

EIGHTH ANNUAL DESIGN AWARDS



# Vina Lux & III Series

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The new standard of flooring performance in many heavy traffic areas is Vina-Lux 800 Series...the superior vinyl asbestos tile with distinctive styling that won't walk off or wear away because the color chips are evenly distributed at every level through the tile. Yet Vina-Lux 800 Series costs no more than ordinary vinyl asbestos tile.

In the Kansas City Public Library, Vina-Lux 800 Series provides quiet, slip-safe resilience underfoot. Its clean colors and unique styling complement architectural design and room decor. Available in 12 coordinated colors; 9" x 9" size; 1/8", 3/32" or 1/16" gauges. Consult Sweet's Catalog or write for samples and complete specifications.



#### AZROCK FLOOR PRODUCTS DIVISION

Specialists in the manufacture of vinyl asbestos tile and asphalt tile flooring UVALDE ROCK ASPHALT CO. • 521A FROST BANK BLDG. • SAN ANTONIO, TEX.





ASPEN a new B.F.Goodrich Koroseal vinyl wall covering

Aspen, latest fabric-backed Koroseal vinyl wall covering by B.F.Goodrich, comes in 23 wall-toned colors and features all of the maintenance-free qualities of other Koroseal coverings. It is scuff, scratch and stain resistant, flame-proofed and washable with soap and water.

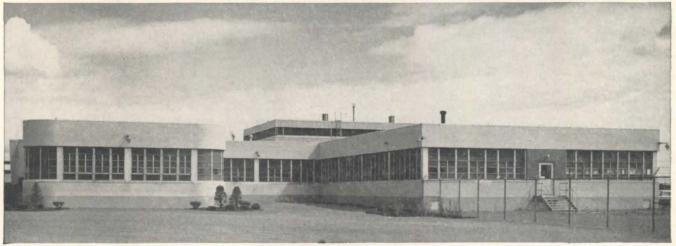
The durability of Koroseal drastically reduces one of the most costly building maintenance items, periodic wall repainting. Expensive labor, paint, and even complete shutdown of income producing space cut sharply into building operation profits. And painted walls usually begin to look shabby long before repainting takes place. Koroseal covered walls keep their rich, clean appearance for years. For samples of new Aspen or other Koroseal patterns, write Dept. PA-1, B.F.Goodrich Industrial Products Company, Marietta, Ohio.

Koroseal wall coverings blend beautifully with other functional low-maintenance materials such as ceramic tile, marble, wood, stone and brick.





## MISSISSIPPI GLASS . . .



Speer Carbon Company, Niagara Falls, N. Y. Laboratory glazed with 1/4" Luxlite Coolite, Glare Reduced One Side. Pilot house glazed with 1/4" Luxlite Coolite Wire Glass. Otto Preis, New York, N. Y. — Architect. Walter J. Johnson, Niagara Falls, N. Y. — Contractor. United Glazing Company, Buffalo, N. Y. — Glazing Contractor.



Borden Foods Company, Plymouth, Wis. South, east, and west elevations glazed with ½ Mississippi Luxlite Coolite, Heat Absorbing Glass. Cowell & Robinson, New York, N.Y., — Architects-Engineers. McDonough Construction Company of Georgia—Contractors.



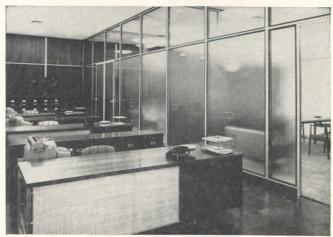


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Write for new 1961 catalog. Address Department 8.



#### MISSISSIPPI GLASS COMPANY

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MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



**DESIGN**—Clean, modern, practical with coved corners and dished bottoms makes them highly functional and attractive plus blending with all laboratory furniture.

**CORROSION RESISTANCE** — Made of modified epoxy resin, Durcon exhibits almost complete resistance to wide range of acids, alkalies, salts, solvents, and other organic chemicals.

**WIDE SELECTION**—Table sinks, end sinks, drainboard-sink units, double compartment sinks, cylindrical sinks, cup sinks.

**LIGHT WEIGHT**— Approximately 40% as heavy as competitive sinks. Normally thickness of stone or porcelain sinks is at least 1" while Durcon is but  $\frac{1}{2}$ " thick.

**LOWER COST**—Besides lower initial cost, there are savings on freight and installation.

**EASIER INSTALLATION**—One man can easily install a Durcon sink either under table top or free standing. No hydraulic jack required as for ceramic or stone sinks. Less weight means less complicated supports.

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All Durcon sinks stand up under hard service without cracking or spalling. Thermal shock has no effect. For further information and prices, contact your Laboratory Furniture Manufacturer or write for new Bulletin PF/5a.

THE DURIRON COMPANY, INC.
DAYTON, OHIO

# THIS MONTH IN P/A

The World's Largest Architectural Circulation

#### 45 NEWS REPORT

Frame is up on Air Force Academy chapel . . . School design trends seen in report of Sarasota conference . . . Photographers win AIA awards . . . Grand Central: Black Hole of New York . . . New plan for Olivet College . . . "River boat" office building in St. Louis . . . Americans design hotel in Pakistan . . . Personalities . . . Art for architecture . . . Foucault pendulum highlights educational center . . . Bulletins . . . Washington/Financial News . . . Products: Translucent insulating curtain-wall panel . . . Manufacturers' Data.

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The Editorial Features section is devoted this month to the results of this year's P/A Design Awards Program: the Jury selected 18 projects in 6 building categories, and conferred, in addition to the First Design Award, a total of 4 Awards and 13 Citations . . . A report of the Jury discussion indicates some differences of opinion . . . MECHANICAL ENGINEERING CRITIQUE describes an integrated ceiling system . . . Specifications Clinic reviews glass nomenclature . . . It's the Law continues its discussion of arbitration.

#### 200 JOBS AND MEN

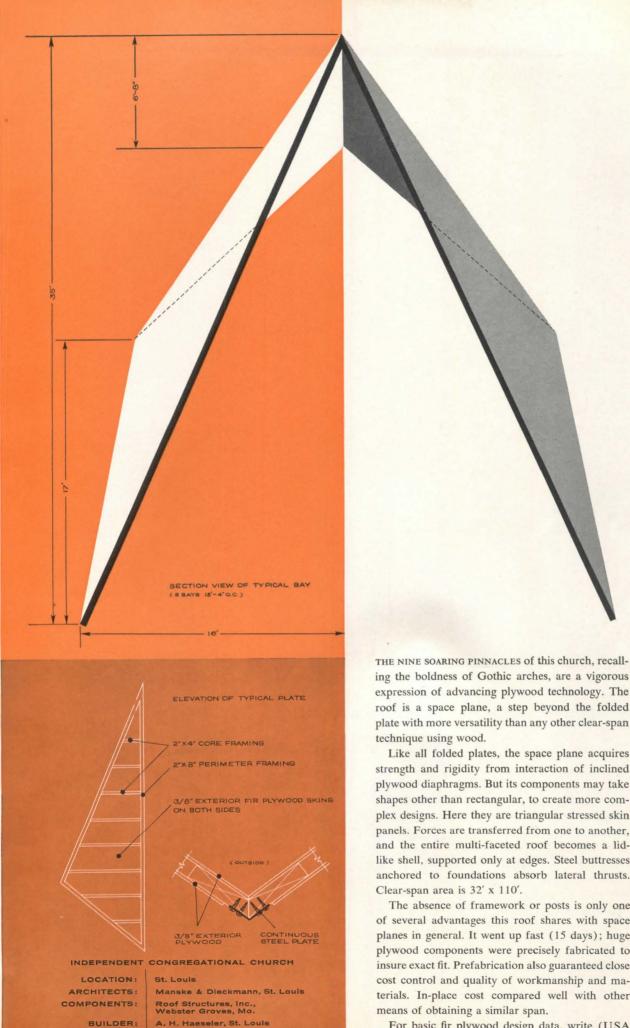
#### 206 DIRECTORY OF PRODUCTS ADVERTISERS

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the most exciting ideas take shape in fir plywood





DFPA TRADEMAR

ing the boldness of Gothic arches, are a vigorous expression of advancing plywood technology. The roof is a space plane, a step beyond the folded plate with more versatility than any other clear-span

Like all folded plates, the space plane acquires strength and rigidity from interaction of inclined plywood diaphragms. But its components may take shapes other than rectangular, to create more complex designs. Here they are triangular stressed skin panels. Forces are transferred from one to another, and the entire multi-faceted roof becomes a lidlike shell, supported only at edges. Steel buttresses anchored to foundations absorb lateral thrusts.

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## CUSTOM-BUILT FOR CONVENTION CONVENIENCE

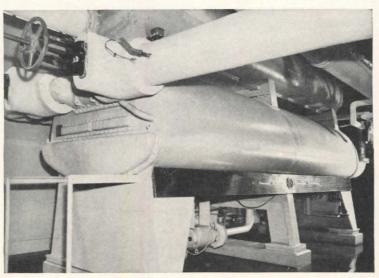
# **Keeps conventioneers** cool and comfortable with GAS and CARRIER absorption refrigeration

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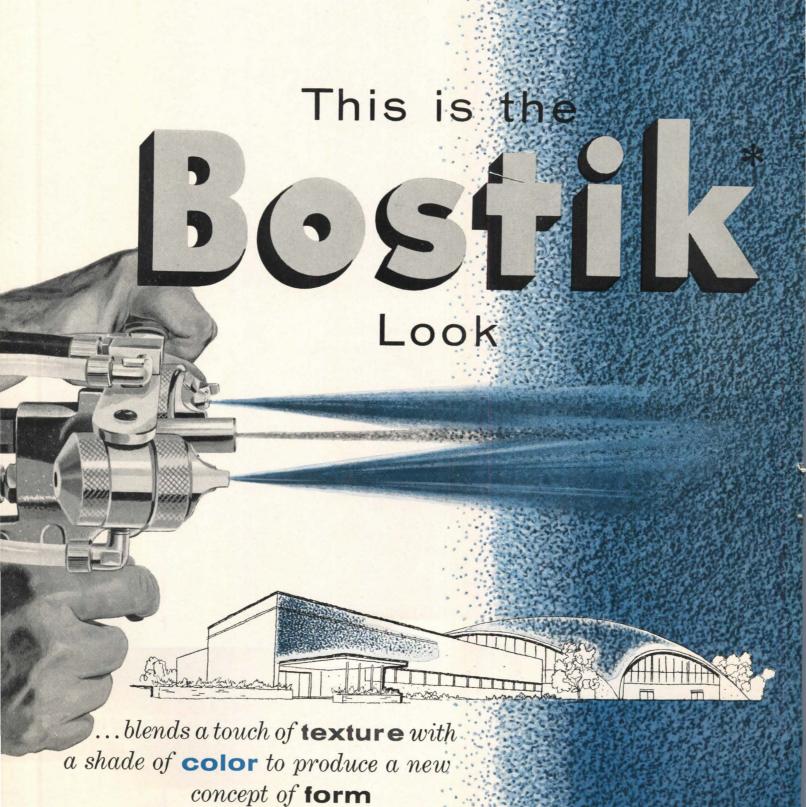
For highest efficiency in year 'round air conditioning, specify Gas and Carrier Absorption Refrigeration. Performance data and cost details are yours for the asking. Call your local Gas Company, or write Carrier Air Conditioning Co., Syracuse 1, N. Y. American Gas Association.

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This 750-ton capacity Carrier absorption unit, one of the largest of its type in the South, supplies chilled water to carry the full load for year 'round air conditioning at the Hotel Robert Meyer.

IANUARY 1961 P/A



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BOSTIK Coatings embody the best polyurethane chemistry has to offer. Desirable qualities such as weather, abrasion and wear resistance, plus extreme durability when exposed to corrosive atmospheres, initiate a new standard of coating effectiveness for all kinds of masonry surfaces.

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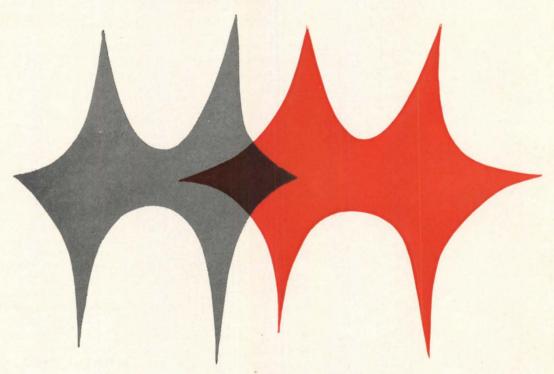
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Concrete Industries

# HORIZON HOMES

Program

A national program to provide more livability and encourage better design in merchant-builder houses.

**REGIONAL AND NATIONAL AWARDS** 

#### **KEY FACTS ABOUT THE PROGRAM...**

To architects interested in the design of merchant-builder houses, the Concrete Industries Horizon Homes Program offers a unique opportunity to express originality and creativity, and gain national recognition as leading designers in this important industry.

Program is keyed directly to the National Association of Home Builders' major national promotional effort: The annual National Home Week activities and "Parade of Homes" showings in communities across the country.

All elements in the Horizon Homes Program are carefully planned to give maximum support at the LOCAL LEVEL to LOCAL PARTICIPATION by LOCAL BUILDERS AND ARCHITECTS.

#### HOW YOU'LL BENEFIT FROM PARTICIPATION IN THE PROGRAM...

An opportunity to contribute important design direction and project the elements and concepts you believe should be incorporated into home design.

Work with the many new and exciting forms of modern concrete . . . unique chance to achieve newer, fresher, more versatile approaches through the application of textures, patterns and shapes in concrete.

Work with a progressive builder in establishing yourself as a leading designer in this most exciting and profitable industry.

Benefit from strong local and national publicity planned as part of the program by each of the national sponsoring organizations.

Have the opportunity to enter the Horizon Homes National Competition offering seven major regional awards for design—plus a fabulous national design award.

#### SIMPLE, BASIC REQUIREMENTS

Architect must be a member—either corporate or associate—of the American Institute of Architects.

Architect must agree to incorporate specific concrete usage requirements in his design.

Sale price of the model home (excluding land and furnishings) is not to exceed a total of \$20,000.

Architect must agree to abide by rules of Horizon Homes Program.

#### **TIMETABLE**

JANUARY, 1961 . . . Registration in Concrete Industries Horizon Homes Program

SEPTEMBER, 1961... Home to be completed, furnished and ready for showing during National Home Week

NOVEMBER, 1961 . . . Architect Design Award winners to be selected

DECEMBER, 1961 . . . Announcement of winners during NAHB national convention

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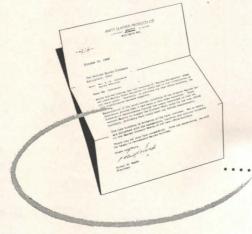
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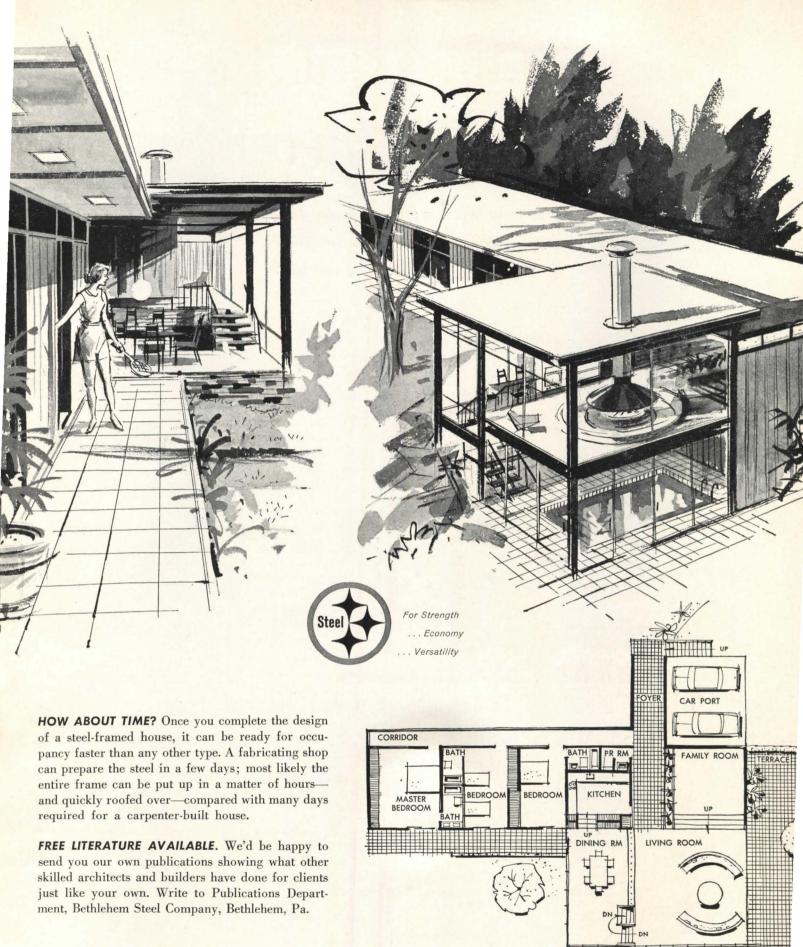
STEEL PERMITS FREEDOM OF DESIGN. The limitations of other materials disappear when you design with steel. It's just right for contemporary architecture. It allows big, open areas, 30, 40 or more feet wide without any interior supports whatsoever. Steel framing also permits flexible interiors, often with movable partitions instead of fixed walls. Steelframed houses can easily be expanded to meet future family needs, too. And you can design generous overhangs outside for sunshade effects, for patios, or covered walkways.

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HOW ABOUT THE COST? With "problem" sites. steel commonly saves clients money. But even on level lots a steel-framed house need not cost a penny more than any other type of construction.





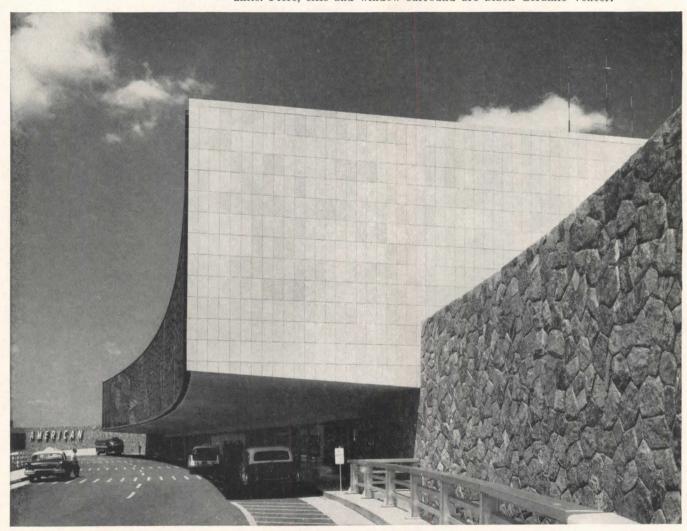
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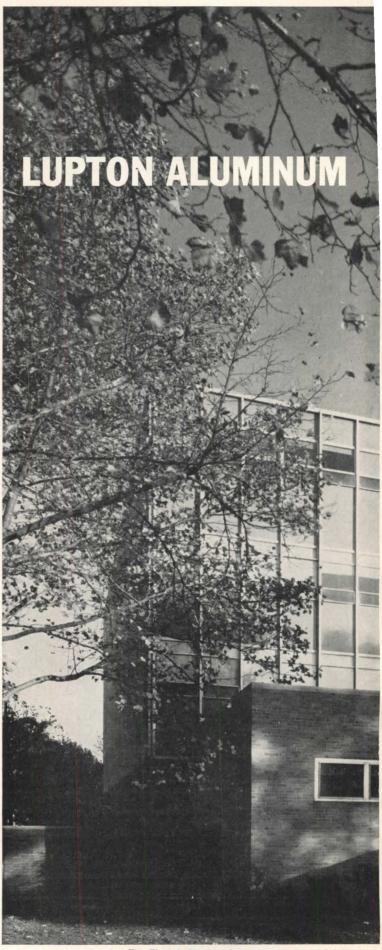
See SWEET'S (Sections 3 and 17) for the Michael Flynn Aluminum Curtain Wall and Window catalogs, and write for further specific information. Inquire about LUPTON Comfort-Conditioning\*—the new curtain-wall system that cools, heats, and ventilates. A call to the nearest LUPTON representative (see the Yellow Pages under "Windows—Metal") will bring fast action without obligation.

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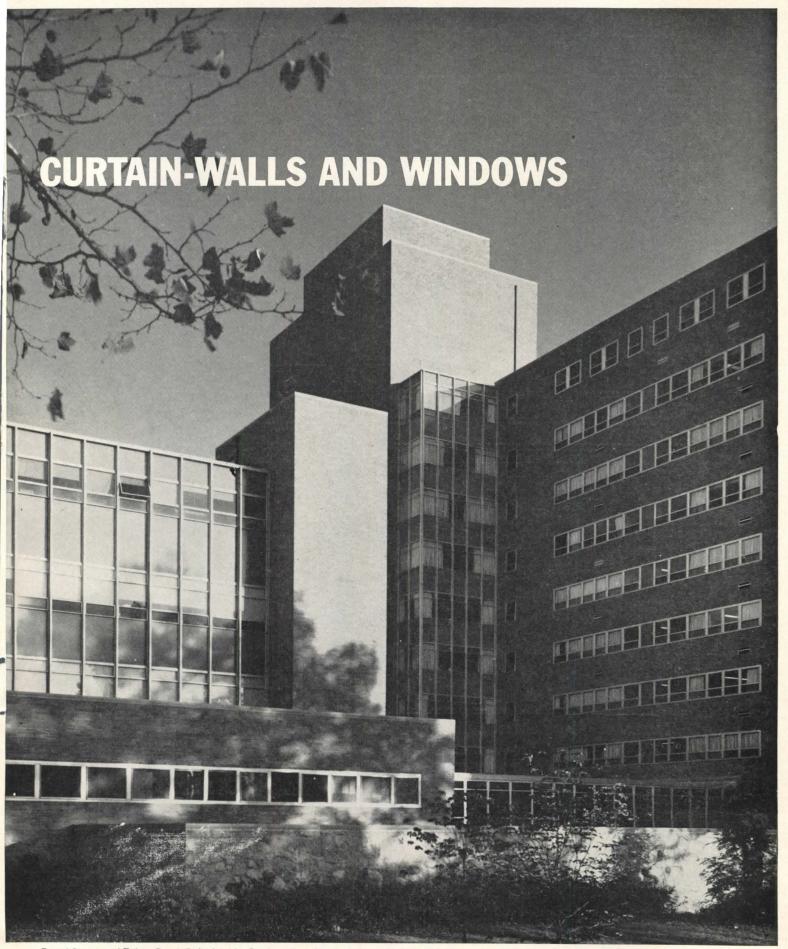
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The Einstein Medical Center (Northern Division),



Broad Street and Tabor Road, Philadelphia, Pa. Architect: Abraham Levy, Philadelphia. Contractor: James McGraw Co., Philadelphia.



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Pan Am Building being erected in New York, Owners: Erwin S. Wolfson, New York, and Jack Cotton, London. Architects: Emery Roth & Sons, New York. Design Consultants: Walter Gropius (T. A. C.) and Pletro Belluschi (M. I. T.) Structural Engineer: James Ruderman. Genl. Contractor: Diesel Construction Company, New York. Concrete Panel Manufacturer: "Mo-Sai" by The Dextone Co., New Haven.

units will consist of mullions, spandrels and lintels cast in one piece to create a striking concrete curtain wall. ☐ Today, more architects are specifying precast concrete because it offers them design freedom, construction economy. low-cost maintenance. It is being used in a variety of sizes, shapes, colors, textures...and anchors easily to any structural

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#### **NEW MARLITE DECORATOR PANELS**

MARLITE LACE PATTERN



MARLITE FLEECE PATTERN



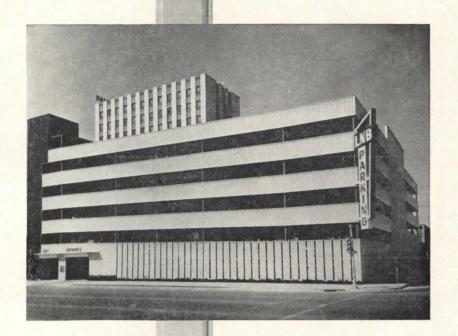
newest look in wash-and-wear walls

Here are fresh, new Marlite patterns designed to add a modern decorator touch to both residential and non-residential interiors. The six new marble patterns (priced considerably less than former Marlite marble panels) are adaptable to any building and architectural treatment. And Marlite's four new golden Fleece and Lace patterns with their fleecy cloud effect and lacy gold veining will give any interior a beautiful contemporary look. All of these new panels (5/2" thick, 4' wide, 8' long) feature Marlite's exclusive melamine plastic finish that needs no painting or further protection; stays like new for years. For the complete story see your building materials dealer, consult Sweet's File, or write Marlite Division of Masonite Corporation, Dept. 114, Dover, Ohio.

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Steelwork was completed in just 16 working days, and only five months after construction started, cars began to roll in. This is *three months faster* than a nearby parking deck constructed of concrete.

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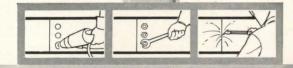
2 months earlier completion - \$8980

3 months earlier completion - \$13,470

Building with steel always pays off—and not just in income. Steel's other payoffs include lower construction costs and larger clear-span areas.

American Institute of Steel Construction

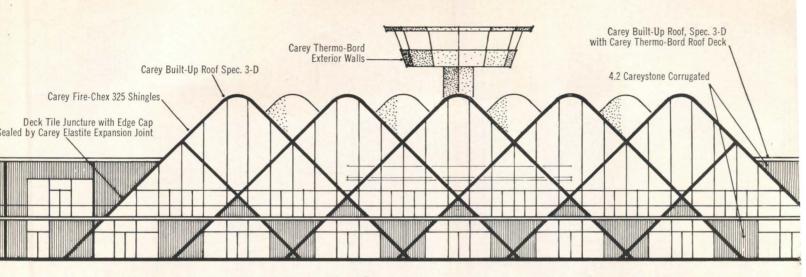
101 Park Avenue, New York 17, N.Y.





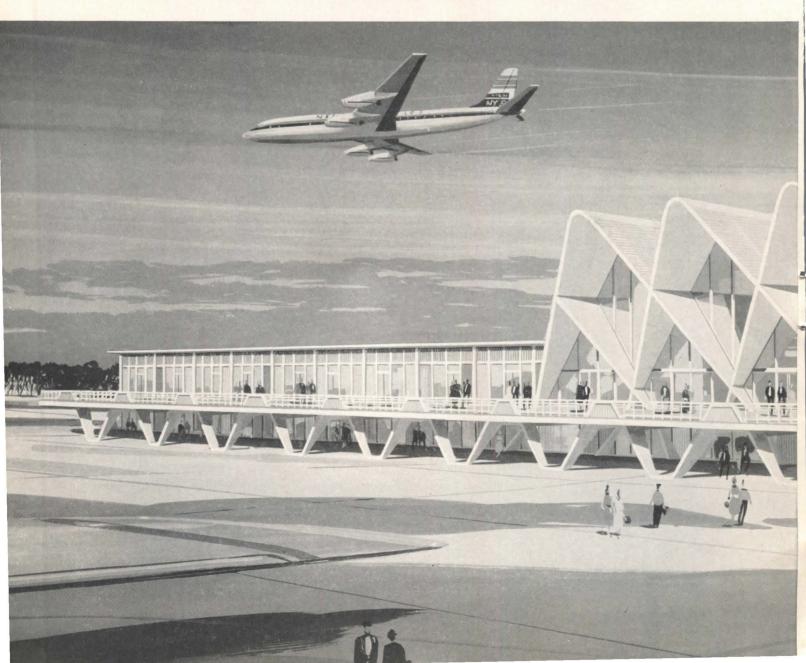
Steel STANDS for the future

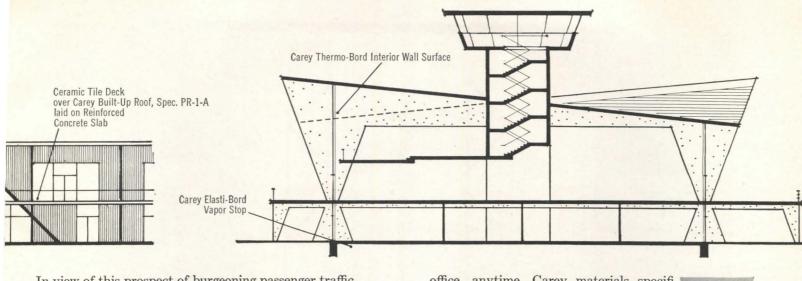




Kahn & Jacobs, a.i.a., design an arrange of the imately to the ima

Observers familiar with air traffic expansion predict that more than 2000 jet transports, each carrying approximately 200 passengers, will fill the airways by the end of the decade of the sixties. To these transport flights must be added a growing number of private passenger planes which even today total more than 75,000. These figures do not take into account the non-jet flights which airlines are expanding to serve an increasing number of communities.





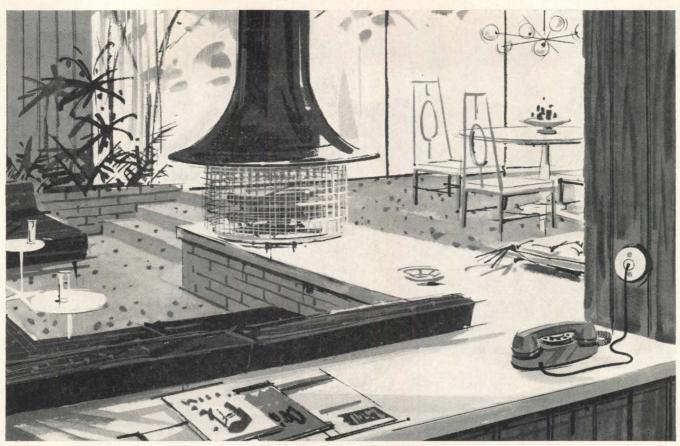
In view of this prospect of burgeoning passenger traffic, through airports which are barely adequate for present-day needs, the architectural firm Kahn & Jacobs, A.I.A., of New York City designed their prototype air terminal under a commission from Carey.

The details of this Kahn & Jacobs project suggest uses for a number of Carey building products. The purpose of the detail drawings is to propose solutions for similar problems which could show up on the boards in any office, anytime. Carey materials specifications as incorporated in the Kahn & Jacob details have been assembled in a convenient file folder for your personal use. May we send you a copy?
Write Dept. PA-161,a postcard will do.



The Philip Carey Mfg. Company Cincinnati 15, Ohio
For more information, turn to Reader Service card. circle No. 343





For details of home installations, see Sweet's Light Construction File, 11c/Be.

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and built-in outlets
keep telephone service
flexible, protect the interior
beauty of homes, and add
to their resale value.

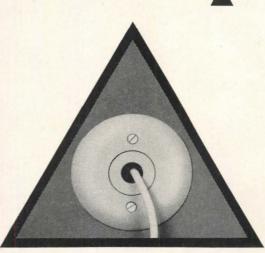
This is telephone planning...

modern...functional...

aesthetic.

Bell Telephone System





# INSUL-TONES



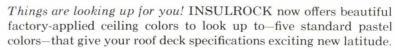
## INSULROCK ROOF DECKS IN COLOR



NEW Height in Beauty EXCLUSIVE with

## FLINTKOTE INSULROCK®

#### **Roof Decks**



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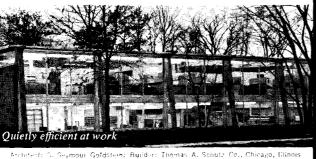
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Architect: Stephan Alling: Builder: Charles Springmyer, Cincinatti, Ohio

Four lines in Aluminum for single, dual, interchangeable and wrap-around glazing. Two lines in Steel for single and dual glazing. Write for new catalog. See Sweet's Arch. File 16d/Mi, or Sweet's Light Construction File 5a/Mi. Contact your dealer. Specify!

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Qualitatively, the locksets specified for your projects may be of the highest order. Functionally, they are worthless without the keys that operate them. That's why Architectural Hardware Consultants recommend TELKEE Key Control on these and thousands of other projects of every type and size.

Don't close any job until you weigh the benefits of TELKEE Key Control against its small cost. Security during construction; simple, orderly turn-over at completion; convenient lock utility and protection for the life of the building . . . you specify these tangible benefits when your builders' hardware specifications include TELKEE Key Control. Specify TELKEE by name—there is no equal in quality or function.

See TELKEE Catalog 18e/Moo in Sweet's Architectural File, or write for 54 page TELKEE AIA Manual.

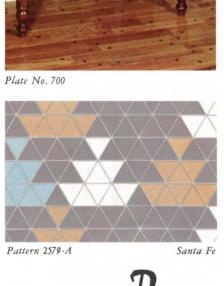


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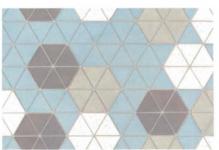




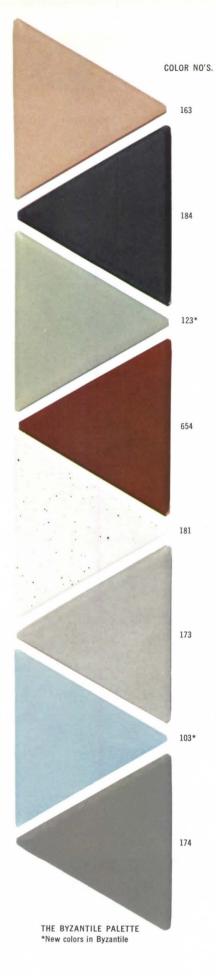


Byzantile by MOSAIC.





Pattern 2578-A Cascade



New design prospects in

# Byzantile by MOSAIC.

The dramatic range of Byzantile patterns in ceramic mosaic has now been enriched with the addition of new tile colors, new patterns, a new tile shape.

On the left (with the original Byzantile palette) are the two newest colors: a light blue, a pale green. All in the new shape, a 2" equilateral triangle. And, below, one of the new Byzantile patterns, No. 2577-A, employing the new triangle. See also Patterns 2578-A and 2579-A on the reverse page.

The scope and vitality of Byzantile has offered architectural designers unusual opportunities. These new additions make prospects for frontier breaking even more interesting.

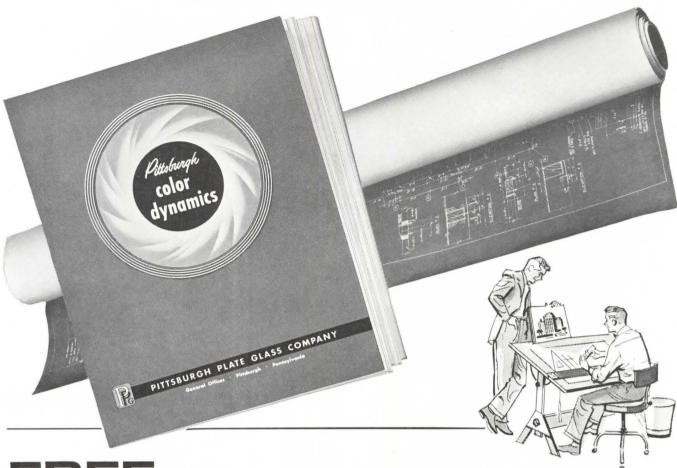
And the beauty of it all... Byzantile makes an indelible impression. Whether used in public buildings or private homes, indoors or out, the designer knows that the architectural spirit he creates will remain faithfully unchanged,



#### THE MOSAIC TILE COMPANY

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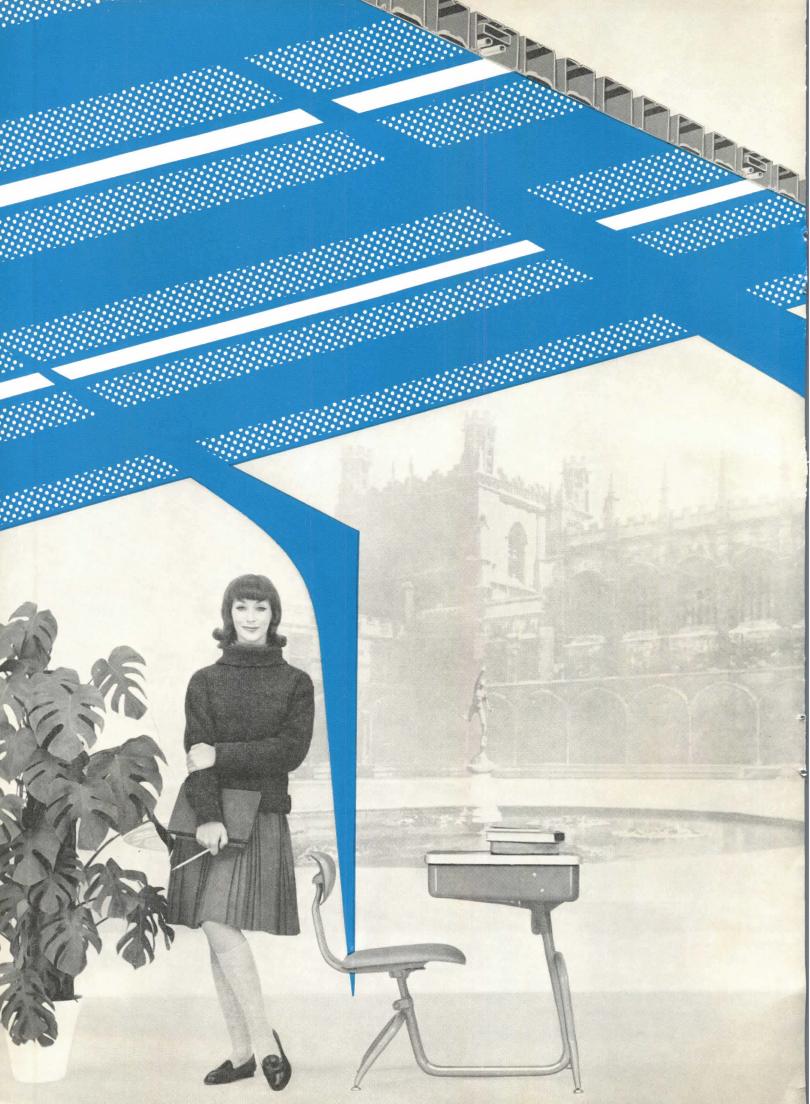


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# a sound approach to structural ceilings

If students were never noisy, *any* kind of steel panels would be ideal for school ceilings. Steel offers long-span design. It can be painted any color . . . or economically washed. And steel panels never crack, warp, or burn. But, because students *are* noisy, Fenestra pioneered an *acoustical* steel ceiling panel.

This steel acoustical panel costs less to install. It is a perforated modular unit backed up by a patented, pre-formed, arched glass-fiber sound attenuation pad. It performs as many as five different building material functions: acoustical correction, insulation and roofing support, integral lighting, long-span structure, and finished flat ceiling. It spans up to 34', eliminates the need for bar joists.

Costs less to maintain. It can be washed or painted. Nothing to become loose or fall off,

And in years to come, Fenestra acoustical steel paneling will still retain its original appearance.

Fenestra has been a pioneer in this better kind of sound conditioning for over 30 years. Can our research and engineering service help you? Call your local Fenestra representative (he's in the Yellow Pages); see Sweet's File 2c/Fe; or write: Fenestra Incorporated, Dept. PA-11, 3409 E. Grand Boulevard, Detroit 11, Michigan.



Long-span acoustical "D" steel ceiling panels provide highly efficient noise absorption at all sound frequencies.

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# Now, in office buildings, choose from <a href="two">two</a> types of fire-retardant Acoustical Fire Guard <a href="exclusive new lay-in units">-exclusive new lay-in units</a> or 12" x 12" tiles

The second floor of the office building on the left has the new Armstrong Acoustical Fire Guard lay-in ceiling. Below, on the first floor, you see a ceiling of Acoustical Fire Guard *tile*.

This tile was the first time-design-rated acoustical tile. The new lay-in system is another significant development in fire-retardant ceilings. Here is why:

#### Exposed grid system

The Armstrong lay-in ceiling combines the advantages of the exposed grid suspension system—economy and fast installation—with those of a time-design-rated acoustical ceiling.

Like the widely accepted Acoustical Fire Guard tile, the new system protects the structural components of a building by resisting the dangerous transmission of heat from one area to another. This layin unit — because of its composition — can withstand exposure to flames and 2,000 degree heat. Ordinary ceiling boards would disintegrate.

#### Time-design-rated

Underwriters' Laboratories, Inc., has given the new system a beam protection rating of three hours. Assemblies using bar joist and slab, as well as beam and steel floor construction, earned two-hour time-design ratings. In areas which require more protection, Acoustical Fire Guard *tile* can be used. It has U.L. ratings of up to *four* hours.

#### Saves time and money

The new lay-in ceiling is more economical than other finished ceilings that will provide two- and threehour protection for structural steel. In most cases,



Armstrong Acoustical Fire Guard tile, in the Classic design, was specified for the new Kiplinger Letters Building in Prince Georges County, Maryland. Architects were Chatelain, Gauger and Nolan, Washington. The acoustical contractor was A & P Contractors, Inc., of Kensington.

it will cost even less than ordinary plaster ceilings on metal lath.

And like the tile, it can save builders up to *two* months' construction time. There is no waiting for wet work to dry. This makes it ideal for remodeling jobs. Installation can be done during or after office hours.

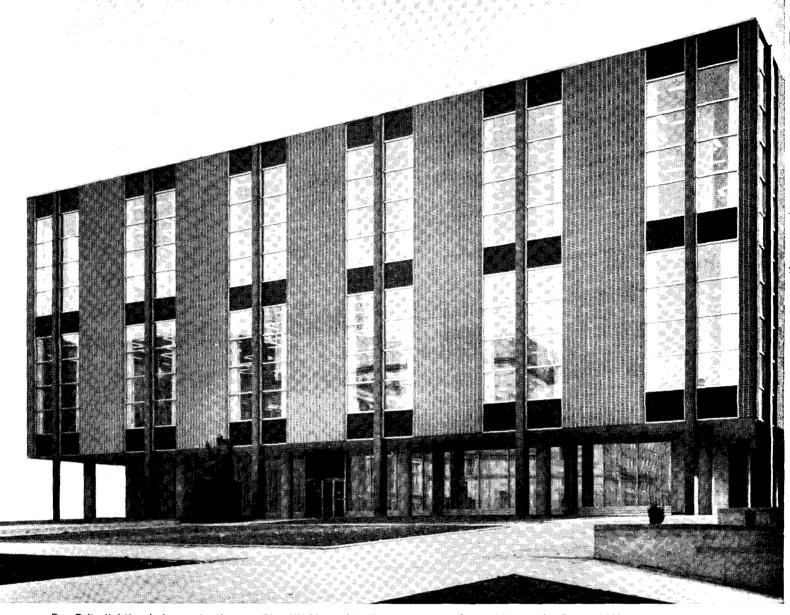
The Acoustical Fire Guard lay-in ceiling is now available in the popular Classic design. A Fissured pattern will soon be on the market. There are two nominal sizes: 24" x 24" x 5%" and 24" x 48" x 5%".

For more information about either Acoustical Fire Guard tile or lay-in units, call your Armstrong Acoustical Contractor (he's in the Yellow Pages under "Acoustical Ceilings") or your nearest Armstrong District Office. Or write to Armstrong Cork Company, 4201 Watson Street, Lancaster, Pennsylvania.



First in fire-retardant acoustical ceilings

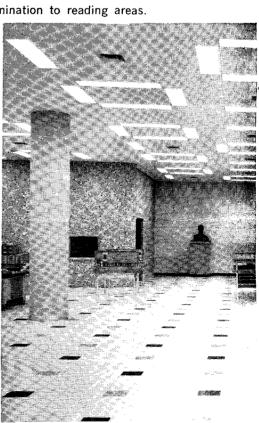
Architectural design and rendering by Helmut Jacoby

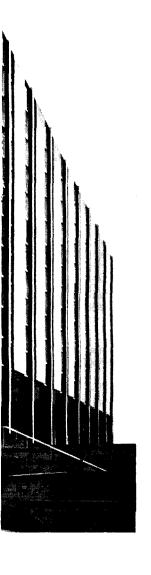


Day-Brite lighting helps make the new Pius XII Memorial Library a center of attraction on the St. Louis U. campus.

Day-Brite Troffers with Cleartex® Plastic Lens Panels deliver 73 footcandles of illumination to reading areas.









Architect and Engineer: Leo A. Daly • Electrical Contractor: Sachs Electric Corp.

# How Day-Brite lighting "sells" reading in the new Pius XII Memorial Library

From the architect's first draft to the final choice of curtains, St. Louis University's modern new library was planned with one goal in mind: to encourage students to *use* it.

Self-service, open-type book shelves were used to invite "browsing" among the stacks. "Wide-open" interior design helped create a pleasant atmosphere. In addition, comfortable bright-colored furniture was contrasted against light-colored walls and a noiseless cork floor.

Lighting, of course, was a major consideration. It had to facilitate reading and, at the same time, add to the over-all cheerfulness. Day-Brite lighting was specified for high-level, high-quality illumination and clean, modern fixture design.

Good vision calls for good lighting. And you display good vision when you call in your Day-Brite representative early. Day-Brite Lighting, Inc., 6260 N. Broadway, St. Louis, Mo., and Santa Clara, Calif. In Canada: Amalgamated Electric Corp., Ltd., Toronto 6, Ont.



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Tuscaloosa, Ala., Y.M.C.A. Recreation Room. Floor is 6" x 6" x ½" Murray Quarry Tile in Canyon Red, Golden Glow and Sahara. Architect: Wilmont C. Douglas & Carl M. Moseley. Tile Contractor: Sealy & Jehle Tile Co. Plate 422.

# Rugged floor—with a rich new look. This attractive recreation

room floor illustrates an unusual use of quarry tile—combining several contrasting colors in a simple but decorative random pattern. Such individual effects are easily and economically created with Murray Quarry tile. This decorative versatility—plus Murray quality features—more uniform colors and sizes and better-bonding V-Bak® design—assure architects of

good-looking as well as trouble-free installations.

Write for new Murray Quarry Tile catalog 861.

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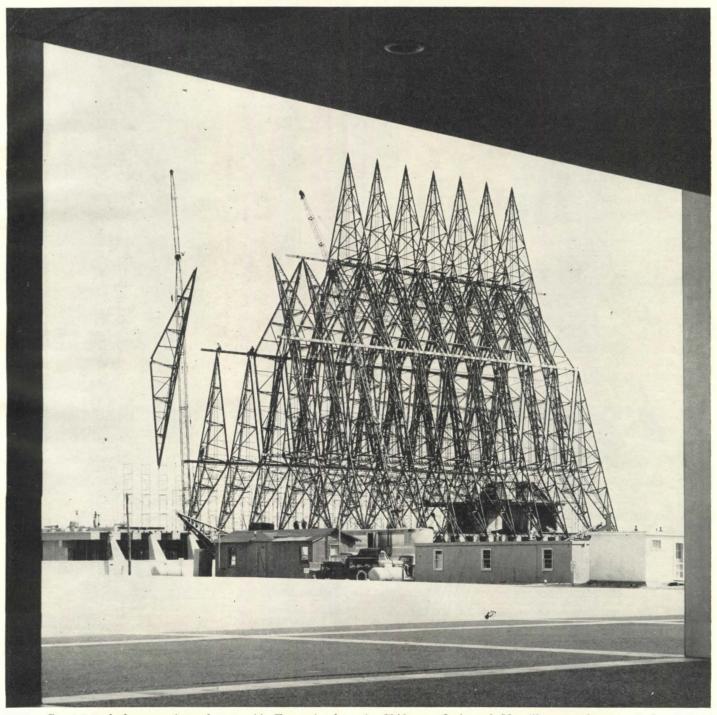
DIVISION OF AMERICAN OLEAN TILE COMPANY

For more information, turn to Reader Service card, circle No. 302

## PROGRESSIVE ARCHITECTURE JANUARY 1961

# NEWS REPORT

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



Great tetrahedrons go into place as Air Force Academy by Skidmore, Owings & Merrill approaches completion.

- 47 CHAPEL CROWNS AIR FORCE ACADEMY
- 48 FUTURE OF SCHOOL DESIGN
- 50 SINGING THE GRAND CENTRAL BLUES
- 51 OLIVET COLLEGE GETS MASTER PLAN
- 62 WASHINGTON/FINANCIAL NEWS
- 69 PRODUCTS: PORTABLE ILLUMINATION



# Why the architect specified ronbound \*CONTINUOUS STRIP\* HARD MAPLE

One of the outstanding recreational centers in the 50th state is in Honolulu's Palama Settlement. It includes a spacious gymnasium with the finest hardwood floor in the islands—a beautiful Ironbound installation.

This Ironbound floor was chosen for more than its natural beauty and uniform resiliency — it is the *right* floor for Hawaii's climate, too. The hard maple flooring, laid over cork underlayment directly on a concrete slab, is interlocked with sawtooth steel splines for control of normal expansion and contraction. The flooring was also treated with Woodlife preservative to double the normal retention for

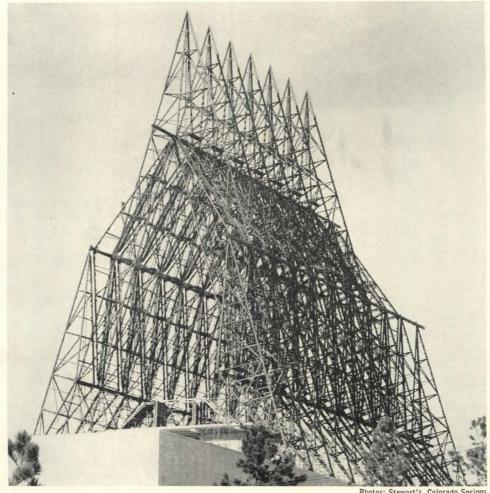
positive protection against termites and excessive moisture absorption.

Important, too, was the fact the architect and owners knew Robbins stands behind this floor and sees that it's properly installed.

Indeed, Ironbound was a happy choice for Honolulu, as it has been for thousands of gymnasiums throughout the other 49 states and Canada. For literature and the name of your nearest installer, write Robbins Flooring Co., Reed City, Mich., Attn: Dept. PA-161

Material for the Palama Settlement Gymnasium was Dri-Vac treated. Specify certified Dri-Vac treatment with Woodlife for wood floors. For unusual conditions, special retentions are available. \*T.M. Reg. U.S. Pat. Off.





Photos: Stewart's, Colorado Spring

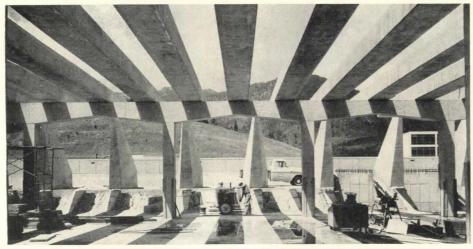
#### SOM CHAPEL APPROACHES COMPLETION AT AIR FORCE ACADEMY

COLORADO SPRINGS, COLO. The crowning glory of the Air Force Academy at last is reaching completion here. The famous chapel has had all its steel tetrahedrons bolted and welded into place, and application of the thin metal skin is underway. In November, Skidmore, Owings & Merrill's Walter Netsch, Jr., designer of the chapel with Gordon Bunshaft (also of SOM), wrote P/A, "As of this date, most of the steel is up and bolted, awaiting final alignment before welding. This should take . . . two more weeks, then cladding will begin."

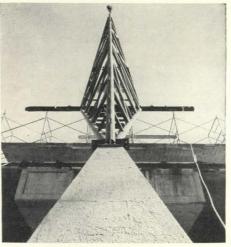
In skeleton form, the steel-pipe structure presents a dramatic appearance against the mountain scenery of

the academy. Netsch says, "This is one of our first simple, yet complicated pipe structures in America."

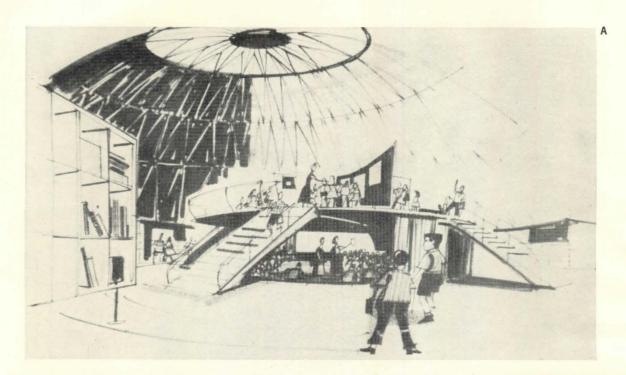
As most readers recall, the chapel is divided into three elements: the Protestant chapel on the upper level, and the Roman Catholic and Jewish chapels on separate areas on the lower level (pp. 96-97, SEPTEMBER '57 P/A).



Poured and precast elements of the Catholic and Jewish chapels.



Buttress supports floor, admits light.



# NEW DESIGNS FOR LEARNING

Most areas of the school plant in the United States are going to be made obsolete by advances in teaching methods. Large, open, malleable space is probably the best program for the time being for a school operated on the new principles. These are some of the conclusions that came from an important conference on school planning held in Sarasota, Fla., in November. Perhaps the clearest "conclusion," however, was that there are now no conclusions in the minds of the educators, but only reasonably well-proved hypotheses that are still actively being tested.

The Sarasota Conference (held in the town which has built new-obsolete? -schools designed by Paul Rudolph, Victor Lundy, Mark Hampton and others) was under the auspices of the Sarasota Board of Public Instruction. Conducted by Philip Hiss, retiring Chairman of that Board, and sponsored by the Educational Facilities Laboratory of the Ford Foundation, it proved to be one of the best of the many meetings that have been held recently on educational trends and their impact on school design. The participants were of three professional groups: educators, technical experts, and architects.

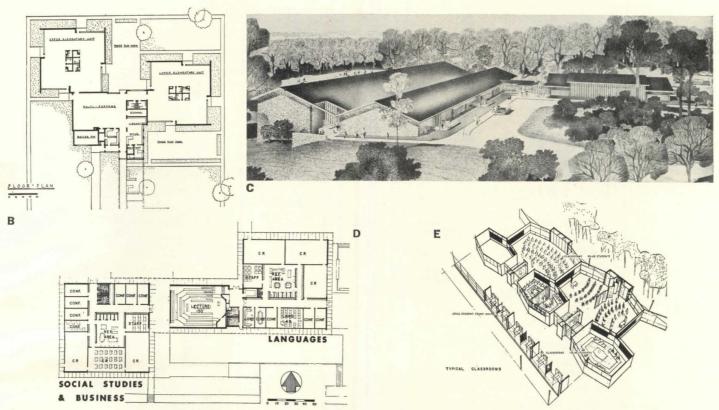
Opening the conference, Dr. Harold B. Gores, President of EFL, responded to Philip Hiss' comment that the new concepts would "make the present school plant obsolete," by saying that advances in educational programming in the 50's were resulting in rearrangement of time, space, subject matter, students, and classrooms.

The aspects of this new programming that have revolutionized the plan of the school were presented by three of their most ardent advocates, who were unanimous in their approval of steps toward nongrading and more individual learning according to capabilities, the abandonment of the "selfcontained classroom," and the elimination of rigid "promotion" stages between elementary, junior high, and secondary school programs. Dr. John Goodlad (University of California) insisted that there is no longer such a thing as "elementary education." The child is admitted to school at age six, and from then on he takes part in whatever stage of a continuous, whole "childhood education" he is ready for. There must be complete flexibility and a "built-in" possibility for various grouping methods, for teacher study time, and for some system of co-operative teaching.

Dr. Robert Anderson (Harvard) was even more specific in his recommendations. Considering the elementary, "middle school" (as he preferred to call the junior high school), and high school progression, he pointed out that many move forward without adequate preparation; his solution was a great flexibility in the "K to 12" progression. Along with this goes the team-teaching, nongrading concept, one leading to the other. The "climate" of a school is most important in carrying out these concepts, he said, adding that "every day the cornerstone is laid on a conventional new building" which is not adaptable to the flexible approach.

Dean Francis Chase (University of Chicago) defined the ideal learning situation as one where the child feels that his education is self-controlled and self-directed, and looked for the day when this would be possible in "the garment that we may sometime be able to put together in the image of the school." The high school, he said, should "contain few standard classrooms," but instead should have reading and writing rooms, viewinglistening rooms, discussion rooms, lecture-demonstration rooms, laboratories and workshops, and individual work stations.

Technical discussion ranged from the subject of acoustics to the miserably named "teaching machine." The flexibility of the school-type that educators described worried Daniel Fitzroy, a California consulting acoustical engineer, who pointed out that the traditional acoustical requirements no longer applied in an open-plan, movable-partition school. Dr. H. Richard Blackwell, of the Institute of Vision and Optics at Ohio State University, took architects generally to task for poorly lighted schools, according to his studied standards. A uniformly luminous environment, he contended, was ideal for allowing "the cerebral mechanism to work well," with the amount of desirable light determined by "standards that we can measure." The luminous ceiling is a good start, he felt, but the luminous wall will be possible soon. Many of the architects disagreed violently with his concept of "uninteresting," shadowless,



varied lighting environment, but Dr. Blackwell stubbornly stuck to his research guns.

Dr. Roy Hall, of the U.S. Office of Education, described research being done by that agency; Peter McGraw, a specialist in automatic data processing from the same Office of Education, spoke of the values of such processing, both in record keeping and in programming; there was discussion of the teaching machine (a device, carefully programmed, that provides "rewards" in the sense of page-turning for steps in learning), and of the part TV plays in modern education.

The remainder of the program was given over to examining schools planned in attempts to meet these new requirements. Dr. Edward Anderson, Superintendent of Schools at Wayland, Mass., described the new high school designed for that community by The Architects Collaborative. for team-teaching, Planned small, medium, and large instruction spaces, and study and work areas for the teaching teams, (as in the Social Studies and Business Section shown D), it appeared from Dr. Anderson's vivid description to work well in some respects, and not exactly as had been anticipated in others. He calculated that it would be obsolete in two to three years. Lawrence B. Perkins of Perkins & Will, showed that firm's designs for Chicago Teachers College E and the Dundee Elementary School in Greenwich, Conn., C both of which are also plans specifically worked around the provision of individual-tolarge group study and work spaces. He said that he was "proud" that many of the buildings he has designed are now obsolete. Charles Colbert, Architect and Dean of Columbia University's School of Architecture, showed slides of some of his New Orleans schools, with the emphasis on the object as a part of learning, and with an appeal to make the school in part a "museum, or storehouse, or a community of things." He spoke of his criteria of order, idea, and emotion (see the P/A Design Award Jury discussion in this issue), as means for "all of us to develop for ourselves a procedure for end-product evaluation of our own creations."

Donald Barthelme, Houston architect, began his talk by saying that flexibility is bunk (just a "nice, big, fat word"), that 63 decibels was bunk, that the luminous environment was bunk, and that architects have a job to do despite scientists and clients. He spoke for the "systems" approach as a means of making various uses of buildings possible where the program is fluid.

John Lyon Reid started by holding that everything that Barthelme had said was bunk, and then through a series of slides of his work from 1946 to the present, indicated his belief that the educational program was not yet clearly defined, but still consisted of "trends." He ended with a suggestion that open and easily divisible space was a possible answer during this period.

William Pena, partner in the firm of Caudill, Rowlett & Scott, presented a domed school A, designed with aid from Ford Foundation's EFL, where the open-space concept is carried very nearly to its ultimate. Acoustic problems, as well as circulation, are admittedly not completely resolved.

Several other school studies were reviewed, and a number of additional ones referred to-another dome, a system of modular co-ordination, and other attempts to reach flexible use. There have been a number of schools, of course, such as the Carson City, Mich., Elementary School B by Louis C. Kingscott & Associates, without

rigid classroom divisions.

A morning of conclusion-drawing resulted in few conclusions. To this participant, the arguments for ' 'malleable" space seemed irrefutable. The schools shown, which had attempted to translate the new concepts into pochéd patterns, already seemed too rigid, and admittedly risked becoming obsolete too quickly. Even within the educators' apparent unanimity there appeared certain disagreements in detail-disagreements of sufficient scope that a firm architectural program would be difficult to put on paper. With the many design approaches being pursued today, one "discipline" that current architecture has depended on has been the sacredness of "the program"—the statement of needs from which design proceeds. Designing with many theories, infinite technological possibilities, and an educational program in a state of flux, it would seem that U.S. schoolhouse architecture is likely to be extremely fluid in the period ahead.

T.H.C.



# New York Is a Crowded Festival

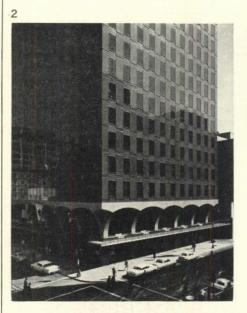
A new activity called "Let's See What We Can Do Next to Louse Up Grand Central Station" is New York's current favorite indoor sport. Newly crowned champions are Jesse Weingart and Irving Fagenson, who have proposed plans to jam a three-level bowling alley, of all things, into the air space of the station's south waiting room. This will reduce headroom in the spacious room from 50 to 15 ft. For a typical reaction to this state of affairs, see page 164 of this month's P/A. It is said that Weingart got his "inspiration" from a women's shoestore someone hung from the ceiling somewhere in the terminal.

Elsewhere at Grand Central, demolition has been accomplished on the office structure to the rear of the station, site of the Pan Am Building. To allow the poor commuter (approximately 500,000 a day now) to follow construction of the behemoth, closed-circuit TV has been installed in the grand concourse (thereby taking up a bit more room) so that train-catchers may watch the transformation of the area into the coziest space since the Black Hole of Calcutta.

Just in case anyone might inadvertently enjoy the space at Grand Central before the airplanes and bowling balls take over, a radio station last month put up an inflated structure in the concourse and broadcast a discjockey show several hours a day. Of course, the model house, giant illuminated advertisements, brokerage house, newsstands, snack bars, restaurants, liquor shops, drugstores, and cutlery stores (better beware of that last—an architect might go berserk with one of those switchblades) continue to make Grand Central Station a maelstrom, a miniature Times Square.

Oh . . . the bowling alley was designed by Ferrari-Tricarico, Lino G. Ferrari & Vito J. Tricarico. Structural engineers: Seelye, Stevenson, Value & Knecht; mechanical engineers: Di Giacomo, Caretsky & Associates. It's a living, we guess.







#### PHOTOGRAPHERS WIN AIA AWARDS

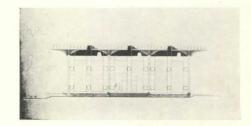
Winners of the Fourth Exhibition of Architectural Photography were announced by the Octagon recently. Jury was composed of Architect Charles M. Goodman, Photographer Robert Lautman, and John H. Kyle, editor of the Johns Hopkins Press.

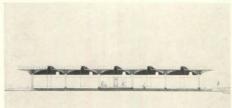
First prize in the black-and-white section went to Joseph W. Molitor for Paul Rudolph's Sarasota High School 1. Second prize winner was George Knight for the San Francisco John Hancock Building by Skidmore, Owings & Merrill 2; and David Hirsch won third prize for his under-construction shot of the Pan American Terminal Building at Idlewild by Tippets - Abbett - McCarthy - Stratton

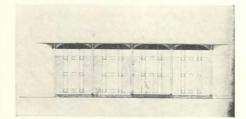
with Turano & Gardner associated 3.

In the color section, Julius Shulman took first place for his photograph of one of Pierre Koenig's Case Study Houses for Arts & Architecture; Baltazar Korab received second prize for a study of Yamasaki's Reynolds Building in Detroit; and third prize went to Lawrence S. Williams for a night shot of Christ Chapel at Episcopal Academy, Philadelphia, by Vincent G. Kling.

The jury report stated that some architectural photography has become too stylized, and that the judges' search was for "portrayals of architecture in its life context, the context of the modern world of people . . ."



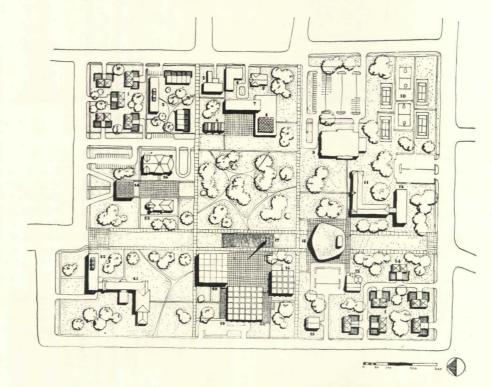




# Three-Malled Campus Proposed for Olivet

OLIVET, MICH. The master plan designed by Meathe, Kessler & Associates, Inc., of Grosse Pointe, for Olivet College will provide that venerable school with an advanced system of growth in the next decade or two. Starting with a campus broken up into city blocks, the architects sealed off two streets running the length of the site and two running through the short axis to create a parklike plan.

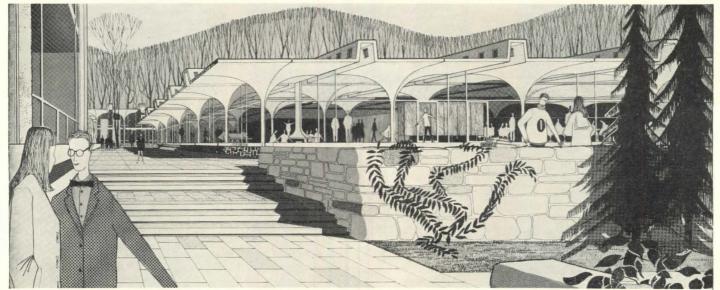
Main feature of the new plan is the use of three major malls to separate different areas of the campus. The main mall—Festival Mall—will be surrounded by the humanities building, the fine arts building, student center, and an auditorium. The last will be for use not only by the faculty and student body, but also, in good weather, for drama and art festivals in which the entire community will participate. Variety among these buildings, and others at Olivet, will be achieved through a finely studied variation in roof lines and profiles (above). Shipherd Mall-named for the college's founder-will retain for the present two existing buildings, the library and a Congregational church, and add a new administration building. The third mall, Science Mall, will have a biology building, science office and



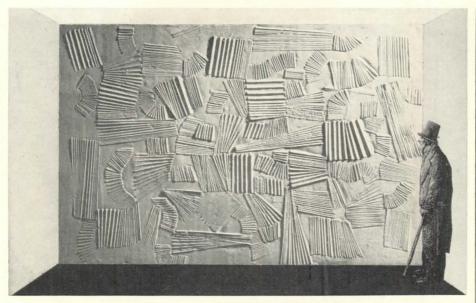
auditorium, and science and physics building. Much of the housing at Olivet will be so situated as to allow social contacts between students and faculty—the students in dormitories

and the faculty in semidetached dwellings (site plan above).

Philip Meathe states that the student center went out for bids last month

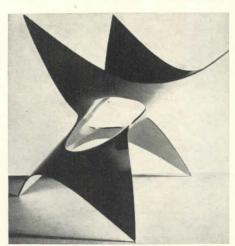


Rendering of student center indicates study which went into creation of interesting forms for campus buildings.

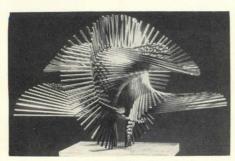


# ART FOR ARCHITECTS

NEW YORK, N.Y. Two young ladies with experience in art consultation and gallery direction have formed an association with the aim of providing architects and designers with a specialized consulting service for the integration of art and architecture. Toward this end, they have assembled a group of talented—and mostly young—painters, sculptors, weavers, and ceramists (such as Jordan Steckel, whose ceramic wall is shown above), some of whose works are seen on this page.



Sculpture by Robert Engman



Construction #1 by Stephanie Scuris

The firm, Dodge/Ende Associates, Inc., of 35½ East 68th Street, New York City, stands ready to consult with the architect and help him define the art needs of a particular project, and continue through completion as liaison between architect and artist. Emphasis of the firm is service to clients rather than "pushing" a particular artist or artists.



Cross by Ronald Hayes Pearson



Form #6 by Deborah de Moulpied



# Museum for Upstate New York

BINGHAMPTON, N.Y. To begin a project designed to bring the people of this area in closer contact with cultural and scientific creativity, Alonzo and Margaret Roberson, in their wills, provided means for the founding of an educational center to be called Roberson Memorial Museum. Aim was to provide a center that "expressed the vitality and the creative spirit that have developed the [proposed museum] into the cultural center it has become."

The museum will be in four main elements, connected to an existing building: an auditorium, a planetarium, a forecourt containing the focal point of the museum, and a wing for workshops and classrooms. Main entrance to the museum will be



through a covered exhibition court pierced by a 100-ft-high tower from which will swing a Foucault Pendulum. To the right of the entrance will be the auditorium-lecture hall, "floating" in a moat. The workshop wing will be behind this element, and will also contain a green room for dramatics. The planetarium will be reached by turning left at the entrance court. Auditorium will have a stage capable of revolving 180 degrees to provide both proscenium and arena presentations. Architects: Lacy, Atherton & Davis.

#### **PERSONALITIES**

This month's P/A Design Awards festivities in Minneapolis are just part of the reason it's an important January to Ralph Rapson. The day before the P/A banquet, Rapson, Head

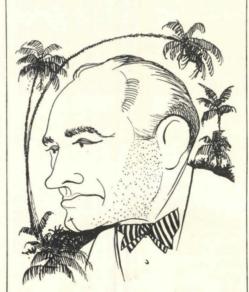


of the School of Architecture at the University of Minnesota, will dedicate the spanking new architectural school building there, with Joseph Hudnut as featured speaker. Rapson is not a Minnesota alumnus, having graduated from the University of Michigan and then proceeded to a two-year scholarship at the Cranbrook Academy of Art. He presumably did well at the latter school, since his first employment as designer was with Saarinen & Saarinen. Before starting his own firm with John van der Meulen, Rapson also worked with George Fred Keck and Paul Schweikher. He formed his own practice, Ralph Rapson, Architect, in 1946. Experiencing the other side of the Design Awards blanket as a winner this year (he was Chairman of the Jury last year) Rapson diplomatically has a citation going to projects in each of the twin cities; a theater in Minneapolis and a science center in St. Paul.

When he stated in November 1960 P/A (p. 71) that credits on Washington University's Steinberg Hall are "rather complex," it was something of an understatement. STUART THOMPSON has written that his firm, Eason, Thompson & Associates, was structural engineer, with Milo Ketchum as advisory consultant. Mechanical engineer was Crawford & Witte, and electrical engineer was Van & Vierse.

IAN L. McHarg, Chairman of the School of Fine Arts at the University of Pennsylvania, has been moderating a series of TV programs on "Man and Environment" that may soon run in various metropolitan areas. Among his guests have been HARLOW SHAPLEY. MARGARET MEAD, PAUL TILLICH, ERICH FROMM, and JULIAN HUXLEY. . . . ADOLF K. PLACZEK becomes Avery Librarian of Columbia University, succeeding James G. Van Derpool, who becomes Associate Dean of the School of Architecture. . . LESLIE CHEEK, JR., Director of the Virginia Museum of Fine Arts, was named chairman of the President's People-to-People Fine Arts Committee. . . . A Chicago public school was recently named for the late children's author Lucy Fitch Perkins, mother of LAWRENCE B. PERKINS of Perkins & Will. . . . Newly elected president of the Pan American Federation of Architects is SAMUEL IN-MAN COOPER of Atlanta. . . . Charles Eliot Norton professors at Harvard for 1961-62 are FELIX CANDELA, R. BUCKMINSTER FULLER and PIER LUIGI NERVI. . . . AIA made Honorary Fellows of Guillermo Rossell, Under Secretary of the Ministerio Patrimonio Nacional of the Republic of Mexico, and RAMON CORONA MARTIN, Chairman of the International Affairs Committee of the Mexican Society of Architects. . . . New head of Architectural Information Services of AIA's Division of Member Services is ROBERT BERNE of Denver.

In Madison Square Garden last month, Robert Moses presented Morris Lapidus a citation reading, "For distinguished accomplishments in visualing [sic] structures which have not



only fulfilled their primary function in matters of residence or business, but have enhanced the American landscape as well. . . For sensitivity to the need of building structures to shelter the spirit of man, as well as his body. . . For his generosity of spirit, philanthropy of heart, and an enviable record of labors in behalf of his people and fellow men." Occasion was the annual "Night of Stars" gala sponsored by the Jewish Literary Foundation. Lapidus, creator of such spiritual structures as Miami's Fontainbleau (or Fountain-bloo) Hotel. began his career "designing Spanish villas for the Vanderbilts and elaborate cartouches for the New York Central Building." He concentrated heavily on store architecture during early years as head of his own firm, becoming widely known for his spectacular Florida hotels after World War II. The Miami touch will caress New York soon, for Lapidus's firm (Morris Lapidus, Harle & Liebman) is doing two hotels and a motor hotel for Manhattan.

Artist Samuel G. Wiener, Jr., has been made adjunct assistant professor in Columbia's School of Architecture to teach "visual fundamentals" to first two years . . . Honor Awards of Southern California chapter AIA went to Killingsworth, Brady & Smith and Albert C. Martin & Associates . . . L. Bancel Lafarge is chairman and Eero Saarinen and Gordon Bunshaft committeemen on new committee to review nominations for AIA medals and awards to be made next April, exclusive of AIA Honor Awards and the Reynolds Award, of course.

### Culture, Schmulture

On hearing of incoming First Lady Kennedy's plans to display contemporary American works of art in her home for four years, Fine Arts Commission Secretary Linton R. White reportedly declaimed, "The White House isn't a place to show off American paintings..." Are we still ahead on color TV sets, Linton?

#### **OBITUARIES**

Richard J. Adams, Vice-President of Sherlock, Smith & Adams, Inc., died. . Matthew W. Del Gaudio, former AIA Regional Director from New York died of a heart attack. . . . Charles T. Ingham of Pittsburgh, who was AIA Secretary from 1934 to 1943, died. . . . Ex-AIA Technical Secretary Theodore Irving Coe died at age 88. . . . Industrial Designer Walter Dorwin Teague had a fatal heart attack in New Jersey. . . . A long illness ended in death for Eivind G. Elstad, senior partner of Severud-Elstad-Krueger Associates, Consulting Engineers.

Sketches by Rouiero Corbellate

# Architects' Tour of East Europe, Scandinavia

An architectural tour of eastern Europe and Scandinavia will be led next spring by P/A Editor Thomas H. Creighton and his wife, Gwen Lux, the noted sculptor. The tour, leaving New York on April 28, will stop shortly in Paris before proceeding to West Berlin, Warsaw, Moscow, Helsinki, Stockholm, Copenhagen, then back to Paris for a week end before returning to New York on May 21. Meetings will be held with architects and professional organizations in these cities, and current (and historical) work in design and technology will be studied. Creighton last year conducted a similar tour of western Europe. Tour price-New York to New York—is \$1875. Inquiries should be directed to McGinniss Travel Service, 160 Central Park South, New York, N. Y.

# Steel's Potentialities Explored by Designer

Results of a two-year design research

program by Peter Muller-Munk Associates, industrial design firm, were announced recently by U.S. Steel Corporation. Muller-Munk's findings, which will be shown throughout the country in coming months, are based on the selection of furniture as an ideal vehicle







# World's Fair Frolics (cont'd.): Federal Proposal

Latest developments (at press time) out at Flushing Meadow Park, site of the 1964-65 New York World's Fair are: (1) a proposal to the Federal Government by the fair board that the U.S. exhibit take the form of a permanent "Franklin National Center of Science and Education"; and (2) the boycotting of the fair by the Bureau of International Expositions.

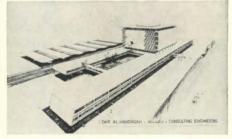
From reports by two committees—on science and education, of course—and "very preliminary graphic illustrations of the plan" (shown) by Wallace K. Harrison, who was chairman of the now-defunct Design Board for the fair, Fair Commissar Robert Moses submitted the U.S. exhibit proposal to ex-Secretary of Commerce Frederick H. Mueller and other Federal officials designated by outgoing

President Eisenhower. Presumably, any action on the matter will have to be taken by the incoming Kennedy Administration.

On the international scene, the Paris-based Bureau of International Expositions, international arbiter of world's fairs, notified member nations that the 1964-65 New York World's Fair was being touted without its blessing. Rules prohibit two fairs in one country within the same decade, and the organization already has given the nod to Seattle's Century 21, scheduled for next year. The bureau urged its membership, to which the U.S. does not belong, to boycott the New York extravaganza. Austria was the first to comply. Moses, secure in his belief that he is the Fairest one of them all, pooh-poohed the international group. for showing steel's advantageous properties for design. U.S. Steel pointed out that it was not entering the furniture design business itself, but simply showing the potentialities of the material for designers in many fields. In addition to the handsome line of office furniture (shown) designed for "Study in Steel," Muller-Munk also proposed solutions to the sore-thumb problem of water towers (sheathe them with apartments, shops, or a civic center), stadium seating (cantilevered, folding steel seats), motels (modular units cantilevered on a steel frame), and portable shelter (a folding unit on wheels, shown). "Study in Steel" is prefaced with a short introduction to the mechanics of the material in tension and compression and cantilevered.

# Today's Design on Persian Gulf

A fully air-conditioned, reinforcedconcrete structure for the Department of Electricity, Water and Gas will bring contemporary architecture to Kuwait. The country, about the size of Connecticut, lies on the Persian Gulf between Saudi Arabia and Iraq. Here, all building materials must be imported, except for the sand and pebbles which will be used in the aggregate-faced interiors and a fabric woven of goat hairs, which will be used for shade between the sections of the concrete parking canopy. A five-story tower will hold a lobby, archives, and technical offices; a lounge, library and cafeteria will separate the tower offices from the administrative sections in the two wings. Financial offices will be in the two-story wing,



personnel in the one-story wing, which will have guest parking underneath. A concrete grille, painted blue and green on the inside surface, will shield the tower offices from heat and glare. These offices will overlook a landscaped promenade atop the two wings and a landscaped open court with a pool between the wings. Architect and engineer: Dar Al-Handasah, Beirut, Lebanon; design consultant, Alfred H. Bisharat, San Francisco.

Continued on page 58

# ELIMINATE PEDESTRIAN TRAFFIC PROBLEMS!





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Continued from page 54



# The Roman Spring of Mr. Leigh

Thirty-six fountains are scheduled to spurt forth on the first day of spring next year around the base of the Christopher Columbus statue which stands in New York's Columbus Circle, gazing quizzically at the site of Ed Stone's Huntington Hartford Gallery of Modern Art. The \$75,000 fountains to be donated by outdoor advertising - spectacular creator Douglas Leigh, are said to have been inspired by Rome's Trevi Fountain, among

others. The Columbus monument being on a traffic island in a heavily-congested circle, it is to be hoped that too many coin-throwers will not turn up. The fountains will circle the monument in two rings around a reflecting pool. The outer ring of 24 horizontal sprays will arch inward between the inner ring of 12 vertical jets, which will reach a height of 14 ft. The pool will be illuminated at night, casting reflections up the shaft which supports the statue. Assisting in the design of the fountains were Designer Charles Armsheimer, Fred Kerwer of Leigh's staff, and Ray Miles, Chief Civil Engineer in the Design Division of the Port of New York Authority.



# Vaulted Nursing Wing For California Hospital

Canoga Park General Hospital, north of Los Angeles, will have "the most extensive hospital facilities in the West San Fernando Valley." Construc-

tion has recently begun on the 5-acre site at Sherman Way and Sale Street. The 30,000 sq ft of phase one will include 72 beds, three major surgeries, a recovery room, cystoscopy room, two delivery rooms, individual labor rooms, X-ray and clinical labs, emergency rooms, doctors' lounge, and visitor conveniences such as a chapel and a gift shop. Phase two calls for a 4-story, concrete nursing wing and a completely equipped obstetric wing. Each of the nursing units will have TV and air conditioning, carefully selected furnishings, and a view of "luxuriantly planted gardens." Architects: Rochlin & Baran.

# American Consults on Stockholm Suburban Store

Recent opening day of Farsta Center, regional shopping center at Farsta, Sweden, saw a large crowd on the pedestrian mall in front of the new Nordiska Kompaniet department store, including Morris Ketchum, Jr. of Ketchum & Sharp, New York, con-

Photo: Alexandre Georges



sulting architect on the store. Farsta is the newly planned southern suburb of expanding Stockholm. Its shopping center was designed by Backström & Reinius, also architects for Stockholm's famed suburb, Vällingby. The expected initial population of Farsta, when it is completed this year, will be 35,000. These people will live in high-rise apartment buildings close to Farsta Center and one-family houses on the outskirts. Most of the city will be heated by an atomic plant two miles away that will be completed in 1962. A natural park along nearby Lake Magelungen will be developed into a recreational center with bathhouses, marina, café, stables and extensive sports facilities.

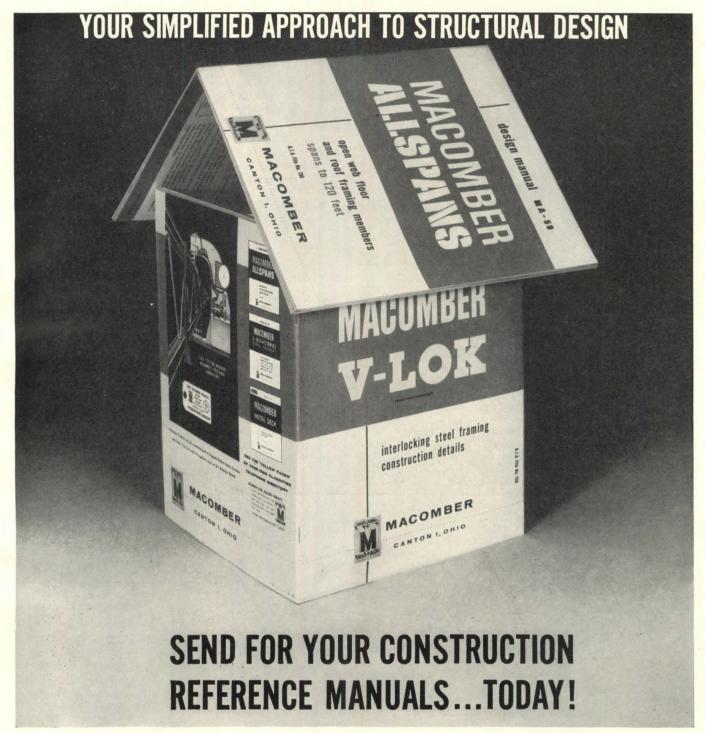
Shopping is convenient. Underground delivery of incoming merchan-



# Detroit AIA Honors Meathe & Kessler

Meathe, Kessler & Associates won First Honor Award in the Second Annual Awards Program sponsored by the Detroit AIA, for a house on a wooded site (shown). The jury commended the thorough detailing and liked the way the roof was integrated into the total plan for zoned living spaces. The jury was composed of Herbert L. Hawthorne, Harry S. King, Suren Pilafian, and Harold Binder (for Linn Smith), and Professor

William Muschenheim, the professional advisor. Second Honor Award went to Albert Kahn Associates for their parking garage in Detroit. Honorable Mentions went to: Lewis G. Redstone Architects, Inc. for Wonderland Shopping Center; Albert Kahn Associates for the National Bank Building in Detroit; and Meathe, Kessler & Associates for a housing development in Mount Clemens, Michigan.



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SEE OUR CATALOG IN SWEET'S OR WRITE FOR COPY dise and perimeter parking for more than 2000 cars leaves the shopping mall free for pedestrians. There are supervised nurseries and playgrounds, and a central parcel service can handle all packages and deliver them to the shopper's car on request.

Ketchum said that his firm would also be consulting architects on two new branches of De Bijenkorf, a Dutch department store. He noted that the increasing use of cars in many European cities is leading to traffic congestion and a lack of parking space in downtown areas, and that store owners are beginning to think of future expansion in terms of branches. He feels that Paris and other large, car-clogged cities in France, Denmark, and Holland are ripe for suburban shopping centers.

# Paso Doble on the Double

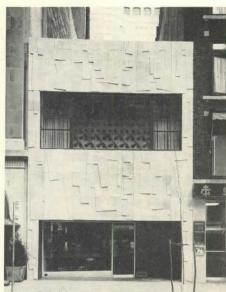
It takes 2 to 10 years to construct a bull ring in the traditional manner, but in Tijuana it has just been done in 90 days with precast, prestressed concrete. The 23,000-seat Plaza Monumental de Tijuana was started in February and completed in June, 1960.



It is the second largest bull ring in the world, being 132 ft in diameter on the arena floor and 354 ft across at the exterior diameter. Engineering Architect: Jaime A. Sandoval. Consulting Engineer, Dorland-Ferver Associates of San Diego.

# Ceramic Mural Faces Ceramic Showroom

For the façade of their new Design-Technics showroom-sales office in New York, Lee and Sam Rosen designed this two-story, sculptured ceramic mural. In an attempt to emphasize the versatility of the ceramic medium, the two-story-and-mezzanine showroom contains a multifariousness of designs, from screens and room-dividers to fountains, wall murals, and lamp bases.



Photos: Ben Schnall



Interior of main floor (shown) exhibits wall tiles and other wall surfacings, a sculptured ceramic fountain, tabletops, and lamps.

# CALENDAR

University of Illinois Small Homes Council-Building Research Council holds its 16th Annual Short Course in Residential Construction January 18-19 at the Urbana campus . . . 3rd Annual Leap Associate Conference on Prestressed Concrete, Lakeland, Fla., January 30-31... National Society of Professional Engineers meets in Des Moines, February 9-11...57th annual convention of the American Concrete Institute will be at the Chase-Park Plaza Hotel in St. Louis, February 20-23 . . . 3rd National Lighting Exposition will be held in N.Y. Coliseum March 5-8...London will be the scene of the 6th Congress of the International Union of Architects, July 3-7. Theme of the meeting will be "New Techniques and Materials-Their Impact on Architecture." Papers by Henry Russell Hitchcock, Pier Luigi Nervi, and Jerzy Hryniewiecki will be read. Information—the Organizing Secretary, 1961 I.U.A. Congress, 66 Portland Place, London W.1, England.



# Science-Engineering Quad for Brown University

Brown University's plans for its new Physical Sciences-Engineering Center in Providence are proceeding according to the master plan developed by Architects Sherwood, Mills & Smith of Stamford, Conn. The open quadrangle, grouped around a landscaped mall, will consist of six buildings. Three are by SM&S: the Heavy Engineering Laboratory (left), the seven-story Engineering and Physics Building (center) and its small Lecture Pavilion, seating 350. On the far

right will be the Thomas J. Watson Computing Laboratory and a Science Library. The two-story, 50,000 sq ft Heavy Engineering Laboratory will have a reinforced-concrete folded slab roof, and will be windowless to reduce noise and provide extra space for mounting equipment. It will house heavy vibration and shock-producing equipment for modern engineering research. An observation gallery will run the entire length of the 270' building, 11' above the main floor.



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# EFFECTS OF ELECTION DISCUSSED



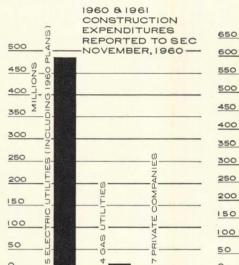
 $By\ E.E.\ Halmos, Jr.$ 

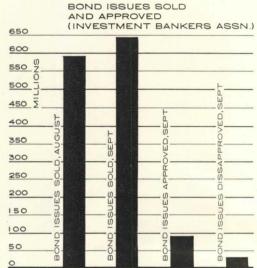
Reading the election returns against the background of the successful candiplatform date's and pledges, and against the facts of the make-up and character of the Congress now in session, architects can make some assumptions as to the effect on their business over the vear:

1 Mr. Kennedy will get from Congress -reasonably quickly-some sort of legislation for: (a) further urban renewal work; (b) stimulation-probably through construction projectsfor "chronically depressed" areas; (c) added Federal aid for educational construction; (d) added Federal money for stream pollution abatement works: (e) added money for defense, including military construction; (f) more "new starts" for public works projects. 2 It is extremely doubtful that he will get (a) a Cabinet-level Department of Urban Affairs or Department of Transportation; (b) much change in the minimum-wage "floor"; (b) easing of the ban on "common situs" picketing; (c) much change in present housing regulations and interest rates. 3 It is certain that the new President will "hit the ground running" with these and a fistful of other proposals -some of which may be really uncomfortable for businessmen. But it is equally certain that Congress will balk—and it can do that very effectively-against any really "blue-sky" proposals.

4 So the conclusion has to be that there will not be *too* much change (other than in faces in the Government departments), at least for the first year.

In reaching those conclusions, you have to start with the amazing slimness of the popular vote margin between Mr. Kennedy and Mr. Nixon. Aside from public discussion about a "mandate," the close vote is not lost on the practical politicians who make up Congress. The fact is that Kennedy does not have the immense popular affection that clung to President Eisenhower throughout his eight years: thus a Kennedy threat to go over Congress' head will have little effect. True enough that a President has some powers (such as patronage)





BOND ELECTION RESULTS - SEPT 1960 BY USE OF PROCEEDS

USE OF PROCEEDS	APPROVED		DISAPPROVED	
USE OF PROCEEDS	AMOUNT	NO	AMOUNT	NO
EDUCATION:				
ELEM. & SEC.	40,483,000	39	9,683,000	13
OTHER	530,000	2	400,000	
ROADS & BRIDGES	5,699,000	15	861,000	3
WATER & SEWER	24,769,000	29	17,822,000	14
OTHER UTILITIES	4,975,000	3	1,000,000	1
HEALTH & WELFARE	595,000	2	390,000	2
RECREATION	475,000	2	1,125,000	3
PORTS & AIRPORTS		0	2,105,000	4
INDUSTRIAL	3,368,000	4	300,000	1
REFUNDING		0	······	0
FLOOD CONTROL	40,000	1		0
PUBLIC HOUSING		0	·····	0
VETERANS AID		0		0
ADMIN. & OFFICE BLDG.	5,625,000	2	1,000,000	2
UNCLASSIFIED	6,872,000	9	1,681,000	5
TOTALS	\$ 90,431,000	108	\$ 36,367,000	49

BOND ELECTIONS SCHEDULED AS OF OCT 1, 1960

MONTH		AMOUNT
OCTOBER NOVEMBER DECEMBER	60	191,056,000 3,683,334,000 17,170,000
JANUARY FEBRUARY MARCH APRIL MAY	61	4,000,000 50,900,000 70,000,000 12,700,000
NOVEMBER	 ET	915,986,000
TOTAL		\$ 5,062,331,000

USE OF PROCEEDS	AMOUNT
EDUCATION:	
ELEM. & SEC. OTHER	745,162,000 231,760,000
ROADS & BRIDGES WATER & SEWER	253,922,000 2,013,193,000
OTHER UTILITIES HEALTH & WELFARE	923,598,000
RECREATION PORTS & AIRPORTS	45,316,000
INDUSTRIAL	4,702,000
FLOOD CONTROL PUBLIC HOUSING	9,050,000
VETERANS AID ADMIN & OFFICE BLDG.	202,500,000
UNCLASSIFIED	336,743,000
TOTAL	\$ 5,062,331,000

that can be used against an obstructing Congressman, but such leverage will not have much effect—at least, not until Congress gets to worrying about the midterm elections, a year or more from now. In the Senate, Lyndon Johnson's effect on legislation remains to be seen; but remember that a Vice-President really does not have much power, despite Presidential statements to the contrary.

So it is evident that Congress will

sit in the driver's seat for a year or so. It has been basically conservative for several years, and will be even more so now with the slight Republican gains in both houses that resulted from the elections.

In the House (with the exception of the Education and Labor Committee) the committee chairmanships remain firmly in the hands of the Southern group; in the Senate (with two exceptions of little direct concern to



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architects) the situation is the same.

Add to this the fact that the nowstrengthened Republicans are free to oppose anything they choose (they now have no obligation to follow a President, as has been the case in the past eight years), which will enable them to combine with the conservative Democratic wing to block almost any legislation.

In detail, the measures noted earlier in this column should go through reasonably quickly, since there was really little difference between the two parties-in principle, anyway-during the last session. Most of the bills failed due to lack of time, poor preparation, vague wording, or similar reasons. Chances are that either candidate, had he been President, could have pushed these through. But they will look good as part of the Democratic record, and may be enough to satisfy the new President for the first time around.

Proposals for a new Department of Urban Affairs-promised in the Democratic platform—are another matter. The pressure for such a move, which would consolidate many construction functions now carried on by various Government departments, will be very great, since the cities feel they had a lot to do with Kennedy's election. But Congressmen from rural areas are in the majority-and they do not like the idea of making the cities any more powerful.

That goes for the labor legislation as well: organized labor, already taking credit for the election, will certainly mount an intensive fight to revise the Minimum Wage Law, and to ease the hated Taft-Hartley Act and other disliked legislation. But the rural Congressmen (particularly those from the South) do not want to lose the economic advantages of low-wage areas.

(Incidentally, you may have noted that in state elections, "right-to-work" advocates did very well indeed, despite the opposition of organized labor.)

Housing, too, (other than urban renewal and slum clearance) has to go in the doubtful category. The fact is that last year housing advocates themselves began to doubt whether they could present convincing evidence of a shortage, and began to look for other reasons for slower sales than short credit, etc. It remains to be seen if a better case can be made this year.

The "hair-raisers" for businessmen will be contained both in the budget messages (Kennedy will certainly submit his own, as soon after January

20 as possible), and in further messages to Congress from the new President. Some will be submitted with little hope of action, but just to pay off campaign debts. Others will be painful—and might get a hearing and some action. These will have to do with tax matters.

The big imponderable for the moment is in money for foreign aid. With the recent disclosures about dollar drains abroad, it is quite possible Congress will look with disfavor on any great aid program. (You will recall that President Eisenhower's own program had a hard time last year.)

#### FINANCIAL

Aside from the elections and their effect, the biggest news for architects (and for all construction men) is on the financial side:

The Department of Commerce, in its annual forecast for 1961, sees a rise of 4% in construction outlays. for a record total of \$57.3 billions.

That prediction — suitably hedged with the assumption that no major world crisis will develop that is not already foreseen-confirms P/A's own reading, as reported in these columns

continued on page 66





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# PROJECT TURNKEY - INTELEX ELECTRONIC POST OFFICE, Providence, Rhode Island

The thin-shell concrete roof structure and steel tie beams were CAFCO treated for sound control, fire retardancy, and elimination of concrete finishing costs.

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to coast and throughout Canada. Our catalog in Sweets Architectural File (39-B-1) further details Sound-Shield advantages.

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Continued from page 64

over the past month or two. If these predictions are right, it would appear to be correct that professional economists have been frightening each other, rather than the sources of money that pay for construction work.

In a nutshell, here is the Commerce forecast: the 1960 construction outlay may reach \$55.1 billions when all the figures are in; 1961 should go up by \$2.2 billions (which would be a record). Almost two-thirds of the rise will be accounted for by private construction buyers (as confirmed by P/A's running tables on private capital investment); the rest by an increase in public spending. Even housing is expected to rise slightly (by about 50,000 units), to reach 1,350,000

Thus, private construction should top the \$40 billions mark for the first time in history; public construction will top \$17 billions for the first time, pushed largely by school construction, which itself should reach the \$3 billions level.

A weak spot (but one not affecting the achievement of the record) is construction of sewers and some other public utilities, which are expected to

Confirming these trends is the continuing evidence of voter support for construction-type bond issues, shown consistently throughout the past year in reports carried in these pages, and reinforced by results of bond elections on November 8, when voters approved bond issues for public works at the rate of approximately five approved (dollar-wise) for every one defeated. (These results will show up in P/A's tables during the next several months, as final returns are tabulated by the Investment Bankers Association and others.)

Further reinforcing the prediction of a good year in 1961 is the report by the National Association of Real Estate Boards, which found that the supply of capital for commercial and industrial property mortgages is greater now than it was in midsummer.

It should be noted that the figures in the accompanying bar charts for private company plans for construction expenditures now begin to show plans for 1961 spending. All except \$46 millions of the total shown under "electric utilities" is money that according to company reports to the Securities and Exchange Commission will be spent on 1961 construction programs; all except about \$1.9 millions of the gas utility spending is also 1961 money.

The same goes, of course, for the private company (other than utility) planning also reported.

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# Light into the Outer Darkness; Portable, Too

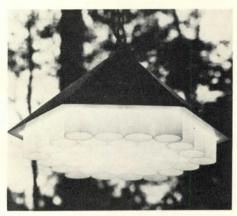
NEW YORK, N. Y. George Nelson & Company has designed a series of portable, outdoor lighting fixtures that will meet almost all needs for lighting gardens, patios, terraces, gazebos, and entryways for commercial and residential uses.

Each unit comes with a heavy, rubber-covered three-conductor cord with three-prong plug, giving a groundwire safety feature important in outdoor lighting. No switches are placed directly on the lamps. Wiring devices are Underwriters Laboratory approved. Materially, all bases, upright shafts, and framings are solid brass; shaped parts, such as reflector cylinders and hoods, are of special lead-coated steel. The dark bronze finish of the fixtures will blend with most exterior materials and landscaping. Interior surfaces of reflectors are baked white enamel.

Five designs are available in the

current series. A hanging lamp (shown) costs around \$84. A triple-light on a low post serves to direct light three ways to illuminate trees, water, or garden area; it costs about \$135. The pathlighter (shown) is about \$84. A lamp post with a white opal glass cylinder as shade costs about \$84, and a bracket light (shown) is about \$84. Nessen Studio, Inc., 317 E. 34th St., New York 16, N. Y.

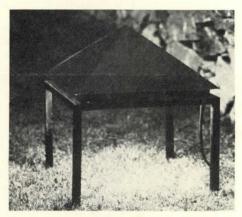
On Free Data Card, Circle 100



Lamp has a six-sided, pyramid-shaped hood, can be hung from a chain.



Bracket light can be used to light walks, show architectural details.



Pathlighter provides indirect illumination for paths, pools, rockeries.

### INSULATING CURTAIN-WALL PANEL IS TRANSLUCENT

columbus, ohio. A prefabricated translucent, insulating curtain wall has been introduced featuring a U-factor of from .19 to .26, or reportedly about twice that of double-glazed sash. "Condo-lux" is designed to be used in conjunction with—and interchangeably with—"Condo-wall," a metal insulating curtain-wall panel to create translucent and opaque areas.

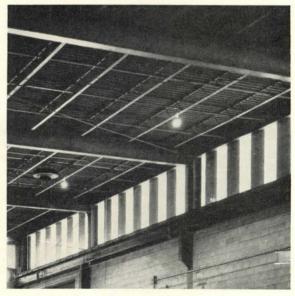
Condo-lux panels are fabricated of glass-fiber reinforced skins with an air-insulating core; they are available in 2", 3", and 4" thicknesses in a standard 32" width, 4' to 12' long. Ribs on exterior skin are fluted, 41/2" on centers. Interior ribs express a Vshape, and repeat the exterior spacing. Acting as structural shear members, glass-fiber boards are continuously bonded to the inner surfaces of the skins at the ribs. The boards and their bonds normally function in pure shear and are only subject to tensile loads from wind-induced suction on the outer skins. A 20-lb wind load will engender a suction of only about ½psi. Spans for the panels are based on the shear strength of the boards, using a safety factor of 2.4. Delamination of the skins is prevented by cap strips

at top and bottom and aluminum joint strips along vertical edges of the panels. The light-weight panels cost as little as \$2.75 per sq ft, in place, and come in a variety of colors. Dresser-Ideco Co., 875 Michigan Ave., Columbus 15, Ohio.

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Panels diffuse "the equivalent of north light" on all exposures.



Condo-lux alternates with Condo-wall in factory. Lightweight, translucent, insulating panels will not shatter.



# Wall Coating Gets Low Fire Ratings

"Glazetite," a spray-applied, low-maintenance interior wall coating, achieved the combined rating of "0" for flamespread and "0" to "10" for smoke developed factor in recent tests at Underwriters Laboratories. Having a more than 90% inorganic composition, the coating is exceptionally resistant to deterioration due to oxidation and moisture, abrasion and impact. Appropriate for public buildings because of its fire and smoke resistance, Glaze. tite is also well suited to hospitals. food processing plants and the like because it is virtually unaffected by acids and alkalis. Product comes in a wide range of colors, in either blended or "spotty" finish. Desco International Association, 5220 Whitby Ave., Philadelphia 43, Pa.

On Free Data Card, Circle 102

# New Damper for Baseboard Heating

First "Base-Ray" damper for base-board heating has been introduced. It meets FHA requirements for series loop installations and can be installed on both new and existing installations. Eliminating costly shut-off valves, it can be opened and closed with a flick of the finger, permitting temperature control of individual rooms. The new damper is made of heavy-gage steel; it has no chains or knobs, but is held closed by its own weight. Heating & Cooling Division, Burnham Corporation, Irvington, N. Y.

On Free Data Card, Circle 103

# New Gypsum Board with Acoustical Properties

New acoustical-ceiling board for use in nonresidential construction has been announced. Designed for installation with metal-grid systems of suspended ceilings, the gypsum board is produced in 24" x 24" x 3%" size. Perforations are "Full Random" pattern; surface finish is white, washable, and either flat or lightly textured. The board is reinforced with glass fibers, is incombustible, and has a Class "A" rating. Noise-reduction coefficient is 70%; light-reflection coefficient is 78%. Bestwall Gypsum Company, 120 E. Lancaster Ave., Ardmore, Pa.

On Free Data Card, Circle 104

## New Air Conditioner for Curtain Walls

Development of a unique "Curtain Wall" air conditioner, designed expressly to meet requirements of new



curtain-wall construction, has been announced. The first units are now being installed in Mies van der Rohe's Colonnade Park apartments, Newark, N. J. Air conditioners are self-contained, and are set into place inside the insulated ventilating and heating cabinet that is provided under each window as part of the building structure. Because the cabinet provides the housing, installation is fast and simple. The air conditioner exhausts heat to the outside through cast-aluminum grills, which are at the same time the exterior of the ventilating cabinet and an integral part of the outside curtain wall. This presents an unmarred façade, completely free from protruding elements, since the whole unit is enclosed within the building. Department MJ, Amana Refrigeration, Inc., Amana, Iowa.

On Free Data Card, Circle 105

# Corrugated-Vinyl Sheet Is Extruded

First continuous extrusion of corrugated, translucent, vinyl sheet is jointly announced by National Rubber Ma-

chinery Company and B. F. Goodrich Chemical Company. The material is Geon 82304, a unique rigid-vinyl compound especially appropriate for structural glazing and internal partitioning. In addition to the vinyl sheet's self-extinguishing characteristics, the new material offers great design flexibility, structural strength, and excellent weather resistance. Cost is competitive with other types of corrugated plastic sheeting. Sheeting is 52" wide, and since corrugations are in the direction of the extrusion, panels of any desired length can be produced. B. F. Goodrich Chemical Company, 3135 Euclid Ave., Cleveland 15, Ohio.

On Free Data Card, Circle 106

# Perforated Diffusers Blend into Ceiling Tile

New line of supply-and-return ceiling diffusers incorporates a perforated plate on the diffuser face to conceal the air-diffusion mechanism and blend into acoustical-ceiling tile. Diffusers are available in square and rectangular models, in sizes that conform to standard ceiling-tile dimensions. Several different air patterns are available. Either surface or recessed mounting is possible; for recessed mounting the border snaps into standard tile or can be used with T-bar construction. Finish is off-white baked enamel. Titus Manufacturing Corporation, Waterloo, Iowa.

On Free Data Card, Circle 107

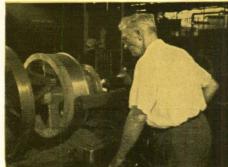
## Improved System of Studless Partitions

An improved gypsum drywall-partition system, which eliminates wood studs in construction of nonbearing walls, has been announced. Called "Kaiserwall," the new system consists of solid-gypsum ribs laminated between sheets of gypsum wallboard. At lower cost, it provides up to 30% greater stiffness and rigidity than other studless-drywall systems. Elimination of studding results in walls that are perfectly true, as well as incombustible. Reduced width of Kaiserwall partitions gives the averagesized house approximately 18 sq ft of additional usable space. New partition system is especially suitable for trussed-roof construction, where interior framing does not bear roof loads. Kaiser Gypsum Company, Inc., Kaiser Center, Oakland 12, Calif.

On Free Data Card, Circle 108

Continued on page 75





DOVER CORPORATION
Electric Elevator Division
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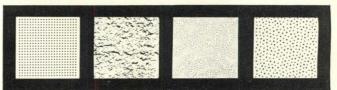


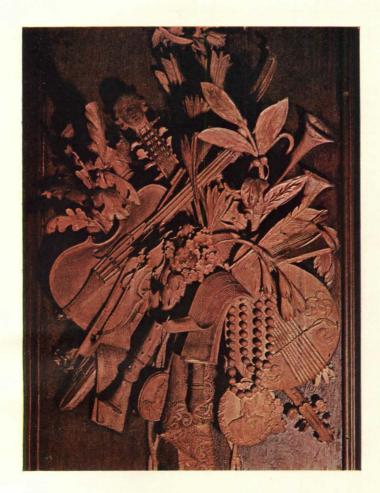
# DOVER ELEVATORS

NEW PATTERN GOSSAMER ceiling tiles: 12"x12" and 12"x24" sizes ceiling boards: 24"x24" and 24"x48" sizes



In addition to new Gossamer pattern, Lo-Tone acoustical products (L to R) are available in: Regular, Fissured, Constellation® and Random pattern tiles, and Constellation pattern ceiling boards. Fire-rated Lo-Tone F/R Tiles also in Fissured, Constellation and Random.





Wood carving by Grinling Gibbons in Petworth House, Sussex, England. Its beauty has endured through the ages.

# New Lo-Tone Gossamer pattern for rich ceilings...beauty that endures

Here is a fresh new medium to help you design ceilings of enduring beauty. Gossamer pattern in mineral tile, mineral ceiling board and cellulose fiber tile offers classic simplicity for modern interiors. Over the sound-absorbing network of minutely punched holes, gold tracings add a touch of elegance.

Made by superior "wet felted" process, interlocking fibers in Lo-Tone give you a sturdy, durable, dimensionally stable mineral tile and ceiling board. The Lo-Tone surface is double finished to stay bright and give maximum light reflection after repeated cleanings...plus beauty that endures.

See Sweet's Architectural File or A.M.A. Bulletin for complete information on Lo-Tone mineral tile, ceiling board, and economical Nu-Wood cellulose fiber tile. Or, write Wood Conversion Company, First National Bank Building, St. Paul 1, Minnesota.



Gymnasium of Mountlake Terrace High School, near Seattle, Washington. Architect: Ralph H. Burkhard, Seattle; contractor: Brazier Construction Company, Seattle.

Space provided: full size basketball court with seating for 2500 spectators. Roof framing: 125-foot Triax dome by Timber Structures, Inc., with dome segments of glulam timber. Exterior walls: tilt-up concrete panels with exposed crushed marble aggregate; glass panels set in aluminum frames. Interior walls: painted concrete and glass. Heating: peripheral hot air circulating system with ducts below floor level. Ventila-

tion: mechanical and natural systems. Lighting: mercury vapor fixtures; Everlite skylights. Floor: maple over criss cross spring system. Roof surface: 20-year bonded glass type over heavy timber decking; ceiling of sprayed asbestos fibre for acoustical treatment. Area: 12,272 sq. ft. Volume: 307,000 cubic feet. Cost: \$11.50 a square foot including architect's fee and sales tax.



Timber Structures, Inc., with thirty-two years experience in timber laminating and fabricating, assisted the architect in providing this attractive, permanent structure for \$35,000 less than the cost of equal space produced by conventional construction.

Thorough quality control assures lasting beauty and maintenance-free service of the dome structure.

### TIMBER STRUCTURES, INC.

P. O. Box 3782-B, Portland 8, Oregon

Continued from page 70

# Handsome Wall Cabinet For Variety of Uses

Newly designed wall-hung, drop-door cabinet of oil-finished walnut can be used, in its various forms, as a desk, bar, vanity, and as a glass display or



storage cabinet. Dimensions are 171/2" high, 5" deep, and 44" long. Front panel is adaptable to user's option (for example, it may be fabriccovered). Wall-mounting brackets come with each cabinet. For the desk, the telephone-mounting compartment is fitted with cut out and installation brackets for a 554 W. C. Bell telephone. Bar and vanity have white Formica drop-door work surfaces. Glass shelves and chrome-plated dividers and tool-hanger rods are furnished. Prices range from \$104 to \$147. Hugh Acton, 588 Brookside St., Birmingham, Mich.

On Free Data Card, Circle 109



# Size of Centrifugal Fan Reduced by One-Half

Introduction of a new straight-lineflow centrifugal fan makes possible the installation of air-conditioning and air-handling fans in less than one-half the space previously required. The new unit, trademarked "Centriline," combines the advantages of airfoil-bladed centrifugal-fan performance with the important space-saving features of straight-line air flow. The compact design enables fans to be hung from the ceiling, mounted on the wall, or stacked one above the other, saving valuable floor space. Sturtevant Division, Westinghouse Electric Corporation, Hyde Park, Boston 36, Mass.

On Free Data Card, Circle 110

### Permanent-Color Finish for Asbestos Cement

Decorative asbestos-cement sheets in permanent-color finish are now available. The new finish is expected to have about five times the life of ordi-



nary paints. The first of its kind on the market, it has been formulated specifically for use on asbestos-cement materials, which are noted for their high alkalinity. Coating is washable, and resists water, corrosion, scratching, and abrasion. Sheets can be power-drilled and sawed without cracking or chipping the colored surface. Finish does not lessen the inherently incombustible character of asbestos-cement sheets because the new coatings are self-extinguishing. Available in 15 colors. Keasbey & Mattison Company, Ambler, Pa.

On Free Data Card, Circle 111

### Remote Control for Motel-Room Heat

New heat-control system is designed for installation in motels or offices where the manager desires an easy and inexpensive means to lower the temperature in unoccupied units. A control panel is placed at a central location. A three-way switch controls the heat in each area—maintaining heat at the preset thermostat temperatures, at 20 degrees below the

comfort level, or shutting off heat entirely. Fuel savings of approximately 15% are reported in average motel installations. System is specifically developed for use with "Safti-Vent" sealed gas heaters. H. C. Little Burner Company, Inc., Dubois and Woodland Aves., San Rafael, Calif.

On Free Data Card, Circle 112

### Ceiling Tile with Plastic Surface

New acoustical-ceiling tile, with exclusive vinyl surface, has been announced. Tough plastic face of "USG Kleentone" is specially treated to resist dirt and grease, but allows sound to pass through. Behind the plastic shield, in a wood-fiber tile, are hundreds of perforations that absorb up to 70% of the noise reaching the ceiling. Product requires almost no maintenance; soap and water will do the little cleaning that is necessary. Available in either textured or smooth surface, in 12" x 12" or 12" x 24" sizes. Cost is about the same as for fissured wood-fiber ceiling tiles. United States Gypsum Company, 300 W. Adams St., Chicago 6, Ill.

On Free Data Card, Circle 113

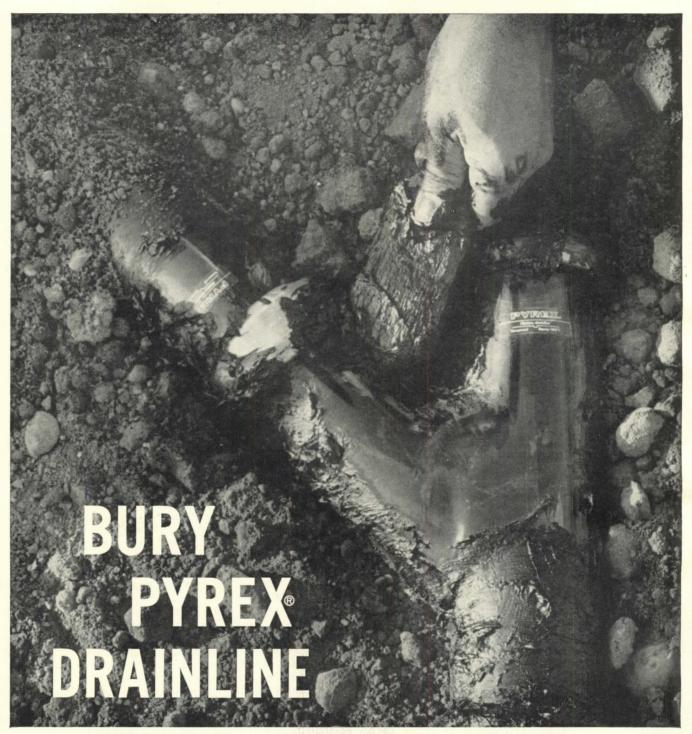
### Air-Conditioning Line Now Powered by Gas

New air-conditioning and refrigerating units, now powered by naturalgas-fueled engines, offer quieter and more economical operation. Economies are possible because natural gas offers a low-cost energy source in many parts of the country, and because all components, except the gas-operated motor, are made by one company. Quiet operation is possible because the gas motors create less vibration than most motors. Three basic units for industrial and commercial use are included in the new line—a package liquid cooler for water-cooling systems, a refrigeration condensing-unit series, and an engine-compressor unit. Bell & Gossett Company, 8200 North Austin Ave., Morton Grove, Ill.

On Free Data Card, Circle 114

# Temp-Control Panels Are Now Transistorized

Transistors have replaced vacuum tubes in the entire line of Minneapolis-Honeywell electronic temperaturecontrol panels. The panel's new transistorized amplifier is electrically and



# ...YOU NEED NEVER WORRY ABOUT CORROSION OR LEAKAGE

Ask any bench chemist and he'll tell you of the matchless corrosion resistance of the Pyrex labware he uses daily.

Why not have the same corrosion resistance in laboratory

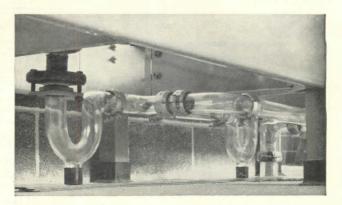
Why not have the same corrosion resistance in laboratory drainlines or waste lines? A Pyrex drainline will handle any acid material except massive quantities of hydrofluoric acid. Even buried in the ground, it resists rust, rot, and electrolytic corrosion.

**NEW BULLETIN TELLS ALL.** PE-30 explains all about the drainline and the new one-nut joint (patent pending) which makes it the least expensive drainline you can install. Write 2001 Crystal Street, Corning, N. Y.



CORNING GLASS WORKS
CORNING MEANS RESEARCH IN GLASS

200 feet of PYREX drainline are buried underneath concrete at Frontier Chemical's new research center in Wichita, Kan. All standard fittings are available.



physically matched—in size, shape, and connections-to the old vacuumtube amplifier, making possible fast "plug-in" replacement on older panels without rewiring. By eliminating vacuum tubes, the biggest problem of electronic temperature controls—tube unreliability - has been overcome. (When a vacuum tube fails, an entire temperature-control system is put out of commission without warning.) In addition to longer life expectancy, the new transistorized amplifiers will consume less power and give off less heat, contributing to the longer life of other panel components. Minneapolis-Honeywell Regulator Company, 2747 Fourth Ave. South, Minneapolis 8, Minn

On Free Data Card, Circle 115

### Hospital Unit for Flexible Treatment

"Patient-Line Multicare Unit" has been designed to meet the growing need for progressive patient care, and permits flexibility from minimal care to intensive treatment without transferring patient from one area to another. Patient confined to bed has



access to room controls, direct communications, and personal needs normally available only to the nurse. Or patient's bed may be moved away from unit for intensive treatment, with nurse having access to service controls, equipment, and table space. Unit shown serves two beds. Other Multicare units will be custom-designed to satisfy individual hospital needs. St. Charles Manufacturing Company, St. Charles, Ill.

On Free Data Card, Circle 116

# Imported Indoor-Outdoor Chair Is Available

Unusual French cobweb chair's frame and legs are of steel tubing, the frame wrapped with white plastic, and its



seat is of nylon-covered rubber latex. The seven-pound chair is waterproof and rustproof. It is easily carried and stored since the legs fold against the 30"-diameter frame. Available in black and white, the chair is packed in cartons of five, and retails for \$39.50 f.o.b. New York. Cobweb, Inc. P.O. Box 376, Lenox Hill Station, New York 21, N. Y.

On Free Data Card, Circle 117

# Plastic Laminate Faces New Fire Door

Newly-developed fire door, with plastic-laminate surfacing, has been approved by Underwriters' Laboratories, Inc. The door is expected to meet the needs of hospitals, schools, and other public buildings, as well as office and apartment buildings. Both sides of the door are faced with "Micarta," for easy maintenance and pleasing appearance; full range of Micarta patterns and colors will be offered. Fire ratings are for both Class "B" vertical shaft openings (one hour's resistance to open flame) and Class "C" room and corridor partition openings resistance). (three-quarter hour's United States Plywood Corporation, 55 W. 44 St., New York 36, N. Y.

On Free Data Card, Circle 118

# Fire Protection Plus Acoustical Treatment

New type of suspended acoustical ceiling costs no more to install than ordinary plaster and metal lath, yet provides rated fire protection for structural steel, plus the advantages of sound absorption and dry installation. The new ceiling, known as "Acous-

tical Fire Guard Lay-in System," employs special fire-resistant ceiling panels, approximately 2' x 4', instead of tile. The panels rest in a unique exposed-grid suspension, specially designed to withstand the intense heat of a fire; panels can be lifted out at any time for access to utilities. The system has earned a three-hour beam protection rating in official tests conducted by Underwriters' Laboratories, Inc. An earlier acoustical-tile ceiling, called "Acoustical Fire Guard," provided a two-hour fire protection for structural steel. The new lay-in system goes one step further by giving the installation the speed and economy of an exposed grid suspension system. Armstrong Cork Company, Lancaster,

On Free Data Card, Circle 119

### Ceiling Heater Gives Radiant, Circulated Heat

Unique electric ceiling heater supplies both radiant heat and air circulation. Cross-angle radiation, which beams heat at angles into every corner of the room, is provided by a specially-engineered, perforated-steel face panel. Air circulation is provided by vents on either side of the unit. The air is heated and circulated across the ceiling without fans, then recirculated back into the heater when cooled. Unit mounts directly on the surface of the ceiling, with a depth of only 23/4". Glass-fiber insulation behind the elements keeps heat from escaping to the ceiling. Suggested uses are for kitchens and bathrooms in new construction, and supplementary heat for any room in existing construction. Sun-Tron Corporation, 7435 W. Wilson Ave., Chicago 31, Ill.

On Free Data Card, Circle 120

### Flush Steel Door Has Honeycomb Core

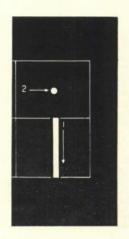
Honeycomb core, of kraft fiber impregnated with phenolic resin, gives flush steel doors an exceptional evenness and resistance to impact. Adhesive bonding keeps steel facings perfectly flat to eliminate buckling; small honeycomb cells support entire surface to prevent denting. Without welding of internal stiffeners, there are no surface mars. Core also possesses sound-deadening qualities. Steelcraft Manufacturing Company, 9017 Blue Ash Rd., Rossmoyne, Cincinnati 42, Ohio.

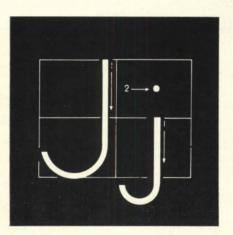
On Free Data Card, Circle 121





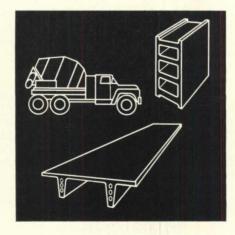














how to be early for school One valuable "aid to education" is Incor 24-hour portland cement. It speeds construction of attractive fire-safe schools, whether designed with precast or cast-in-place concrete. Incor permits earlier occupancy... cuts the cost of forms and equipment... and saves taxpayers' money. Check into Incor's 33 years of proved on-the-job performance.

AMERICA'S FIRST HIGH EARLY STRENGTH CEMENT



LONE STAR CEMENT CORPORATION, NEW YORK 17, N.Y.

### AIR/TEMPERATURE

### Electronic Controls in Air-Conditioning Systems

Electrionic Handbook, 18 pages, discusses the application of electric and electronic controls in commercial and industrial air-conditioning installations. More than a product catalog, the handbook explains in detail the theory of electric and electronic control, makes comparisons between electronic and pneumatic controls, and is generously illustrated with diagrams. The basic principles described in the book give a good working knowledge of electronic-control operation as applied to heating, ventilating, and air-condi-Barber-Colman tioning. Company, 1300 Rock St., Rockford, Ill.

On Free Data Card, Circle 200

### ATC Units for High-Velocity Air

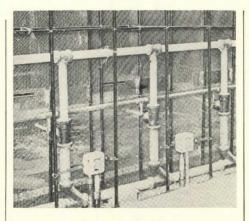
Detailed description of a new line of acoustic terminal control units for all-air/high-velocity systems is contained in 36-page Catalog 1060. Booklet contains full information and specifications on three ceiling models and two window/perimeter models, and also provides engineering data on system noise and new tables of static pressure losses and regains. Diagrams and tables are attractively presented. Carnes Corporation, Verona, Wisconsin

On Free Data Card, Circle 201

### CONSTRUCTION

# Hollow Partitions With Channel Studs

The value of varying dimensions of hollow partitions with 3/4"-channel studs is highlighted in Technical Bulletin No. 15. The bulletin gives details, specifications, and limitations of hollow partitions with channel studs. Especially important are the economical uses of the assembly when unusual partition thicknesses are necessary to accommodate oversized or oddsized building facilities. Three tables are included in the 4-page bulletin: heights of hollow partitions, types and weights of metal lath, and fire-resistive ratings. Illustrations show details related to metal door frames, and wood frames with metal casing bead



or wood casing. Cross ties or spacers and stud anchorage are also illustrated. Metal Lath Manufacturers Association, Engineers Building, Cleveland 14, Ohio.

On Free Data Card, Circle 202

### New Color Process for Stainless-Steel Sheet

New development for applying uniform color finishes to stainless-steel sheet and strip is presented in 8-page folder. Since "the life of a coating is



in direct proportion to the nobility of the base metal itself," the thermosetting-resin film gives excellent performance in resisting corrosion and the effects of weather. Because of its high degree of plasticity, and its excellent bond to the metal, no cracking or peeling of the coating occurs during fabrication. Folder lists typical architectural applications of the "ColorRold" stainless steel. Shown: American Society for Metals building by John Terrence Kelly. Washington Steel Corporation, Woodland & Griffith Sts., Washington, Pa.

On Free Data Card, Circle 203

### CONCISE DATA ON NEW A36 STEEL

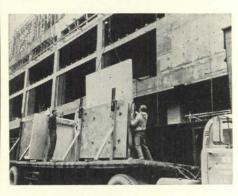
Postcard-sized booklet, 16 pages, gives important information on the new grade of structural steel (ASTM A-36-60T), which is now available in wideflange beams, standard structural shapes, plates, and bars. In tabular form, A36 is compared with A7 and A373 on scope clause, chemical re-

quirements, yield point (A36 is 9% higher), tensile strength, elongation, weight, and price. A36 steel is hailed as "an improved structural steel for bridges, buildings and general structural use," which will "improve the economics of steel in relation to competing structural materials." United States Steel Corporation, 525 William Penn Pl., Pittsburgh 30, Pa.

On Free Data Card, Circle 204

### Movie Available on Concrete Curtain Walls

A 16 mm. sound-and-color film, Casting and Erecting Concrete Curtain



Walls, deals with the numerous methods used to cast and put in place decorative wall panels. The 22-minute film treats such subjects as rubber and plastic form liners, plaster of Paris forms, sandwich panels, grill wall units, sand molds, and exposed-aggregate techniques. Methods used to attach concrete curtain-wall panels to building frames are illustrated. The movie is available on loan from PCA's 35 district offices, located in major cities throughout the country. Contact local offices, or write to: Portland Cement Association, 33 W. Grand Ave., Chicago 10, Ill.

### Many Uses for Polyethylene Film

Various uses of "Visqueen" polyethylene film in construction are spelled out in new 8-page illustrated booklet. Included are specifications for the film as a water-vapor barrier under slabs, in crawl spaces, on flooring, subflooring, warm side of walls, ceilings, and as concealed flashing. Use of the material for protective enclosures in cold weather, and as covering for material and equipment, is also described. Its qualities as a concrete-curing blanket

are explained, along with its other properties. Special Products, Visking Company, 6733 W. 65 St., Chicago 38, Ill.

On Free Data Card, Circle 205

### Elevated Floor for **Data-Processing Areas**

Folder, 20 pages, presents "Elaflor" pedestal-type/free-access flooring for electronic data-processing areas. Contents include detail drawings of all features of the assembly, giving full technical information for varied installations. Standard specification sheet is also included. Panels are available in aluminum with aluminum or vinvl trim, or encased in steel, or in steel with aluminum trim. Folder also clearly indicates the number and type of drawings necessary for an Elaflor layout. Liskey Aluminum, Inc., P. O. Box 506, Glen Burnie, Md.

On Free Data Card, Circle 206

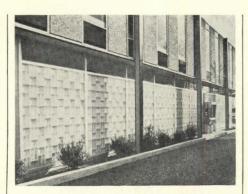
### Design Flexibility with Glass Block Modules

Glass Blocks and Sculptured Glass Modules, new 20-page catalog, has been published. Booklet contains background information on glass blocks, and features newest contribution to this field-"Sculptured Glass Module." Its design flexibility and functional advantages are discussed, along with technical data on light transmission, insulation value, physical performance, and colors. Guides to proper selection and installation are also given. Several pages are devoted to typical elevations and sections. Pittsburgh Corning Corporation, 1 Gateway Center, Pittsburgh 22, Pa.

On Free Data Card, Circle 207

### Revised Specs for Metal Lathing, Furring

Revised and rewritten in many important areas, updated specifications for metal lathing and furring are now available. These specifications, severaltime winners of AIA and Producers' Council awards for technical literature, are highly regarded as guides to proper lathing procedures. Basic design criteria are given for lathing of hollow and solid partitions, ceilings, furring, stucco, plaster reinforcements, columns, and other assemblies. Details on the use of rib metal lath with portland cement plaster are a



new addition to the specifications. A second major change in the 20-page specifications is a simplification that makes fire-resistant ratings easier to determine: all plaster is now uniformly measured from the face of the metal lath. Metal Lath Manufacturers Association, Engineers Building, Cleveland 14, Ohio.

On Free Data Card, Circle 208

### DOORS/WINDOWS

### Sliding Glass Doors

"Series 301" steel sliding glass doors are presented in 4-page brochure. Standard types and sizes are listed in tabular form; quarter-size details of sections and installation are provided. Also included are specifications, photos of existing installations, and a few comments on the strength and proven performance of the product. Carmel Steel Products, 9738 E. Firestone Blvd., Downey, Calif.

On Free Data Card, Circle 209

### Solid-Core Doors Faced with Formica

Formica-clad, solid-core doors are described in new 4-page bulletin. In doors requiring louvers, the portion of the louver slat which falls in the plane of the Formica face is machined from the Formica face. Door edges are also of plastic laminate. Specifications, intended to be a separate section and not incorporated with millwork or any other section, are given. Architectural Products Manufacturing Company, 1245 Texas Ave., Shreveport,

On Free Data Card, Circle 210

### New Line of **Balanced Doors**

20-page catalog of company that is described as "world's largest manufacturers of revolving doors." Catalog contains complete details for planning. specifying, and installing either balanced or revolving doors. Recommended design is indicated in scale drawings, for which kit of tracing sheets is also available. Revolving Door and Entrance Division, International Steel Company, 1460 Edgar St., Evansville, Ind.

On Free Data Card, Circle 211



### New Catalog of Windows, Curtain Walls

1961 catalog of "grid system" windows and curtain walls has been published. The firm's new neoprene-gasket system for glazing and sealing is described. Other information in the 16-page catalog includes recommended design procedure, quarter-size details on all principal sections, panel data, full description of the unique ventilator units, and specifications. Photos document some recent installations. E. K. Geyser Company, 915 McArdle Roadway, Pittsburgh 3, Pa.

On Free Data Card, Circle 212

### ELECTRICAL EQUIPMENT

### General Practices for Parking-Area Lighting

Recommended Practice for Outdoor Parking-Area Lighting, 8 pages, has been prepared by a subcommittee of the IES. Document is a guide to the application of fixed lighting to public and private parking areas, and contains general discussion of many important factors: basic illumination requirements, sources of light, types of lighting equipment, proper location and aiming, and maintenance. Guide does not give specific recommendations for actual situations, but gives general principles upon which satisfactory outdoor lighting systems can be designed or evaluated. Write (enclosing \$.50) to: Illuminating Engineer-New balanced doors are introduced in York 23, N. Y.



Architects and engineers know Mahon
Long-Span M-Decks as a valuable ally in
curbing construction costs without
sacrificing design expression. M-Decks are
proven, multi-purpose roof sections that
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SPEEDING AMERICAN CONSTRUCTION WITH METAL BUILDING PRODUCTS, FABRICATED EQUIPMENT AND ERECTION SERVICES

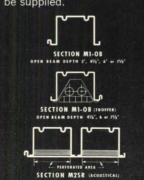
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#### MAHON LONG-SPAN M-DECK SECTIONS

Standard M-Deck types now in manufacture by Mahon. Special-form sections can also be supplied.



Design for Living, City-Style—Mies van der Rohe's Lafayette Park Development in downtown Detroit. Mahon Long-Span M-Deck was used as the roof system in all 22 low-rise building units. Contractor: Herbert Construction Co., Chicago

### MAHON BUILDING PRODUCTS

- Aluminum or Steel Curtain Walls (in natural or colored metals)
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- Long Span M-Deck (Cellular or Open Beam)
- Steel Roof Deck
- Acoustical and Troffer Forms
- Acoustical Metal Walls, Partitions and Roof Decks
- Permanent Concrete Floor Forms

### CONSTRUCTION SERVICES

- Structural Steel-Fabrication and Erection
- Steel Fabrication-Weldments
- Geodesic Domes—Fabrication and Erection

### Co-ordinated System of Theatrical Controls

The theatrical industry's first coordinated system for complete control of stage lighting, rigging, and elevating is described in 8-page brochure. Products can be matched and unitized to achieve the most efficient theatricalcontrol package for a particular size or type of theater. Featured in the bulletin, among other systems, is the "Mark II" lighting-control system, with its quiet dimmers and infinitepreset/show-card console. Also described is the "Robot-Grid," a rigging method claiming more efficiency, flexibility, and economy of space than conventional counterweight systems. A remotely controlled elevating system permits positions from 14' below to 14' above stage level. Electric Products Division, Vickers Inc., 1815 Locust St., St. Louis 3, Mo.

On Free Data Card, Circle 213

### Electroluminescence

The Story of "Panelray" Lighting, 16 pages, describes the new lighting panels that emit a soft glow, consume little power, require no maintenance, and outlast other lighting devices by a wide margin. Booklet discusses the principle and history of electroluminescence—which operates without bulb, tube, or filament—then continues with a summary of advantages, applications, and technical properties. Panelray is available in stock-size panels or to custom order. Electron Tube Division, Radio Corporation of America, Harrison, N. J.

On Free Data Card, Circle 214



### New Troffer Fits 81 Ceiling Types

New "Universal II" fluorescent troffer, adaptable to many ceiling systems, is fully described in 4-page bulletin. An exploded view details the various components which make the modular fixture versatile, easily aligned, and rugged. Bulletin describes various closure styles available to meet special lighting requirements. Pittsburgh Reflector Company, Box 432, Irwin, Pa.

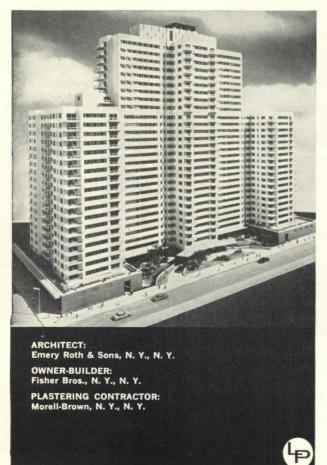
On Free Data Card, Circle 215

### FINISHERS/PROTECTORS

### Floor Toppings Float

New 4-page bulletin explains floating floor toppings with "Synthanite" (synthetic anhydrite cement) concrete. The Synthanite-sand-gravel topping actually floats over the structural subfloor. A 1" thickness is installed over building paper and is separated from walls and columns by 1/2" expansion joints. This unusual approach to providing a stable and uniform floor system is made possible by the high strength and negligible shrinkage properties of the material. Included in the bulletin are illustrations of seven typical floor systems employing this new floor-design concept. American Synthanite Corporation, 60 East 42nd Street, New York 16, N.Y.

On Free Data Card, Circle 216



Another fine specification for

# PLASTER-WELD® Luxurious 30 story

### IMPERIAL HOUSE

New York's largest post-war apartment building

Here, at Imperial House, Emery Roth & Sons specified Plaster-Weld to bond finish plaster over all exposed concrete constructionslab ceilings, columns and beams.

After Plaster-Weld was sprayed on concrete, and had dried to a flexible film, plastering began, with Plaster-Weld creating a permanent bond between plaster and concrete. By eliminating rubbing and grinding of exposed concrete, Plaster-Weld helped provide a deluxe plaster finish at extremely low cost.

In case you haven't heard, Plaster-Weld is the amazingly versatile job-proven liquid bonding agent which bonds plaster to concrete . . . or any sound surface . . . for as little as 2c per square foot.

For complete technical information, see Sweet's, or write us direct. Address Box 5938-P, Larsen Products Corporation, Bethesda 14, Md.

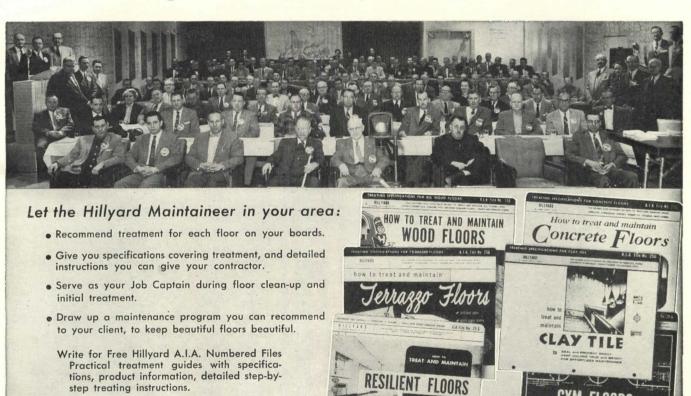
### LARSEN PRODUCTS CORPORATION

LARSEN... FIRST... WITH THE FINEST IN BONDING AGENTS

# Over 160 Hillyard-Trained FLOOR TREATMENT SPECIALISTS

"On Your Staff, Not Your Payroll"

Typically, a HILLYARD "MAINTAINEER®" has more than 10 years of experience working directly with architects, and with institutional administrators, to choose the one best treatment for a given floor or floor problem. This field experience is supplemented by a continuing program of inservice refresher training, where the architect's problems are thoroughly dealt with. Photo shows Maintaineers gathered at one such Hillyard Seminar at the Home Office.



This service is one more reason why, in specifying treatments for

WOOD, TERRAZZO, CONCRETE, CERAMIC TILE or RESILIENT FLOORS



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manufactured by a nationally known manufacturer of Institutional Furniture cannot be equalled by (1) ordinary millwork, (2) ordinary household furniture in point of:

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#### Let Us Tell You Why!

Our experienced assistance in room layout suggestions, designing and specifying is yours to draw upon . . . no obligation in letting us consult with you. If you have any dormitory plans in work, let us bid before you buy.



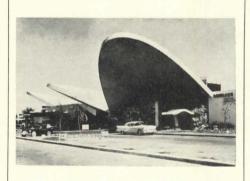
### Weatherproofing for Concrete and Masonry

"Flexible Resto-Crete," new weather-proofing material for concrete and masonry, is described in 4-page folder. When applied to exterior surfaces, the material forms an effective barrier against water penetration, yet its controlled porosity permits interior water vapor to escape. Because of its flexibility, it will not rupture under expansion and contraction of the surface underneath. Folder contains illustrations of buildings weatherproofed with Flexible Resto-Crete, and gives detailed information on its properties, available colors, and specifications. Western Waterproofing Company, 1223 Syndicate Trust Building, St. Louis 1, Mo.

On Free Data Card, Circle 217

### **Elastomeric Roof Coating**

New "Neoprene-Hypalon" roof coating easily adapts to curved roof forms, giving permanent elasticity and



weathertightness. Coating weighs only 1/25 as much as conventional coatings. It is applied by brush, spray, or roller—without heating—and becomes fire-resistant as it cures through chemical action. Available in wide variety of colors, and may be textured. Booklet, 4 pages, gives summary of properties and advantages, shows application procedure, and includes photos of several existing installations. Caram Manufacturing Company, 520 E. Evergreen Ave., Monrovia, Calif.

On Free Data Card, Circle 218

### INSULATION

### Technical Data on Vermiculite

Three new technical sheets, each 1 page, have been published on vermiculite concrete roof insulation. Two

sheets give data and a short-form specification for the 1:6 and the 1:8 mix of vermiculite concrete over prestressed-concrete double tee or channel roof slabs. The third sheet presents load tables for galvanized corrugated steel roof units. Vermiculite Institute, 208 LaSalle St., Chicago 4, Ill.

On Free Data Card, Circle 219

# Complete Line of Acoustical Ceilings

1960 edition of Acoustical Ceilings contains 36 pages of product information covering manufacturer's complete line. Each product is fully illustrated in its various patterns; accompanying data gives all necessary technical information. A discussion on the prevention of sound-transmission problems is included, as are extensive specifications. Armstrong Cork Company, Lancaster, Pa.

On Free Data Card, Circle 220

# Foam-Insulation Values For Electric Heat

Heat-loss values for three plastic-foam insulations have been published. Each chart of the 1-page data sheet lists values by type of comfort application and thickness of foam. Values are expressed in both watts factor and U factor. Products are "Roofmate", for use under built-up roofs; "Styrofoam", for insulation on masonry walls and in cavity walls; and "Scorbord", for perimeter insulation. The Dow Chemical Company, Midland, Mich.

On Free Data Card, Circle 221

### SANITATION/PLUMBING

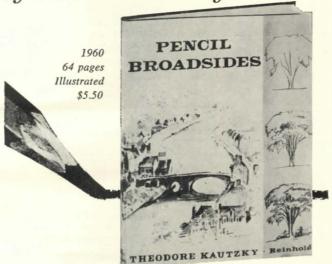
### Horizontal Pumps for Clear Liquid Transfer

New bulletin, 8 pages, presents horizontal split-case pumps for water and clear liquid transfer. Products described are "Fig. 4000" single-stage and "Fig. 4400" two-stage centrifugal pumps, used in water treatment plants, industrial plants, and other applications. In addition to cutaway illustrations and dimensional drawings, there is full specification data. Also featured is a helpful composite chart that relates feet head and gpm

Just published! A handsome new edition of Kautzky's famous work on pencil drawing

### PENCIL BROADSIDES Enlarged Edition

by Theodore Kautzky



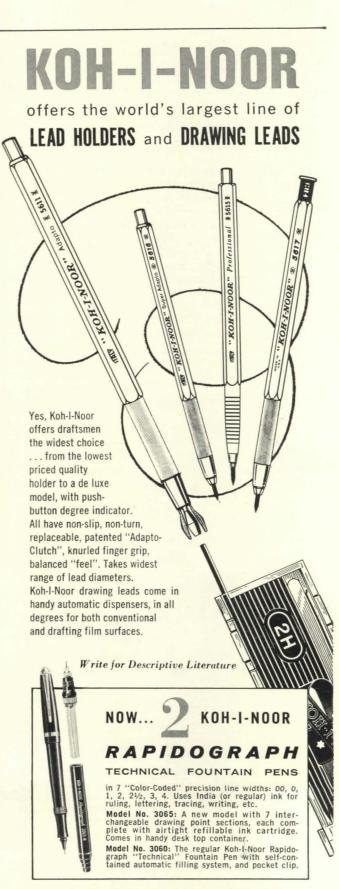
Now IN AN ENLARGED, hard-cover edition, *Pencil Broadsides* presents twelve easy-to-follow lessons by Theodore Kautzky on the techniques of broad stroke pencil drawings. Already a classic in its field, this work by the inimitable master of the pencil ranges from fundamental strokes to composition pointers and covers architectural and landscape forms and textures.

Kautzky discusses the indication of rough and smooth stonework; brickwork at large and small scale; various wood textures; structures and foliage of pine trees, oak trees, birch trees and elm trees; the indication of roof textures; evergreen shrubbery and flowers at large and small scale. A single lesson consists of a comprehensive text together with illustrations of methods and techniques.

In addition to the lessons, this new edition contains a portfolio of over twenty-two Kautzky drawings, ten of which appear here for the first time. These carefully reproduced drawings beautifully illustrate how Kautzky used the broad stroke pencil technique to achieve crisp, sparkling and powerfully expressive results. Lovers of pencil work will want this book for these reproductions alone.

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to pump size and speed in rpm, Water Equipment Division, American Well Works, Aurora, Ill.

On Free Data Card, Circle 222

### Compact Plant for Sewage Treatment

"Bio-Pac," a small-scale, single-unit adapation of big-city bio-filtration sewage treatment facilities, is introduced in 6-page Folder 2971. Unit is available in 8 sizes, to meet needs of 50 to 500 persons in subdivisions, schools, motels, factories, and other establishments remote from municipal sewage-treatment systems. Booklet gives diagrams, tables, capacities, and dimensions. Link-Belt Company, Dept. 60, Prudential Plaza, Chicago 1, Ill.

### Small-Flow Sewage Treatment

On Free Data Card, Circle 223

Unique "CompleTreator" provides complete sewage treatment in a single tank for the disposal of domestic waste of up to 150 persons (15,000 gpd). Unit provides modern sanitary engineering regardless of how small the sewage flow. By combining five distinct operations in a single tank, it cuts construction costs and conserves space. The CompleTreator is delivered to the site, wired and completely assembled, ready for installation in as little as two hours. No special training or testing is required for successful operation. Bulletin, 8 pages, discusses development and design of the system, and its operation and maintenance. Dorr-Oliver Inc., Stamford, Conn.

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### SPECIAL EQUIPMENT

### Medicine Cabinets

1960 catalog of bathroom products, showing medicine and mirrored cabinets of all sizes and for all uses, has been issued. Handy visual index inside front cover helps locate appropriate items later presented in 30-page catalog. Many models have adjacent side lights; some models have lighting incorporated in wide frame of cabinet. General Bathroom Products Corpora-

tion, 1809 W. Thomas St., Chicago 22,

On Free Data Card, Circle 225

### Line of Steel Lockers

Nine locker styles for use in offices, schools, industry, stores, institutions, and clubs are presented in 24-page Catalog 6000. The units in the line are single-tier, double-tier, multiple-tier, two-person, dual, duplex, air-lite, special lockers, and basket racks. In addition to illustrations and descriptions, complete dimensional information is given for each style. Useful guides are provided for layout. Penco Division, Alan Wood Steel Company, 200 Brower Ave., Oaks, Pa.

On Free Data Card, Circle 226

### PROGRESSIVE ARCHITECTURE MINUS RINDORT

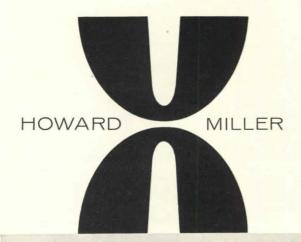
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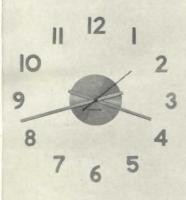
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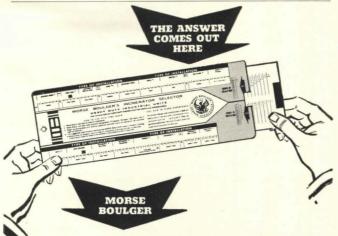


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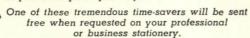
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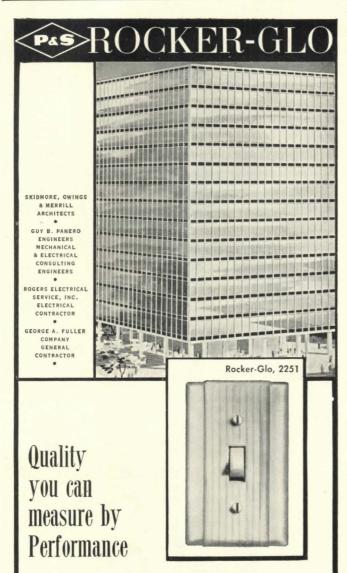
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Note: P&S Super AC Switches (20AC1) were also used in this building in all hallways and laboratories.

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by Victor Gruen and Larry Smith

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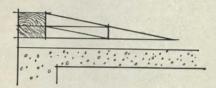
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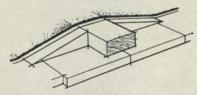
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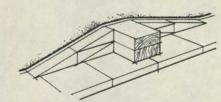
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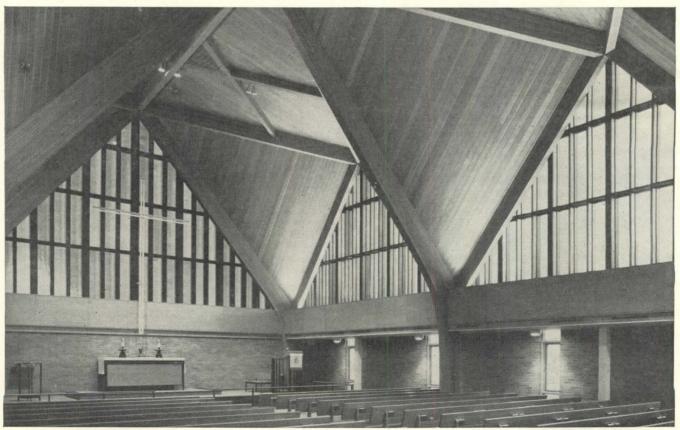
"Laminated wood was specified . . . because of the ease of cutting and shaping the framing members," comment The Cerny Associates, Inc., Minneapolis, architects for St. Timothy's Lutheran Church, St. Paul. "The result is the effect of precision and exactness . . . the completed job is very satisfying because of the rich, warm quality of the wood."

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St. Timothy's Lutheran Church, St. Paul, Minn., constructed with Rilco laminated wood arches and beams. Tangent arches span 40'; spaced 28' 8". Architects: The Cerny Associates, Inc., Minneapolis, Minn.

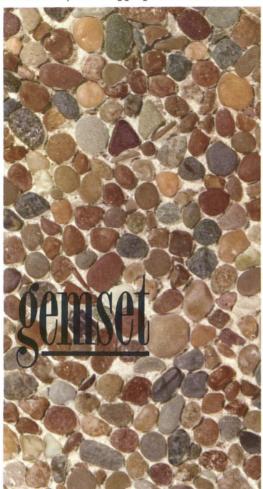


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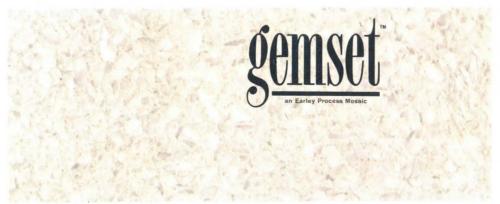


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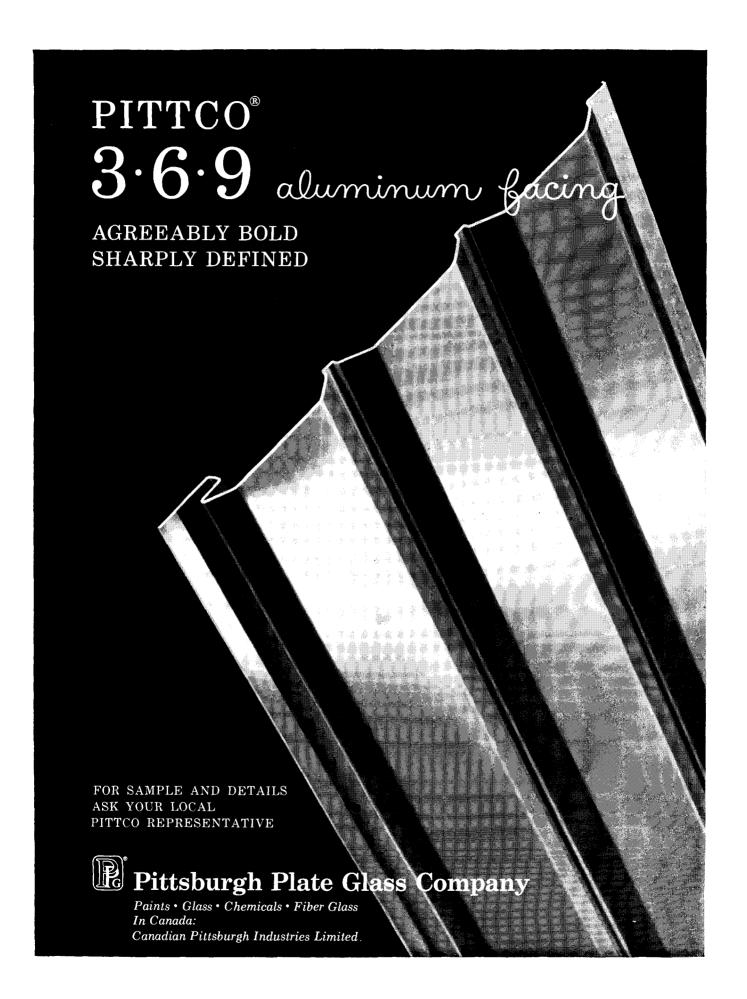
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Exposed aggregate texture of Earley Process spandrels here contrasts with marble columns.



### January 1961 PROGRESSIVE ARCHITECTURE

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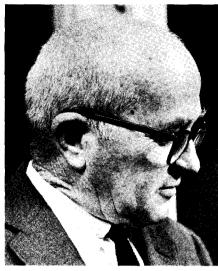


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Frontispiece PHOTO OF SOME OF THE DESIGN AWARDS SUBMISSIONS

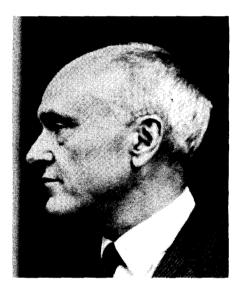
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Ford: "Isn't the limitation of architecture a discipline worth thinking about? Many of these architects seem to have this existentialist feeling that chaos is better than trivial direction."



Netsch: "There seem to be three directions in these projects: first, this style of cubism; second, this major concrete structure; and third, chaos."



Johnson: "Frankly I wouldn't build a building like any one of these but I hope I can take a liberal attitude—I think we should honor good design wherever it appears."



Smith: "I think it is regrettable that there is so little in community and residential design."

# **EIGHTH ANNUAI** DESIGN **AWARDS**

Another P/A Design Awards Program has come to its conclusion-the results are here before you. This year's Jury was composed of Charles R. Colbert, Dean of the School of Architecture, Columbia University, and partner of Colbert-Lowry-Hess-Boudreau, architects of New Orleans, La. (elected Chairman of the Jury); O'Neil Ford, architect of San Antonio, Texas; Philip C. Johnson, architect of New York; Walter A. Netsch, Jr., partner of Skidmore, Owings & Merrill, architects of Chicago, Ill.; Chloethiel Woodard Smith, partner of Satterlee & Smith, architects of Washington, D. C. More than 500 entries confronted the Jury members, who worked tirelessly and conscientiously from the first through the last entry in each building category. The number of jobs submitted and those premiated in each category make for rather interesting statistics.

category	jobs received	awards	citations
residential	145	1	4
commerce	102	2	
religion	73		
education	66	0	
recreation	33		
health	28		
public use	27		
urban design	21		
industry	12		
totals	507	5	13

It is obvious from these figures that the number of jobs received in a category is a good indication of building activity in each field, though not necessarily an indication of proportional design excellence, judging by the Award and Citation figures.

In the categories of religion, industry, and urban design, for example, no Awards or Citations were given. Education, with 66 entries, was also found to be extremely weak, when compared with the vital and resourceful ideas of the early 50's. "What has caused this shift in design interest?"

the Jurors asked themselves. "Is it simply a bored reaction? Is it school boards inhibiting the architect? Is it the same old cost battle?" Charles Colbert said of one school-applying the comment to many others-"It does nothing except put in a simple envelope the program that was handed to an architect. There isn't an educational concept involved, and there really isn't an architectural one involved."

On the other hand, the level of design excellence in the commercial category was unusually high, and a number of first-rate architectural solutions rose to the topamong them the First Design Award, an office building in Honolulu by I. M. Pei & Associates. This project, the Jurors agreed, fulfilled in every way their high criteria for selection. (See Jury discussion concluding this section.)

Urban design, which has produced many Award winners in recent years, did not fare well at the hands of this Jury, although some of the current important contributions by good architects and farsighted developers and commissions were submitted. One reason for this, the Jury members felt, was that the problem of combining high-rise and low-rise buildings in one urban setting is almost impossible of well-scaled solution. Individual apartment houses, on the other hand, did reasonably well in the judging.

There was much comment in the Jury room about basic materials of construction and their effect on design. "This is the year of concrete," remarked one of the jurors-and indeed it seemed to be. From houses to the First Award office building; from the modularity of a repeated pattern to almost pure sculpture, concrete was used in submission after submission. More than half of the premiated projects are to be built of concrete, many of them using precast members. However, among the winning designs there are brick and blockmasonry structures, an imaginative steel space frame, and several handsome buildings in wood. It was gratifying to see that almost all of the entries had carefully thought through, in the stage of preliminary design, the materials and methods of construction.

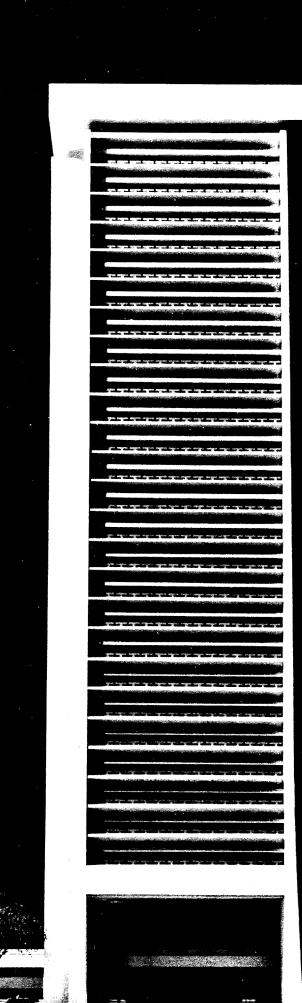


Colbert: "It is hard to segregate the responsibilities of the architect, and the individual aspirations of the architect."



FIRST DESIGN AWARD

I. M. PEI & ASSOCIATES, ARCHITECTS WEISKOPF & PICKWORTH AND DONALD T. LO, STRUCTURAL ENGINEERS

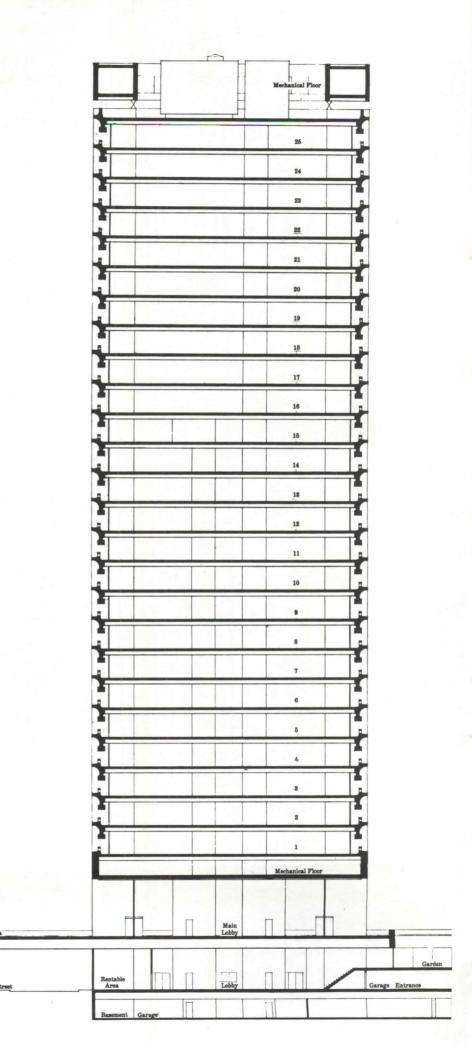


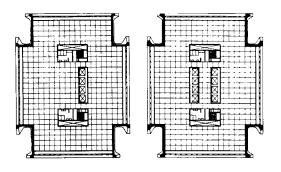
Project: Metropolitan Tower for Dr. Raymond C. Yap, Honolulu, Hawaii. Program requirements: To provide 250,000 sq ft of office space in order to alleviate the present shortage of such facilities. Site: Between downtown Honolulu and the Waikiki area, facing the Ala Moana Shopping Center.

Design solution: A building composed of two elements-a thirty-story office tower, and an elevated horizontal structure which penetrates the tower near its base. This horizontal element will span Kona Street to connect the building with the Ala Moana Shopping Center, will pass between the four massive corner columns of the tower structure, and continue beyond the building to Kapiolani Boulevard. The upper level of this element will be treated as a colorful plaza providing also an entrance for pedestrians. Floors of the tower will be free of columns, permitting complete flexibility in arranging the 9200 to 9650 sq ft floor areas. Each floor will be surrounded by shaded terraces, designed to permit uninterrupted views. Floors are adaptable to single occupancy or up to twenty-four tenants per floor. Parking for tenants will be provided in the sub-surface levels of the building. Short-term parking will be available at the Ala Moana Shopping Center, accessible via the plaza.

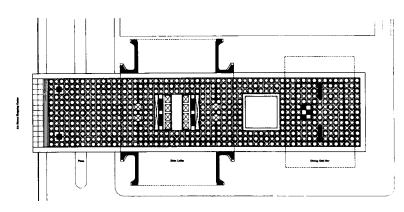
Construction and materials: A powerful concept of structure consolidating all compression in the four massive corner columns supporting 80-ft-long spandrel girders. The strongly articulated girders also serve as sunshades. The structural material will be reinforced concrete "applying techniques," according to the architects, "which have been rather expertly developed in Hawaii, such as slip forms and post-tensioning of long-span girders."

Jury reaction: This is a most significant statement in attempting to design a high-rise office building. The structural concept is easily understood. It is revolutionary, though it's the old story of 'putting all your compression in one basket.' This solution eliminates the problem of columns and corners—we have here a new freedom in tower buildings.

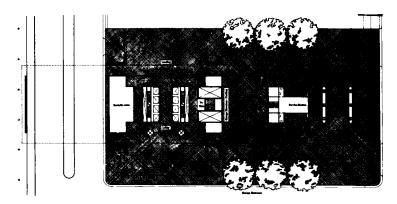




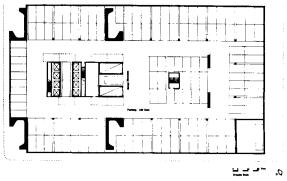
typical floors



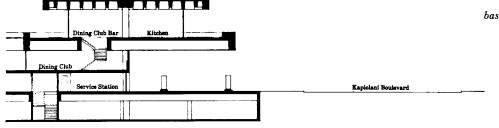
plaza level

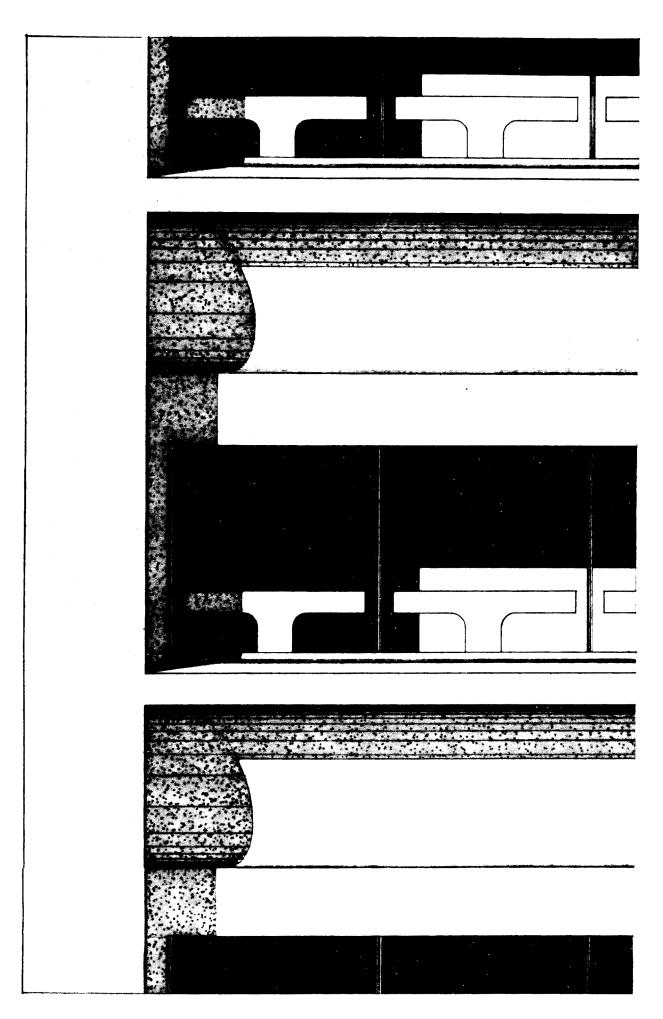


ground floor

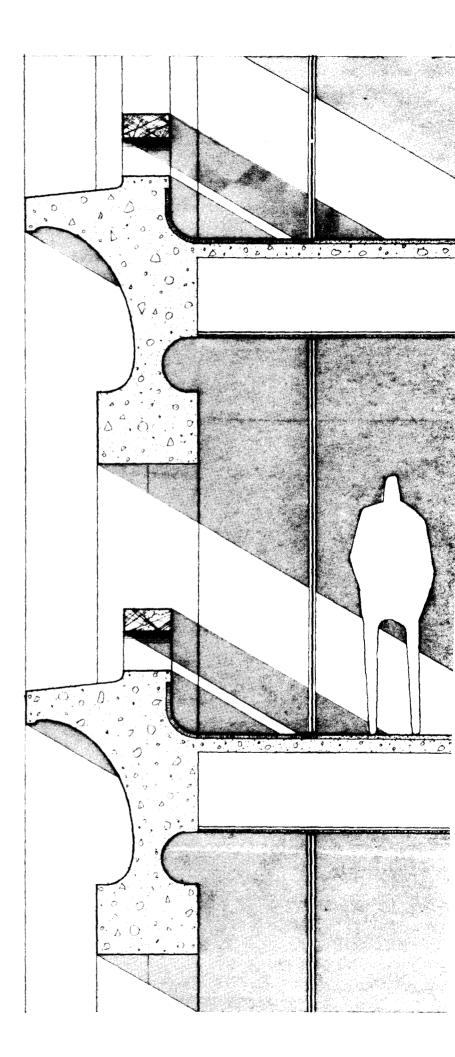


basement











RAPSON

### **CITATION**

commerce

RALPH RAPSON, ARCHITECTS
MEYER & BORGMAN,
STRUCTURAL ENGINEERS
BLOOM & OFTEDAL,
MECHANICAL-ELECTRICAL
ENGINEERS
RICHARD LAMBERT,
ACOUSTICAL DESIGN
JEAN ROSENTHAL,
THEATER CONSULTANT

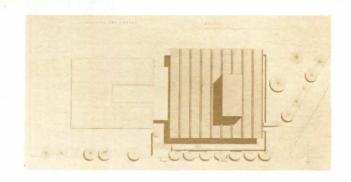
Project: Theater for Tyrone Guthrie Theater Foundation, Minneapolis, Minnesota.

Program requirements: New building housing repertory company to be connected with existing Walker Arts Center. Theater to accommodate three types of production: 1 open-stage productions providing a seating capacity of 1500; 2 proscenium productions seating 1100; 3 lectures, chamber music productions, etc. with a capacity of 500-600. Provisions are to be made for closing off unused sections. Design of the new theater is to be closely integrated with existing building; new lobbies and foyers are to provide additional exhibition space in conjunction with existing facilities. Though the new theater will have its own entrance, the two structures will have joint building control and management. Site: Urban property zoned for residential use.

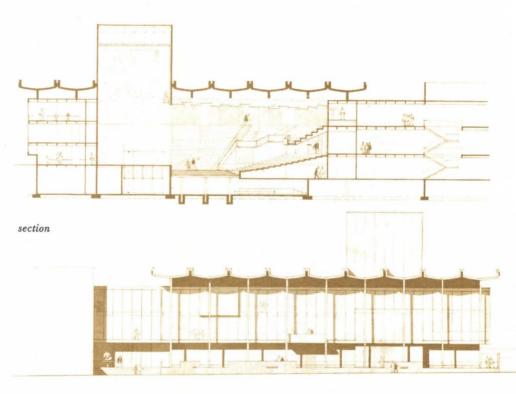
Design solution: The architect writes that in accordance with the program set up by Tyrone Guthrie "an attempt has been made to achieve a more relaxed, informal, and intimate seating arrangement for the open-stage productions as well as for more conventional proscenium productions and other uses." The side orchestra sections roll up into the center balcony section to make the two areas continuous. These balcony-orchestra sections become the logical cut-off points for proscenium productions.

Construction and materials: Reinforced concrete is to be employed for the frame of the building; precast-concrete members and glass will provide the exterior and interior finishes.

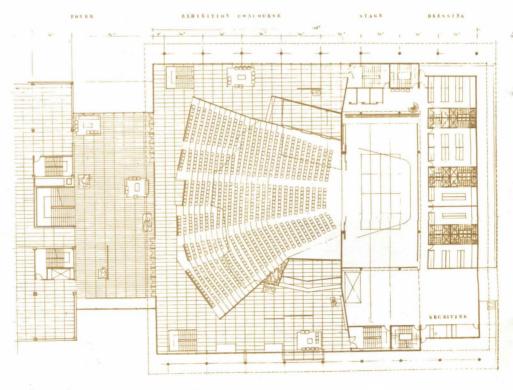
Jury reaction: Though the Jurors regretted that the exterior form did not express enough of the excitement of the building's function, they admired the lively, versatile interior.



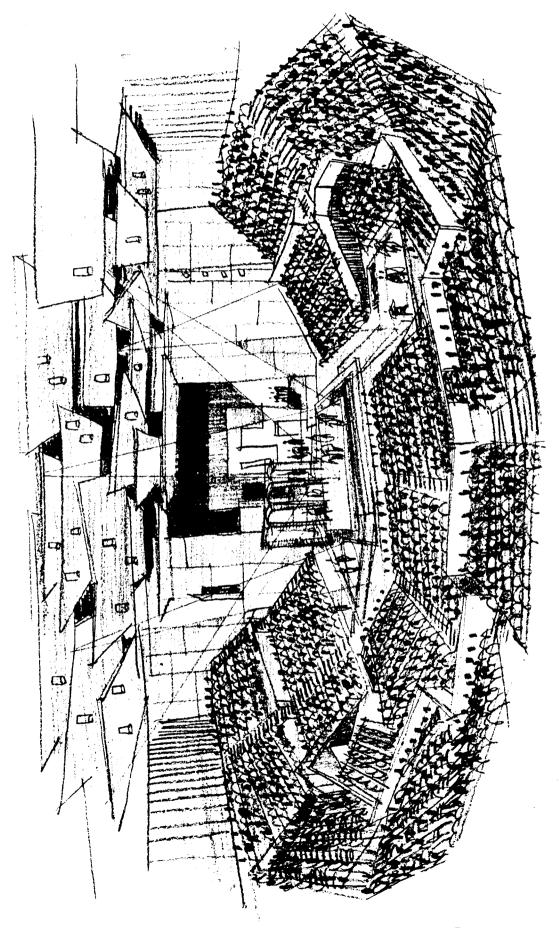
site plan



north elevation



orchestra plan





KATSELAS

### CITATION

commerce

### TASSO KATSELAS, ARCHITECT

Project: Office building for Vic Maitland Associates, Pittsburgh, Pennsylvania.

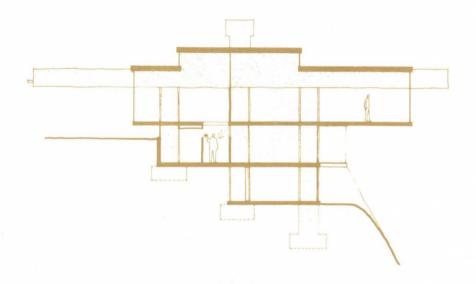
Program requirements: A new building to accommodate the various divisions of an advertising agency. Approximately 10,000 sq ft required.

Site: High bluff overlooking the juncture of Monongahela and Allegheny Rivers.

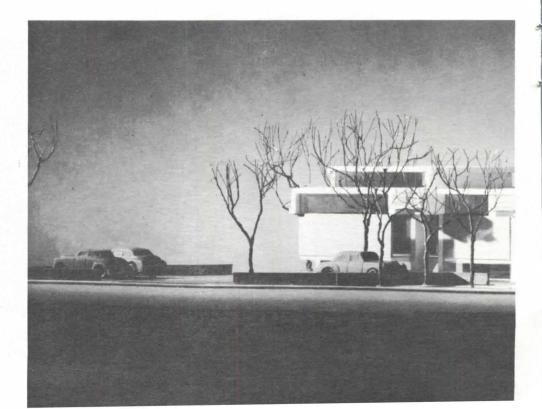
Design solution: "A building for an advertising firm," writes the architect, "is not a common architectural assignment -it is totally unlike the typical office building. Its functions are varied; its spaces range from storage to TV and radio areas to art department and plush executive office space." In planning these spaces "the aim was to create an exciting interior that reflects the vital role advertising and graphic arts play in our everyday lives; that this role is directly related to the arts and to the age and era in which we live; that a building of beauty may house these functions and may reflect a form vital to our time." Focus of the plan is the executive office area. "From here the executive commands control-visual and physicalover the entire operation. He is able to circulate effectively to any and all parts of the structure, and to display his building to visitors by a simple walk along the bridge arcade which opens up into all areas below his level."

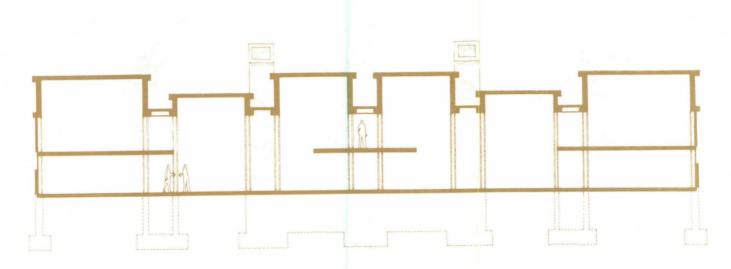
Construction and materials: Precastconcrete members are to be used in shaping the many diverse spaces. This structural system will also permit the easy integration of possible later additions. Jury reaction: Bold, almost "brutalist" solution justified for this building type. Extremely interesting continuity of interior spaces.

cross-section at entrance



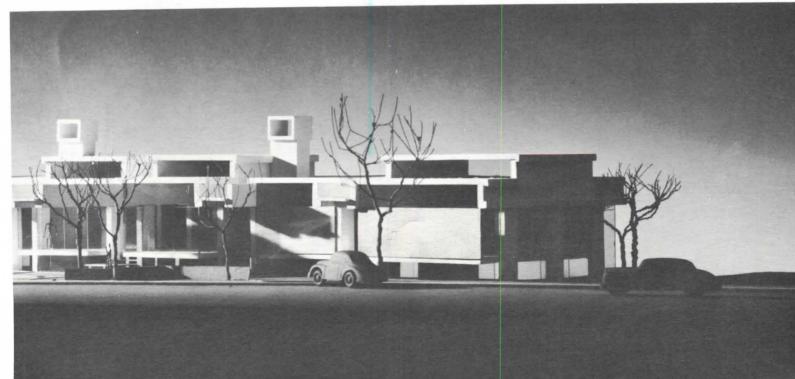
cross-section at executive office

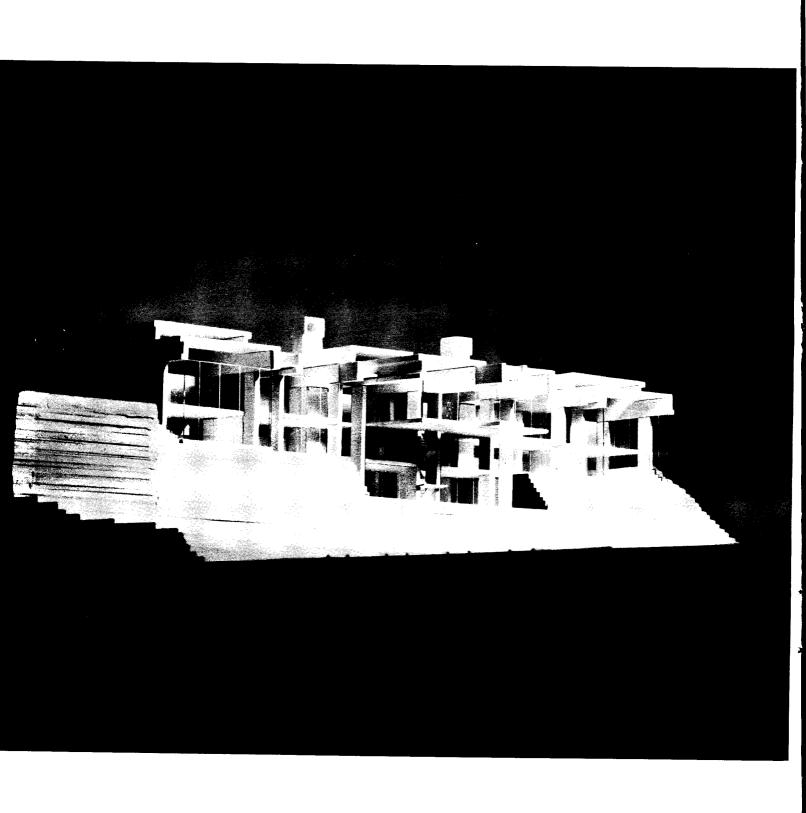


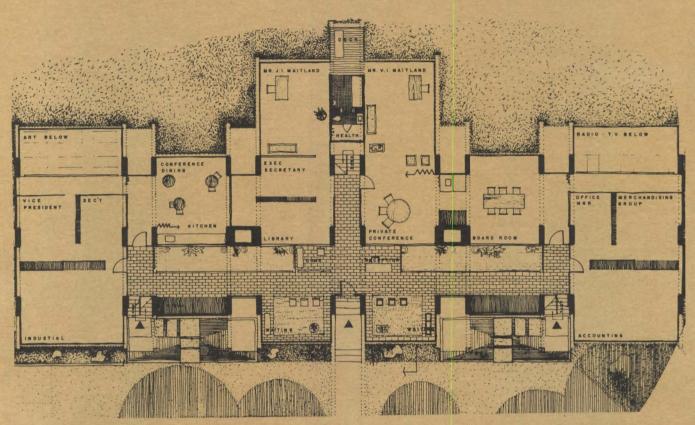


longitudinal section

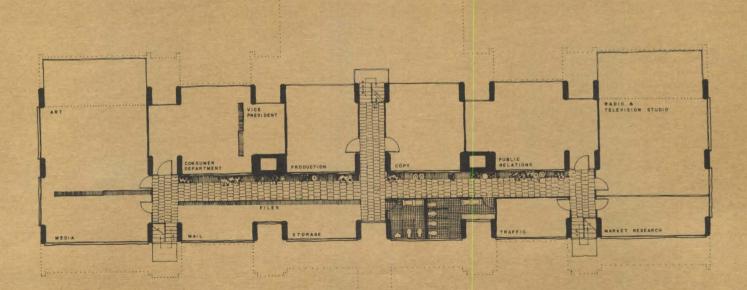








main floor



lower floor







ROBERTS



HODNE



ISAACSON

commerce

COMMUNITY PLANNING & DESIGN ASSOCIATES, INC.: DENNIS W. GREBNER, THOMAS H. HODNE, REYNOLD M. ROBERTS, ARCHITECTS ROBERT ISAACSON, PLANNER JOHNSTON-SAHLMAN COMPANY. STRUCTURAL ENGINEERS J. T. BAKER & ASSOCIATES, MECHANICAL ENGINEERS

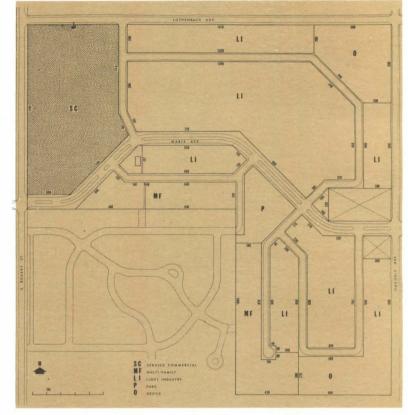
Project: Service Commercial Center for Westview Park Company, St. Paul, Minnesota.

Program requirements: A well-planned industrial park was considered necessary to attract desirable industry and commerce to the area.

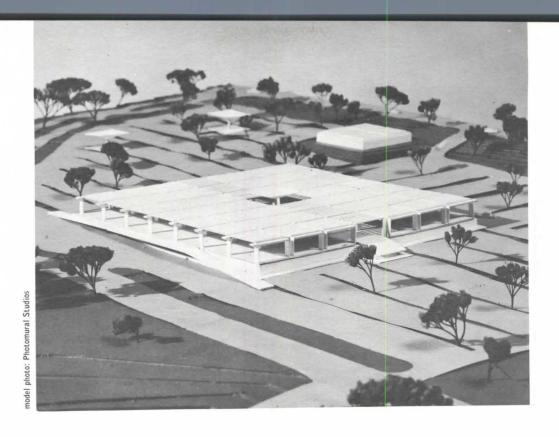
Site: 110 acres located in the south-east portion of West St. Paul.

Design solution: An open parklike development which encompasses five classifications of land use. "Height restrictions, architecture, land coverage, preservation of trees, as well as controlled loading, setback and off-street parking are designed for functional efficiency and preservation of the pleasant surroundings."

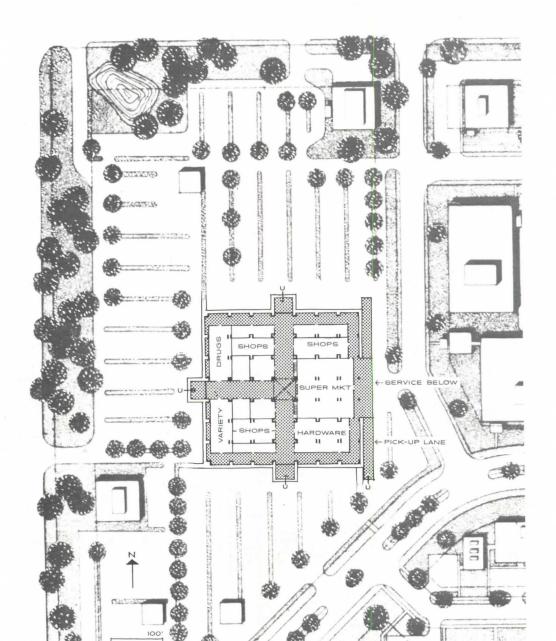
Construction and materials: Since the Jury's attention focused entirely on the design of the service commercial center -a small shopping center-only this portion of the scheme is shown. This building is to be constructed of prestressed concrete; the roof will be of prestressed-concrete slabs on prestressedconcrete beams. Walls are to be of concrete block finished with sprayed vitreous enamel. Roofing is to be built-up type with white marble chips. The hyperbolic paraboloids are to have exposedconcrete surfaces. The floor finish is to be terrazzo or exposed-aggregate concrete. Jury reaction: The Jury limited the awarding of the citation to the Service Commercial Center, which was considered to be a simple, yet imaginative solution.



land-use plan



site plan of service commercial center







MANN

HARROVER

commerce

MANN & HARROVER,
ARCHITECTS
DONALD WINKELMANN,
ROBERT ERNEST, JACK ST.
MARTIN, JOHN M. O'BRIEN,
DESIGN CONTRIBUTORS
EWALD & ASSOCIATES,
LANDSCAPE ARCHITECTS
S. S. KENWORTHY &
ASSOCIATES, STRUCTURAL
ENGINEERS
ALLEN & HOSHALL,
MECHANICAL ENGINEERS
LANDRUM & BROWN,
AIRPORT CONSULTANTS

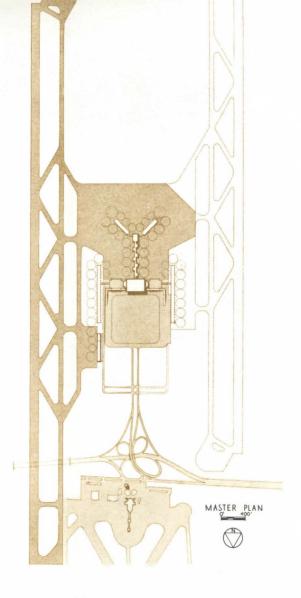
Project: Municipal Airport Terminal Complex for City of Memphis, Tennessee. Program requirements: To design a compact, expandable air terminal for a city of 500,000. The new airport is to be served by a large number of air lines operating a wide variety of aircraft.

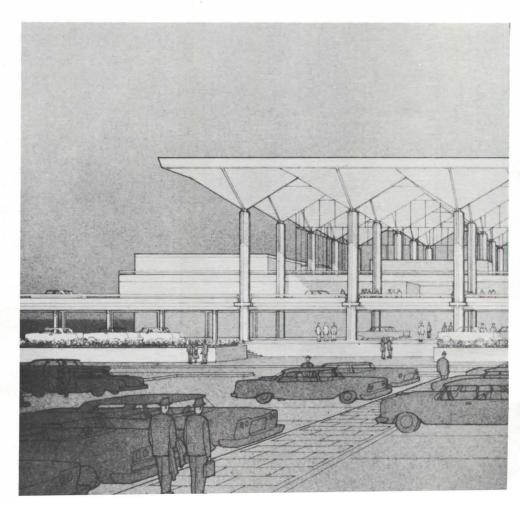
Site: A narrow band between two parallel runways.

Design solution: A compact three-level scheme with service circulation on the ground level, passenger circulation above, and a mezzanine. An elevated auto ramp brings passengers to the main level. Aircraft are loaded either through telescoping bridges for large, long distance planes, or in the case of the smaller trunk lines, across the apron. The vaulted roof was designed to act as a strong visual symbol.

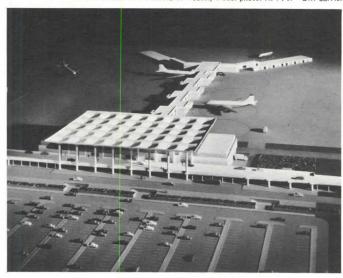
Construction and materials: The entire structural frame is cast-in-place reinforced concrete, the primary system of exposed-concrete columns supporting hyperbolic-paraboloid shell vaults; the secondary system of concealed columns supporting exposed beams and pan-joist slabs. The concourse, first, and second floors are almost entirely enclosed by brick cavity walls.

Jury reaction: The problem of the smaller, all-purpose airport well resolved.

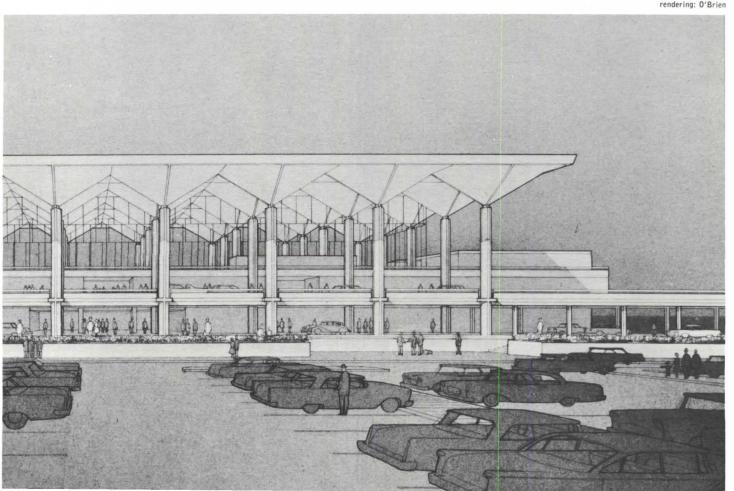


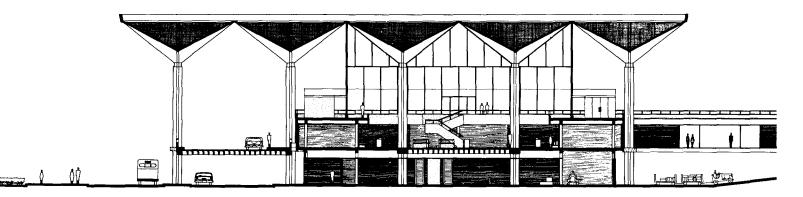


model: Schwartz Architectural Models; model photo: A. P. I.—Bill Carrier

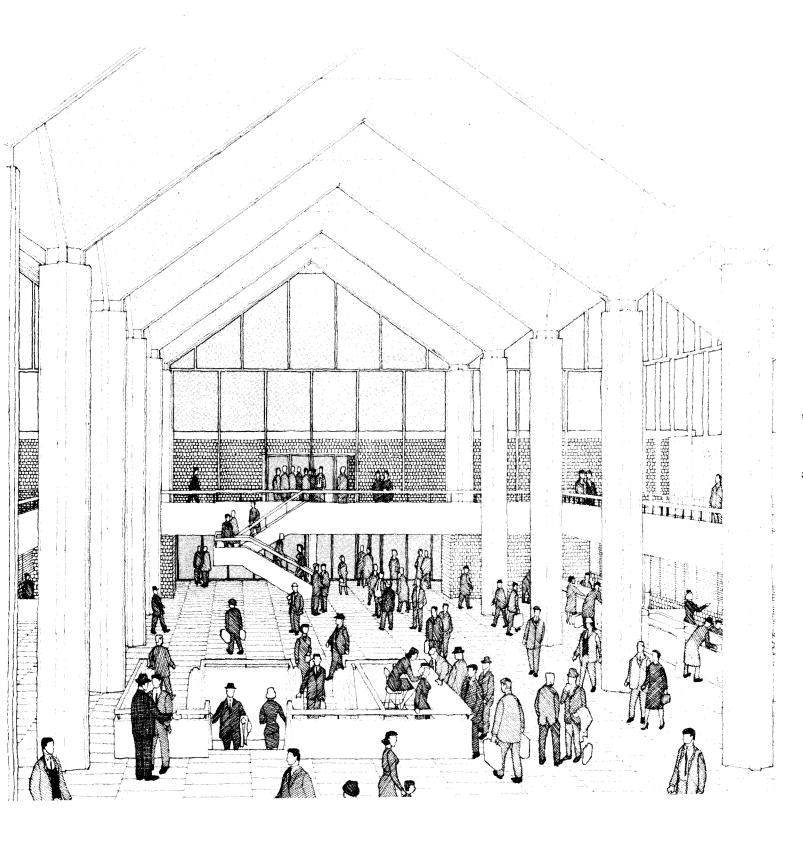


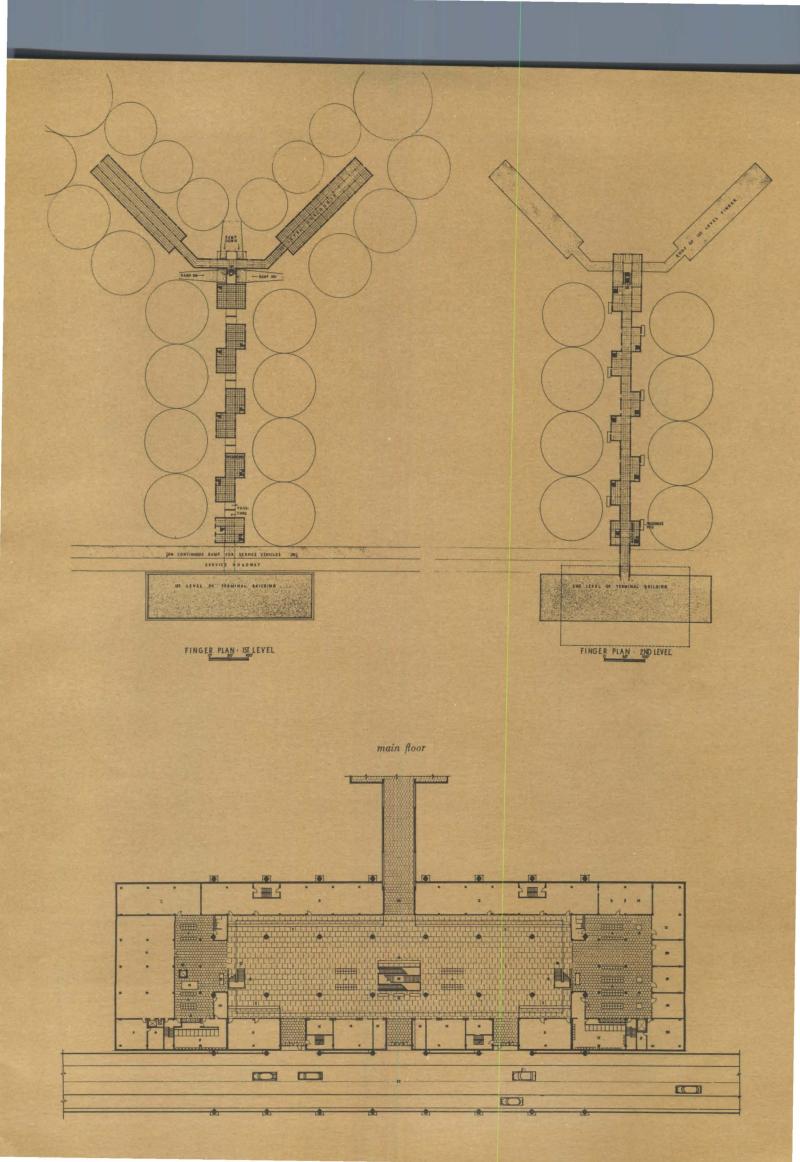
rendering: O'Brien





transverse section











DAVIS

BRODY

WISNIEWSKI

ceiling details

commerce

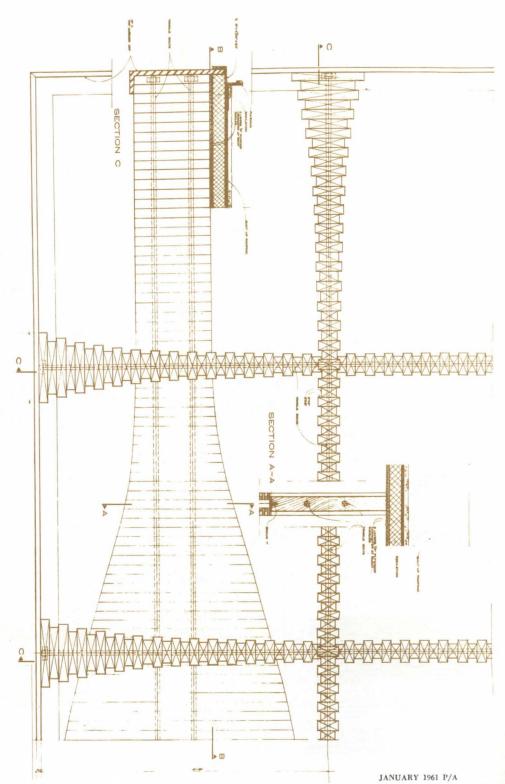
DAVIS, BRODY & WISNIEWSKI, ARCHITECTS WIESENFELD, HAYWARD & LEON, STRUCTURAL ENGINEERS WALD & ZIGAS, MECHANICAL ENGINEERS

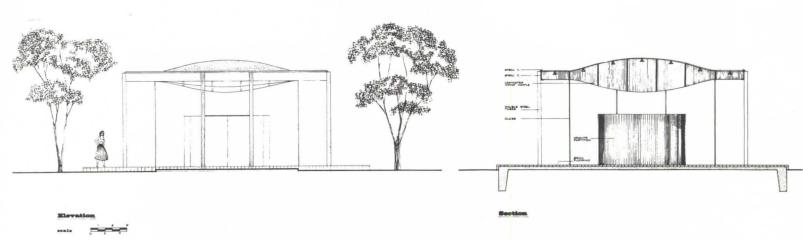
Project: Memorial Information Center for I. Shipper, Woodbridge, New Jersey. Program requirements: To design an information center which will not only have a functional use, but also contribute esthetically to the atmosphere of the memorial park.

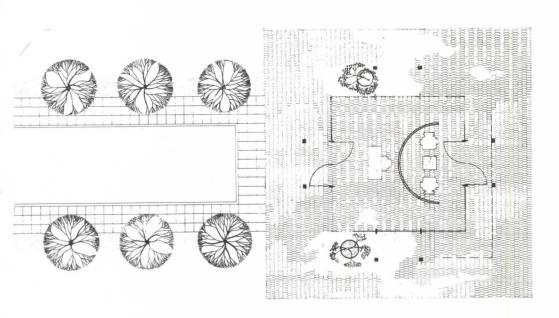
Design solution: A glass-enclosed pavilion in the formal setting of a reflecting pool and tree-lined approaches. A curved granite screen within the pavillion will afford a private seating area.

Site: Within Beth Israel Cemetery. Construction and materials: The pavilion is basically a steel perimeter frame, 28' square, supporting a wood waffle. Ribs of the waffle will be of varying thickness, ranging from 15" at the perimeter, to a maximum depth of 4' at the center-point of the grid system. The ribs are to be assembled of vertical 2' x 3's and 2' x 4's, bolted together in 28' sections. The waffle will then be assembled on the ground. Filler pieces are to be temporarily attached until they in turn are thru-bolted in continuous sections. On assembly, the wood structure is to be raised and placed into position within the steel perimeter frame. One Par 38 lamp will be placed in each of the 4' o.c. sections of the waffle, providing even illumination. A glass wall will be set 4' from the steel perimeter, forming an enclosed space 20' x 20'. Heating and cooling of the building will be achieved by heat pump, installed in an adjacent building, to be screened from view by planting.

Jury reaction: Extremely interesting and handsome ceiling detail enhances the otherwise simple solution.

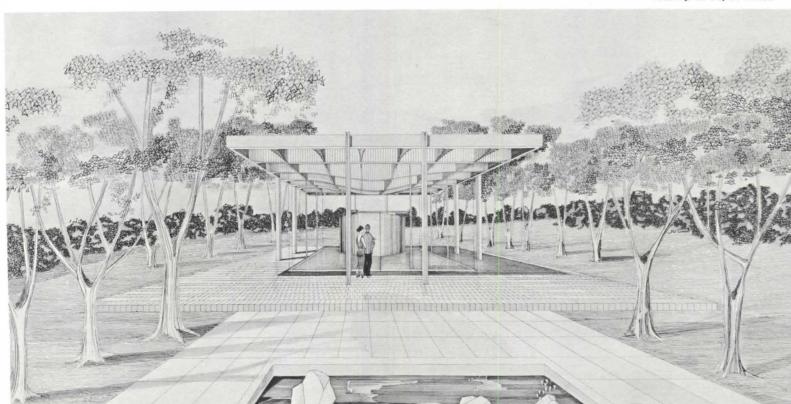






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Floor Fian



rendering: Maria Syfert-Twirbutt



RHPP





CLOSE

FARRELL

# AWARD

commerce

WILLIAM RUPP, ARCHITECT JOSEPH G. F. FARRELL, JUNIOR ASSOCIATE KAISRLIK, SNELL & WHITEHEAD, CONSULTING ENGINEERS JACK CLOSE, BANK PLANNING CONSULTANT

Project: Caladesi National Bank, Dunedin, Florida.

Program requirements: Quarters for a new bank and an adjacent commercial building which could later provide expansion space for bank use.

Site: A small, suburban lot in a rapidly developing community.

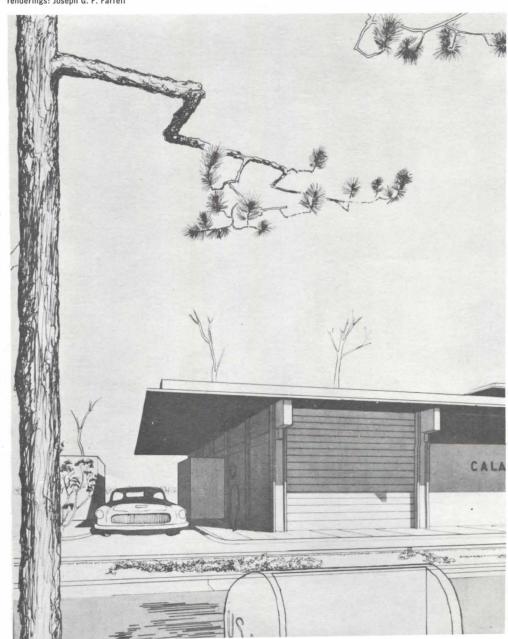
Design solution: Since expansion of a building is usually accomplished only at great expense and disruption of activities, it is proposed that this bank have an option to purchase the adjacent commercial building, when additional bank space is required. "In the first stages of growth," writes the architect, "the bank may lease space for the installment loan department and later for the trust department. When further growth has burdened the commercial bank space, the completion of the enclosure of the courtyard—a relatively minor alteration—will provide for all foreseeable requirements." Whether during the first stage, when the courtyard will be an open, planted area or, after total expansion, when the central area will be an impressive bank lobby, this space will be a handsome focal point of the building complex.

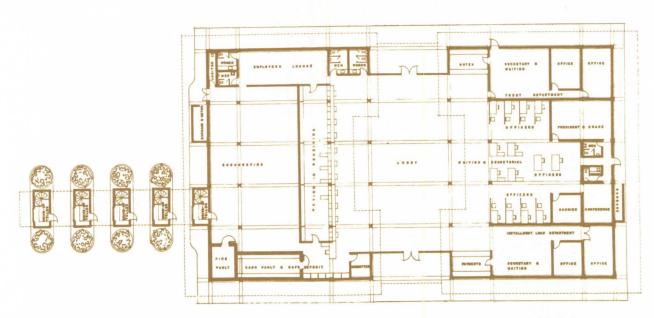
Construction and materials: Precast, prestressed-concrete members are employed. Roof slab (detail overpage) is of local manufacture. Voids in the slabs serve as light troffers around the entire perimeter of the building. All partitions are of concrete block, sprayed inside and out with stucco.

Jury reaction: Ingenious solution for the common problem of piecemeal building expansion. Simplicity of structure commended.

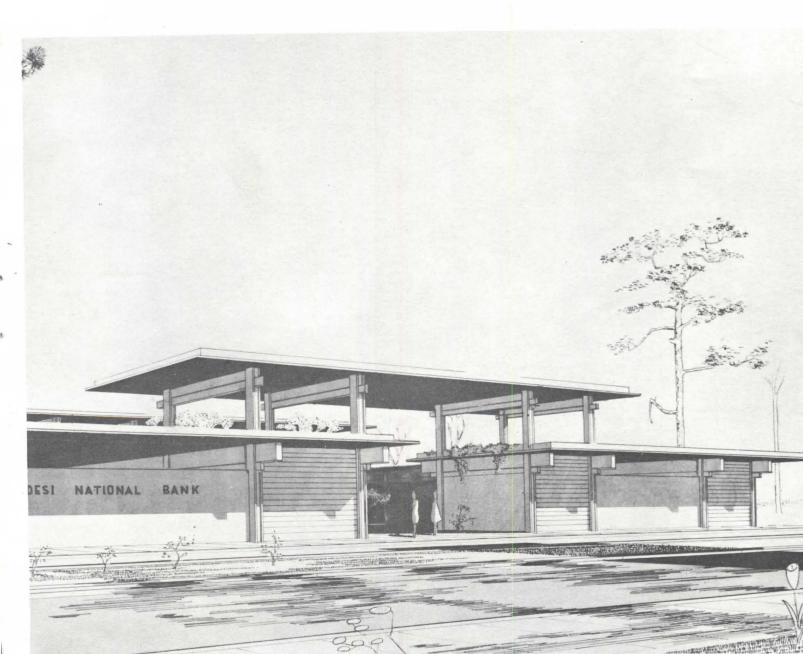
first stage

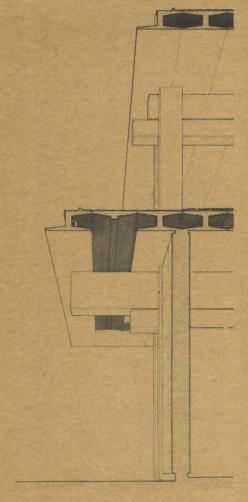
renderings: Joseph G. F. Farrell



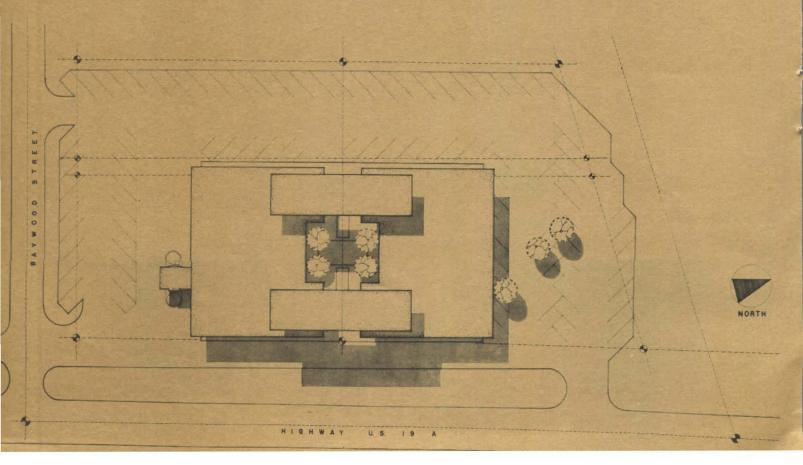


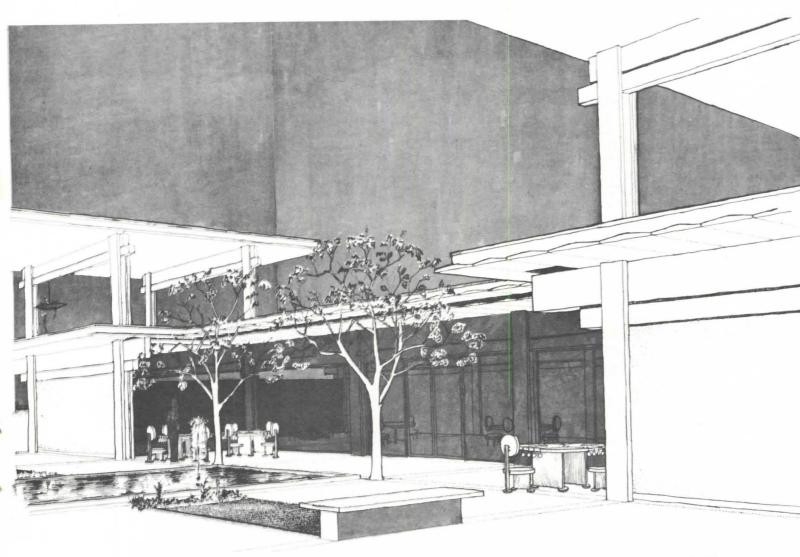
final expansion











open courtyard during first stage of building program





TARICS

ROCKWELL

education

REID, ROCKWELL, BANWELL & TARICS,
ARCHITECTS & ENGINEERS
BURTON L. ROCKWELL,
ARCHITECTURAL DESIGN
DR. ALEXANDER G. TARICS,
STRUCTURAL DESIGN
JOHN P. CUTLER,
PROJECT SUPERVISOR
DE LEUW, CATHER & COMPANY,
MECHANICAL-ELECTRICAL
ENGINEERS

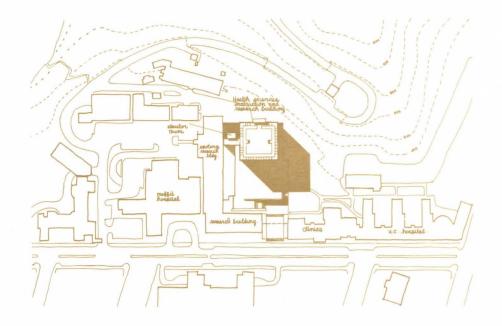
Project: Health Sciences Instruction and Research Unit I for San Francisco Medical Center, University of California.

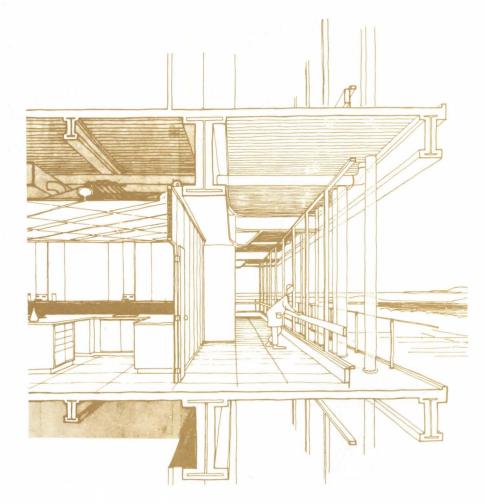
Program requirements: New building to tie in with existing medical-school facilities. Specifically required are: 106,400 sq ft for research laboratories; 45,600 sq ft for classroom and library use; provisions for ease of making future changes; control of environmental conditions such as temperature, light, vibration, contamination, radioactivity, toxic and explosive gases.

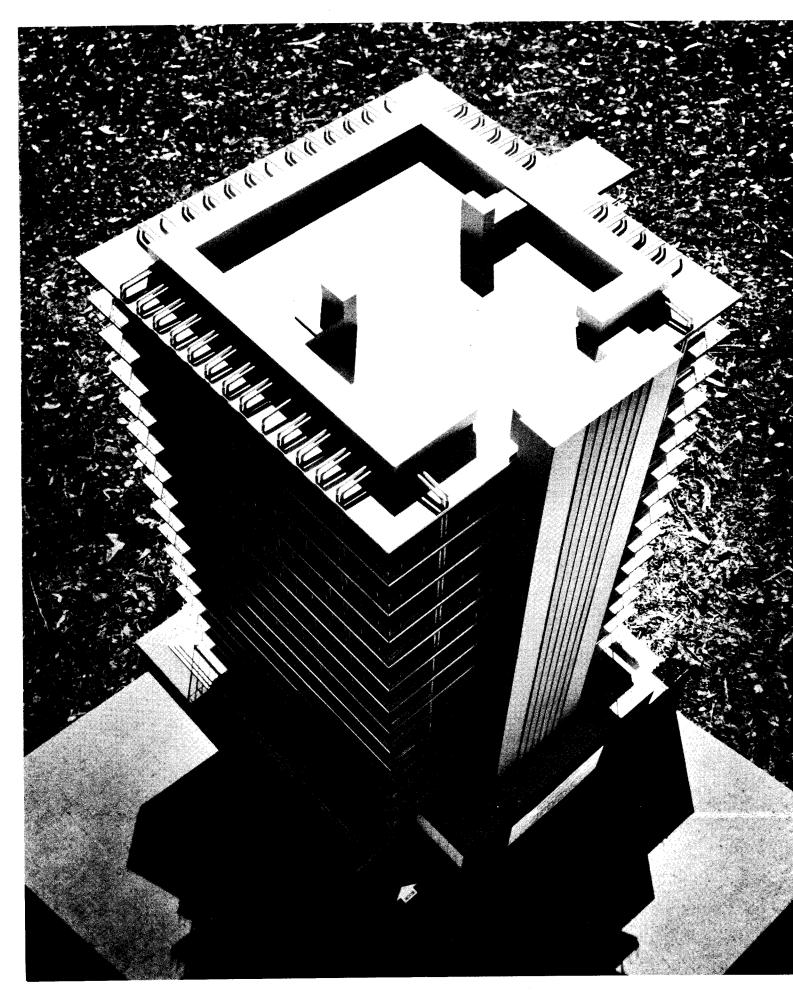
Site: Restricted and hilly site on campus of University of California, San Francisco. Design solution: 15 floors of columnfree, unobstructed space, each measuring 90 ft sq. Peripheral corridors create an envelope of controlled temperature allowing more precise control of assignable space. Laboratory space is windowless, as preferred. All partitions are of a movable type. Utility supply lines, collection lines, ducts, etc., are carried in ceiling space. Laboratory casework is standardized, movable and modular.

Construction and materials: Steel moment-resisting space frame designed to carry all vertical and earthquake forces without the use of any bracing or shear walls, with long-span girders carrying the unobstructed floor area.

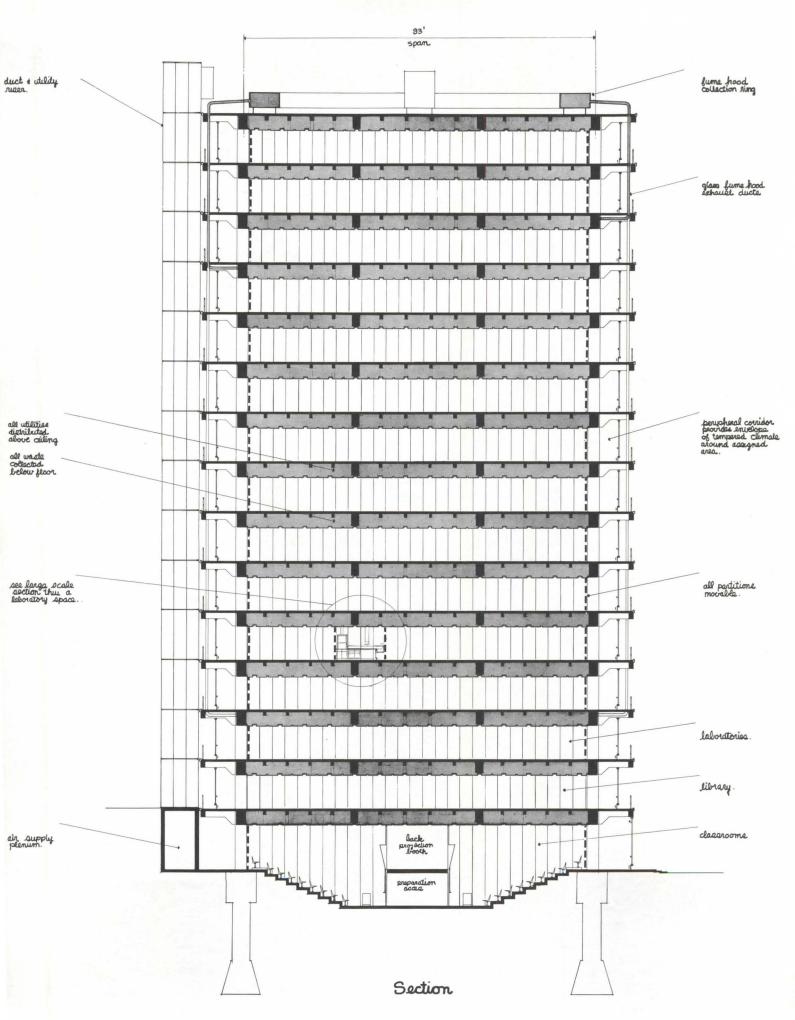
Jury reaction: Carefully researched, eminently practical and workable solution, though final result tends to be a kind of machine rather than architecture.

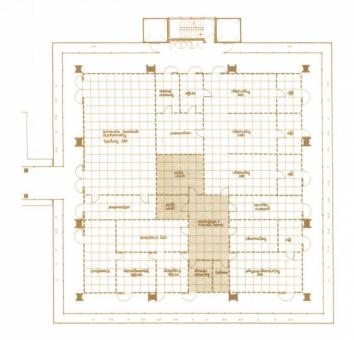


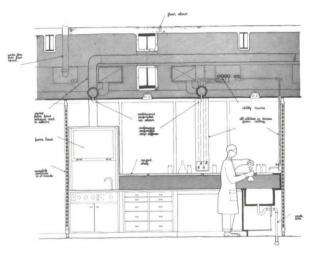




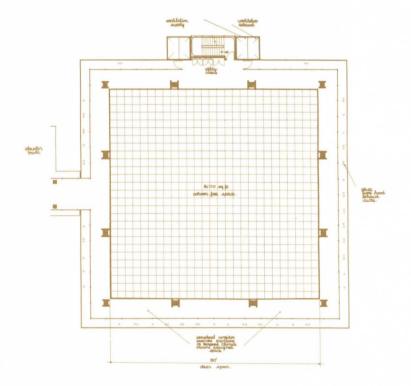
model: Architectural Models; photo: Dwain Faubian

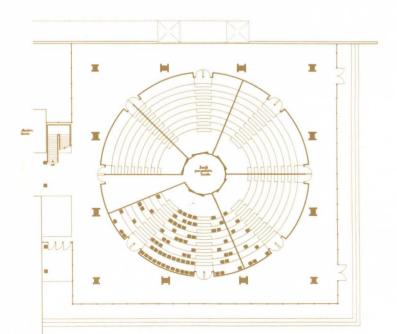






Section thru a laboratory space







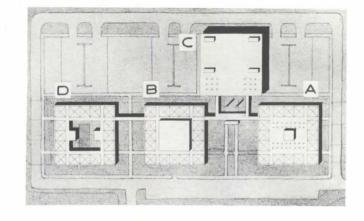
LARSON







OLSON WRIGHT



education

ELLERBE & COMPANY. ARCHITECTS TOM N. LARSON, PETER WOYTUK, DESIGNERS ROY J. OLSON, PROJECT MANAGER DON A. WRIGHT. JOB CAPTAIN ROGER MOHAGEN, STRUCTURAL ENGINEER MERLAND KISPERT, MECHANICAL ENGINEER ROBERT ERDMANN. ELECTRICAL ENGINEER

Project: I. T. Simley, Junior-Senior High School for Independent School District #199, Invergrove-Pine Bend, Dakota County, Minnesota.

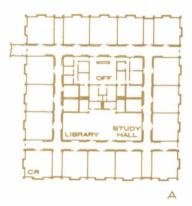
Program requirements: A complete junior-senior high school for an enrollment of 1200 to 1400 students.

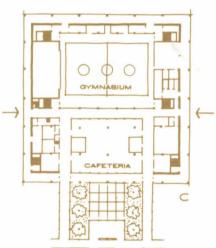
Site: 48 acres of rough, sloping land with view of small lake.

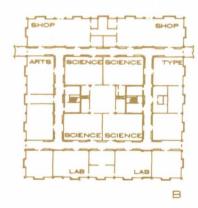
Design solution: In this plan the student body has been grouped into three "instructional" units of 400-450 pupils each. The site will be sculptured into a series of descending terraces, classroom buildings to be at the highest point. The multiuse unit, set lower on the site, is designed for easy access by students and members of the community.

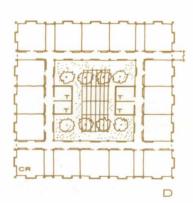
Construction and materials: Basic structure is of reinforced concrete. Light steel framing is used for high, flat, roof areas only. Roof pyramids used over classrooms are 28 ft sq and of concrete thinshell construction. Interiors of the pyramids are treated with light-reflective, sound-absorbing plaster. Precast-concrete "boxes" placed along the exterior wall of the classrooms will receive millwork assembly to hold teacher's wardrobe, book and supply storage, clock and communications equipment.

Jury reaction: No original educational or architectural concept involved. However, the school puts in a simple envelope the many complex functions of the program.

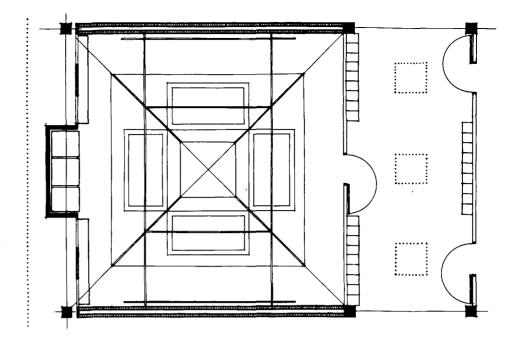


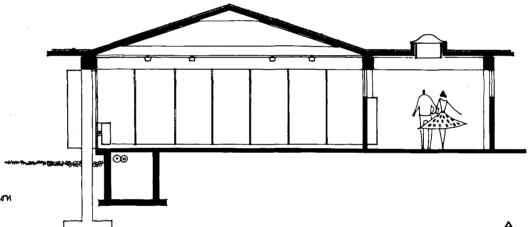




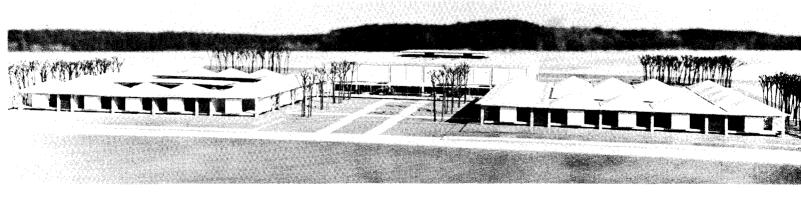


- structural module 28'x 28' reinforced concrete columns are fire of exterior walls
- . 4" thick concrets roof pyramid
- interior of roof puramids are treated with light-reflective sound absorbing plaster
- projecting precast concrete fox panel, white quarte finish, houses trachers wardrobe, book storage, speaker and clock panel
- totally indirect high-output fluorescent fixture suspended from roof shell
- · 3 foot square lite fixtures and skydomes over corridors
- special "thermo-roof;" white marble chip finish
- unit ventilator with fruit in shelving units, panel type intake grill
- ·full height 8'vertical panels and doors thru-out
- · perimeter utility distribution tunnel





model: George Wojack; photo: Richard G. Hildebrand







MANN

HARROVER

health

MANN & HARROVER,
ARCHITECTS
ROBERT ERNEST,
PROJECT MANAGER
S. S. KENWORTHY &
ASSOCIATES,
STRUCTURAL ENGINEERS
HENRY DONNELLY &
ASSOCIATES,
MECHANICAL ENGINEERS
BRUSH, HUTCHINSON &
GWYNNE,
CONSULTING ARCHITECTS

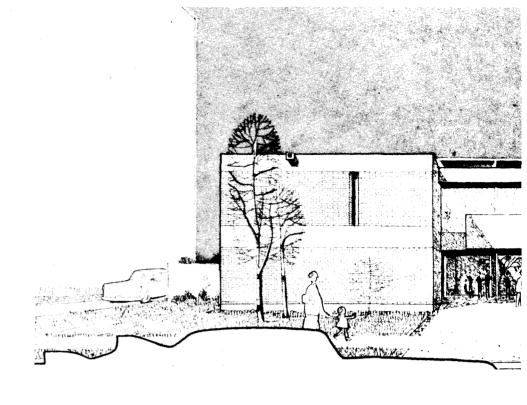
Project: Memphis Speech and Hearing Center for State of Tennessee.

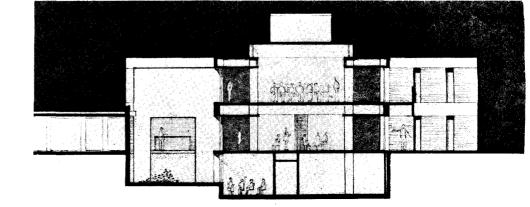
Program requirements: The building, part of an existing regional medical center, is to house testing and corrective facilities. A training program is to be conducted in the building for speech and hearing technicians enrolled in an adjacent state medical school. Required in addition were administrative facilities, elementary school classrooms for the younger patients, a multipurpose auditorium, basic research workshop and utility rooms. Major problems to be overcome were 1 limited budget for a demanding program; 2 control of sound transmission; 3 fitting building and 34 car-parking spaces on given site.

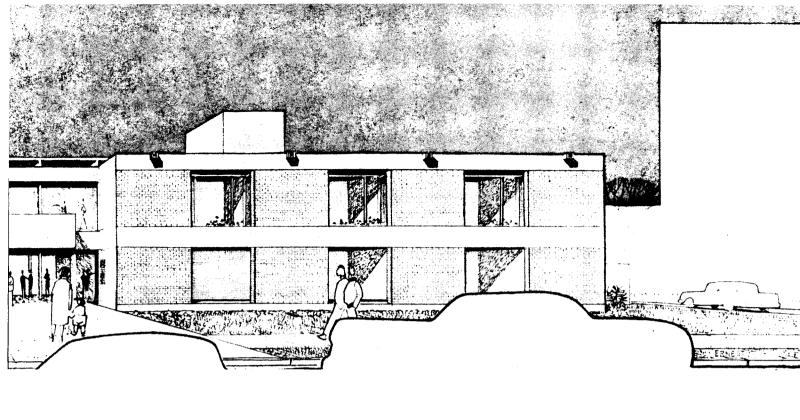
Site: A square urban lot.

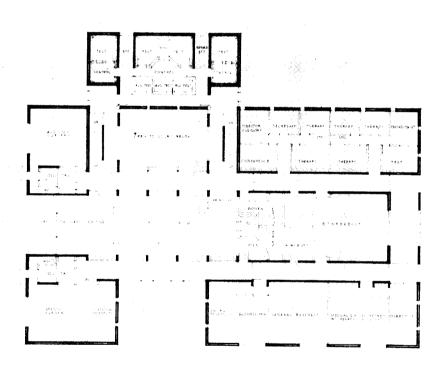
Design solution: A simple red-brick structure having its focal interest directed toward interior, open court. Audiology-test cells are to be acoustically isolated in a separate unit to the rear of the court. The second floor is to house a speech-therapy suite, speech-testing units, interview rooms and large classrooms for training and group therapy. Also on this level, directly above the waiting area, will be the auditorium, capable of subdivision into two or three sections.

Construction and materials: For minimum sound transmission, brick-cavity bearing walls are to be used in combination with concrete beam and slab floors. Jury reaction: Most cohesive statement in the group of health buildings. Fine interior spaces. Logical use of broad and narrow windows held down by two bold fascias. Good use of materials, inexpensive solution.

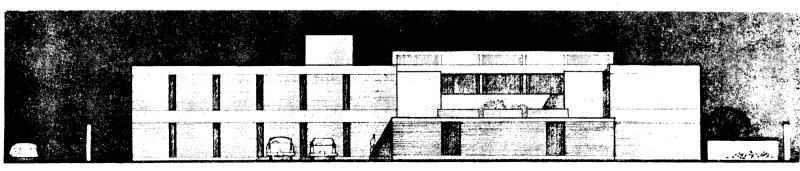








first floor







DIDEEDT

STRAUB

# **AWARD**

recreation

BIRKERTS & STRAUB, ARCHITECTS GUNNAR BIRKERTS, DESIGNER FRANK STRAUB, PROJECT DIRECTOR

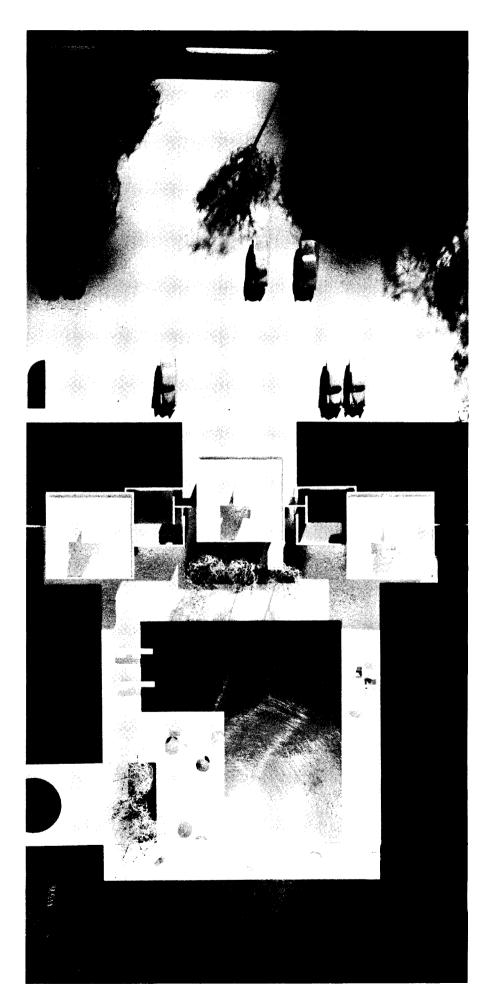
Project: Swimming Club for Troyton Manor Swimming Club, Inc., Troy, Michigan.

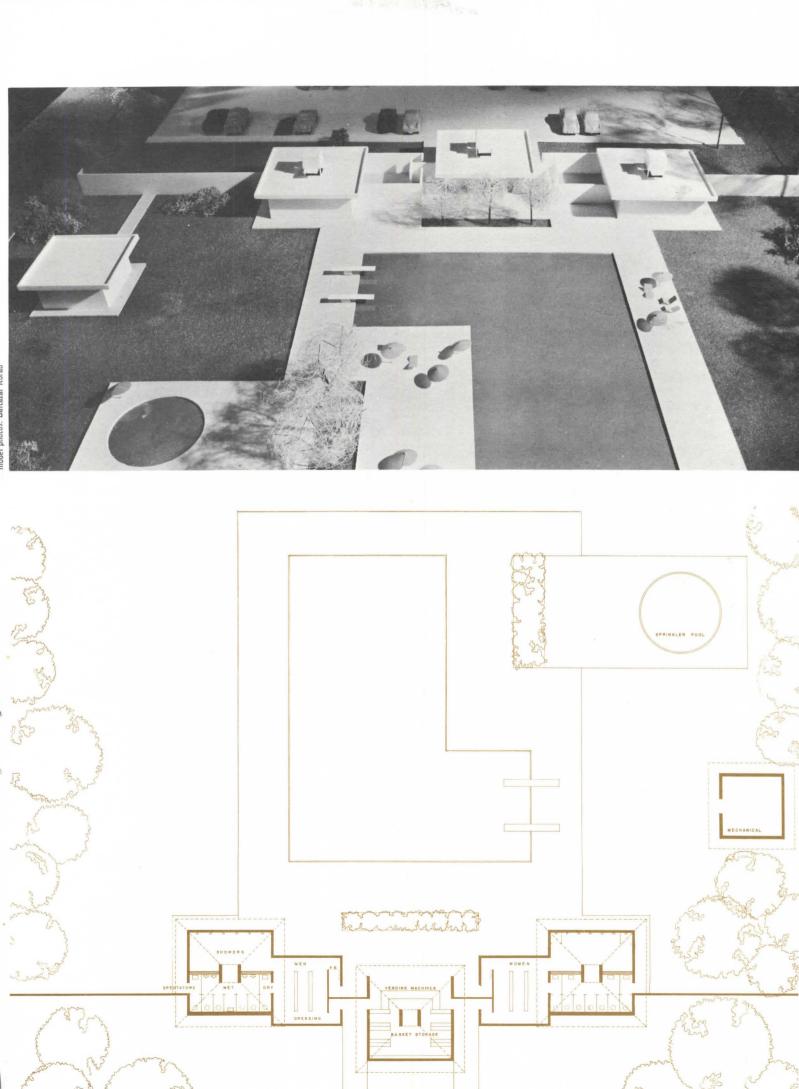
Program requirements: To develop the site, and to plan the structures and bathing facilities for 300 members of a swimming club.

Site: Within a residential subdivision. Design solution: Buildings and extended wing walls completely screen the parking area from the pool side. Three roofed structures, forming part of this barrier, contain shower and toilet rooms; the central one provides space for basket storage and vending machines. Roofs of these buildings are supported on center piers. Since the roofs do not touch the walls, ventilation of the covered areas is facilitated. Center openings in the roofs topped by small penthouses may be closed off entirely during off-season months. Dressing areas are open to the

Construction and materials: Walls are to be of concrete block, painted outside, plastic-coated inside. Roofs are of wood construction, using stressed-skin plywood beams and wood joists.

Jury reaction: Neat and orderly solution, simple symmetry. However, final success of this scheme will depend on careful detailing, the selection of good materials, and craftsmanlike assembly.







ERNEST

residential

ROBERT ERNEST, ARCHITECT REGISTER & CUMMINGS, STRUCTURAL-MECHANICAL ENGINEERS

Project: Residence for Mr. & Mrs. Robert Ernest, Atlantic Beach, Florida. Program requirements: Living quarters, a studio, and carport for the architect's own use.

Site: Long and narrow property opening at either end to minor streets. No views at street level.

Design solution: View of the ocean and good air circulation have been attained by giving height to the building and by resourceful manipulation of the interior space. All mechanical and service areas are consolidated in projections to either side of the building.

Construction and materials: Block bearing walls 'turn corners' for lateral stability and to lessen beam spans. Projections act as buttresses. Except for poured-concrete lintels and bond beams, the house is wood framed. Blocks are to be coated with clear silicone waterproofing; wood will be creosote-treated and grayed to aid natural silvering.

Jury reaction: Disarmingly simple and economical solution, structurally and mechanically. Ingenious interior space arrangement.

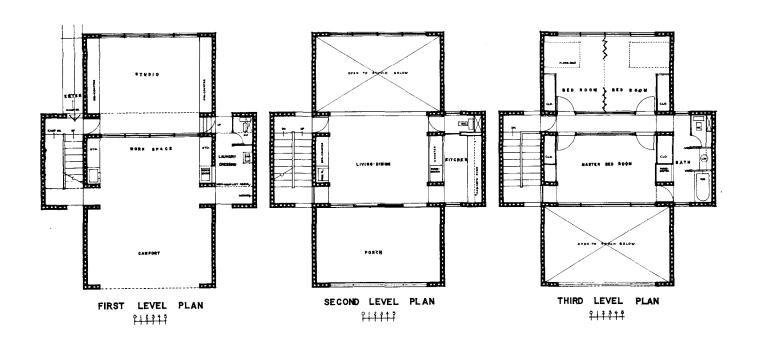


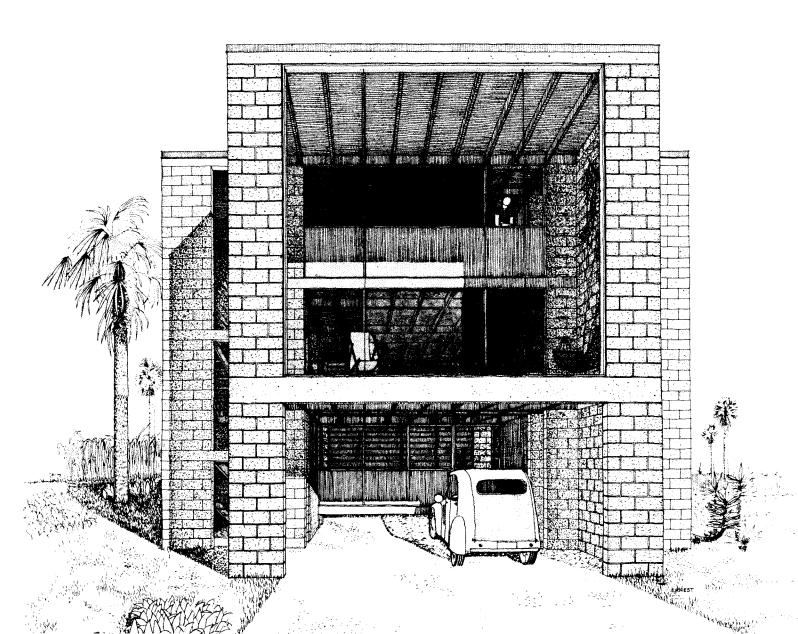
· view to ocean from master bed um.



· view to ocean from living/din.nm.









WISNIEWSKI

residential

DAVIS, BRODY & WISNIEWSKI, ARCHITECTS
COFFEY & LEVINE,
LANDSCAPE CONSULTANTS
WIESENFELD, HAYWARD & LEON,
STRUCTURAL ENGINEERS
WALD & ZIGAS,
MECHANICAL ENGINEERS
WHITE WOODWORKING
COMPANY, PREFABRICATION
CONSULTANTS

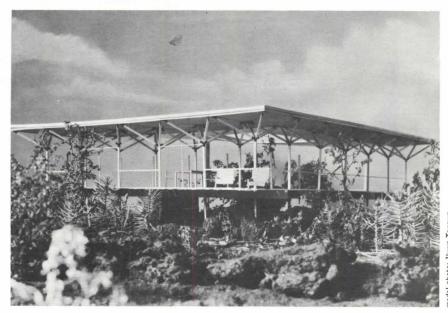
Project: Menemsha Cottage for Mr. & Mrs. Wisniewski, Martha's Vineyard, Massachusetts.

Program requirements: A cottage for summer use which must satisfy the need for privacy, but should, at the same time, take advantage of far-reaching vistas.

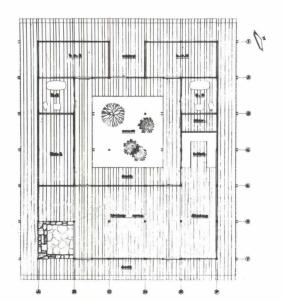
Site: A high, thickly wooded hill overlooking Menemsha pond. The ground is covered with lush vegetation—wild fern, grape, and many mature trees of great variety.

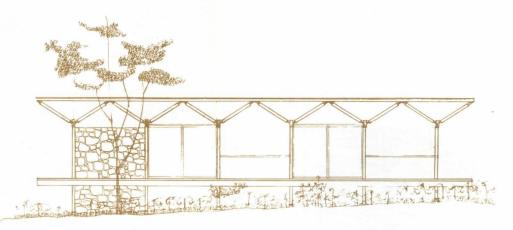
Design solution: "A platform house enveloping some of this lushness in a screened court" was thought by the architect-owner, to provide the ideal solution. "Wide decks open all areas of the house to the view. In contrast, the court serves as an interior common room, allowing for family privacy." A small separate building of the same structural system will house utilities and storage. Construction and materials: The two structures, both assemblies of wood umbrellas (detail across page), were designed to be prefabricated, then erected on the site. The court roof is to be of insect screening. All partitions are to be of glass. Light and privacy will be controlled with curtains.

Jury reaction: Ingenious umbrella system permits ease of assembly on the job, ease of adjustment to the irregular site, and lends the building a playful appearance in character with its use.

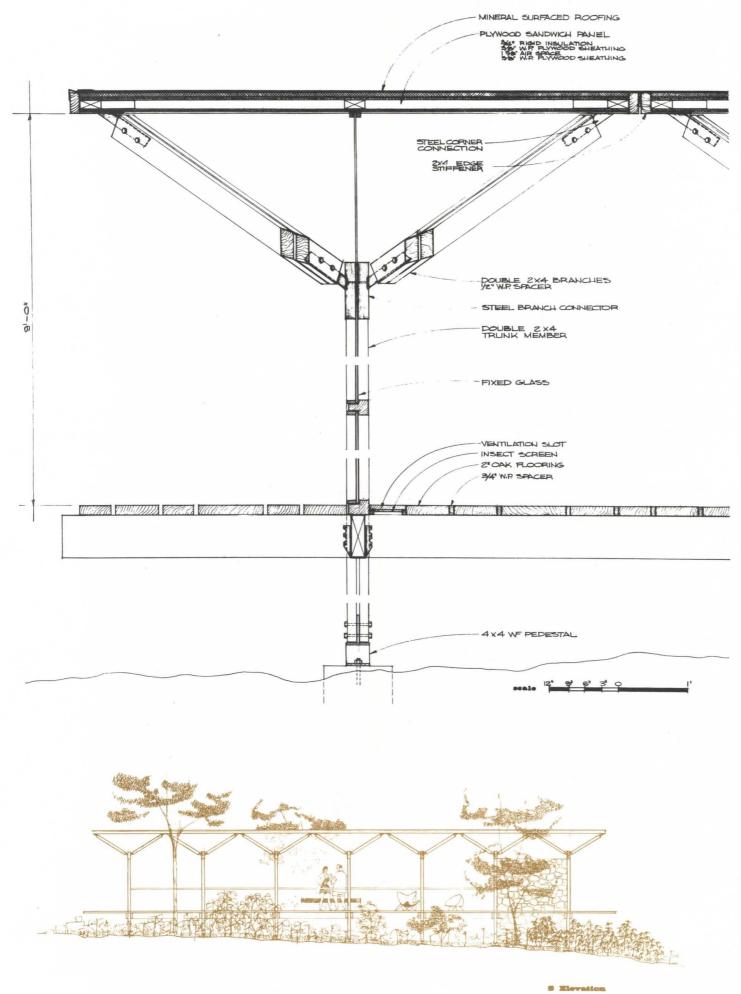


del pnoto: Ikuyo lagawa





E Elevation







AMARAL

MORALES

residential

### AMARAL Y MORALES, ARCHITECTS

Project: Hotel Delicias for Sr. Carlos Robles, Playa Fajardo, Puerto Rico.

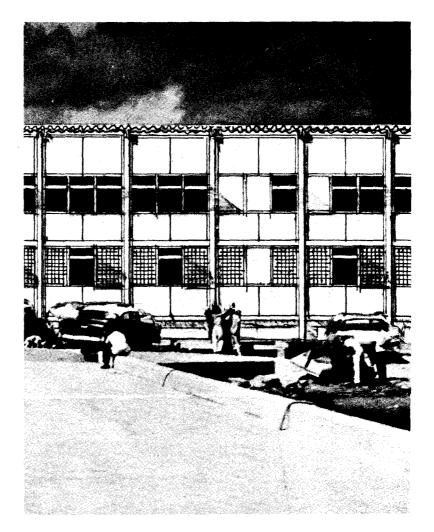
Program Requirements: The present restaurant on the site is to be replaced by a hotel, to answer the growing demands for guest rooms and dining facilities. Since the hotel will serve local residents as well as tourists, the program accordingly includes a lunch counter with direct street entrance, as well as a formal dining room, bar, and lounge, primarily for the tourist trade.

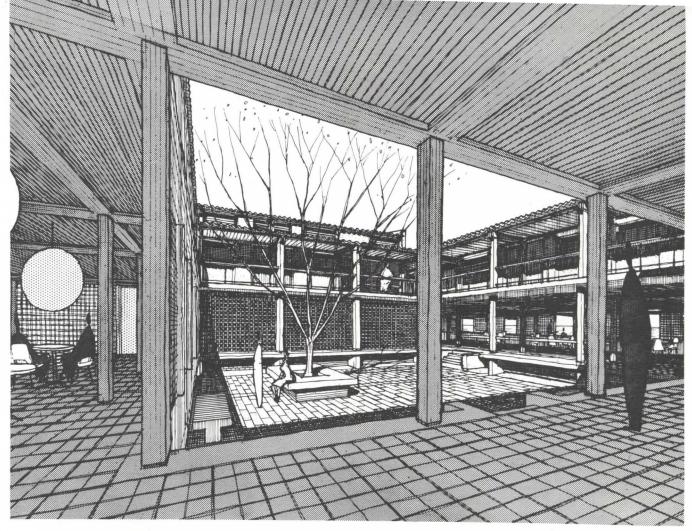
Site: Playa Fajardo is located on the east coast of Puerto Rico, one hour by car from San Juan. The area is a major terminus for travel to the other islands of the Antilles.

Design solution: A two-story patio scheme in which the public spaces face on the center court, at the ground level. Guest rooms are to be along an open gallery on the floor above. The patio will be paved; a shade tree, plants, and benches are to be the furnishings of the court. Patio and dining room will be partially enclosed, in the traditional manner, with grills or screens made of narrow wood strips. Wherever possible, the architects attempted to introduce the spirit and amenities of the local tradition. Means of cross ventilation exist in all of the individual guest rooms; however, as an alternate, air-conditioning units are also provided. These fit into a hung ceiling above the room doors and draw fresh air through grills above the low gallery

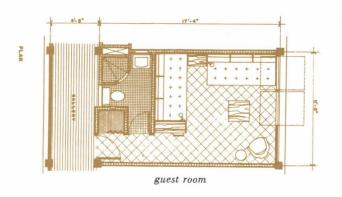
Construction and materials: A system of reinforced-concrete columns and beams on 11-ft module, spanned with concrete slabs. Roof beams and purlins are of wood and left exposed.

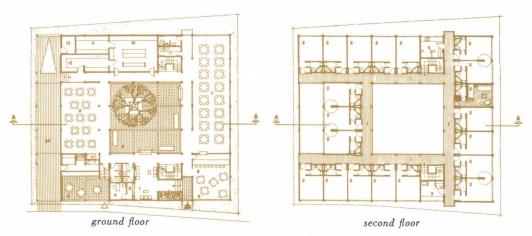
Jury reaction: Simple solution, lacking the usual gimcrackery.





rendering: Harris Sobin







STUBBINS

residential

HUGH STUBBINS & ASSOCIATES, INC., ARCHITECTS
HUGH STUBBINS, DONALD
HANSON, DESIGN
GOLDBERG & LE MESSURIER,
STRUCTURAL ENGINEERS

Project: The Farm Redevelopment Project, Brookline, Massachusetts, for the First Realty Company and Turner Construction Company, Boston, Massachusetts.

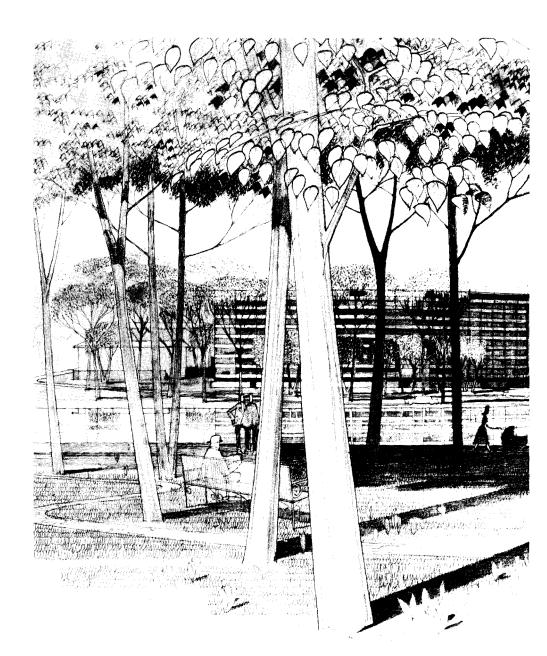
Program requirements: A suburban residential development which would attract families to Brookline, and because of its superior and enduring value establish these families as permanent residents of the community.

Site: Approximately 15 acres overlooking a series of waterways to the southeast. North boundary separated by a wide buffer strip from a busy traffic artery. Shopping and transportation in close proximity.

Design solution: Two buildings containing 652 apartments, forming a crescent toward the Riverway. Curved buildings emphasize and repeat the winding character of the Riverway and permit maximum penetration of the adjacent green belt into the development. Several apartment types have been designed, ranging from efficiency units to three-bedroom duplex apartments. By using the device of stopping elevators only at the 1st, 2nd, 3rd, 6th, and 9th floors (see section overpage), every apartment will have crossventilation and a view of the park. A two-level parking garage, consolidating all of the 715 required parking spaces, provides direct access to apartment elevators and lobbies, leaves most of the site free for park land, and separates motor traffic from pedestrian traffic. At one end of the parking structure a small commercial area will be included for the benefit

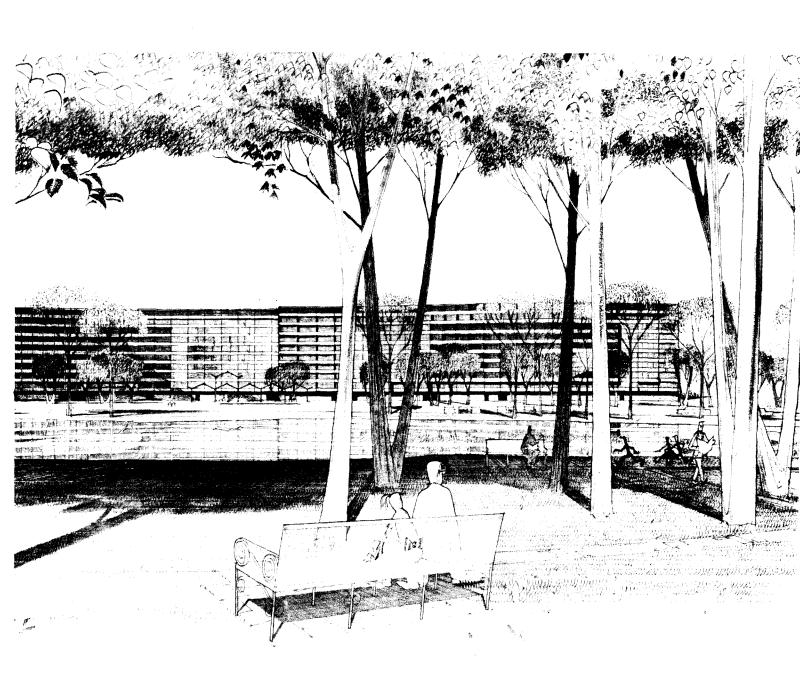
Construction and materials: Reinforcedconcrete columns supporting flat-slab floors. The exterior is to be of brick; windows of steel; interior partitions of steel studs, wire lath and plaster.

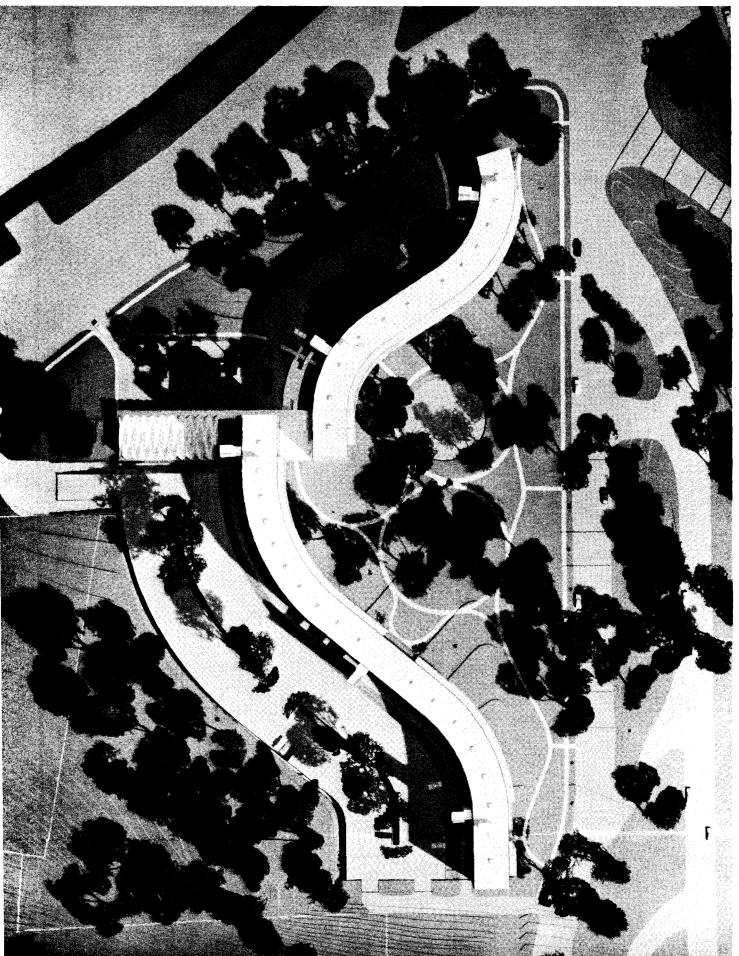
Jury reaction: The basis for an enduring residential community has been laid in this plan through logical site development and thoughtful planning.



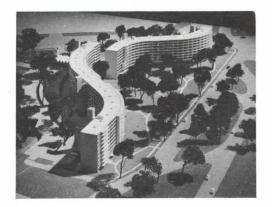
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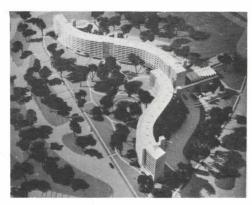
JANUARY 1961 P/A

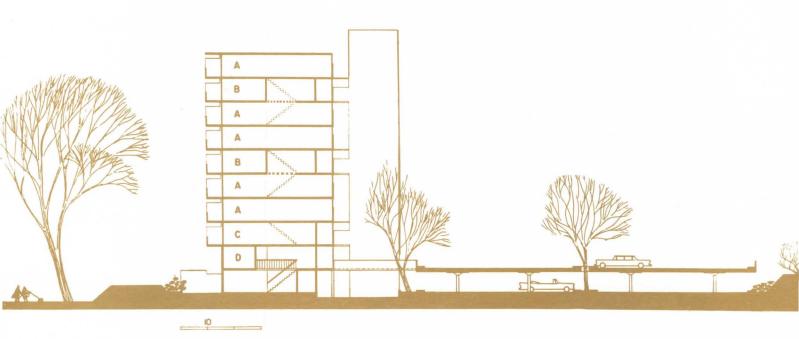




model photos: Robert D. Harvey





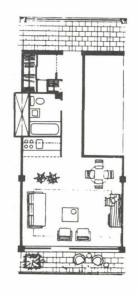








A. TWO BEDROOM



B. EFFICIENCY



PEI

# AWARD

residential

I. M. PEI & ASSOCIATES, ARCHITECTS SEVERUD-ELSTAD-KRUEGER, STRUCTURAL ENGINEERS JAROS, BAUM & BOLLES, MECHANICAL ENGINEERS MORAN, PROCTOR, MUESER, RUTLEDGE, SOIL ANALYSIS

Project: Washington Square East, Section A, Philadelphia, Pennsylvania for Webb & Knapp, Inc., New York.

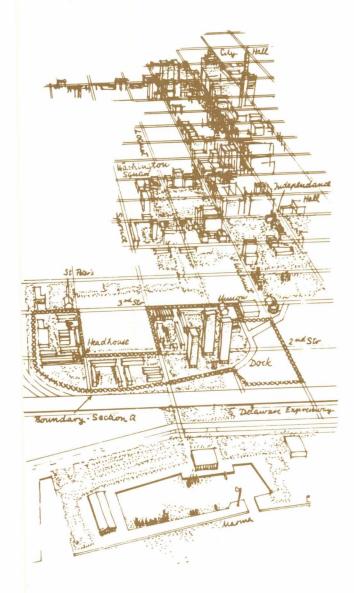
Program requirements: Design for the renewal of an area badly deteriorated though important because of the presence of structures of historical and architectural significance.

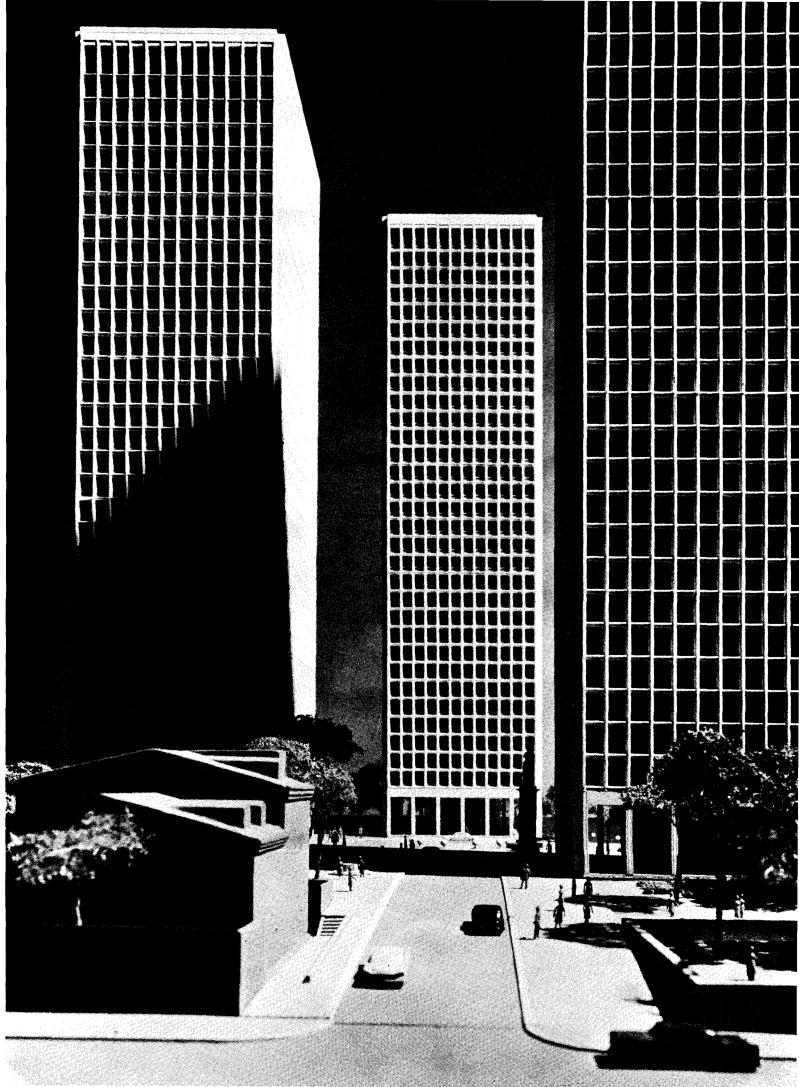
Site: Presently a waterfront producehandling area.

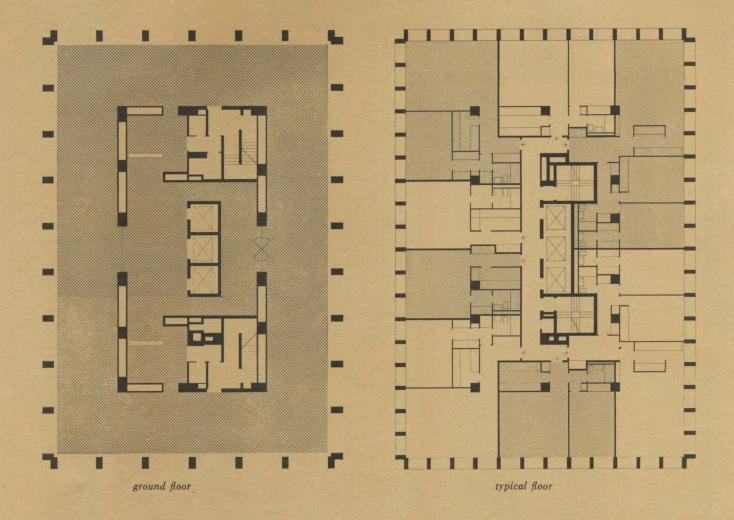
Design solution: Of 968 residential units proposed, 720 are to be distributed in three tower buildings, 150 in new town houses; 72 in rehabilitated houses; and 26 in fill-in buildings. (Because P/A's jurors focused attention on the tower buildings specifically, only this portion of the renewal plan is shown in detail.) The tower buildings are to be located near the waterfront since they are, according to the architects, "of a scale consistent with that of the expressway and the waterfront. . . . The towers will be located in a spacious park, which represents an appropriate setting for buildings of this size."

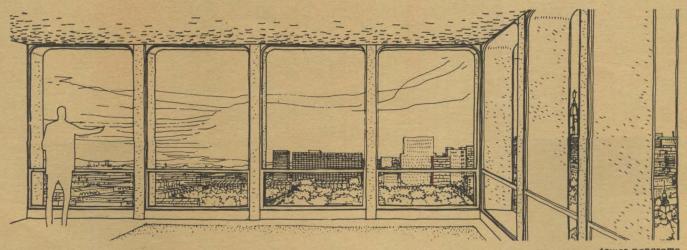
Construction and materials: Construction is to be of reinforced concrete, poured in place. Perimeter columns serve also as mullions. The glass-line is recessed from the surface of the building to avoid glare inside the building, to give a sense of enclosure and security, and to provide a richness of texture when viewed from the outside. (For details of concrete construction methods see October 1960 P/A.)

Jury reaction: This office has made a significant contribution to architecture in the development of concrete construction, and in the furthering of residential planning.

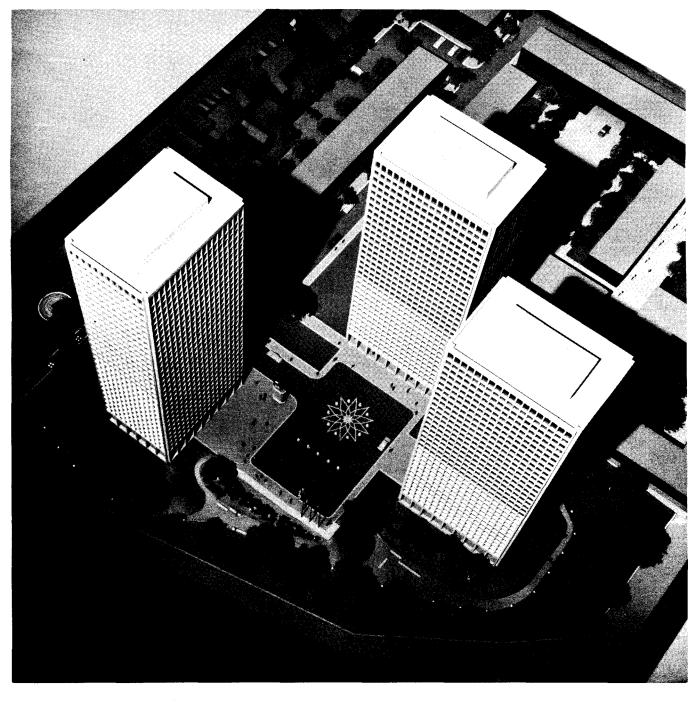








tower panorama





RAPSON

#### **CITATION**

public use

RALPH RAPSON, ARCHITECTS ELLERBE & COMPANY, ASSOCIATED ARCHITECTS

Project: Arts and Science Civic Education Center for City of St. Paul, Minnesota.

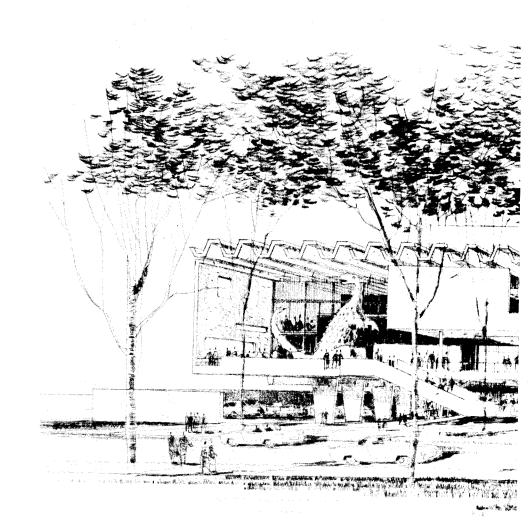
Program requirements: To provide meeting rooms, lounges, offices, rehearsal and performance space for the twelve-member organizations of the Arts and Science Council of St. Paul and its several associate organizations. In addition, the new building is to accommodate the following: 1 a science museum for physical and natural science exhibits, science and industry displays, children's classes and exhibits, library and sales desk facilities, lecture and movie research facilities; 2 a theater section for dramatic productions, for concerts, lectures, and theater classes; 3 a gallery section for permanent and temporary exhibits, picture sales and related activities, children's and adult's classes. On the site, provision is also to be made for a future theater seating 1100. The building cost is to be within a bond issue allowance of \$1,770,000, voted by the city.

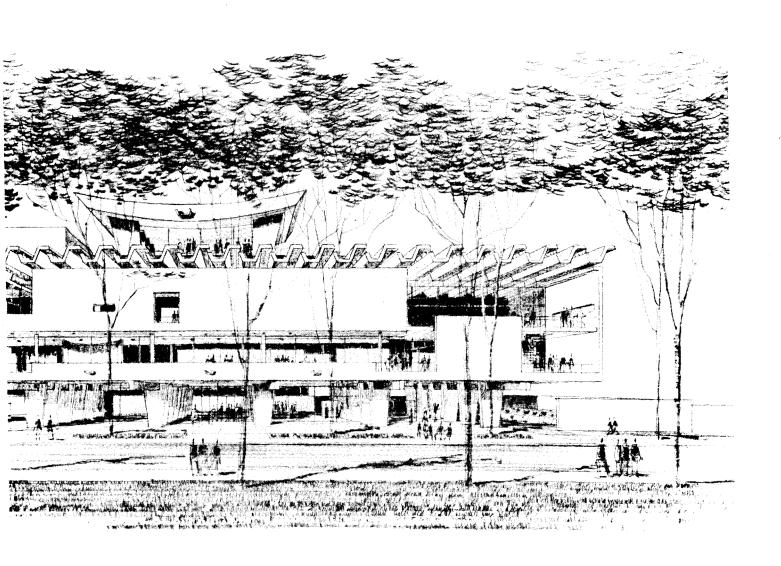
Site: A block on Capitol Mall.

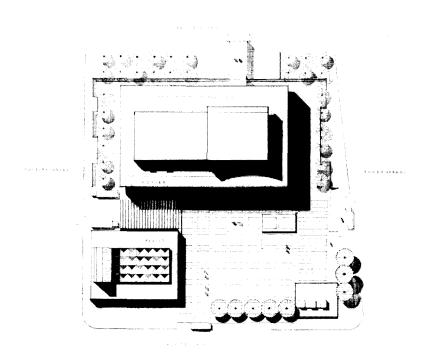
Design solution: A 95,000-sq-ft multilevel structure which will maintain the separate identity of the various member organizations, yet, at the same time, provide the means for an integrated program encompassing the total membership. On completion, this building will be the first community facility in North America to combine the visual and performing arts with the sciences.

Construction and materials: Reinforcedconcrete structure combined with precast-concrete sections.

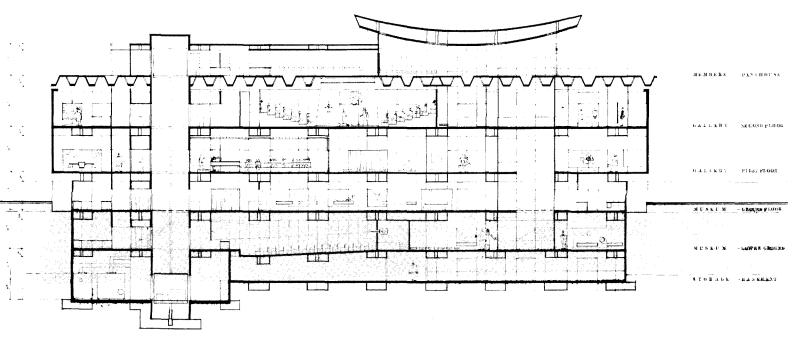
Jury reaction: The many requirements are well resolved.



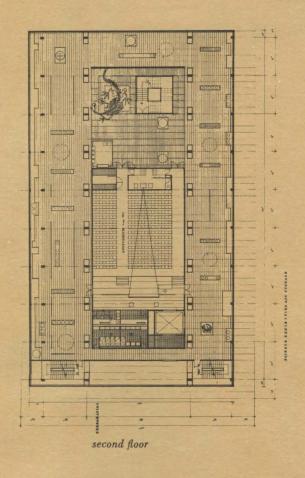


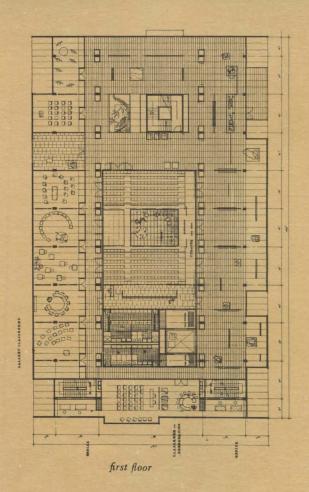


#### $longitudinal\ section$

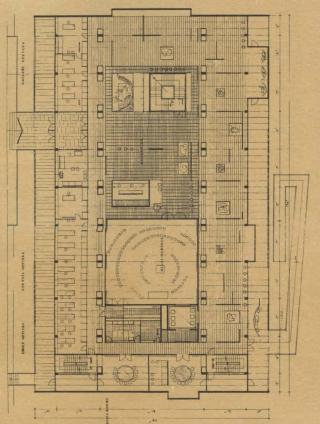


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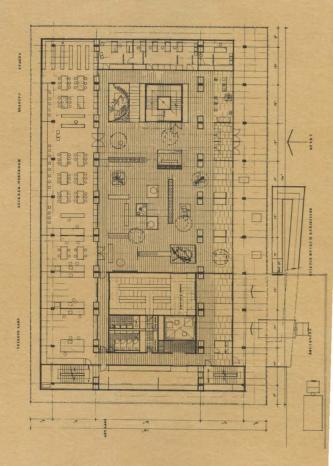








lower ground floor









MILLARD



POZZI

### AWARD

public use

EARL P. CARLIN, ARCHITECT PETER MILLARD, DESIGN ASSOCIATE PAUL E. POZZI, ASSOCIATE HENRY A. PFISTERER, STRUCTURAL ENGINEER OFFICE OF JEROME F. MUELLER, MECHANICAL ENGINEERS

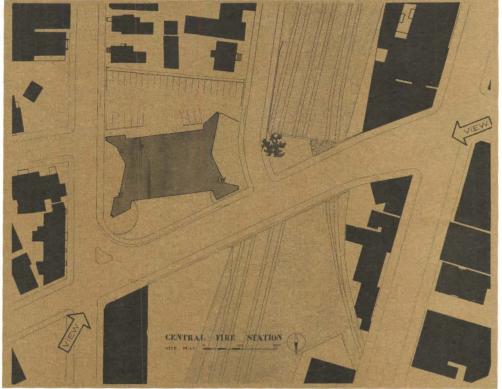
Project: Central Fire Station for Department of Fire Service, City of New Haven, Connecticut.

Program requirements: Housing for three fire-fighting companies and fire department headquarters. City administration wished to create a suitable 'gateway' from the central city to Wooster Square Neighborhood, one of New Haven's major redevelopment areas. For this reason a structure of monumental quality was desired, yet one which would relate well to the new and old buildings in the surrounding area.

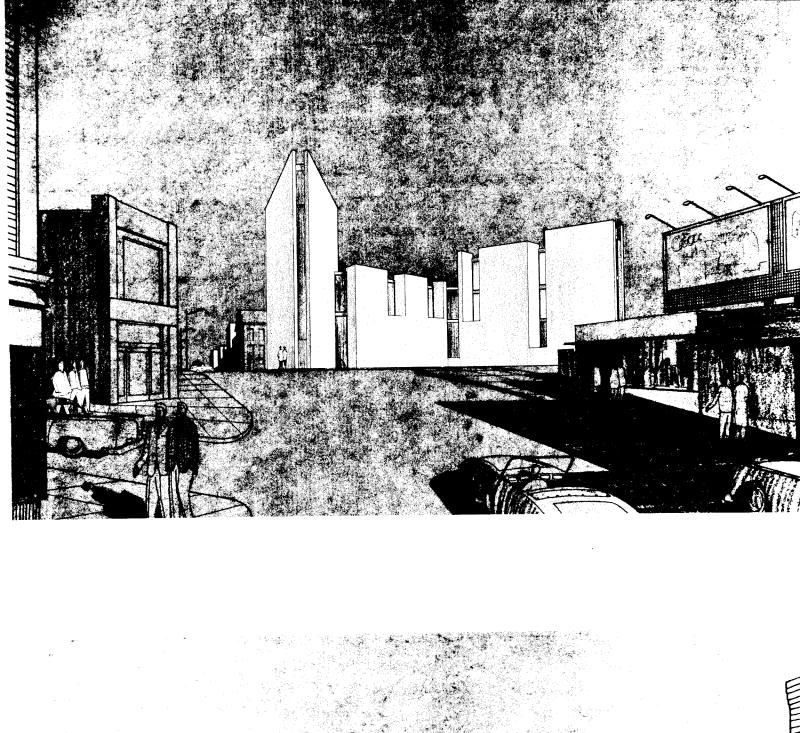
Site: Odd-shaped lot at intersection of two main streets. Off-street parking on site for 30 automobiles required.

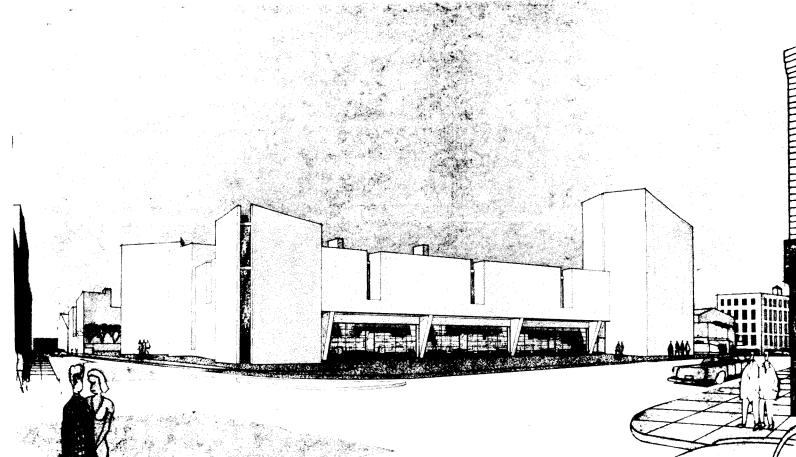
Design solution: The building was placed for best traffic egress. Fire-fighting units and living quarters are on the first two levels; offices of chief, commissioner, and marshall are on the third floor, accessible by elevator and stairs. Sixty-foot hosedrying tower serves as dominant feature. Construction and materials: Structural frame and exterior walls are to be of reinforced concrete. Doors and window frames will be of aluminum. Floor system at apparatus level will be monolithic concrete; plastic terrazzo will be used at the office and living areas. Ceiling in these areas are to be suspended, using corrugated aluminum sheets with glassfiber bats above. Partitions will be constructed of 4-in. brick.

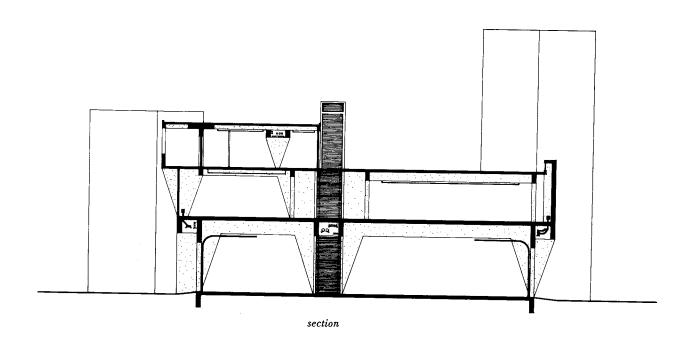
Jury reaction: Award was voted, though with one dissenting vote, on basis of highly imaginative and forceful scheme. (See following Jury Discussion for minority statement and full debate.)



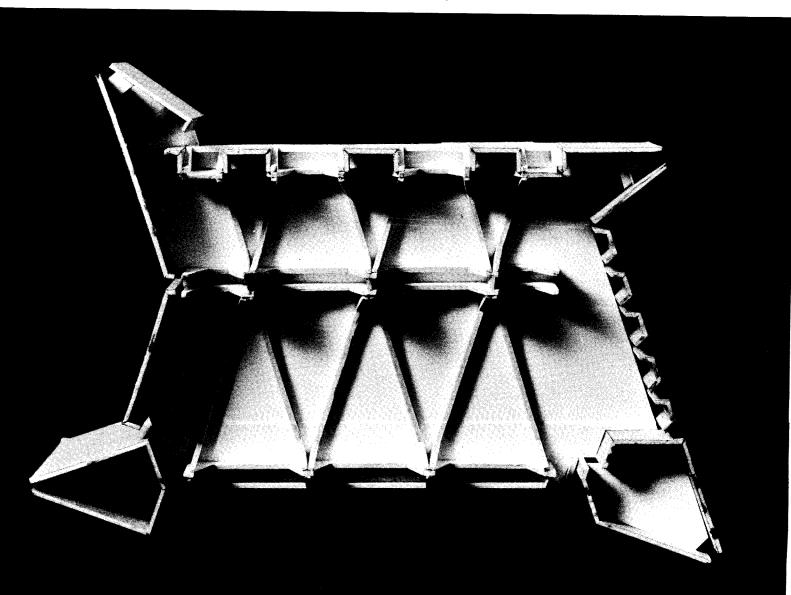
site plan

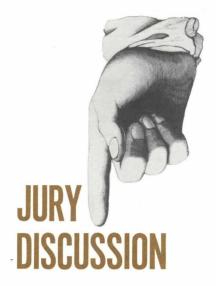






early study model of concrete frame: inverted view





During the judging, as differences of opinion developed on certain projects, the Jury recessed for a time to discuss criteria and standards by which they were making selections. The Chairman, Dean Charles Colbert, stated his point of view: "The three criteria I like to use when judging a building are: first, Order-certainly no one can escape the fact that all buildings, to become architecture, must first be rationally 'ordered.' The systematic or ordered relationships of economic, technological, social, geometric, functional, and even esthetic factors are precedent to any further refinements of design evaluation. I believe that an almost classic and systematic worldwide order is apparent and developing in our significant architecture today; second, Idea—if a building does not have a big or contributive concept which penetrates it and can be externalized, I don't think it's a good building. And finally, architecture must create a strong human reaction on the observer-I would probably call that Emotion." Walter Netsch added: "I have a longer list. First, I think a building has to have some sort of hierarchy in the community it is in; second, I feel that it has to contribute some kind of idea or theme; third, I think it has to have a really positive relation to its environment. It must have a fine quality of space, a sensitive selection of materials, and a recognition of the totality of architecture as a concept. And then it must be related to our times and be contemporaneous in its approach to materials and techniques and the visual forms available in our society." Philip Johnson disagreed, in a personal sense. "I judge everything only visually. I can't go into the refinements of either of you-I can only see what's in front of me. And my favorite way, of course, is to refer to the history books because it makes me feel better." However, in the judging of individual buildings, Johnson, like the others, went into great detail in many specific respects.

On the selection of Pei's Honolulu office building as First Award winner there was no disagreement. The strength of its statement, the originality of its design, drew the admiration of all Jurors. One Award winner, however—the New Haven Fire Station by Earl P. Carlin and his associate, Peter Millard—did produce a request for a minority opinion to be published, and it was continually cited in the general discussion of trends, because it illustrated points that one Juror or another wanted to make.

In reviewing the 507 submissions, and particularly the 18 which were premiated, the Jury felt that certain visible directions in American architecture were apparent. "I think we have seen several different directions that are appearing, and recognize the fact that there is no absolutism at this time," said Walter Netsch. "First there is a style-a sort of cubist direction; second, there is the major concrete expression that we see in the office building by Pei; then, the third one seems to be chaos." Philip Johnson added; "I see these directions and I see one more, which is the most unpopular one todaythe historical tendency." As to which was to be praised and which deplored, the Jury in general, but not all its members, agreed with Johnson that "it's very difficult to say which is a good or a bad direction. Twenty years ago we knew where we were going. There were strong figures-and we still see their influence today: Le Corbusier in the good things we have seen, and Wright in the bad things. I don't know why that is."

There were dissents from this general conclusion, however, with O'Neil Ford saying that to him "it seems that almost any form in the world, as sculpture, even folding paper, is somehow justified in the proper place, but here we have seen interesting shapes used in the most trivial and casual way. This is a sort of jaded thing—an existentialist feeling that chaos is better than trivial direction. We are trying to get away from the glass

boxes, but the box, I think, is good because it doesn't take architecture into the decorative sculptural art which, I feel, architecture is not. Architecture is the art of building spaces which are to be used-and doing it tastefully, decently, and with a strong idea." Walter Netsch put it in another way: "So many of the buildings we have seen are a collection of objects rather than any one cohesive idea expressed, and, what is more important, there seem to be very few handsome spaces. Between the space and the idea we have one part of evaluation."

The theme of the idea as an important criterion—as an important ingredient of a truly good building-was repeated in the Jury's evaluation of the Pei office building. "This is the one very strong and original direction in the group," Johnson said, "and frankly I'm very upset about it. I'm willing to suspend my esthetic judgment because of the originality and the strength of it. It's either going to be magnificently ugly, or it will look just like a ladder. You can't make those safe little judgments about it. It's sort of a monument-it's sort of a mountain. I find it very difficult to know what to say; that's what I think is good about it-it defeats my own set of criteria of what a tall building should be." Netsch added: "It will influence the approach in high-rise buildings." And Ford said, "It is quite revolutionary, although it's the old story of putting all your compression in one basket. It is hard for me to judge it too; I don't know whether I agree with it or not. I've never had anything against columns, but I'll say this-this is the way to do it if you are not going to use any columns at all." Colbert added: "Whether one likes it or not, it has a lot to say for itself. I like eliminating corners; if we can just do that we have a new freedom in tower buildings."

The Fire House was discussed under two points of reference: the significance of the plastic design, and the place of a fire house in the hierarchy of buildings within a community. In relation to this, Colbert remarked, "I don't feel that a fire house is, or should be, 'foreground' architecture. One essentially inconsequential function has been developed far beyond its purposeful use by the community. This man has an idea; he has something to say, but doesn't have the medium to say it with." Netsch agreed that there is a hierarchy of buildings in a community, but added: "I would disagree with you that this project violates the hierarchy problem. This low-scaled, wellproportioned building would look very good next to one of the tall vertical buildings of Pei's which also has a strong idea." Chloethiel Smith defended the hierarchical importance of a fire house: "There is a drama in fighting fires which everyone loves; I think fire houses should be played up."

Philip Johnson wasn't concerned about this question. "I'm only interested in a form here, and the direction we should be going in. I think we should honor good design wherever it

appears, whatever school it appears in." But Dean Colbert still disagreed -strongly: "I think it's capricious and preconceived disorder trying to achieve some form of plastic statement at the expense of the community good. I think it's inappropriate; I think it's a tour de force; I



think it refutes the industrial process that architecture has attempted to become part of." Ford agreed with Colbert, but "not in such strong terms." Chloethiel Smith defended "clearness and boldness." And Johnson and Netsch vigorously countered the criticism.

"I would not build a building in this manner," Walter Netsch said. "At the same time, I think it has quality which goes beyond the question of what you yourself would do or would not do. I think for a two-story building, located on the site it has, it is an admirable solution, and I commend New Haven for planning to build it. Let's not forget," he added, "that this was not done quickly or easily. If it were done facetiously or carelessly it would be dangerous, but this is a serious piece of architecture and should be judged that way." And Philip Johnson said: "Frankly I wouldn't build a building like any one of these, but I hope I can take a liberal attitude about these things. . . . It is a very open building, and the relation of the open to the closed I find extraordinarily well handled. That big opening is held down, and how! That is part of the architecture of the brutalist movement-to give it the bad name used in England-to exaggerate the very thing you have. It is also more historical than you know; it is a revival of a strong movement of the '20s in Germany called Expressionism. It also undoubtedly reflects the Angry Young Men and all that, but it does represent an architectural Expressionism more than anything. It seems to me that the younger generation is going in this direction—all of Italy, most of England, and very little in the United States. I think this is a great deal better than the Italian buildings. It is not easy for me to sympathize with this stage-set, Expressionist, New Brutalist, Yale approach, but I do defend their right to say this."

Colbert remained unconvinced. "It compounds the problem of jangling nerves and flashing neon signs, where every architect is attempting to become a master with his first project. It is too bad that a man with this much ability has to limit it to a fire station. He should have a greater opportunity."

A final statement by one of the Jurors well summarizes the reasons for P/A's Design Awards program, and the benefits to be derived from it as newspaper and magazine publicity develops this month. "I think the public at large," he said, "should have before it all the directions, and people can then draw their conclusions from them. All we have done is to take to ourselves the power of editing projects to be built in the next year, and in honoring any one of those we give it value."



#### **ANNOUNCEMENT**

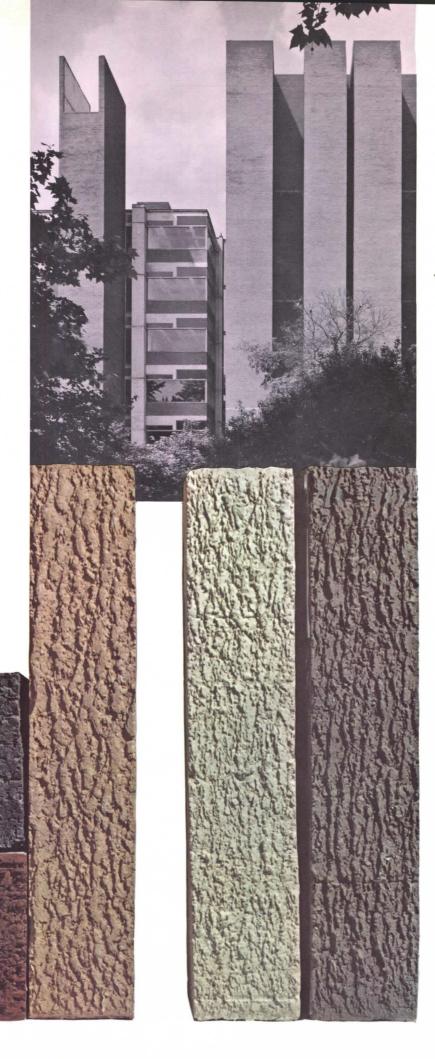
It seemed to P/A's Editors that the issues raised in the Jury discussion reported above were important enough to be considered further, and that they led into even more serious questions about the direction of architecture today. "There is no absolutism at this time," said Walter Netsch, emphasizing his point by adding that one of the directions he saw could be called "chaos." O'Neil Ford pessimistically saw a choice between "chaos" and "trivial direction." Philip Johnson was "upset" about "the one very strong and original direction in the group." And Charles Colbert saw "capricious and preconceived disorder"

in a project that the others much admired. How strong and how widespread is the design confusion that these comments seem to indicate? How much disagreement is there within the profession as to the direction in which architecture is going, or even should be going? Is the variety of design approaches indicated here a thing we accept? Are there any disciplines on which today's strong designers agree? Is any sort of common aim or coherence likely to emerge reasonably soon? Is there a strong technological direction underlying the apparent chaos? Is there something in the practice of architecture which should

be restudied, in order that design aims may somehow be brought into closer harmony?

In an attempt to draw out a large segment of the profession on these questions we are conducting a written discussion among fifty to a hundred of the most articulate, most influential architects. The results will be published in several of the spring issues, beginning with the March issue. We feel that it is time for some sort of a statement, some attempt to clarify what seems to be a confused picture—or to agree to admit that the picture is confused, and go on from there. For these reasons, we make this announcement of the

#### P/A SYMPOSIUM ON THE STATE OF ARCHITECTURE



The Beauty Of Order sensual, monumental yet delicate,

Severe but sensual, monumental yet delicate, the architecture is a statement of masterful discipline. Clothed in brick, an orderly material which yields easily to the artist, it reaffirms the Vitruvian principle. The building: Richards Medical Research Building, University of Pennsylvania. The architect: Louis Kahn.



### New State Office Building Has Integrated Ceilings

BY WILLIAM J. McGUINNESS

Lighting, air conditioning, and acoustical control are interrelated by design of new ceiling equipment described here by a consulting mechanical engineer.

The ceiling of a modern office building must fulfill many functions. These include provision for low-brightness light sources to produce high-intensity illumination at working level, distribution of warm or cool air, acoustical sound reduction, modular acceptance of partitions, and electrical runouts for switches to control the lighting in individual offices. If several of these functions are performed by a common unit, the result is a simpler ceiling that ceases to be a battleground of planning among those concerned: namely, the architect and the illuminating, mechanical, acoustical, and electrical engineers.

In planning the Indiana State Office Building at Indianapolis, the architectural firms of Graham, Anderson, Probst & White, Inc., and Raymond S. Kastendieck, selected a unit that combines lighting and air conditioning. By its use, and with the aid of an integrated ceiling arrangement, all of the problems mentioned above were solved. Tests required by the architects showed that these units would provide 75 ft-c of illumination and deliver 75 to 100 cfm of air. Effective illumination was accompanied by glareshielding of 40 degrees crosswise and 30 degrees lengthwise, while air delivery was comfortably diffused and controllable. Tests were conducted at the research laboratories of the manufacturer, Thomas Industries, Inc., Benjamin Division, of Louisville, Kentucky.

The fixtures are 4' long and 1' wide. They are spaced so that an office module of 5' in each direction is provided. The compactness of the luminaire-diffusers leaves large areas for acoustical soundreduction. This is accomplished by perforated-metal ceiling panels lined with an acoustically absorbent material. For offices enclosed by partitions that extend to the ceiling, an effective sound barrier is furnished by this system. In these locations, light control is possible in each office by switches on the vertical posts of the partitions. For some areas in which low partitions are used, switches at columns control 25' x 25' areas.

The conditioning system that provides a comfortable environment for both sum-

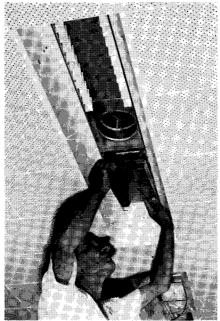
mer and winter is a high-velocity, hotand cold-duct system. Air-mixing boxes adjacent to the ceiling units mix the air by local thermostatic control and deliver it to the fixtures through flexible tubing. At the fixture, the air flow can be manually varied or shut off. Thus each office can select its own temperature and drafts can be avoided. Air is returned to a plenum through grills that can be placed in the ceiling.

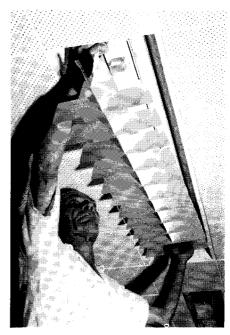
There are more than 20,000 of these dual-purpose fixtures in this building. Known as "Lumi-Flow" units, they are white-enameled steel, equipped with high-voltage fluorescent tubes, a connection for the flexible air hose, air-diffusing plates, reflector, and light baffle. The sequence of installation of ceiling equipment is as follows:

Ducts, hot and cold Channeling (supports) Electrical roughing Flexible air hose Acoustical pans Troffer roughing Connect air hose Troffer assembly

This 14-story, 821,000 sq ft building was built by Virginia Engineering Co.







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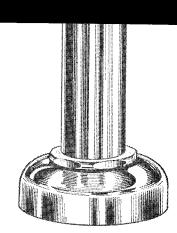


hundred years.

incorporate double protection to prevent back-syphonage as follows:

When a vacuum occurs in the supply line (as indicated in Fig. 2), two things happen simultaneously. The swinging check instantly seats against the water port to prevent back-syphonage; and, as it swings, it opens the air port, admitting full atmospheric pressure to the fixture, which again prevents back-syphonage.

This superior vacuum breaker represents another achievement of Sloan engineering, constantly employed to assure outstanding products through research. It is one more example of that bonus of quality you expect from Sloan. And, since you can have Sloan quality at no extra cost, why not make sure you get it.





#### Glass Nomenclature Reviewed

#### BY HAROLD J. ROSEN

Classifications of glass most frequently used in buildings, and brief descriptions of their chief characteristics, are presented by the Chief Specifications Writer of Kelly & Gruzen, Architects-Engineers.

Glass normally encountered in specifications and general building construction glass when it is 3/16" thick and over. Clear-sheet glass is manufactured in four qualities: AA, A, B, and greenhouse quality. The quality is determined by the number of defects permitted, such as seeds, strings, blisters, scratches, etc.

Plate glass is manufactured in three qualities: silvering quality, mirror-glazing quality, and glazing quality. For

the edges of which are relatively smooth and rounded. If the glass is to be cut, drilled, or fabricated in any way, this work must be done prior to tempering. It is available in thicknesses of ½" to ½" and is used for doors, asylum glazing, explosion-hazard glazing, basketball backstops, and kick plates. Tempered glass should be set in sturdy

#### IT'S THE LAW



#### BY JUDGE BERNARD TOMSON & NORMAN COPLAN

This month's column is a continuation of the four-part article on recent U. S. Supreme Court decisions on arbitration.

In last month's column, we reported on the increasing importance and recognition of arbitration as a method of determining disputes as reflected in a series of recent United States Supreme Court decisions. In the case discussed in that column (United Steel Workers of America vs. United Manufacturing Company), the Supreme Court ruled that in determining whether a contract requires arbitration, the Court may not consider the merits of a dispute.

The Supreme Court was next called upon to determine whether a labor dispute involving a management function was subject to arbitration (*United Steel Workers of America* vs. *Warrior and Gulf Navigation Company*, 4 L. ed. 2d 1409).

In this case, the employer transported steel products by barge and maintained a terminal in Alabama where he performed maintenance and repair work on his barges. The employer laid off some employes due to his contracting to other companies maintenance work which had previously been done by his own employes. A number of employes filed a grievance with their employer contending that the company's action in contracting maintenance work outside was unreasonable and unjust and, in effect, constituted a partial lockout in violation of the collective bargaining agreement between the employer and the employes'

#### Arbitration: Part 2

shall not be subject to arbitration."

The Federal District Court dismissed the complaint on the ground that the contracting of maintenance work was strictly a function of management which was not subject to the grievance procedure and arbitration provided by the labor agreement, and this determination was affirmed by the United States Court of Appeals. However, on appeal to the United States Supreme Court, this ruling was reversed by a divided Court.

The majority of the Court, in determining the issues, viewed arbitration under collective bargaining agreements as distinct from the ordinary or "run of the mill" commercial arbitration agreements. The Court said:

"The present Federal policy is to promote industrial stabilization through the collective bargaining agreement . . . Thus the run of arbitration cases . . . become irrelevant to our problem. . . . In the commercial case, arbitration is the substitute for litigation. Here arbitration is the substitute for industrial strife."

The Court further viewed the arbitration procedure in the labor field as in the nature of a private legal system, creating, in effect, a system of industrial self-government. The Court stated:

"The collective bargaining agreement... is more than a contract; it is a generalized code to govern a myriad of cases which the draftsmen cannot wholly anticipate... it calls into being a new common law... the common law of a particular industry. There are too many people, too many problems, too many unforeseeable contingencies to make the words of the contract the exclusive source of rights and duties... A collective bargaining agreement is an effort to erect a system of industrial self-government.... Courts and arbitration in the context of most commercial contracts are resorted to

erally accord with the variant needs and desires of the parties."

The Court went on to consider the proper function and conception of the labor arbitrator, stating:

"A proper conception of the arbitrator's function is basic. He is not a public tribunal imposed upon the parties by superior authority which the parties are obliged to accept. He has no general charter to administer justice for a community which transcends the parties. He is, rather, part of a system of self-government created by and confined to the parties. . . .

"The labor arbitrator performs functions which are not normal to the courts; the considerations which help him fashion judgments may indeed be foreign to the competence of courts. The labor arbitrator's source of law is not confined to the express provisions of the contract, as the industrial common law—the practices of the industry and the shop—is equally a part of the collective bargaining agreement although not expressed in it. The labor arbitrator is usually chosen because of the parties' confidence in his knowledge of the common law of the shop and their trust in his personal judgment to bring to bear considerations which are not expressed in the contract as criteria for judgment. . . ."

The Court concluded that the determination whether the contracting out of work was a function of management, in the sense that management had unfettered discretion and complete control in this area, was one for the arbitrator to decide, and not the courts.

Performance under a construction contract is far more complex and delicate than performance of the usual commercial contract. Enforcement of the contract through arbitration, therefore, and the resolution of disputes which might arise under the building contract, have much in common with arbitration under

#### \*Stainless Steel Corner Reinforcements

One of more than twelve certified reasons why Weis compartments are Specified in America's finest buildings. A convincing reason why...

Prior to this exclusive improvement by Weis, all corners of toilet compartment doors and partitions were joined by welding or brazing and grinding. This action removed the zinc coat—exposing raw, unprotected steel. The new stainless steel corner reinforcement entirely eliminates this destructive operation and leaves the zinc coat undisturbed -banishes any invitation to rust.

# Weis belongs where toilet compartments

really take a beating

Wawasee Bowl, Syracuse, Indiana

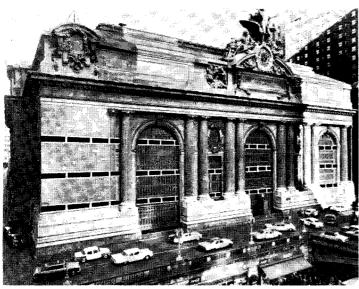


Prefabricated, Prefinished Products for the **Building Industry Toilet Compartments** Cabinet Showers Office Partitions



New buildings like this efficiently equipped twenty lane installation are busy, bustling places—a far cry from the noisy clatter of a few years ago. Active bowlers coming in and going out; league after league—people on the move and pleasure bent. These are the installations that take a

beating, the kind a Weis compartment is built to "take". A copy of The Weis Certification of Material, Construction and Finish, which insures years of "like new" service, will be sent upon request.



GRAND CENTRAL BOWL—Broken lines across Grand Central Terminal indicates where three-tier bowling center will be installed, comprising forty-four lanes.

tear Editr:

# FOR GOD'S SAKE, HOW CAN ONE SIT BY WHILE THIS IS HAPPENING TO OUR CITY!!

Sincerely yours Poter Santau,

#### In Defense of Grand Central

For a more objective discussion of the projected bowling center for New York's Grand Central Terminal, see P/A NEWS REPORT, this issue [ED.]

#### Shopping Centers Take the Prize

Dear Editor: Although commercial and institutional buildings in urban areas have become very standardized, perhaps the most trite and esthetically offensive designs are to be found in the myriad shopping centers that are sprawled horizontally over our landscape from coast to coast.

These architectural banalities are appallingly repetitious and monotonous both in plan and elevation. The dominant structure is inevitably a two- or threestory, windowless "shoe box," adorned with either bright-metal louvers and spangles or other nonfunctional gingerbread, and occupied by the principal leaseholder-usually the suburban branch of a large city department store. This store and the surrounding complex, consisting of a shopping mall of smaller competitive stores, together with the parking areas, almost invariably feature hard, rectilinear forms executed with a paucity of creative imagination.

Strangely enough, relatively little competition exists among architectural offices engaged in shopping center design. There are less than a handful of major firms that do the lion's share of these projects throughout the United States and Canada. Thus, their design product is unmistakable in the assembly line clichés that have become the trade-mark of our suburban communities. Unfortunately, too little appreciation is shown for the fact that good design and planning, for the long-term advantage of all concerned, can be purchased for very little more in time and money.

Until local and county officials exercise more direct control through proper zoning, design evaluation, and study prior to approval, fast-operating realtors, promoters, and architectural "design mills" will continue to throw together ill-conceived centers for quick profits at the expense of the consumer public.

GORDON D. FRIEDLANDER White Plains, N.Y.

#### Historical Survey Updated

Dear Editor: We have read with special interest Ada Louise Huxtable's very well written article in your October issue.

This historical survey of reinforced concrete structures was most interesting to us in that one of the buildings pictured (fig. 19, "Historical Survey," October 1960 P/A) has taken on a new look; our office has recently given it new economic life. The enclosed photo-

Tiles designed to allow architects and interior designers freedom in developing a wide variety of decorative themes through the use of light and shadow upon gracefully sculptured surfaces

### New and exciting designs in the Caribbean Series of sculptured tiles



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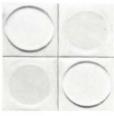
Designs specially created for Robertson by industrial designer Peter Quay Yang, A.S.I.D.



surf



limbo



half moon



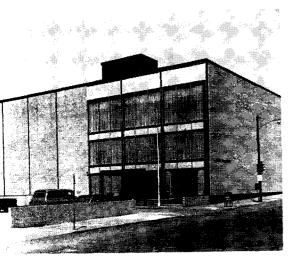
ROBERTSON MANUFACTURING COMPANY TILE DIVISION, TRENTON 5, NEW JERSEY

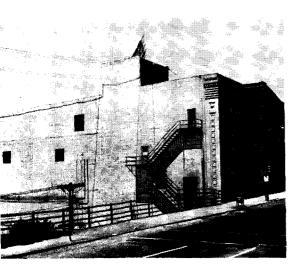
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sand dune





graphs will indicate what we have accomplished.

The contractor performed his work in 60 days; incidentally, he had a hard time breaking out the south wall to allow the installation of the window wall.

You will note that we have made it possible to have parking at the street level. This was done by installing steel columns extending up three stories above the railroad tracks to street level.

Our office is receiving a Medal Award from the Kansas City Chapter of the AIA for this remodeling.

The building is now called the "Armed Forces Building." It houses offices of the Army, Navy, and Air Force, leased by the General Services Administration.

LOUIS H. GEIS, AIA Geis-Hunter-Ramos Kansas City, Mo.

#### Professional Liability Insurance: Let's Keep Competition

Dear Editor: The recently received item, "A Word From the AlA Committee on Professional Insurance," raises an interesting point to half-mast and leaves it there, quite in mid-air. The committee states that it has always recognized the right of any AIA member to buy insurance from any company, but believes that the real interest of the architectural profession-and of policyholders as individuals-is best served by buying such insurance from one company. It goes on to state that there are not enough architects to spread the risk sufficiently to produce moderate rates if this business is divided among several companies.

In any such esoteric and potentially explosive line of coverage as Architects' Professional Liability Insurance, there are precious few companies willing to enter the field when two leviathans of the insurance industry have such a large lead. The only serious contenders in this race appear to be (in alphabetical order) Continental Casualty Company of Chicago and the Fidelity & Casualty of New York. The General Accident of Philadelphia writes a narrow "accident only" form and underwriters at Lloyd's, London, write a true professional liability cover; however, in my opinion, neither of these is a satisfactory arrangement considering that the other two companies are willing to provide full coverage.

The General Accident at one time was the carrier sanctioned by AIA and apparently wrote a fair book of business before withdrawing from the arrangement. The Lloyd's arrangements have been available for many years, and at one point represented the only true "errors and omissions" coverage available to members of the construction professions, including engineers and land surveyors. To this date, Lloyd's is the only outlet for land surveyors, although Continental Casualty is working along these lines at present. If you are acquainted with any architect or engineer who has had Lloyd's coverage in the past, it is suggested that you contact him for first-hand information as to the price of doing business with London in the absence of competition here at home.

The first domestic policy written in my area was in October 1956 and was with Continental Casualty, the acknowledged first entry in the Professional Liability

race for the construction professions. In November 1957, the Fidelity & Casualty Co. of New York made its debut. Although the Continental Casualty is recommended by the AIA and NSPE, the Fidelity & Casualty Co. is recommended by the Consulting Engineers' Council. At first it was not possible to obtain Fidelity & Casualty coverage through any licensed broker, but today it is, just as it has been with the Continental Casualty.

Personal experience leads me to believe that the entry of Fidelity & Casualty Company in this field has had nothing but a beneficial effect on both the breadth of coverage and the diminution of premiums for these coverages, not unlike the effect that Continental Casualty had upon the over-all picture when it came on the scene; Lloyd's coverage was broadened to equate more nearly with the Continental policy as to contract wording, and, it is presumed, their rates were also affected. In New York State, of course, it is illegal to do business with Lloyd's through a licensed resident agent if any authorized insurance company is willing to provide coverage for the client. Therefore, the only takers of Lloyd's policies here are those who, presumably, are unable to qualify for either Continental Casualty or Fidelity & Casualty policies.

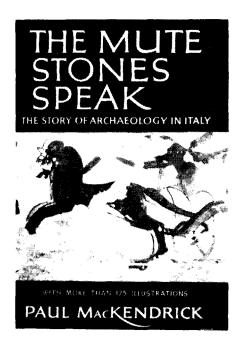
For the AIA to take the view that there are not enough architects to spread the risk sufficiently between two companies is unrealistic for three reasons. First, as stated above, competition must invariably be viewed as a healthy thing. Second, it ignores the existence of a vast number of engineers whose professional liability problem is equally as great as that of the architect, whether or not they (the engineers) always recognize this fact; architects' and engineers' rate filings are the same, and these two classes are synonymous in underwriters' eyes. Third, insurance companies have been known to retreat from a losing situation for one reason or another. Having more than one company involved allows a certain safety factor; the competing company would be in a much better position to step in and take the place of the company vacating the market in such an event. Insurance carriers are traditionally conservative and do not move quickly into unfamiliar areas.

> JOHN M. LAKE Insurance Consultant Syracuse, N.Y.

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# Digging into the Past



BY ROBERT W. McLAUGHLIN, FAIA Director of Princeton University's School of Architecture, who has examined most of the pre-Columbian archaeological sites and is currently preparing an index of ancient American architecture, reviews The Mute Stones Speak: The Story of Archaeology in Italy. Paul MacKendrick. St. Martin's Press, Inc., 175 Fifth Ave., New York, N. Y., 1960. 369 pp., illus. \$7.50

Many an architect is a frustrated archaeologist. As architects we have a healthy curiosity about what our predecessors did, and an insatiable desire to know how a culture relates to its architecture. Since distance in time renders our judgments more objective, we may hope to learn from the past what will guide us in the future. Even Frank Lloyd Wright. hardly a traditionalist, wrote and said (with respect to his love for another past) that if he had had the means he would have gone digging in Mayan archaeology.

Professor MacKendrick's book on the story of archaeology in Italy deals with a central phenomenon of architectural development in the western world. That oddly shaped peninsula, jutting out from the underbelly of Europe toward Asia and Africa, was to furnish the ground for major developments of architecture on the continent. The author outlines these, beginning with prehistoric sites, on through the Etruscans, to the founding of Rome and her colonies, the Republic, and the Empire.

The book has been compared to Ceram's Gods, Graves and Scholars, but except for making archaeology exciting for the layman, the two have little in common. Ceram dealt with the individual archaeologists who pursued their quests throughout the globe. MacKendrick deals with the techniques and fiindings of archaeology as applied to one area, the Italian peninsula.

The description of modern techniques that have changed the nature of digging will interest architects. Two of them came out of wartime experience: mapping subsurface conditions from the air, and probing below ground with electronic devices. MacKendrick recounts the achievement of two young British Army officers, Bradford and Williams-Hunt, who mapped all of Italy in 1945 with stereoscopic shots from a high-wing monoplane. When thus photographed from the air, under a raking light during a dry season, fields that appear innocently agricultural at eye-level show under their surface amazing urban plans.

The presence of deep trenches or walls close to the surface registers clearly in varying quality of grass or crop. These photographs were made available to archaeologists, so that when Sjoqvist and Stillwell recently launched a Princeton expedition to Sicily, they were able to choose the site at Morgentina from information giving an over-all view of ancient Italy. The random explorations of the treasure-hunter have thus been supplanted by the exact, comparative methods of the modern archaeologist. With Bradford's photography, the number of known neolithic sites in Italy has been multiplied many times over, so that we can now see a pattern in that culture.

Aerial photography, for instance, helps to locate sites of Etruscan tombs, for decades a treasure-hunter's trove; and a potentiometer device, based on the type of mine-detector used by infantry troops, spots them accurately. A periscope device is then thrust in and a photograph taken, all of which is preferable to digging and wrecking a score of tombs for a single find. Hopefully the day is past—and not to return—when enthusiastic amateurs destroyed monuments from top down in search of museum furnishings, sometimes even using dynamite, as Baron Waldeck did at Palenque in Chiapas.

MacKendrick gives a lucid description of the C<sup>14</sup>-method of dating, more useful for periods of prehistory than for the height of Roman power, from which coins and inscriptions are in plentiful supply and dating is more precise. Undersea exploration has its methods too. What more glamorous field is there for the archaeological buff than to go sailing for treasure?

Technique, though, is not the point of this interesting book. The successive cultures of Italy are unfolded through the findings of archaeology. Even in pre-historic times we see the contrast between an organic, clustered complex of free forms at Su Nuraxi in Sardinia, and the rigid lines of a grid plan at Castellazzo di Fontanellato in the Po Valley. That architectural tussle was going on 5000 years ago, as it is today.

The period of Etruscan rule was followed by Rome and her colonies. The architects of the Republic thought in big terms—ordered, axial, imposed, and imposing. The author reconstructs Sulla's Palestrina for us in words and pictures, all based on the archaeologist's pick and brush. "The use of concrete at Palestrina amounts to an architectural revolution.... This strong, cheap, immensely tough material enabled the architect to

Continued on page 173



2' x 2' control lenses of Plexiglas mounted in pairs, County of Sonoma office building, office of Superintendent of Schools, Santa Rosa, California • Architects: Steel & Van Dyke, Santa Rosa

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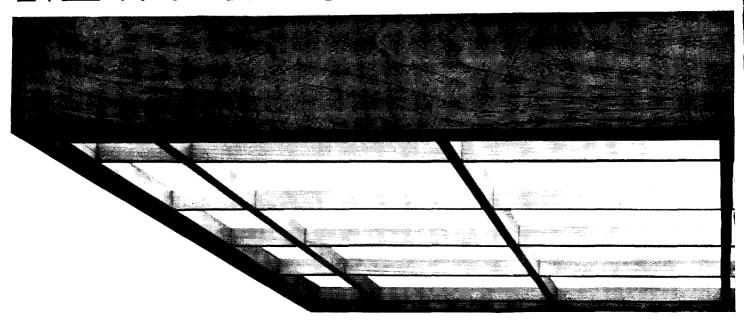
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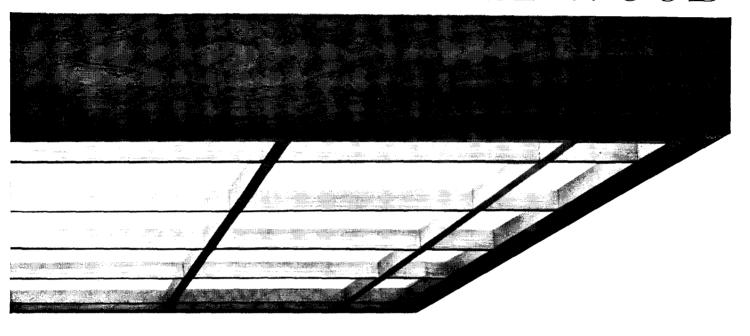
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Continued from page 168 enclose space in any shape. . . ."

"Three men on horseback,-Sulla, Pompey, and Caesar-subdued East and West for Rome, and used part of the profits to change the face of Rome in 40 years." The Forum resulted, and architecture as a device for political propaganda came into being. (Mussolini's restoration, made some 1965 years later, falls into that category too, but was very useful archaelogically.) Augustus was the epitome of Rome, followed by Tiberius, Caligula, Claudius, and Nero, whom Mac-Kendrick characterizes respectively as hypocrite, madman, fool, and knave. This was the age of architectural stage-sets, and on what a scale! Nero's Golden House has been pieced together by German and Dutch archaeologists as "...a gigantic system of parks, with lawns, groves, pastures, a zoo. Within these grounds, twice the extent of Vatican City, was a great Versailles in the midst of the teeming metropolis."

There is an excellent account of Pompeii, and the author overwhelms us with descriptions and illustrations of the monuments of succeeding emperors. Domitian's Stadium, Trajan's Market, and Hadrian's Villa at Tivoli show what tyranny and ambition can do in architecture. One wonders then: What is the matter with the forces of democracy? Are we afraid of architecture in America? New York's Lincoln Center or Pittsburgh's Golden Triangle, among our greatest efforts, seem trivial by comparison.

There is a good description and discussion of Roman engineering—roads, baths, and aqueducts. There is also a gentle spanking given to the current architectural fellows of the American Academy in Rome, who (in this reviewer's contribution to the spanking) tend to be so ignorant of the past that they fear it. A good dose of open-minded exposure to the Italy of the past would help American architecture now—not to do as the Romans did, but to sense the passion they had for architecture on an important scale, and to see some of the spatial means they used.

This book is a good door to such an exposure. Illustrations are generous in number and well related to the text. One wishes the book might have been more expansive in format, making it grander to look at, if not so easy to perch on chest or stomach for horizontal reading (which I suspect is the way many of us in architecture do our reading). In its purpose, then, this book is good; in content, excellent.

#### The Supremacy of Pure Feeling

The Non-Objective World. Kasimir Malevich. Introduction by L. Hilberseimer. Translated from the German by Howard Dearstyne. Paul Theobald & Co., 5 N. Wabash Ave., Chicago 2, Ill., 1959. 103 pp., illus. \$4.50 (paperbound)

Perhaps no other painting has provoked so much continuing bewilderment, hostility, and ridicule as Kasimir Malevich's White on White which now hangs in New York's Museum of Modern Art. It was painted about 1918 and consists of a white square on a white ground, with differentiation depending on minute differences of value. I once heard a visitor ask sarcastically if it was supposed to represent a handkerchief, but according to Malevich the work derived from his "understanding of the supremacy of pure feeling in creative art."

The difference between Malevich's intentions and the immediate impression of the work explains much of the animosity it has aroused, for on the face of it, it seems impossible for such a seemingly controlled composition to be as subjective, for instance, as a Jackson Pollock. But keeping in mind that Impressionism is already intimated in the works of Valasquez, Titian, and Rembrandt, and projecting a process of reductive abstraction that carries through modern Impressionism or Cubism (from which Malevich's Suprematism was derived), it is not difficult to fit the work inside the by then ultimately attenuated plastic tradition of the Renaissance. It is a painting that may have reached the point of no return, but at the same time it cannot be denied that it arrived at a destination. We cannot prove that it realized Malevich's goal-the feeling of non-objectivity (just one of the many impossible ideas that Malevich assumed was selfevident and self-explanatory)-but certainly it was an ultimate in compressed symbolism, a Romantic rationalism that rejected the present for the sake of that elusive universalism of sensation that every absolutist of modern art has mistaken for Platonic "reality."

One is, in fact, reminded time and again of the disparity evident in modern art between *ideas* of feeling and the *expression* of feeling, while reading the first published English translation of Malevich's theoretical treatise on Suprematism, *The Non-Objective World*.

Suprematism was an extremist solution to the problem of freedom in modern

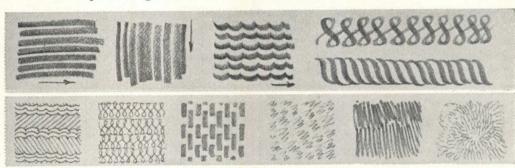
Continued on page 180

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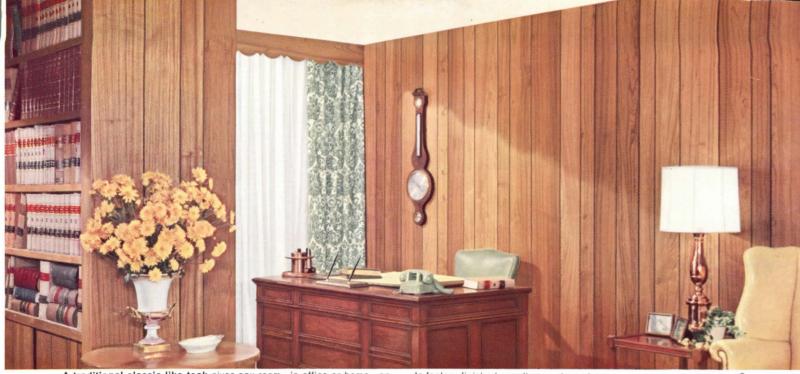
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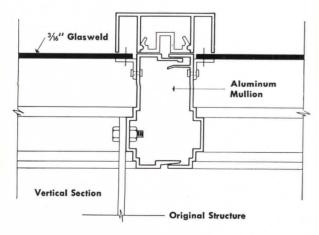
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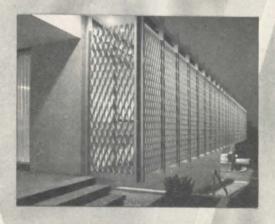
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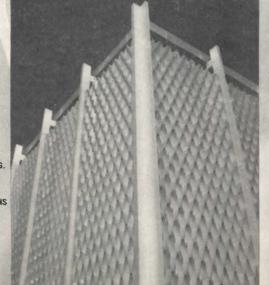
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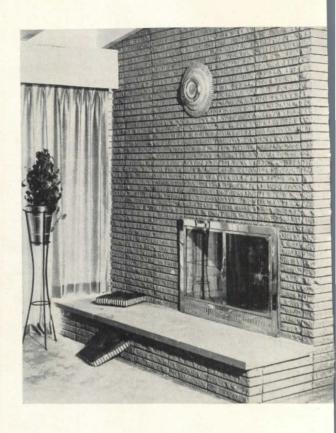
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Continued from page 173

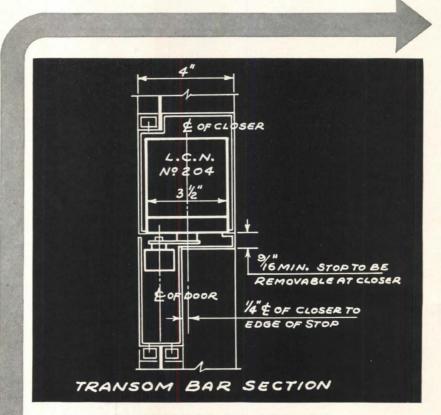
art. The issues raised and explored by it are certainly more complex than a nebulous notion of liberation from the "tyranny of the subject," but essentially -i.e., historically, for the purpose of this review-its audacity was esthetic. For it was tied to the same necessity that inspired the tradition-shattering innovations of modern art shortly after the turn of the century. Suprematism is part of the stylistic entity that includes Cubism, the parent form, Constructivism, and Neo-plasticism. It was invented by Malevich in Russia in 1913, and had a relatively short (but influential) life, for at least two reasons. First, it was plastically impoverished from the start by an idea that in effect dictated the destruction of plastic means; and second, it was repressed by Soviet authorities in favor of social realism. Malevich felt, however, that Suprematism opened art to the possibility of carrying a plastic feeling rendered on canvas into space, and he explored a "Suprematist architecture of pure form," the reproduced examples of which look like scale models for very modern buildings.

The Non-Objective World was translated into German in 1927 as a Bauhaus book (the introduction does not say exactly when it was written). Its two parts include an Introduction to The Theory of the Additional Element in Painting and an essay on Suprematism. The discussion is valuable primarily as a document of an era and of an important artist; as a statement of ideas and as theoretical exposition, however, it sometimes borders on the ludicrous. There are moments of astonishing insight and moments of almost perverse naïveté. Several statements are impossible to follow: "We find the concrete element in the sciences and religion-the abstract in art." I do not know what this means. Abstraction is ubiquitous in daily life, peculiar to every choice, to discursive and non-discursive symbolism. Worringer, in fact, makes a strong case for a universal will to abstraction in his Abstraction and Empathy.

Then, too, Malevich was also concerned with the creation of a "new science—the science of the nature of painting." This strikes me as superfluous and even naïve, for painting is itself already a "science." Or, if such a science as Malevich's were possible, then it should also be possible to develop a new art: the art of the nature of science.

"The theory of the additional element in painting" is conceivable and even useful terminology, but Malevich develops it neither adequately nor scientifically. It consists of a few generalizations, observations of the efforts of a few students, and some received ideas about the artist being misunderstood by his society. Simply stated, the additional element refers to a desire for change as it effects artistic style. The additional element is "norm-destroying" and anticonformist, and is eliminated as destructive by the majority. This eliminated element thus becomes the additional element. Norm-destroying Cubism was normal only to a minority.

Malevich makes good sense psychologically as well as artistically when he observes that "the human being observes in nature the unconscious, 'disorderly' activity of the elements and seeks to arrange this in conformity with the 'lawfulness' of his consciousness," but he did not seem to realize that he used "pure feeling" as a form of control rather than liberation. He defied nature by defying himself, by bending his perception to his intellect. The result was another realism, complete with literary Continued on page 182



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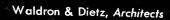
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Continued from page 180

trappings in Suprematist compositions suggesting the sensation of flight, the feeling of fading away, magnetic attraction, etc.

The basic Suprematist element was the square, but Malevich expanded the repertoire to include a variety of geometric forms—ellipses, rectangles, circles, etc.—and with these he proposed to express "pure feeling." But as his art grew in complexity, it was obvious that like any other artist he worked with a gamut of particular feelings. This should

have led him to be more specific regarding his idea that "absolute, enduring values" proceed from art. What was the relationship of these values to the likelihood that another additional element would eventually arise?

The essay on Suprematism is not nearly so encumbered by theory. It presents a convincing picture of what the man was feeling when he came upon his discovery of the basic Suprematist element and made his claims for the Suprematist vision of a reality beyond appearances. "This was no 'empty square' which I had

exhibited but rather the feeling of nonobjectivity." The statement exhibits more feeling than sense, but then he boasts (thoughtlessly, I think) that "the Suprematist does not observe and does not touch—he feels."

Malevich never bothered to qualify the expression "the feeling of non-objectivity." He merely assumed that it was there and failed to realize that the idea developed from his perception of image—a square—which may seem like non-objectivity in the work but never in the senses. Can one make an object of non-objectivity without using the effort as a substitute for a subject?

Malevich proceeded from correct emotional premises only to be led astray by his own demands on his expression. He perceived the nature of his art correctly: "The Suprematist square and the forms proceeding out of it can be likened to the primative marks (symbols) of aboriginal man which represented, in their combinations, not ornament but a feeling of rhythm." (The tilted inner square of White on White ascends to the upperright corner, and both the tilt and the flow can be read as Baroque devices.) But he ideated his perception along the lines of what was merely a projected wish: "Suprematism did not bring into being a new world of feeling but rather an altogether new and direct form of representation of the world of feeling." A symbol, however, is anything but a direct form of representation.

Studying the photographs of Malevich's work (and the other interesting documentation), I was struck by the burden the man imposed on a style whose subjective logic was so admirable yet so unfree. Malevich was unable to realize that all painting is a statement of "pure feeling" to the degree and extent that it can be articulated. I cannot help but think that his work was compromised by its imposed duties to the point where "pure feeling" resulted ultimately in banalities equal to the ones he opposed.

SIDNEY TILLIM Contributing Editor, Arts Magazine New York, N. Y.

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New Housing in Great Britain. Hansmartin Bruckmann and David L. Lewis. Universe Books, Inc., 381 Park Ave. South, New York 16, N. Y., 1960. 130 pp., illus. \$9.50

"This book," states the opening sentence of the preface, "provides information on the development of domestic architecture Continued on page 184

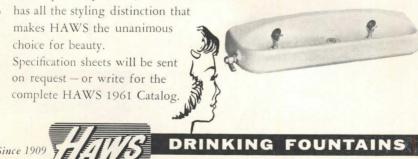


# Look at the Back for a change!

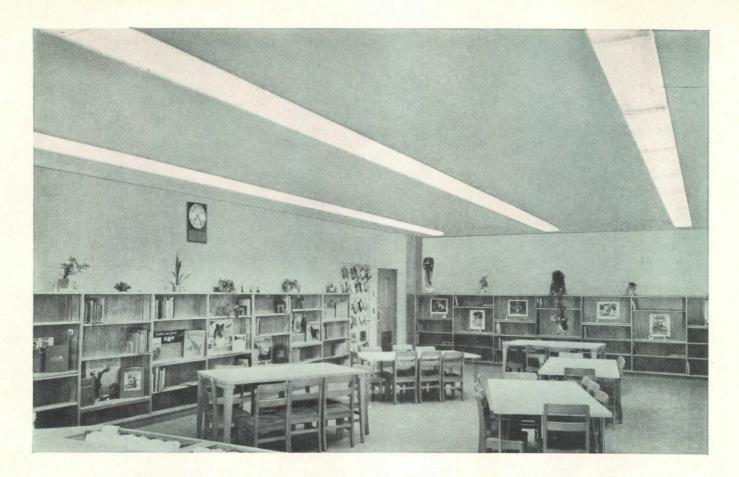
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1960." And so it does. The introduction, although intended for laymen, gives an admirable summary, clearly and simply stated, of the New Towns Movement from the time of Ebenezer Howard to

The text that follows is more descriptive of the new towns and new estates than it is critical or evaluative, which perhaps is just as well, for surely the merit of these vast housing efforts lies in their social success rather than in their architecture.

Two things stand out. First, the superin Great Britain during the years 1945 to iority of site-planning over housing developments in the United States. Second. the value of experimental efforts in interior planning as well as exterior design, of a type that are not allowed in this country because of bureaucratic timidity (if that is the right word). Variety and progress are the result in Britain, an evidence of learning from the earlier work. Here in the United States we go on repeating mistakes.

The book includes some examples of private, single-family, detached houses that do not make one very happy; they seem mannered, stiff, and lacking in graciousness.

The book suffers from several defects: the layout is confused, there is no uniformity to the site plans, legends are lacking, and there is no indication of "points of view." Considering this, the selling price is too high.

> HENRY S. CHURCHILL, FAIA Architect and City Planner Philadelphia, Pa.

#### Wanted: 109 Million Acres

The Dynamics of Park Demand. Marion Clawson. Bulletin No. 94 of the Regional Plan Association, Inc., 230 W. 41 St., New York 34, N.Y., 1960. 39 pp., charts, tables, photos. \$3

This is the second in a series of studies for the Park, Recreation and Open Space Project sponsored jointly by Regional Plan Association and New York Metropolitan Regional Council. It was preceded by a survey of the legal background of public open space and will be followed by a study entitled Nature in the Metropolis and a final report, The Race for Open Space. All four volumes are designed to provide a concise picture of what should be done to provide public recreation areas and facilities for the residents of the New York Metropolitan Region, but in achieving this goal, the project provides information of great value to other areas as well.

Chief finding of Dr. Clawson's analysis is that the future demand for recreation will continue to rise at a rapid rate, spurred on by a combination of population growth, increasing per capita income, more leisure time, and growing ease of travel.

The author divides outdoor recreation areas into three main categories: local recreation (within walking distance and generally municipal); all-day recreation (within two hours drive and usually provided by a state or county); and overnight and vacation areas (unique natural sites that may be remote from population centers, generally under Federal sponsorship). For the nation as a whole, he foresees a tripling in the number of visits to local recreation spots by 1985, a tenfold increase in visits to all-day areas and better than a twenty-fold gain in visits to overnight and vacation areas. While the increase in amount of land needed to satisfy this growth in popularity is not as great in percentage terms, his forecast calls for a nationwide in-Continued on page 186

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Continued from page 184

crease from about 55 million acres in public recreation use in 1955 to 109 million acres by 1985. The greatest needs will be in local and all-day areas, largely because of the foresight of the Federal government in establishing a reasonably adequate national park system.

DAVID A. GROSSMAN Advance Planning Associates Cambridge, Mass.

#### OTHER BOOKS TO BE NOTED

Katsura: Tradition and Creation in Japanese Architecture. Kenzo Tange. Introduction by Walter Gropius. Photographs by Yasuhiro Ishimoto. Yale University Press, New Haven, Conn., 1960. 188 pp., illus. \$15

In Praise of Architecture. Gio Ponti. Translated by Giuseppina and Mario Salvadori. F. W. Dodge Corp., 119 W. 40th St., New York 18, N. Y., 1960. 270 pp., illus. \$6.95

Classical Greece: The Elgin Marbles of the Parthenon. Nicholas Yalouris. Photographs by F. L. Kenett. New York Graphic Society, Greenwich, Conn., 1960. 80 pp., illus. \$6.95

Volume 2 of modest-priced Acanthus History of Sculpture, which is under the distinguished editorship of Sir Herbert Read and H. D. Molesworth. Each volume has 32 full-page plates, 11½"x14" format.

The Demand for Housing in Racially Mixed Areas. Chester Rapkin and William G. Grigsby. University of California Press, Berkeley 4, Calif., 1960. 178 pp., tables, maps. \$6

Esposizioni. Roberto Aloi. Ulrico Hoepli, Via Hoepli 5, Milan, 1960. 337 pp., illus. \$12.50

Papers on Soils. American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa., 1960. 376 pp. \$9

Collection of 32 papers dealing with various aspects of soils testing, designed to help engineers evaluate different soils and their construction applications.

English Abbeys and Priories. Olive Cook and Edwin Smith. Viking Press, Inc., 625 Madison Ave., New York 22, N. Y., 1960. 62 pp. and 136 plates. \$12

Los Angeles: From Mission to Modern City. Remi Nadeau. Longmans, Green & Co., Inc., 119 W. 40 St., New York 18, N. Y., 1960. 296 pp., illus. \$5.95

Story of an area's growth—from "Queen of the Cow Countries" to unwieldly metropolis—recounted by a member of a longtime Los Angeles family.

Walter Gropius. James Marston Fitch; Eric Mendelsohn. Wolf Von Eckardt; Richard Neutra. Esther McCoy; Oscar Niemeyer. Stamo Papadaki; Louis Sullivan. Albert Bush-Brown. Masters of World Architecture Series. Edited by William Alex. George Braziller, Inc., 215 Fourth Ave., New York 3, N. Y., 1960. 128 pp. each, illus \$4.95 each

Scuole. Giampiero Aloi. Ulrico Hoepli, Via Hoepli 5, Milan, 1960. 348 pp., illus. \$11

Mosaics of St. Mark's. Ferdinando Forlati and Pietro Toesca. New York Graphic Society, Greenwich, Conn., 1958. 134 pp., illus.

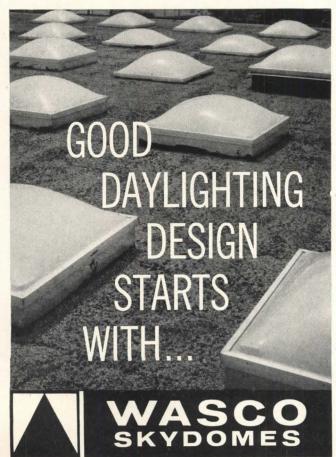
Full-color reproductions of 11th to 14th Century mosaics from the church of St. Mark's in Venice. Text gives historical survey of mosaic techniques and the building and restoration of the church.

New York Metropolitan Region Study, Volume 9: Metropolis 1985. Raymond Vernon. Harvard University Press, Cambridge 38, Mass., 1960. 252 pp., tables, graphs. \$5

Metropolis and Region. Otis Dudley Duncan, William Richard Scott, Stanley Lieberson, Beverly Davis Duncan, Hal H. Winsborough. The Johns Hopkins Press, Homewood, Baltimore 18, Md., 1960. 587 pp., tables. \$8.50

Modern Swimming Pools of the World. Edited by Dietrich Fabian. Bremen, Germany, 1958. Distributed by National Pool Equipment Co., Lee Highway, Florence, Ala. 148 pp., illus. \$10

Construction data and illustrations of 181 examples of the world's outstanding pools, many designed to meet Olympic standards.



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