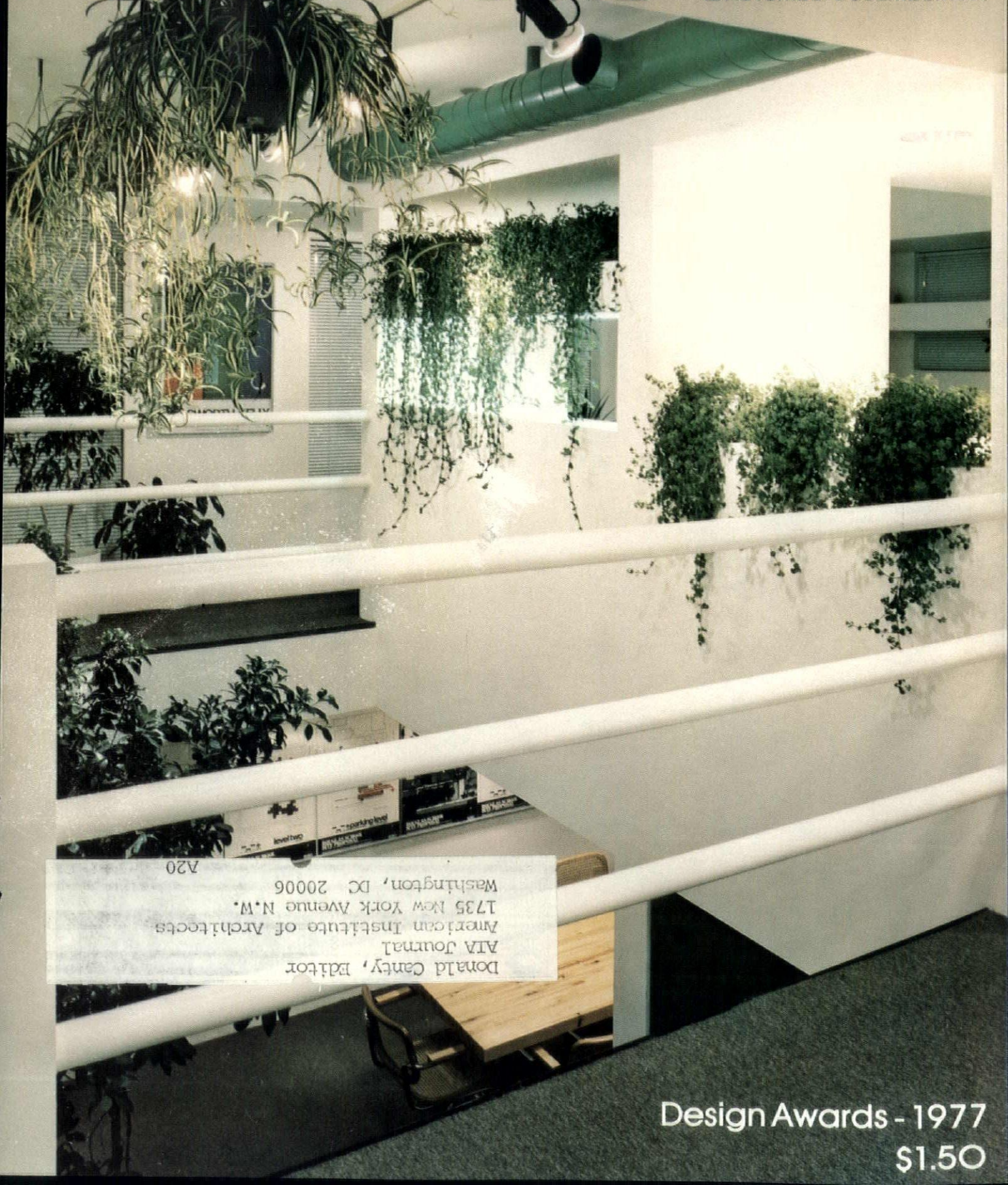


# ARCHITECTURE MINNESOTA

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November December 1977



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# ARCHITECTURE MINNESOTA

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Cover: The office of Zuber Architects Inc. and Design Consortium, Minneapolis. This award winning design is shown on page 25.

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# "Sure, cost is a big factor. But there are more reasons than that for using ready mixed concrete in high rise buildings."



Charles McGough,  
President,  
McGough Construction,  
St. Paul,  
with Vern Jellum,  
job superintendent

"At McGough Construction, because of our experience, we're probably more interested in jobs involving monolithic concrete and masonry, or a combination of the two.

Poured concrete has a lot of advantages. Cost and time are always big factors nowadays. But, personally, I think one of the primary assets of the concrete building is its fire-resistance.

If I were occupying a building, or even constructing one for someone else, I would feel much better knowing it's basically a fireproof structure.

Another one of the unique features of concrete is its appearance. Many people look at concrete and expect it to look like plaster. But Marcel Breuer, one of the outstanding architects in the world, has the idea that concrete should look like concrete. He wants the form marks to show, the knot holes, and everything. That's the coming thing.

Once the architect decides on concrete, the next step is choosing the kind that will be most effective. When we built Booth Manor, a residence for the Salvation Army, a post-tensioned system was used in the floor slabs. This eliminated drop beams, which are costly to form, and enabled us to use a highly economical flying form system.

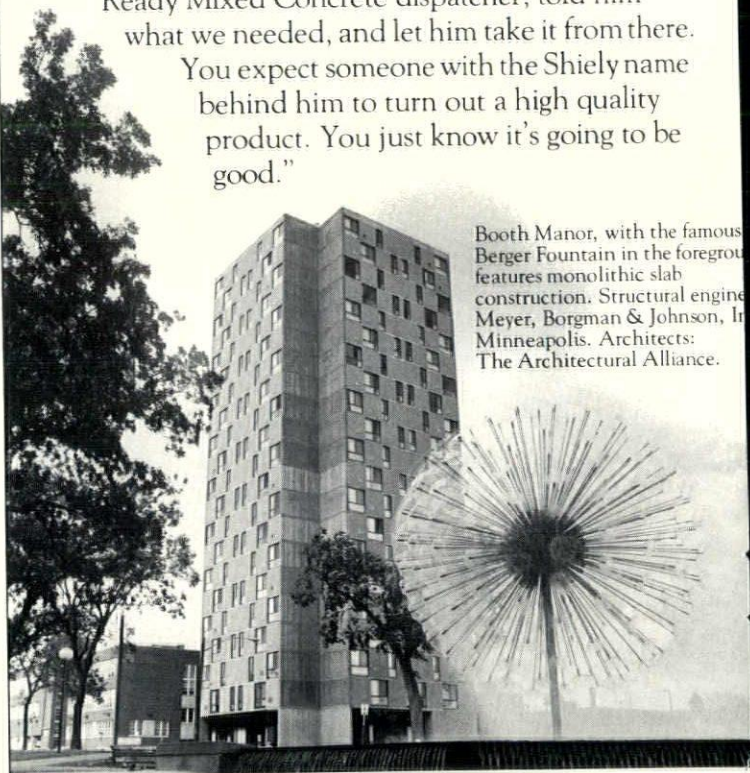
Only 5,500 cubic yards of concrete were used for the 21-story structure. The early strength of our concrete mix, combined with post-tensioning, allowed thinner slabs, without the dead weight of thicker, non-reinforced slabs. Average time from pouring to post-tensioning was about three days. And

since we lost very little time on account of rain, we were able to pour 21 supported slabs in 84 working days. That's really something.

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Booth Manor, with the famous Berger Fountain in the foreground, features monolithic slab construction. Structural engineer Meyer, Borgman & Johnson, Inc., Minneapolis. Architects: The Architectural Alliance.



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## DESIGN WORK OF ART? WORKING OBJECT?

Under this title, the American Institute of Architects recently held a national design conference in Washington D.C. "with the hope of furthering understanding of the changing interpretations of design . . ."

The principles of modern architecture, the adequacy of current design trends have been questioned by architecture critics and others from without and within the profession for some time now.

The conference was moderated by George Nelson, the architect and industrial designer whose latest book *How to See* was reviewed in the last issue of *Architecture Minnesota*. The speakers, as they were purported to—indeed represented widely divergent areas of the profession. They included Joseph Esherick, a principal in the San Francisco based firm of Esherick, Homsey, Dodge, and Davis, and chairman of the architecture faculty at Berkeley; Robert Gutman, sociologist and professor of sociology at Rutgers University, professor of architecture and urban design at Princeton—and the author of a forthcoming study of the architectural profession; Norman Foster, principal of his own London-based firm of Foster Associates; Arata Isozaki, principal of Isozaki Atelier in Tokyo and former associate of Kenzo Tange; Philip Johnson, the architect, historian and savant; and William Marlin, architecture critic for the *Christian Science Monitor* and associate editor of *Architectural Record*.

Frank Lloyd Wright's flowing cape benignly sheltered the conference from heaven and Philip Johnson's urbane wit gave it an earthly spirit and animation. The earthly angel, however, was George Nelson who continuously negotiated and elevated to cosmic perspective narrow emotions of the conference.

The questions in the conference title "Work of Art?" "Working Object?" were best answered by British architect Norman Foster. In slides and text he displayed his recent projects which were astounding for their quality and simplicity, and spectacular for having been executed within the budget and legal restrictions he described. His work drew everyone's admiration, including Philip Johnson's who threatened to copy some of the best features right away. Foster also answered the questions because his work is definitely derivative of the modern movement, is technically very

sophisticated, and displays unique inventiveness and imagination. His imagination is of our time, his architecture is humanistic, very creative but also responsive to stringent external limitations. His work is indeed a **working object which is a work of art**. Modern architecture is no failure with the likes of Foster. It is strong, vigorous and still evolving.

Philip Johnson, to no one's surprise, was not lynched even though he did—with Henry Russell Hitchcock—co-author the book *The International Style* in 1932 which gave the modern movement its name. He was also the Modern Movement's greatest propagandist. His own glass house built in New Cannan, Connecticut, in 1949 has become one of the most celebrated landmarks of modern architecture. However, Philip Johnson was not there to defend himself, he was there to discuss design. This he did with wit, enthusiasm and fervor.

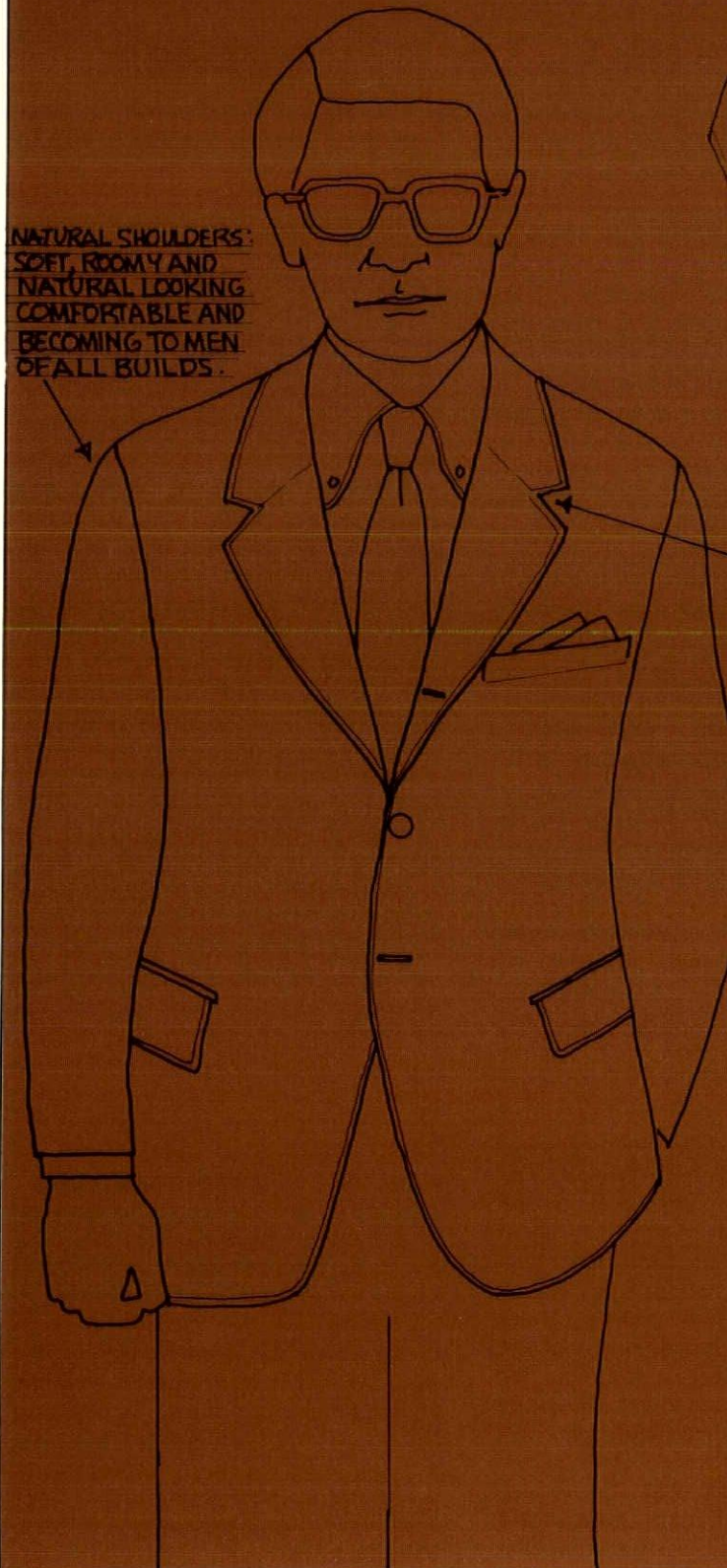
Philip Johnson believes in the **art** of architecture, in architecture as an act of creation. He is the first one, ironically, to state that the International Style belongs to history. Right now the **symbol** of a building is more needed, more meaningful. A clear direction is not available at the present. The broad picture is confused. There are, however, certain streams, e.g. the direct revivalists, the "minimum sculpture boys" (among whom he includes himself plus Pelli and Roche), the pop architects, the preservationists (which includes almost everybody), the hermetic architects (Eisenman, etc.), the descendants of LeCorbusier (Meier, Gwathmey, Siegal . . .). There exists, thus, a great pluralism in architecture which should be enjoyed by all. This pluralism is also present in society, in painting and in sculpture. As architects we have unprecedented freedom to work, to choose and to create. This is an exciting, exuberant, promising period. We stand on the threshold of the **art of architecture**, he stated.

The creative genius of Frank Lloyd Wright was often referred to. What the design conference needed was a Frank Lloyd Wright—storming in—secure in his vision and his design—never in doubt about style—for he created his own style. Short of such a miracle, Philip Johnson summed up best and Norman Foster exemplified best the exciting and stirring opportunities ahead. Modern architecture is not dead: it is energetic, strong and flourishing in its maturity.

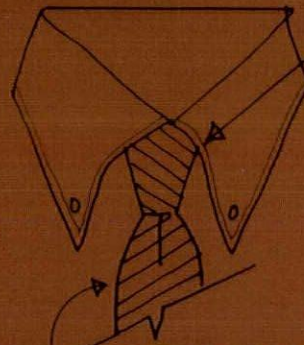
— Bernard Jacob



# Sims explains traditional clothing in terms any architect can understand.

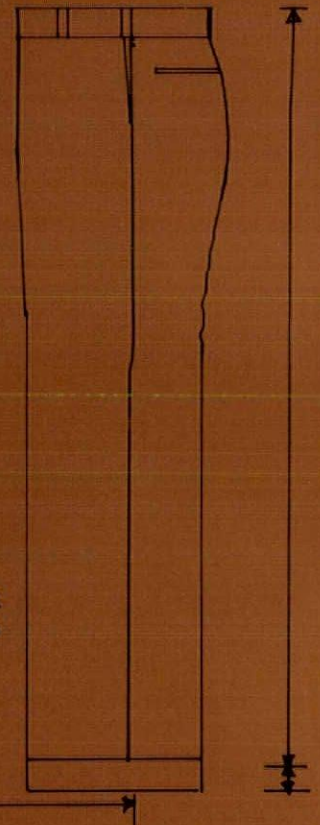


NATURAL SHOULDERS:  
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NATURAL LOOKING  
COMFORTABLE AND  
BECOMING TO MEN  
OF ALL BUILDS.



SHIRT: COTTON OXFORD CLOTH  
BUTTON DOWN COLLAR WITH  
A SLIGHT ROLL AT THE NECK.

TROUSERS: STRAIGHT LEG,  
OR SLIGHTLY TAPERED.



TIE: 4-IN-HAND KNOT  
3 3/4" OR LESS IN WIDTH  
IN A VARIETY OF  
ENGLISH PATTERNS  
AND FABRICS.

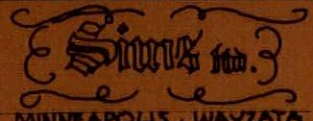
LAPEL: NARROWER,  
NOTCHED AND  
GENTLY ROLLING.

THREE BUTTON JACKET:  
FULLER EASIER FITTING  
FUNCTIONALLY DERIVED  
TO COMBINE COMFORT  
AND STYLE.

CONSTRUCTION: FEWER INNER  
LININGS, LESS EXCESS PADDING  
ALLOW GARMENT TO WEIGH  
LESS AND GIVE AND TAKE  
WITH BODY MOVEMENT.



SHOES: THICK LEATHER SOLES WITH REVERSE  
WELTING. LEATHER LINING, ORTHOPEDICALLY  
CORRECT, IN A VARIETY OF STYLES SUCH  
AS OXFORD, WING TIP OR BLUCHER.

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From the Executive Director,  
Minnesota Society American  
Institute of Architects

## HOW DO YOU EXPECT TO LEAD THE CAVALRY CHARGE IF YOU THINK YOU LOOK FUNNY SITTING ON A HORSE?

Asked to describe what distinguishes Minnesotans and Minnesota, a prominent national commentator chose two words. He said it's the "we can" attitude. "They can successfully conquer any hurdle they set their mind to."

Unquestionably, Minnesota has distinguished itself in many sectors, ranging from law and politics to medicine, electronics, agriculture and architecture. Therefore, it is extremely disconcerting to see a phenomenon reappear among Minnesota decision makers: that of selecting out-of-state architectural firms for prominent Minnesota projects.

Minnesota is nationally recognized as having a body of most distinguished and competent architectural professionals. Many leading Minnesota institutions have used their services to produce outstanding architecture. In addition, Minnesota professionals have distinguished themselves throughout the country and the world. Therefore, it is perplexing and downright discouraging to see not only private clients but even more questionably, key public bodies select out-of-state architects for significant Minnesota work.

An example of this is the recent selection of two out-of-state organizations for \$250,000 in professional fees to do the concept studies for the proposed new stadium. This was justified by the Sports Commission on grounds that local professionals were too close to the process and would likely be biased toward one of the three proposed sites. This allegation is poppycock. These Minnesota firms were highly qualified professionals. Yet, apparently, this is the season to be purer than Casar's wife and the public body chose to go out-of-state and free itself from political charges of favoritism. In doing so it said that this selection was for concept studies only and at the point the design and construction was to take place, Minnesota professionals would be reconsidered. However, it is very cozy and convenient to continue a professional relationship once it is developed. Therefore, it is paramount that the Stadium Authority carry through with integrity the commitments it made. Knowing the key people involved in the Stadium Commission, I feel confident that they will do so and that eventually Minnesota design and construction talent will be heavily involved with the new

stadium proposal, if it comes to pass.

Another case in point was the selection of Skidmore Owings and Merrill to be involved with the design work of the people mover in Saint Paul. This was also rather disappointing in view of the competency of the local profession. However, in fairness, the Metropolitan Transit Commission has used a great number of state professionals, and, hopefully, this practice will continue. By and large most public work has been done by Minnesota architectural firms, as it should.

The area of private work is another dilemma. A private developer understandably feels that he should be allowed to select his own consultants. One of the factors of marketability in new projects has become, in the eyes of some developers, the marketability of the architect, and in turn the architectural design. It is disconcerting and baffling to see major local financial institutions and corporations procuring their professional services from without when the expertise exists within.

These are the same institutions who believe that in their field the best talent is to be found in Minnesota.

### What Is The Solution?

Minnesota's leaders in commerce and industry who also weave the decision-making fabric of our civic and arts organizations need to give careful consideration to the competence, expertise and distinguished background of Minnesota's professionals.

Minnesota's architectural firms not only believe "we can," they have proved it. Simultaneously, Minnesota's architectural and engineering professionals need to assertively point out their capabilities. Yes, we are willing to do the biggest, the most complex projects, for that is where truly great architecture can be created. We are willing to lead innovation, and Minnesota's professionals look comfortable solving the most difficult problems, and also look comfortable sitting on a horse!

— Daniel J. Sheridan



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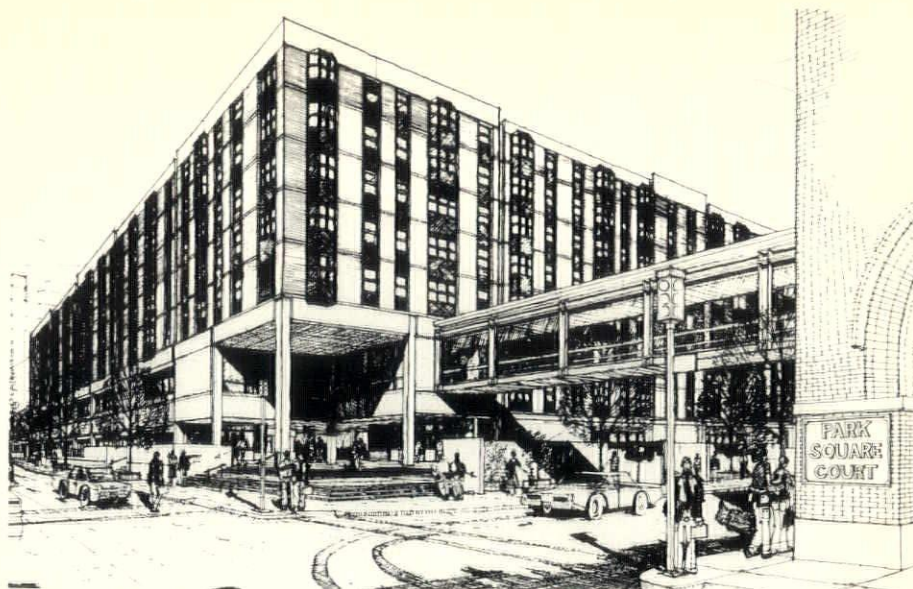
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Bergstedt, Wahlberg, Berquist and Rohkohl, Inc., Saint Paul, are the architects for the 255-unit **Mears Park apartments**, the first apartment building development undertaken in Saint Paul's Lowertown area. The eight-story, \$12 million project will also include two floors of commercial space and is located in the block bounded by Sibley, 6th, Jackson and 7th Streets. The apartment building will feature bay windows, a swimming pool, a sauna and an exercise room. The project will also include a landscaped public plaza with a 239-stall parking area on the lower level. The building, now under construction, will have a reddish brick exterior and its contemporary design will compliment Lowertown's older but architecturally significant turn-of-the-century buildings. The complex was proposed several years ago as the dream of the late Saint Paul industrialist Norman B. Mears.

**Ekberg and Associates**, Minneapolis, are the architects for a new \$2.4 million **Dakota Electric Association** building now under construction at Farmington. The pre-cast structure will include office, warehouse and garage space and trucks coming in and out of the 20-acre site will have access from the east and west of the building in order to keep traffic circulating. Dakota Electric is the fastest growing cooperative in the state and is the second largest in Minnesota currently serving over 24,000 customers in Dakota County.

Construction is underway on a new **Amtrak depot in Saint Paul's Midway Industrial Park**. Designed by Henning-

son, Durham & Richardson of Minnesota, a Minneapolis firm, the project includes the station, a maintenance building, platforms and canopies and will cost its owners, the Saint Paul Port Authority, about \$2.3 million.

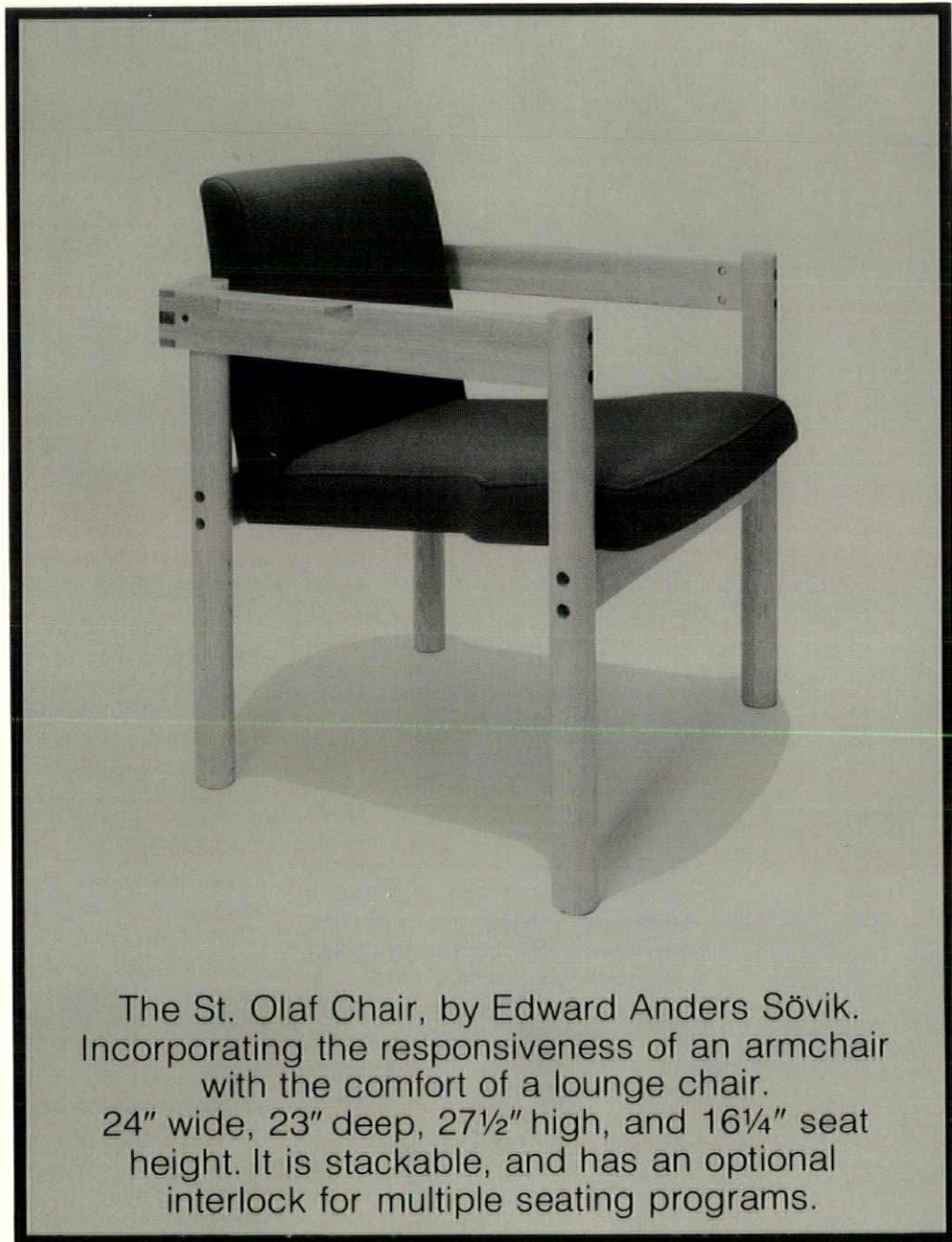
Fourteen Minnesota firms have joined together to form a new company, the **Minnesota Group, Inc.**, to handle major international and domestic architectural and engineering projects. It is expected that the new group will draw on the many disciplines and experiences of its active shareholders in providing a full range of services for environmental planning, design and engineering. The participants are: Thorsen & Thorshov Associates, Inc., Minneapolis; Bergstedt, Wahlberg, Berquist, Rohkohl, Inc., Saint Paul; Michaud, Cooley, Hallberg, Erickson & Associates, Inc., Minneapolis; Bissell, Belair & Green, Inc., Minneapolis; International Finance & Management Group, Inc., Minneapolis; Egan & Sons Co., Minneapolis; Schoell & Madson, Inc., Minneapolis; Clark Engineering Co., Minneapolis; Roger Johnson/James Forberg Associates, Inc., Minneapolis; McCoombs-Knutson Associates, Inc., Minneapolis; Frederick Bentz/Milo Thompson & Associates, Inc., Minneapolis; Lunquist, Wilmar, Schultz and Martin, Inc., Saint Paul; and Sovik, Mathre, Sathrum, Quanbeck Inc., Northfield.

The joint venture firm of **Hammel Green and Abrahamson, Inc.**, Saint Paul and **Naramore Bain Brady and Johnson, Seattle**, are architects for the largest single building project in the history of Rochester. The two firms par-

Mears Park Apartments in Saint Paul's Lowertown. Bergstedt, Wahlberg, Berquist and Rohkohl, Inc. architects.



# StOlaf Chair

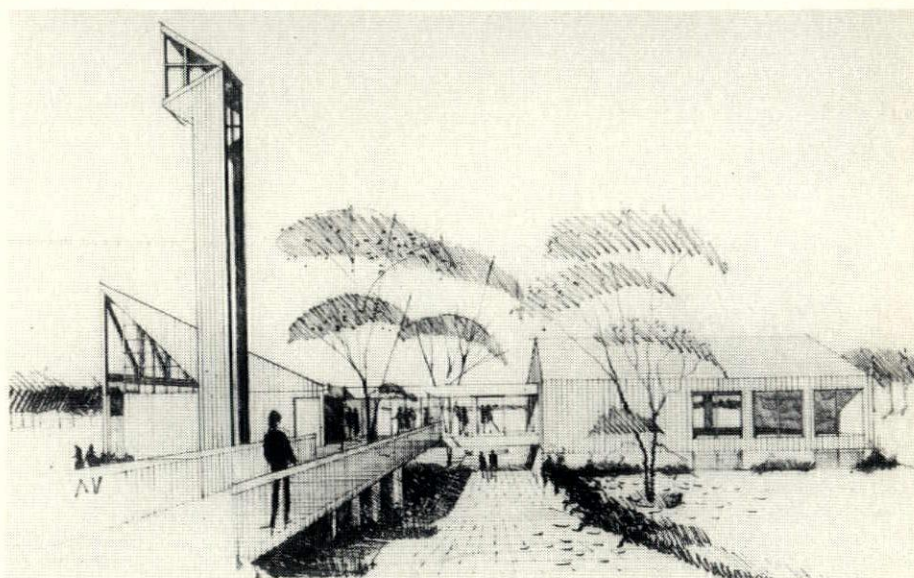


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anticipated in groundbreaking ceremonies September 30 at **Saint Marys Hospital, Rochester**, for a block-square, seven-story medical and surgical building that will expand Saint Marys by a third.

The new facility is part of a \$55.5 million building program. It contains a surgical suite of 36 major operating rooms. At over 95,000 square feet, the suite, grouped like a racetrack around central supply areas—is the size of two football fields.

Construction of the project, part of the hospital's major building program called Project 282, is scheduled for completion by 1980.

Parishoners of **Hope Lutheran Church, Jordan**, Minnesota are looking forward to the completion of their first permanent structure. Designed by **Cunningham Architects**, Minneapolis, the church will have a seating capacity of 200 in the main sanctuary. The office, education and fellowship space will be in a separate building connected with a skyway.

#### Renovate & Restore

The first major restoration of the **Gibbs Farm Museum** since the Ramsey County Historical Society acquired the old farm in 1954, is now underway before the watchful eye of **Saint Paul architect W. Brooks Cavin, FAIA**. Cavin's plan includes basements to be built under two wings of the house now resting on limestone foundations surrounding crawl space. The museum will be open to the public during construction so visitors can watch the actual restoration of a historic site. The farm was built by Herman Gibbs, a pioneer settler from Vermont, who arrived in the Saint Paul area in 1849. The site was also an early gathering spot for the Sioux who frequently camped nearby on their way to the rice lakes in northern Ramsey County.

A recent report compiled by the Minneapolis architectural and engineering firm of **Setter Leach & Lindstrom**, identifies the old **Saint Paul Union Stockyards Exchange Building** on

Saint Marys Hospital  
Rochester

Hope Lutheran Church  
Jordan



# Inspiring



Sunrise Methodist Church - Mounds View  
Architects: Johnson-Forberg



Concord Street in South St. Paul, a "significant example" of late 19th century commercial and civic architecture. The initial report, presented to the building's owners who happen to be the Housing and Redevelopment Authority (HRA) lists a number of future uses as well as the costs of remodeling, restoring, renovating or demolishing for the 1887 structure. One possibility, according to the report, would be to create an interpretative center around the historic building which would tell the story of the stockyards and various immigrant movements into the city. A number of options are now under consideration.

The design of a project to reuse and revitalize a deteriorated commercial block in Minneapolis adjacent to Loring Park won architect **Ted Davis** second prize in a national competition.

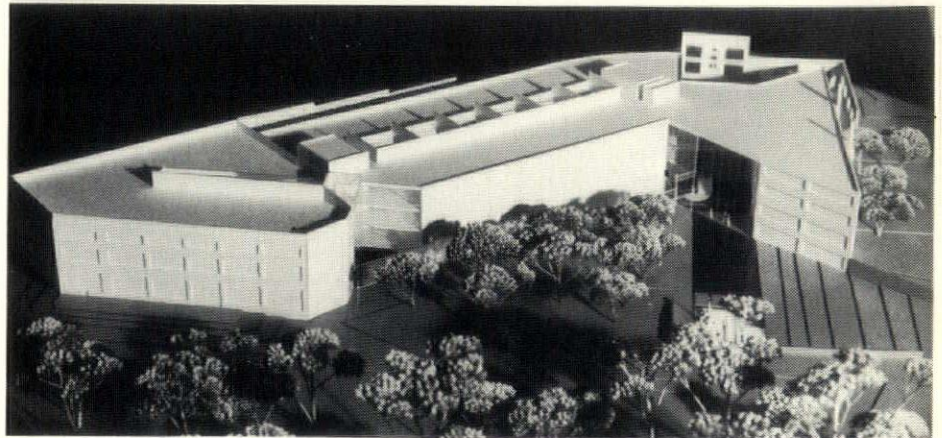
Davis, 25, was awarded the \$750 cash prize in addition to a one year honorary membership in the National Institute for Architectural Education, which annually sponsors the Hirons Award competition for architects under age 35. The 1977 award was for projects involving the "Rehabilitation, Recycling, or Restoration of an Old or Historic Building."

The award-winning design for "Harmon Place" proposes a new four-story office and retail complex which incorporates the historic Fawkes Building on Hennepin Avenue and Harmon Place and reuses a number of existing building fronts, linking them to a new structure facing a corner of the park.

Davis is a 1976 graduate of the University of Minnesota School of Architecture and of John Marshall High School, in Rochester. He is currently employed by Hammel Green and Abrahamson, Inc., Architects and Engineers in Saint Paul.

**Projects In Brief . . . Palais & Associates**, Minneapolis, are the architects for a new \$2.5 million elderly housing project slated for the suburb of Brooklyn Park . . . **Adkins Associates**, Saint Paul, are busy with plans for a \$1.2 million addition and remodeling for Grace High School, Fridley, which will include improvements on the existing gymnasium, administrative suite and physical education facilities . . . Edina architect **Ralph Shimer** has compiled plans for a \$15 million addition to the Sears, Roebuck & Co. main store on Lake Street in Minneapolis. The plans call for a block-square, 522,000 square foot addition with four levels, and 215 underground parking spaces . . . The Minneapolis firm of **LeBarron & Wold, Inc.**, have designed a \$180,000 addition for the Holy Trinity United Methodist Church in Prior Lake . . . **Inter-Design, Inc.**, Minneapolis, are the architects for a \$2,850,000 remodeling of the University of Minnesota's Pioneer Hall on the Minneapolis campus . . . Saint Paul architects **Rafferty Rafferty Mikutowski & Associates, Inc.**, are the designers for a \$2,650,000 remodeling of Saint Paul's City Hall Annex . . . **Ellerbe Architects, Inc.**, Bloomington, are the architects for the new \$9,510,000 Central High School in Saint Paul . . . The Crookston, Minn. firm of **Kielhack & Hanson Architects** are the designers of a new \$300,000 ice arena which will be operated by Crookston Hockey Boosters, Inc. . . . **Lindberg-Pierce Architects**, Minneapolis, have completed plans for a new \$200,000 bank for the community of Victoria, Minn. . . And finally, to repeat an old message yet another time . . .

For further information, contact the Minnesota Society American Institute of Architects, 314 Clifton Avenue, Minneapolis or telephone (612) 874-8771. □

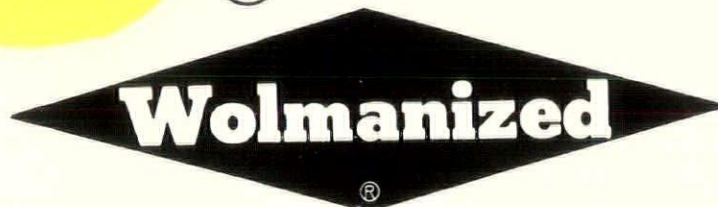


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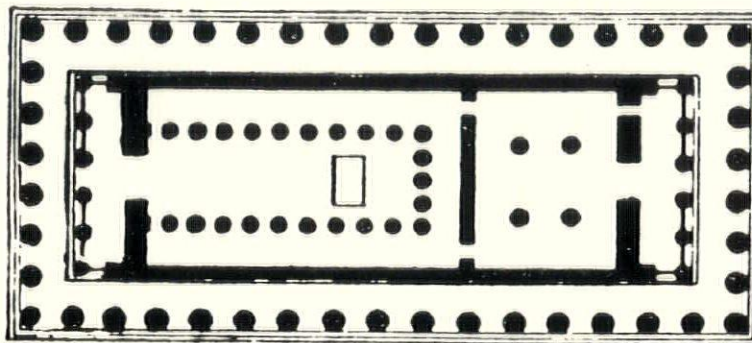


Pressure-Treated Lumber



# THE TEN COMMANDMENTS OF ARCHITECTURAL DESIGN

Ralph Rapson



All of us have considerations or systems (to a degree), or a philosophy (if you will), in our search for creative synthesis. I have what I have on occasion listed as the "ten commandments" of architectural design . . .

## First Commandment: Need for Historical Continuity.

Architecture is never created in a vacuum. It must acknowledge the past, answer the present and anticipate the future. Its past, its present and future are firmly bound with whatever genius may be found in the cultural and technical history of people.

Its physical forms are the visible statements of society. In this sense, architecture is the most documentary of arts since, even in ruins, it symbolizes the limitations and aspirations of a culture.

While we do not copy past forms, it is futile to throw out the heritage of the past. To do so is to deprive ourselves of important resources.

It is vital that we fully understand and appreciate the conditioning and background factors which shaped previous environments. Continuity and an understanding of historical precedent are vital to the design search.

## Second Commandment: Concern for Regional Context.

Significant architectural ideas and accomplishments of the past have normally been responses to particular regional characteristics, climatic conditions, such as land configurations, the quality of light, etc. In other words

responses to ecological conditions.

In the natural course of events these ideas spread and, with variations, were adapted and acclimated to other ways of life and other locales.

In the process, much of the regional quality is lost. Today's architecture has a resultant thin uniformity, regardless of whether it is in mid-America or mid-Europe. The causes of this are numerous. The rise of industrialism, mass production, common markets, the greater ease and rapidity of communications and travel, the rising cost of traditional materials and the lessening of skilled building labor.

The rise of a strong and influential architectural press has been a significant influence in this decline of unique regional characteristics. This, of course, is all part of the universality of ideas and the growth of the commendable "one world" concepts.

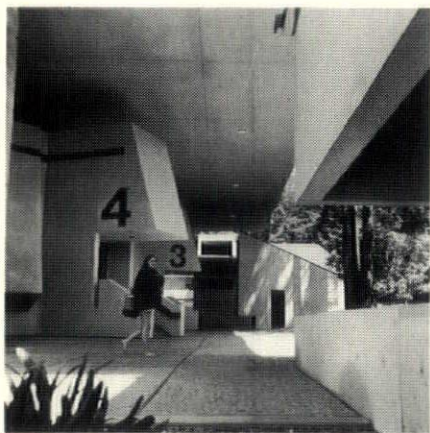
I think, along with all this, are the frightening developments of popular conformity, togetherness, and the fear of being counted as an individual.

A cardinal admonition, then, is to respect and respond to one's environment (with all its positive physical, social, economic regulations) as one of the basic elements in the search for significant design.

So long as there are natural regional differences, both physical and cultural, we must respect and acknowledge the best of this in our design synthesis.

## Third Commandment: Site Considerations.

The importance of a particular



Performing Arts Center, University of California, Santa Cruz, California.





Cedar Riverside General View

site as a strong conditioning factor in any design is hardly to be denied. Sensitive relation of the building to the land, to the landscape, to other buildings, to the urban features is a starting point. The built-environment begins with ecology—the land.

Eero Saarinen felt strongly that a building was the product of the site—additionally that the site extends beyond platted lines. He maintained that the site, any site, is, in a broad sense, in public ownership. The real possessor of wealth is the community. "No generation has talked so much about open outdoor space" as ours, none has done so little about it."

Modern architecture's accomplishment in this area is all too often weak. In actual fact the proper relation of building to the site is often neglected. All too often the relationship is dull and insensitive.

Successful building to building, building to site relation is achieved by means of space, scale, materials, proportions, etc. A building must be a good neighbor, but there is always the danger of too literal an interpretation leading to imitation, eclecticism and pseudo-modern clichés.

It must be recalled that buildings can relate to the site and other buildings by contrast as much as by the more usual or normal complementary fusion, so often associated with organic solution. An organic response to the site may be one of legitimate contrast.

Beyond the immediate site, buildings must respect and relate to the larger urban context. Not every building can nor does every building deserve to be a unique or focal point. Every community has need for a certain hierarchy of building spaces and form determined by total context. There is no hierarchy of building types as some of my colleagues advocate.

There is great need for a kind of anonymity in most buildings—anonymity in the best sense of the word—buildings of high general level of design, but buildings which will provide a high degree of background order.

It then becomes axiomatic that our physical environment must begin with land and ecology: it must be a direct and continuing response to the peculiar ingredients of the site and its determinants. The identity of the place and its meaning is central to significant environment.

#### Fourth Commandment: Functional Integrity in Planning.

Perhaps the cardinal factor in the development of modern architecture was the rise of functional planning and the understanding that architecture is a social art—the awareness that man is the measure of all things.

One of the first to recognize this was Louis Sullivan with his remark, "Form follows function", a truly profound and vital statement. However, this statement was misunderstood, over-simplified and misdirected. Limited concept of simplicity and uniformity was seen as evidence of instability, primitive systems and high entropy (a thermodynamic function).

Out of this developed the illusion that great architecture would be achieved by faithfully following and answering client's programs or needs. The functionalist myth became a rallying call that was to border on almost religious dedication.

The fallacy, of course, was a far too narrow interpretation of functionalism. Even today, there is a whole group enthralled with systems and formulae, who think that methodically plugging technical data into some sort of computer formula, will automatically result in significant architecture.

Architecture must satisfy the physical needs of man; it becomes the physical expression of human life which involves work and relaxation, politics and religion—the entire gamut of human needs and uses. Architecture thus becomes a social art. The yardstick is man, therefore complete analysis and insight of an evolving and changing society and complete responsibility to humanity are necessary and vital.

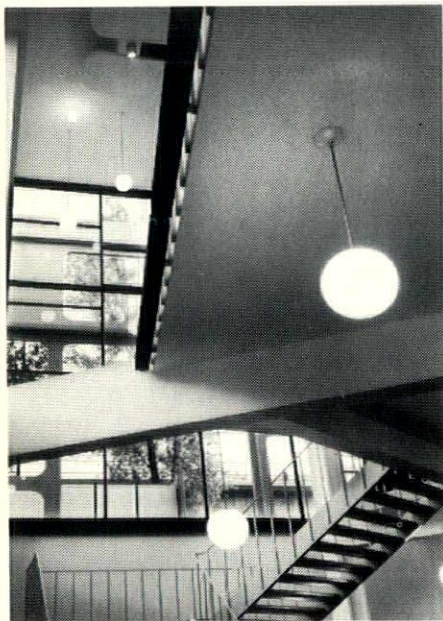
Former Prime Minister, Clement R. Attlee of England, succinctly expressed this point of view when he said, "Architecture is to me the most social of the arts; more than any other, I think it reflects the lives and ideals of a community."

Functional planning implies the entire psychological and spiritual needs of man far above and beyond the physical needs and the planning process remains, as Corbu wrote, "The prime generator." I'm still old fashioned enough to insist on crystal clear planning, and this is something I do not stray from very far.

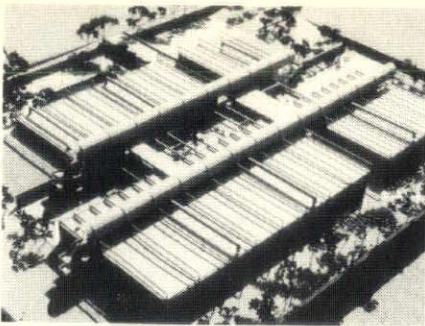
#### Fifth Commandment: Structural Integrity.

If functional planning was a characteristic philosophy of the early break-

Tyrone Guthrie Theatre  
Minneapolis, Minnesota







Recreation Facilities Bldg., Southern Illinois University, Carbondale, Illinois.

through of modern architecture, then structural exploitation was the next great hope for significant architecture. One of the most definitive architectural philosophical outgrowths of our technological age is the rise of structural purity and engineering economy as an aesthetic value.

From the basic principle of "structural honesty" we have seen a move to "expression of structure" and on to "structural expression", where structural expression is not actual structure at all but idealized structure. (The work of Mies van der Rohe is typical of this and of utmost importance.)

In recent years we have seen a rise of structural exhibitionism and the "skin and bones" fad or myth. How often we have seen dramatic misuse of structure. In the minds of many, including architects, there is great confusion between structural novelty and structural integrity.

Another aspect of the structuralitis myth is that honest structural expression means only great large long-span engineering projects (such as the work of Nervi) while another fallacy is that every architect on every job must come up with a "new structural concept". This is unnecessary in most work and more often than not results in structural imitation and clichés.

Many believed and still believe, that very narrow mathematical structural exploitation, systematically displayed both internally and externally, automatically results in significant architecture.

It has often been regarded as a sin to cover or disguise structure. This is not necessarily true: witness, for example, Le Corbusier's Ronchamp, where structural integrity and structural expression are fully mixed to obtain the desired image.

Structural integrity is certainly a great and eloquent force, as is structural expression. If sensitively used, it provides the potential framework for order and unity. It is a vital and valid principle and philosophy, and one that I personally hope to always incorporate in my work.

#### **Sixth Commandment: Integrity of Technological Advantage.**

Along with pure structural integrity, we have vast technological means at hand to provide a physical environment the like of which has never before been possible.

This era of industrialization has produced many significant technological and mechanical developments. Mass

production, mass distribution, standardization, industrialization, animation, have an enormous potential and have affected all our lives.

The impact of these new developments and innovations on architecture has been very highly complex in nature. Today architecture is a very precise science, an increasingly intricate expression of the physical science of building.

Today the architect must gain great knowledge and understanding in many and varied fields. He is faced with a bewildering variety of structural and construction techniques.

The building is becoming a veritable network of conduits, pipes and ducts. For instance, the details involved in the integration and intricacies of just the electrical and mechanical systems alone is becoming more and more exacting each day.

The architect must know the potentials and limitations of countless materials and their qualities and possibilities for aesthetic expression.

Like the functionalism and structural theories, so we have had the technological philosophy; this theory holds that complete exploitation of mechanical and industrialization techniques is the golden formula by which significant form is achieved.

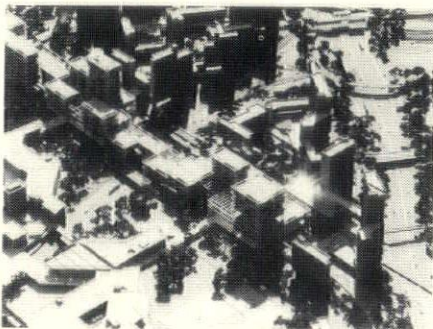
A leading early exponent of this philosophy is Bucky Fuller with his mass producible, industrialized structures and more recently the sensitive and brilliant Louis Kahn with his exploitation of mechanical and service elements as prime design expression.

However, mass produced prefabricated standardized components are not monsters to be denied and avoided, but are vast means and potentials to be sensitively used in our creative synthesis and to provide us with a most vital element in our architectural philosophy.

#### **Seventh Commandment: Creative Space.**

The reality of architecture comes from the quality and character, the dimension and continuity of space. Above and beyond the material aspects—the steel, concrete, wood, and glass, the mechanical and electrical—the single one most important factor to me, in significant urban environment, is the quality of space. Eliel Saarinen has said "The planning of buildings and the planning of towns . . . both deal with organization of

Centrum Cedar Riverside  
'Now-Town-In-Town'  
Minneapolis, Minnesota





space to accommodate man."

Thus we are concerned with both the (positive) enclosed space and (negative) open space created by the placement and the relation of one structure to another. Spatial boundaries are fluid—it's a flowing succession of relationships, a space-time sequence as we move through our environment and as the changing light and changing seasons affect the space.

Light is an important device in creating emotional or spiritual experience in man's space. Light is color. Light becomes meaningful only when contrasted with darkness. For instance—an abundance of light can emphasize freedom; limitation of light can emphasize security. So light can be used to amplify the emotional power of space.

Additionally the architect works with gravitational forces, live and dead loads, reactions, thrusts and counter-thrusts, all of which must be brought to equilibrium. All these elements are plastic and must be molded, shaped, controlled and contained; they must be given shape and volume.

Mies Van der Rohe has declared "The increased complexity of our requirements demands flexibility. Skeleton construction allows the interior space to be freely divided."

In ordering space, the architect is concerned with movement and continuity and while this manipulation of space is basically related to function, materials, and technology—the meaning of space is quite another thing and is closely related to emotional needs and the psychological effects that architecture has upon us. We'll touch this in Commandment 8.

We must learn how to create unique and varied space, quiet and enclosed space, vast and grand space, mysterious and awe-inspiring space, dignified and dynamic space.

We must learn how to create transitional spaces, spaces which define or separate or contrast, or spaces which give continuity which lead the eye on, which arouse curiosity, anticipation; space which provides focus of climax.

Recalling again historical continuity—how much can we learn from Baroque churches, the architecture of Japan, the De Stijl movement in Holland, the hill towns of Italy, to mention only a few?

When we realize the very great psychological effects possible by the

richness, the subtlety and variety and the intrigue and joy of space it is difficult to understand why we do not more fully exploit this most basic emotional and visual aspect of our environment as a powerful design philosophy.

Thus, our environment may be expressive of use (which includes the client, or society), of technology (which includes structure and materials), of site and region (which includes climatic and regional factors), of culture (which includes time and ethnic groups, etc.), and then finally it is an expression of the designer himself.

In the breakthrough of contemporary architecture, and in order to break the stranglehold of eclecticism, basic aesthetic house-cleaning was neces-

#### **Eighth Commandment: The Need for Architectural Expression.**

If art is defined as the creative, conscious, imaginative activity whereby we express emotion, and if architecture is an art, then design cannot be entirely intellectual. Design, stripped of emotional inspiration, is plumb-ing.

While I sincerely believe in a rational, logical, systematic, exploration process, it is impossible for me to feel that architecture can be entirely intellectual and impersonal, any more than it can only be purely subjective and personal with over emphasis on intuition. It must be a balanced combination of the objective and the subjective.

Architectural expression arises from man's urge to give expression to that which is, in many cases, inherently inexpressible—the desire that the imperceptible be made perceptible. It is here that modern architecture is unsure and undistinguished in its overall accomplishment.

Architectural expression is all too often keyed to the use and manipulation of trite, overworked clichés and symbols. Aside from the trite and obvious, significant symbols evolve as abstractions of human experiences, feelings and emotions.

In his search for architectural expression, the architect is concerned with both his feelings about the shape of things—the way men live, work, sleep and play, and his own personal feelings about the building itself.

*(Continued on page 29)*



# 1977 HONOR AWARDS

The Honor Awards Program is an annual competition sponsored by the Minnesota Society American Institute of Architects to identify and publicize outstanding architectural design by members of the organization.

In response to our invitation, three prolific and exceptionally well qualified architects agreed to comprise a jury that would formulate its own statement of intent and criteria for evaluation, and discuss them during the awards presentation in July at the Walker Art Center auditorium.

The jury consisted of Stanley Tigerman, FAIA, innovative designer and Chairman of the 1977 National AIA jury on Institute Honors; Don Hanson, Dean of the School of Architecture at the University of Tennessee, and Helmut Jahn, winner of the 1976 Minnesota II Competition and partner in charge of planning and design at C.F. Murphy Associates in Chicago.

In order to establish a meaningful awards program, the number of awards to be given had not been specified to the jury. From a field of 91 design submissions, one project was chosen by this year's jury to receive an Honor Award and four projects to receive Merit Awards.

The fact that the jury felt only five projects stood above the others did not detract from their expressed high opinion of the work of Minnesota architects or the success of other aspects of the competition. When an architect works with a client to the best of his ability in contributing to the built environment and feels positive enough about that effort to enter The Honor Awards Program, there really are no losers.

*Craig Hinrichs, Chairman 1977 Honor and Special Awards Committee.*

## THE JURY



**Donald Hanson**

Don Hanson is Dean of the School of Architecture at the University of Tennessee in Knoxville, Tennessee. He is a native of Canby, Minnesota and a graduate of the University of Minnesota's School of Architecture. He previously also was Head of the College of Architecture and Art at the University of Illinois' Chicago Circle Campus.



**Helmut Jahn**

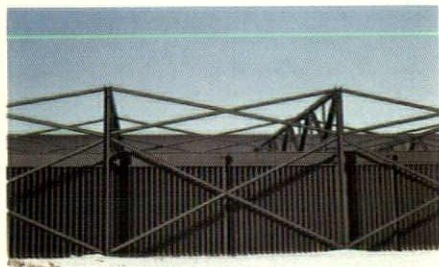
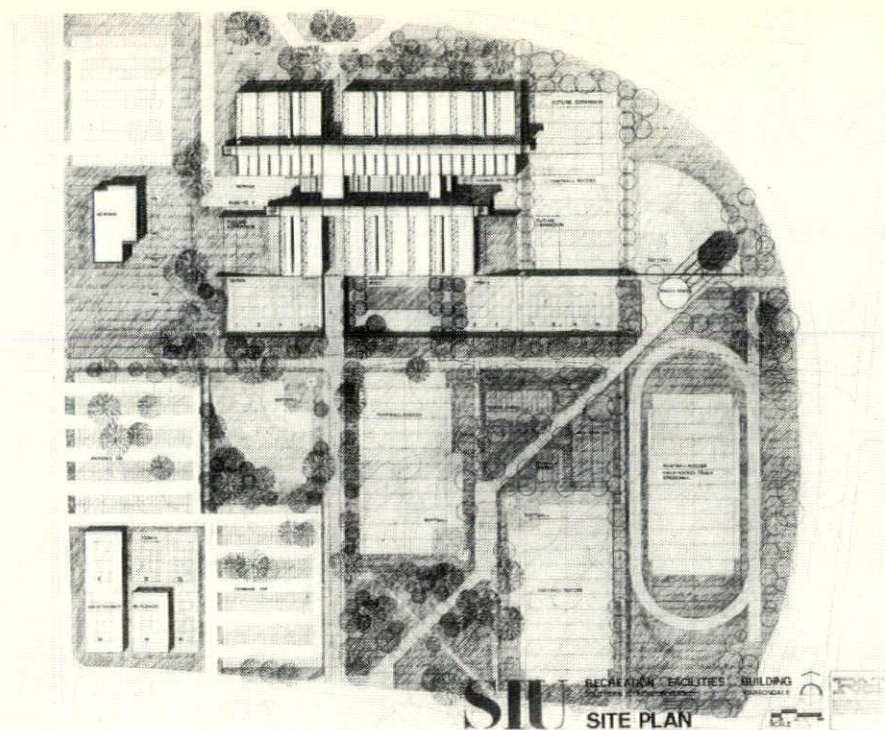
Helmut Jahn is a partner and director in charge of planning and design in the Chicago based architectural firm of C.F. Murphy Associates. He has been responsible for some of that firm's most distinguished projects, e.g. McCormick Place in Chicago, Kemper Arena, Kansas City, Missouri, and the winning design in the national competition for Minnesota II, the Capitol Building Annex under the mall in front of the State Capitol Building in Saint Paul.



**Stanley Tigerman**

Stanley Tigerman began his own architecture practice in 1964. His work has been published internationally in books and journals on art and architecture, resulting in numerous awards. He has maintained a parallel career as a painter and sculptor, exhibiting frequently at museums and universities. In 1977 he was Chairman of the AIA Institute Honors Jury. He was the 1976 Chairman of the AIA Committee on Design, was a co-organizer of the exhibition and catalogue "Chicago Architects."





## HONOR AWARD

**Recreation Facilities Building  
Southern Illinois University  
Carbondale, Illinois**

"Best-of-show! The project is a successful composition of a complex program of activities. The architect established a strong rationale of organization which was imaginably manipulated into an experimentally rich yet disciplined environment. Variation and elaboration within a theme characterize the project."

*Jury comments*

**Ralph Rapson FAIA and Associates, Inc.**  
Minneapolis  
Architects  
Richard Morrill, associate in charge

**Bakke Kopp Ballou & McFarlin, Inc.**  
Saint Louis Park  
Structural Engineer

**Robert G. Burkhardt and Associates**  
Chicago, Illinois  
Mechanical & Electrical Engineers

**J.L. Simmons Company**  
Decatur, Illinois  
General Contractor

**The Fowler Company**  
Centralia, Illinois  
Mechanical Contractor

**Egizzi Electric Company**  
Springfield, Illinois  
Electrical Contractor

The architectural design of the recreation building required maximum use of space at a minimum budget of \$6,800,000. Therefore, the architectural, structural and mechanical systems of the building are integrated and exposed, providing the major aesthetic.

The large swimming pool, 156' x 75', can accommodate simultaneous use by 200 people and provides essentially three pools, which permits national inter-collegiate and Olympic competitive events in swimming, diving and formation swimming. Spectator observation for 600 people is provided at the upper court level while outdoor play and sun bathing will occur in a controlled outdoor court. Men's and women's lockers, showers and rest room facilities flank the pool, permitting direct access to the pool from locker area, yet allowing these being used for other building activities. Receiving and service are located centrally for convenience.

Three large gymnasiums, each 115' x 160' provide for basketball, volleyball, tennis and other organized and individual activities. (Each gym large enough for standard collegiate activity). One gym will be programmed as multi-use with diverse activities such as theater, stage, dance, small games, etc. An open interior court at the upper level extending out from the circulation and lounge areas, will be used for various outdoor games, dances, etc.

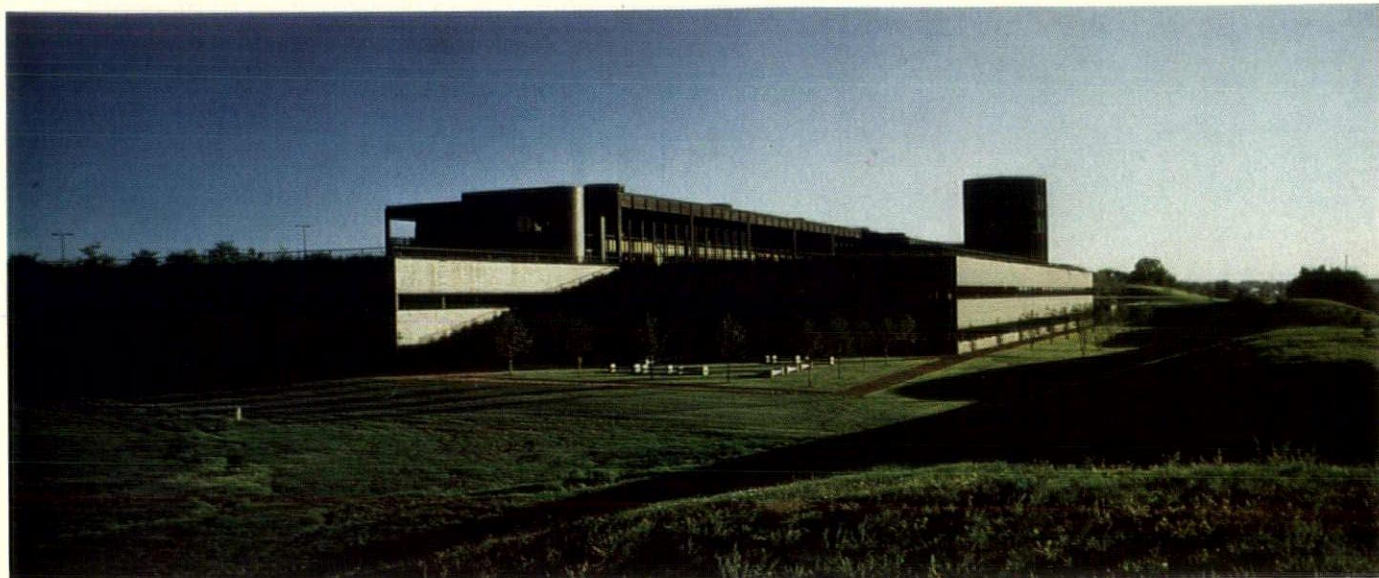
The structural system combines reinforced concrete and structural steel exposed as design elements. Roofs are steel joists and metal decking hung from exterior metal trusses. Precast concrete and insulated metal wall panels are used on the exterior walls.

The entire building is air conditioned with the necessary mechanical equipment and systems located over the upper circulation systems. Exposure of the mechanical and structural systems achieved cost savings and provided the major aesthetic for the building. □









## MERIT AWARD

**General Offices**  
**Blue Cross and Blue Shield of**  
**Minnesota**  
 Eagan, Minnesota

"An extremely clear plan—which in its linearity recognizes circulation as an organizer—is at once architectonically and constructionally well carried out. While the jury questioned the tower, it was favorably disposed to the over-all building in its setting."  
*Jury comments*

### **Addition:**

The Architectural Alliance  
 Minneapolis, Minnesota  
 Architects  
 John W. Lackens, Jr., Principal-in-Charge

Dunham Associates  
 Minneapolis, Minnesota  
 Engineers

Charles Wood & Associates  
 Minneapolis, Minnesota  
 Landscape Architect

McGough Construction Co.  
 Contractor  
 Saint Paul, Minnesota

### **Original Building:**

The Cerny Associates  
 Minneapolis, Minnesota  
 Architects  
 John W. Lackens, Jr., Principal-in-Charge

The Cerny Associates  
 Minneapolis, Minnesota  
 Engineers and Landscape Architect

M.A. Mortenson Company  
 Minneapolis, Minnesota  
 Contractor

The original Blue Cross and Blue Shield facility, designed in 1967 by The Cerny Associates, was built on a farm site in Eagan, overlooking the Minnesota River Valley with a view of the Twin Cities skyline. Design efforts took into account the

surrounding semi-rural environment, which is changing to a suburban setting.

In 1973, the Architectural Alliance was commissioned to design an addition to the existing facility, due to the consolidation of three offices into one. The addition and the existing building house 1,000 employees, and will allow for future expansion for projected space needs through the year 2000. In addition to office space, the structure also contains a cafeteria which opens onto an eating terrace, an auditorium, a large employee lounge, and several meeting rooms.

The addition and the existing facility are well integrated through the architects' use of skylit circulation systems. The original Cor-ten steel and brick exterior is matched by the brick used in the addition. A landscaped roof plaza emphasizes the division of the existing facility.

The major portions of the addition have been constructed to the west and north of the original building on two floor levels below the office floors of the existing building. Additional service areas have been constructed to the south of the existing building on two floor levels, also below the office floors of the existing building.

The roof of the addition is a landscaped plaza which connects to the parking areas on the east side of the existing building. A new employee entrance was constructed on the north end of the existing building permitting employees to enter the building at this point and circulate between all levels of the facility.

The exterior walls of the addition are face brick which matches the brick on the end walls of the original building. The walls have continuous horizontal windows of solar bronze insulated glass.

Energy conservation concerns were also extensively considered. The earthen landscaped plaza, insulated face brick perimeter walls and minimized and insulated glass windows insure that the addition utilizes only 50% more energy than was required for the existing building, despite the fact that the building area was doubled.





Three selected Design/Build Developer teams were requested by the Lexington Center Corporation of Lexington, Kentucky, to submit proposals for a new major downtown complex. Facilities were to include a 23,000 seat arena, 70,000 S./F. exhibit hall, a convention hotel to be owned by the design/build team and a commitment to build and master lease 90,000 sq. ft. of retail space. Proposals were to be evaluated on the basis of design, total plan function, hotel and commercial lease guarantees to the Lexington Center Corporation, and overall economic viability of the project.

Landmark and its partner, Hunt Development of Indianapolis, presented to the City of Lexington a three point proposal. First, they would build the arena, exhibit hall and retail space for a guaranteed cost of \$25,000,000 and do it in a record time of 30 months. Second, the developer would lease all retail space back from the city and guarantee to sublease to specialty shops. Last, they gave the City a guarantee to build a 377-room, 15 million dollar convention hotel as an integral part of the Lexington Center complex. The developers have the hotel site on a long term lease and agreed to pay Lexington a percentage of gross revenues in lieu of taxes, which required special legislation and co-operation from local, county and state government. This is the first major public complex in the nation that combined public and private financing.

Huber, Hunt and Nichols, the parent company of Hunt Development, was the General Contractor for the entire project. A fast-track process was used to produce the construction in only 30 months. The arena was in fact turned over to the owner four months ahead of the contract schedule.

Lexington Center is designed as a single building, even though it is actually composed of four distinct parts—arena, exhibit hall, retail and hotel. In order to physically integrate the four functions, the retail space was conceived as a central indoor court from which people can flow into all the other buildings.

**Ellerbe Associates, Inc.**  
Bloomington, Minnesota  
Architects and Engineers

**Johnson & Romanowitz**  
Lexington, Kentucky  
Associate Architects

**Thomas C. Van Housen, AIA, Vice President**  
Landmark Development of Kentucky

**Gerald A. Simons, AIA**  
Landmark Development  
Project Manager and Designer for total project

**Scott R. Berry**  
Landmark Development  
Project Manager and Assistant Designer for Hotel and Retail

**Donald T. Eyberg**  
Project Architect for total project

**Dexter M. Marolt**  
**Robert E. DeBruin**  
Architectural Job Captains

**Alfred G. Erickson**  
**Charles Ault**  
Structural Engineers

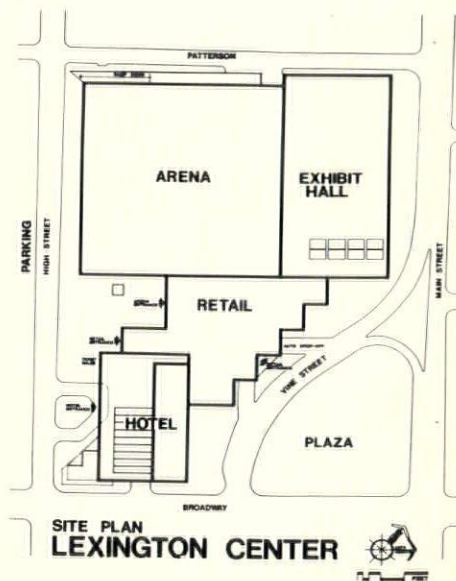
**Thomas V. Cates**  
Mechanical Engineer

**George R. Ravey**  
Electrical Engineer

**Lee W. Emberly**  
Civil Engineer

**Robert F. Dill**  
Landscape Architect

**Thomas G. Foster**  
Interior Design



## MERIT AWARD

**Lexington Civic Center**  
Lexington, Kentucky

**Lexington Center Corporation**  
Owner

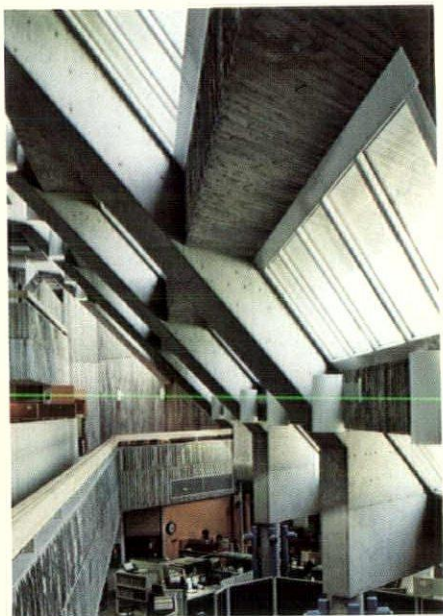
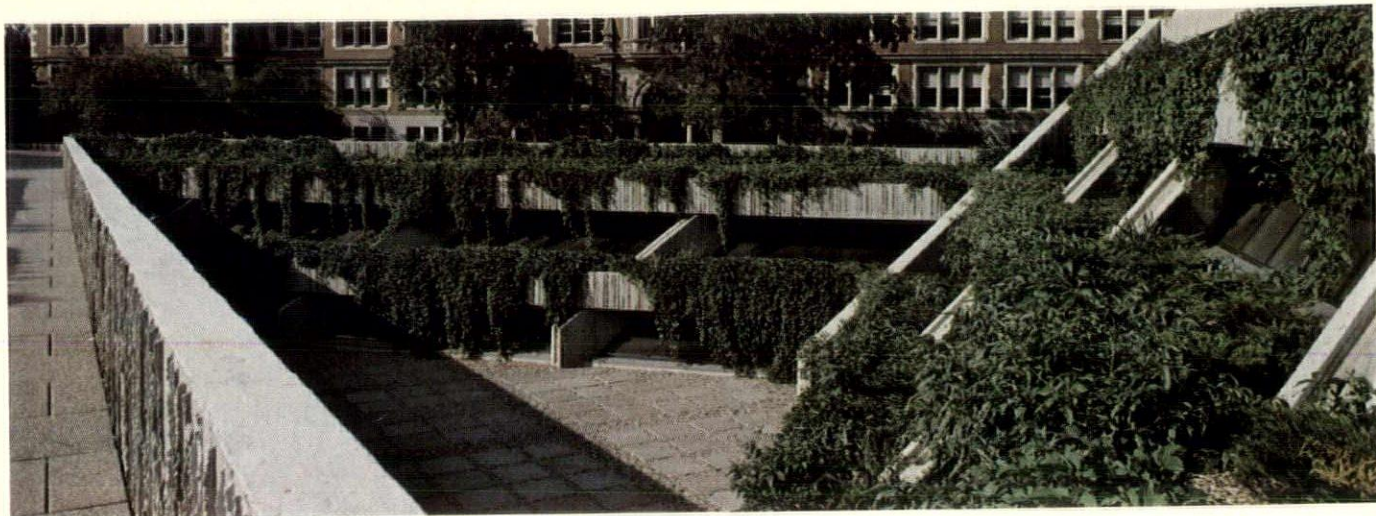
**Landmark Development of Kentucky**  
**Hunt Development Corporation**  
Developers

### Lexington Center

"The merits of this project are judged in achieving a disciplined and well integrated architectural expression of a highly complex commercial project within the challenge and constraints of a design-built approach."

*Jury comments*





## MERIT AWARD

**East Bank Bookstore/  
Admissions and Records Facility**  
Minneapolis Campus, University of  
Minnesota  
Minneapolis, Minnesota

"A sensitive project addressing itself to urban design, historic preservation, human behavior and energy conservation. The building succeeds very well as a generator of circulation and in the handling of light, color, and materials in the interior spaces. It fails, however, to provide a spatial continuity within all interior spaces, a usable inside-outside relationship and does not maintain the open space at grade."  
*Jury comments*

**Myers and Bennett Architects/BRW**  
Edina, Minnesota  
Architect

**Meyer, Borgman and Johnson, Inc.**  
Minneapolis, Minnesota  
Structural

**Oftedal, Locke, Broadston and  
Associates, Inc.**  
Minneapolis, Minnesota  
Mechanical and electrical

**University of Minnesota**  
Minneapolis, Minnesota

**Lovering Associates, Inc.**  
Saint Paul, Minnesota  
General Contractor

**Reuben L. Anderson-Cherne, Inc.**  
Minneapolis, Minnesota  
Mechanical Contractor

**Langford Electric Corporation**  
Minneapolis, Minnesota  
Electrical Contractor

**Montgomery Elevator Co.**  
Conveyance Contractor

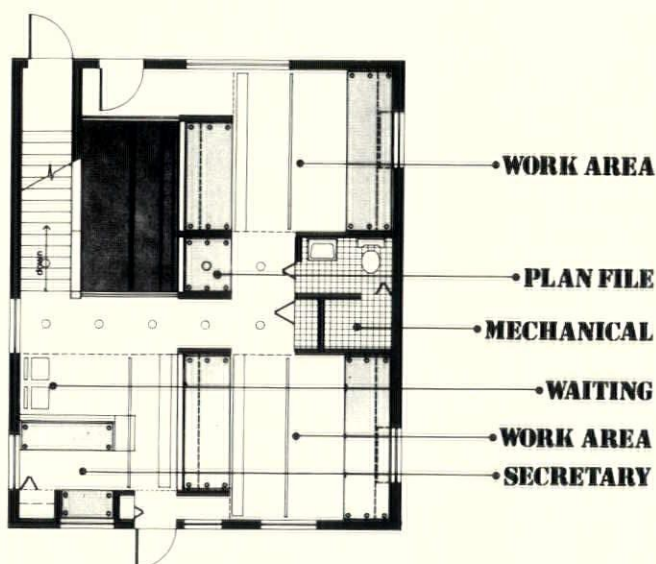
The mixed-occupancy facility is 95% underground, allowing for the preservation of open space at ground level in a densely-built University area; a view of such existing historic campus buildings as Folwell Hall; and energy conservation.

The two-story below-earth structure is divided into two triangles—one housing the Bookstore, the other the Admission and Records department. Because the Admissions and Records department houses office staff and many hours are spent at desk-work, the need for natural light is met by a depressed courtyard with tiered windows and planters, which also serve as solar screens. Activity in the Bookstore is characteristically internal, with a lower demand for natural light for comfortable occupancy. Therefore, one strip of windows at ground level allows for a view from the outside of the Bookstore sales area two stories below.

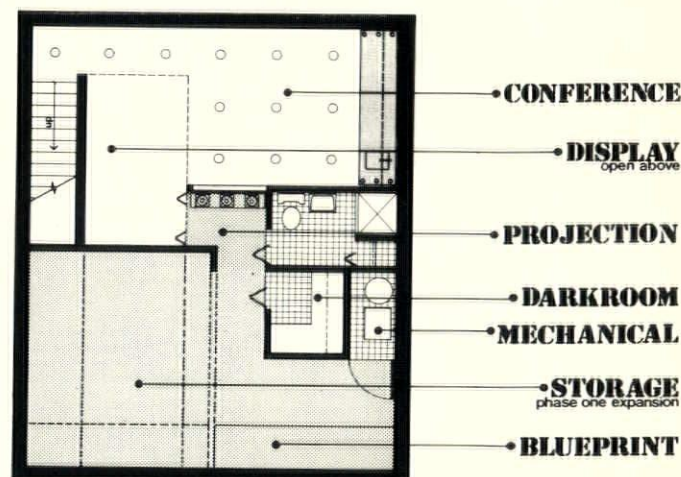
Environmental systems reflect the energy conservative goals of the building. In order to realize an early objective of using lighting more efficiently, a low-general-lighting/high-activity-area-lighting concept has been implemented. In the flexible office areas of the building, a system of buss-ducts, with standard three-prong, plug-in receptacles was introduced above the suspended ceiling, integrated with a system of interchangeable acoustic ceiling tiles and lay-in florescent fixtures on a 2'-0" x 2'-0" grid. Using a limited number of fixtures, the ceiling lighting, concentrated over the work stations, can be unplugged and regrouped to accommodate the new station arrangements. Heat exchangers have been introduced into the exhaust-air system to extract the heat generated by lighting and people and reintroduce it into the supply-air system. In open floor areas, such as the Bookstore, landscaped portions of the Admissions and Records area, air fountains, in the form of exposed tubes grouped around columns, have been introduced at relatively close intervals to supply an even distribution of low-pressure fresh air to the work stations.

As a result of the energy-conservative design of this earth-sheltered building, it is estimated that the net energy saving will be 80% to 100% during the heating season and about 45% during the cooling season, depending upon the loads imposed by lighting and people.





**MAIN LEVEL**  
architect's office minneapolis, minnesota



**LOWER LEVEL**  
architect's office minneapolis, minnesota



Zuber Architects and Design Consortium, a group which has been in existence only since April of 1976, renovated an existing machine shop at 836 West 79th Street into their four-man architectural office. A limited budget for the project required simple use of materials with an efficient use of space. The project was completed in three months with a budget of \$35,000.

The constraints of the existing space generated a series of grid lines that established a format for the solution.

The main entry level was zoned into two spaces: reception/public area and a work area. These areas were separated by a series of parallel walls that define work stations and provide a visual barrier between the public and private areas while retaining the openness of the small space. Dropped soffit areas define individual work stations, circulation, and concealed existing mechanical/electrical systems.

The lower level contains conference/display spaces plus storage and support facilities.

**Zuber Architects Inc. &  
Design Consortium**  
Minneapolis, Minneapolis

Jeri Zuber  
Architect

James W. Geisler  
Designer

John Sirny  
Glen MacWilliams

Owner Constructed

**Architectural Office  
Minneapolis**

## MERIT AWARD

"A single, direct, quite beautiful solution to an adaptive/re-use situation. Conceptual clarity, combined with impeccable detailing suggest a level of professional competence one can only admire. The project, though modest in scope, once again reinforces the notion that size is not really the credential of architecture."

*Jury comments*



# SPECIAL AWARDS

In addition to giving recognition for design excellence, the Honor Awards Program each year pays tribute to individuals who have made outstanding contributions to the enhancement of our physical environment.

The 1977 Special Awards of the Minnesota Society American Institute of Architects were presented to the following individuals:

**Betty Musser** of Saint Paul for her work in the preservation and restoration of the Old Federal Courts Building in Saint Paul.

Betty Musser's involvement with the preservation of the Old Federal Courts Building began in 1969, when she was appointed to a committee formed by the city of Saint Paul to determine the future of the building. In 1971, as President of the Saint Paul Arts and Science Council she directed a feasibility study of using the Old Federal Courts Building for extended space for the Arts and Science Council. In 1972, the building passed from the hands of the Federal Government to the City of Saint Paul, for the express purpose of being used as a cultural center. From 1973 until the present, Betty Musser has served as president of Minnesota Landmarks (the original 1969 committee). Minnesota Landmarks is responsible for developing the renovation of the Old Federal Courts Building, soon to open as the Landmark Center, and for raising money for the project.

**Architect E.A. "Jerry" Jyring** for

his service to the communities of Northern Minnesota as planner, architect and civic advocate.

Mr. Jyring is President of Architectural Resources, Inc., Architects, Engineers, Planners and Landscape Architects of Hibbing and Duluth, and a Fellow in the American Institute of Architects (FAIA). Through his experience with the Army Corps of Engineers during World War II, Mr. Jyring saw the need for city, county and regional planning. Examples of the planning arm of his practice are evident today, with the Iron Range Interpretative Center in Chisholm, which displays the story of iron ore discovery and mining on the Mesabi Range. Other interpretative centers now in the planning stages are Forest History Center in Grand Rapids; Bus Transportation Origins Center in Hibbing; and the Vermillion Cultural Center in Ely. He has also helped Northern Minnesota communities develop methods for securing low rents and elderly housing, among other buildings for their communities.

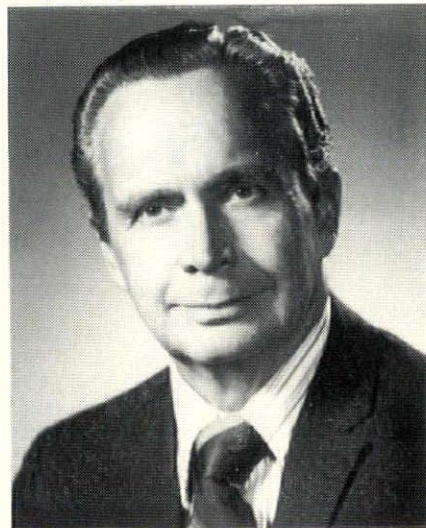
Over 20 years ago Jyring established an irrevocable scholarship trust fund which each year furnished one or two \$500 scholarships to deserving graduates of St. Louis County rural high schools.

Architectural Resources is now involved in many multi-disciplinary projects. Current projects of the firm include a feasibility study for Pickands Mather Iron Mining Company and the

Betty Musser



Jerry Tyring





City of Biwabik for moving the City of Biwabik to a new location because of a valuable taconite deposit underlying the present city; a master plan for the City of Superior, Wisconsin downtown district; the Interstate Highway 35 multiple use and joint corridor development study through the city center of Duluth; the Voyageur National Park in Northern Minnesota and Grand Portage National Monument.

**Architect William W. Scott** for his lifelong commitment to historical preservation in Minnesota.

Scott is vice president of the architectural firm Setter, Leach & Lindstrom, Inc. of Minneapolis. His active interest in and love for architectural preservation and restoration is evidenced through his personal contributions in Taylors Falls, Minnesota. He acquired a 116-year-old residence in the Angels Falls Historic District of town and restored it for his own home. Doing much of his own carpentry and restoration, he bought several other Victorian homes in Taylors Falls and restored them to historical accuracy, urging others to do likewise. Scott coordinated restoration efforts of the Taylors Falls Public Library, contributing hours of physical work to the project as well as preparing the designs.

His commitment to historically significant architecture has also been displayed through his service with many organizations. He has been chairman of the Minneapolis Heritage Commission and the MSAIA Historical Resources Committee. He serves on the Executive Committee of CUE (Committee on Urban Environment). For the past four years Scott has been coor-

dinator of the American Institute of Architects' Minnesota State Preservation Committee. He is a member of the American Institute of Architects' Historic Resources Committee, the Minnesota State Arts Board Architectural Advisory Panel, and the Minnesota, Wisconsin and Chisago County Historical Societies.

Setter, Leach and Lindstrom, under the direction of William Scott, has undertaken the master plan for the historic LeDuc-Simmons residence in Hastings, a Gothic revival residence built during the Civil War by William Gates LeDuc, and deeded in 1958 to the Minnesota Historical Society by Mr. Carroll Simmons. They have restored the Harkin General Store near New Ulm, and are currently working on a feasibility study for the adaptive re-use of the 1887 Stockyards Exchange Building in South Saint Paul. Scott is also assisting the Minnesota Historical Society and the Saint Paul Housing Authority with the review of historically significant buildings in the historical Irvine Park District of Saint Paul.

**Architect/civic advocate W. Glen Wallace** for his distinguished career as an architect in public service.

Wallace's extensive public service record includes 20 years as a Minneapolis Alderman from the Second Ward, with five of those years as president of the Minneapolis City Council; and 18 years as the City Council's representative on the Minneapolis Planning Commission. In his 15 years as the Executive Secretary of the Minneapolis Capital Long Range Improvements Committee, he was instrumental in establishing the city bonds program.

After serving as president of the League of Minnesota Municipalities, Wallace received the Ludwig Award in 1968—an annual award given by the League to a person from a Minnesota municipality with a population of 10,000 or more for "outstanding municipal service." He and his wife (who completed four years of architecture school) have also offered volunteer architectural services. Together they designed many youth camps, including the Many Point Scout Camp near Detroit Lakes. The Mayor of Minneapolis, the City Planning Commission, the U.S. Chamber of Commerce and the Downtown Council have also cited W. Glen Wallace with various awards during his public service career.

**Minneapolis City Coordinator Thomas Thompson** for his career-long dedication to city planning and the development of downtown Minneapolis.

Thompson's city planning accomplishments include the construction of Nicollet Mall, using the City itself as general contractor; the Loring Park and Nicollet-Lake development projects; the Metro '85 plan for downtown Minneapolis; and the City Center '75 project, which allows existing downtown businesses to acquire more downtown land for retail business expansion.

Mr. Thompson has also been active in the implementation of neighborhood and housing plans, including the Model Cities program in south Minneapolis and the Pilot City program in north Minneapolis. His efforts also encouraged the Native American Center and Camp Tamarac, which has provided a learning and camping experience to over 10,000 young people.

Bill Scott



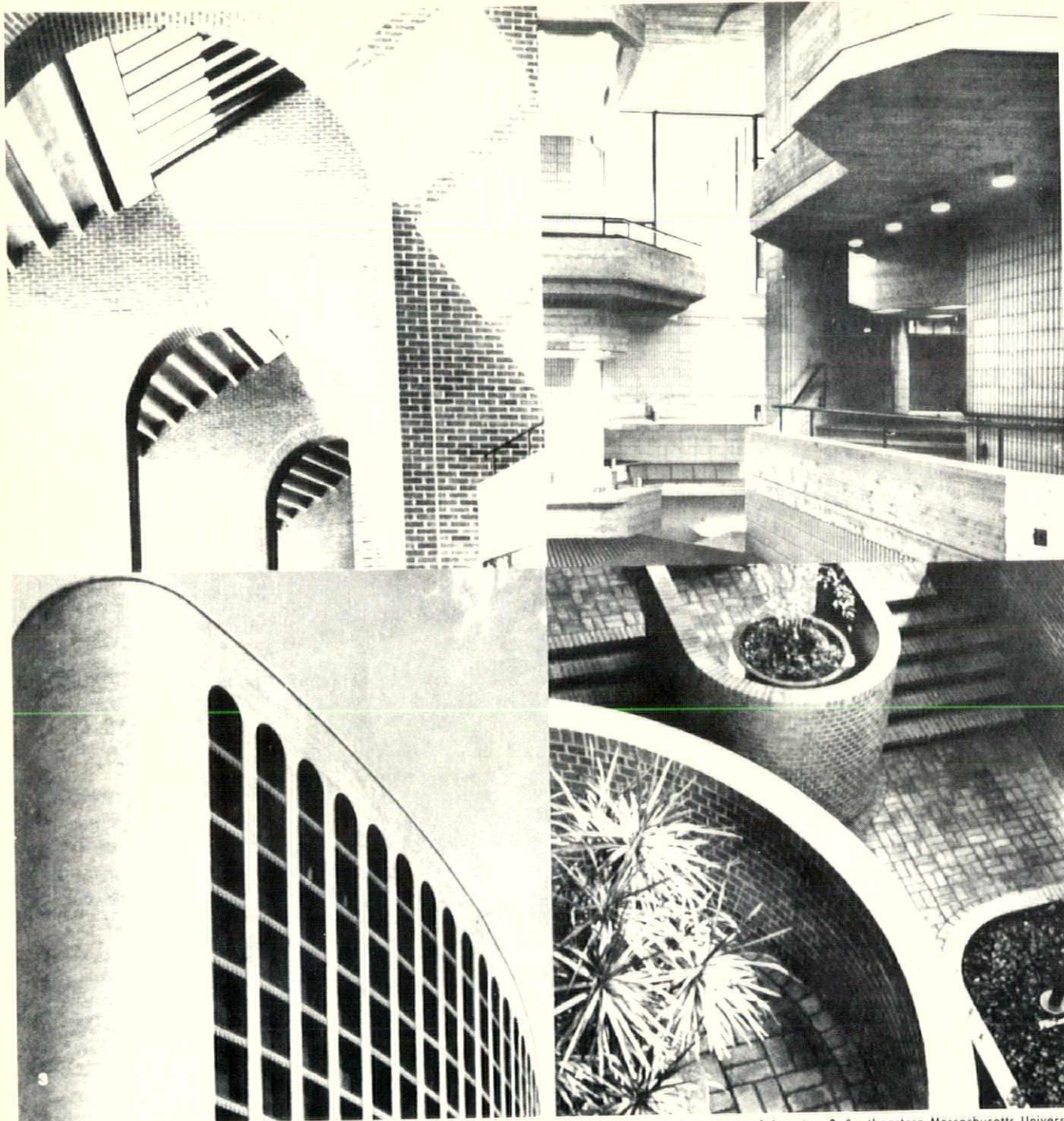
Glen Wallace



Thomas Thompson







1. Richmond Coliseum, Richmond, Virginia. Architects: Vincent G. Kling & Partners. Photo courtesy Brick Institute of America. 2. Southeastern Massachusetts University, Arts and Humanities Building, North Dartmouth. Associated Architects: Desmond & Lord, Inc., and Paul Rudolph, FAIA. Interior Consultant: Bill Bagnall Associates, Inc. 3. Public Service Alliance of Canada Building, Ottawa. Architects: Schaefer Heaton Harvor Menendez Associated Architects. Photo courtesy Brick Institute of America. 4. Executive Headquarters and Nassau Center Office, Hempstead Bank, Garden City, Long Island. Architects: Bentel & Bentel, AIA.

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# Heating Costs Cut

## Safetran Systems Corp. uses off-peak electricity for up to 50% savings

An innovative plant-wide boiler/heating/electrical system is expected to save up to 50% in heating costs for costs for Safetran Systems Corporation.

The Fridley, Minnesota manufacturer of railroad signal and communications equipment is constructing a 72,000 square foot addition to its present plant (bringing total area, including offices, to 204,000 square feet). Taking into consideration potential future energy shortages and inflated construction costs, Safetran decided to convert its present natural gas heating system to electric hot water radiating system.

Costs of heating the plant will be significantly reduced due to off-peak usage of electrical energy. Also, after the conversion the cost of operating equipment and lighting the plant will be reduced, due to the total quantity of electricity consumed, from \$4.90 per kilovolt ampere and \$1.50 per kilowatt hour to \$1.25 and \$.40.

Safetran vice president and general manager Paul Wheeler explains, "Electricity cannot feasibly be stored, but the heat in hot water can. Using NSP's off-peak rates (which are about 20% of the cost of peak rates), we'll be heating water at night and storing that energy for the working hours."

Water in two 20,000-gallon underground tanks will be heated to 200 degrees and piped to electrical heat pumps. Air temperature will be maintained at 68 degrees during the day and 50 degrees at night and on week-ends.

The system is automatic, monitored by demand controls. The only necessary manual operation is to switch the system between winter and summer operation.

Two oil-burning generators and an oil-burning boiler are on stand-by.

General contractor for the project is Magney Construction Co. Plumbing and heating contractor is Hoglund

Mechanical Contractors, Inc. Electrical contractor is Davidson Electric. More information about these firms and the installation of the system follows.

### GENERAL CONTRACTOR:

Magney Construction Company is a general contractor which has provided construction expertise and performance of the highest caliber to commercial, industrial and municipal customers in the upper Midwest for 19 years. Whether a project consists of new construction, renovation or complete remodeling, Magney Construction brings to the task its thorough knowledge and awareness of energy-efficient construction methods.



Paul Wheeler, vice president and general manager, Safetran Systems Corp.



Safetran Systems Corporation Fridley, Minnesota



## GENERAL CONTRACTOR: MAGNEY CONSTRUCTION CO.



Rik Peirce, project manager, Magney Construction; Paul Wheeler, vice president and general manager, Safetran Systems; Chuck Magney, president, Magney Construction

ventilation, electrical, etc.; cost versus effect of energy conservation measures; fuel availability; emergency back-up measures available; long term cost and pay-back periods for each system.

Outside consultants were utilized when expert evaluation was called for, and their contributions were discussed and incorporated into the overall decision-making process.

The entire Safetran Systems construction project was particularly satisfying to Magney Construction because the unusually close cooperation between the two firms allowed Magney to build the 72,000 square foot addition, as well as make in-plant changes which will stand Safetran in good stead for the coming years of energy shortage and costliness. Construction not only for today, but tomorrow; energy-conserving construc-

The Safetran Systems project is typical of Magney's capabilities. Close cooperation with the management and staff of Safetran enabled Magney Construction's design/construct team to offer the best possible alternatives throughout the project. From original scope studies, developing proposals that included complete cost projections for each alternative, to assisting Safetran in final decision-making on every detail, Magney Construction became fully immersed in the project.

Because of the unique, close involvement of Magney and Safetran people from the beginning, Safetran staff became better informed about complex details and better able to reach justifiable decisions. Magney Construction kept Safetran's management and staff fully informed about matters of: long term cost of building systems for the structure; heating,



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## PLUMBING & HEATING: HOGLUND MECH. CONTRACTORS

tion methods which are absolutely essential for America's coming decades of dwindling fuel—from Magney Construction Company.

### PLUMBING & HEATING:

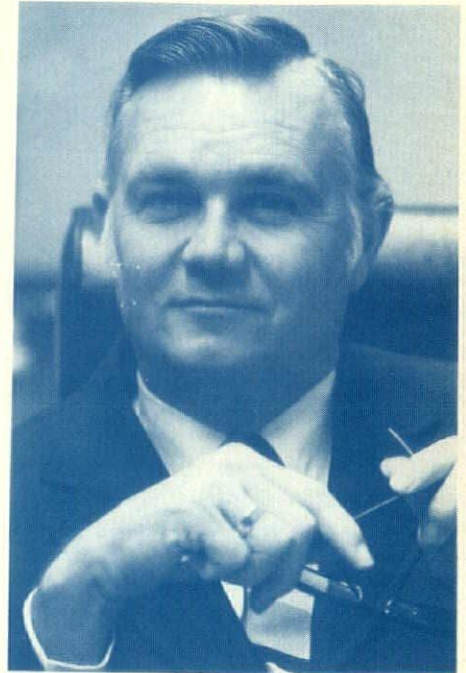
Hoglund Mechanical Contractors, Inc. is proud of its more than 50 years of service and thousands of satisfied customers like Safetran Systems Corp. Hoglund's involvement with the Safetran project began more than a year ago, when it submitted its original bid for mechanical work on a new type of heating system.

Due to projected cost increases and shortages in gas and oil for heating purposes, and to Safetran Systems' interest in possible alternative fuels, Hoglund submitted an innovative heating plan using electricity to heat

water for a radiating-type system. The plan was practical, affordable, with a view to the future, and was enthusiastically approved by Safetran.

The new system includes two electric boilers, two 20,000-gallon underground water storage tanks, a total of 25 electric heat pumps throughout plant and office area, one 80-ton evaporative cooling tower and a total of three newly installed or converted make-up air units.

Water in the two underground tanks will be heated to 200 degrees F. by the electric boilers during the night hours, taking advantage of off-peak electricity rates. The heated water is piped to the heat pumps to maintain a daytime indoor temperature of 68 degrees and 50 at night and on weekends. At least 12 hours of operation can be obtained for this one-shift



Don C. Hoglund, president, Hoglund Mechanical Contractors, Inc.

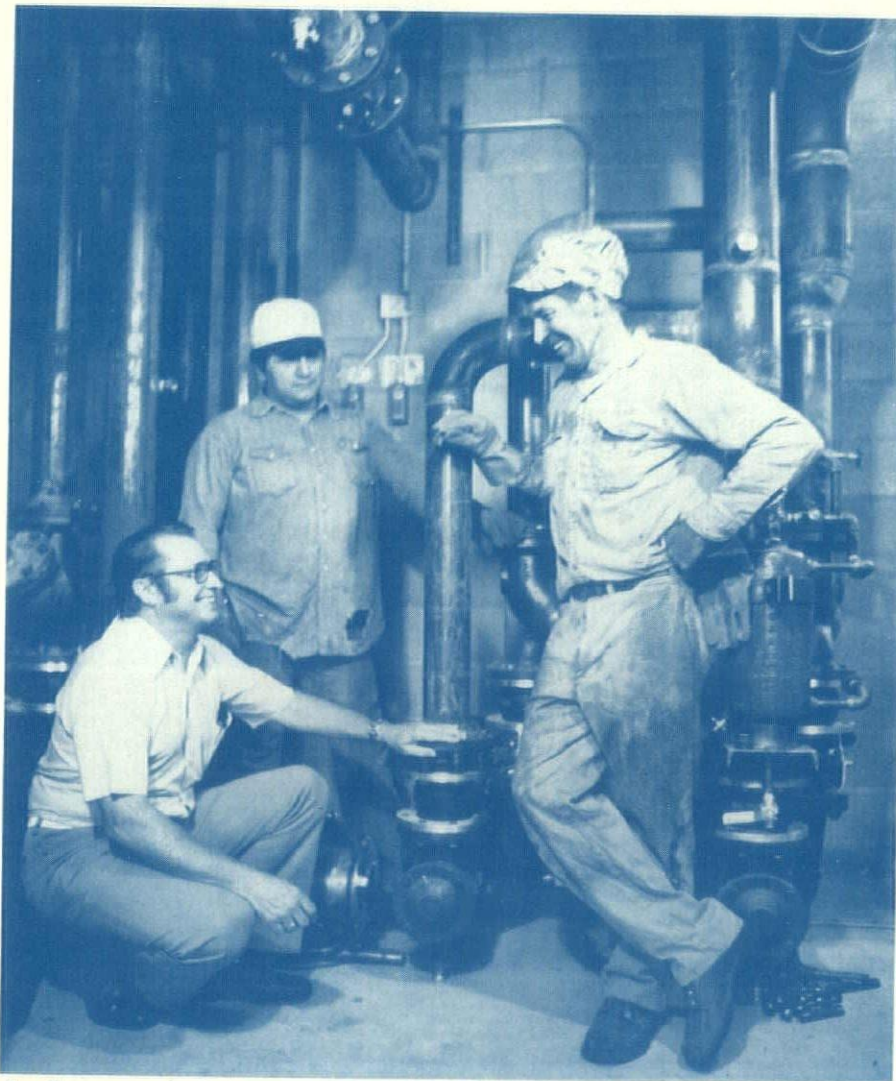
plan from heating the water once. Using off-peak rates for electricity will substantially reduce total heating costs: off-peak rates are only 20% of regular peak rates.

Hoglund accomplished additional significant energy savings as well by making changes in the insulation of the building, the number of windows, filtering systems and increasing heat-recovery from the exhaust systems.

Hoglund Mechanical's president Don C. Hoglund said, "In our climate, heat is a precious, costly commodity. We cannot waste any of it."

For emergency use in case of power failure, two oil-burning generators and an oil-burning boiler were designed into the system.

Hoglund Mechanical Contractors



Jim Parson, mechanical engineer; Dick Hilsen, foreman; Allen Ashmun, fitter-welder; all Hoglund Mechanical Contrs.

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The firm does all varieties of general electrical installation such as multiple dwellings and apartments, warehouses, plants and restaurants. In addition Davidson has performed some exciting new forms of electric installation, such as water-cooled fixtures for Northwestern Bank of Hopkins, Minnesota, the first demand control installation in the Midwest. Davidson has also become well-known as an "electrical contractor for the '70s", having advised many, many customers on state-of-the-art electrical applications toward energy conservation.

Every Davidson Electric project is custom-designed to the customer's needs and particular requirements, as was done for Safetran Systems' project.

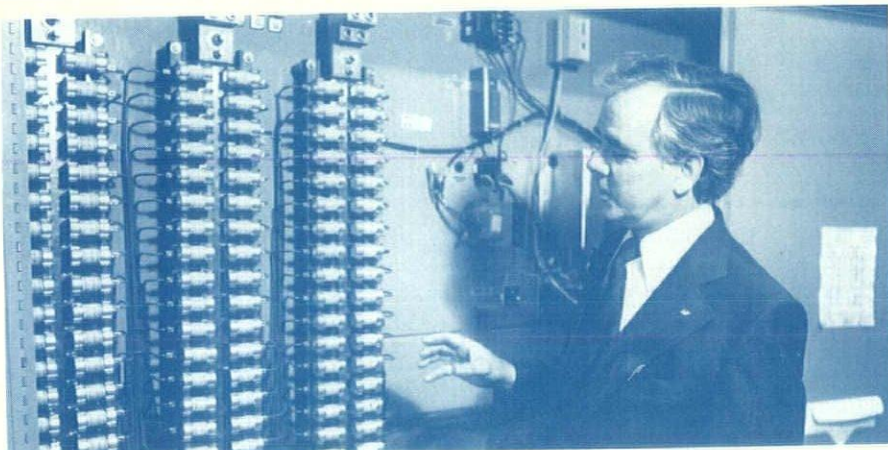
In 1976, John T. Davidson, president of the firm, received the Businessman of the Year Award from St. Thomas College in its S.B.I. Program.

Said Davidson of the Safetran Systems Corporation project, "We are especially pleased that the Safetran electrical heating system worked out so well because it means we can show that the energy crisis can be handled. Fuel shortages, rising energy costs—these problems are here to stay, but with ingenuity and foresight, we can offer solutions."

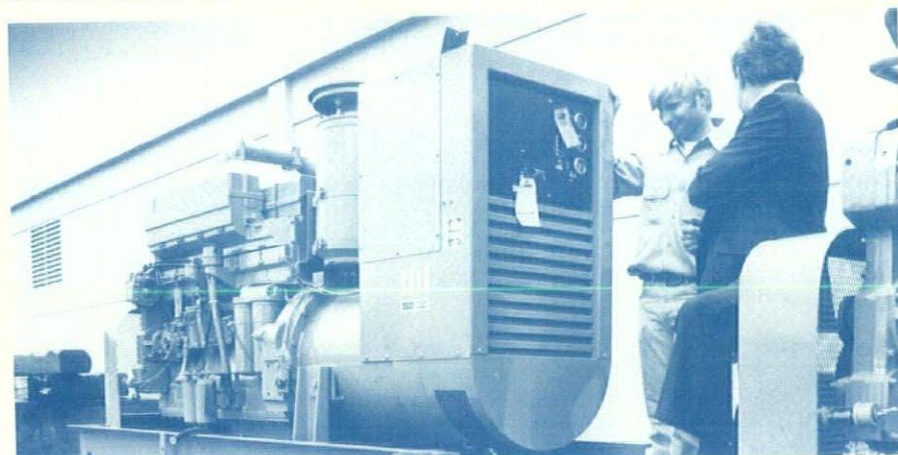
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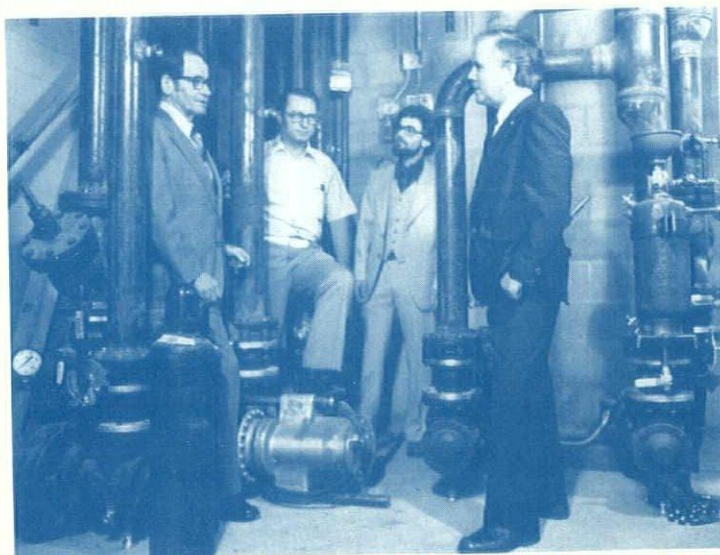
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John Davidson, president, Davidson Electric Co.



Tim Rosecrans, foreman/job coordinator; John Davidson, president; both Davidson Electric Co.



Chuck Magney, president, Magney Construction; Jim Parson, mechanical engineer, Hoglund Mechanical Constructions; Rik Peirce, project manager, Magney Construction; John Davidson, president, Davidson Electric Co.

## FOR INFORMATION CONTACT:

Rik Peirce, Magney Construction 612-559-5545  
Don Hoglund, Hoglund Mech. Contrs. 612-935-4431  
John Davidson, Davidson Electric Co. 612-546-4459





## THE TEN COMMANDMENTS OF ARCHITECTURAL DESIGN

(Continued from page 18)

sary. However, along with the rubbish, much of very real human value was wiped out in the process.

The sanitary, sterile, stiff and unimaginative characteristics which so many of our current architectural and planning projects so morally propose have little understanding for the intricacies of human life.

Recognizable symbolism plainly is an obvious and overworked attempt for expression and certainly more applicable to certain commercial, religious or monumental building types than other more elusive situations.

How often entire building compositions, in the form of a symbol (such as Saarinen's TWA terminal) have attempted this elusive thing called expression. Incidentally, dependent on the sensitivity of the designer, it's a short step from the Coke bottle to symbolized flight.

And how often we have seen highly affected "form for the sake of form" with little or no relevance to function or structure. This, it seems to me, is as much of a dead end as the stuffing of function behind irrelevant facade, a mistake so common in the past.

Architectural expression of the essential meaning of a specific problem is often elusive and often intangible; but it does seem to me that it more often finds valid expression in an abstract and universal kind of symbolism relying primarily on the sensitive handling of space and an honest outgrowth of building technology—rather than any superficially applied symbolism.

### **Ninth Commandment: The Understanding and Utilizing the Potential of the Period.**

Every period has changing outlooks and objectives; ours is a particularly dynamic time with changes and developments occurring almost too rapidly to be assimilated into our cultural conscience.

The revolutionary political, social and economic advances, the many material and technological improvements of our space age are well known, if little understood.

Characteristic of our times is the enormous population explosion and the highly accelerating urbanization. You are all familiar with the figures—300 million people in our country by

the turn of the century and more new building in the next few years than in all former times.

With 80% of the exploding population in the growing urban areas, the many critical problems will be regional, metropolitan, and urban in character. More and more the architect's responsibility extends into analysis, programming, basic decision-making and solution within the urban complexity.

An all important emerging aspect of our times is the concept of the architect as an "organizer." Many years ago, in his 1938 essay "If I had to teach you Architecture" LeCorbusier spoke of this, when he wrote "You are an organizer, not a drawing-board artist." True, but while saying this, Corbu immediately acknowledged that the architect is basically a creative synthesist.

A basic problem for all of us then is finding ways of coping with these greater and greater mass demands, while at the same time preserving the identity of the individual.

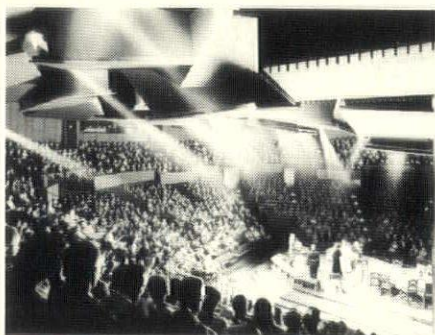
Certainly one emerging design concept is that scale is a larger regional thing. To ensure workable coordination of the physical environmental parts with integrated and balanced political, economic, social factors, large-scale planning is necessary. There must be national and international planning goals, beyond regional and metropolitan planning programs.

Our urban areas are constantly in a state of flux. It is not only necessary but inevitable that our cities are rebuilt, reshaped and rejuvenated (often misguided), and that new cities be built.

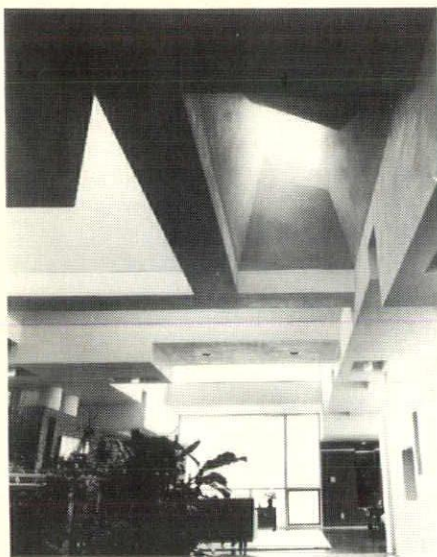
A strong dynamic force needs discipline and order. Regardless of the morality or frailties of a period, architectural form has its roots deep within the culture and technology of the times. By being truthful and honest, it will reflect the age.

Systems approach to programming, design and construction, critical path methods, scientific analysis, computer techniques and the like, have great potential but are only tools—highly potent tools—but not solutions.

If thoughtful, sensitive design was ever needed, it is now—in these dynamic times, perhaps more than ever before. The potential is great; there are tools and means at hand to produce superior environments than ever before. The architect must be attuned to his times, attempting to under-







Pillsbury Residence, Wayzata, Minnesota

stand, evaluate and utilize the best of this vast potential.

Architectural form has its roots deep in the culture of the times. To be honest to itself, it must reflect its age, regardless of the morality or frailties of the period. Architecture is the physical embodiment of the times.

#### **Tenth Commandment: Totality of Concept and Totality of the Creative Act.**

In these days of Gallup polls, widespread conformity, mass group decisions, togetherness and the like, architectural design by committee is all too often the normal thing.

Under such climate, our concepts are often weakened and diluted by compromise. All too often we are afraid of being disruptive of the "status quo".

Recognition of the realities of the problem is one thing, however, timid compromise is quite another thing. Our environment can and does have enormous physical, emotional and psychological effects on our lives.

To obtain the utmost import here, the essential nature of each problem must be found; our concepts must be bold and dynamic. We must not be afraid to go all out. Thelonius Monk said "The only cats worth anything are the cats who take chances. Sometimes I play things I never heard myself." Every detail must contribute, reinforce and amplify the basic idea.

In a sense, the idea must be followed to its fullest extent—almost cartooned—to a point where the design takes control; where every detail, even the architect, is carried along and the design becomes, as Louis Kahn said, "What it naturally must be."

While the architect builds for society, he does not build a monument to his own ego; still, I cannot agree to corporate design. The architect arms himself with extensive detail and factual information surrounding the design objective. He may, he must, call upon the services and knowledge of numerous people; still, it is his final obligation—both morally and, more and more these days, legally—to interpret these non-tangible aspects into physical reality. I feel there must be one ultimate design responsibility.

This should not be interpreted as narrow arrogance, but as a position of command, free of irrelevant dependence. It should be interpreted as a position of confidence, courage and a conviction of one's belief in his con-

ception. For certainly the impact of one's unique personality upon a design assignment is one of the deepest sources of fresh original form.

It's a long way from theory to reality. It is not enough to have great thoughts and to simply talk a good game; but we must have total dedication and the "guts" to carry the design unrelentingly to the ultimate conclusion. To produce results beyond mediocrity, the designer must care—really care—about his work. This means deep involvement and the ability to face the heavy responsibilities which are so often a consequence of bold acts.

As an architectural educator, as well as a practicing architect, I sometimes think that if we impart to our students nothing more than a concept of utter and total dedication and devotion to their work and a belief in their total involvement to total architecture, that perhaps we have in large part done our job.

Igor Stravinsky has written: "The uninitiated imagine that one must await inspiration in order to create. That is a mistake." How true. Creative design is an agonizing and often lonely process. But it's an exhilarating, joyous and rewarding effort. And creativity is hard, loving work; while little is understood of creativity, near the heart of the creative process is the ability to maintain broad intuitive and emotional activity freely within the framework of endless hours of search and experience and a vast amount of acquired knowledge.

These are my "thou shalls and thou shall nots" in the search for significant environment—though I lay little claim to their originality or their all-inclusiveness. In my own work I do try to work with integrity and vigor within this general framework.

Admittedly, one or another of these points, depending on the nature of the project, will take precedence in a specific situation. It is nonetheless basic to my philosophy that creative architecture is all-inclusive and an all engrossing total thing!

I'm not sufficiently wise to predict the emerging philosophies of design. However, one of history's most positive lessons is the lesson that any narrow dogma, whether political, technical or aesthetic, gives way, because it results in more and greater problems than it solves.

Concerned and motivated as it is with the problems of humanity, there

Humanities & Fine Arts Center, University of Minnesota, Morris, Minnesota







Cedar Riverside "New-Town-In-Town",  
Minneapolis, Minnesota

is seldom a black and white solution to any given environmental problem—rather there is the great richness of the entire palette limited only, basically, by the architect's inherent and developed qualities.

Quite obviously there is running through all of this the violent conflict of our highest hopes and aspirations with the daily press of reality—the dilemma as the dichotomy of the intellectual versus the emotional aspects of life. Technical means have always been and will continue to be the necessary means of achieving an enriched environment; but our great advantages will be of little value unless inspired by truly cultural values—values based on a genuine desire for harmonious and orderly environment; all stemming from an understanding and appreciation for the dignity of man and his aspirations.

What I have been saying perhaps can best be summed up in this one short prescription found in Buddhism: "Develop an infallible technique, and then place yourself at the mercy of inspiration."

*Ralph Rapson, a Fellow of the American Institute of Architects, is professor and head of the School of Architecture at the University of Minnesota. His firm's award winning building in this year's Honor Awards Program is shown on page 20.*

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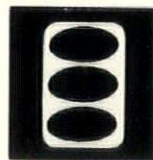
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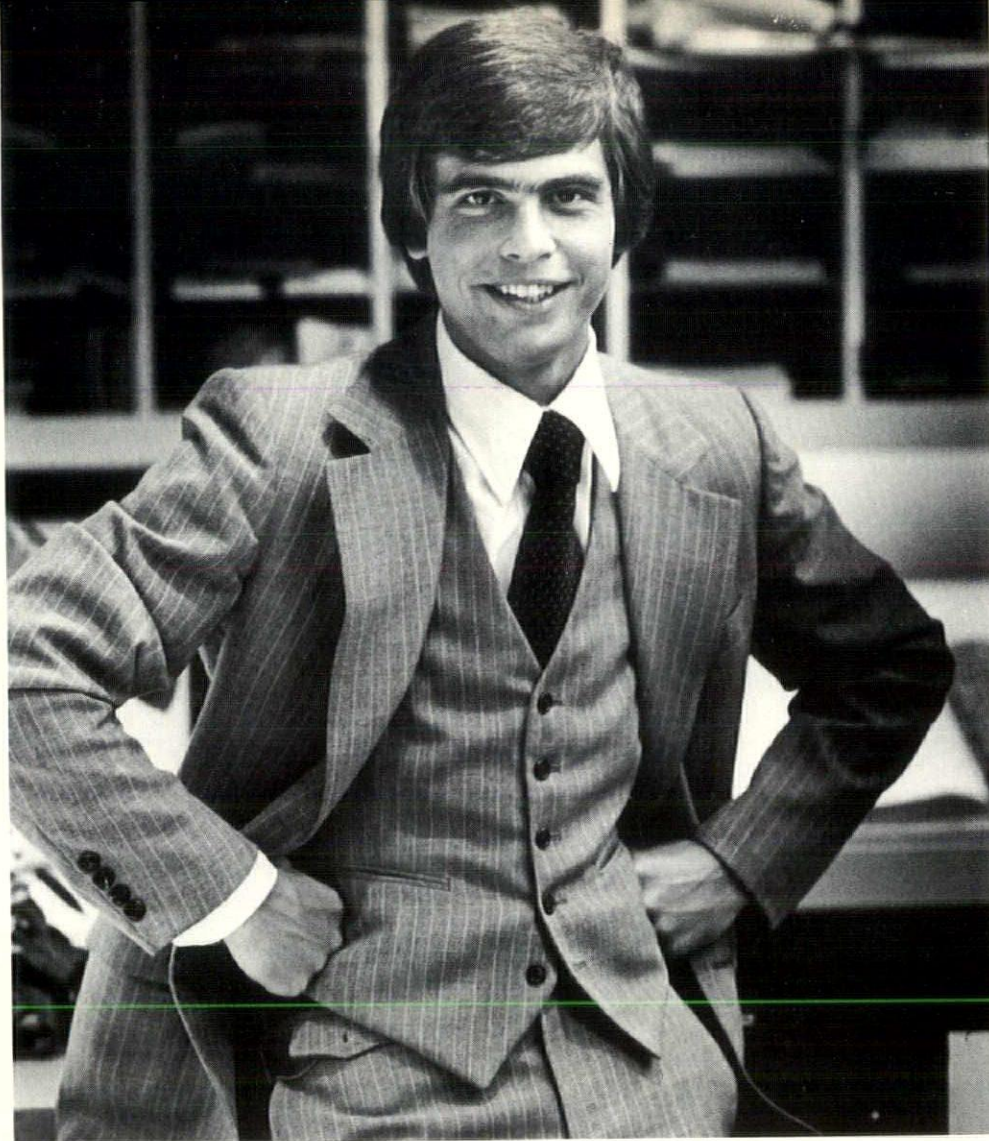
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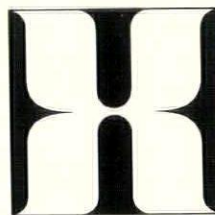
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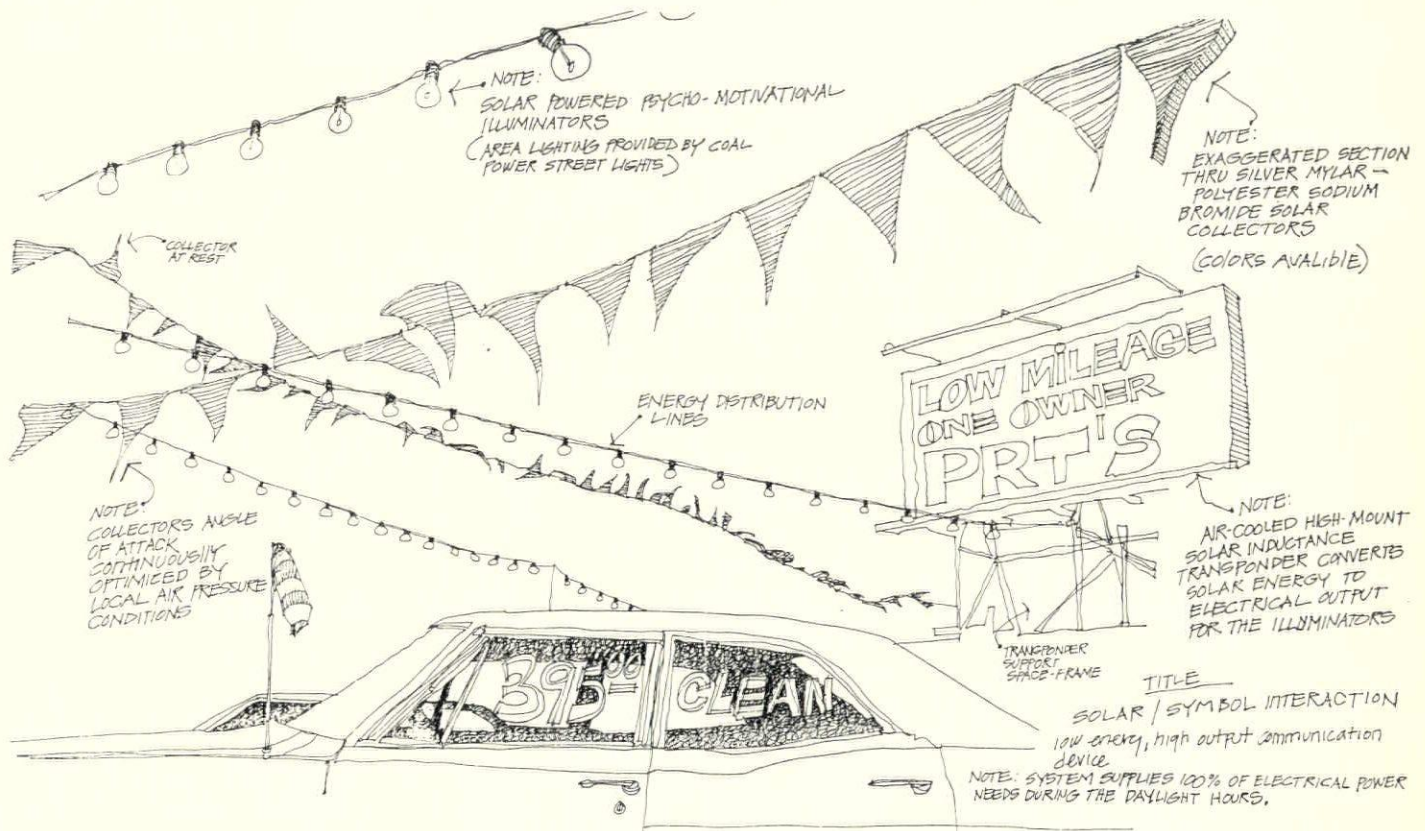
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# RESEARCH IN SOLAR ENERGY



A recent communique from The Design Collective, Minneapolis (Peter Kramer, Robert Roscoe)

Recently a new client Ronaldo "Fast Laquer" Bunkaski (a gentleman of unique intellectual perception and environmental sensitivity) commissioned us to study the applicability of solar energy to his Lake Street international headquarters. Enclosed is our preliminary plan.

As you can see, we have solved the problem of electrical energy demand for fully one-third of Mr. Bunkaski's

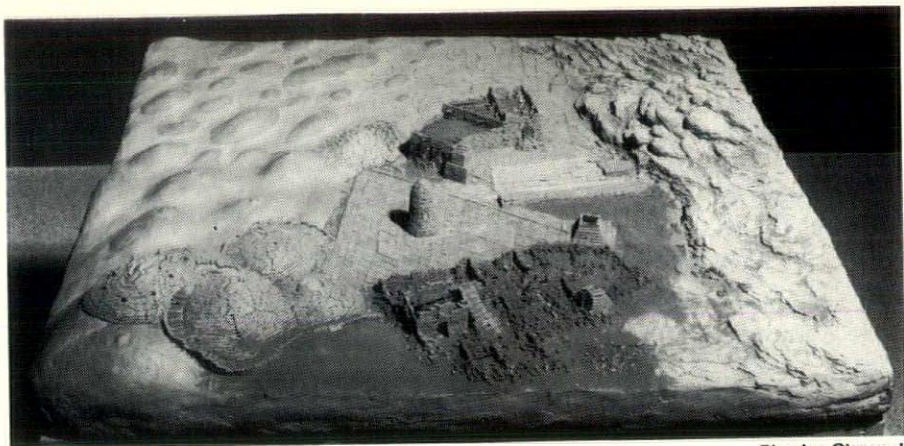
24-operating hours. In other words, our system will take over 100% of demand whenever the sun is shining—allowing our client's international headquarters to be fully illuminated during the crucial daylight sales hours.

Fall back onto nuclear or coal power will only be necessary at night and on cloudy days. As "Fast Laquer" puts it "it's the least we can do to save this wonderful land of America."





Charles Simonds



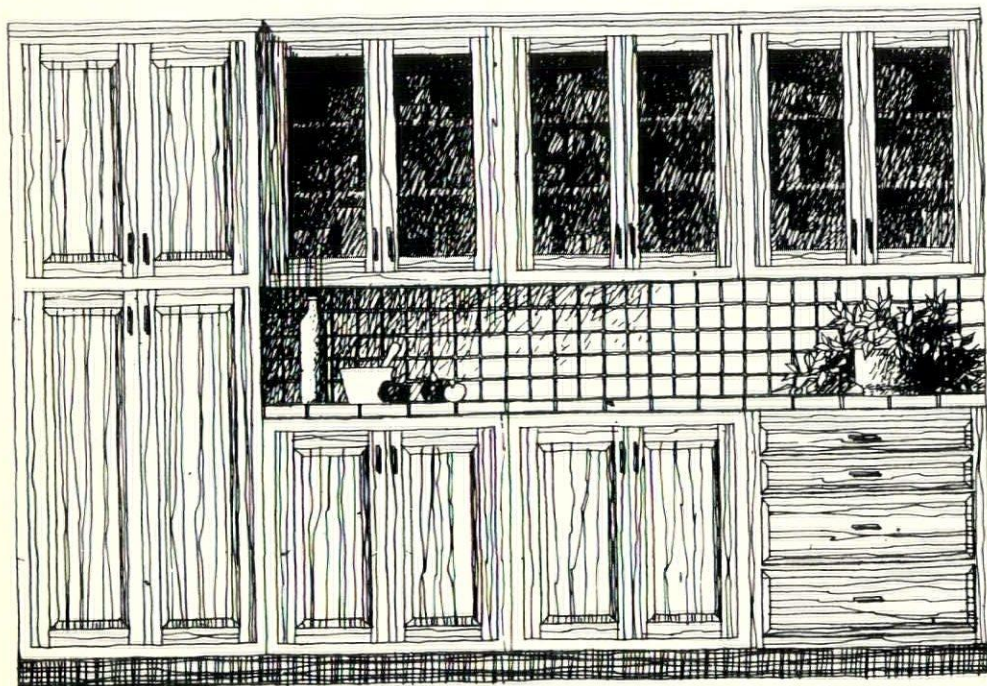
Charles Simonds

## SCALE AND ENVIRONMENT: 10 SCULPTORS

Douglas W. Foster

Rarely is the interplay of art and architecture more evident than in the works of artists known as "environments." In this approach, the artist extends the traditional boundaries of art to create environmental situations, often having architecture characteristics, that explore the nature of space and experience. The efforts in the 1960's were directed toward large scale works and, while this direction

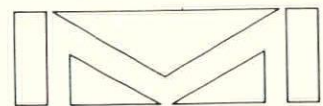
continues, a major change in attitude toward scale has occurred in the 1970's. A group of artists is now involved in very small scale or miniature environments. Two divergent attitudes exist then today regarding environmental scale in art. It is thus timely that Walker Art Center in Minneapolis has brought together examples of both approaches in an exhibition appropriately named "Scale and Environment: 10 Sculptors." Throughout the exhibition is a mood of recall and of association—association with familiar images of the past and present. An architectonic



MUTSCHLER

BY LOUIS ANGELIKIS A.I.A.

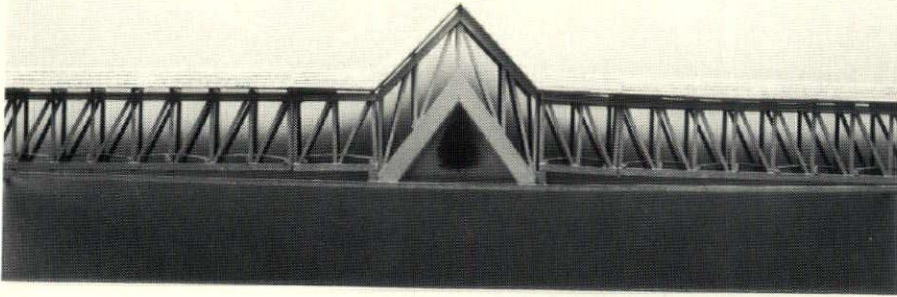
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quality is also present in many of the works and it is interesting to consider the art not only for its own purposes but also for ideas that may influence related fields of design as architecture.

Among the most stimulating of the small scaled works are the creations of Donna Dennis and the miniature communities of Harry Roseman, Aldo Moroni and Charles Simonds. Actually, Dennis' art might be termed mid-scaled. Her stage set segments of buildings—cabins, subway entrance and hotel facade—are remindful of play houses (or perhaps very large doll houses!) that evoke nostalgic memories

of childhood. A Depression period style seems to be present and this, with the semi dark setting, contribute to a haunting loneliness and dream-like atmosphere. The miniature communities are a special delight. For all of us, especially when very young, are fascinated by the idea of creating whole cities with blocks, or sand on the beach or with toy buildings from the department store. These little communities are, of course, more than just assemblages of building. They are also an expression of the artist's private vision of the world. There are myths involved with Moroni's seafarer



city and Simonds' thoughts on metamorphosis and Roseman's sensitive understanding of intensely urban situations.

In contrast are the large scale constructions where the viewer can now explore both interior and exterior. Siah Armajani is concerned with perception in architecture and his environment reveals contradictory, and ambiguous relationships that test our comprehension of familiar realities. Ironically, his small scale models of strange buildings and bridges may be more intriguing. There is a bridge that telescopes together, a bridge that

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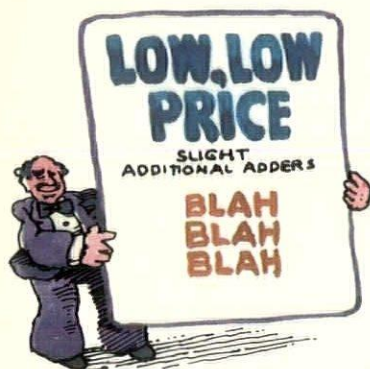
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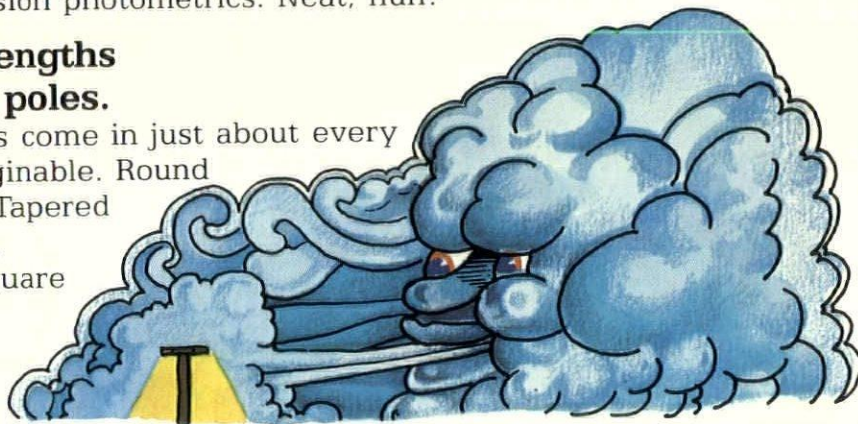
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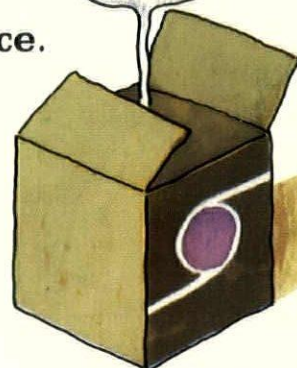


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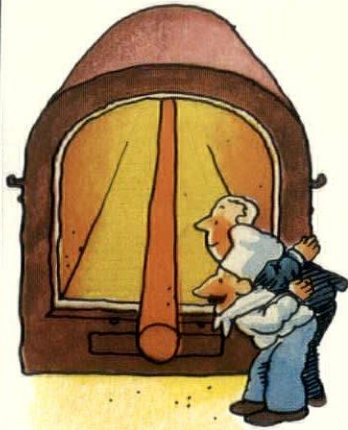


### Man-hours mean money.

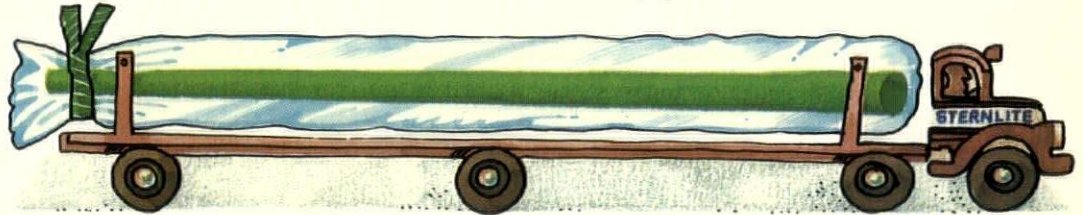
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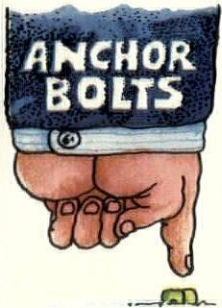


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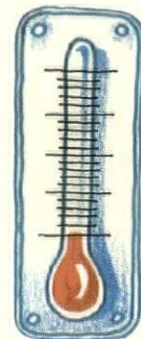
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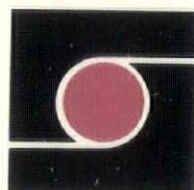


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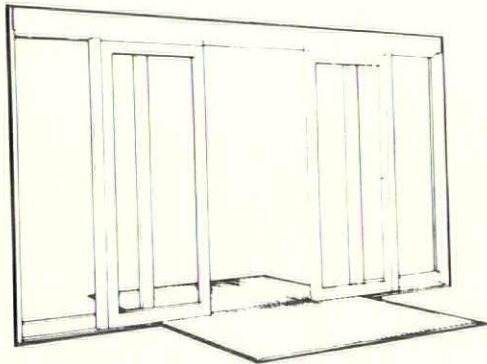
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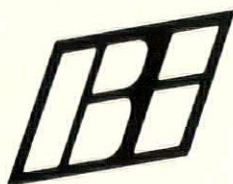
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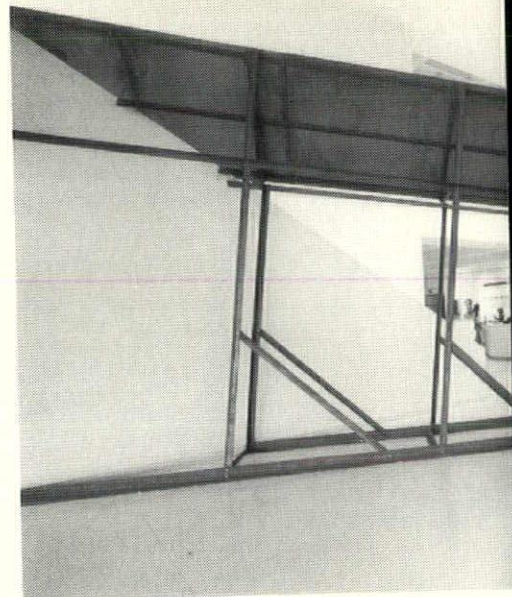
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Michael Hall



makes a startling accommodation for a tree in its way and a fantastically monumental bridge that seems to be missing a key link at mid span. Where Armajani's works have a strong sense of weight and mass, Robert Stackhouse's rib like structure is light and airy and resembles nothing so much as a ship hull or Indian long house. The urge to explore the interior of such a graceful structure is irresistible. In a change of surrounding, George Trakas has created a minimalist outdoor work consisting of a thin metal framework, suggesting a building form, set on the excavated foundation of the old Minneapolis Armory. This ethereal environment is then penetrated by a long, narrow foot bridge. All seems bland and uninteresting at first glance but in experiencing a trip along the very narrow bridge one feels precariously balanced between two symbolic gestures—the imagery of a landmark that was and the suggestion of a building that has yet to be.

Both contemporary art and design have often seemed too abstract, too cold and irresponsible to many. "Scale and Environment," however, appears to have had a different effect and observation indicated that most visitors are absorbed and delighted by many of the pieces. (It is rare when so many make the effort to read the detailed descriptions of exhibition works!) Various reasons can be surmised for the interest shown. As an example, the scaled down buildings of Donna Dennis have a strange fascination for people. Walt Disney recognized this and created reduced scale versions of building types for his Disney World.

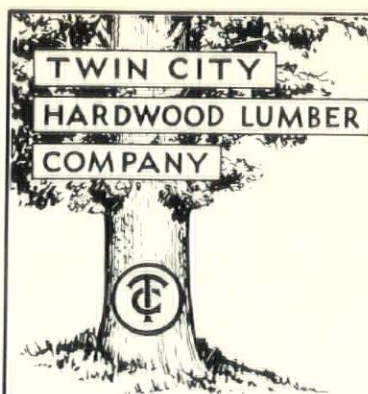




In an age of so many overscaled, monumental and dominating structures, the playhouse concept of scale has a reassuring and comforting effect. Association with images of past and present offers another clue to the appeal of the exhibition. There are historical allusions, recollections of childhood experiences and suggestions of familiar forms. Yet these are not always literal connections—for the artist may cause shifts of context or create ambiguous relationships that result in varied perceptions. Is Stack-house's construction really a ship hull? Or is it tribal structure or perhaps a mockup of some incredible new flying machine? It doesn't matter. The piling up of associations creates a diversity of images that makes the work unique and memorable. There is a parallel here with architecture and it is interesting to note that there has been a movement in recent years to incorporate in design a greater degree of symbolism, contradiction and allusion to both historic and contemporary forms.

Undoubtedly there are other reasons for the success of the exhibition but in the final analysis, "Scale and Environment" is significant for achieving the almost contradictory aims of relating to a wide public while also exploring new directions in the nature of space and experience.

*Douglas Foster, a graduate of the University of Minnesota's School of Architecture and the Harvard Graduate School of Design, is Principal Designer with the Saint Paul Housing and Redevelopment Authority.*



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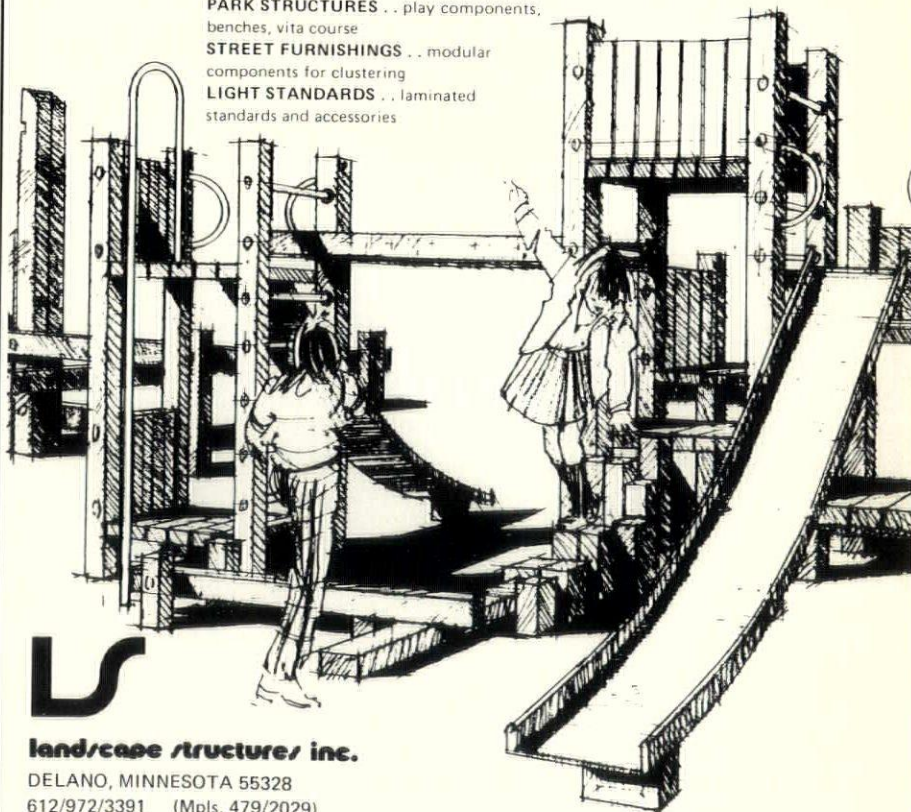
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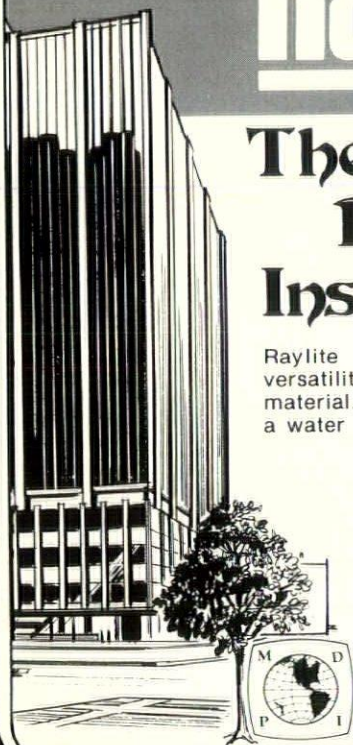
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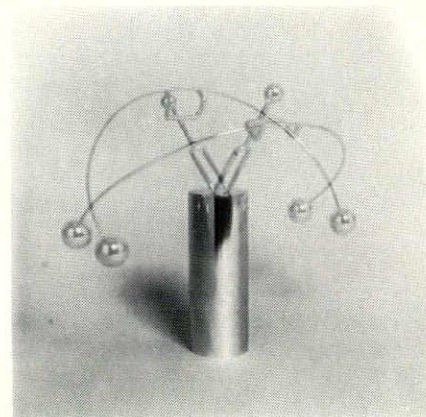
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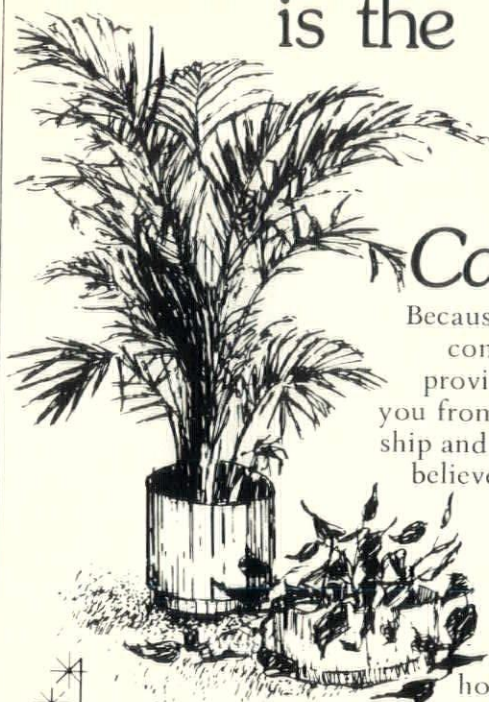


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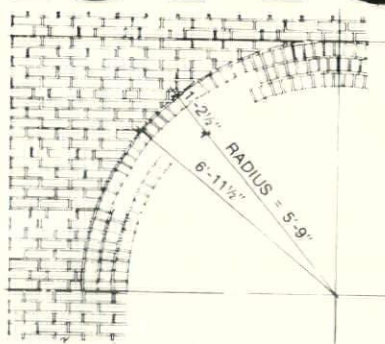
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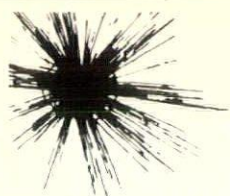
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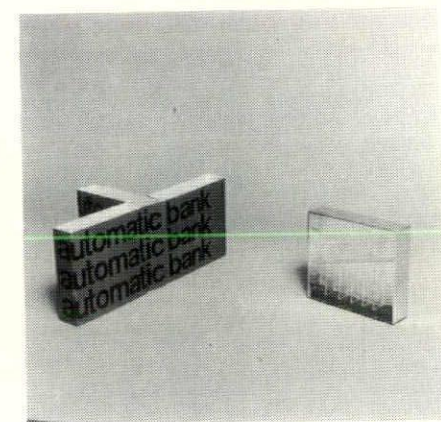
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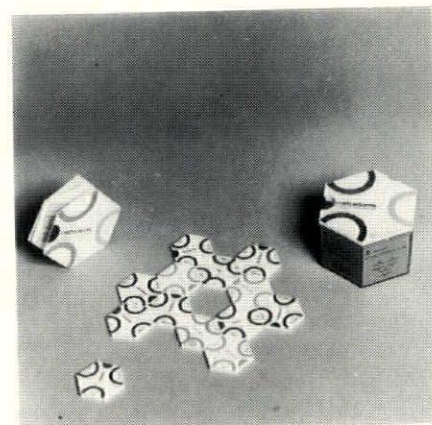
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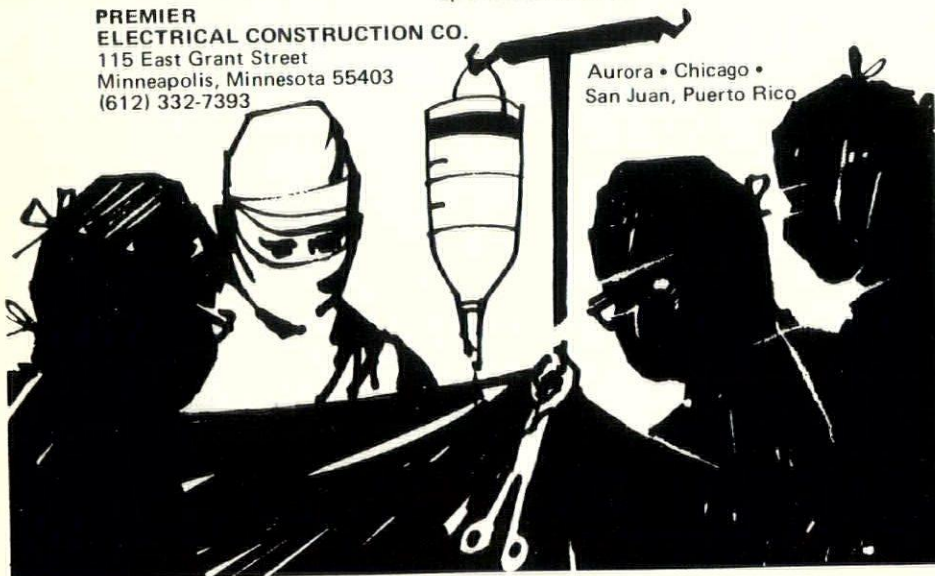
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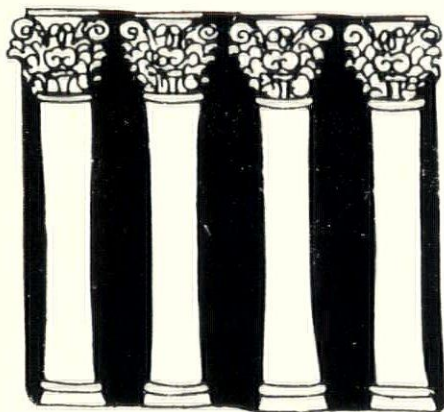






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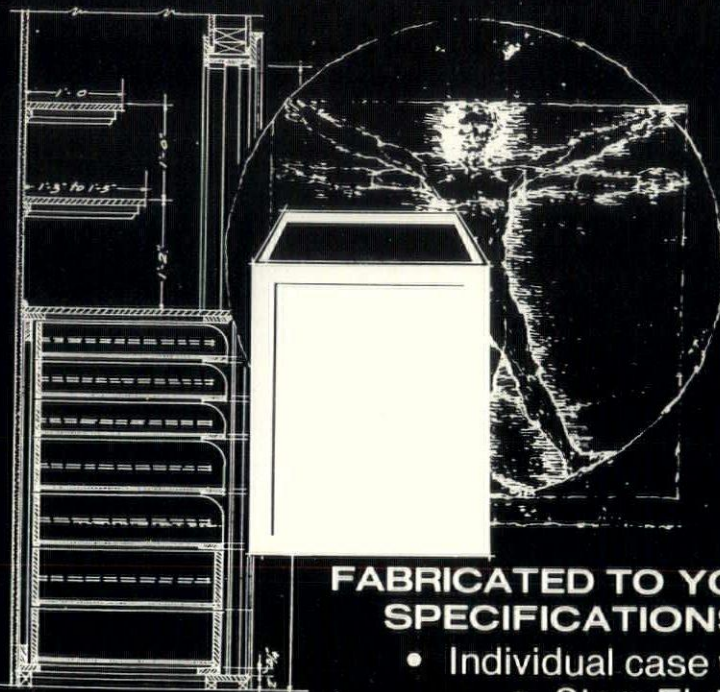


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All of these items (campari?) are available at the Architectural Center in the Skyway Building (at the top of the escalator to the bridge to Dayton's) in Saint Paul. The Center's manager, Sue Davis modeled for photographer Phillip Macmillan James in these photographs.

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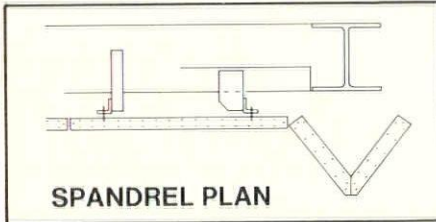
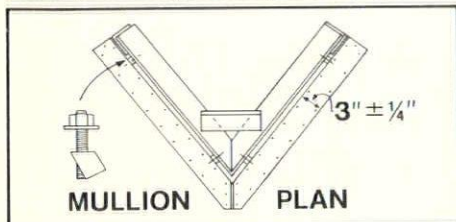
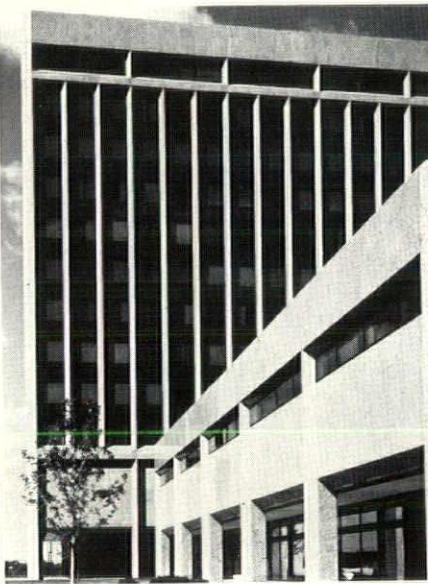
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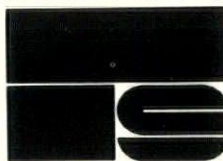
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## PRESERVING ARCHITECTS

Beverly Vavoulis

Among the divisions of mankind is a line which separates those who accept life's mysteries and those who won't. Those who live comfortably with the unknown, and those who attack it, eye, ear and survey course. The identity of a building's architect is understandably of the mildest concern to the first group at ease in a mysterious world. But strangely, the others, who peer at buildings and reference books in quest of style or date or significance, seldom ask "who dunnit?" either.

Buildings rarely speak a line on their architect's behalf, resting silent on their foundations if not their laurels. Shunning crass advertising as architects do, would it be improper for them to sign (carve? paint? inscribe?) their names in a lower left-hand corner?

Is it possible the public would come to think of a building as an Ellerbe, a Cass Gilbert, a Johnston, pere or fils? Or would debate the quality of the young versus mature Seed & Stem displayed in the St. Paul Hotel and New York's Grand Central Station? Perhaps Harvey Ellis, architect, could be associated as familiarly with his buildings as is Beethoven or the Beatles with their music. Even better—clients might be moved to commission the living architects whose projects were so identified.

Too late now for Electus D. Litchfield to receive recognition in person for his handsome public library, but not too late to learn and honor his name. Credit lines of architects—past could be placed in a standard prescribed location on their buildings by a proud profession. Every architect-designed structure which rises hereafter would bear date and signature identification likewise. Should contractors or tract-house entrepreneurs repeat a plan, they too might give the original designer credit in the numbering manner of the print-maker: 35/900.

Implementation of such a proposal would most certainly further critical appreciation and preservation of architects as well as their buildings. And yes, satisfy the curiosity of those of us who forever need to know.

*Beverly Varoulis is a writer with particular interests in urban and environmental issues. She is also a charter member of the Saint Paul Heritage Preservation Commission.*



# 1978 CONSTRUCTION CONTRACTS

Construction contracts in 1978 will total \$147 billion, eight per cent more than this year's anticipated level of \$136 billion, it was announced today by McGraw-Hill Information Systems Company at a major conference for business executives. A leading authority on the construction market, the firm is known for its Dodge Reports on construction activity and Sweet's Catalog Files of building product information.

The forecast of the 1978 construction market was presented to approximately 600 executives attending the annual Building Products Executives Conference at the Capital Hilton here, by George A. Christie, the Company's vice president and chief economist. He told the special audience that while all three major construction markets will be showing advances over 1977, the most significant progress will be made in nonresidential building next year. He said that 1978 would be "A year of higher construction volume . . . slower growth . . . and a year when nonresidential building takes over as the dynamic part of the market."

The economist expects nonresidential building contracts in 1978 to total \$38.5 billion, a 15 per cent gain over this year; residential construction will come to \$61.6 billion, a three per cent increase; and non-building construction will total \$6.9 billion, a nine per cent gain.

The annual forecast presented by Christie, titled the *1978 Dodge/Sweet's Construction Outlook*, is based on information provided by the two key divisions of McGraw-Hill Information Systems Company. Delivered at the Building Products Executives Conference each year, it is the highlight of this national meeting for executives and officials of building material manufacturing firms, industry associations and government agencies.

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half years of expansion, the housing cycle reached maturity in 1977 and there is "little potential left for further expansion." He sees more of a change next year in composition than in total volume, with dwelling units totaling 1.9 million in 1978 and "virtually unchanged from the estimated 1977 volume."

He pointed out two key differences in next year's housing market: the "direction" will be downward and the "composition will shift to about 100,000 fewer one-family homes and that many more apartment units," said Christie.

Evaluating nonresidential construction, Christie said that "after seven quarters of recovery, which started in 1976, nonresidential building is still in its adolescence—unlike the mature housing cycle." In 1978 he believes commercial and industrial building will provide the thrust that's been lacking in nonresidential building up to now.

"With the long-awaited expansion of business capital spending finally taking hold," he said, "contracting for commercial and industrial building could jump as much as 20 per cent—providing that the economy itself remains reasonably buoyant." The economist hinted at the hope of a possible "modest reversal" next year of the long decline of institutional building but warned that it shouldn't be depended upon.

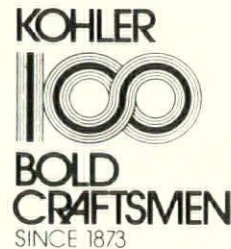
Calling nonbuilding construction a "volatile category," Christie said that Round Two of the Public Works Employment Act, which involves some \$4 billion, virtually assures an even higher level in contracting for highways and local sewer and water facilities in 1978 than this year. This must be balanced by the new Administration's firm stand on budgetary restraint on the funding of Federal water resource programs and urban mass transit projects, he pointed out. "Most of the growth of nonbuilding construction next year hinges on the growth of multi-billion dollar electric utility projects," Christie added.

Concluding his talk, the economist cautioned that the audience should be "aware of some of the vulnerabilities of the 1978 construction market," and he singled out these "contingencies" in his forecast: . . . excessive credit restraint could precipitate a collapse of the housing market; a serious economic slowdown would lead business to delay or even cancel plans

for commercial and industrial building; many factors could lead to the postponement of several billion dollars worth of huge electric generating projects. □

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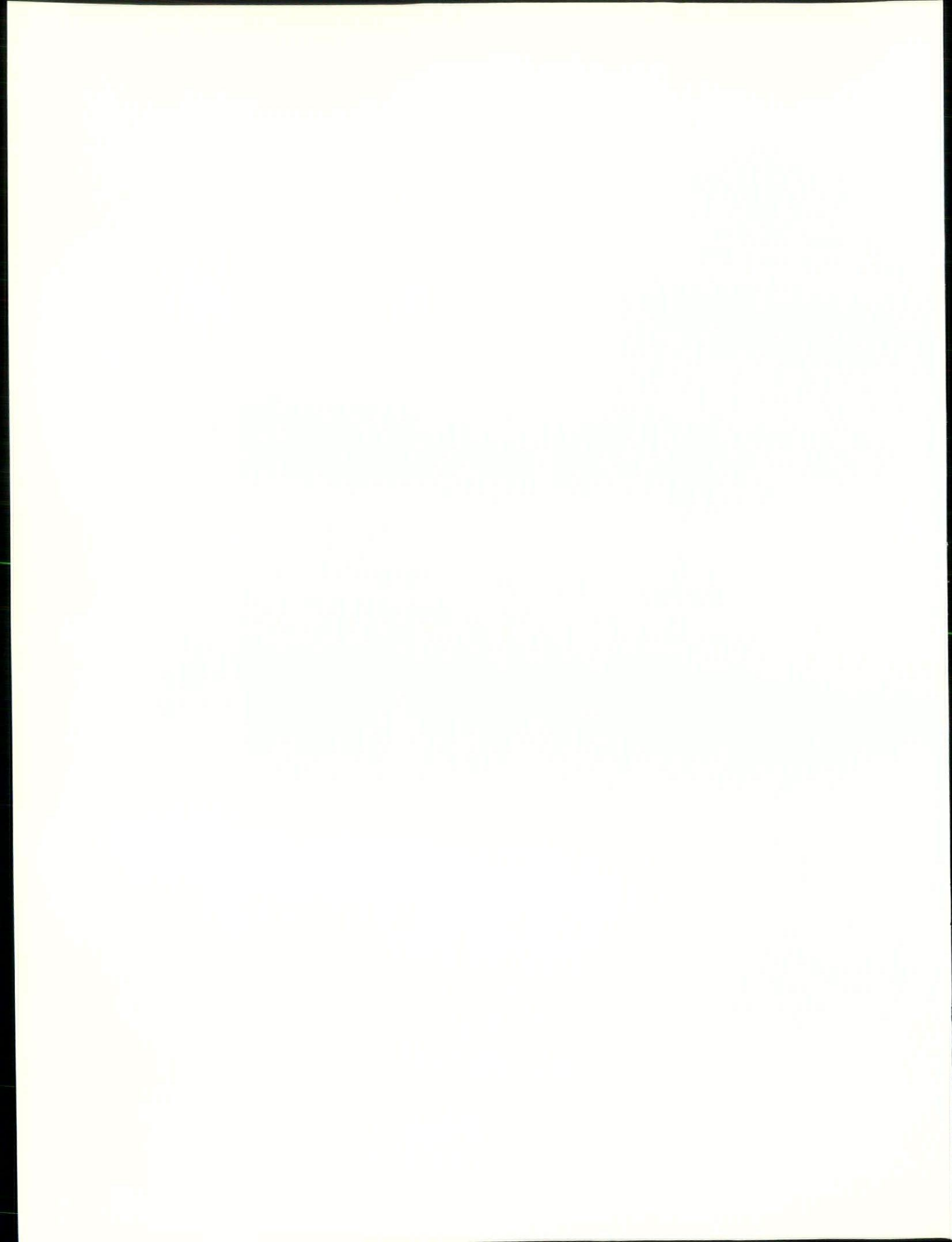
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# BOOKS

Susan Davis

**Decorating: A Realistic Guide** by Mary Gilliatt. Random House. 25.00.

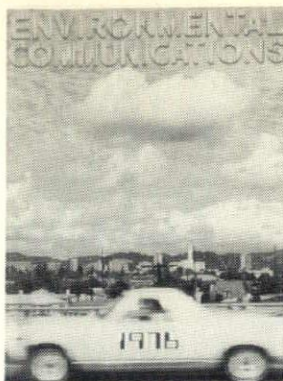
Recently this book has gotten a lot of press. I have seen good reviews in both *New York Magazine* and *Progressive Architecture*. "... an appropriate balance between beauty and practicality in the extraordinary variety presented, from lofts and one room studios to houses, vacation retreats and apartments."

**Houses Architects Live-in** by Barbara Plumb. Viking Press. 17.95.

Mostly color photographs and plans of forty architects' houses including Charles Moore, Luis Barragan and Peter Chermayeff. A series of creative and innovative living spaces ranging from the eclectic to the radical.

**Environmental Communications 1976 Catalog**. 3.75

From the editor's preface: "For the past six years *Environmental Communications* has documented exciting trends in architecture, innovative currents in art and creative approaches to viewing the urban montage. This catalog represents the culmination of our



efforts to date. It is the means by which we distribute educational material to over 2000 universities, museums and libraries and is now being offered to the public as a book." An international distribution system for slides, films, video-tapes and books—a visual biography of thought provoking images.

**The Prodigious Builders** by Bernard Rudofsky. Harcourt, Brace and Jovanovich. 14.95

A new book from the author of *Architecture Without Architects*. Further exploring that theme, Rudofsky deals with vernacular architecture from Chinese floating villages to giant observation kites. In Rudofsky's words, he is dealing with "architecture as a

tangible expression of a way of life rather than the art of building."

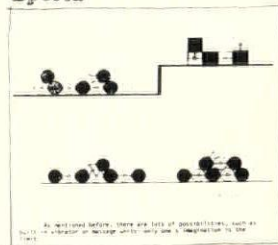
The Architectural Center is now carrying the Italian Magazine **Lotus International**. We have issues 12, 13, 14, and 15. Each issue takes a major theme, and devotes the entire issue to creative explorations of that theme. Each volume is 15.00.

**The Kitchen Book** by Terrence Conran. Crown. 27.50 until 12/31 then 30.00.

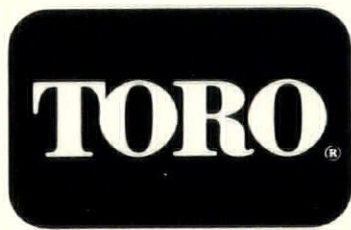
The counterpart to the *House Book* has finally been published and is now in stock. Every conceivable aspect of kitchen design and function is discussed. A must for Christmas for the fans of the *House Book*.

**Love Couches Design Criteria** by Alfred Kemper. Archinform. 9.65.

Sports



From the author's dedication: This booklet is an artistic effort to discuss in a simple and rational manner



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# TAX REFORM ACT FAVORS HISTORIC PRESERVATION

A National Park Service official predicted a sharp increase in attention paid new tax incentives for rehabilitating "certified" income-producing historic buildings. An estimated 100,000 of the required applications for certification of significance and of rehabilitation may be made by 1981, as more and more property owners learn about possible tax advantages for certified rehabilitation.

Ward Jandl, an official of the

Office of Archaeology and Historic Preservation, National Park Service, Department of the Interior, made the projection.

Katherine Cole, a representative of the National Register for Historic Place, National Park Service, explained that Section 2124 of the Tax Reform Act of 1978 (Public Law 94-455) provides major tax incentives for property owners to rehabilitate their historic structures and certain tax penalties for those who demolish certain historic structures or replace them with new construction.

The act allows an owner of a certified historic structure to amortize the costs of rehabilitation over a 60-month period, even if the expected life of the improvement exceeds 60 months. If the rehabilitation costs are substantial, an owner may use methods of accelerated depreciation. The law applies to rehabilitation expenses incurred after June 14, 1976 and before June 15, 1981.

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### Up to A Million Buildings Could Qualify for Tax Incentives

The National Park Service (NPS) estimates that up to a million buildings could potentially qualify as "certified historic structures" for purposes of the Tax Reform Act, although no official survey has been made.

Generally speaking, a "certified historic structure" is any structure, subject to depreciation (as defined by Section 167 of the Internal Revenue Code of 1954) which is either: (1) listed individually on the National Register for Historic Places; (2) Located within and contributes to the significance of a historic district listed in the National Register of Historic Places; or (3) is located within and contributes to a historic district designated under a state or local statute which has been approved by the Secretary of the Interior.

### Two-Step Certification Process

Actual certification, for purposes of the Tax Reform Act, is a two-step process.

Step one is official certification of a building's historic significance. This step requires the completion of a "Historic Preservation Certification Application, Part 1," and subsequent approval by the Secretary of the Interior. The application is available from the State Historic Preservation



Officer in the state where the building is located.

Buildings listed individually on the National Register for Historic Places are exempt from this step in the certification procedure.

Step two is a similar certification process for the actual rehabilitation work done on the certified building. Rehabilitation certification requires completion of the "Historic Preservation Certification Application, Part 2". This form requires detailed information about the rehabilitation work and its effect on the historic building. The entire rehabilitation work is reviewed by the Technical Preservation Services Division, National Park Service, against the Secretary of the Interior's "Standards for Rehabilitation." The underlying concern in all ten standards is that the historic and architectural integrity of the structure is not destroyed in the process of rehabilitation.

The National Park Service will also review proposed rehabilitation work for a certified building, and notify the owner whether the proposed work appears to conform to the "Standards for Rehabilitation."

Jandl noted that "under Internal Revenue Service regulations published in April, 1977, a building owner can elect to start amortizing rehabilitation expenses prior to certification, provided he has requested appropriate certification in accordance with the procedures established with the Secretary of the Interior."

#### "Adaptive Use" Projects Among Initial Certification Applications

The "Standards for Rehabilitation" are not designed to require academic restoration of the historic structure in question. Rather, they are broad enough to accommodate the rehabilitation of all historic buildings, from brewery complexes to warehouses, from schools to residential structures. The tax provisions apply only to depreciable properties.

Among buildings for which applications for historic and rehabilitation certification have been filed to date are "adaptive use" plans which call for conversion of a building's original use to a new one. The cast iron front McLauthlin Building, on the Boston waterfront, is located in the Fulton-Commercial Streets Historic District. Building plans include exterior restoration, and adaptation of the interior for use as apartments and office space. The National Park

Service has notified the owner that the proposed rehabilitation appears to conform to the "Standards for Rehabilitation." Actual certification of the rehabilitation will not be made until the rehabilitation is completed.

Another rehabilitation project which has applied for certification—plans for which have won high praise from the NPS—is the conversion of Denver's Tivoli Brewery (1882-1900) into an entertainment, educational and commercial complex.

More information about Section 2124 of the Tax Reform Act of 1976

can be obtained by writing to the National Trust for Historic Preservation, 740 Jackson Place, N.W., Washington, D.C. 20006.

The National Trust for Historic Preservation, chartered by Congress in 1949, is the only such organization established to encourage public participation in the preservation of the built environment. It provides advisory services, educational conferences, publications, and maintains several historic properties. The nationwide membership of the National Trust exceeds 116,000. □

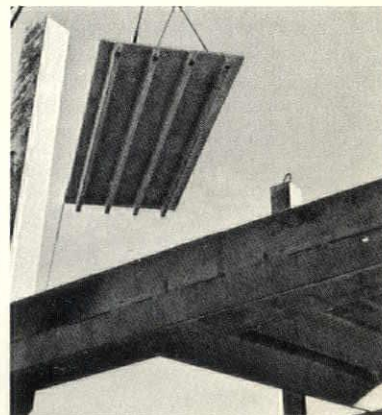
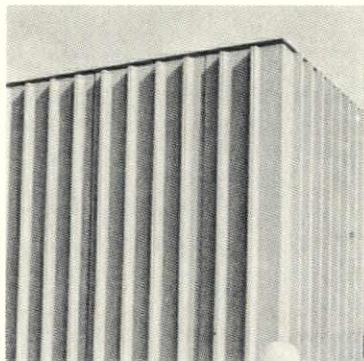


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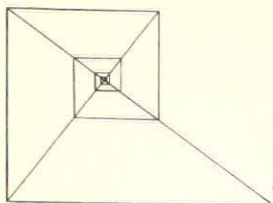
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# CONSTRUCTION COSTS UP

The cost of construction materials and labor across the nation increased an average of 10.4 per cent during a 12-month period, significantly more than the 6.2 per cent rise registered a year earlier, it was reported by the Dodge Building Costs Services Department of McGraw-Hill Information Systems Company.

The information released by Dodge Building Cost Services, for the 12-month period ended September 1977, is based on a semi-annual survey of building trades unions, contractors and materials suppliers in 183 cities in the continental United States.

The jump in costs was attributed in large measure to the rapidly rising costs of building materials. A weighted average of building materials and labor costs is used in preparation of the Dodge Building Cost Services index. The greatest cost increases were posted by lumber and plaster, followed by

brick and cement. Wage rates, however, appeared to be increasing at a slower rate in 1977 than in 1976.

During the latest 12-month period, costs hikes were highest in the region covering the Pacific Coast and Rocky Mountain States, up 12.6 per cent. The smallest hike, 9.4 per cent, was posted by the Southeastern and South Central States.

The full report, containing addition-

al information on Canadian construction costs, is titled "Dodge Building Cost Indexes for U.S. and Canadian Cities"; it may be purchased for \$10.00 from The Architectural Center in Saint Paul.

Following are highlights of the latest cost study.

## SUMMARY OF U.S. BUILDING CONSTRUCTION COSTS

Prepared by  
Dodge Building Cost Services  
McGraw-Hill Information Systems Company

REGION	Metropolitan Areas	% Change 6 Months to Sept. 1977	% Change 12 Months to Sept. 1977
<b>EASTERN U.S.</b>			
Metropolitan N.Y.-N.J.	16	+ 5.3	+10.1
New England States	21	+ 3.2	+ 8.8
Northeastern and North Central States	46	+ 4.6	+ 9.8
Southeastern and South Central States	39	+ 4.7	+ 9.4
AVERAGE EASTERN U.S.	122	+ 4.5	+ 9.6
<b>WESTERN U.S.</b>			
Mississippi River and West Central States	35	+ 5.6	+11.7
Pacific Coast and Rocky Mountain States	26	+ 5.9	+12.6
AVERAGE WESTERN U.S.	60	+ 5.7	+12.1
UNITED STATES AVERAGE	183	+ 4.9	+10.4

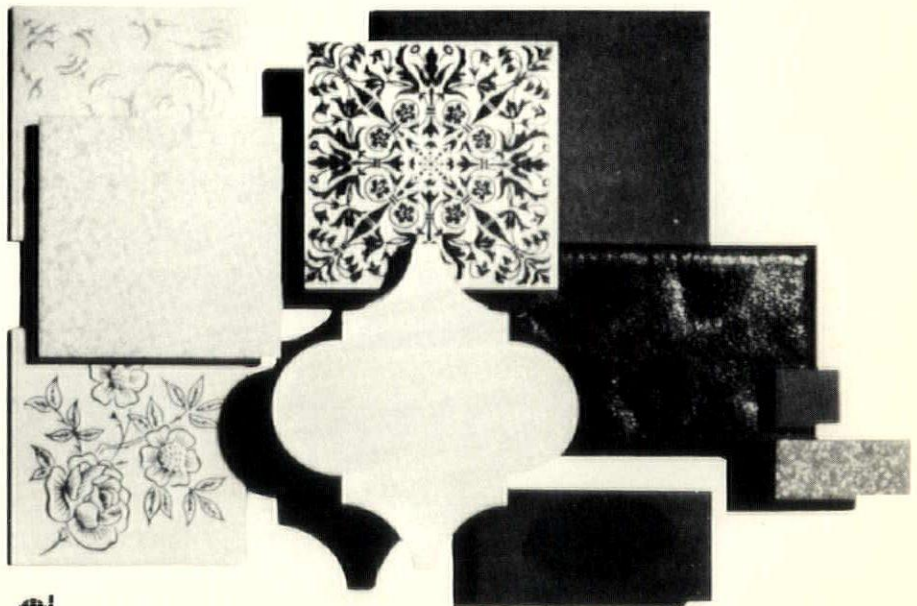
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Editor:

Congratulations for another excellent issue of *Architecture Minnesota*. Specifically, I wish to complement you and your staff for the excellent article written by Peter Pfister, "Conservation By Design". Mr. Pfister's article is both a well written journalistic dissertation—as well as a very relevant, concise examination of the solar potential . . .

**William J. Angell**  
**Extension Housing Specialist**  
**University of Minnesota**

Editor:

Some weeks ago the July-August issue of your greatly treasured periodical came to our house. Many copies have come in the past and my wife and I have enjoyed them all.

Now is the time for me to tell you, your editorial board, your business

manager and, I suppose all members of the Minnesota Society of Architects how very grateful I am to have received your beautiful, literate publication for so long without ever having been billed for a subscription.

I have two close ties to the State of Minnesota. One: my mother lived in Minneapolis, her birthplace, until her marriage. After that, she and my father lived out their whole married lives here in Madison. I was brought up on tales of the glories of Minnesota; the Twin Cities abounding in lakes and parks, and the Root River valley in southern Minnesota where some of my relatives still live. Trips to Minneapolis on the Northwestern Railroad are fond boyhood memories of mine.

A more recent experience with the resources of your state came in 1972. I had the good fortune to have been selected as architect in charge of the

re-building of the Bradley House here—a work of Louis H. Sullivan. Owned by the Sigma Phi Society (a college fraternity) it was badly damaged by a disastrous fire the night of March 17, 1972.

After a week of marathon telephoning to many possible repositories of the original drawings of the house we were finally successful in locating nine mounted blueprints of the originals. Alan Lathrop, Curator of the Northwest Archives had them copied full-size in film. From there on we were in business.

I appreciate Minnesota!

Please know that your editorial, "Take Me Home, Daddy" has been deeply appreciated by my wife and me and by many of our friends to whom we have shown it.

**Mark T. Purcell AIA**  
**Madison, Wisconsin**

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## SWEDEN

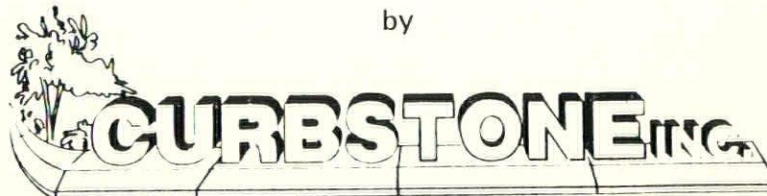
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