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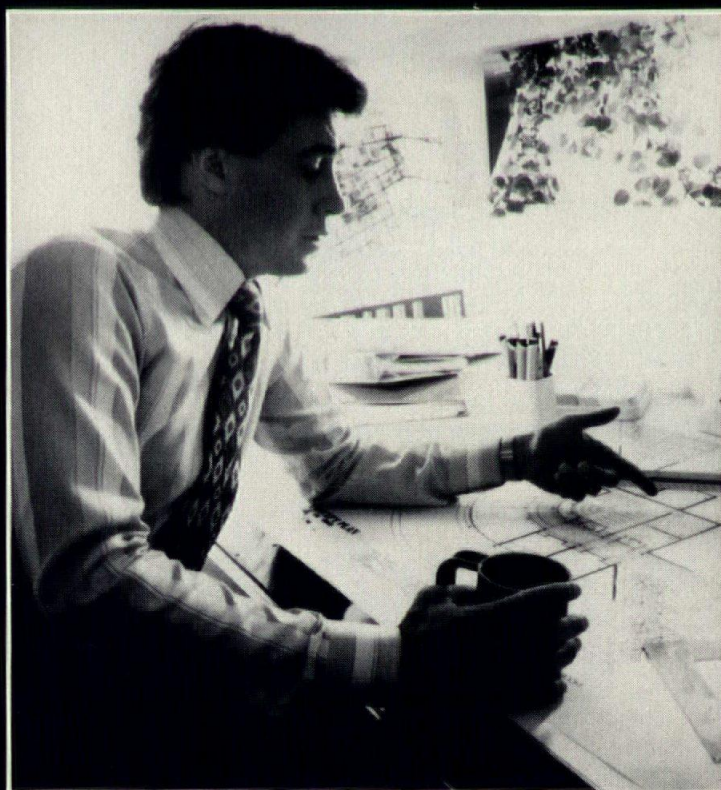
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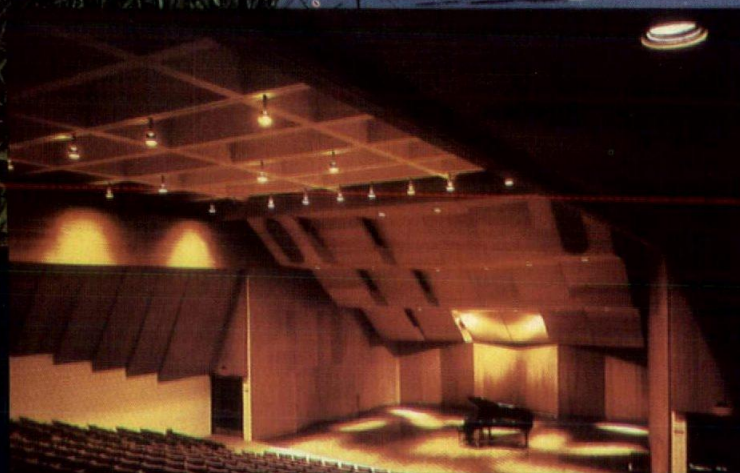
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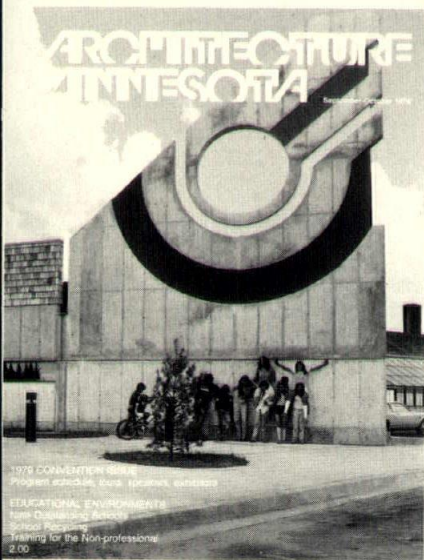
PALCO Simpson



ARCHITECTURE MINNESOTA

Vol. 6 No. 5 Sept.-Oct. 1979

The magazine for Upper Midwest design professionals and their clients



Cover: The Pine Point Experimental School on the White Earth Chippewa Reservation, Minnesota, designed by Hodne/Stageberg Partners, Inc. For more on this school, see page 52. Photo by Mary Strother.

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Architecture Minnesota is published by Minnesota Society American Institute of Architects, James P. Cramer, Executive Director, 314 Clifton Avenue, Minneapolis, Minnesota 55403, (612) 874-8771.

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Advertising and Circulation: *Architecture Minnesota*, 314 Clifton Avenue, Minneapolis, Minnesota 55403, (612) 874-8771.

When changing address, please send address label from recent issue and your new address. Allow four weeks for change of address.

Postmaster: Send form 3579 to *Architecture Minnesota*, 314 Clifton Avenue, Minneapolis, Minnesota 55403. Controlled circulation postage paid at New Richmond, Wis. 54017.

Subscription rate: \$10 for one year, \$2 for single issue.

Architecture Minnesota is published bimonthly.

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Architecture Minnesota (USPS 083350) is the official publication of the Minnesota Society American Institute of Architects.

which is why some things are better left unsaid. Sins of omission may be grave indeed---as in buildings that omit amenities for the people who live and work in them---but omission is often a virtue in design. "Less is more," Mies said, and he was right---more or less. Yet, when you consider that both Samuel Goldwyn and John Keats were concerned with

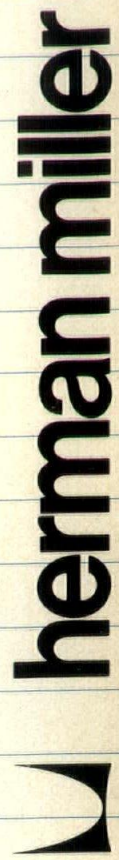


omission



Herman Miller leaves some things to be desired

from
Notes on Omission
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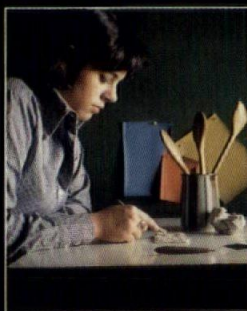
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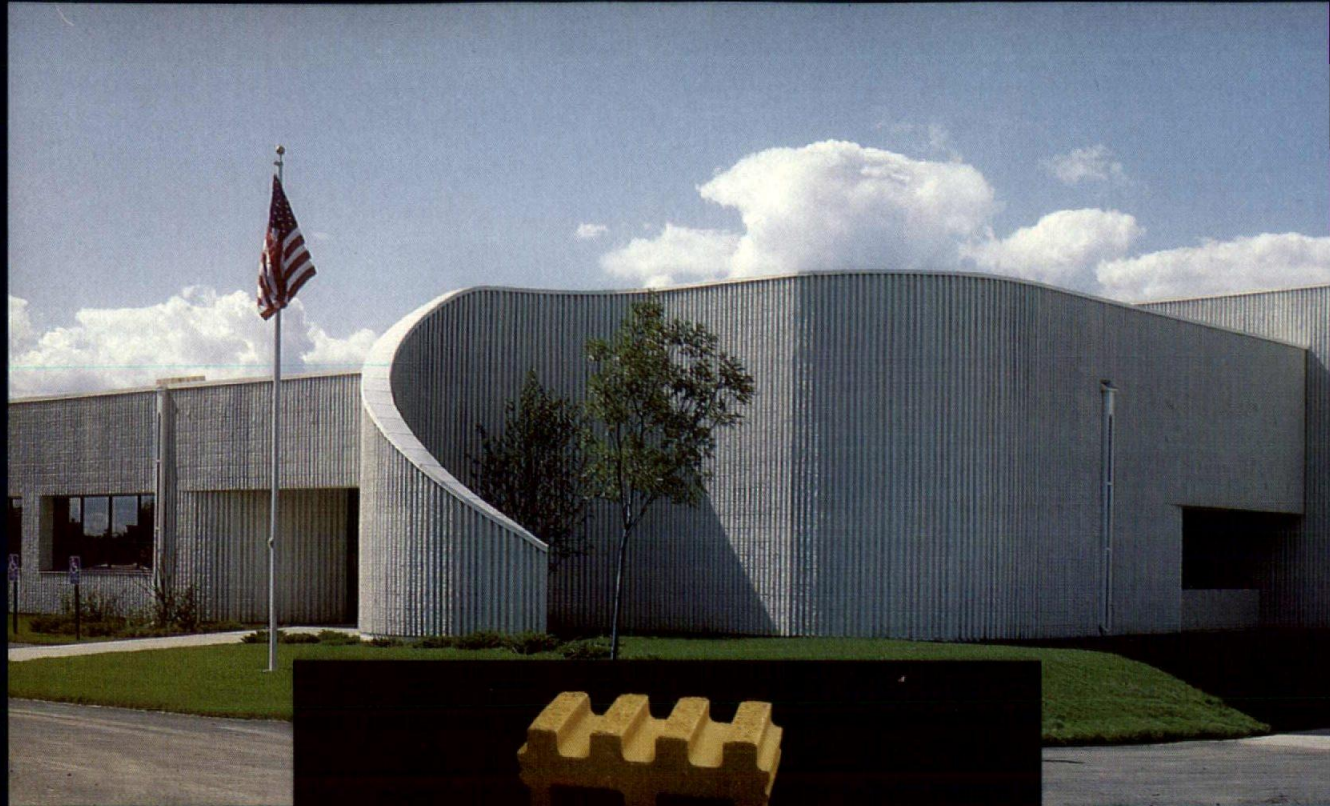
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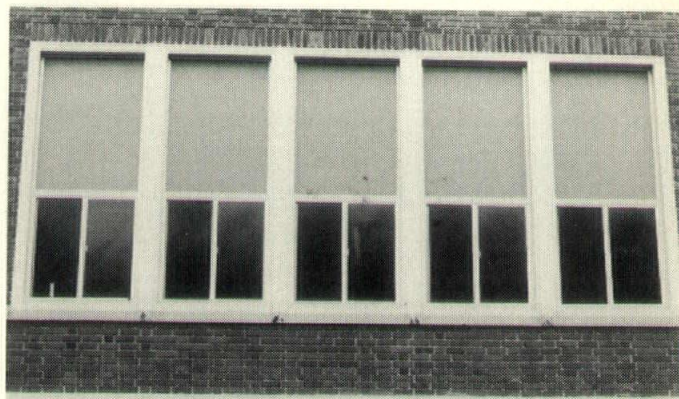
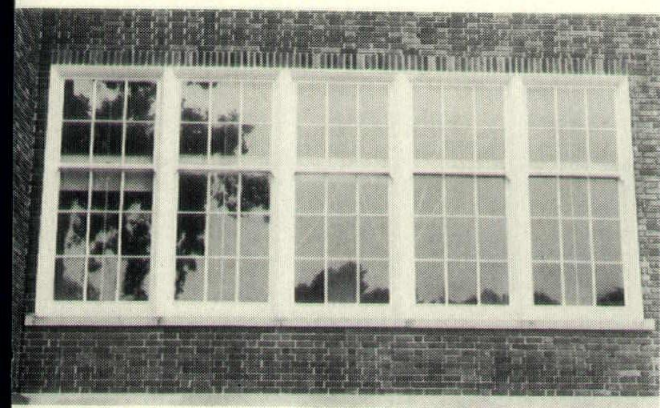
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Testimony before the Senate Committee on Energy and Natural Resources revealed that the nation's public or nonprofit schools and hospitals spent \$4 billion on energy in 1976, 50 percent more than in 1973. This enormous cost for energy for heating, cooling and lighting is easily understood when one realizes that the 200,000 schools and hospitals in the United States represent about 25 percent of the total square footage in the commercial building sector. The Minnesota Energy Agency, by direction of the Department of Energy, is urging hospitals and schools to examine their physical plants' energy consumption and to undertake the needed conservation measures in order to meet the State's Energy Code.

The institutional architecture of the early 20th century—whether College gothic or English manor—were grand and open masonry structures with a variety of brick crenellations, limestone inserts, borders, etc. The window openings were large and generously proportioned, most often containing double hung wood frames. They were designed to admit a great amount of natural light and also made for a stately, balanced, perfectly symmetrical and sometimes even monumental exterior expression.

In the interior the high ceiling with suspended light fixtures and the large windows gave the classroom the traditional lightness and dignity (a dignity which the unskilled teacher could easily render authoritarian). The post-World War II boom in school construction never produced an architecture so singularly formal and uncompromising.

In our New Enlightenment, we are trying to learn to understand and appreciate our past and traditional values as expressed in our architecture. We appreciate historic buildings as records of our past and also as examples of the sensibilities, the insights and boldness of our earlier builders.

Age alone, of course, does not bestow architectural distinction or merit on a building. And many, many buildings are not preserved because they represent milestones in the development of the midwest, but simply because they are recognized to have economic value, particularly in light of spiralling construction costs—and with the added benefit of the ethical bonus of the conservation of natural resources. Many buildings thus retained are historically insignificant. They are, however, important structures for the images, forms and personae they project. They do have presence. In their ordinariness, they also have dignity—a dignity easily violated.

So often we are victims of our own expediency. Large windows lose much heat in the winter because of convection and also because of infiltration. Any energy audit will indicate that large windows should be reduced in size and in some cases entirely eliminated. Under ideal conditions, the original windows are replaced with new insulated glass windows with frames built with a thermal break so as not to allow the conduction of cold to the interior of the building. But, when large windows are *reduced* and a portion of the former window is replaced with an insulating panel, the brick opening which formerly contained a window now contains a different opaque

material and a smaller area of glass. The masonry opening now performs a double function. The clarity of its purpose has been jeopardized and thus the clarity and simplicity of the building's exterior have been compromised. Furthermore, the interior can now only be habitable if the ceilings are lowered, which in turn forfeits the original height of the space and completely alters the proportional relationships in the interior.

If the preservation of older buildings is economically motivated, it is ironic that another economic motivator—the cost of fuel—should cause the deterioration of the exterior image and internal quality of the buildings that are being preserved.

And it is also regrettable that in those instances where windows are being replaced in their entirety, thick aluminum frames are substituted for the former narrow wood frames. More subtle, even delicate proportions and elevations are very quickly and grossly altered.

Schools and hospitals *do* need upgrading to meet the State's Energy Code. The delight, the merit, the value of retaining so many of these old buildings is in their very particular and sometimes unusual personality, in their delicate and careful juxtaposition of surfaces and openings. There are many means of meeting the requirements of the Energy Code in an old building without blocking windows. It may take a little more imagination, a little more engineering and also a little more time. But the payback is very gratifying indeed.

—Bernard Jacob

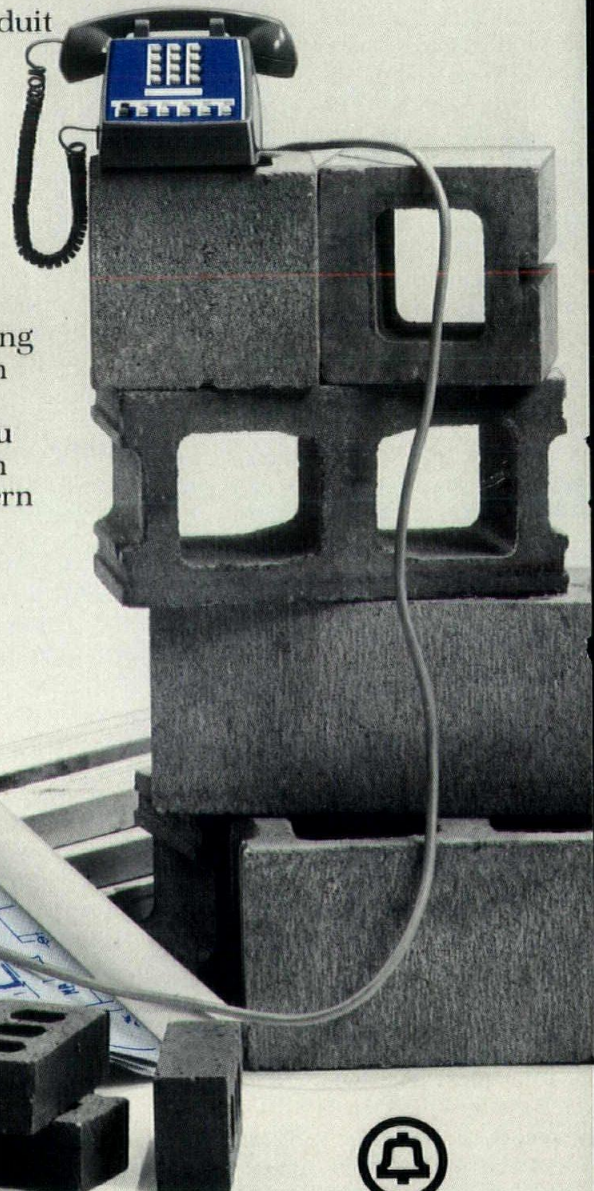
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ARCHITECTURE AT A GLANCE

Months of speculation ended in mid-July when **Minnesota Mutual Life Insurance Company** announced their decision to build their new \$35 million **headquarters building** in downtown **Saint Paul**, on the block bounded by Sixth, Robert, Seventh and Jackson streets. Construction of the 400,000 square foot, 21-story tower is scheduled to begin in September, with completion set for two years later. The stone-exterior structure, designed by **BWBR Architects** of Saint Paul, will include 25,000 square feet of shopping area and restaurants on the skyway and ground levels. Skyways will connect the building to Twin City Federal Savings and Loan and the Mears Park Apartments. The structure will also include a two or three-story parking ramp for 400-500 cars, with one level below grade. Eventual construction of a Phase Two tower of about ten stories would be atop the ramp. Minnesota Mutual is financing the project, which Saint Paul Mayor Latimer described as "a bridge between the commercial-hotel hub of Oxford-Radisson and the newly emerging residential and human scale activity starting in Lower Town." The company will sell its present eight-story headquarters building at 345 Cedar Street.

Construction of a 30,000 square foot, \$4.35 million center in **Winona** devoted to the history of the Mississippi River Valley and the effect of the river on the area's history and lifestyle will begin by June 1980. Known as the **Upper Mississippi River Interpretive Center**, the building will be built in Levee Park, between the main channel of the Mississippi River and the Central Business District. The building's design, by **Ellerbe Associates** of Bloomington, has a semi-circular floor plan, with the inside of the curve facing toward the city. The two-story glass wall on the opposite side will face the river. Every attempt will be made by the designers to use alternative sources of energy, including solar, wind and water-powered generation of electricity.

Congratulations to **Jay Johnson**, AIA, of **Miller Hanson Westerbeck Bell Architects** for winning a \$3,000 grant from the Minnesota Energy Agency in its 1979 Residential Re-

Design Competition for energy conservation retrofitting his home in Excelsior. Johnson has also been awarded a \$10,000 research grant from the United States Department of Energy in its Midwest Appropriate Technology Grant Program, to study the potential of solar adaptation for winter recreational structures.

Ed Sovik, FAIA, of the **Northfield** firm of **Sovik, Mathre, Sathrum, Quanbeck** will serve as consulting architect on the new \$30 million **home office building** for **Lutheran Brotherhood**, the Minneapolis-based fraternal benefit society. The 17-story structure, which will be built on the downtown Minneapolis block bounded by Sixth and Seventh Streets South and Fourth and Fifth Avenues South, is being designed by **Skidmore, Owings and Merrill**, San Francisco. The new home office, containing 535,000 gross square feet, will feature three large sloping planes on the Fourth Avenue facade. The exterior will be of energy-efficient, copper-colored reflecting glass on all sides, with portions of the east wall clad with polished granite. The Lutheran Brotherhood Center, on the first floor, will feature a 400 seat auditorium, a library and a gallery area for display of Lutheran Brotherhood's art collection, museum displays and exhibitions by guest artists. Completion of the building is scheduled for mid-1981.

The **Minot, North Dakota** firm of **Anderson, Wade, Barsness & Walter** has designed a domed, three level, circular **physical education building** at Minot State College which is scheduled for completion in late 1979. Construction is currently underway on the multi-purpose concrete building, which is tucked into a hillside. The \$4.5 million project is being built by **Mattson Construction Company** of Minot.

The **Walter K. Vivrett Memorial Fund**, established through the University of Minnesota School of Architecture and Landscape Architecture following Walter's death, has received a \$2,000 contribution from **Architectural Alliance of Minneapolis**, in addition to a number of smaller donations from individuals and firms. Donations to this fund may be sent to the School, and are tax deductible.

A coal-fired heating plant which responds to the objectives of energy conservation, use of alternative fuels and preservation of environmental quality has been designed for the **Faribault State School and Hospital** by a multidisciplinary team of architects, engineers and other professionals from **Toltz, King, Duvall, Anderson and Associates**. The plant consists of two major elements: the "Main Building," a five level structure set into the hillside, and the "Ash and Fuel Storage Building," which holds a six-day supply of coal under conditions of maximum steam demand. Construction of the heating plant is anticipated to begin in 1981, depending on funding.

Ground has been broken on a multimillion dollar shopping mall in **Robbinsdale** to be known as **Wards Terrace Mall**. The mall will be an extension of the existing Montgomery **Wards** store and will include 42 shops and a large National Foods grocery store. The 46,500 square foot food market will include a French cafe, specialty deli and cheese center. The mall will be 350,000 square feet and there will be parking space for 1,250 vehicles. Architect for the project is **Paul Pink and Associates, Inc.** and the developer is American Income Properties, a Chicago-based firm.

The **U.S.S. Nautilus**, the world's first atomic powered vessel and the first submarine to circumnavigate the globe submerged at high speed, has been listed on the **National Register of Historic Places** by the Department of the Interior's Heritage Conservation and Recreation service. Listing in the National Register of Historic Places means that a property possesses cultural and historic values worthy of preservation. It also qualifies the properties for certain benefits including an HCRS matching grant for preservation, rehabilitation, acquisition and/or development and also tax advantages for rehabilitation efforts, if the property produces income. Connecticut Governor Ella T. Grasso, along with the governors of five other New England states, has asked the Navy to return the ship to Groton for use as a marine museum, but the Navy hasn't yet decided how best to display and preserve the vessel.

The Association of Student Chapters of the American Institute of Architects and the National Institute of Architectural Education has selected two entries of University of Minnesota third year architecture students as honor award recipients in the national **Paul Rudolph Three Dimensional Modular Housing** competition. **Michael Gordon** from Worthington, Minnesota was selected as First Award recipient with a cash prize of \$500. **Mark Forbes** from Minneapolis received the Third Award and a cash prize of \$100. The competition, open to students in schools of architecture, was juried in exhibit at the National AIA Convention held in Kansas City, Missouri in early June. Winning solutions will be published in the ASC/AIA student journal, CRIT 6, Fall 1979.

Architectural Alliance was chosen as the architect for a 290,000 square foot **Corporate Headquarters Building** for **Land O' Lakes** in **Arden Hills**. This facility, scheduled for completion in early 1981, is to include offices, a computer center and research laboratories. General Contractors are the McGough Construction Company, Saint Paul.

Raymond W. H. Yeh, who formerly practiced in Minneapolis and Saint Paul and received his Master of Architecture Degree from the University of Minnesota, has been named head of the Architecture Department at **California Polytechnic State University**, San Luis Obispo. He is currently a professor on the faculty of the College of Environmental Design at the University of Oklahoma in Norman. His appointment will take effect January 3, 1980. Among Yeh's most significant projects have been a \$45 million IDS complex; a \$35 million corporate headquarters for State Farm Insurance Company; the Metro Concourse in Oklahoma City; the Law Center Building at Notre Dame and the Radisson South and Radisson Merchandise Mart in Minneapolis. In 1978, he received a \$10,000 grant from the National Endowment for the Arts for a study of subterranean structures. His articles have been published in such professional journals as *Faith & Form*, *Journal of Architecture Education*, *Architectural Record*, and *Progressive Architecture*, as well as

Northwest Architect, now **Architecture Minnesota**.

Five Merit Awards and one Honor Award were selected from a field of 86 entries in the 1979 **Design Awards** Program. The jury, which consisted of John D. Milner, AIA of Pennsylvania, Roland Coate, Jr., AIA of Los Angeles and Michael Wilford of London, deliberated for two days before arriving at their choices, which were announced at the Honor Awards program at Landmark Center on August 9. The single Honor Award went to **Winsor/Faricy Architects, Inc.**, Saint Paul, for the **Interior Renovation of Landmark Center**, Saint Paul. Merit Award winners were: **Design Consortium, Inc.**, Minneapolis, for the **J. B. Larson Associates furniture showroom** in Minneapolis; **Miller-Dunwiddie Architects, Inc.**, Minneapolis, for the **Restoration of the Commandant's House and Officer's Quarters** at Historic Old Fort Snelling in Saint Paul; **The Leonard Parker Associates**, Minneapolis, for the **Gelco Corporation's International Headquarters Building** in Eden Prairie; **Ellerbe Associates**, Bloomington, for the **Western Life Insurance Company Building**, Woodbury; and **Williams/O'Brien Associates** for the **Functional Industries Sheltered Workshop** in Cokato. The November/December issue of **Architecture Minnesota** will feature all six projects, along with jury profiles and comments.

The winners of MSAIA's first **Urban Design Competition** have been announced. The jury gave four awards in two categories: "First Award in Urban Design" and "Award in Urban Design." Winners in the first category were: **Patrick George** and **Eric Wharton**, University of Minnesota students, for their project, "Cities in Theory" and **Setter, Leach and Lindstrom**, Minneapolis for two projects, "Between Big Architecture and Urban Design" and "Down the Tube." Entries receiving an "Award in Urban Design" were: **Hodne/Stageberg Partners, Inc.**, Minneapolis for their project, "Bassett Creek Reclaimed" and **Randy Moon** and **Dennis Mulvey** for a project entitled "Redefining the Public Realm." The winners of the First Award receive a \$200 prize. All four projects will be

exhibited at Walker Art Center during April, May and June of 1980.

The International Institute for Applied Psychology in Geneva recently released the statistical results of a nine-year study of cohabitative screening among professionals. Statistics show that the divorce rate among design professionals is very near the median for professionals in all disciplines surveyed. The Institute reports, however, that—based on numerous personal interviews—the general post evaluative profile for architects is quite above average. Former mates of architects consistently rated their period of cohabitation with architects as having been “exciting,” “rewarding,” “wouldn’t have missed it for anything.” Evidently other professions didn’t provide comparable excitement.

Producer’s Council, a voluntary national trade association for manufacturers of quality building products, recently installed **Kurt Rose**, Architectural Representative for Vincent Brass and Aluminum Company of Minneapolis, as President of the Minnesota-Dakota Chapter. Also elected were **V. B. (Rube) Kompelien**, First Vice President; **Lyle Pickart**, Second Vice President; **John Becker**, Secretary; and **David Plummer**, Treasurer. The function of Producer’s Council is to serve as a vital link between the manufacturer, the rest of the construction industry and government at the national and local levels. Current activities include an annual Product Fair and local educational meetings with architects and contractors throughout the Midwest area.

Steelcase Inc. is making available free copies of “The Steelcase National Study of Office Environments: Do They Work?” The survey was conducted in late 1978 by the Louis Harris organization. The Harris organization polled 1,047 office workers, 209 executives and 225 office design professionals. The results of the survey have been published in a 127 page booklet. Survey findings explore such areas as: job satisfaction, job performance and productivity, satisfaction with tools, workspaces and tasks, participative office planning, anticipated changes in the office, overall criteria for planning offices, and the supervisor’s attitudes toward employee participation in the planning process. A free copy of the survey may be obtained by writing to C. E. Halterman, Steelcase Inc., 1120 36th Street S.E., Grand Rapids, Michigan 49508.

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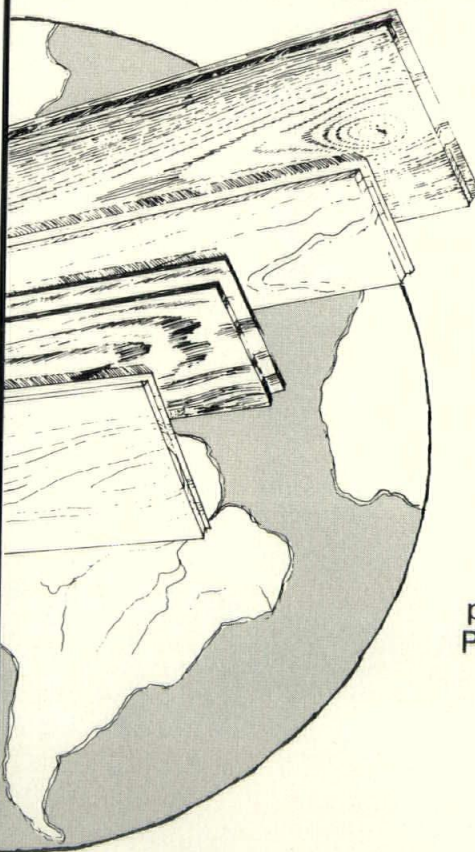
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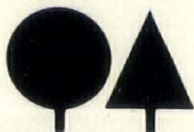
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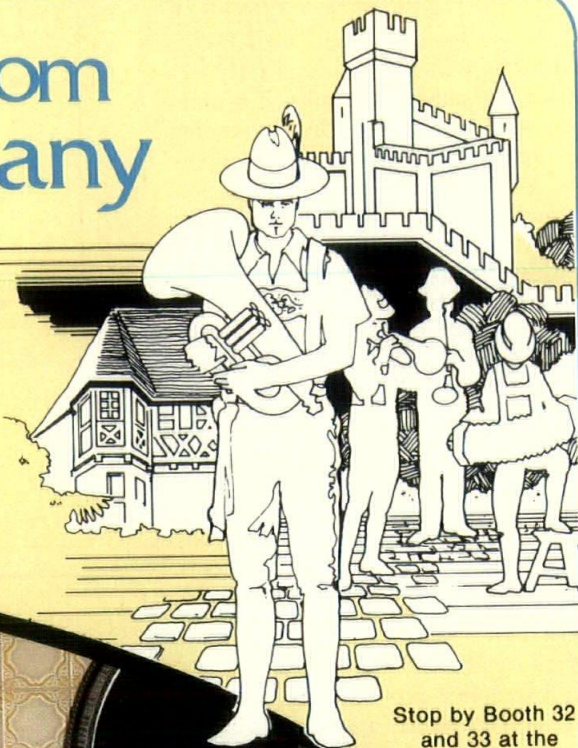
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Crushed stone provided the base and an interim driving and parking surface during construction of a Sears warehouse in Minneapolis. Employees and construction equipment had easy access. Ralph D. Shimer, AIA, served as project architect.

We asked Palmer Peterson, Chairman and C.E.O. of Bituminous Roadways, Inc., Minneapolis, to compare the alternatives of crushed stone base versus sand and gravel base in parking lot construction. There really wasn't any contest.

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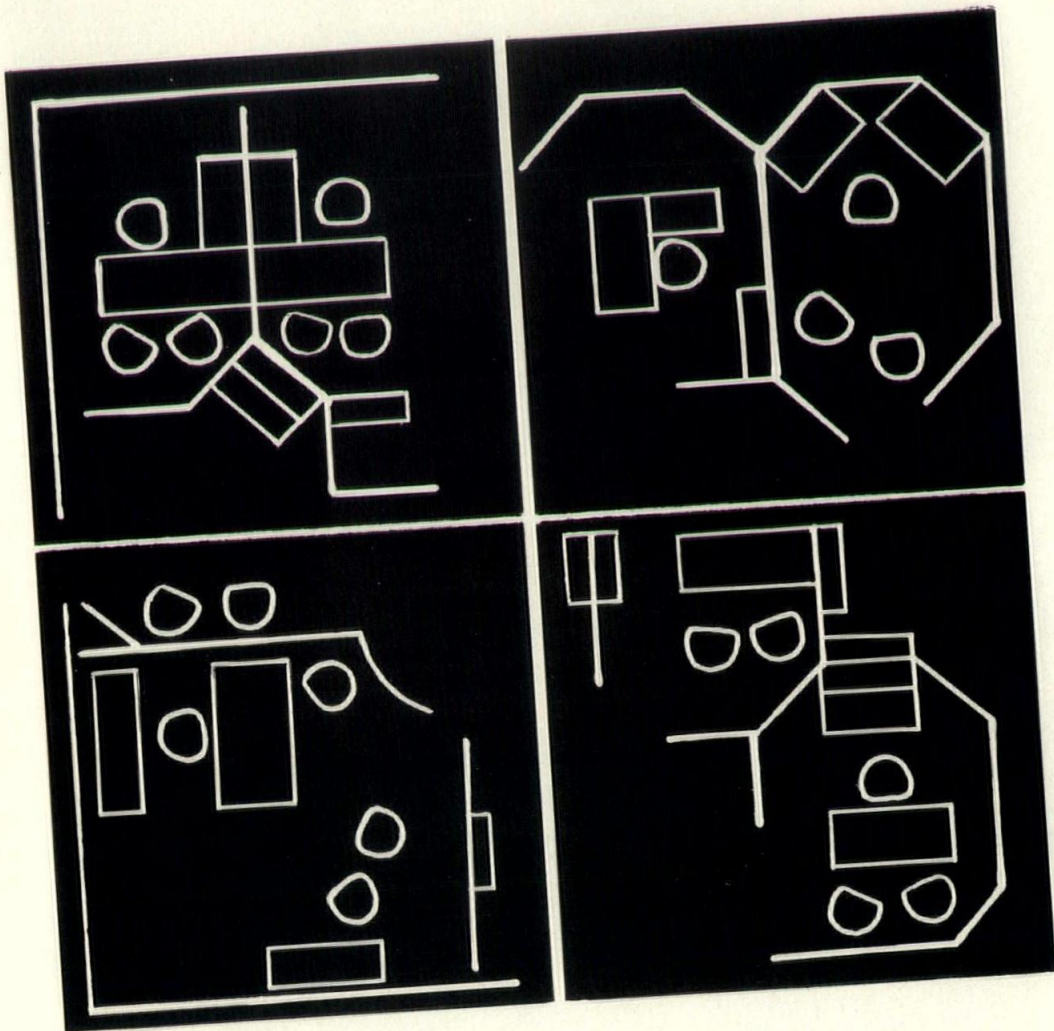


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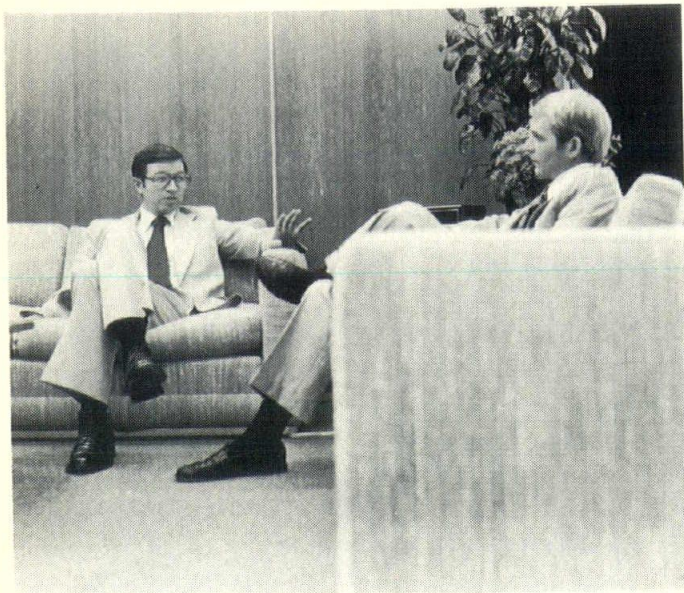
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**An Interview with
Mark H. Willes**
*President of the Ninth
Federal Reserve
District Bank
of Minneapolis*

Above: Mark Willes and James Cramer,
Executive Director of the MSAIA

Photography: Stu West

Jim Cramer: Mark, I think many of our readers would appreciate a little background on the Federal Reserve System and, more particularly, the Minneapolis Fed's role.

Mark Willes: I'll try to avoid a longer answer than you or your readers are interested in by focusing on our primary responsibility: to make monetary policy that will result in a stable, productive economy. Monetary policy, of course, refers to decisions that affect how much money is available in the economy. Interest rates and the availability of credit are, in turn, influenced by how much money is available.

In the Federal Reserve System, the Federal Open Market Committee (FOMC) is the principal body responsible for making monetary policy. The FOMC is made up of the seven members of the Board of Governors of the Federal System—who are, incidentally, appointed by the President and confirmed by the Senate—and five of the 12 Federal Reserve Bank presidents who take turns serving one-year terms as voting members. While not all the presidents vote all of the time, we all do attend the monthly FOMC meetings in Washington and participate in discussion as to what our individual views of the economy are and what policy should be. It is in this area that I think the Minneapolis Fed has played a really extraordinary role and has made a historic contribution—not just to the Fed's monetary policy function, but to economics as a whole. In the early 1970s, the Minneapolis Fed began looking at monetary policy options. From that research, as well as from the work of several other economists around the country, has grown a new economic theory that has come to be known as "rational expectations." Rational expectations is really a school of economic thinking just as Keynesian economics or monetarism is a school of thought. In a nutshell, rational expectations assumes that people can't be repeatedly fooled and, on average, will act in their own best interest. As a result, government can't do many of the things it tries to do. e.g., it can't systematically reduce the rate of unemployment. Consequently, rational expectations poses a serious challenge to the traditional use of macroeconomic policies.

Cramer: In your view then—in the rational expectations view, if you will—what should be done in the current policy environment?

Willes: Well, Mies van der Rohe's dictum—"less is more"—would serve us well. One of the things that seems quite obvious to me is that when you know as little as we do about how the economy works, a careful, restrained use of policy is in order. We simply don't know enough to use broad, sweeping macroeconomic policies without creating problems.

In general, economic theory says that the less you know about how the economy works, the more stable your policies should be. This is because the likelihood of picking the right policy as a result of luck—rather than as a matter of informed judgement—is more risky than gambling on a roulette wheel.

Therefore, in the present environment, wherein we know very little about how the economy works, our policies should be more stable than the activist policies—the tax cuts and wage and price controls—of the 1960s and early 1970s. Specifically, the Federal Reserve System should not react to

short-term fluctuations in the economy. We should keep the money supply growing at a steadier, and preferably low rate. Congress and the administration should change deficits less frequently and less drastically as they aim for a more-or-less balanced budget.

I'll admit that those policy prescriptions aren't very exciting and are politically pretty hard to stick by. But precisely what I think is needed is less "excitement" and more political courage.

Cramer: I'd be interested in your assessment of the energy problem—particularly, is inflation a product of the energy crisis?

Willes: While the cost of energy is a significant element in the rate of inflation we've been experiencing, it really isn't the primary cause. There have been two primary causes of inflation. First, we've had government deficits that have been extraordinarily large at a time when the economy couldn't accommodate deficits of that size. Second, the Federal Reserve System has been allowing the money supply to grow too rapidly, which has had the inevitable consequence of rising prices.

Another point that's worth noting about the relationship between energy costs and inflation: I was in Switzerland recently and paid \$2.50 for a gallon of gas. Yet their inflation rate is much lower than ours and they import larger shares of their energy supply than we do. So it seems to me inflation can't be primarily caused by the energy crisis and, because I had no problems getting gas there, our energy problems must be of our own making.

Cramer: How would you deal with the energy problem within this inflationary context?

Willes: Let's look at that answer in terms of the President's energy proposal at the end of July. Basically, the President said he was going to limit oil imports beyond the level which had been imported in the prior year. Then, he was going to tax oil company profits in order to generate enough revenue to spend something like \$140 billion to encourage domestic conservation and production of energy.

I must say, for two reasons, those proposals represent my idea of how things shouldn't be done. First, those proposals give precisely the wrong message to those people on whom, in the long run, we'll have to depend to discover and produce energy. The discovery and production of energy is a high risk, expensive proposition that requires a high rate of return to encourage development. What the President has said is: If it looks like you're going to make money on your high risk investment, we're going to reward you for taking that risk by taxing away your profits.

Second, the President's proposals say that government will decide the best way to develop alternative domestic energy sources. My personal bias is that, when one deals with enormously complicated problems like the energy situation, one of the very best ways of coming up with solutions is to have lots of different people betting their own money on what the right solution or solutions will be. Some people will lose their bets but some are going to win, and eventually we'll get out of that system the energy we'll need.

I should add that I'm not at all sure that the price of oil would go up dramatically if we were to decontrol the price of domestic energy. The reason for past price increases has been that we have allowed OPEC to play a dominant role in the world market. If, through decontrol, we provided domestic producers with the incentives they need to develop domestic supplies, we just might stabilize or decrease prices in the world market.

Cramer: Another difficult problem: Are we going to have a recession? If yes, what should we do about it?

Willes: Most economists seem to be in agreement that we will have, if indeed we aren't already in, a recession. The questions now are: How long will it last? How bad will it be?

As for what we should do about a recession, I have to go back to something I said earlier when we talked about the causes of inflation. Just as there is agreement among economists that a recession is inevitable, so is there agreement that there is no longer a significant, long-term tradeoff between inflation and unemployment. In other words, for years the answer to "What do we do to end a recession?" has been, we stimulate the economy through government spending—macroeconomic policies—to put people back to work.

What seems to be happening in the 1970s is that people anticipate that those stimulative policies will also increase inflation. And rising inflation rates cause uncertainty which in turn causes people to hold back on investment. Eventually that means there will be fewer jobs. So, rather than there being a tradeoff between inflation and unemployment, there is a *link* between inflation and unemployment. Hence, the best tools we have for dealing with a recession are the tools we use to reduce inflation: reduce budget deficits and bring down the money supply in an orderly, predictable fashion. And when you seek to offset the impact a recession will have on particularly vulnerable sectors of our population, you should use specific microeconomic tools, not massive macroeconomic policies that really just keep the inflation/recession cycle spinning.

Cramer: As an economist, what is your view as to how long this recession will last and how severe it will be? Particularly, can this region expect anything different from what will be experienced nationally?

Willes: Well, I'm hopeful that the start we made last November when the Fed and the Administration joined forces to defend the dollar and reduce budget deficits will, in the long-term, stabilize the economy. But a commitment to a balanced budget and a slower growth rate in the money supply is politically very, very difficult, especially with national elections coming up which will make a short-term "fix" very tempting. Our problems will be solved only if we're willing to stick to the course for the long haul. I hope our leaders perceive that the public is so fed up with inflation that they are willing to bite the proverbial bullet to get back on track. If we do stay on course with the budget and the money supply, there are indications that we need not expect this recession to be as severe as in 1974.

Will the effects of a recession be different in this region than for the nation as a whole? Well, historically the diversity of

our economy has given us some protection against as severe a shock as is felt in some areas, and employment trends look good.

Cramer: Let me move into a different area, but one that is of particular interest to our readers. Is the six percent limitation on architectural fees for federal projects shortsighted and restrictive?

Willes: I'll have to plead ignorance of the specifics of that situation. I can, however, make a philosophical comment. There is a tendency in government, where "profits" don't exist as a measure of effective management, to use regulations and controls to assure that taxpayers' dollars are well spent. While I'm absolutely committed to spending government money in a responsible way, I haven't found too many instances where regulations serve the purposes they were created to serve. So while I think I would be sympathetic to the notion that government should not allow profligate building costs, I have serious reservations about how a restriction on architectural fees will achieve that objective. A good example of this, I think, is the Administration's guideline for setting thermostats at 78 degrees in the summertime. I know that a consequence of that kind of regulation will be a drop in productivity. Moreover, there is an increasing amount of evidence that very little, if any, energy conservation will occur as a result of the 78 degrees temperature setting. How much better if government were to say, reduce your energy use by ten percent this year. This, I think, would open up an opportunity for really significant conservation efforts in such areas as structural and engineering design and in staffing schedules.

Cramer: I'll turn that question around a bit and ask how you feel about the Federal Reserve Bank. Was the architectural fee money well spent?

Willes: I'm afraid I have a reputation as a tightwad, but nonetheless, I like our building very, very much. And we've found it to be a superbly functional building—much of which I'm sure can be attributed to our architect's skills. Beyond our personal reactions to the building and our appreciation of its functionalism, I don't think we'll ever completely measure the enormous aesthetic contribution the building makes to the community. When you figure what the architect's fee was over the span of the building's life, it was indeed money well spent.

Cramer: One final design-related question. Why does the Susan B. Anthony dollar look like a quarter?

Willes: Well, first, the decision on the coin's size and design was made by the Treasury and Congress, so I can plead innocent on behalf of the Federal Reserve System on that rap. I was disappointed that the 11-sided design that appears inside the coin was not the external shape used. It would have answered some of the criticisms we're hearing and would have been handsome besides.

Regardless of the size or design, the arguments I was giving earlier about the need for government cost-cutting are applicable here. The new dollar coin costs only about a penny more to produce than it costs to produce a dollar bill. But the life of the coin will be at least ten times as long as that of the bill. We really need to start replacing those bills to keep our costs down. ■

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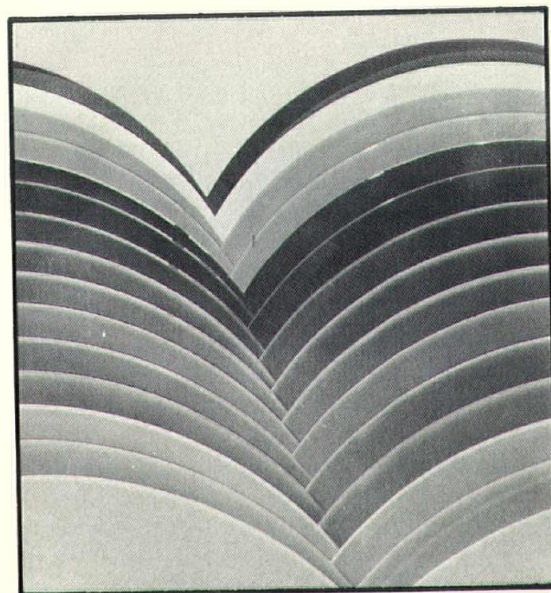
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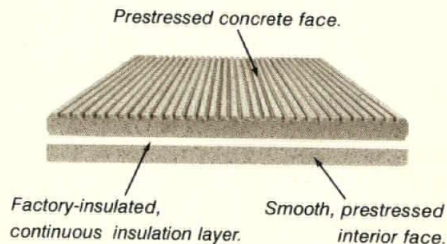
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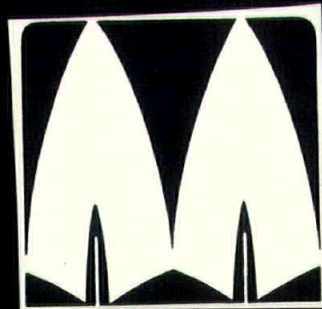
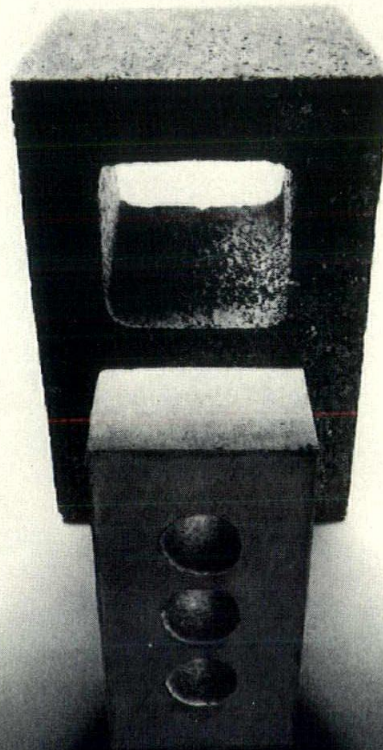
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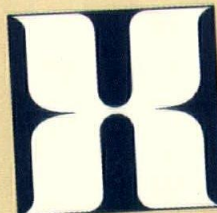
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1979 MSAIA Convention Schedule

Wednesday—October 3, 1979

9:00 Registration Opens (The Link)
 10:00 a.m.—10:30 Exhibitor Briefing (Verandas 5-8)
 10:30 a.m.—12:15 EXHIBITS OPEN
 11:15 a.m.—12:00 Lunch served in exhibit area
 12:15 p.m.— 1:30 A View of the 1980s—John Morris Dixon, FAIA, Editor of *Progressive Architecture* (Verandas 5-8)
 1:30 p.m.— 3:00 EXHIBITS OPEN
 3:00 p.m.— 4:00 Robert Brown, AIA—Designer for Geddes, Brecher, Qualls, Cunningham, Philadelphia (1979 AIA Firm Award Winner)
 4:00 p.m.— 9:00 Guest Night
 9:00 p.m. Hospitality Suites Open

Thursday—October 4, 1979

8:00 a.m. *Architecture Minnesota* Publishers Awards Breakfast (L'hotel de France)
 8:30 a.m. Registration Opens (The Link)
 9:00 a.m.—10:30 Energy Panel—Timothy Michels, Lance LaVine, Dick Peterson (Verandas 5-8)
 9:00 a.m.—10:30 Lighting Seminar (Village IV)
 10:30 a.m.—12:15 EXHIBITS OPEN
 11:15 a.m.—12:00 Lunch served in exhibit area
 12:15 p.m.— 1:30 An Economic Outlook: Its Impact on the Construction Industry and the Region—Dr. Sung Won Son, Economist for Northwestern National Bank (Verandas 5-8)
 1:30 p.m.— 3:00 Annual Meeting (Village IV)
 3:00 p.m.— 4:00 Solar Access & Design—Professor Ralph Knowles, Head of Architecture—University of Southern California (Verandas 5-8)
 4:00 p.m.— 8:00 Special Guest Night—EXHIBITS OPEN

5:00 p.m.— 6:00 Special Guest Night Programs
 —Young Practitioners/students (Verandas 5-8) (Village III)
 —Interior Designers—Bill Stumpf, designer of the Ergon chair (Village V)
 —Council of Small Firms—Designer Selection Process
 4:00 p.m.— 8:00 SPECIAL GUEST NIGHT
 8:00 p.m. Hospitality Suites Open

Friday—October 5, 1979

8:30 a.m. Registration Opens (The Link)
 9:00 a.m.—10:30 Renovation Panel (Verandas 5-8)
 9:00 a.m.—10:30 Production Drawing Seminar (Village V)
 10:30 a.m. North Central Regional Breakfast (Village V)
 10:30 a.m.—12:15 EXHIBITS OPEN
 11:15 a.m.—12:00 Lunch served in exhibit area
 12:15 p.m.— 1:30 Paul Goldberger, *New York Times* Architecture Critic (Verandas 5-8)
 1:30 p.m.— 3:00 EXHIBITS OPEN
 3:00 p.m.— 4:00 Symmetry—Stanley Tigerman, FAIA Stanley Tigerman & Associates, Ltd, Chicago (Village IV)
 4:00 p.m.— 5:00 North Central Region AIA Reception for Out of State Architects (Garden Court)

Saturday—October 6, 1979

9:00 a.m.—12:00 Four Architectural Tours of the Metro Area
 1:00 p.m. 1981 AIA National Convention Steering Committee Luncheon (Marquette Inn)
 7:00 p.m.— 8:00 President's Reception
 8:00 p.m.— 9:00 Dinner
 9:00 p.m.—10:00 Program
 10:00 p.m. Music

1979 MSAIA Awards Presentation & Dinner

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Special Events & Tours—

Saturday, October 6, 1979

As a culmination of the week's events, this final day's activities will include four guided bus tours of significant architectural sites in the Metropolitan area. The tours, listed below, each include a variety of sites, old and new, residential and commercial, schools and churches. You may choose which of the tours you would like to attend. For the first time, these tours are also being made available to the general public, therefore, pre-registration is recommended. Pre-registrations will be accepted until NOON THURSDAY, OCTOBER 4. After that time, space on the tours will be on a first-come, first-served basis. Please be at the designated point of departure promptly. Specific departure points are posted in the Convention Registration area.

TOUR 1: St. Paul Area (Meet at Rosedale Shopping Center—9:00 a.m.–12:00)

Tour Sites include:

1. The College of Home Economics—The Hodne/Stageberg Partners (Stop #1)
2. Como Park and the Conservatory
3. State Capitol—Cass Gilbert
4. The Science Museum of Minnesota—Hammel, Green and Abrahamson
5. Mickey's Diner
6. The Architectural Center (Stop #2)
7. Ramsey County Juvenile Center—The Leonard Parker Associates
8. Northwestern Bell Addition—Ellerbe Associates
9. Landmark Center—Winsor/Farcy Architects (Stop #3)
10. Girl Scout Council Program Center—BWBR Architects (Stop #4)
11. Drive through Irvine Park Historical District, past the Cathedral and down Summit Avenue
12. Roger Opp Residence—Design Consortium (Stop #5)
13. Drive along the East Mississippi River Road past "Professor's Row"

Return to Rosedale

TOUR 2: Minneapolis Area (Meet at Southdale Shopping Center—9:00 a.m.–12:00)

Tour Sites include:

1. Drive past Franklin Junior High School—Thorsen & Thorshov and Webster Intermediate School—Bentz/Thompson & Associates
2. Drive past Findley Place Housing—Williams/O'Brien Architects
3. Minneapolis Institute of Arts—Parker, Klein Associates (Addition)
4. 1200 on The Mall—The Hodne/Stageberg Partners
5. Greenway Gables—Bentz/Thompson & Associates (Stop #1)
6. Drive past Metropolitan Community College—Ellerbe Associates
Through downtown Minneapolis, past J. B. Larson Associates—Design Consortium
7. Architects Office—Design Consortium (Stop #2)
8. Butler Square—Miller Hansen Westerbeck Bell (Stop #3)
9. Hennepin County Medical Center—Smiley, Glotter and Thorsen & Thorshov
10. First Street Station—Cunningham Architects and Dickey/Kodet (Stop #4)
11. University of Minnesota Campus
Law School—The Leonard Parker Associates
East Bank Book Store—Myers & Bennett (Stop #5)

12. Riverfront Project

13. Honeywell Plaza—Hammel Green & Abrahamson (Stop #6)

Return to Southdale

TOUR 3: Minneapolis Area/South Suburban (Meet at Southdale Shopping Center—9:00 a.m.–12:00)

Tour Sites include:

1. The Goltz Residence—The Goltz Associates Inc.
2. Drive past the Southdale Area Regional Library—The Hodne/Stageberg Partners
3. Drive past One Appletree Square—Ellerbe Associates
4. Commandant's House & Officers Quarters Restoration at Fort Snelling—Miller-Dunwiddie Architects (Stop #1)
5. Blue Cross-Blue Shield Headquarters—The Cerny Associates and The Architectural Alliance (Addition)
6. Prince of Peace Lutheran Church—Bentz/Thompson (Stop #2)
7. Apple Valley Senior High School—Hammel, Green and Abrahamson (Stop #3)
8. Parish Center, Church of the Risen Savior—Griswold & Rauma
9. Wood Lake Nature/Interpretive Center—Brauer & Associates (Stop #4)
10. Augsburg Park Community Library—Interdesign (Stop #5)
11. YMCA Southdale Branch—Dickey/Kodet Architects

Return to Southdale

TOUR 4: Minneapolis Area/West-Northwest Suburban (Meet at Ridgedale Shopping Center)

Tour Sites include:

1. General Mills Complex—Skidmore Owings & Merrill and Hammel Green & Abrahamson
2. Drivers License Examination Station, Plymouth—Bentz/Thompson
3. Pioneer House, Plymouth—Zejdlik, Harmala, Hysel & DeLapp
4. Plymouth City Center—Thorsen & Thorshov (Stop #1)
5. Spring Hill Center—Edward Larrabee Barnes
6. Wood Hill Tennis Pavilion—The Hodne/Stageberg Partners
7. Freshwater Biological Institute—Close Associates (Stop #2)
8. Rappaport Residence—Bentz/Thompson
9. Gelco Corporation—The Leonard Parker Associates (Stop #3)
10. Colonial Church of Edina—Hammel Green & Abrahamson (Stop #4)

Return to Ridgedale



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Stained Glass of Duluth

Wade Lawrence

Stained glass is an architectural art. Just as the character of a city may be defined by the buildings which make its skyline, the character of many buildings is defined by the multi-colored windows which light their interiors.

A case in point is Duluth. Duluth's architectural heritage is relatively young, only 100 years old or so, but the city just happened to have been built during the height of the American stained glass renaissance. A new breed of American artists experimented with new materials and techniques when European immigrants brought the stained glass traditions of the old world with them. Stained glass became such an architectural necessity that studios and glass suppliers were selling it to builders as over-the-counter commodities in lots.

But not all the glass of the time was of the commercial pattern book variety. Duluth, in that time, supported at least three stained glass studios and some of the local work was very noteworthy.

Photography: Wade Lawrence

Opposite: From Gloria Dei Lutheran Church
Artist: Ford Glass Company

Below: From First Presbyterian Church,
part of a three-window group.
Artist: Louis C. Tiffany

One local artist of note was a Swedish immigrant named Axel Bergholtz. He studied art in Sweden, France and Germany, and in 1905 began working for St. Germain Brothers Glass Co. as a designer and painter. He worked in the old school style of applying pigments which had to be fired in a kiln between coats, adding layer upon layer until the proper shading was achieved. This technique lent





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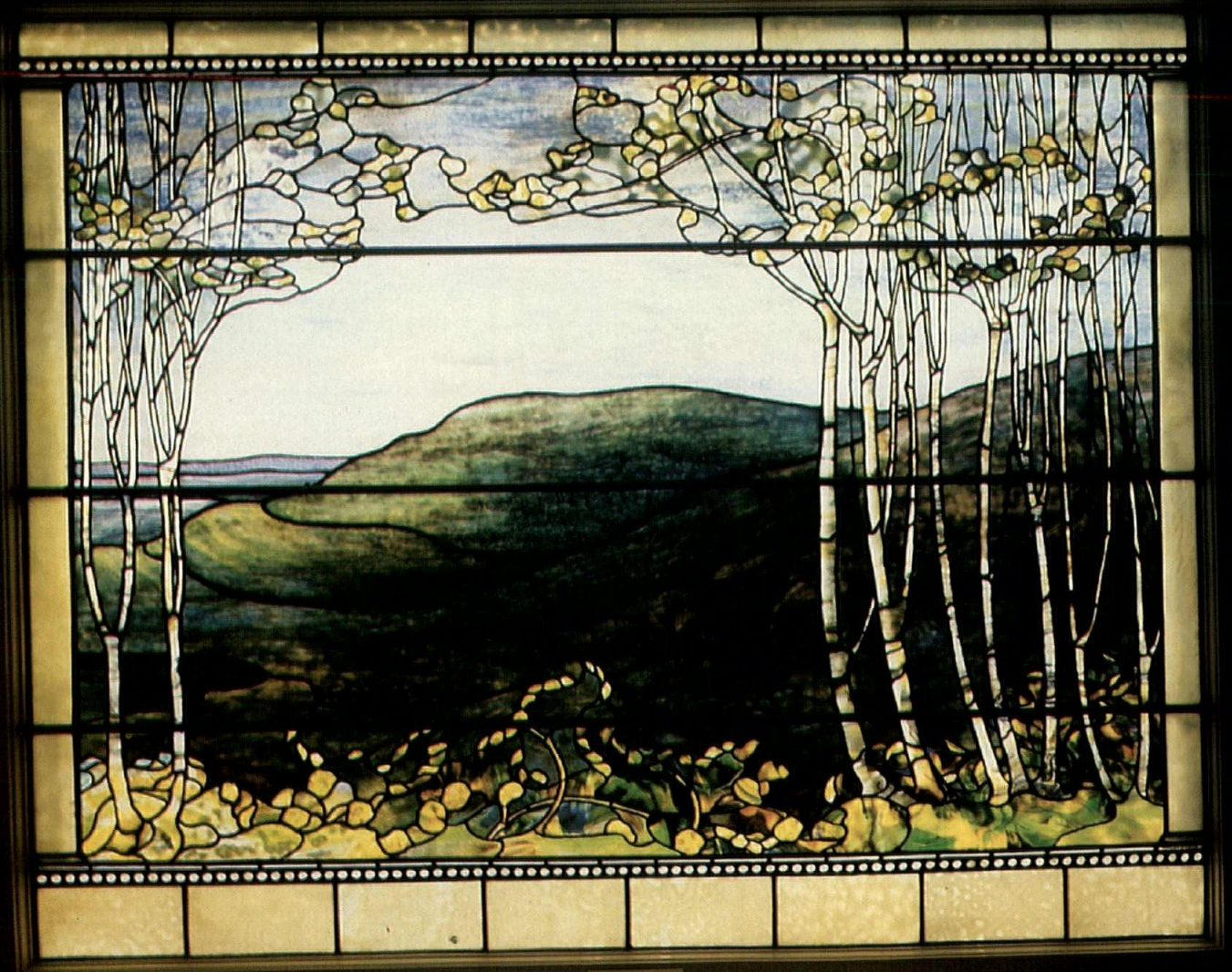
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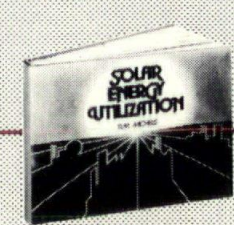
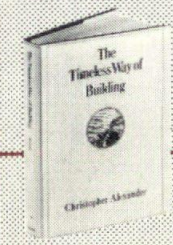
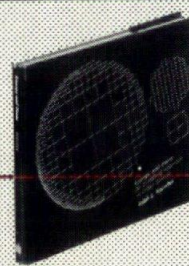
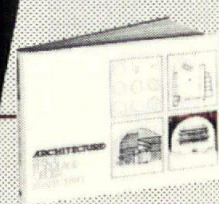
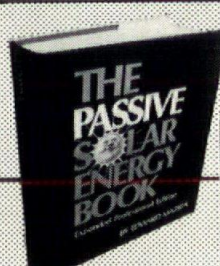
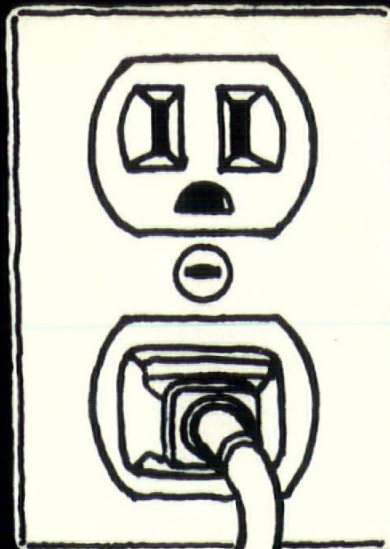
Below: From First Presbyterian Church,
part of a three-window group.
Artist: Louis C. Tiffany



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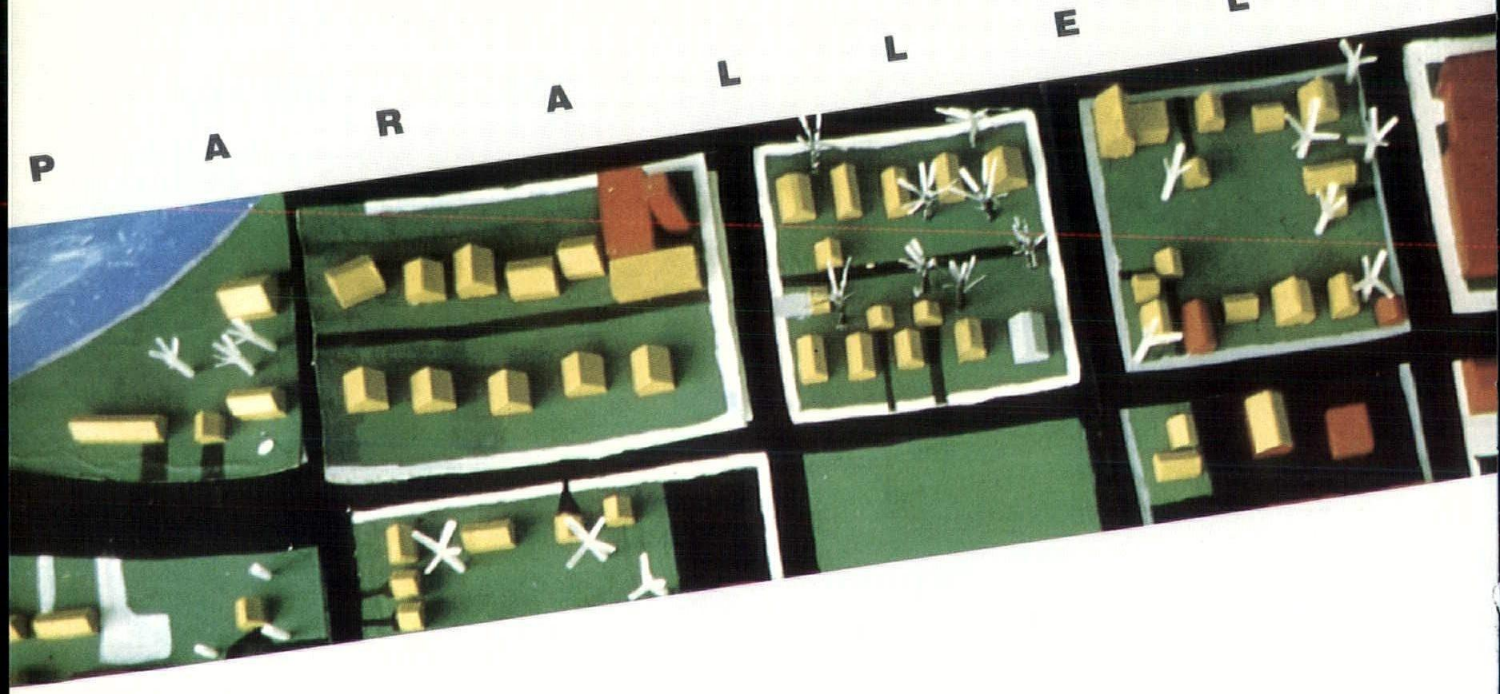
A R A L L E L S

teaching architecture in elementary and secondary schools

Gar Hargens and Bev Anderson

This project has been funded by the National Endowment for the Arts, the Minnesota State Arts Board, the Center for Urban and Regional Affairs/University of Minnesota, and the Minnesota Society American Institute of Architects. © Copyright 1979 MSAA

P A R A L L E L S



Anderson is a special education teacher in the Red Wing Public Schools. Gar Hargens is a practicing architect and consultant for the University of Minnesota's Center for Urban and Regional Affairs (CURA). Under the aegis of Project Rediscovery, a University of Minnesota project that provides selected Minnesota communities with University students to study community architectural and planning problems and best solutions, Bev and Gar created a course for Red Wing sixth graders parallel to that of University students. This broadside presents goals and methods in parallel format for teachers and planning professionals who may wish to use these ideas in their own community schools.

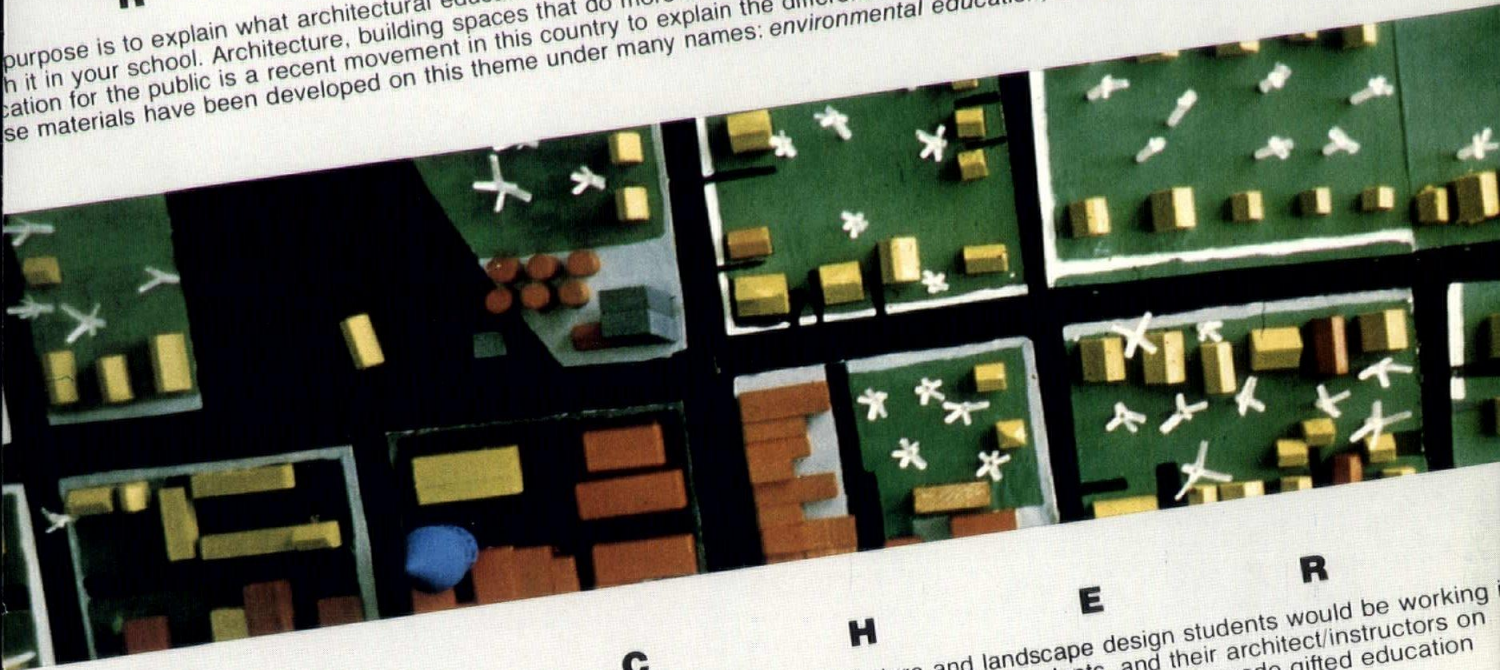
We are excited about projects that will accelerate public understanding and participation in planning our environment. We hope this summary of such project will foster many more.

Thomas L. Anding, associate director,
CURA, University of Minnesota

James P. Cramer, executive director,
Minnesota Society American Institute of Architects

R C H I T E C T

Our purpose is to explain what architectural education can be, how it was taught in one recent school situation, and how you might learn to teach it in your school. Architecture, building spaces that do more than give us shelter, helps define the beginnings of civilization. Architectural education for the public is a recent movement in this country to explain the difference architectural design makes in our lives. Courses and teaching materials have been developed on this theme under many names: *environmental education, the built environment, and architectural education*.



E A C H E R

When I came to me second hand explaining that the University of Minnesota architecture and landscape design students would be working in the community, serving as design consultants. Would any teacher care to collaborate with these students, and their architect/instructors on projects that fit into the city school's curriculum? I was interested—resource people are an integral part of the sixth grade gifted education program I teach.

When I met with the architect/instructor, Gar Hargens, he explained how this program had worked in other communities, and gave me a box of blocks to look over. Now I was convinced this was worth a try. In gifted education we stress creative thinking, problem solving, planning, forecasting. Some of the materials Gar gave me worked beautifully in my classes. I discovered that architecture as a content area lent very well to all those processes.

When Gar first met with my sixth grade enrichment class he explained the roles of both the architect and the client. Information from the client (that would be most of us) is crucial—clear descriptions of what we want built in our environment. For the first exercise the class was to be as client, providing information to the University students about downtown Red Wing. The twenty elementary students were divided into groups, which were assigned areas of the city. They chose three physical elements they felt were important and should be preserved—buildings, stores, parks, or whatever. With owners, residents, and city records they answered these questions about each subject: What is it? What is the current use? Previous uses? What are its problems? All of this information was put on 3x5 cards and coded to a list of the downtown blocks. The map and cards were put on display as part of a presentation by the University students to introduce their project to the community. The meeting was held in the evening at the town hall in Frontenac, a town just south of Red Wing. It was a get acquainted session for everyone. The sixth graders explained their research to the students and townspeople.

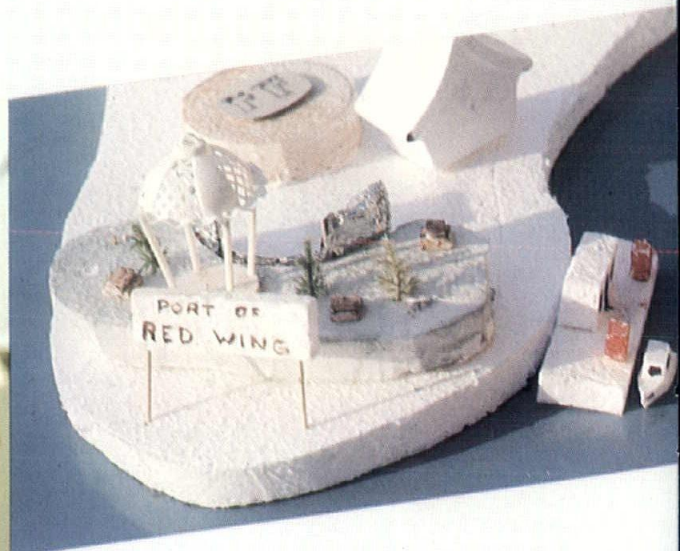
A R C H I T E C T

progress, to name a few. Some teachers have discovered these materials and worked them into their classes. Our concern is that not enough teachers are aware of this rich educational possibility and when aware may find it difficult to get started using the materials. We thought perhaps a personal account of our goals and experiences might help to show others a clearer way.

We have written this guide as two separate accounts in parallel columns so that on the one hand you can understand the architect's contribution to fostering this idea, and on the other, the teacher's ability to incorporate it into the curriculum. We expect that you are probably a teacher, architect, student, parent, or administrator. It doesn't matter though because environmental education is important for everybody. We think these two points of view will explain that the need for architectural education is universal and that it can be introduced in many ways.

We would like to encourage more elementary and secondary teachers to work experiences into their curriculum that teach the way architecture design and planning improve our lives. I would also like to interest design professionals in promoting and assisting teachers in this work. Several personal reasons motivate me to foster this kind of learning. My own design work proceeds more quickly and results in a higher quality product when those who own, manage, or are responsible for the work (clients) and those who use the work (users), fully understand the design process and their contribution to it. Designers rely on clients and users for information about how they would like things to be. Many people complain from time to time about the way things are but are unpracticed in planning the way things ought to be. To build a better environment it is important that people understand their client and user responsibilities and rights and realize that they carry experience information about how they live that we designers need.

Another reason for children (and adults) to learn about architecture is that having a good physical, human-made environment contributes to our physical and mental well-being. Winston Churchill said, "We shape our environment and afterward it shapes us." Few Americans are



T E A C H E R

Through the fall, winter, and spring, we paralleled the architecture students' work by assigning the same problems: Bay Point Park, the central downtown block, and the St. James and Nybo blocks, and comparing problems and solutions. We didn't see the University students very often. They came down for presentations, and research trips. Gar would update us on their progress at his bi-weekly visit, and we would learn from their process.

Fall: Bay Point Park Project After their first research project, Gar introduced the sixth graders to their role as designers. They realized they already knew much about the site and what the future Bay Point Park should be like. They decided they should revisit the location to make notes and pictures of the existing conditions.

We did a brainstorming session to revive possibilities for our future Bay Point Park. Gar encouraged the students to think of "What could be explained that this was the time for the clients to think expansively of what they had been dreaming for. It would be their architect's challenge to find ways to do exciting, "impossible" things. The students had no problem coming up with way-out ideas!

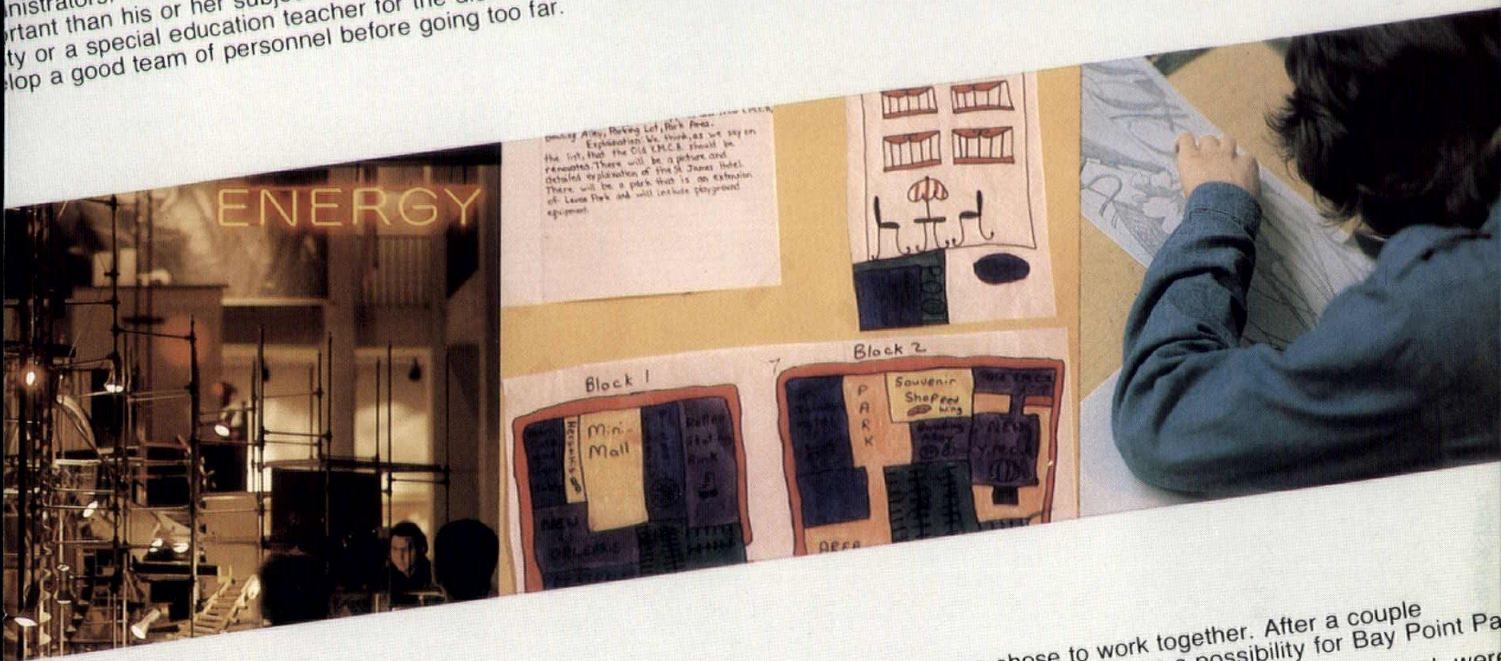
Before the next session the students visited and documented the site of the park. They came to class with written descriptions and some pictures of what was there and in the surrounding area. Our class visited the city planner, who described his job and provided us with maps of the park and downtown areas. These maps were used for drawing plans for the park, using tracing paper for sketching. Gar showed the technique of sketching ideas and helped critique the plans. Students had access to plenty of paper and colored markers to allow for several sketches. Gar also demonstrated the task of drawing to scale. We knew the dimensions of the Bay Point area, so now we could make our

ht to analyze the places in which they live. Many don't recognize or can't evaluate simple design choices about access, security, or
ate in selecting their first apartment, or a site for their community's new fire station. Just as learning about our bodies and proper hygiene
important to good health, understanding how the built environment is created, maintained, and changed is likewise important to
yone's well-being.

itectural planning is a good thought discipline. It involves analysis and choosing from many objective and subjective factors. The planning
ess employs the same problem solving approach used to draft an important letter, plan a campaign, or lay out a garden. In addition, it
teach the important social lessons of considering alternatives, compromising with others, and reaching intelligent group decisions.

study of architecture is fun. It means imagining, discussing, choosing, and presenting your ideas. It calls for maps, drawings, models, and
trips—for educating yourself and for communicating with others.

s philosophy makes sense, perhaps the most important first step is to seek out resource persons. You might do this even before you
ded where or how to introduce the subject because you will probably want help in teaching this material, and expert advice may be
ortant in setting your direction. If you are a teacher, you should seek out architects, planners, or students of design. You may be surpris
ow ready most will be to help. If you are a design professional eager to encourage a program in your community, start with the school
nistrators. They will know which teachers will best be able to use such an approach. We have found that the teacher's interest is more
ortant than his or her subject. There may be teachers or resource people who can come in from the outside, such as a planner for the
ty or a special education teacher for the district. State agencies, such as the Agricultural Extension Service, may be of help. In any cas
lop a good team of personnel before going too far.



ects proportionate to that area. Some students worked alone on their drawings, while some chose to work together. After a couple
wings, Gar helped the students begin to make refinements and come up with a plan they could present as a possibility for Bay Point Pa
els of various sophistication, from simple cardboard structures to complex representations of buildings complete with environment, were
played for the students to see how they could construct their own models. The students also saw slides of structures showing unusual
is put into reality. The sixth graders really enjoyed the new ideas. They served as motivation and inspiration for the students to begin th
models. The models were constructed outside of class. When they were partially completed they were brought to class for suggestions
improvements. Gar and our city planner both helped with suggesting refinements. All sorts of materials were used to represent structure
eir park. For example, bottle caps were used for toys and flowers. Most of the students' plans consisted of recreation facilities for young
lers was the trip to the University of Minnesota design studio. The University students were still finishing their plans for Bay Point Park.
models were displayed for the Project Rediscovery students to observe and ask questions about.

as extremely beneficial for the sixth graders to see how the University students were approaching the same problem they had worked o
y weren't afraid to question the architecture students, and in return the older students made such comments as: "I never thought of that
, not bad." "Someone really put a lot of work into this model." "You mean elementary students did that?!"

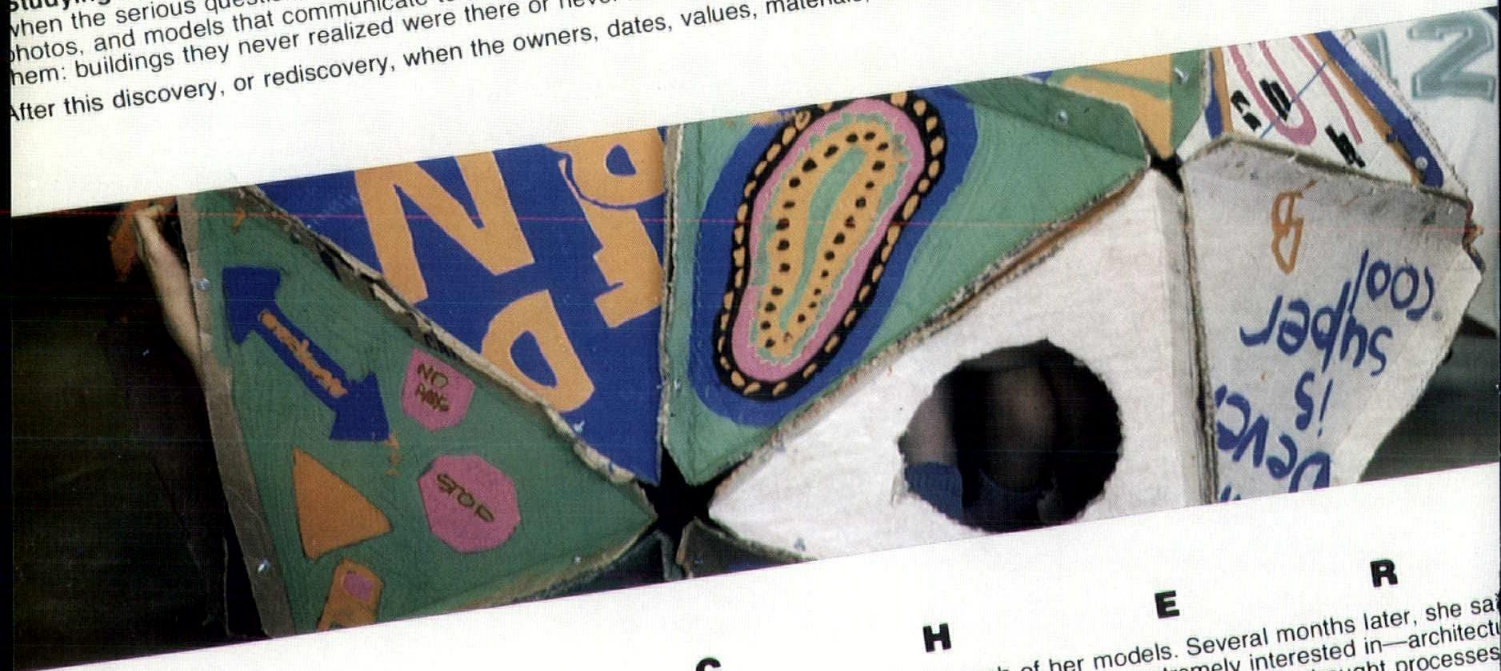
primary advantage to my students of working with someone trained in architecture was the degree of sophistication their models
eived, along with an understanding of the role of an architect. Students can come up with terrific ideas on their own, but they need
ance to develop them effectively.

A R C H I T E C T

What are you going to teach? There are good curricula and exercises available, and we list some we recommend here. Some of the best produced by GEE, Group for Environmental Education, in Philadelphia. Both *Our Man-Made Environment* and *The Process of Choice* have carefully worded lessons and suggestions for discussions, field trips, and other class exercises. They are excellent and in our experience work well as companion exercises to illustrate basic planning problems and solutions. Their greatest service, however, is in orienting teachers. They form a good teaching guide and furnish ideas which can be applied to the study of your own community. The GEE series is now available through the MIT Press. Other materials are cataloged in bibliographies like *Learning About the Built Environment*, A Sourcebook in Environmental Education for Use at the Elementary and Secondary Levels, by Educational Facilities Laboratories. Your librarian can help discover more materials. The Minneapolis Public Library provides a state-wide service for Minnesotans looking for curriculum environmental education materials. Call the Environmental Conservation Library at 612/372-6609.

In general, I have found that architectural studies with children are most successful when the studies deal with what the children know or what interests them: their home, their school, their neighborhood. Doing this automatically makes the kids information experts. They can answer questions about how their environment performs, and they learn to formulate their own questions about it. With a little concentration we can learn or rediscover much about the existing state of our community, the way it is now.

Studying existing places and their relationships can be the start of a complete design process, or it can be a study in itself which ends when the serious questions have been defined. Either way, students start by documenting their community with words, maps, drawings, photos, and models that communicate to themselves and others what is there. Most discover parts of their environment that were invisible to them: buildings they never realized were there or never knew the purpose of, and things about their favorite places they never saw before. After this discovery, or rediscovery, when the owners, dates, values, materials, taxes, history, problems have been tucked away, questions



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One sixth grade girl worked particularly hard on this project, writing up descriptions of each of her models. Several months later, she said she was glad for the experience because it showed her a field she had never thought about and was now extremely interested in—architecture. She was particularly pleased with the project because architecture as a content area lends itself so well to developing the thought processes of planning, forecasting, problem solving, and creative thinking. We all felt that our parallel project was exciting and worthwhile.

Winter: Downtown Block Project One central block in Red Wing's business district was the topic for the next quarter's project. The students went to interview store owners. A group was assigned to each store: Boxrud Department Store, F & S Shopping Center, Brasch Bakery, and Koehler's Book Store. Students asked for background information: How old was the building? What were the previous uses? Then, current information: What problems do store owners have? What improvements would they like to see in their store? It was good experience for the children to gather information from their "clients" because it helped them understand the role of an architect as problem solver and planner.

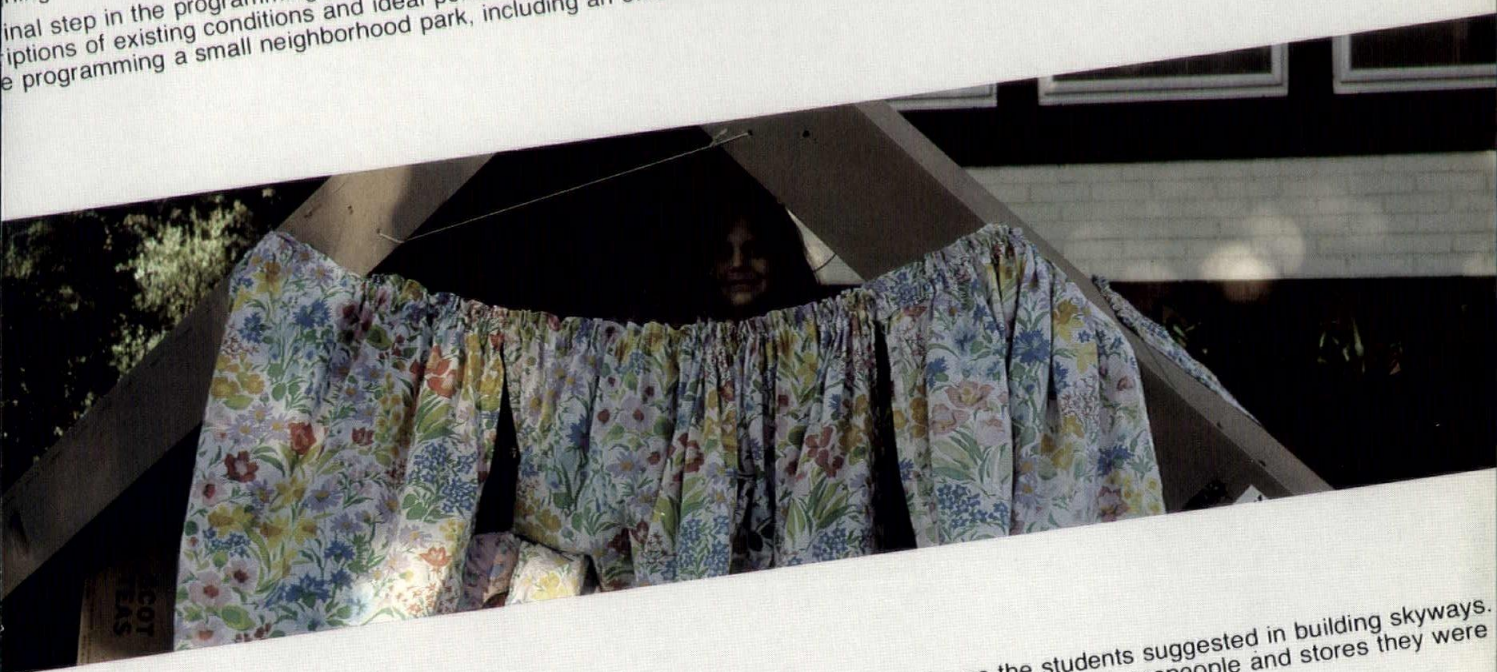
Besides studying problems of each individual building, the assignment included using alternative energy sources and incorporating an inter-store linkage. Several student models showed plans for using the alley as a park and rest area, complete with flowers, benches, and walk-way overhead. They connected stores through a mall and walk-way to increase shopper traffic to stores on all sides of the block. Some energy units were included on the roofs and walk-way system.

Some plans included expansion of the Braschler Bakery lunch facilities to include the small office building next door. This lunch area is very popular, but inadequate and crowded. It's been fun for the kids to see this expansion happen just as their plans suggest. Now, one year after the new lunch room has just opened. They also made plans for improving the two department stores, making better use of the upper stories.

How did this building get here? Who selected the site and why? Is this still a good location? Can you think of a better one? Answering these questions students draw upon their intuitive understanding of how their community works. Most of this knowledge is subjective, and it is important that these assumptions and judgments be recorded so that others will be able to see how the students arrived at their decisions. The multiple and factors involved in decisions about planning change quickly, but the results are permanent and hard to change. It is important to document why choices were made, both to check ourselves and for those who may want to change something later.

We need to plan for something which doesn't presently exist in an environment requires another type of exercise. Without the constraints of existing problems, the students are able to brainstorm about the way they would like things to be. There is a saying among futurists that "we see the future in the present, through our expectations and desires for it." This next type of planning, which involves describing the ideal performance we would like to see from the places we inhabit, is a critical process for us all to learn if we are going to shape a better environment in the future. Instead of describing conventional rooms by their traditional furnishings and shapes, performance planning asks them to describe the activities they want performed in a place and the kind of environment they will need to do it properly. A park is not described as a place with trees, grass and flowers, although that is what any park may want to be. Rather, it is described by the rest, the excitement that one wants to find there. Certainly the old images assist us in setting out these performance specifications, but the planning and, later, the judging of alternative solutions are aided if the description of what is needed is done in performance terms.

The final step in the programming process is to choose our best and most accurate descriptions. It means sorting through all the accumulated descriptions of existing conditions and ideal performances to agree on one that encompasses everyone's needs. It is facing the reality that if we programming a small neighborhood park, including an official size basketball court means ignoring the needs of many other potential



the buildings. Both stores have remodeled in the past year, although they didn't go as far as the students suggested in building skyways. Perhaps Red Wing isn't ready for that yet. It was good for the students to be involved with downtown businesspeople and stores they were familiar with, to discuss improvements that would affect their own shopping experiences.

In the downtown block models were completed, the students were invited to display them at a forum in the court of the architecture department at the University of Minnesota. This was a novel experience, for elementary students to be included in a presentation by college architecture students. Our models were displayed in one corner and soon began attracting viewers. Gar and several architecture students attended the presentations of each of our models. They asked questions and compared ideas with their own projects. When we left, our models remained on display for the rest of the week along with the University students' projects. We were flattered later to receive a thank-you from the University of Minnesota for our part in the forum.

We had another joint display of the downtown block models—this one at the Red Wing Public Library. We met the University students in the afternoon to help set up the projects. We had our own corner again to display our models. Many community people attended the evening meeting: businessmen, city officials, parents, and friends. The local newspaper even interviewed the elementary students and took pictures of the models. People walked through the display asking questions and commenting to both University and elementary students. This joint display remained at the library for two weeks for interested viewers.

Project: St. James Block-Nybo Block The third project involved a two block area in downtown Red Wing that was being considered for development. The students studied the businesses and buildings before deciding what they would choose to replace. They talked to

A R C H I T E C T

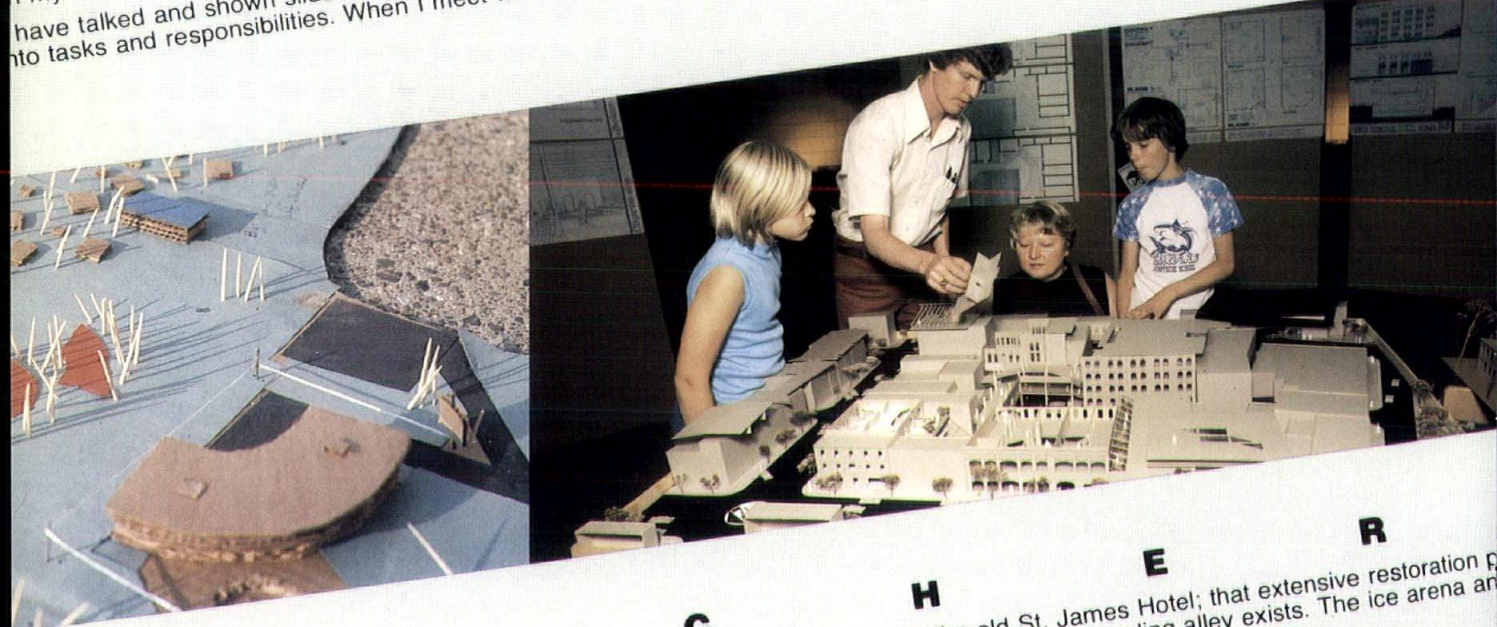
mark users. The selection process forces students to make judgments and decisions and to express their opinions and compromise with others. I often call this step in the process **the maximizing step** because it results in a program which is compact yet all inclusive. We do describe only the spaces we need, but we want them to meet all of our needs now and for sometime in the future.

The quickest way to make someone appreciate the importance of a program is to ask them to design according to one. As a follow-up to roles as clients and users, students can try their hand at design. Since most kids like to make things, the drawing and model building is welcome change from arguing over choices. The design steps are very much the same as in programming: analyze the existing site and program, study spaces that meet the requirements of both (ideal performance), combine the most successful studies (best choices) into a maximized product. The program forms the problem the designer must solve. The problem may start simply ("put a house by the lake") as it gets harder ("from the porch, which is close to the kitchen, one should be able to see the lake and the mountain behind the house") what the student designs is more and more directed by the program.

I have found this client/user/designer role-playing a most effective teaching structure. Resource people from the design professions know to fit into it. Real problems are studied, which aids in everyone's initial orientation—teachers, kids, parents, and administrators. The value the experience is easily understood. Many community activities and professional offices make good field trips: a zoning hearing, the public works department, an architect's or planner's office.

In my own experience, no teaching situation has been the same. Here are a few of these experiences.

I have talked and shown slides. Architects love to do this with adults, and the adults tolerate it; children don't. Now I try to break everything into tasks and responsibilities. When I meet with a group for the first time, or only once, I often ask them to make a map which shows



T E A C H E R

proprietors for information and suggestions. The students recommended remodeling the old St. James Hotel; that extensive restoration project is currently underway. They made plans for a recreation center where the current Nybo's cafe and bowling alley exists. The ice arena and multi-purpose building they designed probably won't happen there.

After this third project, I asked for the student's evaluation of the class and projects. One suggestion was to allow students to choose their own projects in the class. Since we had been paralleling the University students in their assignments that hadn't been possible. However, I followed this suggestion the next year. All other comments in the student's evaluations were in praise of the projects they had been working on. They really enjoyed the final trip of the year, when we attended a showing of the projects done by University students. We all sat before their instructors and the jurors to listen to the presentations of their models and ideas. The elementary students were given a chance to participate in the evaluations, too, asking questions and commenting. After working with the older students for the three projects, the sixth graders felt confident and comfortable enough to speak up and take part in the discussion. Their growth in knowledge as well as self-confidence was obvious.

Postscript One year after Project Rediscovery, I decided to try a class in architecture with twenty interested sixth graders. The class was scheduled one afternoon a week for six weeks. The project assignment was to design a city for the year 2000.

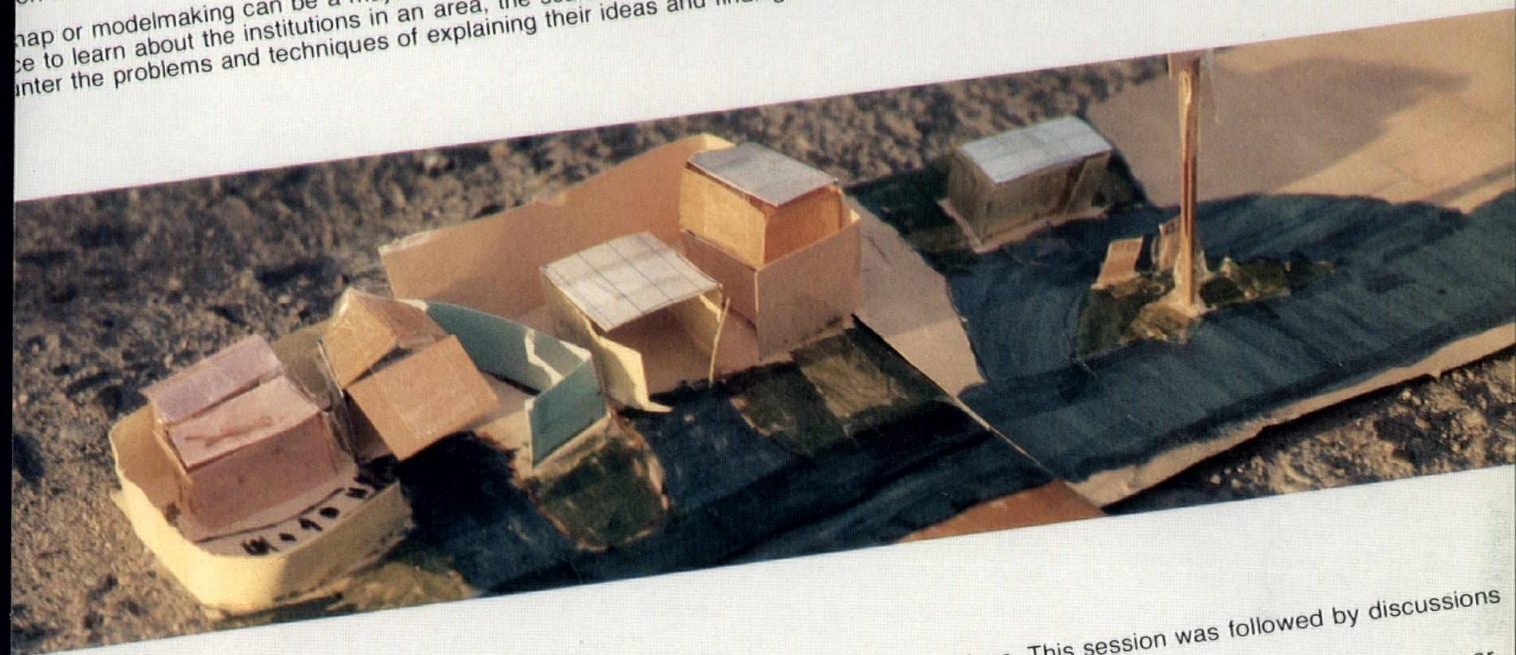
In the first week the students analyzed a plan for an imaginary city. They talked about land use, things they would or wouldn't like about living in the city, potential problems, and improvements that could be made. In small groups they developed plans for the use of a city-owned parcel which was vacant. Then, while one group of students served as city officials, each other group presented their plan for the land. The city council listened, asked questions, then voted for the plan that they thought would serve the city best. The plans ranged from a nature center

know about their immediate existing environment. They can show how they get to school, or map their town. It is interesting to compare the blackboard what they choose to show and to leave out (like the water works). They may show how their town fits into the region or the and what important planning relationships exist. I have done this with sixth graders and high school students.

years ago I held a two hour session with one hundred 4H youngsters gathered for the State Fair. After a brief introduction, I asked them to sketch their town, the region around it, and the town in relation to the rest of the state. I asked them to tell us what they wanted and didn't want things and non-things (like thoughts and feelings) from their friends and their homes and neighborhoods.

type of exercise asks what you like and don't like and why. If it is a one time event, perhaps the questioning attitude towards the environment will be remembered. If you are going on, the next step is to record what you noticed. In some cases I have used a large map to record our findings. The kids learn to draw buildings to scale and decide what things to put down. In Wabasha, the students with colored labels and a city planning map last year. Information was kept on file cards. Sometimes the learning medium is a model, and kids are teamed up to research and build a portion of the map in three dimensions. They are then the experts on that area for future use. In Lake Crystal I gave a high school civics class maps on which to build and the students researched various buildings and built ten models of the buildings. Elementary students are doing the same things for a model of Southeast Minneapolis this year.

map or modelmaking can be a major or minor activity depending on the interest of the teacher and kids. It can be emphasized as a way to learn about the institutions in an area, the scale of things, transportation, or communications. And coincidentally the students will enter the problems and techniques of explaining their ideas and findings to others. On the other hand, it can also be a simple data



amusement park to a gambling casino; all were complete with cost and revenue projections. This session was followed by discussions with the mayor and city council members in our own town.

Students began to investigate the roles of an architect and city planner. I used some materials I had gotten from Gar the previous year. The assignment was open-ended, asking for ideas of what a city is, what people do there, and what is needed to make it enjoyable as well as serviceable. In another assignment the students were divided into two groups—one assumed the role of the client, the other, that of the architect—as they planned the construction of a new school building. The high school architecture and drafting instructor gave us a tour and explanation of the laboratory and materials that high school students use. This mainly covered technical aspects of blueprinting and industrial design and drafting. Students were most interested in the tools and equipment.

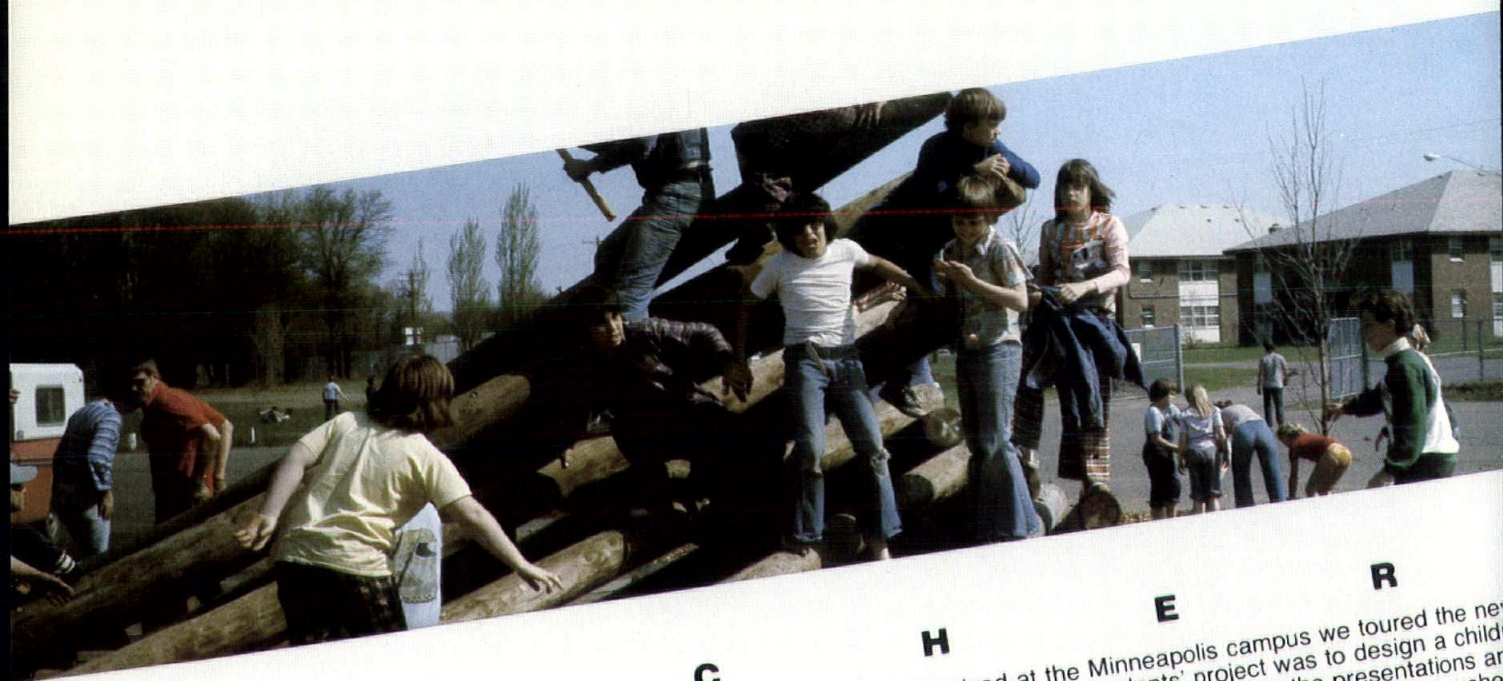
In the introductory exercises the students received their assignment: design a city of the future, complete with plans, rules, and provisions for the future. An audio-taped presentation would accompany the model, describing the city: name, population, industry, commerce, housing, transportation, city government, and future plans.

The first step in designing their city was to draw existing plans on large white butcher paper, and create new plans on tracing paper overlays. The city planner visited the class and described his job and showed us the importance of planning and zoning ordinances by using a large map. He looked at all our plans and listened to the ideas for our future cities. After asking some questions, he made suggestions which would improve the planned cities.

When the city plans were well refined, the students built models that would demonstrate their ideas. While the models were under construction the sixth graders visited the University of Minnesota architecture building to observe a jurying of one of Gar's design classes.

A R C H I T E C T

gathering exercise on the way to designing something new. For one boy a few years ago, making a three dimensional representation of Minneapolis in the form of a pinball game gave him a project we could both relate to. In Wabasha we brainstormed about what the new fairgrounds should be like and later about where the new bridge should be located. These discussions move quickly into the areas of compromise and decisions. In Red Wing this year we asked the sixth graders to research different corners of a downtown block and the design improvements for them. As with their designs for Bay Point Park along the Mississippi River, we attempted to draw parallels between their downtown designs and those being done by the University architectural students.



T E A C H E R

This was their first exposure to the University students and their projects. When we arrived at the Minneapolis campus we toured the new underground administration building and bookstore. Then we attended the jurying. The University students' project was to design a child museum of architecture, to be located near the cathedral, at the base of Summit Avenue in St. Paul. We listened to the presentations and critiques, and got involved in the discussion. Seeing the models done by the architecture students gave us ideas for the finishing touches on our own models.

The last class involved our own jurying—including a guest juror. Each student presented his or her model and gave a 10-15 minute talk about the city, then answered questions from the class and juror. Some cities were very well planned and futuristic. There was an underground community and a city built into a mountain. Students included multi-family housing, people-moving systems, and a space shuttle.

This year I missed the guidance and interaction that came with the parallel project. However, our community resources helped make the interesting and informative for the students. The process of learning involved creative problem solving, forecasting, planning, brainstorming and evaluative thinking. The project in architecture also helped the students understand that they can have a role in planning their environment.

ing Started In addition to finding a resource person and looking at research materials, you will probably want to talk further with someone familiar with these programs. The following people and institutions in Minnesota may be able to help you.

Minnesota Society American Institute of Architects has recently set up a center for public education in architecture and design. It has a coordinating director and will provide a bibliography, a library of materials, and the names of professionals on whom you can call. Call 874-8771.

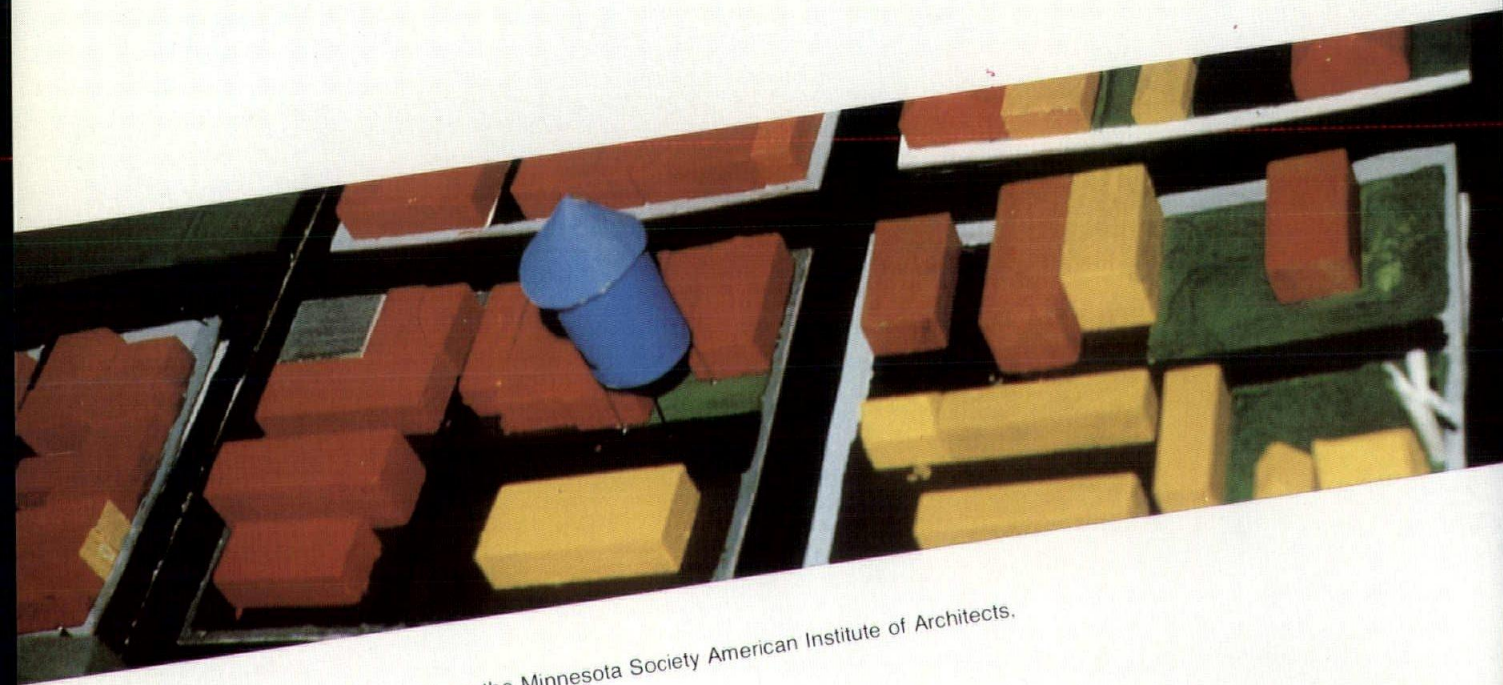
Each year the Minnesota State Arts Board funds a number of projects in architecture. To learn about these projects and their personnel, call Mike Portmann at 612/341-7170.

Cultural Extension, at the University of Minnesota, actively supports studies of this kind. Lois Mann is a good source of information about programs and ideas. You may phone her at 612/376-3855.

Minnesota Environmental Education Board provides a coordination service for educators throughout the state. Call Karen Loechler, director, at 612/296-2368 or contact your local MEEB office.

Center for Urban and Regional Affairs of the University of Minnesota, which has funded our effort as part of Project Rediscovery over the few years, continues to be interested in this work. The Center has a rather complete bibliography and some materials that we have used in the past three years on file in their library. Contact their office of Land Use and Housing Research, 612/376-3684.

Finally, we will be continuing to promote experiences of this kind in one program or another and we welcome questions you have about anything something started in your area. Our addresses are: Bev Anderson, Special Education Teacher, Red Wing Public Schools, Red Wing, Minnesota 55066 (612/388-4882), and W. Garman Hargens, Architect, Close Associates, 3101 East Franklin Avenue, Minneapolis, Minnesota 55406 (612/339-0979).



Copies of this brochure may be obtained from the Minnesota Society American Institute of Architects,
Minneapolis, Minnesota 55403 612/874-8771

Graphic design: Johnson + Johnson, Photography: Robert Friedman, Gar Hargens, Carl Vogt, Edited by: Judith Weir





Pine Point Experimental School

Located on the White Earth Chippewa Reservation in Minnesota, the Pine Point Experimental School was designed by the Minneapolis firm of Hodne/Stageberg Partners in close consultation with members of a small band of the White Chippewa Tribe whom the facility was to serve. Its distinctive form represents an effective blending of the symbolic and the functional. The building's circular concept provides a central area for open school and community needs and

an outer fringe which fulfills specific educational functions. The circle also has symbolic value which is combined with the "White Earth Lodge" in the design of the building. The symbolic animal is the beaver, originator of the earth lodge concept. The main body of the building settles into the earth, while the entry is a beaver on its back playing with the earth. The symbolic sun image punched into the concrete banner.

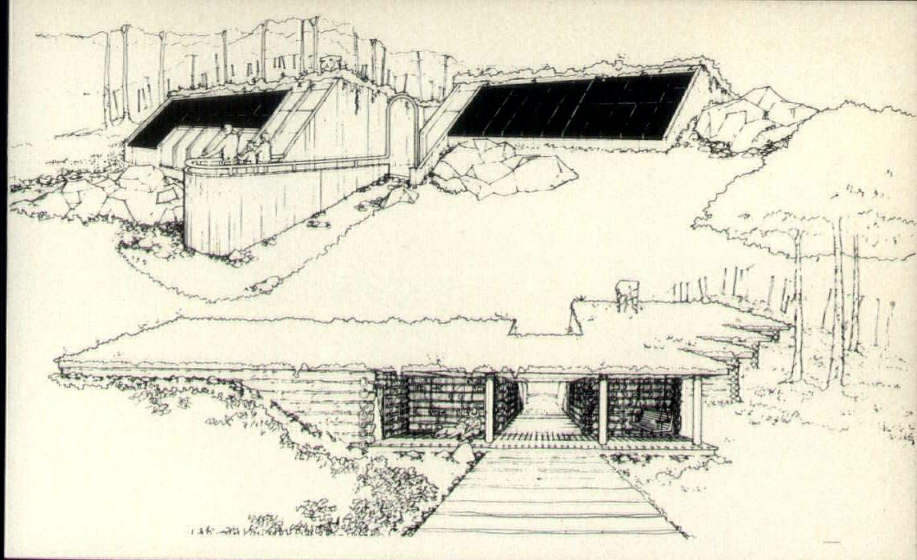
Photography: Mary Strother



The Environmental Learning Center is a site-integrated, energy efficient wilderness school designed by Setter, Leach & Lindstrom, Minneapolis and Edward Schaeffer Associates, Duluth. This non-profit, independent school originated in the late '60s out of a concern for knowledge and preservation of our natural environment. Located near Isabella, on Minnesota's north shore, the facility will be energy-efficient and environmentally sympathetic to its site. Through the design concept, the students will be exposed to new methods of accomplishing traditional goals, energy production and conservation while they are studying nature itself.

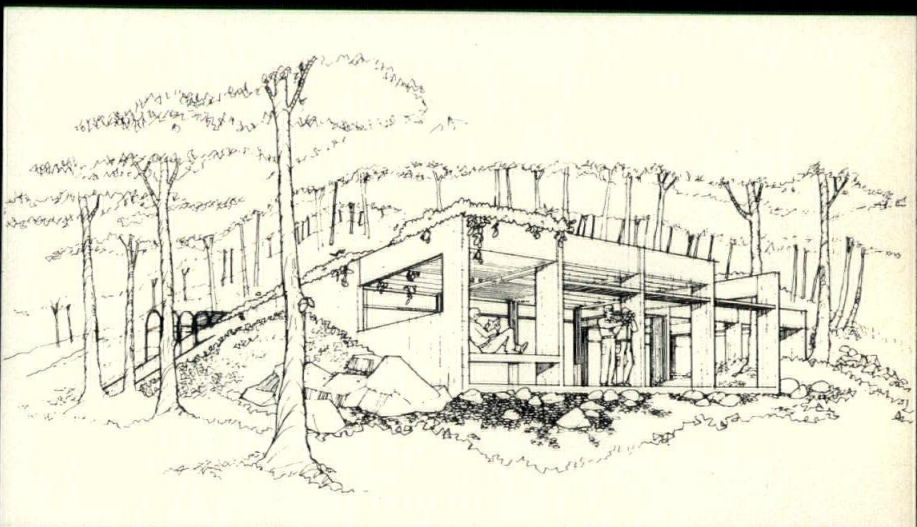
The Gateway

is the Administration Building, which requires a fairly traditional arrangement of offices, conference rooms, and reception area. But its environmental systems include earth-sheltering on both walls and roof, fireplaces and solar panels for space and water heating, operable solar control device, insulating awning drapes and wind-generated electricity.



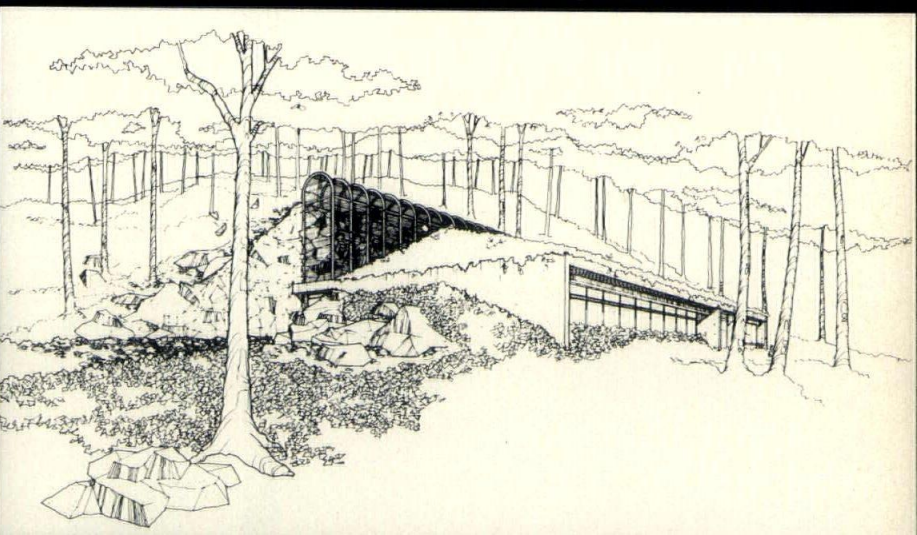
The Schools

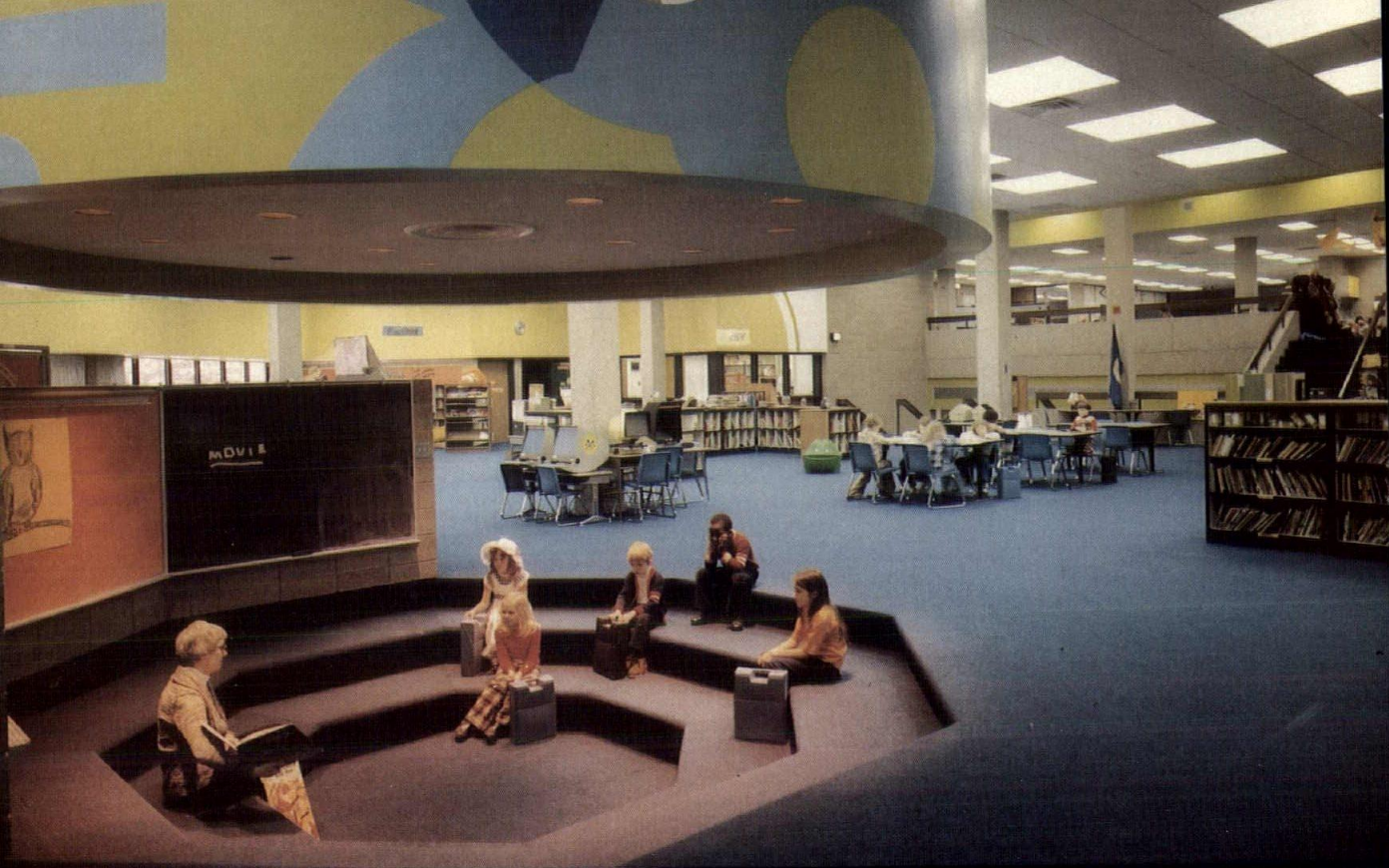
Indoor instructional areas are divided into four separate structures containing four instructional areas. All of the schools are to be similar except that the largest area in each structure differs in function. Two schools are to accommodate storage and dispersal of equipment—tents, snow shoes, skis and so on. One will house a library, and one the staff project room and photography studio.



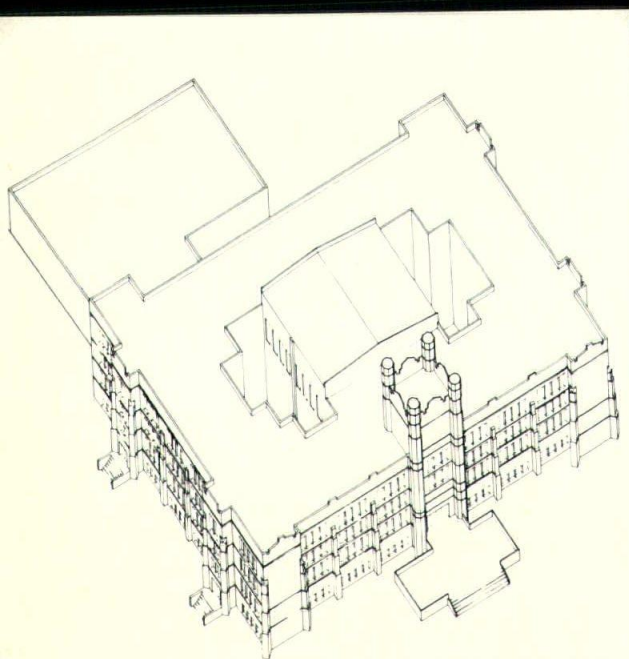
The Lodge

is a Dining Hall which incorporates kitchen and eating facilities with a small store, and an area to teach rock climbing in a safe, controlled environment.



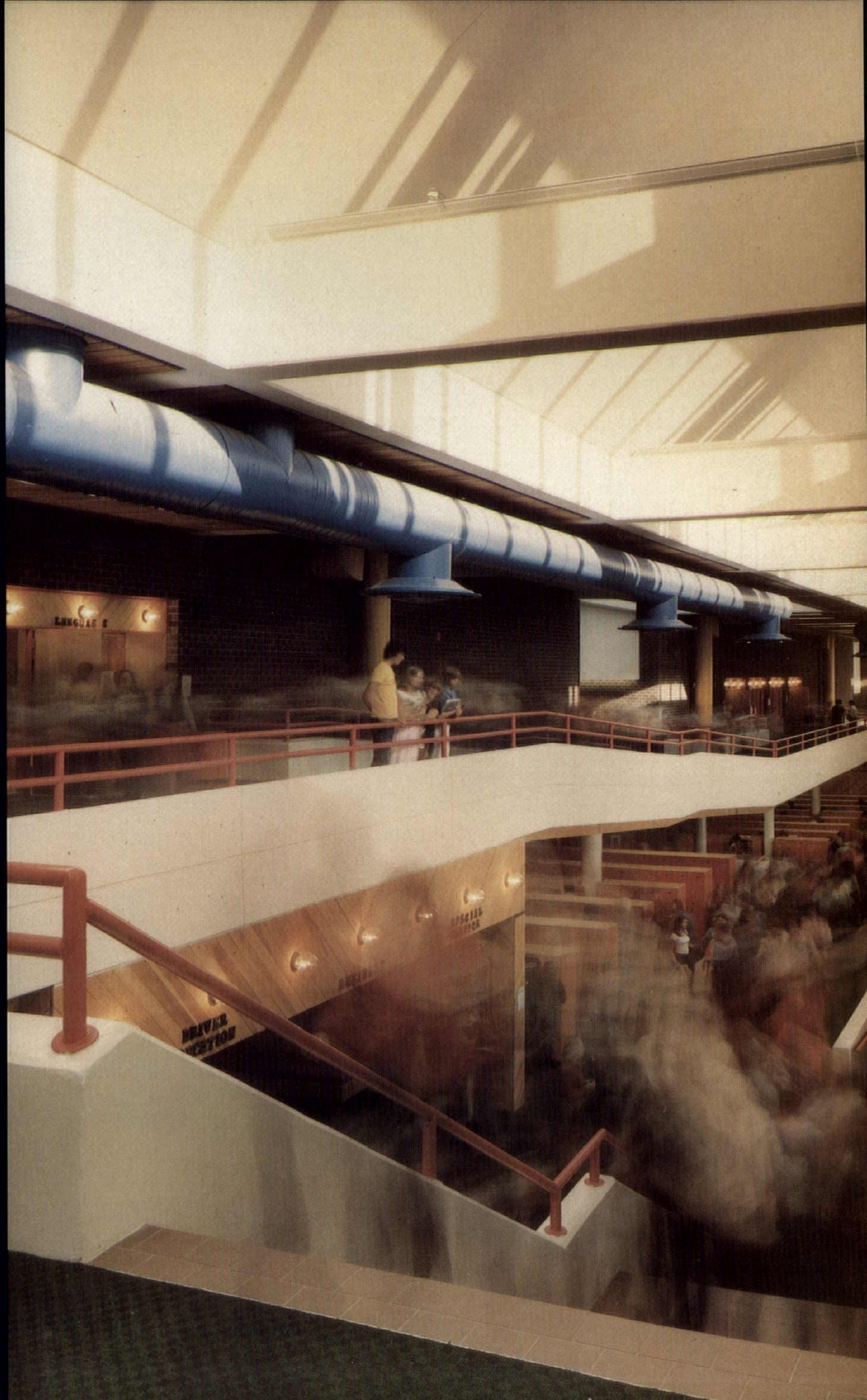


Walker School
 Minneapolis, Minnesota
 Architect: Armstrong, Torseth Skold & Rydeen,
 Minneapolis



Rapid City Senior High School
Rapid City, South Dakota
Architects and Engineers: Bell
Gelyardt and Wells, Rapid
City
Associate Architects and
Engineers: Hammel Green
and Abrahamson, Inc.

Rapid City's new facility is an 1800-student senior high school located in an urban renewal area adjacent to the City's civic center. The design arranges academic areas on two levels around a central spine, called a "social street" by the architects. This connecting spine links common areas—such as the Instructional Materials Center, lounges, cafeterias, and the administration areas. The exterior expression of this spine is a white "backbone" which runs the length of the building. The social street's openness is in contrast to the academic areas; these were stipulated as enclosed spaces.

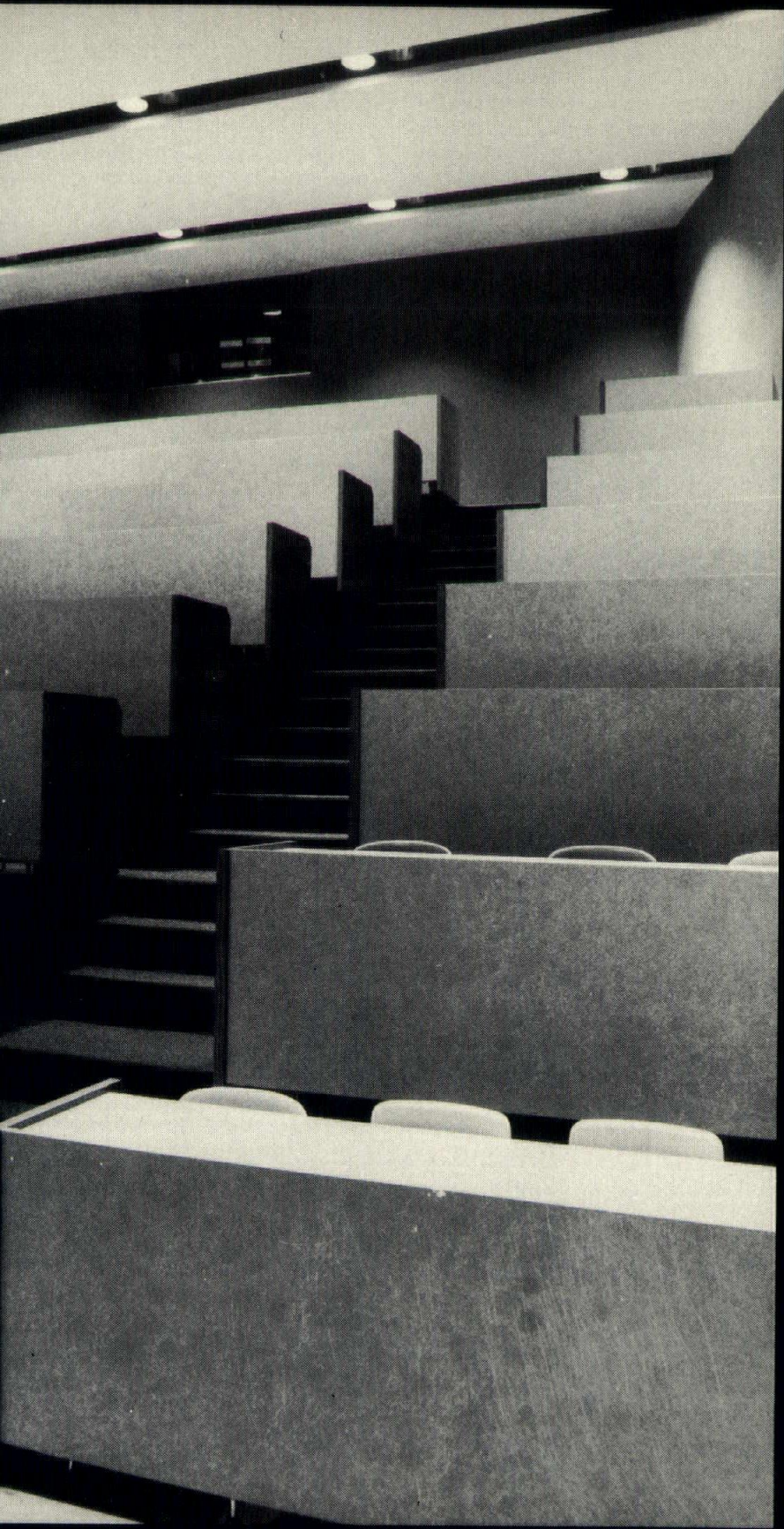




Shakopee Junior High School
Shakopee, Minnesota
Architect: Armstrong, Torseth, Skold & Rydeen,
Minneapolis



Chaska Middle School
Chaska, Minnesota
Architect: Armstrong, Torseth, Skold & Rydeen,
Minneapolis



Minneapolis County Vocational Technical Institute
Two sites—Eden Prairie, Minnesota and Brooklyn Park, Minnesota
Architect: Armstrong, Torseth, Skold & Ryland, Minneapolis

Making the Most of Our Schools: New Uses for Old Spaces

Lee F. Anderson

Declining enrollment over the past few years has brought with it surplus school space—empty classrooms and underused facilities—a marked change over the previous two decades when the problem of overcrowding and inadequate space seemed insurmountable. This dramatic turnabout has left districts with excess space for which they are seeking new uses.

The peaking of enrollments in 1969 and 1970 marked the end of 20 years of continued enrollment growth, and the beginning of a period of slowdown and stabilization. For the first time, the pressures of overcrowding did not worsen. Special programs and services which for years went without adequate space were finally able to find more suitable space.

Initially, surplus space is viewed as long-awaited relief from cramped quarters. However, unused and inefficiently used space is a financial liability. Unused space must still be heated. Energy costs for Saint Paul Public Schools have more than tripled since 1972 and are expected to continue to rise. Underused space must still be cleaned and maintained at costs that continue to rise with inflation.

Recycling school space is simply the reuse of school space when the space is no longer needed, or is inappropriately used in the current or former function. The entire thrust of recycling surplus school space can be the improvement

of the quality of education by making better use of space resources and the betterment of the neighborhood and community as a whole.

The options and possibilities for recycling surplus school space are substantial. The first and simplest solution occurs entirely within the individual school building and the same educational program. An unneeded classroom can be reassigned to the building administrator for another use which has priority within his building. In Saint Paul, the principals are also the building managers. In this role, they are continually sorting out their internal space needs and recycling individual spaces to suit those needs. This process may afford older schools the opportunity to establish a school library, an art resource room, a faculty workroom, a permanent special education classroom, or maybe a community education office and classroom. This decentralized approach to space management is satisfactory as long as the amount of surplus space is not large and the school has genuine unmet educational space needs.

As enrollment continues to decline and the amount of surplus space becomes significantly larger than the unmet needs of the school, there is a tendency for the building occupants to spread out and utilize—however inefficiently or inappropriately—all the space in the building. The district may be unable to

Converting Schools For Private Use — Another Option

Carl Remick

Conventional wisdom would have it that the highest and best use to which a surplus school might be put should clearly fall within the public realm. Another popular belief is that the closing of schools today is an educational problem, when in fact it is a real estate challenge.

Clearly, first choice and first consideration as to the adaptive reuse of a surplus school should go to public agencies, as the property is most often publicly owned. Given limited public uses, consideration must also be paid to the private sector. School Boards should require the advice of real estate experts as part of their deliberations as to which of our schools should be closed. Some schools obviously have better prospects for re-use owing to location, physical plant condition or both.

The boarding-up of closed schools is the worst alternative possible. Better the facil-

ity should be razed than this should happen. Yet condemning an institution to the bulldozer is bound to bring a psychological scar to any viable neighborhood. Good public relations demand good adaptive re-use so long as the structure is sound. The building, after all, represents a prior public investment of energy, materials and good intentions.

Consider the fact that the school site is often generous. All utilities are in place and often the site is located on public transit lines. The school is very often a focal point for the neighborhood. Adaptive re-use outside the public domain in no way diminishes these assets but may well capitalize on them.

Soon-to-be-closed schools should offer a challenge to architects, developers, real estate people and the public at large. Public acceptability of a truly creative adaptive

afford such luxurious use of space. The distribution of enrollment decline across the city may adversely effect equal educational opportunity unless the district applies some uniform criteria to the allocation of space to satisfy the objective of the district's educational philosophy. Some common measure of space needs and allocation is necessary to balance inequities between schools.

When surplus school space within a single facility becomes more significant, the school becomes a candidate for a second level of space recycling—the relocation of a regional or districtwide program into the school. Saint Paul Schools are fortunate to possess an extensive array of special programs and educational alternatives to better respond to individual student's needs and desires. The hands-on, activity-oriented learning centers are good examples of districtwide programs that are found in various district facilities. The Benjamin E. Mays Learning Center was established at Jefferson Elementary School after another program relocated and declining enrollment generated sufficient surplus space. This fall an early education program for preschool children and their parents is being moved to Hill and Maxfield Primary Schools from Mattocks School, which is being closed as an elementary facility.

The costs of ignoring the inefficiently-used space resources of school

districts cannot be directly derived from accounting records. That cost is a part of each school's total facility expenditure and needs to be factored out proportionately for each building. It may be viewed as an overhead cost or a non-productive expenditure. If, for example, two of 20 classrooms were vacant in a building, ten percent of the total building maintenance and operation costs can be considered unproductive expenditure. If we were to assume that ten percent of the space in Saint Paul's 72 facilities was surplus, the aggregate nonproductive overhead cost for the district would have been over \$300,000 last year, based on last year's energy budget of \$3,160,000. The less dramatic costs for operations, maintenance and related building services are not included in the above costs and may be added to reach a more accurate accounting of the cost of allowing poorly-used space to remain badly managed. Money spent for unused space can be rechanneled into other, more productive educational expenses.

Surplus school space doesn't appear in one building in a neat, extractable package. After the initial task of identifying where the space is located, it is necessary to aggregate the surplus space at one or more locations to remove it from the system. This involves a community planning process to evaluate which facilities should remain open and which should close. Relocat-

ing educational programs, transporting students, adjusting and redefining attendance areas and getting used to new or changed environments are all a part of the painful readjustment process.

The disposal of surplus space is not of primary concern. Good space management is the efficient and appropriate use of space resources. Surplus space is a potential resource; when it is viewed from that perspective, disposal of the property, expanding or modifying the existing use and the introduction of a completely different use, are each equally appropriate responses for recycling surplus school space.

The next level of recycling surplus space is the reassignment of an entire building for a different educational function. This recently has occurred at several Saint Paul school facilities. Linwood Park Elementary School, closed this past spring, will reopen this fall as the Saint Paul Open School, a K-12 alternative program. As part of the continuing secondary reorganization plan, Murray Junior-Senior High School, Como Park Junior High School and Washington Senior High School will be reopened this fall as junior, senior and junior high schools, respectively. Several years ago, Marshall Junior High School, closed as a part of the district's desegregation plan, reopened as an expanded Webster magnet school planned as a tool for integration of an attendance area with a

re-use of the neighborhood school should be much higher if the building and site continue to contribute to neighborhood vitality rather than becoming an empty, nagging reminder of what some would interpret to be a failure of the American dream.

Finally, in our 200 year existence as a nation, we have come to find value in our older buildings. We no longer have a kleenex mentality. The public now consciously seeks reminders of the collective past and is developing a degree of reverence for it.

One option is to allow the unused school to become the focal point for a housing development or office complex. Playing fields provide space for possible additions of complementary or contrasting new construction. The older building contains 'special' spaces such as dining rooms, lounges, board rooms, recreational facilities, execu-

tive offices, and so on. The older building can form a nucleus for a project by virtue of its being different (an element too often lacking today). And what is more, that same element of difference has importance as a reminder of and tie to the past.

Taken alone, the converted schoolhouse offers considerable potential for conversion to in-city housing. A single, traditionally-sized classroom is the size of many market-rate or Section 8 rental units today. Too often the retired or elderly are forced out of their neighborhoods when they are no longer economically or physically able to maintain the family home. What better use of the neighborhood school than to house neighborhood members?

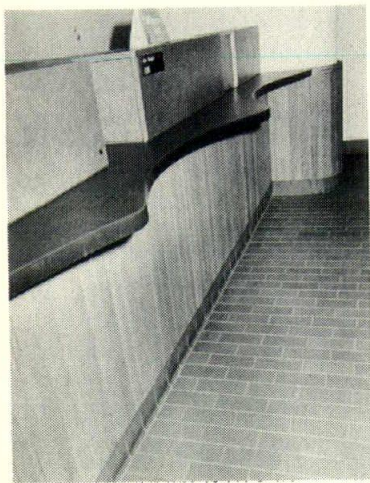
Even if we should experience another population boom, there is no good reason to hold onto all of our schools. Teaching

methods will continue to change as will demographic and sociological considerations. What is called for today is a creative approach to reusing these buildings. Clearly, the private sector's interest must be engaged.

School Boards must recognize the fact that they are in the real-estate business and should remember that often the buildings they operate are far more flexible than the people who run them and have far more potential than any of us have realized. ■

Carl Remick, AIA, is a member of Architectural Alliance in Minneapolis and has been involved for the past three years in the Consolidation Program and Plans for the Valley and Highland Campuses at Mankato State University.

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higher than-average minority student concentration.

Saint Paul Schools have many examples where school facilities judged to be sufficiently sound for continued educational use have been recycled (renovated and expanded with additions) for the same function, but with vastly improved facilities. Central Senior High School is an example of such a recycling project now in process.

A recycling strategy which has proven successful in numerous school districts across the country is the development of a cooperative-use facility where two or more public and quasi-public agencies combine resources to satisfy community needs. Where the cooperation of separate agencies and organizations has been secured, such a joining of forces can substantially reduce the cost of providing services at the same time the services are being provided through decentralization. The Saint Paul Public Schools and the Division of Parks and Recreation have shared numerous successful joint development projects. Joint development of building and site projects include recreation centers being built at Homecroft and Groveland Park Elementary Schools, site expansion and playground development at Webster Magnet School. In addition, the School District has made land available at Cherokee Heights Elementary and Washington Junior High Schools for building additions to house Saint Paul multi-service centers.

Not all surplus school space, however, can be recycled for continued educational use. The enrollment decline has created surplus space far in excess of previous facility and space deficiencies. Because enrollment is expected to continue to decline by almost an additional 10,000 students before stabilizing, the relinquishment of additional unneeded school space will be necessary as facility costs continue to rise, as the need for space diminishes even more significantly, and as revenue to pay the costs of education decreases.

Disposal of surplus school space as a recycling option is likely to offer the greatest cost savings while generating some revenue for the real estate fund. It is the most drastic and permanent option. The desirability of retaining a facility for future possible need must be considered at this time.

Saint Paul Public Schools, the City of Saint Paul and Ramsey County have a cooperative policy concerning the disposal of surplus property. This policy has been developed to permit more efficient use of all publicly held property resources. The district has disposed of numerous sites and buildings under this policy by transfer to the city for continued public use or private development.

Procedures used by the Board of Education for disposition of recycling of facilities must include an effective and useful community process. Schools are public and community resources. Their existence and operation affect large numbers of people. Listening and responding to these peoples' concerns may prove to be important in getting community political consensus that is supportive of the district's visions. From the diverse opinions and information available only from affected individuals, the School Board, which retains the final responsibility and authority for those types of decisions, will be best able to reach a solution satisfactory to all.

The school administration in its recommendations and the Board of Education in its decisions should be able to demonstrate that the choices made concerning the recycling of a school facility will benefit or improve the quality of education in the district or for the children attending that particular school.

The facts of declining enrollment are upon us. Thoughtful, long-term decisions need to be made about the future of our schools. There are many potential options for the recycling of surplus school space available for consideration and selection. School Boards need the most complete and accurate information available to make the hard decisions that confront them. Much of the essential information and some of the solutions will come directly from people affected by the discussions at hand. District officials need to keep their goal to improve the quality of education foremost in their minds. The recycling of surplus school space represents an opportunity to improve education in our towns and cities. We must make of it what we can. ■

Lee F. Anderson, AIA, is the acting planning supervisor, Office of School Plan and Planning and Maintenance, for Saint Paul Public Schools.

Training the Architect: Three Different Paths for the Non-Professional

Lawrence Seiberlich

There are three basic types of curricula available to the aspiring architect: I. Architectural drafting programs, II. Architectural technicians programs, and III. Pre-professional programs.

It is very important for both the architectural employer and the prospective student to be aware of these educational opportunities. The employer can use this information to assess the cur-

riculum basis and course types, and to some degree, the quality of instruction of its prospective employees.

Typically, the general public and even counselors at the high school level have very little knowledge of the architect's role in our society, let alone his educational processes. The following is a synopsis of the goals and content of the non-professional architectural programs in the state.

Architectural Drafting

There are many architectural drafting programs in the state, some of which are privately operated and others which are offered in area vocational technical institutes.

Goals: The major emphasis of these programs is to develop specific drawing skills, particularly drafting of construction documents. Complementing these skills is a working knowledge of building systems and materials. Many programs also include estimating and other support courses.

Programs and Schools: There are 12 architectural drafting programs in Area Vocational-Technical Institutes, of which five are in the metropolitan area. For information on any or all programs, contact Vo-Ed information at 296-6481. A number of private institutions are also located in the metropolitan area.

The faculties vary dramatically in education, experience and skills, as do the

program formats. Thus, the students graduating from the programs possess differing levels of skills, depending on the particular curriculum and the faculty. Several institutions employ architects on the faculty, but this isn't standard policy.

The AVTI Schools have two-year programs offering vocational certificates upon completion. The private schools also offer vocational certificates.

Architectural Technician

This type of program was developed in the mid-1960s by the American Institute of Architects to train a para-professional to function alongside a professional in all areas of the profession.

Goals: The goal is to prepare the student to function as a para-professional counterpart of the architect and to be sensitive to the total process of architecture. This technician is not considered a 'stand-in' for the professional, but a knowledgeable generalist.

Programs and Schools: There are two architectural technology programs in the state, both located in the metro area. They are North Hennepin Community College and the Dakota County Area Vocational Technical Institute. Both facilities are made up entirely of registered architects who practice in metro area firms.

The MSAIA developed the program at North Hennepin Community College. This program adheres to the guidelines of the AIA architectural technology task force report.

The curriculum of a generalist's program is obviously general in nature. It involves drafting, drawing and design as its core lab courses, with support courses such as architectural history, structural systems, building systems, etc. NHCC offers an Associate Degree which requires the student to also take the typical general college courses. The Dakota County AVTI offers a vocational certificate. Both are two year programs.

Pre-Architecture

Goals: These programs should provide courses which satisfy some of the general college lower division requirements and also include overview courses on architectural subjects. It is also important that some actual on-the-board drawing and design be part of the experience. The pre-professional process should not only be a filtering mechanism but it should also be a process by which students may identify their abilities and interest in the design/drawing area of architecture.

Programs and Schools: The University of Minnesota campuses at Bemidji and Morris offer pre-architecture programs transferable to the University of Minnesota School of Architecture. The University of Minnesota at Moorhead offers a three-year pre-architecture program transferable to North Dakota State. These programs are basically the liberal arts portion of the pre-architecture program and contain no architecturally-oriented courses.

The North Hennepin Community College pre-architecture program is essentially the first year of the architectural technology program with a second year consisting of general courses. The program transfers to the four collegiate schools of architecture in this area. The curriculum includes architectural history, building systems, architectural design and architectural drawing as well as Calculus, Physics, English, Art and so on. All NHCC faculty are registered architects. ■

Built Environment Education Resources

City Building Educational Program Manual For The City Building Educational Program: Architectural Consultant Edition by Doreen G. Nelson. The Center for City Building Educational Programs, 1975, 111 pages, illustrations, diagrams (\$8.95)

The City Building Educational Program introduces an exciting alternative to the traditional elementary education curriculum. The program is a series of activities designed to "... stimulate areas of creative thinking (e.g. fantasy) which are beyond the scope of traditional education, to encourage future thinking, and to develop sensory awareness and receptiveness in children." The activities are designed to provide a total educational curriculum involving the full school day.

The manual is divided into six sections. The introduction provides a brief description of the City Building Educational Program leading into a description of the process involved. Section Three provides a flow chart indicating the four phases of activities. The activities section, which is divided into the four phases, describes each activity in detail following a specific format. Also, at the end of each phase a list of support activities is provided, such as field trips, reading activities, and related activities in math, science, geography, etc. A section on teacher orientation is included.

The section on teacher orientation describes the orientation program designed to allow the teachers to experience the process of the City Building Educational Program before attempting to implement it into their educational system.

The section entitled "New Directions" describes briefly the history of the City Building Educational Program and puts forth an alternative method of using the program.

Implemented and followed through properly, this program could instill an awareness in the children participating that would influence their entire lives.

Teaching Environmental Awareness, A How-To-Do-It Guide for Architects, Planners, and Design People; A Sourcebook of Programs and Ideas for Teachers and Students, by Richard E. Polton, 1974, 74 pages

The book is presented as a guide book of the results of the author's high school teaching experience during 1973. It contains notes to both design and non-design professionals on how to work out the bureaucratic details of teaching this course. In addition, a section on the methodology of teaching is included for self evaluation, a useful tool for those whose background and training is not in teaching.

A series of activities constitutes the core program, which is the subject of this book.

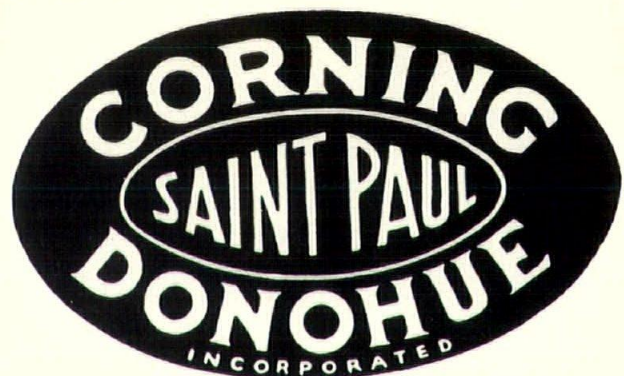
The core program is presented as a beginning for a built environment educational program and will need additional input for a total program. It should be noted that this program is aimed at junior and senior high school level and would constitute one class

period such as two 50-minute sessions per week. A bibliography is included with additional research materials which may be required to obtain a full understanding of this program.

People In Places; Experiencing, Using, and Changing the Built Environment, by Jay Farlostein and Min Kantrowitz. Prentice-Hall, 1978, 182 pages, illustrations, (\$9.95)

Forty-two projects presented are designed to heighten your awareness of the places around you, the places where you live, work, play, shop, travel, etc.; in one word ... your environment. The projects range from simply taking a walk around the neighborhood to sketching, photographing, or writing poetry about a certain place.

The authors encourage that the new-found awareness be utilized to reorder your surroundings so they become more congenial environments.



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City Planning, The Games of Human Settlement, by Forest Wilson. Van Nostrand Reinhold, 1975, 96 pages, illustrations, diagrams, (\$8.95)

This book presents a series of games designed to illustrate the wide variety of factors that influence the life span of a primitive settlement or a modern city. The games are designed around a defined culture within various time periods from primitive man to medieval kingdoms to farming communities to modern cities.

Each game is arranged around a playing board with playing pieces and a set of rules or guidelines. The playing board and pieces are constructed with simple materials. The games are designed to be played by any number of players including an entire class.

As an introduction to each game, a brief narrative is given to familiarize the players with the history of the period in which the game is set.

School Zone: Learning Environments For Children, by Anne P. Taylor/George Vlastos. Van Nostrand Reinhold Company, 1975, 144 pages, illustrations, drawings, (\$7.95)

Beginning with the premise that the learning environment is as important as the curriculum, this book offers suggestions for the creation of stimulating indoor and outdoor teaching/learning space. Information is given on how to assess present space utilization and how to use the resulting information in designing more creative learning environments. In addition, plans are included for new educational furniture and equipment.

Built Environment, Environmental Education Teaching Tools, by AIA Environmental Education Committee, The American Institute of Architects, 40 pages

This is a resource book for teaching materials relating to the built environment. The catalog does not claim to be original or complete but rather an introduction to the many varied materials available. Listed with a brief description are: student reading resources, lesson planning resources, games and classroom kits, films and filmstrips.



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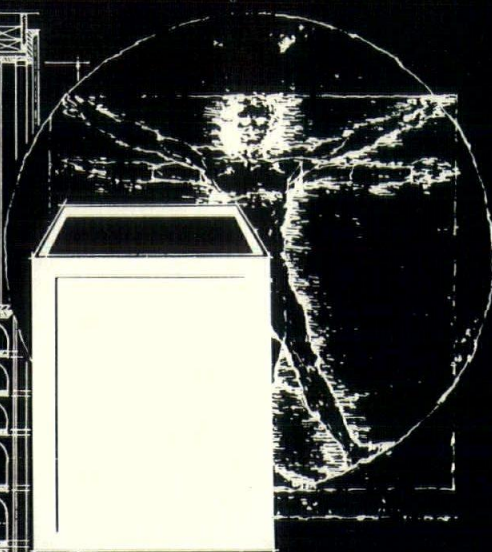
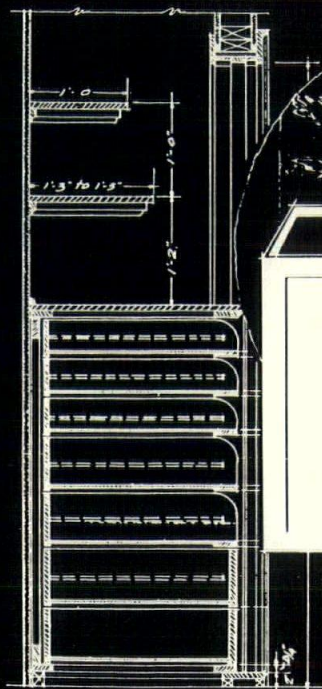
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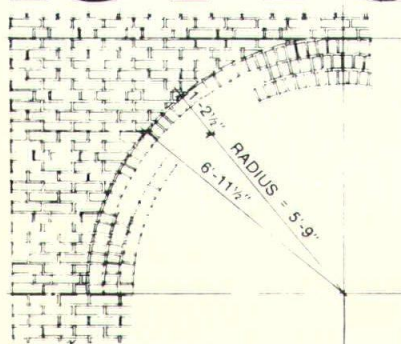
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Tilly's Catch-A-Sunbeam Coloring Book, by Tilly Spetgang, illustrated by Malcolm Wells, Solar Service Corporation, 1975, 29 pages, illustrated, (\$1.50)

Aimed at children "from 4 to 14," the coloring book explains in a simplified and humorous manner what the sun and solar energy are. Yet, while directed toward children, the book also provides information and entertainment for the parents.

In "a message to grown-ups," the editors state that this is the first in a series of ecology coloring books.

A House Is a House For Me, by Mary Ann Hoberman, illustrated by Bette Fraser, The Viking Press, 1978, 46 pages, illustrated, (\$5.95)

A House Is A House For Me expands the concept of the built environment to include not only buildings, but also other man-made objects which "house" things such as food, clothing, toothpaste, etc., and to carry this concept further, the book also considers the "built environment" of the animals and plants.

This is a delightful book for children that looks at the concept of built environment in more general terms. ■

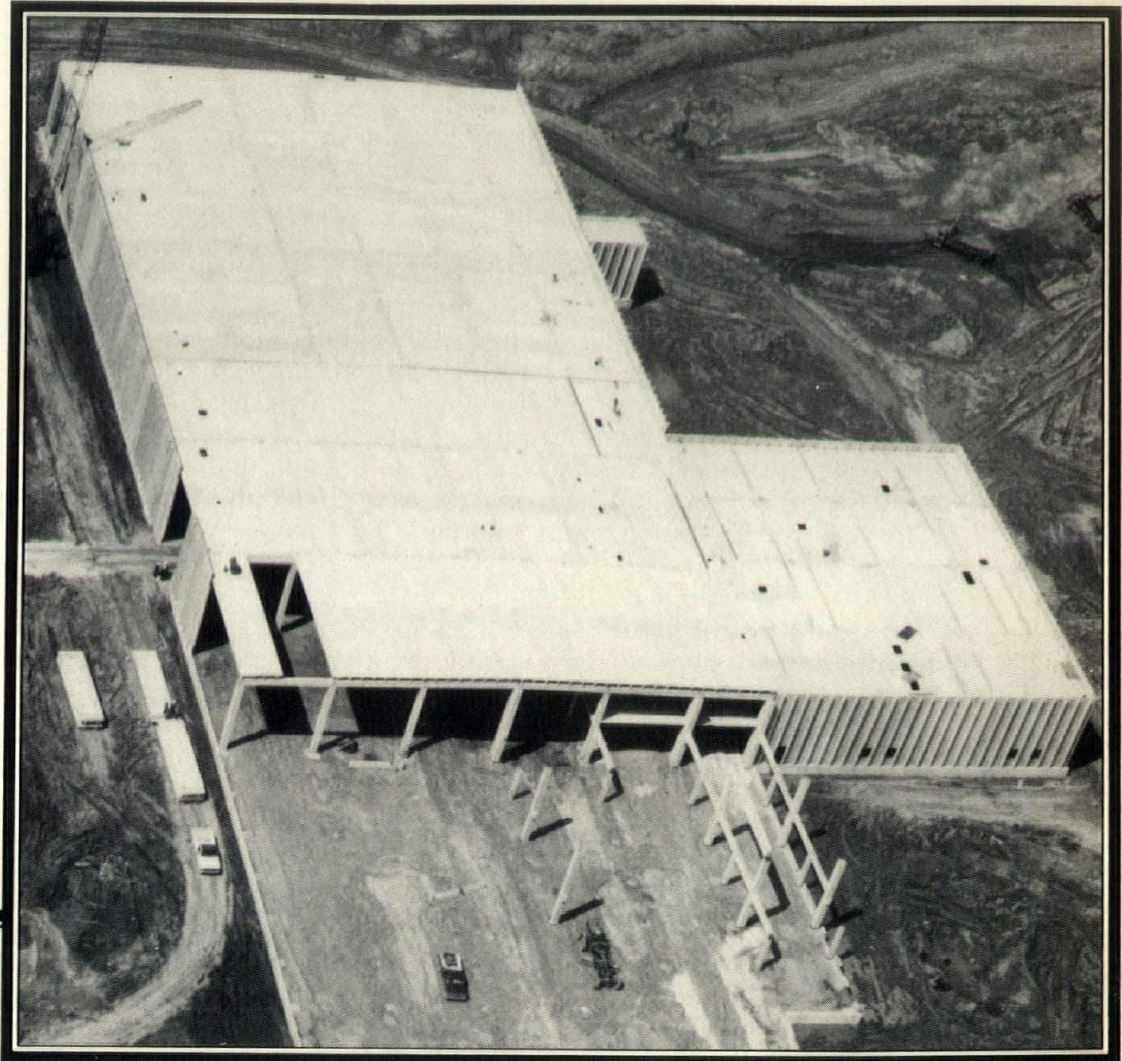
Gregory T. Oltvedt, Horty Elving & Associates, is a member of the MSAIA Public Education Committee

These books are available at The Architectural Center, 402 NW Skyway Building, St. Paul, MN 55101, 612-227-0761.

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CICC Retainage Recommendations*

4.6.1

General and Supplementary Conditions

October 1, 1978

RETAINED PERCENTAGE

The use of retainage against progress payments has traditionally been recognized by all segments of the construction industry as a primary method of protecting the ability of the Owner to complete his project. Although some segments of the industry nation wide are suggesting zero (0) retainage, CICC of Minnesota recommends continued use of retainage; however, at a lower but uniform percentage rate throughout the project rather than a high starting rate and a reduced or zero (0) retainage rate as completion nears. It is recommended that the Article 9 of the AIA General Conditions be modified by adding the following supplementary condition:

Refer to Subparagraph 9.5.1 Add:

There shall be retained 5% from each progress payment until the work is substantially complete, at which time the Architect may recommend release of retained sums in accordance with paragraph 9.8, or final payment in full in accordance with paragraph 9.9.

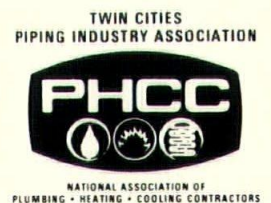
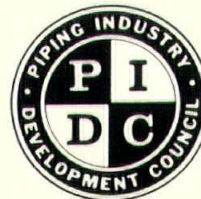
It should be recognized that the retained percentages represents money that has actually been earned by the Contractor and the withholding results in a hardship for he is deprived of the use of funds. To alleviate this hardship, yet provide the protection the retention offers the Owner, it is recommended that the following paragraph be added:

Refer to Subparagraph 9.5.1 Add:

Prior to the start of construction the Owner and Contractor shall select an escrow agent to receive the retained percentage and enter into an escrow agreement. When each progress payment becomes due, the Owner shall issue two (2) checks. One, in the amount due the Contractor, shall be issued to the order of the Contractor. The other, in the amount of the retention, shall be issued to the order of the escrow agent. The interest and principle shall accrue to the Contractor. In accordance with the provisions of the contract the escrow account shall be released to the Contractor under the provisions of Article 9.7.

When the escrow provisions for retainage apply to a contract, it is recommended that sub-contract agreements provide for a distribution of accrued interest to all major subcontractors and suppliers according to their interests.

* Reprinted from the Construction Industry
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Art for Public Places

Annette DiMeo Carlozzi

The usual purpose in commissioning or acquiring a work of art for a public place is either to provide an aesthetic counterpoint to a structure or space or to signify the commercial or institutional philosophy of a sponsor. But inevitably, when installed for public viewing, the sculpture or wall painting will serve another, more controversial function. As the result of a process of symbolization that has occurred in American culture for 200 years, that publicly sited work of art, regardless of its subject matter, will state to any thoughtful passerby: "Culture", "Refinement", "A Better Life". Art in a public setting not only helps create a sense of *place*, and adds a kind of voluptuousness to the landscape, but, most importantly, it expresses the vitality and reflects the aspirations of a society.

The philosophical connection between public art and cultural achievement was established centuries ago, yet in the U.S., where there has been no continuous tradition of the acceptance of public art, its meaning and focus have changed from generation to generation. Whereas the creators of the public statuary and allegorical murals of the 19th and early 20th centuries—from the Revolution through the De-

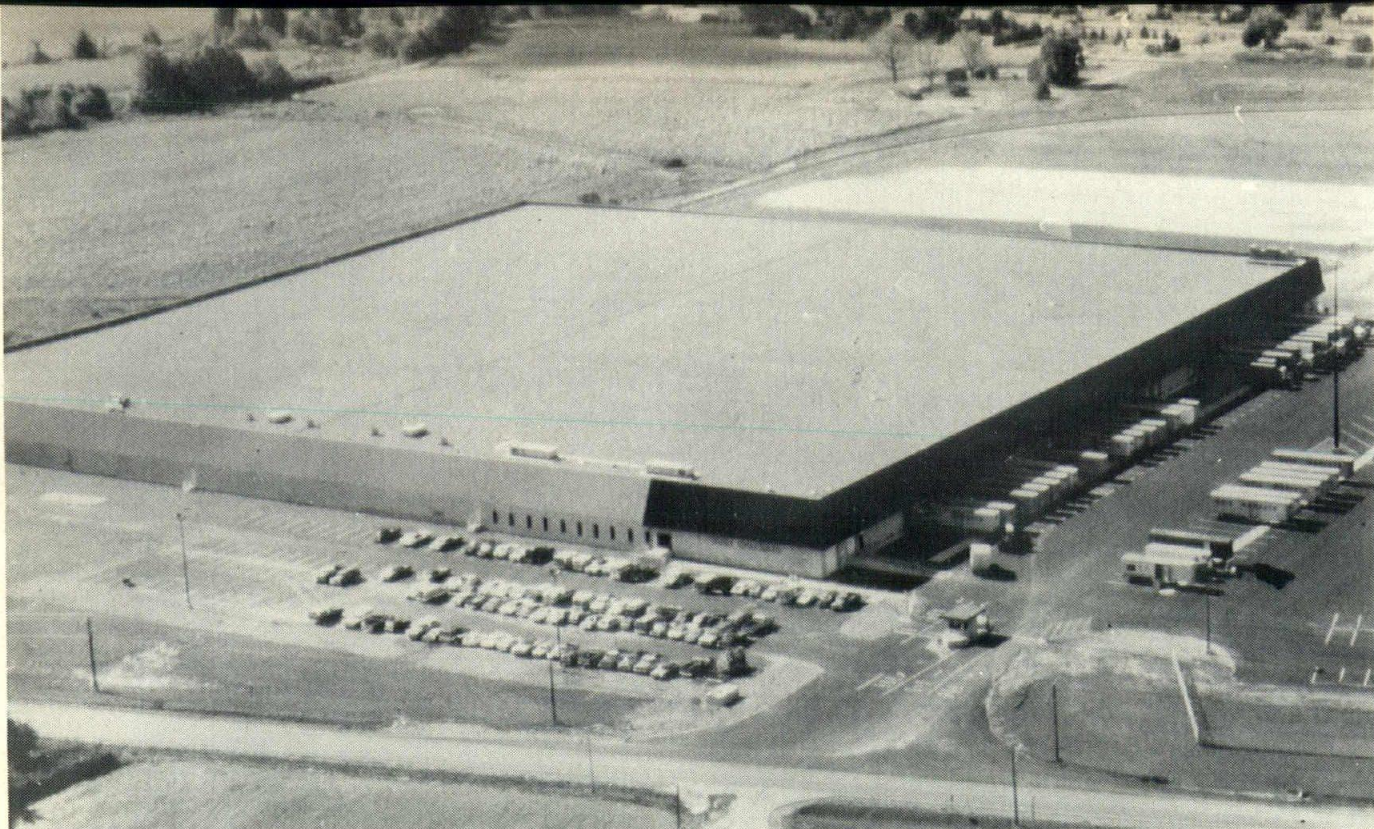
pression years—sought to inspire the viewer with moral and spiritual values and the stories of those who upheld them, contemporary public art derives its meaning less from subject matter than from its situation of acquisition and display. Whether commissioned/acquired by corporations building art collections for financial investment or demonstrating concern for the "quality of life" in their communities, architects seeking to humanize and embellish the modernist environments they have designed, or nonprofit institutions utilizing federal, state and municipal funds specially earmarked to keep artists working, contemporary public art no longer celebrates spiritual values as effectively as it champions a vision of American resourcefulness and the sociologically sensitive viewpoints and intentions of its sponsors. Good public art will encourage the passerby to see a site in a more stimulating way and think about architecture in new terms. It might provide a focal point for activity, or simply give pleasure to the eye. It has also come to symbolize a cultural statement about progress, prosperity and public awareness.

Here in Minnesota, public art has usually been received with a great deal of enthusiasm, affection and civic pride,

This page: *Minnesota Highway Project*, Andrew Leicester

Page 70: *St. Paul Sculptural Complex*, George Sugarman

Photography on page 70: *Stu West*



Aerial view of the Carlisle roof on the new Milton, Pennsylvania Distribution Center built by Weis Markets, Inc.

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especially if the work is representational. (Note: Abstract art has had a much harder time: witness the Ron Bladen controversy at Hennepin County Government Center in the early '70s, the earlier vandalism of several works in the *9 Artists/9 Spaces* exhibition in Minneapolis/Saint Paul in 1969, followed by the destruction of Otto Piene's floating helium balloons over the Mississippi in 1976.) Commissions for public art have historically coincided with three periods of peak architectural activity in the region. The building boom of the 1880s, coupled with a new interest in the fine arts fostered by the 1893 Chicago World's Fair and the City Beautiful movement of the early 1900s, produced several commissions and acquisitions for public works of art that are still regarded fondly in Minnesota: Jacob Fjelde's *Hiawatha and Minnehaha* (c. 1893) at Minnehaha Falls Park, paid for by the pennies of schoolchildren, and *Ole Bull* (1896), always a source of community controversy, but still located at its original site in Loring Park, Minneapolis; Larkin Goldsmith Mead's *Father of the Waters* (c. 1906), installed in the lobby of the Minneapolis Municipal Building but originally intended for an outdoor site in the Gateway district;

and Daniel Chester French's *Progress of the State* ensemble (c. 1905-6) at the Minnesota State Capitol in Saint Paul.

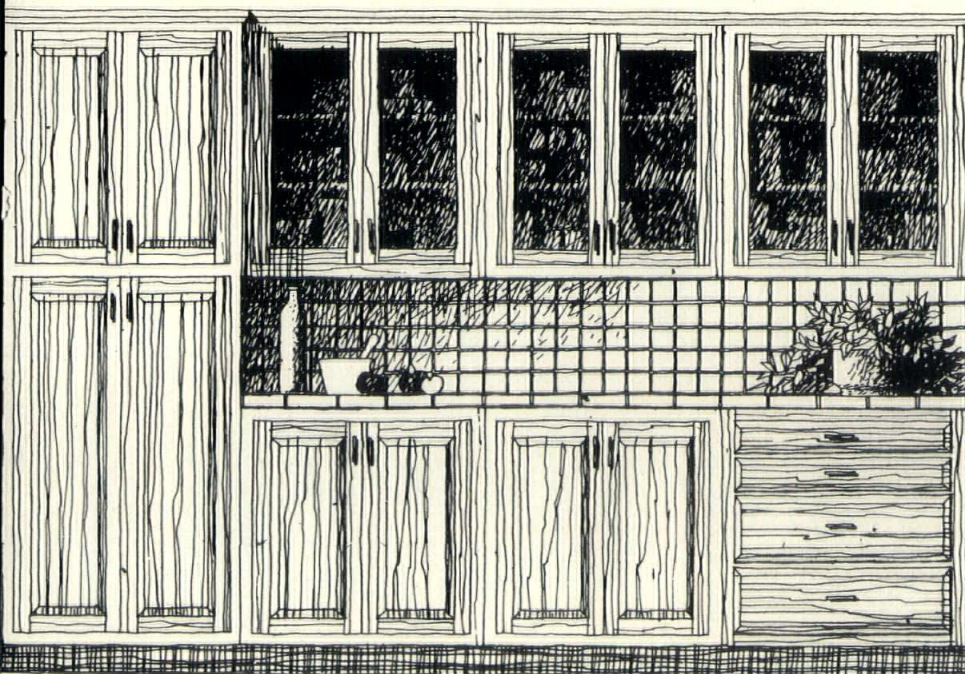
At this early stage, public art meant sophistication and was regarded as one measure of how far the frontier had been left behind. A second burst of interest came during the Depression years, when the federal art projects spread the craftspeople working for federal and state relief dollars produced many fine murals and stone carvings for the public buildings of Rochester, Willmar, International Falls and other communities across Minnesota. Also commissioned during this period were Carl Milles' *God of Peace* (1932-3) in the Saint Paul City Hall and Courthouse, and Carlo Brioschi's Floyd B. Olson memorial statute (1940) located on the Olson Memorial Highway. (A similar version on the State Capitol grounds was cast several years later by the Brioschi firm.) During the '30s & '40s public art was *commissioned* to keep people working, rather than *acquired* for reasons of status.

Despite calls for more publicly sited works of art by the Minnesota Historical Society and the Minneapolis Tribune (specifically statues, if the conservative truth must be told), and

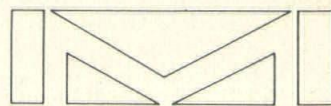
occasional entertainment features in the Minneapolis newspapers of the '50s called "Statues Around Town" quizzes, it was not until the urban renewal projects of the mid-'60s that private corporations, government agencies, and local merchant and civic groups began commissioning and acquiring public works of art on a widespread basis around the state. For the past ten years, the construction of a new building, whether cultural center, shopping mall, hospital or office complex, has usually signaled the appearance of a new public work of art. The following is a selected list describing a range of the most interesting public art projects undertaken in Minnesota:

1. Roger Allen Nelson's Rainbow Gallery mural, painted on the east wall of the café at 1500 S. 6th St. in Minneapolis, in September 1978 was funded by City Arts Productions and depicts a Hopper-esque jazz session inside the café. The image not only explains the function of the building supporting it with a simple, unsentimental composition, but also supplies an illusionistic rendering of the city skyline as seen from that location through an imaginary window.

2. Steve Beyer's 1977 welded metal sculpture *PH* has been recently ac-



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quired by General Mills, and is sited on the north side of their Golden Valley headquarters in a small apple orchard. Visible from the employee cafeteria and just a short walk from the duck pond, the handsome sculpture represents the best outdoor acquisition and siting decision made by the firm in several years. The contrast between industrial materials and flowering trees merely enhances the rigor of Beyer's work.

3. While the "political statement" school of mural painting, popular across the country in the late '60s and early '70s, seems to have left few messages in Minnesota, one of the earliest wall paintings in the area still provides visual and intellectual interest on an otherwise undistinguished street corner. Jill Sprangers' 1972 Schmitt Music Center mural in downtown Minneapolis is a clever example of a commercial image that advertises a business without touting a product.

4. Peter Busa's mural for the Valpar Paint Co. in Minneapolis can be seen to best advantage while driving off the I-94 5th St. exit ramp into the downtown district. Painted in 1973, it is still the strongest abstract composition in the state, and is an ideal adapta-

tion of the painter's smaller-scaled works on canvas.

5. George Sugarman's *St. Paul Sculptural Complex*, a 1971 painted aluminum suspended sculpture for the exterior lobby of the First National Bank of Saint Paul, is the area's earliest example of a contemporary work designed by the sculptor, but executed at a fabricating firm, in this case, Lippincott, Inc. Visible from both interior and exterior, second story skyway and ground floor, the monumental sculpture serves as a focal point for the downtown area. Playful and dynamic, the brightly colored abstract forms spill through their architectural enclosure, forming one of the most innovative public sculptures in the country.

6. John K. Daniels' *Pioneer Monument* of 1936 was commissioned for the anniversary birthday of Charles Loring, founder of the Minneapolis park system, as a memorial to Minnesota's early settlers. Originally located in Pioneer Square opposite the Minneapolis Post Office, the sculpture created a huge debate in 1965 when it was deemed necessary to relocate it due to construction. Currently located on a pitifully small plot at Main and Marshall NE, the sculpture is the finest

work by this prolific Minnesota sculptor, recently deceased.

7. Anthony Caponi's 1973 *Granite Trio* at Saint Cloud's Saint Germain Mall consists of three carved and incised stone forms arranged so as to encourage passersby to play and explore. Scaled to suit the surrounding low buildings, it is an appropriate focal point for a pedestrian shopping area.

8. Located on six sites along the hilly farmland that lines Route 52, Andrew Leicester's *Minnesota Highway Project* of 1974 involves neither objects nor architecture. Consisting simply of markings on the earth, the total images appears to come together and break apart again as the viewer moves past on the southbound lane, or better yet, flies above. Earth drawings such as these are most effective when they cause the viewer to reevaluate his or her physical and philosophical perspective to the landscape. Leicester's work is the first in the state to raise issues of contemporary aesthetics outside an urban area.

9. David von Schlegell's *The Gate* of 1975 also calls attention to the natural landscape, but in a more conventional manner. The stainless steel



sculpture, funded by the State Arts Board and the National Endowment for the Arts, is located on Thompson Hill, at a highway rest stop just above the city of Duluth. Two cylinders of unequal height are braced and connected by a crosspiece 38' wide, thereby forming an enclosure that isolates a view of the surrounding countryside. The piece is both stark and romantic, and represents one recent trend in public art—moving the sculpture away from a city environment.

10. Charles Biederman's *Work No. 24* of 1973 is permanently housed in a small architect-designed enclosure in the downtown section of Red Wing, his home. Sponsored by an association of local merchants, business and arts people, the installation is an interesting, though not altogether successful, attempt at making one of Biederman's small-scaled wall pieces an outdoor work. It may be appropriate to point out that all works of art are not public works of art. Scale, siting, materials, and something intangible that can only be called "attitude" must express the intention of the artist to solicit a response from a public audience.

11. Three sculptures were selected for their complementary differences to enliven and humanize the concrete plaza of the Federal Reserve Bank by its architect, Gunnar Birkerts, in 1973. Dmitri Hadzi's bronze totemic form, *Arcturus*, symbolizes the artist's interpretation of the spirit of the Midwest and relates to the region-wide purpose of the Bank; Charles Perry's *Thrice* adds humor, color and encouragement to exploration to the otherwise austere environment; and Paul Granlund, another frequently commissioned local sculptor, has created *Time Being*, a bronze human form that refers to the religious and allegorical themes of traditional sculpture, and provides contrast to the futuristic forms of Birkerts' architecture.

12. *The Source*, by Alonzo Hauser, a 1960 bronze fountain figure located in Rice Park, Saint Paul, represents the best public work of yet another important local sculptor. It hearkens back to a traditional, slightly expressionistic sculptural style popular in the earlier part of the century. Commissioned by the Women's Institute of Saint Paul, the piece acts as an exuberant foil to the stately Landmark Center.

13. Freestanding public sculpture is always expensive, and the state abounds with architectural decoration created during the '20s, '30s and '40s. The prize for most unusual stone carving probably goes to Barney Cullen of Minneapolis, though, for the gargoyles he carved on the back of All Saints Church, 435 NE 4th St, Minneapolis in the 1930s. Instructed to imitate the gargoyles on the Cathedral of Notre Dame de Paris, but unable to find any reproductions of them, Cullen carved 30 small heads that can be identified as the likenesses of Charlie McCarthy, Mortimer Snerd, Josef Stalin, Frankenstein's monster and others!

Minnesota has recently entered a period of renewed architectural growth, and public works of art can be expected at several locations currently under construction. Look for possible commissions at Northwest National Bank's new computer center in Minneapolis; in the atrium of the Pillsbury/First National Bank complex, also in Minneapolis; and at Honeywell Plaza, which will be installing a new sculpture by Robert Murray sometime this summer. The University of Minnesota will soon develop plans for a

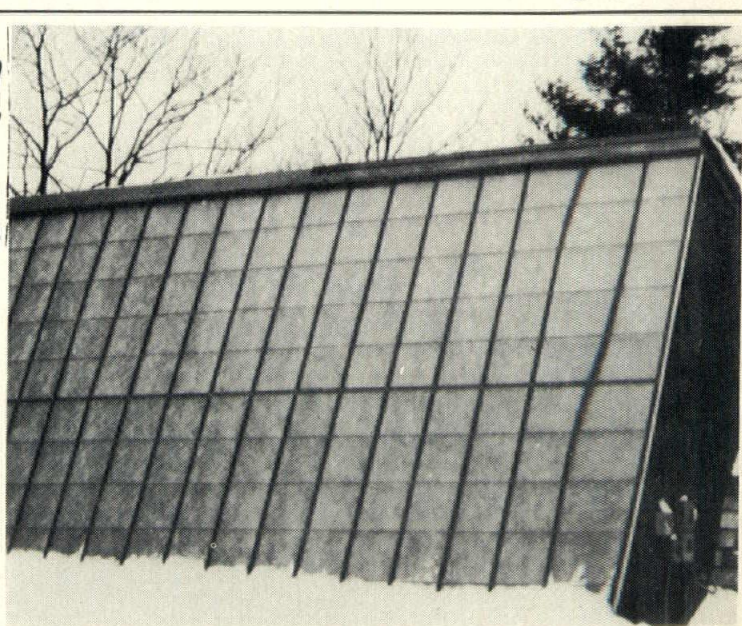


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pilot public art/outdoor sculpture project around the state. Also, a bill introducing one percent for Art legislation to Minnesota, which will make mandatory the setting aside of one percent of construction costs for new buildings for the purchase or commission of works of art, is being sponsored in the current session of the legislature. ■

Annette DiMeo Carlozzi has taught courses on public art in the Twin Cities area, worked for the Art in Public Places program for the National Endowment for the Arts and is newly-appointed Curator of Exhibitions at Laguna Gloria Museum, Austin, Texas.

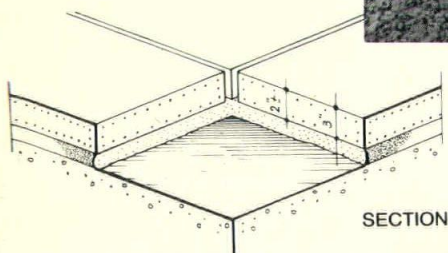
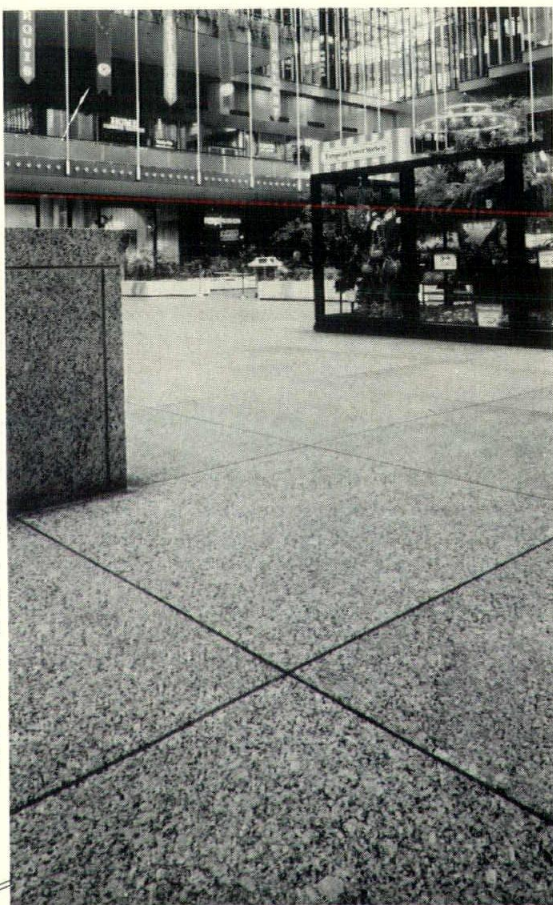
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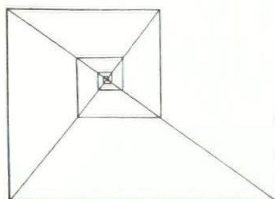
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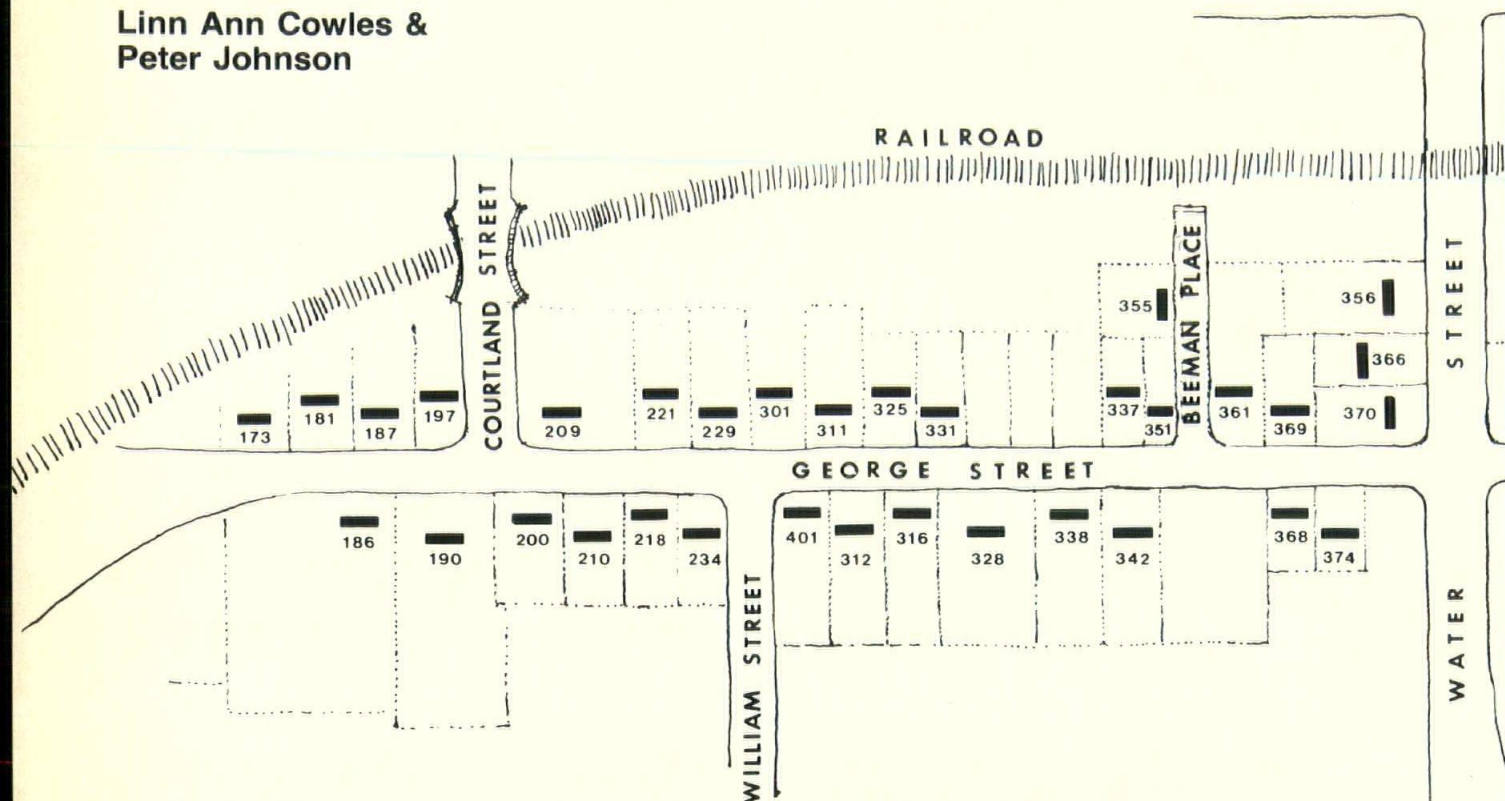
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In 1853, a group of people from New York and New England settled on the shore of Lake Minnetonka to form the community now known as Excelsior. The present-day city of Excelsior has a population of approximately 3,000 people living in about 500 structures. The housing stock provides a visual progression of the changing values of the community. Of particular interest is George Street neighborhood, whose structures form a harmonious grouping with visual and historic value.

The streets of Excelsior were laid out parallel to the lake shore, disregarding the popular idea of reproducing the north-south grid established with the survey of the nation. Many of these streets project directly into the water and provide visual and physical access to the lake for residents living on lots not adjacent to the shoreline. A major portion of the shore line was maintained as a common park for the use of all citizens and visitors, giving physical form to the democratic ideas of Thomas Jefferson. The highest hill was reserved for use as a cemetery. The subtle rise and fall of the landscape continues to provide a sense of

excitement and variety along the streetscape. Much of the vegetation remains from the period before the settlers arrived. Additional exotic plants have been added to produce a mosaic of unusual richness.

The sale and development of horticultural stock was an important industry in the 19th century. We still have large specimen plantings along city streets that are usually seen only on large and well established estates. The raising of apples and small fruits became an industry that brought Excelsior international recognition. A resident named A. W. Latham displayed local apples, grapes and pears on a turntable powered by electricity at the Chicago Columbian Exposition in 1893 and 1894. These artificially cooled cases were brought back to Minnesota where they were featured in the Minnesota State Fair. It was availability of reasonable transportation on the railroad that made it possible to move this product to the industrialized urban centers of the nation.

When the railroad tracks were laid in Excelsior, the lots along George Street

(part of the first addition to the original town) were somewhat isolated. Out of this semi-isolation grew a linear neighborhood with distinct charm. The neighborhood's earliest structures date from before the Civil War and one of the last buildings added along George Street was a prefabricated house manufactured in the early '50s by the Shakopee firm of Page and Hill.

Close observation of these structures yields interesting sidelights on the nature of the community as well as ideas helpful to those interested in the development of neighborhoods. George Street neighborhood presents visually successful houses built over the past 100 years which use similar materials and techniques of construction. Changes in elevation along the street provide variety, while the linear quality of the street itself exerts a strong unifying force. The houses of non-insistent design aid the processional quality of the street, as do the street trees. When these qualities are understood, care can be taken to preserve them, and residents can work toward the maintenance and replacement of street plantings to preserve neighbor-



69 George Street
The two flats in this structure are an example
of the variety of housing available.

1956 Photo Collection ELMHS

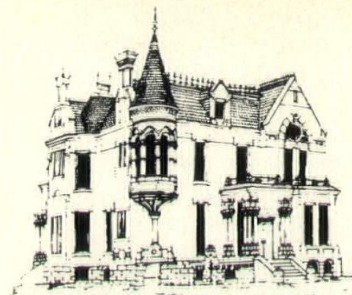
ood character.

The qualities of vernacular architecture on George Street form an important cultural record. While the neat Georgian streets of Newport and Salem recall our society's 18th century background, we are not accustomed to thinking of simple 19th century buildings in the same way. Nevertheless, the pitched roofs, narrow chimneys, expansive porches, carpenter designed details and general variety of houses like those in George Street neighborhood speak to a romantic and individualistic character that was part of 19th and early 20th century life, much as a relief in order and social institutions can be perceived in surviving 18th century neighborhoods.

The social unity of George Street neighborhood derives a number of influences from elsewhere in the country. In this neighborhood, settlers from the east met southern visitors who spent summers in the large summer hotels on Lake Minnetonka. In addition, the west coast, particularly California, has affected the residents for a very long time. James Harvey Clark was a prospector in the Califor-

nia gold fields before settling in Excelsior in the 1850s. His home was enlarged in the Italian villa style after he served with General Sherman in the Civil War. Over 50 years ago, many George Street families had relatives who had retired to Pasadena and the surrounding area. Horticultural and nautical traditions have been equally valued in Excelsior as they have been in the east and on the west coast. The idea of Excelsior as a psychological center of the United States is a significant one; other settlements in Minnesota may also be thought of in this way, such as the towns along the valley of the Saint Croix River. Lumbering families from Maine settled there, and later traveled westward to develop lumbering interests in the Pacific northwest. Similarly, Excelsior forms a link between the center of horticulture at Cornell University in upper New York State and the later work of Luther Burbank in Santa Rosa, California. The George Street bungalows suggest intellectual ties with California and with the Craftsman esthetic popular in the east.

Some of George Street's residents have lived on the street for half a century. If they have moved during this period, they note with pride that their previous home was just across the street and that they carried their furniture and effects over by themselves. Recent arrivals may be single or mem-



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bers of young families. Almost 20 years ago, a widower came to the street to retire. The social and physical stability found along George Street is a product of the place, the time and events. It cannot be reproduced, but we can observe and enjoy it while attempting to learn the reasons for its success.

The streetcar no longer comes to the lake. The amusement park, long a fixture in Excelsior, has adopted a new name and moved out to a roomy site along the Mississippi River. Withal, historic Excelsior, with neighborhoods like George Street, remains a center for cultural, commercial and recreational activities in the 127th year of its existence.

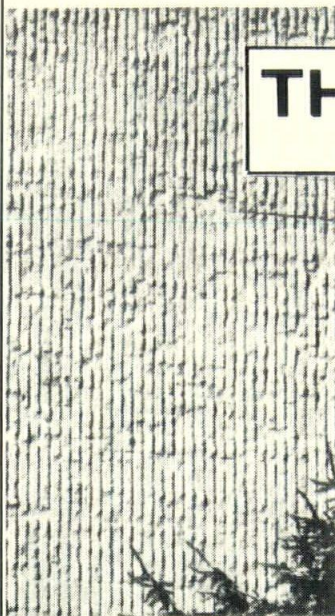
A comprehensive community investigation of Excelsior's unique architectural heritage is contained in *The Lake, the Land and the People: A Historical Portrait of Excelsior as Seen in its Buildings and Sites*. This publication is available at The Architectural Center, and also at the Excelsior city offices. ■

Linn Ann Cowles and Peter Johnson are partners in the firm Greenwich Design.

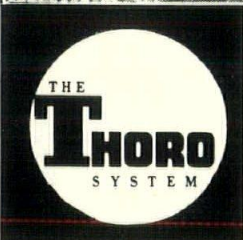
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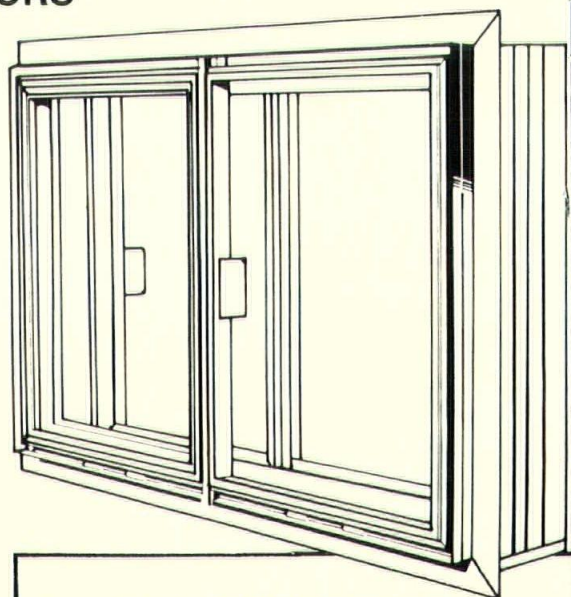
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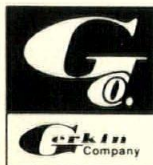
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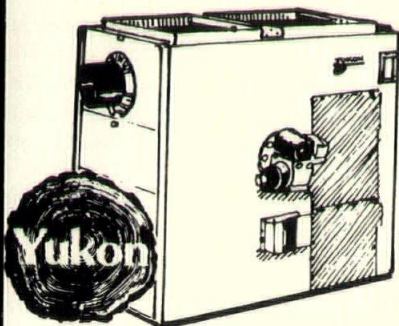
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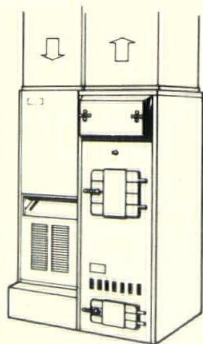


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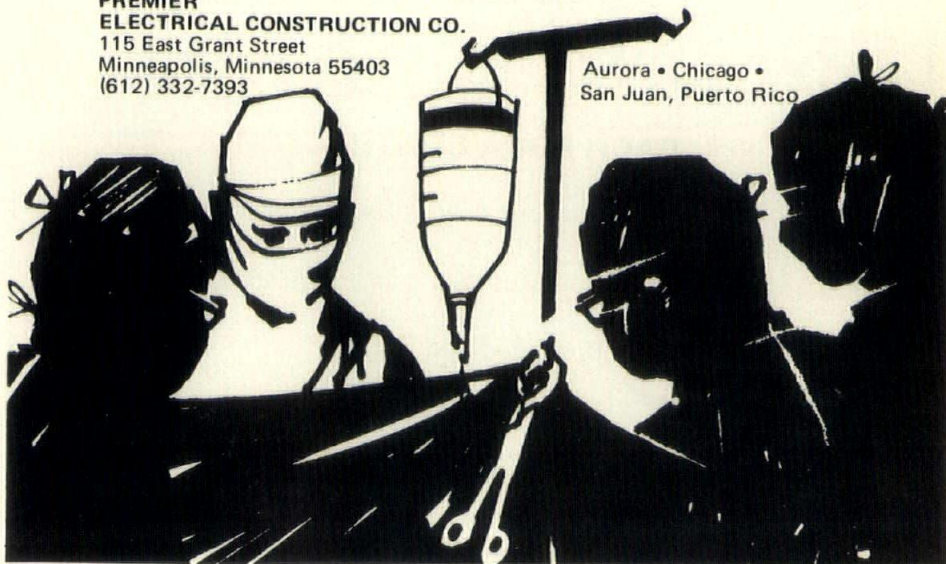
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Japan In Aspen

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For generations, traditional Japanese arts and architecture have set a standard in the West for beauty and economy of line and color. Japanese business—its ingenuity, organization and the high productivity and loyalty of its labor force—is currently the envy of American businessman.

However, early American images of Japan were stereotypical and misleading. Consider, for instance, the quaintness of geishas and *Madam Butterfly*, the shoddy imitativeness of pre-war "made in Japan" manufacturing and the wartime images of brutality, violence and self-sacrifice. Our imperfect knowledge of Japanese customs and history has alternately enchanted and repelled us, resulting in the "inscrutable Oriental" stereotype which is actually based on our misapprehensions of Japanese culture.





In an attempt to bridge this gap, the 1979 International Design Conference in Aspen had as its subject "Japan and its people: a synthesis of contradictions." This was a radical departure from the broad universal issues in design which usually form a fairly loose structure for the conference proceedings. Louis Dorfman, Vice-President in charge of Marketing, Communications and Design for CBS and eminent Japanese architect Kisho Kurokawa put together an extraordinary program featuring leading Japanese designers, writers and artists along with westerners familiar with Japanese design and culture. Reinforcing this program were work groups, demonstrations and exhibits presenting traditional Japanese arts and crafts from Bonsai to kitemaking, as well as the work of contemporary Japanese designers in a media from architecture to film to fashion design.

In keeping with the purpose of the conference—to treat Japan and its people as a design issue—the main program focused on design of self, society, culture, business and applied design. An underlying structure was given by the use of thirteen "key concepts" of Japanese culture as background and metaphor for understanding Japan and its people. The use of these concepts was an extraordinarily effective, if occasionally uneven, device for simultaneously emphasizing differences and

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promoting understanding of a complex society. There was an odd and consistently interesting counterpoint to this process in the actual interaction at the conference—in the difficulty of transcending language barriers (despite the provision of earphones and simultaneous translation for all main sessions) and behavioral differences such as the incompatibility between western and eastern attitudes toward confrontation and argument. The sessions were often frustrating, slowed by translation and lack of common ground and hampered by everyone's unwillingness to criticize. But the overall effect was curiously provocative and rewarding for most participants.

The key concepts—almost all of them described in the program in terms of paradoxes—were most understandable when related concretely to art and design. The concept of "En"—"relationship—a Buddhist term which represents a bond or relationship between men and ideas, things or people, past or present"—could be understood when used in combination forms such as "engawa"—the continuous veranda surrounding the classic Japanese house. Kisho Kurokawa spoke of Japanese culture as a multiplicity of grays, as multidimensional. To illus-

trate, he described the engawa as a "sort of third world between exterior and interior . . . a gray space." It exists in its own right and yet cannot exist separately from the interior and exterior space it bonds and partakes of.

A literary analysis of a beautiful 18th century haiku given by Toru Haga, Professor of French and Comparative Literature at the University of Tokyo reinforced this by showing the multiple extensions of meaning and definitions of moods suggested by one seemingly simple phrase. These were not recondite or farfetched allusions but simple and clear connections with the complex structure of cultural and literary tradition shared by most Japanese. For instance, "lightning flashes" in haiku literary tradition always suggests autumn. Like the engawa, these commonly understood extensions of meaning exist around the poem, relating life to it and it to life—in a manner at once mundane and mystical.

The concept of "Ne" described as "between noise and music"—Musical sounds both created by man and found in nature—wind chimes, caged crickets, sounds and spaces between sounds illustrate the concept of "Ne." It was beautifully demonstrated by composer and pianist Toshi Ichianagi

and Moruaka, a master player of the shakuhachi, the Japanese bamboo end-blown flute.

Thus, the over 1,800 participants gradually grew to see (and hear) material areas of grayness and definition between our black and white which amount to a different way of seeing and hearing. Even the discussions of such down-to-earth subjects as the automobile industry and automobile design produced such reflections.

Many of the Japanese speakers expressed a fear that Japan—by too rapid industrial growth and the wholesale adoption of Western ideas and methods—will grow out of touch with the traditional fabric of its art and culture, much which was developed in the Edo period of almost total isolation from the West.

The earnest attempt made at Aspen to present the ways of seeing, understanding and ordering things which underlie what we know of Japan may not have been uniformly successful. But it was the kind of attempt which may serve to bring the world closer together while allowing for the preservation of the unique cultural fabrics which add richness and meaning to the family of man.

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New Trends in Architect-Designed Homes

Economy and conservation have become important keynotes to the current trends in architect-designed single family houses. According to *Architectural Record* magazine, other important trends include: smaller homes with multi-purpose spaces; increased reliance on natural energy sources; strong move toward rehabilitation and renovation; and more simple, straightforward homes.

The most obvious trend is toward smaller homes. It is no longer practical to have a "formal living room," "formal dining room" and "guest room." These specialized and seldom used rooms are now being combined to form large, expansive spaces serving a variety of family needs. Imaginative design assures privacy and ease of movement, despite an overall reduction in size, while the smaller home guarantees less waste of floor space and energy consumption.

Perhaps the greatest challenge to architects and homeowners is in the area of energy conservation. Although solar energy holds great promise for the future, consumer adoption is slow due to comparatively high initial costs, slow payback and the continuing need in most areas to provide a conventional heating system as backup. Until technology is perfected, solar energy will remain a potential but largely untapped resource. For now, however, there are effective devices for designing energy efficient homes.

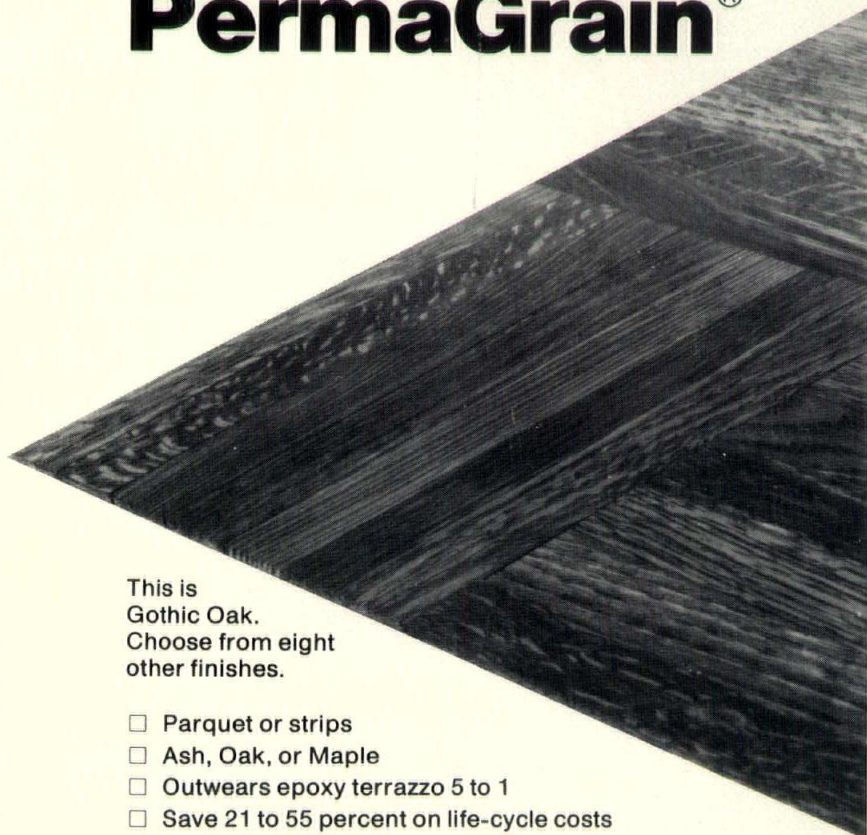
Yet another example of the conservative mood is in the rehabilitation, renovation, and enlargement of existing homes. Costs obviously play an important role here, but equally important is the move to save buildings from demolition and recycle them into livable spaces, rich in history and architectural heritage. This trend is especially popular in large urban areas where construction costs are prohibitive and little free space is available for new construction. There is also a move to transform abandoned lofts and commercial buildings into airy, well-lighted homes.

The keynotes of economy and conservation carry over into a growing skepticism with electronic gadgetry and expensive detail—costly extras that homeowners of the late '60s and early '70s came to expect. Delight with "labor saving devices" has given way to a more modest outfitting of homes, while an earlier generation's interest in luxury has been replaced by a growing need for the simple and the spare. ■

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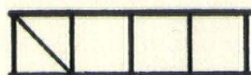
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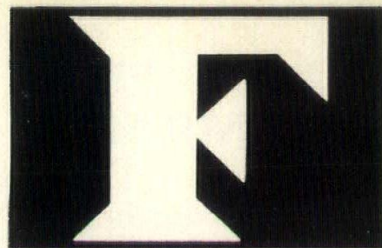
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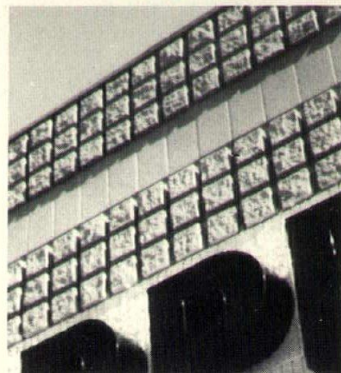
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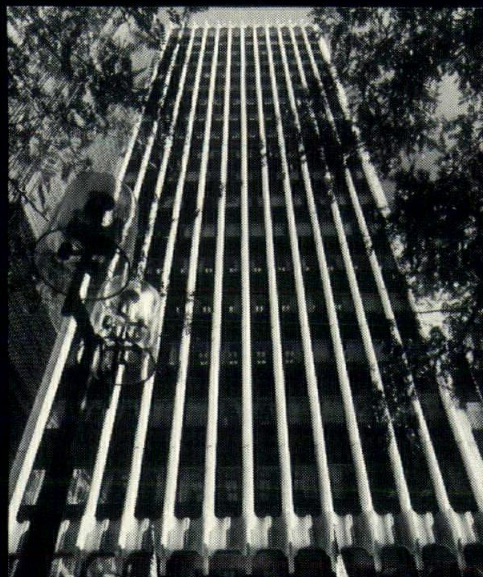
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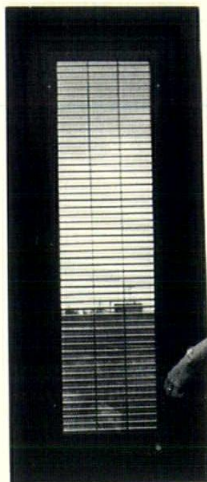
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BOOKS

Architectural Illustration: The Value Delineation Process, by Paul Stevenson Oles, AIA, Van Nostrand Reinhold, \$34.50

Most books on the subject of architectural illustration do little to destroy the cliché, "Some have a good hand and some don't—rendering can't be taught." But of all the recent books, Oles' most successfully teaches architectural illustration. Although his method of accomplishing this raises some questions about education versus persuasion and drawing versus design, in the end it is the best recent book on the subject.

The first two and a half sections of the book's four main divisions are dedicated to convincing the reader that drawings are relatively better than most other forms of architectural communication, that the value delineation process is relatively better than other forms of drawing and finally, that black prismacolor on mylar is the best of all. In spite of the illustrations, these sections are the weakest, since most people who will buy the book are interested in drawing and will only be convinced through practice.

A major blind spot in the book is the relationship of drawing to design, or the impact of the media on the message. Oles' technique is best for illustrating plainer sculptural buildings, while it is inefficient in depicting linear work. He is at his best with I.M. Pei's work, his worst with Helmut Jahn's and mediocre when illustrating an eclectic like James Stirling.

The last part of the book, which includes aerial stop-action photos of Oles developing drawings on his board, is particularly helpful in teaching the tricks of the trade. The use of an eraser as a negative pencil, adhesives for removing tone and the most efficient sequence for applying pencil strokes—to name a few—are all taught pictorially to the reader. Also of interest is Oles' reliance on small (usually 8 1/2 x 11) highly accurate drawings produced under a magnifier. One wonders why so many books on the subject have only shown us the product and not the process.

The greatest lesson to be learned from this book is that good results depend on patience and determination as much as on speed and talent. Oles' method is so learnable that it allows average craftsmen to accomplish professional results.

-Ed Frenette, AIA

Trees for Architecture and the Landscape, by Robert L. Zion, Van Nostrand Reinhold; \$10.95 paperback
A comprehensive photographic collection of trees whose structure, habitat and other characteristics make them particularly useful in relation to the building as an outdoor space. Its intention is to facilitate communication between the landscape architect, the architect and the layman/client. Emphasis is placed on the seasonal changes. Trees are classified by the height, fall foliage, form, suitability of certain city trees for wide and medium streets, fruit and blossom bearing, qualities of bark, etc. An incredibly useful sourcebook.

Product Inventory of Hardware, Equipment and Appliances for Barrier-free Design, prepared by Mary Johnson, Julie Quarve and Jack Stanton. Funded by National Handicap Housing Institute, CETA and The General Mills Foundation

A publication to provide architects, designers, developers and others with the information needed to better select some appliances and general equipment for the handicapped. Provides summaries of features, approximate prices and pictures of appliances and hardware equipment for general use in addition to products made specifically for the handicapped. Includes addresses of Twin Cities Suppliers, builders and distributors of most products mentioned.

-Susan Davis

Building Conversion and Rehabilitation: Designing for Change in Building Use, Thomas A. Markus, Editor, Butterworth's, \$39.95

Everyone can benefit through the act of sharing experiences of actual building conversion or restoration projects. The successes, as well as the disappointments, will surely provide welcome guidance to some group or individual faced with a similar situation.

This book is based on a symposium held at the University of Strathclyde in

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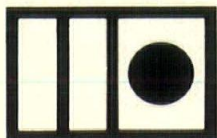
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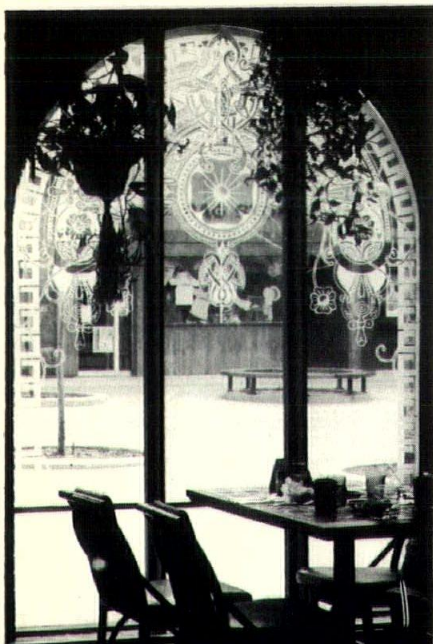
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1977, and the 12 chapters (by different authors) cover a broad spectrum of aspects of building conversion and rehabilitation. A strong case is made for involving the user of the space in the initial planning stage. The point is argued that "our building stock . . . is also environmental art around which people build their lives." John Warren's treatment of conservation morality is remarkably clear and crisp.

The reader might be well advised to skip over the first three chapters ini-

tially, lest he give up through boredom and miss the rewards which the later chapters offer.

Editor Thomas A. Markus, in his Introduction, neatly summarizes a worthwhile goal: "If the pragmatic influence of an existing building can sufficiently temper the intellectual arrogance of the theoretician and the design arrogance of the practitioner, then enough common ground around which to close the gap might emerge."

—Brooks Cavin, *FALL*

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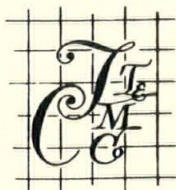
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