was only partially correct. The world *did* understand the significance and splendor of the Imperial. The crowned heads of Europe, the world's cultural and diplomatic elite, and international merchant princes promenaded its heroic spaces. (Pavlova slept there; Einstein played the violin in the great Peacock Room.) They understood its significance, but not enough to prevent its demise.

Just 45 years after Wright's prediction, the demolition of the building was completed. All that is left of Wright's genius is a meticulous photographic record (made by the Committee for the Preservation of the Imperial Hotel) and some architectural souvenirs. Wright's specially designed furniture has been peddled in a department store in Nagoya. The lobby and front garden will be recreated in Japan's architectural Disneyland, Meiji Village. One can imagine the contempt with which Wright would have greeted that gesture! All that will come home to America are a few bits and pieces scavenged during demolition.

Was this truly the sum con-

cern the world could muster to honor this irreplaceable testimonial to Wright's brilliance? Was this an appropriate requiem for a structure, so erroneously labeled by Louis Sullivan as "a great gift to endure for generations of all time"?

The Imperial's destruction was an act of sane businessmen. By all laws of economic rationale it should not have survived as long as it did. Thrice it had been threatened and saved, first in 1936 when the war interrupted demolition plans; again in 1943



when the U.S. Army, then billeted in the Imperial, purchased its reprieve with \$10,000 worth of repairs; and again in 1959. In 1967 the threat became fact.

Certainly it was the most publicized demolition since Pompeii. The Inumarus, the hotel owners, announced early in 1967 that the white elephant must come down; its roof was leaking, the structure was impossible to repair, and was slowly sinking into the mud. There were murmurs and mutters around the world. But when the time came to accompany the murmurs with cash, none stepped forward no government, no museum, no university, no foundation, no private patron.

From the Imperial family, who had helped subsidize the hotel's construction in 1923, and owned stock until 1945, there was no word. The Japanese architectural profession confined itself to writing letters to architectural journals.

Reaction was hardly better on this side of the Pacific. The Japanese Embassy sent a polite note to Congressman Theodore Kupferman (Rep., N.Y.) who had interested himself in saving the Imperial. A fine idea which the embassy would explore, was the answer, but—don't call us, we'll call you.

New York's Museum of Modern Art simply was not interested in mementos from the Imperial, which, according to Arthur Drexler, curator of architecture, "make no sense taken out of context." The New York State Council on the Arts offered \$5,000. Immediately Edgar Shards saved from the Imperial Hotel for America's architectural posterity: a panel of the richly carved, ornate Cya stone (opposite). The Imperial was a collection of separate structures (plan, above), each floating on its own concrete piers. Above: the famous promenade of the Imperial.

Tafel, a former Wright apprentice at Taliesin who was out beating money bushes for the Imperial, prepared to go to Japan to salvage what he could for that amount. On the eve of his departure, the council re-





scinded its offer. Tafel went anyway. At the Imperial he found everything just for the asking. So he crated up tidbits, paid the \$82 freight bill and sent them to the N.Y. State University at Buffalo, for display in the architectural school just being organized. (Tafel has just finished remodeling Wright's Martin House in Buffalo (1904) for Martin Myerson, the university's president.) The tidbits include 12 tiles, 35 bricks, a stained glass window, a copper cornice, and one carved plaque of Oya stone

—all that is left of the Imperial in America.

Who is to blame? Curiously enough, no one and everyone. The Imperial was the victim of Wright's own perfectionism. It belonged to another era of luxury and indulgence. In the face of land values which will multiply geometrically within the next 30 years, many more architectural milestones will follow the Imperial to oblivion.

In this country, while some states and cities have passed protective landmarks legislation, our historic structures continue to disappear in ever-increasing numbers. This year, Congress voted a fund of \$1 million for preserving monuments; grants from the fund would be made to communities on a matching dollar basis.

These are good beginnings. But clearly what is needed is some kind of national, private revolving fund which can act quickly to purchase a threatened landmark. This buys time for a community to explore all the preservation possibilities for a

building-removal to a new site, conversion to a new use, etc. (One of the problems of saving the Imperial was the ponderousness of official machinery on both sides of the Pacific.) The National Trust for Historic Preservation hopes to begin such a fund. But such a fund desperately needs broad support from informed, concerned citizens ready, if called upon, to bring home more than just \$82 worth of architectural shards from a building of the quality of the Imperial Hotel.



Also crated and sent home to the State University of New York at Buffalo, will be: one of Wright's "restrained" stained glass windows (opposite, far left); twelve terra cotta floor tiles and one of the stone grilles which concealed both heating and lighting elements (above); one of the copper insets from the broad stone cornice (right).

PHOTOGRAPHS: Setsuo Saito-Magnum. Aerial, page 70, Y. Takase.

MRS. DUNHILL is a former Newsweek writer and managing editor of Interiors. She has contributed frequently to the Forum in the past.





A TOWER OF TOWERS

The structural innovations of the Knights of Columbus headquarters are demonstrated (left) at its present stage of construction in New Haven, Conn. Designed by Kevin Roche, John Dinkeloo & Associates, the building is supported by four cylindrical corner towers, which will contain stairs, mechanical shafts, and rest rooms. The towers, surrounding a central elevator shaft, were slip-formed of concrete and will be faced with dark brick. Slung between them are horizontal girders which bear steel-framed floors. A major part of the site will be a civic plaza (below).



HOSPITAL HOUSING

The residence group called Children's Inn-also by TAC-actually satisfies three distinct housing needs for Boston's Children's Medical Center: a highrise apartment tower for married personnel; an 82-room hotel with nursing care; and a dormitory for single doctors. The hotel and dormitory are housed in a roughly T-shaped lowrise block separated from the tower by a pedestrian mall, which will eventually link all buildings in the center. It is hoped that the hotel, open to the public, will be used by outpatients and their parents, thus freeing hospital beds for children requiring more intensive care.



GERMAN HOUSE OF CHINA

Active octogenarian Walter Gropius—85 this month—has designed, with his associates at TAC, two factories for an old friend, Philip Rosenthal. The first, at Selb, center of West Germany's ceramic industry, is for the manufacture of Rosenthal porcelain ware; the second, at nearby Amberg, will make a comparatively new Rosenthal product, handblown glass. A further outgrowth of this association has been a master plan by Gropius for the town of Selb, destroyed nearly a century ago by fire. The Selb factory (above), constructed of prefab-

ricated concrete components, has a potential output of 1 million pieces of fired porcelain a month. Worker amenities include a separate building for social activities and a tropical greenhouse at the hub of the plant. Topping it all off, TAC has designed a line of china for Rosenthal.





DOUBLE-DECKED VIADUCT

The 3,400-ft.-long Tinsley Viaduct in Yorkshire will bridge a valley, carrying the high-speed M1 Motorway on its upper level, and more localized traffic on the lower. Each deck is a continuous steel structure, resting at its ends on reinforced concrete abutments. The huge prefabricated box girders double as service ducts. The viaduct was designed by the Engineering firm of Freeman, Fox & Partners.





VIEW FROM THE HILL

The Pop-Op cube that is home to Japanese Industrialist Takeo Makiyama (left) rests on a hilltop near Tokyo like one of a pair of trick dice. Whatever else may be said about it, it restores inscrutability to the very Western-looking neighborhood. The house has 100 porthole windows plus 13 skylights in the roof and one downlight porthole on the underside. The 34-ft. cube rests on four pilotis and is penetrated



at the center by a cylindrical core. Inside, there are three floors, cantilevered irregularly from the core and structurally independent of the outside walls. The interior view is from a third-floor bedroom balcony, looking down on a second-floor living room, which in turn overlooks the first floor (at top of photo). Architect Yasuyoshi Hayashi calls this organization the "Logic of Explosive Space."

PHOTOGRAPHS: Page 76, David Hirsch. Page 77 (left). © Ezra Stoller (ESTO); (top), Foto Swiridoff; (bottom), David Hirsch. Page 78 (top left), John A. Rose; (top right), M. T. Walters; (bottom), Shigeo Okamoto. Page 79 (top), T. Mike Fletcher; (bottom), David A. Mintz.



ST. LOUIS XV

Architects Rapp & Rapp, who completed their St. Louis Theater in 1925, modeled after the opera house at Versailles, would not know it as Powell Symphony Hall, the work of Architect Ben Schlanger. Gone are "tons of bronze gargoyles and Venetian colored glass fruits," in the words of symphony president Stanley J. Goodman. Looking closely at some of the 24-karat gold leaf moldings one finds they are part of the wing span of an angel who has been "suppressed." Schlanger's principal structural alterations were made to improve seating—an aisle removed to add seats, the back wall of the orchestra floor moved forward to align with columns which had hindered viewing and to improve acoustics—side exits sealed to shut out noises, an orchestra shell constructed on stage. Others on the team: Angelo G. Corrubia, associate architect; Cyril Harris, acoustics; David A. Mintz, lighting; Clark Graves, interiors.



BOOKS

LIVING ARCHITECTURE ROMAN-ESQUE. By Raymond Oursel. Photographs by Jacques Rouiller. Preface by Hermann Baur. Published by Grosset and Dunlap, New York, N.Y. 190 pp. 8½ x 8½ in. \$7.95.

REVIEWED BY SIBYL MOHOLY-NAGY

You may defy Philip Johnson on Scott and The Architecture of Humanism or Vincent Scully on the Sexology of Greek site planning. You can possibly survive if you don't read Fitch or Venturi, but you cannot not know Romanesque. This small volume in an attractive historical survey of world architecture, is straining hard to throw bridges between past and present architectural achievements. It will be your cheapest and most painless means by which to remember that Romanesque is not the eclectic pastiche of H.H. Richardson, resurrected by the Daughters of the American Victorian Society, or the Rundbogenstil of unconvincing restorations along the Rhine. Oursel's plans and Rouiller's photos more than the text speak of structure and space as the great achievement of the Romanesque period, making form-elevations as irrelevant as they have become in our own time. This is not what we remember from sophomore architectural history. If we remember anything at all, it is the "articulated mass" of Worms or San Ambrogio, their interiors too dark for a profitable visit, or for the expressionistic grotesques on capitals and bronze doors. Oursel's selection of examples makes it clear that the eye of the faithful, traveling upward, was contained by a stunning variety of vaults. In Catalonian Cardona and Tahull, the star-like patterns pierced into the cupolas of Moorish baths were effectively repeated. Norman Ely and Lombard Verona applied the floral arabesques of Persia to their wood ceilings. In the Frankish-Saxon realm of Western Germany and French Burgundy-Languedoc groined Roman bays are

Mrs. Moholy-Nagy is professor of architecture at Pratt Institute and a member of Architectural Forum's Board of Contributors.



Romanesque (top to bottom): round cupola, San Tomaso in Lemine, Almenno San Bartolomeo; detail of the interior, abbey kitchens, Fontevrault; the choir, Tahull (Spain); arches of the nave, San Pietro in Tuscania. rhythmically accentuated by red stone arches.

But there is no perceptible "school" despite the untiring efforts of academic embalmers. When the Western world shook off the paralysis of certain doom at the stroke of midnight in the fear of judgment 1,000 A.D., Glaber's "White Mantle of Churches" spreading over Europe aroused the most original and daring architectural talent. Oursel presents a few samples that should send every precomputerized architect after the magnificent large picture volumes covering Romanesque in Italy, Germany, France, Spain and England. Jacques Rouiller's vistas of the exquisite central structure of San Tomaso in Lemine from the early 11th century and the stress line of the gallery vault, inserted like a superb drawing between the heavy round arches, are as exciting as the sudden appearance of a hypostyle hall of antique columns in the raised crypt of San Pietro in Tuscania. The tapered plan of the nave, leading from a narrow entry to a fanned-out santuary accessible by a fullwidth set of steps, testifies to an intellect intent on directing movement through space before the successive bay system had been invented. For the first time the interior of the famous abbey kitchen of Fontevrault is shown, whose turrets and diamond shingles can be found in any textbook. Rouiller's frog perspective shows each arched tie that wires the entire structure to peripheral stresses, adding for a lover of craftsmanship the close-up of stonework in which the direction of each piece is predetermined by the function within the whole. The fascination of the Ro-

The fascination of the Romanesque as it is pinpointed in this small collection lies in the confrontation with a unique moment in history—the 11th century — when regionalism and eclecticism fused into a new form-space-structure realization. The primitive traditions of local monks and masons and their fresh untired zest to respond to new needs devoured the suggestions of learned abbots and international rulers (the Holy Ro-
man Empire and the Crusades represented, after all, what was then the world) and came up with solutions whose most immediate impact is originality. Compared with the width and spatial daring of Ste. Foy in Conques from 1050, the plan of Gothic Reims is a mere imitation. The hollow arch that carries the central tower of Poitiers was never attempted again, and the eight-chapeled pilgrimage space of St. Michel d'Entraigues knows everything the Baroque was to realize 500 years later.

This is a book for committed architects; it is not a book for art historians or their specialized students. M. Oursel's definition of Romanesque is a peculiarly French-academic one, omitting the most essential impetus-the Caesarian dream of Charlemagne and its architectural implementations-that made the Romanesque period possible. To Oursel nothing before the year 1,000 deserves to be mentioned as if Germigny-des-Près, St. Gall, Aachen, Naranco had never existed. To add these essential footsteps to the early Middle Ages, Kenneth Conant's Carolingian and Romanesque Architecture is still unsurpassed; and for the rare architect with an interest in the socio-political forces that created the spirit of the 11th century, there is the first volume of Medieval Architecture, Its Origins and Development by the unjustly forgotten Arthur Kingsley Porter, now available in a reprint.

LIVING ARCHITECTURE: BAROQUE. By Pierre Charpentrat. Photographs by Peter Heman. Introduction by Hans Scharoun. Published by Grosset & Dunlap, New York, N.Y. 190 pp. 8½ by 8½ in. \$7.95.

There is an amusing though wholly unintentional rhythm in this series on the great architectural periods of the past. Volumes with competent, readable text and dull, or at least overly familiar, illustrations alternate with texts of doubtful competence and illustrations of originality and unexpected beauty. After Raymond Oursel's incomplete and pedestrian Romanesque description that vanishes totally under the excitement about his selection of plans and photos, Pierre Charpentrat's volume on Baroque relies on the most overpublicized examples of eclesiastic baroque, and many plans and elevations directly out of Hans Koepff's Baukunst in Fünf Jahrtausenden (the German Bannister-Fletcher) to illustrate a highly informed and well-written commentary. In addition, Hans Scharoun's introduction is the first justification of the editor's determination to find in contemporary architecture an equivalent for the historical period presented. This has led to rather awkward analogies, such as Breuer and ancient Egypt and Paolo Portughesi's "organic" Rome. In Scharoun's case the affinities are not only visual and stylistic but also intellectual, which is a rare pleasure indeed. In his brief exposition of 17thcentury culture, he proceeds from the premise that "great civilizations are the tasks given to mankind to be dealt with in the workrooms." The Greek rectangle and the Roman (Romanesque) single-focussed circle, "are superseded by . . . the oscillations of parabola and ellipse, signifying the passionate involvement of the individual with a limitless universe." He sees the developing "second natural world" of science invading nature and established reality, the tensions producing at one and the same time "the great layouts of parks endeavoring to recreate nature, and the delight in robotlike automatons." The interiors of Scharoun's Philharmonic Hall in Berlin effortlessly illustrate the Baroque thesis that relates man dynamically to space occupied. "A radical opinion here becomes a work of art."

Pierre Charpentrat's subsequent text does not reach this high plateau of historical imagination but it leads ably from the perpetuation of the Roman classical image, intended by Maderna and Bernini, to the lonely genius of Borromini who remains throughout two centuries and this book the key ereator of the new style. What a strange decision, then, to visualize this profound impact only





Baroque (top to bottom): interior of the dome, San Lorenzo, Turin; galleries off the nave, Abbey Church, Zwiefalten; central gallery and dome, St. John Nepomuk on the Green Hill, Saar; pillar detail, Abbey, Einsiedeln.

with S. Ivo and S. Agnese, neither of which is exclusively Borromini's work, and to omit a vista of the Piazza Navona with Bernini's fountains which illustrate beyond all words the momentous struggle between these two geniuses. Charpentrat's specialty is obviously German Baroque of the 18th century. He presents all the well-known examples, Melk, Banz, Nymphenburg, work by Dientzenhofer, the Asam Brothers, and of course Balthazar Neumann, in great detail and with fluid word pictures. The great landscaping revolution, the new relationship of house elevations to city plazas and streets, and the pan-European phenomenon of a Baroque residential architecture that reshaped the cities, remain unmentioned. The trouble with the Baroque period is its extraordinary appeal. Every teacher of architectural history knows that even the most devout disciples of Buckminster Fuller, Christopher Alexander, and the square Mr. Kahn will wake up and participate at the sight of the Zwiefalten nave and the space dramas of Piranesi. It would have been a fine acknowledgment of Scharoun's original mind and Charpentrat's own extensive historical background if an effort had been made to find still unknown or little known Baroque "events"-such as suddenly confront the traveller in remote towns of Bohemia and along the Portuguese coast of India.

Perhaps there should be a moratorium on Baroque publications. No other era so relied on the fourth dimension of movement through space. Photography, as the very excellent photos of Peter Heman prove, must remain a static recording device which somehow makes Baroque boring. Only movies, and only light as criterium of motion and sequence, can record Baroque spaces beyond the immediate personal experience. Charpentrat's book is one more proof that despite historical wisdom, the essence of the Great Space Revolution of the 17th and 18th century must wait for film to become the basic tool of architectural interpretation.

THE SHED RESHAPED

A weekend house by Edward Larrabee Barnes has the familiar shed form—with one subtle shift in geometry that transforms it completely. For two decades, Edward Larrabee Barnes has been refining a single, strong concept of architectural form. All of his works have been composed of simple geometric solids, as uniform in surface treatment as possible Their exterior effect is close to that of the "minimal" sculpture that has appeared more recently.

Most often, the basic block out of which Barnes has assembled his designs has been the "shed"



form—rectangular in plan and capped by a single-pitch roof. In the weekend house shown here he has worked out a variation on the familiar shed that is extremely simple in concept, yet almost mystifying in its spatial effect. He has played one angled wall against the single-pitch roof to produce a volume that is high and narrow at one end, low and wide at the other.

This geometric manipulation

is closely related to the character of the site. The house stands on the north shore of Fisher's Island —an isolated outpost of New York State just off the mainland of Connecticut. Its low, wide end looks out to the north, between flaring walls, toward the "panoramic stripe" of the strait and the low coastline beyond. Its high, narrow end catches the sunlight coming in above dense groves of trees and distributes it throughout the open interior.

This angular structure does not stand alone on the shore, but is tied to a low, flat-roofed garage-guest wing by a five-ft.-high fence that encloses the automobile court between them. This fence, clad in the same shingles as the house and the wing, unites their north faceades in a continuous plane (out of which deep recesses have been carved), but it is low enough so that both blocks can be seen as separate forms.

The functional requirements of the house were very simple. The main block is occupied—mainly on weekends between May and October—by a couple whose children have grown up. Its interior is a single volume, partially divided at the high end by a bedroom balcony. Guests stay in the other block, which has its own access from the automobile court and from the beach.





A view from the south (center left) shows the angles of wall and roof, as well as the niche cut into the angled wall by the square entrance platform. Windows in the high south wall (bottom left) flood the bedroom balcony and the kitchen beneath it with sunlight. The broad view to the north (below) is framed by low, projecting eaves.



Given the light conditions and views, and the interior needs, Barnes arrived early at the idea of a main volume that was high and narrow at the south, low and wide at the north. But the first plan that came to mind—a symmetrical trapezoid—raised a few problems: angles at every corner upset the sense of orientation, and objects on the side walls (the fireplace, for instance) all faced toward the sea. As soon as one side wall was set at right angles to the ends, other elements fell into place comfortably. There is now a rectangular frame of reference against which angles can be measured. In fact, only two planes in the entire house—the roof and one wall— are set at angles, but together they dominate the design.

The interior finish of flush spruce boards is as uniform as the white cedar shingles of the exterior. Steel window frames are painted black and the brick chimney—split into separate fireplace and heater shafts—is painted dark gray.

This house is a very small building, and there is nothing remarkable in its program, its construction—or even its pleasant beach-front site. What *is* remarkable is the way Barnes has revealed something fundamental about the shaping of space, through the most elementary use of geometry.

FACTS AND FIGURES

Beach house, Fisher's Island, N. Y. Architect: Edward Larrabee Barnes. Assistants: Siglinde Stern, Arthur Lutzker. Engineer: Severud Assocs. Landscape architect: Peter Rolland. General contractor: Lee Ferguson. Building area: 2,000 sq. ft. (gross). Cost: not available.

PHOTOGRAPHS: pages 82, 83, and 84 (top left), James Righter. Pages 84 (bottom left) and 85, Hans Namuth.



EDUCATION AND THE AIA: A PROCESS FOR CHANGE

Important concepts in the two-year research by Geddes and Spring pose a challenge for the schools and for the profession

The AIA's much-heralded Research in Education is completed, the product of Robert L. Geddes, dean of Princeton's School of Architecture, and Bernard P. Spring, senior research architect at Princeton. And the AIA, having spent two years and \$100,000 on the work, may now be wondering what it has bought. An ad hoc task force is figuring out where to go from here (they have advised turning it over to the Interprofessional Commission on Environmental Design), and there are further plans to send some 2,000 copies of the report to all faculty members in the nation's schools of architecture, and a brief summary to all AIA members.

If the report is seriously weighed by the profession—educators and practitioners alike the ensuing discussion will involve no less than the future of the entire profession. Somewhat veiled by the staid language of the report, but at its core, is the implication that the architect is not necessarily meant to assume central command in designing the man-made environment.

This will be heresy to those of the profession whose public posture and private energy seeks to stake out the territory of Architect and protect it from all others. The Geddes-Spring report challenges, as hopeless anachronism, the view that an architect's task can be clearly identified and legally bounded in this way; instead, they say, architects must share the overall task with others in the environmental design professions on the basis of performance. A narrow trade-unionism will ultimately be self-defeating.

The report's other major implication also links the performance of the design professions to the desperate needs of the environment. This AIA study was commissioned, they write, "because of a widespread feeling that education for environmental design must change." But the situation is too desperate to have educational change only for the sake of change. Innovation not directed towards well-defined objectives, and not evaluated according to whether these objectives are being achieved, will be aimless and mostly worthless.

Yet the report does not propose a specific course content to adopt, specific teaching methods to use, or a specific professional goal to pursue. Thus it will be baffling, perhaps infuriating, to many a practitioner (and educator) who will consider it an affront to his notion of research and conclude that it has all been a waste of AIA funds.

All these omissions are deliberate-and crucial. To the extent that architects want an easy answer (and the research as formulated in 1965 seemed to point toward the ultimate issuance of a specific set of programs), architects will find the report of little value. Actually, it has extraordinary value. If followed in the spirit in which the report is given, it could mean nothing less than a serious nationwide effort at the most basic level to seek new answers for an educational system that needs precisely such restructuring to the core.

No single answer

How to remodel the system, without offering a model to copy? "The comprehensive master plan is dead," says Spring. "What we've suggested instead, is a process by which people can build curricula in the ways they want. It would be folly in a society as complex and dynamic as ours to have a single authoritarian structure handed down from above. Nor were we asked, in this research, to give our views. What we've posed is a format for everyone's views.

"We urgently need to communicate with each other, and in terms of the real issues, not in terms of our supposed stances for ourselves and our easy labels for the other guy-these only keep people from talking with each other. At the bottom of this research, then, are techniques making it possible for people to think through their educational objectives-what it is they want the environmental designer to be able to do. If we disagree, fine, but let's at least know where we disagree, instead of talking about matters of status (the-architect-as-leader-of-theteam sort of thing) and glossing over the real issues."

Major recommendations

The report's main recommendations were carefully selected as the minimum necessary for institutional support of environmental education. Note the consistent use of the term "environmental," whereas the charge to the researchers spoke of "architectural" education.

It is no surprise, then, that the primary recommendation concerns relationships among all the professions involved in designing the man-made environment. It is impossible, believe Geddes and Spring, for education to deal separately with architecture, engineering, planning, landscape architecture, etc., when these subjects refuse to stay compartmented in the real world. It is also impossible to isolate any aspect of physical change from its social-economic-political context. The report thus recommends that for educational purposes all professional work be redefined in terms of the task to be accomplished (or the problem to be solved), "with a clear understanding of the specific but partial contribution" of any single team member. The report makes clear that this "does not at all require that traditional disciplines give up their identity or their professional standards." But it does demand that the professional organizations, and the registration and accreditation boards, find ways to recognize this professional interdependence.

To define the environmental design task—its extent and its components—Geddes and Spring have developed a concept that is simple but not simplistic (right). As a working tool, the concept has value for the individual who is building a career, the school that is building a curriculum, or the profession that is building a new relationship with other disciplines.

The model's three dimensions each comprise a basic characteristic of design work—the problem-solving *process*, the *scope* of the work, its *scale*. Each of these three characteristics is sub-

divided into six parts, and the 216 points of intersection (6 by 6 by 6) each represent a different kind of design activity. (The six subdivisions under process are identification, formulation, prediction, selection, management, and evaluation; under scope are basic research, applied research, pilot study, proposal, communication, and effectuation; under scale are region, area, district, group, unit, and component.) Use of the matrix can be best understood by verbalizing any of the 216 activities-1De. for instance, becomes: Identification of the goals, needs, resources, and priorities of the client, user, and community groups for a design proposal at the unit (e.g., building) scale."

"With this matrix," says Spring, "it becomes obvious that the professions hopelessly and eternally overlap, and that none fills the entire matrix."

Assuming that no single school can cover the whole task, the study proposes that each school build its own strengths in offering whatever portion it chooses to cover. The concept that clarifies the hoped-for nationwide diversity is another three-dimensional model. Six hexagonal blocks each represent a distinct time period (probably two years); the joints between them are choice points when a student either goes on to any program on the next module or terminates his formal education.

Of the nine types of program on the modules, it is suggested that four be professional in content; three, general education; two, internship. Their combination yields the possibility of several thousand careers, in contrast to the "dozen or so" careers available today. "We don't say what decisions to make on programs or careers-these remain with the schools and the students," Geddes and Spring explain. "We also don't say what decisions to make on accreditation and registration, but this concept is a way of dealing with the problems. A registration board in any profession can say, for instance, 'at least two modules have to be such-and-such, two can be free.""

Further redefinition

There are other formulations that the report makes-defining educational goals in terms of "behavior, understanding, and ability" desired in individuals, rather than status desired for the group. The three basic (and conflicting) goals are distinguished according to whether behavior is oriented to operating within real-world constraints, is adaptive to changing situations, or is focused on bringing about solutions in the context of a different (or Utopian) future. The central issue of education, says the report, is the balance between these goals. Again, this is only a framework; the de-



scribed in terms of objectives the behavior expected of the student at the end of the course, and the teaching methods.

In addition (the report is a veritable cornucopia of rich thought), are specific "strategies" for key "problems" in environmental education. These are problems of continuity: how to get clients and users on the same wave-length as professionals; and how to match appropriate educational programs to the wide range of student abilities and motivations; scope: how to increase breadth without loss of depth; method: how to develop explicit design methods for dealing with the increased complexity of design decisions, and make it possible for more clients and users to enter a decision-making process that can no longer be mystical and elitist; reality: how to deal with the most pressing problems of our time, in their actual setting, without sacrificing a larger and theoretical perspective; numbers: how to train the numbers needed, assuming that the number will only grow in response to how well people are trained to do the job.

Geddes and Spring call for a great diversity of experimentation to meet these problems—experimentation, however, within their process of matching programs to objectives. Despite their explicit suggestions of some strategies, then, their report does not deal with product but with process—"the process for planning and evaluating the unprecedented diversity of new programs that are needed ..."

A model for the future

The Geddes-Spring research is a model of rationality. "What we did was very simple," says Spring. "We wanted to make explicit the kind of wisdom people gain from experience when they're wise to begin with, and make this available to people who are not wise to begin with. Education can no longer rely on the star system, which doesn't work, and there are simply not enough 'good guys' to go around [the report does not mention any person or school by name]. Ideas, not people, are needed. Eventually, enough good guys will be produced if we can specify what a good guy should be able to do."

The research is also a model of academic freedom. "Everyone told us we would be doing for architecture what the Flexner report did for medicine about 60 years ago. But we haven't. Flexner believed in Johns Hopkins as a model, and with Rockefeller Foundation grants going to any school that conformed to this model, all the nonconforming schools were soon wiped out. That is not our intention here. Nor should the AIA think it must pass out national policy in education. It can, however, help make the profession responsive to our pluralistic society."

The schools may find it difficult to do their own thinking. "They're all looking for a model to copy, all hoping to be the next Harvard," says Spring.

On the national level, implementation will also be difficult. As a first step, the AIA has commissioned a handbook from Educational Testing Service to help the schools evaluate their curricula, methods of certifying and grading, etc. But the real implementation of the report's major directions will involve real commitment from the AIA. (In addition to the concepts described above are recommendations for environmental education at the primary and secondary level; continuing professional education; institutes for advanced studies; national centers for course development; each of these would need interprofessional cooperation.) Change will be impeded by those whose success has been achieved under protectionism. Change will be demanded by those young enough (whatever their age) to have a different view of the world.

In focusing on the issues, and recognizing the enormous job to be done, Geddes and Spring have rendered a distinguished service to the profession. The profession can show its gratitude by accepting the challenge and proceeding with the work.

PHOTOGRAPH: George A. Peterson



HOME

FOR THE AGED

When old people leave self-sufficient living units for the sheltered environment of a "home" they have two distinct needs which are not easily fulfilled under one roof. First, the home must be a place to live for each of its residents-with as much individuality and as little boredom as possible. And, second, for those who are (or become) disabled, it must also be a dependable infirmary. In recent additions to the Hebrew Home for the Aged at Riverdale (in New York City), Architects Gruzen & Partners have reconciled these two needs with remarkable skill.

Their conception of the home as a collection of individual spaces-rather than a monolithic container-is evident in the entrance front of the new residential block (right). Pairs of single rooms alternate with pairs of deeper double rooms to produce a pattern of advancing and receding volumes, within a unifying framework of exposed floor slabs and slablike concrete columns. On the top stories, where structural loads diminish, some of the columns have been cut back, so that the overall mass breaks down visibly into the smaller cubic volumes of which it is composed.

This residential block may be the most prominent of the new additions, but it is only the superstructure above a sprawling one-story complex of communal facilities, topped by a paved and landscaped terrace. Lounges, meeting rooms, and sitting areas on the floor under this terrace have been differentiated by size, shape, exposure, and views. Open spaces around (and on top of) these ground-floor facilities range from the sheltered, formal entrance court (right) to terraces thrust out over the riverbank to the rear.

Although many of the ideas behind their design could be applied to any home for the aged, this project presented the architects with a very particular set of obstacles and opportunities. The chief drawback was the complex of existing buildings, a collection of economy-model















Landscaped roofs on the one-story portion of the new additions (left in aerial view) preserve the open feeling of the site and offer vantage points overlooking the Hudson (bottom photo). Lounges and passages under the terraces link the variegated complex together. Besides the residential block (far left in aerial) and the one-story link, this stage of expansion included a central utilities structure (far right in aerial) large enough to house equipment for proposed future additions. wings attached to a turn-of-thecentury mansion. The big asset was the 19-acre site on the banks of the Hudson.

The home is only about 20 minutes north of Midtown Manhattan by car, but the river appears from this point (below left) to be unspoiled. The cliffs on the opposite shore have been preserved as part of the Palisades Interstate Park; only the George Washington Bridge and the tall buildings near it, four miles downstream, are visible reminders that the home is actually within New York City. (From the opposite bank, apartment towers rising near the home are all too prominent.)

The new residential block has been sited to give most of the new rooms views of the river, yet it blocks little of the outlook from the older structures. It houses 140 people, out of a total capacity for the home of about 500. (Only part of this new space represents actual expansion—the rest, relief from overcrowding.)

The one-story portion, with its landscaped roof, is an excellent device for tving the assorted new and old wings together, both visually and functionally. At the ground floor, this link structure provides indoor routes between buildings for food and supplies, staff, and residents. At the roof level, it contributes a well-defined, plazalike space facing the Hudson and a smaller terrace facing away from the river, from which residents can watch visitors (as well as staff, delivery trucks, etc.) come and go.

Part of a larger plan

These additions were made with a staged expansion program in mind. The residential block was placed to the south so that it could include a new lobby, convenient to the existing entrance drive and parking lot. Its four-story mass does not cast too much shade on the new terrace or the old main building. The next likely addition will be a taller residential building, placed to the north of the terrace, where its long shadow will do the least harm. This addition would have its own terrace, on top of the existing dining-social hall, and its own lobby adjoining a new parking area.

Eventually, the old central building may be replaced by a larger structure, with a new main entrance for the entire complex. At some point, apartments for the independent elderly might be built to the north of the present cluster of buildings. In any case, construction will remain concentrated (for close communication) in a north-south band between parking areas to the east and open landscape - which could be more attractively developed—on the river side.

Circulation patterns

The site layout is based largely on the way residents and visitors move about in a home such as this. Most of the residents, whose average age is currently about 80, cannot travel very far or climb stairs, hence buildings have been placed close together and elevators have been located so that they are convenient for getting from one outdoor level to another. The variety of views compensates to some extent for limited mobility.

Visitors come in smaller numbers than they would, for instance, to a hospital of the same capacity. Those who do visit are usually familiar with the place, and do not necessarily use the main entrance or lobby. Except in bad weather, most of them approach on foot from the parking lot; the automobile entrance court is used mainly to pick up or let out residents or handicapped visitors. When it is comfortable outside, residents sit around the court on benches or chairs, observing the occasional car that enters-its speed reduced drastically by the small turning radius and the unwritten "slow" sign of the brick paving.

Employees, who outnumber visitors by a wide margin on most days, also enter through the new portion of the complex, at the east end near the parking lot. Although visitors can



enter there, through an unmarked door, the prominent stairway and the canopy leading to the lobby shows where they are *supposed* to go.

Building into the slope

The ground floor of the new additions is actually below ground at some points and a full story above grade at others. The structure is wrapped around a knoll on the west side of the original mansion and is notched into the slope. The ground floor meets the original grade on the west side and at the entrance court to the east; at the southwest corner, the land slopes down another full story, leaving space for commercial rooms on the floor below.

Since the lounges under the terrace face outward only on the west side, it was important to introduce sunlight to the interior portions. Skylights and monitors were considered, but penetrating the terrace would have raised detailing problems; instead, a well was left open around an existing tree, letting in light from several directions and opening additional views.

Although many of the sitting areas on this floor—and some outdoor sitting areas, as well are near the entrance lobby, there are no seats in the lobby itself. Lobby seating tempts some residents to wait long, depressing periods for visitors.

Some of the materials of the exterior-board-formed concrete walls and slate paving-reappear inside these spaces. Against these neutral-colored materials, and the off-white of most walls and ceilings, the architects and their furnishings consultant have used bright blue, green, yellow, orange, red, and magenta-in painted wood, carpet, and upholstery (most of it plastic for sanitary reasons). These vivid colors, in combinations that "almost clash," not only cheer up the residents but help them to see objects and identify locations.

Above the first floor, the residential block has three floors, each housing 40 people. All of the floors have identical central cores, including dining rooms

Meandering patterns of concrete planting boxes and brick paving on the terrace (left) tie it visually to the residential block (background). A sunken sitting area (foreground), with only earth beneath it, will be shaded by full-grown trees. Two tiers of raised planters will shelter the benches in this area (not shown in photo) from river breezes. The main lounge (top right) has two floor levels; the upper alcove (right in photo) overlooks the larger, lower area and the landscape beyond. Objects loaned by the Jewish Museum in New York are shown against the concrete and slate surfaces of the main lobby (middle right).













THIRD FLOOR PLAN

0 10 20 20 40

Residential floors open onto sheltered balconies at the end of each corridor (top left and facing page). In the individual resident's room (middle left), the brightly painted air conditioning enclosure is set to one side, leaving a floor-to-ceiling pane of glass near the head of the bed. The wall behind the bed is smooth, white painted plaster; the ceiling and opposite wall are sandfinished in a neutral color close to that of the stuccoed soffits and concrete columns, which continue the same planes outside the windows. where those who can leave their beds, but cannot make regular trips to the central dining hall, can gather at meals. Each dining room has wired-glass walls (required by city hospital regulations) facing a corridor lounge that overlooks the river.

Floor-to-floor variations

Around the core are four corridors laid out in a pinwheel plan, each opening at one end onto a balcony. The direction of the pinwheel, hence the location of the balconies, alternates from floor to floor. The sight of a balcony from any point in the corridors is a constant reminder to residents that they can sit outside. A few residents in single rooms have private balconies (onto which their beds can be wheeled), which are on the roofs of double rooms below them.

On these three floors bright color is used mainly for identification. At each elevator stop, for instance, a panel of a distinctive color—yellow, blue, or orange—is seen. On each corridor, the room doors have a distinguishing color—in a lighter shade on the part the resident uses, in a darker shade on the leaf that is open to let a bed pass through. The rooms themselves have small areas of bright color in air conditioning enclosures, upholstery, etc.

Throughout the Hebrew Home additions, variety in space, color, and outlook has been obtained, often with obvious intent but never at the sacrifice of sound planning. The lucky people who live here have the reassurance that they need in their critical period of life, without the dullness and conformity we all associate with institutional living.

FACTS AND FIGURES

Additions to The Hebrew Home for the Aged at Riverdale, Bronx, N. Y. Architects: Gruzen & Partners (formerly Kelly & Gruzen). Partner-in-charge: Peter Samton. Associate: Lloyd H. Siegel. Landscape architects: M. Paul Friedberg & Assocs. Engineers: Paul P. Valerio Assocs. (structural); Seelye, Stevenson, Value & Knecht (mechanical). Furnishings consultants: Bill Bagnall Assocs. Building area: 101,250 sq. ft. Cost (including furnishings): \$3,200,000. PHOTOGRAPHS: John T. Hill, except

page 90 (top), Thomas Airviews, and opposite page, Peter Samton.





FORUM CONT'D

involve students with local neighborhood groups. A special summer work program is planned, too, in eight of the major cities chosen for model cities planning, with student architects and planners acting as advocates with community groups. Several foundations have been approached for support.

Students interested in working this summer can write for application blanks to Johnson Collins, c/o C. Richard Hatch Associates, 2700 Broadway, New York City.

HARANGUE

The proposed 1.3-mile-long \$150-million expressway, which would run through New York City's lower Manhattan, is still in trouble. One reason: opposition from the thousand or so residents who would be displaced by the highway. Another reason is the likely destruction of some of Manhattan's best cast-iron buildings.

A stormy, four-hour hearing on April 10, attended, in the course of the evening, by about a thousand people, showed that the opponents are as vocal as ever.

The hearing, sponsored by the New York State Department of Transportation, is required by law. At the hearing (in addition to admitting testimony pro and con), the department should have presented a study of the economic effects that the expressway would have on the community.

But no such study was presented. Instead, the State Department of Transportation distributed an illustrated promotion piece entitled, "Better Lower Manhattan." The glossy pages promised better housing, parks, and schools, but failed to say how the state would build them.

The evening began in an uproar, with displays of posters protesting the expressway. The denouement came when Jane Jacobs, one of the most voluble critics of the plan was asked to speak.

Berating the state officials for not wanting to listen and accusing the city of being like "an insane asylum run by its most far-out inmates," she proposed to lead a "peaceable" demonstration, and marched up to the stage with a number of her "followers." At that point things really got out of hand. Someone kicked the court stenographer's tape-machine off the stage and the audience began tearing up the tape. Jane Jacobs was arrested and, later, charged with second-degree riot (sic!)

Whether these fireworks helped or hindered the expressway is a moot point. Some of its opponents claimed that the hearing was a farce, anyway, since state and city officials were determined to go ahead with the expressway irrespective of testimony offered at the hearing. If so, it will be another case of shoddy or nonplanning. According to Paul W. Douglas, a private citizen, no planning study of the area to be affected has ever been made; nor has an objective housing study been undertaken to determine how many people would really need relocating (according to the critics, the Transportation Department's estimate is way below actual figures); nor does the department have one penny in commitments for construction of the housing, parks, and schools that it promises.

LAURELS

AWARDS

The sixth annual Bard Awards for excellence in architecture and urban design were presented on April 25 to four New York City projects completed since January 1, 1966: the Whitney Museum of American Art (top right), Marcel Breuer and Hamilton Smith. architects; the Ford Foundation Building, Kevin Roche, John Dinkeloo & Assocs. architects (below); Paley Park (center right), Zion & Breen, landscape architects; and the New York Shakespeare Festival Public Theater, Giorgio Cavaglieri, architect (bottom right).

The jury was composed of Architects Ulrich Franzen, Percival Goodman, Victor Lundy;







Landscape Architect M. Paul Friedberg; and Stanley Turkel, president of the City Club of New York, co-sponsor with the J. M. Kaplan Fund.

• At the Saratoga Performing Arts Center on May 7, 12 recipients of the 1968 New York State Awards, presented by the New York State Council on the Arts, received, in recognition of outstanding contributions to the artistic enhancement of the state, a clear plastic construction by Sculptor Louise Nevelson. The winners: Albright-Knox Art Gallery, Buffalo; Art on Tour, Scarsdale (which circulates art exhibits to schools); Alfred H. Barr Jr. (Counselor to the Trustees of the Museum of Modern Art); Eastern Airlines (for sponsoring a new production of Der Ring des Nibelungen at the Metropolitan Opera); Endo Laboratories Inc., Garden City ("for commissioning Architect Paul Rudolph to create their . . . headquarters"); the Ford



Machine art-The drawing, opposite, by a Yale student in environmental design called Richard Jay Solomon is described, by him, as "a serious solution to the Urban Service Station Problem- a self-service gasoline vending machine." Mr. Solomon describes himself as an "undiscovered prophet of the First Machine Age." He may, henceforth, consider himself discovered; but we disagree with the antecedents he claims for his astounding machine. The tall lantern is, obviously, early Midway Gardens; while the self-service attachments are straight neo-Dentistry.



Foundation (same reason, different architects — see Bard Awards, above); The Hudson Valley Philharmonic Society, Poughkeepsie (above); Lake George Park Commission, Ticonderoga (for scenic preservation); Paley Park (see also Bard Awards); the Society for the Preservation of Landmarks in Western New York, Rochester; the Waterford Historical Museum and Cultural Center; and WBAI-FM, New York City.

BIG PLANS

ST. LOUIS RIVERFRONT

St. Louis will have to decide which of the two proposed urban renewal schemes will do more for a section of its blighted riverfront, the nine-block, 22½-acre area between Eads and Veterans bridges, just north of Saarinen's Gateway Arch (below).

The area is of historic interest: its buildings are the last of the old post-fire (1849) riverfront architecture, which constitute the city's small remaining concentration of iron fronts.

The two plans represent divergent approaches to urban redevelopment, with different emphases on future uses of the site.

River Center, the plan submitted by Architects Schwarz and Van Hoefen for the River Center Redevelopment Corp. (top right) with Arthur Klein as development consultant, calls for total demolition of present buildings, and development of the site as primarily a residential and commercial district, with some tourist facilities on the levee. This plan, which has the new participation of the America 2000 Foundation, an offshoot of the Teamsters Union, would cost an estimated \$70 million.

The Laclede's Landing plan (right), submitted by Hellmuth, Obata, & Kassabaum for the Levee Redevelopment Corp., would retain over 50 per cent of existing buildings, converting them into specialty shops, offices, and apartments. The plan emphasizes tourism, recreation, entertainment, and street life. There would be some housing and offices. The area would retain the intimate scale that it now has. Total estimated cost: \$64 million.

Both plans are revisions of earlier schemes, presented to the commission over a year ago. The commission had turned down the Laclede's Landing plan objecting (a) to the planned continuation of present industrial uses; (b) to what it felt to be underdevelopment of the site; and (c) to the plan's lack of detailed suggestions for use.

The first River Center plan had trouble with the National Park Service over its building heights. The revised plans have met these objections.

The Laclede's Landing plan is strongly favored by public opinion and by George McCue, art and urban critic of the *St. Louis Post-Dispatch*, who has likened the plan to Ghirardelli Square in San Francisco (June '65 issue) "with its own character . . . a riverfront attraction, with which visitors could feel at ease."





McCue and others have scored the competing plan for what they consider to be its excessively high density; for incorporating family units when no schools have been planned; for its complicated vehicular access; for the generally unimaginative conception of the scheme; and for its suggestion to recreate some of the historic buildings as "goodies" for the tourists. McCue has gone so far as to say that River Center is a flop.

Final decision rests with the Board of Aldermen, which will act on the issue within the next few months.



WALK-OUT IN BROOKLYN

On Friday, April 5, the students of the School of Architecture at Pratt Institute in Brooklyn laid down their T-squares and took up placards with demands such as "architecture now," "a better world," and "Grossi go home."

Olindo Grossi, who became Pratt's first dean of architecture 14 years ago, must have wondered (like so many mayors a few days later), "Why did it break out here?" Student dissatisfaction is endemic in architecture schools today, at a time when the whole profession has doubts about how architecture should be taught (and when the country's busy architects are less concerned than they admit about education).

At least superficially, Pratt has moved ahead more rapidly than most schools. Over the years, emphasis on technical research and urban planning has increased steadily; recently, the problems of the neighboring Bedford-Stuyvesant ghetto have been explored.

Yet it was at Pratt that the students demanded a complete overhaul, and backed it up with a boycott that cut class attendance to less than 25 per cent. They demanded—as a condition for any objective reappraisal — that all members of the school's administration resign their posts in it (but not necessarily the faculty posts that most of them also hold). They listed grievances that ranged from "deplorable" physical facilities to "apathy on the part of the faculty" and demanded that a committee of experts unconnected with the school be convened to set up a new program.

About a dozen of the schools 70 faculty members openly supported the boycott. A typical opinion: "The kids are right; the way the school is run is demoralizing." Others on the staff were skeptical about the motives of the boycott or placed blame on the institute trustees, rather than on the dean. Some of them questioned the students' call for more involvement with ghetto problems; without sophisticated leadership, a band of sophomores setting out to solve the ghetto's problems could do more harm than good.

After a few days of boycott, the faculty proposed that the whole problem be turned over to a committee of eight students, eight faculty members (none from the administration), and eight outside experts. The institute president seemed willing to accept this arrangement, but the students, having tasted power, were cool to it.

A week after the revolt began, spring vacation imposed a truce. But for many of the students, it was no vacation; it was a time to hammer out a unified position on what should be *done* at Pratt. As they have undoubtedly found out, it is always easier to agree on what is wrong than on ways to put it right.



"ULM DOESN'T SUIT US"

An issue of somewhat graver implications involves a solid front of students and faculty at the School of Design at Ulm, in West Germany. At issue is the existence of the school itself.

Faculty members were notified in February that their contracts would be terminated next fall. Unless an alternative can be found, the school will merge with Ulm's state-owned School of Engineering. This, for all practical purposes —and despite official assertions to the contrary—will signify the end of the design school, which has become one of the most influential in post-war Europe (frequently called the "new Bauhaus").

The school was founded barely 14 years ago in memory of a revolutionary act, committed by two students who were murdered for it by the fascist regime. Walter Gropius is its "honorary master," and the faculty has included such leaders in architecture and design as Max Bill (architect of the building), Tomas Maldonado, and Konrad Wachsmann.

The ostensible reason for the merger is financial. The foundation that has backed the school since its beginning is bankrupt and will be dissolved. The federal government in Bonn which, up till now partially subsidized the school, refuses to continue support. "Culture is the state's problem," it maintains. So far, however, neither the state nor any other organization has offered to provide the additional \$75,000 needed annually.

But other, political reasons are suggested. "It is the whole direction that doesn't suit us, and which we must get our hands on," an official purportedly has said.

The school body has launched an appeal to save the institution.

TOWARD A COOL SUMMER

Learning and fun, in varying degrees, are the objectives this summer of two city-sponsored mobile amenities for young people.

Wherever there is a fire hydrant in Rochester, N.Y., is an ideal parking space for the city's Bureau of Recreation's "Swimobile," a 30 ft. by 8 ft. modified dump trailer body built of corrosion-resistant aluminum by the Fruehauf Corp. The city will provide swimming instruction for children of disadvantaged areas in the 3-ft.-deep pool, considered ideal for six- seven- and eight-year-olds. In Memphis, Tenn., the Board

of Education has instituted a pro-

gram called Mobile Science Services comprised of three traveling units, two of which are planetarium-laboratory combinations and the third, a laboratory alone. Although used in conjunction with school-year curricula, the labs will move to the field this summer for biology courses or to supplement hospital training for se-



lect students. The units are fully staffed by a team of specialists.

The planetariums seat 20 students on a semicircular couch, with headsets, around the projectorconsole and beneath the 10 ft. glass-fiber dome (above).

PEOPLE

HONORS

The City of Berlin has awarded its annual Art Prize in the field of architecture to Dr. Erwin A. Gutkind, Senior Fellow of the University of Pennsylvania's Institute for Environmental Studies.

Dr. Gutkind was cited for his design of buildings and large housing projects in Berlin; for his role in the advancement of the city's planning; and for his contributions to city planning in general.

His most significant work is the ten-volume study entitled International History of City Development," which he has undertaken under the auspices of the Institute for Environmental Studies at the University of Pennsylvania. The first three published volumes mark this as one of the major contributions to the history of urban design.

The Berlin Art Prize, founded in 1948, has been awarded previously to Architects Mies van der Rohe and Wassili Luckhardt.

DIED

Dr. Sigfried Giedion, leading architecture historian, died last month in Zurich at the age of 75. Apart from his work as a writer and teacher, Dr. Giedion's most important activity was in CIAM (Congrès Internationaux d'Architecture Moderne) which, with Le Corbusier, he helped found and develop. But he is perhaps best known for his two monumental books: Space, Time and Architecture, and Mechanization Takes Command, based on the Charles Eliot Norton Lectures presented at Harvard in 1939.

He joined the faculty of the Federal Polytechnic in Zurich in 1947; taught at MIT in 1950-51, and at Harvard from 1954-65, as visiting professor.

IN MEMORY OF STAN TANKEL

April 2nd was a lovely sunny day in Washington Square, in Manhattan, outside the Judson Memorial Church. Inside the church there were very many people crowding the aisles, listening to Rev. Howard R. Moody talking about Stanley Tankel. Tankel had been a close and intelligent and entertaining friend to all of them for some years-not one of those do-gooders, but a man who had had a very special rapport with those who were the objects and subjects of his profession, which was planning.

Stanley Tankel would have liked that service: about half the people in the Judson Memorial Church were teenagers or young men and women in their early twenties. They had known him not only as a special champion of Greenwich Village and of the city as a whole, but also as a guitarist, a teacher, a delightful talker—a human being.

Then there were the professionals: architects, planners, rebels, writers, politicians, administrators. He had been on any number of worthwhile commissions — Landmarks Preservation, Open Space Action, and so on—but, mostly, he had served since 1960 as planning director of the N.Y. Regional Plan Association; and its Second Regional Plan, soon to be released in full, owes as much to him as to any other professional in that remarkable group.

Stanley Tankel was only 45 years old when he died, and no amount of talk could erase that ridiculous fact. As the service ended and those inside the church walked out into the sunshine, and into Washington Square, they were sure he would have enjoyed that day. He had always been, above all, a champion of the city—and here the city was: bright, lively, full of color and of sound, even a guitar somewhere in the park.

Wolter MiQueile

ON SITE

On even the greatest of architectural commissions, they tell me, nothing ever goes quite as well as it should. The problems outweigh the pleasures, partneral tensions intervene, and—at the end, as shown in the large photograph there still linger certain doubts. However, it still may be a better profession than law or medicine.









Photographs: Page 38, Joseph P. D'Urso (top); San Francisco Chronicle (right). Page 39, Tass from Sovfoto (left); Bragstadt (top); Ivan Maesar -Black Star (right). Page 97, Ezra Stoller (bottom and top right); Eugene Cook for CBS (center right); George Geerna (bottom right). Page 98, Frank Wright (top left); courtesy Schwarz & Van Hoefen Architects (bottom and top right); Rendering by Carlos Diniz Associates (right). Page 99, Cornelius Reed Jr. (bottom); Neuman-Fury (top).

START WITH WOOD

FINISH WITH OLYMPIC STAIN Costs less than paint. Lasts longer than paint. Easier to apply than paint. Protects wood with P.M.O. Guaranteed not to crack, pe

Guaranteed not to crack, peel or blister. 66 Colors, solid or semi-transparent.





Wood: cedar shingles. Architects: Bennett & Johnson, A.I.A. / For color samples on wood and A.I.A. Manual write Olympic Stain, 1118 N.W. Leary Way, Seattle, Washington.

PREVIEW

The idea of stringing diverse facilities together in a continuous, linear structure—already tested in town centers and single-structure campuses—has now been applied to the zoo. The resulting design makes one wonder why zoos were ever laid out any other way.

This breakthrough in the animal world has been made by Architects Perry, Dean, Hepburn & Stewart in their master plan for the Franklin Park Zoo in Boston (where an avant-garde aquarium by the Cambridge Seven is about to open). The new zoo, to be built for the Metropolitan District Commission and financed by the state, will replace (in stages) a smaller, rundown facility on the same site.

The main portion of the project (model photo) is organized around a multilevel spine, which is crisscrossed by a network of open walks. The lowest level of the spine structure (section, left), will



be devoted to service and parking. Above that will be the "winter zoo," an enclosed, climate-controlled space for animals—and visitors—requiring shelter from the Boston weather. The top level will be a "summer concourse," to be used when both animals and people can enjoy being outdoors.

These two levels will not be just the interior and exterior of the conventional zoo pavilion, rearranged vertically. Both levels will overlook open paddocks as well as sheltered quarters; when the lion (far left) or the giraffe (top right) step outside, visitors will merely walk along or across a concourse to follow their movements

The design includes many other refreshing ideas. Birds will share the big flight cage (section, left) with the animals and trees they would live with in nature. Minitrains will pass through this cage as they loop around the grounds; at the north end (not shown on plan), the tracks will skirt an otter pond (middle right), next to an outdoor walk which will run on top of a below-water passage.

The selection of animals will concentrate on hardy species, rather than exotic ones (Siberian tigers, for instance, instead of tropical ones). As many animals as possible will live in active groups, rather than in boring isolation. Visitors will see mountain goats scaling ledges above the otter pond (middle right) and baboons clambering over their rocky island shelter (bottom right). Existing trees and rocks will be saved as settings for animal activities.

Only the first \$2-million stage of the plan (estimated total cost: \$18.5 million) has been approved for construction. This nucleus—if it measures up to the architects' intentions—should encourage the state to complete the scheme soon.





The number is Menlo 921L

Your number for efficiency. Functional, contemporary beauty. Menlo captures the style, quality and security typical of each Corbin UNIT[®] Lockset. You'll also find these features in the complete line of Corbin exit devices, door closers and other types of locksets.

Your Corbin distributor can furnish you with complete data on this design, or write P. & F. Corbin, Division of Emhart Corporation, New Britain,





Antron picks up just as much day-to-day soil as any other carpet fiber. But your clients will never believe it.



"Antron" fiber balances light to look clean.

"Antron" is the surprising new fiber from Du Pont that keeps its new look longer—and keeps the appearance level of the busiest buildings at their highest.

Even light colors look clean longer, because Antron* nylon minimizes the appearance of soil. Some carpet fibers are transparent, so you see not only the dirt on the side facing you, but the dirt on the opposite side is magnified. "Antron" is different. It is specially structured to be opaque. It controls absorbed, reflected and transmitted light to minimize the appearance of soil.

And "Antron" is remarkably durable. It resists crushing, pilling and fuzzing and is easy to clean.

When you combine all these benefits, your clients end up with carpets that need less frequent cleaning and keep their new look longer. Carpets with pile of "Antron" deliver a long term saving. And *that's* something you *will* believe!

"Antron" is the optimal carpet fiber for high traffic areas and is available in a wide variety of contract styles from leading mills. Ask MOHAWK about "Majesta."

For a free brochure on "Antron" (and Du Pont's other contract fibers) write: Contract Carpet Specialist, Du Pont Company, 308 East Lancaster Avenue, Wynnewood, Pa. 19096.



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

Cabin Crafts Carpet passes first year

Color was the first reason why Cabin Crafts carpets were recommended over other brands for the beautiful San Domenico School for Girls in California.

"We were pleased with Cabin Crafts' greater variety of colo combinations," says a spokesman for the San Francisco firm o Richardson Contract Furniture Co. "We wanted to create a warm, home-like feeling with these color combinations in carpe



at San Domenico school with flying colors.

hat still had a good commercial grade of wear."

Sister M. Maurice, O. P., Principal of the School, is most npressed with the acoustical benefits of the carpet and its ease f maintenance. As she says enthusiastically, "The more we can et of it—the better!"

Cabin Crafts offers a complete line of contract/commercial arpets specially engineered for heavy-traffic installations. They're

made of fibers that have been proved for durability and easy maintenance, such as Acrilan[®] acrylic. Cabin Crafts contract/ commercial carpets are setting excellent performance records in schools, hospitals, hotels, motels, offices, restaurants and other public installations.

For on-time deliveries in any quantity you need-from a school to a skyscraper-specify Cabin Crafts carpets.



San Domenico School for Girls, the oldest girls' school in California, found a new home nestled serenely among rolling hills and valleys. The beauty outside s echoed indoors with handsome, yet serviceable furnishings...including Cabin Crafts carpets.



For practicality as well as a home-like feeling of warmth, dormitory living rooms at San Domenico are carpeted with Cabin Crafts "Foothill." This carpet pile is a durable construction of Acrilan[®] acrylic especially engineered for contract/ commercial installations.



Now one year old, the San Domenico School shows by its immaculate cleanliness the importance placed upon maintenance. The installation of Cabin Crafts carpets, even in heavily-traveled corridors, contributes to the ease and economy of upkeep.

For more information or a representative to contact you, elephone Cabin Crafts' Contract Information Services at any of the following numbers: Dalton: 404-278-1100 New York: 212-684-5200 / Chicago: 312-644-2136 San Francisco: 415-861-3144/Los Angeles: 213-627-5888 Dallas: 214-741-6378.

Be sure to ask for the Contract Information Services Manager.

Cabin Crafts makes the Contract Carpet that makes specifying easy.





Carpet and Rug Division Dalton, Georgia 30720

PREVIEW

At first glance, a rendering of the 54-story office slab to be built in Manhattan for U.S. Steel suggests nothing revolutionary. But the design, by Skidmore, Owings & Merrill, breaks many precedents.

For one thing, the project includes a whole city block of public plaza, across the street from the building, which the city was willing to consider part of the site in calculating allowable floor area (more than two million sq. ft.). The project will complete a chain of public plazas stretching from the World Trade Center, past the Marine Midland Building (Apr. '68 issue) to the Chase Manhattan Bank. Equally important links will be made underground.

A year of research led to numerous innovations in the building's layout and structure. The most visible of these will be the exterior structural grid of graypainted steel (bottom right). Under current plans, the outer faces of the spandrel beam webs (shielded from fire by projecting flanges) will be covered only by a ½-inch fireproof coating.

Inside, the 45-ft. space between core and exterior walls will be spanned by a newly developed concrete and steel floor system. The unconventional layout of the core will make the space gained on upper floors (see floor plan) adaptable to a wide variety of uses.







BIG STEEL IN NEW YORK

How to be alone in a crowd.



Just before that English mid-term, trig final, or any time the situation calls for "booking it", a student studies best when he's alone. But around test time, libraries and study lounges are mighty popular and crowds form fast. That's where the American Seating Study Carrel comes in – to shut *out* noises and distractions. Why American Seating? The big plus is flexibility. Name the study situation – then arrange our Study Carrels to fit it.

There's more: an attractive Amerex[®] side and front panel and a durable, easily cleaned Corktone Amerex writing surface. The offset pedestal standards let a student slide in and out with ease, and give him more leg room once he's seated. Carrels are available in a variety of models and may be equipped for communication with electronic resource centers.

Help students get out of the crowd with our easily installed Study Carrels. Talk to your American Seating educational equipment specialist or write to Department AF-658-A, American Seating Co., Grand Rapids, Michigan 49502.





Upto

Since 1894, the name Aberthaw has been identified with quality construction, on-time performance, and on-target costs. From soaring high-rise to sprawling low-rise, our unex celled capabilities have produced many of the finest commercial, industrial, research and municipal structures across America.

jg?

Boston Company Building — Boston, Massachusetts / Architects — Pietro Belluschi and Emery Roth & Sons.

60 State Street, Boston, Massachusetts 02109 / South San Francisco, ABERTHAW CONSTRUCTION CO.

California / Philadelphia, Pennsylvania / Washington, D.C.

That's the way things must go when your "total environment" project starts moving. Then, saving time, money and frustration get first priority. That's when the "every day" convenience of The Merchandise Mart's *total* contract show becomes so extremely valuable. You can find what you want when you want it. 712 attractive, well-organized showrooms present more than 2,000 lines that include every type of furnishings product. With expertly trained staffs to help you. All under one roof. Which is why this thought is worth remembering.

> The Merchandise Mart Contract Center is the only "contract show" in the country where you can see full-line displays in all categories of interior furnishings. And it's open every day.

At the A.I.A. Convention, we'll be in Booth 334. Stop in and let us tell you more about what The Merchandise Mart can do to serve your professional interests.

THE MERCHANDISE MART

CONTRACT HEADQUARTERS FOR: ALL FURNITURE & FURNISHINGS • LIGHTING & FIXTURES • DRAPERIES FABRICS • LINENS • BEDDING • FLOOR COVERINGS • WALL COVERINGS • KITCHEN EQUIPMENT & APPLIANCES DECORATIVE ACCESSORIES • CHINA, GLASSWARE & TABLEWARE • RECREATIONAL EQUIPMENT & GAMES

If you would like to receive a complete directory of the more than 2,000 lines in The Merchandise Mart Contract Center, please write: The Merchandise Mart, Room 830, Chicago, Illinois 60654.

exhibition unlimited

The almost limitless number of color combinations available in granite from Georgia Granite Company suggests the variety of treatments which the architect can employ. From the light grace of Salisbury to the solid magnificence of Jet Mist a color can be chosen to reflect the design and purpose of the structure. Since the supply of these granites is almost inexhaustible, later expansions will present no problem of duplication of colors. Different appeal can be achieved according to the architect's selection of finishes. Sanded, Hones, Thermal Texture, Polished, Split—each has its application appropriate to the structure. Samples for job specifications are available on request.

THERMAL

TEXTO

The Georgia Granite Company

A Division of Coggins Granite Industries, Inc. Elberton, Georgia 30635 Phone (404) 283-2252

ROWAN-POLISHED

OYAL

PEARI

-POLISHEI

ISBURY

Ready to talk Electric Heat? Talk to an Electrical Contractor.

One reason: the qualified electrical contractor has plenty of experience with electrical heating systems. But that's only part of the story. Electric heat is an electric function and should be the responsibility of an electrical contractor. He's the one man who can furnish, install, connect and inspect electric heating equipment—and see the job all the way through from plans to permit to operating guarantee. So talk to a qualified electrical contractor. Then put the heating specs into the electrical section of your building plan. That way your electric heating system will be furnished and installed by the man able to take single responsibility for the single best heating system.



Your Qualified Electrical Contractor NECA-National Electrical Contractors Association, 1730 Rhode Island Ave., N.W., Washington, D.C. 2003





One coordinated collection...

Total color choice

Never before so many! 68 new solids... a totally new collection for soft and subtle, bold and bright ideas.

New solid colors...in the new suede finish...go with our patterns and each other, beautifully. As never before you can design color schemes in laminate, in depth, with confidence.

Go ahead! Be a schemer with, for example, 11 yellows or 15 neutrals. Somewhere there's a shade that's just right.

Samples are yours for the asking from your Formica representative. Or write for a free chart of all 68 exciting new colors.

Send for your free color chart today!





There are other brands of laminated plastic but only one



CYANAMID

Formica Corporation • Cincinnati, Ohio 45232, subsidiary of

Take a fresh look at this terminal for our induction reheat system-it's new!



This sketch shows one of the new Carrier terminals used with our high quality single duct, constant volume system.

The system provides superior individual room control of heating and ventilating only or complete air conditioning.

And the new Carrier terminal, in two important ways, improves on a performance that up to now set the standard for this type of unit.

- (1) It's even quieter than the previous model-
- yet delivers higher capacity per unit.
- (2) It has higher reheat capacity per lineal inch-

so you can save space using smaller unit sizes.

Your choice of five models—available in 7 attractive decorator colors. Choice of steam, hot water or electric heat. Plus a large line of accessories. Capacities: 75 to 800 cfm.

For complete information about our new terminal, call your nearest Carrier representative. Or write us at Syracuse, New York 13201.

Carrier Air Conditioning Company













Great Chairs.

GREAT CHAIRS OF KNOLL, DESIGN EXCELLENCE PROVIDED BY THE LEADING DESIGNERS OF THE WORLD. KNOLL ASSOCIATES, INC., FURNITURE AND TEXTILES, 320 PARK AVENUE, NEW YORK 10022.



KNOLL INTERNATIONAL OPERATES IN 29 COUNTRIES.



SCHOKBETON®

Another outstanding example of Schokbeton's design plasticity.

Schokbeton precast concrete multiple-window curtain wall Michigan Consolidated Gas Company Building Grand Rapids, Michigan Architect: Daverman Associates Contractor: Barnes Construction Co., Inc. Precast: Precast/Schokbeton, Inc.

For the best in precast concrete, specify Schokbeton

EASTERN SCHOKBETON CORP. A Subsidiary of U.S. Pipe and Foundry Company 441 Lexington Ave., New York, N.Y. 10017

EASTERN SCHOKCRETE CORP. A Division of Granite Research Industries Inc. 65 Mountain St. West, Worcester, Mass. 01606 P.O. Box 56, Brandywine, Md. 20613

PRECAST/SCHOKBETON, INC. PO. Box 2088, Kalamazoo, Michigan 49003 30 No. LaSalle, Chicago, Illinois 60602 18510 James Couzens Hwy., Detroit, Michigan 48235

MABIE-BELL SCHOKBETON CORP. P.O. Box 1558, Greensboro, N.C. 27402 Peachtree City, Georgia 30214 P.O. Box 47546, Miami, Florida

INLAND SCHOKBETON A Division of Nebraska Prestressed Concrete Co. P.O. Box 29208, Lincoln, Nebraska 68529

ROCKWIN SCHOKBETON Division of Rockwin Prestressed Concrete Corp. Subsidiary of United Concrete Pipe Corp. P.O. Box 2536, Santa Fe Springs, Calif. 90670

SCHOKBETON INDUSTRIES, INC. Loop Road—P.O. Box 780 Crockett, Texas 75835

BUEHNER SCHOKBETON COMPANY 301 West 60th Place, Denver, Colorado 80216 5200 South Main St., Salt Lake City, Utah 84107

BASALT SCHOKBETON A Division of Basalt Rock Company, Inc. P.O. Box 2540, Napa, California 94559

CANADA SCHOKBETON QUEBEC INC. P.O. Box 240, St. Eustache, P.Q., Canada

CONTECH SCHOKBETON Division of Concrete Technology (B.C.) Ltd. 790 Nelson Road—P.O. Box 68 Richmond, B.C., Canada



Your college contribution is a round-trip ticket

It's good both ways.

First, it helps higher education accomplish its mission of producing leaders for America.

The trip back brings industry its most important resource college-educated talent.

These young leaders come fresh with brainpower and

COLLEGE IS BUSINESS' BEST FRIEND.

The Advertising Council and the Council for Financial Aid to Education

Published as a public service in cooperation with

knowledge; they fill the ranks of management.

The colleges need business help —and welcome it.

Especially now, when they are facing rising costs and increasing enrollments.

If business wants college talent, it will have to keep the col-



leges in business.

Help them finance their expansion—their buildings, lab facilities and, above all, their teaching staffs.

It's good business insurance it's good business.

Your aid-to-education program is an aid to yourself.

SPECIAL TO MANAGEMENT—A new booklet of particular interest if your company has not yet established an aid-to-education program. Write for: "The Rationale of Corporate Giving", Box 36, Times Square Station, New York, N. Y. 10036



Less than 10 minutes from Broadway. In the Garden State of New Jersey. A stone's throw from one of the world's busiest turnpikes. 1000 weedy, swampy acres, euphemistically called "the Meadows," virtually thrown away.

Adjacent, the little town of Secaucus meanders along for about 6 miles, dotted with small private houses, a motel or two, warehouses, a mail-order store, a bowling alley. 13,000 people call it home.

What would you do to rescue this vast wasteland, comparable in size to nearby

Manhattan Island which supports nearly 2 million (not including tourists)? Would you make it the Manhattan Manhattan might have been?

With its strategic location, couldn't the Meadows attract big industry? Which would lead to more employment for more people? Better housing? Better schools? A recreation center, perhaps? Just what are the answers? We'd like to help find them.

That's the purpose of the Eaton Yale & Towne Urban Design Fellowship. The award, administered by the American Institute of Architects, provides for one year of graduate study in urban design at an American University and a follow-up tour of urban developments abroad.

This is only a small step forward, we know. But it's in the right direction. During 100 years, we've never stood for ugliness in anything we've made. Now, we find we can't stand for it in anything.





Architect: Robert Hagman American Savings, San Jose, Calif. It's Gail Brickplate for floors and walls, the basic ceramic tile used on Europe's prestige buildings for generations and now sweeping this country. Here are just a few of the reasons top American architects are discovering more and more uses for Brickplate: = BRICK-PLATE gives a custom solution at a standard price . BRICKPLATE comes in glazed and unglazed finishes BRICKPLATE is frostproof = BRICKPLATE is only a tile thick BRICKPLATE has a keyed back for secure attachment without mechanical ties . BRICKPLATE has outstanding abrasion and chemical resistance. Write today or give us a call for more information on this beautiful man-made product with the density of natural granite.



CORPORATION 582 Market Street San Francisco, California 94104 See our catalogs in SWEETS

INTERNATIONAL



Fine buildings deserve Fine Furniture Send for Executive Office Booklet: Kittinger Company, min 1925 Elmwood Avenue, Buffalo, New York 14207. A Division of General Interiors ATLANTA BOSTON BUFFALO CHICAGO DALLAS LOS ANGELES NEW YORK SAN FRANCISCO SEATTLE

Cordley Semi-Recessed-built-in styling to enhance any wall area.









Cordley Compartment-hot & cold

Cordley "Compact"-just 12" square and priced to please.

Cordley Bottle Cooler-all they require is an electrical outlet. Cordley Wall-Hung-trim and neat and remarkably versatile.

Drinking water anywhere... there's a Cordley Cooler that fits!

It's difficult to imagine a building blessed with too many drinking water coolers. And it's equally difficult to pick a location that isn't perfect for one of the more than 50 different coolers in the Cordley quality line.

That's why we make so many types, styles and models in such a complete range of capacities-to give you greater freedom of choice in meeting a wider variety of application requirements. Choose from conventional or compact floor style coolers for flush-to-the-wall or away-from-the-wall installations. Versatile self-contained wall-hung models for neat, clean off-the-floor applications. Or beautifully styled semi-recessed units to create a custom built-in look. For convenience and utility, there are compact bottle coolers that require no plumbing-just an electrical outlet. Compartment coolers that incorporate over one cubic foot of refrigerated



storage space, dispense either hot and cold or cold water only. Plus packaged water chillers that can be installed anywhere to service several remote fountains or supply cool water for various commercial and industrial processing applications.

You'll find detailed specifications on the complete line of Cordley quality water coolers in Sweet's Architectural & Industrial Files. Or, we'll gladly send you a copy of our new catalog C-150.

Over 75 years of specialized water cooling experience



2345 West Maple Road • Troy, Michigan 48084 • Telephone 313/644-5700

Cordley Wall-Flush-designed



This is the latest thing in cheap, ugly metal buildings.



Not by a long shot.

Everything you see here was architect designed.

What you *don't* see is based on a pre-engineered Butler roof/ structural system.

Why should *that* interest an architect?

Because this system is designed to meet requirements for the basic structural system of stores, dealerships, branch offices, banks, and similar end uses. Even the supporting structurals for the fascia are integral—and available to support sloped, vertical, or any fascia design requirements.

ugly?

This Butler structural system furnishes economical clear-span interiors up to 120 feet wide, available from stock, in a wide range of practical sizes (In-stock designs meet national building codes).

Time-tested metal roof systems, insulated or uninsulated, provide superior protection and cost owners

Sales Offices and Dealers Nationwide
BUTLER MANUFACTURING COMPANY

7336 East 13th Street, Kansas City, Missouri 64126

much less per year to maintain.

Appearance is not compromised by structural requirements.

Pre-engineering and precision factory fabrication can assist you in your design and detailed engineering work; speed delivery and construction.

Learn more about all Butler systems, write: Architectural Systems Department, Butler Manufacturing Company, at the address listed below.



MANUFACTURERS OF METAL BUILDINGS . PLASTIC PANELS . EQUIPMENT FOR FARMING, TRANSPORTATION, BULK STORAGE, OUTDOOR ADVERTISING . CONTRACT MANUFACTURE

Takes more abuse than a poor relative

Doesn't mind how many people step on it. Or how often. That's our Flintpoint. Made of 100% Acrilan[®] acrylic pile, it was born to be abused. And to thrive on it. Its astounding ability to take punishment is hereditary. All the

carpets in the World family have it. Some more than others. Flintpoint, the most. That's why we recommend it for hotels, motels, banks, schools, libraries, restaurants, theatres and hospitals. Flintpoint never becomes footsore and weary. Doesn't even mind heavy furniture. And its short, sturdy nap discourages staining.

Yet Flintpoint is so modest in price that even institutions readily fit it into their budgets. It's so quiet, too, that no matter how shabbily it's treated, it won't make a sound. P.S. For more slender budgets and wherever the traffic is lighter, we recommend Rough 'n Ready, the junior partner of Flintpoint. Werld Carpets, Dalton, Georgia 30720.



NORTON CLOSERS CONTROL DOORS · NOT DESIGN







SERIES J1600 Top-jamb mounted closers featuring narrow styling to blend with the slim styling of modern aluminum door frames.





Top-jamb narrow-projection closers with covers in anodized or painted finishes to match hardware or door finish. Even where heavy traffic indicates the use of a door holder, there's no need to compromise the appearance of your entranceway. The unique Norton® combination of door closer and door holder, the Unitrol® control, provides the answer. All the functions of a closer and a holder in a single styled package. Mounted on the door-jamb to eliminate the cluttered look and improve the door silhouette.

SERIES J6120

Top-jamb mounted Unitrol® controls. A combined door closer and door holder with shock absorber to protect door, frame, and closer.



CONTACT YOUR NORTON REPRESENTATIVE FOR COMPLETE DETAILS.

EATON YALE &

NORTON DOOR CLOSER DIVISION