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HISTORIC GEORGETOWN GETS A NICE NEW NEIGHBOR

BUILDING TYPES STUDY: BUILDING FOR SPORT

ARCHITECTURAL ENGINEERING: A MOST SUBTLE LAYERING OF ARCHITECTURE AND LIGHT

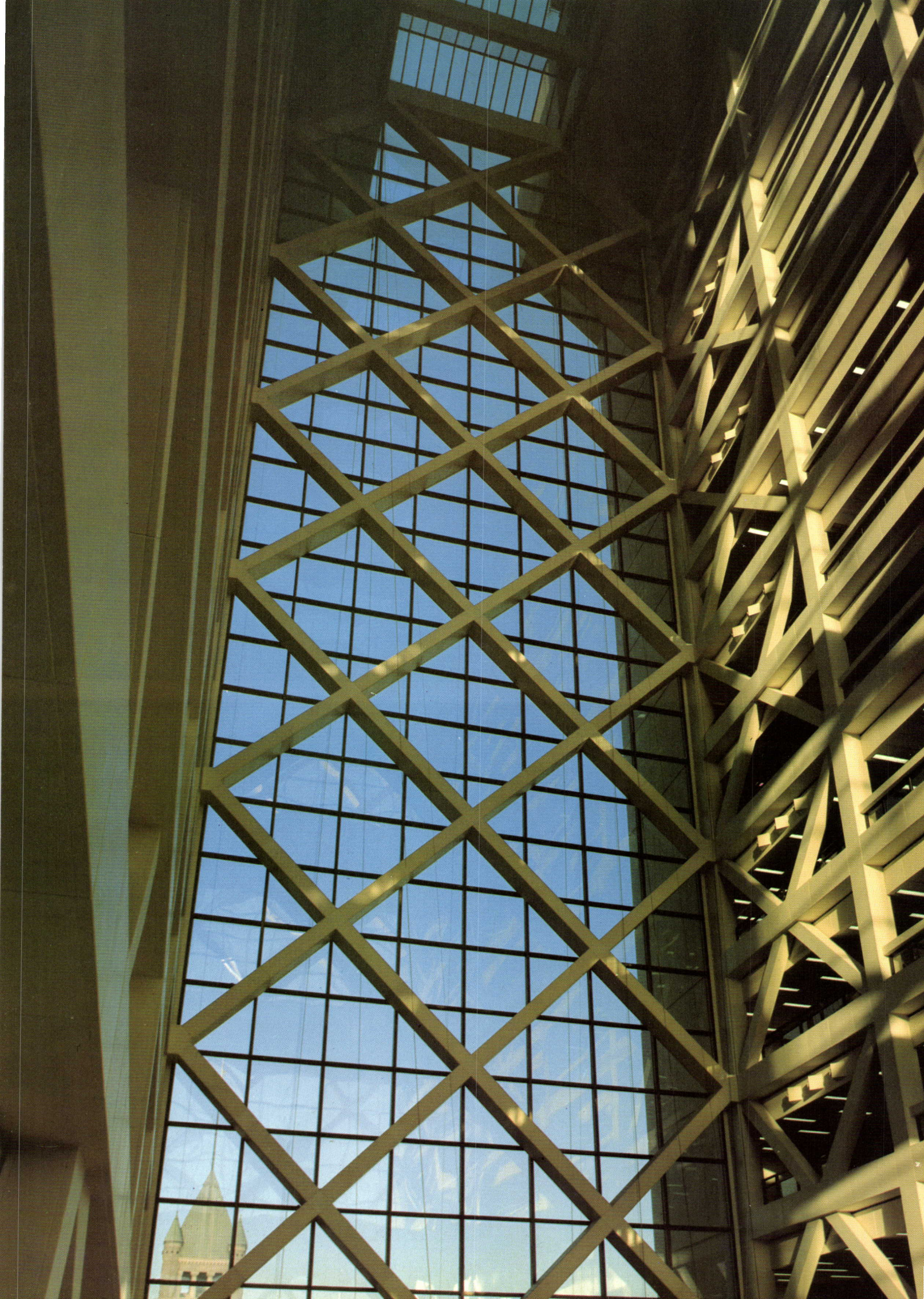
FULL CONTENTS ON PAGES 10 AND 11

# ARCHITECTURAL RECORD

FEBRUARY 1977

**2**

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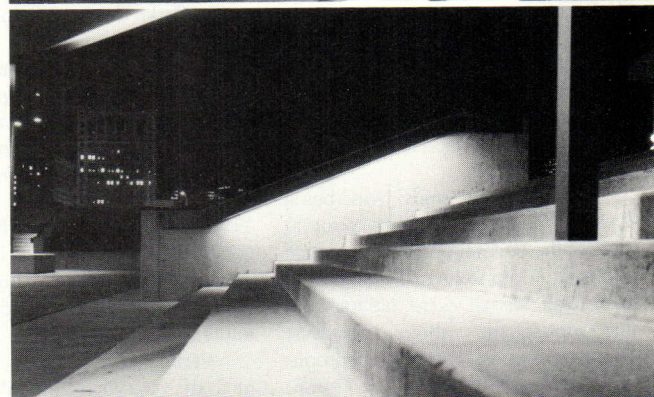
# Long, low, linear light.

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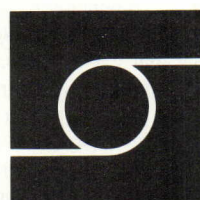
**LONG.** For interior and exterior malls, pedestrian overpasses, stairways, path systems . . . wherever you need a uniform light source that can go the distance, consider Sterner's Illuminated Rail-Lite. It is constructed of heavy gauge extruded aluminum in one-piece sections up to 16 feet long. It can be mitered to change direction and go around corners. Also available non-illuminated to provide continuity of design throughout the project.

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**LINEAR.** The usual solution to stairway and walkway lighting has been the use of standard step and riser lighting fixtures. But the light distribution from these fixtures is unsatisfactory because they create mere pools of light. The best solution is the linear light path laid down the entire length of the stairway or walkway by Sterner's Illuminated Rail-Lite.



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## Letters to the editor

Having been deeply involved in the restoration of the Arts and Industries Building of the Smithsonian Institution in Washington, D.C. from its conception in 1965 to its completion in 1976, I must comment on your article concerning it in your November 1976 issue. I believe that you have enlarged Hugh Jacobsen's role in the restoration while diminishing the part played by our Office of Facilities, Planning and Engineering Services. I hope the following account of the effort of ourselves and others will help set the record straight.

In 1965, a committee for the restoration and renovation of the building was formed by the Secretary of the Institution and the esthetic requirements were established to restore the building. Members of this committee included many dedicated people, who were aware of the historical importance of the building. Because of its exposition style architecture, they deemed it an appropriate exhibition theme to link it to the Philadelphia Centennial Exposition for the Bicentennial celebration.

It was decided that the features that existed in 1898 would provide a basis for the restoration design. The Smithsonian design staff began the program with cleaning and restoring the exterior, and constructing interior structural additions to provide space for personnel and new service equipment.

Using samples of the rotunda floor tiles, which were salvaged, the rotunda area was measured and the octagonal fountain with its geometric tile floor surround was drawn to scale to match the pattern shown in photographs taken in the early 1890s. A search extending through the United States, Germany, Italy, Spain, England and Holland was made for a source of the encaustic tile.

Meanwhile a study was being made of photographs taken prior to 1897 of the decorations by the original architect Adolph Cluss. Selections of each wall stencil were enlarged to three-foot-square photo positives. These were transposed to six reproducible tracings. This work was coordinated with the Smithsonian Conservation Analytical Laboratory, who obtained a palette of colors by microscopic examination of the pigments in the original stencils, revealed after several layers of paint were removed by the Smithsonian.

Most of the information mentioned above has been made available to the Historic Resources Committee of the Washington Metropolitan chap-

ter of the AIA, who in October 1976 gave to the Smithsonian Institution staff a first award in that year's Historic Preservation Awards Program for the restoration and renovation of the Arts and Industries Museum. Mr. Jacobsen received recognition as a consultant for over-all visual effects.

I should add that your reference to the Washington, D.C. architect Adolph Cluss "who had been doing schools, it was their first major structure, etc." does him a disservice. He was a noted architect of the period with many structures in the nation's capital that bear his name, at least two of which were named National Historic Landmarks.

*James M. Murphy  
Chief, Engineering Design Branch  
Office of Facilities, Planning  
and Engineering Services  
Smithsonian Institution*

I was delighted that you so handsomely recognized the efforts of our Office of Facilities, Planning and Engineering and those of Hugh Jacobsen, our consulting architect, in the restoration of the Arts & Industries Building.

A few minor comments: The building did, indeed, originally have a water basin and fountain, and this can be clearly seen in the earlier photographs published on p. 92 of your magazine. The copying of the present basin follows closely the profile on what was there originally. The fountain itself, however, was not part of the original building. It was designed for the Horticultural Hall in Philadelphia and is on loan to the Arts & Industries Building by the Commissioners of Fairmount Park. The installation design is by Hugh Jacobsen.

*Paul N. Perrot  
Assistant Secretary  
for Museum Programs  
Smithsonian Institution  
Washington, D.C.*

"The Home Towns Come Back" (December, 1976) was a most informative and useful series, and I hope RECORD will continue this type of coverage in future issues.

Particularly useful to me was a part of your article, "Where the Money Is." Critics of a redevelopment project in Binghamton, New York were raising questions of legality for a proposal that the City advance preliminary design work as an inducement to a private developer. Your article described a redevelopment technique used in nearby Elmira. I contacted the consulting firm, Raymond, Parish, Pine and Weiner, and in turn, the City of Elmira to establish similarities of our

circumstances. We were thus able to demonstrate not only that our proposal was legal, but also very practical.

Thanks very much for the most timely information.

*Martin J. Normile  
Executive Director  
Valley Development  
Foundation, Inc.  
Binghamton, New York*

## Calendar

### FEBRUARY

**14-17** The 1977 International Air-Conditioning, Heating, Refrigerating Exposition, held concurrently with ASHRAE's National Meeting. McCormick Place, Chicago. Contact: International Exposition Company, 200 Park Ave., New York, N.Y. 10017.

**17-19** The 20th Annual American Institute of Landscape Architects International Convention, South Coast Plaza Hotel, Costa Mesa, Calif. Contact: Robert R. Cardoza, Convention Chairman, 1599 Superior Ave., Suite A4, Costa Mesa, Calif. 92627.

**24-25** The fifth national Federal Programs Conference, sponsored by the Committee on Federal Procurement of Architectural/Engineering Services (COFPAES), New Orleans. Contact: Patricia Parker, Federal Agency Liaison, The American Institute of Architects, 1735 New York Ave., N.W., Washington, D.C. 20006

### MARCH

**5-7** The 1977 NHC Annual Meeting and Convention, sponsored by the National Housing Conference, Inc., Statler Hilton Hotel, Washington, D.C. Contact: NHC, 1126 16th St., N.W., Washington, D.C. 20036.

**14-16** Conference, "How to Revitalize Your Downtown Through Urban Design Action," sponsored by the Downtown Research and Development Center, Warwick Hotel, New York City. Contact: Ms. Marion Spanbock, Coordinator, Downtown Research and Development Center, 555 Madison Ave., New York, N.Y. 10022.

**14-17** NOISEXPO '77, The National Noise and Vibration Control Conference and Exhibition, O'Hare/Kennedy Holiday Inn, Chicago. Contact: NOISEXPO '77, 2711 E. Oviatt Rd., Bay Village, Ohio 44140.

**14-25** The United Nations Water Conference, Mar del Plata, Argentina.

## Correction

In RECORD's coverage of the Raleigh Civic Center (December 1976, page 39), credit was regrettably omitted for architects Haskins & Rice, who joined Odell Associates in joint venture for design of the project.

ARCHITECTURAL RECORD (Combined with AMERICAN ARCHITECT, ARCHITECTURE and WESTERN ARCHITECT AND ENGINEER)

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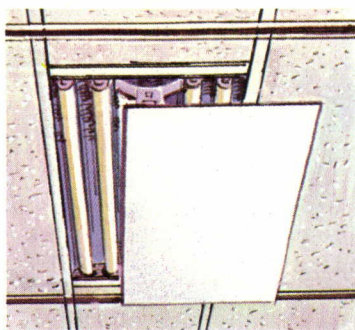
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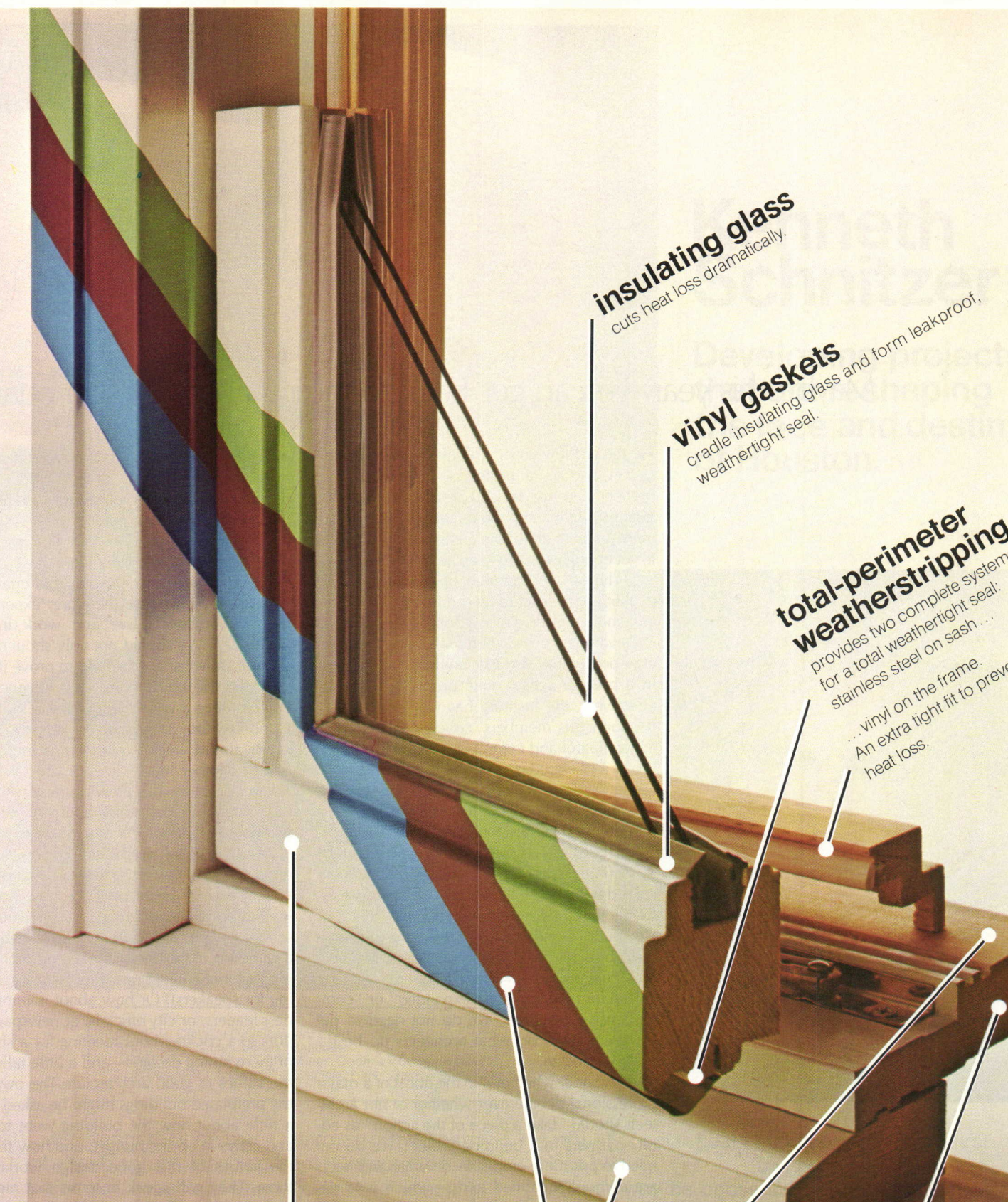
In most instances, the quality of light produced by these panels allows a reduction of from one to two lamps in a conventional four-lamp fixture. This lowers the quantity of electric power required and eliminates much of the eye strain associated with ordinary unpolarized lighting.



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NEWS REPORTS  
BUILDINGS IN THE NEWS  
HUMAN SETTLEMENTS  
REQUIRED READING

**November contracts for future construction increased 37 per cent over the November 1975 figure**, for a total of \$7,690,631,000, according to the McGraw-Hill Information Systems Company. Nonresidential contracts ran 36 per cent ahead of last year's figure, with commercial and industrial building registering the strongest gains. Residential building was up 50 per cent from the comparable figure a year ago, and F.W. Dodge economist George A. Christie observes that "the mix of new housing has begun to shift, with apartment building now paralleling the well-established upward trend of one-family homes." Nonbuilding construction, which rose 13 per cent, showed a strong "tilt" to highway construction, reflecting increased Federal public works spending.

**In a pre-inaugural statement, President Carter outlined an economic strategy that will encourage construction** by adding \$4 billion to the present \$2-billion program for local public works. Details on page 34.

**The Department of Commerce sees strong, if not booming, construction activity in 1977**, and forecasts an 11 per cent increase over 1976—17 per cent in residential work, 7 per cent in other private work. Details on page 34.

**HUD Secretary Patricia Roberts Harris, testifying at Senate confirmation hearings**, declared her support for public housing, for tax deductions on mortgage interest payments, and for good design. Details on page 34.

**The Society of American Registered Architects has elected Jerome Salzman, F.ARA, its president.** Mr. Salzman is with the Chicago firm A.L. Salzman & Sons, Architects & Engineers. Meeting in Atlanta, the ARA elected nine other officers: president-elect—Richard E. Shields, F.ARA, York, Pennsylvania; vice president—G. Robert Johnson, F.ARA, Glenview, Illinois; director—W. Gayle Daniel, ARA, North Hollywood, California; director—Donald Geitz, ARA, Orange Valley, Ohio; director—John Pankovich, ARA, Allentown, Pennsylvania; regent-at-large—Donald S. McKerchar, F.ARA, North Palm Beach, Florida; recorder—Bertrand Johnson, ARA, Plainfield, New Jersey; treasurer—Sidney Epstein, F.ARA, Chicago; and archivist—Chester A. Stark, F.ARA, Glenview, Illinois.

**Conservation and development along California's 1,100-mile coast will be controlled by a controversial law** that took effect at the beginning of the year. Details on page 34.

**An ERDA-funded study concludes that roof-top solar energy collectors are an economic alternative to electricity** for space heating and hot water in most areas of the country. Details on page 37.

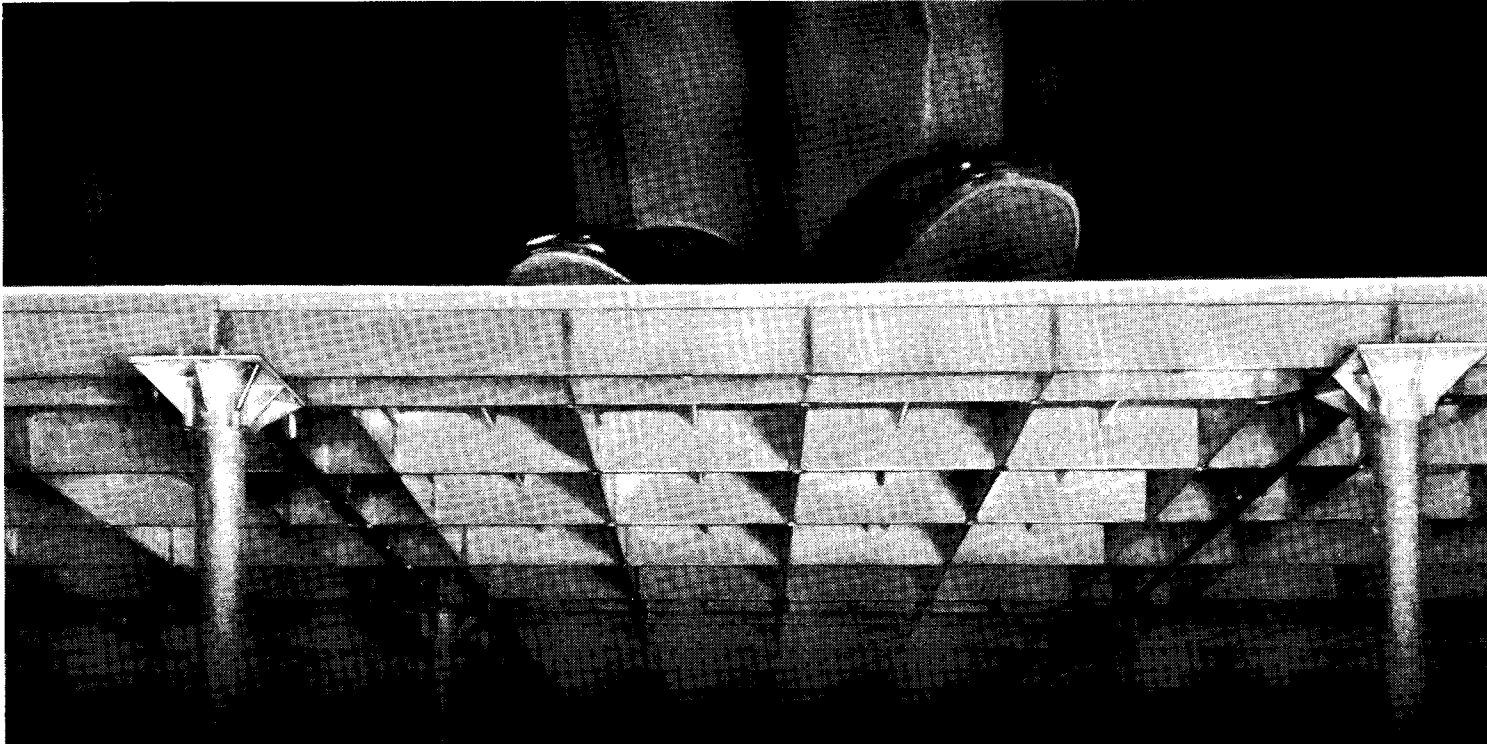
**The American Institute of Architects has named 11 honorary members:** Dr. Ernest A. Connally, associate director, National Parks Service; Harold B. Finger, manager, General Electric Center for Energy Systems; Harold C. Fleming, president of the Potomac Institute, a research group specializing in urban social problems; Alfred Goldberg, civil engineer and former superintendent of San Francisco's Bureau of Building Inspection; Sen. Edward M. Kennedy, co-sponsor of the 1976 energy conservation bill; Tom McCall, Sr., former Governor of Oregon and environmental protectionist; Lt. Gen. John W. Morris, chief, Army Corps of Engineers; Jo Ann Proppe, executive secretary, Oregon Council of Architects and Portland Chapter, AIA; Nancy A. Runge, executive secretary, Tulsa Chapter, AIA; Richard G. Thevenot, executive director, Louisiana Architects Association; and Frank Whalen, Jr., legal counsel to the Institute.

**France has awarded its 1976 Grand Prize for Architecture to Roger Taillibert**, the Parisian architect who designed the Montreal Olympic Stadium. This is the first time the government has given the prize for architecture; awards were also made in literature, music and the fine arts.

**The Society for Marketing Professional Services has announced five regional workshops** in its Advanced Marketing Seminar series: Pacific West Region—mid-March, the exact date and location still to be announced; North Central Region—March 21, Bloomington, Minnesota; Southeast Region—March 28, Atlanta; Southwest Region—April 18, Houston; Mid-Central Region—May 6, Nashville. Contact: Andy Zinsmeyer, executive director, Society for Professional Marketing Services, 13100 Manchester Road, St. Louis, Missouri 63131.

**The American Society of Planning Consultants will convene its 11th national conference April 20-23** at the Crown Center Hotel, Kansas City. The program, revolving around the theme "Opportunities in a Changing Market," will include an address by Leon Eplan, president of the American Institute of Planners, and a four-hour seminar on marketing planning services, conducted by marketing consultant Weld Coxe.

**Design Michigan invites submissions of "projects designed or made in Michigan during the past 10 years"** in architecture as well as in visual communications, industrial and interior design, landscape architecture and planning. Selected projects will appear in the Design in Michigan Exhibition, to be shown in several museums during 1977-78. Submissions are due March 1. Contact: "Design in Michigan Exhibition," Cranbrook Academy of Art/Museum, 500 Lone Pine Road, Bloomfield Hills, Michigan 48013.



# If you specify any computer floor but aluminum, it's a bad compromise!

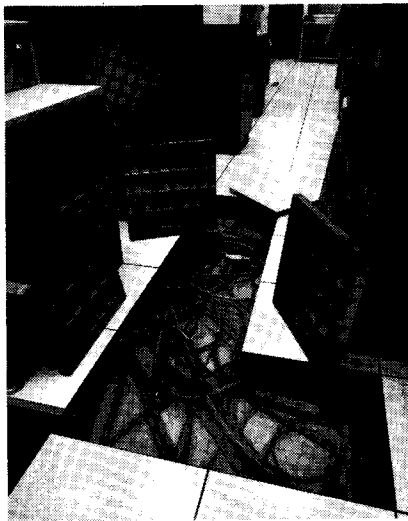
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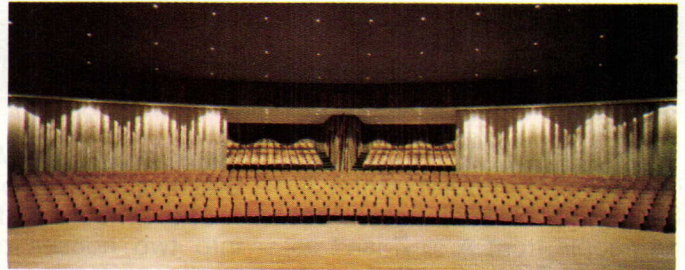
"We use the four rear rooms for health classes. There is no interference. At the same time, another group can be meeting in the front section.

"It is easy to make various size rooms available to the public for evening meetings," he reports. "To separate the front from the rear, we just turn a key and the wall moves into position automatically.

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ARCHITECTURAL RECORD February 1977 41

Pop projects of Claes Oldenburg, better illustrated in his own *Object into Monument*, but well enough represented here to prove his re-  
Mr. Filler is editor of *Architectural Record Books*.

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ARCHITECTURAL RECORD February 1977 43



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Newport, R.I. which could have come straight from a Claude harbor scene; to the endearingly only-in-California projects of one Robert Stacy-Judd, all skewed in perspective and all fuzzy in airbrush renderings; from the remedial schemes of Richard Haas and Allan Wexler for the otherwise hopeless World Trade Center; to perhaps the most intriguing design in the book, William Adams Delano's 1932 project for "A Government Office Building in a Metropolis."

Thirty years before Venturi and Rauch, the arch-conservative architect of New York City's Colony Club and the U.S. Embassy in Paris brought forth an astonishing design that plays every trick our contemporary Pop imagists ever dreamed of. Delano's office building expresses the American flag both in elevation and in plan. It has an appropriately undulating facade, not unlike Aalto, and a corner "mast" not unlike Roche and Dinkeloo's Knights of Columbus tower in New Haven. The architect's own, incredibly arch description is so utterly deadpan that those not familiar with Delano's built work might find it hard to believe he was only joshing. But was he? "It displays none of the narrow provincialism which characterizes the work of the architects of Greece, Italy, France, and even our own Colonial period," that confirmed Eclectic wrote, "It is free from the prejudices, inhibitions, fallacies, and traditions which throughout the ages have done so much to cramp architecture and bring it into disrepute." The approaching rejection, as he must have seen it in the year of the Museum of Modern Art's International Style show, of all he stood for architecturally brought forth precisely the kind of response which could have come from the post-Modernist architects who were left with the heritage of that rejection three decades later.

William Adams Delano's flag building is a fitting symbol for this book and the impulses behind it, which are no less than a re-examination of the pieces of the crazy-quilt that is American architecture. What is American about American architecture? You tell me. But before you do, read this book.

**The bathroom revisited**

THE BATHROOM, by Alexander Kira: Viking Press, New York, 1976, paperback, 272 pages, illustrations, \$7.95.

*Reviewed by Kent Bloomer*

The new edition of *The Bathroom* develops from Alexander Kira's original work published in 1966, which was a report on a seven-year research project carried out at what was then the Center for Housing and Environmental studies at Cornell University. The original work has been re-organized and expanded with two new parts addressing some problems posed by public facilities and the unique hygiene problems faced by aged and disabled persons.

The material in this book is clear and concise, and it is difficult for me to imagine designing a bathroom without incorporating many ideas and dimensions recommended herein.

*more Required Reading on page 47*

*Kent Bloomer is a member of the faculty of the Yale School of Architecture.*



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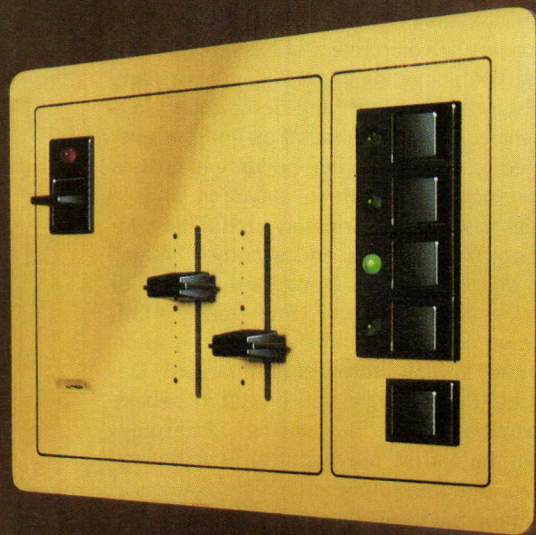
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Indeed the book may be used as a work-shelf reference for the design criteria of bathroom fixtures and for information about requirements of personal cleansing.

While historical, social, and psychological aspects of bathroom use are included (Kira refers to the man singing in the shower as "this rain-masculine image . . . a primitive expression of virility rather than an art form") the book concentrates primarily on the physiological factors of cleansing. He examines the physical body carefully and specifies measurements relating body activities to specific fixtures. From this we gain a large and rational registry of sizes such as sink heights, water fixture locations, fixture contours and splash zones. The studies are so thorough that one is inspired to design entirely new fixtures, although many references are made to well designed ones available in the United States and Europe.

I was particularly impressed by the discussion on the bathtub. After stressing the psychological advantages of nearly total immersion in water—i.e. relieving muscular tension and feeling encapsulated in warmness—Kira proceeds to criticize existing designs and describes the virtues and body-mechanics of a contoured bathtub. After specifying forms of bathtubs he discusses techniques for reading and grooming in the tub and is quite rigorous in his treatment of safety factors in the bathing of both children and adults.

One frustration that I feel from this book is the low-profile on the more general environmental considerations of a bathroom. It is less about the room itself than about the objects, including the physical body, that are placed in the room. It is a dialogue between the body and the fixture. Kira has managed to write a 272-page book about the bathroom without including a single complete floor plan of a bathroom or floor plans of houses or institutions showing contextual locations of bathrooms. He has said very little about non-cleansing activities such as the space needed for dressing in a bathroom; and references to mirrors and lighting barely fill a page.

Perhaps this is just as well because he has managed to dispel confidence in the stereotype bathroom plan with its small rectangular shape and minimal fixtures that we have become so accustomed to accepting. He has argued successfully that our culture has tended to do little more with the 19th century bathroom than to re-decorate it with the purpose of disguising it rather than improving it. His research and imagination have broken ground for designing healthier, more humane, and more exciting bathrooms.

He is thus leaving the planning to the individual architect while providing a great deal of specific and quantified information in a book that is amusing, easy-to-read and well designed.

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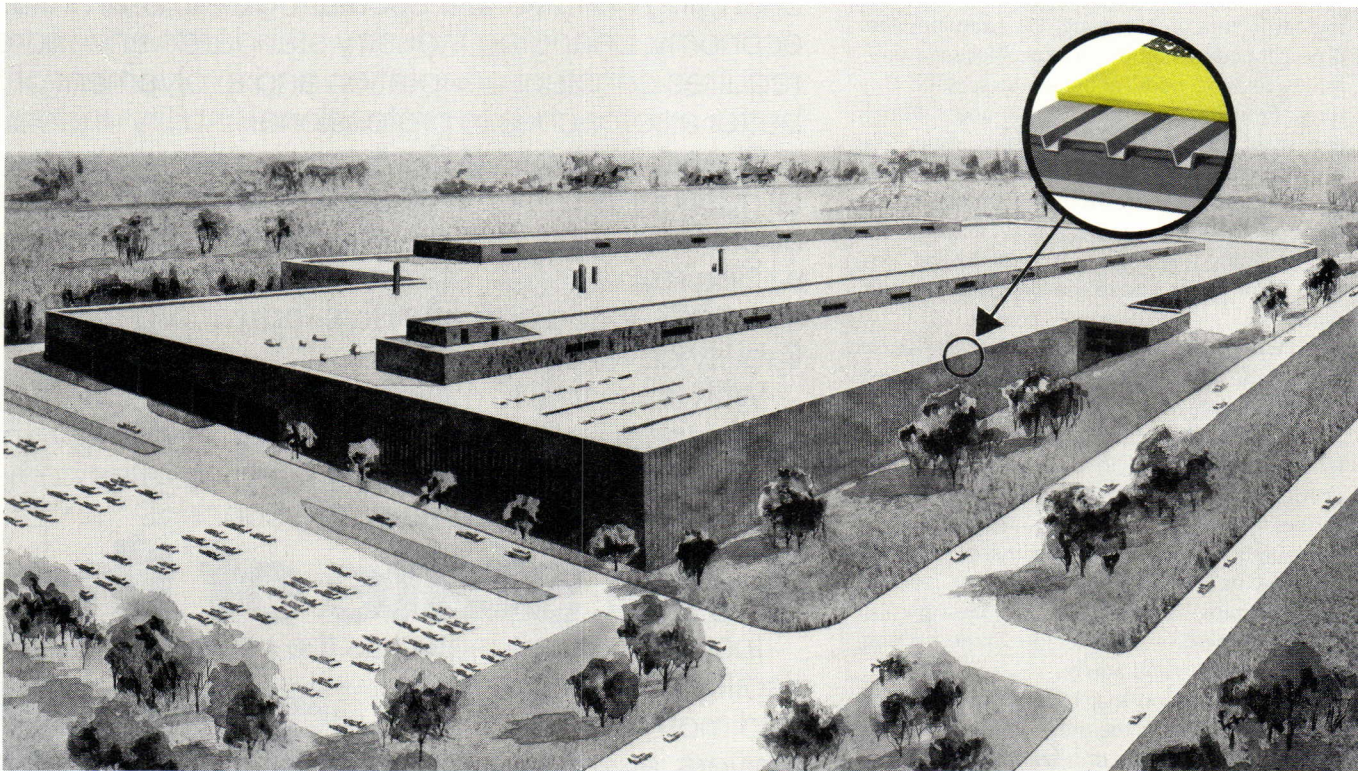
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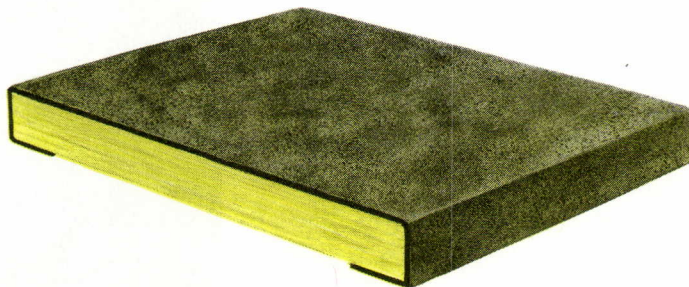
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## Putting the issue of professional liability into perspective

by Arthur T. Kornblut, Esq.

With this issue, RECORD is introducing a new feature to provide readers with a continuing commentary on, and analysis of, legal developments that we feel are important to architects and engineers in private practice, regardless of firm size.

In spite of the publicity being given to professional liability, we do not see professional design practice evolving into an immense legal trap. Quite the contrary is true, but the unique position of the design professional—often functioning as the head of a business as well as someone else's agent—requires a broad understanding of such legal matters as professional liability trends, new statutes enacted at various levels of government, legal implications of ethical codes, changes in standard contract documents, tax law, labor law, and administrative agency rulings. This column will provide the best informed opinion that we can find on these issues and others, and will try to anticipate the trouble areas that may lie ahead.

The column will be directed by a registered architect and practicing attorney, Arthur T. Kornblut, whose six articles annually will be supplemented with articles by other attorneys experienced in the law as it pertains to design professionals. Staying pertinent to our readers will, in part, rely on your input, too. Therefore, we are also inviting readers to submit questions to us on professional practice-related issues. We will periodically select the most recurring issues, and ask qualified attorneys to comment. Address questions to: Charles E. Hamlin, Associate Editor, Architectural Record, 1221 Avenue of the Americas, New York, N.Y. 10020. We will reserve the right to select and edit your letters to suit our format.—*Charles E. Hamlin*

To commence this column on the law, it is appropriate to begin with a general review of some aspects of architects' and engineers' professional liability. This is a topic of prime concern for all design professionals, and when raised, it becomes obvious that many widely held beliefs about it are not predicated on hard facts.

Contrary to many popular beliefs the majority of cases involving architects and engineers do not expand principles of liability or result in judgments, sizable or otherwise, against the design professional. To illustrate this, a survey was made of the McGraw-Hill newsletter, *Legal Briefs for Architects, Engineers and Contractors*, which contains four or five recent cases in each issue. These cases are furnished to the newsletter by a national case law service, Cases Unlimited, that selects them from the advance case reports of court decisions published each month. While these cases are obviously not a scientific sampling of all construction industry cases decided during the period, they can be considered to have been selected on a sufficiently random basis.

During the period under consideration, from May 1975 (when publication commenced) until December 1976, 157 cases were reported in *Legal Briefs*. Approximately 45 per cent of the cases involved architects or engineers as primary parties. Another 34 per cent of the cases involved contractors, subcontractors or material suppliers; 14 per cent involved various government regulatory problems arising out of OSHA, EPA and the like;

and 7 per cent fell into a miscellaneous category covering such issues as constitutionality of statutes, interpretation of insurance policies and zoning.

The 70 cases involving design professionals that comprised 45 per cent of the total cases published during that period could be subdivided into two broad categories: 41 cases involved liability-related matters and 29 cases were concerned with the validity of the professional service contract or the collection of fees. While admittedly having to make certain subjective decisions about the placement of cases into each category in order to develop a simplified tabulation, this survey revealed that almost 60 per cent of the liability-related cases had a result that would be considered favorable to the design professional. With the validity of contract/fee collection cases, the professionals fared even better, winning 65 per cent of those cases.

Regarding the magnitude of liability claims, many architects and engineers express surprise when informed that average claim values do not run to six or seven figures. Data provided by Victor O. Schinnerer & Company, the underwriting manager for the AIA and NSPE/PEPP-commended professional liability insurance program, indicates that almost 60 per cent of all professional liability claims against architects and engineers are for less than \$25,000, and that less than 2 per cent are for more than \$100,000. Once again, the facts are at variance with common beliefs shared by members of the profession. Rather than being

victimized by an onslaught of outlandish demands for spectacular monetary damages based on spurious theories of liability, most professional liability claims result from preventable deficiencies stemming from rather conventional technical problems in design or construction. Whether or not liability is eventually imposed on the design professional depends on a variety of factors, but there usually is an arguable predicate for the cause of action.

Even though the above figures may be slight consolation to the architect who gets sued or who has to bring suit to collect fees, it should serve to put the liability problem into perspective. Lawsuits are serious, and often there are no winners in litigation. However, by recognizing that headlines rarely tell the whole story, architects will begin to understand that there normally is some justification for the filing of a lawsuit, even though the person being served with a summons rarely views it as such. Once into court, the legal system treats design professionals fairly and recognizes the unique characteristics of their endeavors. If proper contracts are used, if reasonable professional procedures are followed, if activities are adequately documented, if channels of communication are kept open with clients and contractors, and if danger signals of future litigation are recognized in time, rarely will an architect become the victim of an aberrant legal action. On the other hand, when things go wrong on a project, unsound management and technical practices and vague or non-existent written contracts often lead to unanticipated liability.

With this introduction, future articles will delve more deeply into other aspects of the professional liability problem, such as recurring contract language problems, professional liability insurance and legislative efforts to reduce the liability exposure. In March, the new (1976) edition of the AIA General Conditions of the Contract for Construction (Document A201) will be analyzed, with emphasis given to the major changes from earlier editions.

Arthur T. Kornblut, a registered architect and a practicing attorney in Washington, D.C., devotes the major share of his professional activity to the law as it pertains to design professionals. Before entering private practice, he served for five years as the Administrator, Department of Professional Practice at The American Institute of Architects, and currently serves on the American Arbitration Association's Panel of Arbitrators. He is also chairman of the newly-created Architects and Engineers Subcommittee of the American Bar Association Forum Committee on the Construction Industry. "Legal Perspectives" is published with the understanding that the publisher is not rendering legal service. If legal advice is required, the services of a competent professional should be sought.

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Following are several fallacies you should recognize:

FALLACY	TRUTH
1. Editors eagerly await news of your projects, practice and personnel.	Editors have their own editorial plans for the month and year. If what you send them fits, you are lucky. If not, be patient.
2. Take an editor to lunch. It will help clear space for you in his magazine.	Reputable editors are (rightly so) concerned with the interests of their readers. Implied obligations make them nervous.
3. Editors are conduits.	By all means meet and discuss your practice. But do not relentlessly push ideas. Editors, like architects and engineers, have egos.
4. Once an editor has ignored an idea or overture, the case is hopeless.	Editors have long memories and bottomless files. Your idea for an article may glean no response today, but land you the main feature six months hence.
5. Editors are delighted to save time by having contributors (such as yourself) write the article for them.	Any journal with the budget to hire enough staff prefers to write its own articles, except for highly technical topics. Where they accept a contributed article, they reserve the right to edit, sometimes heavily.
6. The editor prefers to work with professional public relations people in gathering information, as they are more aware of his needs.	Editors want to go to the source. If the subject is right, they will find a way to make it intelligible.
7. Editors do not want to be bothered by firms seeking publicity for their work.	If you do not tell them, who will? (But see Fallacies 1 and 3).
8. The piece will appear in June as promised.	Last-minute magazine production problems, or a more lively story, may mean you will be bumped for July, or even August.

For a story or idea to be covered—and we refer now mainly to the professional and business press—one or more of these conditions must prevail:

1. The topic is timely.
2. The topic fits the editor's plan. (Normally, 1 and 2 should coincide. Not always.) Many journals have, though only some disclose, the main theme of each issue for 12 months ahead.
3. Your firm is well known already.
4. Your firm is not known at all, but has achieved a breakthrough which will allow an editor to "scoop" his rivals.
5. Your firm is prepared to write the article, and has writing talent to do a good job. (This is less important with the major publications, and most of the best will use what you have written only as a starting point for their writing.) You also have a reputation for providing high-quality artwork.

Always the best way to start is to telephone or to write a simple letter (maximum: half a page) to the editor-in-chief setting out the proposed topic and the reasons for its merit. Follow up ten days later. If you know another editor on the staff, sound him out first. If you know a particular editor is responsible for certain types of stories, of which yours is one, go directly to him with your proposal. Excellent places for meeting editors are conventions (one reason they attend, aside from covering the proceedings, is to meet just such firms as yours).

**Professional materials will be required for the article**

There are several forms your article may take.

1. If the piece is to be staff-written by the publication, it will be based on interviews and

background materials. You will then need to do certain things:

*Materials.* If the article is about a project, provide the bones by presenting the basic facts and figures. Supply a selection of 8-by-10 photographs with glossy finish. If possible, send the editor a contact proof sheet so he has a broader range to choose from. Obtain clearances from the photographer. Negotiate with the editor as to who pays for prints and fees, and any new photography that must be made. In this last case, the publication may be prepared to share costs if the project is to be a major feature. Otherwise, you may have to pay. If you pay, be sure to direct the photographic effort so you can use the results for other purposes, such as brochures and design awards. Be sure to make an agreement with the photographer in advance about what rights you will have in using the photographs.

If the article is about a process (project management, value engineering, cost control), interviews by the editor with the experts in your firm are the most efficient way of gathering the facts. Offer the editor reprints of past articles on the subject. This will help him not to go over old ground.

If the article is a profile about your firm, one staff member must coordinate the inevitable series of personal visits to the office and drafting room, and the photography sessions. Give the writer every bit of background information you feel he should see (personal resumé, office brochures, representative research reports, statements of philosophy), so he does not waste his time and others' by asking questions to which there are printed answers. You are quite within your rights to ask to review the final manuscript for *factual* accuracy—though some editors may not be willing

to agree to that review within their rights.

*Deadlines.* For an editor, due dates are holy. Miss the date by more than a few days (for a weekly magazine by a few hours) and you risk bumping or oblivion.

*Credit and courtesies.* Provide complete credits. Your client should be informed if a story is being prepared about his facility. Chances are he will be pleased. If he declines, you may still have the right to proceed. Check the original agreement, which should have spelled this issue out.

Some design firms limit credits to the name of the firm and the main outside consultants. Other firms provide a list of all professional staff connected with the project, or only those who led the major activities—for example, design, project management and technical input. It is good to have a policy on this.

2. Many of the same precepts apply when you contribute a finished article. The big distinction is that you, rather than the editor, will synthesize all the materials.

*Text.* Type the manuscript in pica-sized type, double-spaced, with 1 inch margins all around. Avoid typewriters with proportional type; it makes it harder for the editor to compute length.

*Artwork.* All artwork should be camera-ready; that is, of reproducible quality. For photographs, avoid slides unless you have pre-tested for conversion to black and white.

Ask the editor about lettering or titling drawings. Some architectural journals redraw all floor plans, sections and elevations for consistency, and add uniform titles. Be glad, as this is a thankless task.

*"Exclusives."* Many journals, especially those which make a point of presenting design projects in some detail, insist on exclusive rights to a project "in their field."

Exclusives are a legitimate form of self-protection for the press, if done within reason. If you commit your project to magazine A, and magazine A delays it for months without signs of publishing it, you should feel free to rescind the agreement and approach magazine B. But meanwhile honor the commitment.

Seeing in print an article about your firm, its projects or its special areas of expertise can give a big boost to your marketing efforts. But remember: first, your clients must see the article. Therefore, select with care those publications on which you want to focus your main effort. Second, while reprints of project coverage in the professional journals are useful, bear in mind that they are usually written in a professional trade vocabulary that may be obscure to your layman-client.

Consequently, before you try to "get published," carefully spell out what it is you expect in return for your effort—kudos or contracts. Both are important, and they are not always easy to separate.

The author is an architect and communications consultant in New York City. He was at one time editor of *Architectural and Engineering News*. He was also formerly vice president of research and development with Caudill Rowlett Scott, and has lectured on the subject of communications and the design profession at the Harvard Graduate School of Design. This article has been adapted from a chapter in his forthcoming book, "Creative Communications for a Successful Design Practice," to be published this spring by the Whitney Library of Design.



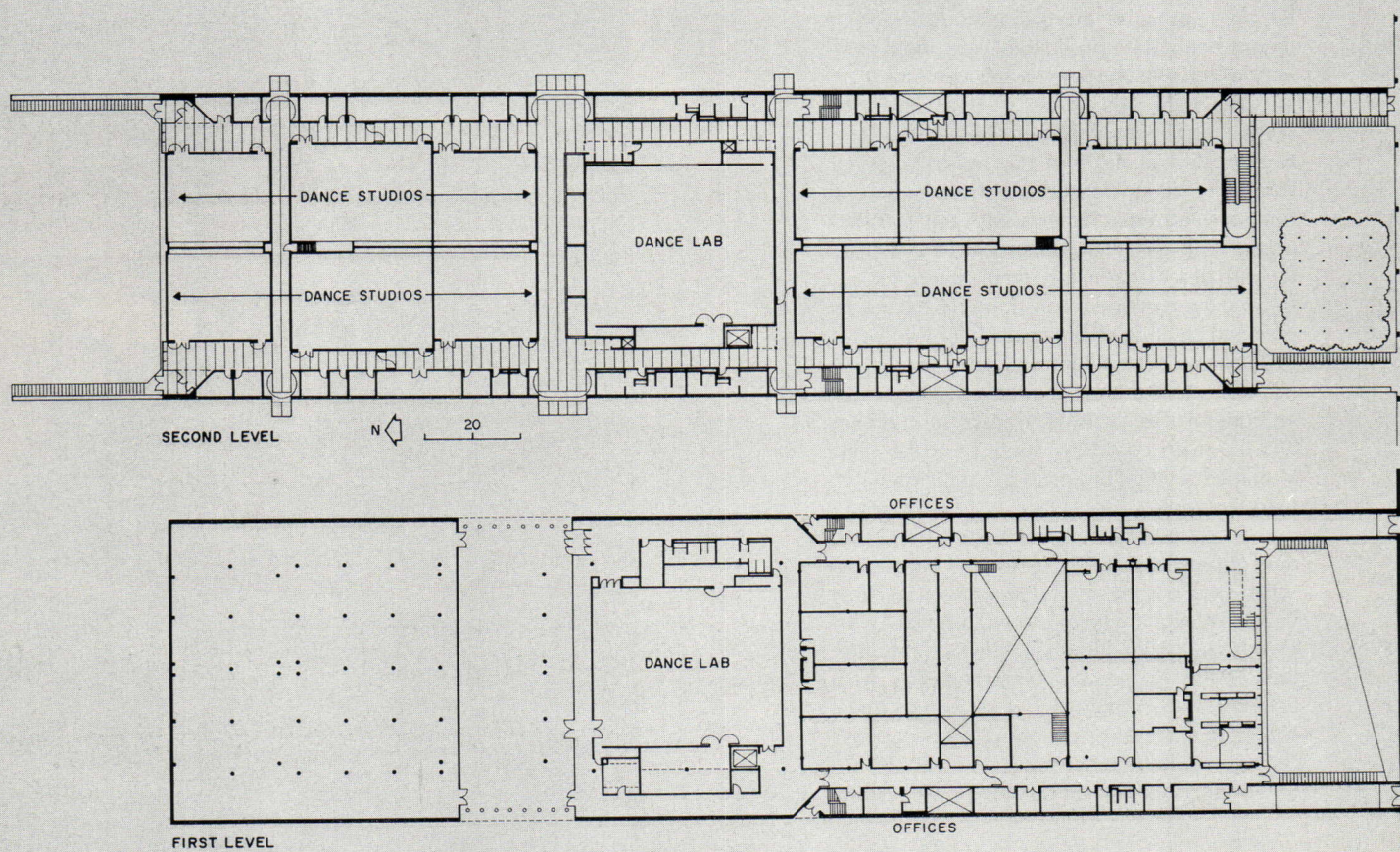


Joseph W. Molitor photos

## A school for the dance by Gunnar Birkerts

The Dance Instructional Facility for the State University of New York College at Purchase cannot be seen nor assessed as an isolated building. It was designed by Birkerts within a strongly controlling master plan by Edward Larrabee Barnes (page 90). It is one of a row of four buildings like parallel fingers at 90 degree angles to an arcade. Each building occupies a plot 130 feet wide and can extend to an ultimate length of approximately 650 feet. Across a mall 300 feet wide by 900 feet long, an identical arcade connects four identical finger sites. Of the eight buildings, in addition to Birkerts' building two are by Venturi and Rauch, facing each other on opposite sides of the mall, one is by Philip Johnson, one by TAC, one by Paul Rudolph and two by Barnes.

Each of the six architectural firms had different ideas as to the degree to which their buildings were to be "background" to the mall, its parallel arcades and its dominant focal buildings (all of the latter also by Barnes). Venturi attached each of his two front facades to the arcade bluntly and directly, thus subordinating them to the ensemble. So did Barnes. TAC's and Johnson's buildings are more connected than disconnected, more supporting players than stars. Only Rudolph and Birkerts have given their buildings a distinct presence by pulling them back almost completely from the arcade and away from the mall, thus giving them fronts. Were they right? Should the dance facility's elegant facade shown above and on the cover exist? More about this in a future article on the master plan and all its buildings to appear after the campus is finished. For now, the focus will be upon the dance building's beautiful interior spaces including its attenuated corridors—made long by the formal demands of the master plan, but made as uplifting to the spirit as the dance itself by Birkerts' mastery of light and form.—*Mildred F. Schmertz*



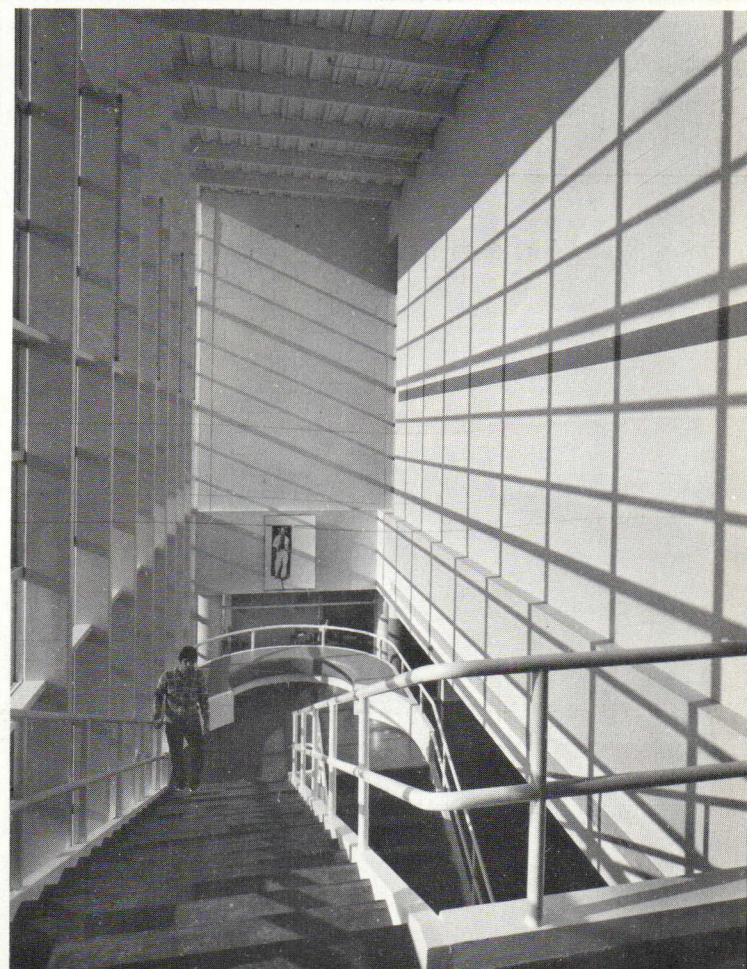
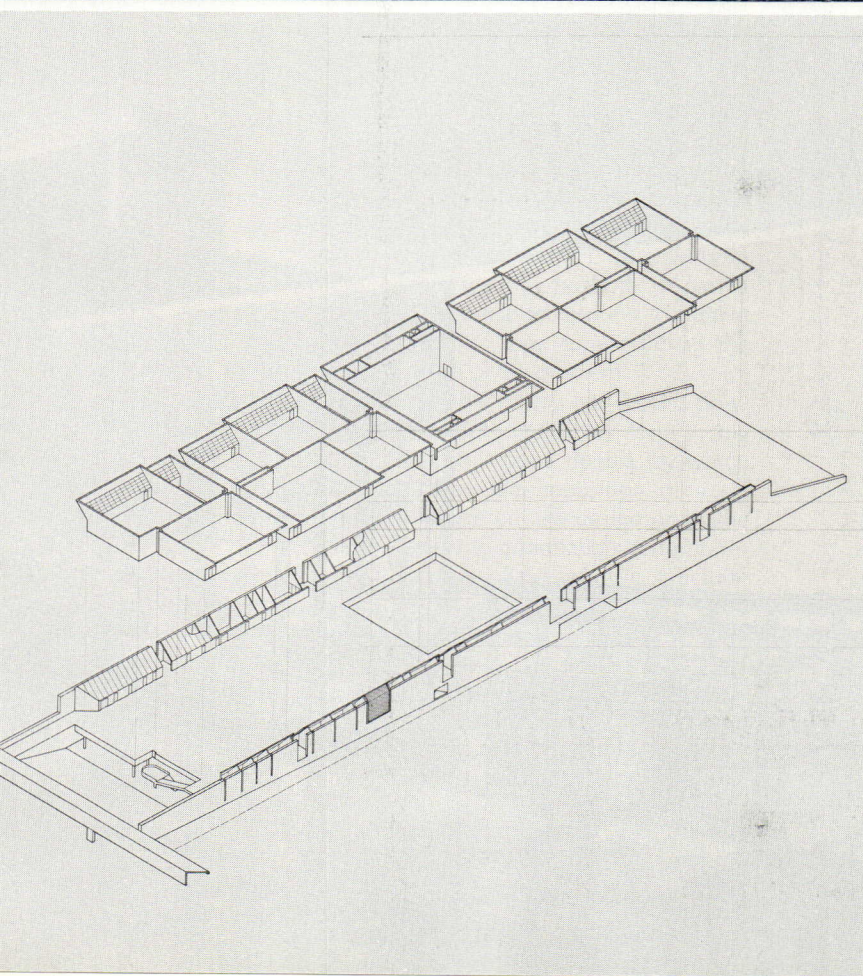
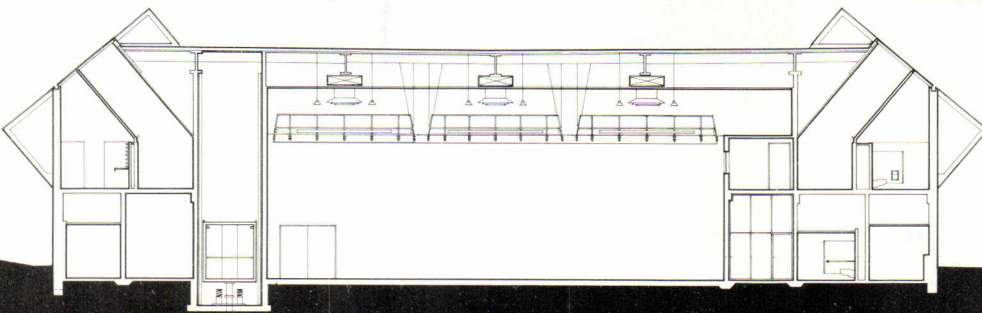
concrete block, painted white and occasionally accented by bands of primary color.

The structure is steel frame and the perimeter walls are of the brick selected for all the Purchase buildings as part of the master plan. Birkerts' interest in and skillful handling of skin construction appears on the exterior in the building's main facade (overleaf and cover), its rear facade and in the continuous skylights with their V-shaped projections.

DANCE INSTRUCTIONAL FACILITY, Purchase, New York. Owner: *The State University Construction Fund*. Architects: *Gunnar Birkerts and Associates—Gunars Ejups (construction administration), Barbara J. Bos (interior design)*. Engineers: *Le Messurier Associates, Incorporated (structural); Jaros, Baum & Bolles (mechanical/electrical)*. Campus architect: *Edward Larrabee Barnes*. Consultants: *Bolt, Beranek & Newman, Inc. (acoustics); Peter G. Rolland and Associates (landscape); Wolfe & Company (costs)*. General contractor: *E.W. Howell Company*.



*All the second floor offices (above) are indirectly lit. The light in the dance studios (opposite page) is all-pervasive but does not distract the dancers as they study their technique in the mirror. The stair (below) adjacent to the principal entrance leads to the administration area. The two-story dance laboratory (section) has its own entrance court.*



The story of 1055 Thomas Jefferson Street is a design and development story. Its structure is, more than brick-clad concrete, that of careful compromise. Its configuration is—beyond the skillful splicing of an historic environment with a lively interior mall, lined with 50,000 square feet of shops on two levels—a linking of community sentiments and physical context that have both been thoughtfully reflected. Its massing, stepped up from the side of the old C & O Canal in a series of terraced floors, expresses both conceptual discipline and legal constraint. It is a story of strategy, steeped in realities of the marketplace; in knowing that everyday people vote for, or vote against, buildings with their bucks. 1055 has turned out to be a very convenient polling place, and a very popular one, as well.

In Georgetown, whose citizens have been known to castigate developers with all the subtlety of Salem's attitude toward witches, the fact that people are coming around to like, use, and lease space in 1055 is telling testimony that an economically successful trade-off can be worked out between the keepers of history and the reapers of profit.

The mediators in this touchy situation, going back to 1970, were the architects—two firms of architects, in fact—The ELS Design Group (based in Berkeley and New York) and Arthur Cotton Moore Associates (based in Georgetown itself). It is unusual, to say the least, for a client to have two strong-willed, justifiably self-confident, design-oriented firms working *simultaneously* on a job. And it is even more unusual, under such circumstances, to end up with a building, especially one offering this much variety, that looks as though it was orchestrated by a single impresario.

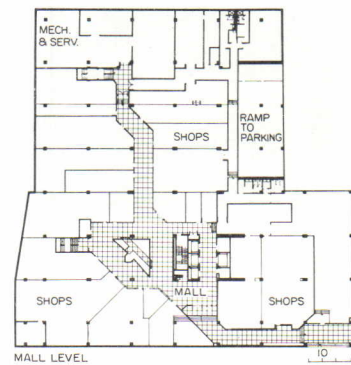
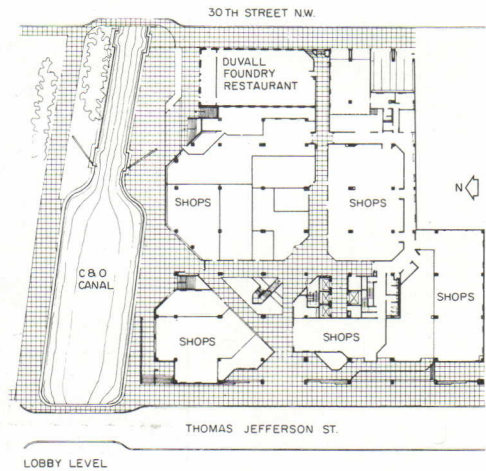
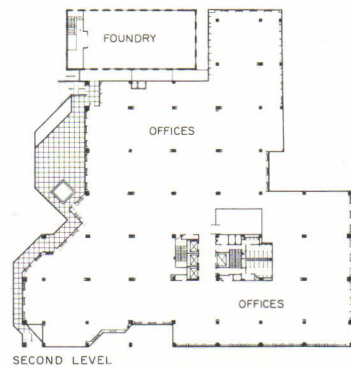
This much variety? 1055 Thomas Jefferson orchestrates a lot. To begin with, it is popularly known as The Foundry, or The Foundry Mall. The reason is that the "cornerstone" of the complex is an old foundry, and it was determined, from the start, that it should be incorporated in the design as a way of smoothing the seam between the new construction and the older surrounding neighborhood. The Foundry, now a busy drinking and eating spot for swinging bureaucrats, and containing exhibits of the C & O Museum, was moved up the street, about 100 feet, at a cost of \$135,000, and another \$245,000 was spent to put it in shape for tenant work to begin. These interiors, designed by John Stulurow of California, are charming allusions to the past, but avoid cloying or corny effects. The Foundry Mall is a shop-lined two-level internalized "street" that threads through the new building at an angle, actually an enticing short-cut between the canalside and the Thomas Jefferson Street side, and this "street" is denoted by rows of exposed light bulbs. Its culmination is a two-level "piazza," and, in its center, there is a reflective pool with a generous stair poised above it. The stair angles down to the lower level at an intriguing jut of handrails and landings, providing impetus to go down and look. Edged by shop windows from every perspective, lined with wood signboards and recessed

lights, the piazza gives the sensation of being *in* a shop window. The Mall is as comfortable an experience as it is compelling, what with warm, tactile finishes of brick and wood, enhanced with crisp, reflective surfaces of metal and glass for the soffits and fascias. Feet move. Elbows rub. Eyes pop. Cash registers chime. And the retail space is 85 per cent leased.

Rising above these two retail levels are five office floors, and these are 100 per cent leased. The over-all massing is adroit, as the terraced arrangement minimizes the sense of intrusiveness. The building's height is a third less than the permissible limit of 90 feet; yet five-sixths of the permissible density was achieved. Initially, yet another office floor was proposed, but in deference to the Fine Arts Commission, it was removed. Which is fortunate, because a subsequent zoning change requires one unit of floor-area ratio be given over to residential use, and a ratio of six applies here. Had that extra floor gone in, 1055 would now be a non-conforming building in a legal sense. Some floor-area allowance was picked up, anyway, by sinking the lower Mall level to the level of a basement thus deleting that square footage from the calculation. So the Fine Arts Commission and Georgetown got a lower building, certainly lower than was really necessary to satisfy environmental and historic considerations, and the client came fairly close to getting maximum density.

What one sees, sauntering along the bounding streets or the bordering C & O Canal is an architectural event, or, better, a well-coordinated set of events, that thoroughly embrace the location. Indeed, the Canal setting itself was approached as an integral element of the design. A park-like ambiance edges the opposite side, while 1055 edges its side of the Canal with a generous, landscaped esplanade, off from which are the entrances to both The Foundry and The Foundry Mall. The Mall provides a lively indoor space for the public—that "street" and "piazza"—and, because of its siting and massing, the new building, as a whole, defines a lively outdoor space for the public. The Mall is a room with a roof. The Canal and park create a room without a roof. Both must be counted as architecture—architecture as the courting of a public constituency, and as the countenance of human encounter.

The restored Foundry and the new building are carefully placed with respect to each other. The old element, in effect, anchors the new amidst the old. The lobby level nudges against it, its walls placed parallel to the Canal but set back a distance from it to create part of that outdoor room. The second floor, where the office spaces begin, is angled back from the roof of the lobby level, which thus gives a terrace. The second floor, in turn, gives a small terrace to the third floor. The third floor juts out toward the upper roof peak of The Foundry, and this jut gives yet another terrace up on the fifth floor. The intervening fourth floor and the top, or sixth, floor (both without terraces) give clear definition to the over-all mass, for all its angles and setbacks. The main mass of the building and the smaller jutting elements inter-



**A**longside the historic Chesapeake & Ohio Canal, the new construction, of subtle scale, stepped up to a height of six stories, skillfully spliced with the environment. This connection is enhanced by the incorporation of a 19th-century foundry (opposite, top) which was moved 100 feet to its present location and recycled for use as a restaurant and as exhibition space for the C & O Museum. The relationship of the old element and the larger new massing creates a wide esplanade by the Canal. On Thomas Jefferson Street (opposite, bottom), a strong, reinforcing edge is given to the district, while framing the canalside public areas.



penetrate each other and create visual balance. It is a good example of how a work of architecture can stand out and not stand out, all at once. And it is a good example of how architecture can fulfill itself by calling as much attention to the character of its surrounding, making room for the spontaneity of people, as to itself. One is put in mind that "the show is not the show," as Emily Dickenson once said, "but they who go."

#### Understanding "they who go" is the name of the developmental game

And attracting people to "the sweaty brawl of the marketplace" was the name of the design game here. Are such pragmatics theoretically respectable, conceptually sound, in determining the course that a design shall take? Is the flux of life, the ways people bump into each other, meet, do their business—is this flux of moment to architecture? It may be *the* moment to be calculated. And this is where the mediator role of The ELS Design Group and of Arthur Cotton Moore Associates became so valuable.

The client and the structuring of those interests are essential to understanding how 1055 came about:

Inland Steel Development Corporation, back in 1970 anyway, was, like many such subsidiaries of major corporations, bent on bringing back urban America. Few, however, were showing such strong concern for the *qualitative* aspects of their objective. David Carly, then the head of ISDC, factored them into front-end decisions, insistently cross-referencing design quality with bottom-line considerations. ISDC began operating on the premises that design quality would not only make its buildings look and work better but, by attracting people, make its bottomlines look and work better. Carly had yet another (and broader) commitment, pulling people back into our forlorn downtowns.

Carly was also willing to give new designers a chance—especially architects who shared his sense of the future of our country's urban resources, his sense that spending strategies can be as creative as design strategies, and his sense (going all the way back to the ancient but pertinent notion of *civitas*) that people, brought close together with a mix of purposes, are what give life to cities. (The ubiquitous suburban shopping center had taught many lessons about the movement of people and the profitability of that movement.)

In 1969, Carly hit upon The ELS Design Group, then barely formed—its principals, Barry Elbasani, Donn Logan, Michael Severin, (Geoffrey Freeman, who runs the New York office, joined in 1972). Dropping by their Berkeley office for what turned out to be a long, free-wheeling exploration of ideas, the simpático was cinched by, of all things, Severin's big white rabbit which, as Carly was beginning to talk, hopped onto the table. "That is a white rabbit," said the man, with a mix of fatigue and frustration. "That is a white rabbit," said Barry Elbasani. There would be many more long, free-wheeling explorations in Berkeley.

In the summer of 1970 they got a chance

to work together. Inland Steel Development Corporation was contacted by Canal Square Associates in Georgetown; who had previously developed Canal Square (designed by Arthur Cotton Moore), a mesmerizing amalgam of shops and offices, arrayed around a courtyard in a recycled group of buildings. Would ISDC consider, they asked, co-developing 12 or so acres of property in an area of Georgetown which, compared to most areas of Georgetown, was pretty down in the dumps? (For example, the site on which 1055 Thomas Jefferson is now located was a sand and gravel plant.) Carly hired ELS and the Real Estate Research Corporation of Chicago to help determine the design and marketing feasibility of such a venture.

That September, ISDC purchased for \$12,573,000 seven of the 12 acres, consisting of five different parcels held by five different owners; and set up five different subsidiaries to handle them. Canal Square Associates became minority stockholders in all five, a relationship which lasted until the fall of 1975, when ISDC purchased all such stock and recast the subsidiaries into a single concern.

One of the fortuitous aspects of the arrangement with Canal Square associates was its relationship with architect Arthur Cotton Moore, who, like the ELS team already acquainted with the project, had shown with his earlier Canal Square sound urban instincts, a firm belief in the interplay of old and new, culture and cash, and an *agora*-like meshing of places to buy things, learn things, or have fun.

By the fall of 1970, Inland was faced with a report full of facts about what the venture was going to entail; and, as any good developer knows, facts are what give you the rules to go by—certainly to *design* by. That's your "theory."

Here are some of the facts: Traffic had already become a nightmare in Georgetown; anything remotely resembling aggravation of the problem would surely result in resident shrieks and endless lawsuits. Such things that would also surely result were the new construction to clash—in its scale, massing, or finishes—with the surrounding area. The historic tone, texture of Georgetown was going to have to come out on top and no use in pretending otherwise, even if ISDC had *wanted* to pretend otherwise, which it didn't. Then there were technical problems, like how to build next to a canal or a river, with the structural precautions that had to be taken.

It was an unusual move, as mentioned before, but with all these facts before it ISDC (with Robert Larson as general manager of its subsidiary, Georgetown Inland Corporation) hired ELS and Arthur Cotton Moore—ELS, building upon their earlier feasibility studies for Carly, to do what one might call the bench mark work, basic urban design and architectural conceptualization; Moore, to carry on with design development, the refinement of structural features and spatial elements, and the final disposition of the key public areas. The contract, as unusual, called for routine consultation between the teams, in effect from



The lively spaces outside of 1055 Thomas Jefferson are interpreted inside as a sequence of "streets" leading to and around a two-level "plaza." Called the Foundry Mall, centered on a stair that is poised in the space above a pool and fountain, it is a specialty shopping center of 50,000 square feet, which has the spontaneity of a large family room. Warm, tactile surfaces of brick and wood, enlivened by transparent or reflective finishes of glass and metal, create an atmosphere that is compelling in a marketing sense and visually comfortable. A showcase for more than goods, the Foundry Mall shows that sociable, walkable scale is a successful marketing tool.



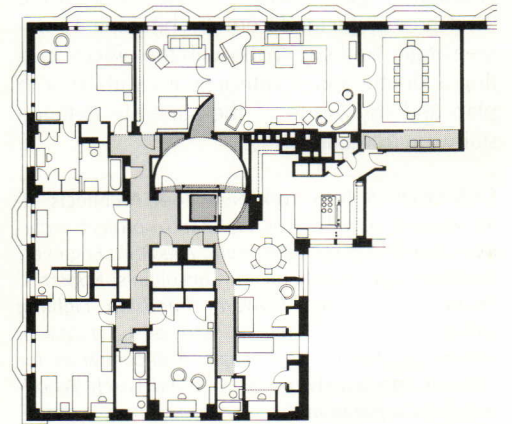


## THE KEY TO THE PLAN

In this remapping scheme, a large assembly of rooms in a relatively unhierarchical pattern is rearranged to form three distinct realms, subtly connected. The key is the reconfiguration of the main entrance and, from that, the entrances to the public rooms, the bedrooms, and the kitchen. The new semicircular entrance hall is seen in the large color photograph below, and the entrance from it to the living room is shown in the photograph immediately on the right. This latter element takes an irregular bite out of the study (top photo, opposite page), which in turn loses its direct connection with the entrance, but gains a new relationship to the master bedroom.

PRIVATE APARTMENT, New York, New York. Architects: *R. M. Kliment and Frances Halsband*—project architect: *Jennie Young*. Engineer: *Charles Beers, Airaconda, Inc.* (mechanical). Consultants: *Howard Brandston Lighting Design* (lighting); *Philip Golden, Consultants Collaborative* (kitchen). Contractor: *Garson-Bergman, Inc.*





Laura Rosen photos

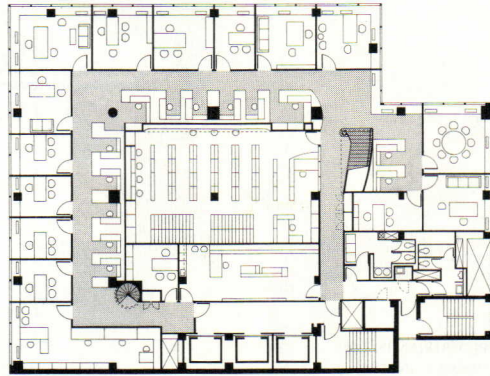
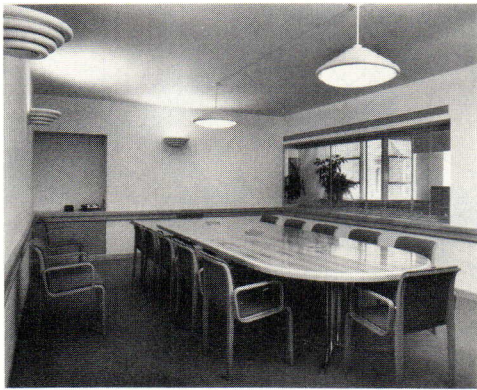
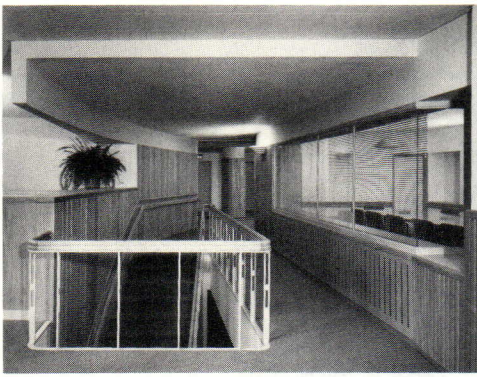


## ENTRANCE (AND MOVEMENT)

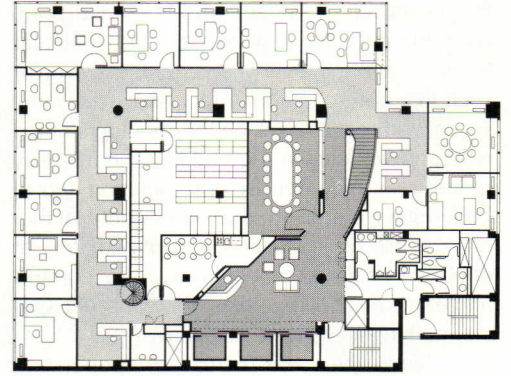
The success of this design—an all-new suite of law offices on two floors of an existing office building (see plans on opposite page)—depends on two opposite phenomena: the series of relatively standard offices and work stations synchronized with the building grid, and the boldly configured entrance and main circulation spaces, which break free from the 90-degree angle (and from its child, the 45-degree angle) and sweep through the offices, cutting a kinetic and unorthogonal swath in both plan and (by virtue of the superbly detailed stairway) in section.

LAW OFFICES, New York, New York. Architects: *R. M. Klimt and Frances Halsband*—project architects: *Jennie Young, John Philip Hesslein*. Engineer: *Matthew Segal* (mechanical). Consultants: *Robert A. Hansen* (acoustical); *Howard Brandston Lighting Design* (lighting); *Vignelli Associates* (graphics). General contractor: *H. L. Lazar*. Sub-contractor for cabinets and woodwork: *B & S and Lorch Woodworking Corporation*.





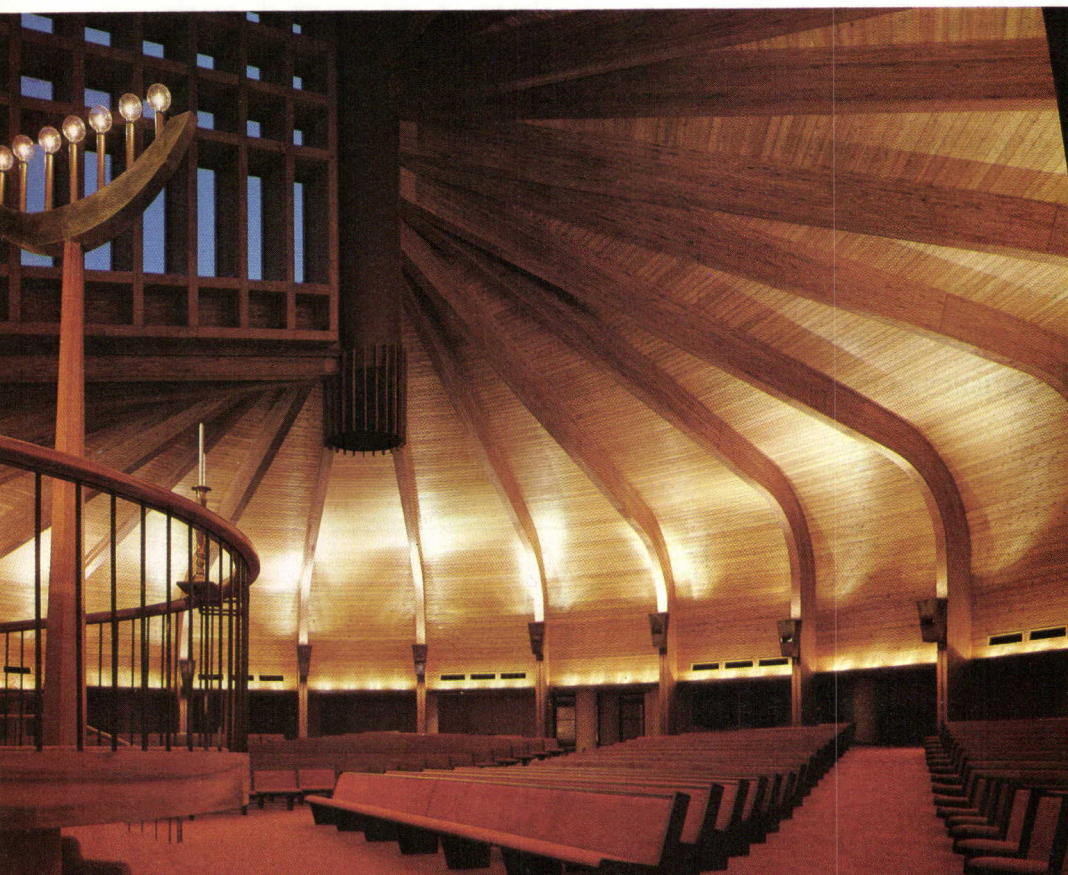
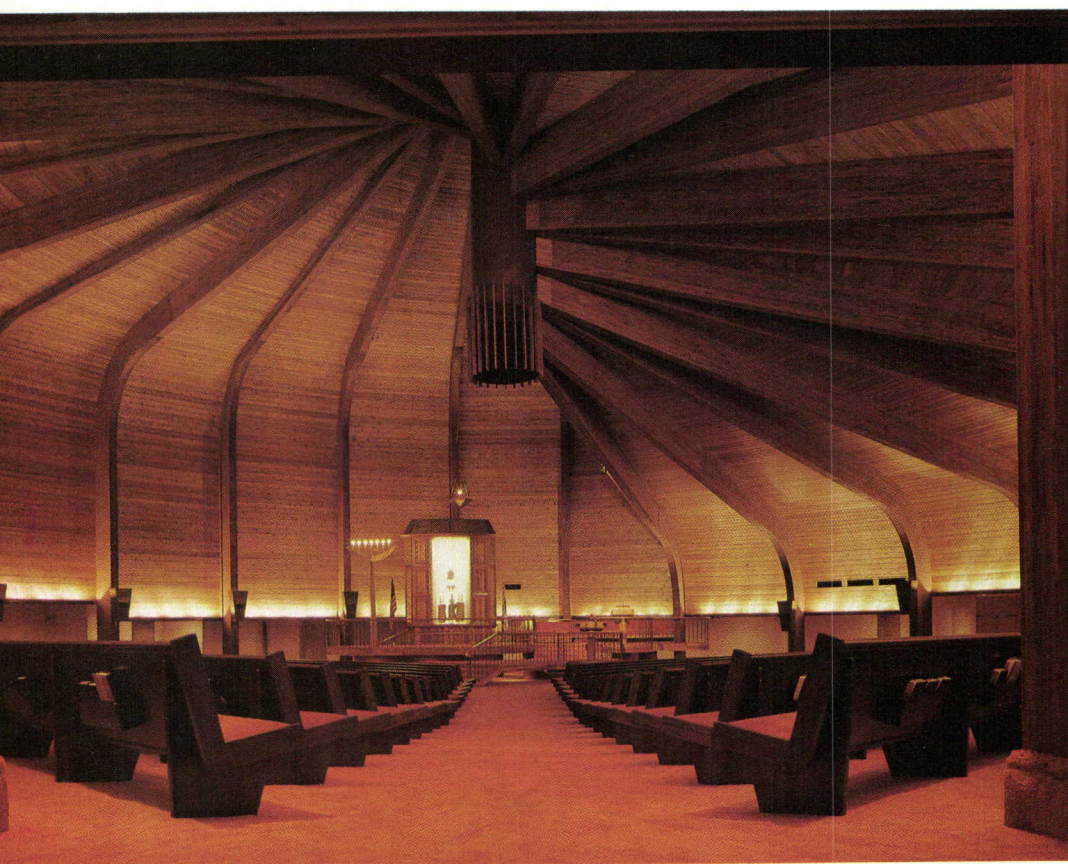
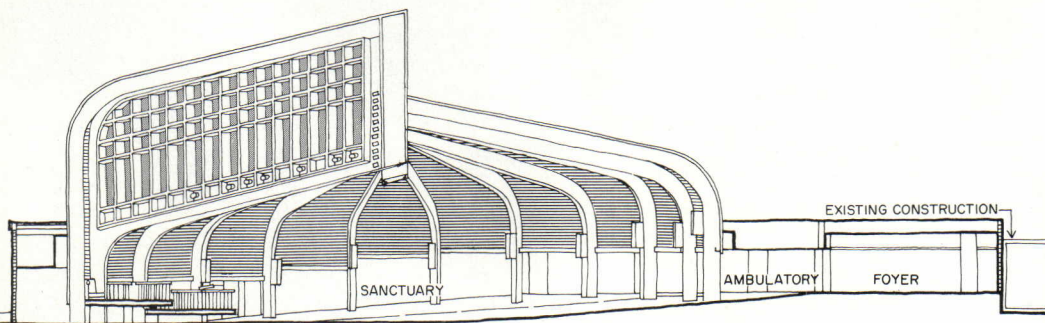
LOWER FLOOR



UPPER FLOOR

Laura Rosen photos





This sanctuary for Temple Beth El is the new focal point and unifying element of an existing complex of social hall, chapel, classrooms and administrative offices for a Conservative Jewish congregation.

A significant volume of space is created in the circular sanctuary by 24 exposed laminated wood arches (spaced at 15-degree intervals) and ascending like a spiral staircase to a height of 51 feet 10 inches. The arches are locked together at the apex by a steel cylinder 4 feet 6 inches in diameter and 26 feet 8 inches deep, which acts as a compression ring.

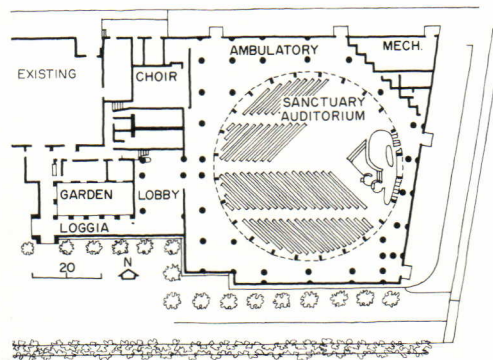
The bema (the raised platform from which services are conducted), and the ark (the cabinet containing the Torah) are traditionally located on the eastern wall. The impressive clerestory window is positioned overhead, admitting natural light from the south to illuminate the bema and the ark. The window is 20 feet 6 inches by 49 feet 10 inches, segmented by a laminated wood framing system. Around the circular sanctuary but open to it is a low ceiling "ambulatory space" for circulation and extra seating. This smaller-scale space and the classroom/office building are concrete.

According to the architect, the design was inspired by, but is a stylized version of, the shell of a marine mollusk—the chambered *Nautilus pompilius*, whose coiled shell is segmented internally. "I wanted to create an aura of ascending space while utilizing the engulfing atmosphere of the circle," says Parker. "A special interior space must exist in religious buildings, a space that is functional but is in itself an inspirational element."

The regular seating capacity is 800 in a fixed, semi-circular arrangement allowing as many people as possible to be near the bema. The unusually large ambulatory can be converted into temporary seating for 400 on the High Holy Days.

A limited budget necessitated the selection of wood for the sanctuary, instead of concrete (the material originally considered); and the standardization of elements (including the arches), and fast, efficient on-site erection of the shell contributed to a total cost of \$1.3 million for the building.

FREAD SANCTUARY, TEMPLE BETH EL, West Palm Beach, Florida. Architects: *Alfred Browning Parker, Architects*. Engineers: *Jorge Peña y Lillo* (structural), *Hufsey-Nicholaides Associates, Inc.* (mechanical/electrical). General contractor: *Butler & Oenbrink, Inc.*—*Lawrence Calloway*, project superintendent.







Sandy Nixon

## COAL STREET PARK BY ARCHITECTS BOHLIN AND POWELL

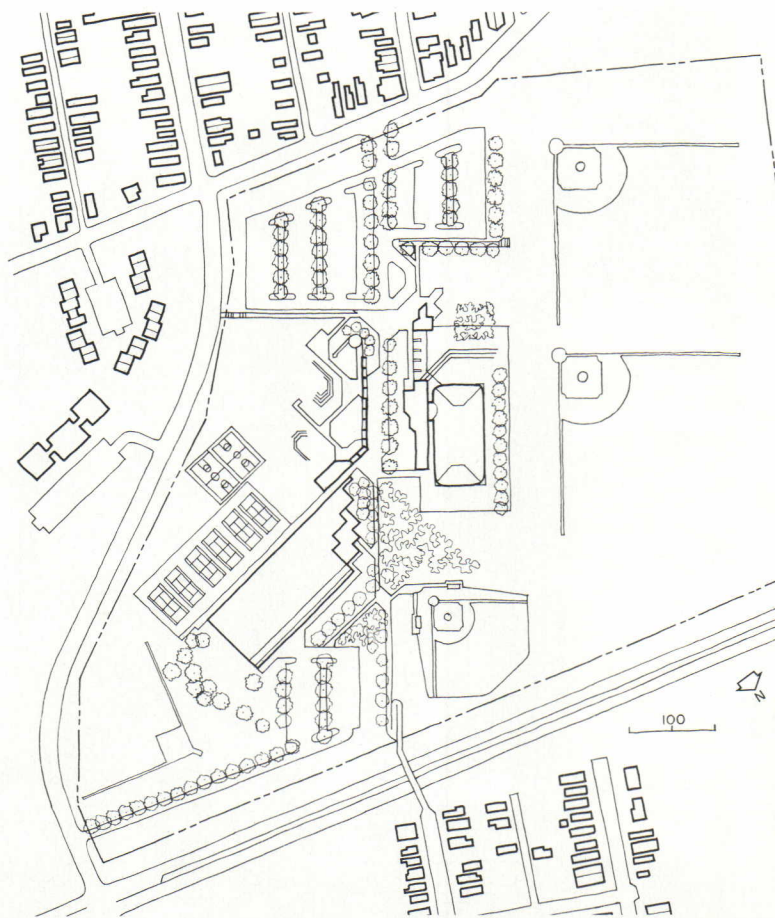
In the July 1974 issue (pages 99-104), Bohlin and Powell's completed swimming pool, under an inflatable structure (far right in plan) was shown with the comment that adjacent municipal recreational facilities were planned for the site in Wilkes-Barre, Pennsylvania. The completed complex was to be called Coal Street Park. Today, that complex is largely in place.

Along a central walkway (created by the closing of a through street), various playing fields, courts and structures have been arranged at a 45-degree angle to provide true north-south orientation. The largest of the structures (lower left in plan) houses an ice-skating rink in the winter, and is planned to provide a protected area for various other sports in the summer. It consists of both a high roof, supported by enormous rigid steel trusses, and a series of lower spaces at the entrance to house a lobby, offices and changing rooms. The lower structure ties the big "shed" vis-

ually to the small-scale play areas and trellises (left in photo, above) that define the park's walkways. A further tie is achieved by the way in which the shed asymmetrically slopes toward low piers facing the rest of the park.

By contrast, the new children's playground (just above the rink in the plan) is appropriately intimate and small-scaled. A fountain (at top in photo opposite) is placed at the park's entrance—"just as they were used to signify park entrances in the nineteenth century" according to architect Peter Bohlin. But this fountain is active in summer with playing children (photo above). A spillway varies the speed of water.

ICE-A-RAMA, Wilkes-Barre, Pennsylvania. Owner: *The City of Wilkes-Barre*. Architects: *Bohlin and Powell*—partner-in-charge: *Peter Bohlin*; project architect: *Ronald Huntsinger*. Associated architects: *The Allen Organization*. Engineers: *Rist-Frost Associates* (structural, mechanical and electrical). General contractor: *Te Sutter Corporation*.

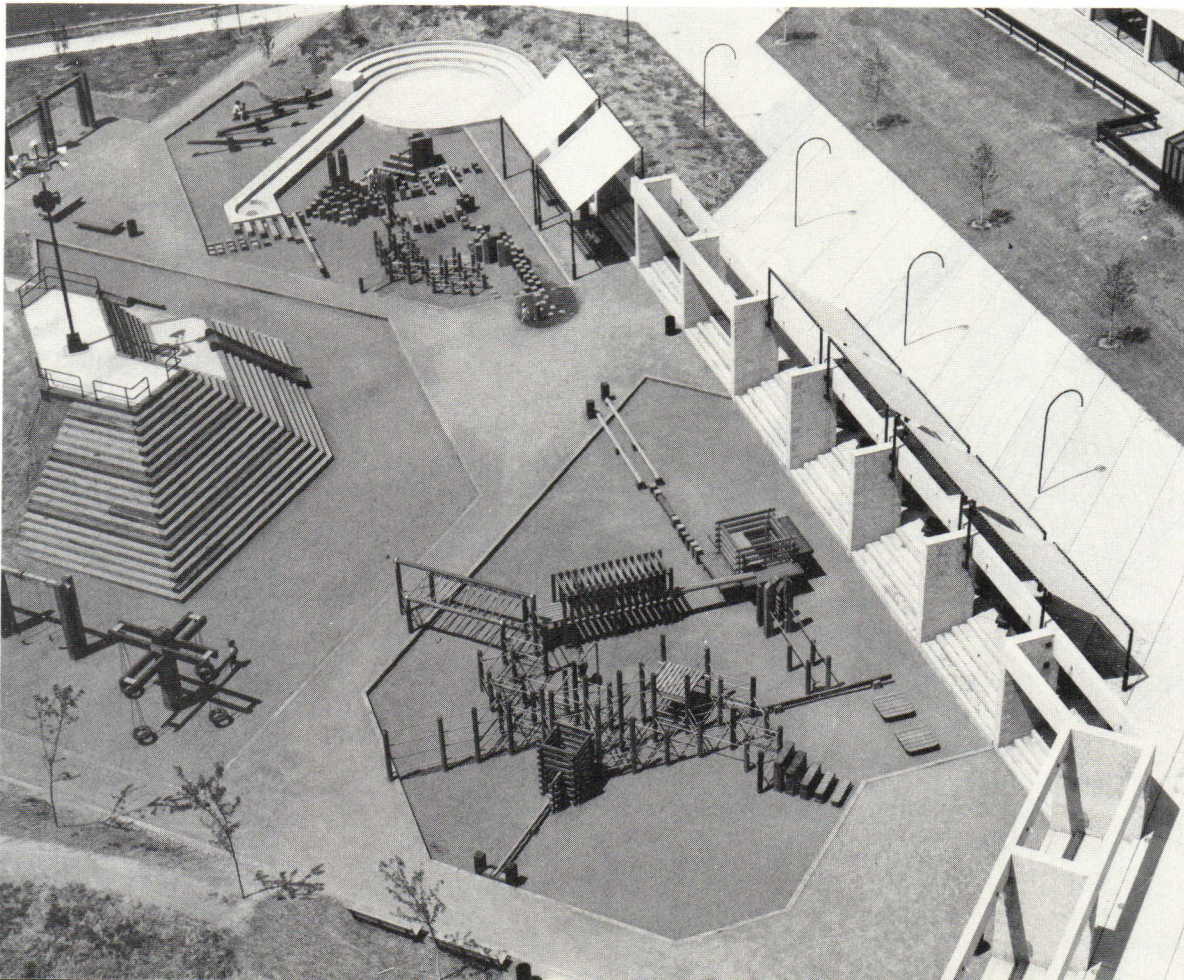




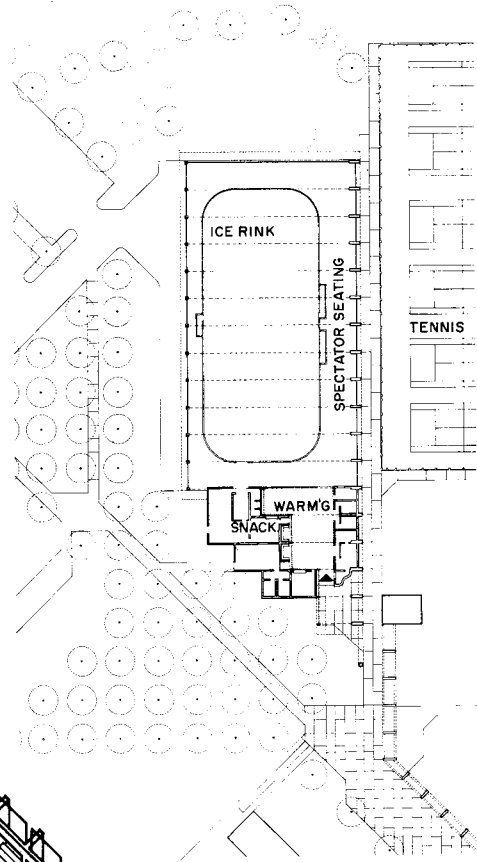
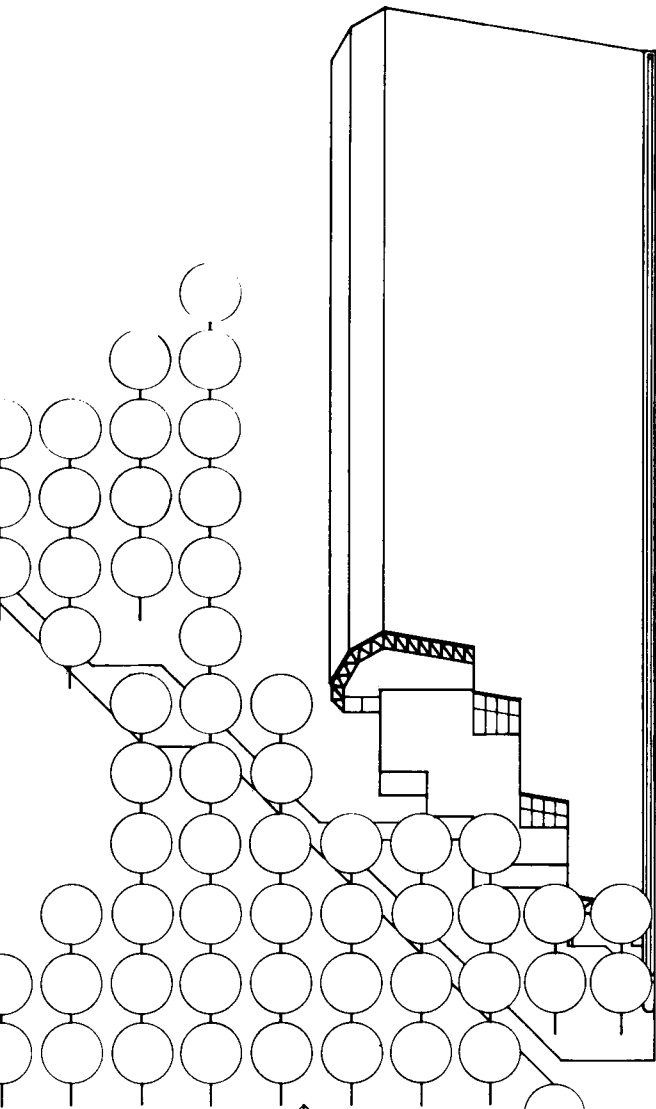


Joseph W. Molitor

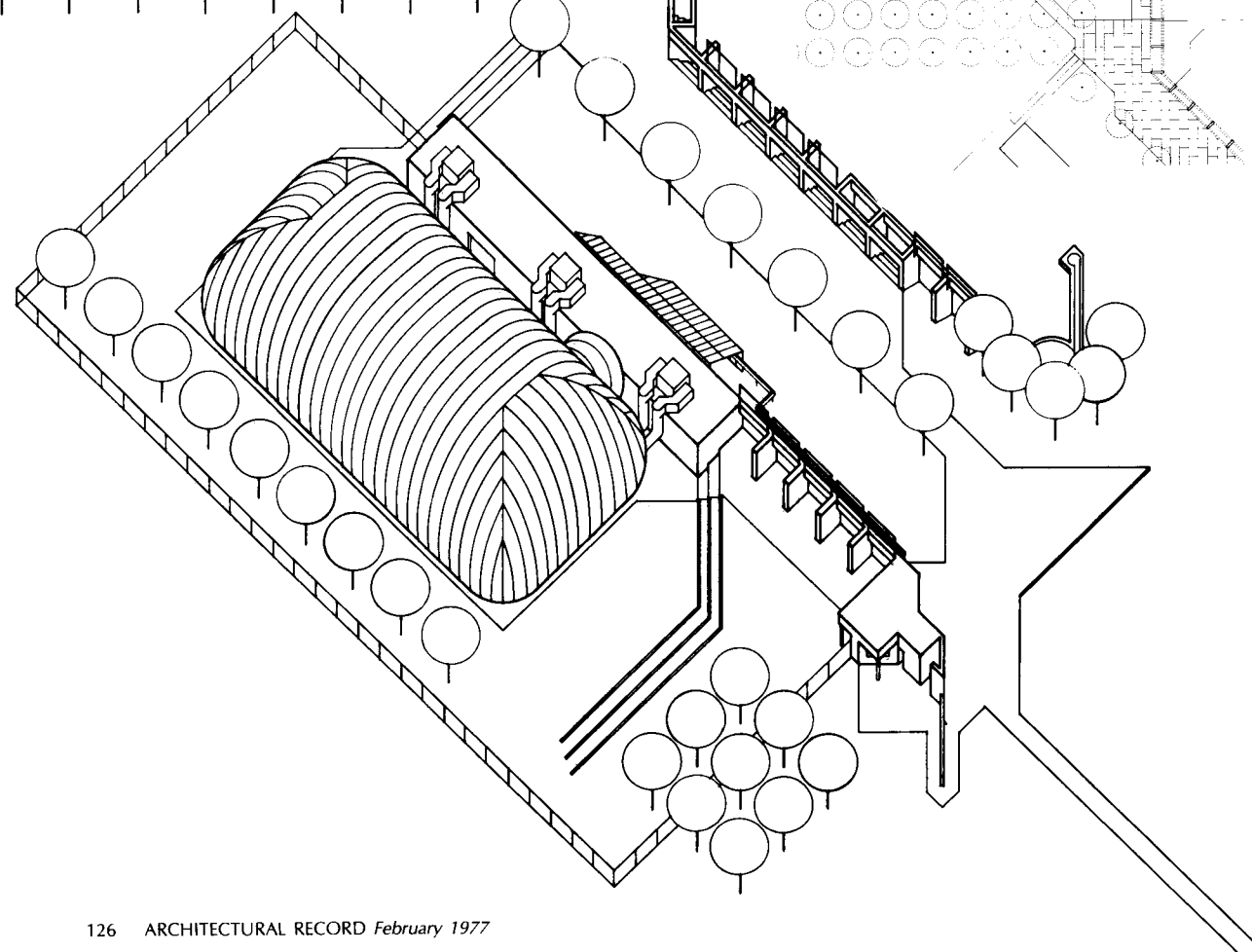
Abe Hoffman Studios

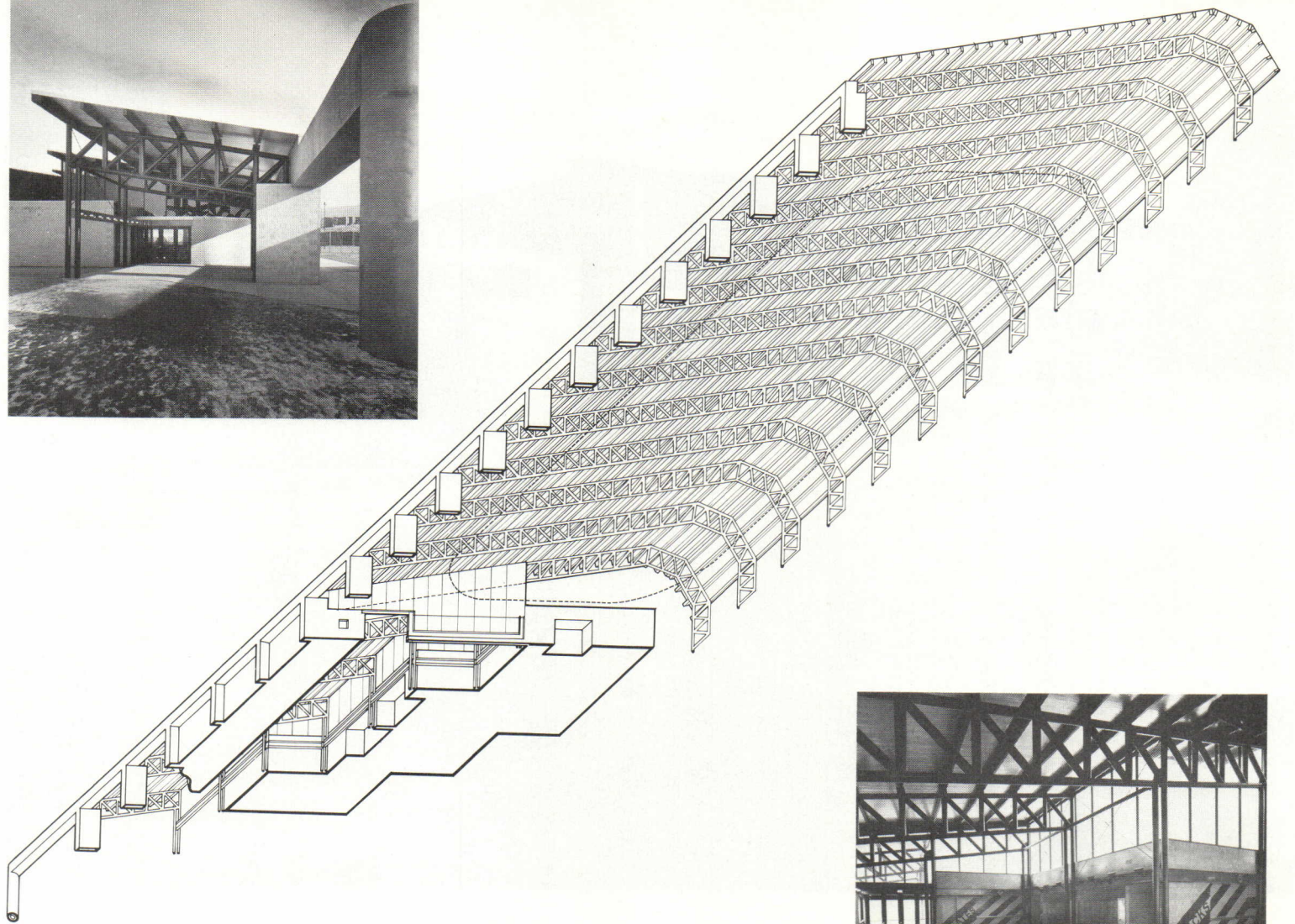


A fountain at the park's parking-lot entrance (photo, opposite) is a traditional form here used in new ways—as part of a children's playground (photo, below). From the entrance, visitors are visually led along the central walkway by trellises (to which bright yellow awnings are attached), past a swimming pool to courts for tennis and basketball, playing fields for baseball, soccer and hockey and to the great ice-skating shed (photo, above). The playground is located to the upper left in the site plan.

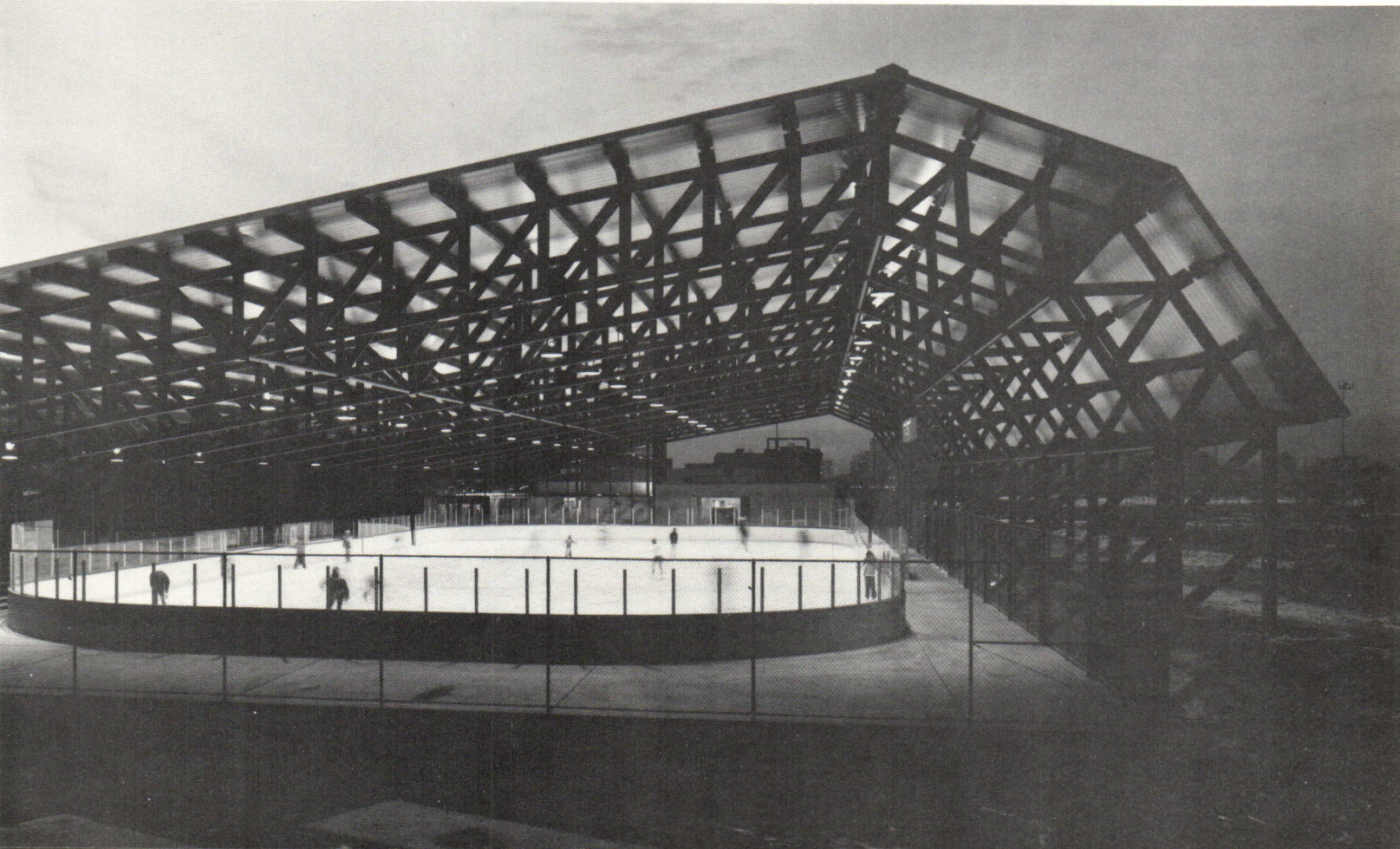


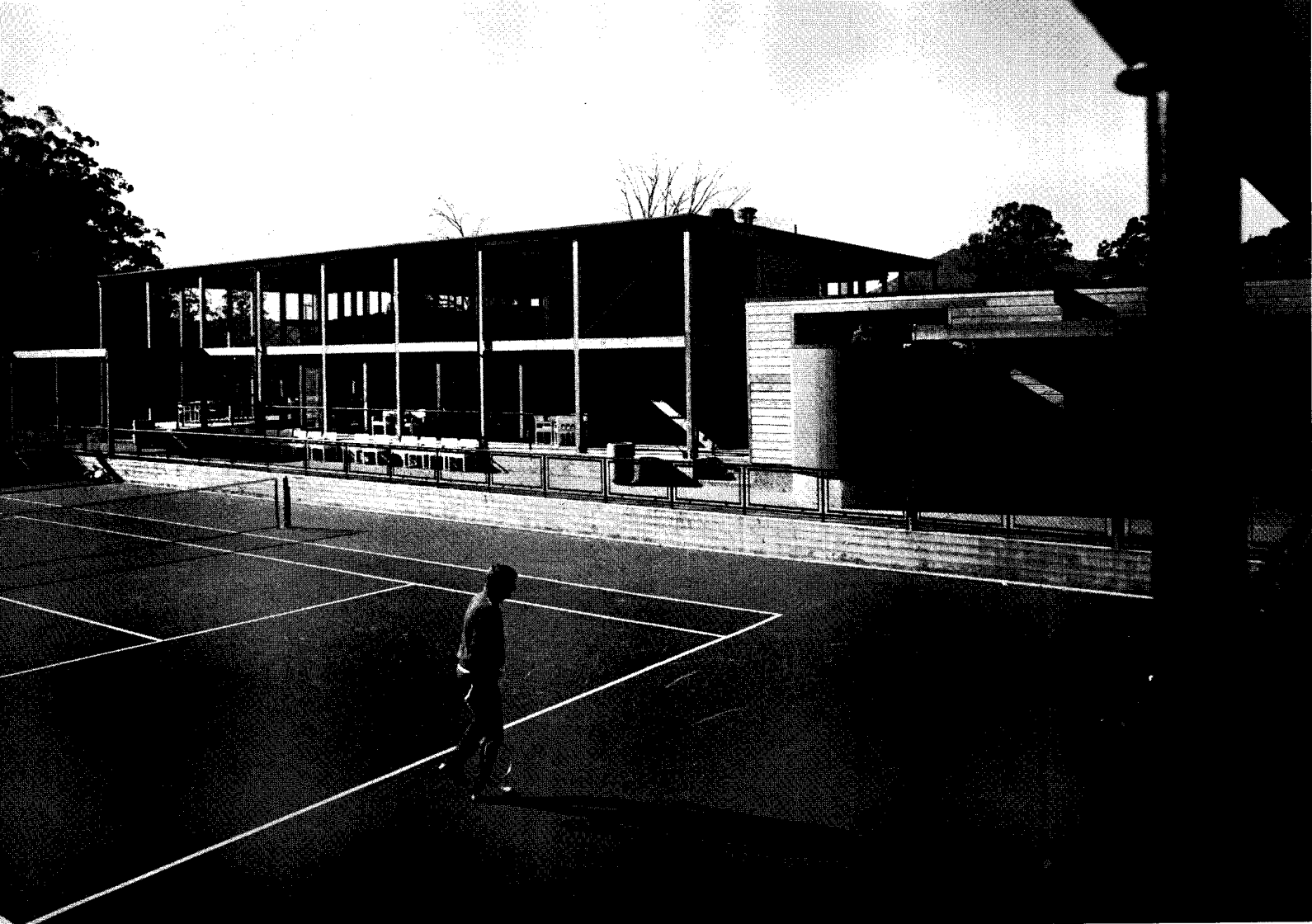
As seen in an isometric view from underneath (opposite page), the large skating shed is tied visually to the smaller-scale trellises that define the park's walkways by presenting a low side to the center of the park. The masonry piers along this side are an extension of the kind of piers used to support the trellises (see photo of entrance above). The large mass of the shed is also screened by the location of the low lobby and administration elements, which are largely roofed by an extension of the shed. The relation of the rink, the central walkway and the older swimming pool (RECORD, July 1974) can be seen in the isometric (left). A red stripe at door-head height leads skaters through the changing room toward the ice (photo, opposite), and augments other graphics.





Joseph W. Molitor photos





Joshua Frieewald photos

## MARIN TENNIS CLUB BY BACKEN, ARRIGONI & ROSS

The program requirements for this tennis club included eleven doubles courts, a swimming pool, parking for 55 cars, and a clubhouse which was to contain dressing facilities, pro's shop, lounge, small kitchen, bar and space for equipment storage. In summary, it was a rather standard program.

The architect's solution, however, is anything but standard. Whereas most clubs suffer from too great a separation between clubhouse and courts, here the clubhouse is centrally located with courts on three sides. And because it is so located, viewing decks can be developed as part of the clubhouse—a design device that copes with a second negative aspect of most clubs: inadequate provision for those who wish to watch games in progress as they wait for courts.

The dressing areas, at the north end of the clubhouse, are entirely enclosed except that for both men and women a small courtyard is provided. In marked contrast, the lounge and bar areas

are part of a double height, glass-walled structure that houses an upper-level viewing platform.

What is solved especially nicely is the transition between inside and outside, between clubhouse and playing areas. Because the structure occupies the entire space between the east-west banks of courts, its walls form one edge of each court enclosure. And the rhythm of the court fencing is maintained in the column grid of the structure.

The main structural components are posts of 6x6 Douglas fir that carry 6-inch beams of variable depth. Roof deck and exterior cladding are also of fir. A cross-bracing of cable is left exposed at the exterior walls to resist shear.

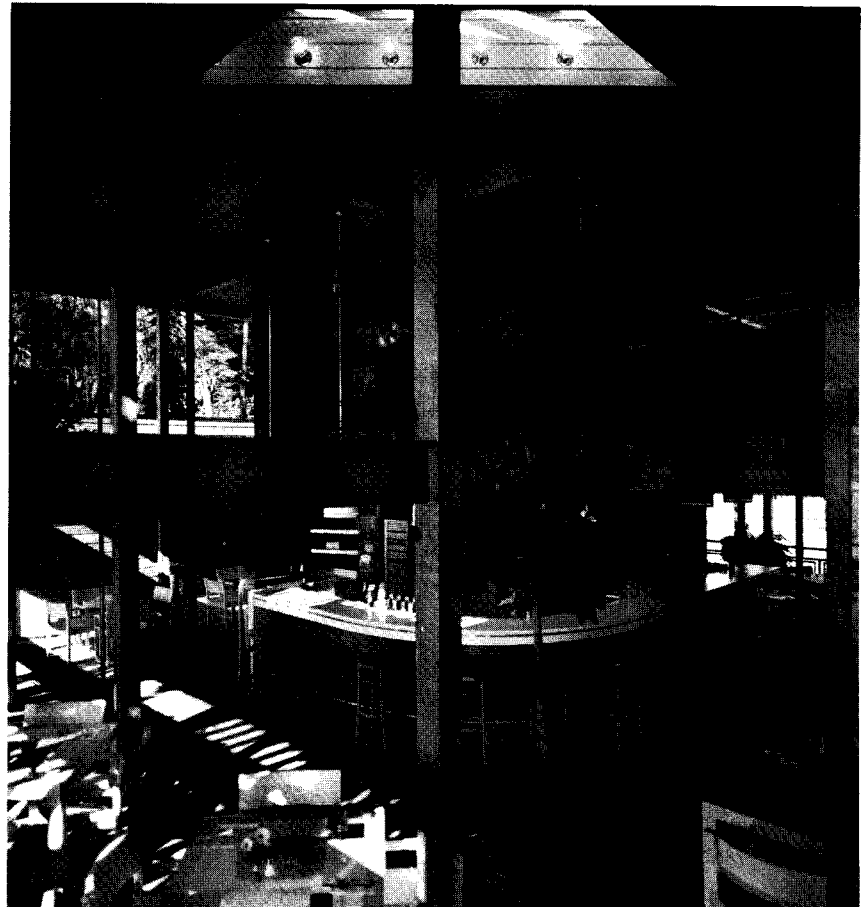
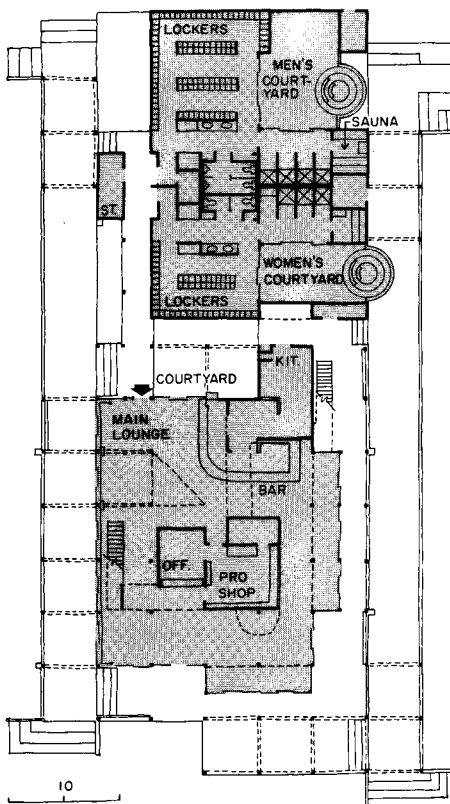
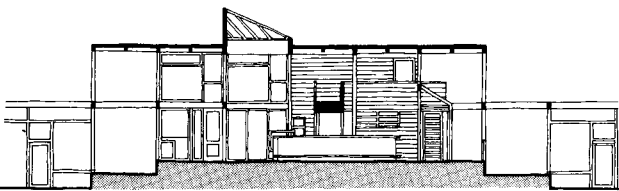
MARIN TENNIS CLUB, San Raphael, California. Architects: *Backen, Arrigoni & Ross, Inc.* Engineers: *J.S. Papp Associates* (structural); *Murray-McCormick Environmental Group* (foundations); *Chamberlain & Painter* (mechanical/electrical). Landscape architect: *Richard Berridge*. Contractor: *Roy M. Anderson*.







The site required some grading to provide proper drainage for the court areas. A slope of one inch every 10 feet is considered a satisfactory minimum. But as much as possible, the site and surroundings were kept relaxed in character. And the building itself was subordinated to the site and de-emphasized.



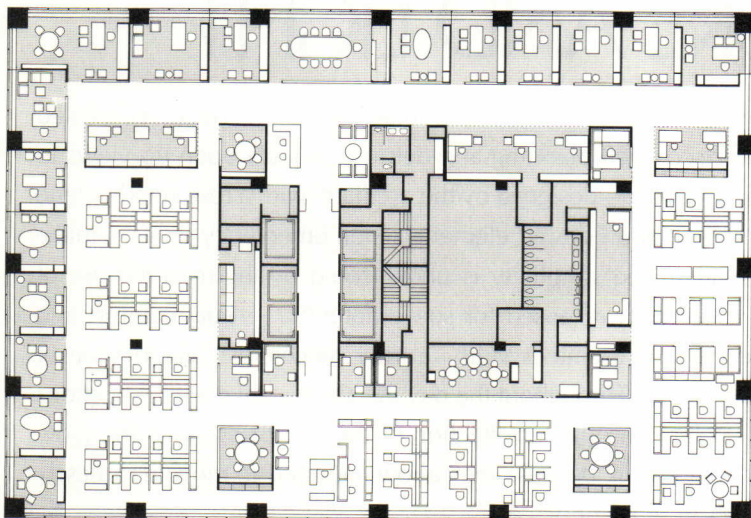
*Jeremiah O. Bragstad*

## A MOST SUBTLE LAYERING OF ARCHITECTURE AND LIGHT

Employees and visitors alike must yield to the charms of the interior and exterior vistas that architect Matthew Mills has created for the corporate offices of Crowley Maritime Corporation in San Francisco. Deft planning and deft use of glass open up views to the outdoors for everyone, even from rooms in the core, while the interior spaces—designed by the architect with a restrained palette of materials, surfaces that are light or dark or reflective, and flush detailing of all design elements (even emergency lights)—make the offices pleasant and interesting and easy to work in. The plan's calculated simplicity is underscored by the reserved use of materials—white oak, glass, and light carpet. The lighting has been inventively disposed for space definition, visual comfort and work activity (at low energy consumption) by consultant Sylvan Shemitz and architect Mills—a truly successful collaboration of an experienced consultant and an architect who knew exactly what he wanted. Throughout the day the glass is alive with reflections and transparencies that constantly change. It is a delight, says Mills, to look through a reflection of the Bay Bridge into the glow of an adjoining space. "For me it is these many layers of subtlety that are exciting because they allow the mind to move effortlessly from one to the other as the mood warrants, without ever losing an over-all sense of place."



*Visitors enter the main reception area on the executive floor through frameless glass doors. Employees leaving the elevators may turn either right or left to reach their offices. Fluorescent wall-washers illuminate the elevator lobby, reception area and core walls. Staff groups occupy three sides of the plan, and only two exterior walls were taken for the 16 executive offices.*



The corporate offices for Crowley Maritime Corporation are located in One Market Plaza, a high-rise office complex at the foot of Market Street, adjacent to the historic Ferry Building and overlooking all of San Francisco Bay. Crowley operates the world's largest fleet of tugs, barges and offshore exploration vessels, and has always had its offices on the waterfront. In a move to consolidate its corporate operations and accommodate recent expansion, Crowley chose its new location because of its competitive rent and its unrestricted views of the bay and harbor. Occupancy will total about 45,000 sq ft on the 38th (executive), 33rd and 32nd floors; plans are also under way for the 31st floor. With the commitment to move came the opportunity to improve planning. Architects Robinson and Mills and the Crowley staff worked closely to find concepts that would yield a flexible plan responsive to ever-changing work relationships.

In late 1975, the architects proposed that Crowley utilize a reasonable mix of open planning and private spaces, and an improved





*From the reception area, the overlapping of interior reflections and the nighttime panorama of San Francisco harbor create an enigmatic multiple image in the flush-glazed partition of the board room and in the outside window. The interior glass wall, which also encloses executive offices, is terminated by an oak-surfaced header at its top and by an oak sill at the bottom.*

generation of the task lighting system (see RECORD, mid-August 1976, pages 122-128). According to Crowley's project coordinator, Lee Ready, the company sought better work flow, extended life, and a generally improved environment—"a space where the office environment can continually evolve." Crowley's decision to accept the proposal was based on the value of improved lighting and related energy savings (only 1.8 watts per sq ft connected load), and on the flexibility of a modular lighting system. The dual task for the architects was to develop a plan that would accommodate crucial functional relationships, and at the same time reflect the Crowley organization in a quiet sense of simplicity and quality.

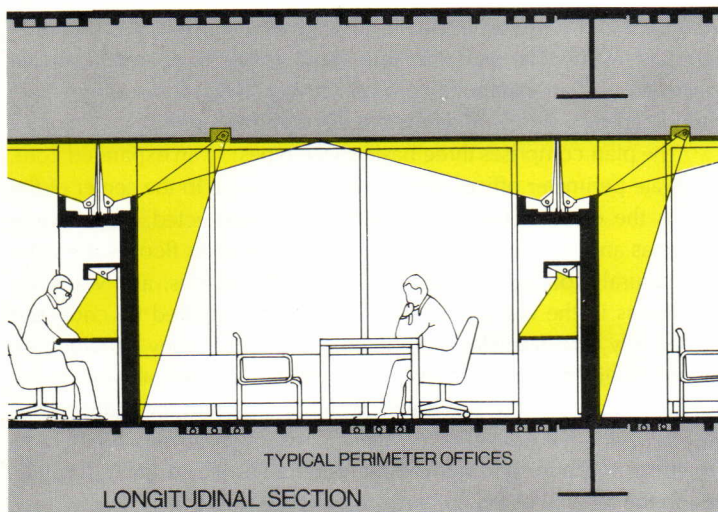
The executive floor (77 people), unlike many company headquarters, was to be a "working" floor not only for the senior officers, but also for administrative, engineering and support staffs—with all working spaces organized in arrangements that would encourage interaction. To achieve this, the architects developed a space with an

expansive and transparent quality that gives every employee natural light and a view. The plan (left) provides a variety of open and private spaces around an expanded core containing spaces for common use, and joined by a simple and efficient circulation system.

The plan comprises three basic space types: 1) an expanded core, 2) private perimeter offices, and 3) open-plan area. In the center of the core is the elevator lobby (seen directly and reflected, above). It is treated as an extension of the circulation corridor: its floor is the same light natural wool carpet used throughout the offices, and walls are detailed as in the rest of the core. The doors, required by code and for security, are frameless tempered glass. This lobby provides an added through corridor and offers the visitor an immediate view to the outside. It opens to the personnel department and to the main reception area, which is treated as a widened area in the corridor that tempts the visitor to pause and admire the panorama of San Francisco harbor on the far side of the conference room.



*Illuminated surfaces provide ambient light and visual comfort, and give space definition and orientation. In private offices, a concealed uplight washes the ceilings evenly. All the core walls are washed by recessed fluorescent fixtures (lower left photo), while the glass walls of conference rooms (same photo) and the header of the executive secretary alcove (lower right) are not.*



In addition to several private offices, the core includes service areas, conference rooms, a library and a coffee room. While internally complex, the core is an essentially simple form that acts as a reference plane for occupants of the surrounding space. Its walls are penetrated by doorways and strip windows, which align at the bottom with the upper surface of the open-plan work units and at the top with the headers that receive the glass partitions of executive offices and conference rooms. These headers also define secretarial alcoves, where they help contain typing noise and form a kind of nonexistent wall that discourages unnecessary visiting.

The 16 executive offices, with their continuous flush-glazed walls, partially wrap, and serve as a foil to, the white central core. In between are the open staff areas. The staff and executive offices are thus separate, yet not separate. The perimeter offices are partitioned by custom-designed "furniture-like" work units that stop short of both walls and ceiling. Privacy closures are made of acoustical glass so that



*Work stations in the open-plan areas use Knoll-Stephens units that provide both task lighting and broad general uplight. A distributed file system separates the staff station from the corridor. One lighted core wall is shown in the left background. An opaque conference room wall (right background) displays photographs of the company's operations, illuminated by incandescent wall-washers.*



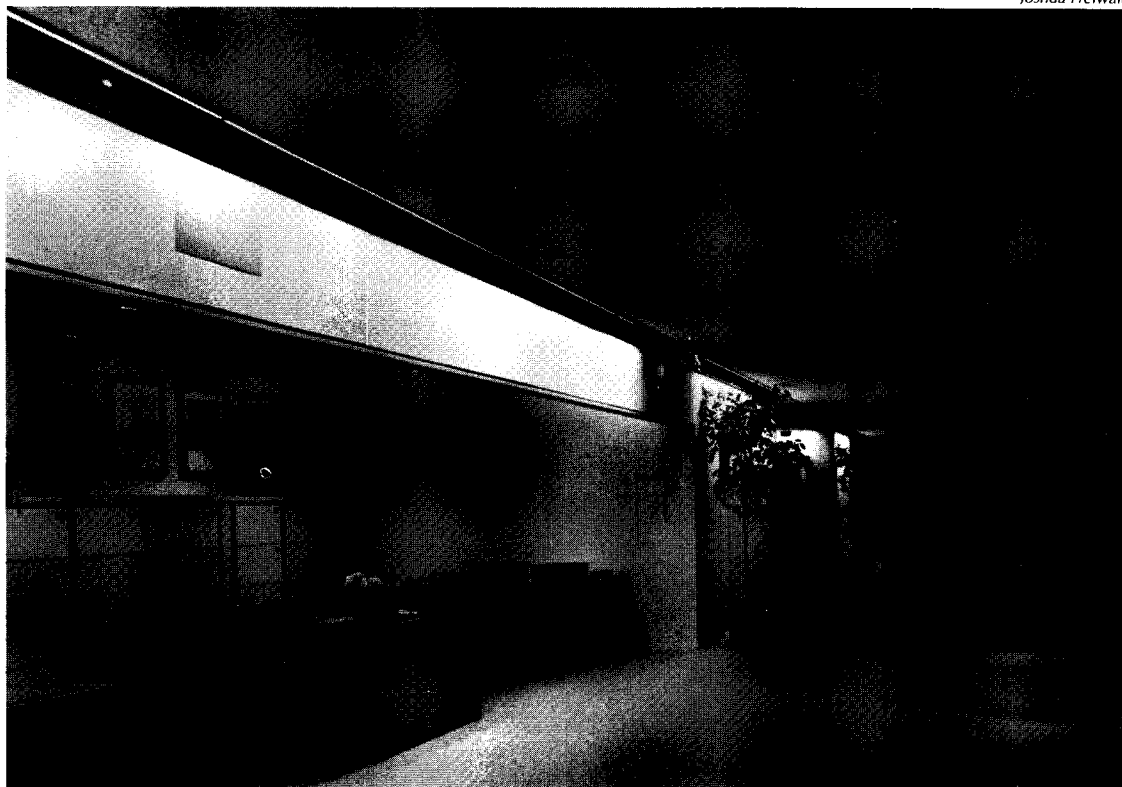
ceiling and wall surfaces of adjacent spaces can be seen by any office occupant. Further, the glass closure to the perimeter wall permits each office to borrow its neighbor's view, greatly increasing the apparent space. Interior drapes and blinds were dispensed with in favor of the openness espoused by the company president.

Ceilings are washed by concealed fluorescent uplights above work units that provide ambient light when it is dark. The light beam from these uplights is carefully controlled so that the lighting fixture is not mirrored in the acoustical glass above the work unit. This lighting is controlled by a photocell, ensuring energy savings when daylight is sufficient.

The wall opposite each office's work unit (which is the back of the next office's work unit) has a door that sinks flush with the wall when opened and a large oak panel that can be used as a graphic display surface—all washed by recessed incandescent fixtures. Each office thus is defined by illuminated planes.



Jeremiah O. Bragstad

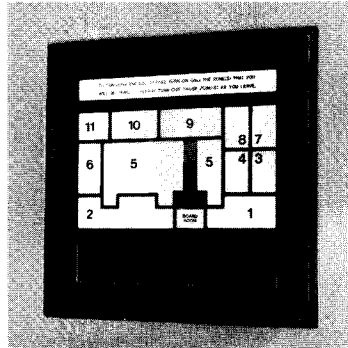
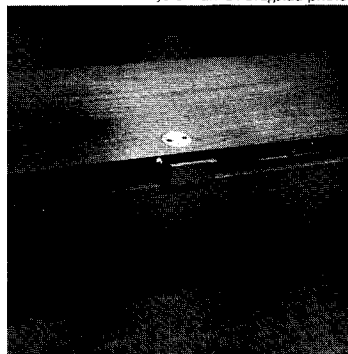


Jeremiah O. Bragstad



Joshua Freiwald

Jeremiah O. Bragstad photos



Much of the sense of quality and interest derives from the architect's and lighting consultant's attention to detail. Just a soupçon of polished brass hardware adds sparkle to the quiet elegance of the elevator lobby. And tiny brass fasteners secure the glass at sills of executive offices.

The recessed wall-washers around the core terminate at the juncture of wall and ceiling in a visor of bright aluminum (not needed for light control) that mirrors ever-changing images. Emergency lights are set flush with the continuous header of the core for appearance, and also to light corridor surfaces (top, right).

By stopping executive office work units short of the exterior wall, and providing acoustical separation with glass, the architect gave occupants ex-

panded views of the city. The photo just above looks at the outside of a corner office, showing the back of a work station. Transoms between executive offices are acoustical glass (see photo center, right). Office doors (one shown ajar in the photo) recess into door pockets so the entire oak wall can be flush.

Electrical energy is saved not just by low installed wattage: at 6 P.M. motor-driven master switches turn out all the lights except those in the core, which remain on for 15 minutes longer. This allows a late-working occupant time enough to go to a specially designed lighting panel in the core (right) to flip a low-voltage switch and turn lights back on in his area (identified by trans-illuminated numbered areas on the panel).

CROWLEY MARITIME CORPORATION HEADQUARTERS, San Francisco. Architects: *Robinson and Mills Architecture and Planning*—partner-in-charge: *Matthew R. Mills*; project architect: *Thomas Goodwin*; designers: *Edward Fernandez, Rae Hagner, Steve O'Brien, Richard Tobias*. Consultants: *Sylvan R. Shemitz and Associates, Inc.* (lighting design); *Jaros, Baum & Bolles* (mechanical); *Sylvan R. Shemitz and Associates, Inc.*, in association with *Marion, Cerbatos & Tomasi, Inc.* (electrical); *Wilson, Ihrig and Associates* (acoustical); *Reis and Company, and Michael Manwaring* (graphics). Contractors: *Jacks and Irvine General Contractors, Inc.* (general); *Rosendin Electric, Inc.*; *Architectural Wood Products*.

For more information, circle item numbers on Reader Service Inquiry Card, pages 203-204.



## Self-powered assembly provides emergency lighting within recessed troffer

KeeneLine EMP 13" is a battery-operated lamp assembly that replaces the standard ballast cover in many of the manufacturer's gull-wing-shaped two- and four-lamp recessed or semi-recessed fixtures. In the event of power failure, the unit pro-

vides emergency illumination for 90 minutes by automatically switching on a separate lamp. After use, the battery is automatically recharged by a built-in charging circuit run off the standard 120-volt circuit. EMP 13 assemblies are UL-listed,

and the triangular housing has a hinged cover for access. A test button to indicate proper battery charging can be operated without opening the fixture or using a ladder. ■ Keene Lighting, Wilmington, Mass.

Circle 300 on inquiry card



## Plywood stacking chair available in colors

A molded plywood stacking chair, designed by Muller and Stewart Ltd., is intended for versatile study or dining seating. Cutouts in the seat back facilitate carrying. The chair is available in a natural birch finish, and red, blue, orange or green stains. ■ Ambient Systems Ltd., Toronto, Ontario, Canada.

Circle 301 on inquiry card

## Interliner reduces upholstery flammability

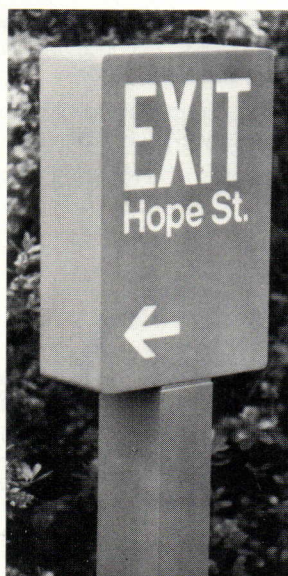
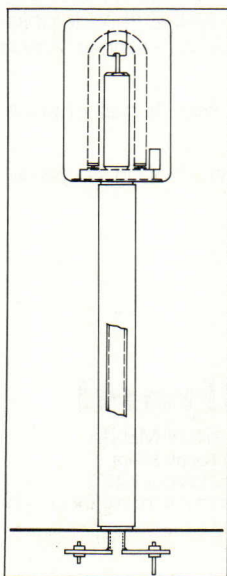
A specially-formulated cellular elastomer, *Vonar*, is recommended as an upholstery interliner to improve the flammability performance of contract seating. Properly installed, *Vonar* liners are said to reduce the likelihood of ignition of furniture as a unit, and are said to lower the burning rate of upholstered furniture if ignition should occur from a cigarette or limited open flame source. Currently available in 1/16-, 2/16-, and 3/16-in. thicknesses, *Vonar* may

be backcoated onto upholstery fabric; act as an envelope surrounding the cushioning material; or be installed as a liner between fabric and cushioning. Effectiveness depends on the configuration used, as well as the type of fabric, furniture style, and method of interliner application. *Vonar* interliners do not adversely affect the flexibility, comfort, or feel of upholstered furniture. ■ Du Pont Co., New York City.

Circle 302 on inquiry card



## U-shaped lamp recommended for minimal spaces within lighted signage



A freestanding exit sign, designed and fabricated by QRS Corporation, Los Angeles, is offered by the lamp manufacturer as an example of the "Voltarc" U-lamp used to solve a problem of space. The sign itself is directional and consists of a routed aluminum face with an illuminated plastic back-up. The U-lamp, type U6-36T12/HO, is mounted in the vertical position and provides illumination within the 13-by-6-by 19 1/2-in. volume. Had two single straight lamps been used, two raceways would have been required, according to the company. ■ Voltarc Tubes, Inc., Fairfield, Conn.

Circle 303 on inquiry card  
more products on page 145



# How much punishment can you ask a gym floor to take?

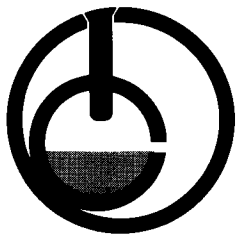
The gym floor you specify should not be asked  
to take any punishment... a gym floor **FINISH** should!

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Hillyard Trophy Seal and Finish cover more than 20,000 gym floors in the United States, including such championship courts as the NCAA tournament at the Philadelphia Spectrum; the NCAA College Division at Evansville, Indiana; the NAIA at Kemper Arena, Kansas City, Missouri; and the NIT at Madison Square Garden.

When you order a gym floor finish, be certain to give your floor its best chance for a long and beautiful life... choose Hillyard Trophy Gym Finish®.

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For more information, circle item numbers on Reader-Service Inquiry card, pages 203-204.

**MASONRY PUBLICATIONS** / The International Masonry Institute has published a number of technical bulletins for the professional involved in masonry construction. Included are such topics as code requirements for load-bearing masonry construction; fire-safe masonry; and the energy-saving advantages of masonry walls. "A New Day Dawns" is an eight-page booklet describing and illustrating the work of architect Philip Johnson, recent winner of the Louis Sullivan Award for Architecture. ■ International Masonry Institute, Washington, D.C.

Circle 400 on inquiry card

**PREFABRICATED FENCING** / An illustrated fact sheet on the "Wundurwal" suggests such applications as sound barriers, property dividers or security fences for the prefabricated steel panel system. Available in heights of from 4- to 16-ft, "Wundurwal's" panel design resists graffiti. The fence meets California's Uniform Building Code for sound-, wind-, and earthquake-resistance. ■ Herbst Brothers, Anaheim, Calif.

Circle 401 on inquiry card

**ELECTRICAL WIRING SYSTEMS** / *Architectural Power Systems* comprise a plug-in flexible wiring method said to speed and simplify above-ceiling connection of lighting fixtures as well as electric power, switching, and communication circuits. An eight-page brochure describes the system's cable sets and plugs, all of which meet NEC and UL standards. ■ American Modular Systems Designs, Inc., Hudson, N.H.

Circle 402 on inquiry card

**INSULATION PANELS** / A 12-page brochure describes the advantages of rigid urethane foam cores in major deck systems. Specification and application information for five types of insulation panels are included. ■ Apache Foam Products Co., Linden, N.J.

Circle 403 on inquiry card

**COMPOSITE BUILDING PANELS** / The construction and marketing benefits offered by tilt-up concrete floors and walls in low-rise structures are outlined in a six-page brochure. Three projects in the U.S. and Canada are reviewed and illustrated with site and floor plans. Publication SR 169.01H is available for 45¢ a copy from the Portland Cement Assn., Old Orchard Rd., Skokie, Ill., 60076.

**INDUSTRIAL FENCING** / A fence and gate catalog includes information on the manufacturer's complete line of commercial and industrial products: galvanized, aluminum, and vinyl-coated fence systems. Swing, cantilever slide, overhead and vertical lift gates are also shown, as well as specialized security products. ■ Anchor Post Products, Inc., Baltimore, Md.

Circle 404 on inquiry card

**WASHROOM EQUIPMENT** / A fully illustrated 1977 product catalog features complete lines of washroom equipment, grab bars, shelves, bathroom accessories, soap dispensers, mirrors and cabinets. ■ The Charles Parker Co., Meriden, Conn.

Circle 405 on inquiry card

**GRAPHICS STORAGE** / A 36-page full-color catalog covers this line of products for filing and storage of sheet graphics. There are sections on vertical files, binders, racks, and mobile files; the *Masterfile* system for storing vellum, film and linen original drawings; and cabinets for files for rolled graphics. The catalog also presents the "Planmaster" and "Designer" series for drafting, plan and art tables and accessories. ■ Plan Hold Corp., Irvine, Calif.

Circle 406 on inquiry card

**ARTIFICIAL TURF** / Actual "turf" swatches are mounted on this sample folder, showing new "Petite Stripe" as well as solid green outdoor surfaces. This synthetic grass fabric is manufactured of olefin "Polyloom I" pile. ■ Instant Turf Industries, Inc., Dalton, Ga.

Circle 407 on inquiry card

**DECORATIVE LIGHTING** / Incandescent decorative bulbs to provide mood and atmosphere lighting for commercial spaces are described in a 12-page color brochure. Each of 37 lamp styles is matched with a description of the environment it can help create. "C-line" decorative bulbs have an average rated life of from 2500 to 4000 hours, depending on type. ■ General Electric Co., Cleveland, Ohio.

Circle 408 on inquiry card

**LUMINAIRE FINISHES** / Features, specifications and actual sample discs of the finishes available are included in a four-page brochure on interior lighting fixtures for industrial and commercial applications. A table compares the relative construction and performance characteristics of porcelain, polyester, acrylic and alkyd finishes. Three anodized lamp finishes for industrial HID luminaires are also discussed. ■ Westinghouse Electric Corp., Pittsburgh, Pa.

Circle 409 on inquiry card

**HOSPITAL HVAC CONTROL** / An eight-page booklet describes how computerized building automation systems can control hospital heating and air-conditioning functions while providing increased building security and improved fire protection for patients and staff. The system can accommodate a variety of voice and signal communications, according to the brochure. ■ Johnson Controls, Inc., Milwaukee, Wis.

Circle 410 on inquiry card

**SHOP DUST COLLECTORS** / "Dustkop" units designed for school shop and vocational training centers are shown in a new catalog. Dust collecting units for individual pieces of equipment, or for as many as 50 saws, planers, sanders, etc., are described, as well as accessories such as hoods, floor sweeps, filters and hoppers. ■ The Aget Mfg. Co., Adrian, Mich.

Circle 411 on inquiry card

**COLD STORAGE/FIRE DOOR** / The "Thermadoor" urethane-filled cold storage door carries a UL Class A, three-hour fire rating. A four-page brochure provides construction details, drawings, and photos of single- and double-slide models in use. ■ Clark Door Co., Inc., Cranford, N.J.

Circle 412 on inquiry card

**WORK STATIONS** / Time-and-motion studies contributed to the design of work station furniture manufactured specifically for word processing requirements, according to a product brochure. The units are said to allow greatly increased worker productivity and lower employee turnover as a result of reduced levels of noise, eyestrain, and worker fatigue. ■ Westinghouse ASD, Grand Rapids, Mich.

Circle 413 on inquiry card

**STEEL JOISTS** / The most recent edition of "Standard Specifications and Load Tables for Open Web, Longspan and Deep Longspan Steel Joists" is now available from the Steel Joist Institute. In addition to load tables and material and mechanical specifications, the 48-page book contains a recommended code of standard practice for steel joists. ■ Steel Joist Institute, Arlington, Va.

Circle 414 on inquiry card

more literature on page 153

**For offices  
and plants—  
everything comes  
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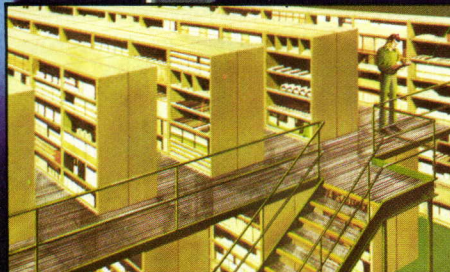
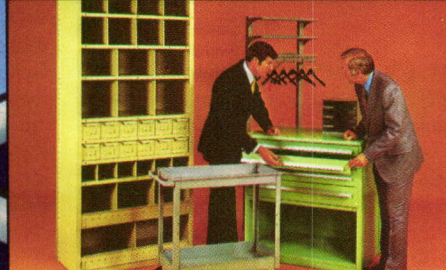
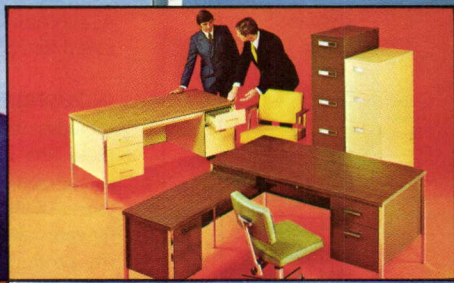
Your Lyon Dealer can show you exciting lines of office furniture—with so many options, you can think plush or price according to your taste and budget. And when it comes to steel equipment for convenience and storage, there's no source like your Lyon Dealer.

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We're in the Yellow Pages under LYON "OFFICE FURNITURE", "STEEL SHELVING", "LOCKERS" and "SHOP EQUIPMENT".





**ILLUMINATED CEILING PANELS** / *Envelite* "S-Series" illuminated panels are intended to supplement the manufacturer's line of *Envel* dimensional panels. The "S-Series" is made of .080-in.-thick matte white acrylic, in standard 2-by-2-ft units. Eight colorful designs are available in the series; "Corinto" is pictured. *Envelite* panels can be used for an entire ceiling area, or in checkerboard fashion mixed with blank white panels. ■ Ben Mayer Design Inc., Los Angeles, Calif.

Circle 304 on inquiry card



**PORTABLE SECURITY GATES** / These heavy-duty steel gates roll to any location and install quickly with pressure locks between any two walls up to 18-ft apart. "Superior" gates do not need to be anchored to either wall or floor. Suggested uses include control of corridor traffic patterns; security from unauthorized entry; and orderly movement of personnel both indoors and out. Two gate heights are available: 6½-ft for indoor use, and 8-ft 6-in. for high-ceiling indoor and outdoor areas. The rolling gates can be stored in as little as a 19- by 30-in. space. ■ List Industries, Inc., Harvey, Ill.

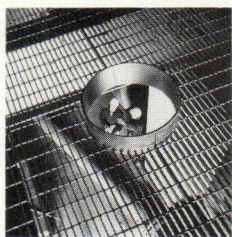
Circle 305 on inquiry card



**ACRYLIC ASPHALT SHIELD** / A white acrylic copolymer emulsion, *Solarban* coatings are said to offer excellent adhesion to asphalt surfaces with minimal chalking. *Solarban*, applied to a sound, smooth-surfaced asphalt or mineral built-up roof in two coats; will reflect solar radiation and retard drying-out of the roof felts. Reducing apparent surface temperature by as much as 40 F compared to a black roof surface (test shown in right photo), *Solarban* also lessens the interior air conditioning load, according to the company. ■ Tremco, Cleveland, Ohio.

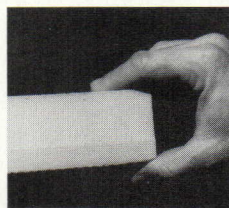
Circle 306 on inquiry card

**INDUSTRIAL GRATING** / Shown in the photo is a recent installation of *Electroformed* metal grating used as the flooring material in an electric generating plant. The open design of the metal bar grating provides for free passage of heat, light, and air throughout the plant, and permits voice communication between floor levels. The grating, delivered in pre-cut panels, was welded to the superstructure and used as scaffolding during subsequent construction. Reinforced cutouts like those shown are provided for vertical pipelines, beams, and stairways. ■ Blaw-Knox Equipment, Inc., Pittsburgh, Pa.



Circle 307 on inquiry card

**COMPOSITE ROOF INSULATION** / *Fiberglas*/urethane roof insulation is a newly-developed roof system said to combine the low thermal conductivity of urethane with the high dimensional stability of *Fiberglas* insulation. The urethane core is bonded by urethane resin to a *Fiberglas* surface mat and *Fiberglas* insulation board. FURI is designed especially for application over flat or low-sloped roof decks such as steel, wood, or lightweight concrete, and also provides a base for built-up roofing. The protective layer of *Fiberglas* qualifies the FURI system for an FM Class 1 fire rating. ■ Owens-Corning Fiberglas Corp., Toledo, Ohio.



Circle 308 on inquiry card  
more products on page 147



Seavor Associates / Architects and Planners / Woonsocket, R.I.

# A View That Can Save Energy

When you look up at the ceiling and see the sky or the leaves on a tree or snow flakes, your spirits are lifted. When you see a room lit by sunlight, you see it at its best.

The National Bureau of Standards has issued a publication titled "Windows and People" that discusses the psychological benefits of contact with the outdoors to people living or working indoors. Now, Wasco, the leading supplier of skylighting, has compiled significant data on the gains and losses of energy attributed to skylights. It is quite fascinating to see how, under the right conditions, skylights can actually save energy in most areas of the United States. Naturally, there are many variables, including unit design, positioning on the building, building usage, percent of roof coverage and geographical location. If you would like a copy of Wasco's summary of current information, it's yours for the asking.

Please send me Wasco's free summary of current information relating to the effect of skylighting on the energy balance.

NAME \_\_\_\_\_

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STATE \_\_\_\_\_ ZIP \_\_\_\_\_



**WASCO PRODUCTS, INC.**

P.O. BOX 351 / SANFORD, MAINE 04073 / TEL: 207-324-8060

For more data, circle 61 on inquiry card

**Light more space  
with the same amount of energy...**



## **...by specifying Parabolume Low Energy Lighting!**

It's true. In a carefully planned office, Parabolume can be an important energy-saving component of the total building design. Widespread light distribution may mean fewer fixtures on wider mounting centers or it could mean comparable light levels with one less lamp per fixture. This adds up to lower electrical loading and lower HVAC costs - lower watts per square foot. And lower

maintenance with extended component life assures lower operating expenses. Comfort and esthetic appearance are just extra benefits. Compare Parabolume, on your job, on the basis of life-cycle-costing. Ask us to prove it!



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lighting  
inc**

**GTE SYLVANIA**

For more data, circle 62 on inquiry card

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**PATIO DOOR** / The redesigned head and sill for this line of wood patio doors acts as a thermal barrier to help eliminate temperature conductivity through the metal parts of the unit. The sliding doors are available in 2- and 3-panel models, and feature toxic-treated wood members, full weather stripping, five-pin tumbler locks and 5/8-in.-thick tempered insulating glass. ■ Louisiana-Pacific, Barberton, Ohio.

Circle 309 on inquiry card

**CONCRETE CONSTRUCTION** / Soon to be commercially available is a styrene-butadiene rubber post applied waterstop system said to offer substantial cost savings in jump- and slip-formed concrete construction. Formwork does not need to be cut or modified, nor

do the waterstops have to be post-routed in position. The method involves two T-shaped waterstop sections and stainless-steel hardware which locks the sections together after the first section of concrete is placed. The rubber T-sections are said to maintain a watertight seal under heavy hydrostatic pressure and seismic stresses. For seismic joints, a sheet of specially-designed joint filler is placed against the already-formed concrete surface before the second pour is made. The rubber compound itself has high resistance to nuclear radiation. Basic units of the system will be 10-ft lengths, including the two waterstop sections, channel-former, and associated hardware. ■ Grace Construction Products, Cambridge, Mass.

Circle 310 on inquiry card

**MOISTURE BARRIER** / "White Plastic" is a liquid, vinyl-based waterproofing compound, which may be tinted with a universal colorant, and which is said to be easily applied by spray, paint roller or brush. Intended for such moisture barrier applications as coating weathered asphalt roofs, sealing exterior foundations and damp-proofing basement walls, "White Plastic" can also be used as an adhesive for carpeting. ■ Specification Chemicals, Inc., Boone, Iowa.

Circle 311 on inquiry card

**PRE-VENEERED PANELS** / Six woodgrain designs and a new solid color have been added to this manufacturer's "MCP" series of panels for vertical surfacing applications. "MCP" panels consist of decorative melamine-saturated sheets, heat-fused to each side of an industrial-grade particleboard or other core material. One of the new panels is "Sun Beech" (shown), which emphasizes the grain and knot pattern of flat-cut natural beech wood. Also included in the series are oak, birch, elm and oak-grained patterns, and solid color "Velvet Brown." All panels are available in either "Suede" or glossy furniture finish, and are intended to match the manufacturer's line of high-pressure laminate countertops. ■ Formica Corp., Cincinnati, Ohio.

Circle 312 on inquiry card

**FUEL-SAVING WATER HEATER** / Several energy-saving features are incorporated in the design of the 52-gal. "Imperial Energy Miser" electric hot water heater. These include 4-in.-thick insulation; corrosion-resistant heating element; cold water input at the bottom of the tank; and an over-temperature protector, which automatically cuts off power in excessive temperature situations. Cutaway drawing shows the floating tank design: porcelain tank itself is isolated and insulated from the outer jacket. ■ Rheem Mfg. Co., Chicago, Ill.

Circle 313 on inquiry card

**WOOD STAIRWAY** / All of the bulky sections of a regular stair are free-standing in this residential stair design, called "C-Thru." The stairway is constructed of clear red oak, with the treads laminated for extra strength and to prevent warping. Each tread is supported by laminated carriages located six inches from the tread ends; angled blocks join carriages and treads. All stair parts are pre-drilled, fitted and numbered, and shipped ready for on-site reassembly. ■ Stair-Pak Products Co., Union, N.J.

Circle 314 on inquiry card

more products on page 149

# pre-engineered or custom steel doors, frames---and hardware---all from one well-stocked local source.

Good news, because it means you can be flexible in your door and frame design without causing headaches on down the line. Curries Distributors are complete distributors. They carry almost everything required to fill an opening in the wall.

In addition to pre-engineered steel doors and frames of nearly every size, face width and jamb depth, they can also supply custom made doors and frames.

They carry finish hardware, too. They have fabrication shops. And, because they are stocking distributors (with a major manufacturer behind them) they can deliver material on time.

For details on our doors and frames, call your local Curries Distributor. He's in the Yellow Pages under "Doors" or "Doors-Metal".

Or see Sweets/8.2.

Or write: Curries Manufacturing, Inc., 251 9th St. S.E., Mason City, IA 50401. (515) 423-1334.



# J-M Asbestogard™ Vapor Barrier System. The only approved system which takes solid mopping of hot asphalt.



When roof specifications call for a vapor barrier over steel decks, it makes sense to install the best.

Especially when you consider the job a vapor barrier has to do.

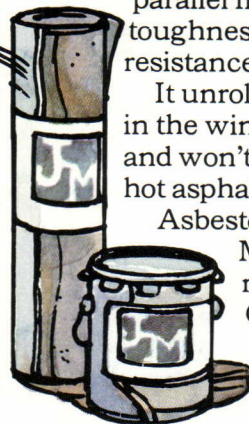
It should permit a minimum of water vapor to pass through it. Should be simple to apply. Should have long life. Must not detract from the structural integrity of the roof system. Should not present a fire hazard.

J-M Asbestogard vapor barrier felt applied to the steel deck with cold-application Asbestogard adhesive and followed with a solid mopping of hot asphalt to firmly anchor roof insulation, meets all these requirements.

Asbestogard felt is made with long, high-grade asbestos fibers and parallel fiber glass yarns for toughness and tear resistance.

It unrolls easily. Stays flat in the wind, doesn't wrinkle, and won't burn through when hot asphalt is applied.

Asbestogard meets Factory Mutual Requirements for Class I Construction and is the only UL rated vapor barrier system.



Start your roof installation with the J-M Asbestogard Vapor Barrier System and you'll have J-M quality and dependability from the deck up.

For more information on Asbestogard or the J-M single-source built-up roofing system, consult your Sweet's catalog or call Peter McCracken, Johns-Manville Sales Corp., Ken-Caryl Ranch, Denver, Colorado 80217, 303/979-1000.

**For single-source  
built-up roofing systems.**

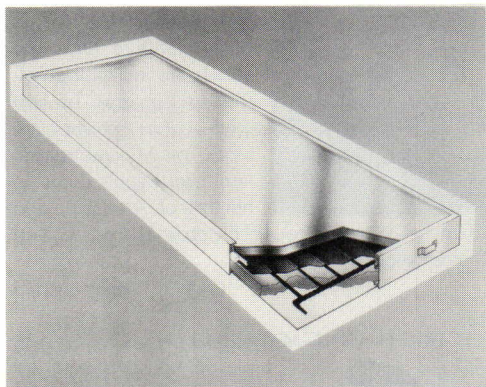


**Johns-Manville**

For more data, circle 64 on inquiry card

**CARPET SADDLE/DIVIDER** / Designed to protect carpet edges in institutional and commercial installations, the "Under Slung Saddle/Divider" features 3/8-in. undercut edges on each side of the saddle. Carpet edges can be neatly secured under the lips, eliminating raveling, trip hazards and seam lifting. The 1/2-in.-high black vinyl divider can accommodate most of the sponge- and jute-backed carpet materials specified for contract installations. ■ Mercer Plastics Co., Inc., Newark, N.J.

Circle 315 on inquiry card



**SOLAR COLLECTOR** / "SunPanel" is a new solar collector designed to heat water for domestic, commercial and industrial use. Solar energy enters the collector unit through two lights of tempered glass and is absorbed by a copper absorber plate. The trapped solar energy is conducted by a heat transfer fluid through an all-copper tubing system to a heat storage and distribution system. Prototype "Sun-Panel" collectors have been supplied to the National Aeronautics and Space Administration (NASA) for actual application and field testing at Langley Field in Virginia and at the Marshall Space Flight Center in Alabama. Three inches of specially treated high-temperature fiber-glass insulation under the absorber plate and special side insulation in the unit help retain heat inside the collector, providing minimum heat loss as well as insulation for the building interior when "SunPanel" collectors are employed on the roof component. ■ Solar Energy Systems, Libbey-Owens-Ford Co., Toledo, Ohio.

Circle 316 on inquiry card



**PEDESTAL TABLES** / The "2800" series pedestal tables are designed to complement the company's "500" series chairs, and the "2400" series reception furniture. Table configurations are round, square and rectangular, including 66- and 73-in. dual pedestal conference styles. All are 29 in. high and can be specified in various laminate top colors. Bases are finished in chrome. ■ All-Steel Inc., Aurora, Ill.

Circle 317 on inquiry card

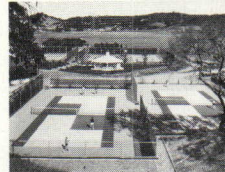
**ACOUSTICAL CEILING BOARD** / "Module V" Fiberglas reinforced ceiling panels are available in standard 5- by 5-ft squares, 1 1/2 in. thick. This size permits a variety of lighting configurations and hvac grid system patterns. The board's NRC value of .95 is said to make it especially suitable for open office applications. "Module V" is rated Class A (non-combustible); has a light reflectance factor of .84; and will not warp or sag. Several patterns, in a range of prices, are currently offered. ■ Owens-Corning Fiberglas Corp., Toledo, Ohio.

Circle 318 on inquiry card



**OUTDOOR TENNIS SURFACE** / Court areas shown here are designated by colors—yellow, peach, light and dark blue, and two shades of brown—in this recent installation of "Decoralt" asphalt coating system. This heavy-bodied acrylic latex system is pigmented and fortified with mineral fillers and fibers. For tennis courts, speed of play can be regulated through the mesh size of silica sand mixed into the binder. The coating system can also be used on playgrounds, walkways, parking lots and asphalt roof decks. ■ Pioneer Div., The Flintkote Co., Los Angeles, Calif.

Circle 319 on inquiry card  
more products on page 150



# DIAZIT'S DART



# WHITEPRINTER

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## THE UN-INTENTIONAL BARGAIN

When we at DIAZIT designed the new, compact DART whiteprinter, it was intended to be the best in its class. That's the way it turned out, but the DART is also the lowest priced whiteprinter in its class. The UNINTENTIONAL BARGAIN!



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imes County, Ohio Training Center — Marr Knapp Crawfis Associates, Inc., architect; James Williams, Inc., contractor

## Textured Acoustical Tile... quality sight and sound treatment



Combine noise control with a practically indestructible wall surface that enhances interior design and you have Stark textured acoustical tile.

It's the new generation of structural clay tile products that goes beyond just providing the ideal combination of bearing strength, zero flame spread, and permanent color and surface found in structural glazed facing tile.

In high-ceiling, high-noise level areas like gymnasiums, swimming pools, laboratories and computer rooms, Stark textured acoustical tile is a natural. Earth tone colors and textures enrich the atmosphere while fiberglass pads behind the virtually invisible perforations subdue the sound. STC rating is 46.

The ceramic surface wipes clean, is permanent and non-fading. And low "U" factors insure energy savings for the life of the building.

For further information, refer to our catalog in SWEET'S 4.4/St, or call TOLL FREE 800-321-0662. In Ohio, call collect (216) 488-1211. **Stark Ceramics, Inc.**, P.O. Box 8880, Canton, OH 44711.

For more data, circle 66 on inquiry card

### CONTRACT FURNITURE

The lounge grouping shown, designed by Filmore Harty, is constructed entirely of polyurethane foam on plywood base and supports. Two different densities of Dow's *Voraspring* structural foam, plus a topper of cushion-grade foam, form a firm contoured shape. The series includes seven upholstered pieces and two tables for varied seating arrangements. ■ Cramer Industries, Kansas City, Kan.

Circle 320 on inquiry card

### OPEN OFFICE PANELS

Curved panels with a 24-in. radius have been added to the *ASD Group* office furniture line. The panels are available in either string gray or soft white colors; finishes are fabric or *Micarta* plastic laminate. Panels come in heights of 48-, 60-, and 80-in. ■ Westinghouse Electric Corp., Grand Rapids, Mich.

Circle 321 on inquiry card

### ELECTRIC ERASING MACHINES

High-impact ABS plastic housings and detached transformers help make these electric erasing tools very lightweight. Pistol-grip design aids in accurate erasing control. Low-heat, high RPM DC motors power each unit; the charging stand and/or separate transformer can be clamped on top or underneath the drafting table. Cord/cordless, and cordless units, both rechargeable, are available, as well as a high performance cord-type model. ■ Vemco Corp., Pasadena, Calif.

Circle 322 on inquiry card

### CONTRACT WALLCOVERING

A variety of surface textures is available within the "Bolta-Wall" collection of fabric-backed embossed vinyl wallcoverings. The 30 patterns ("Boxing II" is shown at left), each with 20 to 45 colorways, include marble, stucco, grass-cloth, tweed and corded fabric simulations. All wallcoverings meet or exceed Federal fire rating specification CCC-W-408; the 54-in.-wide material is pre-trimmed, scrubable, and strippable. ■ Reed Forest Products Inc., Wallcovering Division, Atlanta, Ga.

Circle 323 on inquiry card

### ELECTRIC-RELEASE STRIKES

A "reverse action" feature of these electric locks requires electric power continuously on to keep a door locked, but provides immediate, automatic unlocking in case of power failure. The units fit either wood, hollow metal or aluminum jambs, and match either narrow stile, key-in-knob, or mortise-type latches. Voltage choices include 16, 24, or 48 volt AC, and 6, 12, 24, or 48 volt DC. ■ Adams Rite Mfg. Co., City of Industry, Calif.

Circle 324 on inquiry card

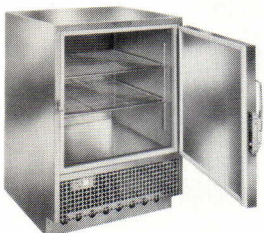
# WE FIT IN

## STAINLESS STEEL UNDER COUNTER LAB REFRIGERATORS AND FREEZERS



**UC-5-BC** refrigerator has a blower coil cooling system with automatic off-cycle defrosting and condensate evaporator in condensing unit compartment. Two adjustable stainless steel shelves are provided.

**UC-5-F-BC** freezer is equipped with automatic timer electric defrost. Capacity—5.4 cu. ft. (155 Ltr.)



**UC-5-CW\*** refrigerator with cold wall cooling system is equipped with push-button defrost, automatic reset and condensate evaporator. Capacity—5.4 cu. ft. (155 Ltr.)

**UC-5-F-CW\*** freezer is equipped with manual not gas defrost. Capacity—4.6 cu. ft. (130 Ltr.)

**UC-5-CW-E** refrigerator has the same interior features as the UC-5-CW but modified to make it *totally explosion-proof*. Capacity—4.9 cu. ft. (140 Ltr.)

\*With explosion proof interior only.



**UC-5** features a two-tray ice cube cooling system with manual defrost and stainless steel defrost water tray. The cooler section has two adjustable stainless steel shelves. The entire UC-5 series features polyurethane insulated thin wall construction and air-tight neoprene thermo-break door seals. Capacity—5.4 cu. ft. (155 Ltr.)

Jewett also manufactures a complete line of blood bank, biological, and pharmaceutical refrigerators and freezers as well as morgue refrigerators and autopsy equipment for world wide distribution through its sales and service organizations in over 100 countries.



For more data, circle 69 on inquiry card

**LIMESTONE PANELS** / Four "in stock" textured finish limestone panels are featured in a full-color catalog. Material and freight costs are given, and the maintenance and installation advantages of these modular stone curtain wall panels are explained. Architectural applications of custom fabricated textures and sizes are also shown. ■ Harding & Cogswell Corp., Bedford, Ind.

Circle 415 on inquiry card

**LIGHT GAUGE STEEL FRAMING** / Non-proprietary specifications to assist in the design, fabrication and erection of light gauge cold-formed structural steel systems have been published. These framing members can be used in both low-rise and curtainwall construction. ■ Metal Lath/Steel Framing Assn., Chicago, Ill.

Circle 416 on inquiry card

**LANDSCAPE PAVING** / An illustrated brochure covers a number of "Grasscrete" paving applications, and shows the installation process in step-by-step photos. "Grasscrete" is a proprietary method of pouring a monolithic slab of concrete with geometrically-placed holes. When planted with grass, the slab becomes a load-bearing "parking lawn" capable of supporting cars and trucks. ■ Bomanite Corp., Palo Alto, Calif.

Circle 417 on inquiry card

**STAINLESS STEEL STRUCTURALS** / Two Design Data Sheets illustrate some practical applications of cold-formed stainless steel structural members. Included in the discussion of thin-gauge concepts are suggestions for increasing critical stress and moment of inertia by using tubular and honeycomb or corrugated sections. ■ American Iron and Steel Institute, Washington, D.C.

Circle 418 on inquiry card

**WASHROOM DESIGN GUIDE** / A design guide for washrooms and shower rooms shows how fountains and showers can be used in shop areas, corridors, gyms, etc. to conserve space while cutting equipment installation and maintenance costs. There are 22 pages of floor plans, as well as basic data on the range of "Washfountain" and shower models available. ■ Bradley Corp., Menomonee Falls, Wis.

Circle 419 on inquiry card

**CONVECTION HEATERS** / New decorative and commercial grade electric sill-height convection heaters are shown in the product bulletins. Engineering and design details are given for the "CSH" and "DSH" perimeter heating lines, which provide complete or supplemental heating in corridors, lobbies, motels and similar applications. ■ Emerson-Chromalox, St. Louis, Mo.

Circle 420 on inquiry card

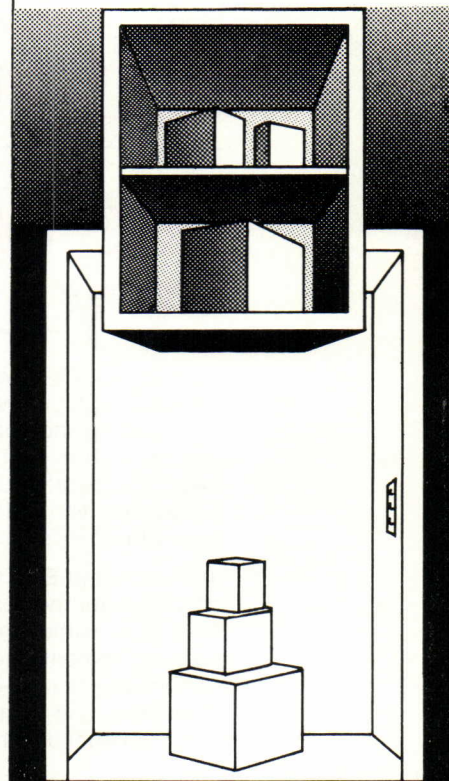
**METAL BUILDING SYSTEMS** / A catalog includes photographs of some of the commercial and retail structures available with the "Stran" metal building system. Shown are examples of automobile dealerships, offices, showrooms, drive-in and fast food outlets. Also discussed is "Life Cycle Construction Costing." ■ National Steel Products Co., Houston, Texas.

Circle 421 on inquiry card

**AUDITORIUM SEATING** / A new brochure presents a full line of seating for theaters, auditoriums, courtrooms, lecture halls and places of worship. Included is information on the firm's planning service, intended to assist the profession in solving problems related to the design of theaters and similar assembly spaces. ■ JG Furniture Co., Inc., Quakertown, Pa.

Circle 422 on inquiry card

## Half an elevator is better than one.



Many commercial buildings that don't really need a whole elevator get one anyway. Or they get an extra one. For freight. This is expensive. It's sort of like buying a first class ticket for a package.

There is an alternative. Several in fact. Sedgwick Dumbwaiters and Parcel Lifts. They come in a variety of shapes, sizes and capacities. From small, efficient Correspondence Lifts to big powerful Rotowaiters, rated up to 500 lbs. (with a safe operating overload margin of 50%).

What are the advantages? Cost and efficiency to name two. For the price of one full size elevator, several Sedgwick Dumbwaiters could be installed in convenient locations.

Don't send freight first class. Send it by a Sedgwick Dumbwaiter or Parcel Lift.

For a complete catalog, write to Sedgwick Machine Works.

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# 53 hospitals rely on EPICORE's hanging, loading, and fire ratings.

## See one for yourself.

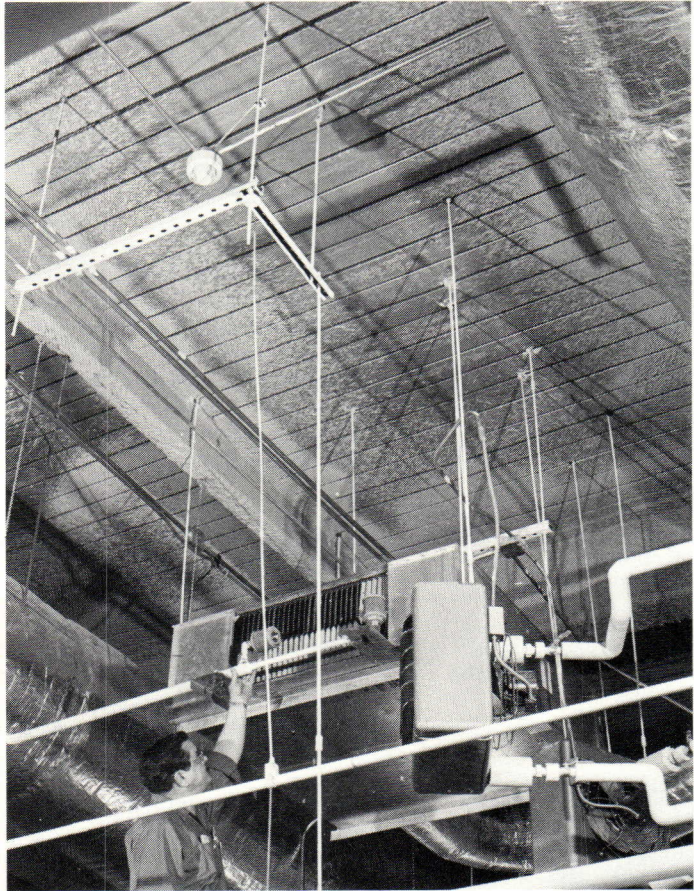
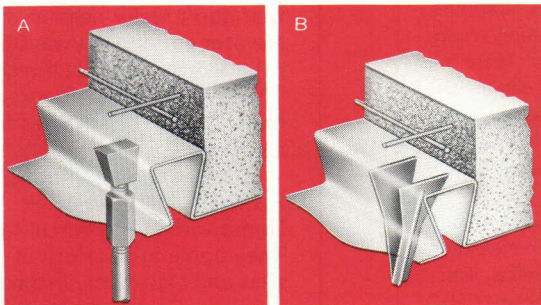
Central Medical Pavilion, Pittsburgh, Pennsylvania  
 Architect: Rea, Hayes, Large & Suckling  
 Contractor: Dick Corporation

Visit a hospital built with the EPICORE® Composite Floor System. Look closely at the piping and ducts, the ceilings and lights, and the mechanical and medical support equipment. They're suspended with EPICORE hangers from EPICORE's dovetail ribs.

You can insert EPICORE hangers anytime after the concrete slab is finished — without noise or mess; hang equipment when it's necessary or convenient; change research, diagnostic, and treatment procedures with minimum disturbance.

- A. Wedge Bolt Hanger.  
Safe load capacity per hanger: 1000 pounds.\*
- B. Standard Hanger.  
Safe load capacity per hanger: 200 pounds.\*

\*Providing the floor system is designed to support the load.



Stop at a construction site. You'll see that EPICORE Deck is engineered for heavier loading and for full AISC shear connector values and solid slab design in composite beam assemblies. And when you're examining fire ratings, consider that EPICORE has the best for any two-inch deck.

Fifty-three hospitals speak well for the EPICORE Composite Floor System. To hear what designers, users, or Epic engineers can add to the subject, contact Bob Ault, Vice President - Engineering.

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 (412) 351-3913



Private Hospital, Cincinnati, Ohio  
 Architect: Harry Hake & Partners  
 Structural Engineer: Donald Oakley  
 Construction Manager:  
 Charles V. Maescher & Co., Inc.



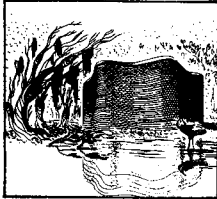
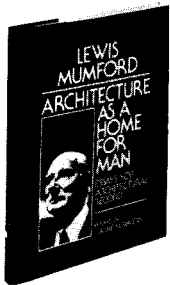
Children's Hospital of Philadelphia  
 Architect: Harbeson Hough Livingston & Larson  
 William A. Amenta  
 Associated Architects  
 Structural Engineer: A.W. Lookup Company  
 Contractor: Baltimore Contractors, Inc.

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# The essential one-volume Mumford on Architecture

## LEWIS MUMFORD ARCHITECTURE AS A HOME FOR MAN



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Illustrated

Lewis Mumford's complete writings for *Architectural Record* are now collected together in one definitive volume. These 24 important essays span 50 years of the career of America's foremost architectural and social critic, and show the wide scope of concerns that have earned Mumford a unique place among the major thinkers of the 20th century.

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The full range of problems now facing America's cities and our built environment as a whole were foreseen by Lewis Mumford long before they became national issues. Mumford's prophetic warnings are now more timely than ever, and the solutions he suggests are just as timely. From mass-produced housing to mass transportation, from urban planning to new towns, from the death of the city to the rise of Megalopolis, the crucial problems of our times are discussed in depth in this one important book.

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## OFFICE NOTES

### New associates, promotions

**Otto H. Kilian**, AIA has been named senior vice president of William L. Pereira Associates, planners, architects and engineers.

Heery & Heery announce that **James F. Smith**, PE has been named senior vice president and director of the health facilities division and **Louis Bacon**, PE has been named senior vice president and director of the engineering division.

Chase Architectural Associates announces the election of **Leslie A. Black** as a principal in the firm and executive director of design.

**James LeNeve** has been appointed vice president and general manager of Ladd, Kelsey, Woodard, AIA, Newport Beach, California.

Theodore M. Heesch, Inc., announce the appointment of **Frank Glass**, AIA as vice president and director of business development.

Maitland/Strauss/Behr announce that **Richard Behr** has become a partner.

Ellis/Naeyaert Associates, Inc. has promoted **William Hogan** to manager of the Warren-headquartered firm's specifications group and **Joaquin Cortes** PE to structural staff consultant.

Studio Nervi the architectural and engineering firm of Pier Luigi Nervi, Rome, Italy, announces the appointment of **Richard W. Olmsted**, CE Lyme, New Hampshire as its representative in the United States.

**Melvin N. Stratton** has been appointed field sales manager of Peabody Engineering.

**Charles G. Kanner**, AIA has been appointed senior vice president-director of planning and design of Charles Luckman Associates.

**John Paul McGowan** has joined the firm of John Carl Warnecke and Associates as vice-president for design.

**Thomas W. Gunn**, AIA, MRAIC, was named president and a member of the board of directors of Zeidler Partnership Inc./Architects.

Otis Associates is pleased to announce the appointment of **Mitchell A. Goldman** to be in charge of their health facilities division.

**Rudolph V. DeChellis** has been promoted to full partnership in the firm of O'Leary, Terasawa and Takashashi of Beverly Hills.

**Earl G. Richards** has joined the Beverly Hills based architectural firm of Daniel L. Dworsky FAIA and Associates Inc. as director of health care facilities.

**Gerard R. Cugini Associates** announce the relocation of their office to 36 Melrose Street, Boston, Massachusetts.

John Hadley, Jr., AIA has formed his own firm, **Hadley/Architects** headquartered at 335 North La Cienega Boulevard, Los Angeles, California.

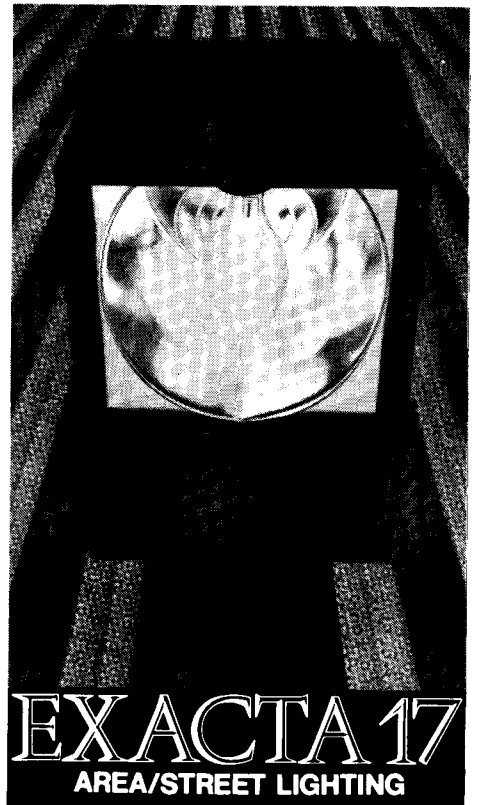
The architectural firm of Metz Train Olson & Youngren, Inc., announce the election of **Lonn LeMarr Frye** and **Jesse D. Horvath**, AIA, as new associates in the firm.

**Charles M. Toner, Jr.**, AIA has been elected vice president of Schwab & Twitty Architects, Inc.

**Koster and Associates Architects Inc.** announces that David L. Holzheimer has become a partner in the firm.

# MC PHILBEN EXACTA 17 TAKES OVER OUTDOOR LIGHTING

mcPhilben, pioneer in outdoor lighting and first to introduce integral cast low-profile fixtures for pole mounting, further expands its leadership with new EXACTA 17, the ultimate cut-off luminaire fixtures for area/street lighting.



- OPTIMUM EFFICIENCY
- EXACT DISTRIBUTION
- GLARELESS PERFORMANCE
- EVERLASTING INTEGRAL DIE-CAST CONSTRUCTION
- ULTIMATE IN QUALITY

Three sizes, in 20 models utilizing Mercury Vapor, Metal Halide, and High Pressure Sodium light sources ranging from 100 to 1000 watts. Three winners—in efficiency, glareless performance, precision optics and everlasting, weatherproof, integral die-cast aluminum construction—with economy.

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For more data, circle 72 on inquiry card

continued on page 199

# BEAUTIFUL. AND THE TOUGHEST THING FROM PITTSBURGH. WHEN THE STEELERS AREN'T AROUND.

## **We're talking about DURANAR® Extrusion Coatings. From PPG.**

They're tough as a fluoropolymer coating can be.

And as beautiful.

The building: new Eastern Zone Office, Zurich-American Insurance Company, Mt. Laurel, N.J.

The problem: make it striking and beautiful. And keep it economical and easy to maintain.

The solution: lots of crisp white metal panels accenting sparkling glass. Panels of aluminum finished with DURANAR Extrusion Coatings from PPG.

The reason: DURANAR coatings are a two-coat system based on KYNAR 500\* fluoropolymer resins. When this highly inert resin is combined with special PPG pigmentation and formulation you get a superior coating that is extremely resistant to chalking and ultraviolet deterioration.

It effectively resists weathering, as well as the action of industrial acids, alkalis and salts.

When properly applied, it will resist chipping, peeling and flaking. Normal commercial cleaning solvents may be used without harmful effects.

In addition, DURANAR coatings are exceptionally flexible and color-fast. They come in low and semi-gloss finishes with excellent color uniformity over a wide range of standard and custom designed shades.

As for durability, it's probably a DURANAR coating's strongest point.

\*KYNAR 500 is a registered trademark of Pennwalt Corporation.

Accelerated exposure and weathering tests indicate that they are PPG's top of the line for film integrity, color retention and adhesion to properly pretreated and primed metal substrates.

There's more you'll want to know, and there's more we want to tell you. For the whole story, see the DURANAR section of Sweets Architectural or Industrial File 9.10/PPG. Or write to Market Manager, Extrusion Coatings, PPG Industries, Inc., Dept. 16W, One Gateway Center, Pittsburgh, PA 15222.

PPG: a Concern for the Future

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Coatings**   
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EXTRUSION FABRICATOR:  
Albro Metals, New York, NY.  
EXTRUSION APPLICATOR:  
Porce-Len, Inc., Hamden, CT.

## The economical approach to hospital walls.



Series 3000 Modular Hospital Walls

For ICU/CCU, recovery or general patient care areas, Square D modular hospital walls offer these major advantages:

**LOW INITIAL COST.** The latest numerically controlled, high production techniques are used to assure the highest quality at the lowest price.

**ADDITIONAL SAVINGS.** Each modular wall is completely piped and wired at the factory to meet all existing codes. Therefore, installations may be completed in hours instead of days.

**APPEARANCE.** Available in a wide variety of attractive colors and wood tones, these walls are designed for long life and quality appearance.

**USABILITY.** Key components are strategically located and color-coded for easy component identification and use. New components adapt to the wall in a matter of minutes.

**SERVICEABILITY.** Vertical raceways are easily re-

movable for service and essential electrical components are accessible from the hinged door service module.

For the best buy in modular hospital walls for new construction or renovation projects, contact your nearby Square D field office... there are 140 of them nationwide. You can also write or call us directly: Square D Company, Dept. SA, 3300 Medalist Drive, Oshkosh, WI 54901. (414) 426-1330.



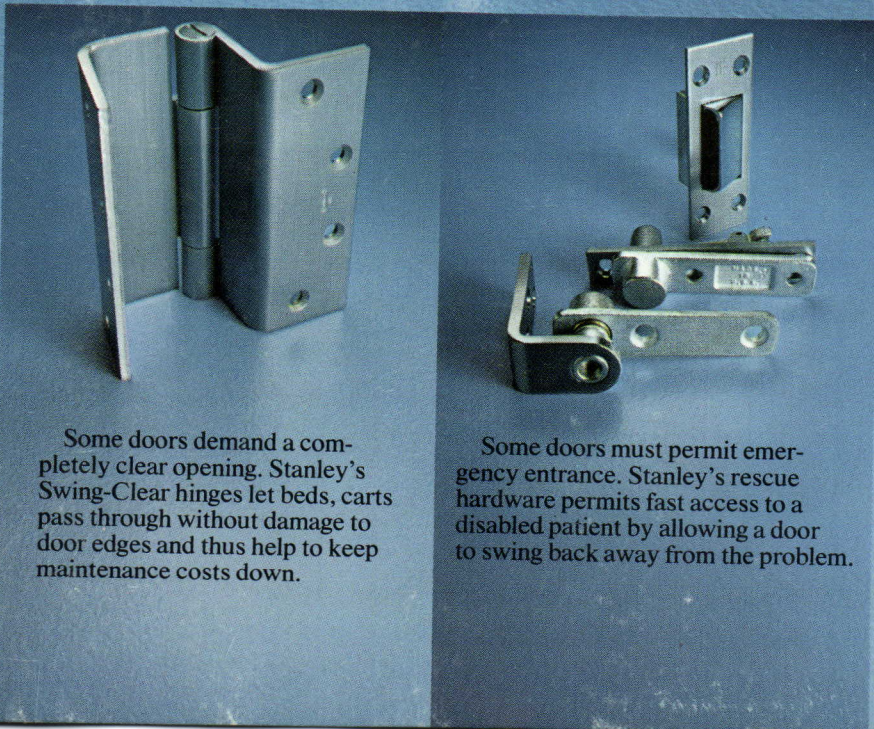
**SQUARE D COMPANY**

*Wherever Electricity is Distributed and Controlled*

# Your special door problems are solved!



Some doors have to take plenty of shock. Stanley's pivot reinforced hinges are unique: fit beveled edge doors perfectly – prevent loosened screws and hinge damage on all doors subject to severe abuse.



Some doors demand a completely clear opening. Stanley's Swing-Clear hinges let beds, carts pass through without damage to door edges and thus help to keep maintenance costs down.

Some doors must permit emergency entrance. Stanley's rescue hardware permits fast access to a disabled patient by allowing a door to swing back away from the problem.

Just a few of the reasons you should remember Stanley, next time you're stumped by a problem door. Because, chances are, Stanley has your special answer right in stock! For answers you need, quality you respect, and service that's quick, come to Stanley Hardware, Division of The Stanley Works, New Britain, Conn. 06050. In Canada: The Stanley Works of Canada, Ltd.

*See our catalog in Sweet's Architectural File.*

**STANLEY**  
helps you  
do things right

*For more data, circle 115 on inquiry card*