



A · I · A

Journal

OF THE AMERICAN INSTITUTE OF ARCHITECTS

May 1962



SHOPPING-STREETS • THE ARCHITECT SERVES HIS COMMUNITY • U.D. 62-63
RESIDENTIAL SCHOOLS FOR THE BLIND • HONOR AWARDS • DR KARL FALK




Colors: V-816 Verona White with cork accents

Vina-Lux® **800** Series

unique floor beauty that won't "walk off" . . .

. . . because the distinctive color-chip pattern is distributed through the full thickness of the tile. 800 Series in Vina-Lux vinyl asbestos tile retains its beauty and pattern under the heaviest concentrations of traffic . . . delivers so much more value and performance than surface patterns . . . yet costs no more. Specify Vina-Lux 800 Series, for installation over concrete — above, on or below grade, or over wood or plywood subfloors. Consult Sweet's Catalog — or let us send you samples, color charts and detailed architectural specifications. Azrock Floor Products Division, Uvalde Rock Asphalt Company, 593A Frost Building, San Antonio.



Magnified view shows pattern distribution through full thickness of tile. Available in 1/8", 3/32", 1/16" gauges.

another fine floor by **AZROCK**®



NEW INTERIOR ELEGANCE WITH MARKWA THIN MARBLE TILES



WHAT might have been just another wall now glows with beauty. And this floor is now unique, a pleasure to use, a joy to maintain.

The secret is MARKWA®, genuine marble thinly and precisely cut into handy tiles for lighter weight and easy, low-cost installation.

No wonder MARKWA is being specified more and more where a quality material is indicated, whether for reasons of appearance, for the common sense appeal of easy maintenance, or for the practical consideration of economy.

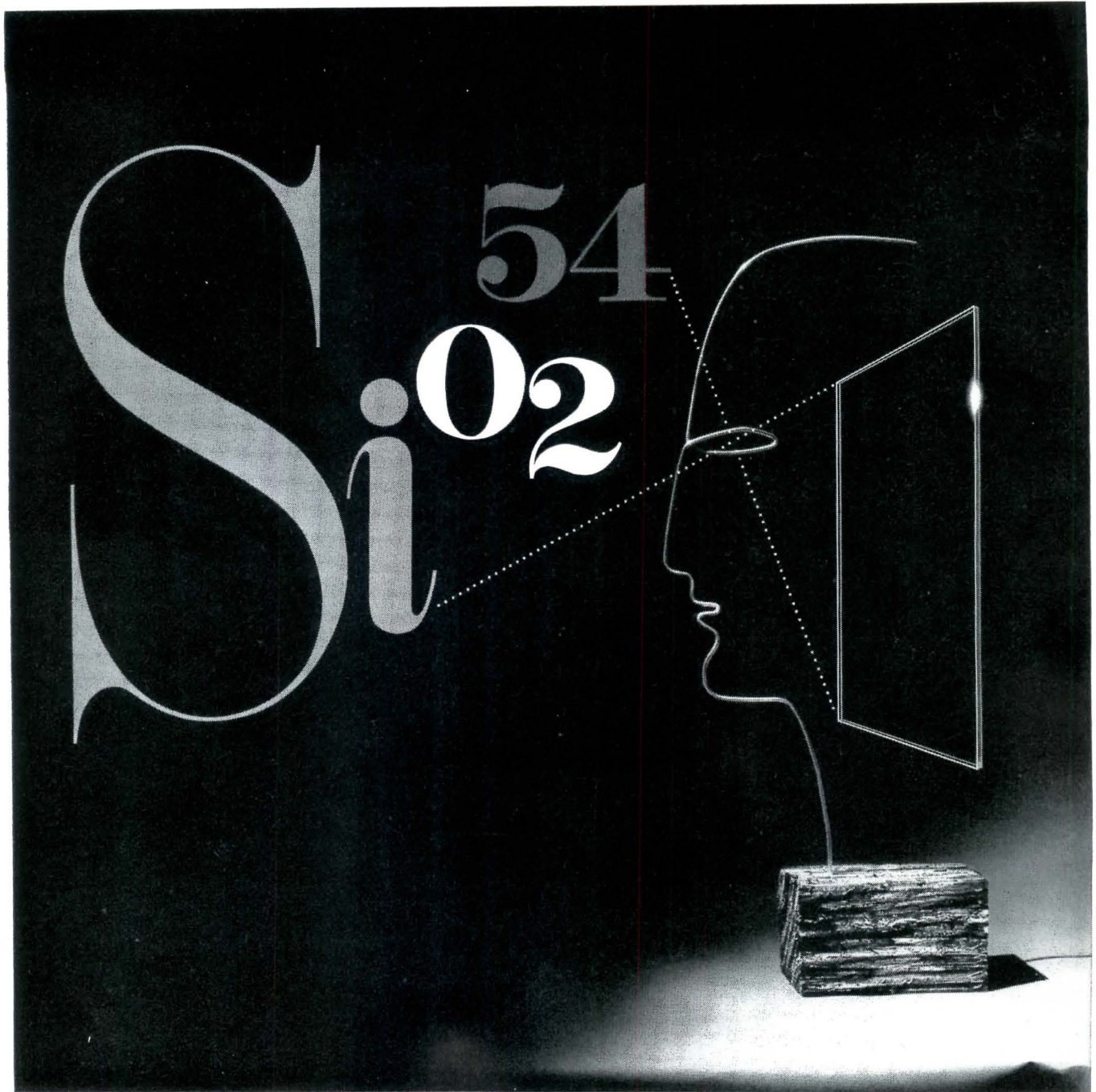
Lower maintenance costs, longer life, the value added to any building in which it is used: MARKWA and Vermont Marble always give you, "a beautiful job, well done!"

SEND FOR A FREE COLOR BROCHURE showing MARKWA TILES: quality marble precision cut and polished into 1/2" thin tiles • weighs only 6½ pounds per square foot • many varieties and colors in 8" x 8", 8" x 12" and 12" x 12" sizes • produced exclusively by the Vermont Marble Company, America's foremost producer of marble.

VERMONT
PROCTOR



MARBLE CO.
VERMONT



GLASS is timeless

The glass you build with today will look brand new for generations. That is because destructive elements that wear down other building materials have no effect on glass. It will withstand severe weather, harsh chemical atmospheres, moisture, fumes and gases. In addition, there are many new kinds of glass that tint or filter bright sunlight. Glass insulates, too, in the hottest or coldest climates. Glass is colorful, long-lasting, functional for any building purpose.

To acquaint the architect with the many uses of glass, Pittsburgh Plate Glass Company offers the services of a trained staff of Architectural Representatives. These are men who *know* glass, and are abreast of the many new applications developed by PPG. You are cordially invited to call upon our staff for any help you need in designing with glass. Just telephone any PPG office.

BE SURE TO VISIT OUR BOOTH (35-36) AT THE DALLAS CONVENTION



Pittsburgh Plate Glass Company

Paints • Glass • Chemicals • Fiber Glass In Canada: Canadian Pittsburgh Industries Limited



A · I · A

Journal

EDITOR
Joseph Watterson, FAIA
ASSISTANT EDITOR
Donald Canty
ASSISTANT TO THE EDITOR
Marilyn E. Ludwig
TECHNICAL EDITOR
Eric Pawley, AIA
ASSISTANT TO TECHNICAL EDITOR
Margaret H. Phillips
ADVERTISING MANAGER
Mary H. Ranta
ART DIRECTOR
Wolf Von Eckardt, Hon AIA
ASSISTANT ART DIRECTOR
Marilyn S. Housell
CIRCULATION ASSISTANT
Julie Martin
SECRETARY
Janet R. Williams

VOLUME XXXVII, NO. 5

MAY, 1962

- 8 Letters to the Editor
12 Urbanisms (Urban Design 62-63)
16 News
33 *M. R. Wolfe, AIP*: Shopping Streets and the Pedestrian Rediscovered
43 *Elizabeth S. Close, AIA*: Design by Chance
45 *Dr Karl L. Falk*: What Can We Do About Our Cities?
122 *Wolf Von Eckardt, Hon AIA*: Allied Arts

THE PROFESSION

- 49 The 1962 AIA Honor Awards

THE INSTITUTE

- 65 *Philip Will, Jr, FAIA*: The Architect Serves His Community
70 *Percival Goodman, FAIA*: A Guide for Planning the Synagogue
75 *William H. Scheick, AIA*: Yes, It Is a Professional Society
76 *John F. Ramsay, AIA*: NCARB—One-Year Renewals
78 Library Notes
79 Book Reviews
80 The Editor's Page: Our Birthday
100 Corporate Members
104 Calendar
106 Necrology

TECHNICAL

- 87 *Philip W. Faulconer, AIA*: Architecture for Science and Technology
89 *Margaret H. Phillips*: Residential Schools for the Visually Handicapped

THE COVER

The Strøget, in Copenhagen, one of a series of pedestrian-oriented streets photographed by M. R. Wolfe, AIP. For more photos and drawings, see page 33

The Journal of the American Institute of Architects, official organ of the Institute, is published monthly at The Octagon, 1735 New York Avenue, N. W., Washington 6, D. C. Editor: Joseph Watterson, FAIA. Subscription in the United States, its possessions, and Canada, \$5 a year in advance; elsewhere \$6.50 a year. Chapter Associate members, \$2.50, Students, \$2.50, Members of Associations of allied professions, \$2.50 (by special group arrangement). Single copies 75¢. Copyright, 1962 by The American Institute of Architects. Second class postage paid at Washington, D. C. Change of Address: Notify The Octagon, giving both old and new addresses. Allow four weeks. Official address of the Institute as a N. Y. Corporation: 115 E. 40th Street, New York, N.Y. Printed in Washington, D. C. by Judd & Detweiler, Inc.

BPA

Opinions expressed by contributors are not necessarily those of AIA



THE AMERICAN INSTITUTE OF ARCHITECTS

Board of Directors

Officers

- President
First Vice President
Second Vice President
Secretary
Treasurer
Executive Director

Regional Directors

- Middle Atlantic
Michigan
Gulf States
Northwest
South Atlantic
Central States
Florida
California
Texas
Illinois
Pennsylvania
East Central
New York
New England
Ohio
North Central
Western Mountain

- Philip Will, Jr, FAIA, 309 West Jackson Blvd, Chicago 6, Ill
Henry L. Wright, FAIA, 1125 W 6th Street, Los Angeles 17, Calif
James M. Hunter, FAIA, 1126 Spruce Street, Boulder, Colorado
J. Roy Carroll, Jr, FAIA, 6 Penn Center Plaza, Philadelphia 3, Pa
Raymond S. Kastendieck, FAIA, 128 Glen Park Ave, Gary, Ind
William H. Scheick, AIA

(Terms expire 1962)

- Daniel A. Hopper, Jr, AIA, 1000 Springfield Ave, Irvington, N J
Linn Smith, AIA, 894 South Adams Rd, Birmingham, Mich
Clinton E. Brush, III, AIA, 1719 West End Ave, Nashville, Tenn
Harry C. Weller, AIA, Washington State University, Pullman, Wash
Arthur Gould Odell, Jr, FAIA, 102 West Trade St, Charlotte, N C

(Terms expire 1963)

- Oswald H. Thorson, AIA, 219 Waterloo Bldg, Waterloo, Iowa
Robert M. Little, FAIA, 2180 Brickell Ave, Miami, Florida
Malcolm D. Reynolds, FAIA, 916 Kearny St, San Francisco, Calif
Reginald Roberts, AIA, 2600 N McCullough Ave, San Antonio, Tex
William Bachman, AIA, 7111 State Line Ave, Hammond, Ind
William W. Eshbach, AIA, 1519 Walnut St, Philadelphia, Pa

(Terms expire 1964)

- James Allan Clark, AIA, Henry Clay Sta, Box 57, Lexington, Ky
Morris Ketchum, Jr, FAIA, 227 E 44th St, New York, N Y
James Lawrence, Jr, FAIA, 711 Boylston St, Boston, Mass
George B. Mayer, FAIA, 616 The Arcade, Cleveland, Ohio
Julius Sandstedt, AIA, 135 Market St, Oshkosh, Wis
R. Lloyd Snedaker, AIA, 12 Post Office Pl, Salt Lake City, Utah

Headquarters

- Executive Director
Secretary to the Executive Director
Legal Counsel
Director, Administrative Services
Comptroller
Membership
Personnel
Purchasing Agent
Director, Public Services
Editor of the Journal
Assistant Editor
Assistant to the Editor
Advertising Manager of the Journal
Public Information
Institute Relations
Assistant Art Director
Exhibit Services and Foreign Visitors
Awards Services
Director, Professional Services
Chapter and Student Affairs
Architectural-Building Information Services
Professional Practice
Research Secretary
Assistant to Research Secretary
Education
Historian
Librarian
Technical Secretary
Consultant on Contract Procedures

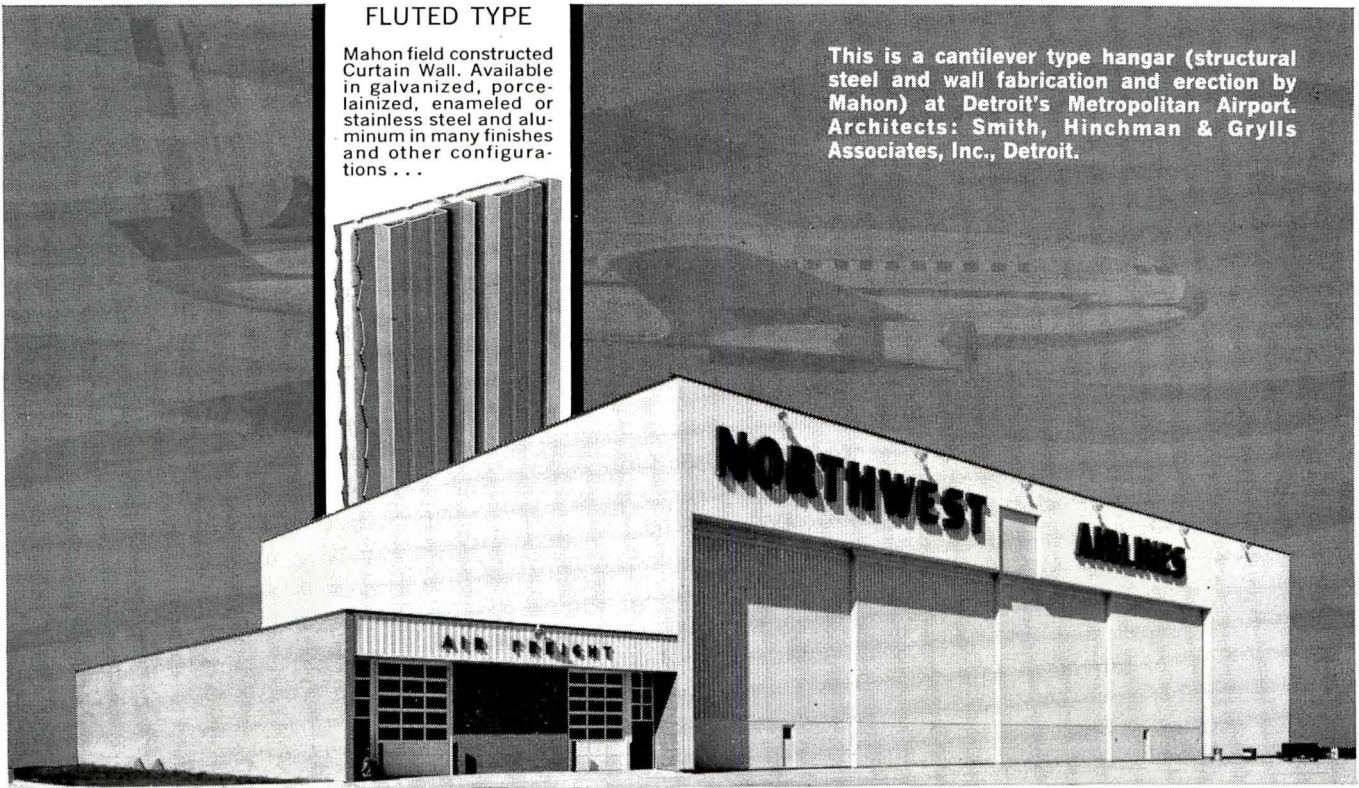
1735 NEW YORK AVENUE, N W, WASHINGTON 6, D C

- William H. Scheick, AIA
Mabel Day
Samuel Spencer
J. Winfield Rankin, Hon AIA
William G. Wolverton
Florence H. Gervais
Jane Dougherty
Marvin Mayeux
Matthew L. Rockwell, AIA, AIP
Joseph Watterson, FAIA
Donald Canty
Marilyn E. Ludwig
Mary H. Ranta
Donald Canty
Kenneth C. Landry
Marilyn S. Housell
Alice Graeme Korff
Faynetta W. Nealis
Theodore W. Dominick, AIA
M. Elliott Carroll, AIA
Theodore W. Dominick, AIA (Acting)
Robert J. Piper, AIA
Eric Pawley, AIA
Margaret H. Phillips
Maurice William Perreault, AIA
Henry H. Saylor, FAIA
George E. Pettengill, Hon AIA
Robert J. Piper, AIA (Acting)
William Stanley Parker, FAIA

56' high ... no horizontal joints!

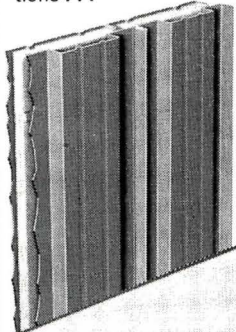
Aesthetically pleasing as well as structurally sound, the Mahon Insulated Curtain Walls for this airport hangar were formed in continuous, 56' lengths. This eliminated horizontal laps, simplified construction and effected labor and material economies. The aluminum vinyl-clad panels (unlimited color selection) required no subsequent finishing and will give maintenance-free good looks for years to come.

In addition to Insulated Metal Wall, Mahon Steel Roof Deck was also used.



FLUTED TYPE

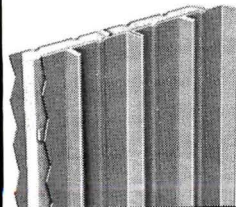
Mahon field constructed Curtain Wall. Available in galvanized, porcelainized, enameled or stainless steel and aluminum in many finishes and other configurations . . .



This is a cantilever type hangar (structural steel and wall fabrication and erection by Mahon) at Detroit's Metropolitan Airport. Architects: Smith, Hinchman & Grylls Associates, Inc., Detroit.

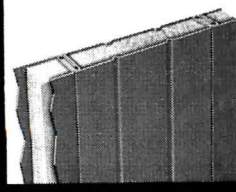
RIBBED

field constructed



FLUSH

panels



Write for Catalogs or see Sweets' Files for:

Other Mahon building products • Metalclad Fire Walls • Rolling Steel Doors • Long-Span M-Deck • Steel Roof Deck • Acoustical Metal Walls, Partitions and Roof Deck. **Mahon Construction Services** • Structural Steel-fabrication and erection • Steel Fabrication—Weldments • Geodesic Domes—fabrication and erection.

THE R. C. MAHON COMPANY
DETROIT 34, MICHIGAN

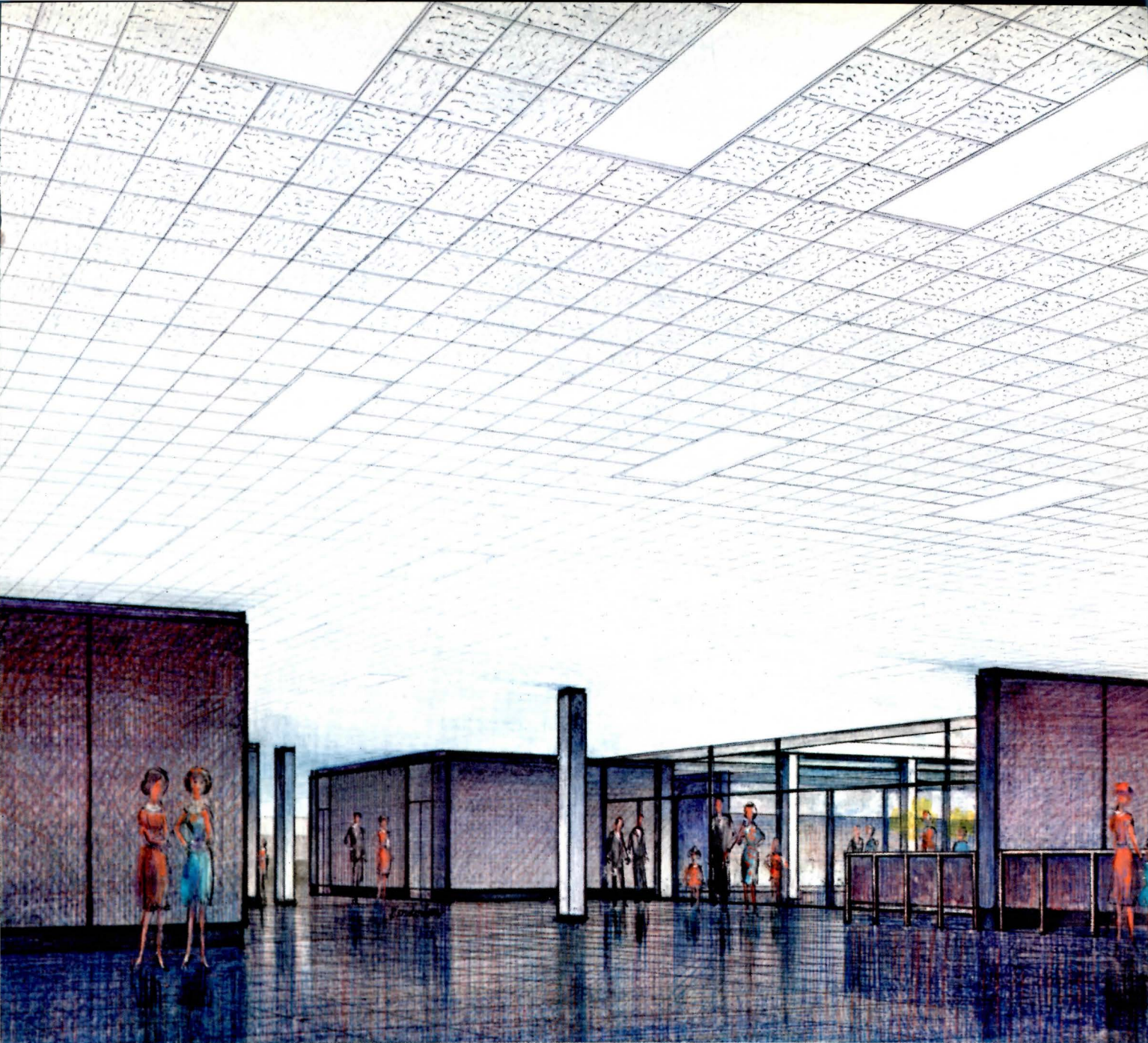
Manufacturing Plants—
Detroit, Michigan and Torrance, California
Sales-Engineering Offices in Detroit, New York, E. Orange, N.J.,
Cleveland Hts., Chicago, Torrance, San Francisco and Seattle
Representatives in all principal cities.



MAHON



**THESE NEW ARMSTRONG VENTILATING
CEILINGS BRING TUCSON CITY HALL
UNIFORM AIR DIFFUSION AND
RATED FIRE PROTECTION**



From May to September, the temperature in Tucson beats 95° almost every day. Yet the new City Hall will stay cool and comfortable with the help of a remarkable new air-diffusion system: Armstrong Ventilating Ceilings. Conditioned air fills the plenum, and is forced down through thousands of perforations blended into the ceiling pattern. Quietly, thoroughly and evenly, it ventilates the room below. Because these Ventilating Ceilings are also Armstrong Fire Guard, they meet the local code requirement of 3-hour fire protection for structural components. And, by eliminating the need for intermediate fire protection, Ventilating Fire Guard Ceilings have saved Tucson \$10,700.

DATA: Armstrong Ventilating Ceilings have been thoroughly lab- and job-tested to assure proper performance; are available in five materials (both tile and lay-in units), including Fire Guard, with three different patterns; are compatible with all conventional supply-air systems; save money by cutting supply ductwork, eliminating conventional diffusers; often operate at much lower pressure than duct and diffuser systems. For special plenum-engineering data, with all factors and formulae to design and engineer this ventilating system, contact your Armstrong Acoustical Contractor or Armstrong District Office. For further information, write Armstrong Cork Co., 4206 West End Avenue, Lancaster, Pa.

Tucson City Hall, Ariz. • Architects: Friedman & Jobusch, Tucson • Mechanical Engineer: John Paul Jones, Tucson
 • Gen. Contractor: The Ashton Co., Inc., Tucson • Acoustical Contractor: Babby Building Specialties, Inc., Tucson.

Armstrong ACOUSTICAL CEILINGS
First in fire-retardant acoustical ceilings



Letters

FDR—Pro and Con

EDITOR, *Journal of the AIA*:

It is true that in the April, 1961 issue you published a "con" by Elise Jerard:

"Take that monument to FDR.

Each of the judges was a star.

The Druidic slabs had a "primitive power."

What is the time? What is the hour?"

But now in Vol XXXVII, No 3, you announce "a roundup of opinions, pro and con" but with no direct "cons" and some very confusing "pros."

First, the Chairman of the FDR Commission concludes "It is now proposed to use a statue of the President . . . which should add warmth and personality to the design," i.e., without the statue there will be no warmth and personality! So that's what is missing from the design!

Next, the Professional Advisor mentions "a design expressive of the scope and breadth of the Roosevelt Age, in tune with current philosophical and scientific thought . . ."—solemn and sonorous ambiguities! "A design which is truly built on a flow of space experiences" . . . What a paean of joy to this new beauty! And "Here is a design in which the American tourist will look good" (except unsheltered on a stormy day.)

These "pros" seem either to be verging on conness or are unable to find the *mot juste* for their pro-ness. Perhaps the "cons" can be clearer.

On February 21, 1962, the Federal Commission of Fine Arts rejected the whole project saying it went contrary to the law of 1955. "It is lacking in repose, an essential element in memorial art, and the qualities of monumental permanence that are the essence of the three memorials with which it must, by law, conform."

Consider, in this connection, the words of the Advisory Committee of the FDR Memorial competition . . . "The Committee . . . suggests a *more reflective expression* and, because of its location, a *less dominant form* than the Lincoln, Jefferson and Washington Monuments . . . which should *balance the other three memorials and complete them.*" And, "Our one thought would be that Roosevelt, the essential Roosevelt, must be the focus of an appropriate memorial." And, finally, "Franklin Delano Roosevelt's indomitable courage and his abiding faith in democratic ends, and democratic means to those ends, should be borne in mind by competitors."

It seems as though the Advisory Committee was trying to tell the artists, first, to create a mood of reflectiveness often found in memorials (*vide in-*

side the Lincoln and Jefferson Memorials) and to be modest and not outshout the neighboring monuments. It points to "the character and work" of FDR—not just incised quotations from one whom Professor J. E. Burchard aptly calls "an exceptionally verbal man." But what about his great actions to revive the spirit of America and to reinvigorate its sagging economy and to direct a giant war. What about the man who was greatly concerned about the welfare of people, who loved the sea and the trees? Would this be the "essential Roosevelt?" And what about his "indomitable courage and his abiding faith?"

Was this required of the competitor or was it all to be ignored by the artists or, perhaps, feebly translated into some selected aphorisms, carved in monotony in perpetuity on Cyclopean tablets? . . .

The Commission will, it seems, have to decide whether or not they wish to sponsor this "primitive" unheard-of gesture, a thoroughly abstracted monument to a temporary "dynamic."

Or are they supposed to be sponsoring a lasting Memorial to a great human being—Franklin Delano Roosevelt?

HERBERT LIPPMANN, AIA
New York, NY

What's Wrong with Stonehenge?

EDITOR, *Journal of the AIA*:

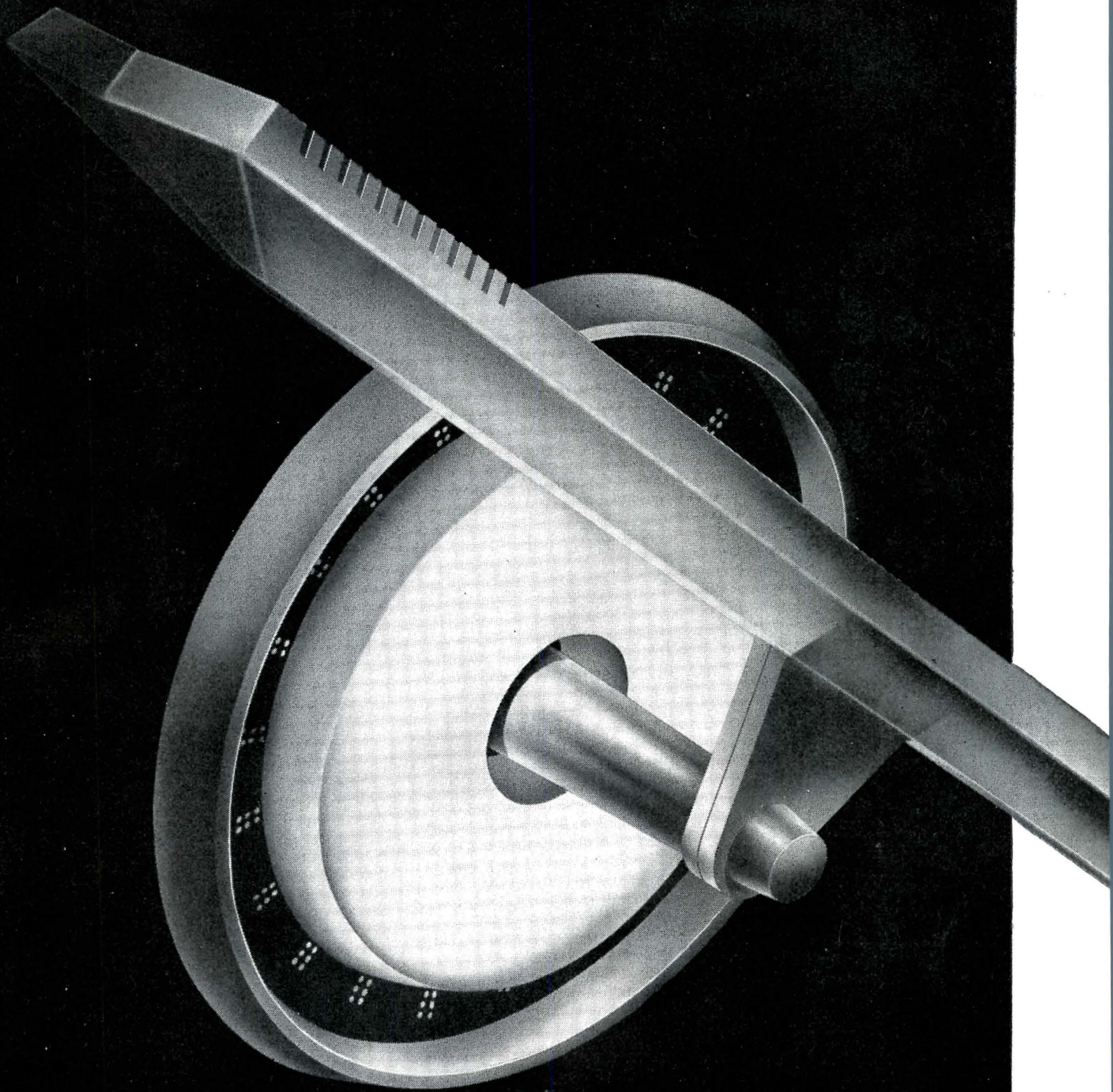
I am writing to express to you my real joy in the strong position taken by the *Journal* about the FDR Memorial. Down with the scoundrels who are agin' it! Let them live elsewhere, in peace, or else. . .



I took the enclosed photo [of Stonehenge] on a rainy day and should like you to have it, as evidence of an effect which was somewhat beyond the words to express it. If an effect *is* as deep as that, the scene itself is its argument for a beauty expected, which the design promises, as I see it.

Would that a task force of those who trust nothing beyond their noses might be flown to compare . . . Stonehenge with the premiated model, and then, with equal spirit, give their democratic judgment!

DELOS H. SMITH, FAIA
Alexandria, Va



NEW

ILLUMINATED WALL BRACKET spotlights handrails
in corridors and stairways • • • Incandescent recessed lighting
provides added safety and decorative night lighting for:

HOSPITALS • HOMES FOR AGED • THEATRES • HOTELS • SHIPS



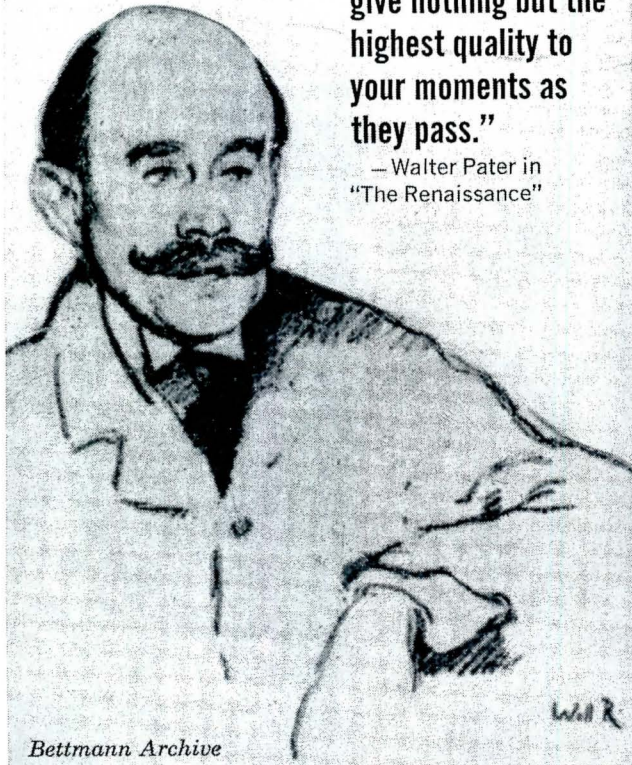
Blumcraft

OF PITTSBURGH

GENERAL CATALOG OF COMPLETE BLUMCRAFT LINE AVAILABLE ON REQUEST
COPYRIGHT 1961 BY BLUMCRAFT OF PITTSBURGH • 460 MELWOOD STREET, PITTSBURGH 13, PENNSYLVANIA

**"Art comes to you
proposing frankly to
give nothing but the
highest quality to
your moments as
they pass."**

—Walter Pater in
"The Renaissance"



Art in architecture is a complex endeavor. Many ideas and many practical considerations must be combined to achieve the *quality* of conception and execution necessary to the fulfillment of this art. Each material component must meet the standards of quality established by the architect, and must maintain that quality as the years pass—or another opportunity for true art in architecture will have been lost.

In order to meet the architect's highest standards, the Quality Verification Council of the Porcelain Enamel Institute has undertaken a program of quality research and certification. The QV program provides for unannounced inspections by an independent consultant to verify the continuing capability of participating companies to meet the established QV standards.

As a result, the architect may specify Quality Verified architectural porcelain enamel from any certified member of the QV Council. "Nothing but the highest quality"—and the most lasting—is authorized to bear the QV label.

Certified members of the Quality Verification Council currently include: ATLAS ENAMELING CO., INC., St. Louis, Mo.; CALORIC CORPORATION, Architectural Porcelain Div., Topton, Pa.; CHALLENGE STAMPING & PORCELAIN CO., Grand Haven, Mich.; DAVIDSON ENAMEL PRODUCTS, INC., Lima, Ohio; THE ERIE ENAMELING CO., Erie, Pa.; ERVITE CORPORATION, Erie, Pa.; INDUSTRIAL ENAMELING Div., Industrial Electric, Inc., New Orleans, La.; INGRAM-RICHARDSON MFG. CO., Beaver Falls, Pennsylvania; McAX CORPORATION, McGregor, Texas; SEAPORCEL METALS, INC., Long Island City, N. Y.; WOLVERINE PORCELAIN ENAMELING CO., Detroit, Mich.



THE QUALITY VERIFICATION COUNCIL
A Service of the Porcelain Enamel Institute • 1145 Nineteenth Street, N.W., Washington 6, D. C.

Problems of Restoration

EDITOR, *Journal of the AIA*:

The restoration of the Nichols-Rice House in Houston, Texas (*Journal*, January 1962) illustrates very well the difficulty of determining what should be retained in a work of this kind. The architects of the restoration seem to have proceeded on the assumption that the porch columns and their entablature were original, but that the gable roof was a later addition (photograph on page 28). To me this seems most improbable. The second photograph on page 26 indicates that the house was originally built with a hipped roof, and that the cornice on the front is at a higher level than the main eaves. Also, the design of the upper and lower columns seems to be identical, though they are cut to different lengths, and everyone knows that Ionic columns are always designed with moulded bases, which are lacking here. It therefore seems certain that the columns and the gable roof were added at some later date than the original construction, using material taken from some other building. It is possible that the house originally had some kind of a front porch, but no trace of this remains, so far as one can tell from the photographs and the text.

JOHN J. KLABER, AIA
Huntington, NY

EDITOR, *Journal of the AIA*:

As a new member of the Institute, I believe that I am to receive the *Journal* in that capacity. If I am mistaken, please so inform me. Under no circumstances do I wish to miss one copy of the *Journal*. It is one of the two architectural periodicals that I have permanently bound for my library and I regard it as a genuine credit to the profession.

JOHN ALLEN MARFLEET, AIA
Vero Beach, Florida

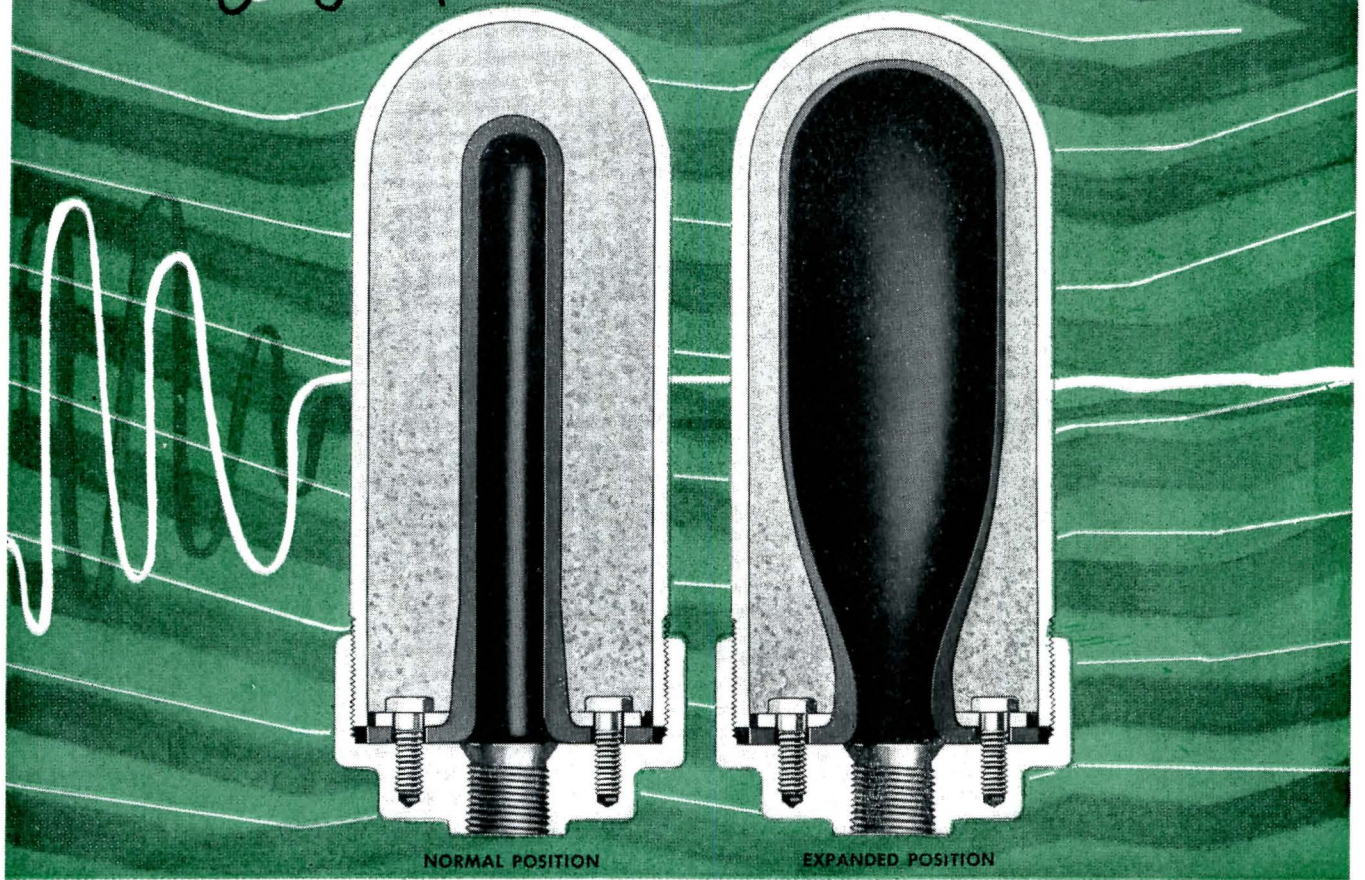
Praise from Abroad

EDITOR, *Journal of the AIA*:

We have just received the February issue of your valuable magazine. . . . We are grateful to you for having sent us regularly this excellent magazine which is much appreciated by visitors to our free public library, many of whom are University students and professors. With our best wishes and renewed thanks,

JACQUES DEDEYN
Indian Institute of World Culture
Bangalore, India

the SHOCKING truth



water supply lines **STAY QUIET** when **Josam** SHOCK ABSORBERS are installed.



Josam "Genie" Shock Absorber made of DuPont Delrin® is specifically designed for residential use.

A wide range of other Josam Shock Absorbers are made for commercial and industrial installations.

Water hammer can occur without warning on any job! Its effects cannot be minimized. The noise is always disturbing . . . and the pounding is destructive to pipe connections, valves and gauges! Why take chances when you can prevent it easily and economically by installing Josam Shock Absorbers?

Simple in construction, dependable, positive — they have no springs to stick, no diaphragms to wear out, no liquids to replace. When Josam Shock Absorbers are installed — water hammer just disappears. Thousands upon thousands in all types of installations have given lasting proof of performance. The cost is little — the protection, great! For further details, write for Manual SA.

JOSAM MANUFACTURING CO.

General Offices and Manufacturing Division • Michigan City, Ind.

REPRESENTATIVES IN ALL PRINCIPAL CITIES

West Coast Distributors

JOSAM PACIFIC CO.

765 Folsom Street San Francisco 7, Calif.

JOSAM PRODUCTS ARE SOLD THROUGH PLUMBING SUPPLY WHOLESALERS
Manufacturers and Representatives in Mexico — HELVEX, S.A., Mexico City



Now . . . more than ever

GANG-NAIL[®] CONNECTORS


. . . for the greatest savings in new building components.

NEW... GANG-NAIL '18'



Cuts truss plate costs almost half! It's the first and only 18 gauge ALL NAIL connector plate requiring no hand nailing! A major break-through in truss plate engineering. And it's exclusive with Gang-Nail Fabricators.

NEW... Invis-I-Nail[®]



Only Gang-Nail Fabricators offer revolutionary new Invis-I-Nail. Used where plywood (or other sheeting material) is fastened to lumber. Ideal for wall panel sheeting. Makes stronger box beams at lower than ever cost!

GANG-NAIL BOX BEAMS



For garage door, picture window, patio or sliding door headers and many other uses. Thanks to Invis-I-Nail, Gang-Nail fabricators can furnish extra-strength, precision-made, easily installed box beams at unbelievably low cost.

GANG-NAIL FLOOR TRUSSES

No columns! Plumbing, ducts and conduit of all kinds are out of sight. Basements can be featured as wall-to-wall "Spacements." Floor installation time goes down. Lumber waste eliminated. No wonder floor trusses are booming in popularity!




CALL YOUR GANG-NAIL FABRICATOR ...OR CONTACT US TODAY FOR HIS NAME

GANG-NAIL[®]
Automated Building Components, Inc.



P.O. Box 47-836 • Miami, Fla.
 OX 6-0930 • Area Code 305



U. D. 62-63 U R B A N I S M S

A regular column conducted by our specialist on Urban Affairs, Matthew Rockwell, Director of Public Services

Appeal to Action

Introductions are in order—introductions of a column, a program, and two persons, all of whom are linked together. The column will be used each month to review ideas and events concerning the architectural profession's deepening involvement in urban design, the effort to improve the physical character of communities across the nation. As such it is part of the Institute's program Urban Design 1962-63.

Actually, the program already has been given its initial introduction to AIA members in the booklet "Community Architecture" by Carl Feiss, FAIA (already in its second printing). Feiss, Chairman of the Urban Design Committee, described the Institute's plans to provide guidelines to aid its members in carrying out their responsibilities for community improvement.

First step in effectuation of the program has now been taken with appointment of Paul D. Spreiregen (pictured below) as project head for UD 62-63. Spreiregen has been planning designer for Downtown Progress (officially titled the National Capital Downtown Committee Inc) in Washington for the past two years. He received his architectural degree from MIT in 1954 and spent the following year as a Fulbright scholar in Italy. He worked in architectural offices in Italy, Sweden, and the US, then entered the Army. After emerging he spent two years on the Boston government center project associated with Adams, Howard and Greeley. Subsequent work with Anshen and Allen in San Francisco gave him coast-to-coast experience in the then newly-recognized field of urban design.

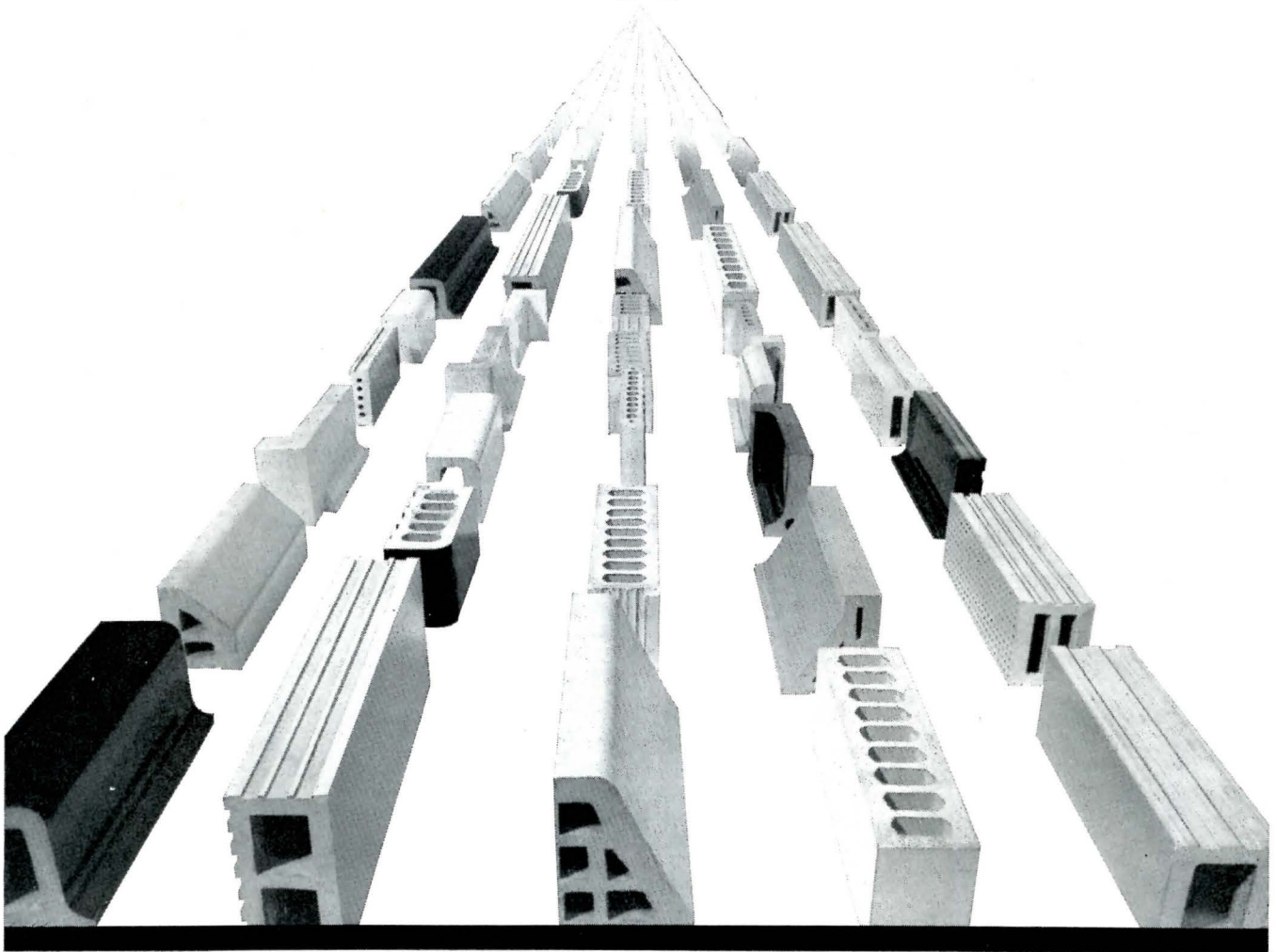


Spreiregen's entire time will be devoted to the shaping of ten or twelve guides, discussing in text and graphics the architect's interest in central districts, the zoning process, subdivision design—every feature of community planning. They will be initially published in the *Journal*.

The second individual to be introduced is Roger Montgomery, practicing (*continued on page 14*)

12 AIA JOURNAL

etc.



Standard—for infinite variation. Each Facing Tile Institute member produces four different series of modular units (glazed or unglazed, smooth or textured) embracing dimensionally-integrated stretchers, starters and miters, corners and closures, sills, caps and lintels, cove base stretchers and fittings. Each FTI member produces 20 standard field colors and nine accent colors.

Small unit flexibility allows unlimited variation in design. When he specifies structural clay facing tile, an architect provides his client with a wall whose components and performance are standard, whose potential for art is infinite.

FACING TILE INSTITUTE

1520 18th St., N.W., Washington 6, D.C. | 826 Chrysler Bldg., New York 17, N. Y. | 2556 Clearview Ave., Canton 8, Ohio

Charleston Clay Products Company, Charleston 22, West Virginia; McNees-Kittanning Co., Kittanning, Pa.; Metropolitan Brick, Inc., Canton 2, Ohio; Natco Corporation, Pittsburgh 22, Pa.; Stark Ceramics, Inc., Canton 1, Ohio; and West Virginia Brick Co., Charleston 24, West Virginia.

Wall:
Renaissance Facet



Floor: Renaissance

Old world artistry in modern technique

BOIARDI PAVÉ TILE **FOR FLOORS AND WALLS**

- Versatile Boiardi Pave Tile is available in a striking variety of 9 styles, rough and smooth textures, and in 3 sizes: 8x8, 12x12, and 16x16 for any floor or wall area, interior or exterior.
- Boiardi Pave Tile is a machine-made cement and marble aggregate tile of precise dimension, vibrated, compressed and steam cured.
- Uniform thickness and cushioned edges facilitate easy installation by the tile contractor using conventional tile setting methods and materials.
- Monolithic appearance can be achieved by using square edge tile set tight and post leveled.
- See our full color brochure in Sweet's Catalog-13g
- SEE US AT BOOTH 65 AIA SHOW.

Bo

BOIARDI TILE MFG. CORP.
1525 Fairfield Ave., Cleveland 13, Ohio

Urbanisms (Con't)

architect and planner in the St Louis area and associate professor at Washington University. For some time Montgomery has consulted with the Urban Renewal Administration of HHFA in working toward a definition of "better urban design." As a natural outgrowth of this work, Montgomery will make the opening statement in the guide series. The current schedule is for it to appear in the August issue of the *Journal*. Subsequent installments also will occasionally involve outside visiting authorities as authors of both this column and articles.

Ugliness

One day in early April a group of more than twenty representatives of an amazing variety of fields engaged in a free-wheeling discussion of who is responsible for ugliness. It was the New York Chapter's "First Conference on Aesthetic Responsibility" (to be given full coverage in the next issue of the *Journal*). The Conference suggested two conclusions: First, architects must talk more to non-architects. Talking among ourselves is pleasant but non-productive in the case of ugliness-making. Second, we are all responsible for ugliness, and usually because of indifference. The enemy, one panelist said, is our "collective apathy."

Freeways and Design

Some people have found freeways ugly, especially when put where they simply don't belong. Next month a conference will be held in Hershey, Pennsylvania, involving those who plan and build freeways and those who plan and build cities. Its purpose is to bring about better coordination between the two so that "needed highway development can go forward consonant with the best interests of the community at large." The Automotive Safety Foundation is taking the lead in organizing the invitational affair, with AIA among other groups cooperating.

The importance of the conference stems partly from the significance of its subject, partly from the stature and abilities of those who will participate, and partly from the breadth of vision that has gone into its planning. It will not be concerned solely with cosmeticizing urban freeways, although their physical design should and will be discussed. Instead it will go beyond such considerations to a full and, hopefully, frank review of the freeways' impact on the form and function of the total community. The results will be widely published, here and elsewhere.

new!

unlimited
design
flexibility
and
economy

...with

UNIT

laminated

STOCK BEAMS



Look for this seal on all stock beams. It is your assurance of Premium Grade, water-proof glued, UNIT high strength beams.

In residences, motels, libraries, A-frame summer homes, banks and other types of one story buildings, UNIT stock beams can be utilized for better design at a substantial savings.

NOW . . . for the first time, UNIT laminated beams are available in *stock* sizes for immediate delivery from conveniently located customer supply centers. Stock beams save time and money at the job site . . . for you . . . the architect, your contractor and the owner.

UNIT Stock Beams are cut to specified lengths from long length billet stock, available in 3 1/4" and 5 1/4" width, and 8 1/8" to 16 1/4" depth. For special sizes and design information . . . call your nearest UNIT representative . . . offices in all principal cities.

Write
for
your
FREE
copy!



UNIT

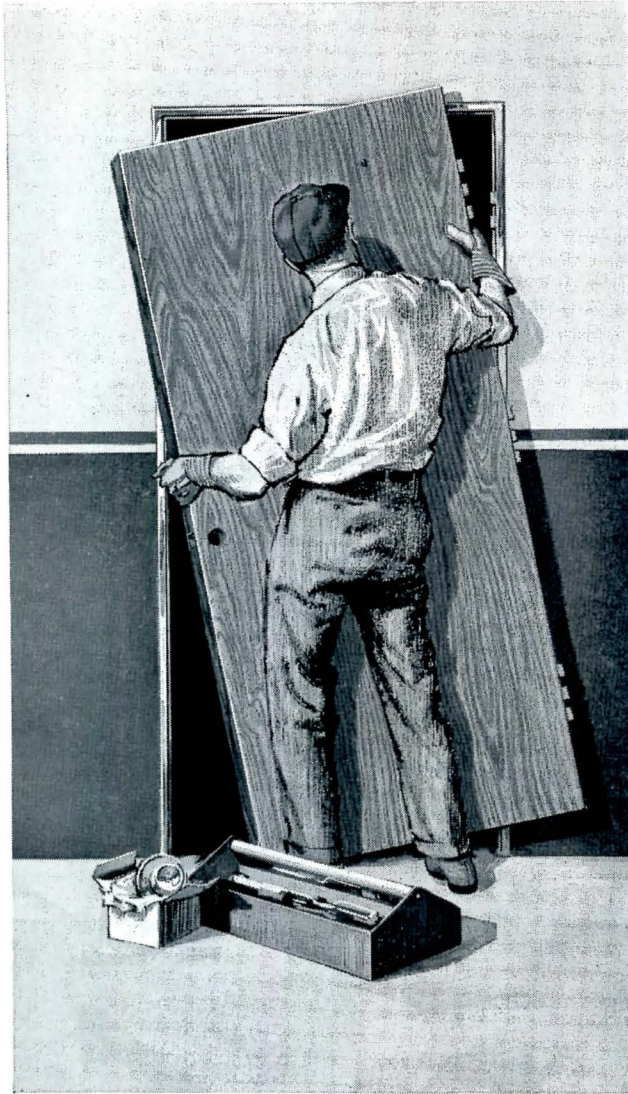
See our booth, 95
in DALLAS
Stock beams on display

STRUCTURES, INC.

MAIN PLANT & GENERAL OFFICE, PESHTIGO, WIS.

PLANTS

MAGNOLIA, ARKANSAS • MORRISVILLE, NORTH CAROLINA
PESHTIGO, WISCONSIN



This Chemclad door will never need refinishing!

After this Chemclad door is installed—the building owner can practically forget it . . . permanently. Why? Because these doors have a high-impact resistant, smooth melamine laminate finish that stays beautiful for the life of your building. An occasional wiping off is all that's required. What's more, they're custom made in a wide choice of wood grains and decorator colors—pre-fitted and pre-mortised to save installation costs. These are reasons why we suggest you consider Chemclad, when you're remodeling or building. You'll have a sound investment in a door you'll never replace, refinish or regret! Send for your free copy of the new Chemclad brochure.

CHEMCLAD[®]
MELAMINE LAMINATE DOORS



1,256 custom made Chemclad doors have been installed in the Schumpert Memorial Hospital, in Shreveport, Louisiana.
Architect: Neild and Sodal.

BOURNE MANUFACTURING COMPANY
7321 Gratiot Avenue • Detroit 13, Michigan

REPRESENTATIVES IN PRINCIPAL CITIES FROM COAST TO COAST

1962 Reynolds Award

A team of Paris architects will be awarded the 1962 R.S. Reynolds Memorial Award, architecture's largest, at the Dallas convention this month.

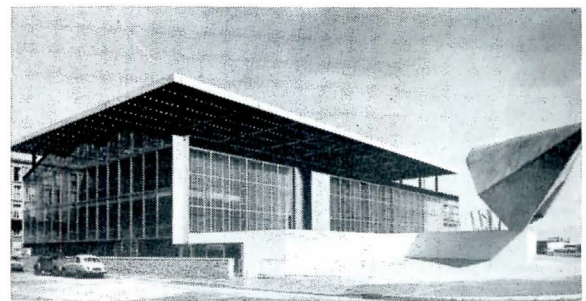
Design for the Museum Cultural Center in Le Havre, France, won the \$25,000 honorarium for Guy Lagneau, Michel Weill, and Jean Dimitrijevic, principals in the Paris firm bearing their names, and collaborating architect Raymond Audiger.

Key feature of the aluminum and glass Award building cited by the AIA Jury is its effective control of natural light, achieved in large measure through a unique floating aluminum sunscreen over the entire skylight-glass roof, which Jurors called "a daring and unusual approach."

A portion of the Jury report noted, "From earliest civilization, man through his artists and architects has attempted to capture the ever-changing qualities of natural light. The Jury felt that the Museum Cultural Center represented an ingenious and sensitive solution to this problem."

A museum official confirmed to the Jury that the aluminum and glass building achieves satisfactory lighting without use of artificial light on normal days, yet poses no problems of glare, heat or other undesirable side-effects from the extensive use of glass.

The museum roof is sheathed with skylight glass. Below the roof trusses is a ceiling of white



plastic, with artificial lights enclosed within the truss space. Over the entire structure, supported on extensions of the building's main columns, is the floating framework of aluminum louvers designed to keep out direct sunlight. The fixed-angle shade screen blades are made of striated aluminum, in a shape resembling that of an airplane wing, attached to aluminum structurals.

Thirty-seven tons of aluminum were used in the structure, including wall panels, door panels, fittings, fillets and angles in the sunscreen, and various other applications. (Continued on page 18)



SYMBOL OF QUALITY IN ENGINEERED TIMBER

This Inspection Stamp marks the most significant forward step in engineered timber construction since the development of glued lamination. It certifies that each timber member which bears the stamp was produced under a system of quality control that makes certain it will perform satisfactorily in service. The quality control system includes:

1. Original determination of each laminator's ability and facilities to install and maintain an adequate system of quality control.
2. Determination of the qualifications of the laminator's personnel, procedures and facilities.
3. Periodic unannounced inspections by an independent agency to make certain that quality control is being rigidly enforced at all times.

THE INSPECTION STAMP MEANS that engineered timbers which bear the stamp were produced to meet the stan-

dards now adopted by members of American Institute of Timber Construction, and submitted to the Department of Commerce. It means the quality of each timber may be relied upon without question.

THE INSPECTION STAMP DOES NOT MEAN that all stamped timbers will be just the same, for Timber Structures, Inc. will never cease its efforts to produce material of superior appearance and structural qualities. *Nor will the service offered by all laminators be the same.* In this field we shall continue as always to pioneer new and better structural forms, and to provide all possible assistance to architects, engineers and contractors to the end that our engineered timbers will make the maximum contributions to permanent, economical, beautiful construction.

 **TIMBER STRUCTURES INC.**



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

DIVISION OFFICES IN RAMSEY, N. J.; SCHILLER PARK, ILLINOIS; DALLAS, TEXAS

District Representatives in Major Cities throughout the United States • Member A. I. T. C. and Producers' Council

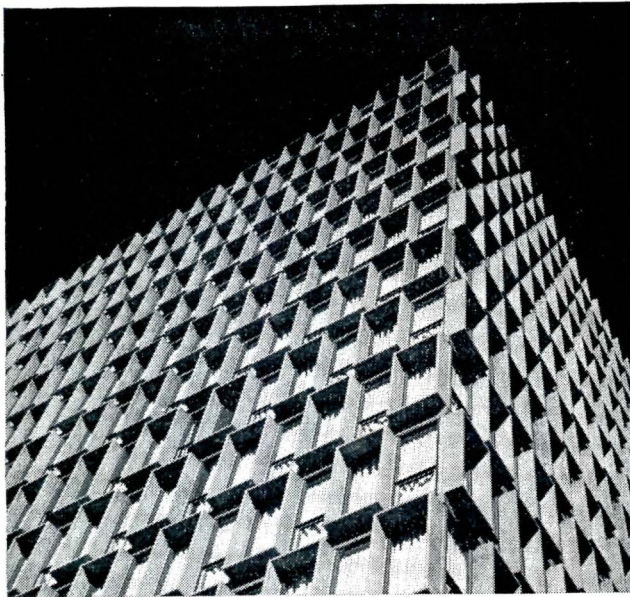


Photo: Hendrich-Blessing

*Water Tower Inn, Chicago

EXPOSED AGGREGATES for PRE-CAST SURFACES

Successful use of this finish requires aggregates on which architects may rely for color, for structural and bonding strength and for impermeability.

The cost of exposed aggregate is but a small percentage of the cost per square foot of the finished product. Still, it is just as important to specify clearly what aggregates the architect is entitled to have in the work, as it is to see that the work is done by reliable manufacturers.

Colonna and Company of Colorado has been crushing Suprema Aggregates in the heart of the Colorado Rockies for 27 years. For the past 9 years it has specialized in crushing the following:

- Suprema Flamingo Quartz
- Suprema Siskin Green
- Suprema Black Obsidian
- * Suprema Milky Quartz
- Suprema Blue Granite
- Suprema Pink Granite
- Suprema Light Gray Granite
- Suprema Garni Green
- Suprema Royal Spar
- Suprema Paxi Gray Granite

Recent installations in which Suprema Exposed Aggregates have been used are:

***WATER TOWER INN, Chicago**

Architects: Hausner & Macsai, Chicago
Mfg. by: Midwest Concrete Industries, Des Moines, Iowa

FLINT ADMINISTRATION BUILDING, Flint, Michigan

Architects-Engineers: Linn Smith & Associates,
Birmingham, Michigan

Mfg. by : Pre-Cast Concrete Co., Marysville, Michigan
Panel Engineering Corp., Troy, Michigan

For further information and samples, write to:

COLONNA & COMPANY OF COLORADO, INC.
CANON CITY, COLORADO

The architects chose aluminum for its lightness, its quality of light diffusion, and its resistance to corrosion, an important factor in Le Havre's seaside location.

The Museum Cultural Center, which was completed last June and is owned by the city of Le Havre, houses permanent and temporary exhibitions, a library, art school and an 800-seat auditorium for concerts, movies, lectures and similar activities.

The winners will receive their check and a sculptured symbol from AIA President Philip Will, Jr, FAIA, and R.S. Reynolds, Jr, President of Reynolds Metals Company.

Preservation Committee

AIA's Committee on Historic Preservation, meeting at the Octagon in March, attended the opening of "Preservation: The Heritage of Progress," an exhibit at the Octagon Gallery by the National Trust for Historic Preservation. Here, Chairman Earl H. Reed, FAIA, points out a detail of one of the panels to committee members Orin M. Bullock, Jr; Charles E. Peterson, FAIA; Edward D. James, FAIA; Joseph Watterson, FAIA, staff executive; William J. Wagner; Walter F. Petty; Charles St George Pope; Karl Kamrath, FAIA.



MIT Summer Course

A special week-long summer program, "Planning Industrial Expansion," has been announced by Professor Albert Bush-Brown, School of Architecture and Planning, Massachusetts Institute of Technology.

The seminar will be held at MIT July 9 through 13 as part of the 1962 summer session. It is intended for officers and owners of businesses, bankers and industrial consultants, promoters of commerce and teachers, as (Continued on page 20)

Multi-Stall Showers serving 2, 3, 4, 5, or 6 people simultaneously.

Column Showers serving 2, 3, 4, 5, or 6 people simultaneously.

Wall-Saver Showers serving 2 or 3 people.

Also Panelon Showers that go to any length to meet your requirements.

Bradley makes every kind of shower

but **one!**

... and every shower we make allows you more design freedom, saves floor space ... showering time ... maintenance ... and up to 80% in installation costs! For assistance on specific projects, contact your nearby Bradley representative. Or write direct for colorful Publication No. 6004. Bradley Washfountain Co., 2363 West Michigan Street, Milwaukee 1, Wisconsin.



62-121



ROTO-SWING DOORS SOLVE PROBLEM OF BIG NEW APARTMENT BUILDING

Installation of Roto-Swing balanced doors for outside entrances solved a problem for Lakeview Towers, a 15 story new 178 unit apartment building in northwest Oklahoma City.

Standard aluminum frame doors proved impractical because suction and pressure of high gusting winds caused whipping and slamming.

New Roto-Swing safety balanced doors were installed in outside entrances at both front and rear of the building. Balanced action of the Roto-Swing door makes it wind-resistant.

Tenants report satisfaction with the Roto-Swing doors because of the improved ease of opening and closing. The balanced door, with an exclusive finger guard for safety, is manufactured as a packaged entranceway in extruded aluminum. Tempered glass doors, hollow metal steel, stainless steel and wood doors are also available with Roto-Swing balanced hardware.

Listed in Sweet's door catalog, pages 16a/Ro, Roto-Swing doors are available from Roto-Swing Door Company, 3110 N. Walker, Oklahoma City, through its many distributors throughout the nation. The company also makes Roto-Matic Automatic Entrances.

See Exhibit, Booth 86-87, Dallas

well as architects and planners. Academic credit is not offered. Tuition is \$200; some reduced tuitions will be permitted for teachers.

The population explosion, new markets, new products, more purchasing power, automation, all are contributory factors to the industrial expansion phenomenon. Cities, with their transportation, economic, and political problems, are often less capable of supporting many types of expanding industry; those industries have gone to rural areas near the suburban centers of population. The summer program, Professor Bush-Brown stated, will study the problems involved and disseminate the information obtained from Boston's long experience in the regional dispersal of industry.

For further information, contact: Summer School Office, MIT, Cambridge, Mass.

Architects' Tour of Japan

The Eighth Annual Architecture and Gardens Tour of Japan, directed by Kenneth M. Nishimoto, AIA, will leave from the West Coast on October 6. The twenty-five day tour will visit buildings of architectural significance and famous gardens both old and new. Conferences with Japanese architects will be arranged. A special post-tour extension to Hong Kong is also planned.

For a descriptive brochure, write Mr Nishimoto at 263 South Los Robles, Pasadena, California.

Williams Elected

Edgar I. Williams, FAIA, was elected president of the National Academy of Design at the Academy's annual meeting in March. Mr Williams has been president of the New York Chapter, AIA; the Architectural League of New York; and the Municipal Art Society of New York, and is a former Regional Director of AIA.

Hughes Heads Michigan Groups

James Bennett Hughes, AIA, has been appointed Executive Director of the Michigan Society of Architects, the Detroit Chapter, AIA, and the Michigan Architectural Foundation. Charles H. McMahon, president of MSA and MFA, and Paul B. Brown, Detroit Chapter president, announced the appointment effective March 1.

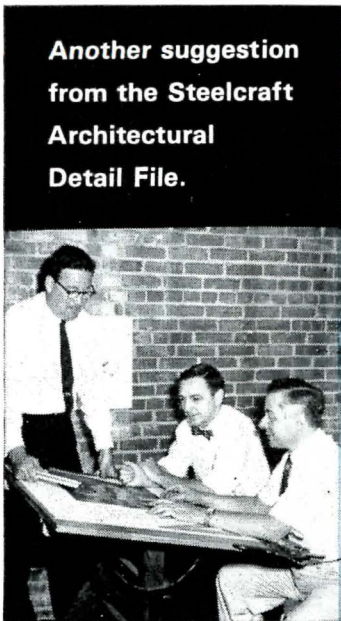
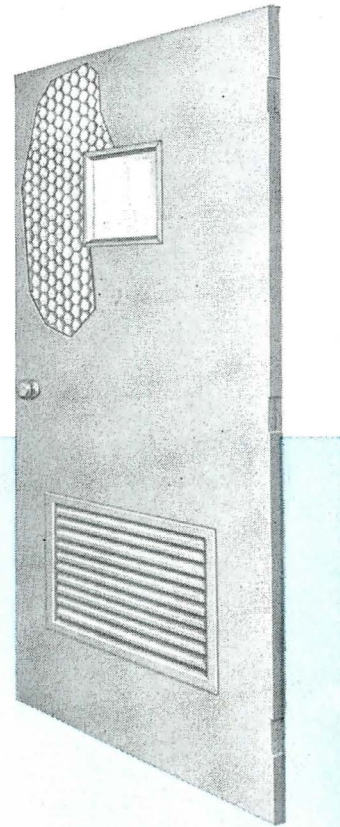
Correction

The March Journal erroneously reported departure date for the post-Convention grand tour of Europe as June 30. The tour will leave New York on May 30. Information is available from the United States Travel Agency, Washington, D.C.

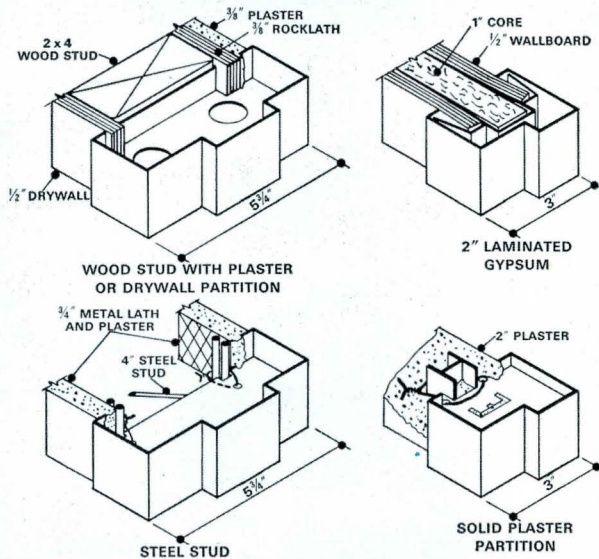
STEELCRAFT

The finest name in...

METAL DOORS and FRAMES



Another suggestion from the Steelcraft Architectural Detail File.



Honeycomb core — A Steelcraft development that provides new strength! A honeycomb core is permanently bonded to two layers of steel . . . deadens sound, adds ruggedness.

David Eskin, AHC, Steelcraft Boston Distributor, with Ralph Leblanc and Irving Salsberg, of the architectural firm of Salsberg & Leblanc, discussing details of the modern office building the firm designed for Wellesly, Mass. Steelcraft doors and frames throughout.

Steelcraft has developed frame sections for every type of partition, wood or steel stud construction, solid or drywall finish, as well as for solid plaster and laminated partitions. Steelcraft frames and doors are stocked in a large variety by local Steelcraft distributors. All Steelcraft doors can be used interchangeably on any Steelcraft frame. Call a Steelcraft distributor for professional assistance in coordinating hardware and approval drawings . . . save delivery time . . . cut construction costs.

THE STEELCRAFT MANUFACTURING COMPANY

9017 Blue Ash Road, Cincinnati 42, Ohio



PRESENTING

*Tiffany**

LAY-IN ACOUSTICAL PANELS
FOR 2-HOUR UL FIRE-RATED ASSEMBLY

NOW...FROM CELOTEX...



*U.S. Design Pat. No. D-191,203

***MOST
COMPLETE RANGE OF
FIRE-RATED CEILINGS!***

**PROTECTONE MINERAL FIBER TILE & PANELS
FOR UL FIRE-RATED ASSEMBLIES**

PRODUCTS	SIZES & EDGE DETAILS	TIME RATINGS	FLOOR & CEILING ASSEMBLIES
Natural Fissured Plaid Striated	12" x 12" x 3/4" Square edge. Kerfed for concealed suspension system	1 Hr.	Wood deck over wood joists
		2 Hr.*	Concrete deck over steel bar joists
	Tongue & grooved and kerfed for concealed suspension system	4 Hr.*	Concrete slab over cellular steel deck, steel beams
Tiffany Random Perforated	12" x 12" x 5/8" Beveled. Kerfed for concealed suspension system	1 Hr.	Wood deck over wood joists
		2 Hr.*	Concrete deck over steel bar joists
	Tongue & grooved and kerfed for concealed suspension system	4 Hr.*	Concrete slab over cellular steel deck, steel beams
Tiffany Panels Fashion-Fissured Panels	24" x 24" x 5/8" and 24" x 48" x 5/8" Trimmed edge for exposed suspension system	2 Hr.*	Concrete deck over steel bar joists

*Includes penetrations (recessed light fixtures and air diffusers)

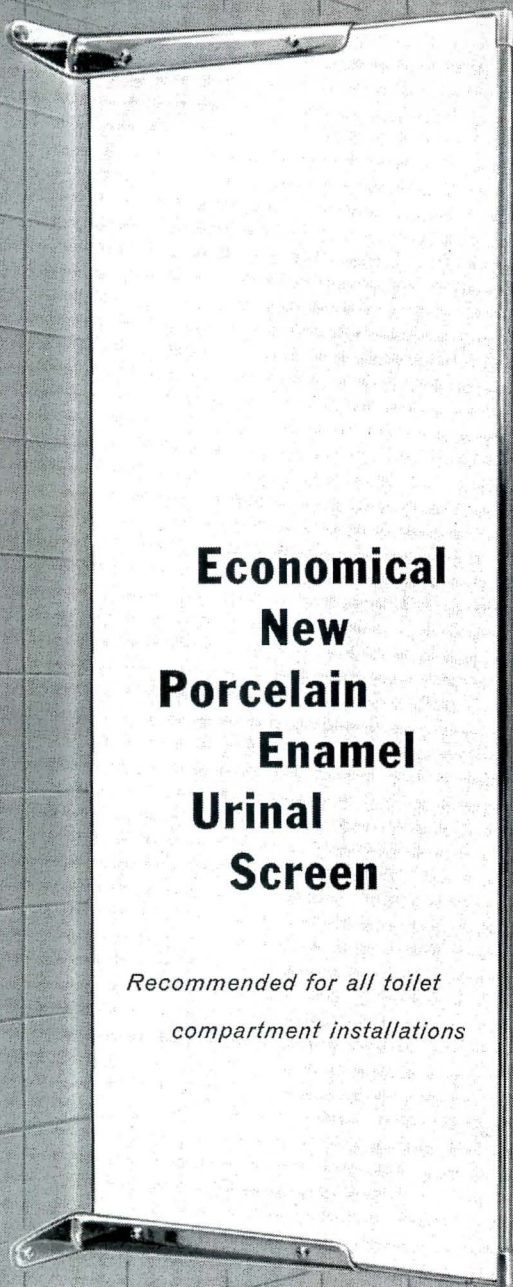
*Also available in non-rated incombustible panels.

With elegant new Tiffany pattern now in 2' x 2' and 2' x 4' panels for fast lay-in... the Celotex family of PROTECTONE[†] fire-retardant mineral fiber tiles and panels offers the widest choice of patterns for UL time-rated suspended ceiling assemblies. No spray or membrane intermediate protection required. Dry installation speeds other trades. Building owners save money... benefit from earlier occupancy, reduced insurance premiums. Your Acousti-Celotex distributor, listed in the Yellow Pages, is a member of the world's most experienced acoustical organization. He offers valuable Ceiling Consultation Service, without obligation.



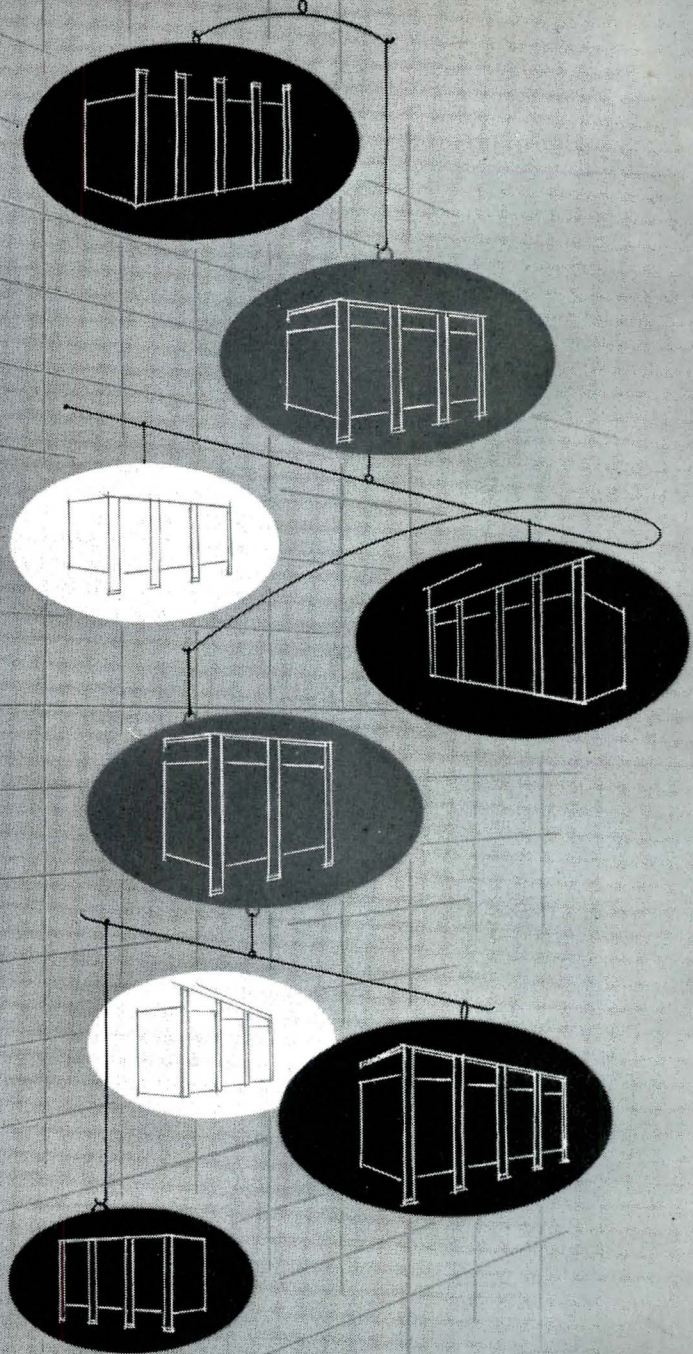
†Trademark

THE CELOTEx CORPORATION, 120 S. LA SALLE ST., CHICAGO 3, ILLINOIS
IN CANADA: DOMINION SOUND EQUIPMENTS, LIMITED, MONTREAL, QUEBEC



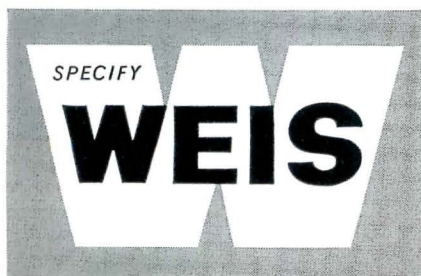
**Economical
New
Porcelain
Enamel
Urinal
Screen**

*Recommended for all toilet
compartment installations*



**RUGGED... WILL NOT RUST... strong,
wrap-around brackets buttress against rough treatment**

Lifetime vitreous porcelain enamel... *the ideal finish for urinal screens.* By producing this porcelain enamel unit with stainless steel corners and moldings in one design, in one size, and in one color, Weis makes it a practical, economical specification for all urinal screen installations.



HENRY WEIS MFG. CO., ELKHART, INDIANA

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

***Weis belongs where toilet
compartments really take a beating***



A · I · A

Journal

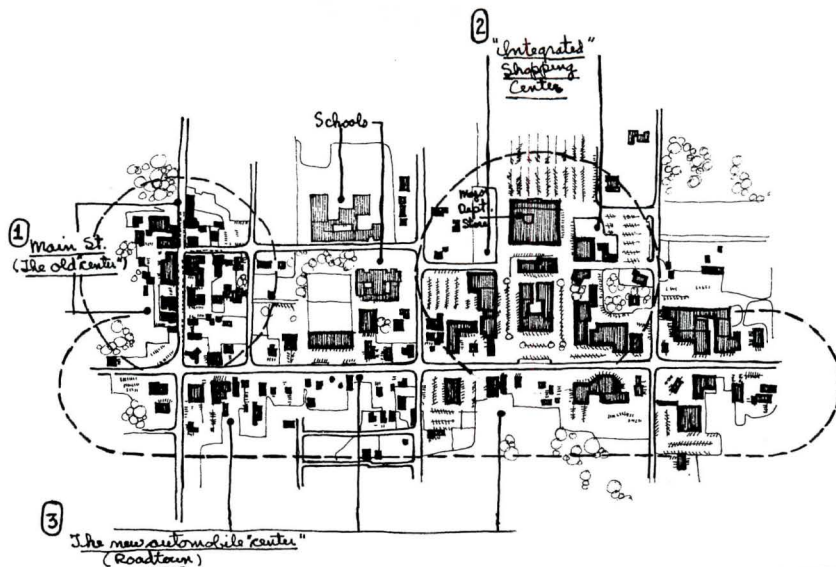
Shopping Streets and the Pedestrian Rediscovered

by **M. R. Wolfe, AIP**

The author is Professor of Urban Planning in the College of Architecture and Urban Planning at the University of Washington, Seattle. This paper was adapted by the author from an address given to the Seattle AIA Chapter in October, 1959

► The substance of this paper is, of course, suggested in the title. It is motivated by the plethora of new shopping centers which are erupting all over the country, most with a pedestrian mall as standard equipment. We are also doing a great deal of drum-thumping about urban renewal and much of this is directed towards the central business districts of our cities. Here as well, there is great emphasis on the panacea of the pedestrian mall and one would hardly be caught with any plans which did not include this element. Therefore, it becomes obvious that it is time to examine, or reexamine, such spaces as have been created or are being created. Some are old, some are new, some are planned as a whole and obviously some occur unplanned as such. Above all it must be made clear that I am using the shopping street as an object for examination. In other words, we are talking about open spaces with inherent directional patterns, for the people shopping on foot or in vehicles, and not the non-shopping plaza or square, although they may be part.

It must be emphasized initially that the method of inquiry herein is one which is universally used and seldom discussed or defended—that of personal interpretation. It will be employed here, but not defended, since in terms of a scientific basis there is no defense. So, to those who will



Seattle

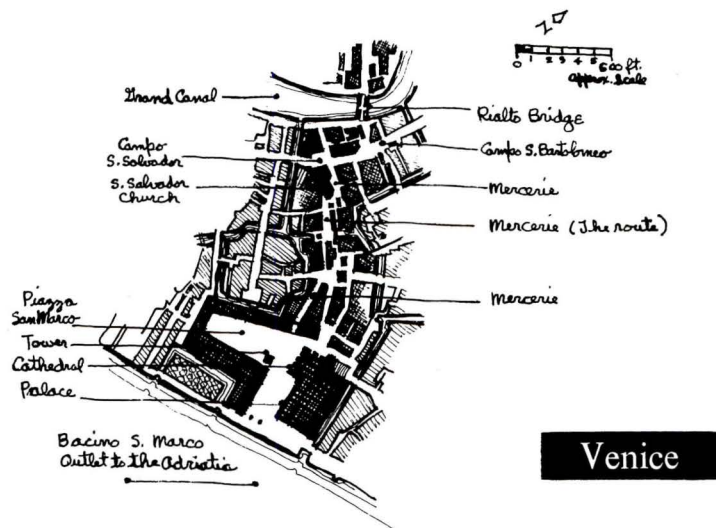
Bellevue Shopping Center: Large suburban growth in Seattle vicinity stimulates a new comprehensive, integrated shopping center (2), catering primarily to the auto. Numerous scattered commercial uses spring up along the main arterial (3) connecting old Main St (1) with the new hub. Pedestrians are favored only in the immediate shop area—continuity of this flow seems a secondary requirement. (A plaza is created only in front of a department store, otherwise the only “space” belongs to the restaurant)

be deterred by the absence of a system involving a documented objective approach, read no further. I have simply selected a number of existing and contemporary examples, all part of cityscapes but having or possessing cultural differences. Most of them are familiar examples and have been examined by others before. In presuming to add to other analyses, the issues will be brought out by either “black or white” statements. This is another warning to critical readers that in order to emphasize certain points, the “grays” will not be brought in, and this, of course, testifies to the acknowledged lack of detachment presumably found in quasi-researched presentations. In these same terms I admit that elements of decadent nostalgia will creep in. As such, this paper is probably guilty of gross editorializing, but nevertheless it is justified since a timely reminder of the issues is needed. All in all, it is to be considered that this is just an intermezzo, and while it may be preliminary to a study more far-reaching and penetrating, the latter has not yet occurred. Thus, ignore not what is on hand.

The Stage Setting

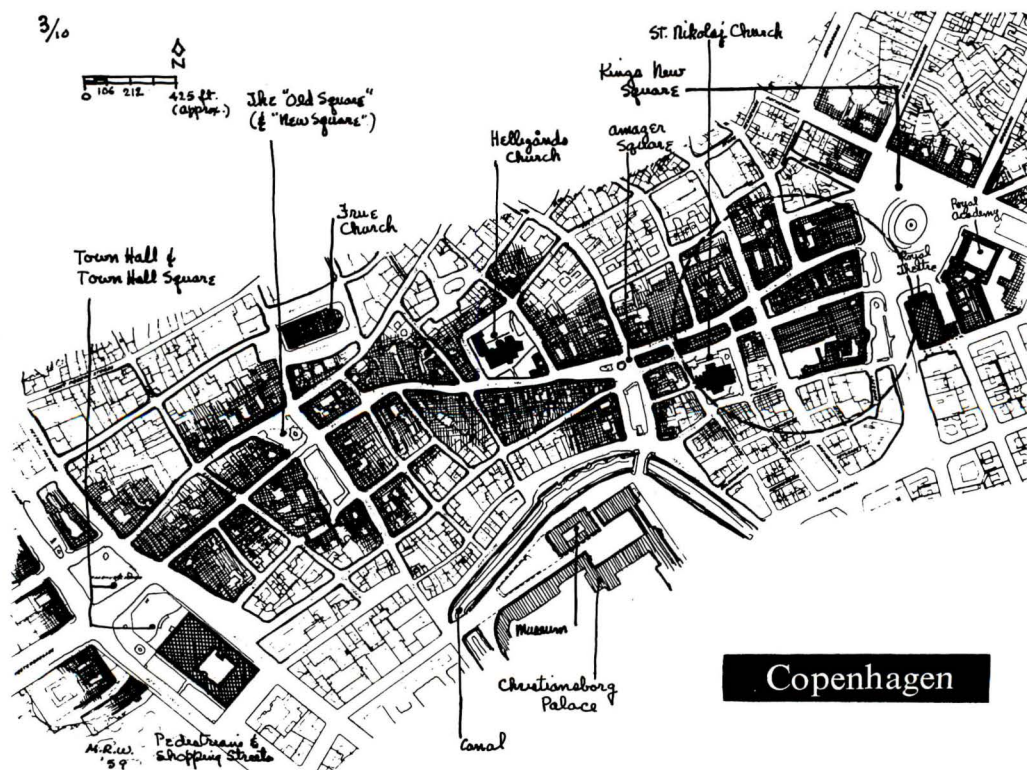
Now, in terms of the current urban milieu, is it fair, say, to compare the walkers of Pisa with the automobile culture of one of our major regional shopping centers in terms of differences inherent even within a Western culture? For example, take such factors as purchasing power, traditions, social interactions and goals. Add to them the various political determinants, the economic pressures and the like which all have effect on the organization of physical patterns, and one would come to the conclusion that it is unwise, to say the least, to compare a host of such patterns in distinctive areas.

However, I risk this and say that certain general or basic issues are the same. The ribbons of shopping buildings and the stringing along streets and highways continue everywhere, but similarly a new deterrent has arisen. This, of course, is wrapped around the automobile. As a consequence we are prone to think that shopping centers are coming forth in new forms, but they



From San Marco to the Rialto, the epitome of the urbanistic pedestrian milieu. A thoroughfare connecting the social, religious and political center of the city to other significant foci. Lined with shops, restaurants, etc, passing through open spaces of intimate and great scale, and containing perspectives limited by changes of direction and visual stops, this is one of the most exciting walkways in the world

The Strøget combines formalism and informality in Renaissance and medieval squares. The central promenade of Andersen, Strindberg, Kierkegaard and the Danish housewife, it is narrow, a "traffic" problem. It has now been made one-way for vehicles and excludes them at certain times. At pedestrian scale, it is in the process of reverting to this kind of use once more





Amsterdam's Kalverstraat has been one-way for all vehicles since 1928, but since 1932 has allowed service vehicles only in certain entrances and going in certain directions. End result: a shopping (and window-shopping) street with a definite pedestrian emphasis as almost a matter of tradition

are not *basically* new. The Oriental bazaar, the medieval market place, the small-town drugstore and its neighbors are old examples of a heterogeneous collection of walk-oriented shops—no matter how the arrival to the general area. One may note, too, that all have overtones of a social center as well as a shopping center as such. Thus, they include elements of the Tivolis, the Coney Islands, the Disneylands and the like. Spatial implications are also involved, varying all the way from volumes comparable to Renaissance squares to the New England green, and from the medieval cloister to the circus midway. All these are inherent in shopping streets and the shopping patterns as we have known them traditionally and which still carry on in the sizes, scales and activities of a market place, new or old.

We have the supermarket, and if we add to it the contemporary drug and dime store (the institutionalized trinity of downtown Anyville) we have basic premises which are the same as that Oriental bazaar in terms of the shopping and social center created. (The differences are probably in the subtle pseudo-sophistication of a mechanized society.) I am, in fact, stating that the same fundamental premises are true in Roadtown, USA, and in the lines of small shops in European cities, for example.

There are a number of plan sketches which are interspersed among these words and if they appear to be arranged rather haphazardly, it is well to note that there is some rationale behind their selection and their presentation. There are some which emphasize the interaction between the pedestrian and the motor car. Shopping streets are thus shown which share both these means of locomotion (Main Street, USA and the main drag in Copenhagen). And there are those with limitations already placed on vehicles and one may observe this in Pisa and Amsterdam where at certain times of the day or on certain days vehicles are banned or eliminated in one way or another. Too, one gets to shopping streets where motorized vehicles, at least, are not and have not been allowed. (Good examples of these are in Istanbul and Venice, and some planned and comprehensive shopping centers as we know them today.)

The scale of each sketch is somewhat varied with the size of the study area and this is done for comparative purposes. From Venice to Istanbul the scale increases progressively. In other words, the details get greater as one walks the streets (by way of these sketches) from one town to another and the presentation is arranged to keep this in mind. To sum up, there are accompanying three-dimensional visual impressionistic scenes which try to convey the quality of these



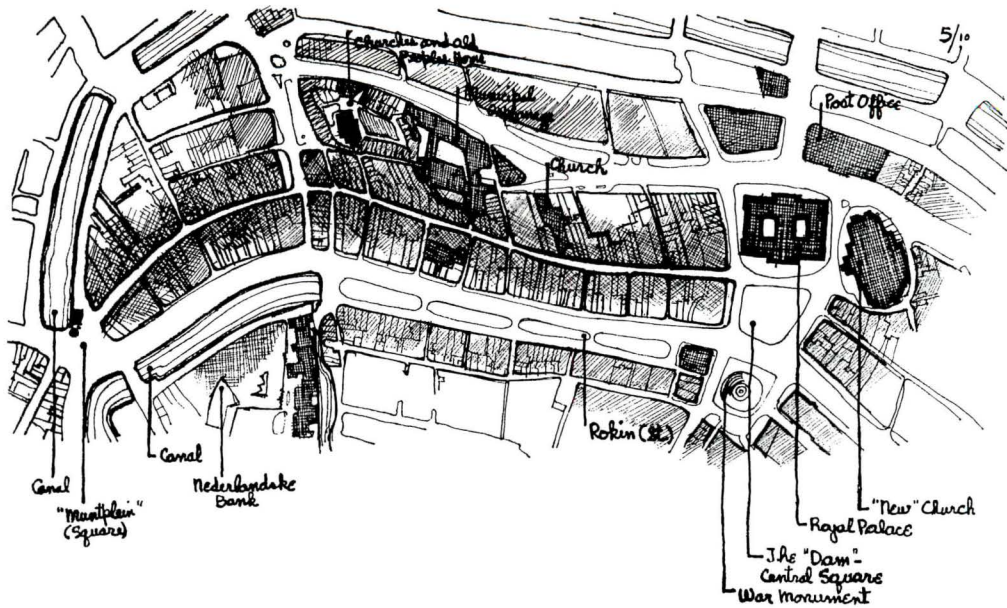
Old Main Street, Bellevue, Washington



The Lijnbaan, Rotterdam



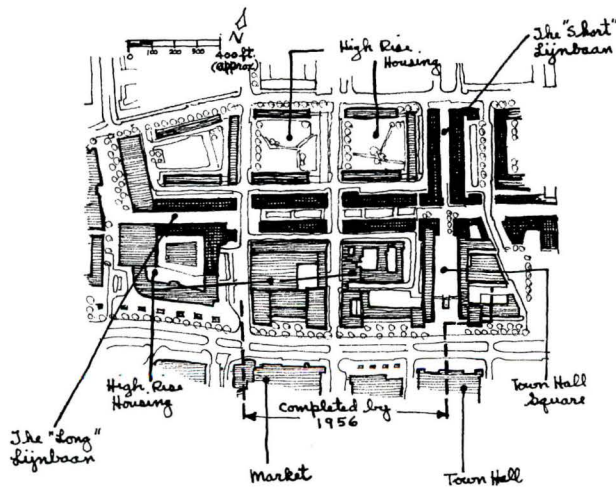
Amsterdam, near the Kalverstraat



Amsterdam

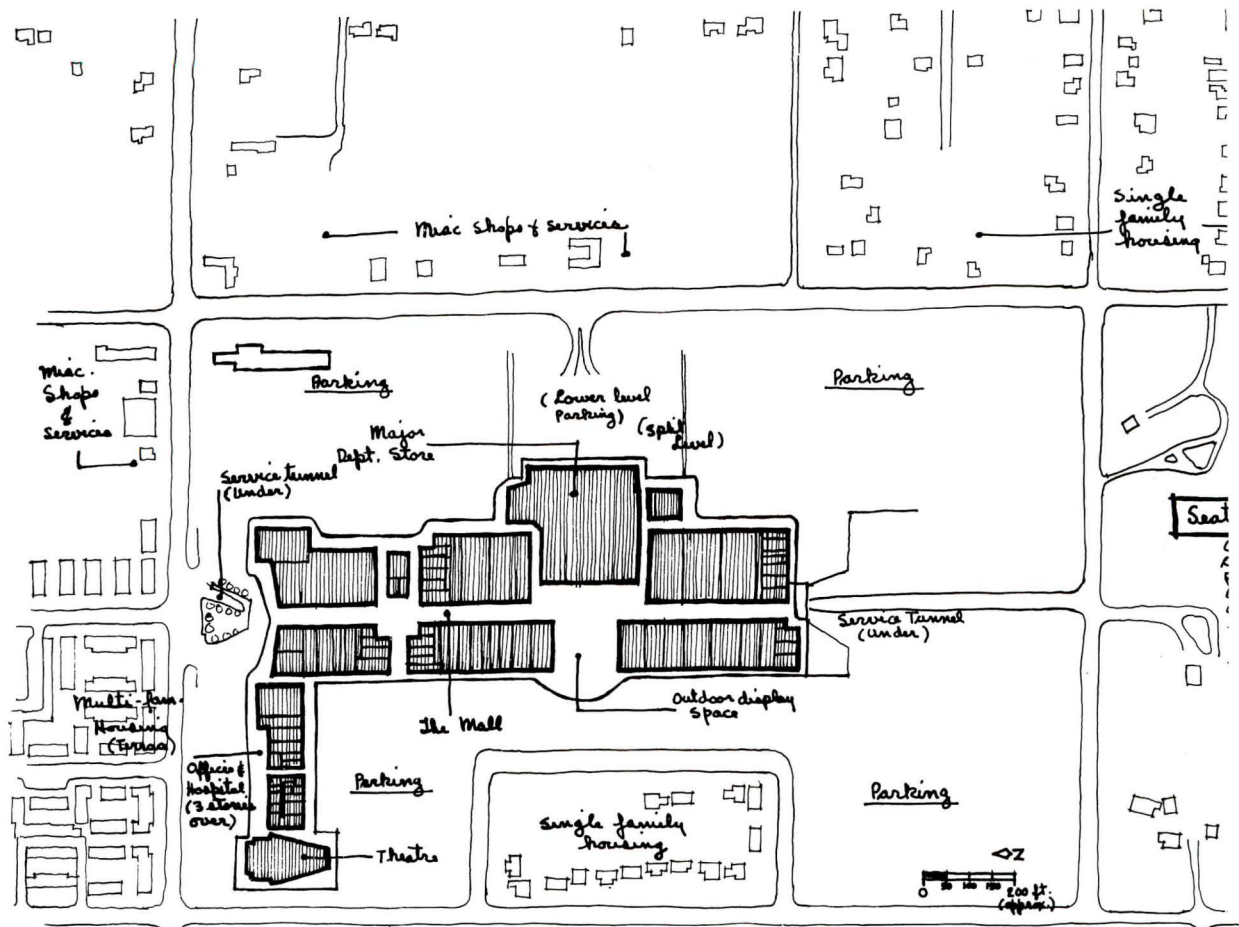


The Kalverstraat, part of the medieval dike along the Arnstel River (Rokin), once used as a cattle-market, has been a shopping street since the nineteenth century. Land-use emphasis, in terms of the shops, has changed over the past century from primary foodstuffs to city-wide oriented goods such as clothing. Connecting and varying openings, limited perspectives, significant buildings, add emphasis to the scene



Rotterdam

In a departure from the original traditional plan for rebuilding the city after the war, Rotterdam's Lijnbaan combined housing and future store-and-office space, pedestrian streets with adjacent shops. Covered walks, landscaping, trees, sculpture, are result of synthesized efforts. Missing are the non-directional "square," a feeling of building cycles, closed vistas. Reflections (in the continuous large glass facades) are a significant esthetic idiom in their new dominance



Seattle

Northgate is one of the first regional shopping centers conceived and built as a whole, premised on the new automobile mobility and the dynamic growth of suburbia. Arrangement and types of shops were influenced by merchandising lessons of old "downtown," market analyses, etc. To this were added the new dimensions of facility of access and parking, with a pedestrian mall 1500 feet long as the core

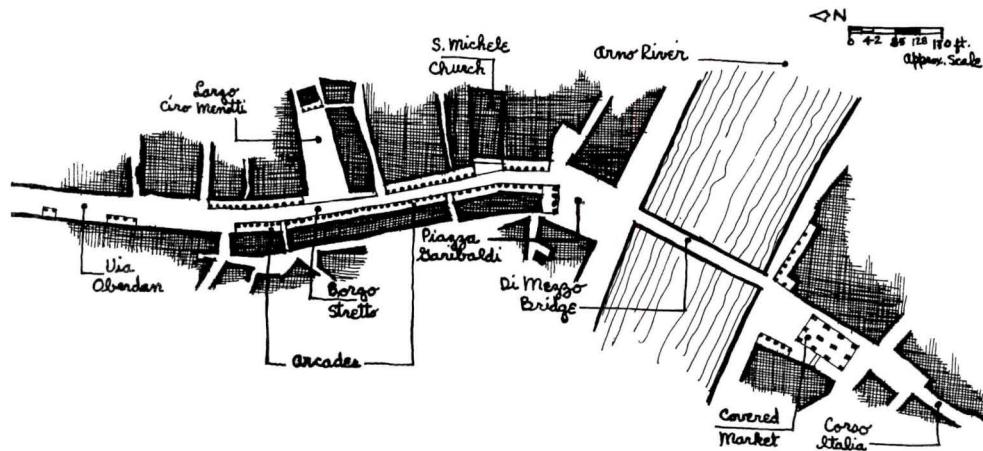
walking streets, and whereas these are designed to be digested at a glance, the plan sketches, of course, must be studied, to read into them the emphases which are presumably brought out here.

A Formula for Furnishings

Upon viewing the graphic evidence, the question arises as to what should be furnished in the architecture of these streets, if my observations are correct. On the assumption that one could walk up and down these streets and ask himself what seems to be appealing and what seems to be distressing, what seems to be attractive and what seems to be repelling, in terms of the perceptual forms involved, perhaps it could be decided what special elements, fixtures or features might be part of the vocabulary of one designing a successful pedestrian precinct. I submit, in half-whimsy, that the creator of such a successful physical pattern should arm himself with a dictionary of artifacts such as those which follow.

1 It appears mandatory that the directional avenue that encompasses the walking "street" should empty intermittently into very definitely articulated open spaces, squares or the like. Yet, the street itself, the passageways, the avenues, can be spatially quite narrow. As a matter of fact, this emphasizes the sense of bursting into those squares which may actually be quite small but are sensed quite vast by the psychological contrast. (This "square" must possess a sense of enclosure but does not need to be stereotyped by any particular shape or size as such. As a matter of fact, the informal square can be more effective than one which is square or geometrically rectilinear or the like.)

2 This pattern of linear streets and open space must use and contain elements of surprise. Not only should the streets jog, meander or curve, but the architectural features must change and probably not be absolutely repetitive and consistent. Above all, a sense of closeness must pre-



Pisa

Borgo Stretto, above, lined with arcades bringing out the play of light and shadow and furnishing cover for walkers, talkers, shoppers, and at the social hour, sippers. "Traffic" flows from Corso Italia; across bridge over the Arno into Garibaldi Square; into the corridor, Borgo Stretto, which then opens into Via Oberdan, the other side of the hourglass. Sundays, Borgo Stretto is closed to vehicular traffic altogether

Istanbul's Grand Bazaar, at right, is world's oldest and largest "supermarket"—a collection of roofed shopping streets for pedestrians only. (It is literally a shopping "town" with its own council and police; gates closed at stated hours.) Domes and vaulting of roofs, pierced by clerestory windows, clusters of small individual shops, produce a distinctive milieu—you are aware of being "somewhere special"

vail on several sides. (A rash judgment suggests that the width of such streets should be no greater than forty feet and probably less, in order to get this sense of apparent scale.)

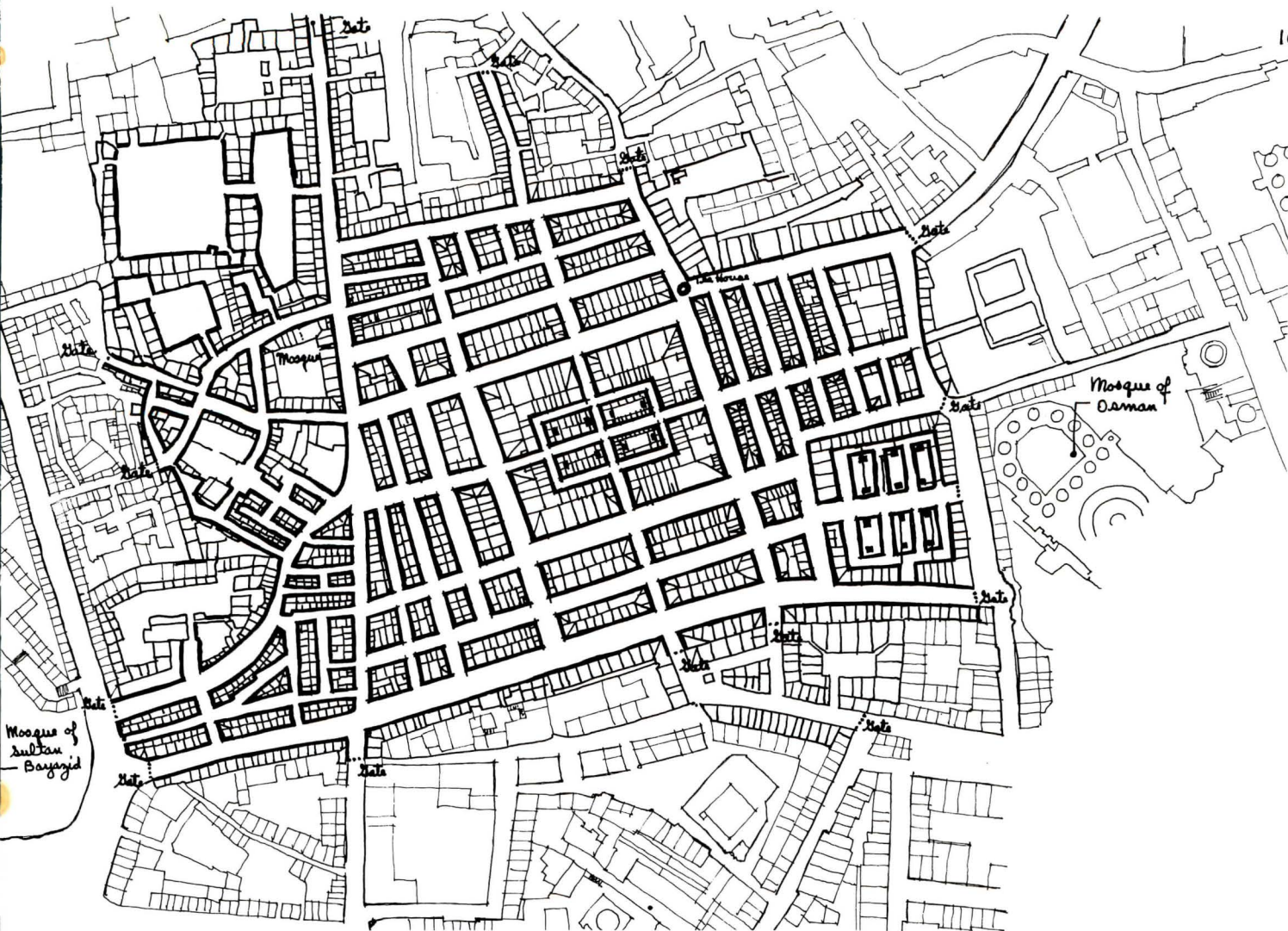
3 As part of this total picture then, we must go through a system of arrested views. By way of explanation, our visual perspective should not be allowed to get anywhere near the horizon. (If we examine this particular premise one would guess that 600 to 700 feet is probably a maximum of unobstructed view.)

4 Now, as we look down this view, which is not too long, which is partially obstructed and which has a sense of scale and surprise and change as mentioned, we find that at the end of the focal point and arrested view there obviously must be a visual stop of vertical significance. As we plow through the old streets we find that traditionally it is a church tower. But as we

wander around, we can see that this can be a huge totem pole, a German maypole, a Christmas tree, a clock tower, or anything of this kind. A vertical emphasis goes along with the change of view as one veers off in another direction. It seems to be a mandatory fixture.

5 As has been suggested, the architecture of the streets and the squares should be one of sympathetic individuality. Not only is there no need for it to be all the same, but conformance in the architectonic forms can be synonymous with monotony. On the other hand, a weird change of styles, shapes, sizes, textures and so on, while it may help, can tend to be a deterrent as well. This seems to be a case of watching the "surfeit of richness."

6 In any case, the use of sun, shade and shadow is mandatory. The arcade is foolproof. Even if there is no tropical sun, it rains. Or, as



Istanbul

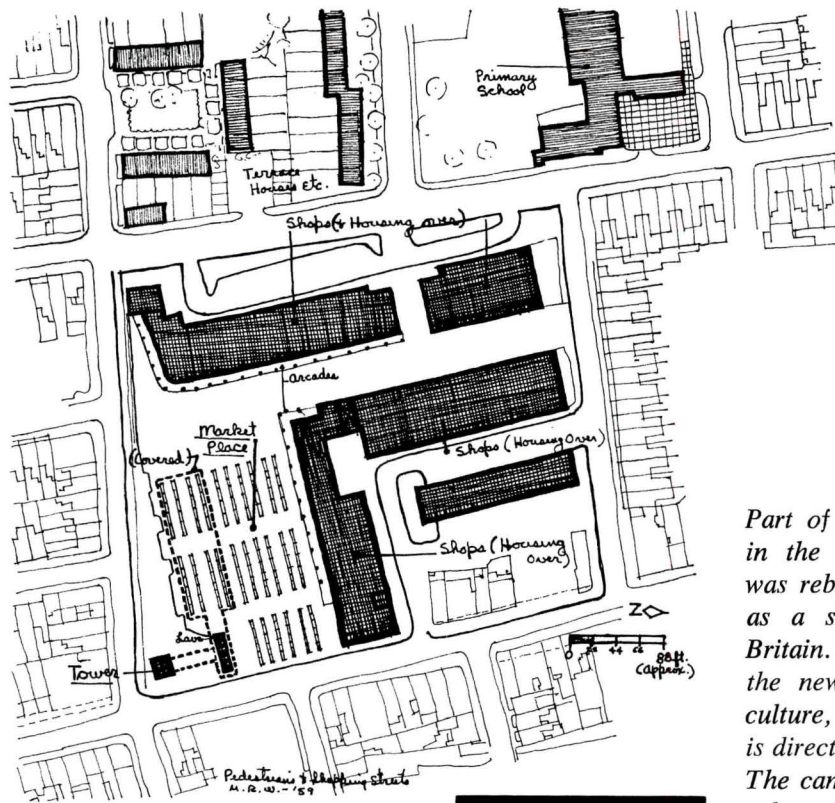
a matter of fact, whether it rains or is sunny, the arcade or the awnings, parasols, or things of this kind become a medium for changing patterns—a built-in sculptural mobile, as well as shelter as such.

7 Water is an excellent prop. Canals, lagoons, fountains, etc. are additions which obviously pay off. This is also true in terms of the proximity of other civic elements. In other words, if one can view the old town hall, for example, this is desirable. It doesn't have to be an immediate part, but it has to be near enough to imprint itself on one's consciousness. It is suggested that a touch of tradition exemplified in historic buildings and/or things is significant.

8 Other details—floorscapes, for example, meaning a treatment of the ground or the pavement which may implement the directional patterns. Or for no other reason than art alone,

for texture, for relief, it proves as one views the realities that concrete or asphalt is not the solution to all men's ills. It becomes somewhat unnecessary to suggest obvious and similar things such as other street furnishings. This has to do with building materials, lights, sculpture and so on, and I suppose the lesson here to be learned is to avoid a jungle of things—yet a certain amount of jumble should continue. It seems that many things can be added in terms of the floors, walls and ceilings of the streets, as long as a sense of continuity in them somehow remains present.

Even this is somewhat assured with the one paramount requirement of people. If we get all the sizes, shapes, ages and colors that are usually required, then this may be assurance enough of such continuity and also, incidentally, the vitality that these streets must have.



London

Part of a reconstructed neighborhood in the Stepney Poplar area, section was rebuilt after severe bomb-damage as a showplace at the Festival of Britain. Shopping street is replaced by the new idiom, but retains pushcart culture, arcades, and open space that is directional—leading to the “square.” The campanile or church-steeple vertical emphasis is kept by non-utilitarian tower at lower left

To Recapitulate

One may note that the findings here have been classified by the results of only one person’s personal appraisal. The reaction and response has been only on one guinea pig; the universe has been very small. The psychological and physical elements have been tested in a very small construct. We will repeat again that these have been the noted observations of what “equipment” is needed to make a wonderful shopping street based on a selection of study areas which cannot be defended as representative.

There are no earthshaking manifestos here; it is simply implied that only one who is interested in these matters may give attention to the tenets isolated in this survey. Implicit in these findings may be the fact that we have created a number

of mood rooms in the shopping environment and to put it drastically, even a little bit of “ye olde,” or, as for example as is happening on the West Coast, the indulgence in “Japanesery.” This may even be tolerable, although derivative, eclectic, or full of gimcracks when the alternates are considered. I am not espousing planned chaos in our shopping streets. I am not suggesting three-dimensional escapism. But I am implying, certainly, that a special purpose creation seems to be inherent here which does not seem to be satisfied by the chrome and glass, spit and polish, modular articulated, curtain wall, mechanistic, slick finish, straight and endless, directions which are springing up around us.

Which of these statements are written tongue in cheek? ◀

Design by Chance

by Elizabeth S. Close, AIA

► Lately I have been brooding over the fact that architecture, the mother of the arts, is lagging woefully behind her offspring. No self-respecting artist can ignore the scientific thinking of his time, yet the architects still putter about in a muddle of confusion. They argue whether form follows function or vice versa, when it is obvious that the entire concept of causality in our view of the world has been superseded by the laws of probability and the statistics of chance. Architecture has a sterile look—almost antiseptic—but until recently the reason had escaped me. Then, listening to David Tudor playing with that Steinway, it suddenly hit me like a ton of thin-shell hyperbolic paraboloids: We need a new architecture based on random design! It must be allowed to grow without interference out of that immense and rather unsavory source of all our great artistic ideas, the subconscious mind. And if that source fails us, we can use dice, or cards, or electronic computers.

The painters outlined the approach years ago. Jackson Pollock evolved the technique of throwing paint on his canvas, letting the drips fall where they may. The size of the painting and the choice of colors are still up to the artist. So is the selection of the frame, which may be the reason that many paintings have none. Possibly the explanation for the immense size of most pictures today is to be found in the difficulty of hitting a small target with a blob of paint at a distance sufficient to ensure objectivity.

The sculptors have been chipping away at the problem too. Welded steel lends itself beautifully to design by chance. Various rods, plates and mesh combine readily with any available pieces of old machinery or piping. In one case, the entire work consisted of a piece of old machinery which was entered in a show under the title of "Petrified Tomcat" and won a prize. For some reason, there have been no great protagonists of the toss-clay school, although it would seem to offer some nice possibilities. One might rig up an armature of wire mesh and throw clay at it until the effect is satisfactory; then fire, glaze if desired, and use as a room divider or something.

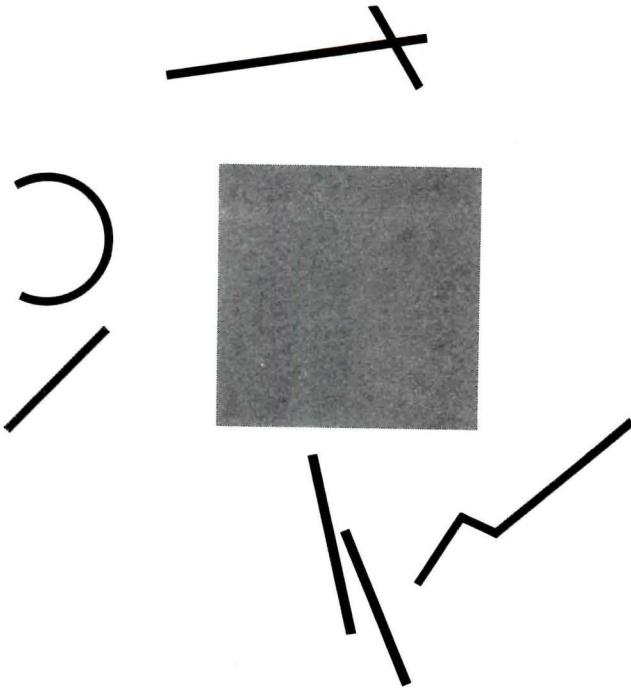
The deep thinkers in the world of architecture have long been searching for a new approach to design—a sure method. Lo, there arrived on the Journal Editor's desk the other day a complete outline, with exquisite examples, of just such a foolproof system for originality. The author practices in Minneapolis, which doubtless will become the center of this new cult, Mrs Close its high priestess

In music, composition by chance has been developed even further. Composers like John Cage do not just turn out a score of random notes. They have evolved a new system of musical notation which is even harder to read than the usual one. The directions to the performer are flexible and put a great deal of responsibility on him. The long silences between the plinks and plunks are necessary for him to decide what to do next, and to re-arrange the tissue paper and other paraphernalia inside the piano. The sounds, the intervals between sounds, the dynamics are all haphazard to the ear. There is no comprehensible rhythm, harmony, or (excuse the term) tune. It is a completely successful example of un-logic, and is to classical music as a non-objective painting is to a landscape by Corot.

Even in dance there is a movement afoot toward choreography by chance. Merce Cunningham has devised a way to establish a sequence of motions by throwing dice. The resulting dances are far removed from the well-known patterns of traditional ballet. However, many people are not able to distinguish this from other kinds of modern dancing, being baffled by both.

Ionesco and Becket dramatize the random trend in the theatre. The sequence of non-sequiturs and the conversation on stage which is just as inane as everyday talk give a deceptive air of realism to their plays. The idea that things and events are connected in some orderly and logical way is a figment of the imagination, brought about by the limitations of our minds.

But what about architecture? Only a feeble start has been made in the direction of design by chance. Most buildings are still planned and arranged according to some comprehensible scheme rather than by accident. The trend toward formality and symmetry in recent years appears



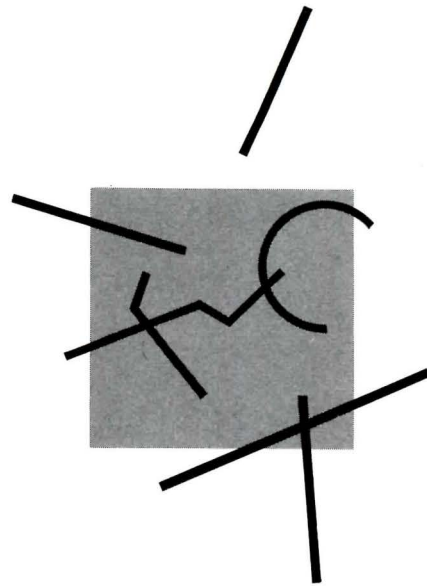
First trial: Due to inexperience I missed the target altogether. The result is a perfect example of an open plan, set off by rather intensive landscape development using screens, fences, and garden-walls

as an unfortunate regression toward order, rather than a step forward in the direction of chaos. Of course, there have been some indications of ferment. The fenestration in Le Corbusier's Ronchamp chapel is an encouraging sign of progress. However, a more basic attack is needed. The entire building must be designed by a technique which permits chance to govern.

How is this to be done?

In all the art forms that use accident as an element in design, some basic assumptions are made. These provide the frame of reference within which the design is accomplished. For instance, Pollock used canvas and oil paint as structural materials of his work. Cage's pieces for the piano are limited by the range of sounds that are available on that instrument, although he uses some unconventional ones, such as banging the lid. Cunningham is restricted to movements that are possible for the human body to accomplish. Similarly, architecture must accept the structural limitations of the materials from which the building is to be constructed. For purposes of this discussion let us assume that no budget exists. This puts the entire project clearly in the realm of the theoretical.

Several possibilities might be explored, using cards or dice to establish relative proportions and relationships of spaces. One of the attempts I made involved throwing various straight and curved pieces of wire over my shoulder at a square piece of white board, and letting the resulting pattern form the plan of a simple dwelling. The



Second trial: This time I was successful in getting the wires to land on the board. Designation of use areas might be handled in several different ways, the easiest being arbitrary choice, in keeping with this new concept

results are shown somewhere on one of these pages.

Any student of architecture will immediately spot the difficulty with this approach. It results in plans which are strongly reminiscent of Mies van der Rohe's early work. Interestingly enough, an attempt to select materials for any given area by means of dice revealed the fact that there is hardly a material in common use that has not been tried on all available surfaces. (Carpet is an exception: I know of no carpeted bathroom ceilings or kitchen counters.)

Establishing the location of various elements of a house by random choice may result in some unconventional arrangements, and even inconvenience to the occupants. But what sensitive person would not give up some of the creature comforts in order to live in a work of art? Minor inconvenience can always be rationalized by a skillful architect intent on preserving the integrity of his design. I am sure that the results of this new and timely approach will be no exception. It will be interesting to see whether a system of design by accident will produce buildings that are noticeably different from the ones being built now. As with the dance, there may be many people who will not see any difference. Maybe there is no difference. In any event, we must get the mother of the arts out in front again. Let the laws of probability govern, not the laws of logic; subordinate the intent to the accident.

Then we'll be right up there, way out there—but will we be all there? ◀

What Can We Do About Our Cities?

by Dr Karl L. Falk

► It has become a favorite American pastime to berate the ugly American city and to act as if it were a dying institution and that we are all a bunch of six-fingered oafs in not coping with its problems. I would like to state at the outset that things aren't really that bad. I would rather try to make a few positive suggestions as to how we can meet some of the challenges we face.

Actually, for the first time in the history of man there is a reasonable possibility that within our lifetime poverty can be almost completely wiped out in this country. The anticipated increase in national and individual incomes could mean the virtual elimination of slums in our cities within a generation. Whether we achieve this and whether in the year 2000—which isn't as far off as we think—we will be living in beautiful or in ugly cities in America depends largely on what goals we set for ourselves right now and how we go about trying to reach them.

What is the American city of the future going to be like? It is going to be just what we make it. Never in history have we had a greater challenge and a greater opportunity to do a good job. Never have we been in more of a position to bungle it and do a bad job. America is the world's pioneer in peacetime urban renewal for two reasons: First, our cities have grown so fast and Topsy-like that they need renewal on a larger scale than in any other country, and second, for probably the first time in history we have the financial and technical means to do the job—if we want to do it.

We can be proud of the fact that we have achieved the highest standard of living the world has ever known and even have it within our grasp to eliminate poverty almost completely within the next generation. Eight years of living, working, and traveling abroad in modern and ancient countries, in democracies, and in dictatorships, in mystic and feudalistic countries, has impressed me with the fact that, by and large, we also have a greater sense of social responsibility and respect for the dignity of the individual and equality of opportunity than any other country in the world.

Having said the positive about our country, I want to look at some of the negative. The "ugly

We present here in full the address given by Dr Falk at the Forty-Third Annual Convention of the AGC in Los Angeles in February, because his message applies to architects as well as contractors—trained and qualified individuals must take a more active part in public affairs, if the problems of urban America are to be solved. Dr Falk, president of NAHRO, will be a featured speaker at Dallas convention this month

American" doesn't just refer to persons. It refers to our cities. As far as our cities are concerned, we are, esthetically speaking, pretty insensitive. We are ready to accept litterbugged highways, rusty old auto junkyards, unsightly and unnecessary utility wires and poles in front of our most beautiful homes, screaming billboards and gaudy neon signs, dilapidated and deteriorating residential and commercial slums, maddening noises and bumper-to-bumper traffic congestion, polluted air that isn't fit for man nor beast to breathe—all without seriously challenging the fact that it doesn't *have* to be so. If we don't do something about it, our city of the future will be even less fit to live in. We can run away from our ugly cities to the suburbs, but we can't run away from the problems of our cities.

Our cities are unfortunately not things of beauty. They are not restful places to live in. To be sure, we have patched them up here and there, trying to cure some specific problem, but we have no over-all plan to create a city for people, a city of which we can be truly proud. Our cities of the future could become more beautiful and more livable if every American becomes interested in doing something about them now. This is my message for today, and it has become reinforced the past month as a result of a study trip to Europe with American housing industry and government leaders to see what some of their cities are doing to meet these problems.

Our approach unfortunately has often been too piecemeal and fragmented. As an active participant in the savings-and-loan industry I have tried to tell my colleagues there that their interest in housing and cities must go beyond only a financial interest. They must become aware of and do something more to shape the American city of the future in a way we can be proud of. To you, my friends in the construction industry,

I would like to say the same thing. Yours cannot merely be an interest in building things after somebody else makes up the blueprint. Your interest likewise has to go far beyond the "nuts and bolts" stage. You should have an active hand, based fortunately on an enlightened self-interest, in all community problems as citizens as well as technicians.

The problems of our American cities can't be solved by government action alone, Federal, state, or local. It is gratifying to see in various parts of the country, including my own city, Fresno, that citizens' committees are being set up—not only to meet a formality to qualify to receive Federal funds for urban renewal—but to take a broad, balanced approach to meeting all the community's problems, including those of finance, facilities, housing, renewal, and cultural and economic improvement. I am happy to see some of your own members represented on such committees and on various boards and civic housing authorities and redevelopment agencies. You have much to contribute in know-how and general ideas, and in turn will benefit from the satisfaction of helping in democratic solutions of the problems of our cities.

Changing City Walls

Essentially the city, as we know it, is over 5,000 years old. Until recently, however, with few exceptions, there was a limit to the size and functions of the city. The medieval walled city was a complete, compact unit. It served a useful protective function for its citizens, and it could be strategically located and remain useful as long as it did not grow too fast or was not destroyed by war or fire. Buildings were built to last, and a sort of natural urban renewal, a process of replacement and repairs, kept the city from getting too rundown.

The industrial revolution changed all this. The world's population has trebled in the last century and will probably do so again in the century ahead. Technological advances no longer make it necessary to keep the majority of our population on the land raising food and fiber. Automobiles make it possible to live and work at far distant points and live in metropolitan cities or their suburbs. In our own lifetime America has changed from a rural to an urban economy where seventy per cent of our people now live in cities. Unfortunately, our political organizational units of local, state, and Federal government have not yet adjusted to this fact, and rurally-oriented state and Federal legislatures and provincially-minded local governments have not faced up to the realities of what needs to be done if life in our cities is to be natural, or normal.

The Kansas wheat farmer is infinitely better represented politically than his more numerous middle-income city cousins. In fact, I never cease to be amazed that the Federal government has paid out more subsidy for a single crop, potatoes, than it has for all its urban renewal and housing programs put together.

It would be a mistake to assume that governments—Federal, state, or local—could solve all urban problems, even if there were some assurance they had the right answers, which I'm afraid they don't. In a democracy, it is the responsibility of *all* the citizens—not just their elected or appointed officials—to help in the solution of our problems—in this case, those of the city. This is where I think the construction industry has a duty as well as an opportunity.

Census Reveals Blight

We have made great progress in housing in this country where over sixty per cent of our families have bought or are buying their own homes. This tends to assure a stable society, political moderation, and a respect for individual dignity and opportunity.

We cannot be as proud, though, of the fact that with all our progress the 1960 census reveals that one-fifth of our housing is in a dilapidated or deteriorating condition.

But not all our slums are in housing. American cities have all too many deteriorating commercial and industrial properties and parcels of improperly used land. Nor are slums just confined to the big cities. Often those in smaller urban communities are just as bad or worse. Sixty-three per cent of the cities and forty-four per cent of the projects in the urban renewal program in the United States today are in cities that have populations of less than 50,000.

Haphazard strip zoning, fringe area shacks housing minorities and farm laborers in communities like my own, and the absence of or lack of enforcement of proper building and housing codes have resulted in serious problems. Rapid unplanned growth in our American cities and land speculation have contributed heavily to developing slums by causing artificial increases in land values. High land prices, and not just high costs of financing, building, or restrictive labor practices, are, in my opinion, probably the number-one handicap to building in the United States today.

Property Tax is Stupid

Our unfair and stupid tax policies have aided and abetted land speculation as well as the growth of slums. We all know there is an unfair division of the tax dollar between the levels of Federal, state, and local government. But what is even

more unfair and unwise, in my opinion, is our tax policy in relation to land and improvements. Cities subsidize slums by undertaxation and penalize improvements by overtaxation. Local governments subsidize land speculation by under-assessing and under-taxing under-used land while the Federal government benefits speculators and slum landlords by giving them income tax breaks. Ownership of slum real estate is one of the most lucrative investments in the United States today—if your conscience doesn't bother you and if you don't mind letting your fellow taxpayers pick up the tab for the problems you help to create.

In my own state of California there is under interim study a proposed Constitutional Amendment (ACA43) which, if passed by referendum, would allow local option on differential taxing of land and improvements. This would be one way of penalizing slum ownership and rewarding home improvement without the use of extensive Federal government subsidies and programs which are still only a drop in the bucket in meeting problems of slum clearance and urban renewal. Estimates of the cost of doing the job by subsidy alone—in Chicago it is taking almost \$100 million to clear one square mile—are so astronomically high as to be impossible.

Code enforcement is another step but will never be effective until the profit is taken out of slums by taxation. Fairer, and just more consistently applied local tax policies, still yielding the same total revenues, would be at least one reasonable tool. In short, high land costs, which are the big bottleneck to building low- and middle-income housing, could be brought down, and a considerable part, if not all, of the slums could be eliminated by more courageous use of tax policy at the local level without the need for Federal subsidy.

In testifying before both the Senate and House Currency and Banking Committees this past session of Congress I also supported the idea that people making some improvements be allowed a reasonable deduction, like a business, from their income tax for such improvements. I know these and other suggestions sound like crackpot reformism to those content with the status quo or who might feel their own ox is being gored, but I still think they are worth looking into. In fact, as an economist, I think our economy is seriously handicapped by the fact that our jerry-built tax system, not just in relation to property taxes, is so stupid that business decisions are being made right and left, not on the basis of whether they are good for the business or for the best interests of the economy as a whole, but on the basis of tax considerations alone. That is really the "tail wagging the dog" in my book.

Watch for "Sleepers"

I previously mentioned a good California tax proposal, ACA43, but that was set over for interim study. Meanwhile, a classic example of tax exemptions gone wrong is ACA-4 which, wheeled through the Legislature as "the farmers' friend," will appear on the ballot as Proposition 4 in California this year.

Some of you may remember the tax exemption measure for golf courses and the "Keep California Green" campaign for Proposition 6 two years ago. Golf club members all over California were specially assessed for that one, and the high pressure campaign paid off. No organized opposition; a plurality of better than one and one-third million votes.

This sweet smell of success led to ACA-4, which seeks to grant a tax-vacation to close-in lands used for agricultural purposes.

Now, anyone connected with the building industry—the builders, the construction trades, the real estate people, the title companies, the savings and loan associations—can see that the den motherhood for urban sprawl is the flock of land-speculators sitting tight on that fence along the rural-urban fringe.

You would think tax laws would be handy to help move those rural-urban fringe properties onto the market when industrial and housing developments meet them. Instead of tax laws moving in the right direction, ACA-4 wants those properties locked up at a low assessment rate based solely on agricultural use.

If ACA-4 passes, these lands could be locked up for a good long time. What is called "leap-frogging" by developers now, will be looked upon as short steps. If ACA-4 becomes law, builders will enter a new space age. They will have to go far, far, far out.

Thus, both agriculture and the cities will be hurt. (And by agriculture I mean the farmer-farmer, not the land speculator-farmer.) Urban sprawl gone wild will riddle logical agricultural areas; cities will lose their concentrated center for business and industry.

ACA-4 will be peddled, I assure you, with weeping and great wringing of hands for the poor farmer, but it is really a land speculator's dream—a land assessment paradise, both constitutionally intact and impregnable from responsibility to support schools, civic improvements and all the other signs of the *ad valorem* zodiac we ordinary citizens must observe.

I hope I have not bored you with this illustration of how easily we can go off the deep end in California when we are not watching for "sleepers." This is merely an illustration of the kind of thing I feel your industry has a real interest

in watching out for. These are problems that should be of general interest to every citizen, but they could directly affect your pocketbooks. My role today, however, has been to try to interest you in more active participation in the problems of urban renewal and housing, in helping to formulate enlightened public policies, in participating by serving on various city boards and authorities, and not just in executing plans formulated by somebody else. It is your show as much as it is mine.

Can We Afford It?

You may be asking yourself, how can America pay the tremendous costs of repairing its deteriorating cities and building for the future instead of the past? Without going into the complex estimates of the cost of renewing our cities, (excluding costs for "normal" construction), I would say that for the next ten years a reasonable estimate of the *renewal* costs for housing, roads, community facilities, public buildings and the like should run around \$500 billion, which is somewhat less than the gross national product for this year. Some estimates go twice this high, but I think those are somewhat too generous.

Can we afford the cost of rehabilitating American cities? I think the answer is "yes," and without cutting down elsewhere. If we increased our investment rate in urban renewal by two per cent, from ten to twelve per cent of the gross national product, with a normal growth in GNP, the job could be done within a generation without cutting into other fields of expenditure. As an economist, I am satisfied that the economic capacity is there, provided we want to use it.

Trade Association Members As Citizens

What role could trade association members like yourselves play in the problems of rehabilitating American cities? I would like, with your permission, to make some suggestions.

We should encourage city officials in their efforts to renew the central core of our cities. A tree with an unhealthy trunk is dying. Maybe we should encourage the planners to reconsider the whole problem of what kind of a city we need in the future. Maybe it will have to have a series of cores or strips or satellite cities because people aren't apt to walk, and it's getting impossible to drive and park downtown in most of our big cities. (The Europeans criticize us saying that we'd take the car even to go to the bathroom if we could get it through the door.) Our traffic and mass transit problems and air pollution problems are crying out for solutions.

We can't just sit here and expect "George to do it." Too often we elect or appoint city officials

and then expect them to do it all, feeling as if with our taxes we've bought a fifty-yard-line ticket to the football game and now enjoy the right—without any responsibility—to just sit there and criticize the quarterback for every mistake that occurs whether it's his fault or not. I feel somewhat strongly about this as a non-paid citizen commissioner who has taken a beating from both sides.

It is estimated that maybe two-fifths of our local expenditures have to be for "unproductive" purposes, that is, not directly paying out on capital investments like streets, public buildings and the like. We have to become interested in how these expenditures are made, what impact they will have on the future "productive" side, and what they will do to shape our future life in the city. We also have to remember that if the aim of the economy and of government activity isn't to promote the welfare and well-being of the individual, we are just wasting our time. Actually, we are making remarkable progress in urban renewal in many of our American cities, both large and small. The best programs are invariably in cities where everybody is taking an active interest and pride in them.

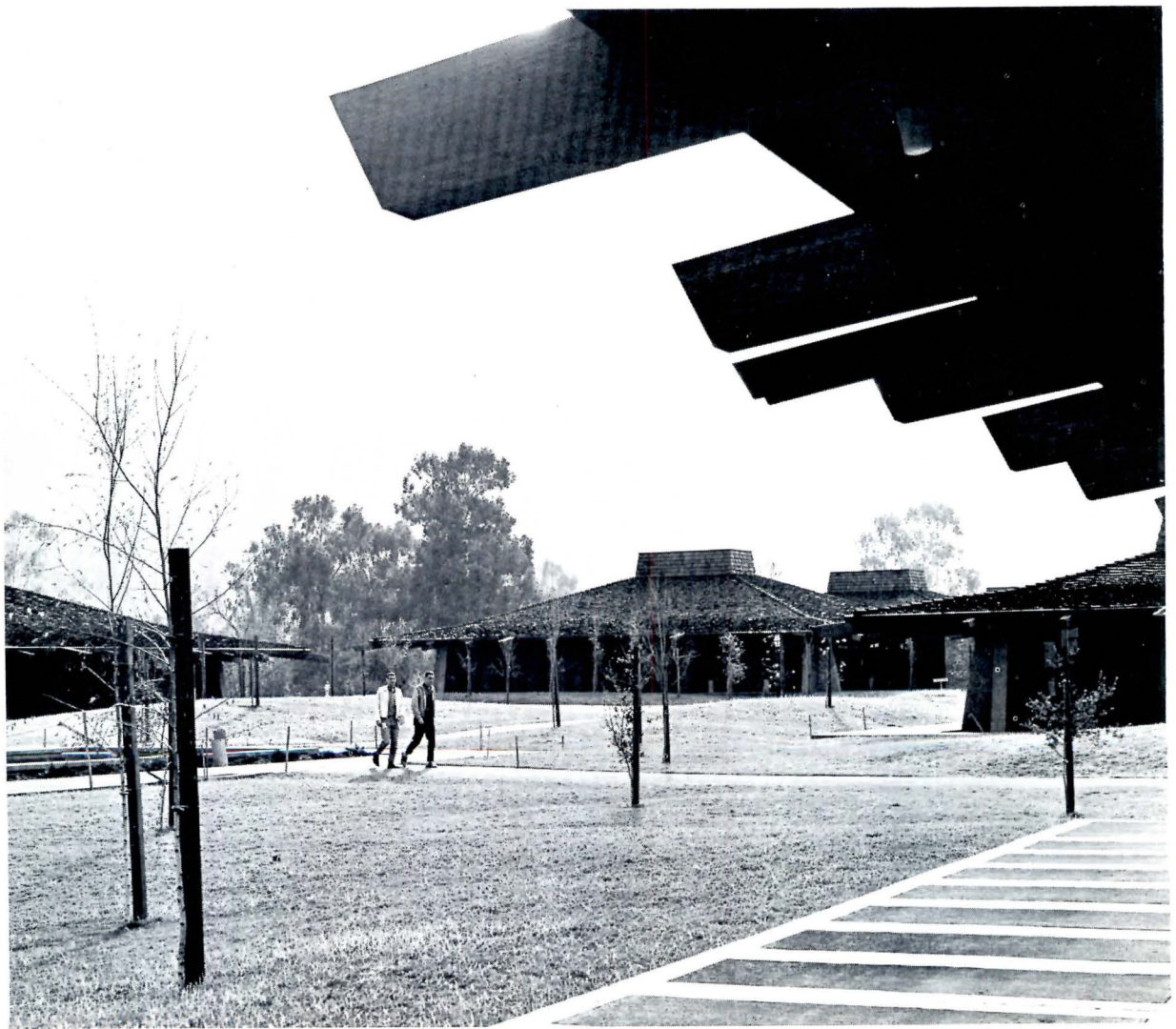
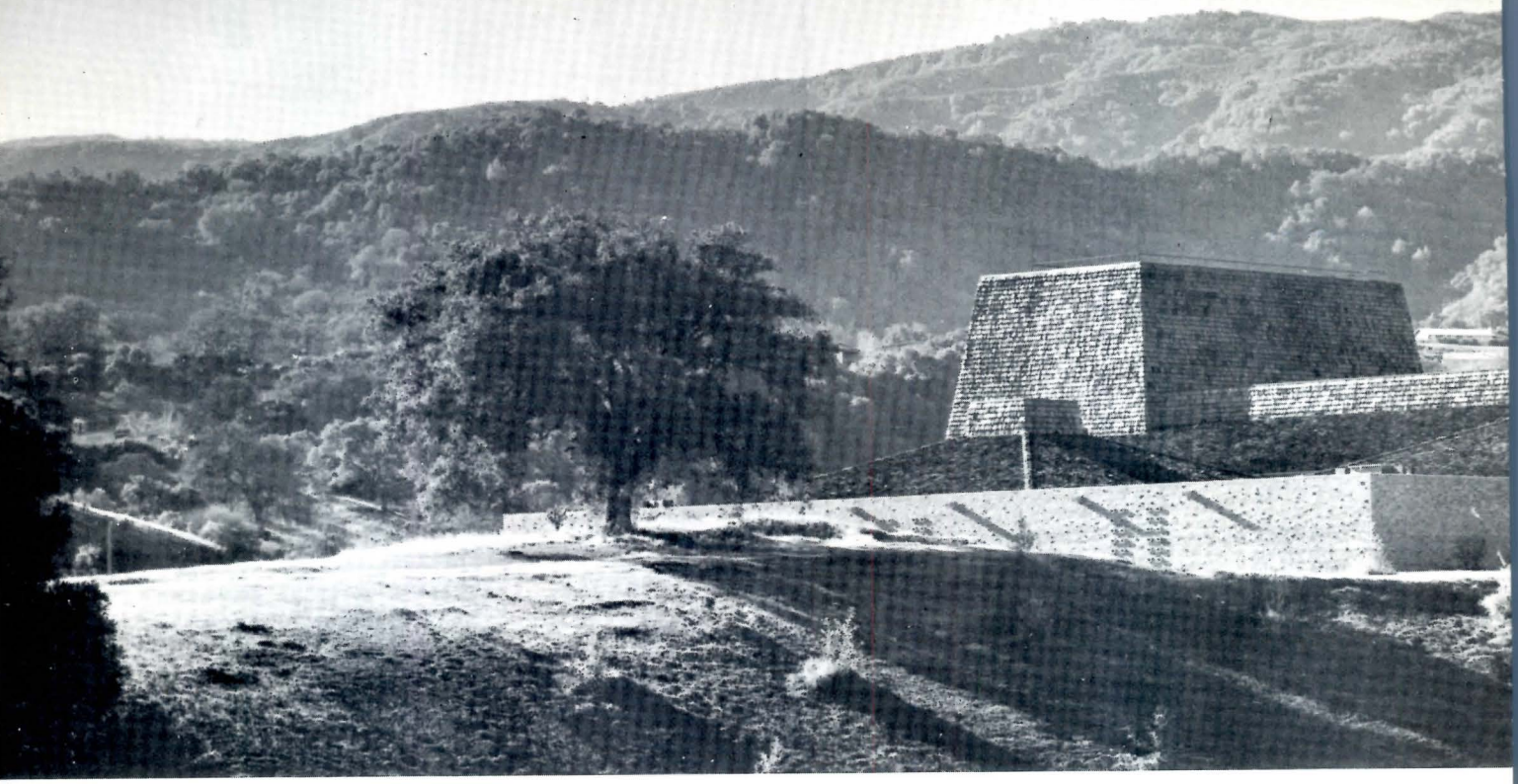
The past year as president of the National Association of Housing and Redevelopment Officials I tried to encourage the members of that association to take a broader look beyond their day-to-day problems. I tried to tell them something about our problems in the private home financing industry and of the need for inter-association cooperation. I tried to encourage them in further education and professionalized training of their members, in the need for more research to deal more intelligently with the problems we face at the Federal, state and local levels in exercising the catalytic role in the governmental housing program, which will be twenty-five years old next year and in the urban renewal program which is a mere infant, though lusty—being only ten years old.

I appreciate the opportunity of being allowed to present this message as one who has worked on both sides of the fence. We can't just stand on the side-lines and criticize those who are trying to get things done. The problems are urgent. As potential commissioner members on urban renewal agencies and housing authorities, you have a great deal of practical experience and know-how to contribute. I would encourage you to such active participation and leadership in civic affairs. Even if you do not, as just plain citizens with a sense of social responsibility, you have good reason to be interested in helping to shape the housing and the city our children will live in when the year 2,000 rolls around. ◀

There were 382 entrants in the 14th annual AIA Honor Awards Program, a program which has now become the nation's highest professional recognition of excellence in architectural design. The Jury this year was what we used to call in school, a "tough" Jury. It comprised Arthur Gould Odell, Jr, FAIA, Chairman; Charles R. Colbert, AIA; Paul M. Hefferman, AIA; Karl Kamrath, FAIA; Paul Hayden Kirk, FAIA. They chose only one First Honor Award and seven Awards of Merit, and delivered a somewhat stinging statement on the current state of architectural design, as follows: "The Jury, in selecting only eight of 382 designs, hopes that it can bring to the attention of the profession a concern for the present condition of our physical environment. It is the Jury's opinion that fundamental

The 1962 AIA Honor Awards

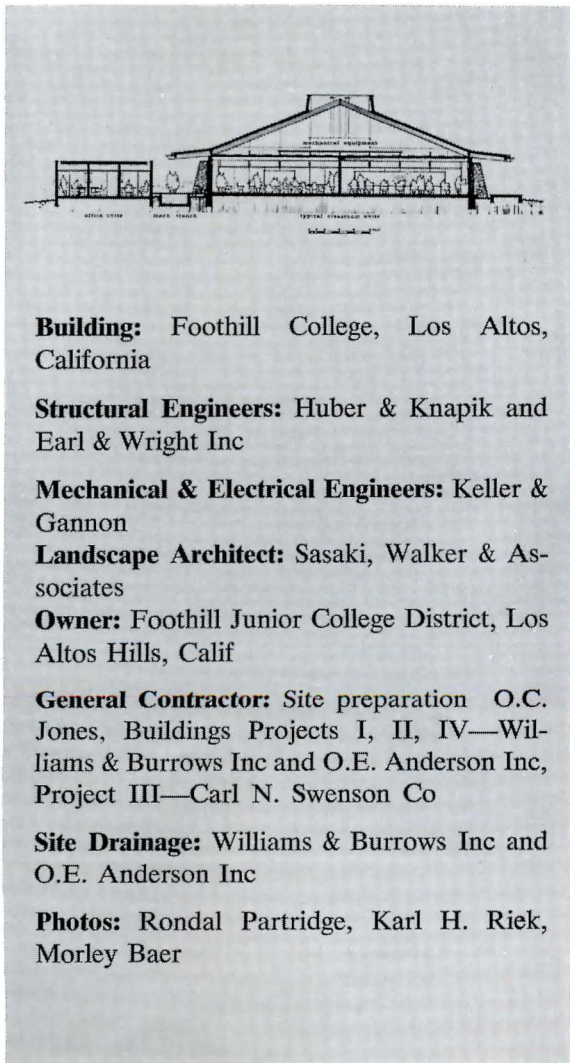
logic so basic to architecture was often ignored. Superficiality, the patent solution, and the lack of individuality and artistic expression were strikingly obvious. We call for our colleagues to re-examine the basic doctrine of simplicity and human need, and to strive through their works to give a greater essence to the environment which they create."



First Honor Award



Ernest J. Kump and Masten & Hurd, Architects Associated



Building: Foothill College, Los Altos, California

Structural Engineers: Huber & Knapik and Earl & Wright Inc

Mechanical & Electrical Engineers: Keller & Gannon

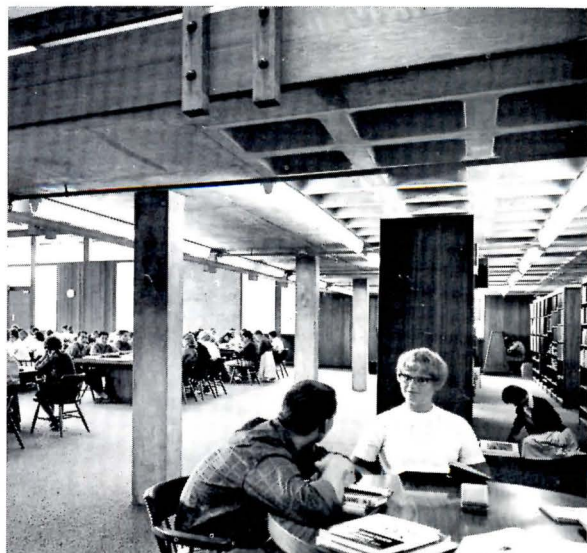
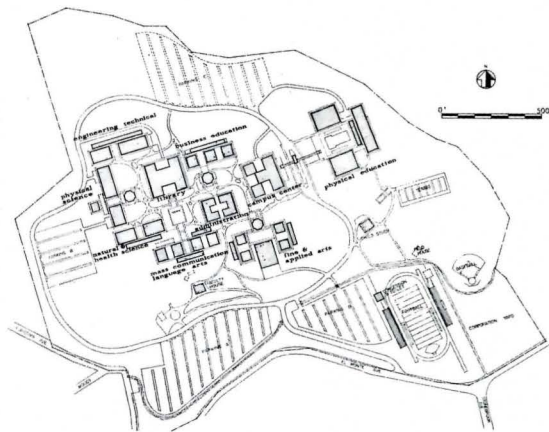
Landscape Architect: Sasaki, Walker & Associates

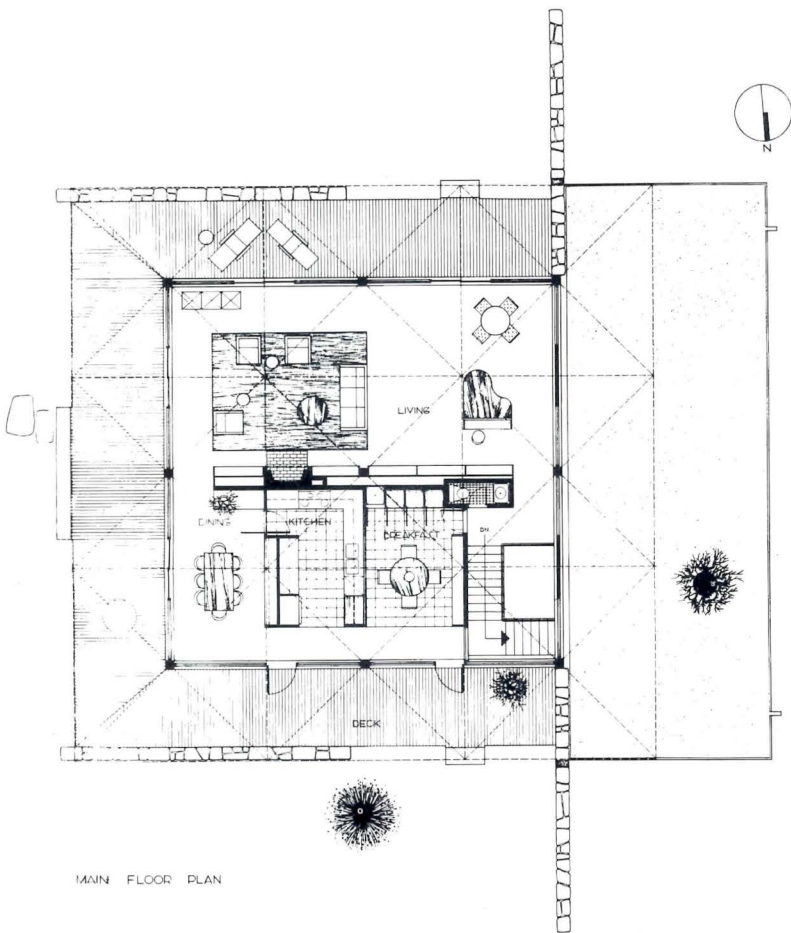
Owner: Foothill Junior College District, Los Altos Hills, Calif

General Contractor: Site preparation O.C. Jones, Buildings Projects I, II, IV—Williams & Burrows Inc and O.E. Anderson Inc, Project III—Carl N. Swenson Co

Site Drainage: Williams & Burrows Inc and O.E. Anderson Inc

Photos: Rondal Partridge, Karl H. Riek, Morley Baer





Building: Towers Residence
Essex, Connecticut

Owners: Mr and Mrs
Henry Deen Towers

General Contractor: Wilfred
Sevigny

Photos: Robert Damora

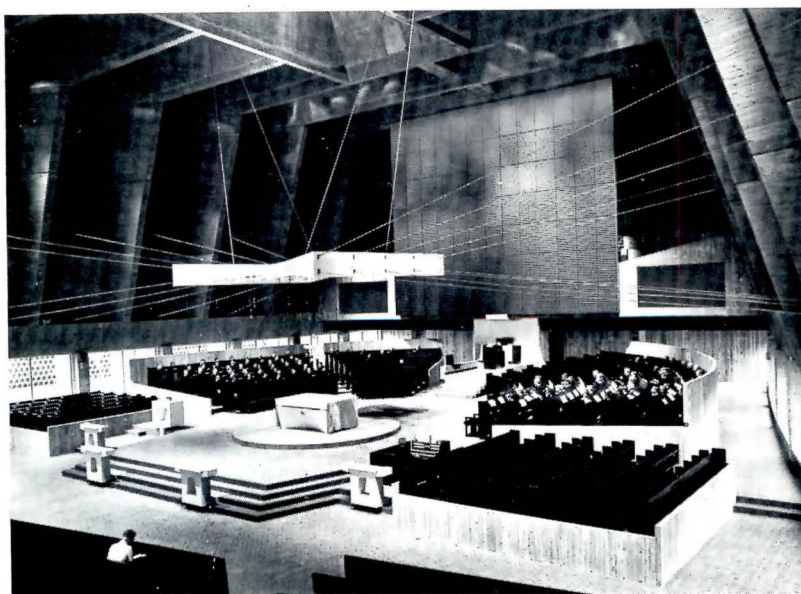
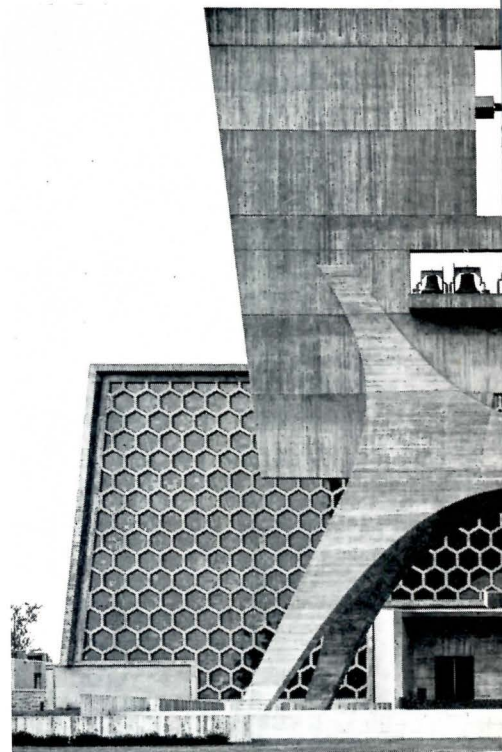
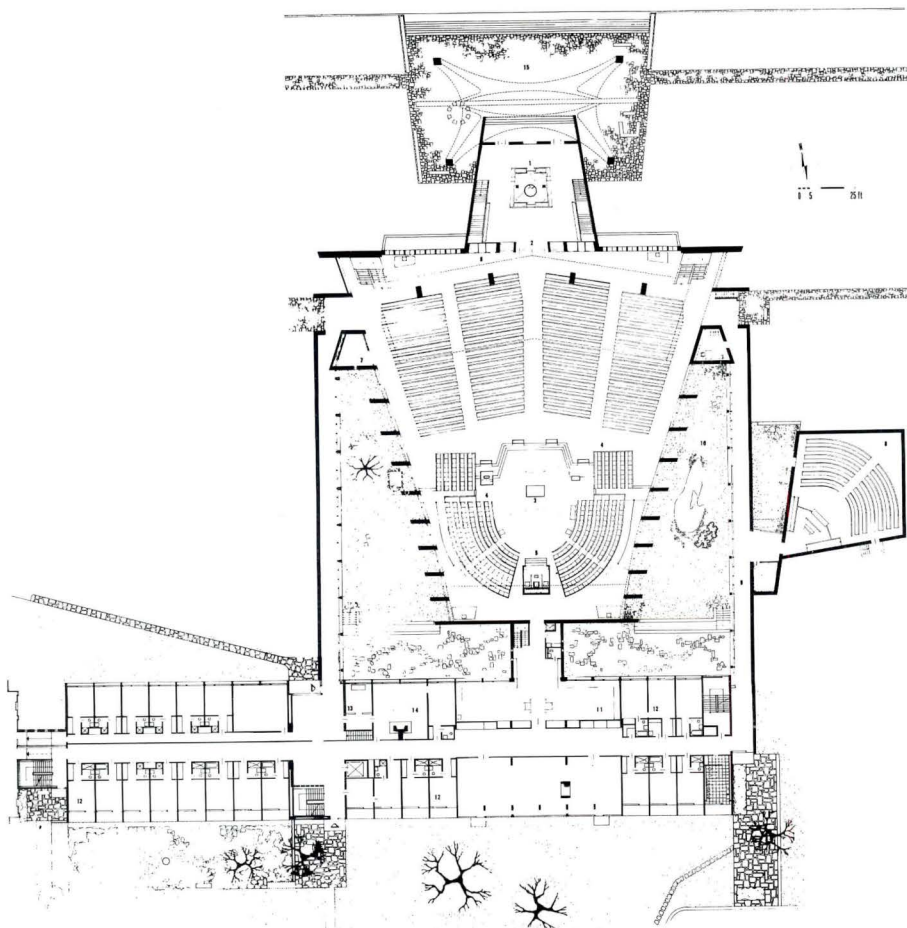


Award of Merit



Ulrich Franzen, AIA





Building: St John's Abbey Church, St John's Abbey, Collegeville, Minnesota

Structural Engineers: Weisenfeld, Hayward & Leon

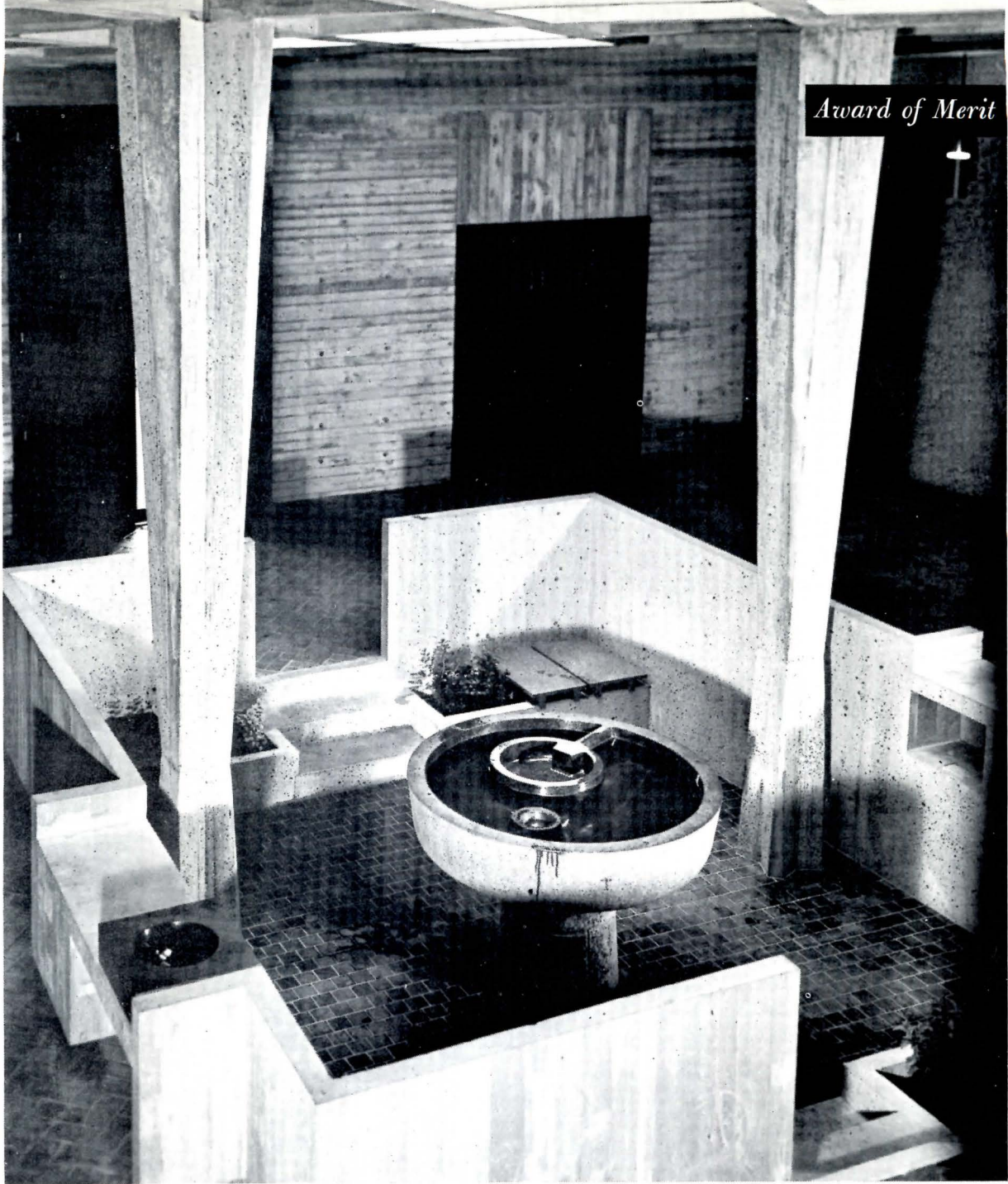
Mechanical Engineers: Gausman and Moore

Owner: St John's Abbey, Abbot Baldwin Dworschak, OSB

General Contractors: McGough Construction Co

Photos: Shin Koyama

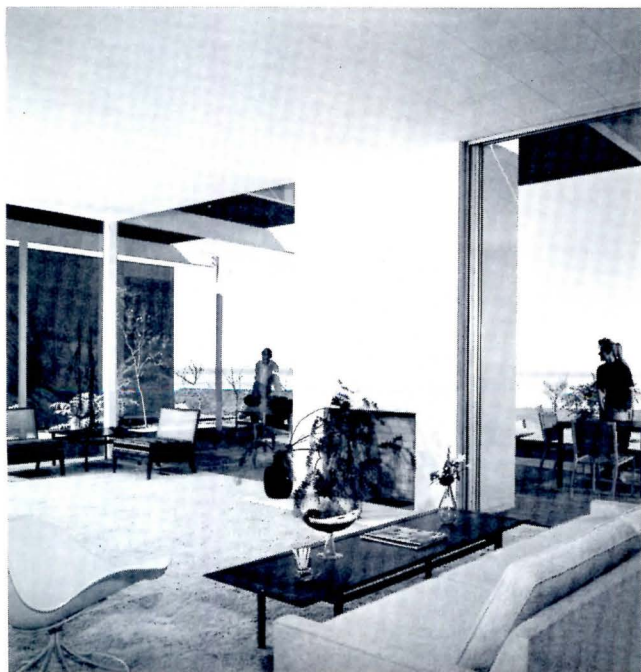
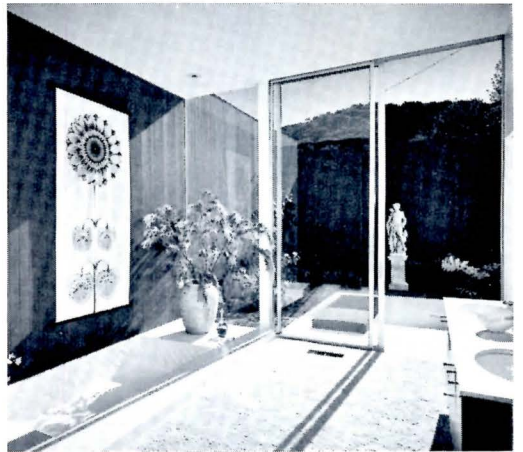
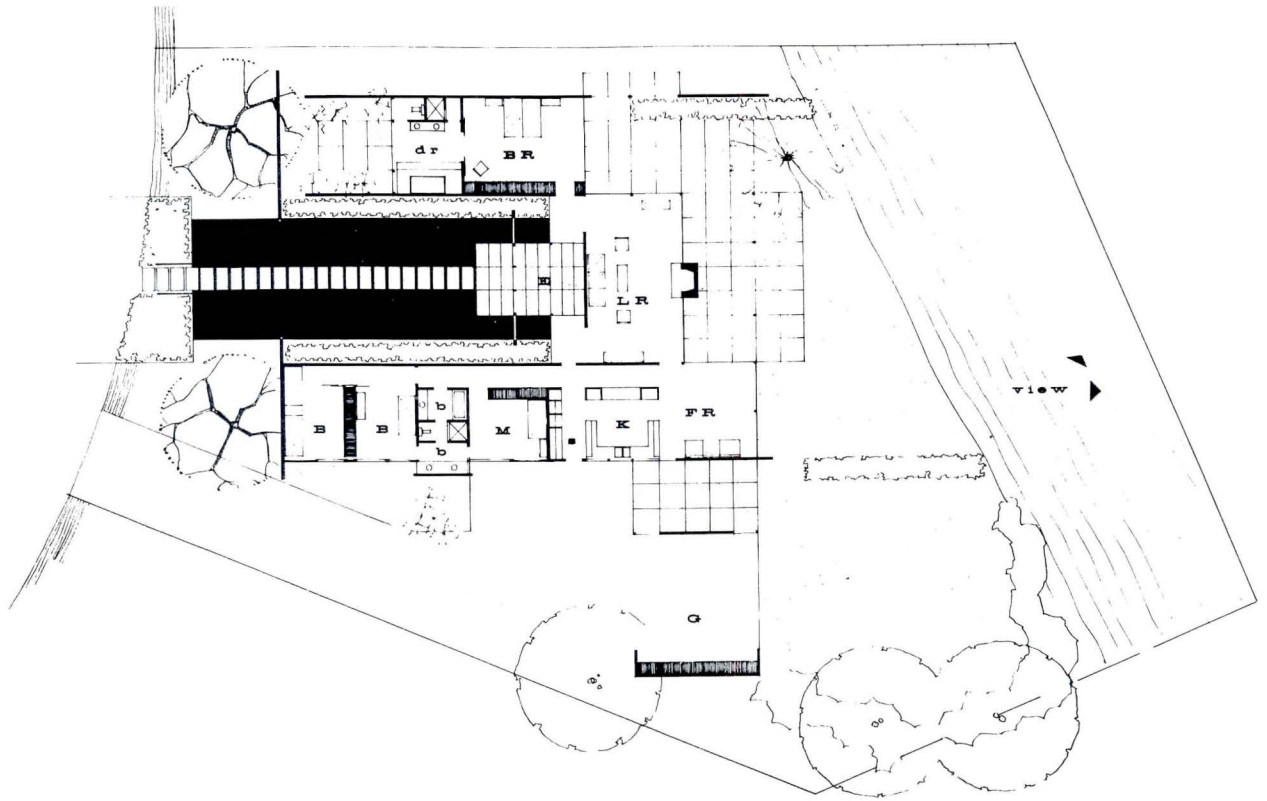
Award of Merit



Marcel Breuer and Associates

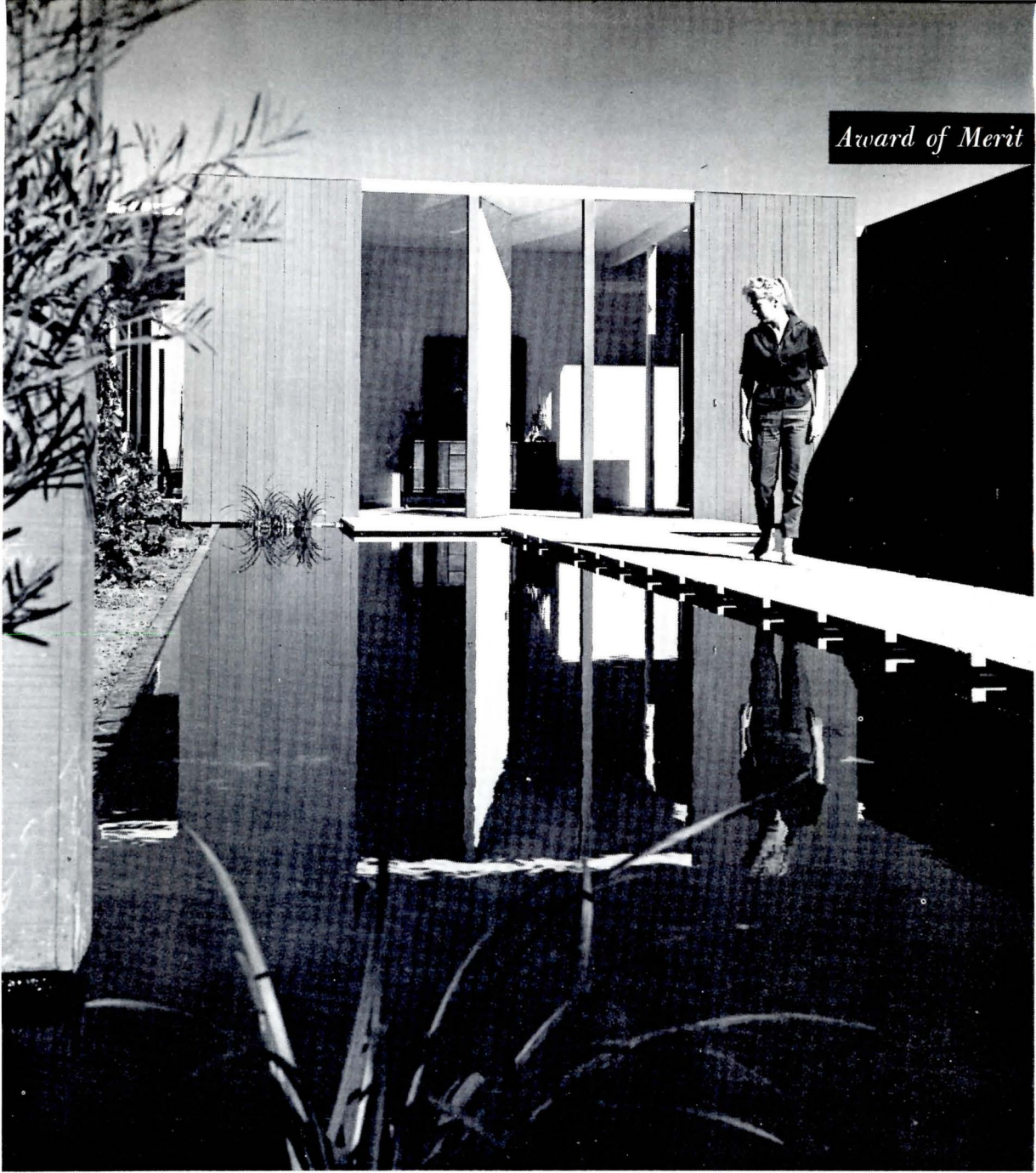


MAX 1962

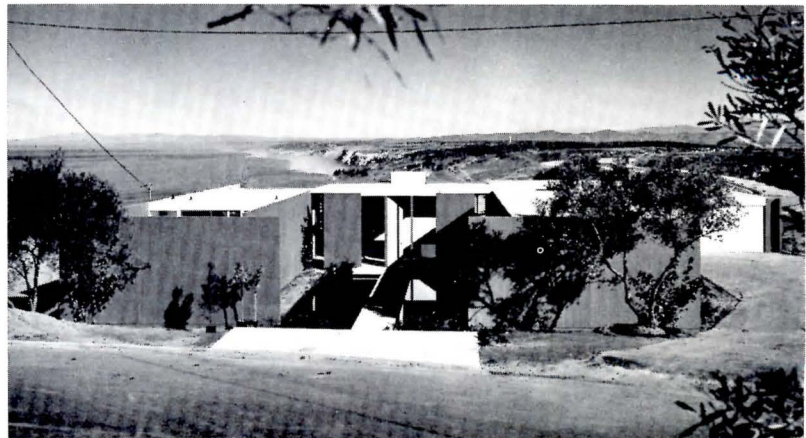


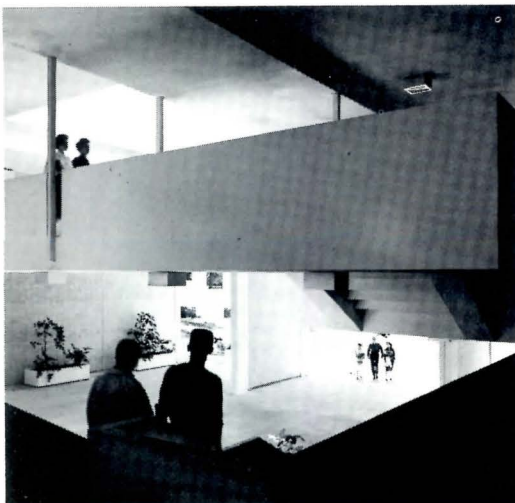
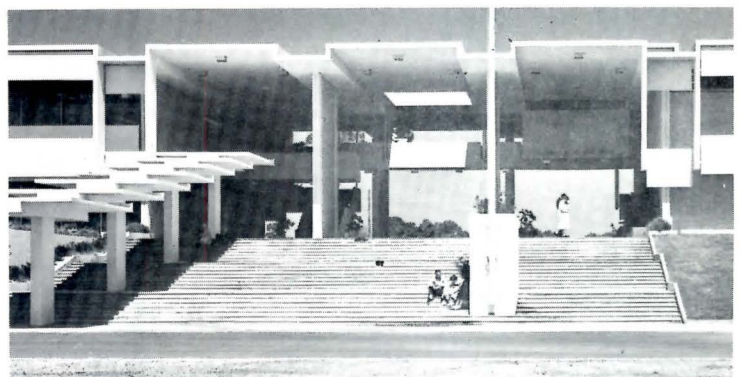
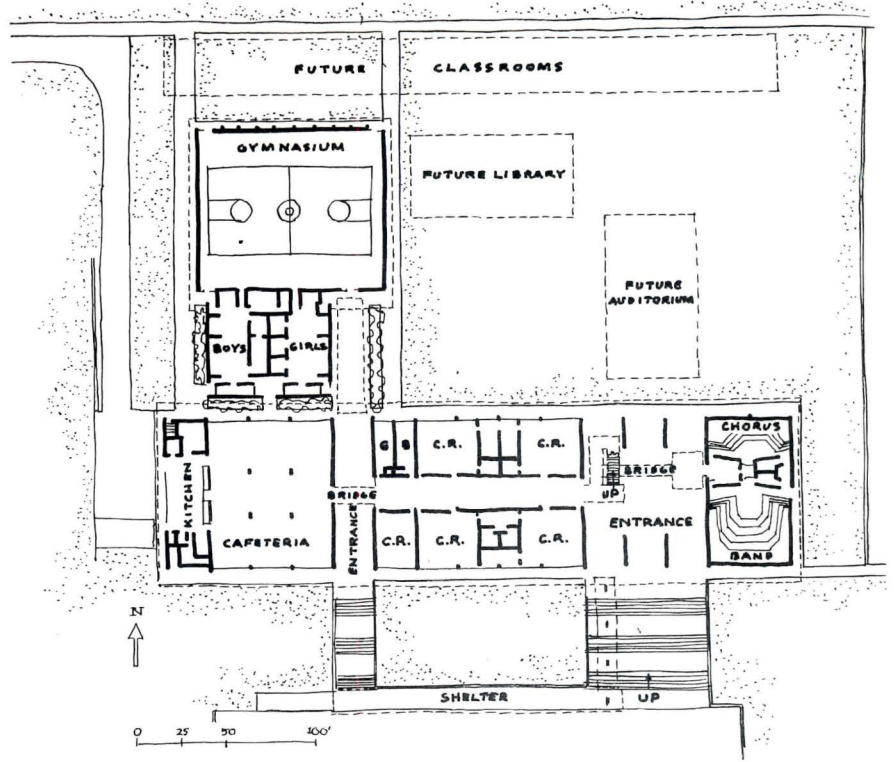
Building: Residence for a Developer, La Jolla, California
Owner: Amatea Corporation and *Arts and Architecture*
Contractor: Amatea Construction Corp
Landscape Coordinator: William Nugent
Decorator: Stan Young, for Frank Brothers
Photo: Julius Shulman
 (Case Study House for *Arts and Architecture*)

Award of Merit



Killingsworth-Brady-Smith



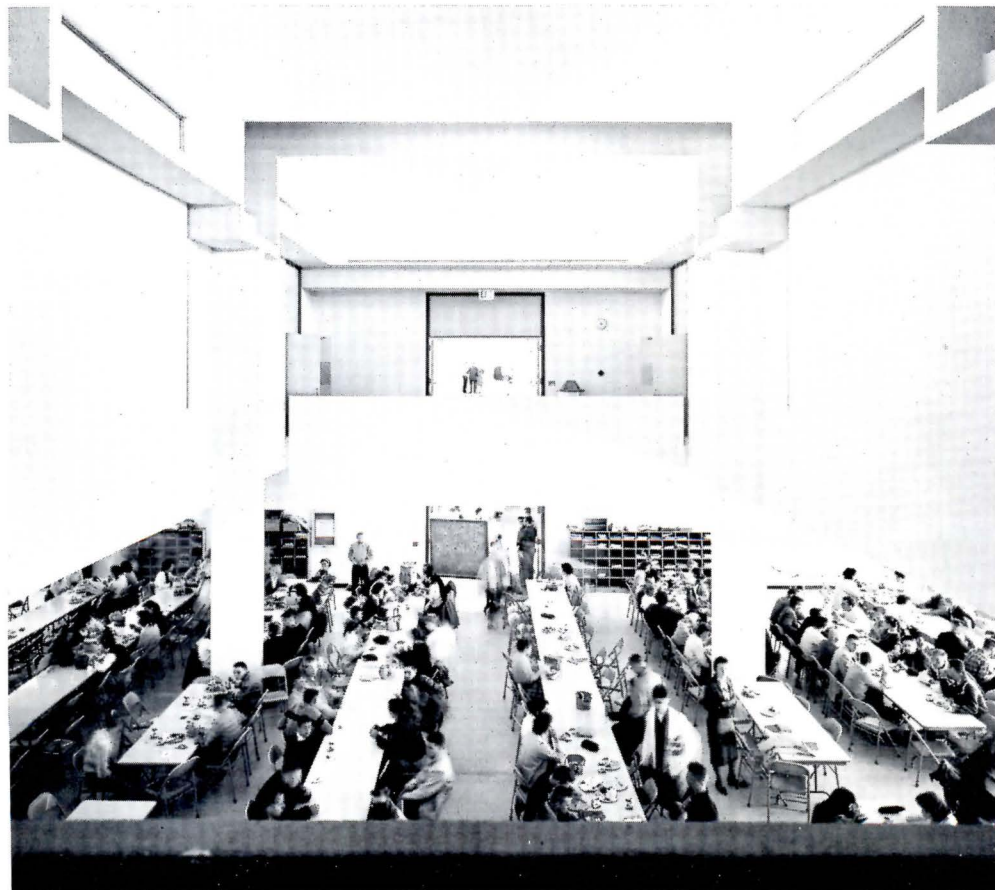


Building: New Sarasota High School, Sarasota, Florida
Engineer: Sydney L. Barker, Tampa, Florida
Mechanical Engineer: Charles T. Healy, Tampa, Florida
Owner: Board of Education, Sarasota, Florida
Photos: Ezra Stoller, Molitor



Award of Merit

Paul Rudolph, AIA

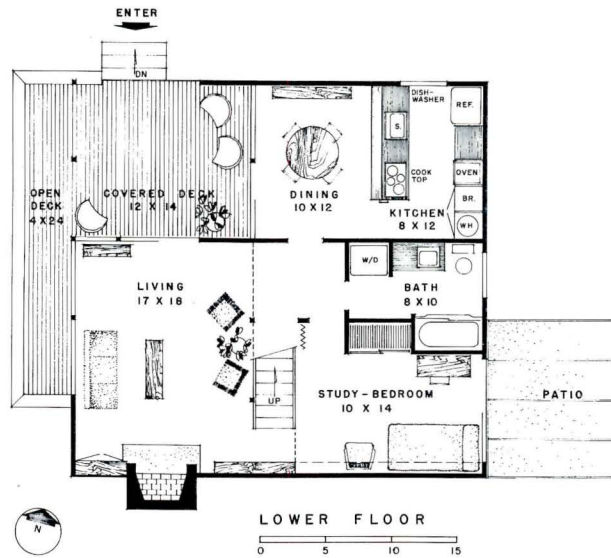
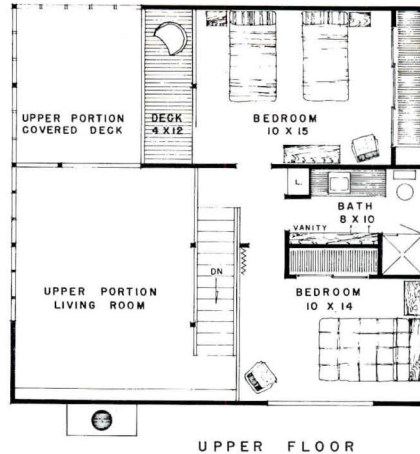


Building: Housing Group,
Berkeley, California

Owner and Developer:
Roger Lee, AIA

General Contractor: A.L.
Muzzini

Photos: Roger Sturtevant





Award of Merit

Roger Lee Associates



MAY 1962

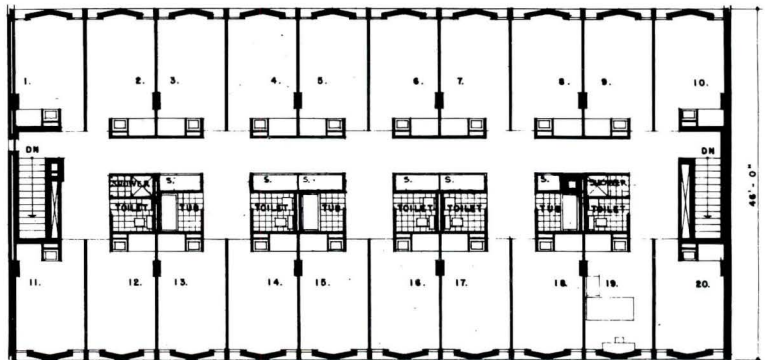
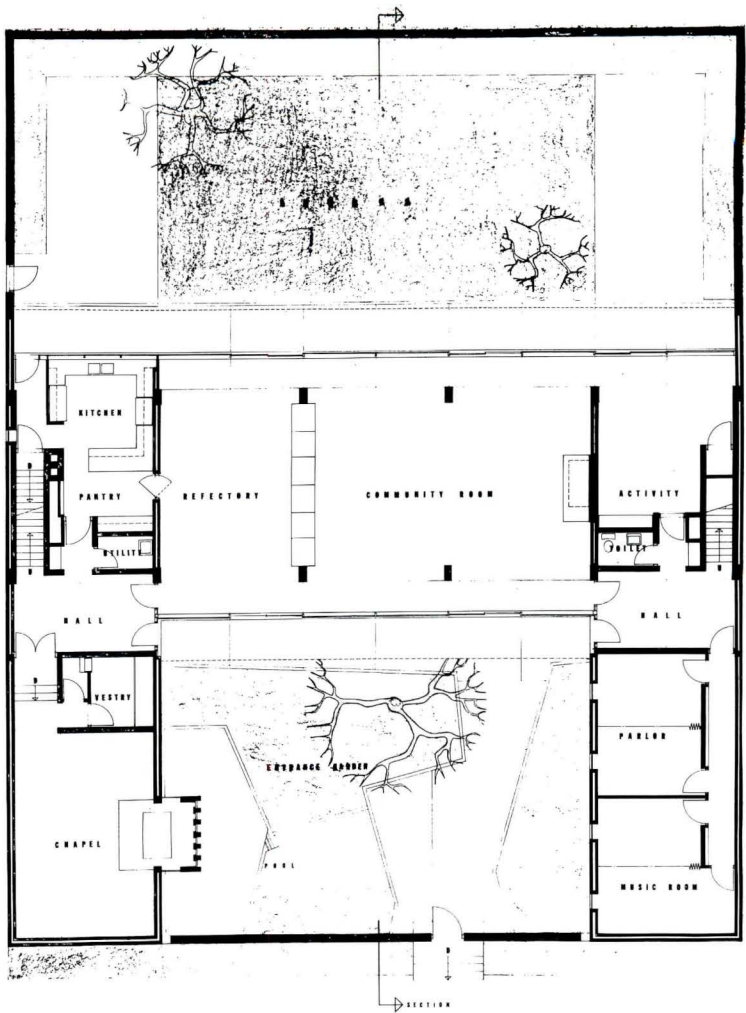


Building: Convent of The Immaculate Conception, Washington, Pennsylvania

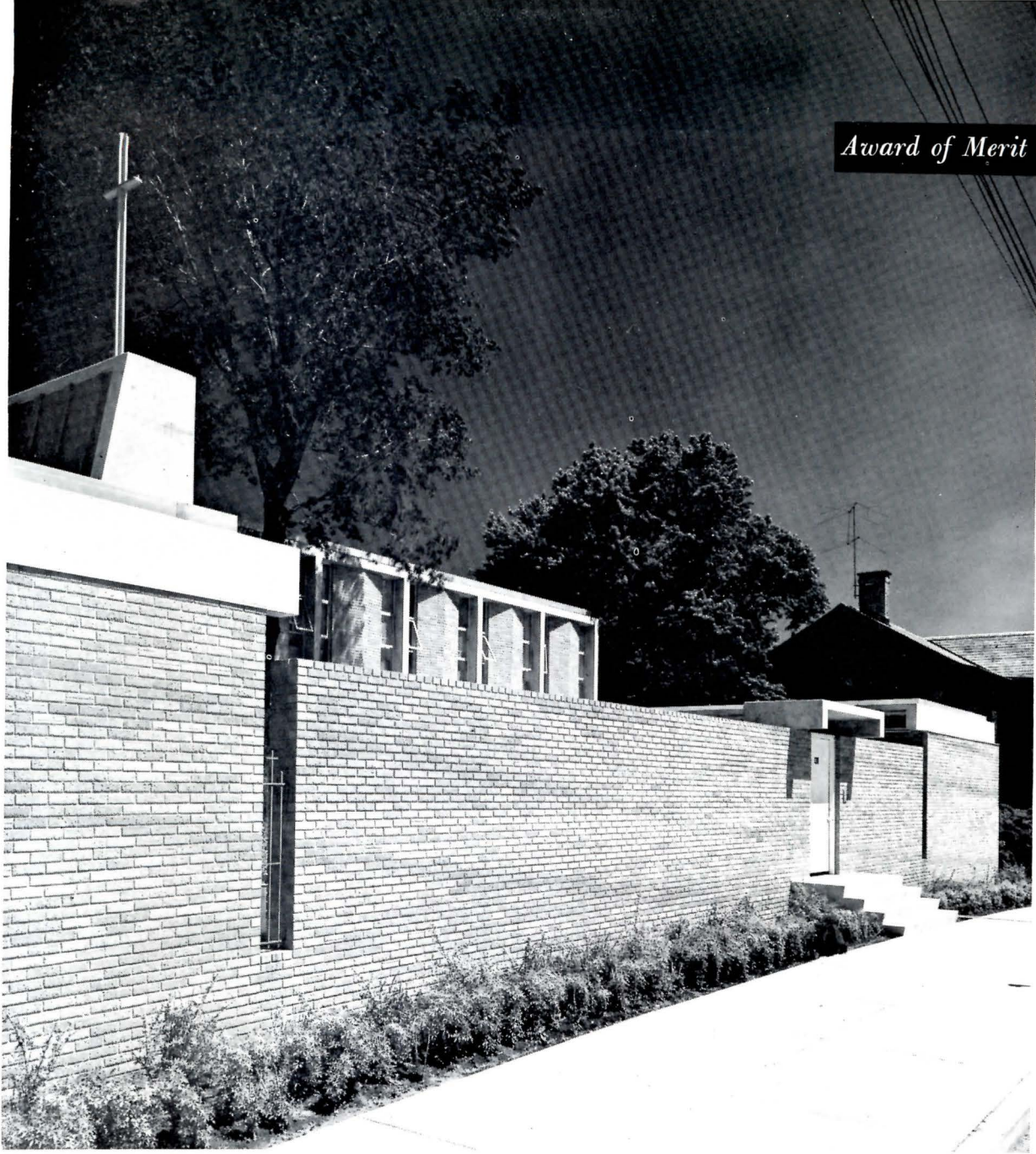
Owner: Convent of the Immaculate Conception

Contractor: H&M Construction Co

Photos: Baltazar Korab



Award of Merit



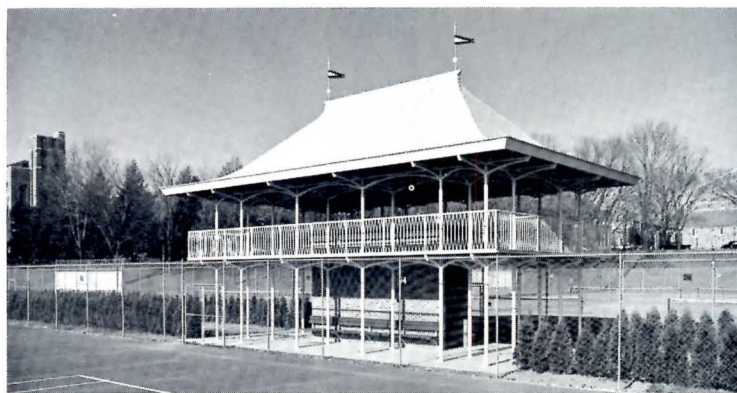
Deeter and Ritchey, Architects



Award of Merit



Ballard, Todd and Snibbe



Building: Tennis Pavilion, Princeton University, Princeton, New Jersey

Consulting Engineer: Peter W. Bruder, PE, New York

General Contractor: Matthews Construction Co, Princeton, NJ

Owner: Princeton University

Photos: George Cserna

The Architect Serves His Community

by **Philip Will, Jr, FAIA**

President Will certainly needs no introduction to the members of the Institute, but when he delivered this address to the February meeting of the Virginia Chapter, at which many state and local officials were present, Regional Director Dan Hopper gave him such a glowing introduction we should like to include part of it here. After quoting Mr Will's definition of an "architectural statesman" (AIA Journal Feb. '61, page 54), Dan said:

"There are not many among us who can fill this bill today. There is one on the scene, however: our speaker.

"He serves his community well—Chicago and more specifically Evanston—in many ways which draw upon his civic interest and professional skill.

"He actively served the Institute in a number of capacities which included the Presidency of his Chapter, hard work on some twelve national committees, four years' service as second and first Vice President, and nearly two years' of full time toil as President.

"Toil and drudgery do not make a statesman. But I am sure that when in three or ten or thirty years we look back on the history of the

The Institute

Institute and on the evolution of the profession in this day of rapid change, we will find that basic and vital changes and long-range decisions were made by AIA in the years 1960 and 1961. And we will find that these changes and decisions had a profound effect not only on the profession but thereby also on the physical face of the nation.

"We will further find that many of these changes and decisions were the result of the foresight and vision of our President. We will agree then, that he can be described as an architectural statesman."

► My professional colleagues will surely forgive me if I speak primarily to our guests and if that which I say has a familiar theme. Part of my job is to be a salesman for the architectural profession and as the high priests, whether of the pulpit, the political rostrum or Madison Avenue have taught us, repetition is basic to selling.

My subject is: "The Architect Serves His Community." More appropriately, however, it might be modified to: "The Community and the Architectural Profession." For the welfare of the community is a collective as well as an individual responsibility and concern for the welfare of the community is the common bond we all share tonight. Doctor, lawyer, merchant, politician or architect all are, or should be deeply involved; all are interdependent; and all must contribute to betterment of the community. This is so, not merely to create for ourselves a more pleasant way of life, more material comfort or more beauty; but, as a part of the process of evolution, to ensure the survival of the human species.

To ensure the survival of humanity—that is strong language. Yet, if you will join me in thinking of community in its broadest sense as man organized in relation to the land and its resources, perhaps you will grant that we are dealing with the fundamentals of continuing life on this planet. Short of avoiding Armageddon and the total destruction inherent in an all-out thermonuclear holocaust, what other concern is so intimately vital to man or so demanding of all the energy and wisdom we can bring to bear?

The total organization of man on this planet, however, is a rather large subject somewhat beyond the competence of your speaker. For our purposes, however, we can deal in less global terms and speak of community as the city, particularly the large city where complex generating forces really interact to create the civilization which is modern America. Perhaps at this more modest scale the importance of the community can be understood in its relation to man. And perhaps it will be possible to grasp the simple fact that, while man is the creator of cities: its streets, utilities, parks, buildings and their contents, in short, his total physical environment, he himself is also shaped by that which he has created. How he feels, thinks, acts and interacts with others is not wholly the product of his own volition but is inevitably, if unconsciously, conditioned by the physical context in which he has his being. His surroundings can cheer or sadden him, stimulate or enervate, exalt or depress, inspire pride or humility, create or destroy human dignity.

Going a bit further, I believe it can be demonstrated that the city-community plays a role absolutely essential to the evolutionary process of man—and that without well-designed communities man's very survival is threatened.

To explain why this is so, let me briefly state and support three theses:

1 Man has broken free of the simple, physical, adaptive process of evolution; and

2 In place of physical evolution man has substituted cultural growth and complexity as the key to his survival; and

3 The responsibility for cultural growth and complexity can no longer be borne by the individual but rests with the group—the community—the great city.

In support of the first thesis, that man no longer evolves physically as do other animals in simple adaptation to the physical world, let me quote biologist Jean Rostand. "Contrary to popular belief, man has long since ceased to evolve. The human being of the twentieth century does not differ essentially from the human being who lived in the caves of the Quaternary Age, some 100,000 years ago, whose bony traces and rudimentary tools have been exhumed by the paleontologists. The whole of that part of man's history which has gone by since those faraway ages has not—or has scarcely—altered the morphological and physiological outfit of our species. The enormous difference which nonetheless exists between the ancient flintchipper and his modern heir is entirely the work of civilization—that is, of the culture gradually accumulated and transmitted by social tradition.

"Already at the origin of the species, man was equal to what he was destined to become. He carried within him, potentially, all the things that were destined gradually to expand and fructify in industry, in technical skill, in science, in art, in philosophy and in religion. So much so that if, by some miracle, it were possible to fetch a newborn child of that past age into our own time and to bring him up and educate him as one of ours, he would become a man exactly like us: a man whom nothing, either in his appearance or in his conduct or in his private thoughts, would single out as a stranger among us, as a ghost from the past."

Thus spoke biologist Rostand. And if you accept his statement you are halfway toward acceptance of my second thesis: In place of physical evolution man has substituted cultural growth and complexity as the key to his survival.

No longer does man adapt to the world; he

reshapes the world to fit his needs, needs which now exceed the simple physical necessities for minimum existence. Survival now depends upon the ability of man to meet change and to continue to evolve better ways of life. Man's deep-rooted instinctive demand for progress is denied at man's own peril. We cannot stand still. The inevitable result of failure to advance is retrogression and ultimate self-destruction.

The evidence is clear around us. Advance is only possible as our culture changes to satisfy man's aspirations. The key to human survival lies in the evolution of our social institutions. One has but to read the newspapers to realize that we now stand at a balance point where our social institutions are being tested as never before in the history of man. If they fail, as they well may, man may blow himself off the face of the planet or, at best, through thermonuclear suicide set back his evolution by centuries.

Thus is the evolution of man threatened on a global scale. And so it is at the smaller scale with which we are concerned tonight, although the means and the results are less catastrophic.

Which brings me to my third thesis: The responsibility for cultural growth can no longer be borne by the individual but rests on the group, however it may be organized, as a community, great city, nation or world.

Communities a Necessity

Such a statement, of course, appears obvious. So interdependent have we of the Western world become that life in other than organized communities becomes unthinkable. We have long since lost the pioneer skills necessary to independent survival. Our social evolution has passed the point of no return and nostalgia for the simple rural civilization of long ago is sentimental nonsense.

Nonetheless, it is well to remind ourselves why communities exist; that their existence is the absolute prerequisite to the survival and evolution of the human species. When we understand this fundamental then we can consider how best to plan our physical world. Perspective becomes possible. Valid objectives can be set and a vast accumulation of myths and sentimental rubbish can be brushed aside. We might be able to define what constitutes a whole community and realize why great cities in particular, far from being an inherent evil are, in fact, essential to human evolution. We might realize that if great cities did not already exist we would have to create them.

For civilization to advance or, in other words, for man to continue to evolve, we must organize in groups of sufficient size to contain all needed skills, aptitudes and sources of knowledge. And furthermore, these essentials must be balanced and in sufficient quantity to meet all needs.

There is a parallel with a law of the great chemist Justus von Liebig: If even the least important element is missing from the physical make-up of a living thing, or from its environmental needs, it declines, or dies. For man, if a group does not have within it an effective individual with the skill or knowledge needed to solve a problem with which it is faced, it declines or disappears. Conversely, it is only necessary for one person to have (and win acceptance for) the answer to some human problems, for the whole group to be able to move ahead.

This is why city size is important. It explains, in part at least, why a too-small community remains static, why everything comes to the community that already has everything. It explains the importance of designing communities to attract and hold a rich diversity of people and all kinds of healthy human institutions. It explains why amenities must be so maintained as to encourage the highest possible cultural and economic development of all who live there.

Much more could be said of the nature of communities but my purpose, at this moment, is to convince you of the truth of my original statement that the progress of man is dependent upon the completeness and healthy development of the community which, in turn, he himself creates.

Unhappily, healthy development and growth are not synonymous.

This country is only just now beginning to realize the enormous problems of urban concentration and sprawl. Two-thirds of our nation is now concentrated in less than two hundred metropolitan areas. Population is growing at a rate of three to four million per year and rural land is being gobbled up by our cities to the tune of a million acres a year. For every four citizens of Virginia now living, there will be at least five by 1975. Frightening as these statistics are, they are not nearly so appalling as the actual and visible debauchery of our fair land.

The great metropolitan flood engulfs our woods and green spaces, pollutes our air and water and erodes our hills and valleys. We foul our own nests and spawn new slums faster than we tear down old ones.

It is revealing that until the Housing Act of 1961, our Federal government has spent more

money on fish-breeding and wildlife sanctuaries than on conserving human beings through housing and slum clearance.

So, not only are our planning problems vast but the need for solutions is urgent. Furthermore, their nature and complexity is not easily visualized.

Voices of the City

Perhaps some of you have read a delightful book entitled "The Sword in the Stone" by T. H. White. It tells the boyhood story of Arthur, the King of Round Table fame. As part of his education for kingship, Arthur experiences a series of wondrous adventures all engineered by his tutor, Merlin the Magician. In one, Arthur listens to the trees of the great forest talking to one another. As we all know, however, trees are not easily heard or understood and to make their conversation comprehensible to a human requires very tricky magic indeed. It seems that the voice of a tree is like the gentle sighing of wind through its leaves and branches. It is below the threshold of audibility and the words come slowly. Merlin solves the nice technical problem by speeding up time. Years become minutes and, as with an accelerated phonograph turntable, the pitch of sound rises and the words become clear. Arthur is able to hear and understand the voices of the great and growing forest.

Wouldn't it be wonderful if Merlin could be here today, if he could again compress time so that we could stand off in space to watch the growth cycles of the great city and hear its voice!

Our concept of the city might quickly change. We might see it as a living organism which, like animal life itself, begins with the conjunction of a pair of living cells, adds more, grows, increases in complexity, degenerates under the attack of disease, dies in part, regenerates as healthy tissue replaces the dead. The organic city has a throbbing, pulsing life of its own. Could we but understand the laws which govern its health, we would not need to be nibbling at the edges of problems which seem too large and too complex for human comprehension.

Such is my image of the metropolis—a complex of living tissue. Though we see much that is cancerous; though we see much that is the kind of excess growth that destroyed the mastodons of biologic history; though we would like to minister to the city's health; we become increasingly aware that living tissue is delicate and sensitive. In our present state of knowledge we wield the surgical scalpel at great peril to the patient.

Nevertheless, we are operating. Such is the illness of our cities that we must take the risks.

Great chunks of our patient are being torn

out and replaced with glittering redevelopment projects. Various income groups of our citizens are being relocated and sharply isolated in one-class ghettos both urban and suburban. Industry is being neatly segregated from business and business from housing. Slicing cuts of asphalt and concrete eviscerate communities as they chop their way to the sprawling growth on the metropolitan periphery.

Perhaps the time has come to stop and ask ourselves if the environmental organism we are reshaping is healthy. Is it really what we want and will it, in fact, satisfy human needs and aspirations?

Such questions can be answered. Fortunately, the skills do exist. Within our communities we do have the demographers, the economists, the anthropologists, the sociologists, the educators, the political scientists, the engineers, the planners, the architects and the informed interested citizens, all of whom contribute to the solution of our problems each in his own way. And all will be heard and their views reconciled if proposals are to be accepted and progress made.

The Architect's Contribution

Perhaps the unique contribution of the architect derives from his trained and intuitive ability to think three-dimensionally. He it is who must ultimately translate a planned framework into an ordered physical world of space, form, color, texture, sound and odor, where the dream becomes a reality and the reality a dream. It is the architect who thinks of the human animal as a physical being, a bundle of sensory perceptors whose ability to perform, whose sense of well-being, whose very physical survival depends on the man-designed physical world with which he is surrounded.

Architecture is no longer the simple design of individual buildings. Its scope is great and inclusive. At the scale of city planning the relationship between buildings, the shaping of the spaces in between, is far more important than the individual buildings themselves. So, too, is the character of streets, walks, parks and their furniture of pavings, walls, shrubs, trees, benches, lights, signs and signals. So, too, is the channeled motion of vehicles and people—the total vitality and texture of life which lies within the skill of the architect to facilitate or destroy.

Such elements as these compose the living organism of the city and all are the concern of the architect.

For as the architect faces the challenges of the second half of the twentieth century, he joins with other professions. He joins in affirming that each profession has a moral responsibility for that

aspect of public welfare for which it qualifies by reason of education, training, experience, commitment, and qualities of mind and heart, a responsibility which must be borne both collectively and individually.

It is recognized that the clergy assumes responsibility for man's spiritual and moral welfare; the medical profession bears responsibility for the nation's health; the lawyers for justice and the rule of law.

What is the mission of the architectural profession?

We hold that it is our mission to assume responsibility for our total man-made physical environment—an awesome burden even though we do not bear it alone but share the load with the many skills and disciplines whose arts and sciences interact to shape our world to man's hopes and aspirations. Yet we recognize that leadership is necessary and it is to this leadership that the architects of America are dedicated. And now is the time when such leadership is needed as never before.

Although I am certainly no historian, I would nevertheless like to suggest to you that there have been moments in history when a single profession has risen to the challenge of its times. Thus it might be said that when the Pilgrims came to America leadership rested upon the clergy. Under their leadership a new world was opened.

Later it was the soldier statesmen who won our independence. At another time, the lawyers shaped the philosophy of justice upon which rest the freedoms of the nation.

In this complex age of turmoil and struggle it would be brash indeed to call it exclusively the age of the architect. Yet if, as the demographers foretell, the population of this country will increase twenty-seven per cent from the present 185 million to 235 million in the next fourteen years and if, as the economists prophesy, we must yet build within the remainder of this century an amount equal to all that has been built heretofore, then surely it follows that the welfare of this country rests heavily in the hands of the architectural profession.

Outer or Inner Space

Among the highly developed nations of the world our time is frequently referred to as the Space Age. Billions of dollars, pounds and rubles are being spent to project men into orbit and explore the unknown reaches of the heavens. Yet I would argue that such are the hungers, the injustices, the miseries and the failures among men that the space with which we should be concerned is not the expanding reaches of the universe but the dwindling space here on our shrinking earth.

If we fail to adjust men equitably to each other, to the land and to its resources, the price may be the ultimate conflict and total self-destruction. Of what value then is knowledge of the chemistry of the stars to a civilization destroyed and incapable of its use?

This is history repeating itself.

We offer the diversion of scientific circuses* to people who struggle for bread.

This the architects understand. And it is our hope that others, particularly men of political power, will increasingly share our concern and our dreams.

It is our belief that, second only to resolving the issues of war and peace, the great task of the remainder of this century is reshaping the physical face of America.

The architectural profession has the vision and is preparing itself. However, we architects cannot do it alone. Without the inspired leadership of all men in high positions, we are helpless. With understanding, mutual respect and cooperation, however, the great spaces and communities of America can reflect the true aspirations of an idealistic people and become a powerful magnet to all who would see beauty, order and vitality; the physical substance of a great democracy in action. ◀

* A \$400 million man-in-orbit shoot equals luxury high schools fully equipped for 125 thousand pupils. Total space program \$4.7 billion.

COMING IN THE JUNE JOURNAL

Who is Responsible for Ugliness?

A full report on the "First Conference on Aesthetic Responsibility" sponsored by the Design Committee of AIA's New York Chapter

The 1962 R. S. Reynolds Memorial Award

The New Role of the Architect

by Dudley Hunt, Jr, AIA

The first of a series of articles by the Senior Editor, *Architectural Record*, which will describe in more detail the comprehensive architectural services outlined in the April Journal's "Second Report on the Profession"

US Embassy Buildings Overseas

An exhibit at the Octagon Gallery



A Guide for Planning the Synagogue Building

by **Percival Goodman, FAIA**

The third of the series of reports prepared by the AIA Committee on Religious Buildings, planned as guides for the architect faced with the problem of planning a building for a religious faith with which he is not familiar

► Since the collapse of the Judaeen state and the destruction of the national shrine in the year 70, the synagogue has been the central institution in Judaism. Its origin and early history are uncertain. Some scholars believe that it originated in the informal meetings of the Hebrew exiles in Babylon in the sixth century BCE. The synagogue has a threefold function: as school, as chapel, as social center for the people.

Four main characteristics have marked the synagogue from its beginnings:

First, it is a folk creation—not a foreign culture imposed by a victorious civilization or a missionary religion.

Secondly, it is a democratic institution created by the Jewish people. Jewish mass uprisings against the synagogue are unknown. Starting in the informal, obscure meetings of the exiled people, it developed gradually in contrast to the Temple which had an official priesthood and sacrificial cults. All these are alien to the synagogue where worship is a matter of prayer in the mood and language of the people, without a priest. Anyone may serve as Rabbi who qualifies for the post by virtue of superior learning and character. The Temple and synagogue complement each other; Orthodox Jews have prayed for the restoration of the Temple since it was destroyed.

Thirdly, the synagogue has always been an independent organization, needing no charter from an hierarchal authority. Whatever associations of synagogues exist, or have existed in the past, are of a voluntary character.

Fourthly, the synagogue has always defined worship in terms of learning and philanthropy fully as much as in prayer and meditation. The line between the secular and spiritual is never clearly defined. As the repository of revealed wisdom meant for all the people, and governing every aspect of personal and social life, the synagogue made study by all a religious duty equally as necessary as prayer. The word Rabbi means teacher. His is not a special grace from God, but information acquired by study. His duty is not to absolve from sin but to redeem from ignorance. Philanthropy is a form of worship because it is a direct application to the precepts of the synagogue.

Basic Beliefs

The Books

The Bible is the primary source and basis of the faith. In present day Judaism the Bible is read from two standpoints. First, the Bible, particularly the Pentateuch, is read as a supernaturally revealed body of divine truth; secondly, as a body of sacred literature, evolved over more than a thousand years. The first approach is the basis of Orthodox Judaism; the second forms the foundation of Conservative and Reform Judaism. But whether supernatural revelation or historic evolution, the Bible is the word of God, or the search for the word of God, in all branches of Judaism.

In Judaism, the word of God must be integrated into the life of the individual and the community. The abstract word must become the rule of conduct and a secondary source, the Talmud, provides this. The contents of the Talmud fall into two major categories; *Halakah*, the law, and *Agada*, the non-juridical material. The first includes all branches of law; the second includes everything discussed by the schoolmen and the masses over some seven hundred years (Biblical exposition, legend, medicine, astronomy, homiletics, dissenting opinions, etc.).

The word of God must be taught as well as implemented in law. The *Midrash* does this; it is a col-

lection of parables, metaphors, homilies based on Biblical verses or incidents or some detail of Jewish tradition. It provides material for the popular preacher.

Over the centuries, rabbinic law grew to enormous proportions. In the course of time, these commentaries, decisions, etc, required codification. Many codes were produced. The *Shulhan Aruch* made in the sixteenth century, is still the accepted code in Orthodox Judaism.

The word of God must be expounded to the student. Differences of interpretation exist at all times. The Bible, the Talmud, and post-talmudic literature inspired much exegesis. These are an important source for the historical understanding of Judaism.

The word of God must be squared with reason, for in all ages the heart would not adore what the mind disowned. Hence, there is much philosophic writing, often polemic, arising from the conflicting views and values within Jewry; much of it stimulated by the cultures surrounding Israel—Roman, Greek, Mohammedan, Christian.

There is in Judaism a great tradition of prayer, embodied in the prayer book for daily devotions and the Sabbath and that for the Holy Days and festivals. The liturgy of Judaism, like the Bible and the Talmud, represent a long evolution, issuing from the life and faith of the people. In addition, there is much sacred poetry which is an integral part of the liturgy.

Dogma

If a choice must be made between deed and creed, the talmudic masters would prefer deed, for deed implies creed. In the Orthodox prayer book is found the creed formulated by Maimonides, called the Thirteen Principles: which while never formally adopted by Judaism, give the basic beliefs:

- 1 Belief in the existence of a Creator
- 2 Belief in his unity
- 3 Belief in his spirituality
- 4 Belief in his eternity
- 5 Belief that all worship and adoration belong to Him alone
- 6 Belief in prophecy
- 7 Belief that Moses was the greatest of all the prophets
- 8 Belief in the revelation of the Torah to Moses on Mount Sinai
- 9 Belief in the immutability of the Torah (law and lore)
- 10 Belief that God knows the acts of men
- 11 Belief in reward and punishments
- 12 Belief in the coming of the Messiah
- 13 Belief in the resurrection of the dead

Some General Attitudes of the Observant Jew

Body. To cultivate and care for the body is a religious duty. "Ye shall not make yourself abominable."

Spirit. The Biblical phrase, "In the Image of God made He him" means in the spiritual sense only. The soul, the breath of God in man, came pure from God. There is no "original sin" in Judaism. Adam was punished with mortality, not with moral depravity.

Freedom of the Will. Is axiomatic. The summons to a godly life would have no meaning if man were not free to obey the summons.

Immortality. This belief varies. Many Orthodox follow Maimonides "at a time when it shall please the creator." Reform Judaism agrees with Ecclesiastes, "The body returns to the earth, the spirit returneth unto God who gave it."

Man's Destiny. To fulfill one's self as the child of God in the building of his kingdom. "Ye shall be holy for I, the Lord your God, am Holy." Lev. 19:1.

Ethics. Summarized by the Ten Commandments. The ethics of this world are practical, the emphasis is "to do justly, love mercy and walk humbly with thy God" and also, "Thou shalt love thy neighbor as thyself." A special covenant exists between God and Israel. Hence, right conduct is demanded.

The Golden Mean. Extremes are to be avoided. Hillel said: "If I am not for myself, who will be for me? If I am for myself only, what am I? And if not now, when?" Life and health and good cheer are the gifts of God; it is man's duty to enjoy them decently. "He who subjugates himself to needless self-castigation and fasting, or even denies himself the pleasure of wine, is a sinner." The golden mean is but one trend; the esthetic trend has at times been equally powerful.

Love. "Mercy," "loving kindness," "compassion," are synonyms, all are attributes of God. It is man's duty to love his fellow man, for every man is the child of God.

Learning. The denial of exclusive ecclesiastical hierarchy means that every man is a custodian of the faith, hence Hillel's "an ignorant man cannot be pious." Respect for teachers is on a par with respect for parents. "The commandment is light and the teaching is light."

Prayer. There are prayers of petition as well as prayers of thankfulness.

True prayer requires ethical preparation as well as the proper personal need. "Always let a man test himself: If he can direct his heart, let him pray; if not, let him not pray."

Literacy among the Jews has always been important as the prayers must be read by the congregation. Among the Orthodox and some Conservative groups all are read in Hebrew. All reform and some Conservative groups read many of the prayers in the common tongue. The sermon is generally given in the common tongue.

As the reading of the book is essential, the synagogue must be well-lit.

Customs, Ceremonies, Institutions

There are various religious duties, observances, customs and ceremonies. Orthodox, Conservative and Reform Judaism view them from their particular standpoints, but all value custom and ceremonies as basic to any practical observance of Judaism. For the most part, Orthodox Judaism, operating with a divinely revealed law, treats the customs and ceremonies of Judaism as divinely required rites; Reform, functioning in terms of a religious evolution, views them as sacred pageantry of historical and emotional value; Conservative Judaism takes the middle road.

The Jewish home is called a sanctuary dedicated to the Holy One of Israel. Every person is a priest: "The Torah given us by Moses is the heritage of the congregation of Jacob"; it is not the special endowment of any one ecclesiastic class. It cannot be observed vicariously. The religious household observes, in addition to the daily grace before and after meals, many festivals; the Friday evening cele-

bration of the beginning of the Sabbath, the departure of the Sabbath, the Passover meal, the lighting of candles at certain holy days, etc.

Among the Orthodox, Conservative and some Reform, laws pertaining to diet are observed. These deal not only with the kinds of food that may be eaten, but also with methods of preparation.

The observant household dedicates its home by placing a mezuzah (metal container of small size containing a quotation from Deut. 6:4-9 and 11:13-21) on the door jamb.

Personal Wear. The Orthodox and Conservative adult males wear:

- At public morning prayers the *Tallith*, a fringed shawl.
- At weekday prayers the *Tefillim*. These are two square black leather boxes containing four Biblical passages in which occur the command: "Thou shalt bind them for a sign upon thy hand and they shall be for frontlets or 'memorials' between thine eyes."
- When performing a religious duty, reciting prayers or in the synagogue, a head covering is worn. This is generally a skull cap called in Yiddish, *yarmulka*, and expresses reverence on the part of the wearer. The Orthodox male covers his head at all times.

None of these customs is required by the Reform movement.

Synagogue Government and Sequence of Authority

Present day Judaism, particularly in the United States, falls into three major divisions; Orthodox, Conservative and Reform.

In the main, three paths opened before Jewry in the latter part of the eighteenth century. One was the extreme right, the path of complete separation, rejection of the enlightenment and distrust, if not complete repudiation, of the promises of civil emancipation, for it was feared that the new order would jeopardize the established beliefs and mores of the community. Another choice, to the extreme left, was complete assimilation: Israel's losing its identity and ceasing to be.

Between these two groups was a large group which sought to meet the new world, accept what was good in European enlightenment, accept emancipation as a desirable goal, and rethink their Judaism, reject what was no longer tenable and interpret the valid in more esthetic terms.

In America today, the divisions may be summarized as follows:

Orthodox: At one extreme there are groups that cling to all ancient customs, such as certain Hassidic congregations. The majority, however, maintain the ancient customs within the synagogue and home, in their observance of the dietary laws and in strict observance of all religious holidays.

Its official body is the Union of Orthodox Jewish Congregations, 84 Fifth Avenue, New York City.

Reform: This movement started in Germany, in the late eighteenth century, as revolt against Orthodoxy. Judaism, they said, represents an evolution;

not everything in scripture is necessarily true and binding. Free inquiry is welcome.

Its official body is The Union of American Hebrew Congregations, 838 Fifth Avenue, New York City.

Conservative: A movement which sought to find a middle way between Orthodoxy and Reform.

Its official body is The United Synagogue of America, Broadway and 122nd Street, New York City.

Buildings

The Synagogue or Prayer Hall

Requirement for a public service. Ten men (*Minyan*) are required to constitute a congregation for Orthodox or Conservative public worship. Any one of them may conduct the service. Reform Judaism accepts women on equal terms with men in the conduct of a service.

The Ark and the Scrolls of the Law. In the eastern wall of the synagogue, by preference, is the Ark which holds the Scrolls of the Law. The congregation faces the Ark in prayer, which is traditionally east, so as to face Jerusalem. The Scrolls of the Law are handwritten in Hebrew by special scribes on the parchment of ritually clean (*Kosher*) animals. The slightest error disqualifies the Scroll. The two rollers to which it is attached are called the *etz chayim* (tree of life). Discs at the upper and lower ends keep the rolls straight. A band is tied around to hold it together. Various ornaments are used to beautify and honor the Scrolls: a specially prepared mantle, a silver or gold breastplate and crown, after the manner of those worn by the ancient High Priest. A pointer (*yod*) in the form of a closed hand with an extended index finger in silver, gold or wood, is used as an aid to the eye in reading from the Scroll. A curtain (*Paroches*), or door, or both, cover the Ark opening.

The Torah Scroll, which contains the first five books of Moses, is read as part of the morning and afternoon service on the Sabbath, on all holidays, and on Mondays and Thursdays. The prescribed portion from the Pentateuch is supplemented with selections from the prophets (*Haftarah*). In Reform congregations this is done largely by the Rabbi and Cantor; in Orthodox and Conservative groups men from the congregation assist in the reading, pronouncing a blessing before and after each reading. Being called up to the reading, or assisting in the handling of the Torah is a great honor. Men experiencing a special event in their lives, *bar mitzvah*, (confirmation at the age of 13), anticipating marriage, observing an anniversary, etc, are especially honored by being called up to the last part of the Torah reading for the week. After reading, the Scroll is lifted up so that the entire congregation may see it. The primary reason for reading from the Scroll is to expound the Law and the prophets. Thus religious study is part of worship.

Above and in front of the Ark is a Perpetual Light (*Ner Tamid*) symbolizing the eternal light of God and His Torah, in keeping with the Biblical com-

mand: "Command the children of Israel . . . to cause the lamp to burn continually . . . before the Lord."

The Bema. The reader's and preacher's desks may be on a platform facing the congregation or—following the ancient and hence established custom adhered to by Orthodoxy—in the center of the synagogue with the pews built around it. Originally the reading of the Law was the central feature of service; hence the central position accorded the reader's desk. Reform Judaism, emphasizing the sermon, moved the speaker's desk to the front. Conservative and many Orthodox synagogues have adopted this practice.

On the platform are located four or more seats for participants in the service. Generally, seating is provided for the Rabbi, Cantor, President, guests and those to be honored, usually about six people.

Separation of Women. In Orthodox synagogues only, a special section, usually the gallery, is reserved for women, for women were traditionally separated from men in the synagogue. Reform Judaism, enfranchising women for the first time in Jewish history, has done away with the segregation of the sexes in the synagogue. Conservative Judaism has not revised the laws but generally permitted the segregation to go as no longer relevant.

Weddings. In the Orthodox and Conservative service, and some Reform, weddings are celebrated under a portable canopy (*Huppah*) erected for the occasion.

Funerals and Memorials. Since the dead body is considered unclean, funeral services are held as soon as possible (though never on the Sabbath or holidays) and generally in special funeral chapels. There is no proscription against funeral services within the synagogue, however, this is a token of respect generally reserved for highly honored members of the community.

It is customary at all services to memorialize the dead and a home custom has been to burn a candle on the anniversary of the death (*Jahrzeit*). The American synagogue established the custom of inscribing the names of the dead on its walls and on the anniversary burning a light.

Menorah. A candlestick of seven or more lights based on the description in Exodus 25. It has been used generally in pairs and with more than seven branches for symmetry and as decoration because of the Talmudic proscription that what has been used in the Temple shall not be used in the synagogue. There is a trend in the Conservative and Reform synagogue to use a single candlestick with seven branches placed at the traditional Temple position of the right or South of the Ark. The reason for the seven branches has been variously interpreted. This author favors the idea that it represents the six days of creation with the center candle symbolizing the Sabbath day of rest.

Music. In all Orthodox and some Conservative synagogues, instrumental music is forbidden. This is based on the Talmudic proscription described above. In Reform synagogues and in many Conservative ones, the organ may be used.

In the Reform and Conservative service the choir is important, though never dominant. Its size and placement (small or large, visible or concealed) depends on congregational decision. The Orthodox occasionally use a choir.

In the Orthodox and Conservative service, the Cantor chants the prayers, the choir providing certain responses. In many Reform synagogues, this custom is being reinstated.

Other. At all holy days there is a blessing (*Kiddush*) said over a special cup of wine.

In the Reform synagogue a candle lighting (a home ceremony among Orthodox and Conservative) starts the Friday evening service. The candlestick forms part of the decorative scheme.

In most synagogues one or two stands are required for placing the Torah mantle and ornaments.

NOTE: The various symbols and furniture described above are found in synagogues, but are not required by Law, for the sanctity of the synagogue is determined, not by physical objects but by what is in the hearts and minds of the worshippers. "Ye shall build me a sanctuary that I may dwell among them" the Bible commands. The rabbinic teachers interpret this to mean: "Ye shall build me a sanctuary that I may dwell in the lives of those who build it."

Chapel

In all but very small Orthodox and Conservative congregations, a chapel is provided primarily for daily service. In the larger Reform synagogues, a chapel is desirable for summer services, small weddings, and, in some, for daily worship. Its furnishings are similar to that of the Prayer Hall.

Time and Holy Days

An important element for the architect is the time of services. The religious calendar is based on the lunar year and hence the date of the Holy Days may vary as much as two weeks from the secular calendar. The day runs from sunset to sunset (from the exact moment, according to the Orthodox) so there are many important evening services.

The custom in celebrating certain of the Holy Days has architectural implications:

Sabbath: Generally the Reform congregation has the main weekly service on Friday evening. Conservative and Orthodox groups have a smaller service at sunset, with the main service on Saturday morning. Among the more Orthodox no work of any kind is done on the Sabbath or any Holy Day. This extends to the smallest matter, eg, an electric switch cannot be flipped, a match cannot be lit, food must be prepared in advance, one may not ride in a vehicle for not only does the religious not work, he must not voluntarily require that others work.

The most solemn days in the Calendar are the New Year (*Rosh Hashannah*) and the Day of Atonement (*Yom Kippur*). They mark the beginning and end of a period known as the Ten Days of Penitence. The New Year occurs on the first day of the seventh month of the Hebrew calendar (*Tishri*) which generally falls in the latter part of September. These

Holy Days are the occasion for a mass turnout, whether services are attended at any other time or not. In the United States this has had important architectural implications, eg, a congregation of 500 families may have an average attendance of three or four hundred people, but at these services there will be 1,200 to 1,500 people. Hence the development of expandable space to provide for this peak attendance. The expansion is generally provided by using folding walls which open to enlarge the Sanctuary by adding social space or classrooms. On occasion dual services are held so that all available space is occupied. This custom, of course, creates very special problems in planning and is the most limiting utilitarian factor in synagogue design.

Five days after Yom Kippur begins the Feast of Tabernacles (*Sukkoth*). It is a harvest festival and its architectural requirement is that there be an outdoor space to erect a structure whose principle is that it symbolizes the temporary, the stars must be seen through its roof and the rain come through. It is called a *sukkah* (hut in Hebrew). It is a framework of wood and is decorated with leaves, fruits and vegetables of the season. The celebration symbolizes the Biblical injunction "for seven days ye shall dwell in booths."

There are many other holy days, but none affect the architectural design, except perhaps, *Simchat Torah*, where wide aisles are required for the procession with the Scrolls and *Shovous* where a large enough platform for the entire confirmation class is needed in Reform and Conservative synagogues.

Art and Symbolism

The Second Commandment: "Thus shalt make no graven image" has been interpreted variously. There is ample historical evidence indicating that "Thou shalt make no graven image to worship" is an accepted traditional reading. However, the general attitude, especially among the Orthodox and Conservative is the avoidance of the human figure in art work or ornament. The depiction of flora and fauna is acceptable, though generally more abstract forms are preferred.

Religiously, there is no symbolism of special meaning. God cannot be symbolized (in Hebrew there is not even a word for God, but various circumlocutions are used; Holy One, Lord, Vital Power, Jehovah, "The Eternal," etc). Certain symbols have become popular: the seven-branched candlestick (*menorah*), two superimposed triangles forming a star-shape (the so-called Shield of David) although no historical meaning has been found for this figure; the Ten Commandments represented by two tablets in which either numerals from one to ten or abbreviations of the Commandments are inscribed; an open scroll representing the Law (*Torah*); twelve shields with appropriate decorations representing the tribes of Israel; a shape suggestive of the "Bush that burnt but was not consumed" seen by Moses in the desert; the two pillars before Solomon's Temple (*Jachin* and *Boaz*), described in Kings: 1; quotations in Hebrew from the Bible, etc.

The Place of Assembly

Social Functions. Essential to the synagogue is a place for social activities: receptions, lunches, dinners, lectures, dramatics, social assemblies, are generally provided for in a multi-purpose hall. This space is made as attractive as possible, has a platform or stage, ample storage space for the furniture and a good-sized kitchen. For the Orthodox

and Conservative (who observe the dietary laws) two kitchen spaces are required, one for milk dishes, the other for meat ("Thou shalt not seethe the kid in its mother's milk").

School

All synagogues are learning places and are provided with classrooms. Sometimes the Orthodox synagogue will have these housed in a separate structure, as it is often customary in this division, as among Roman Catholics, to send children to a full time school under religious auspices. The Conservative and Reform provide religious instruction and Hebrew language instruction only.

Among the Conservatives, the children attend Sunday and two or three afternoon classes per week. Among the Reform, the sessions are sometimes Saturday or Sunday morning only, sometimes on weekdays as well. It is considered of vital importance that the facilities be as good as those provided by the local public school.

In addition to the classrooms the school includes a library and very often a youth lounge which will be used for teenage activities and on occasion for youth religious services.

Facilities for either full or part time nursery school as well as summer day camp activity are becoming a popular adjunct of the school.

Administration

The synagogue requires office space for a business office and Rabbi's study as a minimum. In the larger congregations offices are needed for the Cantor, educational director, school principal, etc. These offices, which are used daily, must be planned for maximum convenience and efficiency.

Lobby and Service Spaces

An adequate entrance Lobby, coat room, toilet facilities, gift shop (for sale of religious objects), etc, are required. Other facilities such as custodian's apartment, bride's room, etc, may be needed. Adequate storage and other service space is needed.

Architectural Style

Until the nineteenth century, the synagogue was designed in the prevailing mode of the country in which it was built. After the emancipation, an effort was made to create a distinctive style and a sort of Moorish mode was adopted, for in the grim latter-day history of the Jews their sojourn in twelfth and thirteenth century Spain was considered a "Golden Age."

The contemporary synagogue has no preconceptions about style. The building is to be functional and dignified and (hopefully) will "sing unto the Lord a new song."

Spiritually, the essential style difference between churches and synagogue is that the synagogue represents a faith that does not accept mysteries and believes "the earth is the Lord's and all that is on it." Thus the interior must be bright and light, the expression horizontal and *earth-embracing*, rather than vertical and *earth-escaping*. ◀

Bibliography

"Synagogue Architecture in the United States," Rachel Wischnitzer, The Jewish Publication Society of America, Philadelphia
 "An American Synagogue for Today and Tomorrow," Union of American Hebrew Congregations "Churches & Temples," Thiry, Bennett & Kamphoefner, Reinhold Publishing Co.

. . . yes, it is a Professional Society



► In the discussion period following a talk I made to a state chapter of the AIA, a member asked a good question. He wanted to know if we run the risk of losing sight of our mission as a *professional* society.

My talk had dealt with new and accelerated programs which have received so much attention lately: expanded architectural services, public relations, government relations, contracts and liability, unification of Institute structure, policies on membership, etc. These subjects *are* of vital interest to a vast majority of our members who are anxious to hear about national activities which strengthen the business aspects of practice.

You might say these are the matters that affect an architect's ability to make a living.

This member's question made me stop and think. In the day-to-day operations of the AIA, I see those activities which bear directly upon professionalism and I know they get as much attention as ever. Perhaps we ought to turn the spotlight back upon them briefly for the assurance of others with this same question.

The AIA was founded, kept alive and growing, and is directed by architects who prize ethical professional behavior above all else. What is evident in these leaders is no less true of many of the rank and file of the profession. They know that any profession includes some operators, quacks and incompetents and are distressed by their behavior. They look to the AIA to do all it can minimize its effect.

The major effort in this area centers in our judiciary system and its enforcement of our code of ethics—the Standards of Professional Practice. Many an errant member is disciplined for violation of the Mandatory Standards. Many cases stop short of hearings when plaintiff and accused resolve their differences and the latter improves his performance. The only weakness in the system is where members may fail to initiate action because they don't care quite enough to take the trouble.

All members should be interested in the revisions of the Standards proposed by the Com-

mittee on the Profession which stiffen the Standards and at the same time bring them abreast of modern conditions of practice. (See the April 1962, issue of the *Journal*.)

Other AIA activities of a very different sort recognize professional excellence and the esthetic, intellectual and cultural attainments which are its intrinsic ingredients. The elevation of members to Fellowship and the Honor Awards in design represent goals of achievement and distinction for all of our members. The AIA medals are our highest form of recognition for excellence in architecture and the kindred arts.

The AIA and AIAF Scholarship programs and the awards of the school medals express our recognition of promise in young men about to enter the profession.

Our extensive activities in behalf of the preservation of historic buildings certainly exhibit the interest of a professional group in something more than everyday business.

Perhaps our most visible expression of professional viewpoints and attitudes is the *AIA Journal* itself, according to the enthusiastic compliments of the membership. The high caliber of this magazine is due in no small measure to the personal efforts and determination of its Editor, Joseph Watterson, FAIA (in literature). He has created a forum for the outlet of our professional thinking.

Now, let us turn again to our new programs. True, they are concerned with the competitive position of architects in a complex urban economy. But in every one you will see great concern with professional competence; and great concern with the AIA as a strong professional society. Weakness in our profession—in our ability to cope with these times—could lead to desperation and to unethical conduct by individual practitioners.

A strong, competent architectural society enables its members to sell truly professional services to the public and to render these services with distinctive results. That is what all the new activity is about.

W.H.S.



A. Reinhold Melander, President, Duluth, Minn; Chandler C. Cohagen, 1st Vice President, Billings, Mont; Paul W. Drake, 2d Vice President, Summit, NJ; A. John Brenner, Secretary, Phoenix, Ariz; C. J. Paderewski, San Diego; Earl L. Mathes, New Orleans; John E. Ramsay, Salisbury, NC; George F. Schatz, Cincinnati, Directors; Walter F. Martens, Past President, Charleston, WVa

One-Year Renewals

by **John F. Ramsay, AIA**

► All members of the profession who currently maintain an NCARB record, or certification, have been advised of the Council yearly review policy.

All Board Members of the NCARB have heard, as have I, both favorable and unfavorable reaction to the newly enforced procedure.

The president of one state chapter of AIA has written that in his opinion, "the Board should, irrespective of NCARB, accept the credentials of any man who is registered in a state whose architectural examination is the equivalent of this state, and that a reciprocal license (should) be granted immediately after receipt of the necessary information from the state in which the applicant is registered."

At first glance this recommendation seems reasonable enough—doesn't it? If an architect has been found by his peers to be qualified and therefore registered in the State of New York, why should he not be promptly, upon request, registered in Ohio?

Our state chapter president evidently does not understand that most state boards have many cases each year and can expect an increasing number of difficult cases in the future where the comparison of credentials and determining whether or not examinations and records are equivalent leaves broad areas for potential error.

Complications in the recommendation we are considering arise, however, over the words "equivalent" and "receipt of necessary information." Within relatively recent years all our states have adopted the NCARB syllabus for examinations. Though there is uniformity in examination and registration, the several states have developed, on their own, an unusual variety of requirements.

Under our democratic and states'-rights system, we are not likely to find promptly a common denominator of all state requirements which will be accepted by the several states simply by going it alone as individual state boards.

To illustrate the problem, the following cases

have come before authorities and are typical of many that complicate reciprocal registration.

For the examples that follow, names, states and circumstances have been altered. Only primary circumstances are recorded here for these illustrations. Most state boards have found that objective judgment of "equivalent" standards is far from being an exact science.

Case 1—Heinrich Mueller, a registered architect of Heidelberg, Germany, is now forty-six years old, with experience prior to World War II in Germany, and since 1950 in a variety of offices in this country. Mr Mueller has retained his German citizenship because of a pension he draws from the German government as recompense for a war wound on the Russian front. Mr Mueller is interested in an office of his own and has applied for registration in the state of Florida, which requires citizenship as a prerequisite to registration.

Does or should the absence of citizenship in the United States nullify the professional competence of a registered architect in another country?

Case 2—Leonard Brown, age fifty, licensed under the grandfather clause when his home state first passed an architectural licensing act, has designed many structures as a consulting engineer, and through reciprocity has been licensed as an architect in one of his neighboring states. Mr Brown has applied to New Jersey for registration.

Should the State of New Jersey license Mr Brown when they do not recognize the "grandfather" procedure for citizens of their own state?

Case 3—Joe Riddle has been registered, after written examination, in his home state and has applied for registration in the state of Ohio where he has established residence and intends to open an office with a partner previously registered in Ohio. Riddle's credentials are in order except for a pending court action for alleged incompetence.

Should a licensed architect, who may have been unjustly accused, be denied a license, and the privilege of practice simply because he is subject to court action?

Case 4—Mr V. Prominent Designer, whose work has been published on several occasions in professional journals and who has been registered

in two states without written examinations, has applied to the state of New York for registration on the basis of the license in his home state and the state of his current address. Mr Designer's references have produced three poor recommendations alleging: serious building cracking, large areas hot in summer, cold and drafty in winter, little interest in supervision or budget problems and a difficult, temperamental personality.

Should design ability and publishable quality of work alone warrant certification as an architect? Is the average registration board primarily concerned with the protection of the public health and safety? Or should design talent compensate for deficiencies in other areas of architecture?

Case 5—Mr Joe Doe has been denied the privilege of entering the written examination of State A, since his experience and educational qualifications do not meet the standards prescribed by State A. Finding that the requirements of State B relative to experience and education are less stringent than those in State A, Mr Doe has applied for the privilege of taking the examination in State B, has passed and has now applied for registration through reciprocity in State A.

Should State A waive its requirements in this instance to avoid reciprocal denials for other architects by the states involved, or must State A stick to its standards in fairness to others who have been so denied in the past?

Case 6—A retired architect, registered in the state of Connecticut, who for the past twenty years has been inactive, has moved to Florida and applied for registration through reciprocity. A check of references reveals that his last building was satisfactorily finished in 1929.

Is a person once registered as an architect always an architect? Or must a professional continue in active practice to keep his certificate?

These cases, of course, are not comprehensive, nor do they illustrate all types of problems currently plaguing the several state boards. These cases do, however, illustrate typical problems of judging equivalents and the difficulty of justly comparing qualifications and credentials of architects registered elsewhere.

"Receipt of necessary information," by state boards and the NCARB is probably the single most vexing requirement essential to the judgment of qualifications and above all other requirements, is most responsible for delays.

Portions of application forms and portions of professional records have been left blank by applicants. Persons listed for reference purposes have moved from addresses given or fail to answer mail. Some state boards meet only twice each year and review records only at that time. Some applicants cannot verify previous education or ex-

perience because former employers are no longer in business or their school's or employer's records have been burned.

Granting a certificate short of complete records, however, has in the past, left vague or "dead" areas in professional records and has proven to be the loophole through which unqualified persons have become licensed. Such persons have, in the past, embarrassed the profession, the NCARB and their state boards.

"I believe at the present time," says an AIA member, "NCARB charges \$50 for initial registration, or whatever it is called, and from now on will also charge a man \$10 a year to keep his file up-to-date. The legality of the state board in forcing this tribute on its taxpayers is questionable."

Though an appeal to taxpayers generally draws justifiable sympathy, the State Board is not exacting tribute from that states' taxpayers, inasmuch as no NCARB certificate is required except for the practice of out-of-state architects, and then only when license is requested through reciprocity and without examination.

No state, to my knowledge, will refuse qualified out-of-state architects the privilege of taking that state's written examinations or, when applicable, its senior examinations. Some states grant a temporary license to non-resident architects for one construction project. To question the legality of reasonable fees for establishing and maintaining an NCARB certificate seems, therefore, irrelevant.

Most of the fifty states and the three possessions have experienced problems and complaints comparable to these briefly outlined and, in an effort to gain some uniformity in reciprocity, fifteen of the states have adopted the NCARB certificate as a prerequisite to reciprocal registration. In states where the NCARB certificate is not a prerequisite, it is recognized almost unanimously as the preferred type of application. Knowing the difficulty of administering a fair system of reciprocity and plagued with the countless problems and complaints of their former systems, these states reason that a full-time experienced organization can more justly judge reciprocal registration than the several state boards, many of whom are limited by budget, registration fees and state law to part-time secretarial help at best.

As is the case with all progress, growing pains are evident. Procedures must be refined. The review of credentials must be accelerated and efficiency which comes with experience, particularly in relatively new endeavors, must be added to the accomplishments of the NCARB.

Toward this end and in the best interests of the profession, every reasonable effort is being made to accomplish a goal which we recognize cannot be gained in a few months. ◀

Library Notes

Books in the News

To those of us who work with books at the Octagon, it has been a pleasure to note the attention which books on architecture and city planning have been receiving in the news. Lewis Mumford's "The City in History" was announced on March 13 as the winner in the non-fiction category of the National Book Awards. In addition to winning this, it has been conjectured that Mumford may win a Pulitzer Prize.

To AIA members it should be of especial interest that the AIA-sponsored "The Architecture of America" by John Burchard and Albert Bush-Brown was one of the thirteen leading contenders for the non-fiction prize. Yet another book on planning was among this select group in Jane Jacobs' "The Death and Life of Great American Cities." Thus with three out of thirteen leading contenders, architecture and its close associate, city planning, have been more than adequately represented this year.

The same three volumes are also included in the list of "Notable Books of 1961" issued by the American Library Association. This list aims to provide "a group of books significant in content and readable in style for the adult who is looking for contemporary material worthy of his reading time."

The National Book Awards, now in their thirteenth year, consist of citations and \$1,000-prizes for the winners in each of three categories—fiction, poetry and non-fiction. The non-fiction jury, composed of August Heckscher, Loren Eiseley and Louis B. Wright, said of Mumford's book:

"This book represents the summation of a long and distinguished career in American letters. Mr Mumford has been a pioneer in the study of man's cities not only as they are, but in the way they have been shaped by man, and have shaped him. Lewis Mumford's work represents originality of thought, noble and humanitarian insight, and a total grasp of man's architecture, not in terms of stone and brick alone but as the permanent expression of unnumbered generations in both their moments of folly and greatness."

The awards are administered by the National Book Committee on behalf of three industry sponsors, the American Book Publishers Council, the American Booksellers Association, and the Book Manufacturers Institute.

Mrs Jacobs' book received an honor of a different kind when it was given an honorable mention in the Carey-Thomas award for creative book publishing. This award is given to honor book publishing at its best, not editorial judgment alone, but also the qualities of initiative, imagination, cooperation with author, appropriate manufacture, and successful promotion and marketing.

Library Research

One of the most interesting developments in the library field in recent years has been the work of the Council on Library Resources. Established in 1956 at the instance of the Ford Foundation with a grant of five million dollars to be expended over a five-year period, it has sponsored or aided many projects which aim to seek the solution of problems facing libraries. These cover a multitude of things from indexing by computer to the development of a bookmarking device, both of great potential interest to our library. Subsequently the life of the Council has been extended for a seven-to-ten year period by an additional grant of eight million dollars.

To me, among the most interesting of the investigations were those of William J. Barrow, who did research on the permanence and durability of bookpaper. From his work has resulted a formula that makes possible the production of a stable and enduring text paper within economic feasibilities. Already it is commercially available and if widely adopted by publishers, its use will prolong the physical life of books to several hundred years.

But this note wishes to comment on some of the projects which may have a more direct bearing on the work of architects. Perhaps foremost is a project for the preparation of a book on the planning of college/university library buildings,

to be written by Keyes D. Metcalf, a well-known librarian consultant in this field. Some chapters have already appeared in the library press in a preliminary form, and the book promises to be a stimulating one.

Somewhat akin to this is a volume in the series "The State of the Library Art" which covers buildings, shelving and storage-warehouses. Although not of too much practical value, it will be of assistance to those seeking background material or an indication of some of the problems still to be solved.

One of the projects supported by the Council on Library Resources is the Library Technology Project under the auspices of the American Library Association. The LTP has initiated a study of fire protection systems, equipment and devices as well as an investigation of the nature and characteristics of fires in libraries through suitable fire tests. Undoubtedly much of the technical work of this study should prove of value to the architect in his planning.

For the architect who may have to advise on stacks and furniture, the work of the recently established Sectional Committee Z 85 of the American Standards Association, sponsored by the LTP, should prove of interest. The subcommittee on steel bookstacks is directing its attention to the development of specifications for finishes. The subcommittee on library furniture is evaluating test methods to determine adequate strength of library chairs. One may presume that other such investigations will be carried on.

Actually many of the other projects, by changing the nature of a library's work or the methods by which it is carried out, may well change a library's needs and demands for space, and consequently the architect's efforts in meeting those requirements.

These comments have been offered, not so much for any immediate value, but as an indication of an organized program of research in a specific area, which will have both a direct and indirect bearing on the architect who is doing buildings in that area.

It is but one illustration of the fact that research activity in a specific area may well affect the work of the architect. Consequently he must be aware of these new developments. It is one of the aims of the library to have important studies in such special areas.

G.E.P.

Book Reviews

Schools in the USA: a Report.

David Medd and Mary Crowley (Medd). London, Ministry of Education 1961. Building Bulletin #18. 360 pp illus. 6½" x 8". British Information Services, 45 Rockefeller Plaza, NY 20, NY. \$2.80

This is possibly the most important recent book on school buildings for American architects. It is an illustrated survey by two young architects who were here in 1959 on a Commonwealth Fund Fellowship and it brings us an enthusiasm for what is good about our schools tempered with sound reservations based on British experience.*

Credit to the Medds for this work which is uniquely their own in substance comes solely from reviews in America. Parts of the British civil service seem unwilling to acknowledge individuals (a bit like the official excommunication of Tertullian!) and their names do not appear. It would seem significant however that school-building cognoscenti all over America did not need the credit-line to know that these young people did the book. They got everywhere and to see everyone of importance: 30,000 miles, over 200 schools and colleges in forty states.

Of the 150 elementary schools, junior and senior high schools visited it is also of interest that twelve of the architects listed are members or former members of the AIA Committee on School Buildings and Educational Facilities, and that they did half of the 150 schools. The importance of the influence of this Institute committee's program, its work with other organizations and the caliber of its members should have been noted.

The first three chapters tell concisely of our school system, financing, and our school design and construction procedures. The next four discuss and illustrate elementary schools, JHS, SHS and junior colleges. The eighth chapter describes sympathetically some unusual independent schools, and the final four are on technical details:

lighting, color, television, furniture and equipment. Illustrations are clear, have scales and architectural significance.

As might be expected, we were found extravagant in use of space, often in need of closer cost analysis, and behind Britain in use of prefabricated components. (On this—see Building Bulletin #19 in this series: *The Story of Clasp*). Criticism of reactionary design of school theatres (proscenium types only), while valid for many school programs, seems unaware of strenuous efforts by some members of the *American Educational Theatre Association*.*

Comments on education are keen and perceptive—for example, on Conant ". . . he cannot abandon the comprehensive idea, yet logic ordains that a common course of study for all may have the effect of levelling down rather than of levelling up . . ." Ability grouping, etc ". . . are clearly going to test the ability of the comprehensive school to retain its social qualities . . ." On Trump ". . . everyone has to be a specialist, even if he is sorting punched cards . . ." (!)

The Medds deplore also the ghastly undesign of most student work in shops, and the influence of appliance and equipment manufacturers on home-making departments.

In the technical areas we find other sound comment ". . . the character of a classroom is being determined more by mechanical methods of control than by educational activity . . ." The section on lighting is of particular importance now that we are being experted to death by industry. The Medds know a great deal about light and color and their critical analysis of some schools is worth careful study. We do not agree with them on the perfidy of using low-transmission glass—for special situations. We do agree with them on windowless classrooms and with their vigorous rejection of code regulation of lighting design. *The ASA does not belong in design procedures*.

It was good also to see the plug for Munsell in the chapter on color. We have never understood why (when it was taught to architectural students at MIT in the 1920's) this useful color analysis and notation system did not become a universal tool in architectural education and practice.*

Finally, it is curious that these architects did not see that underlying what they call the "Arts and Crafts Movement" of circa 1900 (FLW, The Brothers Greene, et al) was a deep Oriental influence which, far from losing ground, has reached the apotheosis of bastardization and misunderstanding in the worst examples—and has resulted in some delightful architecture in the hands of sensitive designers.

We are glad that the Medds did this book which we urged them to do—perhaps in this inexpensive form it will reach more who will use it than if it were a lush commercial separate—but they should have received credit. E.P.

Land Use Handbook: A Guide for Undertaking Land Use Surveys.

Northeastern Illinois Metropolitan Area Planning Commission. Chicago, 1961. 33 pp. paper-bound, illus. \$2.50

A manual outlining a standardized system by which nonprofessionals can conduct a land use survey and prepare a land use map. The handbook uses a three-scale system—community, county, and metropolitan area. Foldouts bound into the back of the book show color and symbol codes for indicating uses on each of the three scales.

The Science of Daylight. John W. T. Walsh. London, Pitman Publishing Co, 1961. 258 pp. 8½" x 5¼". \$8.50

Daylight in the building arts and sciences is virtually all things to all men. The physicist is concerned with its varying intensity and spectral composition; the architect and builder with its utilization and distribution; the designer and decorator with its color effect; and urban planners and health workers with its sufficiency and health-giving properties. Dr Walsh has attempted in this book to collate the results of this widely diversified literature. Each chapter is liberally referenced.

* See David Medd's article, *AIA Journal*, May 1961, p 87 "Landscape in the United States."

* See AIA School Plant Studies, *AIA Journal*: Pawley, Nov. '57, p. 423; Miller, Aug. '60, p 73.

* *Building Bulletin* #9 in this series (3rd edition 1960) is entitled *Colour in School Buildings*. See also *AIA Journal*, Mar. 1962, p 77-84.

Editor's Page

Our Birthday

With this issue, the "new" *AIA Journal* is five years old. Incredible as it may seem, there are doubtless many readers today who never knew there was an "old" *AIA Journal*. Indeed there was, and a very good one too.

The *AIA Journal* was born in 1913, so it is really forty-nine years old; its Editor was Charles Harris Whitaker. It was a full size magazine 8½" x 12", and carried advertising. Editorially it was very successful, doing, among other things, a good deal to expose waste in government procedures. But financially it went into a gradual decline, costing the Institute more and more each year, until it was finally discontinued in 1928.

In order to keep the membership informed on Institute activities, a monthly bulletin called *The Octagon* was issued. It carried little but notices of meetings, bylaw changes, convention actions, names of new members, etc.

But a real magazine was wanted, so in 1940, and again in 1943, a committee was appointed to do something about it. "The result, another *Journal of the AIA*, modest in format to conform to the 1944-45 war restrictions on paper, and attempting to cover editorially a field neglected by the commercial periodicals." (I quote from Henry Saylor's "The AIA's First Hundred Years.") The first issue of the now-familiar little buff-covered monthly was January 1944. Its Editor, of course, was the well-known and widely respected Henry H. Saylor, FAIA, whom I shall quote again: "Keeping firmly in mind the financial débâcle of the former monthly of like title, the *Journal* was held strictly in its circumscribed path, carrying a limited amount of advertising that paid for its distribution to the growing membership without any levy upon dues. It ended its life of thirteen years without having cost the Institute anything—in fact having earned enough above the costs of operation to bring about \$50,000 to the aid of other services rendered by the Institute to its membership." A notable and enviable record, indeed.

In 1948 a new bimonthly publication was created, called the *Bulletin of the AIA*, with Henry Saylor as Supervising Editor. In 1952 Walter A. Taylor, FAIA, became Editor. Its early function was to relieve the *Journal* of official announcements and Institute news, and to carry a certain amount of technical information and bibliography emanating from the newly-formed Department of Education and Research. Gradually it became devoted almost entirely to technical and factual material.

In 1954 the Board of Directors appointed a new committee to study the publication of the Institute, which came up with a report recommending that the *Journal* and the *Bulletin* be combined in large format, and that increased advertising be sought and the magazine expanded to include "articles, biographies, results of research, excerpts from committee meetings and panel discussions of general interest, reference list guides," and so on with a half-a-dozen more topics. To quote Henry Saylor again, "A rather large order."

So there is the history of the *AIA Journal* up to the day early in 1956 when Ned Purves called me up in my office in Mineola, Long Island, and asked me if I'd be interested in coming to Washington to take over the editorship of the *Journal*. Obviously, I was. I came here the first day of July, turning my practice over to my new partner, and apprenticed myself to Henry Saylor, to learn something about putting out a magazine, meanwhile surveying the situation and preparing a report to the Board of Directors outlining what I proposed to do with the *Journal*. The report was accepted—with some enthusiasm, I might say—and in May 1957, the month of the Centennial Convention here in Washington, the "new" *Journal* appeared.

Perhaps the "new" Editor will be pardoned for saying that the expanded *Journal* was very well received—in fact, it was received with downright enthusiasm, and his enthusiasm for the job grew proportionately. For the first couple of years we groped both editorially and formatwise, building up our advertising and building our staff. In May 1959 Wolf Von Eckardt took over as Art Director and our format problems were solved—the *Journal* gradually assumed the distinguished format it bears today, of which we are very proud.

Meanwhile, editorially we seem to have found our level, the right balance between articles of general interest, technical matter and Institute affairs. To maintain this balance has not always been easy. Not having a large staff of trained writers and researchers to spend weeks or months preparing an article or a series on a given subject, as do the commercial magazines, we are dependent to a very large extent upon what comes in "over the transom"—articles and addresses sent in voluntarily, plus what emanates from within the Institute and the Octagon staff. Of course, and this is increasingly true, we do seek out material from promising sources and we occasionally commission articles from professional writers. But on the whole, most of the best stuff that has appeared in the *AIA Journal* in the past five years has been volunteered—and a credit to the profession it is.

Financially, the "new" *Journal* is now doing very well. From the beginning, the income from advertising has paid for the actual printing costs, and for the past couple of years it has paid not only the production costs but all operating costs as well, such as salaries of all full-time members of the *Journal* staff, office supplies, postage, travel expenses and other direct costs, besides furnishing staff members who are able to perform other Institute services. So the *Journal* costs the members nothing.

That the *Journal* is widely read and appreciated, we know. We know it from our mail and from our many contacts with the membership and we have a non-member paying subscriber list of about 4,500. Many architects have told us that the *Journal* has reached the top of their reading list, in fact, none other than Pietro Belluschi told me that just the other day, at a reception at the Octagon House. He said he read it through every month. It is very gratifying to me and to the *Journal* staff to receive these bouquets.

So, ladies and gentlemen, we accept with pleasure your birthday greetings!



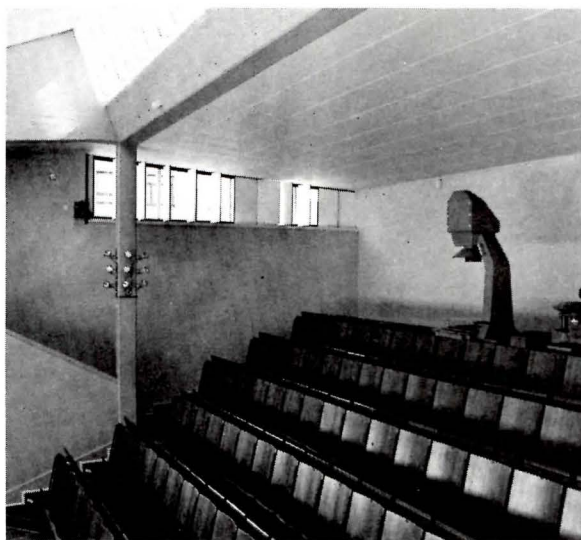
Architecture
for
Science
and
Technology

A Portfolio

by Philip W. Faulconer, AIA



Anatomical Institute, Gothenburg, Sweden,
Klas Anselm, architect

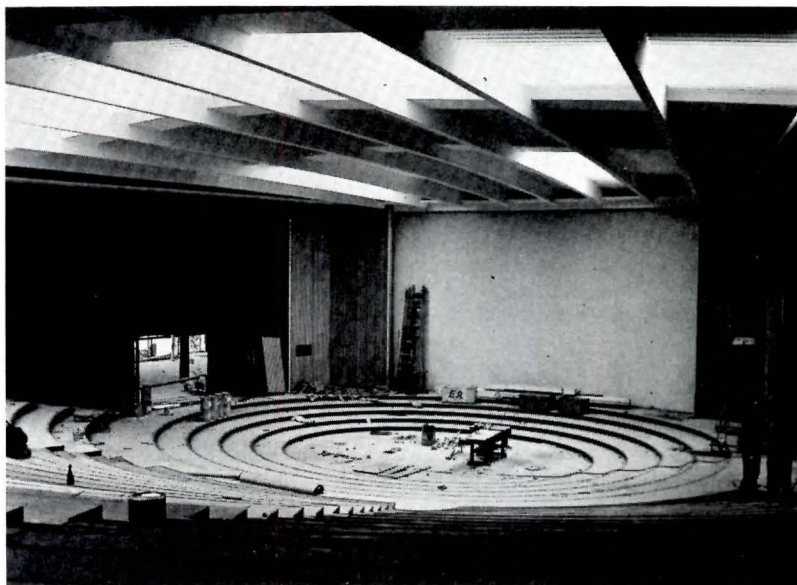


Lecture hall



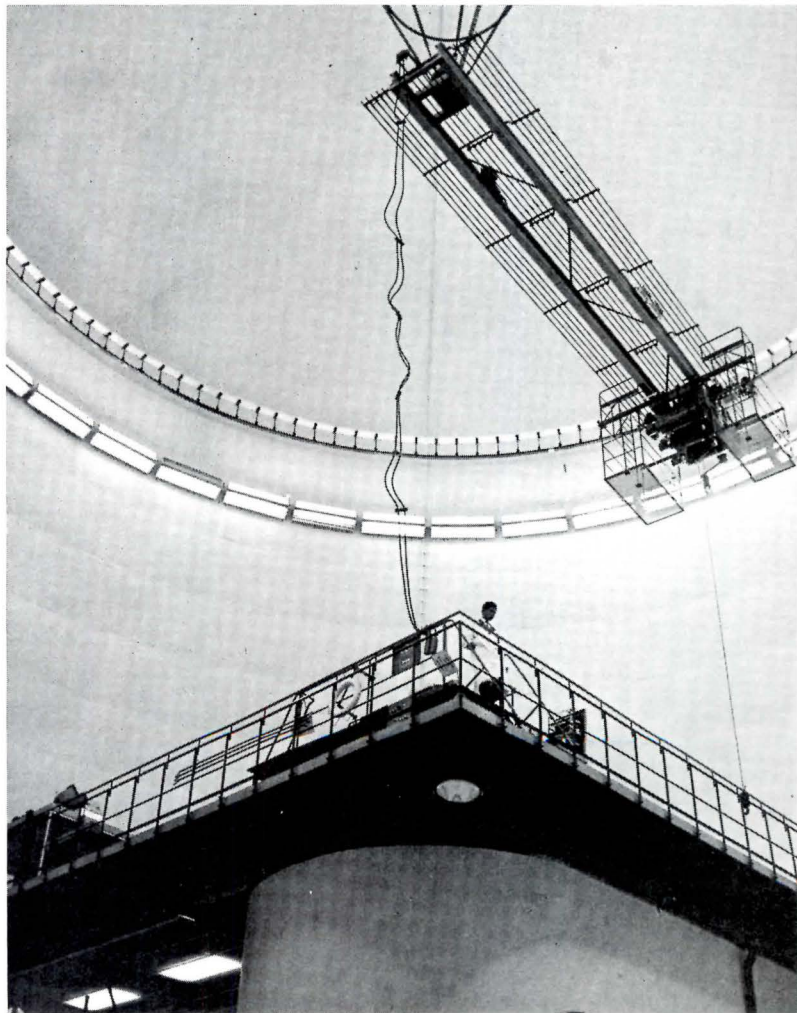
Lecture hall. Below, lobby





University of Freiburg, Freiburg-im-Breisgau, Germany. Main auditorium, Professor Schweizer, architect

Reactor, Garching (near Munich), Germany. Crane in reactor hall



University of Rome, Italy. Physics Institute (ca 1938)



Nuclear Energy Center, Mol,
Belgium. Reactor building. J.
Wybauw, architect



Bayer Chemical Works,
Leverkusen, Germany. Laboratory



Tata Institute



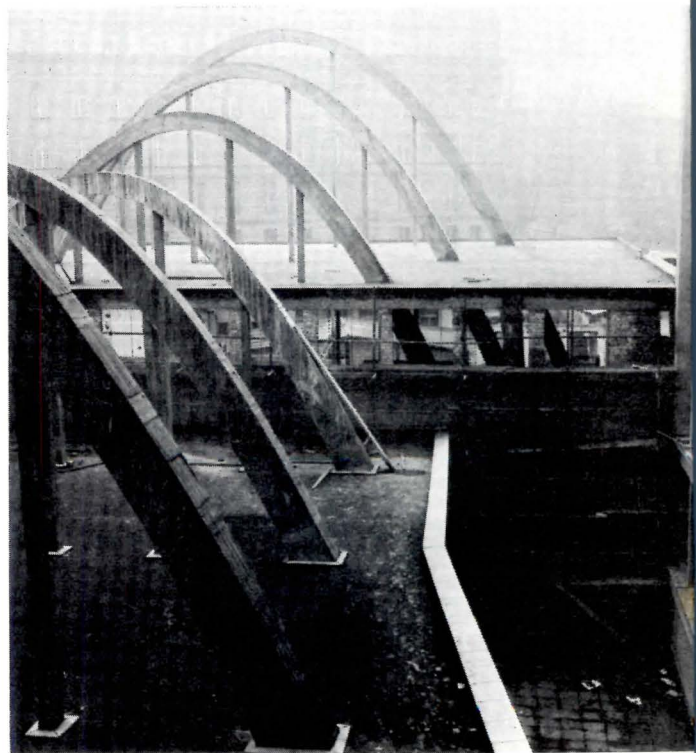
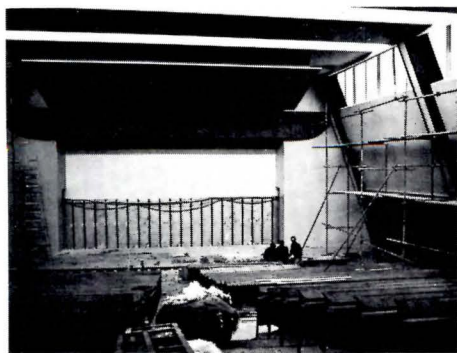
Tata Institute for Fundamental Research (1960), Bombay, India
Holabird, Root & Burgee, architects

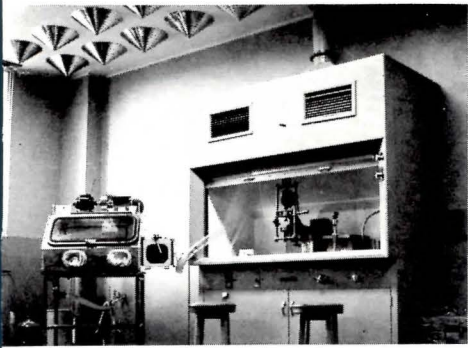
Tata Institute





Belgrade Technology Institute, Yugoslavia.
Grigorie Samoilov, architect.
Below left, auditorium.
Right, roof of auditorium





Sumito Company, Takarazuka Nuclear Laboratory, Japan. O. Muroi, architect. Lab with fume-hood and glove-box—sound absorbing cones on ceiling

Right, Hoffman-La Roche Chemical Co, Basel, Switzerland. Office building, Dr Roland Rohn, consulting architect



Austrian National Reactor, Seibersdorf. Dr E. Streussler, architect

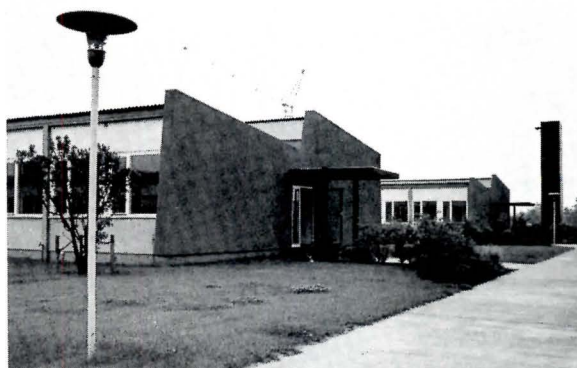
Aarhus University, Denmark. Laboratory building, (ca 1933) Kay Fisker, Povl Stegmann and C. F. Möller, architects. Glass-walled elevator shaft illuminates end of busy corridor



Sumito Company, Japan. Lab building with water-tower at left



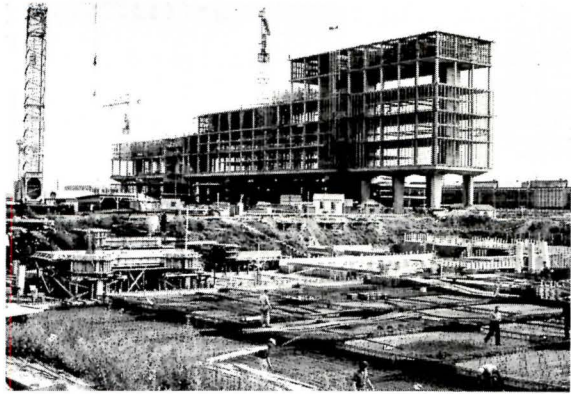
Below, Allgemeine Elektricitats-Gesellschaft (AGE) Electronics Lab, Frankfurt. Left, precast floorslabs can be removed and footings provided for heavy apparatus or utilities brought in. Right, Standard one-story form



Chalmers Institute of Technology, Gothenburg, Sweden. High tension laboratory, Klas Anselm, architect



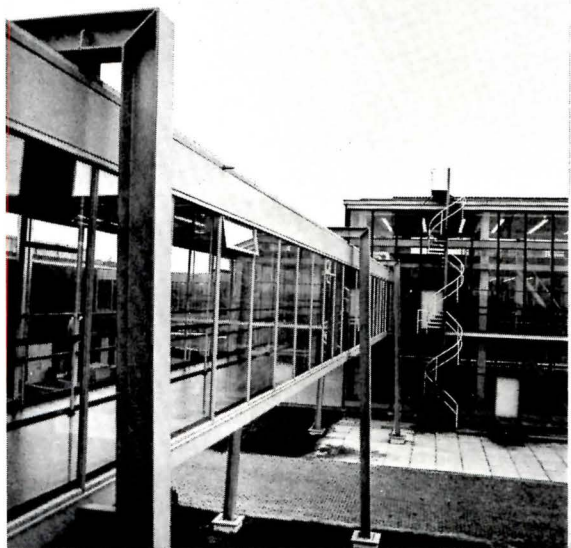
Right and bottom of page,
Eindhoven University,
The Netherlands.
S. J. Van Embden, architect.
At right, Class & lab building
under construction



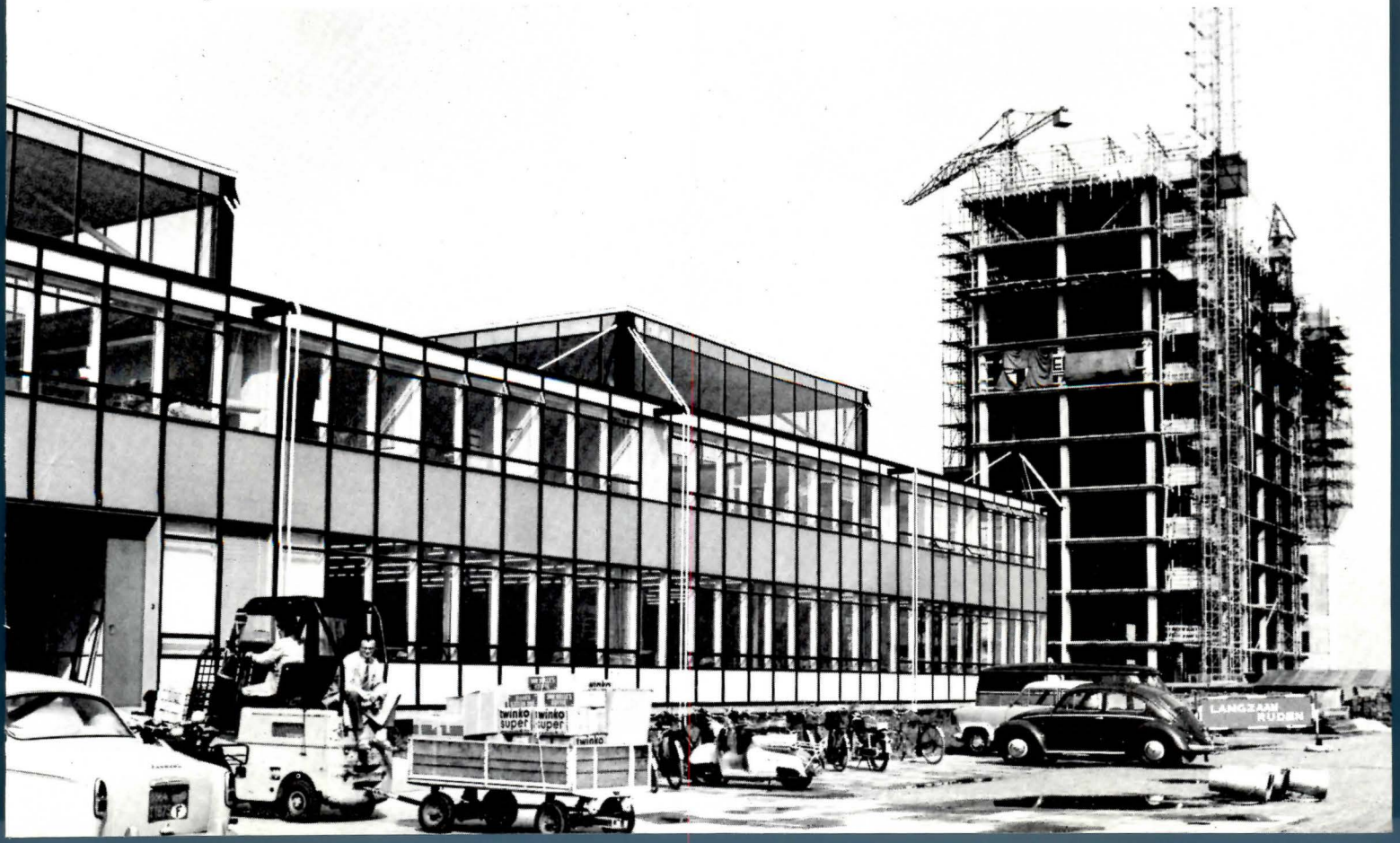
Small photos below, Reactor,
Kahl, Germany. AGE designed.
Directly below, control room

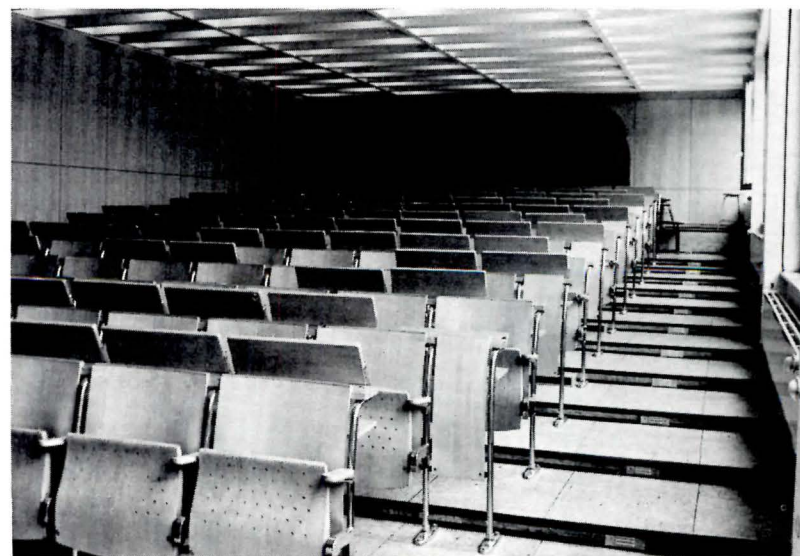
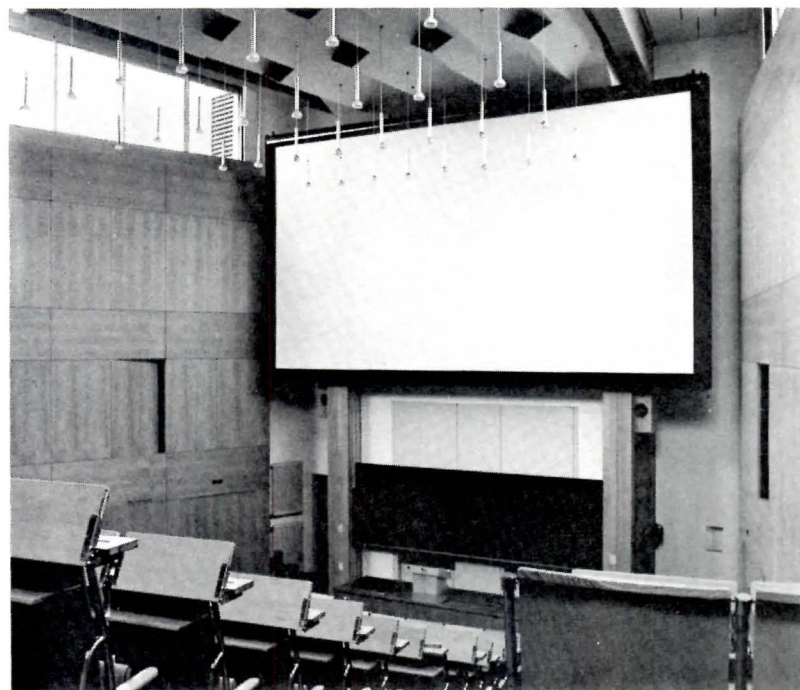
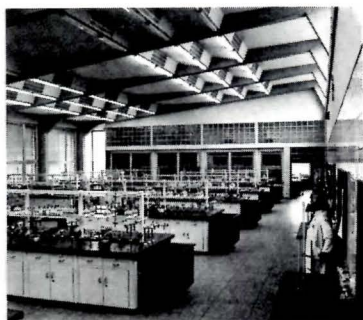
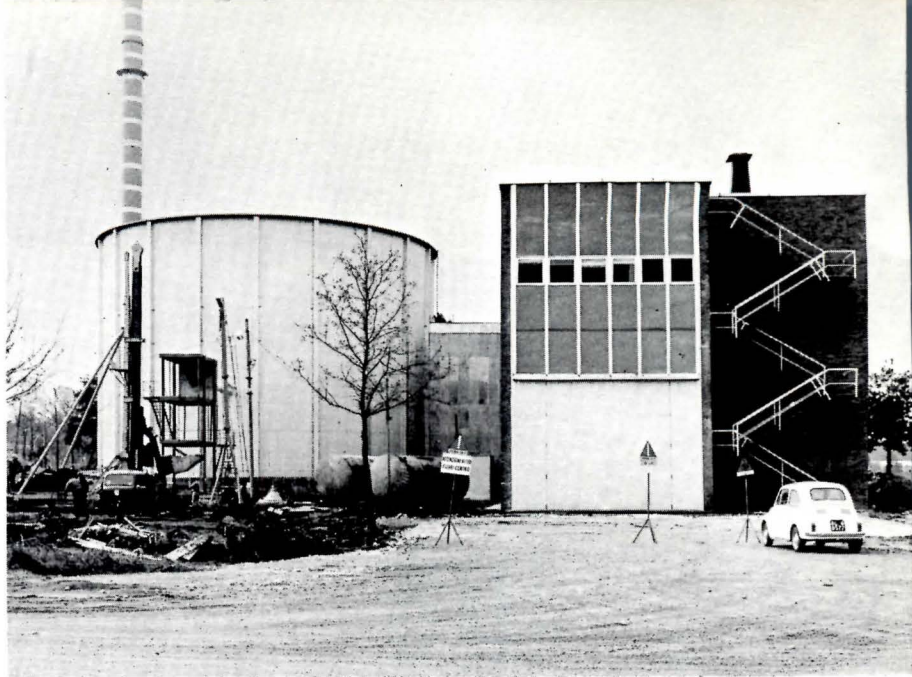


Experimental
power-producing
reactor



Mechanical shops





Above, at left, Ispra Reactor Center, Italy. Standard lab building, Carlo Rusconi-Clerici, architect. Below left, University of Cologne, chemistry lab

Above, right, Ispra reactor complex. Center, Cologne University, auditorium. Bottom, lecture room. Note lights in recesses of cellular concrete structure

Residential Schools for The Visually Handicapped

by Margaret H. Phillips

► Children who cannot see are, in general, psychologically abnormal in only one respect—their independence, physical and academic, is likely to be limited by overindulgence from the beginning of their blindness—often from birth—and they will at first have difficulty finding their way about. It is important that they be encouraged to learn as early as possible how to get along in a sighted world—thus their school buildings will be very little different from local public day schools. The only respect in which school design might differ is—having a special emotional argument in addition to the logic influencing school boards in other schools, they can be examples of the most carefully-planned, most comfortable schools built, with a special sensitivity to the materials used. (Is there a lesson in the fact that the integration of these characteristics results as well in visually attractive buildings?)

It is our opinion that blind children do not need an accident-proof building. However, the youngest children require some coaxing to move confidently and explore their world. Inside a building, they must learn to anticipate turns, stairs; outside to expect telephone poles, fire hydrants, and to remember location of these hazards once encountered. Their areas should be free of unreasonable steps and illogical projections, and should have some guides and "signals." William E. Hoover, Jr, AIA, architect (with Allan Neal, FAIA) of the Western Pennsylvania School for Blind Children kindergarten building says:

"The structure was geared to one purpose—that of making it function

We gratefully acknowledge assistance of the American Association of Instructors of the Blind, Inc., who started this project going, gave much direct support & supplied many hard-to-find facts.

for the blind child's independence. A blind child can walk unaided and freely through the sunlit corridors. Contrasting rough and smooth flooring materials keep their feet in the right path. A number of raised glazed tile is a clue that a doorway is only a foot ahead. If the novice oversteps, the door itself is recessed a full door's width so that even in its open position it does not present an obstacle in entering or leaving the room. At the head and bottom of the stairs are four carborundum strips, and on the stairway, two handrails set at different heights assist different-sized children.

"One item of research not incorporated was the recessed type of metal front for heating units to eliminate sudden shock to children who should come in contact with them. Construction cost eliminated this feature, but radiant heat was used in classrooms, play areas, dining room, etc, with heat in floor slabs."

There are no rules on safety aids for older children, only many different opinions; but a fairly general consensus is that aids such as ramps which replace stairs or special tactile signs, are unnecessary as soon as the student learns his way around. A superintendent pointed out that the design "bird" on the outside of the superintendent's door is no easier a key to remembering its location than learning that three doors from the front is the superintendent's office. However, neither should a school be built as an obstacle course—although it is usually staff members who tumble down spiral stairs.

Need for Flexibility

Schools for the visually handicapped probably began in 1832 when a certain Dr Russ taught three blind boys in a rented room on Canal Street (New York City)** and thus started the New York Institute for the Education of the

** Merle E. Frampton & Ellen Kerney: "The Residential School" NY, NY Institute for Education of the Blind, 1953

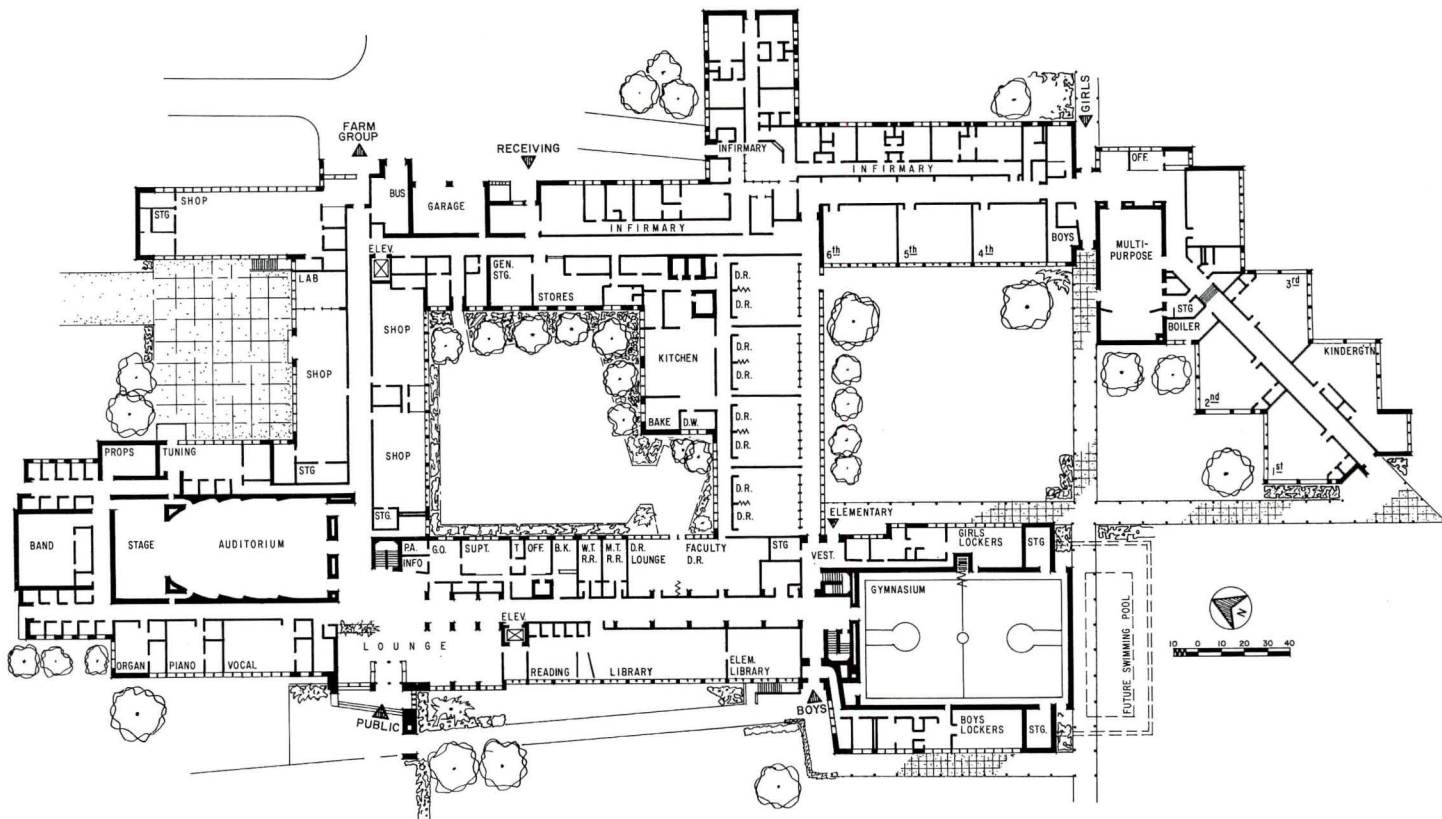
Blind. Fifty three schools now exist in the US, Canada and Puerto Rico, and are in the main financed by state governments; enrollment is generally small, averaging between 150 and 250 students, ages five to twenty one, grades kindergarten through high school. Thirteen schools are combined with or adjacent to state schools for the deaf to provide better service to both through combination of certain administrative facilities.

A sharp increase in the number of school-age children with visual handicaps in the last fifteen years resulted in rapid expansion of schools for the blind. Retrolental fibroplasia, a disease caused by administration of a too-heavy concentration of oxygen to premature babies, increased incidence of blind children from one in 7,000 to one in 3,500. The disease was first reported in 1942, its cause discovered in 1955; its incidence has been greatly reduced.

Now that many fewer retrolental fibroplasia-affected children are entering schools, the number of legally blind children (informally, those who need Braille for reading) will probably drop to nearly one in 7,000 once more. But rising numbers of school children, better means of discovering blind children, and possible changes in function of schools for the visually handicapped will help maintain present enrollment levels.

However, many partially-sighted and totally blind children attend local public schools where special equipment and teachers are available. These should be children who have not been limited in contact with sighted friends and are average or above in intelligence and maturity. Many residential schools encourage high-school students to attend regular public school classes part- or full-time and live at the residential school and use its special aids. Students often join local clubs, Scout troops, or visit places of possible employment and spend weekends and holidays at home.

It is possible that if more well-adjusted visually-handicapped attend local public schools, residential schools will admit more of the difficult and multiple-handicapped blind. Obviously, in the next twenty to thirty years great changes might take place in use of buildings designed today—so these buildings must be as flexible as imagination and knowledge of educators and architects can make them.



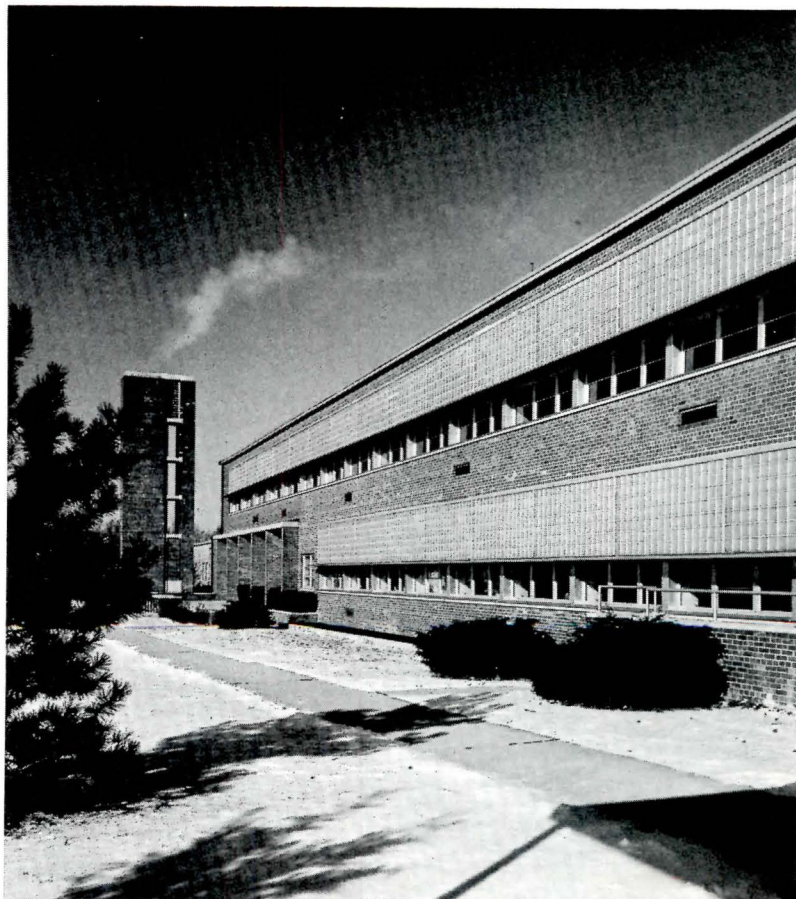
Ohio State School for the Blind (1954)

Columbus; Outcalt & Guenther, architects. (Administrative and academic building, above and right; next page, site plan, library and kindergarten.) "Circulation was an important consideration in the over-all planning of this school. No vehicular traffic goes through an area occupied or used by the students. The smaller child, adjusting to an environment totally different from sheltered home life, lives in a small "world." Travel from cottages to classroom and dining room is challenging, yet relatively short in distance. As the student becomes older, his 'world' expands, travel distances become greater, outdoor activity increases.

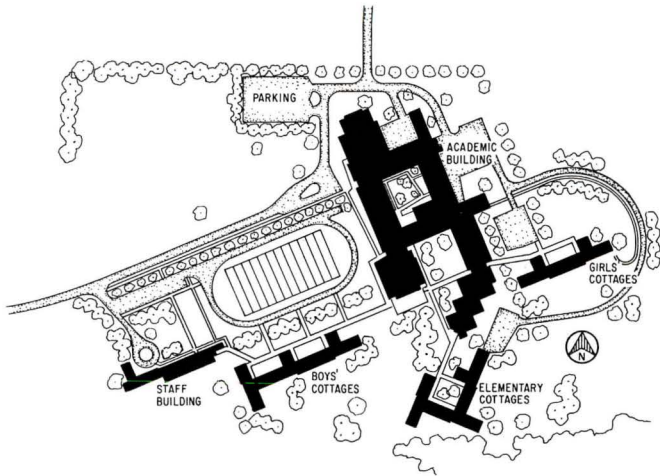
"Kindergarten—(windows to the north:) Adequate and comfortable natural light is extremely important to the student with vision permitting object perception since shade and shadows are the principal means of distinguishing shapes. Sighted teachers and staff members should have the most pleasant and comfortable working conditions.

"Library—adequate storage is a must—many teaching aids for the blind such as books, models, etc, take up a large amount of space."

(Comments by Carl F. Guenther, FAIA, of Outcalt, Guenther, Rode, Toguchi and Bonebrake, architects)



R. Marvin Wilson



R. Marvin Wilson

Site

Location of residential schools within walking or public transportation range of shops, theatres, museums, churches, libraries, a good university (preferably one with a good medical school) and excellent medical facilities is extremely important for widening education and for cultivating independence of staff as well as students. There should also be nearby residential areas, hotels and motels, public transportation to all parts of the state for travel home and for visitors.

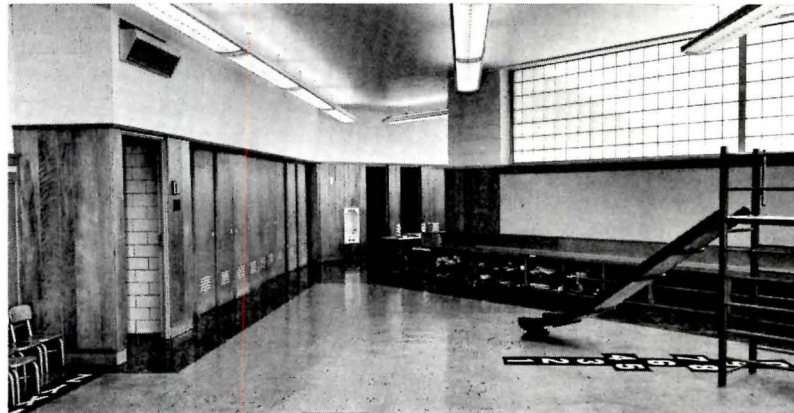
With foresight the state can provide a large site as well as an ideally-located one. Informally—there is no standard—educators agree that twenty to thirty acres is the *minimum* for a medium-sized school (150-200 pupils) with room for organized and disorganized sports, imaginative nature programs and for expansion.

Administration

Recommended student-teacher ratio is eight-to-one and rarely exceeds nine-to-one, but class size varies according to age-level and type of class. Other staff includes administrative, clerical, house-parent, medical, custodial, maintenance, maids and kitchen help for three meals a day. All need lounge facilities as well as logically-planned work space, and should be consulted during planning for the sound advice they can contribute in their own fields.

The Ohio School for the Blind has been well-designed for administration (not to exclude its consideration of students):

- each department containing heavy furniture is served by a driveway and loading ramp



R. Marvin Wilson

- special service hall behind dining rooms divides serving and student traffic

- each cooking preparation stage within five steps of its own walk-in refrigerator

- intercoms to every building and room

- related departments adjacent to each other

- glass partitions dividing teachers' offices and hall to facilitate supervision

Other necessary administrative components are:

- laundry facility with plenty of sorting and storage space (possibly serving other institutions also)

- storage room for non-perishable food

- infirmary (size and staff will be determined by available hospitals, eye specialists, dentists, general practitioners, and money)

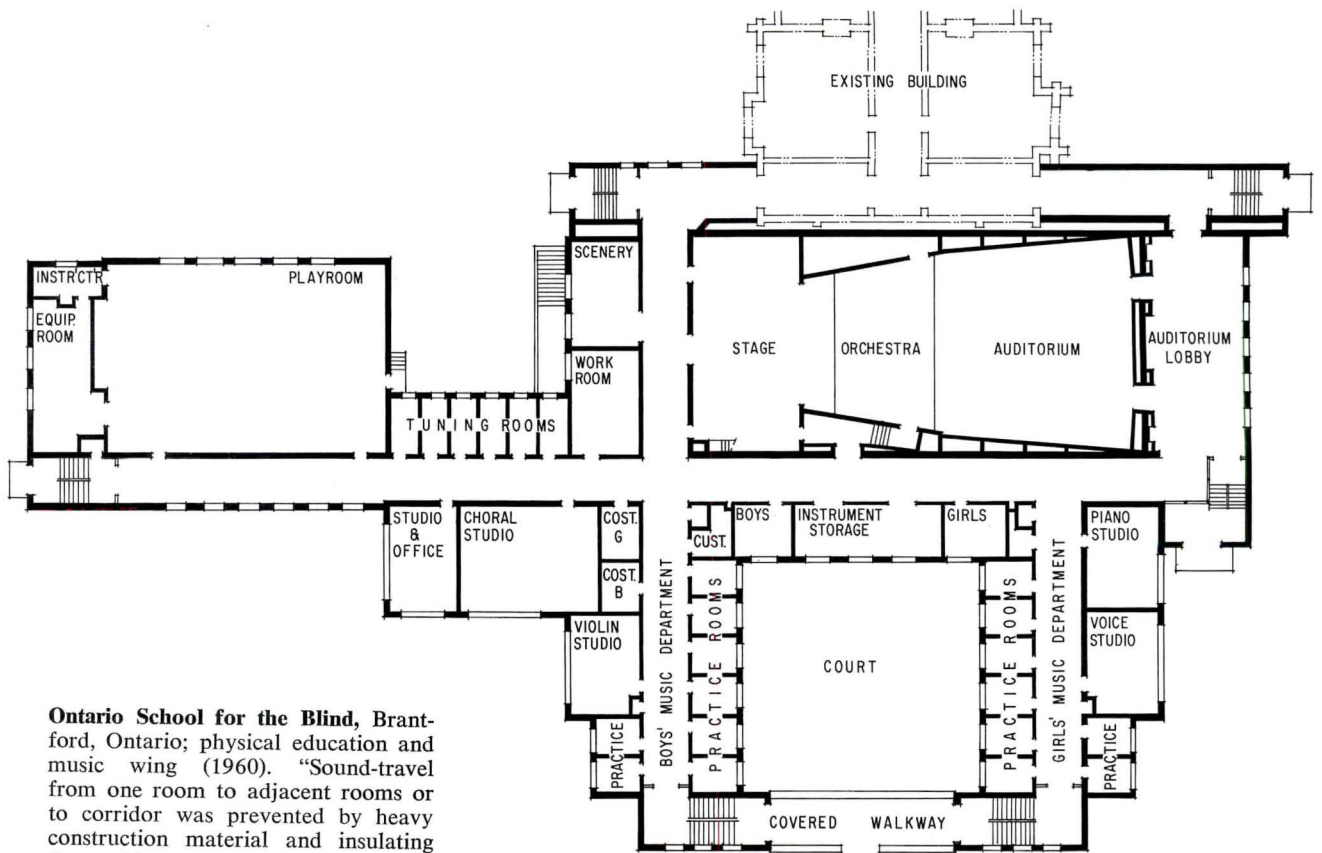
- offices for superintendent, clerks, files, etc, located for easy expansion and shifting

- covered walkways between buildings to reduce stresses due to rain, snow, mud brought into buildings, and wear and tear on clothes.

- convenient and numerous rest-rooms

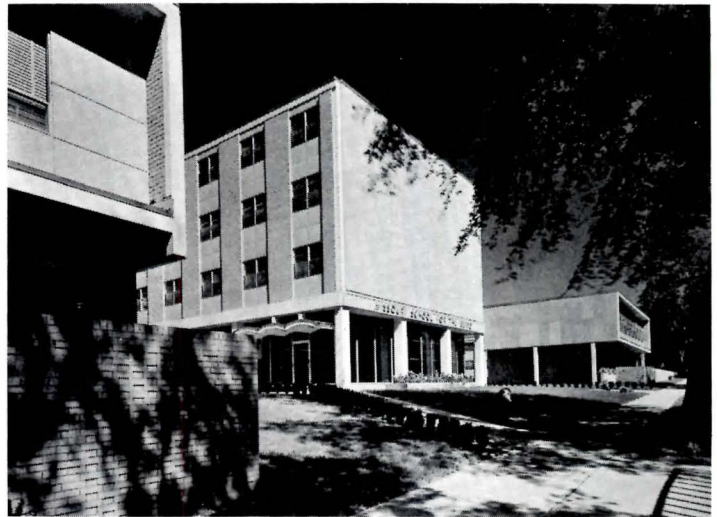
Storage Space

Braille books, Braille writers, talking books and other apparatus for the blind take up a great deal more space than would be expected. A standard locker is too small for Braille books to lie flat; a Braille dictionary contains thirty-six volumes, the World Book Encyclopedia in Braille requires forty-three linear feet of shelf space. Models of buildings, stuffed animals, anatomy, etc, are a large part of such education and require storage and some open use and display space. Considerable shelf and cabinet area and clothes closets are necessary—but not so much that they encourage collecting. The library needs probably four times the cubic-foot area of a normal library. Oversize or adjustable-top desks will accommodate a Braille book and a Braille writer at the same time.



Ontario School for the Blind, Brantford, Ontario; physical education and music wing (1960). "Sound-travel from one room to adjacent rooms or to corridor was prevented by heavy construction material and insulating thoroughly space above ceiling. . . . Great care was taken in breaking up wall-and ceiling-areas and providing and distributing absorption and reflection areas." (Charles H. Brooks, RAIC)

Arteaga



Missouri School for the Blind, St Louis; 1960 extension of existing building's three dominant wings, in form of five small buildings—administration, classroom, infirmary, dormitory rooms—connected to each other and to original structure by enclosed corridors. Pearce & Pearce, Inc, architects

Arteaga



Michigan School for the Blind, Lansing; Health Center (1957); Manson, Jackson & Kane, architects; combination infirmary and specialized eye-treatment for staff and students

Curriculum

A standard curriculum is taught in residential schools for the visually handicapped. From twenty-five per cent to thirty-five per cent of graduates go on to college, the rest to vocational school or directly to work. The school needs a basic library for reference and recreational reading, with reading, record-listening, stack, display and storage space and librarian's office and workroom. Separate reference sections in the dormitory lounge are convenient unless classrooms and library are open at night and on weekends for studying—Braille dictionaries can hardly be carried home overnight.

Pre-vocational education is similar to that taught in local schools and is not intended to prepare these students to earn money but to help them find their interests and abilities. Most common activities—and facilities they call for—are:

- music: soundproofed practice rooms for individual and group practice (perhaps located for off-hour practice)
- industrial arts: the usual equipment
- business: typewriters, dictaphones etc
- homemaking: the usual kitchen and sewing equipment, but more complete—sometimes a separate dormitory for independent house-keeping by responsible older girls
- piano tuning: direct access to outdoor loading area, isolated for sound
- caning (a craft, not vocation): storage bins, sinks

Lighting

William E. Hoover, AIA has good points to make on this subject:

"The lighting of the kindergarten building for the Western Pennsylvania School for Blind Children was a challenge in itself. At first it seemed a very simple problem to light for the blind, but after many meetings with school officials and further research and analysis



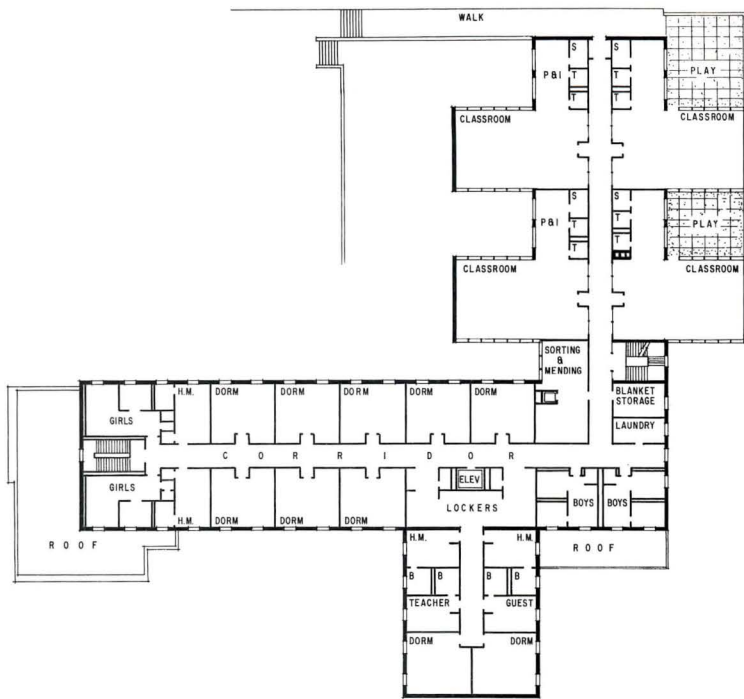
of many types of fixtures, the architects were enlightened by talks by Dr Alton G. Kloss, superintendent of the school, which changed the architects' thinking on foot-candle design for various room functions. We were confronted with designing for the partially-sighted as well as the totally blind, which automatically ruled out normal classroom lighting levels as inadequate. 150 to 170 footcandles of light would be the minimum requirement—especially for classrooms and adjacent rooms used to teach coordination. In our studies we found that high lighting levels could be significantly aided by use of light pastel colors of paint and light flooring materials. This not only assisted the children visually but it also resulted in a psychologically pleasant atmosphere. Our studies showed that this was mandatory—blind children placed in dingy, dark and poorly-furnished rooms immediately sensed their surroundings and became depressed.

"In order to counteract or reduce the brightness contrast usually resulting from recessed ceiling fixtures, indirect troffers were incorporated in brick walls located at the end of the classroom, which threw light against the brick walls

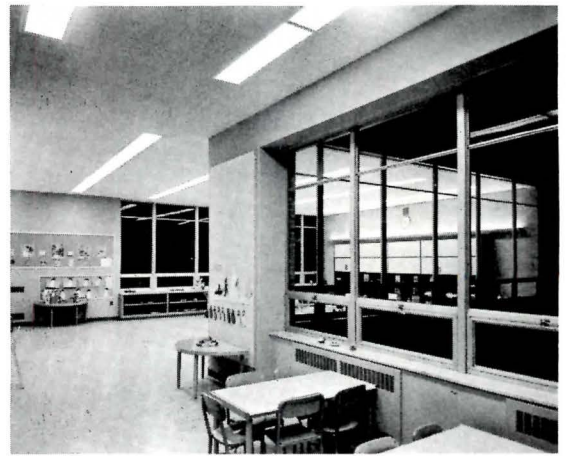
and ceiling. The type of lenses were chosen with a high safety factor to eliminate breakage, since the children might during their play strike the plastic enclosure."

Acoustics

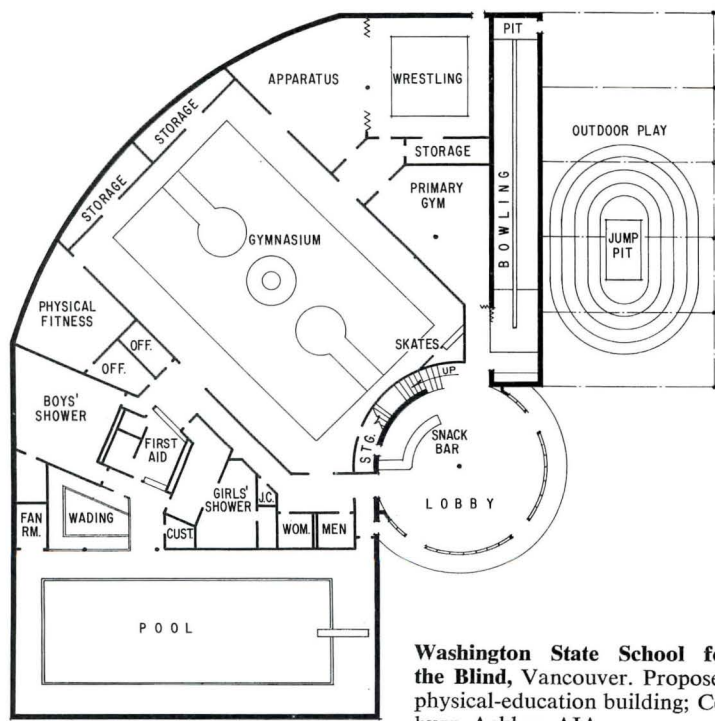
Much of the blind child's orientation comes through his hearing, and a great deal of his education comes from tape-recorders, talking books, lectures. Schools are noisy, echoing places, especially when cafeterias, music practice rooms and classes are concentrated in one building. Thus the blind student needs some reduction of noise—places where he can concentrate without distraction—soundproofed cubicles in classrooms, libraries and dorms for record and tape listening; sound-absorptive material on ceiling and walls in some noisier areas, grouping or isolating noisy activities away from quieter areas. There is a danger of too much absorption—sounds of typewriters from the business office and shouts from a gymnasium are the blind child's best landmarks. Acoustical engineers and specialists in psychology and physiology of blindness will have valuable advice on amount and location of absorptive materials.



Western Pennsylvania School for Blind Children, Pittsburgh; Nursery and kindergarten building (1957), Neal & Hoover, architects. 1958 School Lighting Award sponsored by Electrical League of Western Pennsylvania

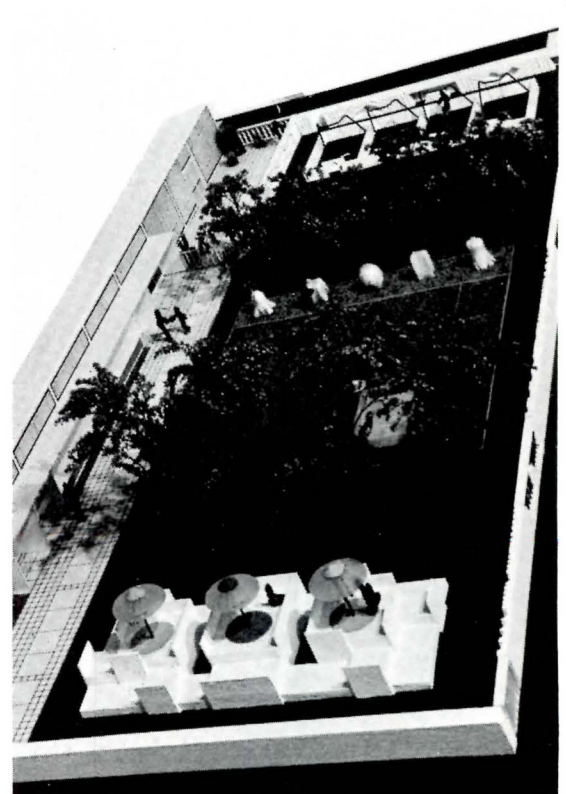


Brady-Stewart



Washington State School for the Blind, Vancouver. Proposed physical-education building; Coburn Ackley, AIA

Playground for Active Play designed by Jules Larbarthe, Jr, as part of a project at Cornell School of Architecture for Western Pennsylvania School for Blind Children. "The active play area is divided into five major areas. Starting at the bottom are a climbing platform, a wrestling ring, wet terrazzo sculptures in a gravel area, series of grass mounds, and four swings. At top left is the visitors' terrace"



Carroll Miller, Jr

Physical Education

- customary sports, emphasis on wrestling, swimming, bowling and track, all excellent for developing coordination and confidence
- physical therapy
- travel training—taught anywhere on school grounds and town—some have special obstacle courses
- areas where children can practice mobility unsupervised (usually unintended byproducts of design)
- space for visiting teams to spend the night

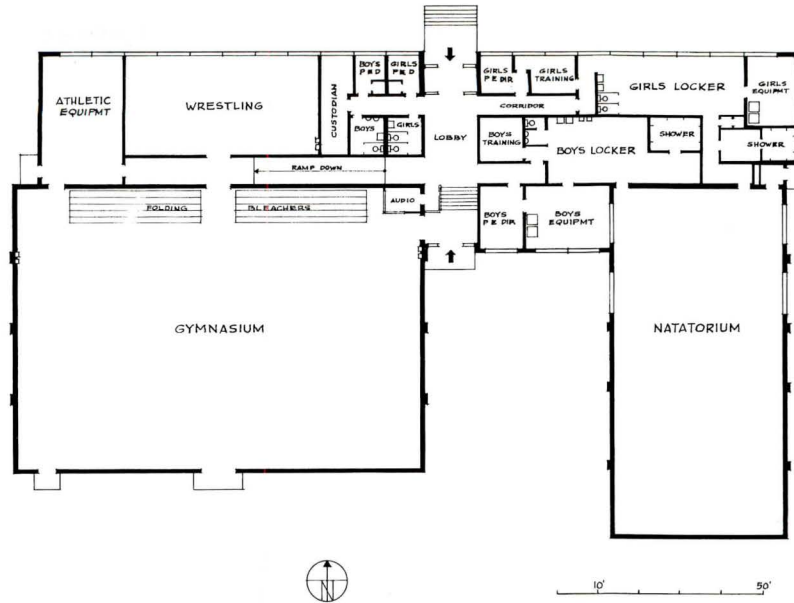
Extracurricular

- meeting places for PTA, teachers' conferences, chapel, hi-fi clubs, ham radio fans, orchestra practice
- lecture rooms and auditorium for speakers, concerts, plays
- barber and beauty shops (if not near town)
- snack bars (often managed and staffed by students)

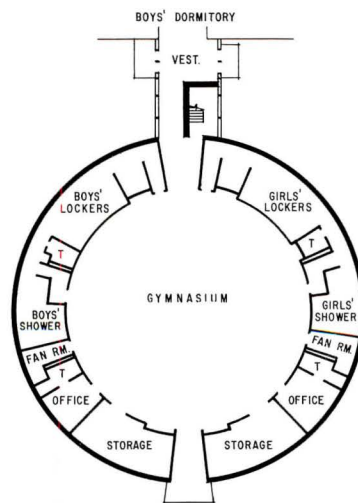
Staff Housing

Children and staff will benefit when as many staff members of all ranks as possible can live off campus—leaving a sufficient number on campus at all hours to operate an effective program. In the opinion of Charles Woodcock, Superintendent of the Oregon School for the Blind, "A program that uses housing as an incentive or fringe benefit for employees is not adequately financed. We should have high enough salaries and professional standards to avoid this. In our particular situation, we now have four employees up and on duty all night long. This includes a person in the infirmary for medical coverage, a night watchman for obvious duties, and a person in each of the dormitories to take care of the night-time needs of the children as well as some of the cleaning and mending of clothing. With this setup and with well-qualified staff people paid to assume the responsibility, I see no need for the superintendent or any other person to reside on the campus.

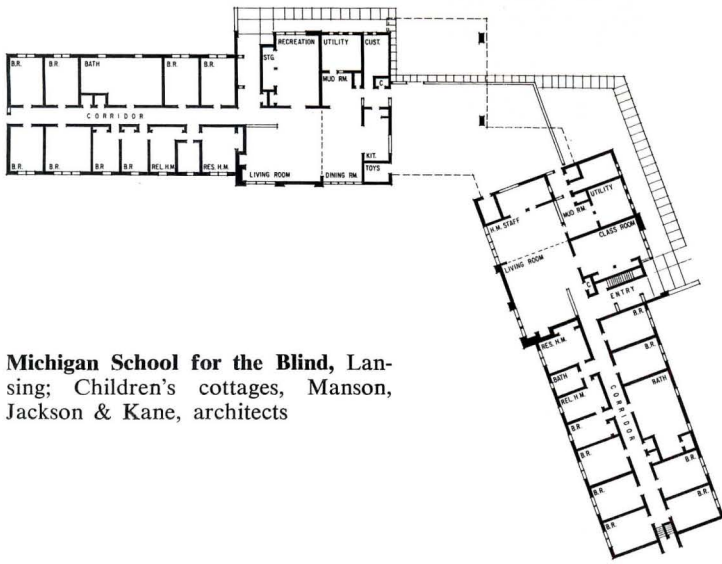
"However, I would qualify this by saying that there are circumstances that enable me to make this statement. We are located just seven blocks from downtown and our neighborhood is a very desirable one. Immediately to the west we have a very nice residential district. Across the street to the



Iowa Braille and Sight-saving School, Vinton; Physical-education building (1961); Kohlmann, Eckman, Hukill, assoc architects. "The new physical education building, like the original gym, is integrated with an existing natatorium. Its purpose is to provide athletic and recreational activity area for both boys and girls, both having access to the pool through separate locker and shower rooms, all of which presented a problem in planning due to the site. Another important consideration was cost. . . . Included in the project is a gymnasium fitted with usual equipment, greaseproof asphalt tile floors on concrete for skating—one of the principal recreational activities available to these children. An audio room with glass observation windows is fitted with sound system tape recorders, phonograph records, microphones, etc, all connected to speakers in the skating area, providing music for entertainment and rhythm for activities, and also guidance to skaters who avoid collision with walls by judging their position in relation to sound source. Preliminary plans included alleys for bowling . . . but construction has been deferred for the present"



Wisconsin School for the Visually Handicapped, Janesville; Gymnasium (and boys' dorm attached, not shown here) (1961); Durrant & Bergquist, architects



Michigan School for the Blind, Lansing; Children's cottages, Manson, Jackson & Kane, architects

south we have a large city park and a university athletic facility. East of the campus is a series of medical offices and on the north we have a small city park and one of the city's two large hospitals."

Dining Rooms

Size, placement, and service in dining halls is largely a matter of economics, but most authorities would agree that a small dining room with meals served family style is preferable, especially for smaller children not used to being away from home. Some schools with cottage-type dormitories have dining rooms and kitchens in each small house; most have all dining rooms together near a central kitchen, but divided in some manner by age.

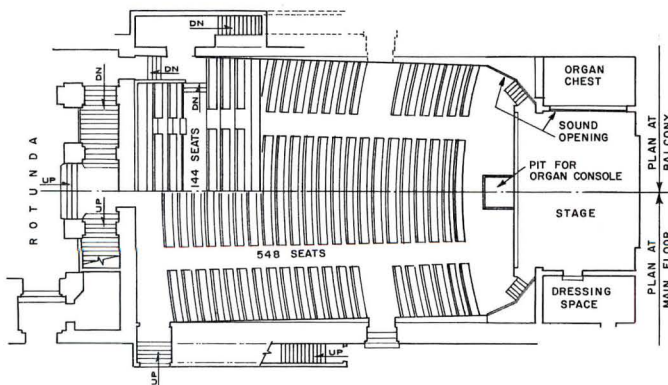
Dormitories

Changes in philosophy and budgets are reflected in development of school layout. In the late 1800's, all children were massed together in one large dormitory. Then separate cottages developed for more individual care. Since the 1920's a combination of the two types has been most common—one large building divided physically into sections, each with its own house-mother and central lounge.

Institutionalism in such large dormitories can be avoided by placing fewer children in a room, using small units, bright warm colors, attractive but durable furniture, lounges with some kitchen facilities and provision for television and hi-fi systems. All ages need desks and shelves in their rooms. House-mothers and their assistants should have apartments, and separate rooms for clothes, cleaning, sorting and mending. Dorms often have monitor systems of various types to keep track of students' comings and goings.

Children who cannot see can sense beauty in a structure—from reactions of their parents or visitors, from the sound, feel, smell, lightness and darkness as they move through space. A building cannot replace sight, but it can compensate partly by delivering its own personality. It cannot replace a well-trained and dedicated staff, but it can be more than a characterless "non-hindrance"—it must be a participant in the maturing process of children who will have to learn independence from outside help in order to earn a living and live a satisfactory private life. ◀

Cortland V. D. Hubbard



Overbrook School for the Blind, Philadelphia, Pennsylvania; auditorium (1961) replacement for destroyed auditorium in shell of existing late-nineteenth century building. Cauffman, Wilkinson & Pepper, architects



**CENTURY 21 INFORMATION CENTER
GENERAL INSURANCE COMPANY OF AMERICA**

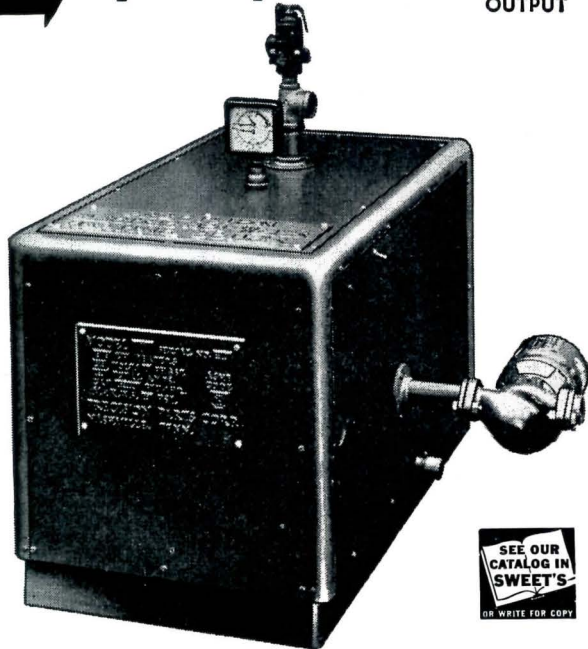
LOCATION: Seattle, Washington

DESIGN: Austin Associates
Seattle, Washington

CONTRACTOR: McCann Construction Company, Inc.
Seattle, Washington

ELECTRIC HOT WATER HEAT

TO **2,500,000 B.T.U.**
OUTPUT



PRECISION ELECTRIC HOT WATER HEATING BOILER

COMPLETE UNIT READY FOR INSTALLATION

with circulation hot water system and water chiller for year-round air conditioning.

CONVERSION EASILY ACCOMPLISHED

where other type fuels now used. Suited for home, churches, motels, apartments, hotels, hospitals, commercial buildings, swimming pools, snow melting and domestic hot water for large users. Temperature range — 60 to 250 degrees. Equipped with Sequence and Proportional Controls when desired.

- Every unit tested and inspected 40,948 to 2,500,000 B.T.U. Output.

- All Boilers meet the requirements of the ASME Boiler and Pressure Vessel Code. Natl. Board approved.

No chimney! No odors! No flame! No ducts! No noise!

Write for complete specifications and prices



**PRECISION parts
corporation**
400-AIA NORTH FIRST STREET
NASHVILLE 7, TENNESSEE

Calendar

May 7-11: AIA National Convention, Dallas, Texas

May 19-25: Royal Australian Institute of Architects, 1962 Convention, Sydney, Australia

May 30-June 2: 55th Annual Convention, Royal Architectural Institute of Canada, Vancouver.

June: Twelfth Annual International Design Conference, Aspen, Colorado

June 10-15: Inter-American Association of Sanitary Engineers, Conference, Washington, DC

June 11-21: ACSA-AIA Seminar on Architectural Education, Cranbrook Academy of Art, Birmingham, Michigan

June 13-16: Annual Meeting, National Society of Professional Engineers, French Lick Sheraton Hotel, French Lick, Indiana

June 17-20: American Society of Landscape Architects, Annual Convention, The Americana Hotel, Bal Harbour (Miami Beach), Florida

July 10-13: British Architects' Conference, Coventry, England

July 14-August 24: Thirteenth Annual Summer Architecture Workshop, Instituto Tecnologico de Monterrey, Mexico

July 23-27: Short Course on Residential Appraising, Purdue University, Lafayette, Indiana

July 25-August 2: UNESCO International Conference on Educational Buildings, London, England

1962 AIA Regional and State Society Conventions

May 24-26: Indiana Society of Architects, Indianapolis

June 14-16: New Jersey Society of Architects, Essex and Sussex Hotel, Spring Lake

September 7-9: Ohio Region, Aboard SS North America, Great Lakes

September 27-29: Western Mountain Region, Sun Valley, Idaho

October: Central States Region, Omaha, Nebraska

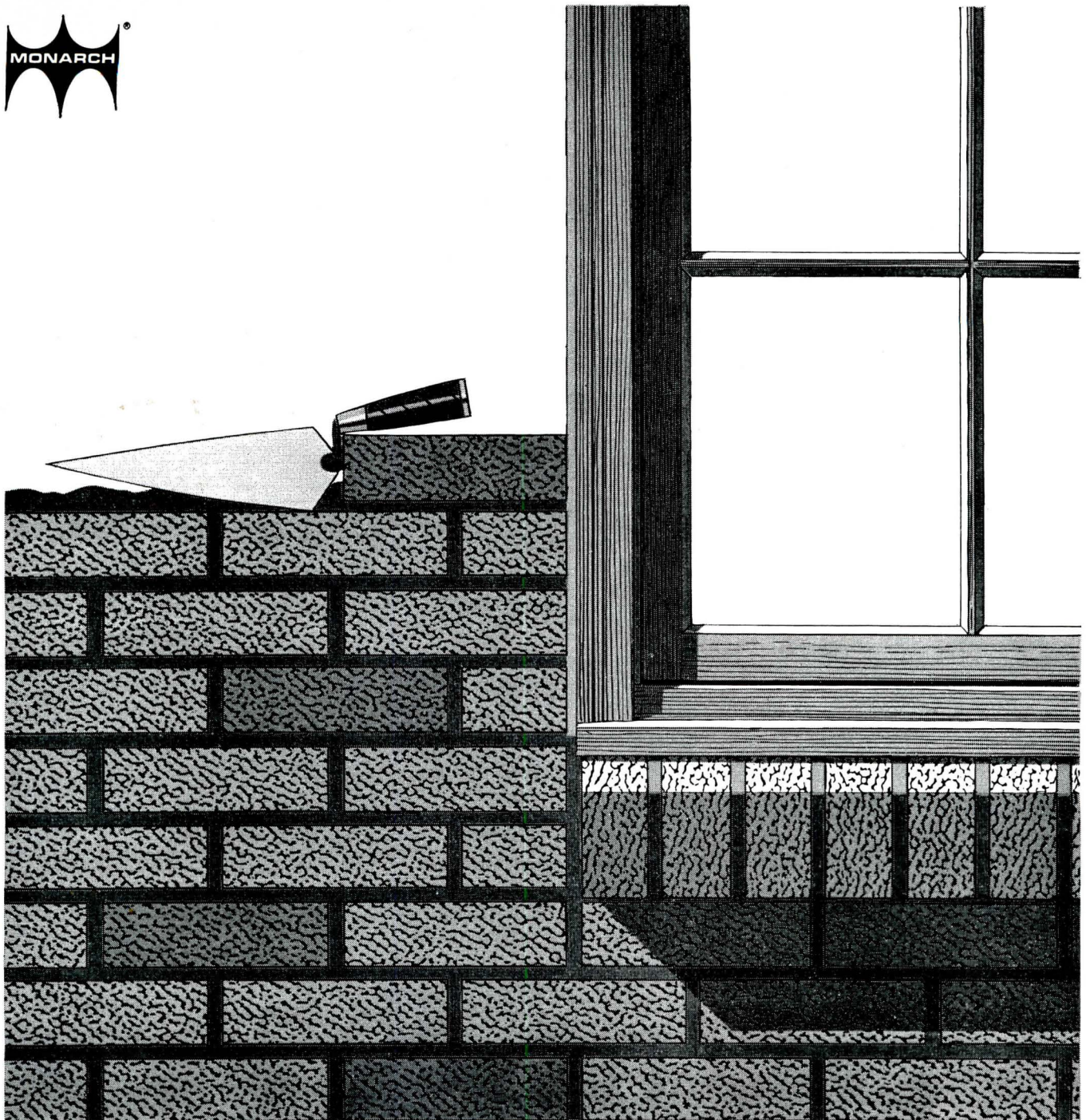
October: California Region, Monterey

October 10-13: New York Region, Whiteface Inn, Lake Placid, NY

October 11-14: Northwest Region, Ocean Lake, Oregon

October 18-20: Pennsylvania Region, Hotel Hershey, Hershey, Pennsylvania

October 25-27: South Atlantic Region, Atlanta
November: Texas Region, Houston



THE PERFECT COMBINATION

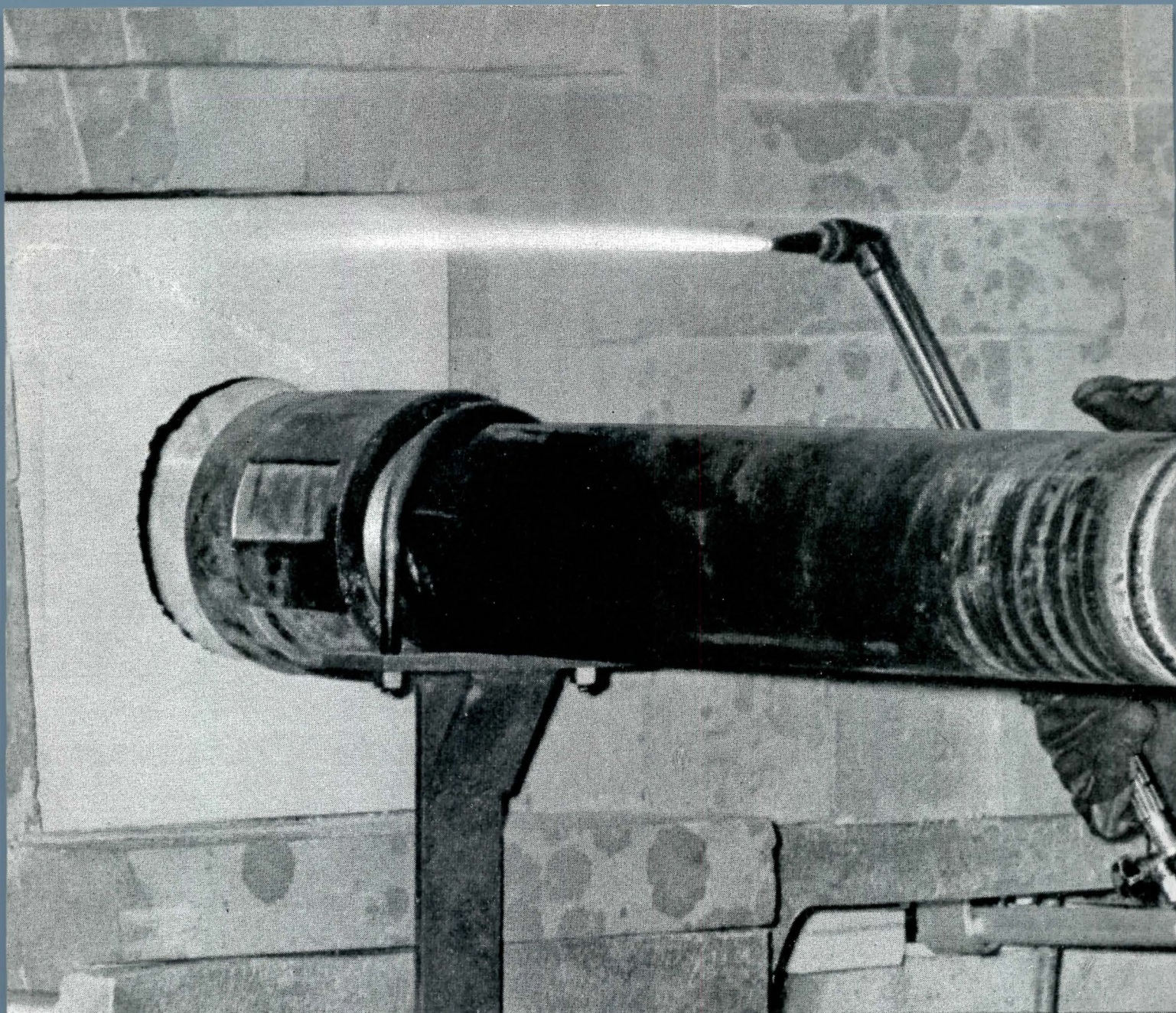
Some things just naturally seem to go together—like bricks and mortar or hammer and nails. And like wood window units and well-constructed homes. Wood window units have many advantages. They have a natural beauty and can be painted or stained to give any desired appearance. They have superior insulating value which means greater indoor comfort. They offer maximum durability. And these are just a few of the many advantages of wood window units.

■ Another go-together: wood window units and Monarch Metal Weatherstrip. Monarch Metal Weatherstrip is carefully designed and precision engineered to give wood window units the maximum in weatherproofing. Monarch weatherstrip made of MetaLane® protects against dust, moisture, and drafts. With the insulation provided by wood window units equipped with Monarch Metal Weatherstrip, summertime air conditioning and wintertime heating function better—and more economically.

MONARCH METAL WEATHERSTRIP CORP.

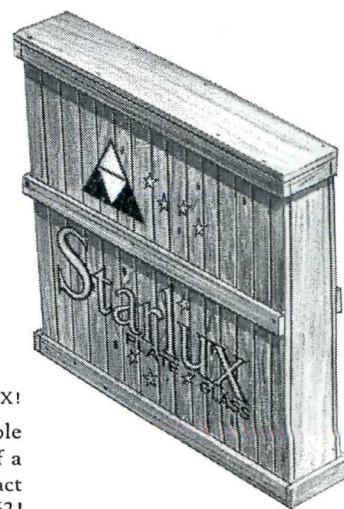
6333 Etzel Avenue / St. Louis 33, Missouri

MONARCH PRODUCES WEATHERSTRIP SOLELY FOR LEADING DOOR AND WINDOW MANUFACTURERS AND JOBBERS



The "LIGHT-OFF"

...and the finest plate glass in the U.S. started on its way to you!



SKILL AND QUALITY WILL SOON FILL THIS BOX!

The highest quality plate glass available A-SG's "STARLUX" Plate Glass, is a product of a 300-year tradition in glass making. This fact belongs in your planning for 1962!



came at 12⁰² PM...

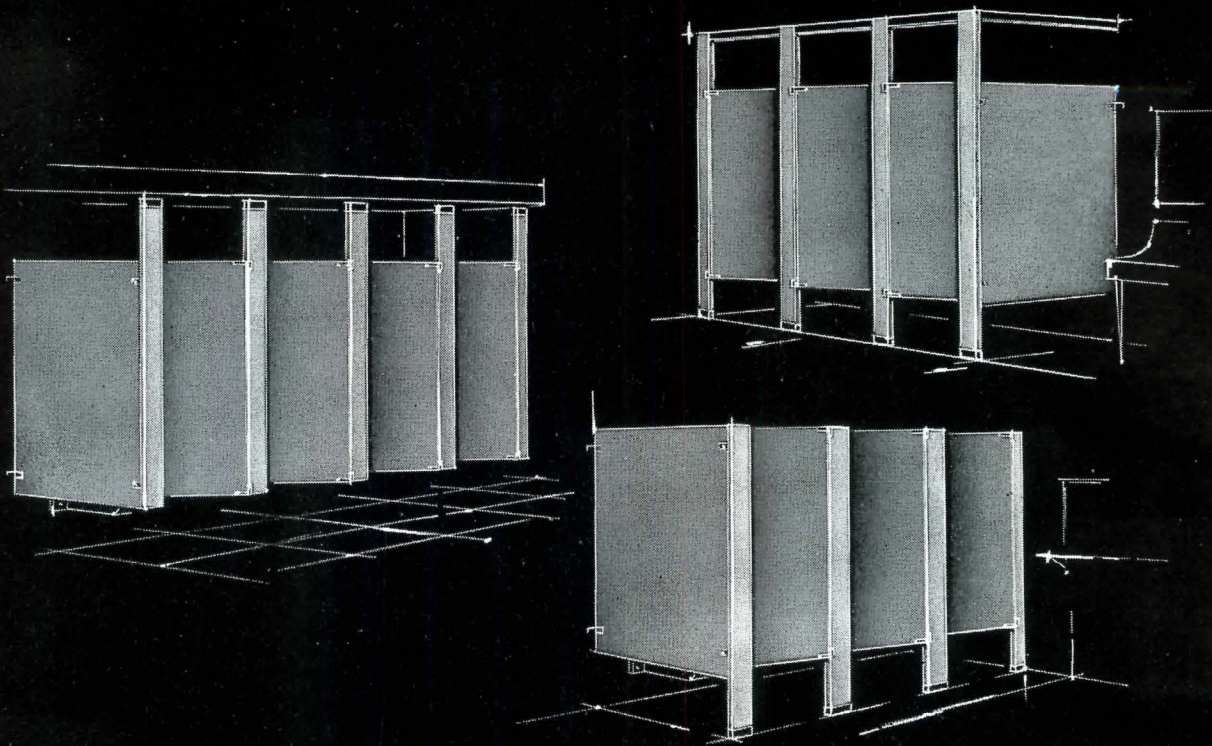
The country's newest plate glass plant, built by American-Saint Gobain at Greenland, Tenn., has started its first campaign. Soon it will be producing A-SG's "STARLUX" Plate Glass.

Here at Greenland—near Kingsport, Tenn.—the first step towards actually producing the highest quality plate glass available in the U. S. took place on April 3. It was then that a technician lighted off the 300-ton tank from which will soon flow an endless ribbon of glass. This modern, multi-million dollar glass plant will give American-Saint Gobain the distinction of being the only domestic manufacturer of all major types of flat glass—plate glass, window and sheet glass, and patterned glass.

Whether you're an architect, a manufacturer or a jobber, Greenland U.S.A. is news, good news! For the latest information on sizes, delivery and prices, call your nearest A-SG office. You'll find the telephone number in your classified telephone directory. American-Saint Gobain Corporation, Kingsport, Tenn.



AMERICAN-SAINTE GOBAIN... *wherever people live and work!*



SPECIFICATION

QUALITY

at no additional cost!

Bonderized galvanized steel—.15 mils zinc coat both sides of doors, panels and pilasters—positive rust protection.

Full hot dipped galvanized pilaster floor mountings prevent rusting and failure at floor.

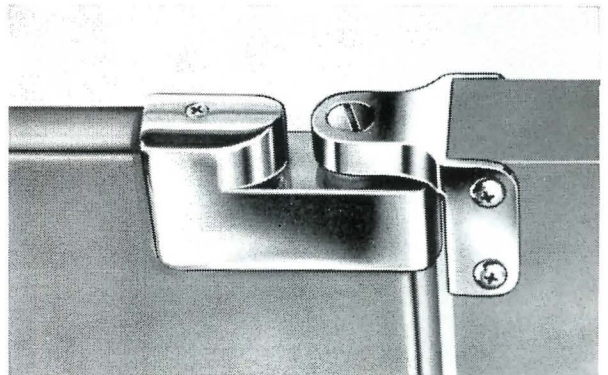
Full welded construction throughout.

Triple chrome plated, die cast, non-ferrous brackets. Heavy durable finish.

Doors and partitions protected and strengthened by stainless steel corners.

Enamel electrostatically applied and baked automatically in a uniformly controlled, dust free atmosphere to assure higher quality finish.

... plus Torsionamic® Hinge



Patented

An exclusive Pricemetal feature. Torsionamic hinge assembly is fully concealed—no hinge projection beyond the door line. Door neither rises nor falls. Smooth silent action. Only one moving part...one screw adjustment.

Pricemetal
 COMPANY

569 Laurel Street, San Carlos, California



LO-TONE[®]

INTRODUCES A NEW
PRINCIPLE IN MINERAL ACOUSTICAL

**VENTILATING
CEILING TILE**

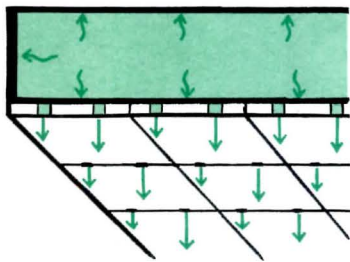
**ADJUSTABLE
AIR
DISTRIBUTION**

with open slots and concealed sliding splines, in a standard system of ceiling tile installation.

(See following pages)

THIS IS THE NEWS

about new Lo-Tone ventilating tile. The slot-and-spline system. Facts on plenum pressure; distance of air carry; air velocity and penetration; air changes per hour. Importance of tile porosity. Engineering factors.



WHAT IS THE "STATE OF THE ART," IN VENTILATING TILE?

During the past several years, architects and engineers have been greatly interested in the concept of the ceiling system which would be an integral part of the air conditioning system—for office buildings, schools, hospitals, shopping centers and similar structures. Now, Wood Conversion Company announces a fully tested and accurately engineered ceiling system providing this function.

The new system has been created with Lo-Tone Mineral Acoustical Ceiling Tile—one of the most advanced and fastest growing lines of mineral ceiling materials, designed for enduring beauty. The Lo-Tone ventilating ceiling is distinctly different, in principle and performance, from any other system yet developed.

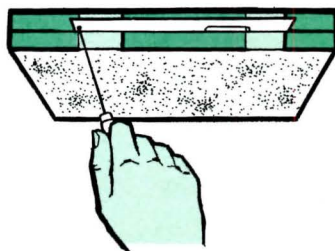
Only two comparable ventilating tile systems are now on the market. One, using simple drilled holes, has no control mechanism for regulating air flow. The other system does have an air control regulating device. However, Lo-Tone ventilating tile provides more positive air flow, and a larger degree of control, than this system or any others known to us.

With the systems previously available, ventilating tile has now been installed in several hundred buildings of various sizes and types. All slotted-tile installations have performed satisfactorily—so the basic princi-

ples involved have been well proved. Some experts in this field have estimated that within two years 30% of all air conditioned buildings will have ventilating ceiling tile.

WHAT ARE THE BASIC DIFFERENCES IN THE LO-TONE SYSTEM?

Most important is the unique engineering principle using small open slots at the tile joints and concealed sliding splines to open or close these slots. An obvious and practical advantage of this system is that Lo-Tone ventilating tile is applied in exactly the same manner and with the same components which acoustical contractors have used for years with many concealed suspension systems. The only major change in application is the sealing and insulation of the plenum area—a procedure required with any ventilating tile.



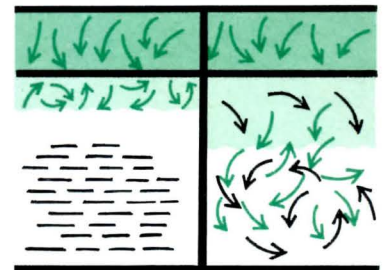
The second major difference is a unique combination of several optimum design factors, established by our own research. These include, as examples for a typical room:

- operating static air pressure in the plenum ranging from .02 to .15 (measured by inches of water);
- delivery of air to the room in volume ranging from 1.5 to 6.0 cubic feet per minute per square foot of ceiling;
- minimum downward air velocity of 500 feet per minute;

- total ceiling open area of $\frac{1}{2}$ of 1%, maximum.

All of these factors may be varied and controlled to fit any design condition, with the Lo-Tone system.

One most invaluable factor, not found in all ventilating tile, is optimum porosity in the tile itself. The Lo-Tone system provides for 10% of total air flow by porosity. This function maintains a thin buffer layer of clean supply air against the ceiling surface at all times, under sufficient pressure to keep the surface clean and fresh-looking.



WHAT ARE LO-TONE'S COMFORT FACTOR ADVANTAGES?

Any air conditioning system will be judged primarily by the human comfort it provides. With very little study, it is easy to prove that comfort depends most importantly upon good air distribution. Improved air distribution, then, is Lo-Tone's special contribution to more comfortable living and working.

Air movement can cause discomfort in four different ways — by producing drafts, by transmitting excessive noise, by unpleasant temperature variation, and by stratification of air, with several discomforting effects. The Lo-Tone ventilating tile system has been carefully designed to combat all four of these troubles.

Downward vertical air carry from a ceiling at nine foot height, for example, should be about 36 inches,

to a point six feet above the floor. Proper penetration for ceiling heights up to 20 feet is provided for in Lo-Tone design and engineering.

This matter of supply air penetration is critical in any distribution system. If penetration is too deep, supply air is not properly entrained. If too shallow, there will be no secondary air motion, and air will be stagnant in the occupied zone.

The desired number of air changes per hour will vary considerably with occupancy and use of a room. The Lo-Tone system can easily provide from 3 to 40 air changes per hour.

Most important by far, in air distribution, is adjustability and "balance" of air delivery at various points in the room. This adjustability can be achieved far better with Lo-Tone than with any conventional grilles, ceiling diffuser fixtures, or any other ventilating tile systems. *The Lo-Tone installation can be pre-balanced in the original design, so the acoustical contractor's crew can make all desired settings as the work goes along.*

And, of course, these zone adjustments can be *changed* instantly, at any time, from the underside of the ceiling.



HOW DO LO-TONE COST FIGURES COMPARE WITH OTHER SYSTEMS?

The Lo-Tone ventilating tile ceiling costs no more than present conventional systems using duct work and

ceiling diffuser fixtures. *In many cases, a Lo-Tone ventilating ceiling will cost less.*

To support this statement, we remind you that installation of Lo-Tone ventilating tile is handled largely by familiar, conventional methods; the acoustical contractor's crew has little new to learn and little, if any, added work. Remember, too, that large amounts of duct work are eliminated.

Ordinarily, each plenum area is fed by one stub duct. Branch ducts are seldom necessary. Considering long-term usage, the money saved on alteration of branch duct work when partitions are moved is, in itself, a substantial item.



WHAT ELSE SHOULD THE ARCHITECT KNOW ABOUT THE SYSTEM?

Certain miscellaneous facts of special interest are the following:

- Acoustical values of Lo-Tone ventilating tile are the same as for regular Lo-Tone mineral ceilings.
- Economy, efficiency and good design are assured in the wide choice of lighting systems which may be used with Lo-Tone ventilating ceiling tile. Fixtures may be recessed or surface mounted, as desired.
- A considerable amount of noise transmission through

air ducts is eliminated by the ventilating tile.

- Important design improvements are now open to the architect by elimination of diffuser fixtures, prevention of streaking, and the self-cleaning characteristics of Lo-Tone ventilating tile.
- The product will be available in four patterns — Fissured tile with square edge, Fissured with beveled edge, Random Drilled, and the micro-perforated Constellation pattern—in regular mineral and Fire-Rated types.



WHERE CAN THE ARCHITECT GET FURTHER INFORMATION?

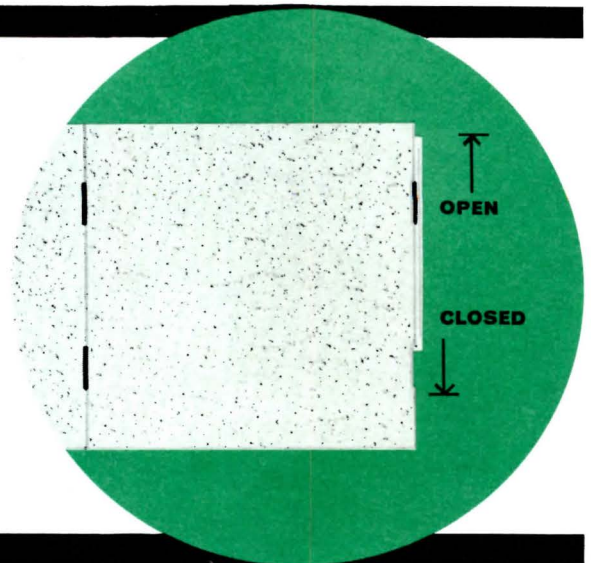
For any technical data desired, any planning help or engineering counsel in connection with Lo-Tone ventilating ceiling tile, please write our home office: Wood Conversion Company, Dept. J, First National Bank Bldg., St. Paul 1, Minnesota.

LO-TONE ACOUSTICAL PRODUCTS include:

- Ventilating Tile
- Mineral Ceiling Board
- Fire-Rated Ceiling Tile
- Fire-Rated Ceiling Board
- Metal Pan Systems

LO-TONE[®]

MINERAL ACOUSTICAL VENTILATING CEILING TILE



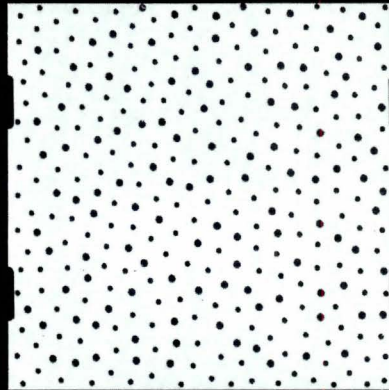


SPECIFICATION DATA
LO-TONE[®]
MINERAL ACOUSTICAL
**VENTILATING
CEILING TILE**

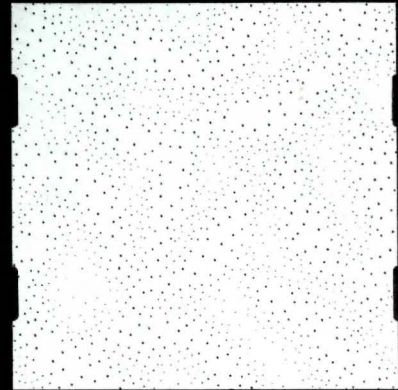
PATTERNS AVAILABLE



FISSURED
(Square edge or
beveled edge)
12" x 12" and 12" x 24"
3/4" thick



RANDOM DRILLED
12" x 12" and 12" x 24"
5/8" thick



CONSTELLATION[®]
12" x 12" and 12" x 24"
5/8" thick

GENERAL DESCRIPTION

NRC ACOUSTICAL VALUES AND SOUND ATTENUATION — Factors are the same for Lo-Tone ventilating tiles as for standard Lo-Tone mineral tiles. Refer to AIA file 39-B or Sweet's Architectural File for complete tables.

SURFACE FINISH — All patterns have white surface treatment with excellent light reflection factor.

FLAME RESISTANCE — All patterns meet Class "A" of Federal Specification SS-A-118b, and Class 1, ASTM E84-60T.

APPLICATION — Suspension with concealed H&T or Z systems.

ARCHITECTURAL SPECIFICATIONS

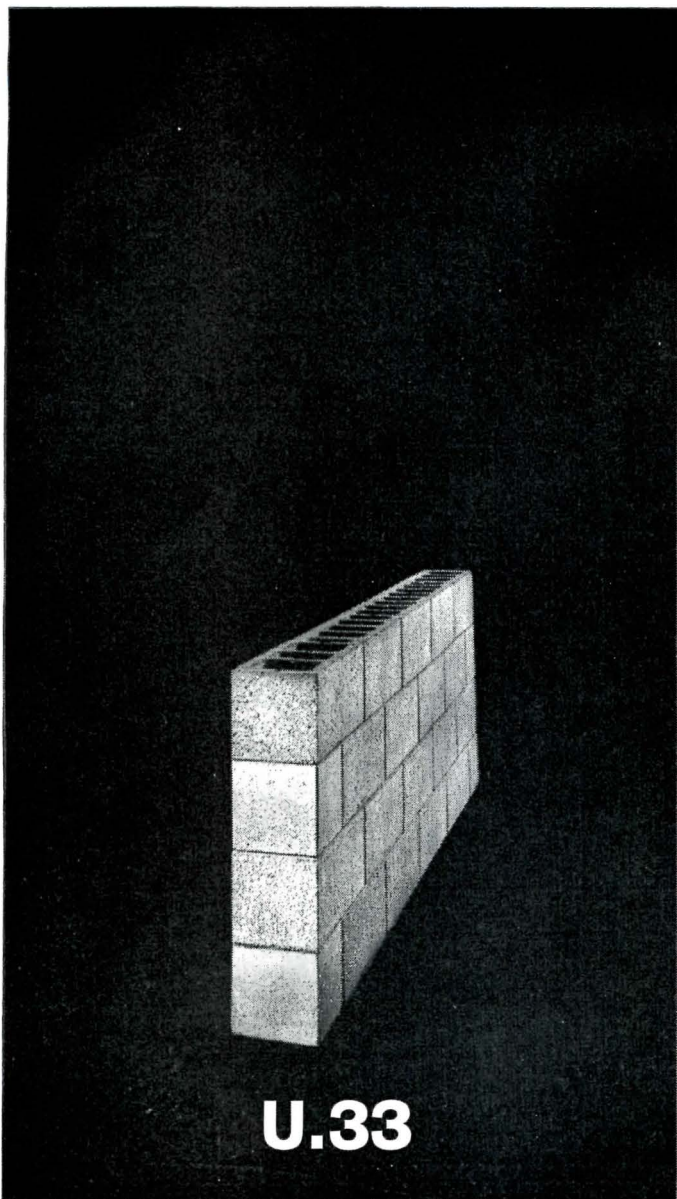
(Short Form)

Room air distribution to be provided by means of Lo-Tone Ventilating Tile as manufactured by the Wood Conversion Company, Saint Paul, Minnesota, or equal, if approved. Ventilating tile are to be manufactured by means of the mineral wet-felted process, in 3/4" thickness, Fissured surface pattern, or 5/8" thickness, Constellation or Random surface pattern, and shall conform to Federal Specification SS-A-118b, Class A, incombustible. Two ventilating slots totaling 1/2% opening per square foot are to be provided in the tile joint between 12" x 12" or 12" x 24" units, with a control vent spline, as furnished by the manufacturer, positioned in the tile kerf.

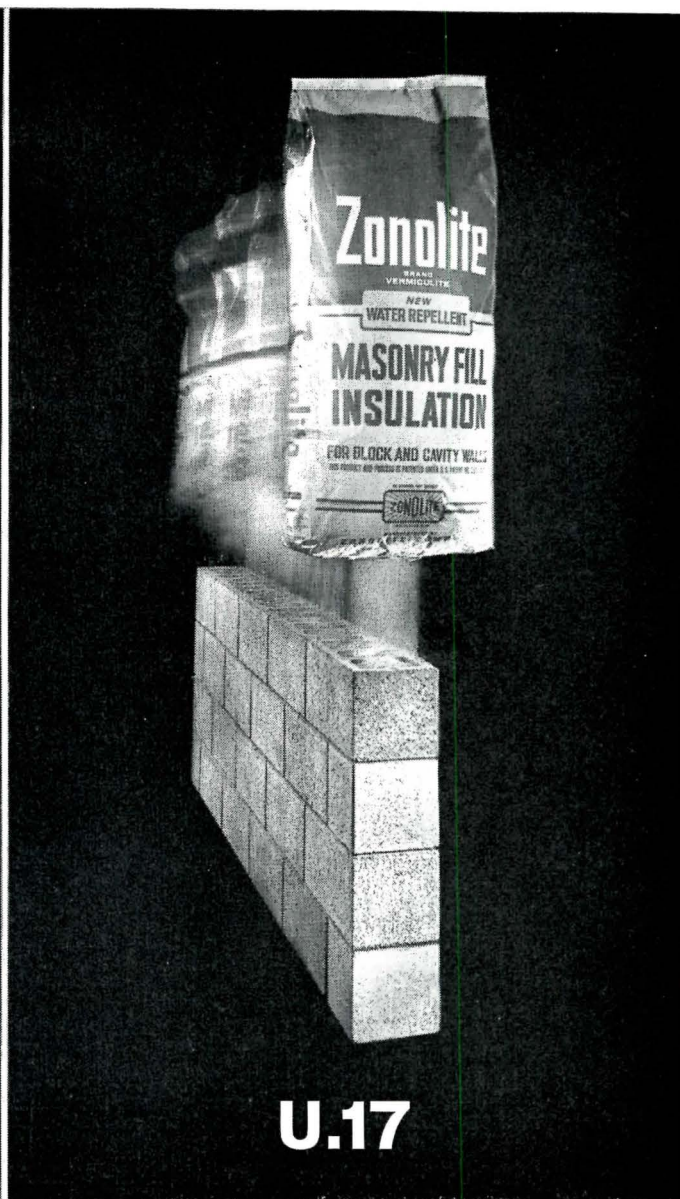
Installation and supervision of this ventilating tile system shall be performed by a recognized Wood Conversion Company acoustical contractor.

WOOD CONVERSION COMPANY

First National Bank Building, St. Paul 1, Minnesota



U.33



U.17

Illustrated are comparative U values for 8" lightweight concrete block. U values of other types and sizes of masonry walls are cut from $\frac{1}{3}$ to over $\frac{1}{2}$ when insulated with Zonolite Masonry Fill Insulation.

Need any more reasons for insulating masonry walls?

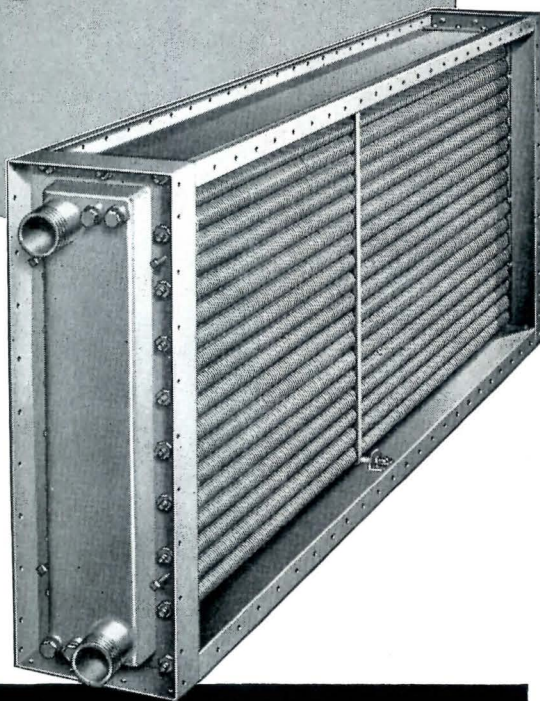
We need a minimum of encouragement to tell you about them. Zonolite Masonry Fill Insulation often pays for itself before the building is begun, because it reduces thermal transmission so effectively that smaller heating and air conditioning units can be used. Of course, future fuel bills will be much lower. And the occupants much more comfortable. Loudness of sound through Zonolite Masonry Fill insu-

lated walls is reduced by 20% to 31%.

The installed cost is low; from approximately 10¢ to 21¢ per sq. ft. (For example, 8" block can be insulated with Zonolite Masonry Fill Insulation for about 13¢ per sq. ft.) The reason: low material cost and fast installation. Zonolite just pours into the block cores, or cavities of cavity walls. For complete information, write for Technical Bulletin MF-56, to:

ZONOLITE

BIG
CAPACITY
IN
Small **SPACE**



AEROFIN *Smooth-Fin*
Heating and Cooling Coils

High ratio of surface area
to face area

High air velocities without excessive
friction or turbulence

Write for Bulletin S-55

AEROFIN
CORPORATION

101 Greenway Ave., Syracuse 3, N. Y.

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

ENGINEERING OFFICES IN PRINCIPAL CITIES

INDEX TO ADVERTISERS

Aerofin Corporation	120
<i>Richards & Weiss, Inc</i>	
American Art Metals	97
<i>Lowe & Stevens</i>	
American-Saint Gobain Corporation	108-109
<i>G. M. Basford Company</i>	
Armco Steel Corporation	25-28
<i>Marsteller, Rickard, Gebhardt & Reed, Inc</i>	
Armstrong Cork Company	
Acoustical Division	6-7
<i>Batten, Barton, Durstine & Osborn, Inc</i>	
Armstrong Cork Company	
Floor Division	29
<i>Batten, Barton, Durstine & Osborn, Inc</i>	
Automated Building Components, Inc.	12
<i>E. J. Scheaffer and Associates</i>	
Azrock Floor Products Division	
Uvalde Fock Asphalt Co.	2nd Cover
<i>Glenn Advertising, Inc</i>	
Blumcraft of Pittsburgh	9
Boiard Tile Manufacturing Corporation	14
<i>Clayman and Associates Advertising</i>	
Bourne Manufacturing Company	16
<i>Watkins and Rogers, Inc</i>	
Bradley Washfountain Company	19
<i>Hoffman, York, Paulson & Gerlach, Inc</i>	
The Celotex Corporation	22-23
<i>MacFarland, Aveyard & Company</i>	
Colonna and Company of Colorado	18
<i>Taube-Violante, Inc</i>	
Facing Tile Institute	13
<i>Henry J. Kaufman & Associates</i>	
Faries-McMeekan, Inc	106
<i>Ash Advertising</i>	
Hillyard Chemical Company	101
<i>Bozell & Jacobs, Inc</i>	
Hope's Windows, Inc	32
<i>The Moss-Chase Company</i>	
Josam Manufacturing Co.	11
<i>Allied Advertising Agency, Inc</i>	
LCN Door Closers, Inc	116-117
<i>Harris, Wilson and Walt, Inc</i>	
Little, Brown and Company	118
The R. C. Mahon Company	5
<i>Dudgeon, Taylor & Bruske, Inc</i>	
Monarch Metal Weatherstrip Corporation	107
<i>Wm. John Upjohn Associates</i>	
Natco Corporation	105
<i>Ketchum, MacLeod & Grove, Inc</i>	
National Terrazzo & Mosaic Association	121
<i>Henry J. Kaufman & Associates</i>	
Pittsburgh Plate Glass Company	2
<i>J. Walter Thompson Company</i>	
Porcelain Enamel Institute	10
<i>T. N. Palmer & Company, Inc</i>	
Precision Parts Corporation	104
<i>Culbertson-King-Smith Advertising, Inc</i>	
Pricemetal Company	110
<i>Ash Advertising</i>	
Roto Swing Door Company	20
<i>Lowe Runkle Company</i>	
The Ruberoid Company	3rd Cover
<i>Kastor Hilton Chesley Clifford & Atherton, Inc</i>	
Steelcraft Manufacturing Company	21
<i>John L. Magro Advertising, Inc</i>	
Timber Structures, Inc	17
<i>Arthur E. Smith Advertising</i>	
Unit Structures, Inc	15
<i>Kuswa-Fisher-Hoover, Inc</i>	
United States Steel Corporation	
American Bridge Division	30-31
<i>Batten, Barton, Durstine & Osborn, Inc</i>	
Vermont Marble Company	1
<i>Chambers Wiswell & Moore, Inc</i>	
Henry Weis Manufacturing Co.	24
<i>Ash Advertising</i>	
West Coast Lumbermen's Association	98-99
<i>Cole & Weber, Inc</i>	
Weyerhaeuser Company	
Rilco Engineered Wood Products Division	102-103
<i>Cole & Weber, Inc</i>	
Wood Conversion Company	111-114
<i>Knox Reeves Advertising, Inc</i>	
Zonolite Company	119
<i>Fuller & Smith & Ross Inc</i>	

Cut \$20 from the ultimate cost of a school building with every square foot of

TERRAZZO

Savings in floor maintenance will more than pay entire school construction cost.

A recent study¹ shows that the ultimate cost of Terrazzo is \$20 less per square foot than asphalt tile, or *more than enough to pay for the entire school construction cost.*

Lower maintenance costs of Terrazzo are responsible. The initial cost of floor finishes represents from 1 to 4% of ultimate cost.

A survey² of a number of schools reveals that the annual maintenance cost of Terrazzo is 21c per sq. ft. less than vinyl tile, 53c less than asphalt tile.

Maintenance cost is one of six factors considered in the complete study. The others: (1) value of money (2) price increases (3) initial cost (4) replacement (5) speed of construction. These costs and their incidence over an anticipated life of 50 years were determined and converted to present value³ for ready comparison. The study is summarized in the chart shown at right.

PRESENT VALUE OF ULTIMATE COSTS
50 Year Period
(per square foot of floor area)

	TERRAZZO	ASPHALT TILE	VINYL TILE
Initial cost	\$ 1.45	\$.50	\$.75
Maintenance cost	35.30	56.48	43.77
Replacement costs	.05	.08	.14
Less speed erection credit	—0.00	— .20	— .20
Total	\$36.80	\$56.86	\$44.46
Relative ultimate cost	100	154	121

For a free copy of the complete study of ultimate cost write: The National Terrazzo and Mosaic Association, 2000 K Street, N. W., Washington 5, D. C.

1. The Ultimate Cost Of Three Floor Finishes In Tax Exempt School Buildings, Clayford T. Grimm, P. E., Special Consultant, 1959.

2. Survey by Walter Gerson & Associates, Inc., marketing research and management consultant firm, December, 1959.

3. Present value: means of expressing future payments in terms of today's dollar.

Member Producers' Council
THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION

2000 K St., N.W., Washington, D.C.

Gemmaux

by Wolf Von Eckardt

► One day, circa 1935, the French painter Jean Crotti showed color slides. Several got stuck in the machine and he projected a blurred mess of overlapping images and colors on the screen. He found them pleasing and got the idea for a new art technique.

There was also an artist-decorator, Roger Malherbe-Navarre, whose father was a physician who experimented with molecular diffusion of light, fluorescence and such things. Crotti and the Malherbe-Navarres were neighbors in Neuilly-sur-Seine, near Paris, and got together.

Crotti designed a panel of small, thin, irregularly shaped pieces of colored glass, overlapping in infinite combinations to produce new, luminous hues, accented with sprinklings of powdered glass. The composition became much thicker than ordinary stained glass, of course, and, in addition to its luminous colors, had a rich texture somewhat in the nature of a bas-relief. The problem now was to properly fuse the assembly into one homogeneous piece.

The team had big plans and big frustrations. It dreamed, it seems, of decorating the entire Eiffel Tower with *Gemmaux*, as it called the new method. But the first tableau it displayed did not resist time and some windows audaciously produced for a church in Brooklyn did not even resist the weather. Years of experimentation were interrupted by the war. By 1956, however, Roger Malherbe-Navarre and his son, Roland, a scientist, succeeded. Malherbe-Navarre *père* and Crotti, who died in 1958, founded a studio, now known as *Les Gemmaux de France*.

Gemmaux are produced by "gemmauxists" who, supervised by a "master gemmauxist" who is perched on a ladder and directs the operation with a long baton, assemble and juxtapose the myriad shards of colored glass on a light table. During the work, the composition is only temporarily bonded. After completion, it is baked in clear enamel and permanently fused by what I assume to be a secret process patented by the firm.

The colored glass montages were launched with considerable ballyhoo. Braque, Picasso and Rouault, among other leading artists, were won for the new technique to the extent of signing

Gemmaux re-creations of their paintings. A *Gemmaux* was installed in the new Franklin Roosevelt Métro station in Paris. There was a "Gemmaux Night" at the Casino du Palm Beach at Cannes, "attended by all French and foreign notables on the Côte." In this country *Gemmaux* have been seen at the Metropolitan, Corning and Denver museums. Now the Pittsburgh Plate Glass Company is sponsoring a traveling exhibition shown in a number of department stores throughout the country to promote its fiberglass curtains.

I am, frankly, not entirely at ease about an art form which, in the way it is presented in this exhibit, relies entirely on artificial lighting for its effect. The very prettiness of the technique is seductive enough. The selections of this particular show, furthermore, conspire to further seduce Mrs Junior Executive-On-The-Way-Up to acquire a sophisticated conversation piece for her wall-to-wall carpeted suburban home. Oh, they are modern and sophisticated! But they are also just a bit contrived. Most of the Pittsburgh Plate Glass collection consists of recreations of well-known paintings by Picasso, Braque and Jean Cocteau. These artists were well enough satisfied with the undeniable artistry and, yes, beauty of the re-creations to sign them (which sent their price beyond the \$10,000 mark). But they don't satisfy me. I can't overcome my feeling that a work of art created in oils has no business being of glass. Like Rodin's *Thinker* reproduced in snow by talented youngsters, they are good fun but not good art.

Yet, the show also contains a few pieces which point to the tremendous potential of this technique, particularly for liturgical art. These were the works actually created as *Gemmaux* (and cost only \$3,000 or thereabouts). They, too, are not windows but framed and to be displayed on the wall like medium-sized paintings, except that they must be lit from behind. But with such light they are alive, almost wild with a depth and subtlety of color that is truly exciting and captures all the jewel-like glory of a good stained glass window into a new, overwhelmingly intense meaning. Louis Gilis' *Jeanne d'Arc* seemed to me the best of the lot. *Gitanie* by Roland is more lyrical but also an exceptionally fine work. Both were recent winners of *Gemmaux* competitions in France. Perhaps Picasso is right, after all. In a statement to be found in every one of the numerous publicity releases on the new technique he is quoted to have said: "A new art is born!" ◀