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The Young Turks

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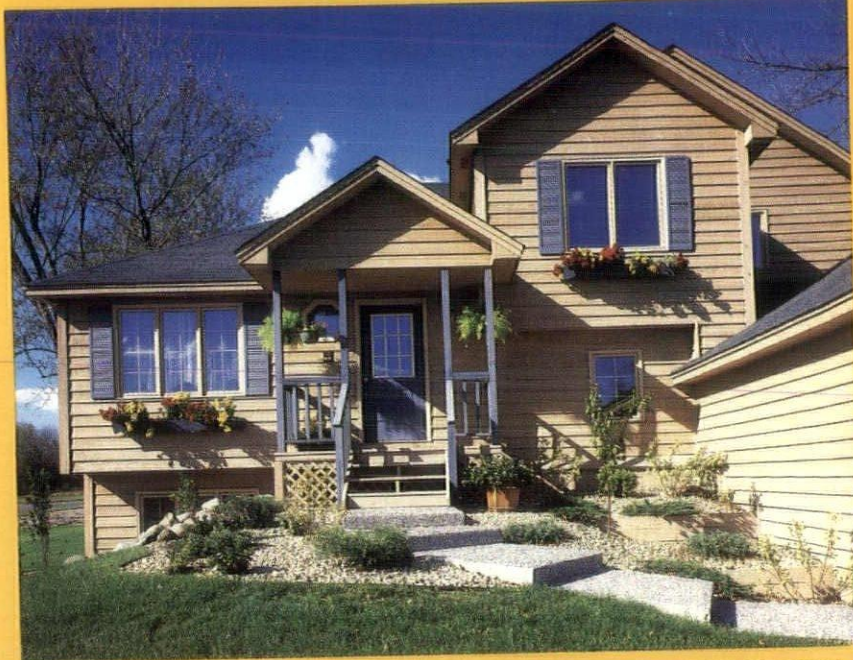


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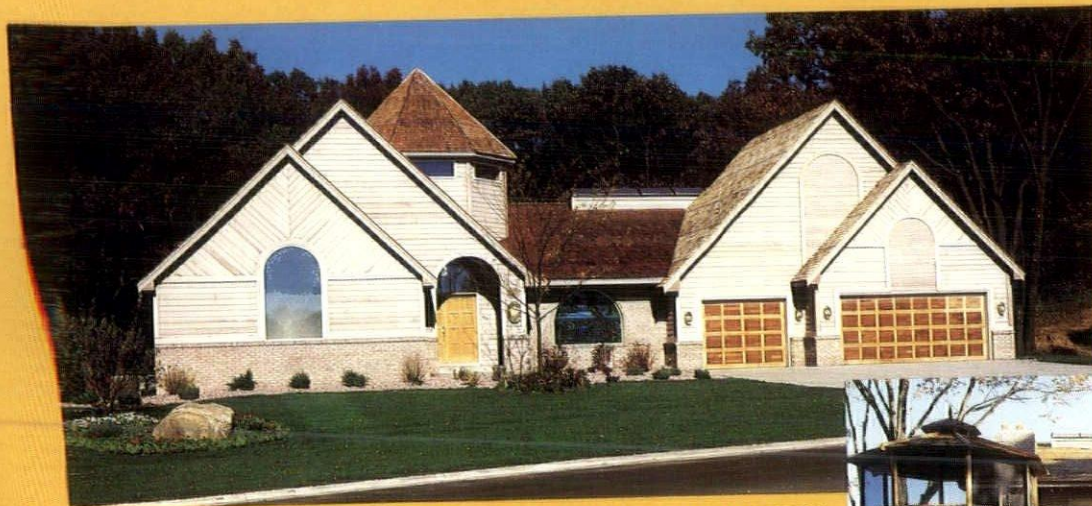
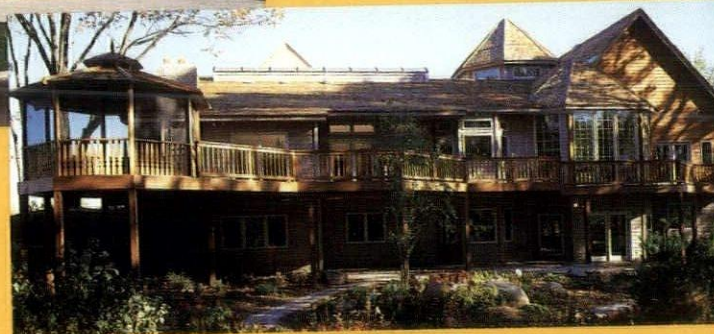


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PRODUCT: 1/2x8" Clear All Heart
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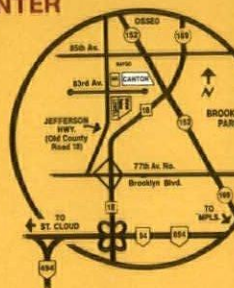


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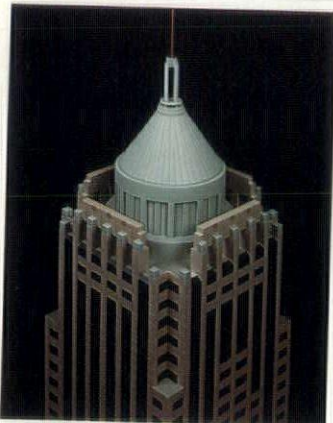


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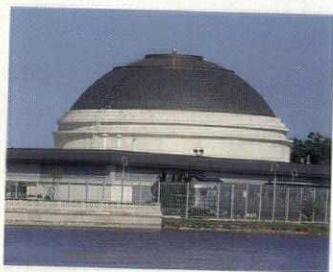
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The Young Turks

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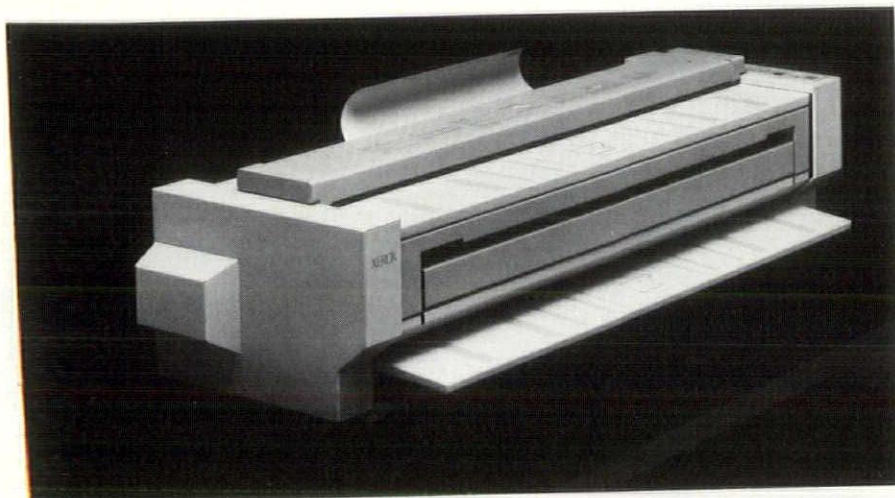
Cover: Three faces in architecture's future, from left to right Ed Frenette, Richard Varda and Loren Ahles. Photographer: George Heinrich.

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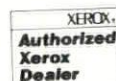
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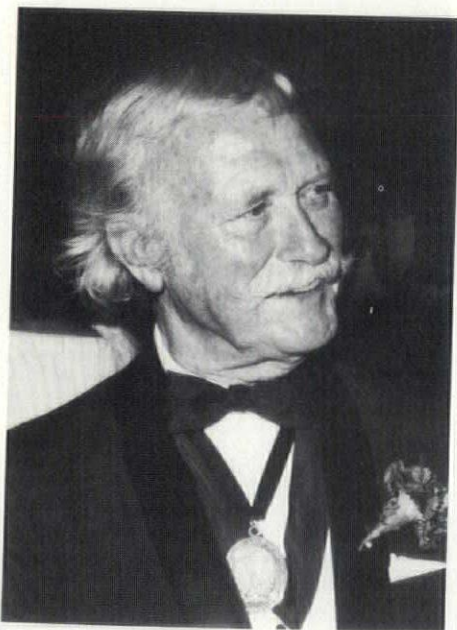
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Rapson receives Topaz Award

Ralph Rapson, FAIA, one of Minneapolis' most prominent architects and former head of the University of Minnesota's School of Architecture and Landscape Architecture, has been selected to receive the American Institute of Architects' Topaz Medallion for excellence in architectural education. The award was presented at the Association of Collegiate Schools for Architecture annual meeting in Los Angeles March 14-17.

"The many students who graduated under his mentorship, going to the finest graduate schools and then to distin-



Ralph Rapson, FAIA

the Massachusetts Institute of Technology from 1946-1954 and the Boston Architectural Center during the same period.

He graduated from the University of Michigan school of architecture in 1938 and did graduate work at the Cranbrook Academy. His most noted projects include the United States Embassy buildings in Copenhagen, Paris and Stockholm; Minneapolis' Guthrie Theater; the University of Minnesota's Rarig Center for the Performing Arts and the Cedar-Riverside housing development on Minneapolis' West Bank. He is currently working on the design for the Egyptian headquarters for Engineering for the Petroleum and Process Industries outside Cairo.

In 1979 Rapson received a Minnesota Society American Institute of Architects Gold Medal Award. He has served on more than 40 national and international architectural and planning juries and has been actively involved in federal, state and local planning committees.

The Topaz Award will also be presented at the AIA convention in Orlando, Florida June 19-22.

Architecture school to focus on urban design

The University of Minnesota School of Architecture and Landscape Architecture in collaboration with the Dayton Hudson Foundation has announced plans to create a Center for Urban Design at the university. The center will serve as an independent forum for faculty, students, design professionals, developers and business and community leaders to explore design issues facing the Twin Cities and Upper Midwest. "The center is meant to expand knowledge about urban design in general and urban design issues in cold climates in particular," said Harrison Fraker, head of the School of Architecture.

"The creation of the Center for Urban Design will encourage an interdisciplinary

approach within the university," stated university president Kenneth H. Keller. "We have strong faculties in the urban planning program at the Humphrey Institute, the geography and political science departments, the humanities program, the Center for Urban and Regional Affairs and the Carlson School of Management. The combination of these existing departments with the Center for Urban Design will enable the university to design a program that will serve as a national model.

The Center for Urban Design was initiated with a \$2.3 million endowment from the Dayton Hudson foundation and a \$1.3 million contribution from the permanent University Fund. The endowment will support a director, an assistant director, affiliated faculty, part-time consultants, support staff and an advisory board.

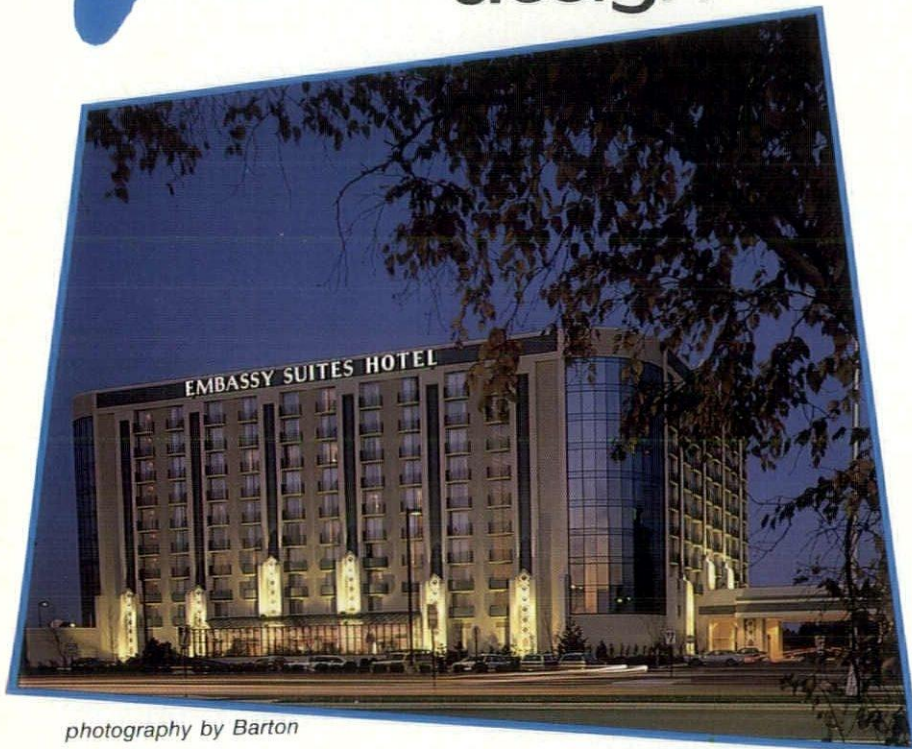
East meets Midwest in arts high school

One of Japan's most innovative architects will have the opportunity to carve a niche in the Minneapolis skyline. Arata Isozaki of Arata Isozaki Associates of Japan will team up with Setter, Leach & Lindstrom of Minneapolis to design the new Minnesota School and Resource Center for the Arts, to be located on Harmon Street and Hennepin Avenue in Loring Park. Isozaki will serve as principal designer; Basil Filonowich of Setter, Leach & Lindstrom will be principal architect and Ed Frenette will be project manager and planner.

Isozaki's most recent American work, the Los Angeles Museum of Contemporary Art, has been praised for its understated elegance and use of simple geometric forms to achieve a strong architectural presence. Isozaki also was chosen last year to design an addition to the Brooklyn Museum of Art and was a featured artist in last summer's Tokyo: Form and Spirit exhibit at the Walker Art Center.

Continued on page 54

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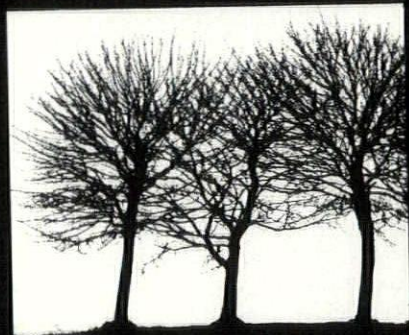
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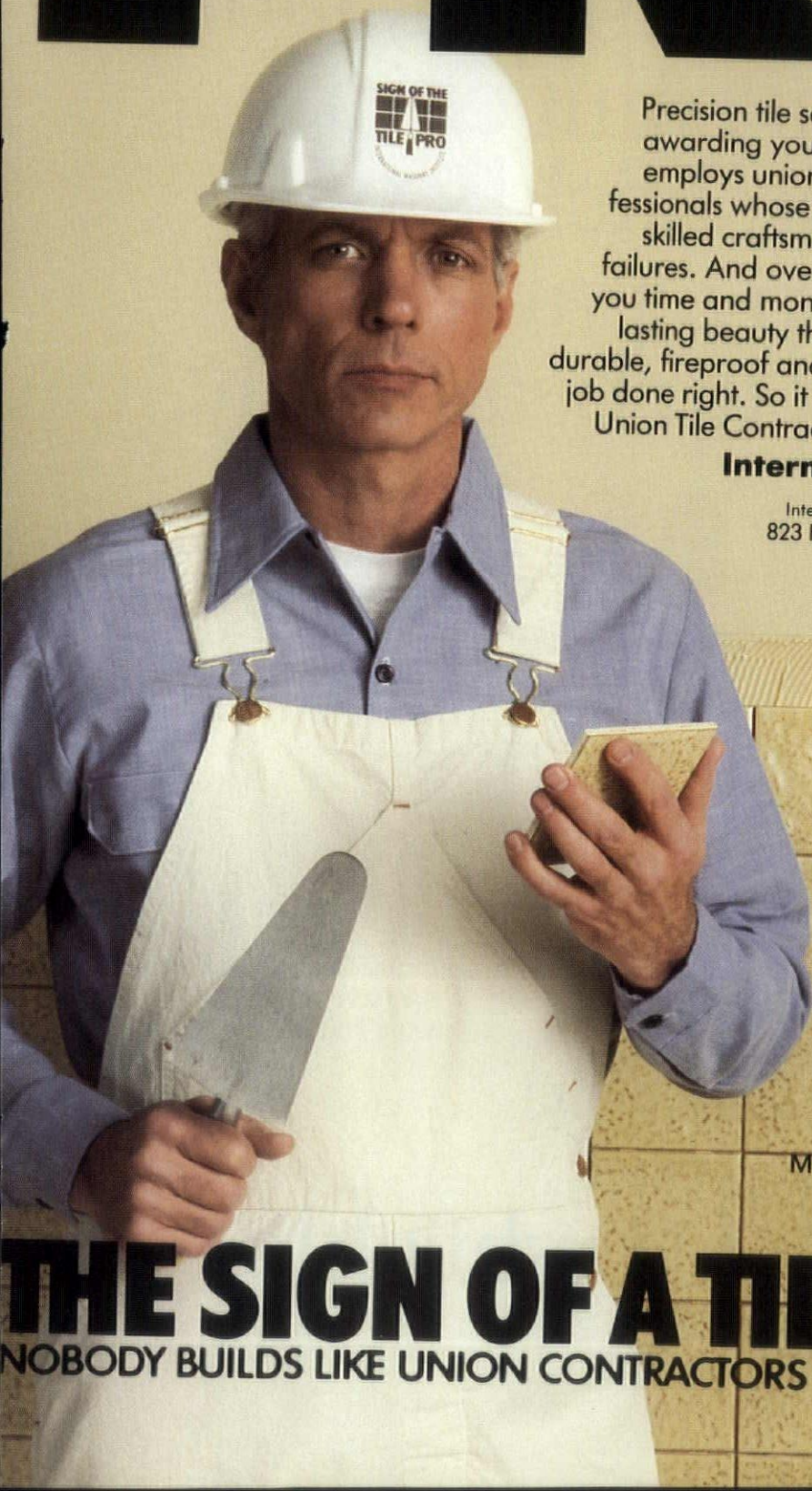
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Louis Sullivan: The Function of Ornament

By Larry Millett

Louis Sullivan's architectural ornament, treated by early Modernist critics as something of an embarrassment, has now come to be recognized as a vital ingredient of his work.

This is the way Sullivan would have wanted it, because for him ornament was always something far more important than mere decoration. From the very start of his long and tragic career, he sought to endow his swirling, foliate ornament with artistic, philosophical and even social significance and to integrate it fully into his architecture.

Perhaps no American architect was ever more passionate or obsessive about ornament than Sullivan, who used it as a rhythmic counterpoint to animate the block-like masses of his buildings. Moreover, the ornament is often breathtakingly beautiful in its own right, full of flowing grace and wonderful inventiveness.

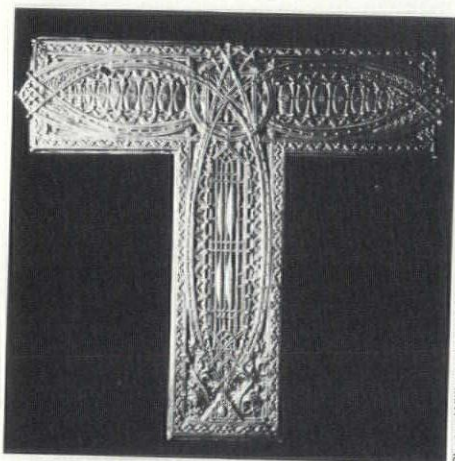
Sullivan's incomparable ornament is now the subject of a delightful show mounted by the St. Louis Art Museum and the Chicago Historical Society. The show opened last fall at the society and is currently at the Cooper-Hewitt Museum in New York, where it will remain through June 28, after which it will move to St. Louis and Washington, D.C.

It is the first major show devoted to Sullivan since 1956 and it brings together more than 170 pieces of ornament, large and small, executed in stained glass, cast iron, sheet metal, sawed wood, plaster, stencil work and terra cotta. The pieces assembled for the show serve both as a tribute to Sullivan's artistry and as a doleful reminder of the relentless destruction of his architectural legacy.

Chronicling the evolution of Sullivan's ornament over a professional career that spanned 50 years, the show is divided into three sections. The first

of these explores Sullivan's search for a new ornamental style between 1873 and 1885, a period that saw him rise from obscurity to full partnership with the renowned Chicago engineer, Dankmar Adler.

Sullivan's early ornament (he was only 17 in 1873) was fairly traditional in form and placement. But he soon burst



T-plate, ornament from Stock Exchange Elevator Grille (1893)

free of Victorian clichés and established a distinctive personal style, as in the elegant, sensuous terra-cotta ornament, almost Art Nouveau in spirit, which he designed for the long gone Troesch Building in Chicago in 1884. A large piece of this ornament makes for one of the show's most spectacular items.

The second part of the show provides examples of Sullivan's mature ornamental style between 1886 and 1895, when his career (if not necessarily his art) reached its apogee. Here, the centerpiece is a portion of one of the cast iron elevator grilles from Adler and Sullivan's Chicago Stock Exchange, demolished in 1972. Consisting of bits and pieces loaned by several different collectors, the reassembled grille, with its delicate pattern of circles and seed pods, is one of Sullivan's most beautiful designs.

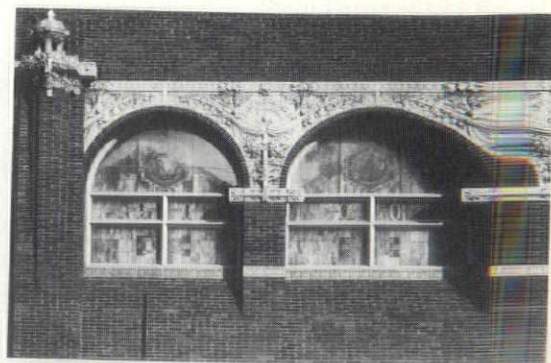
Sullivan's small-town banks dominate the final section of the show. The first and most lavish of these structures,

the National Farmers' (now Northwest) Bank of Owatonna, is well represented in the show, which also features a fascinating scale model of the building and its surroundings as they appeared in 1908.

Four other scale models, including one of a 38-story skyscraper Sullivan designed but which was never built, add immensely to the impact of the show, which is well-organized and carefully presented. However, the show did seem a bit cramped in the Chicago Historical Society's less-than-ideal gallery spaces; the Cooper-Hewitt may provide a more expansive setting.

In addition to pieces of ornament, the show includes numerous drawings and photographs of Sullivan's work as well as that of architects who influenced or were influenced by him. The notes accompanying the show are generally straightforward and wisely steer clear of the scholarly disputation Sullivan's work has always inspired.

Published in connection with the show is a superbly designed catalog (*Louis Sullivan: The Function of Ornament*, W.W. Norton & Company, \$35 cloth,



Farmers and Merchants Union Bank, Columbus, Wisconsin

\$19.95 paper). The catalog contains three scholarly essays (among them an excellent study of Sullivan's tall buildings by William Jordy), a brief survey of Sullivan criticism, and a listing of Sullivan's major designs by his most recent biographer, Robert Twombly.

Continued on page 58



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The birth of a city, Chinese style

By Scott J. Newland

In the spring of 1981, I traveled to China with 28 fellow students from the University of Minnesota's School of Architecture and Landscape Architecture. At the time, "The Gang of Four" was being tried for its role in the Cultural Revolution, visitors from the West were still somewhat novel and Deng Xiaoping was only 77 years old. And, six years ago, the South China village of Shenzhen was still an average little agrarian center in the shadow of Hong Kong's hilly frontier. We travelers failed to notice Shenzhen as we passed through twice between Hong Kong and Guangzhou.

I returned to China in the summer of 1986. In these same five years, the agrarian village of Shenzhen had become an instant synthetic metropolis with more than 350,000 inhabitants. It is expected to have more than 800,000 by the year 2000, and its skyscrapers can already be seen from well inside Hong Kong. The growth has been without precedent, seemingly instantaneous for such an ancient and vast country as China. What caused this new Chinese city to be made, and just what kind of environment was created from such a clean start?

Most of us, at the mention of China, think of a great country of ancient monuments in a landscape of green mountains and rice paddies. Images of the Great Wall, classical temples and ornate gardens come to mind—artifacts from the country's long and rich history. Indeed, China's past, partially segmented into discrete dynasties from 1500 B.C. to 1911 A.D., saw the development of one of the world's great cultures, producing what can now be called the traditional national styles.

In the 20th century, however, the country has undergone a series of governmental and cultural upheavals which retarded China's modernization efforts.



The Shenzhen coliseum

China found itself well behind other developed nations in nearly all areas. Recently, the government put a priority on modernization, and the new city of Shenzhen is a bold, direct experiment toward accelerated growth.

Shenzhen (pronounced "Shen-jen") is the principal city in a small (850 square mile) district created in 1979 known as the Shenzhen Special Economic Zone (SEZ). It is one of four SEZs and fourteen specially designated coastal cities created for the purpose of luring investment in China by foreign businesses. Through special economic incentives and a state-provided infrastructure of land, utilities and employee housing, the Chinese government has attracted numerous foreign—albeit mostly Asian—enterprises which bring with them new technologies and management techniques.

China is using the foreign resources to expose its native professionals to new ways and subsequently disseminate their experiences throughout the rest of the country. The SEZs can be seen for the Chinese as attractive opportunities for personal growth while furthering the development of their country.

China's decision to create the Shen-

zhen SEZ provided the rare opportunity to plan a totally new city. Such an opportunity entails tremendous responsibility to create an ideal environment for a particular time and place. Beyond functional efficiencies and inevitable short- and long-range planning considerations, the design of a new city has the potential to synthesize and express a culture. A new city, if designed with a modicum of sensitivity, can be born with a heart and soul to last its lifetime.

Shenzhen, in its current state at least, fails to offer any such sense of identity or purpose. It expresses little more design intent than perhaps the basic, expeditious facilitating of a large, functional city. (I wonder if perhaps this *was* the primary goal and that the urban image *does* reflect Shenzhen's particular reason for being).

In Shenzhen, there is no central square or park, no apparent hierarchies, no focus. This is unusual for a large Chinese city, which will often focus on a particular monument, plaza, waterfront or other dominant form. The open plaza outside the railway station/customs building is an amorphous, con-

Continued on page 62



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The care and feeding of CADD

By Pat Berg

There is an old broom lying in one of our office closets with "Suppes" written in magic marker on its handle. It is an artifact from 1978 when Don Suppes, Sandy Ritter and Michael Plautz founded RSP Architects, equipping their fledgling studio with brooms and coffee pots from home.

Since then, the firm has grown to more than 60 people. Among the changes RSP has experienced along the way, none looms larger than our extensive commitment to Computer Aided Drafting and Design (CADD). Its impact reaches every corner of the firm; and finally, after two years, we can begin to assess that impact.

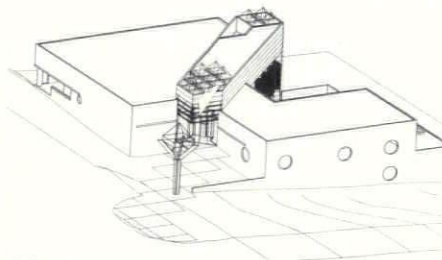
The most obvious effect is financial. Don Suppes, the RSP founding principal who works most closely with CADD, says that "like any work horse, CADD must be fed, and what it eats is money. The trick is to have it work more than it eats."

CADD consumes sizable chunks of money at regular intervals, regardless of the firm's current workload and receivables. Because of this, our investment would not have been possible were it not for two factors. One, we have an ongoing relationship involving CADD-related work with Target stores, a division of Dayton Hudson Corporation. Second, we shared our CADD investment with Setter, Leach and Lindstrom, which is also involved in the Target work.

While it can drain a firm's resources during lean times, CADD does not lend itself to quick expansion when the big, unexpected project presents itself. A new architect operating in the traditional manual mode can be productive the second day on the job. Before he can use CADD effectively, however, he will need weeks or months of training. Our vendor suggests that firms plan on

three to six months before an architect's efficiency will begin to offset the cost of his training.

Besides the financial impact and long training period, CADD significantly affects the client/architect relationship. It compromises the self-sufficiency of the architect, subjecting him to the whims of an electronic marvel. Says Suppes, "CADD is a tireless worker, but on occasion it will be a mysterious and reluctant cohort. These are the times when the vendor enters the client/architect relationship as an important third entity."



A CADD printout

For example, on one occasion the final plot of a drawing excluded all the fractions from all the dimensions. When problems like this occur at a deadline, the effect can be devastating. Caught between the uncompromising machine and the demands of his client, the architect is at the mercy of his vendor.

The CADD vendor's software support program can literally dictate the effectiveness of an architect's system because the system is only as good as its software. It is essential for architects to maintain their systems by incorporating each software upgrade released by the vendor—those who don't find that their systems are soon obsolete.

Our vendor provides quarterly software upgrades. In one instance, our vendor upgraded the software to deliver greatly improved database management capability. We were eager to incorporate the upgrade because it would allow us to produce more accurate reports by increasing our editing flexibility. The problem arose when we tried to convert the project database to accept new soft-

ware. The conversion instructions, written by computer experts, failed to mention several crucial steps. Unable to interpret the instructions, we had to halt our operation. We were temporarily thrown off course due to lack of information which was so basic to the software authors that they forgot to mention it.

CADD can have a tremendous impact on the types of clients and projects a firm attracts. We have found that our expanding CADD resume attracts clients who themselves have CADD and want an architect with compatible equipment. These clients tend to be large organizations with the resources to purchase and maintain sizable installations. But they are often not the clients who commission unique, high-design projects.

For CADD-applicable projects, however, there is a distinct advantage to working with clients who have CADD systems. They usually have a more accurate understanding of the system than do clients without CADD, who tend to overrate its capabilities without understanding its limitations and risks.

We have learned which client and project types make good candidates for CADD. Projects with multiple repetitive design elements or functions, or with multiple revisions, appear ideal for CADD, especially if the projects are put on the system early in the design process.

For example, creating the graphics for our retail prototype work requires a considerable investment of hours on the front end, and CADD hours are more expensive than traditional drafting hours.

But it is far easier and more accurate to make revisions on CADD than it is manually. It would be a nightmare to implement the constant prototype changes using a manual overlay drafting technique. Using a traditional layering system, a significant change could force us to alter 80 layers. And that is

Continued on page 60

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3AM387

Is the architectural press preoccupied?

By Sarah Susanka

Looking through the nationally distributed architectural publications over the last couple of years, I have become increasingly disturbed by the direction that architecture seems headed. In these publications there is an increasing emphasis on the "why not" school of design. Rather than featuring projects that create quality environments for the people they serve, the publications feature works that specialize in unique surface treatment or the distortion of a common form.

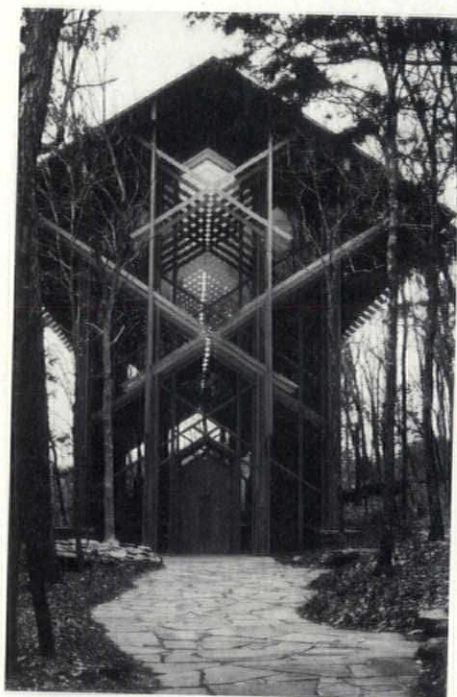
Although the work of such architects is far from appealing to me, it is not at them that I direct my comments, but at the publication media which so greatly shape the way we perceive our work, our profession, and ourselves. What we need is a national publication that is less preoccupied with finding the new and more concerned with identifying and representing the beautiful and the excellent in architecture.

The life of a magazine editor is, I am sure, not an easy one. There must be enormous pressure to sell more magazines, and to do so there must be a great need to be on the cutting edge of architectural thought. The reader, to be sure, wants to keep up with the trends, to discover what the latest hero is doing. And so one sees the natural tendency of the magazine editor to identify the unique, trend-setting projects.

The only problem is that the types of designs that sell magazines are different from those that are of enduring value for our profession.

In case it sounds as if I am against invention and creativity—which most certainly I am not—let me clarify my point with some examples and a parable. The parable was told to me by a design instructor I had in my second

year of architecture school. He had just looked at a project I had completed. It was what I would call a unique design solution. As with all design problems, I tried to imagine how everyone else would solve the problem, and then do something as different from that as possible in order to stand out from the crowd. The process had always worked in the past and I had no reason to be-



Fay Jones' Thornycrown Chapel, Eureka Springs, Arkansas

lieve it wouldn't again. But looking at my instructor's face, I had the deep impression that I had missed the boat.

He told me the parable of a zen monk who had been apprentice to a master craftsman of wooden music stands. After the master died, the monk continued making music stands, always in the exact style of his deceased master. He would watch carefully how each new owner would use the stand, how he would place his music, how he would play. He continued this business for many years. Then one day as he was watching a new owner use a new stand for the first time, the monk realized he could

make an improvement. The next music stand he made, and all those he made thereafter, were designed differently, based on his new-found understanding.

Although my instructor didn't elaborate on the meaning, it was clear that he was trying to tell me about the process of invention—that invention can be informed, as was the monk's, or it could be capricious, as was mine. I had been inventive with the sole purpose of being different. The monk had been inventive with the intent to improve upon a known.

The parable had a profound impact on me and the approach I have taken to architectural design since.

E. Fay Jones, an award-winning Arkansas designer, is an architect who uses informed invention. Despite the fact that his style is not contemporary or modern or post-modern, he has gained recognition purely on the power of the beauty of his work. His Thornycrown Chapel in Eureka Springs, Arkansas is an excellent example of a highly inventive structure that, to paraphrase Sir Isaac Newton, stands on the shoulders of those who have gone before.

It is a design that grows out of the Wrightian tradition, in which Jones was educated. It also seems to borrow from the Japanese tradition in its simplicity of parts and attention to detail. Yet the overall composition goes beyond style to create a sense of spirituality appropriate to the building's purpose. By learning from other traditions, Fay Jones has made a building that is both beautiful and nurturing.

An architect from the "why not" school of invention is Frank Gehry. His use of unfinished materials and bold, symbolic forms catch the eye and make one stop in surprise to look at the distortion of commonly accepted methods of building. Just as I was with my second-year design project, Gehry is out to be different, to stand out from the crowd—

Continued on page 64

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Those addressing the conference include: Jay Chiat, Creative Director and Chairman, Chiat/Day Advertising; Gordon Davidson, Artistic Director, Mark Taper Forum; Irven DeVore, Professor of Anthropology, Harvard University; Frank Gehry, architect; George Lois, Creative Director and Chairman, Lois Pitts Gershon Pon; Dr. Paul MacCready, aeronautics engineer and President, AeroVironment; Rachel McCulloch, Professor of

Economics, University of Wisconsin; Barbara Rose, art critic, Vogue Magazine; Robert Rose, Professor of Materials Science and Engineering, M.I.T.; Michael Sorkin, architect and critic, The Village Voice.

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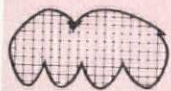
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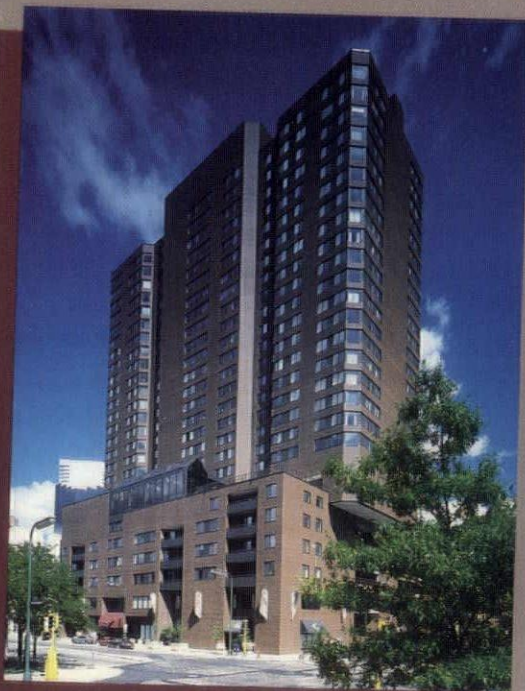
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Who are the Young Turks? In three of Minnesota's largest architectural firms, architects of the younger generation have propelled themselves to the fulcrum of the design process.

At Hammel, Green and Abrahamson, Loren Ahles, 35, is director of the design department. At Setter, Leach & Lindstrom, Ed Frenette, 42, is director of design and planning. At Ellerbe Associates, Richard Varda, 33, is chief architect for the development studio.

Though relative newcomers to the power structure, these individuals critically shape the architectural product of their long established firms. In some cases, they are changing the image the firm projects, in others confirming the existing image; in all three, they determine to a large degree what that image is.

The direct result: their firms are winning design awards and securing some of the most prestigious public and private commissions to come around.

We at *AM* give these three young architects unusual focus on the pages of this issue not to further the cult of personality in architecture but to recognize what those who work with them already know: they will make a difference. We look at three who are having an impact on larger firms with an established tradition; we know there are a dozen who are having equal impact on smaller firms.

Architecture has been called an old man's profession. When Ralph Rapson designed the Guthrie Theater at age 49, he was a boy wonder. Phillip Johnson designed the IDS Center when he was 67. Cesar Pelli has become well known in the last five years; he is now 60. It takes maturity as well as talent and drive to make a lasting impact on the architectural scene.

The three Young Turks featured in this issue stand poised to shape the architecture of our state. If they fulfill their promise, we'll be seeing a lot more of them.



Linda Mack
Editor

Helmsman for design

Loren Ahles takes a winning tack at HGA

By Mathews Hollinshead

When the Minneapolis firm of Hammel, Green and Abrahamson clinched the national design competition for the Minnesota History Center last summer, it confirmed the eminent position not only of HGA but of Loren Ahles, director of design.

The history center is what many would consider the perfect commission. Located on a difficult but prime site near the St. Paul Cathedral, the project involves a complete master plan and design for a prestigious state-wide institutional client. It is the sixth of HGA's major commissions that Ahles has designed in his eight years with the firm. At 35, he has been a partner for four years, and a director of design for one.

As head of design, Ahles plays both an administrative and creative role in the firm of 220. Besides his own assignment as principal-in-charge on various projects, he chairs a group of six partners that conducts weekly design reviews; he is also responsible for design staff development, and for identifying ways of improving services to clients. Ahles is seen by friends, colleagues, and HGA's co-founders as an advocate for design and a future leader of the firm.

"Loren has the ability to be a good manager and administrator as well a provocative, able designer," says Bruce Abrahamson, who relinquished his own title of director of architecture to permit the changes that made Ahles design director. "Most designers are so encumbered with design issues they are not able to be managers."

With its large staff to keep busy, HGA could easily focus on big projects that offer little design challenge. Ahles' role is to ensure that creativity and risk-taking remain priorities. He embodies the firm's ability to achieve departmental efficiencies while retaining studio-like creativity and control.

Ahles is an imposing figure around the office: more than six feet tall with auburn hair and blue eyes. He is as big as a football tackle or a viking; but his round face, fair skin and sartorial style speak more of the intellectual than of the athlete. His manner is a complex blend of preoccupation, courtliness, impatience and amiability. In design review sessions, he is frequently quiet

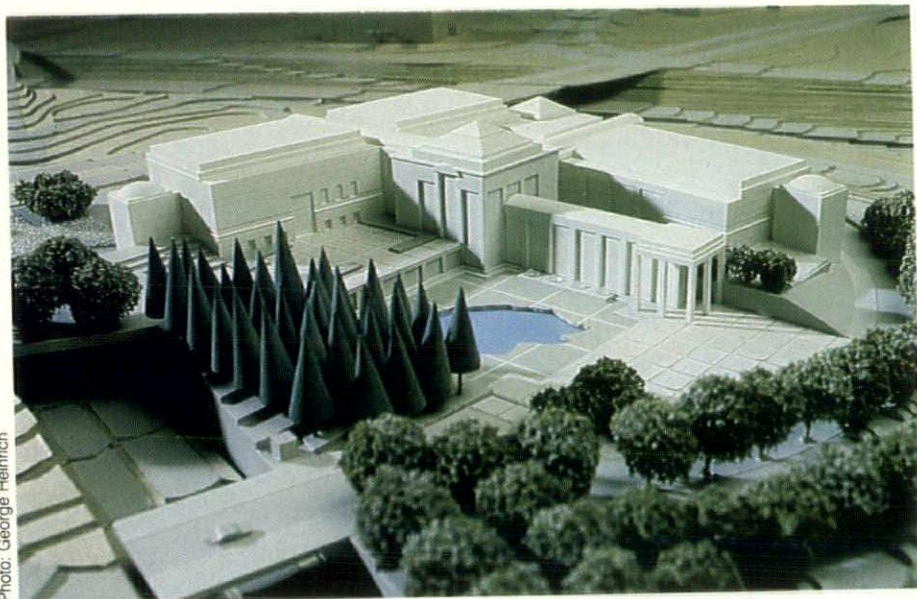


Photo: George Heinrich

Loren Ahles, head of design at Hammel, Green and Abrahamson (opposite), stands on the site of the Minnesota History Center across the freeway from the Capitol in St. Paul. HGA's thorough analysis of the program and sensitive site planning won the firm first place against the likes of Gunnar Birkerts and Charles Moore in the national competition. Ahles headed the firm's team.



Photo: George Heinrich

Expressing metaphors in thoroughly Modern buildings



Photo: Lea Babcock

Like the architecture of the firm he works for, Ahles' designs do not fall into one particular style but are fully grounded in Modernism. The Honeywell Residential Division (above) garnered a Minnesota Society of Architects' honor award in 1984 for its humane interior environment and complete aesthetic transformation of a former warehouse the H. B. Fuller Willow Lake Laboratory (below) won praise for its energy conservation and environmental sensitivity.

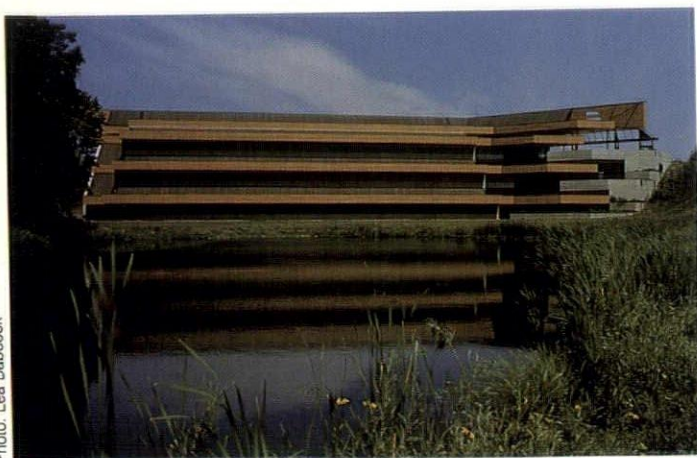


Photo: Lea Babcock

until there is a stand-off or rough indication of consensus. He may then intervene with an elegant insight to move the issue forward. Although his wry humor can sting, he is never glib or strident.

Ahles was born "two blocks from the Canadian border," he says, in the northwestern Minnesota town of St. Vincent. He grew up in Staples, Minnesota, where his father was a sales representative for a platbook publisher. Ahles chose architecture even before entering Concordia College in Moorhead, from which he transferred to the University of Minnesota after two years of liberal arts studies. He never had any doubt about what he was going to do in life.

Bruce Abrahamson was one of his design teachers at the university, and recognized Ahles' potential early on. After graduating with a degree in environmental design and architecture, Ahles worked briefly for HGA before going to MIT, where he received a master's in architecture in 1977. In 1980 he won the prestigious Rotch Traveling Scholarship out of 140 candidates. He chose Europe and found Italy the country that inspired him the most.

Even before his Rotch scholarship, Ahles got the chance to influence a major commission: H. B. Fuller Company's Willow Lake Research and Development Laboratory in Vadnais Heights, just north of St. Paul. Fuller chairman and former Minnesota governor Elmer Anderson wanted the project to be a model of environmentally sensitive and energy-efficient design. It was Ahles, according to then partner-in-charge Bill Anderson, who made the form of the building work.

"His role at HGA has been to really push for those commissions that offer the opportunity for good design," says Martha Yunker, Ahles' wife and a principal in her own firm, Bellows and Yunker. Yunker and Ahles were classmates at the University of Minnesota. Yunker worked for HGA for a period in the 1970s.

"While it is important to Loren that a building work well, it is of utmost importance how it looks," says Yunker. But that concern means much more than just imposing a fashionable facade, she says. "It's that the building has real lasting qualities, and that everything

about it adds up to a very special spirit."

Ahles takes a metaphorical approach to design aesthetics and master planning. He describes the Minnesota History Center as a kind of "safe," where precious historical objects are stored and preserved, in addition to being a program- and site-driven public facility. The Canterbury Downs race track outbuildings and use planning emulate the spirit of a medieval fair, says Ahles, giving fans a participatory as opposed to merely spectator experience.

The U.S. Department of Agriculture research laboratories now under construction on the North Dakota State University Fargo campus promise to be one of Ahles' most interesting projects. In form, massing, and orientation, the collection of linked yet discrete structures recall the Scandinavian traditions of northwestern Minnesota. "We were creating a farmstead on the prairie," says Ahles.

In his short but significant career, Ahles has designed three other major projects: a speculative office tower development, One Minnesota Center in Bloomington; a flagship downtown hotel, the first design for the Minneapolis Radisson, not the one built; and a huge corporate factory-to-office conversion, Honeywell Residential Division in Golden Valley. The diversity of his projects at so young an age is itself a testament to his talent.

But is his current project, the Minnesota History Center, his ideal commission?

"I can't think of a more interesting problem," he says, "than a public building that has to have some heroism and stature because of its program, because of its charge, because of its location. I can't think of a more complicated site than that one. I say this maybe because I've been immersed in it for the last half year. I'm just very pleased, and really very fortunate, to be able to work on it."

How does he see his future?

"I just want to do good architecture," he says, with an inflection and emphasis that somehow transcend the simplicity of the words.

Mathews Hollinshead is associate director of the University of Minnesota alumni communications and a freelance writer and former architecture student.

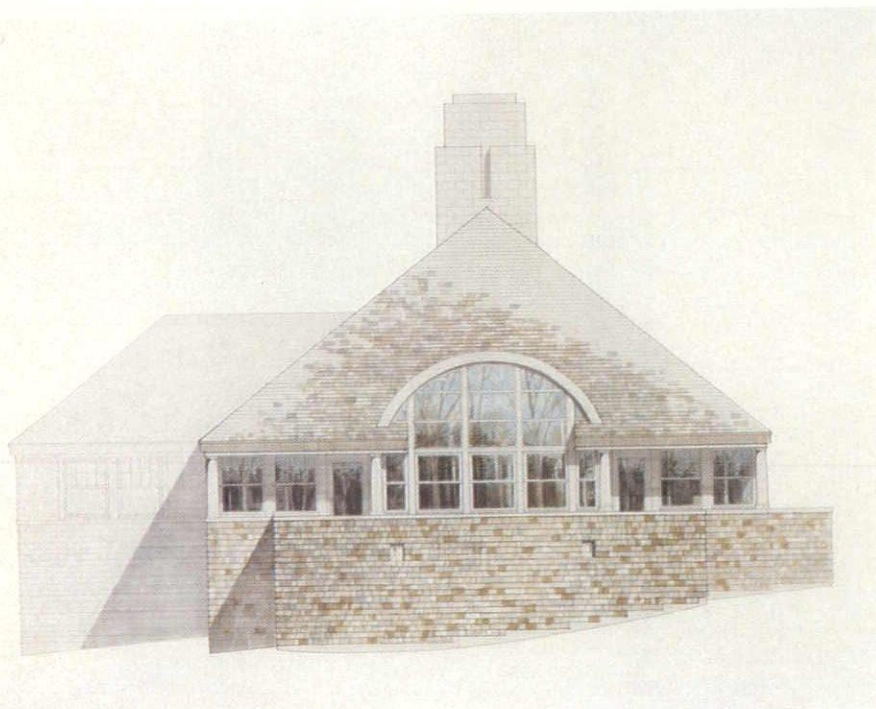


In designing a building, Ahles thinks about the way people "read" the facade. In both HGA's original design for the downtown Minneapolis Radisson Hotel (above) and One Minnesota Center (below), now under construction at the intersection of Interstate 494 and France Avenue, the compositions are at once complex and accessible to the eye.



A captain and a critic

Ed Frenette plans design's prominence at Setter, Leach & Lindstrom



Ed Frenette (opposite), director of design at Setter, Leach & Lindstrom, in Minneapolis' Loring Park near the site of the Minnesota Arts School and Resource Center. As director of design and management for the arts school, he will work under Arato Isozaki in the development of the design and coordinate the planning and construction process. Like the arts school, the Environmental Learning Center (above), now under construction in Silver Bay, Minnesota, will house students on campus. Its setting is the north woods near Lake Superior.

The setting: Room 15, the Minnesota State Capitol.

The occasion: The selection of an architect for the State Arts High School.

Ed Frenette, director of design at Setter, Leach & Lindstrom and the man who suggested a joint venture with the acclaimed Japanese architect Arato Isozaki, strode to the center of the room to make his presentation, grabbed a small table and moved it toward him, saying "Let's start by rearranging the environment."

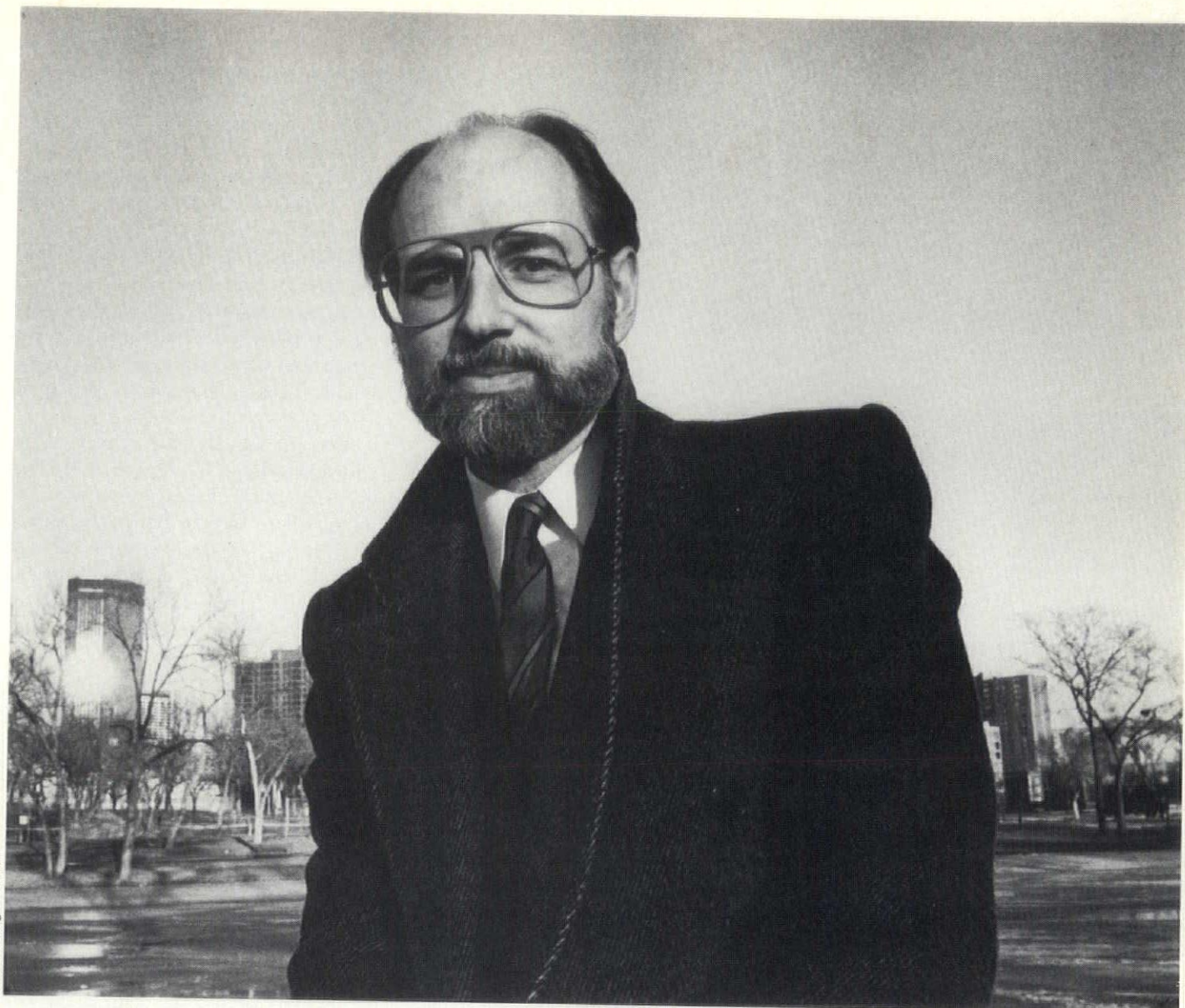
It was an uncharacteristically spontaneous move for Frenette, an architect known for his discipline and organization. But those who knew his desire for this particular commission could understand his excitement. The State Arts High School would be a plum for any architect. For Frenette, it was the kingpin in his career game plan, "the bringing together of everything I've been trying to do for sixteen years."

It's the chance to work with the mentor of his choice, Arato Isozaki. It's the chance to work for a client who cares deeply about architecture. It's the chance to work on an urban project in his own Loring Park neighborhood. And it's the chance to design a building that calls for a synthesis of Modernism and historicism. "It's the best project to come along that I can think of," says Frenette.

Four hours after Setter, Leach & Lindstrom's presentation, the crucial phone call came, and Ed Frenette and his firm were propelled into the architectural limelight.

It is a position the Minneapolis architectural and engineering firm has found itself in more recently, largely due to Frenette's drive to have it there. Though the 70-year-old firm's design legacy goes back to Magney & Tusler, architects for the Foshay Tower and Minneapolis Post Office, its post-war reputation has rested on its engineering expertise. The last few years have seen that change.

A Minnesota Society of Architect's honor award in 1985 for a classroom and gymnasium addition to the Blake Schools' upper school in Minneapolis enhanced the firm's design portfolio. Then Setter, Leach & Lindstrom provided the management leadership for the winning team for the large, publicly visible Minneapolis convention center project. The 1986 Society of Architect's



honor awards program brought a second winning design, for a performing arts addition to Blake Schools' lower and middle schools in Hopkins.

Though Frenette is by no means the single creative force behind any of these efforts, his position as director of design allows him to review every project that comes off Setter, Leach & Lindstrom's drafting boards. And that review can give a project the critical edge.

"I've always thought his strength was as a design critic," says John Barbour, a project architect with the firm. "He is good at drawing out people's ideas without imposing his own style." Bill Scott, a long-time associate agrees, "Ed is not authoritative, but he is strong on his ideas and his ideals."

At 42, Frenette is trim and fit. A white shirt, dark suit, reserved tie and simple silver tie-bar convey an image

of discernment and discipline. If his clipped beard hints at intellectual inclinations and his black European shoulder bag identifies him as a designer, he would more likely be mistaken for an investment banker than for an urban planner who worked in East Harlem in 1969.

"I want to change the environment," says Frenette, "but I'm conscious of changing it for the better, not for the sake of change."

Frenette was born in Duluth, Minnesota in 1945. His mother, a warm, nourishing person, was a housewife who dabbled in songwriting. His father, exact, logical and process-oriented, was an inventor who had always wanted to be an architect. He died when Ed was five, leaving his drafting tools, machine parts, and a lot of drawings. They became potent symbols for his only child.

Architecture shaped by the world around it

From as early as sixth grade, Ed knew he wanted to be an architect. After attending the University of Minnesota at Duluth, he received a Bachelor of Architecture from North Dakota State University in 1970. He worked at firms in Fargo and Duluth before joining Setter, Leach & Lindstrom as a project architect in 1973.

"He wasn't hired as a Young Turk to come in and turn Setter, Leach & Lindstrom around," recalls Dick Vasatka, a principal of the firm. "Ed has grown into his responsibilities." He officially became director of design in 1979.

Two sabbaticals have expanded his education. In 1977 he took a Masters of Architecture at the University of Toronto, where George Baird, the author of *Meaning in Architecture*, Michael Wilford, the partner of James Stirling, and social critic Marshall McLuhan profoundly influenced his architectural thinking.

From Baird and McLuhan he developed a research orientation to aesthetics and perception; from Wilford and others he received philosophical support for his aesthetic eclecticism. "I'm most interested in exploring eclecticism within one building. Even a building that is historicist should have Modernist elements. I've never agreed that you can't be all things to all people, or to put it another way, I've always taken contradictions as a challenge."

In 1984 he left the firm, again with Vasatka's blessing, to enjoy a prestigious Loeb Fellowship at Harvard University. There, while studying and teaching at the Graduate School of Design, he had time to pursue the idea central to his practice of architecture—that the process of design profoundly impacts the quality of architecture.

He interviewed leading designers, from Cesar Pelli to I. M. Pei, surveyed the country's 100 largest firms on everything from the use of computers to the style of architecture practiced and found what he was looking for—a strong correlation between the method used to develop designs and the built result. Frenette has in essence documented the architectural counterpart of McLuhan's "the medium is the message."

This conclusion resonates with his own approach to architecture. "Ed is a very committed individual," notes Vas-



Photos: Shin Koyama

Frenette approaches architectural design from a base of research and with a deliberate eclecticism. In the Teaching Research Center for agronomy at the University of Minnesota (above), the use of brick relates the building to its campus context; the cut-away opening composes modern materials—glass and metal—in classical symmetry. The "modest, but high-tech" Arrow Electronics office building (below) was completed last summer for a Long Island, New York company.

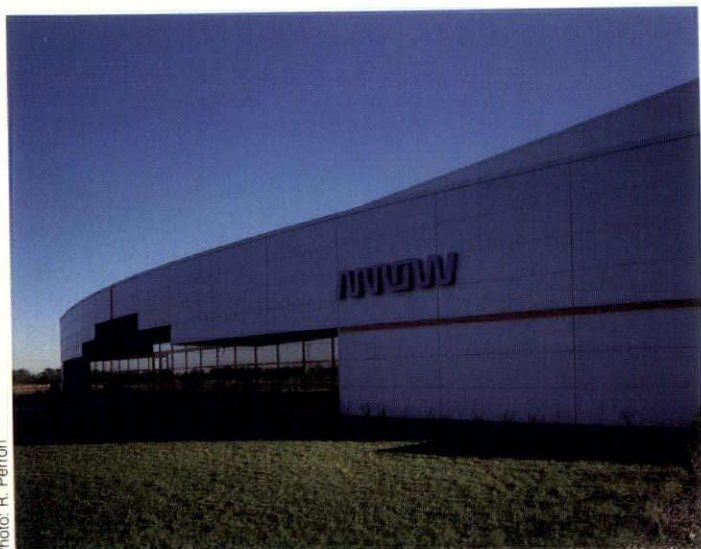


Photo: R. Perron

atka, "action-oriented, dedicated to the premise that homework and planning are the key to success both in his management and in his design."

Now tallying the results of his research on his trusty Macintosh (for which he has custom designed a software program), Frenette is refining the information for an article for *Architectural Record* tentatively titled "The Large Firm Artistically Reconsidered"—and for a future book.

"I'm convinced that the information/electronics revolution is today the paramount determinant of architectural aesthetics."

Frenette's fascination with process is ubiquitous. From his job at Setter, Leach & Lindstrom, where he has recently restructured the office arrangement for increased efficiency, to his three-year chairmanship of the Minnesota Society of Architects' publications committee, where he provided a strong organizational framework while encouraging wide participation, to his personal life, where he designs his own pocket calendars—or shirt pockets, for that matter—Frenette has made an art of organization.

"I've tried to build my life around the reality of the creative process, not the romantic impression of it," he says. Like Le Corbusier, who periodically restructured his daily life, he has devised a schedule that allows him maximum productivity. At work by 6:00, he does his most creative work in the morning, works till 5:00, rests an hour and works till 10:00.

Sailing, skiing, biking or tennis provide his relaxation. "I've never succeeded at undirected reading or listening," he notes.

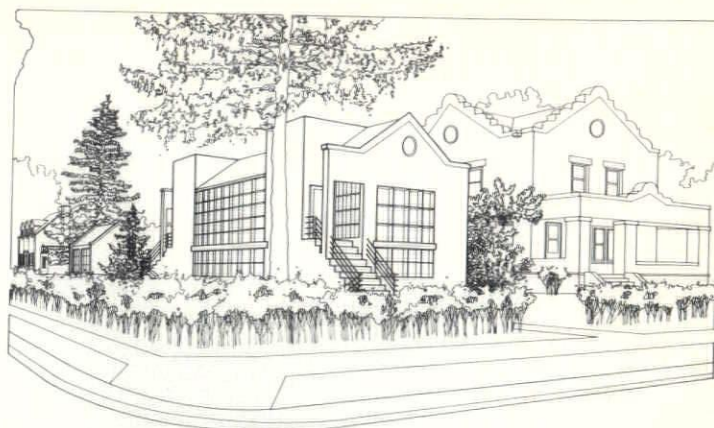
All this discipline serves an end. "I'm very pre-meditated," says Frenette. "His next five years are planned out," says John Barbour, "and he'll get where he wants to be."

And where might that be, after the Arts High School?

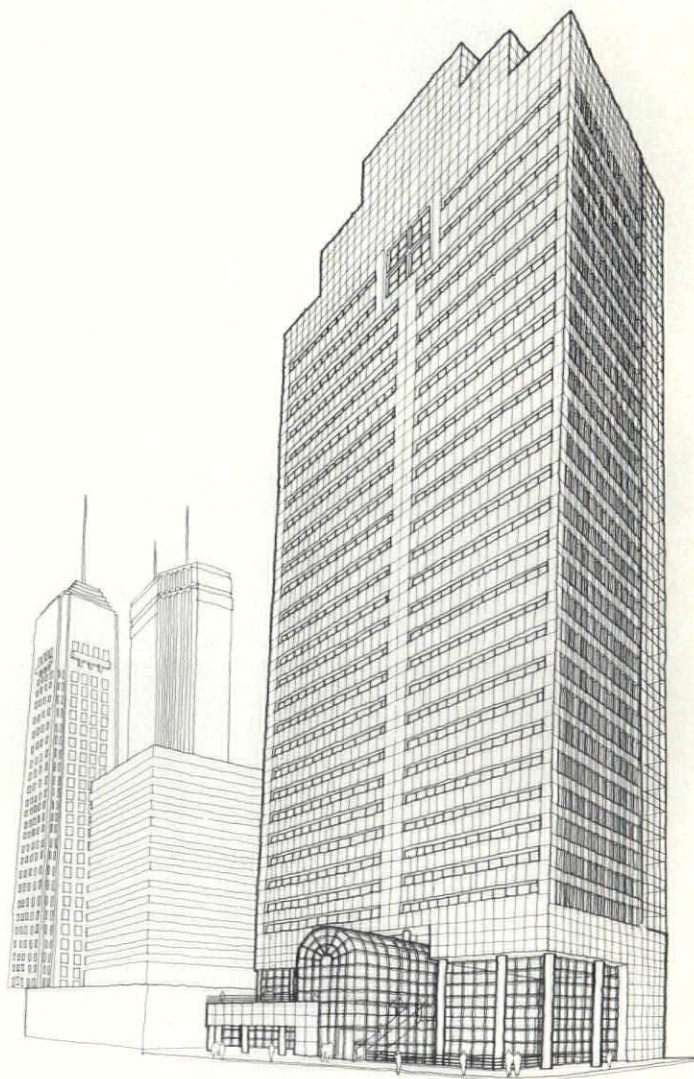
"My ultimate project would be to design a large urban multi-use project, a building where I could live, shop, and work—and that would contribute to the city."

"Or, though it seems a contradiction, I would like to design my own free-standing house." For an architect who relishes contradictions, both may be possible.

L.M.



Two unbuilt designs express Frenette's exploration of context and energy conservation. In mass and detail, the design of the unbuilt Lunieski residence in Edina (above) relates to the historically significant house next door. The glass wall on the south acts as a passive solar collector. In a design for the site of the present Piper Jaffray Tower (below), sunshades on the south and glass on the north reflect energy concerns, the top is a symbolic statement for the prime tenant, and the height of the base relates to surrounding buildings.



Pilot of the downtown ship

Richard Varda steers
Ellerbe into view

It is one thing to design a building that is a good neighbor to other glass towers on the same street and quite something else to design a project that will help change the sagging image of an entire street. Change, however, may be what Richard Varda, chief architect for Ellerbe's downtown Minneapolis office, is all about.

As designer of LaSalle Place on Hennepin Avenue, Varda will have a stake in rejuvenating a once-grand entertainment strip and making it a place to see and be seen. As architect for the Milwaukee Road Depot renovation in Minneapolis' historic mill district, Varda will help revive the decayed symbols of the city's economic past and refocus civic pride on the mill district and river.

Varda is in a position to oversee changes in both the city and the firm. He joined Ellerbe four years ago when it was in the midst of decentralizing its administrative functions and organizing individual design groups or studios. Then last summer Varda took over as chief architect for development when Ellerbe opened its downtown office.

Long Minnesota's largest architectural firm, Ellerbe had built a national reputation on large-scale, out-of-state projects; yet the firm lacked a prominent local presence. Varda is part of the corporate-wide effort to beef up the local image. In a business where the guy with the flashy new tower gets all the attention, smooth talk, a congenial personality and good looks can get you everywhere.

"Richard has done a lot to create a highly visible presence for Ellerbe in the community," says Scott Berry, chief architect for Ellerbe's corporate/government studio. "We resist the star system here, but also admit that a strong individual who communicates well with clients and the public can have a positive effect on the firm. His frequent lectures and articles bring the entire firm into focus."

Personality aside, it was talent not a sparkling smile that bunted Varda through Ellerbe's front door. While working for Setter, Leach & Lindstrom in 1983, Varda entered the Minnesota Society of Architects' Paper Architecture contest. His submission impressed a key juror, Don Hanson of Ellerbe, who asked Varda to join the firm. Ellerbe provided the creative outlet that

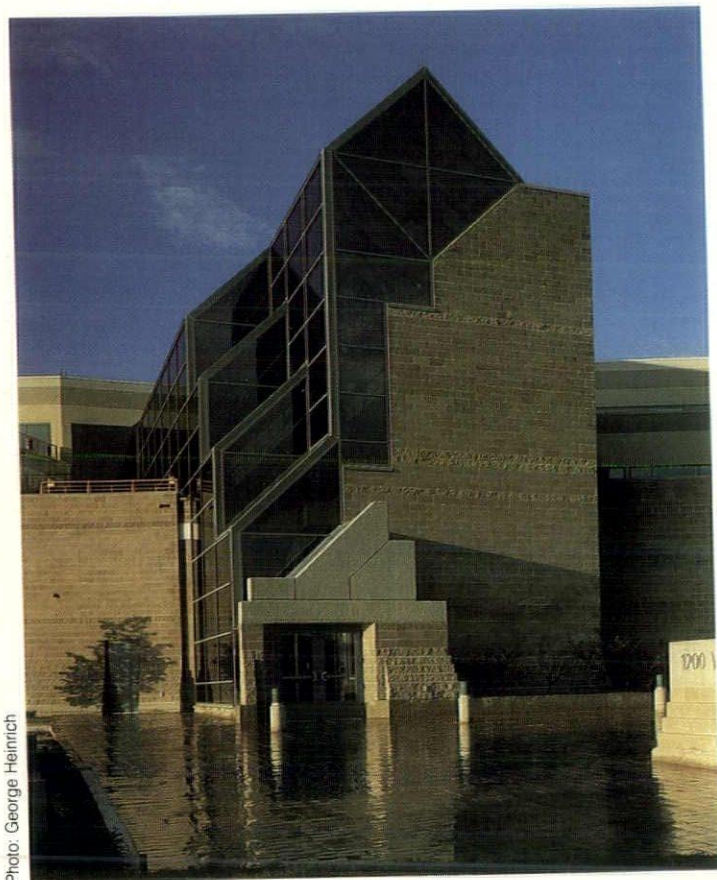


Photo: George Heinrich

Richard Varda (opposite), chief architect for Ellerbe's downtown Minneapolis office, in front of the Milwaukee Road Depot site. As director of design for the Milwaukee Road mixed-use redevelopment project, Varda stands in a plum position to help revive the Minneapolis riverfront. Less than a mile away, the recently completed Super Computer Center (above), for which Varda led the design team at Ellerbe, is the keystone in the growth of the city's high-technology corridor. Design features include a peaked atrium cutting through the center of the building and a unique heating system fueled by computer waste.



thus far had eluded Varda.

"Although Setter, Leach & Lindstrom was a well-run firm and was improving its design projects, it didn't provide the kind of large-scale, publicly-focused commissions that I wanted to get into," says Varda.

The life of a chief architect is a precarious blend of administrative finesse and design skills. In many ways, the chief architect is only as good as the staff he hires and the clients he pleases. Colleagues point to an impressive influx of new talent and rave reviews from developers as proof of Varda's success.

Varda has, in fact, become something of a developers' pet because of his willingness to accommodate their requirements.

"Developers are often surprised at how well Richard understands what they are looking for and how quickly he comes up with innovative design solutions," says Berry. "He has a quick analytical mind that is able to understand the full depth of a problem before coming up with a solution, and he has the ability to anticipate the outcome of his decisions."

Ellerbe's reputation for sound design

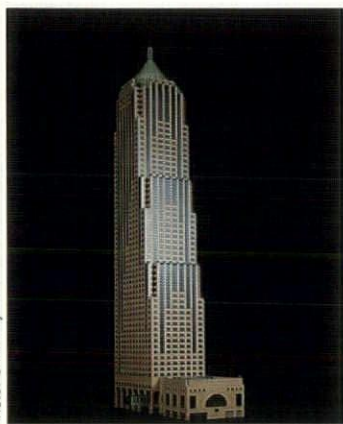
and engineering prompted David Frauenshuh, president of the Palmer Group, to commission the firm for the LaSalle Place project, a mixed-use development just a block from Minneapolis' Nicollet Mall. A productive working relationship with Varda, says Frauenshuh, will draw him back to Ellerbe.

"Richard remains open to discussion and change and is able to solve functional problems in a creative way," says Frauenshuh.

The key to Varda's success with developers is, perhaps, his shared objec-

Drawing on the familiar to create marketable designs

Photo: Shin Koyama



Built or otherwise, Varda's designs tug on a familiar design vocabulary that relates to the surroundings. His proposed design for the Northwest Center (above) features a broad-based tower that narrows toward the top with a series of setbacks. The building is sheathed in a stone and tinted-glass skin. The copper-capped dome takes its lead from the copper dome of Minneapolis City Hall. The design of the attached banking pavilion recalls the massing and details of Louis Sullivan's National Farmer's Bank of Owatonna. The design of the 508-room Sacramento Hyatt (below), one of several California projects nearing completion, gives fresh interpretation to the traditions of West Coast architecture.



tive with them: to create marketable designs that satisfy the users, who are, says Varda, the ultimate judge of a project's success or failure.

Varda holds contention with architects who self-servingly create outlandish designs. Post-Modernism, for instance, has ushered in the brilliant and the absurd. Too often, says Varda, Post-Modernism misinterprets the architecture of the past, which results in awkward designs. Varda calls himself a neo-traditionalist who works within a familiar design vocabulary.

"You have to use a set of fundamentals that people understand," says Varda. "You must try to create patterns that are discernable yet also arouse interest and a certain challenge. Familiar patterns present a basic vocabulary that helps us to understand a project and decipher the unfamiliar. All buildings, even poorly designed ones, have a message, and people have to decide what that message is."

Varda believes the desire to be original should not override the need to be appropriate. Often far-out original becomes blatant arrogance, and a building's message is blurred.

The design of LaSalle Place, which will include a 30-story office tower, new YMCA and several theaters, is true to Varda's philosophy. The tower will contain hints of vertical Gothic detailing while relating to the surrounding modern towers.

Varda has long been concerned with a building's relationship to people and the environment. In 1959 at age six, when most children were giving their mothers nervous breakdowns by hanging upside down from tree branches, Varda was thumbing through back issues of every architectural journal he could find, absorbing the legacy of Frank Lloyd Wright, who died that year. By the time he entered elementary school in Madison, Wisconsin, Varda knew he was going to be an architect. That's the kind of precocity that makes a chief architect at age 33.

After graduating from the University of Wisconsin at Madison in 1975 with a degree in landscape architecture, Varda enrolled in the University of Minnesota's graduate architecture program. His teacher, Leonard Parker, was impressed enough to ask him to join Leonard Parker Associates after grad-

uation, which Varda did before leaving within eight months for a firm in Madison.

"Varda definitely showed leadership and design potential in graduate school," says Parker, "but the key is to see what he does with that potential. Most of his major projects have yet to be built, and there are many pitfalls that can prevent a project from going up. What matters in the end is what finally goes up."

Although the biggest projects are yet to be—LaSalle Place is the heady project now and the Milwaukee Road Depot renovation has the potential to be his biggest—Varda has had a hand in the design of several significant Minneapolis structures. He worked on the MTC bus garage and maintenance facility while still with Setter, Leach & Lindstrom. He also led Ellerbe's design team for the recently completed University of Minnesota Super Computer Center. Out-of-state projects he helped design include a 508-room hotel in Sacramento; the Santa Clara Convention Center and Santa Clara Golf Club; and the Cape Girardeau Arena and Convention Center in Missouri. All are under construction.

Varda, now in a position to help change the urban landscape, acknowledges that certain urban patterns are not easily changed. Downtown zoning, for instance, does little to help fill in the vacant lots left from Minneapolis' post-war urban renewal schemes. He complains that present zoning allows too much density per site. Rather than filling out space, buildings are getting taller.

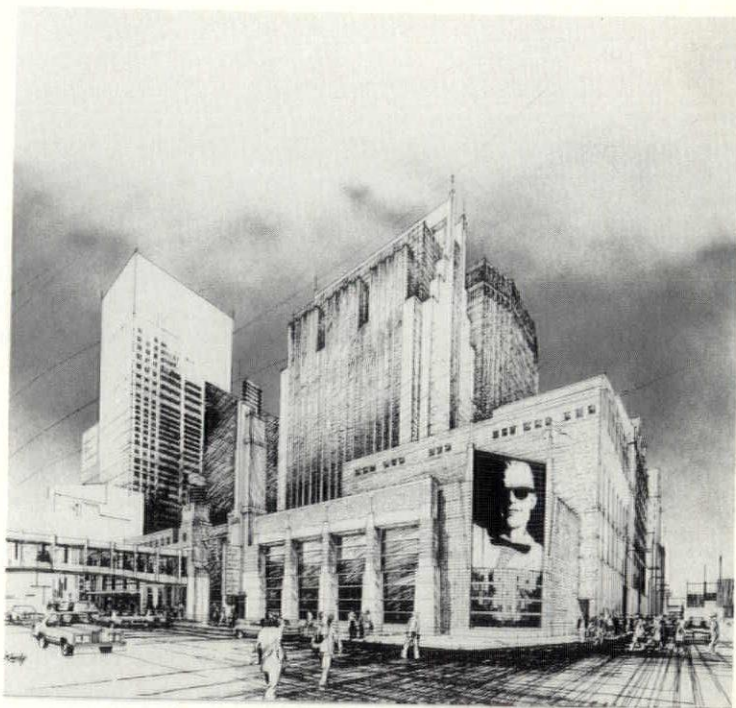
"To make successful cities, we have to think about the spaces and not just the objects," Varda says. "We have to avoid development being dictated solely by politics."

But it's certainly easier to change an architectural firm than it is to change a city. Varda knows where he can have the most impact. In the next five years he would like to nudge Ellerbe to the forefront of design.

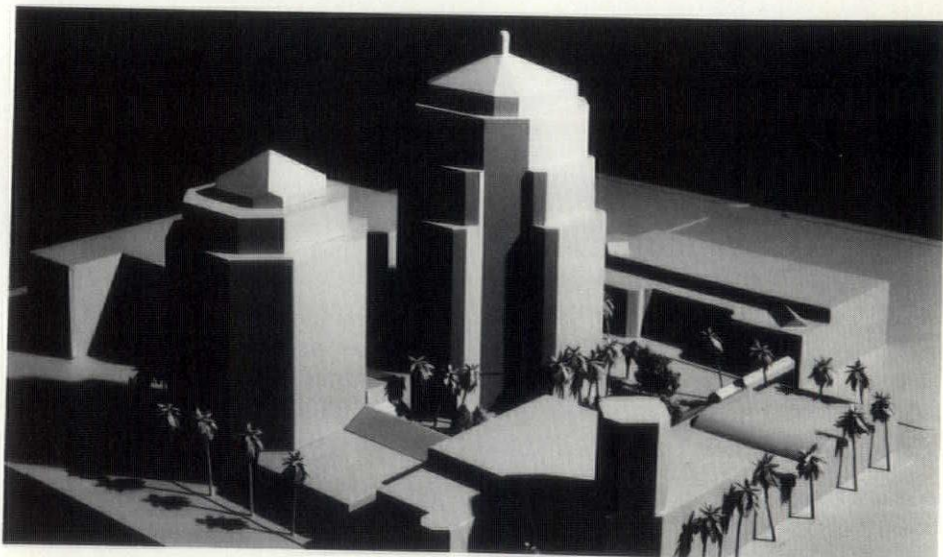
"I want to see us reach the point where we would be considered for any project," says Varda.

If that's a real potential, then Varda also has his dreams: a commission with complete freedom to design a \$3 million house in the country.

E.K.

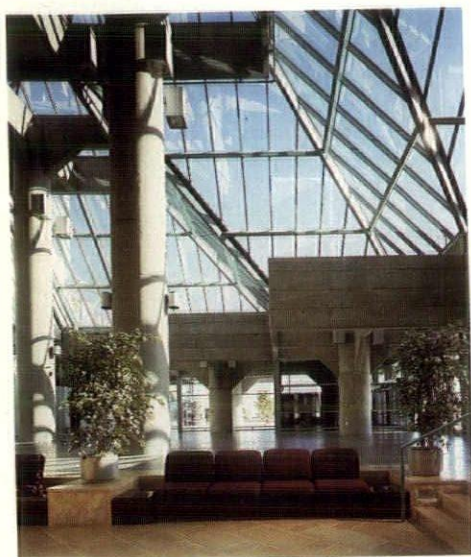


The design of LaSalle Place on Minneapolis' Hennepin Avenue, Varda's first mixed-use project in downtown Minneapolis, draws on the tradition of Chicago skyscrapers and the design of the existing Gothic Revival YMCA. The Hennepin Avenue side (above), incorporates the restored facade of the State Theater and an electronic screen above the movie theater; no monolithic streetscape here. Varda calls himself a neo-traditionalist who works within a familiar design vocabulary. His design for 1300 Biscayne Boulevard, a hotel project in Miami not scheduled for construction, re-interprets Florida's Art Deco architecture.



An unconventional convention center

Defying sprawl in downtown Silicon Valley



A sunken seating area of Kasota stone, sofas and plants humanizes the lobby of the convention center in Santa Clara, California. Diffused light pours into the interior from the 50-foot-high skylights. Views of the Santa Clara mountains outside are spectacular from the second level.

Among the anonymous office towers of the recent California strip stands a building that establishes a sense of place. The Santa Clara Convention Center designed by Ellerbe Associates of Minneapolis is both a meeting place for high-tech industry and a civic center for the sprawling Santa Clara Valley. It is, as Richard Varda, one of the project's designers, says, "downtown Silicon Valley."

Ellerbe's involvement in the \$50 million project which opened June, 1986 goes back to 1979 when the growing city of Santa Clara south of San Francisco asked help in planning a convention center. To compete with the huge Moscone Center in San Francisco and another large facility in nearby San Jose, Santa Clara needed to carve out a convention-going niche based on amenities, not size.

A whole complex, then, was planned, which included the usual convention center, hotel and parking ramp but also a permanent tech-mart and the not-so-usual—an 18-hole golf course and clubhouse. "City officials were looking for that edge to make them different," says Don Eyberg, project manager with Ellerbe. "They wanted a kind of West Coast resort for high-level executives."

Ellerbe's first step was revising a master plan for the site developed by HNTB of Los Angeles. The convention complex had to fit on an irregular 27 acres of vacant land bordered by highways and a drainage creek. The golf course and attendant facilities were built across the creek on 150 acres of land-fill.

Ellerbe then designed all the city-owned facilities—the convention center, parking ramp, and clubhouse and outbuildings for the golf course. Designer Robert Muir Graves laid out the championship golf course, and a private developer and HNTB took on the hotel and tech-mart.

Image was obviously important to

Santa Clara's aim to distinguish itself, and Ellerbe provided it with a crystalline roof of glass pyramids which jut above the building, making it visible even from the highway far away. These crystalline forms, symbolic of the technological industry of Silicon Valley, establish a sense of dynamic activity that is rare for a convention center.

If giving the convention center a compelling image presented one design challenge, making sure the building would survive the earthquakes of seismic zone four, the highest risk area, presented another.

A clear span structure free of columns is ideal for exhibit space, but the longer the span, the less able to bear seismic motion. Ellerbe designed a series of square modules offset from each other to create clear span spaces; each module moves separately to take seismic action. The ballroom and meeting rooms are housed in another module. The main lobby, with its own concrete structural system, fills in between.

Convention centers tend by nature to be large flat buildings dull from the outside and disorienting from the inside; the Santa Clara Convention Center defies nature. Green glass, copper roofs, concrete and stucco are interwoven to give the facade texture and interest. Exterior roof trusses define and enliven the mass of the exhibit hall.

Inside, materials are used in an equally generous way. "Finishes are those of a good class hotel lobby," says Varda. Corridors in the ballroom area are carpeted. Thirteen miles of aluminum trim line the hallways. But most important, the transparent facade allows visitors to look out, orient to the mountains, and know where they are.

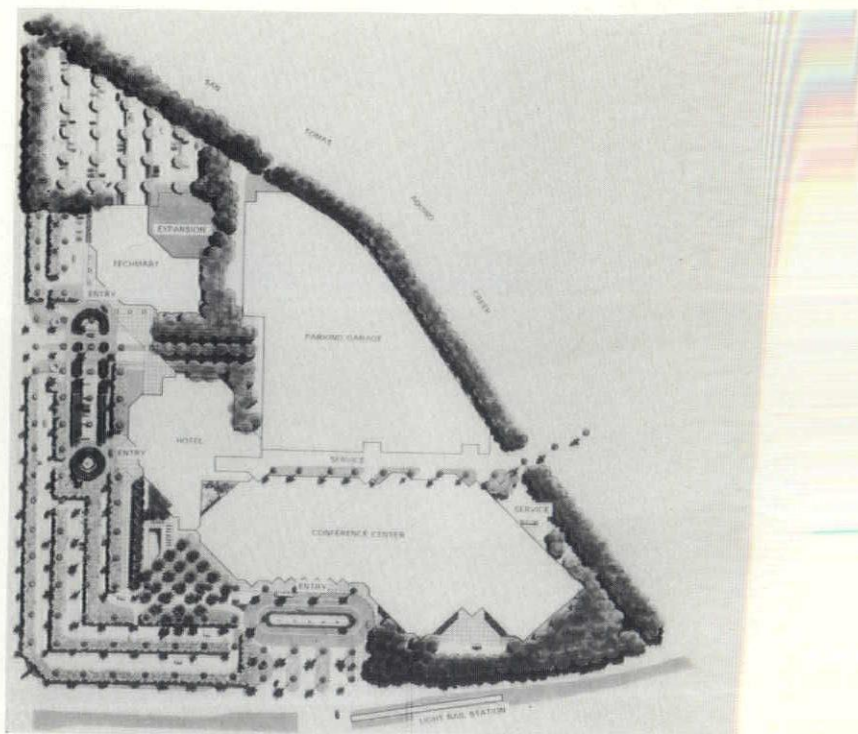
Not all convention centers have such high budgets for finishes or such high-faluting goals, but all of them could aim to enhance their environment as much as the Santa Clara Convention Center.

L.M.

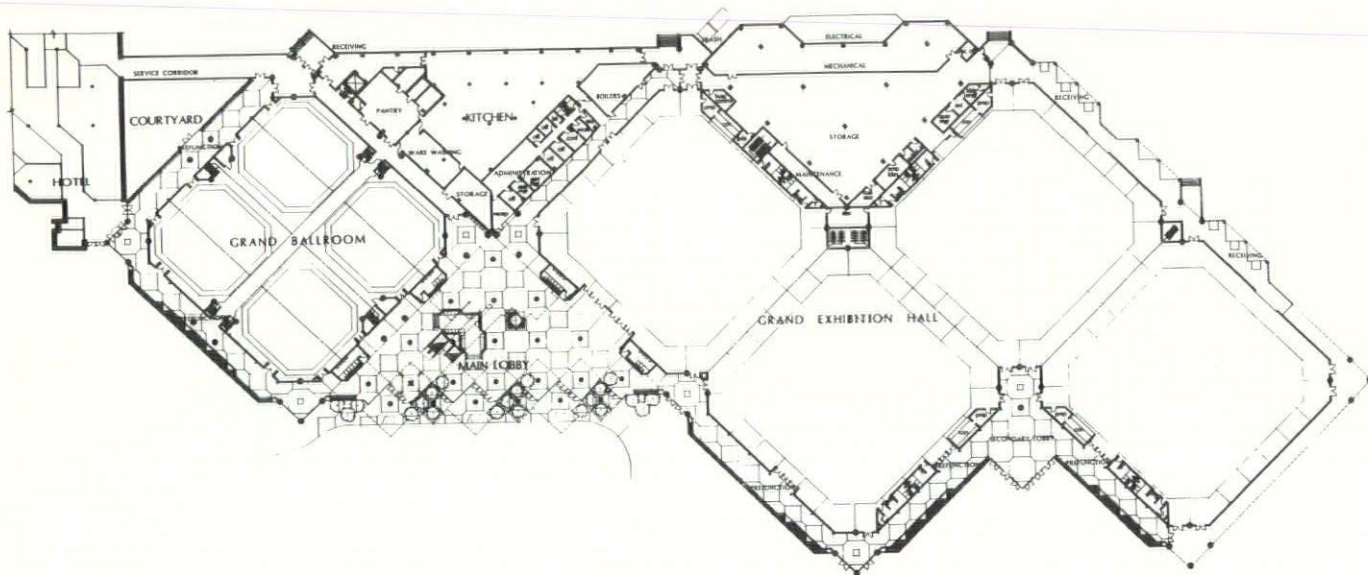


Photos: Nick Wheeler/Wheeler Photographics

Crystalline pyramids draw visitors to the convention center's entrance (above), even from across the gigantic parking lot shared with a Marriott theme park (see site plan, right). The 500-room hotel needed highest visibility so is sited closest to the highway access. It is attached to both the convention center and the parking garage, a handsome structure of concrete and blue metal railings squeezed in along the drainage creek. The 600-seat, state-of-the-art theater (below) can be adjusted acoustically for speech or music.

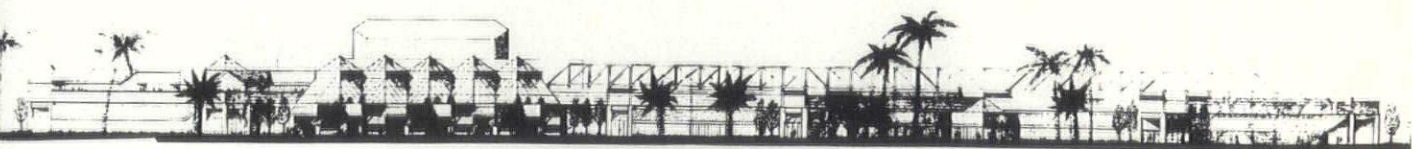


Modular planning, soaring space and a play of materials



At night, the pyramidal roofs glow with activity (left). The copper roof canopies bring the building down to human scale; eventually they will weather to provide a patina of age rare in this part of California. The exhibit hall to the right of the entry lobby (opposite) could have been nothing more than a large flat-roofed mass. Exterior roof trusses march around its zig-zagging edges to give it a distinct and dynamic image. A courtyard with a canopied gazebo, visible on right, is repeated between the convention center and hotel, seen in the background on the left.

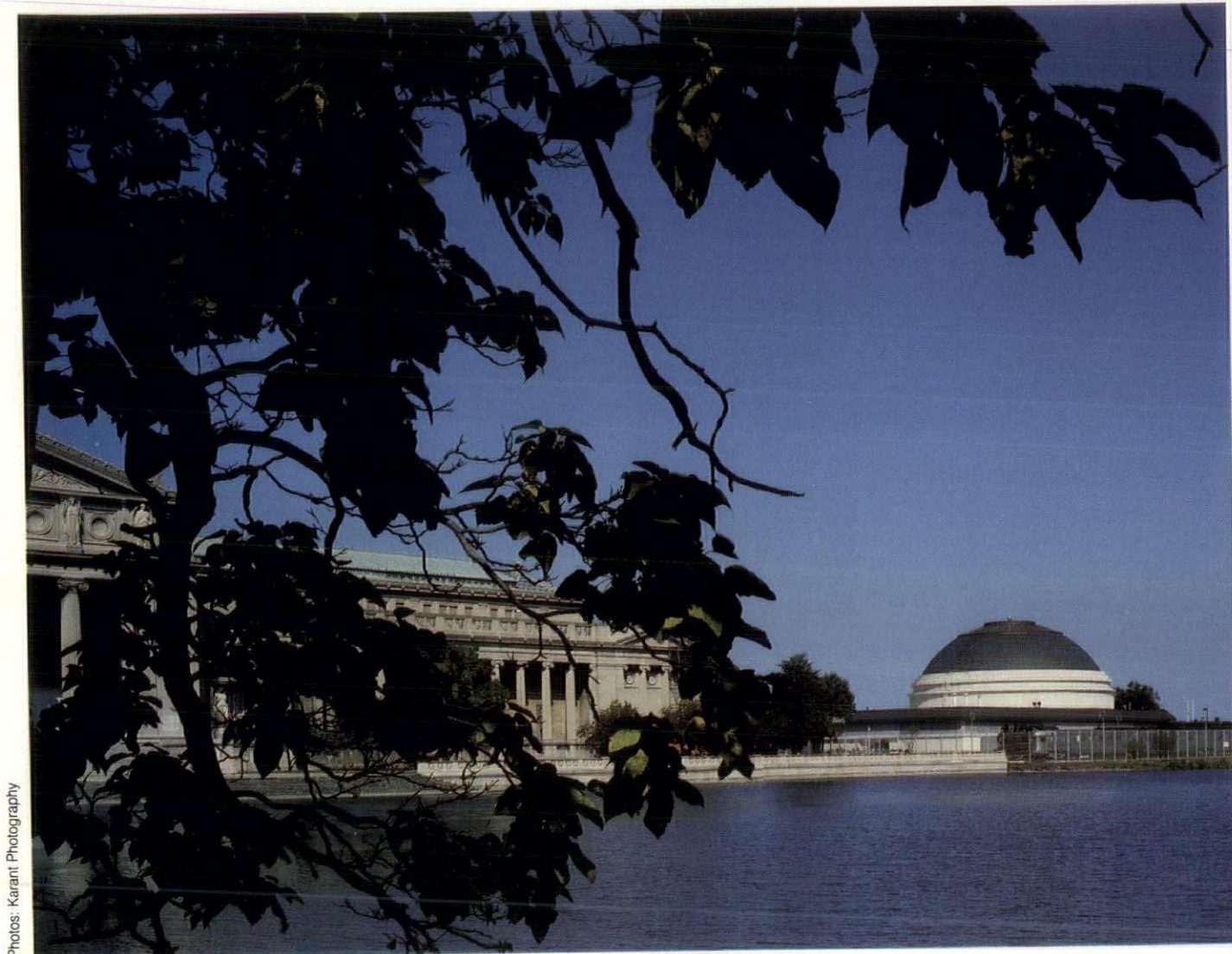
In the Santa Clara convention center, structural necessities have become part of the architectural dynamic. The lobby (right) is a series of concrete "trees" holding up concrete beams. The eggcrate forms above the entry doors float separately for structural stability during seismic motion. The skylights are threaded in between. Using four separate modules in the 100,000-square-foot exhibit hall (left) increased structural stability and functionality, too. "Santa Clara wanted an intimate and varied environment rather than one big rectangle," says Ellerbe's Varda. "The zig-zag configuration works well for a series of related smaller trade shows, and also gives the public greater access to each of the exhibit squares." All public circulation is along the exterior wall, which is transparent. The 24,000-square-foot ballroom is shared with the hotel, and in turn shares the kitchen with the first exhibit hall. On the second floor, a small lobby serves both the four 5,000-square-foot meeting rooms located above the ballroom and the theater, which is above the kitchen.



Built to last

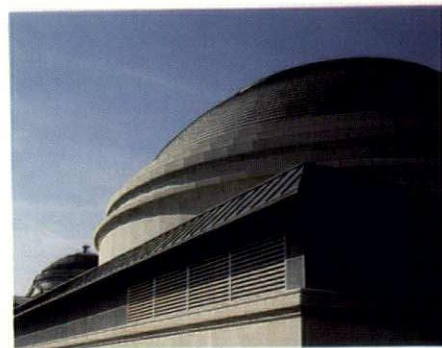
A venerable addition

Doming a new theater for an old museum



Photos: Karant Photography

With downscaled mass and height, the Crown Space Center and Omni Theater addition to the Museum of Science and Industry in Chicago is meant to be an unobtrusive presence. Surrounding the addition are displays for space artifacts, three trains and a U-505 German submarine, as well as a lagoon in the historic Olmstead park. The clay tile roof of the dome and the grey Indiana limestone of the base were carefully selected to match the original materials. Even the base's metal mansard roof (below) draws on the images of the museum's rooftop mechanical systems.



Designing an addition for a historic building can prove a dubious honor. History clad in an 1893 Beaux Arts museum sets intimidating precedence, and a successful addition must achieve its functional goals without distracting from the architectural integrity of the original building. Such was the challenge for Hammel, Green and Abrahamson of Minneapolis when commissioned to design the Crown Space Center and Omni Theater for Chicago's Museum of Science and Industry.

Located in a park designed by Frederick Law Olmstead, the Greek Revival museum is the only remaining structure from the celebrated 1893 World's Columbian Exposition. HGA accepted the Chicago commission knowing it would be "a sensitive design issue," says project designer Gary Reetz. Special interest groups representing the museum, the surrounding park and the Hyde Park neighborhood diligently voiced their concerns that an addition should be as inconspicuous as possible. Consequently, HGA worked within guidelines established by the museum and the Hyde Park Commission, which protects the park from significant alterations.

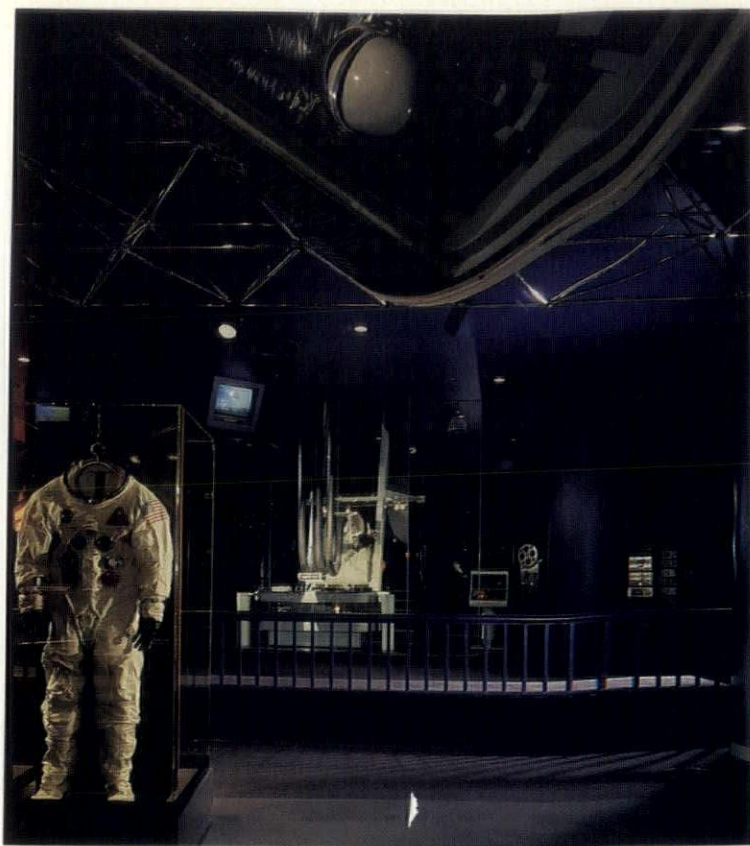
A 35,000 square-foot addition, the Omni Theater and exhibition space follows a square floor plan and is unobtrusively located in back of the main building, reinforcing the museum's classical symmetry.

In form and materials, the addition repeats the museum's architectural character, with its eight-foot base and copper-capped dome. In fact, the base's grey Indiana limestone and dome's clay tile were painstakingly selected to match the original materials.

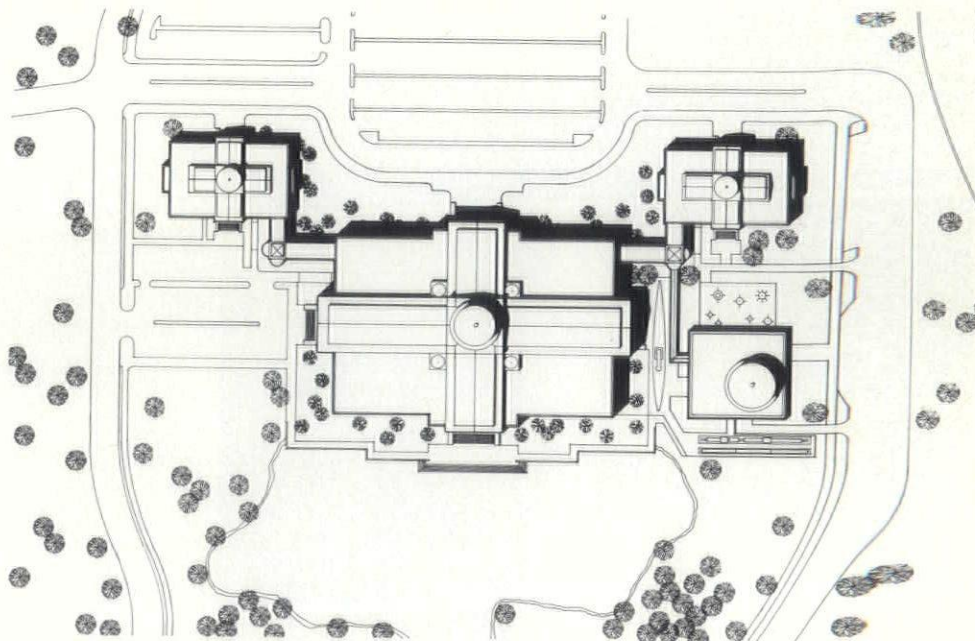
Yet if the exterior reflects design constraints, the interior exemplifies design innovations, an HGA trademark since working on the first Omni Theater in the 1970s for the Minnesota Science Museum. The dome's interior serves as a 360-degree projection screen for the 334-seat auditorium. Clusters of loudspeakers behind the ceiling engulf the auditorium. At showtime, the theater is an explosion of sights and sounds.

The addition expresses two worlds. The interior looks to the future; the exterior heeds the past. What better solution for an old museum's new theater?

E.K.



The Omni Theater is a synthesis of classical and modern. The 15,000 square-foot exhibition space (above) is joined to the main building via a corridor. Although the space center has an outside entrance, visitors are meant to enter through the main museum. The addition is in the southwest corner of the main building (below) where it is concealed from the front entrance. Yet this placement strategically reinforces the classical balance of the museum. Similarly, the square floor plan reflects the classical symmetry of the main structure and two wings.



Built to last

Primates on parade

New space for a gorilla of a client



Photos: Phillip MacMillan James

For the Primate Exhibit in St. Paul's Como Park Zoo, Rafferty, Rafferty, Mikutowski needed to expand on the existing structure to create a casual drop-in atmosphere. The primate house (above) is the third phase of the fifteen-acre zoo renovation. Tight city budgeting dictated simple burnish-block structures that would require little maintenance and allow most of the funds to be used for animal needs. The exhibits themselves (below) provide a varied environment in which the animals have control over privacy and other activities while remaining visible to visitors.



Animals are tough clients. They can't tell you they want a sunny space for basking or a comfortable nook for privacy. If the beasts could review the plans before bricks meet mortar, then an architect wouldn't have to clink head against wall because the animals are adjusting poorly to new environments.

When Rafferty, Rafferty, Mikutowski of St. Paul prepared plans for the expanded primate exhibit for St. Paul's Como Park Zoo, the firm knew it had a dissatisfied client. The original exhibit was a circular, sunken pen in which the gorilla was continuously exposed. Visitors could look down into the exhibit from 360 degrees; the gorilla's distemper was visible.

In response, Rafferty, Rafferty, Mikutowski designed a ground-level exhibit that provides the animal both privacy and eye contact with visitors. Rock formations, crevices, fiberglass-wrapped tree limbs and limited window exposure give the gorilla a choice of environment. "The gorilla's disposition is visibly better because he has some control," says Dick Rafferty, principal-in-charge of design.

Overall, the architects needed to expand on the existing structure while providing indoor and outdoor exhibit space—and all on a city-funded budget that dictated low construction and maintenance costs. The primate house is a burnish-block structure with an asphalt-shingled roof, rough-cut beamed ceiling and concrete floor.

The old pen has been divided in two and four new exhibits have been added to display gorillas, orangutans and smaller primates. Visitors enter the primate house from either end and move along two parallel levels. An upper level allows people to view the exhibits from a slight distance; the lower level lets children get window-close to the animals, the glass the only thing keeping the children's and primates' noses from touching.

The primate exhibit is the third phase of the fifteen-acre Como Zoo renovation that Rafferty, Rafferty, Mikutowski began nearly ten years ago with the large cat exhibit and later marine mammal exhibit and seal island renovation. With completion of the primate exhibit, Como Zoo is realizing its potential as a place where people can get upfront and personal with animals.

E.K.

Built to last

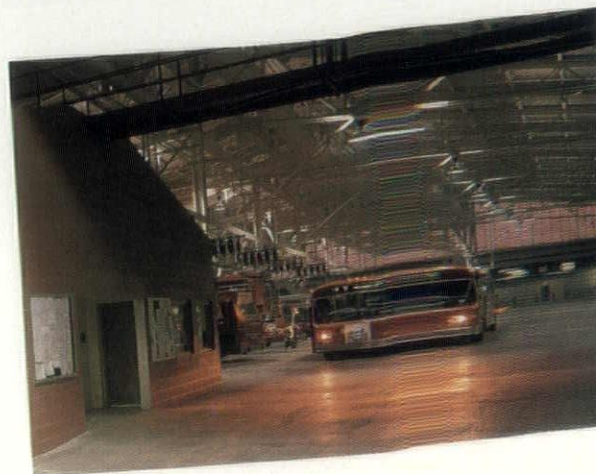
Beyond tradition

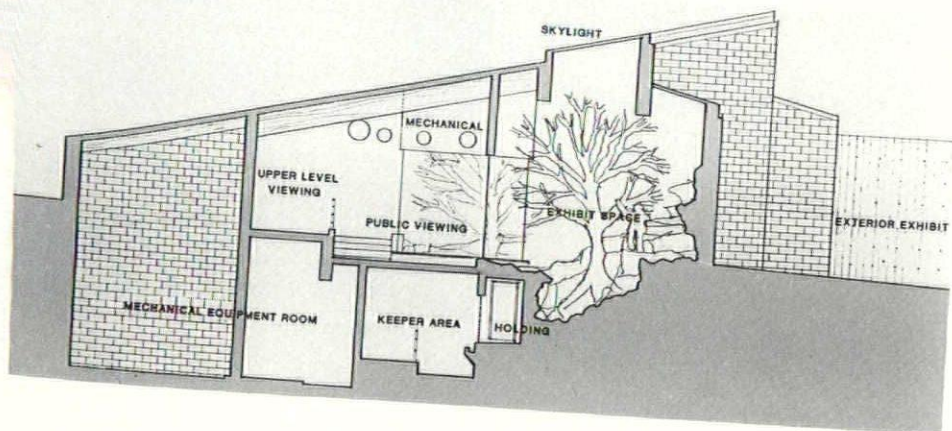
Bold moves on a downtown edge



Photo: George Heinrich

Richard Varda, then project designer for Setter, Leach & Lindstrom, and Ed Frenette, director of design, explored both a totally modern and a more historic scheme for the MTC Headquarters and Bus Facility in Minneapolis before settling on this collage of the two. "All the schemes had a large masonry box juxtaposed against another system of concrete or metal," says Frenette. Land was bermed up in front of the bus barn (above) to reduce its bulkiness and to give workers inside a view of green. Under the long roof gable, another large lunette window humanizes the bus lift area (right).





A feature of the expanded primate exhibit is the 12,400 square feet of outdoor space (above), something not provided in the original display. The primate house's 17,600 square feet of space (section, left) is evenly divided between the upper level for exhibits and public viewing and the lower level for animal holding and mechanical functions.

It could have been just a honking big bus barn. But Setter, Leach & Lindstrom made more of the Fred T. Heywood MTC Bus Facility and Headquarters on the outskirts of downtown Minneapolis.

The Minneapolis architectural and engineering firm took cues from the context of the nearby warehouse district and from the tradition of transportation buildings to create a bus barn and office building befitting their place and function.

The project began with the bus barn only, a 290,000-square-foot facility for the storage and repair of Metropolitan Transit buses. The site between the Minneapolis warehouse district and an unsightly industrial area to the north offered neither a commanding view of the surroundings nor the possibility of a commanding view of the building. But in a strange reversal of perspectives, this earth-bound building would be highly visible from the downtown towers.

The roof, then, became the place to make whatever architectural statement was to be made. A long gable reminiscent of 19th century train sheds gives form to the flat roof and accommodates a lift for buses underneath. Of orange metal matching the color of the MTC buses, it adds bold color to the generally grey cityscape.

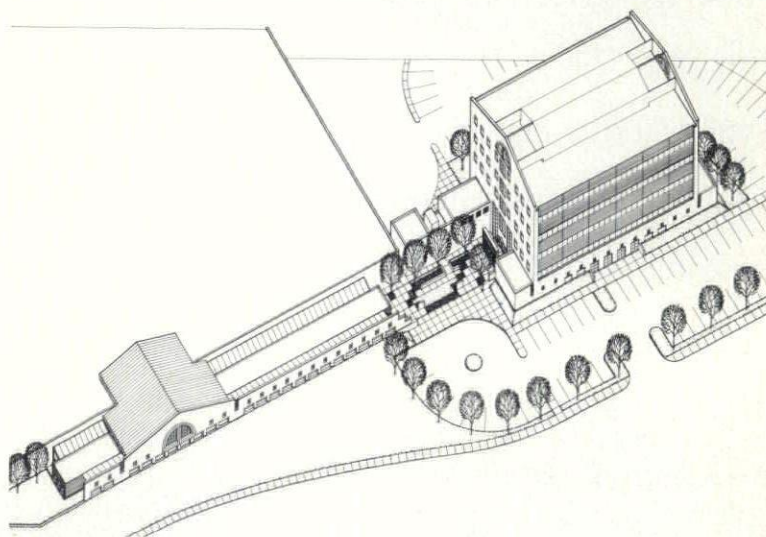
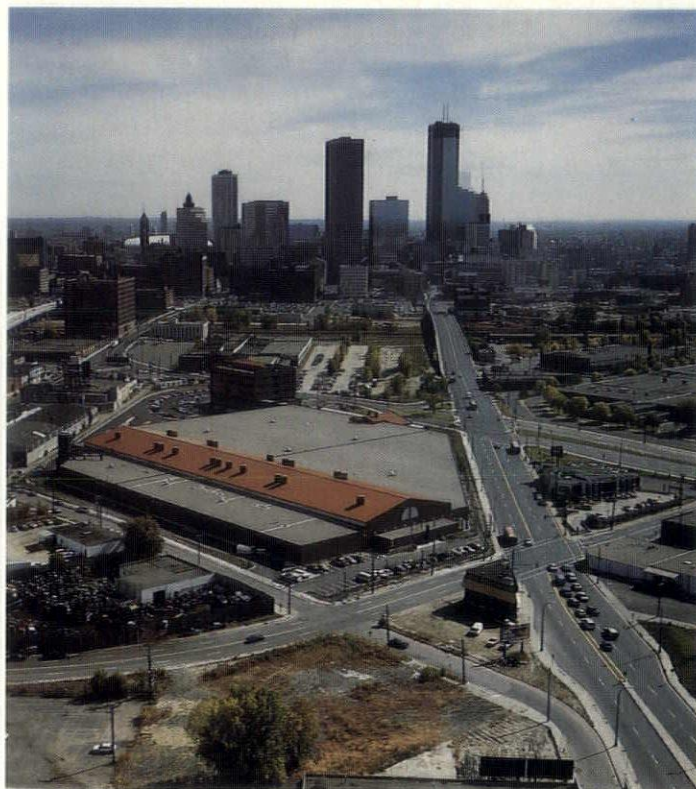
The drivers' lounge at the front of the building is called out in the same orange gabled roof. A large lunette window, another reference to train station imagery, both softens the facade and hints at the human activity inside.

The other half of the project is a five-story office building for the administrative staff. The same vocabulary of brick and orange metal is continued; the same aesthetic of collage employed.

The headquarters building takes the form of a large rectangular box. Sides of glass and orange metal bands stretch between masonry ends, setting up an arbitrary contrast. The references to the warehouse tradition—cut-out windows and a false gable roof—seem too abstract to be successful.

On the ground level, a small, enclosed plaza links the bus barn and office building, giving urbanity to a place and program suburban in nature. The Fred T. Heywood Headquarters and Bus Facility bows to context, indeed, but does so with boldness and élan. *L.M.*

Photo: Saari and Forrai

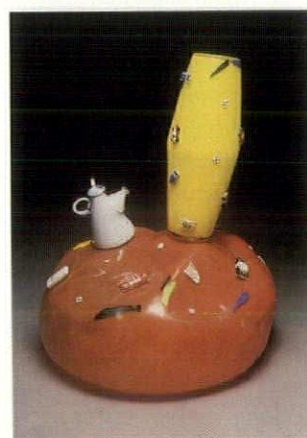


With a building the size of the present Minneapolis convention center on a block bounded by city streets, site planning was constrained, at best (top). Buses enter the barn behind the taller headquarters building. A small parking lot for the office building leads to a landscaped plaza (axonometric, above), which organizes and links the two buildings. "The areas of higher image," notes Ed Frenette, "are organized on axis." Inside the drivers' lounge (left), lighting urns and a lunette window evoke the imagery of transportation buildings. The interior of the headquarters building shares similar finishes.

S kills of the hand meet the challenges of ancient forms and familiar materials to create craft. When does craft become art? When does bread become cake? The critics will argue the distinctions forever. The rest of us are left to savor the craft itself. It is clear that there will be a feast to behold at the Upper Midwest premiere of the American Craft Expo, opening at the St. Paul Civic Center April 8-12. The theme of the Expo, "Hand-Made in the U.S.A.," recognizes the inaugural show of the same theme which opened in October 1986 at the New American Craft Museum in New York City. □ This photo sampler gives a taste of the work of the 350 regional and national artists (including 45 Minnesotans) to be exhibited. The Expo includes pieces crafted of clay, glass, metal, wood, fiber and leather and is certain to be a visually nourishing experience. *Bill Beyer*



*Basket with handle made of honeysuckle
Cliff and Cindy Nishimura
Millfield, Ohio*

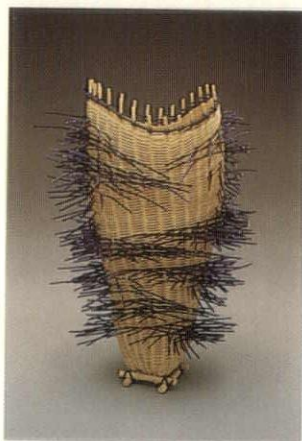


*"Teapot and Vase on Red Rock"
Richard Marquiss and Ro and
Cathy Purser
Freeland, Washington*

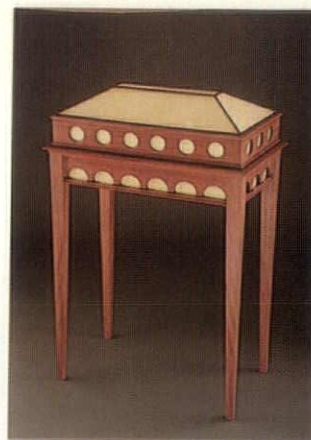
Crafts



Blown glass, assembled hot
James Van Deurzen
Mazomanie, Wisconsin



"Bruised Spirit." Twining, rattan,
surface embellishment
Rise Anderson Petersens
Cashton, Wisconsin



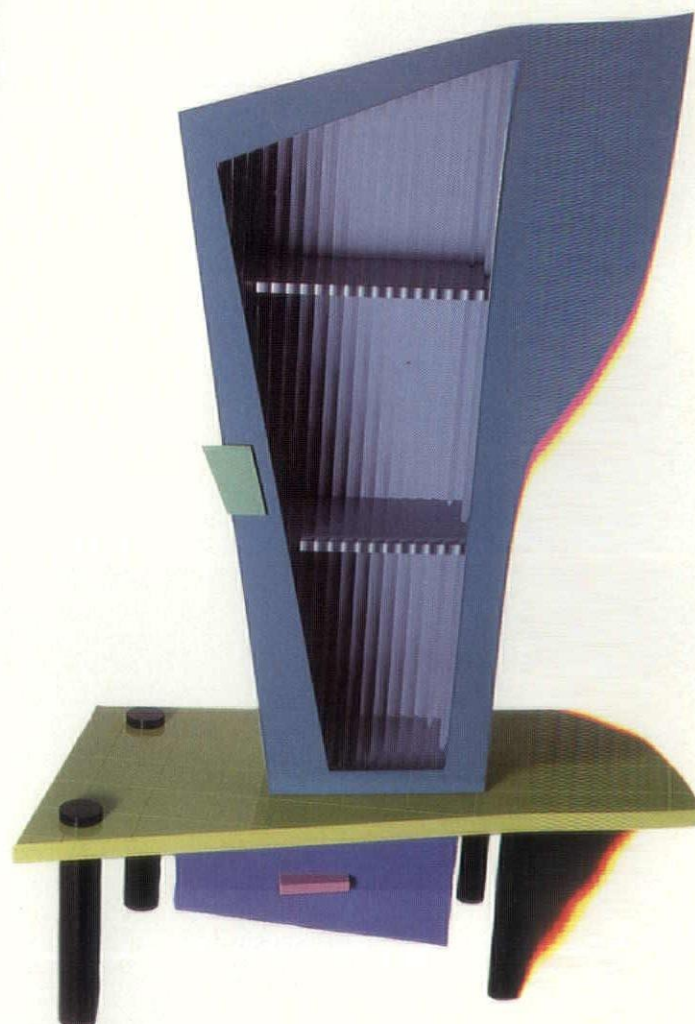
Sham shrine. Purple heart, ebony
Thomas Tedrowe
Chicago, Illinois



"Floating Back Rocker." California
madrone
Robert Erickson
Nevada City, California



"Teapot for the Tin Man." Slad-
built, sprayed slips
Robert Anderson
Ames, Iowa



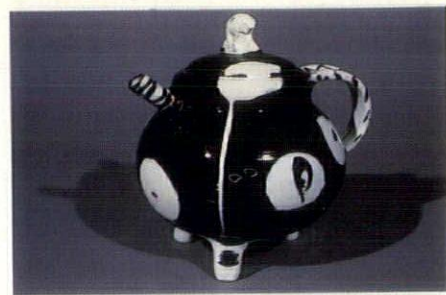
Cabinet with drawer, wood, steel,
glass and lacquer
Lynn Godley and Lloyd Schwam
Brooklyn, New York



*Ceramic pot
David Gibson
Salt Lake City, Utah*



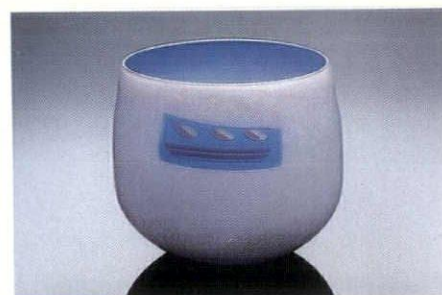
*Maple burlwood platter
Bruce Bernson
Santa Barbara, California*



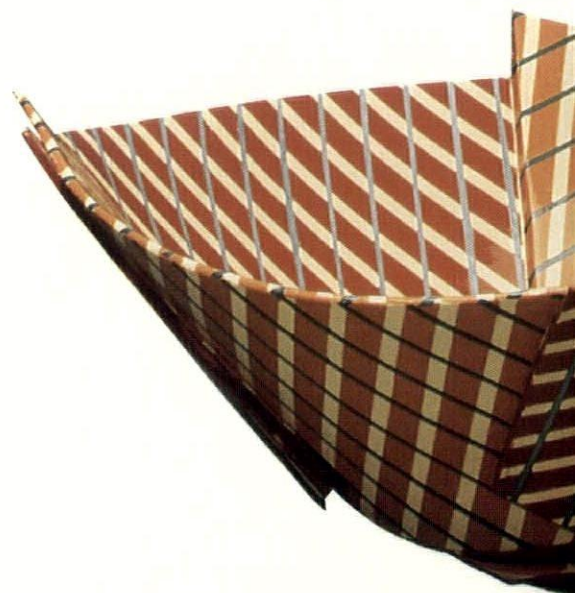
*Teapot 'zou-lou'-ware
Constance Mayeron
St. Paul, Minnesota*



*Black/white asymmetric lenti
choker of porcelain and sterling
Howard Newcomb and Alice
Scherer
Portland, Oregon*

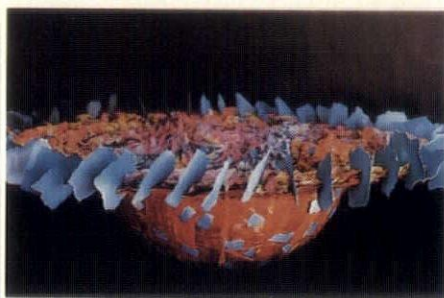


*Bowl of blown glass with ap-
plied decorations and glass
powders
Mark Hartung
Ann Arbor, Michigan*

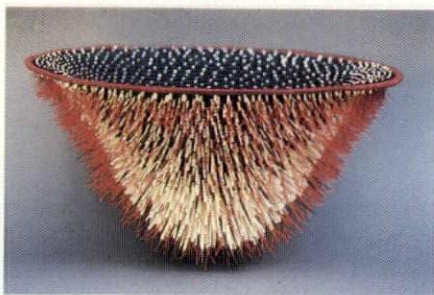




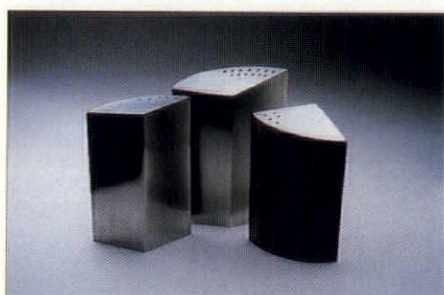
Blown glass, sandblasted
Louis Sclafani
Rosendale, New York



Silk ripples, dyed silk and paper
Carolyn A. Dahl
Houston, Texas



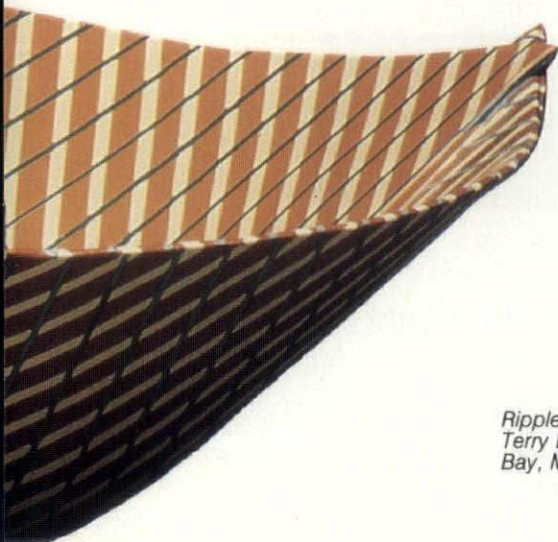
Waxed linen, quills and thread
Mary Giles
Clayton, Missouri



*Sugar, salt and pepper set of
pewter*
Jon Route
Overland Park, Kansas



*Colored clay plate with raised
center tile*
Marcy Glick
Chicago, Illinois



Rippled bowl form
Terry Basmajian
Bay, Michigan

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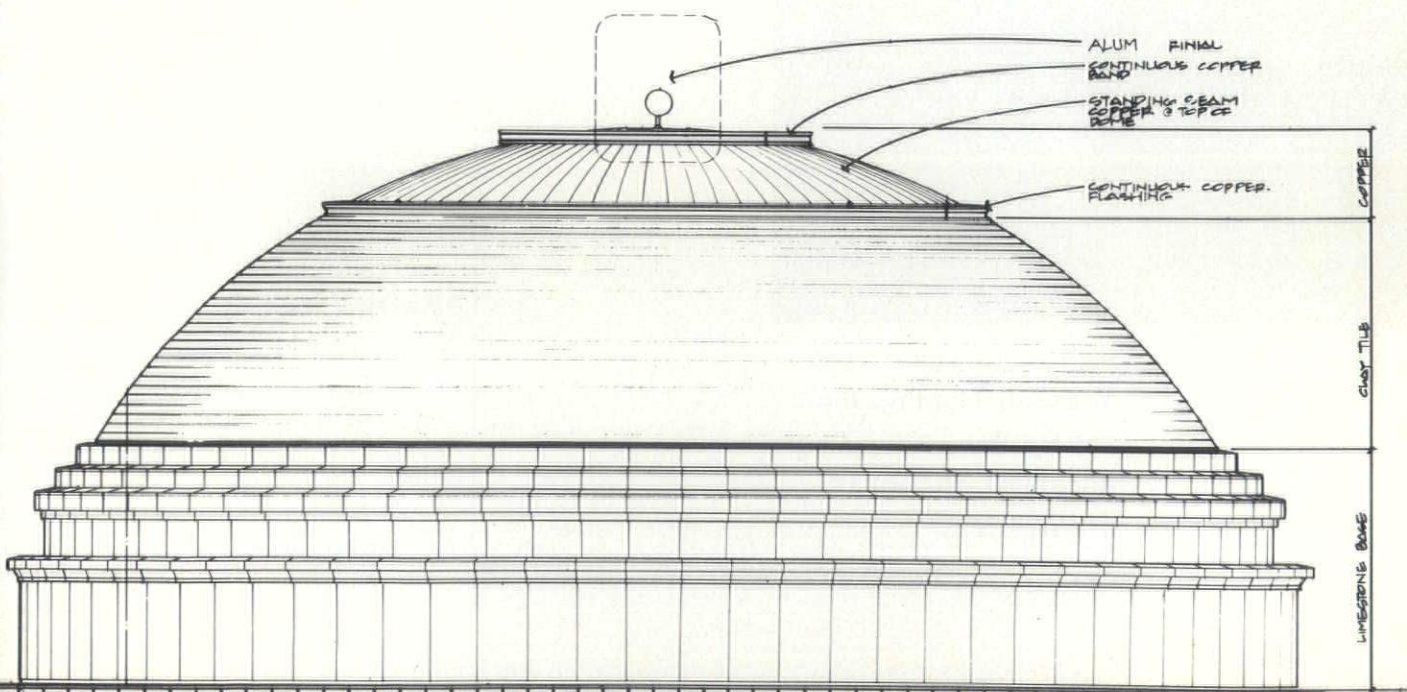
A watertight Pantheon From Hadrian's Pantheon to Bucky Fuller's geodesics, domes have adorned our temples of religion, politics, and culture for two thousand years. For the Crown Space Center at the Museum of Science and Industry in Chicago, Hammel, Green and Abrahamson chose to adapt the imagery of the museum's existing dome to their Omni-Theater program—an unusual case of ancient form following modern function.

Imagery and symbolism aside, a dome, like any other roof, is nothing more than a herd of leaks waiting to spring. HGA met this age-old challenge by using a combination of familiar strategies and modern materials and techniques. Continuous air cavities between the structural dome and the cladding systems allow any moisture to migrate to weepholes above the adjacent flat roof. A vapor-barrier membrane was sprayed over the outside of the dome. The architects carefully checked the compatibility of this membrane with the lightweight concrete of the dome. They developed conventional details for the transitions between the copper, clay tile and limestone claddings, but the result was elegant.

Bill Beyer



The 96-foot diameter of the Crown Space Center dome would fit comfortably inside the Pantheon. The segmented steel frame has sixteen radial ribs connected by horizontal tie beams. The space between the ribs is spanned by lightweight concrete sprayed onto pie-shaped sections of heavy pre-formed metal lath.



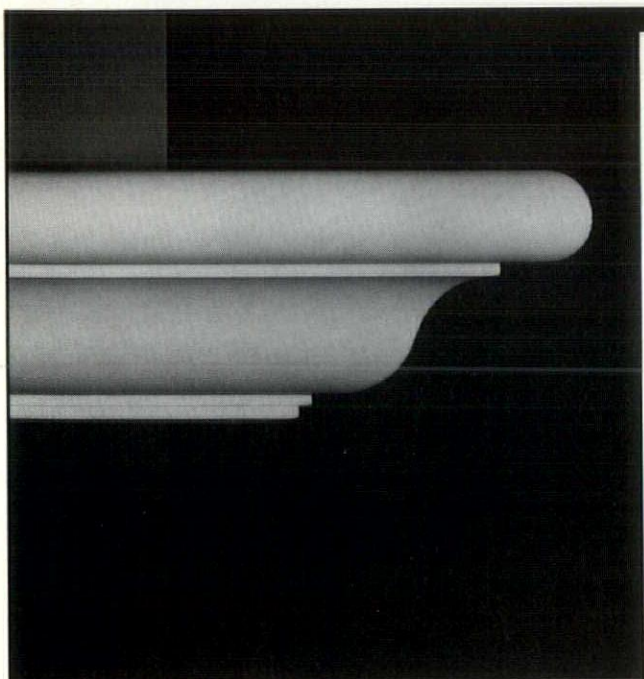


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AM

letters

Give credit where it's due

AM is an excellent representative of our profession to this region and this region's design quality to the nation. Its talented, over-worked staff and persistent, under-recognized publications committee deserve more local praise to go with their national awards.

What more can we ask from the best regional architectural magazine? Two additions to the table of contents—recognition and criticism.

In my opinion, it isn't sufficient to recognize some team members of some projects somewhere at the back of the magazine. Rather, *AM* should comprehensively recognize the total design team within each article. The authors of the architecture should be indicated within the article itself as the authors of the text are indicated within the copy.

Credits shouldn't be misconstrued as blatant marketing, but rather as a service to the public. Comprehensive credits could be a resource for clients planning their projects. Such a resource would also aid scholars interested in who designed what in what style, with whom and at what time. *Japanese Architect* and *Progressive Architecture* are models for providing such a resource.

As for criticism, the British and Canadian press are excellent examples of journalism's ability to create a forum for the improvement of architecture and urban design. We must fully recognize local talents and discuss their efforts thoroughly to fulfill *AM*'s critical potential.

Ed Frenette, AIA

*Director of design and planning
Setter, Leach & Lindstrom*

Barrier-free design

On behalf of our agency, I would like to thank you for publishing the article entitled "Some thoughts on barrier-free design" (Practice, January/February 1987).

The author researched the subject thoroughly and presented the information extremely well. Mr. Beyer dis-

coming soon

**Wilson/Jenkins &
Assoc. Inc.**
**Project: Colonnade
Office Building**
Golden Valley, MN

Construction has commenced on 'The Colonnade', a 15-story speculative office tower and five-level parking deck, overlooking the intersection of the new 394 Freeway (Wayzata Blvd.) & Turner's Crossroad.

Prairie Mountain granite clads the tower and Minnesota Limestone forms a classical base that extends into the five-story glass atrium/retail area. Trammell Crow Company is the developer. (612) 831-7246.



**Charles R. Stinson,
Architect**
Project: Villar Residence,
Sewall's Point, FLA
Builder: Surroundings

This 4000 s.f. waterfront residence opens onto decks and porches from all rooms, fulfilling the client's desire for an outdoor-poolside lifestyle. Sculptured interior spaces focus around the vaulting great-room, with marble flooring and

cypress ceilings throughout. Hurricane zoning requires the structure to be elevated on pilings and all detailing to be designed for high velocity winds. The design elements work together to create a dramatic blend of sophistication and tropical romance. Eden Prairie, MN, Raleigh, N.C., Stuart, FLA. (612) 829-7810.

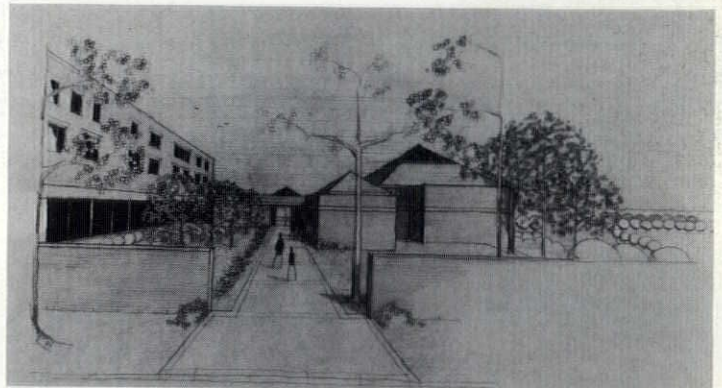


Gary Grooters Architects
Frank Kacmarcik:
Liturgical
Consultant
Project: St. Scholastica
Convent
St. Cloud, MN

Sited on the brow of a hill, amid mature Oak trees, simplicity and honesty of materials pervades this major expansion of an existing Benedictine Convent.

A new main chapel, Blessed

Sacrament Chapel, and a large new residential wing surround the new, centrally-located gathering space. Skylights and natural wood ceilings distinguish the interior of the main chapel and gathering space, and 100-year old stained glass is incorporated throughout. Liturgical furnishings and interiors are highlighted by granite quarried locally. Construction is slated for Spring 1987. (612) 252-3740.



The Associated Architects
Project: Buelow Fine Arts
Center, Concordia College
St. Paul, MN

This proposed 31,000 s.f. addition to the College's existing Music Building will consolidate into one facility the Fine Arts programs, which currently are dispersed throughout the campus. The construction consists of an 11,500 s.f. Art Dept. and a 19,500 Drama

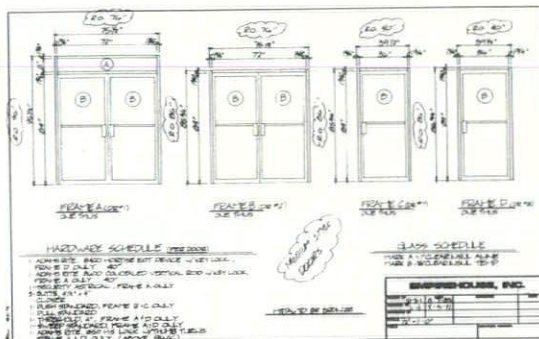
Dept., including five art studios, gallery space, a 300-seat drama theater with full flyloft, and related office, shop and rehearsal spaces. The building is designed to integrate into the existing campus plan, providing a major new facility capable of serving both the College and the community. (612) 698-0808.



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aluminum entrance (a-loo'mə-nəm en'trəns) *n.* 1. an elegant appearing door with frame often accompanied by an attached window unit, a.k.a. sidelite, high-lighting the main opening into a building, i.e. office spaces, shopping centers, apartment buildings, condominiums, etc. 2. a specialty of EMPIREHOUSE, INC., a long time glass and glazing company in Minneapolis, manufacturers of storefronts, windows, doors and sloped glazing products.

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played a sensitivity to the needs of disabled persons and the importance of accessible buildings and facilities. He presented some of the current problems and concerns, and identified key persons and agencies involved.

As an architect, he was able to speak to the role of the design professional and address an issue that is of crucial importance to the disabled community.

Susan Lasoff

Accessibility specialist

Minnesota State Council

for the Handicapped

Changing times questioned

I find questionable the premise and the recommendation of the recent editorial "Changing Times" (November/December 1986).

Certainly the impending tax code act will have a short term impact on our profession as everyone scrambles to reorder their investments. One must understand, however, that there are relatively few pockets available for all that money. As the oldest known investment, real estate will survive and again be a good market later in 1987.

The most profound impact on our profession today is not the tax act but our country's new position as a mere member of a global economy. American industry is totally retooling and restructuring itself to meet the competition of this world economy. Commerce will be next and they in turn will demand the same of our institutions. Large hospital projects have been a rarity for five years already. Why? Because American industry led the way by refusing to pay any more for the delivery of health.

HGA's future will not be bet on slick brochures featuring custom-designed vacation homes, nor should anyone else's.

Dennis L. Lanz

Principal/Marketing Division

Hammel Green and Abrahamson

Praise from Hawaii

A quick note to tell you how much I enjoyed the recent issue of *Architecture Minnesota*. It is without question one of the best issues of any architectural magazine I have ever read. Congratulations!

Elmer E. Botsai, FAIA

*Dean, School of Architecture
University of Hawaii*



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news briefs

Continued from page 5

Although Isozaki's Tokyo firm will be in charge of design, the majority of the work will be done in Minneapolis. The Loring Park site is within walking distance of many of the city's cultural landmarks, including the Walker Art Center, Guthrie Theater and Orchestra Hall.

The design team was chosen from five finalists by the Minnesota Designer Selection Board, which selects architects for state-funded projects. The five-member board includes Richard Whiteman, a Duluth architect; John Nagel, a Minneapolis structural engineer; Damon Farber, a Minneapolis landscape architect; Mark Anderson, a Northwestern Bell marketing representative; and Minneapolis architect Bernard Jacob.

The other teams considered for the commission were Armstrong, Torseth, Skold & Rydeen of Minneapolis with the Architects Collaborative of Cambridge, Massachusetts; the Stageberg Partners and Ralph Rapson Associates of Minneapolis; Hammel, Green & Abrahamson of Minneapolis; and Smiley Glotter Associates of Minneapolis with Ulrich Franzen Associates of New York.

More than just paper

Three renderings from 20 submissions were cited for outstanding design at the 1987 Minnesota Society of Architects' Paper Architecture competition. A First Award went to "Hamet, California Civic Center and Master Plan," by Marc Partridge and Nick Marcucci, with graphic design by Marc Partridge and Kevin Hay, of Ritter, Suppes, Plautz/Architects.

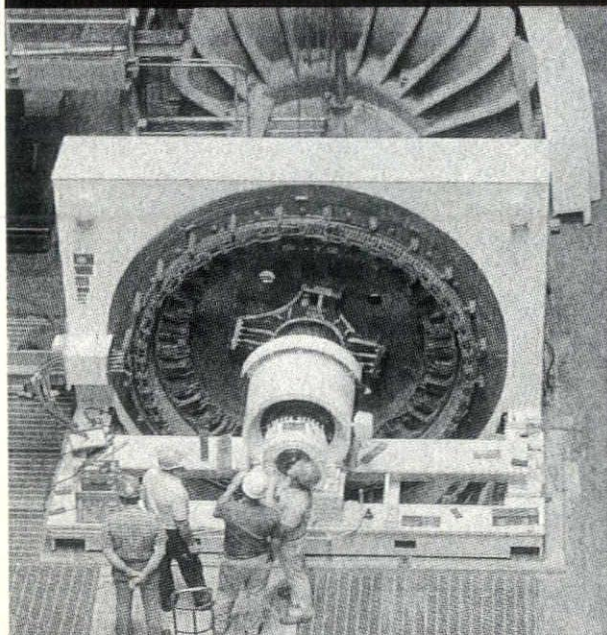
Awards for Rendering went to "Introduction," by David Rova, of BRW Architects, and "Scheme for Great Hall—Minnesota History Center," by Joan M. Soranno of HGA.

Jurors for this year's competition included Mildred Friedman of the Walker Art Center, Jim Ristine of the Minnesota Museum of Art and Ed Frenette of Setter, Leach & Lindstrom.

MSAIA created the Paper Architecture competition in 1982 to provide a forum for architectural thought and dis-

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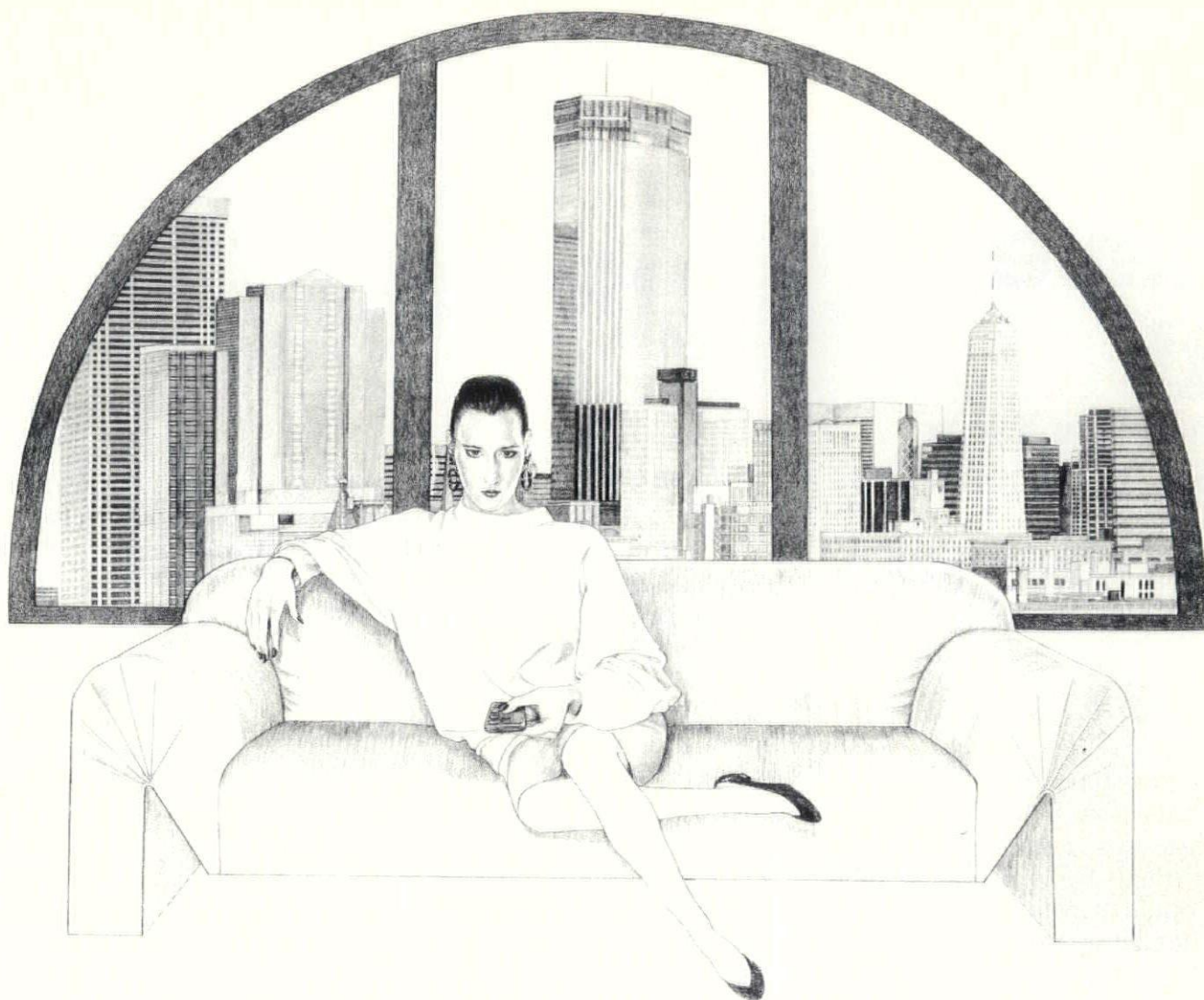
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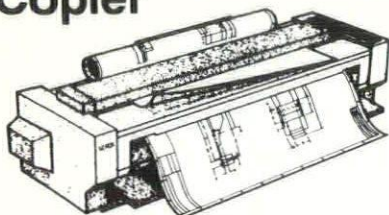
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cussion, as well as to encourage creative and sometimes whimsical designs. The 1987 winners along with selected entries from the last two years' competitions will be on display at the Minnesota Museum of Art's Landmark Center galleries through March. Subsequent competitions will occur bi-annually.

Public art applauded

Several local artists were cited by Twin Cities Mayors George Latimer and Donald Fraser for their creation of public art.

The winners of this year's Mayors' Public Art Awards are "Art of the Eye," an exhibition of works of visually impaired artists; "The Great KTCA Read-a-thon," a twelve-hour broadcast reading marathon sponsored by the Twin Cities public television station.

Also honored were the North Community High School Visual and Performing Arts Magnet of the Minneapolis Public Schools, a four-year old program that serves 200 high school students annually; "Rivertown International Film Festival," sponsored by the University Film Society/Minnesota Film Center; the Winter Carnival Ice Palace designed by Ellerbe Associates; and "Tokyo: Form and Spirit," a three-month exhibition and community festival presented by the Walker Art Center.

The Mayor's Public Art Awards honor arts activities that promote access to the arts or provide a public service through the arts. It is administered by St. Paul's United Arts, the St. Paul Department of Planning and Economic Development and the Minneapolis Arts Commission.

Contemporary crafts at design center

"Contemporary Crafts for the Home," a juried exhibition displaying works by 50 Midwest artists in clay, fiber, glass, metal, mixed media, paper and wood, will open at International Design Center in Minneapolis on April 2 and run through April 26.

The exhibition marks the second year that the Minnesota Craft Council and International Design Center have collaborated to highlight the varied use of crafts. This year's show, in fact, will feature a greater variety of pieces that

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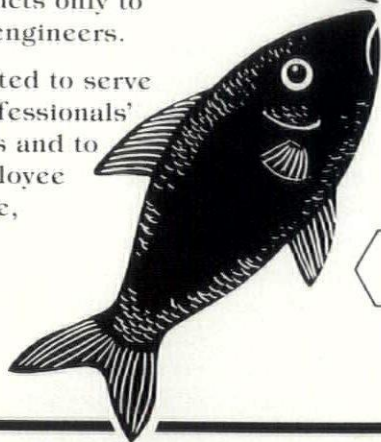
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The exhibition will begin with an open reception at 6 P.M. on April 2. For more information, contact Maureen Brockway of the Minnesota Crafts Council-IDC Publicity Committee at 941-1480 or Nancy Wald, committee chairperson, at 866-9279.

Will Tigerman cause revolution at tea party?

Stanley Tigerman, one of Chicago's most controversial architects, will discuss the architect's role in home furnishing design at the "Minneapolis Tea Party," sponsored by the Minnesota Society of Architects' Programs Committee April 9. Tigerman, of the architectural firm Tigerman, Fugman & McCurry, is noted for his whimsical if sometimes outrageous designs, such as the Daisy House in the shape of a male genitalia and a parking ramp resembling the front end of a Rolls Royce. One of his most recent Chicago landmarks is the Tuscan-style Hard Rock Cafe in the city's River North district.

For exact time and location of Tigerman's talk, contact Karen Bracht at MSAIA at 338-6763 or Richard Lay at Carlson Mjorud Architecture at 546-3337.

Interior designer to conduct preservation seminar

An all-day seminar, "Historic Preservation, Rehabilitation, and Adaptive Re-use Basics," will be held Saturday, April 25 at the University of Wisconsin, Stout in Menomonie, Wisconsin.

Sponsored by the American Society of Interior Designers Industry Foundation, the continuing education course will be conducted by Peggy Gustave, a practicing interior designer, instructor at Arizona State University in Tempe, Arizona, and former ASID national historic preservation chair.

Gustave, who is also current president of the Arizona North Chapter of ASID, will discuss federal regulations governing rehabilitation projects; the use of tax credits, easements and grants; how to research and write nominations for the National Register of Historic Places, and the role of state historic preservation offices. She will also provide tips on specific preservation proj-

ects; those enrolled are encouraged to bring two to six slides of a project for discussion.

The \$20 pre-registration fee includes lunch. Admission at the door is \$25 and a seat cannot be guaranteed. Contact the ASID Student Chapter, Room 228, Applied Arts Building, University of Wisconsin, Stout, Menomonie, Wisconsin, 54751. For further information, call (715) 232-1141.

Europe sets designs on Chicago

The European Interior Design Exhibition will premiere April 8-10 at the Merchandise Mart in Chicago. Staged as a collaboration between European Exhibitions in America and the Merchandise Mart, the event will showcase the best of Europe's high-end designer furnishing. Hundreds of lines from across Europe will make their United States debut. European Exhibitions in America, headquartered in Paris, is the largest trade show company in France, with offices throughout Europe. A series of seminars will address European trends that will influence American interior design. For more information, contact Gloria Zylowski, director of communications, Suite 470, The Merchandise Mart, Chicago, Illinois 60654 or call (312) 527-7550. **AM**

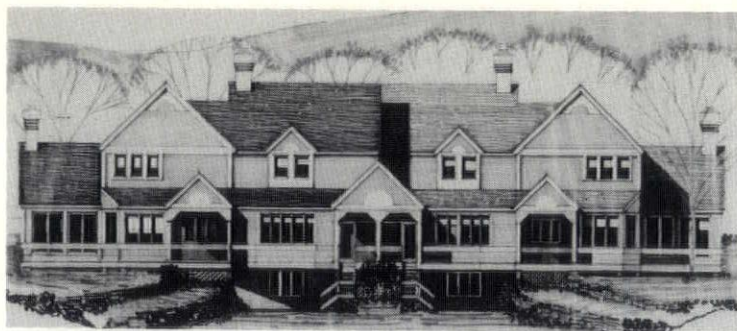
reviews

Continued from page 9

The catalog is illustrated with numerous drawings and photographs and a large number of absolutely ravishing color plates, mostly by Cervin Robinson. Magnificently reproduced, the plates are without question the finest color photographs of Sullivan's buildings now available in any book. Unfortunately, the catalog (printed in Italy) was beset with technical problems that delayed its publication and resulted in a disturbing number of printing errors, as reflected in an extremely long errata sheet. Still, the book is far superior to the usual run of exhibition catalogs and no one even remotely interested in Sullivan's work should be without it.

Larry Millett is the architecture critic for the St. Paul Pioneer Press Dispatch.

Continued on page 60



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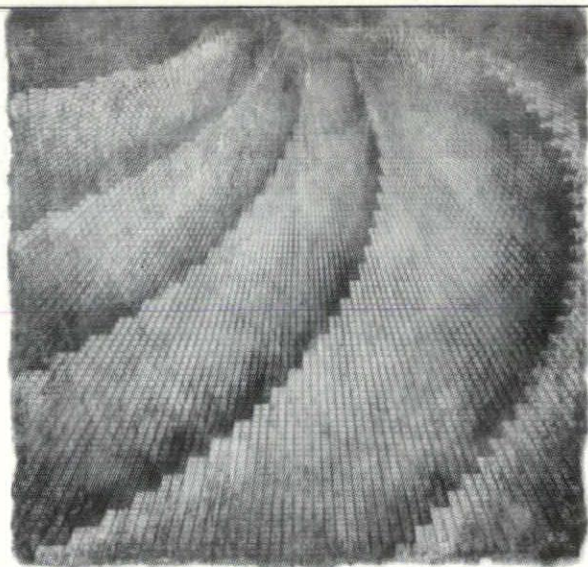
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The guided age

By Bruce N. Wright

Those who have suspected and waited long for the rebirth of craftsmanship in America will welcome *The Guild: A sourcebook of American craft artists*—visual proof of the movement's existence.

Chock-a-block with four-color photos of artists' work, the book was created to fill the increasing need for craft artists to connect with interior designers and architects looking for original art for their commercial and residential clients. "Throughout the United States there are thousands of professional craftspeople creating decorative furnishings and architectural elements in a tremendous range of styles and materials," said Toni Fountain Sikes, president of Kraus Sikes, Inc., publishers of *The Guild*.

The soft-bound sourcebook is divided into thirteen "chapters" by type of furnishing. This includes floor and wall coverings, furniture and cabinetry, doors and gates, windows and glass, lighting, sculpture and architectural detail. Sprinkled throughout the book are one-page commentaries by such notable sages of art and architecture as David Rockefeller, Jr., architect Malcolm Holzman and design critic Ralph Caplan.

Printed in color on coated stock, the book contains the work of over 300 artisans from across the country with a surprising number of Midwest artisans represented in all categories.

This is a sumptuous book to pour over, again and again, as well as an outstanding resource for any serious architect or interior designer looking for original craft or art works.

Bruce N. Wright, former managing editor of Architecture Minnesota, is now working for BRW, Inc.

AM

practice

Continued from page 13

just for the prototype. In addition, we have several stores in progress simultaneously. Documents for each store would also need to be changed. By contrast, CADD allows us to make the change once to the prototype graphics, copying it to all the other stores in progress through a simple series of commands. Alterations to notes and di-

mensions affected by the prototype changes bring the typical number of alterations to about seven.

Don Suppes, Sandy Ritter and Michael Plautz originally invested in CADD for its production capabilities. Since then, we have discovered its uses for design as well. It served us well in this capacity during the recent design phase of the University of Minnesota's Raptor Research and Rehabilitation Program facility. Michael Plautz wanted to visualize a proposed idea for a space frame canopy structure over an outdoor aviary. What would be the effect of combining many transparent pyramids into a grid? To measure the effect, he needed a number of perspectives, which would be extremely complex and time-consuming to produce manually. With CADD, however, we generated more than 20 perspectives in 40 hours, including time for initial data input.

But according to Don Suppes, CADD's future primary application will be neither production nor design, but as an information tool. "The data base associated with CADD graphics is a great untapped resource for our profession, for in it lies the potential for architects to greatly expand their role," he says.

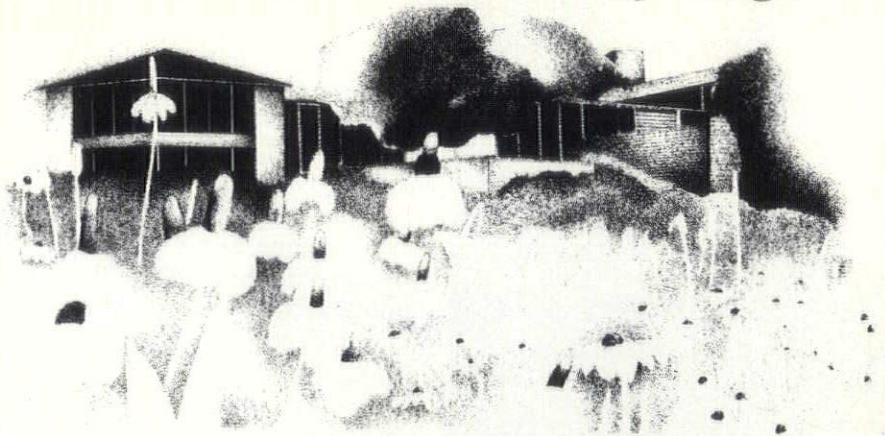
At RSP, we have already begun to expand our role on the front end of projects, by offering programming and assessment of existing facilities. Clients appear hungry for information about their buildings, inventory of furniture and equipment and location of employees. For example, one client requested quantities of materials necessary to build some custom fixtures. It was relatively simple to generate this information directly from the graphics. And the client ordered the materials from this information.

The potential for expanded architectural services applies to the post-construction phase as well, when we could offer facilities management services, for example. It may well be that architects' ability to provide information will be the key to future success. The accuracy, depth and accessibility of the information will determine its value for clients. In this regard, we have just begun to tap CADD's vast potential.

Pat Berg is the marketing coordinator for Ritter, Suppes, Plautz/Architects, Minneapolis.

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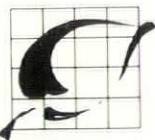
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insight

Continued from page 11

gested piece of pavement lined with hotel reservation shacks and public buses. It is not an urban amenity or any particular attraction; it's just there, serving a need.

A small river passing through Shenzhen remains nearly unrecognized in the urban fabric. The city's tallest building, the 48-story International Market Center, a powerful single shaft with a circular cap, is a random event in a mixed-use, mixed-density, somewhat anonymous neighborhood. In time, with the construction of more buildings to help define the city core, perhaps an order will become apparent. But there are few hints of such an occurrence. A major opportunity seems to have been missed.

As far as the buildings go, Shenzhen presents an obvious lack of historical monuments found in other Chinese cities. Few buildings feature the applied motifs of the traditional styles—inwardly curved tile roofs and ridge ornaments, for example—that occur rather frequently on many modern public buildings in other Chinese cities. There is at least a general integrity in the building designs that avoids such facile devices.

A planned 35-story bank tower, to be constructed near International Market Center, impressed me as being somehow *Chinese*, without using explicitly traditional Chinese forms. The plans indicate a form of twin square towers joined along a diagonal. The curtain-walled, copper-tinted glass facades feature an undulating recess in the glazing pattern that snakes around, animating the tower forms. The effect is rich and completely Oriental.

Two of the better existing buildings in the Shenzhen SEZ, the Nan Hai hotel and the Shenzhen Coliseum, were designed by the China-Hong Kong joint-venture firm of Watson Architectural & Engineering Designing Consultants, which is one of many joint-venture operations in the SEZ.

The hotel is located in the smaller coastal town of She Kou, about 20 miles west of Shenzhen. Although the exterior is somewhat international and not particularly Chinese, its interiors are consistently designed in interpretations of

T'ang Dynasty forms which are evocative while appearing contemporary.

The 6,000-seat coliseum, on the fringe of Shenzhen, is the first phase of a large sports complex that will eventually include a 60,000-seat stadium, a large pool and an exercise facility. The building is a competent and impressive work which fits well into the scale of the city.

In general, the background construction in Shenzhen—housing, factories, schools, etc.—is similar to that of other cities in China. These buildings are mostly low, simple rectilinear boxes of concrete frames infilled with brick and faced with plaster. Such severe and ubiquitous buildings are filling the great need for rapid, economical construction, but rarely do they sympathetically



relate to the land or each other. It is the construction of immediate necessity, providing little or no opportunity for the application of innovative technologies or the exploration of architectural meaning and form.

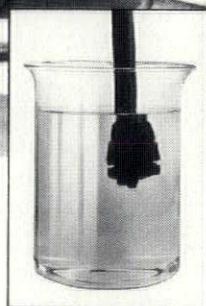
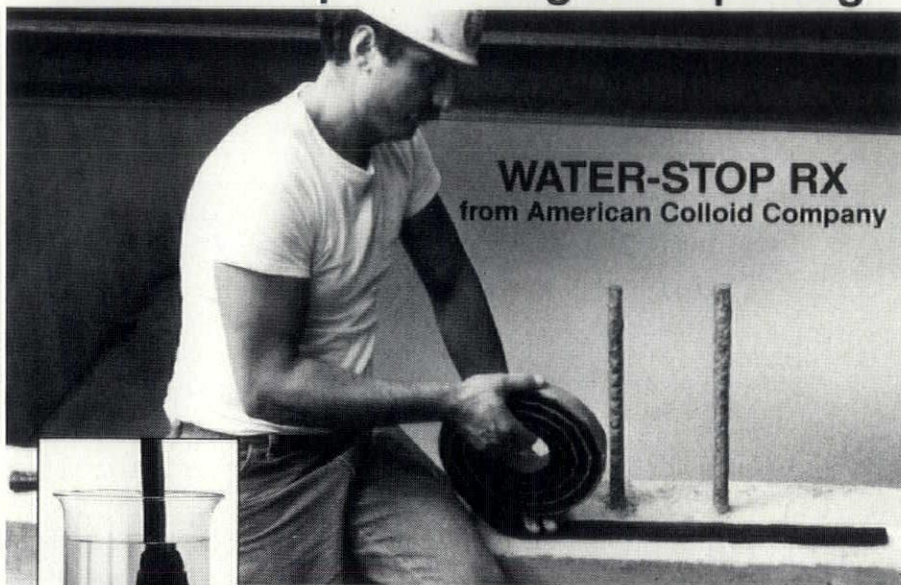
For a young designer in China, the challenge for the future is to create a truly modern Chinese style. Before long, one hopes, China's new architecture will once again be worthy of international attention and acclaim.

To be sure, the new city of Shenzhen is a remarkable testament to China's commitment to accelerate modernization. Despite its short history, the city already contains several of what can be considered China's best modern buildings. But Shenzhen as a whole lacks focus and consistency. It presents an apparent casualness in planning which is disappointing, especially considering the fairly accommodating site and the tremendous opportunity that was presented.

Scott J. Newland is an architect with Bentz/Thompson/Rietow and a 1983 graduate of the University of Minnesota School of Architecture and Landscape Architecture.

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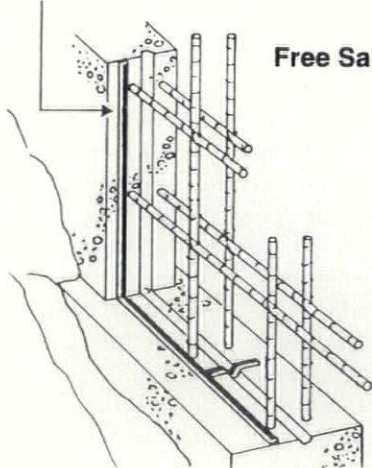


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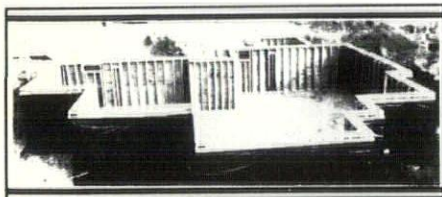
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opinion

Continued from page 15



Frank Gehry's Norton House, Venice, California

and he has truly mastered that art.

His objective is not to make buildings that nurture but, in the avant garde tradition, to make buildings that question. In photograph, his buildings are dramatic because they look bizarre. Yet in reality they are, for me, less successful. Despite all their contortions, these buildings are not concerned with manipulation of space to create successful places, but only with the manipulation of form and surface. This is the style that has gained recognition not because it is good architecture but because its message suits the media.

And there is nothing wrong with that, provided that there are places within our national press where truly excellent examples of informed invention are exhibited and discussed.

Unfortunately, the two-dimensional medium of the photograph works to our disadvantage here. Photographs capture only a minute part of a place's character. The experiences of architecture have to do foremost with space and light. These experiences rely on our perception of depth and our peripheral vision; they cannot be totally captured with a camera. Much more stimulating in photograph is the unusual rendering of surface, the distortion of a commonly accepted image.

Given this realization, how can a

magazine hope to represent the type of architecture that may well use conventional forms to invent new experiences? The only truly successful documentations of buildings of exceptional experiential quality that I have seen are those that take the form of photo essay. There used to be a publication called *The Architect* that would feature a building each issue, often with as many as fifteen pictures to illustrate it, as well as plans, sections and elevations. Short of visiting a building in person, this coverage seems the only way to gain a true understanding of the complexity of space the building may inscribe.

Whether we like it or not, we are enormously influenced by the printed media in our profession because we have so few opportunities to experience works of architecture ourselves. We should encourage our national magazines to give equal time and coverage to buildings exhibiting qualities of informed invention. Without such emphasis, it seems that the course of architecture will be forever toward the bizarre, toward the creation of buildings that stand out in an obtrusive way.

Sarah Susanka is a principal of the firm Mulfinger and Susanka Architects and a lecturer in architecture at the University of Minnesota.

AM

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Credits

Project: Henry Crown Space Center and Omnimax Theater

Location: Chicago, Illinois
 Client: Museum of Science and Industry,
 Chicago
 Architects: Hammel Green and
 Abrahamson, Inc.
 Principal-in-charge: Bruce Abrahamson
 Project manager: Gary Reetz
 Project architect: Bill O'Malley
 Project designer: Juan Stoleson
 Structural engineer: Yan Shagalov, HGA
 Mechanical engineer: Glenn Hawkinson,
 HGA
 Electrical engineer: John Pilegaard, HGA
 Contractor: Schal Associates
 Interior design: HGA
 Landscape architect: HGA
 Acoustical consultant: Purcell & Noppe &
 Associates, Inc.
 Lighting consultant: HGA

Project: Fred T. Heywood Operation & Office Facility

Location: Minneapolis
 Client: Metropolitan Transit Commission
 Architects: Setter, Leach & Lindstrom, Inc.
 Principal-in-charge: Jack Wilwerding and
 George Theodore
 Project manager: Walter Daniels
 Director of design: Ed Frenette
 Project architect/designer: Richard Varda
 Project team: Bob Novak and Lloyd
 Ellingson
 Structural engineers: Teng & Assoc
 Mechanical engineer: Dick Wennerstrom,
 S, L & L
 Electrical engineer: Mike Granveet, S, L & L
 Contractor: Orville E. Madsen
 Interior design: Paul Youngquist, S, L & L

Project: Primate Exhibit, St. Paul Como Zoo

Location: St. Paul
 Client: St. Paul Parks and Recreation
 Department
 Architects: Rafferty Rafferty Mikutowski
 Architects
 Principal-in-charge: Richard J. Rafferty
 Project manager: Angela DeLong Gatzlaff
 Project architect: Gary Hay
 Project team: George Rafferty, Frank
 Mikutowski, Terry Whitehill, Craig Rafferty,
 Chip Lindeke, Tom Lillyman, Gary
 Lukaszewski, Rob Rafferty, Earl
 Lindstrom, Lee Tollefson, Craig Roney
 Structural engineer: Joseph Jameson, PE
 Mechanical engineers: Lundquist, Wilmar,
 Schultz and Martin, Inc.
 Electrical engineers: Lundquist, Wilmar,
 Schultz and Martin, Inc.
 Contractor: James Steele Construction
 Company
 Landscape architect: Sanders and
 Associates

Project: Santa Clara Convention Center

Location: Santa Clara, California
 Client: City of Santa Clara
 Architects: Ellerbe Associates
 Project manager: Don Eyberg
 Project designers: Richard Varda and Don
 Hanson
 Project architect: Dex Marolt
 Job captain: Bill Ott
 Landscape architects: The SWA Group
 Mechanical engineers: SAI Engineers
 Electrical engineers: SAI Engineers
 General contractors: Hensel Phelps Company

letter from the publisher

Hot topics

Are architecture and interior design hot topics? You bet!

The number of design and building related publications in our area has mushroomed over the past few years. Look at this list: *Minnesota Real Estate Journal*, *Minnesota Commercial Architecture & Design*, *New Homes*, *Minnesota Home and Design*, *Commercial Space*, *Mpls/St. Paul Homes*, and *Minnesota Home & Garden*. Add to these the regular feature stories on design in other local magazines and newspapers and you find a veritable explosion of coverage of architecture and interior design.

We're pleased that other publishers are aware of the public's growing interest in architecture and interior design. But how is *AM* distinguished from the rest? By scope and intent.

It has been quite some time since *AM*'s editorial policy has been succinctly recapped for our readers. Let me share it. "*AM* is a vehicle of public outreach to enhance awareness, supply information, and advocate quality design in the environment." The magazine is also "an indirect communications tool to endorse the engagement of MSAIA members for architectural services."

From this policy grow two very special assignments. First, we must use sound judgment in selecting only exemplary projects for coverage in our precious 40 or so editorial pages each issue. It is our belief that positive critiques of successful projects are a far superior way to "enhance awareness" of good design than negative criticism of lesser work. I believe our

editorial staff and our very supportive Publications Committee (see names on page four) do this job superbly.

Second, we must report on all manner of buildings and project types. "Quality design in the environment" means hotels and homes, office buildings and churches, schools and parks, the entire spectrum of environmental design.

Since its beginning in 1936 as *Northwest Architect*, this magazine has sought to document the significant buildings, design trends, and personalities which have shaped the extremely high quality of built environment we enjoy in the Midwest.

We welcome our new media colleagues in this endeavor and appreciate the specialized, more singular editorial focus of each. We also welcome our own ongoing responsibility to record the more generalized "big picture" of architecture and design in our region. That is the mission of *Architecture Minnesota*.



Peter A. Rand, AIA
Publisher



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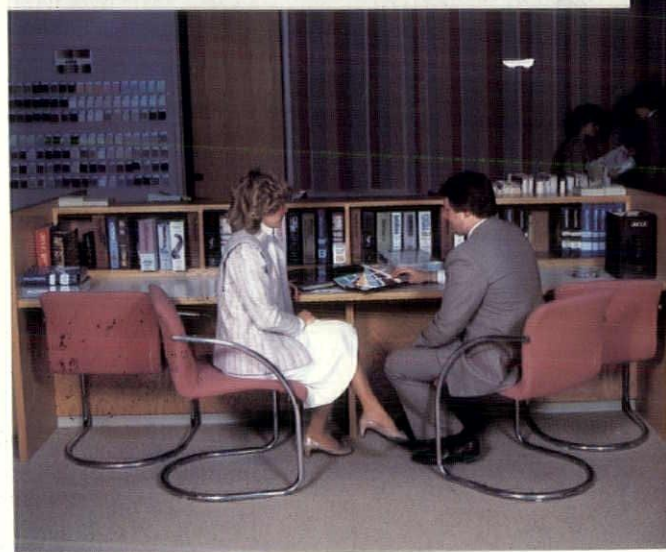
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