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On the cover: The Walker Art Center’s Martin and “Mickey” Friedman: Risk-takers who score another hit with the De Stijl show. Photograph: George Heinrich.

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AM wins best-magazine award for 1982 in national competition

Word arrived at press time that Architecture Minnesota has been awarded the 1982 Gold Circle Award for magazines by the American Society of Association Executives. Entries were judged "for content, writing, design, photography and illustrations."

The A.S.A.E. is one of the nation's giant service organizations, with a membership of roughly 10,000 business and professional associations. Entrants in the Gold Circle Award competition are not required, however, to be A.S.A.E. members.

AM will be presented with a trophy at the A.S.A.E. Communications Section Annual Meeting on March 15 at the New York Hilton.

Competition brings De Stijl downtown

To call attention to one of the most significant exhibitions organized by the Walker Art Center, "De Stijl, 1917-1931, Visions of Utopia" (Jan. 31-March 28, 1982), a downtown Minneapolis skyway has been transformed to look as if designed by artists of the De Stijl group. Opaque panels of theatrical gels have been set into the skyway windows to create patterns of red, yellow and blue light inside and out. Entitled "Skyway Boogie-Woogie," the design recalls Piet Mondrian's famous painting "Broadway Boogie-Woogie."

Co-sponsored by Northwestern National Bank and the Walker Art Center, the De Stijl-inspired skyway is the product of a juried competition open to architecture and graphic design students attending the University of Minnesota or the Minneapolis College of Art and Design (MCAD). In the interdisciplinary spirit of De Stijl, eleven teams drawn from several areas of study created proposals for a skyway that would reflect and reinterpret De Stijl ideas. Each design also had to be simple enough to be installed and removed by students, meet fire regulations and city codes, and cost less than $7,000. The winning design was submitted by John Jurewitz, a University architecture student, and Brenda Dane and Don Bergh, graphic design students at MCAD.

Their advisor was Brad Hokanson, assistant professor of design at MCAD, and a practicing Minneapolis architect. The design competition was juried by: Kinji Akagawa, artist and assistant professor, MCAD; Mildred S. Friedman, Design Quarterly editor and Walker Art Center curator; William Houseman, editor of AM; Kay Lockhart, AIA, associate professor, School of Architecture, University of Minnesota; and Peter Seitz, designer and associate professor, MCAD.

Panels covering the skyway windows darken the interior, intensifying the colorful patterns on the floor and walls created by the red, blue and yellow theatrical gels (top and top left).

Three-dimensional projecting colored planes of the runnerup proposal (above) are reminiscent of De Stijl architect Gerrit Rietveld's work. Submitted by University of Minnesota architecture students Denise deVictoria, Paul Emmons, Lee Meyer, David Packard, and Christine Zagarla.

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**First YMCA designed for mixed-use project to be built**

The first YMCA designed as part of an interconnected, mixed-use development is about to be built in St. Paul. On February 2, a bond sale passed to allow construction of the parking ramp and YMCA portion of "Block 40," located across from Mears Park on 6th Street, in Lowertown. The YMCA will own the building but not the land beneath it.

The facility itself will be typical of most YMCAs, but its location will offer unique amenities. A member could, potentially, live in one part of "Block 40," work in another portion, exercise at the YMCA, buy food in the marketplace, go to one of the six movie theaters and never leave the building. If he or she does venture across the street, three skyways will be available.

The 64,000 s.f. YMCA will have five levels: a small street entrance lobby open to the second floor where the reception desk and offices will be located; a pool and equal-sized locker rooms for men and women on the third floor; the gym and weight rooms on the fourth; and racquetball courts and a track on the fifth. Joggers will be able to look out on one side to the atrium marketplace below. The architect for the YMCA as well as for the remaining development on the block is Miller Hanson Westerbeck Bell of Minneapolis.

Dave Anderson, project architect for the YMCA, said the outside will be brick with deep-set strip and arched windows, similar to older buildings nearby. Members of the old St. Paul "Y" will recognize the ornamented entrance arch in its new street-level entrance location.

The budget, not including furnishings, is $4 million. This relatively low figure is possible, Anderson said, because the YMCA will have only one exterior wall and will share a heating plant with other structures on the site. It is scheduled to open August, 1983.

**University tests capturing summer heat for colder months**

The first stage of an experiment is underway at the University of Minnesota to test the feasibility of saving summer waste heat for use in colder months.

University engineers and geologists are withdrawing groundwater from an aquifer, heating it to 100 C (212 F) with a steam boiler, then returning it to the aquifer at another site. The rock...
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Over 50 Years
NEW HAVEN, CT—Four steel cables suspended from a center concrete arch give the intricate 5,500-square foot roof of Yale University’s David S. Ingalls Hockey Rink the appearance of a colossal whale swimming across the campus.

Unfortunately, for the last three years, the “whale” wasn’t the only one doing the swimming. Because of a leaky roof, Yale Hockey team members many times had to battle water puddles as well as their opponents.

F.J. Dahill Co., Inc., a local roofing, structural remodeling contractor, was chosen to roof the whale with an EPDM membrane manufactured by the Carlisle Tire & Rubber Co., Carlisle, PA.

The most difficult phase of the job was to develop a staging system of ladders which would conform to the roof’s irregular shape and allow the crews to work.

To support the ladders, Dahill crews nailed off 2 x 4 boards between the 23,000 lineal feet of battens covering the roof’s surface. Two ladders were placed so that approximately 170 rolls of Carlisle EPDM, ranging from 10 to 103 feet long, could be placed in the 4 1/2-foot gap between battens.

The EPDM sheets were loose laid over the old neoprene material and nailed at six-inch intervals at the base of each batten. A 12-inch piece of elastoform was then secured over the battens. When a row was finished, one of the ladders was moved and the process started all over.

Flashing was secured by inserting a metal band in the large reglet joints at the top arch and bottom wall and covering it with a sealant.

Old neoprene on the 6-foot x 360-foot concrete deck at the roof’s bottom was stripped and replaced with EPDM that was completely sealed with Carlisle adhesive.
Sensory Junkies

JUST AROUND THE NEIGHBORHOOD CORNER—MIND-BLOWING MOVIE HOUSES. Screenwriter Richard Chapman predicts in Technology Review (February/March) that the movie-going experience will soon lift you to unprecedented heights of super-stimulation. Through far-out technology and the architecture to accommodate it, a new breed of theater designers hope to beat back the competition from cable TV and home video. One of the front-running theater design firms is called Quantum Leap, which plans to establish its first theater of the future within 18 months. It will feature an 80-foot curved screen—floor to ceiling and two-and-a-half times the size of the average 35-millimeter screen—and a sound system incorporating 340 speakers “with computerized signal routing, so the audience will be able to experience a sound coming from a distance and follow it as it moves around the theater.” Why? Because, according to Quantum Leap’s architect-trained Jerome Armstrong, “We are at the beginning of an era of sensory junkies.”

Primitive Posh

NEVER HAS SO MUCH BEEN SPENT TO HOUSE TRIBAL ART. Commenting on the newly opened Michael C. Rockefeller Wing of the Metropolitan Museum of Art, designed by Kevin Roche/John Dinkeloo & Associates, Time’s respected art critic Robert Hughes reports that the architects handled “nearly an acre of elegant, muted space with such tact that the architecture never overwhelms or interferes with what it displays.” Of special note is the meticulous planning of elegant, muted space with such tact that the architecture never overrules the painstaking care the people who made these objects. What they wanted to evoke was awe, fear and the sense of power—the rawest musculature of the social contract, twitching, reflexively before the image.”

Crested Butte Update

THROUGH PLUCK AND P.R., A TINY (POPULATION 1,000) COLORADO TOWN HAS BESTED A GIANT MINING COMPANY. A four-year battle to save its molybdenum-rich Red Lady Mountain from being literally demolished by AMAX has made Crested Butte famous as a giant killer. The town’s planners were at the forefront of what has been called “the archetypal American struggle.” Planning director Myles Rademan writes, “We have junked with AMAX for four years, but our differences remain irreconcilable. We might negotiate, mediate and mitigate, but the hard fact remains that towns as well as environments have finite resiliency. Somewhere the line must be drawn, and for those of us in Crested Butte the line is here.” Along the way, the bibliography of national media stories about this David-Goliath story has grown to five full pages. Always P.R.-wise, the planning department has even produced a 54-page book offering guidelines for builders titled Design Guidelines for Architecture and Landscape Architecture. It may be bought for $7 from the Crested Butte Planning Department, Box 444, Crested Butte, CO 81224. By phone: (303) 349-5338.

Moral Fiber

WASTE SLATE AND MARBLE CHIPS ARE NOW BEING CONVERTED TO AN INSULATION MATERIAL AS GOOD AS ASBESTOS—AND SAFE TO BOOT. When the Bureau of Mines asked ceramists engineer John MacKenzie in 1979 to see what he and his UCLA students could make of the waste chips from stonecutting operations in Vermont, it had no preconceived ideas of what, if anything, the project would yield. The answer is now at hand, according to Discover (March). MacKenzie’s group found that certain mixtures of slate and marble chips would melt at temperatures significantly lower than those required for making commercial-grade glass fibers. Why not see if this otherwise useless raw material might be used to make glass wool for insulation, the group asked itself. By fathoming the workings of a cotton-candy machine, of all things, they found its principle could be adapted to the manufacture of a glass wool capable of serving as insulation every bit as good as asbestos. Unlike asbestos, a material known to cause lung cancer, the marble-slate residue is harmless. Speaking of these new fibers (the Bureau of Mines has applied for a patent) MacKenzie says, “We arrived at them by scientific intuition, and now we want to know why they are so good. If we can figure that out, perhaps we could make them even better.”

Mental States

HOW DO AMERICANS FEEL ABOUT THEMSELVES AND THEIR LOT IN LIFE? Psychology Today (February), in a story titled “Regional States of Mind,” reports the results—actually, a compendium of results from a variety of sources but most notably from the University of Michigan’s Institute of Social Research—of its look at public attitudes in regions of the U.S. Each region’s citizenry was rated for its collective “outlook on life,” and its views of “stress,” “positive feelings,” “negative feelings,” “personal competence,” and “overall satisfaction.” The region designated West North Central (Minnesota, the Dakotas, Nebraska, Iowa, Kansas and Missouri) tied for “highest psychological well being”—surprisingly with the tier of states immediately below it: the essentially Sunbelt group of Texas, Louisiana, Arkansas and Oklahoma. The study characterizes the Minnesotans as follows in this way: “The people living here, in what could be
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ished a relevant connection between abstract art and human experience. Rietveld's famous red/blue chair (left), for example, is less an object to be sat on than a construction to be contemplated. "Essentially," Martin Filler, one of a dozen writers whose essays ap-
wrong to think this paragon of purity danced just for the fun of it, though. No, he had to honor the "jasband" in very square prose: music, he opined, should be played not on instruments but composer-controlled devices. As the Duke might say, some Style.

To realize a famous house in The Style, Rietveld had to outfox the local codes

On the outskirts of the Dutch city of Utrecht stands a small architectural monument to De Stijl. It is a collaborative product of Gerrit Rietveld and an artist named Mrs. Truus Schröder-Schröder with whom he worked in the early 20s. It was built for Mrs. Schröder and, remarkably, she still occupies it today. To a palpable degree, the Schröder house epitomizes the De Stijl philosophy: it is a three-dimensional composition of orthogonal (right-angle) planes and primary colors, outside and inside. Attached to the end unit of a row of conventional three-story brick houses, its sculptured precision sharply distinguishes it from its neighbors. "Understandably," Rietveld recalled the year before his death in 1964, "it was very hard to square this with the local building code. That's why, on the ground floor, the house presents a rather traditional layout . . . but the level upstairs we simply dubbed an attic, and there we realized the house we intended to make." By which Rietveld meant an interior based on open planning more reminiscent of Frank Lloyd Wright than his European colleagues. Apart from fixed partitions enclosing the bathroom and stairwell, the upper floor spaces were defined by sliding panels which were designed to offer various options for adapting the interior to changing needs. True to the beau ideal of De Stijl, primary colors (plus, of course, gray, black and white) are incorporated in a painterly manner; and, judging from a Reitveld rendering (opposite below), the interior at one point was intended to express an even closer marriage of the easel painter's art and architecture.

The Schröder house exterior uses primary colors in both structural and decorative members as thin but powerful bands tying geometric planes together. In living area (left), free-standing blue chimney provides color wallop. Corner detailing of windows allows for unobstructed view when units are open. White chair near first-floor kitchen is a variation of 1923 Berlin chair.
stored in 1974, the house expresses De Stijl values in rear color punctuation of gray and white stucco planes, built-in furniture, as well as a plan, owe some credit to Frank Lloyd Wright, although heavy color emphasis in both the actual interior and Rietveld's rendering (below) are strictly De Stijl.

Wrote the Soviet artist El Lissitzky of Rietveld and the Schröder house, "He was not able routinely to draw out a plan. He does all with models, feeling things with his hands; and therefore his product is not abstract."
From right to 45° angles—first in a flower room, then a cafe

In the early years of The Style, the movement’s founding eight or nine members were governed by a singular proscription critics have dubbed “canonical orthogonality;” by which they mean simply that De Stijl art had to consist of color planes formed by horizontal and vertical lines. A rigorous corollary held that, in so much as art should not be held in thrall by architecture, these color planes and horizontals and verticals must not overlap from one solid plane to another. These precepts, in purest application, were the essence of the movement’s most formidable theoretician, Piet Mondrian. He called this essence “Neoplasticism.”

As editor of De Stijl magazine and thus Neoplasticism’s guardian-spokesman, Theo van Doesburg gamely defended the founding philosophy—until he himself joined the defectors. Two fateful commissions turned him around. One was the opportunity to design a flower room in 1924 for a villa at Hyères owned by the Comte de Noailles. The other involved the redecorating of a number of rooms in the Cafe Aubette in 1926 as a joint design venture with Jean Arp and Sophie Taeuber-Arp. Most significant of these rooms, from the viewpoint of De Stijl philosophy, was the cinema-dance hall. It was van Doesburg’s job to do, and, as with the earlier flower room, he abandoned Neoplasticism to pursue a heretical theory known as “Elementarism.”

He went diagonal. That is, he devised color planes for the cinema-dance hall’s interiors to meet the ceilings and walls at 45° angles. (This departure may be fully appreciated today by visitors to the Walker, where this historic room has been essentially reproduced.) His idea was to achieve a “counter-movement” through his diagonal color planes that would “oppose to the material room in three dimensions a super-material and pictorial diagonal space.” Critics agree that while the Aubette’s interiors were a commercial flop (the owners started making changes almost immediately), they remain a significant exploration in modern art.
Backed against the wall after the Cafe Aubette's failure to please the public, van Doesburg wrote, "Let the architect create for the public. The artist creates beyond the public and demands new conditions diametrically opposed to old convention. Constant values are only contained in 100-percent art. This is now my firm conviction."

Van Doesburg's plan and drawings of a flower room commissioned by the Comte de Noailles marked this De Stijl founder-editor's first departure from the strictures of a "Neo-plasticism" that required horizontal and vertical lines to define color planes.
The De Stijl Show:

STILL ANOTHER CASE OF ARTFUL RISK-TAKING

"This show," Martin Friedman is quick to explain, "is all Mickey's. She has been nurturing it for four years."

Like numerous Walker shows during the Friedmans' time, the De Stijl is a major cultural occasion derived from an aesthetic wellspring that might well have remained not only untapped but unnoticed (for other high-risk shows conceived by the Walker, see the box opposite). How did this one come about?

"My interest in De Stijl stems from a long acquaintanceship with various aspects of the movement," says Mickey Friedman. "Obviously, everyone who lives with modern art is interested in Mondrian. That's a given: it's very hard to ignore him. Well, for many years we have been going to Holland, where, if you go to the Stedelijk Museum you trip over De Stijl the minute you come in the front door; the first galleries you encounter are all devoted to this movement. The idea of doing the show seemed a very natural thing, but you have to ask yourself, 'Why is it right to do this show now?' One answer we found, was the fact that 1982 would mark the 200th anniversary of Dutch-American diplomatic relations, which happens to be the longest unbroken diplomatic connection the United States has ever had with any country."

It was 1978 when the Walker decided to stage a De Stijl show. Recalls Martin Friedman, "We had never before been to war with the Dutch, but the Walker almost declared war over the problems we had securing some loans from Dutch museums. Eventually, they were all resolved amicably."

The Friedmans convey the impression that while a 200th anniversary is an acceptable political reason for having a show, there was a far more compelling cultural one. Says Mickey, "A show of this kind demands so much preparation: so many expensive loans, so much insurance, so many commitments. We had to ask ourselves, 'Is this the right moment?' And we decided it was, because after looking up the history of exhibitions on this movement we discovered that there hadn't been a major De Stijl show in 30 years."

A question occurs. Considering the growing post-modernism rhetoric of the past few years, could the De Stijl exhibition conceivably serve as a countervailing force? "I can recognize the feeling in some quarters that certain forms have been exhausted," says Martin, "that they've been commercialized and plasticized. I can understand those who say, 'The hell with it all—let's go back to something a little cuddlier and prettier.' And I am all for it. But the interesting thing to me is that the De Stijl movement embodied so much of what the post-modernists are trying to do."

Indeed, as the Friedmans are prone to emphasize, an essential lesson is now being offered by the Walker's De Stijl show on just how pervasive, how thoroughly respectable, the modern movement has become. "Modernism," says Martin, "has made its point. Most people, and particularly the young, educated generation, regard modernism in its various art forms as a natural part of their daily existence. They no longer see it as a series of pinnacles to be conquered. They've grown up with it. We've watched it happen here. The forms of modernism are the forms they now understand, the forms they are comfortable with." Given such a historical perspective, those nurtured on modernism are in the enviable position of being able to discern, through a visit to the De Stijl show, where the modern movement is literally coming from.

Mickey picks up: "When you look at De Stijl, you are looking at genuine invention. When you think about the use of pure color, line and form on a two-dimensional surface, you can appreciate that the early Mondrian, the early van Doesburg and van der Leck paintings were the result of true discovery. No one had ever used pure color before in the way these artists succeeded in using it. Or if you look at the way a Rietveld chair is put together, you find that it is a genuine breakthrough in furniture design. There had never been a chair put together in this way before."

Martin again: "It seems to me that, as Mickey has suggested, this show is about the shock of relationships. You walk into a room and see a chair which is basically a three-dimensional painting. My God, what is this? A chair which is made precisely of the same colors as you find in a painting—and for the same reasons."

Still another question is put to Mickey Friedman: Will De Stijl be a...
popular success. “I think there will be a great deal of interest in the community of architects, designers and art historians, not least because there will be a lot of new material that has never been known before. But beyond the professionals, people generally will be interested in juxtapositions of materials they’ve never seen before: Mondrians juxtaposed with architecture, for example, in a way they’ve never seen before. They will begin to recognize relationships they didn’t know existed before.”

And what of the post-modernists? Kids who are in schools of architecture or fine arts today have grown up with the idea that post-modernism is what art is all about, right? What we’re saying—rather, what De Stijl is saying—is that before you decide that post-modernism is what it seems to be, you’d better take a good look at modernism: Find out what it was; find out why we are going through a neo-classical phase right now. In order to know that, you have to understand modernism in its most basic form. The philosophical values of De Stijl—purity of line, of form, of intention—these all need to be understood.”

Where, following De Stijl, might the Friedmans be looking for inspiration? Everywhere,” says Martin. “We are operating in many areas: painting, sculpture, photography, design, architecture. We are interested in the performing arts, in new music, new dance, experimental theater. We have an incredibly pluralistic following. When we first came to the Walker, it seemed to me that probably the same people would come to all events. What has happened is that we don’t have just an audience or film; we have an audience for the classic Hollywood film, another for the European documentary, still another for the young filmmaker (admittedly a small one, but very valuable all the same). As we wind down the Twentieth Century, it seems to me that the hybridization we are now seeing among the arts (once a novelty) is now a major leitmotif. There will still be painters who confine themselves to painting and dancers who remain interested only in the purity of dance, as many should. But we’ll also be seeing greater cross-fertilization among the arts.”

The Walker will still be encouraging the singularly occupied artist, but it will pay particular attention to the new interaction in the arts. “We are operating in so many areas, and with an intensification of expertise among our curators. How can that fail to interest all of us here?”

Meanwhile, as AM goes to press, the evidence that’s always most persuasive says the De Stijl show is a tremendous success. What evidence is that? The box office, of course.
You wouldn’t expect this sophisticated furnituremaker to flog its workers, even if it were less morally motivated. But who else would commission prize-winning posters just to celebrate the company picnic?

We are a nation of office dwellers. Over 50 percent of the American working force can be classified as white collar. And a good one-third of that 50 percent spend their lives in an office setting. Yet, the environment in which work takes place is almost invariably odds with the nature of the work itself. Indeed, many social scientists now see a direct connection between low productivity and environmental banality in the American workplace.

It was ever thus. The great art critic and architectural historian John Ruskin believed the dehumanizing and demoralizing aspects of work “can be met only by a right understanding on the part of all classes of what kinds of labor are good for men, raising them, and making them happy; and by equally high demand for the products and results of healthy and ennobling labor.” Of course, he was speaking at the time of the scandalous factory conditions of Victorian England, but the words ring true even today as more and more people find themselves in a subservient role to the machines—computers, word processors, data transfer systems—of an increasingly complex and abstract information-oriented world.

If Ruskin were alive today he doubtless would approve of the work situation at Herman Miller, Inc., for this famous furniture manufacturer is an uncommonly conscientious employer. For over a half century it has been permeated by a Calvinist moralism that translates into high quality, honest design and, not least, significant profits. It has accomplished these ends without ever losing sight of the notion that its greatest resource is its people.

Herman Miller’s sensitivity and concerns for its people have manifested themselves in the shaping of the actual workplace environment. It is a management concept that a quality environment yields quality results. And if the furniture this company makes is a fair test, the theory clearly holds true, since its products are a top choice of architects and designers when specifying office interiors.

A concern for quality design in a quality environment influences everything Herman Miller does—from the design of the furniture, the selection of architects for new manufacturing plants, the design of advertising and promotion, to the staging of the company’s annual summer picnic.

As with the Japanese, when you come to work for Herman Miller you may come expecting to stay. It is a little like joining a family; everyone looks after you and is genuinely concerned about your production and how you contribute toward the good of the entire company. Such fellowship at the interpersonal level can take the form of self-policing (the time clocks were removed years ago), or peer group observation; and, at a broader social level, as employee-directed educational seminars and lectures, aid in providing childcare, payment of adoption costs in lieu of maternity benefits for those who choose to do so, and even in the great emphasis on top-quality design for cafeteria menus and artifacts for the company’s summer shindig. There is one story told by proud company executives of an elderly woman, whose husband had worked for the company years ago, annually receiving an invitation to the summer picnic though her husband had been dead for several years. It is this sort of caring for the well-being of its employees and employees’ families that enables Herman Miller to bring out the high productivity and pride of craftsmanship in its workers; to produce what Charles Eames liked to call “good goods,” while enriching the lives of its members in the process.

—Bruce N. Wright
Humanism embraces even hot air balloons and crazy games.

At the Herman Miller headquarters in Zeeland, the central lobby (top), dubbed “Main Street” by employees, does in fact function as a social milieu for easy, fortuitous encounters. Its main design ingredients: red brick pavers, large potted trees, and high, well-lit ceilings. Blue boxes with windows angled strategically under skylights provide natural light for conference rooms.

At new Health/Science facilities manufacturing plant in Grandville, Michigan (above), whimsical people-sculptures (here a gardener overlooking a skylighted atrium), are integrated into the workplace throughout. The building’s yellow porcelain-paneled facade will likely be replicated by architects Booth/Hansen & Associates as company growth requires additional, incremental units.
Bright, high-tech factory environment at Herman Miller's Bath, England plant (above) incorporates the company's own work station units to make the workplace "subservient to human activity."

A hot air balloon adds excitement to a recent company gathering (far left) as employees congregate on the main headquarter's front lawn for the annual picnic. Employees are encouraged to participate in scheduled events such as the "crazy games" which sometimes use holding ponds on main grounds (left) as obstacles.

Social seating groups of company's own products form break areas for employees at the Holland, Michigan seating plant (top). Such areas are scattered throughout the factory, and the employees frequently personalize the one nearest their work stations. (Note the kiosk with company bulletins, job listings, and a weekly cafeteria menu.) These areas reflect Herman Miller's stated goal to create an environment that "encourages an open community and fortuitous encounter," with a minimum of disruption to the work flow.

Shoulder-high windows running the entire base of the building (above) allow each employee a view outside from any vantage point in the factory. Vehicle circulation is kept to the perimeter to ensure that no windows are blocked.

Papier-mâché sculpture of a painter makes a statement about white walls at the Grandville plant.
Banner-festooned cafeteria (above) is located in a heavily traveled corridor between factory and office space, where hydraulic lift and on-foot executive may both be seen scuttling by. Consistent with Herman Miller's aim to demonstrate the flexibility and adaptability of its products by integrating them into every aspect of its own work environment, several components of this cafeteria have been drawn from company-made hospital and factory systems.

Stairway rising above a busy ground-floor area at the Grandville plant (right) is designed with "modesty panels" to reduce any discomfiture among skirted employees.

Common at Herman Miller facilities are numerous outdoor terrace break areas where, weather permitting, workers may enjoy an ambience more often associated with a private club (below right).

Overhead curing racks of foam cushions (below far right) move on a continuous conveyor at the Holland seating plant. They not only eliminate floor storage but also happen, as they pass by in their bright colors, to look nice.
Workplaces that Work

A Factory for Making Architecture

It's not the sleek box itself but the Big Room that explains the IKOY Architects' laid-back work habits and seminal design process.
Chairman Max De Pree

When Herman Miller's Max De Pree signs up an architect for a new project, here's what he expects:

The following client-architect values were expressed by Mr. De Pree not long ago in a talk on "covenantal relationships" with a group of architects.

- If the relationship is to be meaningful, the architect has to work with Herman Miller and then stay involved—become part of Herman Miller.
- As a good client and user, Herman Miller is likely to improve on the product the architect provides and will remain involved in this ongoing developmental activity.
- Every architect and client has a contract, but Herman Miller also wishes to build a covenantal relationship, one built around ideas, one that is basically philosophical.
- It is Herman Miller's goal to create an environment that encourages an open community and fortuitous encounter that welcomes all and is kind to the user. Herman Miller believes a building changes with grace, is scaled to persons and is subservient to human activity. It must contribute to the landscape in its aesthetic and human value, meet the perceived needs and be open to surprise.
- Herman Miller has no preconceived notions concerning materials or building techniques.
- Herman Miller says to architects initially that they cannot just do a building for the company and leave. "If you are going to work for Herman Miller, you have to stay."

The much-published Holland plant designed by RS, Inc. (top) exemplifies the company's commitment to quality architecture. Work stations are uncluttered and well lighted (above); the work patterns are engineered to achieve dual aims of employe comfort and productivity. The Marigold Lodge, near Holland, was painstakingly restored to provide a year-round company avocational center for employe activities (right).
The place calls to mind Orwell's *Animal Farm*. Everyone here is nominally equal. Everyone works in the Big Room—including, most emphatically, the six partners who sit at boards exactly the same size as those of the most junior draftspersons. There are no secrets in the Big Room. All fifteen people sitting here are not only permitted but required to eavesdrop on everything that's going on: phone calls, project discussions, client meetings.

The Big Room is the central feature of the IKOY Architects' mirrored and festively polychromed high-tech office building in Winnipeg. Everyone here is not really equal, even though a bonanza of amenities—swimming pool, steam room, billiards, mezzanine lounge, a kitchen stocked with deli comestibles, joggers' lockers, the company sailboat, the company fishing shack in the North Woods, and even the punching bag—is offered freely to all IKOY employees and their families. Not, however, because the partners are such nice guys but because they are pursuing a design philosophy that requires an extraordinary commitment from everyone in the firm. "We're anti-knowledge and pro-discovery," says one of IKOY's partners, Ron Keenberg. "It was our contention when we got together and started this firm ten years ago that if we produced buildings from the collective knowledge we have, we would be making a career only of what we know. But if we used our knowledge in the pursuit of discovery, this would lead to a continuing discovery of new architectural knowledge as all of us in the firm worked and matured. The people who work for us therefore must accept the idea of discovery, which is very
hard work."

By their own assessment, all of the IKOY partners were trained in the International Style, and their repudiation of it is expressed in the Big Room as a workplace. "The Big Room allows for the full use of varying abilities," says Keenberg. "Traditionally, there are two people in an architect's office who rise above everybody else—the partner who brings in all the work and the fair-haired designer. Everybody else is in the back room. The second-class citizens of architecture. If the partners have front offices, conference rooms and private toilets, their ties with those people in the production room are tenuous. A partner walks in and says, 'Let me see what you've done. Hmm. Ah, why don't you change this over here and that over there?' The guy in the back room thinks, 'Oh, my God, what an ass. He doesn't know what he's talking about.' So the two of them have an argument. The partner glares at the back-room guy and says, 'Look, don't argue with me. Just do it.' And walks out."

Arguments happen in IKOY's Big Room, too, but the partners say the physical setting virtually requires them to be resolved sooner or later. A minor tiff might be resolved by one person's backing off and going up to the mezzanine for a steam or a coke. But in any event, the Big Room has been found to exercise a certain healing effect on bruised psyches.

Keenberg again: "We believe criticisms must be extremely honest, even when they're rude and crude. But in the Big Room no one will absorb such criticism. So there will be an argument, and you'll go home and lock yourself in mentally and begin to wonder, 'Was that guy right?'

The mezzanine, fully visible and bounded only by a metal rail, consists of a lounge area, billiard table, island kitchen and a cube of clear glass block that houses a locker room and steam bath. Beneath the mezzanine are conference rooms adjacent to the Big Room. Simply furnished with canvas-covered chairs that cost about $80 each, these rooms are divided by simple Masonite wall sections joined with exposed fasteners. Walls facing the Big Room are entirely of glass because, as one partner explains, "When some of us are meeting with a client, the rest of our people can see that we're working; and the client can see that they're working—that we in the meeting are not the only people involved in creating his building."
cause you have been publicly exposed, you can't hide the reality of your disagreement. So you are forced to reconcile the disagreement in your own mind. Sometimes it takes a day, sometimes a week, sometimes six months. Eventually, you are forced to examine the other person's point of view. Then you can go back in that Big Room and that argument keeps rearing its ugly head until one person understands the point the other is making. Or quite possibly we may come to realize that both of us are wrong. You can't hide with your mind in the Big Room."

Arguments aside, the chief aim of this building is to encourage the professionals who work there to do what they are good at—and to grow. It is the firm's position that everyone on the payroll is a designer of one sort or another. Says Keenberg, "The Big Room also teaches that there are other important aspects than who brought in the job and who is responsible for the concept design. There's detail design development, production, supervision, administration; and there's products. In some offices the designer yells, 'Granite!' But if he had to use granite as a product, he'd have to rely on the local memorial stone manufacturer to tell him about techniques. We have someone in our office who knows all about granite and how to use it. The designer goes over and communicates with him, and all of a sudden everyone in the firm knows that that person has made a major contribution to the design process—thanks again to the Big Room."

Not least of the reasons why fifteen architects can communicate successfully in one room is the out-size volume of the room. It was

Even the lowliest make design contributions

Steel members that form the bridge supporting the mezzanine were pre-assembled off the site as sub-components, then tied together when delivered and set in place. Although virtually all of the industrial products and materials IKOY uses are off the shelf, their actual application is determined by further design analysis. "A building is made up of so many connections," says one partner, "and we think of each connection as a design. With this kind of design mentality, we can do systematically related work in which each person in the firm is in fact a designer."
IKOY's experimental notion that a large volume of space, two stories high, would provide an environment of acoustical privacy—and it does. "You can sit at your board with people talking all around you," says another partner, Don Blakey, "and you learn to choose—to listen or not to listen. Unlike a room with a nine-foot ceiling, where the sound bounces, we've found the sound doesn't travel harshly in this big volume. If you want to pay attention, you tilt your ear; otherwise, you don't. It's an unusual acoustical setting."

IKOY thinks of its building as a factory for producing architecture. The people who work here are the machines, and it is the firm's idea that as the machine-architects add new process to their functional knowledge, they will make ever-improving products.

The partners were anything but sure, as their own office building neared completion in 1978 (it took just three months to put it together), that they'd made an acceptable product. They worried that their prospective clients would view this glass box as the work of way-out artniks instead of solid professionals. No danger. "At our open house," Keenberg recalls, "some thought it was magnificent, some weren't sure what they thought. But everyone thought the building was fun. That's exactly what we hoped they'd think."
Color palette en-
chises industrial details
everywhere: Blue steel off-
the-shelf plates for steps
are topped with black rub-
ber treads which are
topped short of plate's
edge to stress a veneer
character. Structural steel
connection shown here
printed in "IKOY Green" il-
states firm's design
strategy: "Some firms weld
bolt. We do both for
deep design expression."
right yellow flange as-
embly anchors wind
races (opposite).

They take pre
ide in being "me
chine architects"

steam-locker room cube
sets atop its steel sup-
porting structure like a
block of ice. As with
any industrial products,
the clear glass blocks
range in appearance as
the viewer's vantage point
changes: seen against nat-
ral backlight (above) it
forms a clear geometric
pattern. Viewed where the
room's fluorescent light
bounces off it, it shimmers
(right). After the material
as installed, uncommonly
shy staffers protested
the idea of being seen
ark naked while in the
steam room. So IKOY went
to the experimental expe-
dient of having a section of
glass block walls sand-
blasted inside the steam
room. "It worked out beau-
tifully," says an employe.
"The finish is a nice frosty
grey. We only did the mid-
dle, though, so from the
outside you can see the
steamers' heads and shoul-
ders above the frost and
their legs and feet from the
knees down—just as in a
Paris pissoir."

Composition of ordi-
ary materials assumes
the quality of sculpture.
Minimal pipe railings are
augmented by the simp-
est of security details—plas-
ticized wire lines running
between vertical posts and
made taut by the kink-
ed end of turnbuckle com-
monly used on a clothesline.
Electric wiring that wends from fixture to fixture
undulates, as if set in a
motion by ceiling fan.

MARCH/APRIL 1982
brk places that Work

All in the Family
Under One Roof

It could have been a cat and dog fight, but a Portland firm’s adroit psychology and design savvy have united all of a small town’s municipal services in one fine structure.

Most everyone who worked for Gresham, a suburb of Portland, Oregon, was hurting for space. So it was perhaps natural that the city council decided, on receiving a $3.9 million public works grant, to build a single facility in which to house the whole work force: police, firemen, city management and finance, protective services, technical library, public works and school administration. Only when Greshamites started looking around for municipal models to emulate did they discover that there weren’t any: their combined municipal-educational service center was to be the first of its kind in the United States.

Clearly aware, however, that their reach exceeded their grasp, the city council turned to the Portland firm of Broome, Oringdulph, O’Toole, Rudolf & Associates (BOOR/A) for help in giving substance to their brainstorm. BOOR/A responded with admirable humility. Since they’d never designed such a building as Gresham wanted, they asked the client for help. They introduced some 30 municipal workers to the consciousness-expanding properties of the architectural charrette. During three intensive wish-fulfilling days, the charrette team agreed on having a building that would be energy-conserving, easy to maintain, accessible throughout to the visiting public and susceptible to unrestricted movement within the building by all who worked there. Recalls one charrette participant, “Those three days with the architects were a new experience for most of us. It was kind of wild at the time, but the results were positive.”

Indeed they were. The architect has resolved an incredibly complex clients’ program with exceptional finesse—and under terrible pressure: to get the $3.9 million, BOOR/A had just 25 days to develop a schematic design, and another 90 days to produce working drawings and commence construction. The Gresham Municipal Services Center, which was completed on time and for $3.3 million, not only houses the required myriad of municipal services but also incorporates a striking amphitheatre where both the city council and the school board may convene public meetings and official hearings. The building’s openness is democratically impeccable, visible and accessible from numerous entrances. Its best architectural feature, an indoor “street”, links all who were once isolated to all else in municipal comity.
The once-swampy site for Gresham's municipal-educational service center was reshaped and bermed to accommodate the architects' long, lean silhouette (top). Penetrating the berms are public entrances which lead the visitor immediately into a novel experience: the bright-colored (green and magenta), open-trussed pedestrian-way—actually an indoor street—which evokes the "openly democratic" character of the building. Thanks to this street, anybody at any point inside may freely move about to any other point (see plan). If such freedom liberates the worker, it has an even greater meaning for the Gresham resident who comes seeking one service or another: wherever one enters, a warm reception is inherent in the arrangement and frequency of the reception centers—not to overlook the decidedly un-bureaucratic-looking cafe seating groups. And strolling the street, one passes stylized lamposts, as well as offices-cum-storefronts. Easily the most visually appealing space here is the public meeting room, defined only by its encircling partition and bright red seats.
No-Nonsense Preservation
This spring Minneapolis will gain 200 buildings to be preserved, thanks to an eternally vigilant system. Here’s how it works.

By Kate Johnson

All indicators predict that an ever greater proportion of building activity in the coming years will involve the rehabilitation or renovation of older structures. Chances are, therefore, that more and more architects will find themselves working with designated historical landmarks. An inescapable consequence is that they will have direct contact with local review agencies and citizens’ commissions of appointed volunteers charged with protecting a history that belongs to everybody. They will also need to school themselves on Federal guidelines that affect tax benefits for owners and developers. The purpose of this article is to provide information—using the example of the Minneapolis Heritage Preservation Commission—that will make the review encounter positive and productive rather than frustrating for designers, developers and preservationists alike.

What makes a building or any part of our material environment deserving of study and eventual designation as significant, worthy of being saved and preserved as a city grows and changes? A building can be an archetype, a textbook example of an historic style. Or it can be unlike anything ever built before, totally unique. It can be a modest, unremarkable frame house in which, however, someone wrote one of the great novels of American literature. A building can be our only design by a famous architect or master craftsman. And, of course, something other than a building—St. Anthony Falls in Minneapolis, for example—can be designated for preservation because of its role in our history or even, simply, its singular beauty.

There are two levels on which our historic material environment in this country is identified and protected. The National Register of Historic Places confers national designation and operates through State Historic Preservation Officers (SHPOs). In Minnesota, municipal commissions recommend buildings, districts, landmarks or sites at the local level. While national and local agencies overlap in very important ways (most notably, guidelines for restoration and qualification for tax benefits), they do not overlap in the obvious realm of designation. In Minneapolis, for example, there are some buildings on the National Register that are not on the city’s list, and vice versa. One must be careful, therefore, to investigate the possibility of either form of designation when dealing with an historic structure.

The National Register was only established in 1966, building on the lists that were begun in the ’30s as HABS, the Historic American Buildings Survey. Today there are approximately 15,000 sites or structures on the National Register. In Minnesota, the Historic District Act of 1971 established eleven state historic districts, declaring, “It is in the public interest to provide a sense of community identity and preserve these historic districts which represent and reflect elements of the state’s cultural, social, economic, religious, political, architectural and aesthetic heritage.” Among these state-designated districts are Fort Snelling, Old Mendota and St. Anthony Falls. Locally, the Minneapolis Heritage Preservation Commission (hereafter the HPC) was created by the City Council in 1972 partly as a mechanism through which to “exercise control and maintenance of St. Anthony Falls historic district. . . .” Its other powers and duties are:

To catalogue structures and sites and recommend them to the City Council for heritage preservation designation.
To prepare guidelines for utilization of designated sites.

To review all building, moving and demolition permits for designated structures and all buildings within historic districts.

Places recommended for preservation to the City Council are chosen by ten appointed volunteers, each with a special expertise, personal interest and unique perception of history. Currently, the Minneapolis HPC consists of three lawyers, three architects, two community activists, one engineer and one historian. These varied backgrounds complement each other and make possible actions in the interest of a broad public. The City Council has supported these actions to a remarkable degree, rejecting only a few recommendations for designation and supporting HPC decisions to refuse building permits.

Heritage preservation designation guarantees that thoughtful people will make every effort to preserve the best of the built environment and to encourage its utilization in practical ways. Enabling legislation for preservation agencies on both state and local levels grew out of the wholesale destruction of Minneapolis’ Gateway district in the 1960s. Rich streetscapes from the 1880s and ’90s were lost, as was the much-beloved Metropolitan Building (1888, E. Townsend Mix). The public outcry over its demolition was followed in less than a decade by Peter Nelson Hall’s renovation of the Prana Building (1890, Carl F. Struck), instantly recognized as a whole new approach to the characterful but often outraged buildings found in the heart of all American cities—buildings whose long-dead designers were unable to speak in defense of their efforts. The HPC not only guards the integrity of the work of the past, but also preserves the cultural heritage of Minneapolis for future citizens equally voiceless in the present.

To date five districts and 34 individual structures in Minneapolis have been designated as significant and worthy of preservation. This spring over 200 individual structures and an undetermined number of districts will be recommended to the HPC for consideration by a study team supervised by the Center for Urban and Regional Affairs at the University of Minnesota. The study team will also produce the manuscript for a popular publication on the role of historic districts and buildings in the development of the city.

The St. Anthony Falls Historic District, an enormous area that includes a variety of building types and dates, was established by the state legislature, acknowledging the area as the heart of the early city’s economy, technology and
communications systems. A major drawback to the designation of any district, much less one so critical in the future plans of the city, is the concomitant need to review every building, every wrecking and moving permit for every structure within the district. While it is dominated by the awesome and muscular Pillsbury A Mill (1881, Leroy S. Buffington), the district also includes a number of totally undistinguished concrete block structures, the Sheehy Company dirt piles along Marshall Avenue, and the elegant Grove Street Flats.

Fifth Street Southeast Historic District, four and a half blocks long, contains a number of fine houses in the Italianate style from the 1870s, built by early civic leaders, as well as two impressive stone churches from about 1890. The Washburn Fair Oaks Historic District rings the park of its name, which is faced by the complex of buildings occupied by The Children's Theatre Company, The Minneapolis College of Art and Design and The Minneapolis Institute of Arts (1912-14, McKim, Mead and White; 1972-74, Kenzo Tange and

If anyone needs convincing that there must be some authority to monitor changes made to the built environment, consider the fact that the screen on Ralph Rapson's Guthrie Theatre (above) was removed over the living architect's own strenuous objections (left).

URTEC). Mansions, such as those built for Charles S. Pillsbury (1912, Hewitt and Brown) and Alfred F. Pillsbury (1903, Ernest Kennedy) face the park. Other streets of this district are composed of groups of impressive Queen Anne frame houses, as well as several clusters of picturesque brick row houses from before 1900.

The fifth historic district is the Warehouse Preservation District. It was designated in 1978 during an interesting episode in America's growing awareness of the built environment and its possibilities. Minneapolis artists, following the lead of their New York confreres, moved in droves to the (then) cheap and spacious lofts in warehouses along First Avenue North. Preservationists liked the idea of genuine new uses for old buildings, but were really concerned with preserving these wonderful old fortresses of the wholesale trade, with-
Utilization follow very closely those of the Department of the Interior because the Federal program of tax incentives for historic preservation bases all judgments on compliance or non-compliance with the Department of the Interior's standards. It is important for everyone engaged in restoration or renovation to understand that no municipal commission can vary from these Federal standards without jeopardizing financial advantages for its citizens.

Commissioners are sensitive to the charge, usually leveled by architects, that the HPC is playing designer when its guidelines say, "Retain existing window and door openings," or when the HPC must, by law, list findings of fact to show how proposed new construction does or does not "materially impair the architectural or historical value of buildings on adjacent sites or in the immediate vicinity." It should be quite clear that historic preservation, as practiced in the City of Minneapolis, is not a fuzzy-headed relative of beautification. Rather it is a regulatory arm of environmental protection, as it is defined in the City's current Comprehensive Plan. The HPC communicates with the machinery of city government and is nominally staffed through the Planning Department. Our role is to advise the City Council how to keep the best of the city's history while living in the present and planning for the future.

The day you learn that there is a good chance you will be involved in a project within an historic district or on an individually designated structure, get in touch with HPC staff at the Planning Department. Staff and commissioners are eager to meet with you in order to start a dialogue early enough that clearly outlines the possibilities and limitations of a given situation. It makes no sense to begin design development for a program that fails to note, for example, that Federal tax credits are significant to the developer, and that the Department of the Interior guidelines must therefore be respected.

Butler Square is an excellent illustration of the importance of those guidelines. The first half of the building was renovated before the 1976 Tax Reform Act and the guidelines were in place. Washington was prepared to deny tax benefits to the development of the second half of Butler Square, begun in 1979, because significant alterations to the fenestration had been made, a situation vigorously opposed in the Interior Department's guidelines. Minneapolis HPC staff contacted Washington, arguing that it certainly would be preferable to have all its windows match, and convinced the feds to grant historic preservation tax benefits to Butler's second phase.

The Minneapolis HPC has developed local guidelines for utilization for each district. The Milwaukee Avenue Historic District, for example, is so complete and has such a strong character that the vast majority of activity has been restoration. Guidelines for infill construction justifiably call for designs that echo existing structures. These guidelines were developed by the homeowners and rehabbers themselves and adopted by the HPC. The whole point of the Milwaukee Avenue district is that there is one house type; every house on the avenue looks pretty much like every other house on the avenue. To allow variation from that schema would negate the reason for its designation in the first place.

Two other primarily residential districts, the Fifth Street Southeast district and the Washburn-Fair Oaks district, share a set of common guidelines. There has been no new construction in the Fifth Street district since its designation and, in fact, very little in the way of serious renovation or restoration. In Washburn-Fair Oaks, on the other hand, there has been a great deal of fixing-up, and four new multi-family housing structures have been built. New construction guidelines call for materials, scale and setback that are compatible with adjacent structures, since there has been energy-efficient windows that maintain the pattern and rhythms of the original wood frame windows.

Of all places, the greatest potential for new construction and building activity of every kind exists in the St. Anthony Falls Historic District. Because of its complexity, it took forever to develop "guidelines for utilization" for its eleven sub-districts; in fact, they were being developed at the same time that the largest and most controversial project for the East bank, Riverplace, was taking shape. It is to the credit of Bob Boisclair, his staff and his architects, Palaia Svedberg Associates and Miller Hanson Westerbeck Bell, that they never lost patience or faith in the system of regulations and reviews. HPC commissioners and staff have been told by Mr. Boisclair and his colleagues that the dialogue, the half a dozen or more presentations and reviews, and the compromises on both sides have resulted in a better project. Further, the HPC review process eliminated the necessity for several costly state and Federal reviews.

The Riverplace compromises worked out with the Boisclair people primarily concerned the issues of height and massing—sources of controversy from the beginning of the project—and their impact on the 125-year-old Our Lady of Lourdes Catholic Church. (More severe critics argue that the project is just plain inappropriate for a historic district.) The height of both towers was reduced, and both were pulled back as far as possible from Lourdes Church and from Main Street, opening up substantially larger views of the church and reducing the mass near pedestrian-oriented Main Street. A four-to-six story building height, comparable to the scale of existing commercial structures, was agreed to along Main Street and

Riverplace, a high-rise project in the St. Anthony Falls Historic District, provoked controversy in its earliest version (left) for its domineering proximity to the 125-year-old Our Lady of Lourdes church. Revisions prompted by community preservation reviews led to reduced height, remassing that allows the landmark church breathing space (above).
Detail of bronze chandelier in Owatonna bank.

Carved sandstone overdoor to office annex, National Farmer's Bank, Owatonna.


Beaded plaster, stencilwork and cast bronze enrich interior of Sullivan’s bank.

Stained glass pattern extends beyond mullions in facade windows of Merchant’s National Bank.

Elmslie’s stylized organic forms in terracotta for Winona bank.

Elaborate terracotta detail drapes across doorway lintel Purcell & Elmslie bank.
tigation of physical conditions . . . He would collect data in general and in detail, the client's working needs, his special methods of doing business, special features desired, etc., etc., until I have in mind an intimate visualization of all these ideas, items, wants and wishes. He would then "work out immediately, in the client's office, a preliminary plan to scale . . . PLAN is the all-important thing. On its adequacy [depends] the smooth and efficient working of the business. All other considerations (interior and exterior) have their origin in the plan, and should, for the best results, grow out of it spontaneously."

After that, Sullivan would discuss the building program further with the client, ascertaining more precisely his needs ("heating, ventilating, lighting, etc.") and preferences in construction materials.

At the same time, Sullivan collected information about the site. This included soil, location of utilities, grade and definition of lot lines. An estimate of cost was then possible, and if the client was satisfied, Sullivan would prepare carefully drawn pencil-sketches. "These should give to both client and architect a definite conception of the building program." The next step "is the drawing up of a contract for services between architect and client . . ."

Sullivan was chosen by Carl Bennett, owner and president of the National Farmers' Bank of Owatonna, Minnesota, after Bennett read Sullivan's essay, "What Is Architecture?" in a 1906 The Craftsman magazine. Bennett had long searched for a person to design the "true and lasting work of art" which he and his family wished to give to their town. Bennett appears to be one of the few banker clients who had an understanding of Sullivan's theories or knew why he wanted Sullivan to design his bank. Sullivan, in turn, hoped to create a highly colorful "tone poem" for the banker. "I want a color symphony," he told Bennett, "and I am pretty sure I am going to get it." Their acquaintance developed into a friendship which lasted until Sullivan's death in 1924.

Fred Shaver of Cedar Rapids, Iowa, chairman of the building committee for the Peoples Savings Bank, sought out Sullivan after visiting Bennett's bank in Owatonna to custom design a small structure that expressed both his and the community's tastes. But Shaver was never more than a pragmatic businessman with minimal interest in artistic considerations.

His primary motivation for liking the Prairie School was always the prosaic concern for the practicalities of cost and function. This is why he purchased a house in Cedar Rapids in 1910 and remodeled it in a Prairie School fashion, and also why he later recommended Sullivan to the building committee of Saint Paul's Methodist Episcopal Church in Cedar Rapids and to the owner of the Van Allen store in Clinton, Iowa. In a letter of 1910 to John Van Allen, Shaver stressed the point: "Mr. Sullivan does not charge more than other architects."

The anticipated award of a commission for the new Merchants' National Bank in Grinnell, Iowa (1913-14), brought Sullivan and the Purcell and Elmslie partnership into brief competition for the first time. One of the directors, Benjamin Ricker, was in charge of finding an architect. Ricker was not totally unfamiliar with the Prairie School. In 1911, Walter Burley Griffin had designed a distinctly Prairie School house for Ricker. The ever-vigilant Carl Bennett notified Purcell in 1913 that Ricker was thinking of building a bank, prompting the Minneapolis-based architect to dash off a letter, enclosing, as he usually did, illustrations of his firm's best work and statements of its philosophy. After visiting Owatonna, Ricker eventually decided on Sullivan and invited him to Grinnell. There is no evidence to demonstrate that Ricker, like Shaver, was more than a casual admirer of the unique physical appearance Prairie School building presented. Instead, he was much more interested in the ability to function and to give him his money's worth. George Hamlin, president of the bank, wrote Purcell in 1913 that he was interested in a building that "was not expensive" but still "distinctive and possibly a little out of the ordinary as to appearance."

Sullivan visited Grinnell in late November 1913, and sketched a building for the board of directors which eventually cost precisely the original estimate.

Purcell and Elmslie's approach to design varied only a little from Sullivan's. Writing in 1914 to a prospective client in Moorhead, Minnesota, Purcell elucidated their methods: "Our study starts with the community, the commercial location of the banking office as well as the physical location, with the resulting effect on the building. Every aspect, light, approach, materials, color, character of clientele, character of bank as held in the community, are carefully weighed, valued and allowed to accurately determine the several factors in the result."

The outcome of this study, continued Elmslie, would be "a building which begins with your particular business and proceeds toward the building. In such a procedure a sort of a beautiful, high powered and accurately adjusted machine—that is to say that as we use the word—is what is developed. A machine or a structure in which every need of your business, every special method in conducting it, its character as held by the community, its location, and surroundings, all influence and find form in the resulting appearance of the building."

Purcell and Elmslie received three bank commissions between 1910 and

Sculptor Richard Bock created "Spirit of Mercury" for Frank Lloyd Wright's City National Bank, Mason City, Iowa.
of 112, all of them through advertising and promotion by letter. At Grand Meadow, Minnesota, the partners along with George Feick, a third principal in the firm (until 1913) dealt with a man named Edgar Greening, who was willing to let them design a highly functional but radically innovative structure. He was delighted with their creation, especially with their attempt to create a friendly, less formal atmosphere between customers and tellers, eliminating the traditional tellers' cages. But despite Purcell's praise of their client's willingness to indulge their progressive whims, no one does credit Greening with a profound understanding of the new architecture. Like his other projects, Greening was edited by Purcell and Elmslie the project went along, and as quite impressed by their ability to deliver a structure within budget.

The next commission came in 1910 for the First National Bank in Rhinelander, Wisconsin. Their client was F. Recker, vice president, who convinced the directors at the somewhat unusual sign which the architects opposed in response to the curiulm problem, a bank incorporating main street shops, was the best solution. The banking room was faced at the rear, behind the shops and a small arcade. It was illuminated by a skylight and large windows. From evidence contained in remarks written years later by Purcell, the bank's executives were chiefly and characteristically interested in the functional layout. Appearance meant so little in their considerations that Purcell labeled them "unesthetic small town businessmen" who were persuaded to let Purcell and Elmslie build the type of institution which the architects judged of the highest possible cost and which, above everything else, were "plastic," a mechanical enclosure for the functional spaces inside. Exterior forms emerged organically as functions were defined, honestly expressing those activities. Terra cotta ornament "honored" the integrity and vitality of the wall. Large opalescent glass windows and a complementary skylight provided diffuse yet adequate light to the banking room and offices.

Between 1914 and 1919, Sullivan and Purcell and Elmslie each built three more small town banks. Sullivan's final project was the Farmers' and Merchants Union Bank of Columbus, Wisconsin. His client, J. Russell Wheeler, was a long-time believer in cooperation between business and agriculture.

Wheeler and his wife decided their bank must reflect their belief in the banker-farmer alliance, and for this the traditional, impassive classical facade would not do. They, like Carl Bennett, found Sullivan through The Craftsman and commissioned him after visiting Owatonna. Also like Bennett, they seemed to be very much interested in architectural or aesthetic considerations. But these still did not outweigh in their minds the need for a secure, workable space inside the bank.

Purcell and Elmslie reached their peak of creative ability at Winona and maintained that plateau through successive banks at Madison, LeRoy, and Hector, Minnesota. At LeRoy, Purcell met his stiftest challenge in keeping construction costs within the original estimate of $10,000. To do it, he and Elmslie eliminated all decorative terra cotta from the exterior, resulting in a building that, as Purcell wrote later, "at best all too severe in character, and greatly needed the life which color and pattern . . . would have given the facade. The interior, however, is interesting and practical in every way, a perfect little country bank full of light and sunshine, very conveniently arranged and interestingly modern worked. It is a lasting tribute to both bankers and architects that each remained sensitive to the other's concerns and thus were able to achieve their objectives in nearly every case. This remarkable relationship produced banks when flexibility accommodated the changing demands of owners and users. Their designs are enduring monuments of American culture.

Alan K. Lathrop is Curator of the Northwest Architectural Archives, University of Minnesota Libraries. This essay will appear in the copyrighted catalog of the exhibition, "Prairie School Architecture in Minnesota, Iowa and Wisconsin," at the Minnesota Museum of Art, Landmark Center, St. Paul, February 14–April 10.
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Because nearly three-fourths of all major American cities lie over aquifers of some kind, this storage of heat energy has great potential for solar and district heating, says James O’Gara, engineer and aquifer project director at the University. Smaller projects using cool water have begun in Stonybrook, New York, and with warmer water in Bethel, Alaska, at Auburn University in Alabama, and in several European and Far Eastern countries. Minnesota’s is the only attempt to test the feasibility of injecting heat in the summer, then retrieving it for use in winter.

If the first experiment succeeds as planned, four more will be undertaken at increasing water temperatures. Throughout, extensive biological, geological and chemical analyses of soil samples from the heat bubble will be conducted; changes in water temperature, pressure and flow rate will also be monitored to assure that the potability of the groundwater is unaffected by the experiments.

Eventually, project engineers hope to conduct a test at 150°C (302°F) for a total cycle of 180 days, creating a five-megawatt thermopower system. If successful, the University will then decide whether to ask the Federal Department of Energy (DOE) to fund a full-scale demonstration system that could save an estimated 30 percent of the raw energy costs for the St. Paul campus.

**First Architectural Film Library organized**

Despite the almost ubiquitous nature of the visual media today, quality films about architects and architecture are inexplicably rare. To redress this situation as well as make a permanent film record of significant buildings and architects before they are gone, Richard Snibbe, FAIA, has organized The Architectural Film Library.

Located in New York City, it is a member-supported, nonprofit organization with a staff of twelve TV and film professionals. They will produce films and videotapes about architecture for a general audience and distribute them to organizations inside and outside the profession. Members can use their services at cost.
The Gropius Legacy, featuring the work and teachings of Walter Gropius, will be the first film produced by The Architectural Film Library.

For more information about The Architectural Film Library, contact Jabbes Inc., 77 Irving Place, New York, NY, 10003, (212) 475-1730.

On Sale: MSAIA Energy Sourcebook

Organized according to the design process, the MSAIA Energy Sourcebook is an open-ended retrieval system for energy information. The articles are purposely short and each is reviewed for technical content by a specialist in that field. The Energy Committee promises that articles will be updated as new information is generated. New batches of articles will be mailed out to subscribers quarterly. Peter Herzog, IA, chairman of the Energy Committee, says the goal of the MSAIA Energy Sourcebook is "to help architects reduce energy use in buildings by providing a forum for sharing energy information architects have learned through research and design experience."

The project was backed by nearly $4,000 in grants by the Minnesota Energy Agency.

arsen/Rova captures TCA "Dream House" design competition

For the second year in a row, a "Dream House" will be auctioned by Minnesota Public Television (MPT) as part of its "Action Auction" to raise money for station operations.

The architect of the "Dream House," Richard Schaefer of Larsen/Rova Associates, Minnetonka, was chosen this year through a competition held by the Minnesota Society of American Institute of Architects. The judges, who reviewed over 90 plans, were: Eric Canton of Canton Corporations; Robert Buckler, the public affairs representative for the Minnesota Forest Industries Information Committee; Cheryl Kohout, KTCA Auction Manager; and architects James Lamers, AIA, Hills Gilbertson Architects, and Bruce Wright, AIA, AM's managing editor.

Sheila Bayle of KTCA said the house valued at $135,900. Last year's "Dream House" was valued at $99,500 and auctioned for $95,000. While most of the labor and materials were donated, some of the proceeds pay construction bills.

The Action Auction will be held May 22 on KTCA.
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The company was manufacturing one of the better-looking compact kitchens when it decided to refine their designs a year ago to compete more effectively, particularly with imports. Dwyer's engineering and marketing staff made the changes in-house, the results of which should give Dwyer a promising new position in a tough market.

Basically, they redesigned and reppositioned the cabinet handles, stripped away unnecessary metal trim and combined the faucet function with the jogot.

Now placed vertically on the upper cabinets and horizontally on the lower ones, the well-styled handles make the kitchen's form more like a single piece of furniture. Their size is generous enough for the largest hand to grasp. Handling now consists of a simple row of vertical slits in elegant contrast to the circular burner knobs.

As a final touch, the company removed the metal Dwyer name plate and replaced it with understated lettering painted directly on the cabinet door.

The result of modifying these few details is a far classier and more functional looking line of compact kitchens.

Dwyer manufacturers all components of its kitchens, except the microwave oven and icemaker, and willingly modifies any of its standard models. It claims its ranges and refrigerators, being designed primarily for commercial and industrial use, have a greater lifespan than most standard kitchen appliances.

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Often nowadays, that arresting abstract painting you passed in a corporate foyer was not their's but a gallery's. The corporation just rents it.

You, too, can rent art to enhance your surroundings; several Twin Cities galleries and museums are happy to oblige you. The cost is generally modest, and while you won't find any Warhols, you may choose from a goodly range of regional artists. All galleries in the rental business can help you select your artwork, and some will visit the place—home or office—where you'd like to display a piece and counsel you in its selection. Occasionally, what you rent may be purchased.

The following is a list of places where artwork may be rented.

ART LENDING GALLERY
25 GROVELAND TERRACE
MINNEAPOLIS

If you appreciate Realism, the Art Lending Gallery—also known as The Groveland Gallery—offers about 300 paintings by regional artists who work in that style. Gallery director Mary Lundrigan says that most people rent with the idea of buying a piece to live with it before making a decision.

Any painting worth less than $350 rents for $10 a month; three percent of the retail price is charged for paintings of higher value. If you decide to purchase a painting, Lundrigan will subtract up to four months of the rental fee, depending on its value, which may be as high as $3,000.

Hours: 12:00-5:00, Tuesday-Friday; 12:00-4:00 Saturday.

FRIENDS GALLERY
MINNEAPOLIS INSTITUTE OF ARTS
2400 THIRD AVENUE SOUTH
MINNEAPOLIS

Like the Art Lending Gallery, the Friends Gallery features paintings by regional artists, but to rent from this source, you must be a member of the Institute.

The rate is ten percent of the purchase price for a two-month period. The gallery prefers not to rent from its rela-
A modest-size collection for longer periods to keep the paintings visible to potential buyers. The staff will assist individual or business in selecting a group of paintings. The rate is the same.

Hours: 10:00—5:00, Tuesday—Saturday; 12:00—4:30 Sunday.

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Corporate offices are the primary customers for C. G. Rein. The gallery's 0,000-piece collection—all of which may be leased or purchased—represents a wide range of artistic expression and media from the 19th century to the present.

The minimum lease agreement of $4,400, based on one-and-one-half percent of the retail value, requires the customer to select nearly $22,700 worth of art. An additional ten cents per $100 of value is charged for insurance costs. A percentage of the lease can be applied to a purchase.

Hours: 10:00—9:00 Monday—Friday, 10:00—6:00 Saturday; 12:00—5:00 Sunday.

MINNESOTA MUSEUM OF ART
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Only a business firm may rent art from St. Paul's Minnesota Museum of Art. Curator Tom Holman says the staff selects the art after meeting with the client, then installs it and adjusts available light. The client pays $100 to $300 per artwork, depending on the area to be filled, not the value of the piece. The art will be changed or rotated after six months as part of the early contract.

Up to 100 pieces may be rented from the Museum's Community Service Collection, which includes drawings, paintings, photography, and some sculpture and tapestries. Holman says most are 19th century creations. None of them may be purchased.

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MARCH/APRIL 1982 65
How important is the architect in the building process? Architects themselves, as well as those of us who appreciate their work, would like to believe they are essentially important.

Yet some of the findings in a two-year analysis of the practice of architecture by the National Council of Architectural Boards suggest the role of the architect may be smaller and certainly different than it is generally assumed to be. Such an inference can be drawn from the observations volunteered by "major users of architectural services" who took part in structured panel discussion staged as one aspect of the NCARB study. Forty-three panel participants—individuals from both the public and private sectors who are responsible for the selection and supervision of architects—expressed their views on a broad range of topics. Some of the most significant were these:

Site Selection and Analysis: "Slightly more than half the users indicated that the site for construction is almost always selected before the architect is involved in the project . . . only five of the users regularly include the architect as a full participant in the site analysis process, and none of these expect the architect to play the lead in this phase." Design: "The participants overwhelmingly agreed that design is the purview of the architect," but many large, private sector representatives on the panel are limiting the freedom of the architect in the design phase. Construction: Just nineteen of the forty-three participants assign the architect full responsibility for supervising the work of the general contractor during the construction phase. Summary: Most of the special group of panelists agree that the process of planning, designing and constructing a building has become much more complicated and difficult in the last several years. Technological innovations have vastly expanded the knowledge base that an architect must acquire if he or she is to retain a "master builder" role. Response: Since the NCARB panelists in their assessment say the architect's role is being "more narrowly defined", what might be the correct response by architects? May I suggest several arguments to bolster the case for more, not less, leadership by architects in the building process.

Architects are growing professionally with the technological advances occurring in the industry. If anything, architects are better qualified than most others by virtue of their first duty to be designers and to keep technology properly subservient to the demonstrably worthwhile goals of society.

Architects are no less the generalists than they have always been; and who better than a generalist to lead the team?

Shouldn't architects possessive of "process" and "artistic" skills occupy a place of prominence around the decision-making tables? Certainly architects can contribute in many ways. Principally, their contributions will not only help the "return on investment" calculations but will provide for beauty, delight and environmental harmony.

If design doesn't count as much as it once did, what counts more?

James P. Cramer
Publisher
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