

ARCHITECTURE MINNESOTA

September October 1976



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The Minnesota State Fair Solar Pavilion for the Arts may be Minnesota's first totally solar-powered building according to its designer, Minneapolis architect, **Dennis R. Holloway**. Solar energy concentrated by 13,000 sq. ft. Sheldahl SLATS collector array will be stored year round in a heat-in-gravel storage bin below the 24,000 sq. ft. building.

Temperatures in the storage system, designed by University of Minnesota Professor of Mechanical Engineering, Perry Blackshear, may reach 350°F from summertime collection. This energy will be used for heat, air-conditioning and even electricity for lighting.

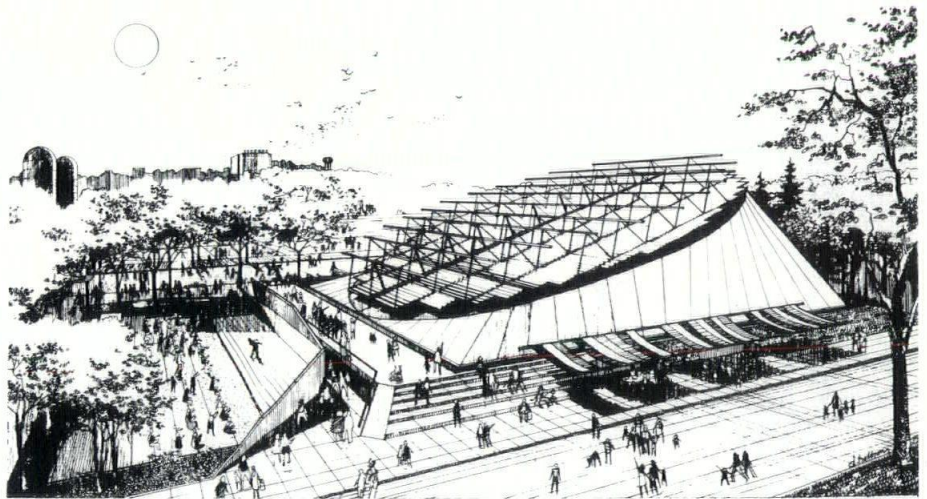
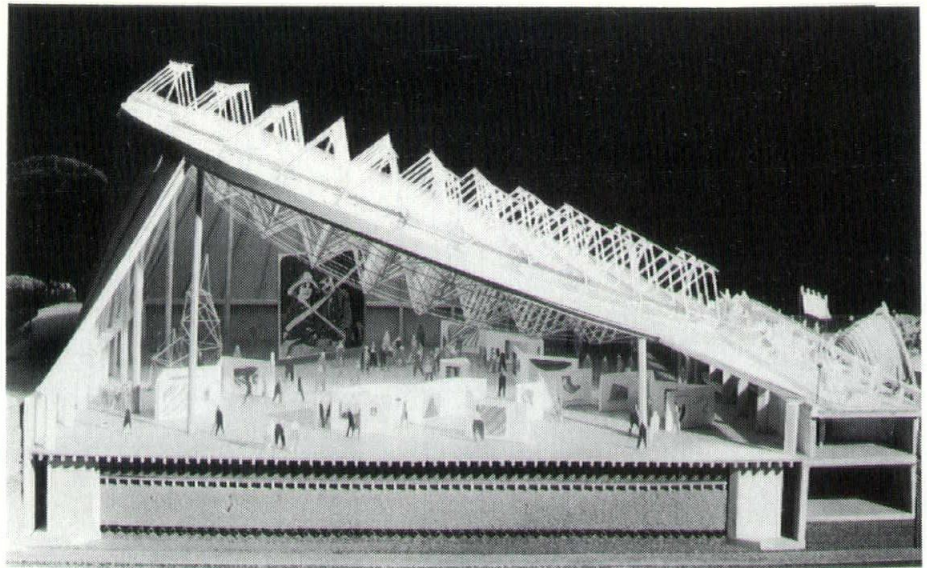
The building will house the Fair's annual Fine Arts Exhibition as well as other year-round exhibitions and performance events. The schematic phase of the project was accepted by the owner in January, 1976. Operation of the building is scheduled for 1979 pending funding from ERDA.

Zejdlik, Harmala, Hysell, DeLapp, Inc., Minneapolis, are the architects for Pioneer House, a rehabilitation facility to be located on Medicine Lake in Plymouth, Minnesota for chemically dependent people.

The design preserves the unique features of the site by accommodating 64 clients in two multi-level housing "clusters" which step down the hillside and attach to the hilltop ancillary facility through separate pedestrian links. The master plan anticipates future construction of two additional housing "clusters".

Union City Mission, Inc. will own and operate the facilities while Hennepin County's Department of Chemical Dependency will fund and administer the therapy program. Construction is expected to start in summer of 1976. □

For further information, contact Robert King, Minnesota Society of Architects, 227-0761.

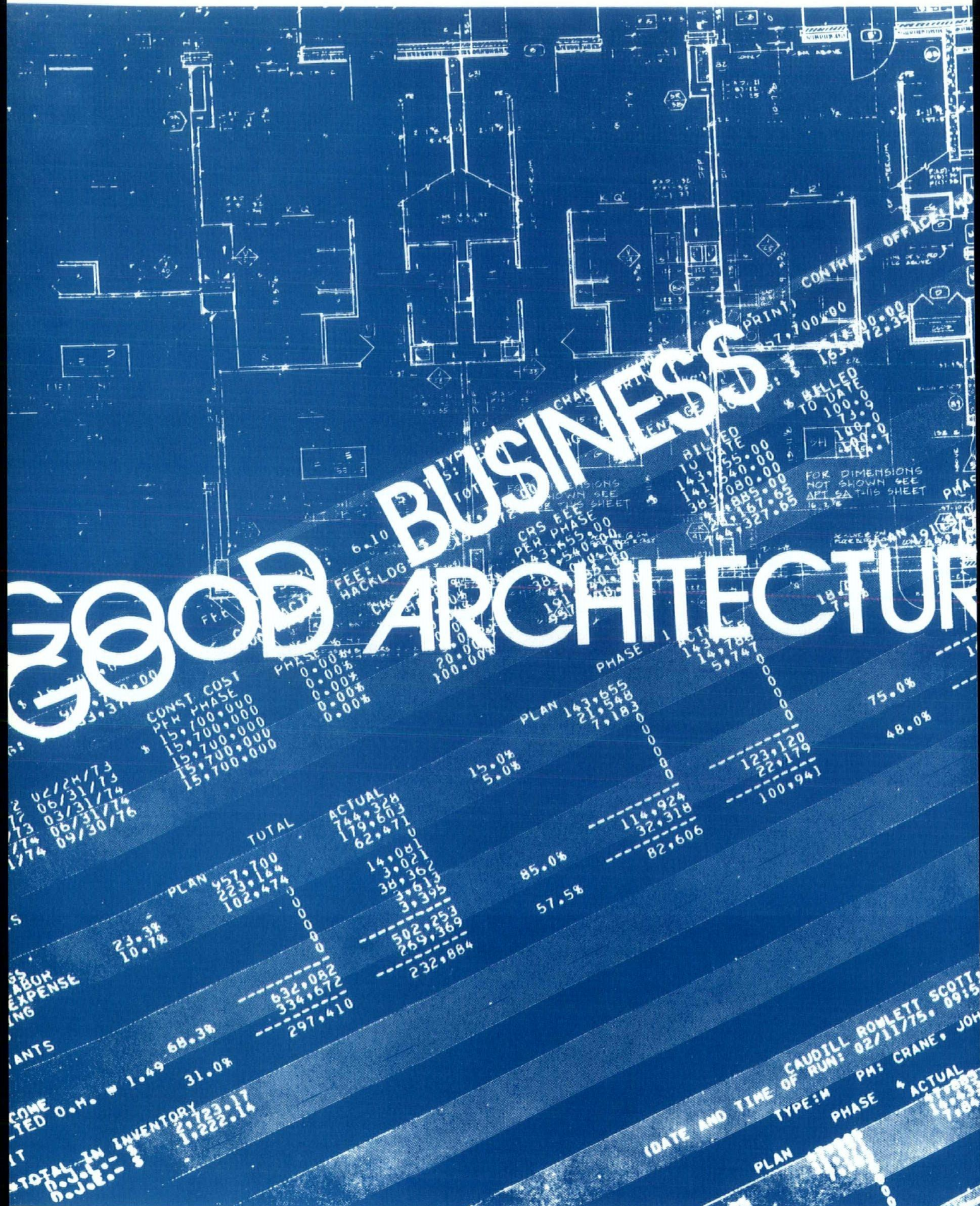


The Minnesota State Fair Solar Pavilion for the Arts



Pioneer House on Medicine Lake

GOOD BUSINESS ARCHITECTURE



ARCHITECTURE MINNESOTA

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RETURN ON INVESTMENT

From the Editor



Good architecture is good business when it provides a good ROI (Return on investment). Good architecture is also good business when Barbara Flanagan makes mention of the building, when the guidebooks picture it and when it is something to be proud of. Good architecture is good business when the maintenance costs are low, the energy consumption reasonable, and when the internal layout allows for an efficient operation.

Good architecture is also good business when the employee turnover goes down, when morale is up, when the environment and the setting make for creative and productive activity. The initial cost of construction for a building is insignificant when contrasted to the costs of operation, maintenance and the cost of salaries for building personnel.

Good architecture is good business, is good sense, is good judgement when, by careful consideration and wise planning, it offers returns in both

financial and human terms which exceed expectations. Architecture is a business decision as much as the businessman's ROI is the architect's concern.

To design, in the Latin "designare", is also to 'make a mark'. The architect, like most service professionals, does his best work when he helps his client "make his mark". Sometimes he does that by designing an efficient tool or machine, sometimes by creating a distinctive image, and sometimes by advising his client not to build at all.

Business involves communications, image, social and physical presence and creativity. The reconciliation of the conflict between the complexities of our society with its myriad regulations and limited resources and the acknowledged need for a sympathetic and humane environment is the most urgent task. Together they will make good architecture good business.

— Bernard Jacob

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GOOD ARCHITECTURE A HIGH YIELD INVESTMENT

From the Executive Director
Minnesota Society of Architects

Good architectural design is an investment — not an expense. Recently completed research underscores the importance of investing in initial building design in order to save considerable economic, social and human costs after construction. The study, by the General Services Administration, revealed that over a building's 30-year life cycle the costs are:

Cost of the building and its financing — 2 per cent

Cost of operation and maintenance — 6-8 per cent

Cost of salaries of building personnel — 90-92 per cent

The amount of money allocated for design is only a small portion of that two per cent; yet the building's design will long determine the value of the remaining expenditure.

Among the most significant changes affecting architecture and the construction process are:

1. A Concern for Life Cycle Costs.

Life cycle costs are the projected costs of operating and maintaining a building over an extended period of time, usually 20 to 40 years.

2. Consumerism and User Participation. Recently not only the owner of a building, but also its neighbors and potential users desire to participate by making suggestions and comments during the design process. Many responsive clients are making this commitment, although it often leads to higher investment in both time and design costs if properly executed.

3. Environmental Considerations. Fortunately, the attitude of stewardship of our limited resources has intensified. Environmental sensitivities are foremost among progressive architects and clients.

4. Severe Projected Energy Shortages. In Minnesota, it has also led to major new energy conservation regulations which specifically affect the design and construction of buildings. Progressive clients will in many cases go beyond those regulations as a wise business and social investment.

5. The Increasing Complexity of Construction. More and more, design and construction involve a team approach including such disciplines as acoustics, lighting, safety, energy, planning, engineering, environmental design, general and sub-contractors, and suppliers.

6. The High Cost of Long-Term Financing. Long-term financing has become very difficult to obtain, and the net result is that many major pro-

jects are being postponed or cancelled. Unless building is considered a wise and rewarding investment, capital will not be committed for construction of much needed facilities for commerce, industry, human and public needs.

7. The Legal Liabilities of Architects, Engineers, and Contractors have rapidly increased. While crescendos of public attention have focused on the medical profession and their professional liability insurance premiums, architects' and engineers' premiums have increased at a rate in recent years equivalent to that of the medical profession.

8. Increased Regulations and Codes. There has been a major increase in codes and regulations with which new construction must comply. New construction is often regarded as one of the most regulated activities.

9. Dramatic New Technologies Are Being Utilized. Cost-saving techniques are being employed in the creation of new materials and products. Research and development have provided the many new technologies and cost saving processes now available.

10. The Process of Design and Construction is Also Changing. Increasingly, companies are being established which combine the design and construction process. Many of these are competent and do place some emphasis on design. However some of these design/build companies place little emphasis on design and others are most interested in the least expensive first-cost possible. The unfortunate result is not only the considerably long range cost which will accrue to the owner in terms of maintenance and operation, but also the cost in terms of people-efficiency.

With the myriad of forces impacting construction perhaps more than ever the client concerned about good business and wise decision-making retains a competent architect to assist in planning his capital expenditure program as well as to design his building. Most successful and innovative business executives and public officials realize that good design is both good business and good judgment. Human behavior can be dramatically changed by design and an initial investment in design is a good financial investment. □

Daniel J. Sheridan

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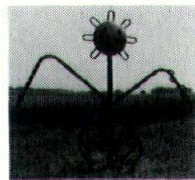
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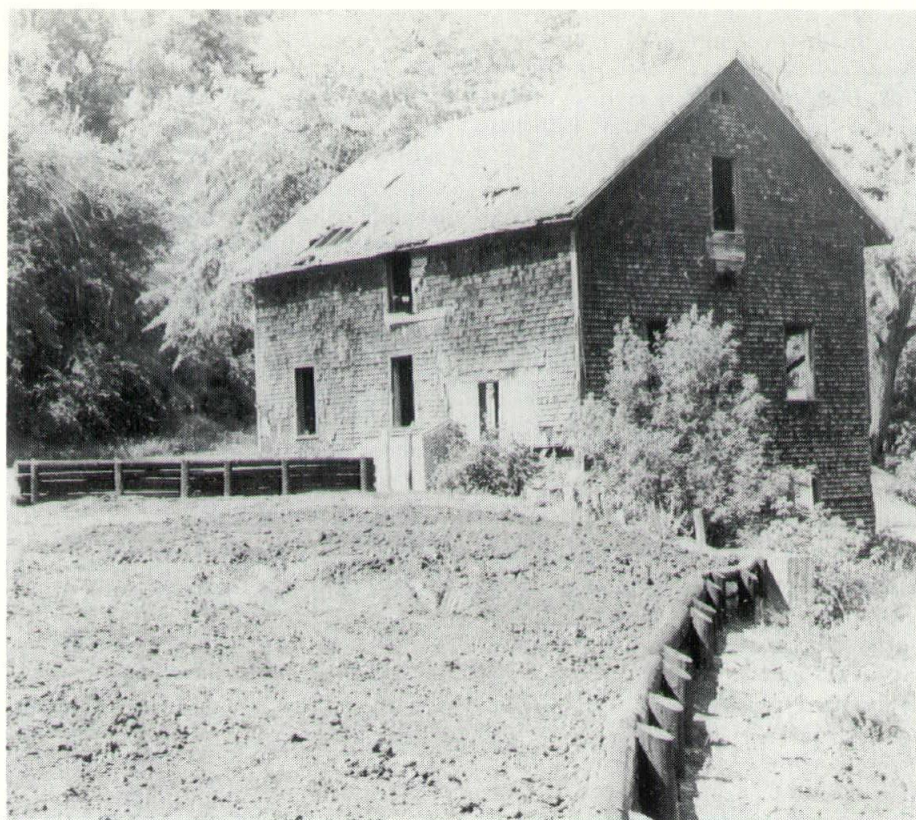
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ARCHITECTURE AT A GLANCE



An old Wright County mill near the town of Fairhaven has come to life again on recent Wednesday evenings as area residents, both young and old, gather at the site on the Clearwater River to help clean, preserve and restore the old building. Built in 1867, the mill has become the concern of many area residents who wish to see it preserved as a historic landmark. With shovels, rakes and hoes, the evening volunteers have been cleaning in and around the old building and removing decades of accumulated waste and garbage. During its working years, the mill was a center for the area's milling commerce and, inspired by memories handed down through generations, a grant application for historic preservation funding has been made to the Minnesota Historical Society.

More than 400 persons attended the formal dedication of the **Normandale Japanese Garden** recently in Bloomington. Located on the grounds of the Normandale Community College, the garden is the only one of its type in the upper Midwest. Designed by Takao Watanabe, landscape architect for the Tokyo Metropolitan Government, the garden includes a lagoon, a round curved bridge over a waterfall, three hand-carved stone lanterns from Japan and hundreds of trees and shrubs specially selected for the Minnesota climate.

Hundreds of Minnesota residents as well as foundations and area businesses donated money, labor and materials for the garden which was sponsored by the Bloomington Affiliated Garden Clubs. Among the guests attending the dedication were 72 Japanese Americans from all over the United States who were in the Twin Cities for a reunion of veterans of the Military Intelligence Service Language School located in Savage and Fort Snelling during World War II.

Wallace & Mundt, Architects, Edina, have been chosen for the design of the new Central Todd County Care Center in Clarissa. The star shaped building will have 74 beds and eight retirement apartments and is scheduled for occupancy next spring.

The Lundgren Associates, Saint Paul, have been selected as architects for a proposed 43 unit, five-story elderly housing complex in Wells. An application has been made for federal financing under the Section Eight program whereby tenants pay a certain percentage of their income towards rent and the balance is subsidized by the federal government.

Rieke Carroll Muller Associates, Inc., Hopkins, have been commissioned as architects for a proposed elderly housing project in Mower County that would spread 68 units of housing in the five villages of LeRoy, Brownsdale, Rose Creek, Lyle and Grand

Meadow. The one-story structures will also include a community center and laundry facilities. The proposed \$800,000 project is currently under review by the Minnesota Housing Finance Agency.

Following the wrecker's ball, construction has begun on an \$8.5 million Normandy Hotel and retail complex on the 200 block of West Superior Street in Duluth. Designed by **Damberg & Peck Architects**, Duluth, the 15-story hotel will have 242 units and about 30 retail shops and stores.

Known by area residents as the Lyric Block, the site was the former location of the Lyric Theater and numerous old Duluth businesses.

Construction Consultants, Inc., Duluth, have been selected as architect and construction manager of the initial phase of the **Duluth Children's Zoo**. Sponsored by the Arrowhead Zoological Society, the zoo will eventually contain underground tunnels to allow for the viewing of burrowing animals in their natural habitat, a nocturnal building and a contact building allowing children to come in direct contact with animals.

The Winona firm of **Wayne Smith Architects & Engineering Services, Inc.**, has been chosen to design that city's new county-city law enforcement center. The 1.4 million two-story structure will house both county sheriff and city police offices and a 42 prisoner jail.

With the able assistance of the Minnesota Society of Architects Historic Resources Committee, about 40 members of the Chicago School of Architecture Foundation will visit the Twin Cities in late October. The group plans to spend a weekend looking at both the historic and recent architecture of the area, and several of the MSA committee members have volunteered to serve as guides.

What's new under the sun . . . a new Minnesota corporation has recently proposed to the U.S. Energy Research and Development Administration that a national solar energy research institute be located in the Twin Cities suburb of Rosemount that will furnish technology for a national solar energy industry. The new firm, **National Solar Energy Research Institute, Inc.**, was formed to promote the site, a 300 hundred acre tract to be donated by the University of Minnesota, and to operate the proposed institute. Director of the project is

Donald E. Anderson, director of corporate research for Sheldahl, Inc., Northfield.

Board members include Gov. Wendell Anderson, University of Minnesota President C. Peter Magrath and executives from Honeywell, 3M, General Mills, Inc., Burlington Northern Inc. and Sperry Univac. Chairman of the solar group's board of directors is Philip Harris, retired chairman of Northwestern National Bank of Minneapolis.

The proposal emphasizes the advantages of a Minnesota location which include good transportation access to all parts of the country and a high concentration of available technical expertise.

Construction will begin soon on a

\$10 million luxury condominium project at Dean Parkway and Lake Street on Lake Calhoun in southwest Minneapolis. Architects for the 107 unit, 24-story, triangular tower are **Miller Hanson Westerbeck Bell, Architects, Inc.**, in association with **Paul Pink/Marshall Levin & Associates, Inc.**, both of Minneapolis. The project, called Lake Point, is a joint economic venture between the Boisclair Corporation, Minneapolis, and the Kajima Corporation, Tokyo, which is Japan's largest construction operation. Top officers and representatives from the corporation were welcomed to Minnesota by more than 100 government and area business leaders at a special reception held last June in Minneapolis.



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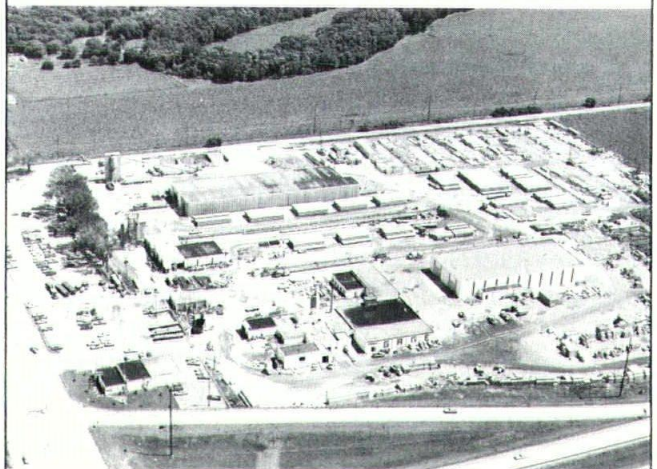
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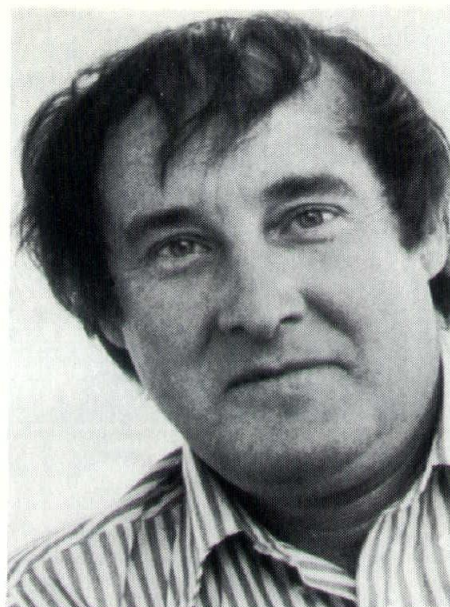
Although any architect knows that good architecture is indeed good business, a major effort by the Minnesota Society of Architects has been initiated this year to bring the message "**Good Architecture Is Good Business**" to the business community and public at large. With assistance in the form of an American Institute of Architects Public Relations Grant, the Society has undertaken a number of projects including the production of an audio-visual slide show and the organization of a Speaker's Bureau.

As part of the Minnesota Society of Architects 42nd Annual Convention, to be held **September 8-10** at the Radisson South Hotel, Bloomington, a series of interdisciplinary seminars has been arranged around the theme "**Good Architecture Is Good Business**" and several nationally known speakers will address conventioners on this topic.

Warren Platner of Warren Platner Associates Architects, Ann Arbor, Michigan, will present the theme "**Good Architecture Is Good Business**" through a profile of successful ideas in interior design. Noted for his corporate and commercial interiors, Platner and his associates are currently completing the malls at Water Tower Place in Chicago, and the Club at the World Trade Center in New York, where he has designed not only all the spaces but the furniture and decoration in them including the creation of major artwork.

Gerald D. Hines, nationally recognized builder/developer and owner of Gerald D. Interests, Houston, will discuss the ramifications of "**Good Architecture Is Good Business**" from the viewpoint of the developer/owner. An exponent of the philosophy that the provision of a quality environment will always insure marketable space, Hines now owns and manages more than 180 diversified projects totaling in excess of 20.2 million square feet. His firm's projects include One Shell Plaza, the Galleria Complex and Pennzoil Place, all in Houston; TWA Headquarters, Kansas City; and One Shell Square, New Orleans.

Robert Propst, chief designer for Herman Miller Research Corporation, also of Ann Arbor, will speak on his design philosophy. Propst, well-known for his designs of office systems, believes strongly that a thoughtful, attractive work environment has a



Warren Platner



Gerald Hines



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The relationship between the architect and his client will be the focus of a seminar conducted by **Robert D. White** of **Neuhaus & Taylor Architects** and representatives from the **Liquid Paper Corporation**, both of Dallas, Texas. As project architect for Liquid Paper's widely-acclaimed new corporate headquarters, White will explain the experience of working closely with a client company to produce a most unusual and stimulating design. On the other hand, a representative from Liquid Paper will present the design problem and solution from the client's point of view.

The company's new structure houses a fully automated manufacturing facility, open-landscaped offices, a corporate art collection which is integrated throughout the interior, an employee library and a communications center.

(continued on page 19)



Robert White

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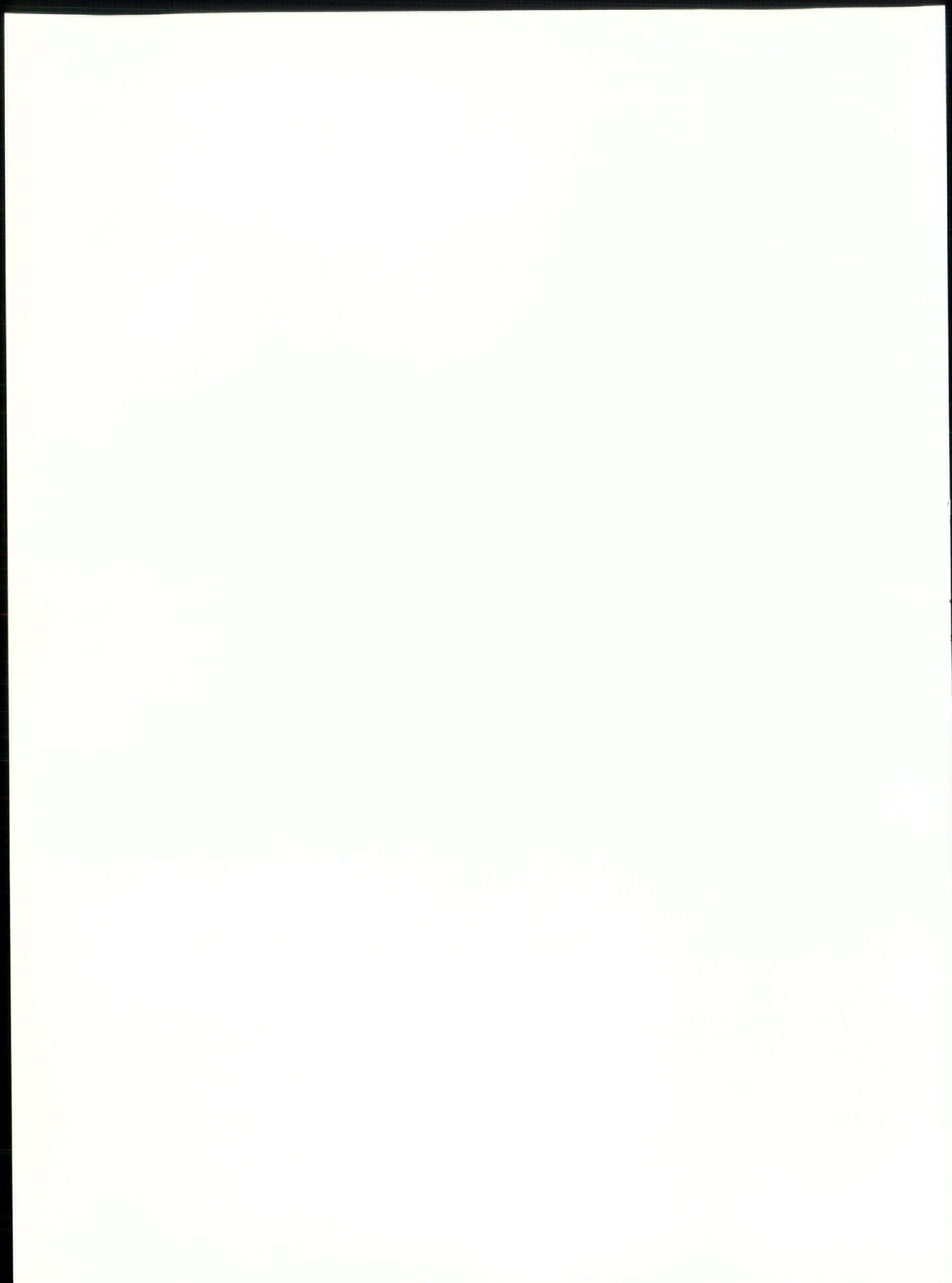
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**THE
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(continued from page 16)

Thomas Ventulett III, AIA, of the prestigious Atlanta firm of Thompson, Ventulett & Stainbeck, will present his firm's extraordinary success story. Only a year and a half after opening its doors, the firm of Thompson, Ventulett & Stainbeck was awarded the design of the \$17 million OMNI project in downtown Atlanta. Mr. Ventulett will speak of the recent success his young firm has had in designing large, multi-use buildings.

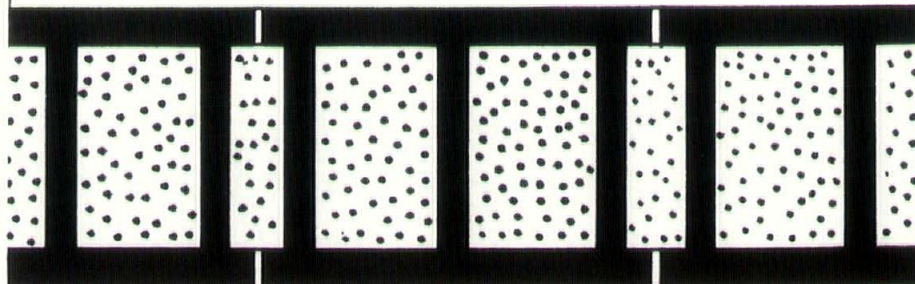


Thomas Ventulett III

Other seminar topics included in the three-day program include compensation management and a program for young practitioners. **Bruce Anderson**, architect and president of Total Environment Action, Inc., Harrisville, New Hampshire, will discuss ways and means for young practitioners to develop their own firms. Founded in 1974, Total Environment Action, Inc. specializes in solar designs and conservation of existing energy.

New York architect **Stephen Kliment** will conduct a seminar on compensation management. Kliment is editor of the forthcoming 2nd edition of "Compensation Management Guidelines for Architectural Services," published by the American Institute of Architects.

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- Housing Outlook Seminar

- Architect/Exhibitor Program and Preview of Multi-Media Presentation

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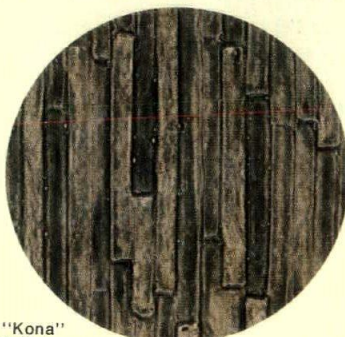


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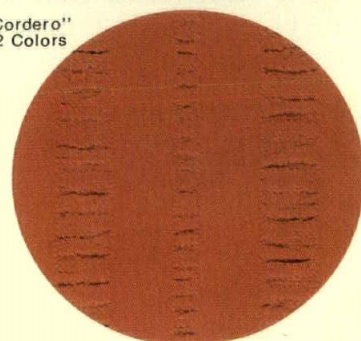
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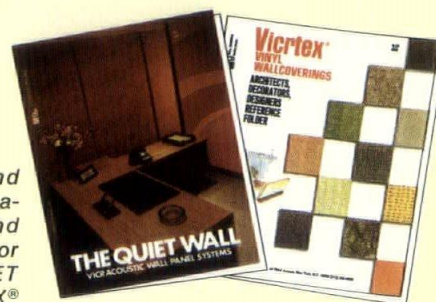
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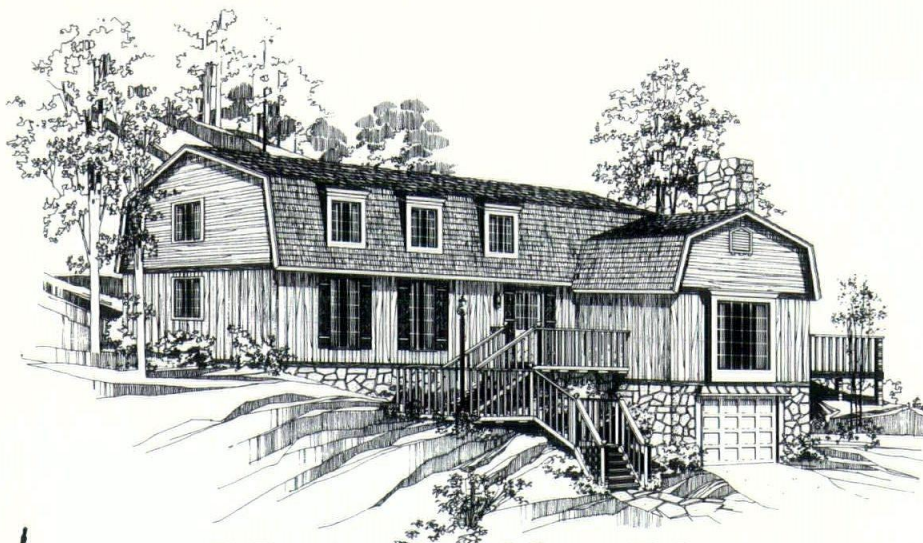
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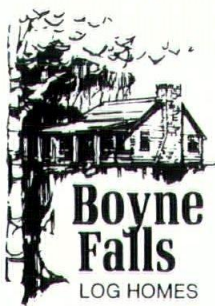
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QUESTIONS AND ANSWERS

Peter A. Rand

"Questions and Answers" is a regular feature of Architecture Minnesota. It is your opportunity to draw upon one of Minnesota's professional resources, its architects, in getting answers to questions about architecture, construction, and the environment.

Question: "I'm curious, how many architects are there?"

The National Council of Architectural Registration Board (NCARB) says that there are about 60,000 individuals registered as architects in the United States. Individuals may, through reciprocity, be registered to practice in more than one state. There are about 600 persons registered to practice architecture in Minnesota. By way of comparison to the numbers of other professionals, there are about 350,000 attorneys and 340,000 physicians in the U.S.

Question: "At what stage of a building project does the architect get out and the interior decorator come in?"

Ideally, at no stage. The truth is, most architects neither have to nor want to "get out" during a building project, particularly if that means turning over to someone else the important task of designing an interior

environment. Because architecture really encompasses the total built environment, architects **prefer** to be involved with the design of a building's interior. Indeed, it is that "inner" environment that tends to have the greatest daily impact on a building's users.

Historically, architects have long been directly engaged in the design of furnishings and furniture. Many, if not most, of the great furniture designs of this century were designed by architects. Historically, too, architects have offered interior design services and have developed the contractual tools to deliver those services in the same way that their other basic services have been rendered.

Is there then any difference between what the architect does and what the interior decorator does in preparing an interior design? Yes, there is a difference and it is based primarily on how each addresses the design problem.

The difference in design approach between architect and decorator is accentuated by their contrasting attitudes toward architecture. Whereas the decorator is willing, if not eager, to modify or disguise architecture to implement his design, the architect

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respects a building's architecture for what it is and designs in tune with it.

If you contemplate a new building, or remodeling an existing one, consider the interior design services available through an architect. Not only can he design a roof over your head, he can design an appropriate ceiling on the inside, too! It's interesting to note that the current president of the American Society of Interior Designers is also a registered architect.

Question: "Architects often refer to curtain wall construction. What is it and how does it differ from other construction techniques?"

In the evolution of the various structural systems that hold up buildings there are two basic types that can be distinguished: massive structures and skeleton structures.

In massive structures walls perform the function of both carrying a load and separating spaces. In skeleton structures a system of high strength members such as beams and columns perform the function of load carrying while walls are devoted exclusively to enclosing and modulating spaces. Many combinations of these two systems exist, yet it is from the skeletal structural system that the curtain wall has developed.

To contrast these two systems one need only look at the old, massive City Hall in Minneapolis and the new Hennepin County Government Center across the street. In each case the building uses granite on the exterior, but in each case it is used differently. In City Hall large granite blocks are piled high to carry the building load and to separate the inside from the outside. In the county government building, however, granite slabs are attached to and hung from a structural skeleton of steel. Thus, the



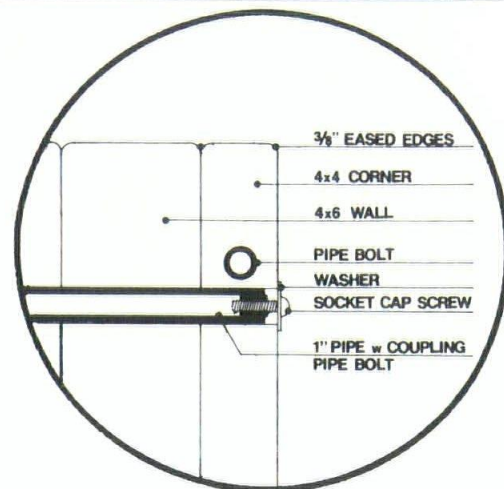
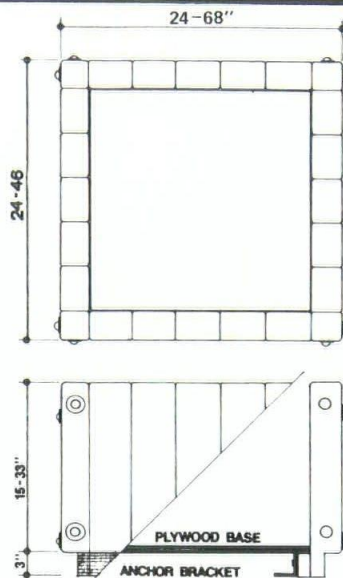
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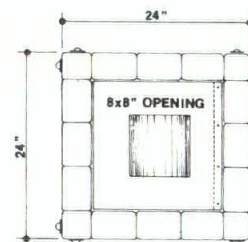
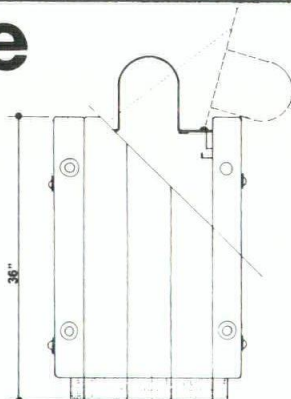
planters

Planters are available in heights varying from 18" to 36" and length/width variations of 24" to 68" in increments of 5½". The thick wall members of the planters provide good insulation for permanent plantings in colder climates. When ordering, specify number combinations exemplified on the price sheet.



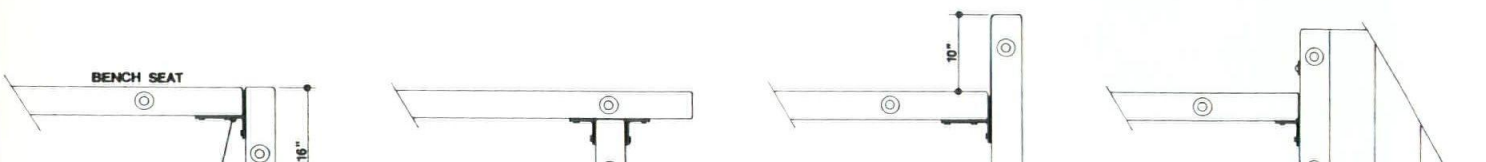
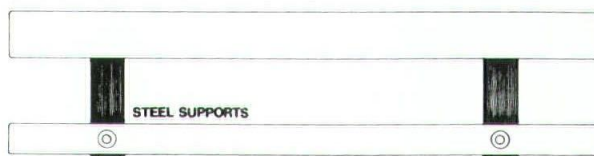
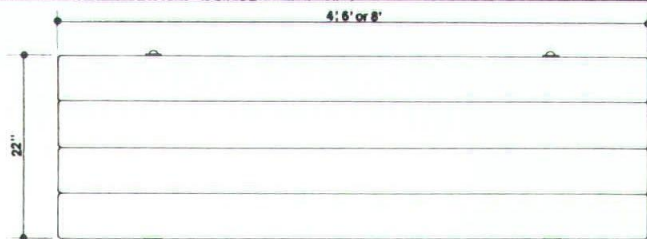
litter receptacle

Polyethelene spacers between wood members allow ventilation through the receptacle. Hooks attached to each interior corner furnish support for a large plastic bag. However, a standard 20 gallon metal container will also fit within the unit. A 14 gauge stainless steel hinged cover is optional.



benches

The benches are available in 4', 6' and 8' lengths with or without a back. Three optional leg styles and a bracket for attachment to a planter or receptacle are available.



granite acts as a curtain dividing the outside from the inside spaces.

Although curtain walls are not an altogether new form of building construction, they are far more common today than in the past. Historically, many of the Gothic cathedrals of six hundred years ago embodied this type of construction. Slender columns and buttresses carried the weight while stained glass windows served as a curtain separating the godless outside world from the reverent worship spaces within. Today, however, most building designs are based on a skeletal structural system with a curtain wall providing the building skin.

The curtain wall is the end result of a long developmental process that has evolved from a number of inter-related cultural and technological conditions. The perfecting of steel construction techniques during the last century and the progress made by the glass industry have been especially instrumental in the generation of the modern curtain wall. Today this construction method encourages prefabrication of wall sections, simplifies building erection, and provides almost limitless design possibilities.

It is the modern curtain wall that makes skyscrapers possible and allows us to enjoy grand, uninterrupted vistas of our region through the large windows of IDS. For better or worse, it is the curtain wall which gives texture, color, scale, and identity to the urban fabric that typifies our 20th century cities. □

Peter Rand is Director of Public Relations for Setter, Leach and Lindstrom, Inc., Architects and Engineers, in Minneapolis, and Chairman of the Minnesota Society of Architects' Public Communications Committee.









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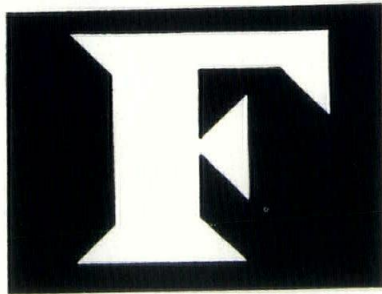

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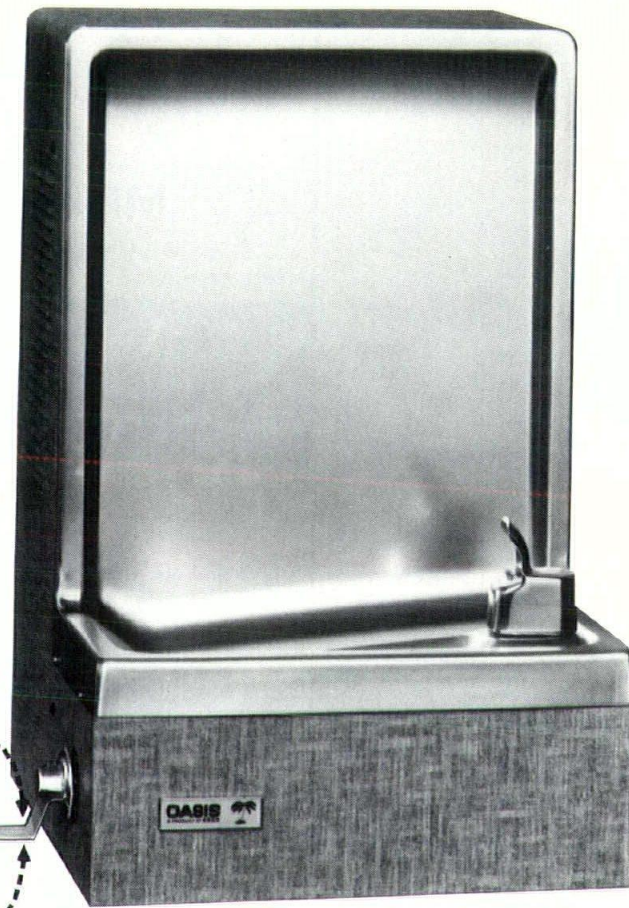
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"Architect . . . 1. A master builder. Skilled professor of the art of building whose business it is to prepare the plans of edifices and exercise the general superintendence over the course of their execution.

"2. One who designs and frames any complex structure; especially the Creator; one who arranges elementary materials on a comprehensive plan.

"3. One who so plans, devises, contrives or constructs as to achieve a desired result (especially when the result may be viewed figuratively as an edifice): a builder up . . ."

Oxford English Dictionary

"No person who is not a great sculptor or painter can be an architect, if he is not a sculptor or painter, he can only be a builder."

John Ruskin

"Architecture is the art which so disposes and adorns the edifices raised by man . . . that the sight of them contributes to his mental health, power and pleasure."

John Ruskin

"The fate of the architect is the strangest of all. How often he expends his whole soul, his whole heart and passion, to produce a building into which he himself may never enter."

Goethe

"The art of dancing stands at the source of all the arts that express themselves first in the human person. The art of building, or architecture, is the beginning of all the arts that lie outside the person; and in the end they unite."

Havelock Ellis

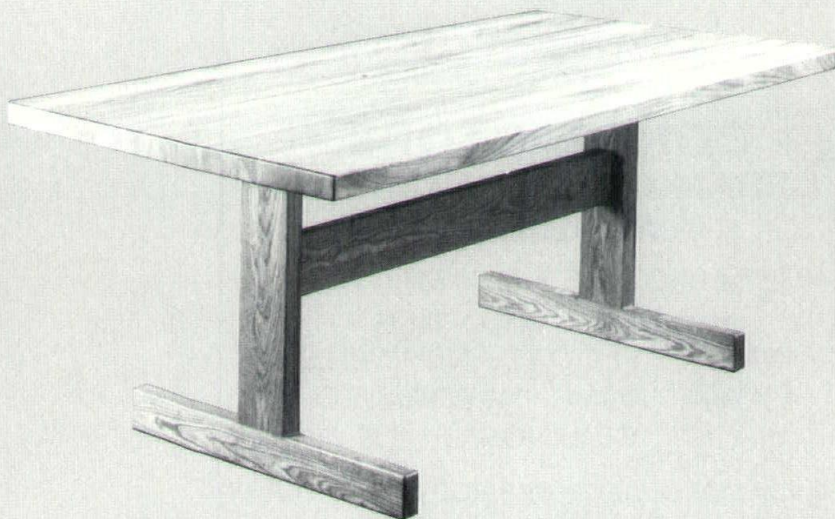
"I call architecture frozen music."

Goethe

"The surest test of the civilization of a people — at least as sure as any — afforded by mechanical art to be found in their architecture, which presents so noble a field for the display of the grand and the beautiful, and which at the same time, is so intimately connected with the essential comforts of life."

William Hicking Prescott

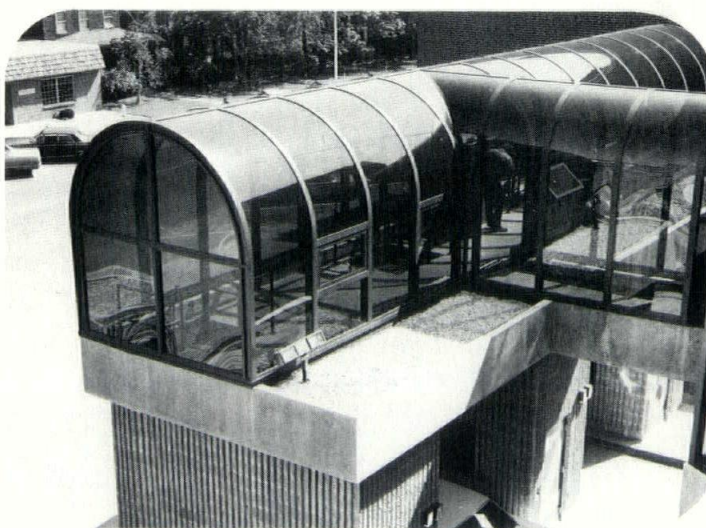
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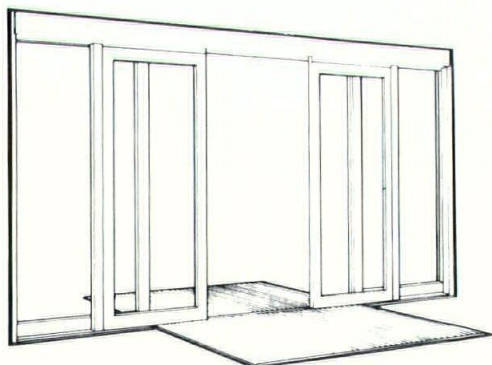
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Clinton Hewitt,
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"They [the architects] alerted us to things we didn't see . . ."

Gelco Corporation

"An architect has to be a general, an arbitrator and an agent. We expect them to take over and they almost always do to our satisfaction . . . We are very happy with our relationship with the architectural community. We don't know how we would function without them. . . ."

Baird Hawley, Northwestern Banco

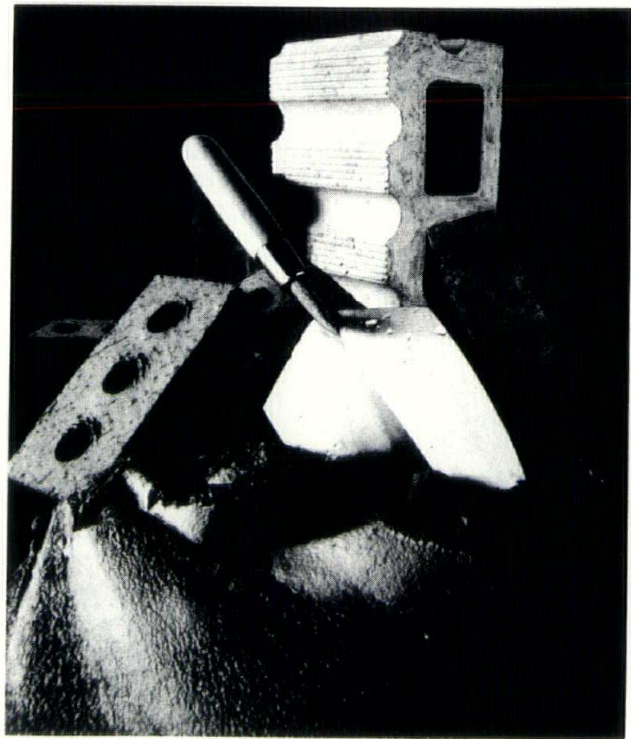
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Mike Wilkinson



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Investing in good design is a lot like investing in a good wine: you really can't be certain you got your money's worth until you've had a chance to sample and savor the product.

For many Upper Midwest companies, the opportunity to "sample and savor" has been growing over the years. Since the mid-1960's, there has been a building boom and some of the most prominent private corporations and public institutions have been investing time and money in good design projects as their needs have grown. They have had the chance to look back and to see — like the wine connoisseur — if they got their money's worth.

When one thinks of the structures in this area which are unique in design, which stand out in the public eye, one almost automatically attaches the label of the owner: the Northwestern National Life Building, the IDS Center, the Federal Reserve Banks, the Osborn Building, Gelco Corporation, General Mills, the Blue Cross Building, L'Hotel Sofitel and the University of Minnesota's Health Science Center are but a few of the buildings the architectural community and the general public think of.

Too often, when one is interested in finding out about design and looking at the aesthetic and functional aspects of the building, the architect is the person who is approached and asked to make careful observations about the structure in question. But what about the client, how does he or she look at the finished product and what is the feeling towards the archi-

tect once the project is completed and has been used on a day-to-day basis?

Has the architect done well by the client? Are there advantages in terms of public image and in the way the design registers with workers, customers and the public?

"We felt it was worth the trouble to design an attractive building," says John S. Pillsbury, Jr., chairman of the board and chief executive officer of Northwestern National Life. "We knew we would have to pay about the same for whichever architect designed our building. Based on that, we decided we should get someone who could design the kind of building we wanted."

The company was about to vacate a building they had occupied for 40 years. Pillsbury wanted to replace it with something that would result in a positive image of the company, make an esthetic contribution to the city and would give NWNL employees a certain feeling of pride.

Pillsbury says he and the building committee spent a great deal of time back in the early 1960's interviewing architects ("It had to be at least 40") before selecting Minoru Yamasaki of Detroit.

"Personally, I wanted something that would excite me and Yamasaki's work simply excited me."

Pillsbury doesn't try to circumvent the fact that certain local architectural critics have taken pot shots at the building.

"They don't like it, they say, because it 'isn't honest,' in other words, they don't like the use of the columns under the west portico."

But Pillsbury counters those arguments with a few of his own.

"We like this building because it does many of the things we want it to do. To begin with, it works, in other words it's functionally sound. That is one of the most important things that Yamasaki did not only for us, but also for his clients in general. He designs buildings that work. On a day-to-day basis, it works for our employees. We did an attitudinal survey a while back and the employee reaction to the building and their working surroundings was very positive.

"But just as importantly, it works in terms of its engineering functions. The design is such that in the 12 years it's been open, the building has had very few engineering problems."

Certainly from the standpoint of public image, Pillsbury and NWNL are very happy with what Yamasaki did for them.

"The building has been very well received. Several other companies such as Honeywell and Trane use photos of the building in brochures they publish about Minneapolis. If you go out to the airport, you'll find postcards of our building.

"You know, it's a funny thing," he said. "The image of this building's design has an overall impact which is positive despite what any architectural critics might say. I recall one time, shortly after the building opened, I was in the office one Saturday morning doing some work and a group of architectural students was on a tour. They stopped in and I asked them what they thought of the building. They had some criticism of it.

"I told them that the public seems to like it a great deal. They said they



John Pillsbury

were aware of that and that was the thing that bothered them."

Pillsbury believes he wouldn't enjoy an office building as much were not the services of an architect utilized.

"I guess I would never consider anything but the use of an architect.

"This building is really a pretty modest investment for what we got. The material was economical and esthetically pleasing, the maintenance cost is not high at all and the engineers who see the building still praise it for its design and function."

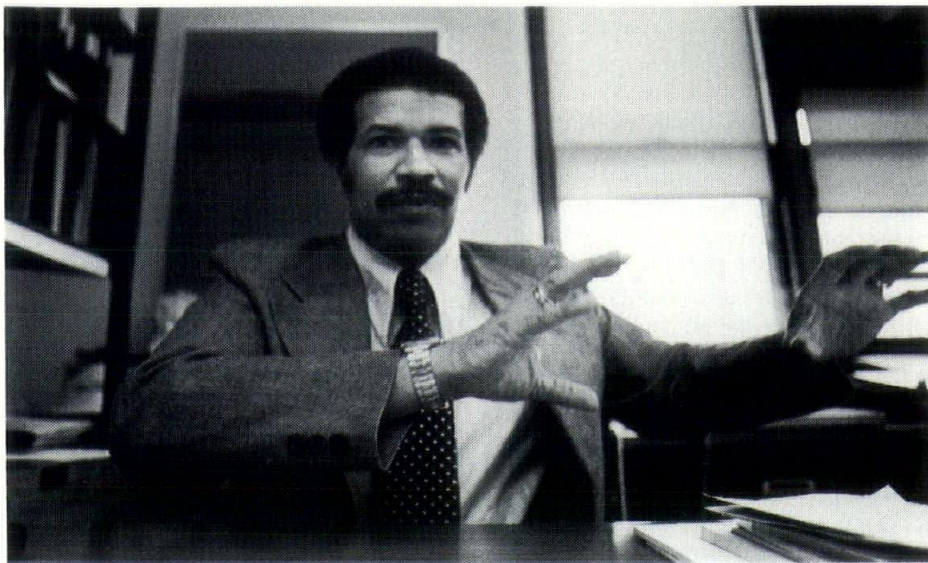
"We have nothing but good feelings about this place and our relationship with Yamasaki."

Unlike Northwestern National Life, which has its experience with an architect just in one building, the University of Minnesota has an ongoing relationship with the architectural community. Its four main campuses have a building project going nearly all the time and as a result, the architect-client relationship is a unique one.



Northwestern National Life Building, Minneapolis

Photo by Earl Chambers



Clinton Hewitt

Photo by Stu West/Photogenesis

Clint Hewitt, assistant vice president for physical planning, says that in the 1960's, the University began using a greater variety of architectural firms for its building design. Previously, one firm had historically done the work.

"There were certain advantages to making the changeover," Hewitt contends. "It enlarged the expertise we could get when it came to design work and it also helped the architectural community because it gave them an opportunity to do work for us."

In the Sixties, the University faced unique problems in terms of its approach to design, basically revolving around a need for more organized planning when it came to design. It was under pressure from surrounding neighborhoods to be more accountable for what it was planning and building. As a result, a new approach was taken, including the formation of a building design selection committee, to meet some of these demands.

Today, the University has the satisfaction of knowing that many of its buildings have received special recognition for design and engineering accomplishments.

Hewitt can tick off the names of the numerous prize-winning projects local architects have done for the University: the psychology building (Elliot Hall) on the Minneapolis campus, the physical education building on the Duluth campus, both by Parker/Klein Associates, the Humanities building on the Morris campus and the Rarig Center on the West Bank, both by Ralph Rapson and Associates; the East Bank Book Store by Myers & Bennett Architectural

Studio of BRW; the Auditorium Classroom Building by Griswold and Rauma; and the Power Plant at Morris and Humanities Building at Minneapolis, both by Cerny and Associates.

"We put a lot of effort into the selection process to assure that we get what we want," Hewitt explains. The process, involving the selection committee and professional University architectural and building personnel acting as advisors, hopefully narrows the field of potential firms down to those who can handle the project demands.

Hewitt thinks the benefits to the University community have been positive.

"For the faculty, staff and students, the process of selection, which has involved them, has resulted in good feelings on their part. The architects we have used have been an asset in meeting program needs at the U. We really believe we have gotten good buildings here."

Hewitt says the University is an unusual client.

"We are very interested in good design. Because of the reputation of our architectural school and its staff, as well as people in related fields such as engineering, we give an added focus to the design projects we commission on our campuses. By having these people act in an advisory capacity when it comes to selecting architects and to working on our design programs, it shows that we are interested in what is built here. This is good for the architectural community because it shows them we care about what we build and we want good work. This provides them with a challenge to do good work."

Hewitt thinks highly of the architects who have worked for the University in the time he has been with the school and believes the design projects on campus are of excellent quality.

"When you look at the buildings we have constructed in the past decade and compare them to what was going on in the era in which they were designed, you will find that we have had good design work here over the years. We believe the work of the architects has helped create a very pleasant atmosphere on our campuses both for learning and from an esthetic standpoint."

While Northwestern National Life and the U of M have concerned themselves primarily with total building design, Brown Photo has concentrated on both building design and interior design.

"We have always been very design conscious," says Brown president James E. Nafstad. "Dave Griswold was used to design our store on the Nicollet Mall and Team 70 Architects has done most of our other store design and graphics."

One isn't likely to think of architects when it comes to interiors, and/or graphics. However, more and more firms are becoming graphics-oriented and Nafstad recalls that Team 70 proposed a new look for Brown's design five years ago.

"It's a decision we are glad we made. We weren't unhappy with the previous designers of our interiors, but believed at the time we needed a shot in the arm."

Nafstad feels the firm's use of bold colors and clean design gave Brown

a new "in" look in merchandising design.

"The thing I like is that it looks professional and it wears well. It isn't something that looks good right away but six months later it doesn't fit anymore because you are simply tired of it."

Nafstad is sold on the use of architectural services whether it comes to designing complete buildings or doing interiors.

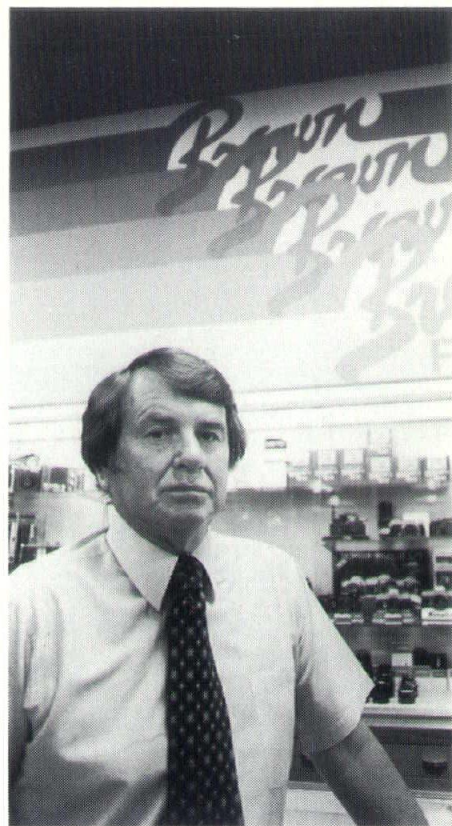
"We wouldn't do it any other way."

Neither would Gelco Corporation, the fast-growing transportation leasing company which last November moved into its new office in Eden Prairie. Designed by Parker/Klein Associates, the building is nestled in a dense wooded area overlooking a chain of small lakes. The company, according to a spokesman, wanted to make good use of these tranquil surroundings when it bought the land and decided to build on the site. It wanted to bring "the outside in, to preserve the amenity of the site."

The company believes the architectural team met these demands very well. The use of an architect was channeled to meet some distinct needs of the company which included getting several company departments and auxiliary services and partner companies to fit together in the building for communication needs.

"An architect," the company says, "can put on paper what you would like and propose several ideas. They have flexibility within your budget framework."

Not only did Parker/Klein make recommendations on ways to keep



James Nafstad



Skateboarders on the Federal Reserve Bank Plaza

Photos by Stu West/Photogenesis



Gelco Corporation

Photo by Balthazar Korab

within the budget, but also ways to save money.

"They alerted us to things we didn't see," the spokesman said.

One of the greatest users of architectural services among the private sector of the local economy is Northwest Banco which has 81 banks and 174 total buildings in the Upper Midwest.

"We have used architects continually over the years," reports Baird Hawley of NW Banco. "We use them on an average of 10 to 12 times a year and in 1969, used 21 different firms for various company building projects."

Hawley says the company wants to get individuality in the design of each of the new structures it builds and looks for architects in the geographical area where the building is planned.

"Each community has its own needs. But most bankers build just one building in a lifetime, so we want the architect to guide that project along.

"The architect has to be a general, an arbitrator and an agent. We expect them to take over and they almost always do to our satisfaction."

The process of selecting an architect is usually left up to the local banker since each of the company banks is a separate entity. However,

the company board must approve each project.

"The budget pretty much sets the parameters and, in banking, the old saying about 'form following function' is very true because certain basics must be met."

Hawley says the relationship is such that the bank will dictate some interior functions but that it doesn't attempt to dictate esthetics.

"This has always been a nice arrangement. We provide the input, then it is up to them to do the job."

Hawley says NW Banco has found



Baird Hawley

that architects have a good awareness of economic needs when it comes to design and they are "very good at relieving our people of the small day-to-day detail matters."

"We are very happy with our relationship with the architectural community. We don't know how we would function without them."

Certainly few clients in this area can boast of such a unique design for their building as the Gunnar Birkerts-designed Federal Reserve Bank in downtown Minneapolis. The suspended office tower makes it one of the truly innovative structures anywhere and the client believes that approach helped solve some problems germane to the Federal Reserve.

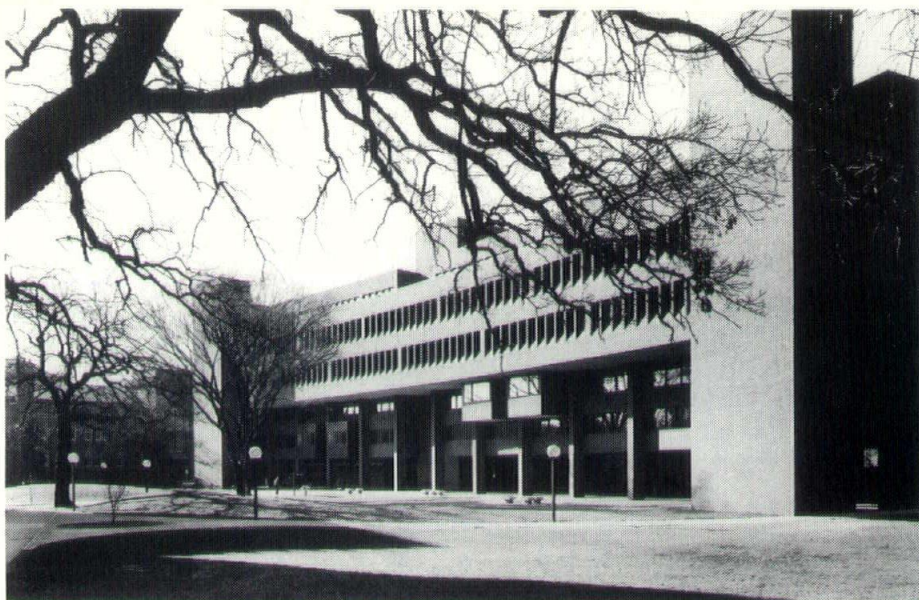
"Special security requirements and the zoning restrictions of the city meant that some different approaches had to be made," says John MacDonald, senior vice president of the bank. "The security requirements called for an isolated, secure place for loading and unloading the huge volumes of money with which the bank deals daily. Part of this included the restrictions that no windows in the building could be less than 30 feet from the ground. Secondly, city building density requirements for that block called for building only $\frac{1}{2}$ square foot of building space for each half-foot on the Nicollet Mall side and two feet of building square footage for each $\frac{1}{2}$ foot of frontage on Marquette Ave."

"The original commitment was to have the building fit those requirements. The radical nature of the design was the way we went in order to comply with all of these restraints," says MacDonald.

Birkerts, MacDonald believes, used great imagination and ingenuity in coming up with the final design approach. The suspended building gave the bank more useable space per floor, eliminated the need for interior columns and solved the immediate security and zoning requirements.

"We think the building has a high quality of design," MacDonald points out. "Birkerts' approach was to design from the inside out to meet these immediate considerations. Once outside, his approach was as unique."

The large, sloping plaza which faces onto the Mall, is considered landscaping. Therefore, the area could be utilized as an extension of the building in terms of public use. Today, MacDonald points out (with a great

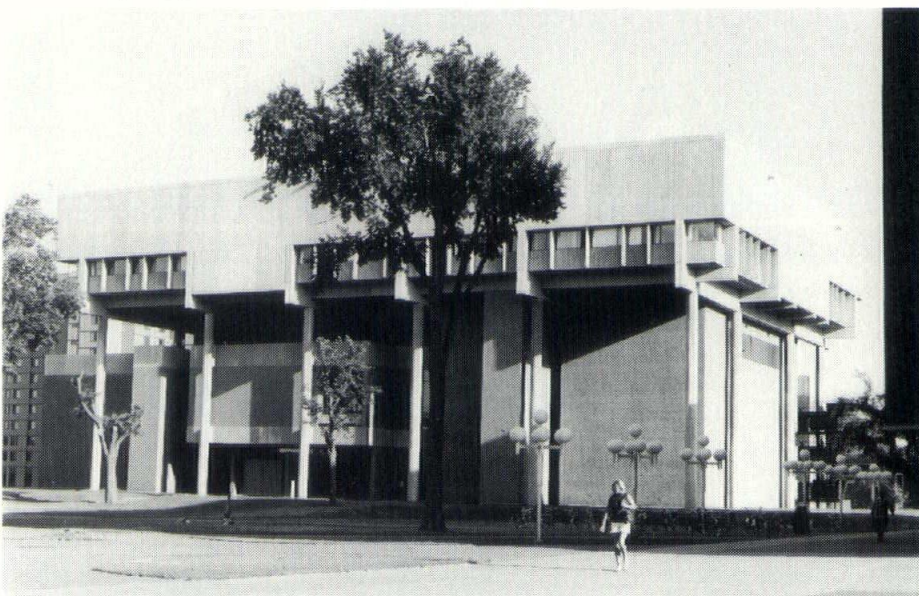


Elliot Hall

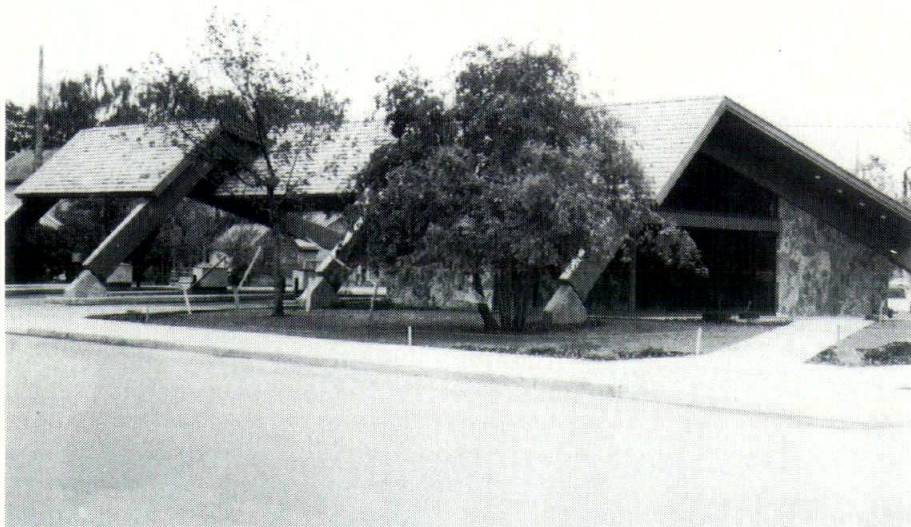
Photo by Balthazar Korab



East Bank Book Store

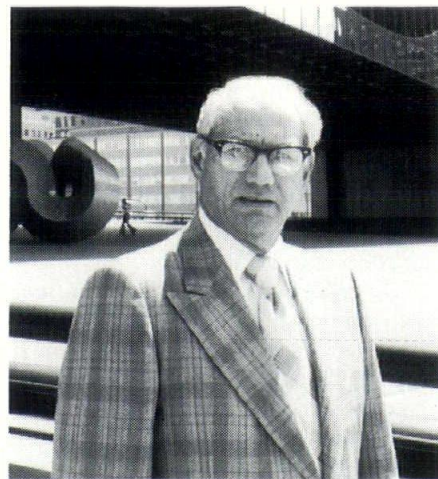


Rarig Center



Albert Lea Auto Bank

Hickey & Little Architects



John MacDonald

deal of pride) the many people who take advantage of the plaza as a place to stroll, sit, or as of late, go skateboarding.

"We think it fits in very well with the pedestrian-orientation of the Mall."

As a place in which to work, the building has met favorably with bank employees (who number about 900) and officials are very happy with Birkerts' use of good design to make such isolated and traditionally dreary places such as underground vaults, attractive places in which to work.

Birkerts was also very active in consulting surrounding property owners when the original design work was underway. MacDonald feels the building's scale fits in well with surrounding structures.

"Birkerts gave us a building which has functioned very well. The problems we have had these three years have always been minor and quickly solveable and not every building owner can say that."

"The good design is apparent in ways other than just appearance. The mechanical and electrical systems are very well thought out and work just fine.

"We really believe we got a complete and well-designed building."

MacDonald, it is hoped, expresses the feelings of all clients when they finally take a close look at the completed work and evaluate their relationship to their architect. Obviously, not every client feels this way. But it is clear that in this area, the vast majority believe the investment in architectural services was time and money well spent. □

Mike Wilkinson is a free-lance writer and regional correspondent for Building Design & Construction Magazine.



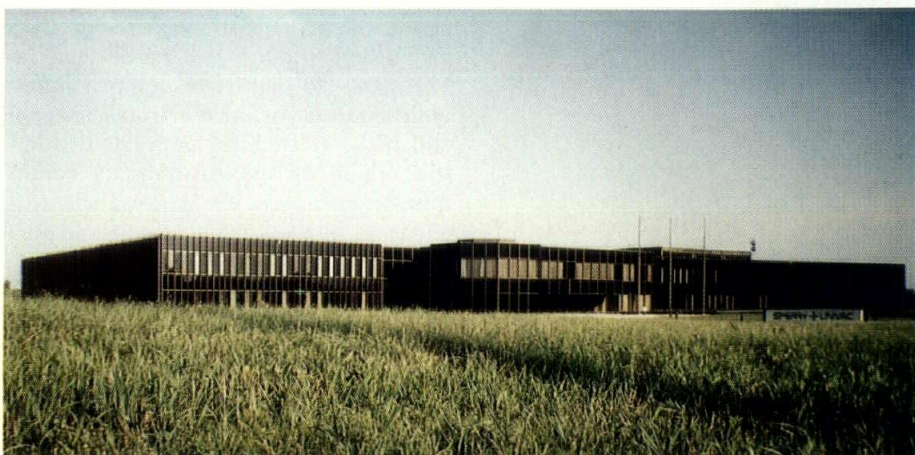
Northwestern National Bank of South Saint Paul

Cerny Associates Architects

GOOD ARCHITECTURE GOOD BUSINESS

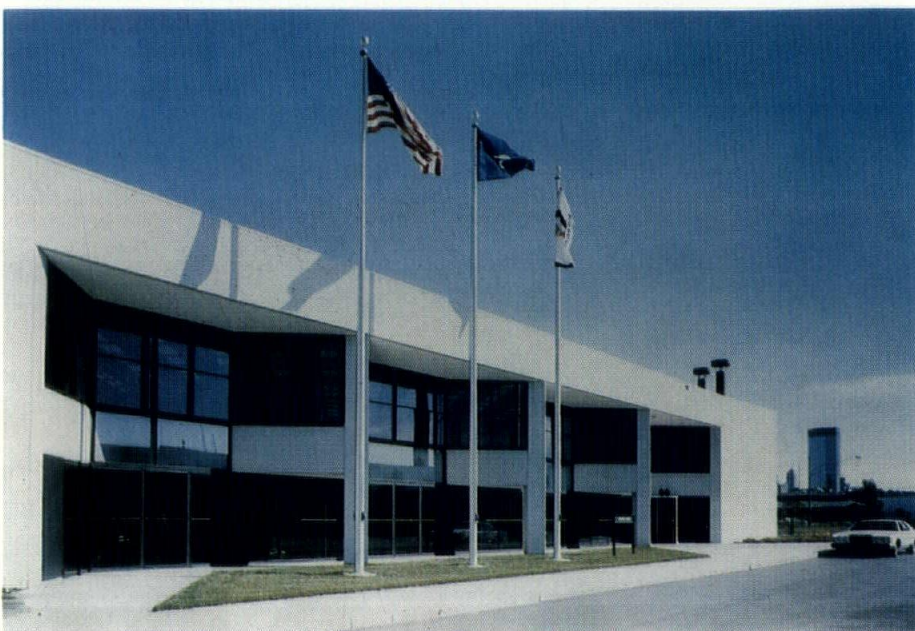


Gelco Corporation
International Headquarters
Eden Prairie, Minnesota
Parker Klein Associates, Architects, Inc.
Minneapolis, Minnesota
Balthazar Korab, photographer



Univac Park Office and Laboratory
Facilities
Eagan, Minnesota
The Architectural Alliance
Minneapolis, Minnesota

Graco Inc.
Technical Center
Minneapolis, Minnesota
Setter, Leach & Lindstrom, Inc.
Architects & Engineers
Minneapolis, Minnesota



HOW TO CHOOSE AN ARCHITECT

Edward A. Sovik

Everyone who builds wants a building that works well, just as everyone wants an automobile that works well. In addition, just as some people want their autos to be proper symbols of their status, or values, or ideals, so many people want buildings that have symbolic content — image value. And most of us recognize that when buildings go up they belong, in the same way that other elements of landscape and scenery do, not just to the owner of the property, but to everyone who sees them; owners of buildings can give something good to the general community or give them something objectionable.

These things considered, it is apparent that possibly the most important action taken by a person or institution preparing for a building project is the selection of an architect. To him a vast number of decisions about the form and character of the proposed structure will be delegated. It is likely to be he who will make the building work, make it a proper image, and make it an asset or a liability in the minds of the surrounding community.

What is a workable process in the selection of an architect? And what are the criteria that ought to direct the

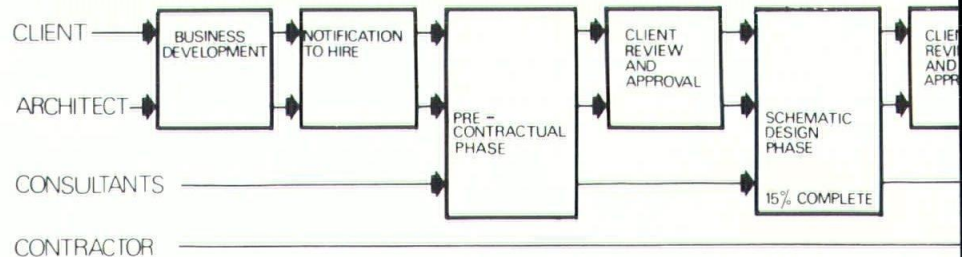
selection? The first issue can be examined fairly objectively; the second inevitably involves some subjective matters since it deals with values. Criteria are therefore more difficult to deal with than processes. And yet the issue is not by any means entirely clouded by its subjective elements.

Because architecture is a public art, it should be, more than the other arts, reflective of public values, and its designers should be judged by their ability to honor those values that are supported by the consensus of society and history.

Criteria

By all odds, the most important quality of an architect is that he be a good designer. In the simplest terms this means that his structures are good works of art. The definition of a good work of art is elusive, but the consensus of society and history does provide these important clues.

The first is that good architecture has integrity, both in the sense of wholeness, and in the sense of authenticity. It is not simply an assembly of ideas, but a coherent thing. And it is not phony; it avoids affectations, and artificialities, dissimulations and



BUSINESS DEVELOPMENT

STARTS WHEN THE ARCHITECT LEARNS OF THE PROJECT AND PROMOTES HIS FIRM TO THE POTENTIAL CLIENT. A PROPOSAL IS USUALLY WRITTEN PRIOR TO A PERSONAL INTERVIEW BEFORE A SELECTION COMMITTEE. THEN FOLLOWS NOTIFICATION TO HIRE OR NOT HIRE.

PRE-CONTRACTUAL

PHASE IS BASICALLY SETTING UP THE PROJECT AND PREPARING AND DISTRIBUTING THE OWNER-ARCHITECT AGREEMENT AND THE CONSULTANTS AGREEMENTS.

SCHEMATIC DESIGN

PHASE ESTABLISHES THE SCOPE OF THE PROJECT. THE ARCHITECT PREPARES, FOR APPROVAL BY THE OWNER, THE SCHEMATIC DESIGN STUDIES CONSISTING OF DRAWINGS AND OTHER DOCUMENTS ILLUSTRATING THE SCOPE AND RELATIONSHIP OF PROJECT COMPONENTS TO MEET THE OWNER'S REQUIREMENTS. A STATEMENT OF PROBABLE CONSTRUCTION COST, BASED ON CURRENT UNIT COSTS, IS SUBMITTED TO THE ARCHITECT.

EVOLUTION OF AN ARCHITECTURAL PROJECT

illusions. It has the virtues of forthrightness and the genuine.

Secondly, a good work of architecture is a humane habitation. Particularly in a democratic society where all people are seen as valuable, and in an ethical society where people have value above things, one should look for architecture that is gracious, noble, hospitable, humane in scale.

The opposites of these qualities are those we see in architecture that is authoritarian, domineering, or harsh, and in the architecture that self-consciously wishes to be admired as an object, rather than serve as a habitation.

The third, and most elusive quality is that of beauty. Beauty is not the same as prettiness or charm or attractive elegance; it is not simply sensuous delight. Nor is it necessarily vividly original or ideosyncratic. It is not the same as novelty or contrived surprise, or excitement. It is not self-expression. Like truth, beauty is discovered, not invented. It beckons toward wonder.

In addition to artistic sensibilities, the person or firm chosen should have the proper skills, technical resources, sense of responsibility and judgment to make a building work properly and to accomplish the architectural process effectively. These resources will reside partly in the person or persons responsible for conceptualizing a structure, but there are usually engineering

and other consultants in various categories who contribute also. Only some of the largest firms are likely to have all the necessary skills within their own organizations.

The virtue of in-house departments is considered to be that coordination is more precise; and this is sometimes true. Other firms, big and small, engage independent consultants to cooperate in the work. The virtue of this practice is said to be that the consultants selected are more likely to have the precise skills needed; and this is also sometimes true.

Less needs to be said about the technical criteria than about artistic abilities, not because they are unimportant, but because they can be more readily defined, and because the choice of consultants is rarely up to the owner. Let it be said, however, that it is not technical skills that give architecture enduring quality, but artistic ones.

One implication of what has been said is that one does not simply choose a firm, one chooses persons. And it should be clear that they are available for the work. It is not necessary that the architect be experienced in the type of work to be done, although this sometimes saves time. If he is not experienced it is particularly important that he be intelligent and open. He should be committed to his work and profession.

Chances are that if he takes no

responsibility for his professional associations, he will not have a strong sense of responsibility for his clients either. If he is literate and scholarly, so much the better, because almost every project requires some research, and some projects a great deal.

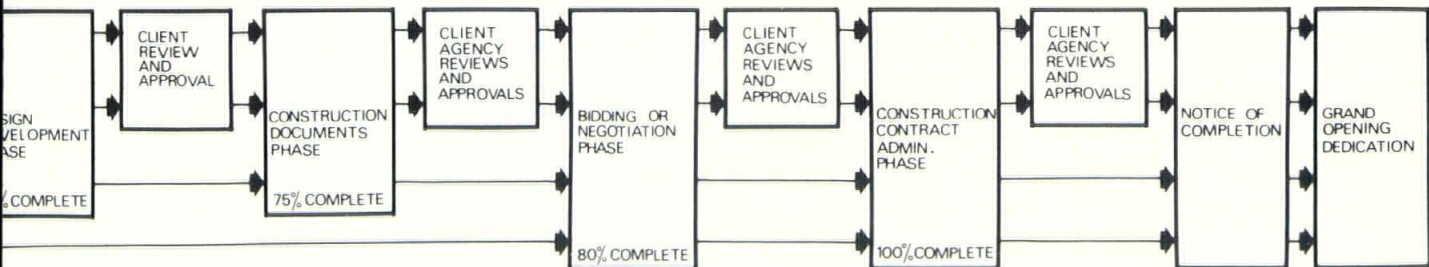
Fees should not weigh heavily in any choice. Architects who work for unusually low fees inevitably reduce the quality of service. Competent and committed professionals can be expected to provide proper value for their fees. And fees that are high enough to cover the most thorough professional service usually save enough in the value of construction to be a bargain.

There are some obvious advantages in engaging an architect whose offices are proximate to the building project. But, as with fees, only a moderate weight should be given this consideration. It contributes convenience, but not necessary excellence, to the project.

In some situations, associations between firms may be fruitful by combining the proximity of one firm to the other desirable qualities of another more remote. For several reasons the fees need to be slightly higher in this circumstance.

Processes

The process may well start with the assembly of a list of names, supplied from personal knowledge, or from



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CONSTRUCTION DOCUMENTS
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WORKING DRAWINGS AND SPECI-
FICATIONS FOR APPROVAL BY
THE OWNER. THESE WILL SET
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OWNER OF ANY ADJUSTMENTS
TO PREVIOUS STATEMENTS OF
PROBABLE CONSTRUCTION COST

BIDDING OR NEGOTIATION PHASE
FOLLOWS THE OWNER'S AP-
PROVAL OF THE CONSTRUCTION
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STATEMENT OF PROBABLE CON-
STRUCTION COST. THE ARCHI-
TECT ASSISTS THE OWNER IN
OBTAINING BIDS OR IN ENTER-
ING INTO DIRECT NEGOTIATION
WITH A SELECTED CONTRACTOR.
THE ARCHITECT ALSO ASSISTS
THE OWNER IN MAKING AN
AWARD AND IN PREPARING CON-
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CONSTRUCTION CONTRACT ADMINISTRATION
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THE ARCHITECT IS PRIMARILY
RESPONSIBLE FOR ADMINISTER-
ING THE CONSTRUCTION DOCU-
MENTS INCLUDING PERIODIC
VISITS TO THE SITE TO REVIEW
THE PROGRESS AND QUALITY OF
THE WORK AND TO DETERMINE
IF WORK IS PROCEEDING IN
ACCORDANCE WITH THE CON-
TRACT DOCUMENTS.

GOOD ARCHITECTURE GOOD BUSINESS



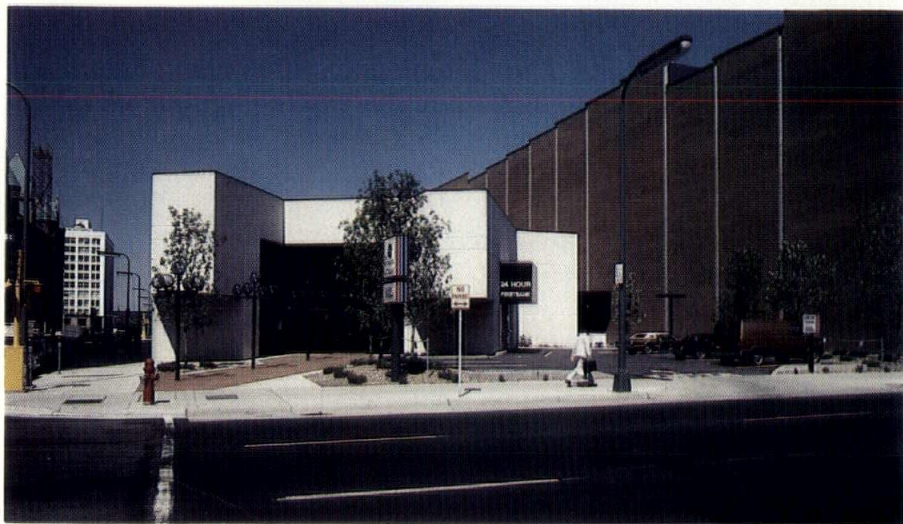
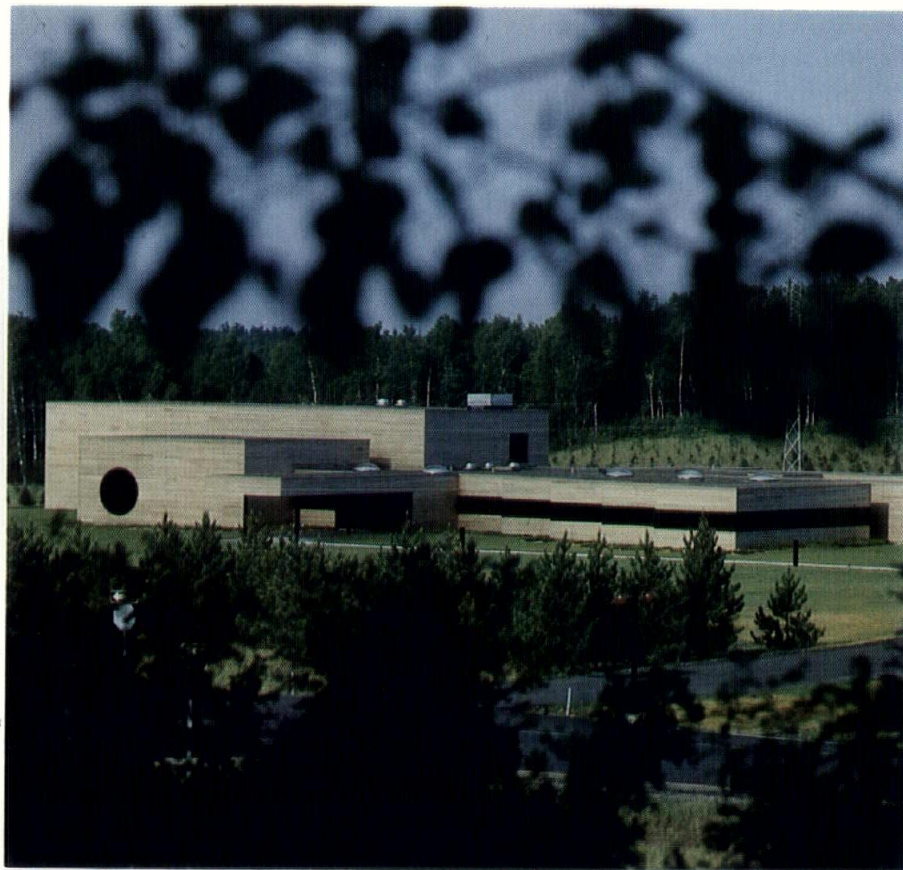
Spirit Mountain Recreation Complex
Duluth, Minnesota

Architectural Resources, Inc., Architects,
Engineers, Planners and Landscape Architects
Duluth and Hibbing, Minnesota

Ridges One Medical Office Building
Burnsville, Minnesota

Ellerbe Associates, Inc., Architects
Bloomington, Minnesota





Administration Building
Department of Iron Range Resources
& Rehabilitation
Eveleth, Minnesota

Damberg & Peck Architects, Inc.
Virginia and Duluth, Minnesota

First National Bank of Minneapolis
Auto Bank
Minneapolis, Minnesota

Bergstedt, Wahlberg, Bergquist, Rohkohl,
Architects
Saint Paul, Minnesota
Phillip MacMillan James, Photographer

Sauk Rapids Municipal Liquor Store
Sauk Rapids, Minnesota

Pauly Architects
St. Cloud, Minnesota

friends and colleagues. This list may be long; it should be culled until no more than half a dozen names remain. This can be done by gathering information from various sources, by interrogating the firms by mail or telephone and by visiting their work. This last procedure warrants some caution.

Earlier work may not represent the current capabilities of firms; it may not even be done by staff currently available. The circumstances out of which the work develops may be radically different; for instance, the site, the table of needs, and the financial limitations can vary immensely. And, in any event, it is likely to be limiting rather than fruitful to start with an existing building as a model for the projected one.

The remaining few names should be interviewed. This can occur either at the architects' offices or elsewhere. It should be stipulated that those persons into whose hands the major responsibilities would fall be present. If an architect is asked to travel far, he may ask for a moderate compensation; this should not be regarded as troublesome.

Candidates about whom the owner is not serious should be exempted; it is a waste of people's time to interview firms simply to go through the motions. It is almost inevitable that the process of interviewing will be a very illuminating experience.

If a committee from an institution (and not simply an individual) is undertaking the process of selection, it is important that those people who will continue to be responsible for the project be present. Good buildings come from the convergence of good clients and good architects, and a relationship of candor and mutual confidence should be encouraged from the beginning.

The time given to interviews will vary according to the complexity of the problem; it may be useful to ask the architects how much time they would like. One of the questions that should never be asked is how the architect would solve the immediate problem.

Good solutions come from thorough knowledge and careful work. No responsible architect will offer a solution off the top of his head for anything but the simplest kind of structure.

A Table of Data

If several architects are considered for a project, the following list of

data may be useful as a mnemonic device when the time comes for evaluation and decision:

1. Name and address of firm.
2. Person with the prime responsibility.
3. Name of others with significant roles, and notes on their personal qualifications.
4. Esthetic competence.
 - a. What variety of work has the person who will be actively responsible for the design, done?
 - b. Does the work show evidence of integrity in structure, materials, scheme, details?
 - c. Is the work hospitable and humane?
 - d. Is the work beautiful in proportion, scale, coherence, liveliness, site relationship, etc.?
 - e. Do the design solutions match the problems?
 - f. What professional reputations do the firm and its responsible people have?
5. Technical capabilities.
 - a. Are the size and quality of architectural staff adequate?
 - b. Who are the consultants?
 - Structural Engineering
 - Mechanical Engineering
 - Electrical Engineering
 - Other Consultants
 - c. Is the process through which the work will go orderly and reasonable from the beginning through the construction process?
6. Availability. Are the appropriate lead people and staff available for the project?
7. Experience.
 - a. What is the general experience of the firm?
 - b. Is the size of their usual commissions appropriate?
 - c. Has the firm had experience related to the project at hand?
 - d. Have the people who would be assigned to the project had related experience?
 - e. Have the consultants?
8. Fiscal Responsibility.
 - a. Is the firm stable enough to complete the work?
 - b. Is there a good sense of responsibility for cost control?
9. Personal Qualifications.
 - a. Are the architect and owner compatible, so that candor and confidence will develop?
 - b. Will the architect provide his share of leadership?
 - c. Is there evidence of commit-

ment, conviction and capacity for growth?

- d. Is the architect articulate enough to elucidate his work?
- d. Does the architect have a breadth of concern for environment extending beyond the particular structure (in one dimension) and within the structure (in another dimension) to the details of artifacts and art?
10. Contract Arrangements.
 - a. What fees are quoted
 - b. Is a full range of service available?
 - c. Is a retainer required?
 - d. Are standard AIA agreement forms used?

Other Considerations

The choice of an architect is of such importance to a project that two further comments may be appropriate.

The first is a caution against using architectural services that are in some respects a masquerade. Stock plans; mail order services; truncated services in which careful programming, full detailing, construction phase services or other elements are omitted; and design services rendered by firms such as material fabricators or dealers whose principle interest is material sales and not architecture; these should be used only after the closest scrutiny, and only for the very simplest of structures. They are almost always a poor bargain.

The second comment is that it is sometimes fruitful for an owner to engage an advisor to help him in his decisions. There are people in museums, in the arts and in other vocations related to architecture who know the profession of architecture and its processes. Even a good architect may be available. Such persons can sometimes be engaged as advisors to good advantage.

Mr. Sovik heads the architectural firm of Sovik, Mathre, Sathrum, Quanbeck, Architects, Northfield, Mn. He is a fellow member of the American Institute of Architecture and president-elect of the Minnesota Society of Architects.

BUSINESS DECISIONS

Gene Green

Today, a complex set of activities lies behind the design and delivery of most physical facilities. The primary reasons for this are an increased sensitivity to the total environment by architects, clients and society as a whole; an increased sensitivity and awareness by clients of the impact and interrelationship of decisions to their total operations; and an increased sophistication of economic analysis on a broad and long range basis.

The proliferation of governmental agencies and quasi-governmental groups demand that we provide a systematic evaluation and documentation of all their requirements. Today, it is not uncommon to have to satisfy the regulations of twenty or more agencies on any one project.

All decisions are important and have impact and ramifications on other decisions. Architects have thus developed techniques of sophisticated systematic analysis of building systems and components, delivery systems and scheduling, dollars and time (time to most clients is synonymous with dollars).

Our design and construction vocabulary has expanded and we now talk about value engineering, life cycle costing, C.P.M. systems approach to building, construction management, phased construction, multiple bidding, fast track, environmental assessments and impact, energy assessments, return on investments and on and on.

Clients are increasingly aware of the impact of this vocabulary on their

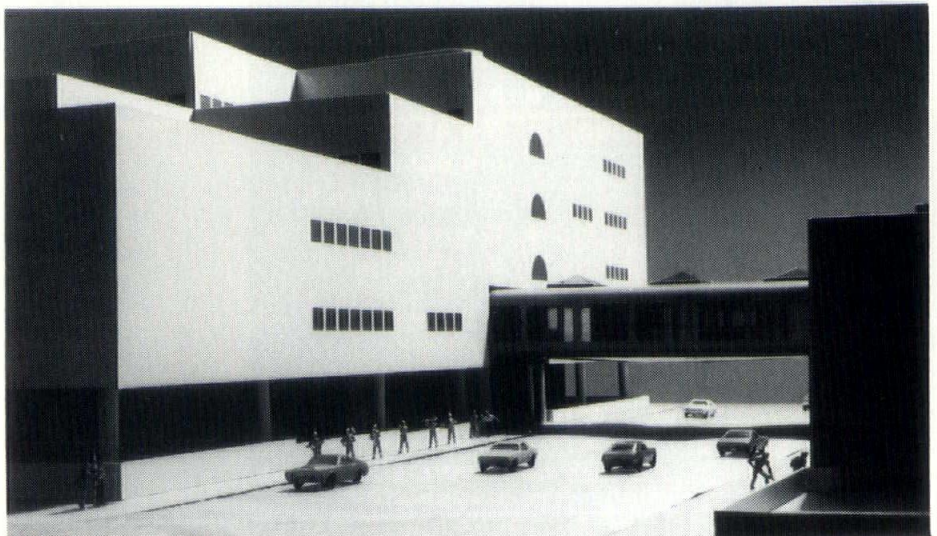
projects and of the need for someone who will draw into the decision-making process the various skills required to provide the data. More importantly, when the data is available, it must be interpreted, prioritized and implemented to the greatest advantage of the client.

Practice has convinced me that the architect, by his training, experience, and attitude is best qualified to provide this management.

Our firm has been involved in the implementation of various elements of this vocabulary with our industrial and public clients. As an example, an energy study for an industrial client resulted in a total change in attitude towards the design of a building, and its electro-mechanical systems, production equipment and support systems. It also developed a concern for maintenance and operation of building and production equipment.

In order to accomplish this, the study included:

- A comprehensive evaluation of existing systems.
- Identification of potential improvements in performance of heating and ventilation and lighting systems.
- Identification of where modifications in operation could result in reduced peak electrical demand.
- Identification of where energy is wasted in production and support systems and development of potential systems of energy recovery.
- Detailed analysis of alternative energy sources and their impact on



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initial costs and equipment, current operating costs and probably trends.

— Identification of where the existing building envelopes were responsible for energy waste.

With this information and data it was possible to write an energy program which accrued benefits to the user by understanding the interrelationships of building envelope, domestic electro-mechanical systems and production systems. Not only did this provide a program for new facilities, but provided a guide for extensive retrofitting of existing facilities.

Another analytical system we have been using is "Value Engineering" and "Life Cycle Costings". These terms to a certain extent are synonymous, however, Value Engineering is related more to initial costs and durability where the initial element will never be replaced during the life of the building, i.e. structural system, whereas "Life Cycle Costing" is more related to items that are likely to require replacement, i.e. air conditioning compressors.

In the initial phases of such a study a certain amount of brainstorming and research is required to identify available alternatives. A number of alternatives can be eliminated as inappropriate without detailed analysis because of basic program and design criteria. It should be remembered that total systems need to be valued to include interface costs.

A life for the building needs to be established. This life is somewhat arbitrary depending on the type of project. G.S.A. uses a figure of forty years for most of its buildings. The decision process should incorporate a percentage of improvement on life cycle performance before giving preference to alternatives with lower initial cost. There is nothing magic about this procedure, it just takes some research. Actual cost and performance experience is the best, however in some instances the manufacturers may be the only source. (The form we use for value engineering is shown in the example.)

The most important part of the exercise however, is what is done with the data. It is important to understand the client's problems. He may have limited capital and a great maintenance staff or sufficient capital and no maintenance funds. He may be a hard user or careful one. More than likely, he will have limited capital and a limited maintenance budget.

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JOB: 100-100		D		E	
Description		Cost/SF		Cost/SF	
ARCHITECTURAL FINISHES		—		—	
3" CONC. SLAB, 4" CONC. TIE		2.14 SF		2.00	
1" GYP. BOARD, 1/2" GYP. BOARD		1.00 SF		1.00	
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TOTAL FINISHES		1.00		1.00	
STRUCTURAL SYSTEMS		—		—	
3" CONC. SLAB, 4" CONC. TIE		2.14 SF		2.00	
1" GYP. BOARD, 1/2" GYP. BOARD		1.00 SF		1.00	
1" GYP. BOARD, 1/2" GYP. BOARD, 1/2" GYP. BOARD		1.00 SF		1.00	
1" GYP. BOARD, 1/2" GYP. BOARD, 1/2" GYP. BOARD		1.00 SF		1.00	
TOTAL STRUCTURAL SYSTEMS		1.00		1.00	
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Many architects are involved in providing the expanded services I have just discussed. However, one example of an unusual service we provided a client was a site search. It doesn't sound unusual, however the circumstances were unique to our firm. A New York based company, for whom we had never worked before, retained our firm to search for a site for their company; not in Minnesota, but in Ohio. Why? Because they believed that we understood their concerns and needs better than any other discipline that might be selected to provide this service.

The practice of architecture today is both exciting and sobering.

Exciting because it has created new challenges for us as professionals; greater involvement and better understanding provide opportunities for superior results.

Sobering because of the increased responsibilities and the demand that we be prepared to accept the responsibilities with the skills and knowledge necessary.

It has been pleasing to me to note that clients recognize a knowledgeable, systematic and sympathetic approach to their problems. With increased recognition and development of confidence

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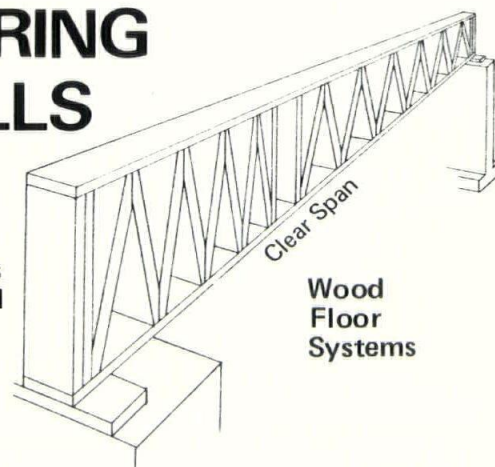


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more and more tasks are given to the architect as the one best prepared to deal with them.

"Good Architecture is Good Business" is our statement for this year. I firmly believe that the statement is valid but I also would suggest the notion that "Good Business can also create Good Architecture." □

Gene Green is president of Bissell, Belair & Green, Inc., Minneapolis. He is also president of the Minnesota Society of Architects.

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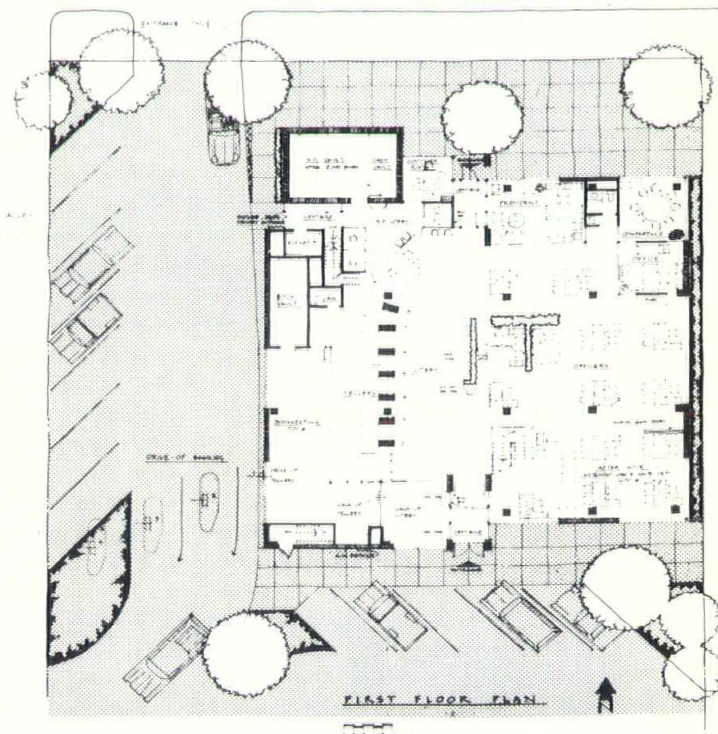


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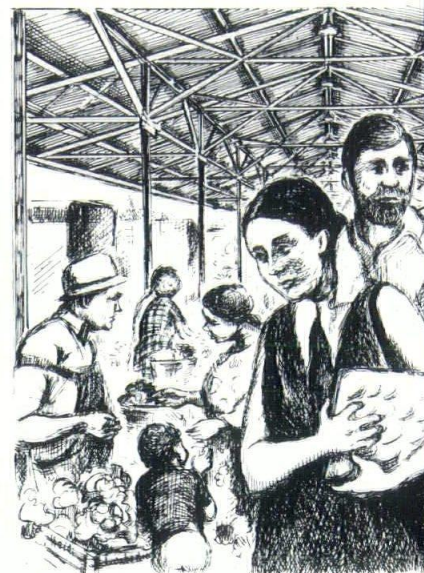


Farmers & Merchants State Bank of Breckenridge
Lester Grosz: President
Architect: Dykins Associates
General Contractor: Ellison Construction



THE TWIN CITIES STUDY IN WORD

Text by Jean Adams Ervin; drawings by
Gemma Rossini Cullen, Robert Halladay,
Heidi Schwabacher, and Robert N. Taylor



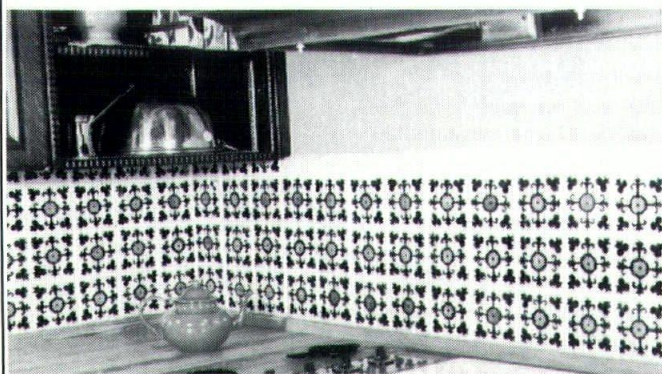
Farmers Market, Minneapolis

Atop a commanding hill in Saint Paul the Roman Catholic Cathedral announces itself in baroque grandeur, and the fortunate choice of this site is evident as you move from one area of the city to another only to realize that the Cathedral follows you around. In contrast, Minneapolis's most assertive building, the IDS Tower, must make its statement by thrusting itself fifty-seven stories into the air from exceedingly flat land. The placement of these two buildings tell us much of the physiognomy of these two cities.

Saint Paul's stately Summit Avenue runs from the Mississippi River to a majestic ridge crowned by a fine group of nineteenth- and twentieth-century homes. But cliff-dwelling is not limited to privileged Saint Paulites. The West Side community ranges from the flood plain of the river to the top of a steep escarpment. The streets of the Dayton's Bluff neighborhood clamber up and around confusingly. East Seventh Street, the backstairs entrance to downtown Saint Paul, swoops upon the city from a considerable height. The most histrionic area is Highwood on the southeastern edge of the city, where residential streets twist, curve, and plunge through deep woods and open fields. Most of its homes are near or on a very high plateau with a fine view of the valley far below. In Saint Paul

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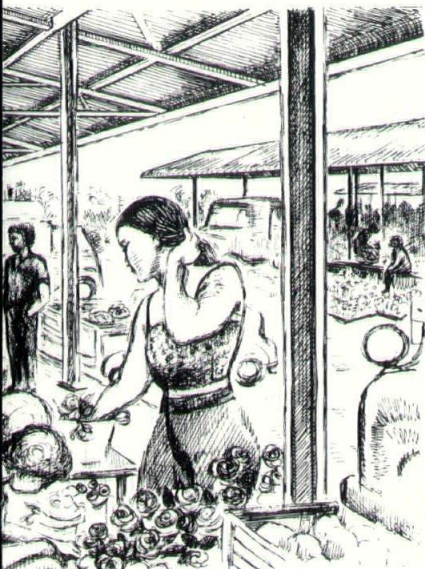
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the resident always seems about to ascend or descend.

Like most generalizations, the one that Minneapolis is a city bereft of hills must be qualified. The flat-chested sister is not really so uninteresting topographically, but is only apparently so when looked at alongside her more curvaceous sibling. Tower Hill in Southeast Minneapolis, one of the highest points in the city, is capped by a charming witch's hat water tower which has been patched and shored to nourish the sentiments of local residents, but it also serves as a landmark which, like the Cathedral, can be seen from a number of points in the cities. Saint Anthony Boulevard winds its way through Northeast Minneapolis to Deming Heights with its hillside park. In the central part of the city, Lowry Hill has long attracted wealthy residents because of its fine lookout and Theodore Wirth Park boasts views from its hills of the distant downtown area. But these are not the dramatically steep areas that can be found in Saint Paul. Much of Minneapolis was originally prairie and its general flatness attests to this.

It has been suggested that Saint Paul and Minneapolis should be regarded as Siamese twins since their residential and industrial areas have long

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since grown together over their boundaries, but the image of fraternal twins is more apt, for Minneapolis with a 1975 estimate of 416,864 residents is 116,173 larger. Both cities cover a large geographical area, Minneapolis fifty-eight square miles and Saint Paul fifty-five. Their genetic makeup is similar in many respects, but there are differences.

Flying over Saint Paul and Minneapolis makes several things apparent. There are no mountains nearby so that although the surrounding countryside is somewhat barren of striking vistas the cities have had no natural barriers to their weedlike growth. The population pressures felt in other parts of the country are experienced as nudges here. Minneapolitans and Saint Paulites have not been panicked into cutting down trees, sacrificing greenery to condominiums. Driving through the cities or flying over them in the summer, one is impressed with their lush green cover, a cover rent by lakes and ponds. The mixture of pastoral and urban elements in the midst of a metropolis is a principal feature. You grit your teeth at the effluvia of a Lake Street "where the used cars live," as John Berryman put it, but a few blocks away you can walk into a forest along the Mississippi River.

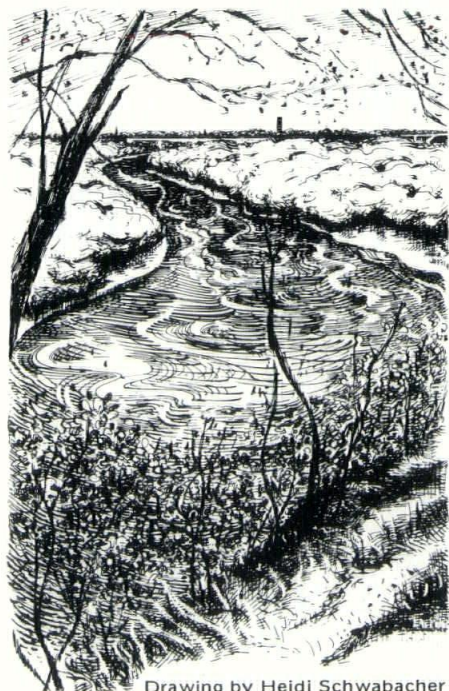
Roughly 11,000 years ago the last glacier retreated from Minnesota, leaving more than the 10,000 lakes touted in state publicity, a number of beautiful streams, and rolling hills. The glaciers carved the physiognomy of the two cities, making Saint Paul into a relief map of canyons but giving to Minneapolis the lion's share of lakes. Geographically, Minneapolis and Saint Paul are part of the hill and lake region of Minnesota, a quietly undulating, seldom startling area. The Twin Cities lack the drama of cliff-framed, sea-washed cities such as San Francisco and Naples, or of mountain-rimmed enclaves such as Mexico City. This is quiet theater, Chekhovian drama as opposed to Shakespeare.

From a plane another aspect becomes visible. The downtown areas are widely separated, by a distance of some nine miles, and if one city died tomorrow the other could exist without it. In most matters discrete city council governments still chart the fate of citizens, although Saint Paul and Minneapolis are now part of the purview of a widely applauded Metropolitan Council which embraces

a seven-county region. The Metropolitan Council was established in 1967 to deal with social and physical problems that have regional impact. The council reviews plans of such agencies as the Metropolitan Airports Commission, the Metropolitan Transit Commission, and the Metropolitan Sewer Board. . . .

One of the joys of exploring the Twin Cities lies in finding the unexpected charmer in unlikely places. Some of the visual gems hidden in the bins of imitations are not downtown and must be sought out. During a walk or drive through a dull neighborhood frequently a fine piece of architecture or sculpture will break through the creeping fog of mediocrity. In one of the most grindingly depressing sections of the Midway district of Saint Paul Evelyn Raymond's family group, a relief sculpture at 1919 University Avenue, embellishes not only that building but the whole block. Similarly, her fine Saint Austin on the church of Saint Austin, 4050 Thomas Avenue North in Minneapolis, makes a counter-statement to an unimaginative neighborhood.

In an upper-middle-class neighborhood at 205 Otis Avenue in Saint Paul the Prince of Peace Lutheran Church for the Deaf, designed by Ralph



Drawing by Heidi Schwabacher

Looking upriver towards downtown Minneapolis

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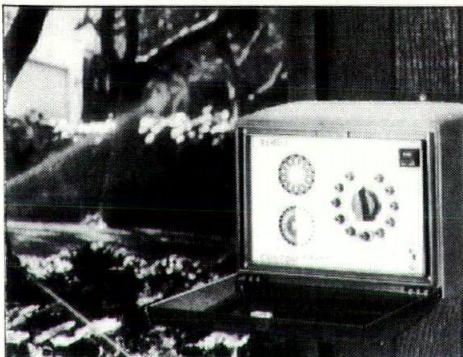
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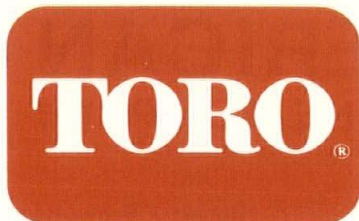
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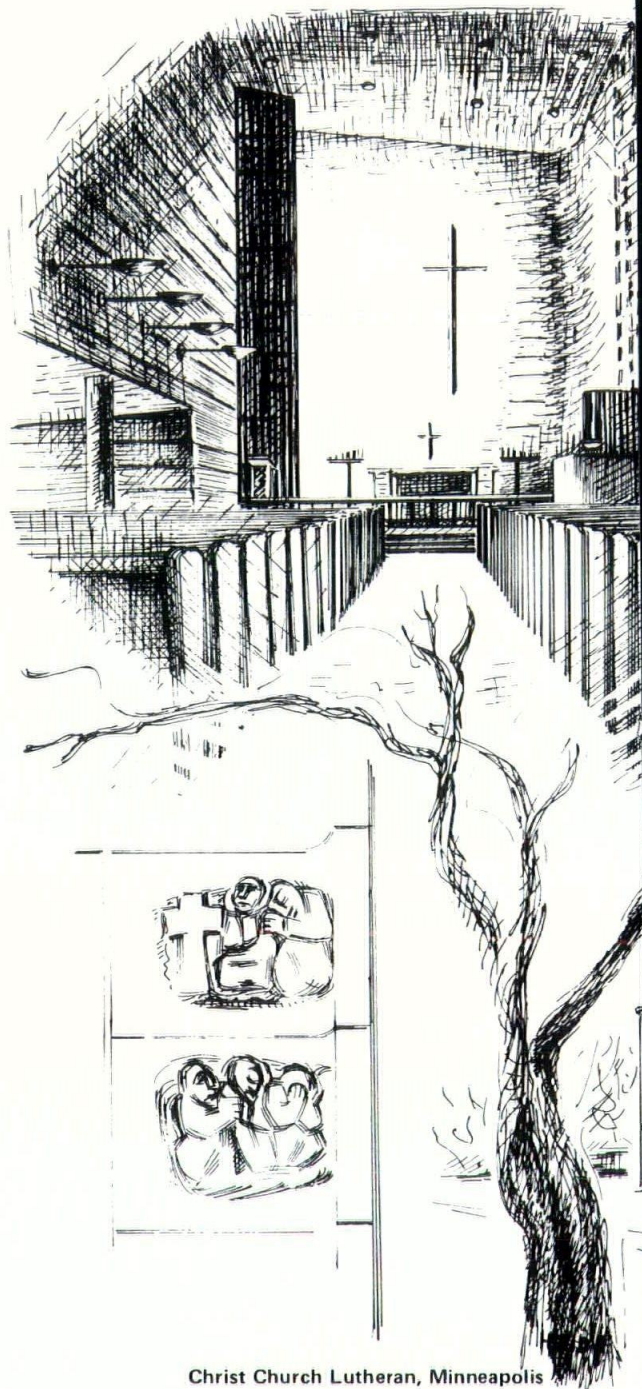
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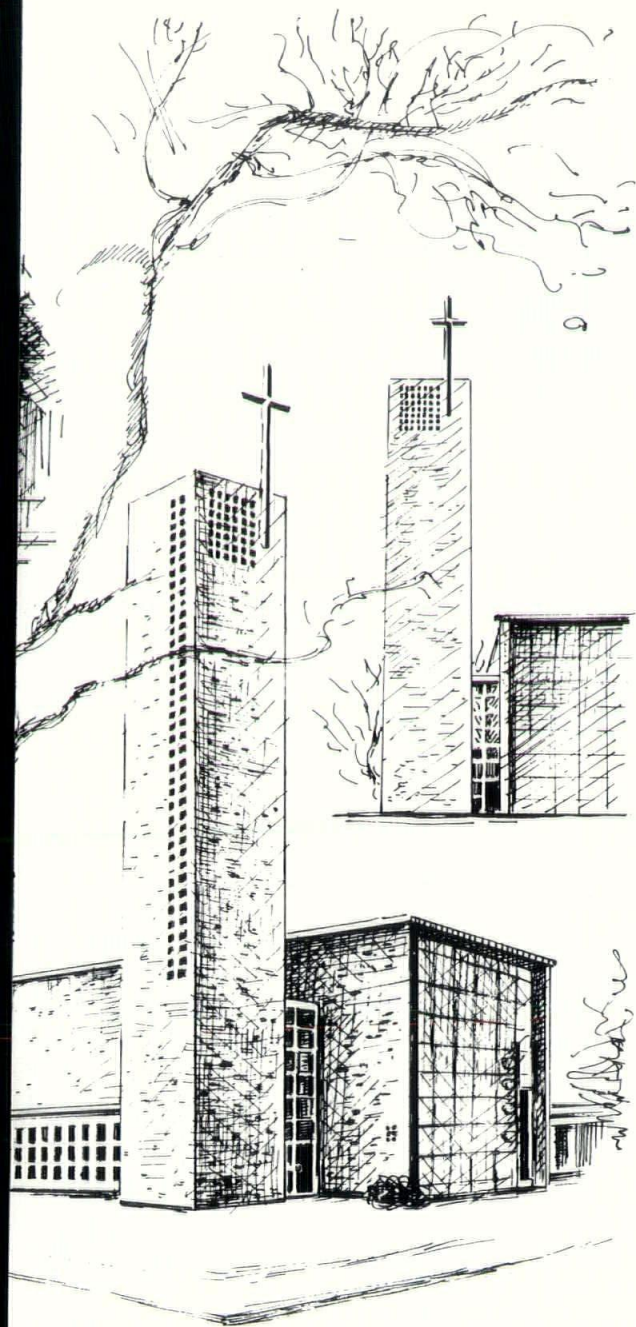
Christ Church Lutheran, Minneapolis

Rapson, is too easily passed by. The facade of this airy glass jewel box consists of a metal screen in which circles are intersected with crosses, while the most dramatic element is the cluster of three crosses of varying heights in front of the church.

Not all of the romantic fancy of nineteenth-century builders went into residential architecture. At 882 West Seventh Street, Saint Paul, the Schmidt Brewery is an 1880s architectural brewer's yeast of crenelations and Moorishly striped rounded windows. The designer's fancy appears to have strayed from the Rhine to the Iber-

ian peninsula, or farther south and east, but the building has a fine assertive jaunty air. The *Saint Paul Pioneer Press* for December 25, 1887, remarked that the "five prominent institutions in every new born Western town are the school, the church, the general store, the newspaper and the saloon." If not exactly the vanguard of civilization, the brewing industry came early to Saint Paul, pioneered by Theodore Hamm in 1856.

Cass Gilbert left his mark on the Twin Cities in many ways and some of his smaller commissions reveal a more thoughtful, less portentous side than



Drawing by Heidi Schwabacher

the State Capitol and the university's Mall in Minneapolis. Saint Clement's Church at Portland Avenue and Milton Street in Saint Paul is a re-creation of the village parish church found throughout England, with a hammer beam ceiling and a lychgate, a covered wooden gateway traditionally a resting place for a coffin at the entrance to the church-yard. A variation on the picturesque English village church is a building that once housed the German Presbyterian Church. Designed for a group of German-speaking immigrants in the late nineteenth century, Gilbert's choice of Swiss mountain architecture

seems quite right for its setting at the foot of Ramsey Hill, as if the church were in a Swiss village. It is a small limestone building with an asymmetrical assemblage of picturesque elements, including an extremely narrow spire at one side and a curving flight of steps suggestive of a steep mountainside. Some years ago the congregation disbanded and the building has at various times been home to a funeral parlor, an architectural firm, theatrical groups, and a dance studio. . . .

Eliel Saarinen's last completed work stands at the corner of Thirty-second

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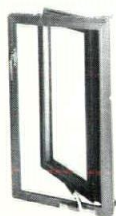
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Street and Thirty-fourth Avenue South in Minneapolis — Christ Church Lutheran, completed in 1949. If I were to point to one building that stands out as the best of unostentatious architecture in the Twin Cities, this quietly dramatic building would be it. Saarinen and his son Eero worked within a tight budget to design this structure for a small corner-lot. Yet the soaring campanile with its brushed aluminum cross does not seem out of place in this somewhat mundane neighborhood. The texture of the brick exterior is exquisitely achieved with a variety of natural tones highlighted with dark red wine bricks to give depth. On the stone facade sculptured figures representing the church, faith, hope, and love at work in the world are reminiscent of the rigid sculptures of early Gothic churches. But there is nothing forced about them and they are in keeping with the muted beauty of the building as a whole.

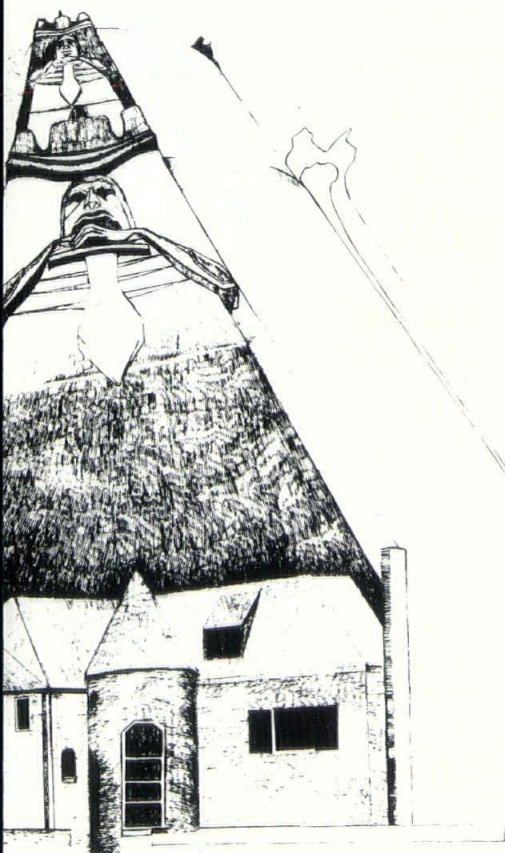
The focal point of the interior is the simple brushed aluminum cross on the altar which is lit by natural light from one side. The subtle curve of



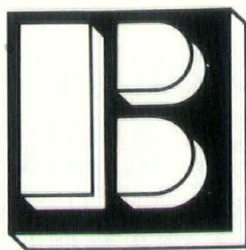
Washburn Water Tower,
Southwest Minneapolis

the whitened chancel is both an acoustical and a visual achievement, putting the focal point of echoes outside of the congregation but also adding a pleasing asymmetry to the chancel wall. The northern clerestroy wall undulates to absorb sound, but again provides a subtle variation in what is a largely neutral interior of brick and wood. Windows are slightly canted on the inside to keep the direct light from the eyes of the congregation. Religion as harmony is the theme beautifully carried out in this church building. . . .

When the big sky, lakes, river, and man-made structures work together in a successful composition it is easy to fall into a Wordsworthian "earth has not anything to show more fair" reverie, but when a congeries of junkyards, railroad tracks, blinking bottle caps, and billboards assault the eye, these are the cities of dreadful night. It would be false to proclaim Saint Paul and Minneapolis garden cities ornamented with remarkable buildings. Much of the architecture is drab and some of the most interesting



Drawing by Gemma Rossini Cullen

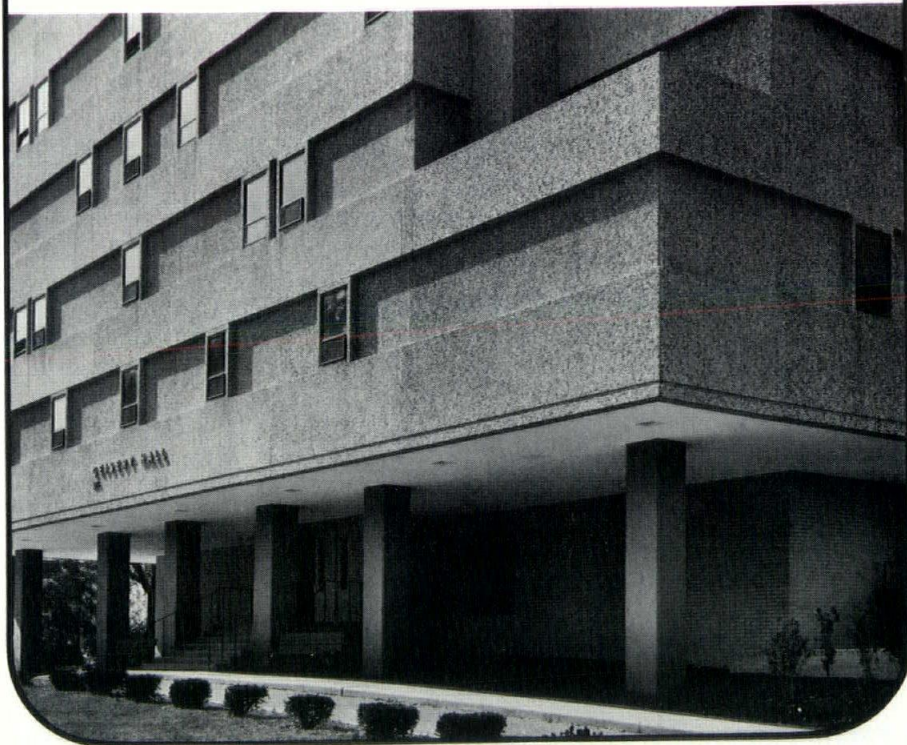


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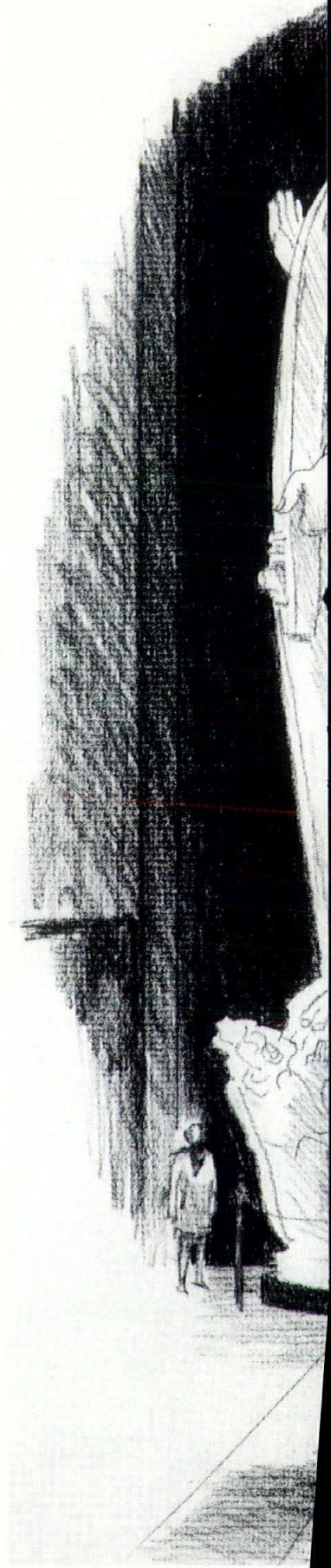


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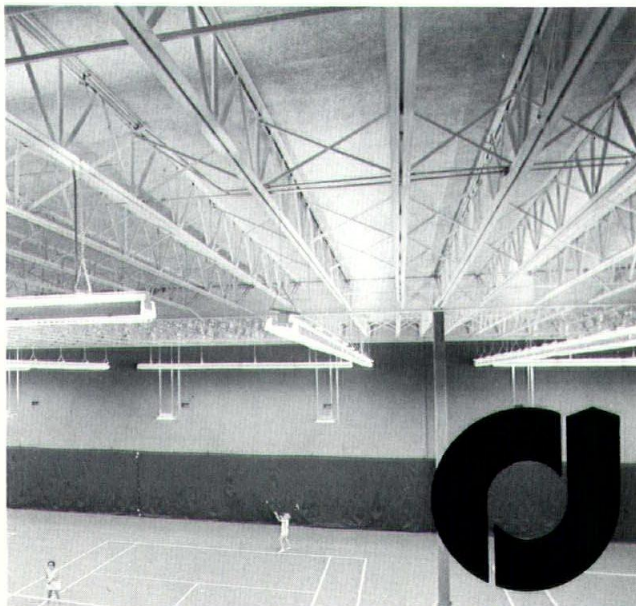
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Drawing by Gemma Rossini Cullen



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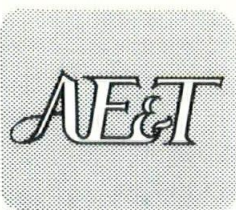
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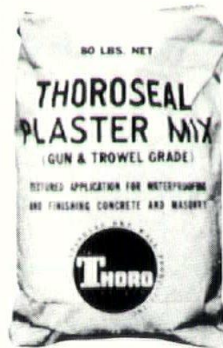
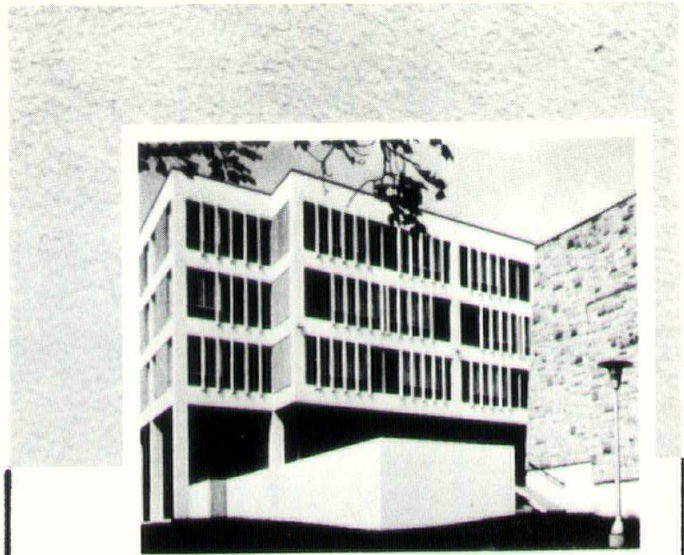
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small towns. What the cities provide is not always remarkable, not always desirable. But the best qualities are easily accessible to residents and visitors alike. . . .

This text and drawings are taken from *The Twin Cities Perceived*, to be published by the University of Minnesota Press, September, 1976. In words and drawings, this book takes the reader on an informative tour of the Twin Cities of Minneapolis and Saint Paul pointing out interesting aspects of this continually varied urban-pastoral complex and presenting a mixture of the old and the new and of varying architectural styles and topographic features.

Jean Adams Ervin, a writer and teacher, is the co-author of *The Twin Cities Explored*. Gemma Rossini Cullen is a free-lance artist and a teacher of art appreciation. Robert Halladay is creative director for the sales promotion division, the Dayton Company. Heidi Schwabacher has taught art at the University of Minnesota and elsewhere in the Twin Cities. Robert N. Taylor is the design and production manager of the University of Minnesota Press.



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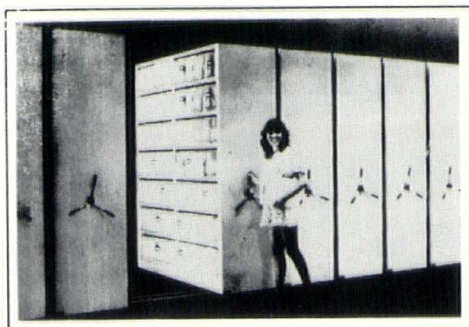
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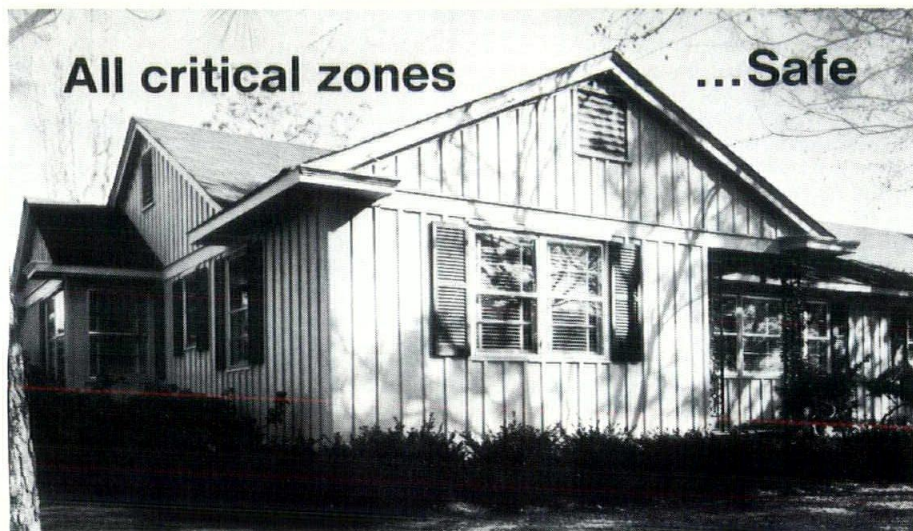
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METROPOLITAN GROWTH

The Metropolitan Area's population increased by only two-tenths of one per cent since April 1, 1974, according to recent Council population estimates. That's the smallest increase since at least 1960, when the Metropolitan Planning Commission started to keep track of the area's population.

The estimates indicate that the region's 1975 population is 2,031,361, an increase of only 4,590 from last year's figure of 2,026,771. Last year's population total reflected an increase of 1.1 per cent from the previous year.

The reasons for the slow growth are declining birth rates and migration out of the Metropolitan Area. The number of births per 1,000 females ages 15-44 in 1970 was 81.7. In 1974 it was 64.8. Net outmigration between 1974 and 1975 was 8,500.

As last year, the estimates show that not only the central cities but also the area's older suburbs are losing population. Saint Paul's population has dropped by 3,960 since last year, for a total of 300,691. Minneapolis' decreased by 7,498, for a total of 416,864.

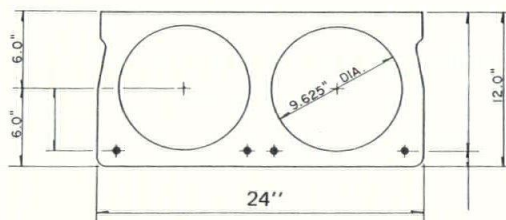
In Hennepin County, population declined in Bloomington, Brooklyn Center, Crystal, Golden Valley, New Hope, Osseo, Richfield, Robbinsdale, Saint Louis Park, and approximately a dozen other communities. Ramsey County fared slightly better, with only three communities — excluding Saint Paul — reporting losses.

The fastest growing county was Dakota, with an increase of 4,541, or 2.6 per cent. Anoka, Carver, Scott, and Washington made modest gains, with increases of 1,816; 529; 1,101;

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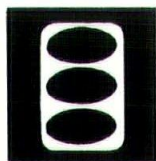
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and 2,243, respectively. Both Hennepin and Ramsey counties lost population — 4,423 and 1,217, respectively.

County total population estimates stack up this way:

Anoka — 185,879

Carver — 34,784

Dakota — 179,701

Hennepin — 992,588

Ramsey — 495,471

Scott — 39,853

Washington — 103,085

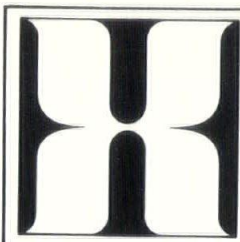
Metro Total — 2,031,361

The estimates are based on a number of factors. These include changes in occupied units, resident birth and death data, school enrollment, Census figures, and departures of young adults from parents' homes.

The Council estimates will be used to calculate tax levy limitations for individual communities and to compute the formula for redistribution of tax base under the fiscal disparities law.

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NEW COMMERCIAL WALLCOVERINGS SOON TO ARRIVE AT HIRSHFIELD'S CONTRACT SALES SHOWROOM.

Hirshfield's 30,000 wallcovering patterns will soon be enhanced by the addition of several new commercial coverings. These new collections will be on display at Hirshfield's booth (#9) at the A.I.A. convention from September 8-10 at the Radisson South Hotel...from tedlar-coated textures and Scandinavian fabric wallcoverings...to nine new designs from Environmental Graphics.

Samples and details are also available by calling Hirshfield's Contract Sales Showroom, 370-2626.

Don Katchmark, Hirshfield's Contract Sales Manager, relates that "Hirshfield's suppliers are very flexible regarding the color and weight requirements of our customers' jobs. We feel confident that we can meet the individual demands of each job given to us."

TEXTURED "WINNERS" FROM S. R. WOOD

"Native Dancer," "Citation," "Man O'War," "Secretariat," and "Foolish Pleasure" will soon be running neck-and-neck with other textures in the wallcoverings market.

What may sound like Kentucky Derby winners actually represent 26 vibrantly-colored, light-stucco textures in the new "Churchill" collection from S. R. Wood of Louisville.

S. R. Wood has selected sure-winners in the color market, like "Chateaugay" (a bold slash of bright green)... "Gallant Fox" (rich chocolate brown)... and "Bold Ruler" (a strong shot of tangerine)... to name a few.

All 26 "starters" in the "Churchill" collection are available from Hirshfield's in Type 1 and 2 weights. S. R. Wood has not yet named its new line of heavier textures, which will be manufactured in two weights of Type 2.



Hirshfield's Contract Sales staff is ready to serve you. From left to right are Phil Shablo, Don Katchmark, Contract Sales Manager, John Larson, General Manager of Wallcoverings, Frank Hirshfield, President of Hirshfield's, and Mary Ramthun. Not pictured: Bob Katchmark.

NATURAL FIBERS FROM SIDLAW

John Larson, Hirshfield's General Manager of Wallcoverings, claims that "The trend in the wallcoverings industry seems to be toward the natural — natural fibers, natural colors, and simple design."

A newcomer to the U.S. coverings industry, Sidlaw of Scotland, announces a smashing new line of "naturals" — natural woven fibers laminated onto a paper backing. Irish linens, jutes, and cottons in neutral and earthy tones have been combined into 43 different patterns. All are 28" wide.

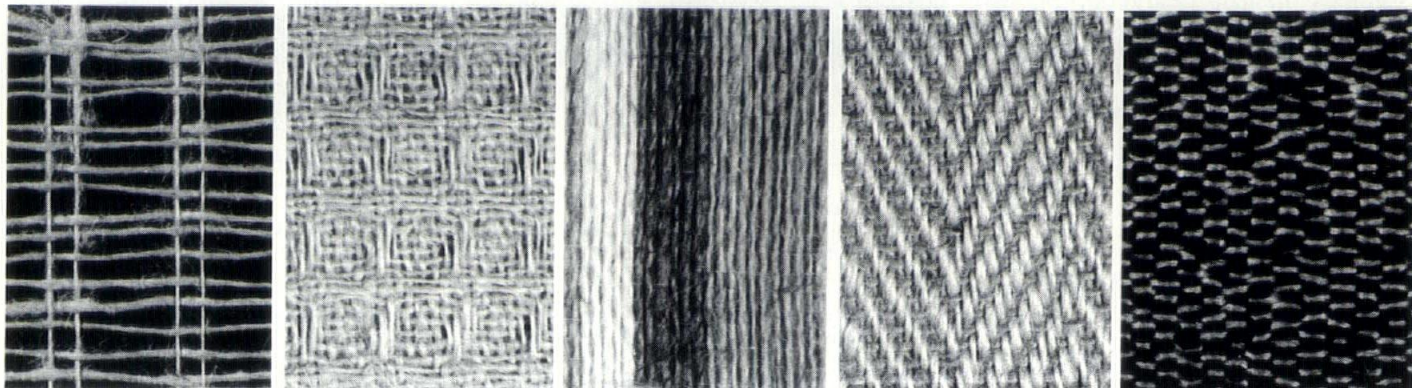
The wallcoverings are surprisingly competitively priced in today's market.

JOSEPHSON'S VINYL WEAVE III COLLECTION

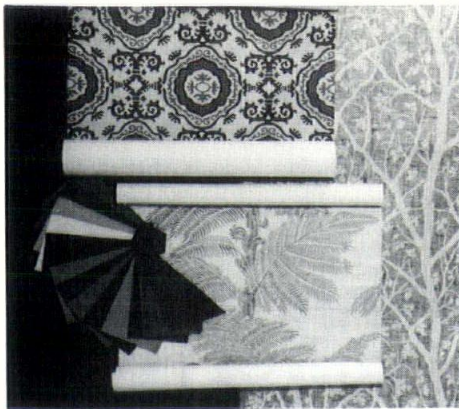
Josephson has redesigned the colors and presentation of its vinyl collection. "Vinyl Weave III" is a must for architects and designers specifying light-weight textures.

One thing that isn't light weight: the breadth of designs and colors in the collection. 231 in all. From pony suede, rawhide, and geometrics...to mylars, stripes, and solid textures. The entire line is competitively priced.

All patterns are in-stock at Hirshfield's (28" widths; 56" widths may be special ordered), with the exception of "Cled," a solid flock suede made in France, which may be special ordered.



Just five of the 43 new natural woven fiber wallcoverings from Sidlaw of Scotland. From left: 123-A, 346-D, 352-F, 100-F, and 144-H.



The three striking patterns are new Scandinavian burlap wallcoverings from Faltex. At right is "Windsong;" below, "Hawaii;" above, "Arcadia." S. R. Wood's "Persian Wool" is the dark background at left. The fan represents a sampling of the 26 different colors in S. R. Wood's new "Churchill" textures collection.

SCANDINAVIAN FABRIC WALLCOVERINGS

A handsome line of fabric wallcoverings has recently been introduced by a Scandinavian manufacturer, Faltex. Their "Creative Fabric Designs" book features a multitude of silk-screened designs over burlap. "Scandinavian Fabric Wallcoverings" is Faltex's line of companion backgrounds.

Not only are all patterns available in a complete color range, but designs can be ordered custom-colored from Hirshfield's with a minimum of 10 rolls per design.

These burlaps from Faltex boast an excellent fire rating. Most backgrounds will be stocked in Hirshfield's Distribution Center.

ENVIRONMENTAL GRAPHICS

Environmental Graphics from Pandora Productions, Wayzata, have been widely used by architects and designers in the Twin Cities, according to Don Katchmark. Nine new designs will be printed by Environmental Graphics on strippable, scrubbable paper and will be distributed by Hirshfield's in September or October.

"Bare Tree," pictured here, is a design of a leafless tree. (3 colors)

"Catalina Garden" is an oval applique color photo mural of sea life off Santa Catalina Island.

Leaves of green cascading down to a yellow clay-colored trellis describes "Vine Finery," in 2 colors.

"Aquarium" is a 12-panel full-color mural of an underwater cartoon.

Five photo murals from Environmental Graphics include "Earthrise," a color photo of the Earth appearing over the moon's horizon; "Lake Placid," a peaceful lake scene; "Hawaiian Sunset;" "Western Autumn," fall colors in the Cascade Mountains; and "Redwood Forest."

STAUFFER'S TEDLAR-COATED TEXTURES AND "CHAMOIS"

Stauffer Chemicals introduces their new "Tamaron" textures, in both regular and Tedlar-coated sheets, which are in-stock and ready for immediate delivery from Stauffer's factory.

"Tamaron," which is a heavy stipple texture, comes in 25 colors, each selected for its popularity in the commercial market. The Tedlar-coated coverings — commonly used in hospitals, elevators and high-traffic areas — are manufactured in Type 2 weights.

Another plus with Stauffer's "Tamaron" is there is no minimum yardage requirement in standard Tedlars.

Stauffer has also released a new Type 2 "Chamois" vinyl texture in 54" widths. This leather-look covering is very competitively priced.

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A SERVICE-ORIENTED CONTRACT STAFF

Don Katchmark says "Most metropolitan architects and designers are aware of the products available from Hirshfield's. Many

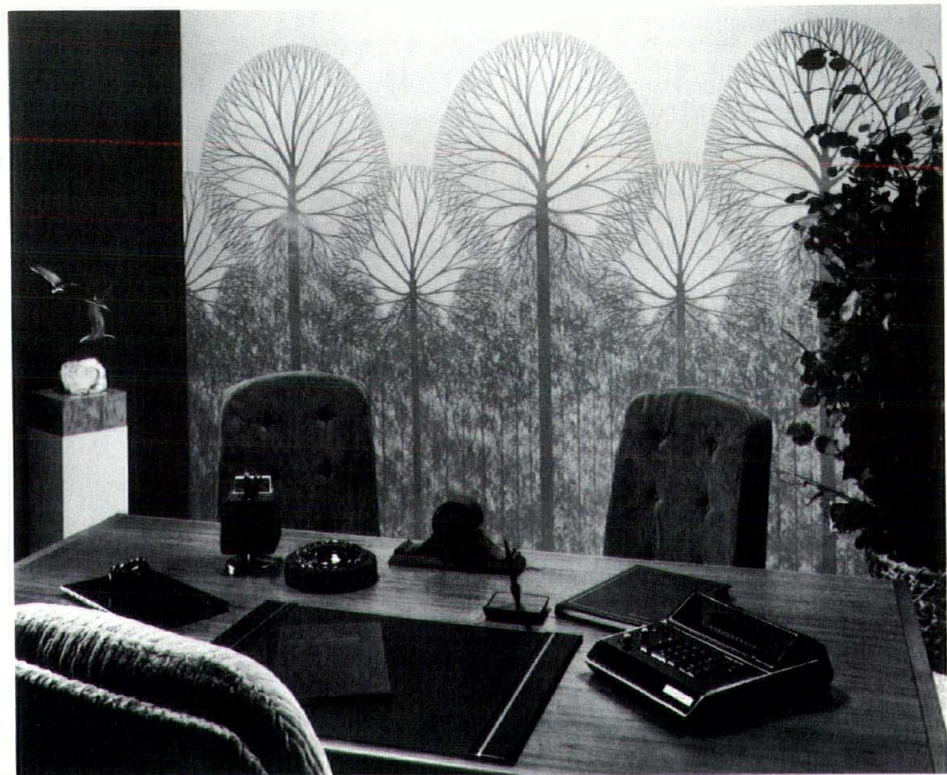
may not realize, however, the free services provided by our Contract Sales Department."

Time is a critical factor for architects and designers, adds Katchmark, and "We can save you considerable legwork and hours if you take advantage of our services." To name a few of these services:

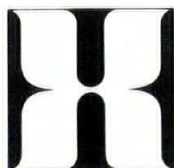
- Free assistance with *color and design* in coordinating wallcoverings with fabric, carpeting, etc.
- Preparation of *layout boards* for client presentations
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- *Professional paint consultants* to answer questions on types of paint, application, painting problems, color and design
- A beautiful new *Contract Sales Showroom* at the downtown Minneapolis location for you to use as your own.

Dozens of commercial wallcoverings decorate the walls and ceilings of the Showroom, which opened in late 1975. Architects and designers can sit at comfortable couches and plan projects, discuss decorating options with customers, or work with Hirshfield's Contract Sales staff.

"The Showroom, and our staff, are at your disposal," says Katchmark.



"Bare Tree," one of nine new Environmental Graphics produced by Pandora Productions and distributed by Hirshfield's.



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BICENTENNIAL AWARD

The Metropolitan Council is one of seven Minnesota recipients of a bicentennial award offered for examples of innovative community problem solving.

The Council was cited by the Department of Housing and Urban Development and the National Bicentennial Administration for its work on the Development Framework. In particular, the Council's citizen participation efforts in putting the plan together were cited as a model for other urban areas.

Other Minnesota award winners were the Countryside Council in Marshall, The Metropolitan Transit Commission, Cedar-Riverside, the Nicollet Mall, the Model Cities Communication Center, and the Ouroboros Experimental Project.

The Council has a brochure that describes each award-winning project. Copies are free from the Public Information Office of the Metropolitan Council, 300 Metro Square Building, Saint Paul, Mn. 55101. ☐

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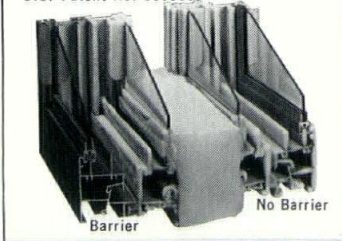


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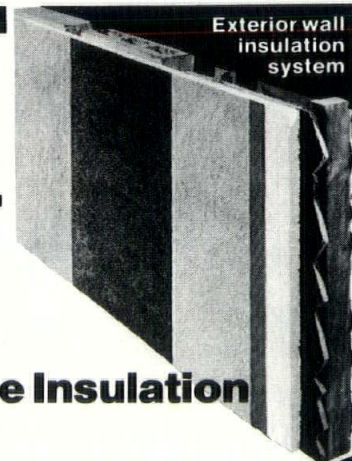


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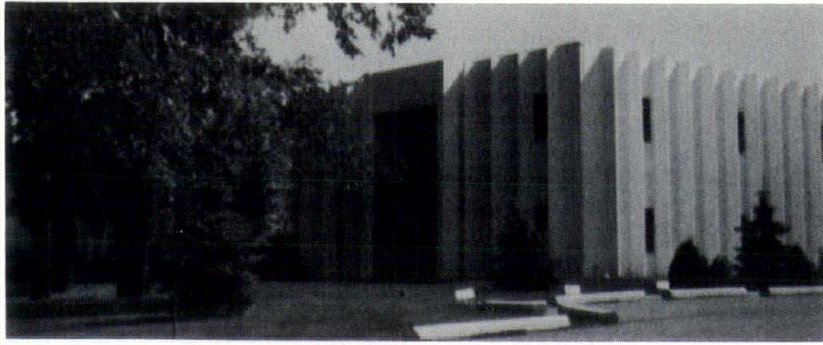
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MAX ERNST

Maeva Lillquist

Max Ernst, a painter, a sculptor, an artist of phenomenal consequence to all artists of this century, died April 1 in his Paris apartment. His ideas, his imagination and his art were fundamental elements in establishing the climate of 20th century art.

Like all artists, Max Ernst was subjected to the cultural and political forces of his time. Born in Germany April 2, 1891, he was an onlooker to the development of the communist doctrine, the rages of World War I, the teachings of Sigmund Freud and the writings of Dostoevsky. It follows that he, with fellow artists Marcel Duchamp, Piet Mondrian, LeCorbusier, Van Doesberg and Walter Gropius would initiate a complete break with all previous pictorial and architectural tradition.

Max Ernst is responsible to a great extent for the emancipation of total creative expression by the artist. He is firstly associated with the Dada movement — a philosophy concerned with allowing creativity to surface in maximum proportions. The Dadaist artisans called for, among other things, free daily meals for all creative people; the establishment of a Dadaist advisory council for the remodeling of every city of over 50,000 inhabitants; and immediate erection of state art centers.

His work is not shy or timid. The paintings and sculptures of Max Ernst are reflective of an artist who applies everything that exists within his inner self to his art form. His work delights in intense spontaneity and great outbursts of imagination. Such works as "Young Woman in the Form of a Flower on a Tortoise", "Lunar Asparagus", a sculpture five feet in height, and "The Woman with 100 Heads and Three Toes" are indicative of an imagination that extends itself to perimeters of almost frightening inventiveness.

His notion that all unconscious thought could be directly transposed to medium became the primary concern of the surrealist artists. It is the art of Max Ernst that is prerequisite to the art of Salvador Dali, Jean DuBuffet, Paul Klee and Alexander Calder.

Max Ernst lived in the United

States for 17 years. In 1941, after learning he was on the black list of Nazi Germany, he fled to New York City. Peggy Guggenheim, his third wife, initiated his interest in American Indian art, and prompted him to move to Arizona to study Indian art. He lived in Arizona with his fourth wife, Dorothea Tanning, an American artist, until they returned to Paris in 1958. His most recent works, many of them selling in the quarter million dollar market are greatly reminiscent of primitive Indian forms and shapes.

Max Ernst was a great artist — not because he leaves a portfolio of art works numbering in the thousands or because he had forty-five major exhibitions in his lifetime, but because he was of fundamental importance in establishing major attitudes and directions in 20th century art. It is his attitude of spontaneous creativity and his departure from the imitative and ornamental art ideas that are inherent to the products of art today. □

This was told to me by a clock maker holding in his hand a supple syringe which in characteristic memory of the hot countries insinuates that ladies and gentlemen should come in and buy and do not read — you will see the man who holds in his hands the keys of Niagara and the man who limps in a blimp with the hemisphere in a suitcase and his nose shut up in a Japanese lantern.

(Tristan Tzara)

Journalist of the Dada Movement

Maeva Lillquist, a graduate of the University of Minnesota in Studio Arts and Design, is an instructor of Art and Environment for the Minneapolis Public Schools — Continuing Education Programs. She has been a member of the design team of Team 70 Architects, Saint Paul, since 1974.

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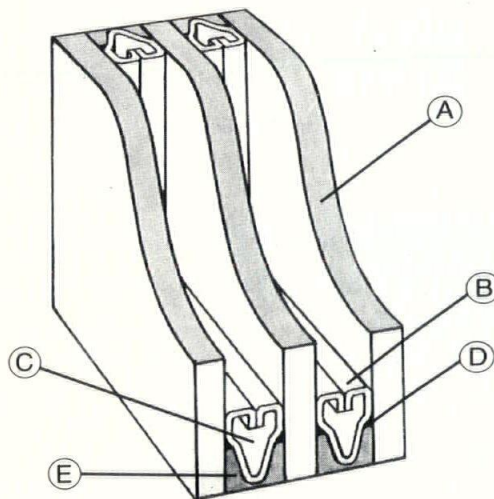
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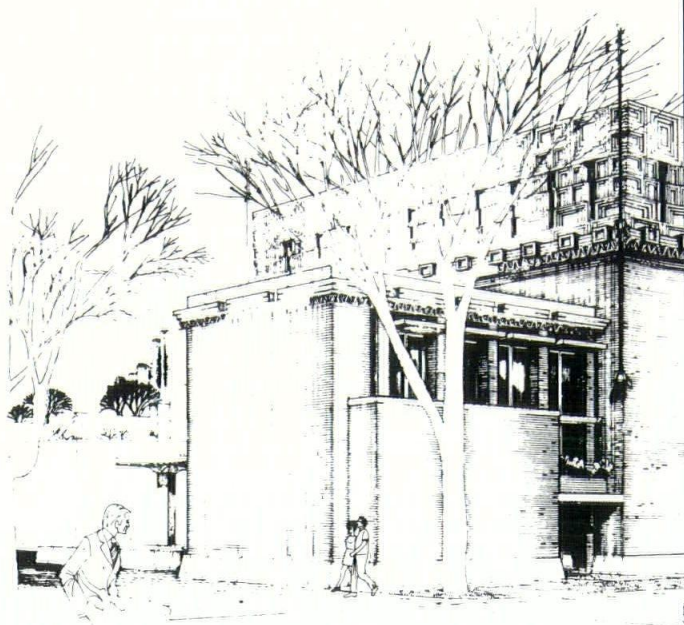
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FRANK LLOYD WRIGHT'S GERMAN WAREHOUSE

Carole Zellie

In 1915, Frank Lloyd Wright designed a four-story warehouse in his home town of Richland Center, Wisconsin for A.D. German. In the future, the warehouse will serve the area as a museum and center for local human and natural history, arts, crafts, and architecture.

Now the Richland Museum, the former warehouse located at 300 South Church Street is being sensitively adapted to provide space for a small theatre, a variety of informational programs, a museum shop, and permanent and changing exhibits. Support has come from individuals, businesses, and local organizations.

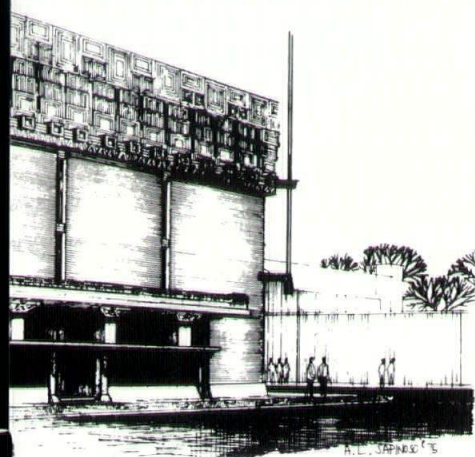
Architect and owner Robert Blust and Director David Kopitzke plan a summer 1976 opening. The A.D. German Warehouse was entered on the National Register of Historic Places in 1974.

Of brick-faced, reinforced concrete,

the building was a good solution for a small warehouse at the time. The fourth floor was originally refrigerated for perishable goods. In addition to calling attention to the various spaces and textures of the interior, and the exposed structural and functional elements such as concrete pillars and interior chutes, the renovation enhances the adjoining music studio Wright included for A.D. German's sister, a voice teacher.

At the south side of the warehouse, the studio's large windows create a bright, light-filled space which contrasts with the controlled light of the low-ceilinged warehouse, where light enters through narrow, vertical slit windows.

The building's solid cubic mass and the geometric design of the concrete frieze which circles the fourth floor level are rather startling elements when compared with the late nineteenth century Victorian motifs of the commercial blocks around the corner, along Richland Center's Main Street. The warehouse is of the same period as Wright's Midway Gardens in Chicago (1914) and the Imperial Hotel in Tokyo (1915), and the overall massing and ornamental details are



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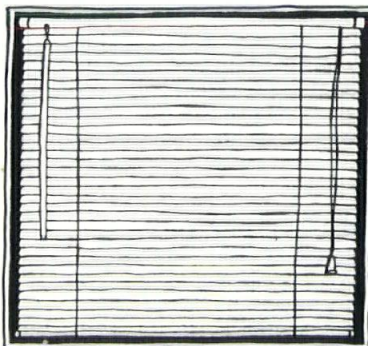


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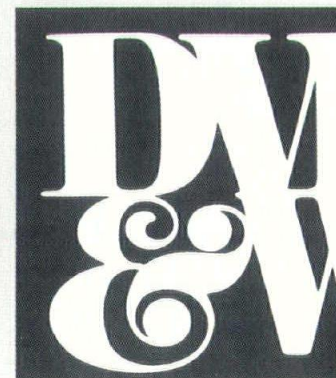
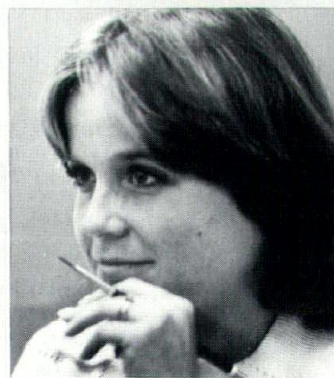
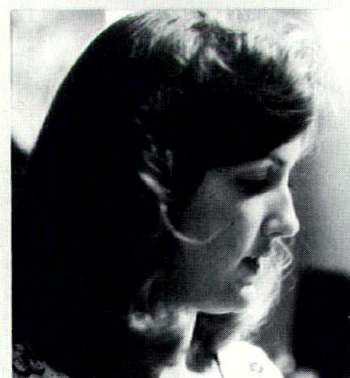
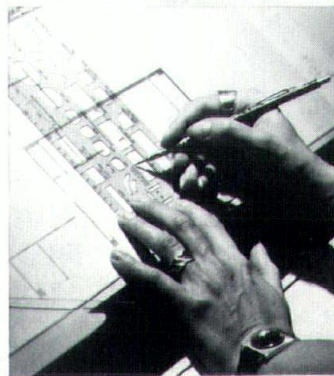
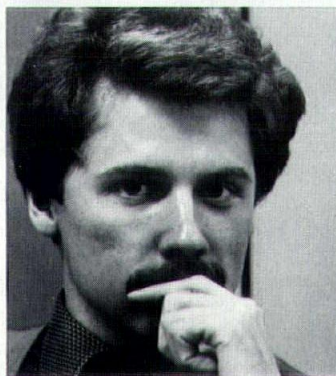
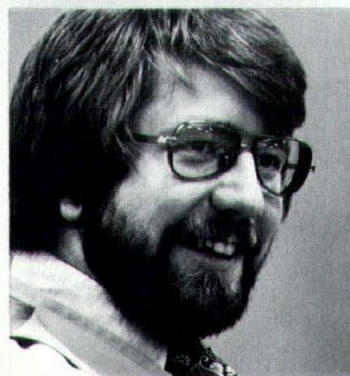
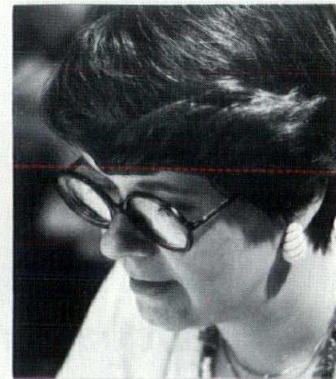
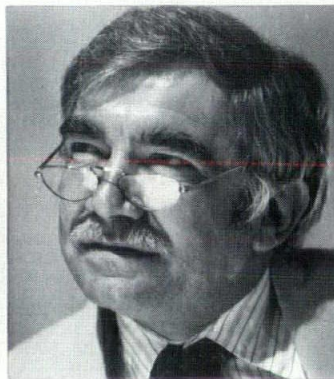
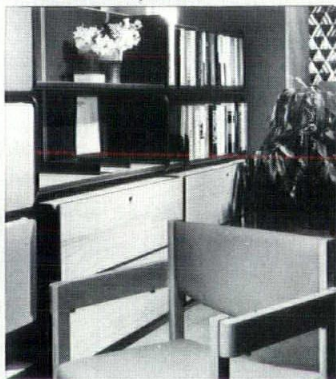
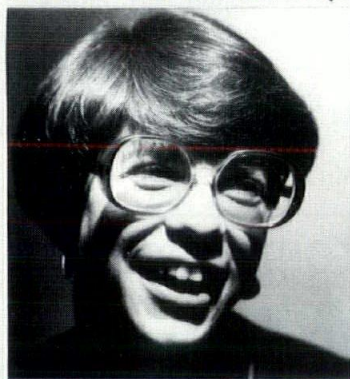
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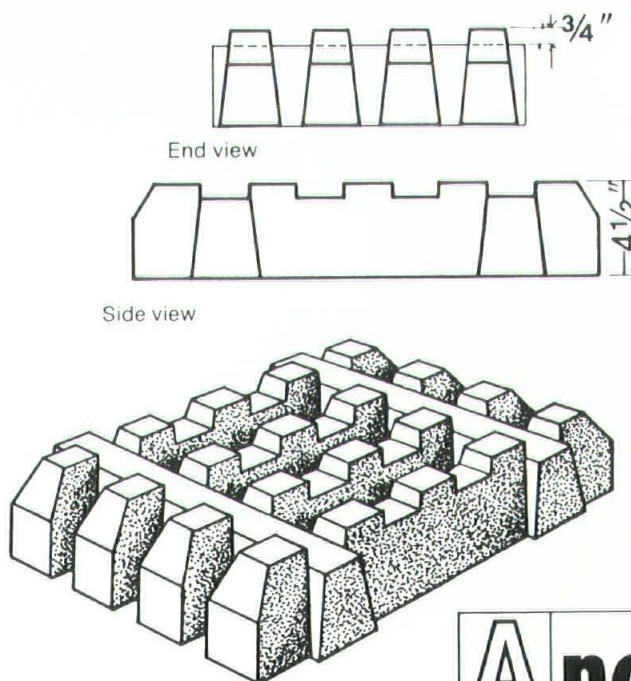
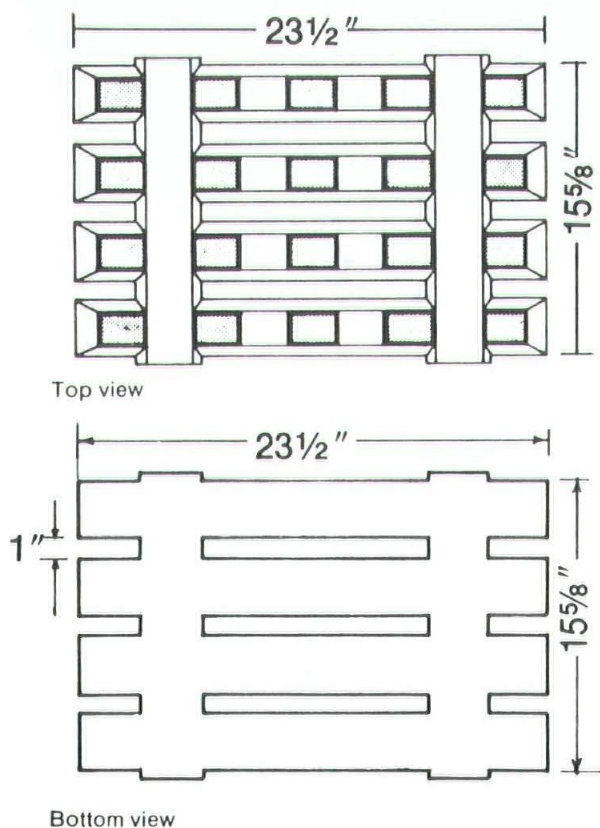
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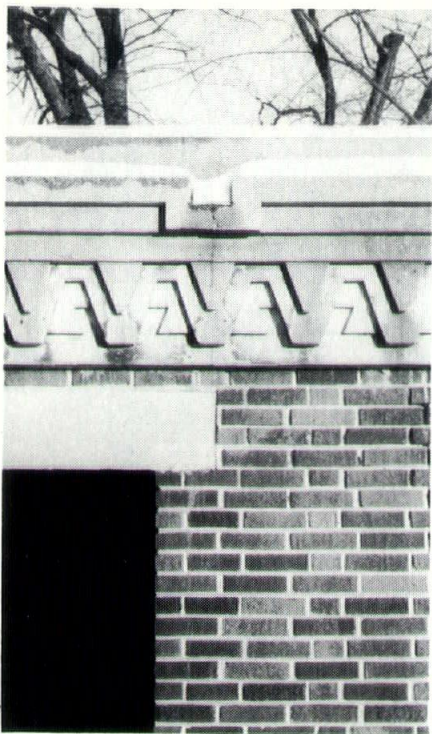


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MEASUREMENTS	METRIC nominal	USA/CAN actual	USA/CAN nominal	use nominal values for computations
length	600 mm	23½"	24 in — 2 ft	± ¼ inch
width	400 mm	15⅝"	16 in — 1⅓ ft.	± ¼ inch
thickness	120 mm	4⅞"	4½ in — ¾ ft	± ¼ inch
area, gross	0.250 sq M	370 sq in	2⅔ sq ft	3 grids = 8 sq ft
area, upper surface	0.060 sq M	95 sq in	⅔ sq ft	25% of gross area
area, base surface	0.21 sq M	326 sq in	2⅓ sq ft	85% of gross area
weight/grid	42 kg	82 lb ± 3 lb	82 lb	depends on water absorption
weight/pallet; gross	1800 kg	3960 lb	2 tons	1.8 metric tons
				2.0 USA/Can tons
grids/ton	24/1000 kg	22/2000 lb	22/2000 lb	1000 kg = metric ton
				2000 lb = USA/Can ton
grids/pallet, 2 ton	42	42	42	6 grids/layer
				7 layers/pallet
grids/area unit	4/sq M	.375/sq ft	¾ sq ft	10 acres = 4 hectares =
				40,000 sq M = 60,000 grids
grids/area measure	4000/hectare	16,333/acre	16,000/acre	27 grids = 8 sq yd
grids/linear measure	1666/km	2640/mile	2600/mile	laid lengthwise, 24"
	2500/km	3960/mile	4000/mile	laid crosswise, 16"
strength, compression	280 kg/sq cm	4000 psi	4000 psi	per ASTM C140-70
breaking load, transverse	—	—	—	see specification and
				test procedure sheets
absorption, water	.208 gm/cc	13#/cu ft	13#/cu ft	per ASTM C140-70





representative of the architect's use of Mayan temple forms. The flagpole standards which extend from the corners of the building at the third floor level are of interest in this context.

Richland Center is a community of five thousand in rural southwestern Wisconsin, an area distinctive for natural as well as architectural and settlement history. Exhibits will present the flora, fauna, and geological development of this driftless, or unglaciated region, as well as the architecture of Frank Lloyd Wright. Plans for the fourth floor include space for art activities and classes, and a roof garden may soon provide visitors with views of the surrounding Richland County landscape. □

Carole Zellie, an architectural historian, is currently preparing a study of Wisconsin's coastal communities for the Department of Landscape Architecture at the University of Wisconsin-Madison.

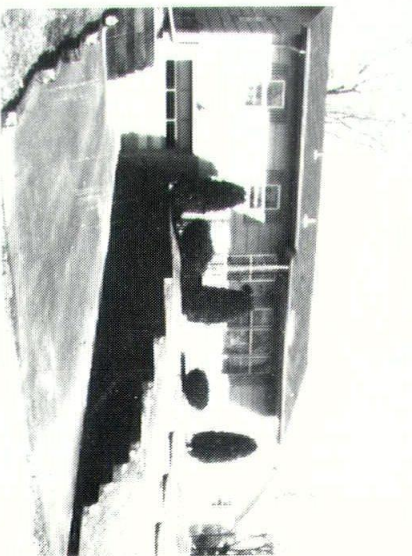
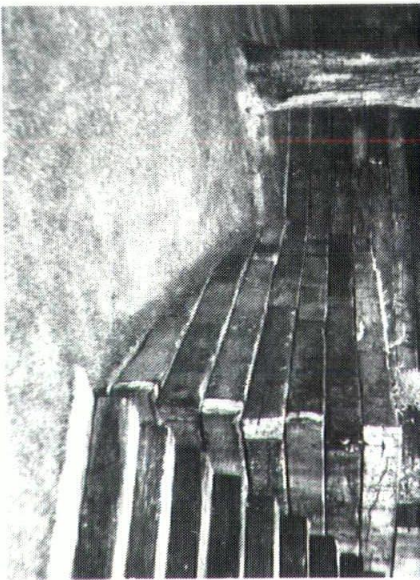
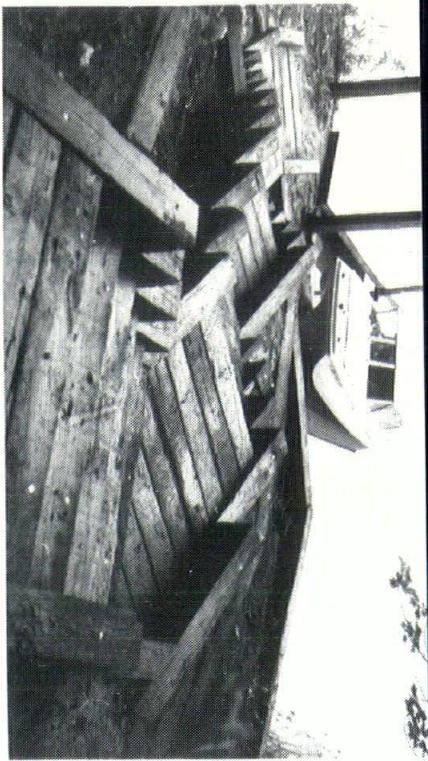
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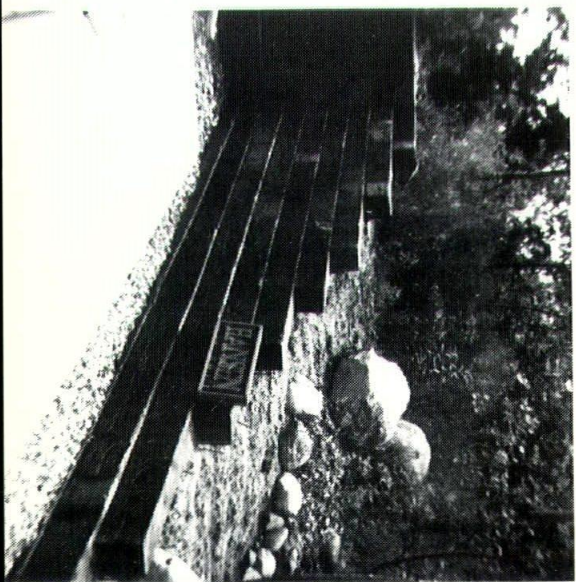
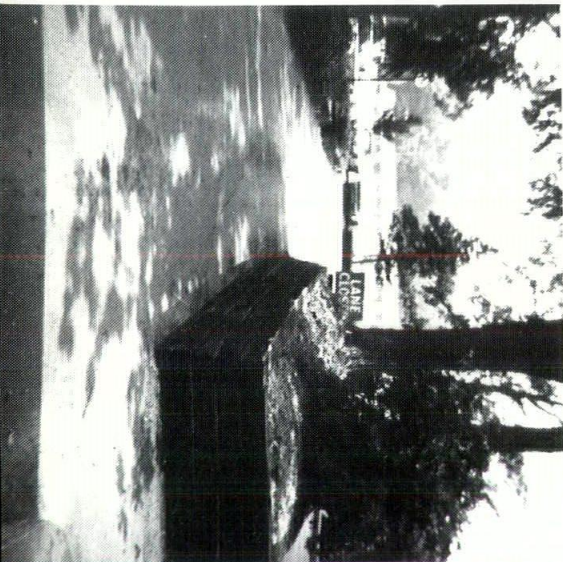
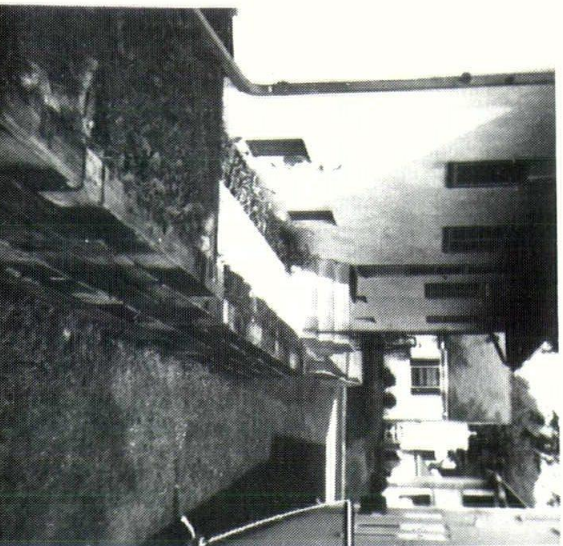
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BOOK REVIEWS

Water and Landscape by R. Burton Litton, Jr. et al. Port Washington, N.Y., Water Information Center, 1974.

This is a book, done under contract to the National Water Commission, about the use of water in the landscape. There are some attractive black-and-white photographs, many excellent sketches, and, towards the end of the study, some good concrete suggestions.

The whole report suffers from verbosity and overblown professional jargon. It offers "an attempt to develop a visual classification system... providing categories in which water, land forms, and vegetation are seen as strongly interrelated and to suggest how appropriate design and development of man-made elements may be judged for aesthetic measurement in the linkage with water."

Also, it seems that the above list must be correlated with "the general components of aesthetic experience, the complex response of the observer... such variables as the observer's 'state of mind,' e.g. his current perceptual set, his past experiences, future expectations, and his environmental life style." The possible mathematical combinations of all these "components" surely would approach infinity.

Countless hours of hard work must have gone into charts, classifications, categories, components, correlations, etc. to try to pin down and systematize aesthetics!!

If you are a landscape architect or even just an ordinary nature lover, beware! Your mind may be reduced to the state of the proverbial centipede, who, when asked how he managed his legs, "lay distracted in the ditch, considering how to run."

If you are a taxpayer, read it and weep, or don't read it, according to your own "perceptual set." □

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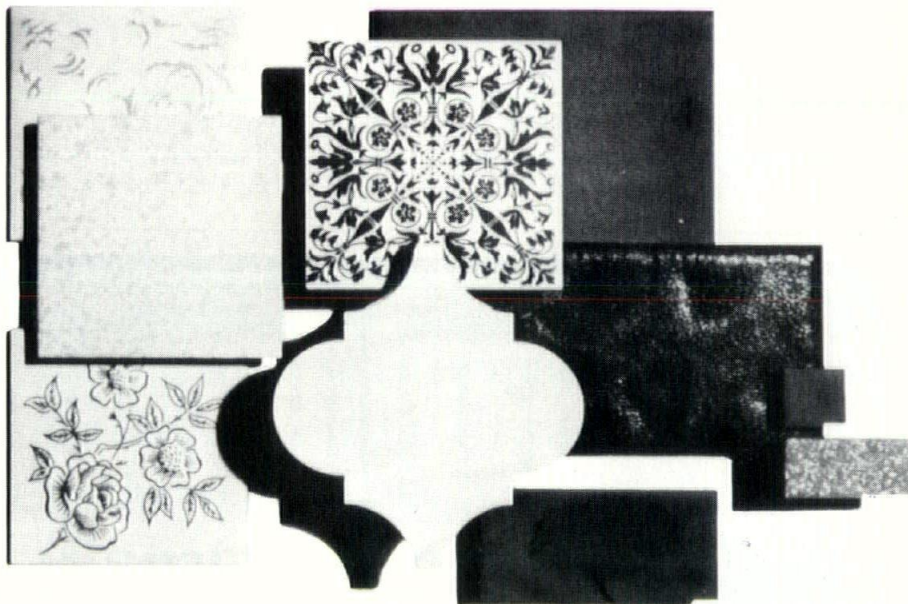
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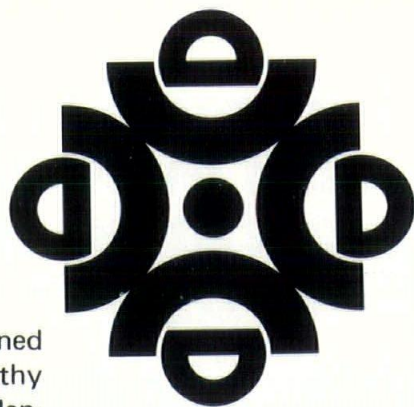
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The English Sunrise by Brian Rice and Tony Evans. 1973. A Flash Book, distributed by Quick Fox, Inc., 33 West 60th Street, New York, N.Y. 10023.

This is a nifty and elegant little book — seventy-six excellent color photographs — no text — of familiar objects all decorated with a common motif — the rising sun with its rays, a favorite design, among the British, since pre-Stonehenge times.

Perhaps because the sun does not show itself frequently enough in the British Isles for the inhabitants to take it for granted, the cheerful, geometric design has figured prominently in everyday life, in items from Royal Doulton washbasins to the cobblestone pattern on the grave of Lloyd George, in styles from Georgian to 1960's Mod, with a heavy emphasis on Art Deco.

The book was created by Brian Rice, a painter and teacher at the Brighton College of Art and photographer Tony Evans and costs only \$2.95. The quality of the color printing is superb.

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"The past belongs not to the limited number of professional historians, teachers, architectural historians, but to anyone who is aware of it — and it grows, lives, by being shared," suggests Gordon Gray, chairman of the National Trust Board of Trustees from 1963-73, in *The History of the National Trust for Historic Preservation, 1963-1973* (320 pages, 100 color and b&w illus., 22 appendixes, index, \$11 hardcover), a new book from the Preservation Press of the National Trust.

In detailing the growth of the leading private American preservation organization, this Bicentennial project of the National Trust also encompasses the growth of the historic preservation movement it serves.

The history is divided into two parts. Part I, 1947-63, surveys early preservation efforts and legislation, the founding of the National Trust, early Trust programs and acquisitions of properties and the international studies and national efforts that resulted in passage of the National Historic Preservation Act of 1966.

Part II, 1963-73, focuses on the unprecedented growth of the Trust, the development of Trust programs and policies, federal preservation legislation and funding, major preservation battles and other milestones achieved and tools developed as preservation and the Trust came of age.

Informative reading for preservationists and environmentalists as well as a valuable reference for documentation of the history of the National Trust, the book is a sequel to the 1947-63 history of the Trust formative years written by David E. Finley, chairman of the Board of Trustees from 1950-62. Twenty-two appendixes detail the growth of the Trust: its policies, people, legislation, funding, organization and programs.

The book is available from the Minnesota Society of Architects' Book Center, 100 Northwestern National Bank Building, Saint Paul, Mn. 55101.□

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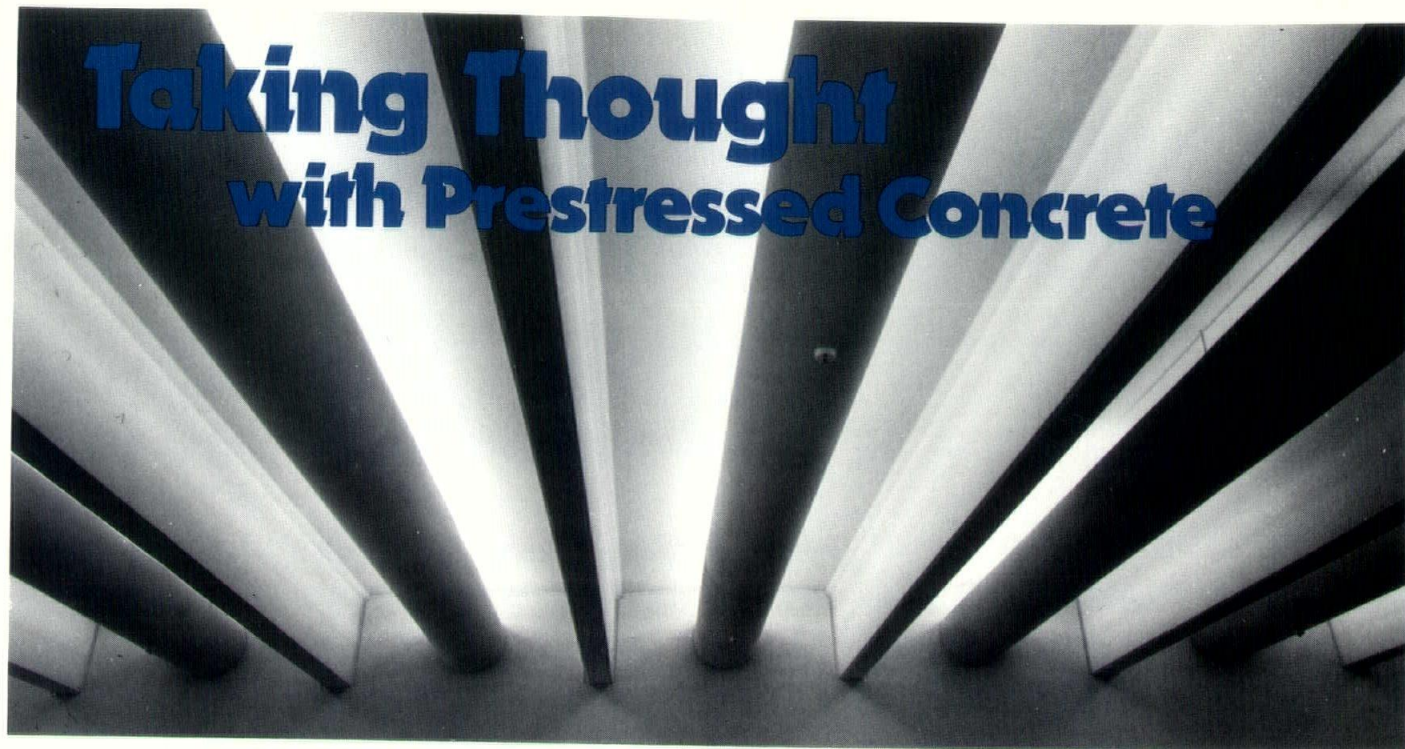
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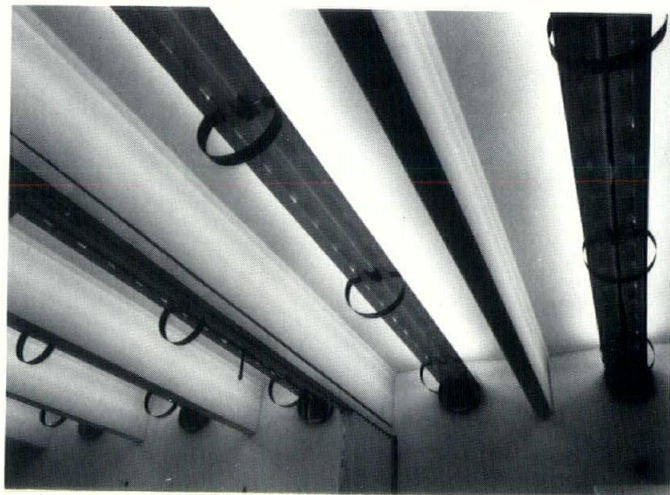
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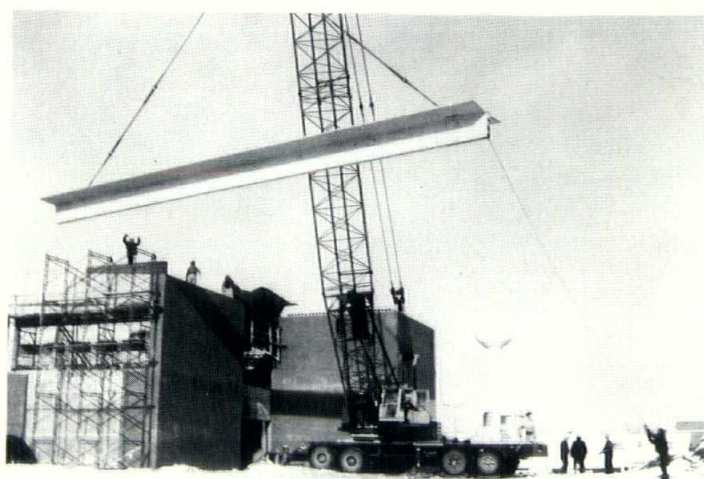
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First Southdale National Bank's new facilities are a source of convenience and pride for years to come. Prestressed Concrete, Inc.'s design and building contribution to this unique structure was significant. Broad planning flexibility was provided "without re-inventing the wheel" through proven standardized procedures and assembly methods.

A total of 266 giant "T's" and Dy-Core floor plank were utilized for a total area of 44,088 square feet. All were factory precast before shipment to the job site. This resulted in faster, more economical fabrication and project completion than conventional "on-site" construction.

PROJECT: First Southdale National Bank Edina, Minn.
ARCHITECT: The Architectural Alliance, Minneapolis, Minn.
STRUCTURAL ENGINEER: Bakke & Kopp, Minneapolis, Minn.
GENERAL CONTRACTOR: Knutson Construction Co., Minneapolis, Minn.
MECHANICAL/ELECTRICAL ENGINEER: Michaud, Cooley,
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