FRG G. ANDERSON, INC.
CORPORATE HEADQUARTERS
5825 EXCELSIOR BLVD. • MINNEAPOLIS, MN 55416
MINNESOTA 612-927-1812 • NATIONAL 1-800-365-2222 • FAX 612-927-1851

REGIONAL OFFICES AND SHOWROOMS
CHICAGO • MILWAUKEE • DALLAS • INDIANAPOLIS • KANSAS CITY • ST. LOUIS
Your ideas can take on any shape, color, or finish with Wells Concrete Products Company. We know the importance of a building's exterior appearance. From a sandblasted finish to the look of inlaid stone, Wells can meet your expectations for versatility, quality, and dependability. We know color is equally important to you. Wells can use aggregates, concrete dyes, and white cement to create any color you require.

Wells is also your one source supplier for total concrete buildings. You can have the beauty of architectural concrete wall panels plus the advantages of a precast concrete roof system, all designed, manufactured, and installed by Wells.

For all your precast concrete needs, call Wells today. Our versatility in precast and prestressed concrete can bring your ideas to reality.
Custom windows and skylights for over 40 years.
Distributed and installed by

W.L. Hall Co.

14800 Martin Drive
Eden Prairie, MN 55344
(612) 937-8400
Vol. 19 No. 5

26 Fond du Lac
Community College

30 Grant Park Center

The Magazine of AIA Minnesota

5 Sketches
9 Previews
13 Up close: Fresco artist Mark Balma, by John Manning
17 Insight: Reshaping the classroom, by Kevin Sullivan
19 Editorial: School days

From preschool to college—Seven new school buildings

20 North Woods Elementary
24 The University of St. Thomas/Minneapolis
26 Fond Du Lac Community College
30 Grant Park Early Childhood Family Development Center
32 Ardolf Science Center
34 Mounds Park All-Nations Magnet School
36 Farmington Middle School
40 Houses by mail:
A history of the Sears, Roebuck catalog houses, by Camille LeFevre

43 Endangered species
45 Drawing board
47 School yearbook
66 Advertising index
67 Credits
68 Lost Minnesota

Architects: Wold Architects & Engineers.
Photographer: Willette Photography.

Architecture Minnesota is published bimonthly by AIA Minnesota. The opinions expressed herein are not necessarily those of the Board of Directors or the editorial staff of Architecture Minnesota. Editorial offices: International Market Square, 275 Market Street, Suite 54, Minneapolis, MN 55405. FAX: (612) 338-7981. Note to subscribers: When changing address, please send address label from recent issue and your new address. Allow six weeks for change of address. Subscription rate: $15 for one year, $2.75 for single issue. Postmaster: Send address change to Architecture Minnesota, International Market Square, 275 Market Street, Suite 54, Minneapolis, MN 55405. Second-class postage paid at Minneapolis, MN, and additional mailing offices. Advertising and circulation: Architecture Minnesota, International Market Square, 275 Market Street, Suite 54, Minneapolis, MN 55405. Printed by St. Crox Press, Inc. Color separations by Colorbrite. Copyright 1993 by Architecture Minnesota (ISSN 0149-9106).

Editor
Eric Kudalis
Contributing Editors
Bill Beyer, Steven Buetow, Jack El-Hai, Robert Gerloff, Camille LeFevre, Bruce N. Wright
Correspondents
John Albers, Heather Beal, Bette Hammel, Janet Johnson, Harold Skjelbostad, Sara Stafford, Janet Whitmore
Graphic Design
Rubin Cordaro Design
Photographer
Don F. Wong
Advertising Sales
Judith Van Dyne, Director
Lori A. Lickteig
Circulation Distribution
Sarah J. Leslie
Publisher
Peter Rand, FAIA

32 Ardolf Science Center

34 Mounds Park Magnet School

Cover:
North Woods Elementary School, La Crosse, Wis.

30 Grant Park Center

34 Mounds Park Magnet School
Not just another pretty picture

In fact in many ways these durable prairie grasses and wild flowers represent a troubled environment. You see, too many of these gems have been traded for cornfields, bluegrass, asphalt and landfills. We are now left with a weakened, less diverse environment that puts our own global status at risk.

By restoring native plant communities to the built landscape you can help establish a better balance, doctoring the environment and ultimately ourselves. It can also be cost effective and esthetically sublime.

To find out how our ideas and materials can work into your site plans please call.

Prairie Restorations, Inc.

P.O. BOX 327
PRINCETON, MN 55371
612-389-4342

AIA Minnesota
A Society of the American Institute of Architects

Board of Directors
C. Jay Sloter, AIA, President
Alexander Ritter, AIA, President-Elect
Howard Goltz, AIA, Secretary
Ronald Stanus, AIA, Treasurer
Arvid Elnes, FAIA, Immediate Past President
John Klockeman, AIA, President, Minneapolis Chapter
William Armstrong, AIA, President, St. Paul Chapter
Steven McNell, AIA, President Northern Minnesota Chapter
Gall Andersen, AIA, Director
William Beyer, AIA, Director
Peter Carlsen, AIA, Director
Christopher Collby, AIA
Steve Edwards, AIA, Director
Harold Kiewel, AIA, Director
Eldon Morrison, AIA, Director
Dennis Probst, AIA, Director
David Schilling, AIA, Director
Harrison Frazer, AIA, Director
 Roxanne Nelson Link, Associate Representative
Deanna Lim, Student Representative
Duane Kell, AIA, Regional Director
James Miller, AIA, Regional Director
Beverly Hanschold, Hon. AIA, Executive Vice President
Peter Rand, FAIA, Executive Vice President

AIA Minnesota Publications Committee
Janet Whitmore, Chair
John Albers, AIA
Tim Alt, AIA
Heather Beal
George Cundy, AIA
Howard Goltz, AIA
Janet Johnson
Andrea Stephenson Komschlies
Carolyn Kroll, AIA
Harold Skjelbolstad
Sara Stafford

Editorial Advisory Board
Edward J. Kodet, AIA
Michael Plautz, AIA
Kenneth Potts, AIA

Minnesota Architectural Foundation
James O’Brien, AIA, President
David Runyan, AIA, Vice President
Craig Rafferty, FAIA, Secretary
Robert Rietow, AIA, Treasurer
John Gaunt, AIA
Larry Millett
Leonard S. Parker, FAIA
Ralph Rapson, FAIA
Julie Snow, AIA

AIA Minnesota Staff
Beverly Hanschold, Hon. AIA, Executive Vice President
Peter Rand, FAIA, Executive Vice President
Deanna Christiansen, Program Director
Doug F. Kooocen, Financial Manager
Eric Kudalis, Editor
Lori Lickteig, Advertising Sales
Sarah J. Leslie, Information Systems Director
Judith Van Dyne, Director of Marketing

AIA Minnesota
International Market Square
275 Market Street, Suite 54
Minneapolis, MN 55405
(612) 338-6763
Fax: (612) 338-7981
Too YOUNG to designate ... Too OLD to award

Buildings from the mid-century fall into a precarious category for preservationists. Generally, they are too young to designate as historic landmarks—for that, they have to be at least 50 years old. But they’re also too old to garner awards and recognition from the public and the architectural community—for that, they have to be newer than eight years old.

Midcentury buildings, typified by the modernist glass box, are often viewed with indifference, at best, by the public. They’re seen as cold, unadorned, impersonal. Many, however, are among the finest works of architecture designed in the 20th century. Mies van der Rohe’s Crown Hall at the Illinois Institute of Technology in Chicago and Philip Johnson’s glass house in New Canaan, Conn., are two prime examples of modernism at its finest.

Locally, we have such mid-century masterworks as Ralph Rapson’s original design of the Guthrie Theater in Minneapolis, Marcel Breuer’s Abbey Church at St. John’s University in Collegeville, and Gunnar Birkert’s Federal Reserve Bank Building in Minneapolis, among others.

The Historic Resources Committee of AIA Minnesota is surveying Minnesota buildings from this period (older than eight years, newer than 50 years) to identify significant architecture. This page shows three prime candidates. Already we have lost important examples of modernist architecture. By compiling this “unscientific” list of modernist buildings, the committee hopes to raise public consciousness about post-World War II architecture and avoid losing other buildings.

Architecture Minnesota periodically will feature selected buildings that are “Too old to award ... Too young to designate.”
Builder: Richard Hofmann Construction, Lindsrom, MN

HOW DO YOU MAKE A CEDARPRO® STATEMENT EVEN MORE OUTSTANDING?

Developer Richard Hofmann on CedarPro®

When our clients specified wood cladding for the interior of their pool area, we immediately contacted Inter-State for help. The requirements were a wood that was durable and could stand up to the high humidity from the pool yet still be beautiful, friendly, and warm. Inter-State's suggestion to employ 1 x 6 CedarPro® Newport Tongue & Groove V-Joint proved to be the ideal ingredient to complete the recipe. We knew we could trust Inter-State and Canton Lumber to provide us with a high quality product at a fair price.

JUST ADD WATER.

Specify CedarPro® Premium Knotty Incense Cedar Siding & Paneling.

CEDARPRO® Premium Knotty Incense Cedar

Supporting Sustainable Development

CANTON LUMBER COMPANY

Products available through your retail building supply dealer.
YOUNG ARCHITECTS RECEIVE NATIONAL CITATION

Two Minnesota architects were among four recipients of the 1993 American Institute of Architects Young Architects Citations. Vicki L. Hooper of RSP Architects in Minneapolis, and Joan M. Soranno, who practices independently in Minneapolis, were lauded for their dedication and service to the architectural profession and community.

Each month by a firm member. The program, says Hooper, encourages architects to talk about the "bigger picture" and share knowledge and information.

Hooper's talents particularly shine with her community work. She's helped shape the 8-year-old AIA Minnesota Design Team into an effective grass-roots program that encourages small Minnesota communities to assess their strengths and weaknesses—from both an economic and design perspective—and plan for the future.

Joan M. Soranno, a 1984 graduate of the University of Notre Dame, says her work "is based on a design philosophy that seeks beauty and meaning in the tangible attributes of architecture: the program, building tectonics, and context."

The jurors clearly agreed when they said "[She] has dedicated herself to elevating architecture to the highest level of art. Her understanding of the total environment and how the design process can enrich our world is recognized in her work."

Soranno was born in Boston and lived in Milan, Italy, during most of the 1970s. Good architecture, for her, combines theory and practice. "As a young architect, I feel it is important to understand each step in the architectural process," Soranno says. "It is necessary for me to broaden my sphere of knowledge in both design and technology. Architecture is not a choice between practice and theory. It is the synthesis of ideas, program and building technology."

She explored many of her design theories in a 1989 exhibit at the Minneapolis College of Art and Design called "Illegal Houses," on

Continued on page 62
Carlisle Has Quality People and They Produce Quality Roofs

You can count on a Carlisle commercial and industrial single-ply roofing system for Unequaled Quality. Because . . . Carlisle experts are involved from concept through completion.

Carlisle's professional research and design staffs deliver a continuous flow of unique products and innovative roofing systems for you. Quality assurance personnel diligently check raw materials and products on a constant basis. Concerned and motivated plant personnel bring on-going quality to the manufacturing process in production, packaging, inventory and shipping.

Experienced instructors add informative training programs for authorized applicators and specifiers to Carlisle's concept of quality. Applicator recognition programs are based solely on quality workmanship. Stringent inspections by technical representatives are but another integral part of Carlisle quality.

When it comes to systems and product quality Carlisle Really Has No Equal. Because, all Carlisle personnel are dedicated to making sure every roofing system, membrane and accessory are of Unequaled Quality and Unequaled Performance.

Put Carlisle's Unequaled Quality to work for you. Contact your local sales representative or for additional information call toll free 800-233-0551; in PA, 800-932-4626; in Canada 416-564-5557.

Pictured left to right:
Larry Craft, Quality Assurance
Mark Sanderson, Installation/Education
Kathy Lusardi, Research & Development
Randy Ober, Roofing Systems Engineering
John Price, Manufacturing

THERE Really IS NO EQUAL.

Carlisle is a trademark of Carlisle Corporation © Carlisle Corporation 1991
New Works by Clarence Morgan
Carolyn Ruff Gallery
Minneapolis
Sept. 11-Oct. 16

Clarence Morgan’s abstract paintings reflect a "dichotomy of the structure and the raw." The rich, undulating surfaces allow a variety of meaning, leaving the viewer free to imagine. The vivid palette, vigorously applied, exudes a compressed energy enhancing the strong, rhythmically balanced composition.

For more information, call (612) 338-8052.

Two Lives:
Georgia O’Keeffe and Alfred Stieglitz—
A Conversation in Paintings and Photographs
Minneapolis Institute of Arts
Through Sept. 12

In this exhibit, the two artists’ work is shown together for the first time since 1924. Two Lives examines the influence the two artists had on each other. The exhibit also looks closely at the relationship between photography and painting.

For more information, call (612) 870-3000.

Design Arts Festival
International Market Square
Thursday, Sept. 30

From upholsterers to faux finishers, brass replaters to weavers, a range of custom-service providers will exhibit their wares and demonstrate their talents. This day-long event will feature artisans, fabricators and installers in temporary exhibits, while showcasing new products and services in IMS’s showrooms. Seminars will run throughout the day, and a “Design Walk” through the showrooms will cap off the event.

Keynote speakers include Charles Gandy, president of Gandy/Peace Inc., in Atlanta, who will discuss “The ABC’s of Making Money at Interior Design”; and Howard Birnberg, president of Birnberg & Associates in Chicago, who will present “Effective Project Management.”

In addition, the Midwest Design Award winners and other exhibits will be displayed throughout the day.

For more information, call (612) 338-6250.

Vanishing Animals
Goldstein Gallery
U of Minn.
St. Paul Campus
Through Oct. 3

Designed with a young audience in mind, this juried multimedia exhibit presents an array of animal images inspired by endangered and threatened species from around the world. The exhibit also teaches preventive measures people can take to alleviate the plight of these animals. The work is by graduate and undergraduate students in the department of design, housing and apparel. In addition, original artwork on endangered animals from the Kerlan Collection of Children’s Literature (Minneapolis campus of U of M) will be showcased.

For more information, call (612) 625-2737.

38th Annual
Valley Antique Show and Sale
National Guard Armory
Stillwater, Minn.
Sept. 17-18

More than 20 antique dealers from throughout the Midwest will display and sell vintage furniture, silver, china, jewelry, glassware, and collectibles. The show is presented by the St. Croix Valley Branch of the American Association of University Women.

Tickets are $2 and used for educational scholarships and projects.

For more information, call (612) 439-0068 or (612) 439-4409.

Building a Bridge of Light:
The Photographic Processes of John Barnier
Minnesota Museum of American Art
St. Paul
Through Oct. 3

This is the first solo museum exhibition of St. Paul photographer John Barnier, known for using nontraditional and historical processes to develop his contemporary photographs. The show also will contain prints by Barnier from the oldest existing glass negatives of photographs taken by M.J. Dines of 1850s Jerusalem.

For more information, call (612) 292-4355.

Continued on page 63
All you hear about Wall Decor leaves you blank?

Wall Decor, you say. No problem, I say. I'm Drew Kalman, President of PS Decor. I have 3000 solutions to fill the blanks—
the selections in the Past Tense;" Scenic and Custom Collections. Imagine the impact of a larger-than-life locomotive rushing right at you? Or your own great outdoors—indoors? Got the picture? Fantastic!

Looking for 19th century charm or turn-of-the-century nostalgia, or the timeless beauty of Mother Nature? The PS Decor Collections match your imagination with the right tone your theme demands. Stuck for the perfect image and it's not in stock? Look to PS Decor to turn your idea into reality.

Any size. Anywhere. Any time. PS Decor is your single source for wall decor. We feature Cibachrome,® for brilliant prints and display transparencies... guaranteed for 25 years. We fill the blanks with museum-quality black-and-white photomurals, too. Mounting and framing add the finishing touch.

I've spent ten years setting the standards in the photo decor business. That means treating your project like a special order—because it is! That means photomurals exactly to your specifications. And following through to the installed wall.

Want to hear more? I'd like to fill you in about PS Decor. Write or call, 612/592-7741, for samples and exciting new ideas. At PS Decor, the sky's the limit ... so far.

1718 Washington Avenue North, Minneapolis, MN 55411
Handles Well

Taboret™ Faucets. When it’s time for a change, recommend Kohler faucets. It’s the one-of-a-kind combination of commercial durability and distinctive residential style. Interchangeable acrylic and metal handle inserts, included with every faucet, are a no-cost option that can be changed to match almost any decor. And Taboret faucets feature solid brass construction and reliable, washerless System C™ ceramic valving. With its interchangeable looks, Taboret is an affordable way to get a handle on your best customer.

THE BOLD LOOK OF KOHLER.
The goal of the architect is to design a structure to be functional while creating an aesthetic appeal with the surrounding environment. By design, Molin’s architectural precast products provided this biological sciences building with style, uniformity and quality.

With Molin’s certified plant producing your architectural precast, you can be sure that you will receive a quality product on time.

With Molin’s architectural precast experience, exterior design becomes a partnership.

Using Molin lets you use your time more efficiently, freeing you and your staff to turn your attention to other important parts of the project.

With consistency in product and service, from design to installation, Molin has served professionals since 1897.

Let Molin serve you on your next project.
Reviving an art form

In the tradition of a bygone era, fresco artist Mark Balma paints the St. Thomas ceiling

By John Manning

People no longer know how to read visual images. That, at least, is the view of Mark Balma, who deals with symbolic language everyday.

"Fresco by its very nature has the greatest means of being able to express certain ideas ... as an enduring image," Balma says.

But if the only symbols that have meaning to most people are corporate logos like the Golden Arches, Balma says, then the job of communication is more difficult.

Balma spent the summer painting the ceiling of the University of St. Thomas’s new downtown-Minneapolis building. He will return the next two summers from his home in Italy to complete the ceiling, which will be the largest fresco in the United States.

While growing up in New Hope, Minn., the 36-year-old Balma says that he only saw frescoes in books. After moving to Florence in 1980 he saw for himself how frescoes have been used for centuries to convey ideas. When people couldn’t read, fresco images taught them about the Catholic Church.

The St. Thomas fresco will stretch across a 112-foot-long vaulted ceiling in the 2-story main hall. It will consist of seven panels, each representing one of the virtues that Aquinas preached: faith, prudence, justice, hope, temperance, fortitude and charity. In addition, the University’s donors will be painted in fresco on the hall’s columns.

Balma developed his design schemes through discussions with University staff and the community at large. His challenge was to combine people’s different ideas and still project a coherent message.

Continued on page 63
It looks less like a bank and more like an English country manor. But the charm of the Investors Savings Bank belies the challenges its design and construction presented. Particularly to Marvin Windows and Doors.

For one thing, fast-track construction scheduling was necessary due to constantly evolving design constraints. For another, it wasn't until thermal efficiency, condensation resistance and aesthetics were factored in that wood was chosen over aluminum. Consequently, Marvin wasn't selected for the job until construction was underway, making manufacturing and delivery deadlines extremely tight.

But Marvin's biggest challenge proved to be the building's three massive window and door assemblies, the largest of which measures 28 feet wide by 30 feet high. Using a combination of sturdy Magnum Double-Hungs and French Doors, Marvin not only built them on schedule, but also engineered them prior to delivery to guarantee they would withstand the strong, prevailing winds off the lake. And, like all 177 of the bank's other made-to-fit windows and doors, they were built with features designed specifically for the project. Features such as authentic divided lites, interior windows and doors glazed to match those on the exterior and a durable, factory applied finish in two complementary colors; Midnight Teal for the sash
and Graphite Grey for the frames.

Shortly after its completion, Investors Savings Bank was named the NAIOP Build To Suit Building of the Year. Which just goes to show that paying extra interest can result in some handsome dividends.

MAKE US YOUR FIRST CALL, NOT YOUR LAST RESORT.

If your new construction project needs special attention or you've got a window design problem you just can't solve, call the one company you know will have the right solution. Call Marvin Windows and Doors at 1-800-346-5128 (1-800-263-6161 in Canada). Or mail the coupon for a free catalog featuring our entire line of made-to-order Marvin windows and doors.
Most cabinetmakers are capable of accurate dimensions, but that is not going to individualize your custom designs. The craftsmanship at Andersen Cabinet is obvious in every detail of each cabinet, wall system, fixture or work surface we build for you. Architects, designers and builders have come to rely on the superior standards and services found at Andersen Cabinet. A family owned company that takes pride in every job. It is not necessary to wait until your specifications are finalized to talk to someone at Andersen Cabinet. For more information visit one of our showrooms or pick up the phone and call 612-777-5377 or 612-920-6681. We are eager to show you how we have earned our excellent reputation.

© 1992 Andersen Cabinet Inc.
Reshaping the classroom

An architect discusses educational innovations achieved by redesigning the prototypical school room

By Kevin Sullivan

Restructuring is a popular concept in educational circles these days. Applied to everything from administrative systems to educational philosophies, the need to restructure has been embraced by educational professionals of almost every discipline.

Unfortunately, much of the discussion has overlooked one of the most confining and restrictive aspects of our current system, namely, traditional school design and the conventional square classroom. If we are serious about reshaping education in America, one of the best ways to begin is by redesigning the shape of the elementary classroom. The best designed educational facilities in the world cannot, by themselves, bring about educational reform—but a poorly designed facility can prevent reform altogether. Awareness of this fact is on the rise among educators at all levels.

One way to view the architectural implications of educational reform is to equate the cumulative effect of reform with a return to the one-room school house. The contemporary challenge of identifying individual student learning styles, coaching students in applied learning opportunities and dividing instructional time between large and small groups to maximize efficiency are in many ways parallel to challenges presented by the range of student ages and abilities in the one-room school house of old.

But school design during the first two-thirds of this century was based on a model quite different from the one-room school house—namely the assembly-line model. According to that model, students moved from 30-seat classroom to 30-seat classroom where bits of knowledge were added one piece at a time. Even in elementary grades where students may not have moved from room to room, the classroom layout itself—capable of supporting only a traditional student/teacher desk grouping—tended to foster the same lock-step instructional approach.

The classroom exercises a powerful influence over both the physical and philosophical structures of education. To give teachers freedom to experiment with the methodologies and techniques associated with educational reform, flexibility and diversity must be designed into the educational environment.

The true extent of that influence was dramatically illustrated during a school remodeling project undertaken in Pine City, Minn., by Wold Architects & Engineers of St. Paul. The purpose of the remodeling was to convert an older secondary school into an elementary school.

The Pine City school contained a mix of traditional square classrooms. A key redesign element was to expand the smaller classrooms to meet requirements of the Minnesota Department of Education. Architecturally, the solution was simple. The common wall between adjoining classrooms was removed, transforming two smaller square classrooms into larger, 900-square-foot rectangular rooms. This seemingly simple architectural solution had far-reaching instructional implications.

A week after classes began at the school, the principal called to praise the redesign. Teachers were convinced that the new rectangular classrooms must be significantly larger than the square classrooms elsewhere in the building. What caused this perception in spite of the fact that the new and old classrooms were virtually the same size? Simply stated, the rectangular geometry increased spatial efficiency by increasing space for grouping and clustering, and by providing flexibility for new instructional approaches.

Continued on page 64
U.S. Department of Agriculture
Northern Crop Research Center, Fargo, ND
"We wanted...(the structure) to tie into other buildings at the University, so we used a color of brick found on the adjacent structure, plus two other colors predominant on campus. The patterning of the brick draws from the Scandinavian tradition of enlivening utilitarian structures with color and pattern, creating visual interest during the long northern winters."
- Loren Ahles, AIA, Project Designer
- Hammel, Green and Abrahamson, Inc., Minneapolis
Photography: Tom Hlataty

Burnsville Marketplace – Burnsville, MN
"Brick was chosen as the primary facing material...for all the long established, practical advantages; durability, low maintenance and cost effectiveness. Equally important...were the major aesthetic benefits...Brick was consistent with the surrounding context. The inherent design flexibility of unit masonry coupled with the available ranges of color and texture ensured us that Burnsville Marketplace would indeed age with interest."
- John Gould, AIA, Director of Design
- KKE Architects, Inc., Minneapolis
Photography: Lea Babcock

Warroad Public Library – Warroad, Minnesota
"We selected brick for this project both to emphasize the horizontality of the design and to root the building firmly into its site. Brick connotes permanence and stability, while its modular form gives pattern to otherwise unrelieved surfaces."
- Sarah Susanka, AIA–Mulfinger, Susanka & Mahady Architects
Photography: Peter Kerze

**Just A Few Of The Strong Statements Architects Have Made About Us.**

Attractive and flexible. With a myriad of colors, textures and styles, it's no wonder award-winning architects design with masonry. Call (612) 332-2214.
See us at booth #314 at the AIA Minnesota Convention
How much control do you have over your environment? If you're an elementary or middle-school student, the answer may be "very little." Administrators and teachers traditionally call the shots. The buildings themselves, with their long circulation corridors or rigid rows of desks, often prove uninspiring—sometimes intimidating.

Things are changing. Administrators are recognizing that students are the primary client. Students need to feel that the school is designed for them and that the curriculum is planned for them. After all, school is where kids spend the greater part of their day. It's their home away from home. They need to feel they have control.

In this issue, we feature a group of schools that reflects students' changing needs. Architects are designing schools that capitalize on team approaches to education. In this high-tech world, computer labs are as common today as typing labs were 20 years ago—even at the kindergarten level. But changes in school design go beyond the integration of computers into classrooms. Individual classrooms with four walls are being replaced with open rooms clustered around shared break-out spaces to encourage interdisciplinary approaches to education. (See Insight.) The word "house" keeps popping up when architects talk about school design, as with the Farmington Middle School or the Grant Park Center. Libraries have become media centers where students from all levels meet on common ground, as with the North Woods Elementary School.

School design also is taking a greater interest in students' cultural heritage. The Mounds Park All-Nations Magnet School in St. Paul and the Fond du Lac Community College in Cloquet, Minn., reflect the student body's ethnic background. By recognizing ethnicity, schools recognize the importance of individuality.

These seven featured schools share a common goal: to create environments in which children have a personal investment. That personal investment is the key to building better schools.

Eric Kudalis
Editor
Breaking

ARCHITECTURE MINNESOTA
The North Woods Elementary School establishes a fresh architectural curriculum

The North Woods Elementary School in La Crosse, Wis., is based on a traditional model for school design, but it doesn’t look traditional. That’s because the clients wanted a school that would make a striking architectural statement.

“The clients wanted to push the look of the building,” says Kevin Sullivan of Wold Architects & Engineers. “They wanted a school building that was going to be unique—and that gave us [the architects] more freedom to investigate design options.”

Sullivan calls this a standard T-shaped building. Individually enclosed classrooms line traditional linear

By Eric Kudalis
The North Woods Elementary School in La Crosse, Wis., breaks from tradition with an eclectic mixing of geometric forms. Three metal-clad cubes (preceding top) house administration, music and art. A line of clerestory windows filters light into the main corridor (preceding bottom). A small amphitheater (top) serves as an outdoor classroom. Administration offices are next to the main entrance (bottom).

The architects took the T-shaped floor plan and split it down the middle, pivoting the two halves of the T outward. They then wedged a pie-shaped general-purpose area in between to house the media center, computer labs, and an informal gathering space and stage for large-group instruction. Classrooms with partially windowed fronts face the commons area and media center. Students from different grades can meet on communal turf, breaking down some of the barriers between age levels. The preschool and kindergarten, necessarily, are in a separate wing.

From the outside, the building strikes a pose between the traditional and the eclectic. The red-brick façade has a clean, modernist look, enhanced by a series of boxlike clerestories that march along the roof, feeding light into the corridor and classrooms. Contrasting from the staid brick façade are three metal-clad cubes tilted in different directions. Housing administration, music and art, the cubes’ geometric posturings are meant to reflect the ever-changing nature of technology and curriculum, according to the architects. What they really do, however, is add visual excitement, suggesting motion and energy—qualities appropriate to teaching and learning.
The art studio overlooks an open field (above). Skewed windows add visual energy. The architects pulled apart the standard T-shaped floor plan and wedged the media center and other functions in between (plan below).
Urban curriculum

The University of St. Thomas opens the books on downtown Minneapolis

Though in an urban setting, the University of St. Thomas's downtown-Minneapolis campus recalls traditional campus planning. A clock tower (above) faces the downtown core. The L-shaped building forms a courtyard (below and above right) where students can relax between classes. The main hall (opposite bottom) will feature a fresco ceiling by artist Mark Balma.

By Bette Hammel

The fact that the new L-shaped, 150,000-square-foot University of St. Thomas building in downtown Minneapolis echoes the neo-Gothic architecture of the University’s 107-year-old St. Paul campus is no accident.

St. Thomas’s associate director, Marlene Levine, says that the University originally discussed building a contemporary structure, but soon dismissed that idea because of the corporate image such a design could project.

Says Monsignor Terrance J. Murphy, chancellor of St. Thomas and its 25-year president, “We wanted a campus that was a true reflection of our University.”

Though in an urban setting, the campus is very much modeled after traditional campuses. A 74-foot-high clock tower, its clock-face numbers intricately carved in stone, helps set the proper collegiate tone while offering a gateway to the city. A series of gables marches across the roof line, reinforcing the Gothic design. The main entrance at 10th Street and LaSalle Avenue, set off by granite pavers to form a 10-foot buffer from the street, faces the city’s business and shopping district.

The need for a downtown campus became clear in 1987 when, due to sharp growth in its graduate program in St. Paul, the University began offering courses for 285 adults in the former Powers department-store building in downtown Minneapolis. By 1992, more than 1,350 students attended classes downtown. The University envisions up to 4,000 graduate students to be enrolled on the new campus, focusing mainly on business, with some courses in education and technology. The downtown campus is unique in that most of its students are working adults, ranging in average age from 30 to 40.

The 28 classrooms, larger than your typical class-
rooms and offering wide tables and comfortable chairs instead of desks, are equipped with video monitors and facilities for teleconferencing. Other interior spaces include a high-tech multipurpose auditorium seating 250, a cafeteria called Food for Thought on the second floor, a library and resource center, bookstore, several lounges, computer lab and audio-visual services.

One of the building’s most striking features is the 2-story, rectangular atrium flanked by 12 columns and anchored by a Y-shaped stone stairway. The barrel-vaulted ceiling in the “Hall of Founders” will be painted by fresco artist Mark Balma (see Up Close). The design will incorporate the seven virtues—faith, justice, prudence, hope, temperance, fortitude and charity. St. Thomas’s donors will be painted in fresco on the 12 columns, scheduled for completion in 1995.

As is, the building’s neo-Gothic architecture is a reassuring urban presence, an academic oasis in downtown Minneapolis.

Bette Hammel is a Minneapolis-based writer.
Native American traditions

Fond du Lac Community College keys in on cultural diversity
In 1978, when Fond du Lac Reservation leaders first explored the idea of establishing a college, they envisioned a tribal college, one like 25 others in the country that are tribally controlled, federally funded and focused on Indian students. What evolved from these early discussions, however, is a unique institution that blends the tribal model with the Minnesota Community College model. An official part of both systems, the new college receives federal and state financial support and operates under a power-sharing arrangement between the state and the tribe. Its dual character also is expressed in the curriculum and architectural design of the new campus.

Lester Jack Briggs, director of the college and a member of the Fond du Lac tribe, points out that the school offers Native American and nonnative American students the basic liberal-arts curriculum. The college also stresses Ojibway languages and culture courses.

Briggs says, "We want a duality here, a diversity. We want to serve the scholarship needs of all the students, and we want a college that serves all communities. We want it to continue to build bridges for creating sensitivity and understanding among all groups of people."

The bridge-building efforts between the tribe and the surrounding white community, though tense at times, brought community-college classes to the reservation’s Ojibway school and then to Cloquet’s old Garfield Elementary school. The next step was the establishment of a broad-based partnership that built the new campus, located just south of Interstate 35 at Cloquet, Minn. The new facility, by Thomas Hodne Architects, design architect, and Damberg, Scott, Peck & Booker, architect of record, accommodates 500 full-time students. It opened in 1992.

The site is a 38-acre red-pine plantation donated by Potlach Corp., with sewer and water facilities supplied by the city of Cloquet and Carlton County. The state of Minnesota paid for the $7 million building.

The challenge to the design architect, Thomas
H. Hodne Jr. of Winnipeg and Minneapolis, was finding a relevant and exciting architectural representation of the college's dual nature. Specific symbols and their possible architectural expression were generated in meetings between Hodne and the building task force. Elders of the Fond du Lac tribe advised them on native symbols.

Compared with the nonnative approach, Hodne says the native view tends to embrace nature more, and to utilize softer lines and shapes. The idea is exemplified by the circle, as opposed to finite lines, squares, rectangles and triangles.

The main approach to the college offers an immediate sense of the dual concept. A long sidewalk runs through the planted, evenly spaced red pines, providing the visitor with repeated visual flashes of lateral and angled lines. At the front of the building the circle is prominent in the domed amphitheater, which is bisected by a 2-story wall of glass that forms indoor and outdoor sections. The inside is the student center. This part of the building was inspired by the idea of the sacred circle, symbolizing continuity, community, the seasons, and the drum and its (heart)beat.

Other native symbols include the thunderbird (a sacred animal associated with thunder/heartbeat) which inspired the building's shape, as viewed from above; and red, black, yellow and white (the colors of the Fond du Lac tribe), each of which appears on a major section of the building.

The finite lines of the nonnative culture appear in a wide variety of square, rectangular and triangular shapes, including the windows. The “cross” site clearing recalls the grid and the Christian heritage of most of the area’s nonnatives. The corrugated metal walls of some sections recall local farm structures.

Minimal trees were cleared from the site, with some used as exposed supports inside. Trees surround the buildings, except on the north, which allows a view of the administrative offices and library from the Interstate.

A day-care center at the back of the building brings together native and nonnative children in a circular motif, symbolically reinforcing the college founders' hope that these early connections of children will continue into their adult lives.

Richard (Dick) Cain is a free-lance writer and photographer who lives north of Deer River, Minn.
The Grant Park Early Childhood Family Development Center on Minneapolis's north side is an educational home for many of the city's economically disadvantaged preschoolers. Designed by Setter, Leach & Lindstrom, the 58,000-square-foot facility houses several child-service organizations, including administrative offices for Parents in Community Action Inc. (PICA), the federally funded Head Start grantee for Hennepin County.

In addition, the facility offers room for Way to Grow, Mary T. Wellcome Child Development Center, The Family Service Center, and Minneapolis Public Schools programs. It also provides on-site dental and medical care.

Though the size may seem foreboding to a child, the building is broken in several smaller units. Different programs are sectioned into separate zones. Head Start has 14 classrooms and a "muscle area"—or play and exercise area—on the west half, while Mary T. Wellcome has six classrooms and open muscle area for day care on the east half. The rest of the structure houses administrative offices, a cafeteria with a curving window wall overlooking the landscaped playground, and a large general-purpose room called Harris Hall, which can be divided into thirds.

The building responds to the neighborhood by evoking an image of home. The curving, aluminum-clad front entrance, architect John Litchy says, orients children to the city by angling toward the downtown skyline. Its geometry reflects the round church across the street. A series of gables painted bright primary colors marches along the front, each defining a commons area, or "house." Homes once dotted the site before urban renewal moved in some 20 years ago, and the gables help rekindle the residential past. The architects continue the residential tone inside, with roof forms above doors and parklike lampposts in the exercise areas.

For young children and their families, the Grant Park Center is a welcome addition, an inviting place where many of their child-care needs can be met. 

**Eric Kudolis**
The Ardolf Science Center offers a traditional architectural presence (above and below) on the St. Benedict campus, reinforcing an emerging quadrangle. The interior is strikingly minimal. A granite stairway with stainless-steel railings (opposite) leads to the second level, highlighted by a glass-block floor (right).

The new Ardolf Science Center, designed by Grooters Leapaldt Tideman Architects of St. Cloud, Minn., and Perkins & Will of Chicago, occupies a key site on the St. Benedict campus, a Catholic women's college 75 miles northwest of Minneapolis. Located on the north end of campus opposite the new library, the building helps set the stage for a developing formal quadrangle. In time, according to a master plan devised by Grooters Leapaldt Tideman, other buildings will define further the north campus's edges, establishing a new entrance and community focus for the college's 1,800 students.

Not a trend setter, the 2-story Ardolf Science Center further enhances the college's established architectural character. A high-pitched gabled roof is in scale with the other buildings, while the red-brick façade with precast-concrete banding offers a sturdy and distinguished campus presence, a perfect anchor to the quad.

The 42,857-square-foot chemistry building is divided into three separate sections to house faculty offices, laboratories/curriculum support and general classrooms. A sky-lit circulation spine cuts through the building, separating the high-traffic classrooms from the laboratories and offices.

As the main circulation corridor, the spine connects with a secondary corridor leading to the labs and offices. It also serves as a campuswide pedestrian street that links up with other buildings. Students can leave the library, for instance, pass along an outdoor courtyard and cut through Ardolf on their way to the student center or Henrita Academic Building. Students from nearby St. John's University also use the building.

The spine is the architectural center of the building, filled with light reflecting off the metal and glass surfaces. The interior is starkly beautiful and expressive of its materials. A granite-tread stairway with stainless-steel railings and perforated-metal risers leads to the upper corridor, where a glass-block floor is framed in a metal grid. Walls and exposed ducts are washed in white, a clean aesthetic appropriate to science.  

Eric Kudalis
CULTURAL SYMBOLISM

An architect and school principal discuss the influences of Native American traditions in the design of the Mounds Park All-Nations Magnet School.

Students drew their interpretation of a “peaceful school” (above). The circle, an important form in Native American culture, is incorporated into the school’s addition (above and right). A limestone, wood and steel sculpture by Navajo artist Jake Castillo stands in the school’s commons area (opposite).
By Cornel Pewewardy and Paul G. May

The four seasons—the four directions—messages of the Great Spirit, inspired Native American people to build homes that had purpose and meaning tied to nature. Many Native American people say, “You will know us by our homes.”

As the Mounds Park All-Nations Magnet School was being built in the spring of 1991 on St. Paul’s east side (near the Native American burial grounds within Mounds Park), the St. Paul architectural firm of Winsor/Faricy and the school’s newly selected principal focused on the different forces that shape Native American architecture—from economic and ecological to the social, technical, historical and spiritual.

Winsor/Faricy worked with school officials, neighborhood residents, parent groups, teachers and students of the American Indian Magnet School Program and the World Cultures and Languages Magnet School Program to develop a design reflective of their unique needs. Group meetings were opportunities to establish a spirit of belonging with the new school, and to exchange and share histories and visions for the place. The philosophical goal was to place education into culture rather than continue the practice of placing culture into education.

The circle is a sacred symbol of life to Native Americans. Sections within the circle are all connected to each other, and what happens to one section is affected by the other. Black Elk, who belonged to the Oglala division of the Teton Dakota, one of the most powerful branches of the Siouan family, discusses the circle in his 1931 autobiography:

You have noticed that everything an Indian does is in a circle, and that is because the Power of the World works in a circle, and everything tries to be round. In the old days when we were a strong and happy people, all our power came to us from the sacred hoop of the nation and so long as the hoop was unbroken the people flourished. The flowering tree was the living center of the hoop, and the circle of the four quarters nourished it. The east gave peace and light, the south gave warmth, the west gave rain, and the north with its cold and mighty wind gave strength and endurance. This knowledge came to us from the outer world with our religion. Everything the Power of the World does is done in a circle. The sky is round and I have heard that the earth is round like a ball and so are all the stars. The Wind, in its greatest power, whirls. Birds make their nests in circles, for theirs is the same religion as ours. The sun comes forth and goes down again in a circle. The moon does the same, and both are round.

Even the seasons form a great circle in their changing, and always come back again to where they were. The life of man is a circle, the nation’s hoop, a nest of many nests where the Great Spirit meant for us to hatch our children.

The Medicine Wheel Circle is a vital part of the Northern and Southern Plains Indian cultures, as well as other tribal cultures. The sacred circle provides the basic foundation for spirituality, family structure, gathering of people, meetings, songs and dance.

Each of the four cardinal directions of the circle represents one of the elements of the Universe. For people who recognize this holistic unity, the natural forces of the universe inspire a wholeness of being. The world view of Native Americans holistically interrelates all components of life. Tribal structures of life cannot be fragment-ed due to the intrinsic binding and interconnecting power of the sacred circle. The symbolic strength of the circle was translated into the design approach and the resulting built form of their architecture.

According to Peter Nabokov and Robert Easton in their book, Native American Architecture, the term architecture refers to more than just the design and decoration of buildings. It embraces what happens whenever human thought or action makes order and meaning of random space: naming places, designating sacred parts of wilderness, clearing village areas and garden plots, claiming food-gathering areas, planning and constructing buildings, and arranging the spaces that surround and connect them. Finally, it includes the often unseen social and religious meanings that are encoded into buildings and spatial domains.

The new All-Nations Magnet School is located within a historic 1924 school, left vacant for nearly a decade. While there were some proponents of tearing down the

Continued on page 65
TRANSITIONAL STAGES

A new middle school personalizes education

The Farmington Middle School, designed by Armstrong, Torseth, Skold and Rydeen for grades six through eight, takes a homelike approach to education. Classrooms are clustered into six “houses” for 150 students each.

Following a national trend, the clustered-classrooms concept creates smaller groups that enable a more personalized educational experience between student and teacher, according to the architects.

The 190,000-square-foot facility is designed for interdisciplinary team teaching, with shared commons areas for teacher preparation, homeroom activities, language arts, math, social studies, and special-education classes. Students remain part of the same house for three years, enabling them to develop friendships and responsibilities in an environment in which they have some control.

“The house concept becomes a transitional place for students moving from elementary school, where they are nurtured, to high school,” says William Snyder of ATS&R. “It gives them the support they need.”

The new $15 million facility is a state-of-the-art contrast to the former middle-school building, originally built in 1913 and added onto in several stages. Old desks and creaky wooden floors

The 190,000-square-foot Farmington Middle School has a clean exterior of brick and glass (opposite). Large windows in the library (above) and by the main entrance (below) offer plenty of light to interior spaces.
were replaced with two computer rooms, modern science labs, and video hook-ups in each classroom. The facility is divided into five components, incorporating a 2-story academic wing, plus an industrial arts/music/home-economics wing, physical education area, cafeteria, and administrative/media center. Each component stands as an individual building, sheathed in glass and brick. A staircase connects the classroom building to a mall-like concourse, which serves as the major circulation spine that links the five sections.

The mall is the heart of the school and serves as a casual gathering spot. Floor-to-ceiling windows by the entrance and main stairs, along with clerestories running the length of the spine, keep the space bright. The mechanical systems and structural supports are left exposed, thus increasing the openness with high ceilings. Color adds visual interest. In fact, the architects let the students participate in the design process by having them choose from two different color schemes for the main hall. They thus chose to paint the exposed ducts, piping and steel supports in subdued tones of purple, green, yellow, burgundy and blue. The media center, too, is enlivened with a patterned green and purple ceiling.

For the students, the new school is a place that they can indeed call home.

Eric Kudalis
In Buster Keaton's film classic, One Week, the protagonist and his bride purchase a mail-order house from the Portable House Co., guaranteed for easy assembly in seven days. A rival, however, gets to the railway station before the newlyweds and changes the numbers on the crates in which the parts have arrived. One week later, the couple's ramshackle abode has a buckling roof and sagging porch, and curtains billow from ill-fitting windows.

Inspired by a documentary film promoting mail-order houses that could be purchased complete and built in a week, One Week must have delighted turn-of-the-century movie goers and mail-order home owners alike. Because in the late-19th and early-20th centuries, the Hodgson Company, Alladin Homes, Montgomery Ward and Company, and Sears, Roebuck and Company all entered the mail-order housing business. In this endeavor, as with catalog sales, Sears was the undisputed leader.

Between 1908 and 1940, more than 100,000 American families turned to Sears not only for items to fill their homes, but for the houses themselves, according to Katherine Cole Stevenson and H. Ward Jandl, authors of Houses by Mail: A Guide to Houses from Sears, Roebuck and Company. During the years its catalog Modern Homes was published, Sears displayed approximately 450 ready-to-assemble designs. These designs varied from two-room cottages to 10-room residences in a range of architectural styles, including colonial, Spanish, Queen Anne, Cape Cod, split level and even prairie-school style.


"After the depression of 1893, development in metropolitan areas started to expand with the streetcar," says Charlie Nelson, the state historical architect with the Minnesota Historical Society in St. Paul. Land was cheap and companies like Sears decided to "produce as many
houses as they could as fast as they could as fashion-ably as they could. To buy a parcel of land and order a house from a catalog—people were ready to jump at that.”

As an added incentive, Sears’s financing plans often included loans for the lot and labor, as well as the house. Ranging in price from $200 to $3,500, the houses were manufactured by Sears and ordered from Sears representatives. Parts were loaded into boxcars and shipped by rail, mainly throughout the Midwest and Northeast. Shipping dates were staggered so materials arrived when needed. Building paper, nails, lumber and frames came first; millwork and the laundry tub arrived last. According to Stevenson and Jandl, “the number of separate parts, not including nails or screws, averaged about 30,000 in an ordinary house” and “a typical Sears house, unassembled, could fit into two boxcars.” Sears provided detailed construction manuals, and at the customer’s request would arrange for local contractors and supervise construction.

The popularity of Sears’s low-cost, mass-produced houses “reflected a brand-new type of consumerism” in America, Nelson says. “Middle-class working families had an opportunity to take their savings, purchase some land, become a home owner and achieve a newfound respectability. Buyers felt comfortable because they would fit in and their house would fit in. None of these houses were sore thumbs or reflected conspicuous consumption. They reflected sturdiness, acceptability, quality construction at low price. They showed good clean living and that the owner had achieved middle-class status.”

Sears’s bungalows and prairie foursquares were also “this nation’s first American-inspired residential architecture,” says Robert Roscoe, of the architecture firm Roark, Kramer, Roscoe Design, and commissioner of the Minneapolis Heritage Preservation Commission. “Sears bungalows were inspired by high-style bungalows designed by California architects Charles and Henry Greene in the early-20th century,” he says, whose style promoted “a democratization of architecture” over a European “privilege-based pretension.”

Prairie foursquares were an outcome of balloon framing, invented in the Midwest in the 1830s, Roscoe continues. “In the Midwest, previous architectural styles came in the suitcases of New England transplants who had more European values. Germans and Scandinavians who settled here had more of a sense of practicality, and Sears homes appealed to their sense of utility and economy. In this way a foundation of an American style was laid, meaning the bungalow and the prairie foursquare were the first architectural styles that were homegrown rather than derived from European influences.” People who purchased these homes, he adds, “wanted to be modern, they wanted to say ‘we’re home in America and we don’t have to pretend we’re immigrants anymore.’”

Mail-order houses on the grand scale Sears offered are no longer available. But today “you can find the grandson of the Sears house in Lino Lakes or Eden Prairie,” Nelson says. Dream homes within economic reach of today’s consumers, produced through such companies as Rottland Homes and Life Time Homes, are available through contractors. If it’s a wish book you want,

Continued on page 66
When you need help or have a question on a stone project, do you really want to call someone in another hemisphere who may or may not speak your language?

With Cold Spring Granite, you'll find knowledgeable -- and local -- field sales representatives ready to answer questions and offer unmatched service.

COLD SPRING GRANITE OFFERS:

- Over 90 years of industry leadership
- 28 distinct colors in a variety of finishes
- Over 30 company-owned quarries ensuring stone consistency and timely delivery
- Reliable service and technical support

From dramatic skyscrapers to impressive landscaping and paving detail, Cold Spring has the expertise, the products and the local service to let you rest easy. And that's the truth. In plain English.

OUR FRIENDSHIPS ARE MADE IN STONE.

COLD SPRING

COLD SPRING GRANITE COMPANY 202 SOUTH THIRD AVENUE COLD SPRING, MINNESOTA 56320 1-800-551-7502 FAX 612-259-3452

---

Don't miss one of the three largest state AIA shows in the nation!

ALL UNDER ONE ROOF--

Timely and stimulating programs, activities for all, 200 exhibit booths providing an opportunity to do one-stop shopping for upcoming projects--an education in itself!

All architects, landscape architects, builders, contractors, engineers, facility managers, interior designers and other professionals in the design and building industries are welcome to attend.

*No exhibit hours on the 29th.

AIA Minnesota
AIA Minnesota’s 59th Convention & Products Exposition October 27, 28, 29*, 1993 Minneapolis Convention Center 612•338•6763 CALL
There were two giants of reinforced concrete engineering just after the turn of the century. In Europe it was the Swiss engineer Robert Maillart, who designed a number of elegant bridges. In America it was C.A.P. Turner.

The development of the first flat-slab structural system that began to use the unique advantages of reinforced concrete was the work of a Minneapolis engineer—Claude Allen Porter Turner (1869-1955). Concrete as a building material has been used since ancient times, but it was only during the last half of the 19th century that steel began to be combined with concrete to compensate for its inherent lack of tensile strength. By 1895, buildings that were strong, stable and fireproof began to appear using steel-reinforced concrete. These early experiments, however, duplicated the forms used for timber and cast-iron construction with columns and lintels, thus making them grossly overbuilt.

By 1903 Turner had theoretically determined that the bending stresses within a building could be transmitted to the floor from the column by tying the floor directly to the column in both directions with steel reinforcement. The omission of the beams would allow a greater ceiling height to a building with a given floor-to-floor height. The windows could be larger and the form work was simpler.

To compensate for the shear stresses that would concentrate around the columns and try to punch them through above, Turner enlarged the columns' capitolts, producing the visual effect that gave the system its name—the "mushroom slab." It was a structural system that was possible in no other material and was the first use of concrete in a way that would appeal to the "form follows function" aesthetic of the growing modern movement. In Switzerland, Maillart would develop the same system after 1910.

There are a number of reasons why Turner is not well known today for his accomplishments. In 1916 he lost a court battle over the patent rights to the mushroom-slab system, which forbade him from further using his system. He was also a conservative in the forms he chose because he felt that a structure had to look substantial and traditional to achieve public acceptance. This may be best seen by contrasting the thin arches and the startling lightness of the bridges of Maillart to the Mendota Bridge that Turner designed, which bears a heavier appearance in its attractive but traditional forms.

The first building to use the mushroom-slab technique was the Bovey-Johnson Building in Minneapolis in 1906. The following year the Wisconsin Central Freight Station was built using the mushroom-slab system to support its driveway. The Bovey-Johnson Building is gone but the Wisconsin Central Freight Station survives as one of the earliest examples of a structural system that began to revolutionize the use of concrete. It may be an important enough structure to warrant designation as a National Historic Landmark for its place in the history of engineering. But the Wisconsin Central Freight Station, the long warehouse building on West Hennepin and the Mississippi River, will be torn down with the Berman Buckskin Building and a number of other 1880s buildings to make way for the new Federal Reserve Bank Building. **Steve Buetow**
Are You Concerned About the $$$$$ You Spend on Workers' Compensation Insurance?

The DPSA Group Workers' Compensation Plan rates may save you money, and the Plan also has the potential of paying dividends if claims and expenses are less than premiums!! DPSA's record speaks for itself... over 28% of premiums have been paid as dividends on average over the last 8 years!!

The ONLY Workers' Compensation Program endorsed by the AIA Minnesota Insurance Trustees. If interested, also ask about the AIA Minnesota-endorsed Group Life and Health Insurance Program.

Please contact Kelley Cunningham or Joni Wilken at AA&C by calling toll free 1-800-854-0491.

AA&C, Putting People First

It's Illegal To Copy AIA Documents.

Don't Copy AIA Documents Or Ask Others To Do It.

It's against the federal copyright law to copy AIA Documents or to ask others to do it for you. Using original AIA Documents protects you, too. Documents that have been copied might contain obscured changes or be outdated, containing old language that does not reflect current case law and construction industry practices. Using copied Documents could increase your liability significantly. It's just not worth the risk. Contact us today.
These two projects examine the structure of office buildings.

Compiled by Tad Gloeckler and Tony Rauch

Office addition by Tony Rauch
This addition rises up over the site like a torch. As it hangs off the existing building, its flameliike pedals open up like a flower, revealing windows. The rooms are strung vertically along the elevator shaft to block as few existing windows as possible, contrasting the boxiness of the original building.

Office building by Dan Noyes
The analysis of everyday objects created a method for investigating the formal structure of a small office building to be placed on a 12-foot-deep by 60-foot-long sliver of land. Office functions such as work stations and filing cabinets are lined on 8-foot-wide floors that are then stacked like shelves. The thin building is placed 4 feet from an existing structure to create an interior light and stairwell between the two buildings.
Order AM Reprints

And Get The Most For Your Marketing Dollar

Custom Formatting Available

For More Information Call

Peter Rand, FAIA, Publisher

612/338-6763
Learn from our "Yearbook"

Minnesota has a rich tradition in the design of outstanding academic facilities, a tradition that continues today. And, of course, only a small glimpse of that tradition can be editorially highlighted in any single issue of *Architecture Minnesota*. Therefore, for this special issue of *AM*, we invited all Minnesota firms to share their school design expertise with our readers.

The "School Yearbook" on the following pages will introduce you to the broad range of Minnesota firms that are actively involved in the design of academic facilities. Yes, they’ve provided financial support for this introduction, but *AM* readers can study this "Yearbook" and be confident that they’ve become acquainted with the true breadth of talent that characterizes Minnesota’s design community.

Peter Rand, FAIA
Publisher

---

Ankeny
Kell
Richter
Walsh
Architects

Como High School, St. Paul, MN
Harding High School, St. Paul, MN
University of Minnesota, Minneapolis, MN
St. Paul Academy & Summit School, St. Paul, MN
Lakewood Community College, White Bear Lake, MN

Experience in Educational Facilities
Ronald M. Hubbs Center for Lifelong Literacy, St. Paul, MN
University of St. Thomas Business School, St. Paul, MN
University Center at Rochester, Rochester, MN
Sheridan Elementary School, St. Paul, MN
Concordia Academy, St. Paul, MN

821 Raymond Avenue, Suite 400, St. Paul, MN (612) 645-6806
Architects and Engineers

Educational Planners/Consultants

Landscape Architects

Interior Designers

Field Administrators

Education Specialists For 40+ Years

93% of Work Educational: K-12

Educational Specifications

Feasibility Studies

Master/Long Range Planning

Technology Expert On-Staff

National/International Recognition

Design Philosophy Centers on User

Principals:
James E. Rydeen AIA
Kenneth E. Grabow AIA
Rodney E. Erickson CCS
William V. Snyder AIA
Paul W. Erickson AIA
Tammy S. Magney AIA
Daniel C. Moll AIA
Paul L. Snyder AIA

4901 Olson Memorial Highway
Minneapolis, MN 55422
(612) 545-3731 / FAX (612) 525-3289

OUR GREATEST REWARD IS CLIENT SATISFACTION!
Architectural Resources, Inc. has been providing architectural and engineering services to Minnesota academic institutions for five decades.

HIBBING • BEMIDJI • DULUTH

ARCHITECTURAL RESOURCES • INC.

704 EAST HOWARD STREET, HIBBING, MN • 218-263-6868
Schoo1 Yearbook

Education Art Building/Bea nidji State University

Architects IV

Providing Architectural Services To The Educational Community For Over 60 Years

218 • 728 • 5124

DANA LARSON ROUBAL AND ASSOCIATES/ DLR GROUP

- Educational Facilities Consultants
- Planning
- Programming
- Design
- Construction Management

EDUCATIONAL FACILITY PLANNING AND DESIGN IS OUR BUSINESS... OUR ONLY BUSINESS!

7600 France Avenue, Suite 100
Minneapolis, Minnesota 55435
(612) 831-7773

27 Years of Service to Kids and Communities

We emphasize a team approach using our creative leadership at a reasonable cost.

Engan Associates: Architects, P.A. has been renovating, designing and building top quality educational facilities since 1979.

<table>
<thead>
<tr>
<th>DESIGN</th>
<th>TECHNICAL</th>
<th>MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>Competent</td>
<td>Input</td>
</tr>
<tr>
<td>Flexible</td>
<td>Compatible</td>
<td>Leadership</td>
</tr>
<tr>
<td>Compatible</td>
<td>Thorough</td>
<td>Teamwork</td>
</tr>
<tr>
<td>Beautiful</td>
<td>Current</td>
<td>Value</td>
</tr>
</tbody>
</table>

Engan Associates: Architects, P.A.

...where our service begins with listening.

ENGAN ASSOCIATES:
ARCHITECTS, P.A.

316 West Becker Ave.
P.O. Box 99
Willmar, MN 56201
612–235–0880  800–650–0880

This space has been paid for by the firms listed.
Over Twenty-Five Years of Experience Emphasizing Educational and Recreational Facilities

Ronald W. Buelow AIA
Steven E. Albertson AIA
16 YEARS OF EXPERIENCE IN SCHOOL DESIGN
ELEMENTARY AND SECONDARY FACILITIES
ACCESSIBILITY AND FIRE SAFETY CODE ASSESSMENTS
DESIGNING FOR THE LEARNING ENVIRONMENT
NEW BUILDINGS OR REMODEL OF EXISTING BUILDINGS
LONG-RANGE PLANNING STUDIES

SCHOOL ARCHITECT

Clark D. Wold, FAIA

Has Joined

Delano Erickson
Brian Cluts
Dan O'Brien
Paul Strother

For

ARCHITECTURE FOR EDUCATION

7520 Market Place Drive 941-4822
Eden Prairie, Minnesota 55344 544-8370

GROUP II ARCHITECTS PA

Architects for school plant facilities in southwestern Minnesota since 1979

- Planning and Design
  New facilities
  Additions and remodeling
  Accessibility retrofit
  Life safety improvements
  Repair & betterment projects
- Facilities management services

104 West Redwood
Marshall, MN 56258
(507) 537-1511

This space has been paid for by the firms listed.
Serving clients since 1968

architecture • planning • interior design

300 First Avenue North
Minneapolis, MN 55401

KODET ARCHITECTURAL GROUP, LTD.
15 Groveland Terrace
Minneapolis • MN • 55403
612 • 377 • 2737

Creative Solutions That Work

University of St. Thomas
Minneapolis Campus

Opus Architects
& Engineers, Inc.
The Leonard Parker Associates provides comprehensive planning and design services for a broad spectrum of architectural projects, including:

- architectural design and documentation
- urban design and planning
- master planning
- functional and space programming
- site evaluation and analysis
- feasibility studies
- interior architecture
- project management
- construction phase services
- commissioning and post construction services

Opperman Hall and Law Library
Drake University

The Leonard Parker Associates, Architects
612 871 6864
Minneapolis, Minnesota
At Stegner-Phelps Architects, creating an environment in which young minds, and their teachers, have the freedom to reach their potential depends on three things: our 35 years of experience designing educational facilities, keeping ahead of educational trends, and successfully working with school leadership at all levels. The result? An environment in which young minds can accept the most precious gift offered them: an education.

STEGNER • PHELPS ARCHITECTS, P.A.

222 Laurel, Brainerd, Minnesota 56401 • (218) 829-2255 • Fax (218) 829-2267
ARCHITECTURE FOR EDUCATION

“Buildings where students and teachers like to be.”

Foley High School
Foley, MN

Pillager School
Pillager, MN

Stewart Hall, St. Cloud State University
St. Cloud, MN

SHORT ELLIOTT HENDRICKSON INC
St. Paul • Minneapolis • St. Cloud • Chippewa Falls, WI • Madison, WI 1-800-572-0617

This space has been paid for by the firms listed.
Over 75 years of experience in award-winning educational facility design

Setter, Leach & Lindstrom, Inc.
Architects & Engineers

1100 Peavey Building
2nd Avenue at 8th Street
Minneapolis, Minnesota 55402-2454
(612) 338-8741

"placing education into culture"
- C. Pewewardy

This space has been paid for by the firms listed.
Committed to Minnesota Education
Serving School Districts For Over 25 Years......

WOLD

REFERENDUM PLANNING

LONG-RANGE PLANNING

PROGRAMMING/INTERIORS

SCHOOL ARCHITECTURE

ENGINEERING

COST ESTIMATING

VALUE ENGINEERING

6 WEST FIFTH STREET
ST. PAUL, MN 55102
612.227.7773
CONTACT: KEVIN SULLIVAN

WOLD ARCHITECTS AND ENGINEERS
which she collaborated with architect Vince James.

Soranno has worked for several Minnesota architecture firms, and she contributed to the design of some of the state's most important recent buildings. At Hammei Green and Abrahamson, where she worked from 1986-1990, she was involved in the design of the winning competition for the Minnesota History Center and was a team member for the design-development and construction-documentation phases of that building. In 1991, she moved to Meyer, Scherer and Rockcastle, where she contributed to the University of Minnesota Frederick R. Weisman Art and Teaching Museum, designed by Frank O. Gehry of California. For James/Snow Architects, which she joined in 1992, she was involved in the design and documentation of the St. Paul Children's Museum, by James/Snow and The Alliance.

Soranno is also an accomplished watercolorist. She's exhibited her art at the University of Minnesota, the Minnesota History Center, Thompson Gallery, Landmark Center, the Minneapolis College of Art and Design, and the University of Wisconsin-Milwaukee.

"Watercolors have become a valuable tool in my design process," Soranno says. "By experimenting with both classical and abstract watercolor techniques, ideas about light, form, material and color can be explored in a 2-dimensional medium."

The other two young architects cited were Brett Keath Laurila, from Venice Beach, Calif.; and Thomas Somerville Howorth, president of AIA Mississippi.

In its first year, the Young Architects Citation seeks to identify emerging architects who have excelled in architectural design, education and/or service. Recipients must be AIA members who have been licensed for less than 10 years. Jurors included Harry Bobinson, dean of Howard University's architecture school, Washington, D.C.; Sylvester Damianos, former AIA president from Pittsburgh; and Douglas Austin, AIA Board of Directors member from San Diego.
Five Jerome Artists
MCAD Gallery
Minneapolis
Through Oct. 7, 1993

Recipients of the 12th annual Jerome Fellowship program will display their art. This year’s artists, who reside in the Twin Cities, are Angela Dufresne, painter; Tim Jones, painter; Chris Larson, sculptor; Andrea McCormick, sculptor; and Shawn Smith, photographer. The fellowship supports emerging artists by providing financial aid, as well as exposure and critical input. The winners were selected from a field of 230 applicants.

For more information, call MCAD at (612) 874-3785.

Alfred Stieglitz’s Camera Notes
Minneapolis Institute of Arts
Through Oct. 10

All 91 photogravures from Camera Notes, a journal representing the formative stages of Stieglitz’s career as an editor-photographer, will be displayed in this exhibit. Produced between 1897 and 1903, it is the artist’s first consistent argument for photography as art. Also included are pieces by Charles I. Berg, F. Holland Day, and Rudolf Eickemeyer Jr.

For more information, call (612) 870-3000.

1993 Remodelers’ Show
Baltimore Convention Center
Baltimore, Md.
Nov. 5-7, 1993

Sponsored by the National Association of Home Builders, The Remodelers’ Show will bring together more than 7,000 professional remodelers. The show will feature 50 new custom-design seminars, 150 workshops and 300 exhibitors.

For registration information, call (800) 368-5242.

Expansion, Renovation, Reinstallation:
A Blueprint for the Future
Minneapolis Institute of Arts
Through 1993

The Institute’s plans to renovate, expand and reinstall its permanent collection are showcased through a series of architectural models, photographs and wall diagrams.

For further information, call the Art Institute at (612) 870-3000.

From Mars to Main Street:
American Design, 1965-1990
National Building Museum
Washington, D.C.
Through 1993

Design is everywhere in our culture, from postage stamps to interstate highways and space-pressure suits. But why do things look the way they do? This exhibit explores the role government plays in the range of public-design projects, from the spacecraft Viking Lander to park benches along the main street of Georgetown, Texas. Some of the exhibit products are familiar, others obscure, but all reflect our social and cultural values and national image over the past 25 years.

For more information, call (202) 272-2448.

A House for Us All
National Building Museum
Washington, D.C.
Through 1993

Puerto Rican artist Antonio Martorell has created 12 richly fabricated installations that evoke both the physical and emotional fabric of houses. The installations represent Martorell’s association with houses—ranging from personal recollections of his childhood homes to such issues as migration and eviction. The installation Kamikaze, for instance, pays tribute to the makeshift home his family lived in after its eviction, which consisted of several mattresses in the back of his aunt’s store.

For more information, call (202) 272-2448.

up close
Continued from page 13

The design process started by transferring “cartoon” outlines to the ceiling through “pouncing,” which leaves a series of pinpoints that are connected with red ochre. Using the ochre lines as a guide, Balma applied fresh plaster daily to ceiling sections, ranging from one square foot to 10 square feet. Pigments were mixed in before the fresh plaster dried in order for the plaster to absorb the color.

The challenge of fresco painting is that “it is very unforgiving,” Balma says. A fresco artist needs to be decisive. Once the pigment is applied there are no changes.

Balma combines his knowledge of fresco technique with an awareness of imagery. For the St. Thomas project, he built his own visual vocabulary to cross over cultural boundaries.

To express “faith,” for instance, Balma used a turtle because of its importance as a creationist symbol in many religions. In addition, the turtle will appeal to children, who will connect it with turtles from story books.

Other multicultural symbols include a dragon and an eagle. By adapting the seven virtues to a multicultural society, the University integrates instead of imposes its ideals on the surrounding community, Balma says.

“The world is becoming smaller,” he says, “and the message must get bigger and be less site specific.” Frescoes, he says, are the perfect way for architecture to communicate a message.

Says Balma, “There is something frescoes do] to buildings to make them less expendable.”

John Manning is a writer with Skyway News.
With subsequent projects, Wold standardized the classroom's dimensions to 24 feet wide by 37 1/2 feet deep. This also has led to improved operating efficiency of the building as a whole. Traditional 30-by-30-foot classrooms require 30 feet of corridor space per classroom, which is 180 feet of corridor for six classrooms. By contrast, rectangular (24-by-37 1/2-foot) classrooms require only 24 feet of corridor per room, totaling 144 feet for six rooms. This 24-foot reduction in corridor length translates into savings during construction, reduced mechanical and electrical systems, and ultimately decreased maintenance and operating costs over the building's life.

And, of course, it decreases circulation distance as well.

Increasing class size, a growing emphasis on individualized instruction, the need to introduce new technologies, and the requirements of team teaching can create space demands that overwhelm even the most innovative classroom. While these pressures are crowding classroom space, many schools continue to be built with corridors dedicated solely to circulation. Using the rectangular classrooms as a building block, schools can achieve new efficiency by introducing three-walled classrooms with the corridor as a breakout support space available to each classroom. This extends the classroom beyond the traditional closed four walls. Corridors can now be used for additional educational purposes, housing such tools as computers. The open rectangular classroom plan also introduces interactive educational opportunities between different classes.

Further benefits of the rectangular design become apparent as individual classrooms are configured into "houses" or modules within the school. Each of the modules at Washington Elementary School—designed by Wold and due to open this fall in South St. Paul—consists of three, three-walled classrooms that open into a 1,000-square-foot common resource area that has computers, small group study areas and special-education resources. Because the individual classrooms are deeper than they are wide, the opening into the commons area is narrower and the relative privacy of each classroom is greater than would have been possible if three-walled square classrooms had been used.

The middle-school concept has a greater effect on facilities than any other educational philosophy. As educators strive to create nonintimidating, noncompetitive environments for students, the demand on the building structure increases. Eagan Middle School—slated for opening in the fall of 1994—addresses these demands through the creation of eight identical houses or "schools" within the building.

Like the elementary house, the core of the middle school is a series of rectangular classrooms opening into a common resource area. However, to accommodate the greater depth of the middle-school curriculum and to support collaborative staffing techniques and an interdisciplinary instructional philosophy, several other spaces must also be incorporated into each house. Two conference spaces and a centralized planning/storage area facilitate staff cooperation, provide isolated space for individual student instruction and allow parent/teacher conferences to be held within the confines of the house. A centralized computer room ensures efficient and continuous usage of technological resources. A large flexible classroom space that can be divided in two provides generic lab space that supports the study of sciences and permits flexible scheduling.

The result is an educational environment that supports team teaching and maximizes the opportunities for individualized, interdisciplinary instruction across the entire curriculum. With the exception of physical education and lunch, all student and staff activities occur within the confines of the house.

Despite the architectural changes occurring at the elementary and middle-school levels, innovations have been slower to emerge at the high-school level. Elementary and middle-school teachers have been quick to embrace an interdisciplinary approach to education. But the level of subject-specific detail in high-school curriculum poses unique challenges to the interdisciplinary approach. These challenges are intensified by the fact that the depth of the curriculum varies considerably depending on grade level. As students move through high school, they must be transitioned from a broad interdisciplinary environment into an elective curriculum of highly specialized applications.

Yet there are places for change. At Lakeville High School, slated to open this fall, Wold designed science labs for flexibility. These new generic adaptive labs are designed to be reconfigured to accommodate the subject-specific equipment necessary for advanced instruction in everything from life skills to science. Although it takes several days to convert a lab, the ability to do so without having to rework the architecture has enabled Lakeville to abandon the tradition of grouping subject departments together. This dissolution of department boundaries means that lab spaces can be clustered to achieve mechanical efficiencies in terms of plumbing and wiring. In addition, dissolving rigid architectural boundaries between departments and the clustering of lab spaces also promises to lessen academic "turf battles" and act as an aid toward more interdisciplinary instruction at all grade levels.

These examples suggest the valuable contribution that school design can make to educational reform. But such contributions can be made only if reform first has been embraced on the philosophical level by staff and administrators, and if those with philosophical ownership are intimately involved in the planning process. Under such conditions, school design can be among the most powerful allies in the battle for educational reform.

Kevin Sullivan is a principal with Wold Architects & Engineers. AM
building and starting anew, the decision to regenerate this building grew out of understanding the Native American beliefs. Tearing down would have been wasteful of resources and disturbed the balance with nature. Tearing down would have been denying the strength of previous students and teachers.

By regenerating, a respect for one's elders is established and each generation can build upon the knowledge passed on. Regeneration also respects the physical context of the neighborhood, where this 3-story school had been a landmark. The resulting continuity of past and present reinforces the educational philosophy of the school.

Thus, the existing 30,000-square-foot structure would incorporate a new 16,000-square-foot addition.

The “All-Nations Room” is the school’s cultural meeting area, serving also as a neighborhood center and “home” for students and teachers. The circular form has surrounding clerestory windows. The eastern semicircle has additional windows addressing the sunrise, the symbolic beginning of each new day. Food, symbolized by the color brown (buffalo), relates to the northwest direction, where the kitchen is located.

The relationship of nature to building is reinforced through numerous other elements. The school’s color palette is earth tones, turquoise, terra cotta, maroons. The “Journey Wall” is constructed in layers reflecting the sedimentary rock formation of the area. This wall begins outside the school on the east side (infant) and gently curves through the central commons space to the west (adult). The wall will display art work created by students and neighborhood residents, depicting noted Native Americans.

The school’s commons area is a gathering space for the neighborhood families and students. The Journey Wall represents the continuity of generations, and the interconnection of cultures. Within this space is a limestone, wood and steel sculpture by Navajo artist Jake Castillo. To All My Children incorporates cultural symbols developed by talking with students, faculty and school designers.

For the students, the school, with its architectural integration of Native American symbols and concepts, provides a positive environment that encourages learning and links them with their Indian culture.

Cornel Pewewardy, D.Ed., is principal at the Mounds Park All-Nations Magnet School in St. Paul. Pewewardy was named Indian Educator of the Year by the National Indian Education Association in 1991. Paul G. May, AIA, is an architect and urban designer with Winsor/ Faricy Architects in St. Paul. He was project architect on the Mounds Park All-Nations Magnet School.
Continued from page 41

HomeStyles magazine contains blueprints to muse over; when you're ready to build head on over to Menards. "They know the exact prices from lumber right down to the kitchen sink on a set of our plans," says Mark Englund, associate publisher, HomeStyles, Minneapolis. "Our joint venture with Menards is the modern version of the Sears catalog home."

The more nostalgic home owner may find himself preserving or renovating or living in a Sears-style home today (knock-offs and renovations make genuine Sears homes nearly impossible to authenticate). Durable and adaptable, these turn-of-the-century homes have the same appeal as when first built. In fact, in 1989 Better Homes and Gardens Home Plans Ideas commissioned Dale Mulfinger and Michaela Mahady of Mulfinger, Susanka & Mahady Architects of Minneapolis to update "The Glendale." The architects chose the foursquare house design because it's an amalgam of the Sears-style houses in which they live.

"We all tend to connect back to our grandparents, to skip a generation, to look at our personal history and dig into the roots of the culture," Mulfinger says. "People are trying to find their own basis for understanding who they are. People who choose to live in [Sears-style] houses prefer the quality of environment in these houses: in square footage they are quite small, but they have a grandeur and feeling of rich appointment. Rooms are discrete things, and the character of the rooms enriches your life."

For 20 years, Mulfinger has lived in a 1908 house that could be Sears's "Maytown" design. "When you attach a home to the name Sears, you attach it to a name that represents the commonplace, a place you could order overalls from—simple, durable, utility goods needed in everyday life," he says. "Therein lies some of the reason for the popular nostalgia of Sears houses. There's a sense that the house didn't have to be special, it had to be utilitarian. But in the end it is special by way of its utility."

Camille LeFevre is a contributing editor of Architecture Minnesota.

Advertising Index

AIA Documents, p. 44
AIA Minnesota Convention, p. 42
Andersen Cabinet, p. 16
Fred G. Anderson, Cov. II
Architectural Consultants, p. 8
Association Administrators & Consultants, p. 44
Canton Lumber, p. 6
Cold Spring Granite, p. 42
Directory: Architecture Firms/
  Academic, pp. 47-61
Engineering Design Group, p. 65
Ericksen Ellison Associates (EEA), p. 44
G.S. Direct, p. 65
W.L. Hall Company, p. 2
Kohler, pp. 10, 11
Mankato Kasota Stone, p. 16
Marvin Windows, pp. 14, 15
Minnesota Architects, Cov. IV
Minnesota Ceramic Tile Industry, Cov. III
Minnesota Drywall Council, p. 4
Minnesota Masonry Institute, p. 18
Molin Concrete Products, p. 12
Photographic Specialties, p. 10
Prairie Restoration, p. 4
School Yearbook, pp. 47-61
Wells Concrete Products, p. 1
Credits
(We encourage you to support the following architects, consultants and suppliers.)

Project: Adolph Science Center
Location: St. Joseph, Minn.
Client: College of St. Benedict
Architects: Perkins & Will in association with Grooters Leopaldt Tideman Architects
Principal-in-charge: David Hansen, AIA (P&W), David Leopaldt, AIA (GLTA)
Project architect: Scott F. Reed, AIA (P&W)
Project team: Pat Waddick, AIA (GLTA), Carlyn Smith, Andrea Cull, Eric Spielman, Jerry Club (P&W)
Structural engineers: Perkins & Will
Mechanical engineers: Perkins & Will
Electrical engineers: Perkins & Will
W/T&M Associates, Chicago
Electrical engineers: Perkins & W/T&M Associates
Contractor: Winkelman Building Corporation, St. Cloud, Minn.
Interior design: Perkins & Will/GLTA
Landscape architect: Perkins & Will
Photographer: James Steinkamp/Steinkamp & Baillig

Windows: Alpana
Concrete: Hardrives
Photographer: David Leapaldt, Sioux City Bricks & Tile (manufacturer)

Location:
Concrete: Kroeger

Project: Foxington Middle School
Location: Farmington, Minn.
Client: Independent School District No. 192
Architects: Armstrong, Torseth, Skold & Rydean Architects, Inc.
Principal-in-charge: Jim Rydean
Project manager: Bill Snyder
Project architect: Tom Hendrix
Project designer: Craig Hinrichs
Structural engineers: Clark Engineering
Mechanical engineers: AT&SR
Electrical engineers: AT&SR
Contractor: Kraus Anderson Construction Co.
Interior design: AT&SR
Landscape architect: AT&SR
Photographer: Ralph Barlowitz
Windows: Marmet Corp; Harmon Glass
Roofing: Carlisle & B&B Sheet Metal & Roofing
Brick: Endicott Clay Products, Dayco
Concrete: Dayco
Terrazo: Viking Terrazo
Resilient wood flooring: Halderman-Homme, Tarrett Basics, Donielle Interiors
Ceiling systems/materials: Celotex Chicago Metallic, Britco, Woden, St. Paul Book & Stationary
Casselwork/woodwork: St. Charles Metal, Casework, Lancel Service Inc., Collegedale Wood Casework

Project: Fond du Lac Community College (A Union of Cultures)
Client: Fond du Lac Community College, Minnesota Community College System
Design architect: Thomas H. Hodne Jr., FAIA
Design coordinator: Don Vemeland
Technical coordinator: Roger W. Kipp, AIA
Damborg Scott Peck & Booker
Project administrator: John Scott
Project architect of record: John Darnell, AIA
Supervising architect: Greg Granholm
Project team: Dick Faricy, AIA
Project architect: Tom Hendrix
Photographer: David Leapaldt

Location: Minneapolis
Concrete: St. Paul Charcoal Brick
Landscape architect: Lopes & Associates
Photographer: James Steinkamp

Windows: EFCO
Concrete: Hardrives

Photographer: Michael Cusick

Project: Grant Park Early Childhood
Family Development Center
Location: Minneapolis
Client: Minneapolis Community Development Agency
Architects: Setzer, Leach & Lindstrom Inc.
Principal-in-charge: John P. Litchy, AIA
Project manager: Jerome Ritter, AIA
Project architect: Lowell Anderson, PA
Project designer: Allerton & Allerton, PA
Project architect: Setzer, Leach & Lindstrom Inc.
Structural engineers: Ross Turner, PE
Mechanical engineers: Raj Maheshwari, PE
Electrical engineers: Mark Benjamin
Contractor: Sheehy Construction
Interior design: Richard Sutton, AIA
Landscape architect: Melcher/Block Associates
Acoustical consultant: Kiverston Kehl & Associates
Lighting consultant: Setzer, Leach & Lindstrom
Photographer: Phil Prowse
Windows: Alpina
Roofing: Lighting Associates
Metal roofing: Steelock Roof Systems
Membrane roofing: Carlisle
Stone/brick: Holly Springs Brick, Stone Creek Brick Co., Minnesota Brick Co. (supplier)
Roofing systems/materials: Tarkett-McKee (VAT), Shaw Comm Carpets (CPT), Norament (rubber floor)
Casselwork/woodwork: Kimball, Allsteel, Westin Nielsen-Metrosystems (offices), Smith Systems-Kaplan (classrooms)
Translucent skylights: Kalwall, W.H. Hall Co. (supplier)
Playground equipment: Game Time (Tot Time)

Project: Mounds Park All-Nations
Magnet School
Location: St. Paul, Minn.
Client: St. Paul Public Schools
Architects: Winson/Fancy Architects Inc.
Principal-in-charge: James W. Cox, AIA
Project team: Dick Fancy, FAIA, Paul G. May, AIA, F. John Barbour, AIA, Bill Madden, Becky Moore, Terry Ingle
Structural engineers: Mattsson/MacDonald Inc.
Mechanical engineers: Erickson, Ellison & Associates
Contractor: Stahl Construction
Interior design: Winson/Fancy Architects
Landscape architect: Sanders Wacker

Cultural consultant: Floyd Hand
Photographer: Phil James, Paul G. May
Windows: EFCO
Lighting: Daylight Designs (Skylight)
Roofing: Better Roofing (membrane roofing)
Precast: Northern Precast
Contractor: H.C. Parker Construction
Carpet: Maplewood flooring
VCT: Donielle Interiors
Gypsum: Acoustical Floors
Ceiling systems/materials: Oak Construction
Casework/woodwork: Northern Woodwork Inc.
Artist: Jake Castillo (sculptor)

Project: North Woods Elementary
Location: La Crosse, Wis.
Client: School District of La Crosse
Architects: Wold Architects & Engineers
Principal-in-charge: Kevin F. Sullivan
Project manager: Eric B. Liner
Project architect: Dan Kritta
Project designer: Brian Falk
Structural engineers: Structural Design Associates
Mechanical engineers: Michaud Cockey Erickson
Electrical engineers: Wold Architects & Engineers
Contractor: Fowler & Hammer
Interior design: Wold Architects & Engineers
Windows: Kawneer/La Crosse Glass
Lighting: Lighting Associates
Roofing: Frestone/Winona Heating & Ventilating
Stone/brick: Fowler & Hammer
Flooring systems/materials: Roth's Floor Mart
Ceiling systems/materials: USG Sullivan Brothers
Casselwork/woodwork: Calmar Manufacturing Company
Furniture systems: Mohawk Midlands

Project: The University of St. Thomas—Minneapolis
Location: Minneapolis
Client: University of St. Thomas
Architects: Opus Architects & Engineers
Principal-in-charge: John Albers
Project manager: Craig Larson, Oscar Healy
Project architect: Kent Davidson
Project designer: Scott Christiansen
Project team: Ken Erickson, Terry Korman, Bob Morgan, Chuck O'Connell
Structural engineers: Opus Architects & Engineers
Mechanical engineers: Opus Architects & Engineers
Electrical engineers: O.S.M.
Contractor: Opus Corporation
Interior designer: Barb Elton, Opus
Landscape architects: Gene Ernst & Associates
Other consultants: B.D.H. & Young-Cape
Design: Blumberg Communications
Photographer: shin and Joel Koyama
Roofing: Concrete Roof Tile—Van De Hey
Stone/brick: Mankato/Kasota Stone
Concrete: Knorrer Arch., Precast Concrete
Flooring systems/materials: Cold-Spring
Granite Pavers, Wauaus Concrete Pavers
Craftsmen/artist: Mark Balma ( Fresco)

Correction
In the July/August 1993 issue, we neglected to credit fully the designers of the new Children's Museum in St. Paul. The new museum is being designed by the team of James/Snow Architects and The Alliance, both of Minneapolis.
During the 19th century, several structures successively sat at the corner of Hennepin Avenue and West 28th Street in Minneapolis. Even before there were named streets, a small shack, built by a land claimant, rose above the prairie. Next came a farm house raised by the Russell family. After the city swallowed up the farm land, the Russells built a brick house on the corner. In 1906, the city bought the plot for the construction of a high school.

Minneapolis architect Edward Stebbins, who frequently worked on schools, received the design contract the following year. The construction budget was $250,000.

West High School—a two-wing brick-and-stone structure with arched entries and a thrusting, pedimented front—opened for public tours in September 1908. Visitors admired the 75 rooms, up-to-date science labs, metal and wood shops, and 1,500-seat auditorium. Seven hundred students showed up for classes a few days later.

Soon, however, enrollment exceeded the school's capacity. To expand, the city bought more land reaching west to Humboldt Avenue. By 1917 West High had added a second gymnasium, a music room and a greenhouse. Now it could accommodate 1,600 students. Further expansion came during the next decade, when a muddy pond in back of the school was transformed into an athletic field.

Over the years, West High produced more than its share of well-known alumni. Notables include actress Tippi Hedren, journalist Harry Reasoner, household-tipster Mary Ellen Pinkham, entrepreneur Curt Carlson and surgeon C. Walton Lillehei.

The final addition to the campus—a new gymnasium—came in 1972. The school closed 10 years later, the victim of declining enrollment. The new gym retains life as a YWCA branch, but the rest of the school was razed and replaced by the Kenwood-Isles condominiums in 1984. A stone marker at the corner of 28th and Hennepin bears the high school’s name.  

Jack El-Hai
Every profession has its tools.

But it’s the professionals behind the tools who make the difference.

When you get right down to it, almost anybody can throw a baseball. Or play an instrument. Or even hold a trowel. But when these tools are in the hands of professionals, the difference in quality becomes apparent. That’s why you should award your contract to a tile contractor who employs union tile setters. When you do, you’ll be engaging professionals whose job management experience and craft skills will protect you from costly job failures. They’ll provide tile surfaces of lasting beauty that will help make your building more durable, fireproof, more attractive to tenants and maintenance free. And over the life of your building they’ll save you money. Why not call on the best: Union Tile Contractors and Craftsmen. They’re ready for you.

THE SIGN OF A TILE PRO®
Nobody builds like union contractors and craftsmen.
International Masonry Institute • 823 15th Street, NW, Washington, D.C. 20005 • 202/783-3908

Contact Your Guildset Ceramic Tile Contractor For A Professional Installation
Minnesota Ceramic Tile Industry
In the last several years, Minnesota architects have won over 200 prestigious awards here and around the world. This excellence has been recognized in the design of facilities ranging from single family residences to large corporate headquarters.

Keep us in mind.

Proven design leadership

AIA Minnesota, A Society of the American Institute of Architects,
275 Market Street, Ste. 54, Minneapolis, MN 55405, 612/338-6763 FAX 612/338-7981