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Back Story

A sense of excitement permeates every article as it's readied for publication in this magazine. First, there's the gratification of selecting topics and projects that express excellence in Minnesota architecture. Next, research reveals the real stories behind our outstanding buildings and architects. After some procrastination and hand-wringing, the joy (and relief) of crafting finished articles follows. Having received photography to illustrate the stories, I head downtown to our art director Ruth Christian, of Rubin Cordaro Design, to select the best for publication.

As Ruth and I work our way through proofs, preparing the magazine for the printer, advertising director Judith Van Dyne finalizes the ads and directories. Meanwhile, these questions sit restlessly in my mind: Is the editorial mix, in terms of projects and firms represented, well-balanced? Is the presentation enticing to readers? Will this edition of the magazine inform and excite? Once the magazine has been delivered to the printer, the anticipation mounts as we wait for the finished product.

With this edition of Architecture Minnesota, the stakes are higher than usual. Ruth and I (with the much-valued insight and support of the Publications Committee) have made some simple but significant changes. Two new typefaces, a signature look for each department and an open layout overall are intended to make the magazine more accessible, readable and interesting to peruse. It's a transformation we hope you'll be in favor of.

Stories of transformation, in fact, fill this issue. Andrew Porth, AIA, made a silk purse out of a sow's ear (not quite literally) in his rehabilitation of a decrepit barn into a sumptuous guesthouse. One doesn't trifle with folks in the Hamptons, Robert Lund, AIA, discovered. Nonetheless, he designed an airport terminal that pleases both the high-flying commuters and the townsfolk.

When archaeologists turned the bluff-top site for Ceridian's new headquarters into a full-fledged dig, the project became a real Indiana Jones adventure. For Loren Ahles, FAIA, and Kara Hill, AIA, of Hammel, Green and Abrahamson, the thrill was tempered by formidable concerns: how to design an innovative corporate headquarters that respects a bluff with American Indian burial mounds and is located at the edge of a national wildlife refuge.

The Walker Art Center has been in the news lately, having declared itself ready for expansion under the guidance of Swiss firm Herzog & de Meuron. For the back story on the Walker's vision for a more accessible building turn to our colloquium featuring some of the key players. What do our architectural elders, Minnesota's greatest living modernists, think about the practice of architecture today? Settle into a comfortable chair, read their cautionary tales and be the wiser.

In this issue, as we explore these topics and more, one thing rings true: architecture (in addition to all the technical knowledge it requires) is equal parts alchemy and adventure, requiring such ingredients as creativity, diplomacy and organizational skills. One could argue (if I may be so bold) that producing a magazine, while on a much smaller scale, is a similar kind of endeavor. We sincerely hope you find this issue as engaging as we do!

Camille LeFevre
lefevre@aia-mn.org

NOVEMBER/DECEMBER 2000 5
THE BEST BUILDINGS ON EARTH ARE STILL BUILT BY HAND

More than a million bricks laid in a series of unique patterns, textures and colors make the Veterans Administration Health Care Facility in Detroit, Michigan, a striking example of masonry design by architects Smith, Hinchman & Grylls Associates. But masonry was chosen for more than its beauty and flexibility of design. Buildings built of masonry by skilled union craftworkers will outperform, outshine and outlast any others. Add to that the speed and efficiency of union masonry contractors, and you have a prescription for health care facilities that satisfies any schedule and budget. We're The International Masonry Institute, and we'd like to help you design and construct the best buildings on earth. Visit us on the World Wide Web at www.imiweb.org, or call us toll free at 1-800-IMI-0988 for design, technical and construction consultation.

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AIA Minnesota’s 2000 Convention & Products Exposition Examines

“Shaping Our Future”

As architects expand their practices and hone new skills to increasingly shape, create and direct a better built environment, AIA Minnesota’s 2000 Convention & Products Exposition is providing a cornucopia of networking events, keynote addresses and educational seminars to add to the momentum architects are generating in the 21st century. Running Tuesday, November 14 through Thursday, November 16, the event also includes an open convention hall with nearly 200 exhibitors and vendors displaying the latest construction-industry products. In addition, the 2000 Honor Awards winners will be announced.

Keynote addresses include James H. Gilmore, cofounder of Strategic Horizons, on the “experience economy;” the brand-new director of the University of Minnesota’s Design Institute, Janet Abrams, on how new technologies are influencing design; world-renowned glass artist Dale Chihuly on creating art in architectural spaces; industrial designer Karim Rashid on design in everyday life; and the Honor Awards jurors on their own practices and work.

Judging this year’s Honor Awards are: Andrea Clark Brown, AIA, owner and principal, Andrea Clark Brown Architects PA, Naples, Florida; William Hartman, AIA, vice president and director of design, Gensler, Detroit; and Enrique Norten, Hon. FAIA, founder, TEN Arquitectos, Mexico City. The winners of the 2000 Honor Awards will be announced at 1:15 P.M., November 14.

Other award presentations include the 25-Year Award for Essex Square Apartments in Bloomington, designed by Leonard Parker, FAIA, and Austin Vitols of The Leonard Parker Associates, Architects, Minneapolis; the AIA Gold Medal to John Rauma, FAIA; and the 2000 Brick in Architecture Award.

For more information regarding registration or programs, call AIA Minnesota at (612) 338-6763 or visit the Website at www.aia-mn.org.
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MINNESOTA WOMAN SUFFRAGE MEMORIAL

FOR THE FIRST TIME IN MINNESOTA HISTORY, St. Paul’s State Capitol Mall is enhanced with a memorial honoring women. Rather than a bronze statue or stone wall, the Minnesota Woman Suffrage Memorial—named with the singular “woman” common during the suffrage movement, and located at the northeast corner of Cedar Street and Constitution Avenue—is a garden that honors Minnesota women who led the struggle for the right to vote.

Designers Ralph Nelson and Ravevarn Choksombatchai of Loom Architects, Minneapolis, in collaboration with Martha McQuade, won a national competition in 1996 to create the work. Titled “Garden of Time: Landscape of Change,” the design won a P.A. Award in 1998. The built memorial was dedicated in August.

To illustrate the suffragettes’ long struggle, the designers specified a 90-foot-long trellis, intricately handcrafted and inscribed with names of the suffrage leaders. On either end of the trellis is a metal tablet inscribed with the history of the women’s suffrage movement in Minnesota. Planted between undulating land forms east of the trellis is a garden of prairie wildflowers and grasses. On the west side of the memorial is an existing grove of maple trees. Bette Hammel

OBITUARY

For four decades, THEODORE R. BUTLER, FAIA, worked at Hammer, Green and Abrahamson, Minneapolis. A modest man of tremendous integrity, Butler specialized in religious architecture, winning national awards for: Colonial Church of Edina; St. Bede’s Priory in Eau Claire, Wisconsin; New Melleray Abbey in Dubuque, Iowa; and Mepkin Abbey Church in Monck’s Corner, South Carolina. A retired vice president of HGA, he became known as the dean of design for helping the firm build a legacy of quality architecture. In 1996, Butler was made an AIA Fellow. Butler died September 23 at home in Minneapolis. He was 70.

CALENDAR

RETROSPECTIVE: VAL MICHELS0N, FAIA
AIA MINNESOTA GALLERY
OCTOBER 27–DECEMBER 31
(612) 338-6763
The retrospective, focusing on one of Minnesota’s greatest living modernists, includes drawings, travel sketches and photographs of architectural projects (see page 54).

A PORTRAIT OF PARIS: EUGÈNE ATGET AT WORK
NOVEMBER 4–FEBRUARY 4, 2001
MUSEUM OF THE CITY OF NEW YORK
(212) 534-1672
This collection of 180 photographs by Atget, an architectural and urban photographer, celebrates the architectural nuances of Paris and New York.

OPENING DAY TALK: JACQUES HERZOG
NOVEMBER 5
WALKER ART CENTER
(612) 375-7600
Jacques Herzog, of the Swiss architectural firm Herzog & de Meuron, speaks on the links between art and architecture, art and life.

HERZOG & DE MEURON: IN PROCESS
NOVEMBER 5–FEBRUARY 11, 2001
WALKER ART CENTER
(612) 375-7600
The Swiss firm, which is handling the Walker Art Center’s expansion (see page 56), expands the notion of a traditionally conceived “architecture show” with an exhibition that presents architecture as a space of action, a life event in itself, and a place of images and moods.

CLARENCE “CAP” WIGINGTON:
AN ARCHITECTURAL LEGACY IN ICE AND STONE
WEISMAN ART MUSEUM
NOVEMBER 13TH–FEBRUARY 28TH, 2001
(612) 625-9494
The exhibition celebrates the life and work of the first African-American registered architect in Minnesota. As a municipal architect for the City of Saint Paul for more than 30 years, Wigington designed numerous city structures, three of which are on the National Register of Historic Places.

NARI WARD: RITES-OF-WAY
THROUGH 2002
MINNEAPOLIS SCULPTURE GARDEN
(612) 375-7600
In creating his new sculpture “Rites-of-Way,” Ward was inspired by such impermanent architecture as the ice palaces of Clarence Wigington and annual “villages” of ice-fishing houses, as well as St. Paul’s historic Rondo neighborhood.

SKYSCRAPERS: THE NEW MILLENNIUM
THROUGH JANUARY 15, 2001
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New Releases

How did Swiss architectural firm Herzog & de Meuron beat out the competition to win the renovation of London’s Bankside Power Station into the Tate Modern? “Herzog & de Meuron’s was the only proposal that completely accepted the existing building—its form, its materials and its industrial characteristics—and saw the solution to be the transformation of the building itself into an art gallery," writes Michael Craig-Martin in Tate Modern: The Handbook (University of California Press, 2000).

As culture mavens anticipate the firm’s transformation of Walker Art Center (see page 56), this marvelous 272-page catalogue offers hints as it outlines what transpired in London. The book, edited by Iwona Blazwick and Simon Wilson, also organizes the Tate’s collection of international modern art thematically, with interpretive essays and color plates that whet the appetite for an in-person visit.

Each volume in Rockport Publishers’s acclaimed single-building series focuses on one contemporary structure selected for its unique character, innovative design or technical genius. One of the most recent additions to the series is the Type/Variant House designed by Vincent James, AIA, Vincent James Associates, Minneapolis. Largely a collection of photographs and drawings of the project, the book includes an introduction by Thomas Fisher, dean, University of Minnesota College of Architecture and Landscape Architecture. “The sense of this house as a remnant of technology set in untrammeled nature brings to mind the metaphor of The Machine in the Garden, the 1964 book by historian Leo Marx,” Fisher writes. In his thought-provoking essay, Fisher inspires readers to look beyond the house’s stunning copper architectural elements and ponder the building as metaphor.

The Purcell-Cutts House in Minneapolis, designed in 1913 by William Gray Purcell and George Grant Elmslie, is one of the finest Prairie School houses in America. Owned by the Minneapolis Institute of Arts, the house is a jewel in the crown of the Institute’s Prairie School collection. A new book, Progressive Design in the Midwest: The Purcell-Cutts House and the Prairie School Collection at the Minneapolis Institute of Arts, explores the work of Purcell and Elmslie, and the museum’s collection of works by other Prairie School architects. Written by Jennifer Komar Olivarez, assistant curator of Decorative Arts, Sculpture and Architecture at the Institute, the book offers a delightful, in-depth tour of the historic Purcell-Cutts house, and includes a catalogue that discusses (and displays with color photographs) each Prairie School object in the museum’s collection.

INSIDER LINGO

Elevation

No, we’re not talking about that mountain to climb in orienteering class, but in architecture the term “elevation” does incorporate compass directions. A type of drawing that shows one side of a building’s exterior, an elevation usually sports a compass-point name; i.e., a west elevation is so called because, in the drawing, west is the direction from which the viewer sees the building.

In producing an elevation, architects start with a simple one-sided square or rectangular rendering of the building, then the elevation takes on substance with the addition of details. Through an architect’s application of texture, depth, pattern, shade and shadow, the previously flat, square drawing now has mass, form and context. Voilà: an elevation that shows a tangible, buildable reality.

Sometimes the term “façade,” is used in place of elevation. That’s acceptable. While both façade and elevation are

French words, façade was introduced into its current English usage in the mid-17th century, with elevation following in the mid-18th century.

Façade implies a false front that hides something behind it. Facadism—the practice of focusing on the building’s face or giving the design elements of the building’s face greater importance than the rest of the building—is contrary to the modernist approach that the building should reveal itself.

Thus, in the 20th century, elevation became the term of choice for modernists and elevation was introduced to the vocabulary of contemporary architecture. Gina Greene
Peter brooded, having been left out of the Carnival of the Animals.

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Hollywood Theater
Northeast Minneapolis

BY ROBERT ROSCOE

One of the most remarkable movements in American design has been Art Moderne—the style that streamlined American buildings, automobiles and radios. During the 1930s Depression, Moderne’s flowing lines, suggesting dynamism and movement, seemed to propel our nation toward better times. The architecture most emblematic of that time was the movie theater, a relatively new building type that brought a novel technology—cinema—to towns and cities.

In 1935, Minneapolis theater operator Charles Rubenstein gave his architects, Leibenberg and Kaplan, an unrestricted budget (especially during that markedly restricted time) for designing a new theater on the 2800 block of Johnson Avenue Northeast, to be called the Hollywood Theater. The architects designed the building’s façade as an assemblage of flat planes, the main one being a sheet of smooth-face sandstone incised with subtly recessed lines.

A lobby-entrance band set into the main wall plane extends beyond the north end of the façade wall and holds an aluminum sign panel. A multiangled marquee with overlapping edges cantilevers out from the façade wall. A tall square shaft abutting a corner of the façade, clad in bakelite panels and horizontal brick bands, functions as a dramatic counterpoint to the flat planes of sandstone, aluminum and glass.

Inside the theater, the lobby sports geometric shapes of bold complexity. The auditorium’s Art Moderne theme features vertical cylindrical forms flanking the screen and side-walls with circular recessed-lighting fixtures.

The Hollywood Theater served the Northeast Minneapolis community for more than four decades until its subsequent owners closed it in 1987. Since then, it has remained vacant. In the mid-1980s, then-First Ward Council member Walt Dziedzic maneuvered the Minneapolis Community Development Agency to purchase the Hollywood in order to raze it for a parking lot. A neighborhood group resisted that measure and sought a reuse for the building.

Subsequently, the Minneapolis City Council granted the Heritage Preservation Commission’s request to confer heritage designation for the Hollywood. From that time until last year, various proposals to bring theater back into the Hollywood or develop it into studio space, offices or housing have come and gone. Meanwhile, a leaky roof and inattentive maintenance have led to extensive water damage and deterioration.

In late 1999, a MCDA request for proposals brought responses from a housing developer (who proposed to disassemble a significant part of the building), and an entertainment firm that proposed refurbishing the interior and exterior for a vaudeville-type venue. A neighborhood meeting was called to review the two proposals. Council member Paul Ostrow told the group he would support the community’s choice of either proposal if city financial assistance would not exceed a million dollars.

A MCDA staff report recommended the housing developer on the basis that the location held a better market value for housing than theater. Meanwhile, the neighborhood vote went to the entertainment firm, headed by Ed Finley. In the months since that vote, Finley’s pro forma required to finalize the development agreement has met considerable resistance from MCDA staff overseeing the project. The agency’s reluctance seems to be based on Finley’s method of receiving subcontractor bids himself rather than using a general contractor and his construction-cost estimate of $900,000, which MCDA contends is unrealistically low.

Continued on page 58
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Janet Abrams
The new director of the University of Minnesota’s Design Institute introduces her ideas on furthering the organization’s mission

BY HEATHER BEAL

In 1997, Mark Yudof, president, University of Minnesota, asked Thomas Fisher, dean, College of Architecture and Landscape Architecture, to write a proposal to the Minnesota Legislature for a “Design Initiative” that would explore the role of design in people’s lives via collaborative projects between six colleges: Architecture and Landscape Architecture, Liberal Arts, Education and Human Development, Human Ecology, the Humphrey Institute of Public Affairs and the Institute of Technology.

The Legislature awarded the initiative recurring funds beginning in 1998. Early in 1999, a steering committee voted to change the Design Initiative’s name to the Design Institute to demonstrate that the effort had already established itself as a strong scholarly partnership with a bright future. While details of the Design Institute’s vision and goals will evolve over the next few years, the selection of the key team members will culminate with the introduction of a new director, Janet Abrams, Ph.D., on November 1, 2000.

Given the Design Institute’s core tenet that “nearly every aspect of daily life—from the desk in your office, to the car that takes you home, to the cul-de-sac that is home—involves design,” it makes sense that the international search for a new director would lead to the selection of Abrams. She has spent nearly two decades examining the role of design in society as a writer, editor, designer, spokesperson and consultant.

Abrams’s formal education includes earning a bachelor-of-science degree in architecture from London University, as well as master’s and Ph.D. degrees in architectural history, theory and criticism at Princeton University. In addition to researching the influence of cultural trends on design, she has organized international conferences and spoken throughout the United States and abroad about the future of architecture, the impact of digital technology on the creative process and other salient issues for the design professions. She has been a contributing editor to I.D. Magazine and her writings on architecture, communication and design have appeared in journals and newspapers worldwide.

In 1996, Abrams founded Leading Questions, a firm that has provided consulting services for a diverse client list that includes: the American Institute of Graphic Arts, Cooper Union for the Advancement of Science and Art, the American Center for Design, Design Council of Great Britain and Netherlands Design Institute. During the AIA Minnesota 2000 Convention, Abrams will give a keynote address highlighting her recent projects.

On the eve of the convention, Architecture Minnesota spoke with Abrams about her new role as director of the Design Institute, and the ideas she’s formulating to achieve the Institute’s mission of “becoming a world leader in interdisciplinary design, education and scholarship, while making significant contributions to society’s understanding of design.”

What inspired you to accept the position as director of the Design Institute?
Throughout my career, I’ve managed to keep one foot in the academic world and one among the design professions. This experience fits well with the role I’ll be undertaking, which not only requires knowledge of how to conduct research in an academic environment, but also an understanding of how the paradigms constructed there apply to real-world situations.

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Uncommon Copper

Commonly found in pennies and plumbing, copper is increasingly appearing in buildings because of its beauty and durability

BY TODD WILLMERT

For 10,000 years, copper was the only metal humans knew. Early copper artifacts, first decorative and later utilitarian, were undoubtedly crafted from "native copper"—pure copper found in conjunction with copper-bearing ores. One of copper's earliest architectural applications dates back 5,000 years. Workers who built the great pyramid for the Egyptian Pharaoh Cheops fashioned copper pipe to convey water to the royal bath. Discovered thousands of years later, the pipe was still in usable condition; a testament to copper's durability and resistance to corrosion.

For archaeologists and anthropologists, human advancement (in part) is tracked against copper's extensive use and our ancestors' skill at manipulating the metal. During the Bronze Age, tools, weapons and decorative objects were fabricated from a copper alloy (commonly nine parts copper to one part tin). The alloy, much harder and more durable than pure copper, was first produced around 3,000 BC. Copper's importance was eclipsed only by another metal ushering in the Iron Age around 1,000 BC.

Copper's properties not only made it widely used in the distant past, but have proved the metal useful in various building applications even into the present. Copper readily carries electric current, making the metal a staple of electrical systems. Copper tubing conveys water or gas with joints that are simple, reliable and economical to fabricate. Copper is a prime element of plumbing, and heating and cooling installations, in all kinds of residential and commercial buildings.

Besides its ubiquitous use in copper tubes and wires hidden in nearly all buildings, copper is an excellent roofing and cladding material. For example, copper domes top both Minneapolis's Basilica of Saint Mary and the Cathedral of St. Paul, and copper figures prominently in such secular architecture as the Minnesota History Center, the Ordway Center for the Performing Arts and the Minneapolis Convention Center.

Copper, in such applications, suggests permanence—with good reason. Architectural cladding and roofing literally outlast the building (copper wires and tubing do, too). The Copper Development Association, charged with promoting copper use, reports that nearly three quarters of the copper used in the United States comes from recycled sources, with premium scrap grades commanding close to the price of newly mined copper. While the environmental consequences of mining copper have traditionally been severe (as in all natural-resource extraction), the metal itself is infinitely

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This detail drawing shows one example of how copper was incorporated into the University of Minnesota's McNamara Alumni Center, designed by Albuquerque architect Antoine Predock with KKE Architects, Minneapolis, architect of record.
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Firm Collaborations

Shared values and solid partnerships foster the spirit of collaboration behind many high-profile architectural projects

BY FRANK JOSSI

When Ken Johnson, AIA, first visited Cesar Pelli’s office in New Haven, Connecticut, he saw architectural models covering every available surface. One of architecture’s leading practitioners and designer of the landmark skyscraper Wells Fargo Center (formerly the Norwest Center) in Minneapolis, Pelli, FAIA, begins projects by having his staff create “massing-study” models of what a building would look like in different configurations.

For more than a year Johnson’s firm, Stanius Johnson Architects, Inc., Duluth, has collaborated with Pelli while serving as architect of record for a new music-performance building at the University of Minnesota-Duluth campus. For the home-town team the collaboration offers a rare opportunity to work with one of the most distinguished architects in the world and “a gracious, down-to-earth man who is easy to talk to,” Johnson says.

Pelli designed the building—an ovoid, glass-clad 350-seat performance hall—while Stanius Johnson is handling design details, as well as the contract-document and construction-administration phases of the project. For Pelli, the rewards of working with the Duluth firm are also substantial.

Pelli often partners with local architectural firms in the cities where he works, as the cost of having an associate live in another city or travel there is expensive. More important, for some out-of-town architects who do not have a license to practice in Minnesota—Pelli among them—partnering with a local firm is a necessity. Having a local contact who knows the social and political landscape helps, too. “A local architect can answer questions and concerns during the construction phase,” Johnson says. “We know the ins and outs of the community, the politics, the building codes and similar issues.”

Stanius Johnson’s collaboration with Pelli is one of two in which the firm is currently involved, the other being the Metro Center Project in Superior, Wisconsin, with the Duluth firm Damberg Scott Gerzina Wagner Architects, Inc. Stanius Johnson did the design while DSGW is handling the production aspect. “We’ve done quite a few collaborations and enjoy them because they expand our professional knowledge base—everyone does things differently,” Johnson says.

Collaboration comes naturally to architectural firms that may not have the in-house expertise to handle larger jobs or that require a partner in another city to administer certain aspects of a project. Under the most common arrangement, a “design” architecture firm will hire a counterpart specializing in production to draft contract documents, oversee construction and add finishing touches. Working as a team, two or more firms establish time lines and assign responsibilities to ensure the completion of buildings. Ideally, the design firm will entertain suggestions from the production firm and vice versa.

In some cases a collaboration will result in more than two architectural firms at the table. Vincent James Associates, Inc., and Rozeboom Miller Architects, Inc., both of Minneapolis, are working with Steven Holl Architects of New York City on the remodel of and addition to the College of Architecture and Landscape Architecture building at the University of Minnesota. Vincent James, AIA, approached Holl about serving as “architect of record” on the project and Holl agreed. Rozeboom Miller, known for educational architecture, is providing technical design, building-code expertise and design details for the renovated portion of the CALA building. In fact, two people from Rozeboom Miller worked at James’s Minneapolis office for eight months on the project.

James also assisted Holl with the technical resolution of the design for the addition. For instance, the design calls for the use of copper on the addition’s exterior; James’s Type/Variant...
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Give My Regards to Broadway

BY BILL BEYER, FAIA

The year 1889 was a grand time. The Eiffel Tower sprang skyward in Paris. North and South Dakota, Montana and Washington became states. Minneapolis boomed. The city’s first public library opened at 10th and Hennepin, and the first electric streetcars began operation.

North of the bustling downtown, the new steel Broadway Bridge leapt from east to west across the Mississippi River, about to transform sleepy 20th Avenue North into glitzy West Broadway, a soon-to-be prime commercial way of the north side.

In 1890, E.B. Hubbard, an entrepreneurial stone mason, staked out the first major project on this new commercial street. His building was a 2-story brick structure with three storefronts on West Broadway (numbers 1101, 1103 and 1105), and two more around the corner on Emerson Avenue North. Seymour & Hart Contractors built the stores, offices and flats for $15,000. H.B. Hart was listed as the architect.

The structure featured fanciful arches and elaborately corbelled pilasters, and its elegantly proportioned main façade was graced with a bay window centered on the second floor. The structure was built to last, posting a burgeoning city’s claim to civilization and challenging followers to match its class. But the national economic depression of 1893-97 squelched commercial growth everywhere. When good times and commercial construction returned, none of West Broadway’s later brick buildings exhibited quite the same level of architectural detail and charm.

Around 1922, Andrew Villas bought the West Broadway building and spent $12,000 adapting the 1101 corner for his candy shop. By 1931, the Broadway commercial frontage between Dupont, Emerson and Fremont avenues was thriving and included a florist, dry cleaner, beauty shop, filling station, furrier, theater, post office, shoe-repair store, stationer, car dealer, offices and restaurants.

In addition, Hensel Bros. Meats filled the 1103 slot and Louis Lawn Men’s Furnishings occupied 1105. For more than 110 years, West Broadway nurtured many businesses and affected many lives.

By 1964, however, a City report on the area labeled West Broadway’s commercial buildings “dowdy.” Dowdiness has long been a quick ticket to demolition in progressive Minneapolis. As such, the entire north side of West Broadway was recently redeveloped to create a strip mall, after being stripped of its historic commercial architecture. The loss of its contemporaries eventually weakened 1101’s own hold on life.

Our firm [Stageberg Beyer Sachs, Inc., Minneapolis], became involved with the 1101 building last year when we responded to a City request for proposals. The building was unoccupied, and so plastered with old signage and layers of paint that our client did not even realize it was built of brick. Because the building was not listed as historic by the Heritage Preservation Commission, the City had declared it expendable. We determined that the building was not only structurally sound but architecturally special. In this case, it was easy to convince our client that demolition would be a mistake.

Recent legislation introduced by the Preservation Alliance of Minnesota would provide historic-preservation tax credits to redevelopers of historic properties (SF 2724, HF 2138). Even if passed, however, the credits would remain unavailable for such unlisted but still-useful and well-designed buildings as 1101.

When a modest but elegant commercial building is stripped of its context and dignity, it becomes an easy target for demolitionists. It is then the duty of architects to explain why these treasures are too important to lose, screaming as loudly as necessary in the process.

“Sometimes a scream is better than a thesis.”
— Ralph Waldo Emerson
Bluff Stories

In Bloomington, sacred and secular share common ground in a new headquarters designed for corporate identity, community partnership and cultural sensitivity  By Camille LeFevre

For thousands of years, American Indians lived on the wooded bluffs overlooking the Minnesota River Valley, interring their dead in burial mounds with panoramic river views. With European settlement, the industrialization and expansion of the Twin Cities metro area, and late-20th-century development, much knowledge of Indian culture and custom—including the locations of ancient burial mounds—was lost.

In the area now known as Bloomington, some of the land along the river valley was preserved by the U.S. Fish and Wildlife Service as the Minnesota Valley National Wildlife Refuge. Other parcels were sold to private owners, including Ceridian, a corporate leader in information services.

For years, Ceridian—its corporate headquarters located in a high-rise nearby—wondered whether to relocate on the bluff site. Situated in a high-growth area bordered by the wildlife refuge, the 24.8-acre parcel is a transition point between valuable natural resources and urban and suburban development.

In 1998, Ceridian decided to proceed, taking a forward-thinking approach to address concerns about the site. The corporation filed a voluntary Environmental Assessment Worksheet informing 20 environmental, historical and regulatory agencies of its intention to build. In addition, Ceridian arranged informational meetings with many of these groups.

"We wanted to deal proactively with any issues these groups had and in a collaborative manner," says Joe Hauglie, project manager, Ceridian. "We listened to their concerns; after all, we were considering whether to build on a bluff they treasure. We carefully considered their input because we wanted to know the best way to build while respecting the site."

To build in the best way, Ceridian turned to Hammel, Green and Abrahamson, Inc., Minneapolis. Design principal Loren Ahles, FAIA, and project designer Kara Hill, AIA, generated several concepts that adapted building to site, provided an innovative open-office floor plan, and adhered to the Bloomington Bluff Protection Plan (which stipulates such criteria as building height and degree of bluff slope to build on). During construction, all efforts were made to minimize soil erosion and loss of vegetation.

Ahles and Hill sited the building—two copper- and glass-clad wings with an atrium as the "knuckle"—on top of the bluff (opposite), while preserving two American Indian burial mounds, one with a cottonwood tree (above).
While the project was in the design phase, the Minnesota Historical Society notified the City of Bloomington and Ceridian that, according to a 100-year-old survey, Indian burial mounds were located on the site. Ceridian invited Joe Williams, a tribal elder of the Sisseton-Wahpeton Sioux, to offer his assessment. After walking the bluff for several hours, Williams conducted a ceremony in which he asked Ceridian to preserve burial mounds dating back 1,500 years.

Ceridian hired archaeologists to confirm the mounds' locations. The exploration took six months. The team, which included three members of the Milacs band of Ojibway, found two mounds. One had been destroyed by farming. The other was partially intact because a former property owner had transformed the mound into a rock garden with a cottonwood tree.

Neither of the mounds conflicted with HGA's building plans, much to the architects' relief. So Ahles and Hill finalized a structure that uses only 4.5 acres and fosters a relationship with the site. Located along the crest of the bluff, the low horizontal building takes full advantage of existing clearings and river views. On the building's north side, chilton limestone (stacked fractured-face up to display the stone's texture and color) conveys a rugged warmth. Copper bands divide rows of windows on the east, south and west faces of the building. Over time, the patina of stone and copper will weather with the building.

Punctuating the generous bands of glass and copper are rows of metal sunshades. "We weren't interested in creating a thin face or a tight wrapper of curtain wall on this building," Hill says. "The thickened façade of copper panels and sunshades breaks the façade into horizontal ribbons with varying depths to complement the complex bluff landscape and prevent migrating birds from flying into the windows."

Designed to accommodate 600 employees, the structure is organized into two, 4-story wings, with the lower level stepped into the hillside to reduce the building's height. The east wing follows the bluff contour, utilizing space left by a pre-existing structure. The west wing is cantilevered over a steep slope to avoid building directly into the bluff.
The two wings are joined by an entry atrium or "knuckle" with a south-facing, floor-to-ceiling window wall that acts as a communal portal to the river valley below. This airy open centerpiece, bracketed by staircases leading to either wing and featuring cherry detail work and furnishings, also functions as an employee crossroads with its north-facing band of conference rooms. Throughout the interior, works by more than a dozen Minnesota artists, including George Morrison, Warren MacKenzie and Harriet Ball, are displayed.

The atrium's terrace opens onto river-bluff walking paths. A cafeteria and fitness center, offering views of deer, fox and wild turkeys that pass by, are located on the lower level of the building. On the building's upper four floors, glass curtain walls and tall ceilings allow natural light to penetrate open offices grouped to encourage interaction and provide every employee with a view.

"The old way of building corporations is to utilize a center core, which blocks 70 percent of views through the structure and encourages employee isolation," Ashles explains. "In this building, we moved the core out of the way, so people can see right through the windows into other areas of the building. We organized the interior into flexible office groups to support a sense of community. We've encouraged employee use of the stairwells by giving these areas views to the outdoors. All of these approaches have transformed Ceridian's workplace environment."

To buffer noise from the Minneapolis-St. Paul International Airport, the architects gathered rest rooms, break rooms, elevators, mechanical rooms and meeting areas into an enclosed core on the north side. To reduce the number of cars on the bluff, the architects placed a detached parking structure away from the site, connecting it to the main building via a climate-controlled glass walkway that passes by a new burial mound landscaped with prairie grasses and wildflowers.

This new mound was created during an Indian-led ceremony in which artifacts and human bone fragments excavated on site were reburied with excess soil produced during the excavation. In cooperation with the Indian Affairs Council, Ceridian created a mound-management plan that protects the mounds on the property and permits one mound to be used for reburial ceremonies until 2004.

The success of Ceridian's new headquarters, however, poses another question: Will it encourage more development on sensitive sites, or become a positive prototype for responsible building, community partnership and cultural sensitivity?

"HGA's proactive position and passionate attitude toward the project made all the difference in its success," Hauglie says. "HGA successfully responded to Ceridian's desire to respect the environment and the history of the site, while designing a building that meets our business needs. Combining these essential aspects was necessary to get a job like this done—and done well."

Ceridian Corporate Headquarters
Bloomington, Minnesota
Hammel, Green and Abrahamson, Inc., Minneapolis
Overall-building legend
1. Open office
2. Atrium/stair
3. Conference center
4. Stair, washroom, elevator, activity-center core
Military Prowess

A support complex for Ellsworth Air Force Base consolidates command personnel, while using Prairie School vernacular to unite the base with its South Dakota setting. By Joel Hoekstra

Everyone held their breath as the brigadier general pondered a new design proposal by Setter Leach & Lindstrom, Minneapolis. Interpreted in a Prairie School style, the firm's plan for Rushmore Center, a new 115,000-square-foot office building at Ellsworth Air Force Base, was a departure from the utilitarian barracks and hangars dotting the short-grass prairie of the western South Dakota military base.

Finally, the general said, "I love it!" Robert Egge, AIA, principal, and his colleagues sighed with relief. For an organization founded on hierarchy and vertical chains of command, the Air Force took a surprising shine to the relaxed, low-slung horizontal lines of the Prairie School vernacular. So much so that Rushmore Center, completed in 1999, became the first in a new generation of buildings SL&L similarly has designed at the base.

Since Rushmore Center, SL&L also has completed a fire/crash rescue station and an OPS Facility for the 77th Bomb Squadron at Ellsworth, and it has four more buildings on the boards: an OPS Facility for the 37th Bomb Squadron, a new civil-engineering complex, an education center and a community plan for 1,080 housing units. The understated yet elegant buildings have helped SL&L win military commissions in Minot, North Dakota, and New Cumberland, Pennsylvania, as well as six design awards from the Air Force.

Before Ellsworth, SL&L had no experience working with military clients. Egge, charged six years ago with spearheading the firm's entry into that sector, began by touting the firm's reputation for reliable buildings and its work for other private- and public-sector clients. But it was creativity and an ability to think outside the box, the architect says, that ultimately landed Rushmore Center, the firm's first major military project.
“The military tends to be conservative and their projects reflect that,” Egge explains. “I think our work was a bit of an eye-opener for them because it was different than what they initially expected.”

Historically, Egge adds, “in my opinion architectural firms that have worked with the military have produced designs that are on time and on budget, but have been strictly utilitarian. With today’s emphasis on quality of life in the military, utility alone is unacceptable.” SL&L demonstrated that design needn’t be sacrificed in favor of fiscal prudence: Rushmore Center was completed on time and under budget.

Cost wasn’t the only consideration. SL&L had to comply with safety and security requirements ranging from the use of blast-resistant glass on exteriors to planning secure circulation paths within the building’s interior. Rushmore Center’s future occupants were equally concerned about getting lost in “cubicle land,” as they called it.

The new building, as a consolidated-base support complex, would house 18 separate yet interrelated departments previously housed in 10 small, deteriorating facilities. “Nobody wanted to lose their window seat or the intimacy of the smaller spaces,” says AFB architect Larry Herges, AIA, a civilian employee who has overseen all Ellsworth AFB building projects for the past 15 years.

Rushmore Center, Herges says, offers both pragmatic and aesthetic solutions. On the building’s exterior, masonry-bearing walls of brown brick are trimmed with cast stone, and capped with a durable metal roof whose gentle slope and deep overhangs represent a signature Prairie-style element. From the main hub or lobby, long narrow wings extend off the sides of the building and house the various departments.
The wing design promotes departmental identity, brings in daylight, and maximizes views to the south and west of the flight line and to the scenic Black Hills. The design also ensures every employee is only a few steps from a window. In addition, areas are knit together with a well-defined hierarchy of circulation spaces to establish orientation and foster personnel interaction.

Outside, multiple entrances and scattered parking lots tucked behind the wings eliminate the need for a vast area of asphalt. The building and its landscaping are oriented to fit the site's sloped topography, and to provide shelter from strong prairie winds. A courtyard, windbreaks and landscaping with native wildflowers also help wed the Prairie School-style building to its prairie environment.

Visitors to Ellsworth AFB encounter Rushmore Center almost immediately upon arrival. There's no doubting this attractive, low-slung building is a destination point for all command-personnel functions at the base.

"The reaction to the building has been outstanding," Herges says. And not just the general is happy. "We get comments from visitors that this is perhaps the nicest building the Air Force owns. Few people come to the base and leave without a tour of the facilities."

Rushmore Center
Ellsworth Air Force Base, South Dakota
Setter Leach & Lindstrom, Minneapolis

Rushmore Center's interior spaces include a welcoming lobby or "hub" (opposite), corridors open to the floor below and adjacent offices (above), and a military courtroom (below).
FLIGHT PLAN

A commuter airport in East Hampton offers style and comfort to tony weekenders while giving the community a facility of which it’s proud  By Camille LeFevre

Constructed in 1936, with additions jerry-built throughout the 1950s, East Hampton’s original airport terminal was an eyesore, not to mention a safety hazard. Nonetheless, Manhattan’s heavy hitters clogged the tiny facility during summer weekends, eager to reach their vacation homes. Lear jets took off and landed. Donald Trump operated a helicopter service.

But when television executives scouted the site for the series “Wings” (set on a fictional island airport), the East Hampton terminal was rejected “because nobody would have believed any airport facility could be as bad as this one was,” says Robert Lund, AIA, Robert Lund Associates Architects, Minneapolis. “The building was an absolute wreck.”

Plans for a new terminal had been trapped for decades in acrimonious community debates about how to rebuild. Meanwhile, the Federal Aviation Administration was powerless to impose its standards on the unreceptive community. An international design competition in 1989, sponsored by the town board, resulted only in lawsuits and recriminations.

Lund, a Minneapolis native who completed his architecture degree in New York and practiced there for 20 years, decided to participate in the town’s last-ditch effort: a 1992 request for proposals. Instead of submitting a design, Lund says, he proposed a town meeting. “No one had yet asked this community what it wanted in an airport terminal,” he recalls, “or how the building could reflect the town’s image and concerns.”

The board members awarded Lund the contract. During the town meeting he learned the Hamptonties wanted an airport design that reflected the area’s role as a summer playground, as well as its agricultural roots. They wanted a building rustic in feel, airy and open; “something that would connote the joy and thrill of flying from the barnstorming days,” Lund says. “Most of all, they didn’t want a statement. They wanted a building that looks like an airport.”

Started in 1992 and completed in 1997, the new 12,000-square-foot airport meets all of East Hampton’s criteria, as well as the approval of the FAA. Because the airport’s activity peaks
on summer weekends, the facility features 4,400 square feet of exterior spaces sheltered by cantilevered wood frames. "Rain protection was more necessary than enclosed areas," Lund explains. "This approach also helped to keep building costs down."

The remaining 8,800 square feet of interior space includes an airport-manager's office on the west end (for maximum runway visibility); airport, pilot and FAA functions along an east-west axis; a central waiting room—featuring a cupola with a band of clerestory windows—that serves as a "knuckle" or hub joining the activities on both sides of the building; and waiting areas with 360-degree views.

The palette of simple materials includes split-face cement block, rough-sawn cedar, exposed metal gussets and heavy timber beams, which convey a sense of East Hampton's rural beginnings. Exposed struts and tension rods, and cantilevered spaces, give the facility an airborne feel.

"Early on we called this project the terminal building and I was hoping that wasn't prophetic," says Lund with a laugh. While the airport's design-by-committee got off to a roaring start with the town meeting, then "the tweaking began between groups playing politics," Lund says.

"Virtually everyone in town had expressed strong opinions about the airport for 40 years and that didn't change during this project," Lund says. "But in the end, more than 80 percent of community members agreed that they like it, which is just amazing. Despite the difficulties, when the airport was all done everyone in town was stumbling over themselves to take full credit for it."

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East Hampton Airport Terminal
East Hampton, New York
Robert Lund Associates Architects, Minneapolis
Barn Again

With lots of ambition and tender loving care, a dilapidated horse stable in Edina is transformed into a welcoming guesthouse  By Jan L. Senn

It's all in how you look at things. Behind the main house was a dilapidated, rodent-infested horse barn and attached garage. Beyond these run-down outbuildings was a swamp turned dumping ground. But for Paul and Janet Sanderson, the future of these ruins was without question.

“We fell in love with the lines of the barn and its slate roof and all the bead board inside,” says Janet Sanderson. “Before we bought the property five years ago, we talked to one guy who didn’t think it was possible to restore the barn, which is what we really wanted to do. Then we got hold of Drew—and Drew can do anything.”

“Drew” is Andrew Porth, AIA, Porth Architects, Minneapolis, who brought the Sandersons’ vision to life. His clients wanted to retain the original character of the late-1920s barn, and create a warm, welcoming space that could accommodate guests and various family activities.

The stable was in ruinous condition (above), but was transformed into an English-cottage-style guesthouse and garden (top and opposite) through the client’s vision and the architect’s expertise.
The stable was home to the last three horses in Edina, whose stalls (top and middle) were renovated into an open bar and food station (above and top right). A large central area connecting stable and garage is now a living room with views to the gardens (opposite).

“At the beginning of the project, we weren’t sure exactly what would be required or how far the Sandersons were willing to go,” Porth recalls. “Clearly, it turned out to be all the way.”

It’s difficult to imagine the back-breaking work that went into restoring the barn and garage. The stable had been home to the last three horses allowed in the city of Edina. After their deaths the abandoned stalls remained complete with chewed posts and name plates designating stalls for “Laddie,” “Lassie” and “Bambi.”

“The barn was salvageable,” Porth says. “But everything was filthy. There was a layer of mud on the floor built up during various floods and rodents had nested in every conceivable crevice.” Part of the structure, which had been added onto at various times, had no foundation and needed to be excavated. During the excavation, a neighbor pumped out his pool and all of the water drained over to the site.

No matter. Porth, urged on by the Sandersons, proceeded with gusto. Because they needed to clean out the wall cavities due to animal infestation, the Sandersons decided to insulate the walls properly, install energy-efficient windows and add an in-floor heating system under new concrete floors. Porth retained the working horse-stall doors with their brass rails and accessories, but removed walls between the stalls, and turned the old stable into an open bar and food station.

Because the barn is an accessory to the Sandersons’ main house, zoning restricted the installation of a complete kitchen with full-size stove and refrigerator. A small refrigerator, dishwasher and icemaker, however, are stashed behind rustic cabinets with poured-concrete countertops. To bring more natural light into the space, Porth replaced some of the doors with windows and added skylights.

The old tack room off the stable, with its arched doorway and original fireplace, was turned into a cozy sitting area. “It was reconstructed with an eye toward what it might have been, rather than a literal restoration of what the room was way back when,” Porth says. Old wall paneling was pulled off and reused for baseboards. Bead board coated with peeling paint was removed from walls and ceilings, and turned over so the unused side now forms the wainscoting.
In the large central area connecting stable and garage, Porth removed the low ceiling by taking out half of the second floor (which was once an apartment) and removing the attic. The slate roof was removed and rebuilt several feet higher in areas to add height to guestrooms on either end of the second floor. A 2-story bank of windows looks out over the landscaped gardens, which include a system of ponds and sump pumps that channel water away from the site.

Porth spent a lot of time on site during construction, consulting with craftspeople and carpenters. “Every day, when they were taking things apart, something new would show up and we’d have to make adjustments,” Porth says. Adds Sanderson, “Drew’s attention to detail was incredible. He made maximum use of every nook and cranny, tucking in extra storage or bookshelves whenever possible.”

Porth counseled the Sandersons on site design, as well. “The original driveway had come straight down the hill from the main house; in fact, a corner of the barn had scars from a car that had slid into it one winter,” Sanderson says. “Drew happened to be out here the day we were excavating. He suggested we redirect the driveway around an old willow tree and create a new island for plantings.”

Today, that willow tree is a focal point of the gardens. And the beautifully landscaped grounds and restored barn recently were the setting for a son’s wedding reception. Not only has the Sandersons’ vision for the old stable come to life, but already the barn has become an integral part of their family history.

Sanderson Stable Renovation
Edina, Minnesota
Porth Architects, Minneapolis
Cautionary Tales

Four of Minnesota’s most influential and highly respected architectural elders—all modernists—reflect on 50 years of architecture in Minnesota, what post-modernism wrought, changes in practice and the primacy of the architect in bettering our built environment  

By Camille LeFevre
Ralph Rapson, FAIA

He's been called the archetype of an architect, as well as the paterfamilias of Minnesota architects. A legendary figure and champion of modernism, Ralph Rapson, FAIA, continues to enjoy a career that has embraced practicing architecture internationally, educating scores of Minnesota architectural graduates now with their own practices and dedicating years of service to the improvement of architecture throughout the world.

In 1999, his son Rip Rapson, with writers Jane Hession and Bruce Wright, published Ralph Rapson: Sixty Years of Modern Design (Afton Historical Society Press) in conjunction with a retrospective exhibition of Ralph Rapson's work at the Minneapolis Institute of Arts and the Weisman Art Museum. "Surely Ralph Rapson is the 'compleat' architect," proclaimed a document nominating him for an architectural award. "His talent is legend. His awards are myriad. His service to architectural education and to the profession are world renowned."

Born in 1914 in Alma, Michigan, Rapson did his undergraduate work at the University of Michigan, then attended Cranbrook Academy of Art in Bloomfield Hills, Michigan, where he studied urban planning under Eliel Saarinen. In 1942, he became head of the department of architecture at the Institute of Chicago when Lazlo Moholy-Nagy was director. From 1946 to 1954, Rapson taught at the Massachusetts Institute of Technology. During his years at MIT, Rapson won international acclaim for his United States embassy work in France, Denmark and Sweden.

In 1954, he was named professor and head of the University of Minnesota's College of Architecture and Landscape Architecture. Under his tenure, no school graduated more Rome Prize and Rotch Fellowship winners than Minnesota, a tribute to Rapson's commitment to the highest levels of design excellence. But his impact was hardly limited to the academic world. A firm believer that the best teachers also practice architecture, Rapson nurtured a prestigious practice. Over the decades, his theaters, embassies, houses, planned communities and churches received more than 70 awards.

Rapson is also the recipient of the first Gold Medal from AIA Minnesota and the Topaz Medalion for Excellence in Architectural Education. His post-war Rapson Line of contemporary furniture (through Knoll Furniture Co.), his often acerbic though always insightful wit, and his superb drawings have also contributed to Rapson's status as a "compleat" architect. In his drawings, especially, it's easy to see both Rapson's brilliance and playfulness as a modernist who remembers people are always part of the picture. — C.L.

Rapson on design integrity

In many ways, we are in "the best of times and the worst of times." Architects are busy, jobs are plentiful, salaries are up. However, there are far too many negative changes in architecture, much of which smacks of a loss of understanding and appreciation of the basic tenets of architecture: the betterment of moral, social and physical aspects of life that contemporary architecture was founded on, as well as design integrity in the honest search for a better built environment.

One certainly must recognize that architectural design is a business, as well as an art form. But as design offices have become larger, the "business of architecture" predominates. I'm skeptical of the quality of work produced by the larger offices, which simply churn the work out. More and more, larger firms are gobbling up the smaller innovative firms that are willing to take risks. I'm afraid as offices get larger, with tighter budgets and deadlines, that people lose their love for the work.

Over the years, the people I respect and have worked with are those who continue to work on and on until the best possible solution is found. I don't see that happening very often. Somehow the love for great design is seldom there. As Frank Lloyd Wright would say, "Where is the poetry that lives in the heart of the art of architecture?"

Another change is the growth of design/build, which should be labeled build/design instead. While this process may get things done rapidly, the quality of design is often way down on the totem pole. When the developer or builder is calling the shots, their bottom line normally is making money regardless of social or moral issues, or design quality. All too often the architect's traditional role of protecting the owner and ensuring the quality of design is minimal.

There is also a deplorable lack of total creative planning, not only in the Twin Cities and environs, but throughout the country. Urban sprawl, poor housing, the constant devastation of our soil, water and air are all continuing problems. Everyone, including architects, needs to understand how we can better care for our environment.

New Urbanism, as it's being practiced, isn't necessarily the solution. Planning and conscientious land use certainly are needed. The concepts of mixed-use neighborhoods, more compact housing, less emphasis on the automobile—we advocated this years and years ago. There is nothing wrong with this, but much of the cuteness and the nostalgia that goes along with New Urbanism is really quite superficial to the basic concepts, which need to be strengthened.

Most certainly, a major change in the practice of architecture is computer technology. Along with every aspect of our lives, the computer has drastically changed the design of architecture.
The process, the communication, the documentation is much more rapid and exacting. While in no way negating this technology, I believe it does, far too often, result in unnecessary flamboyance, superficiality and misguidance in projects.

One rather dreadful aspect of computer technology is the loss of architects' ability to draw, especially in younger people. As I see their work in schools and in applications for positions in our office, there is a degree of thinness; they simply cannot conceptually draw. I am convinced that creative thinking and drawing are integral to good design. I love to draw; it's basic to my design process—and besides, it's fun. I'd much prefer to guide my thoughts through my hand than push a mouse around.

Remember post-modernism? A few years ago, the advent of post-modernism (which some of us labeled Post Toasties) was supposed to be something new. It was good in some ways, since it motivated a reexamination of the past, and a look at what had happened in previous periods of architecture and how we might build upon this heritage. It was unfortunate that many people thought it was simply a way to resurrect artifacts and superficially apply them to contemporary projects. In the aftermath of post-modernism, however, there has been a valuable reexamination of the basic principles of modernism.

Naturally, there have been changes in attitudes in the education of architects, landscape architects, designers and planners across the country. In general, the schools are not necessarily doing a poor job, but there are examples of cases in which graduates lack contact with the real world. I firmly believe in the true integration of theory and reality.

When I was head of the University of Minnesota's College of Architecture and Landscape Architecture, we always tried to balance the practice and the academic. Since then, I have seen many schools moving to the abstract side and away from what dean Tom Fisher is trying to do in building bridges and making connections between architecture and design and other disciplines.

Most certainly, change is inherent and universal. But more important, all of us must accept and innovate and direct changes that will ensure a high-quality and beautiful world.
Elizabeth Scheu Close, FAIA

One of the first women to practice architecture in Minnesota, Elizabeth (Lisl) Scheu Close, FAIA, pioneered our shared notion of the modernist house in the Midwest. Her design principles, which she shared with her husband and fellow architect Winston Close, FAIA, were established as early as 1939. That year, the couple opened their architectural firm, Elizabeth and Winston Close, in Minneapolis, and completed Faulkner House in Minneapolis, which clearly stated their design principles: relevancy to the building’s site and its surroundings, modular planning, simplicity and a use of natural materials.

While Winston Close’s major efforts were directed toward the University of Minnesota (he was advisory architect to the Regents, and designed the master plan for the West Bank portion of the Twin Cities campus, as well as the Duluth campus), Lisl Close ran the private practice. Still, the couple worked jointly on many projects, never veering from their founding premise that their work would be devoid of the stylistic architecture of the past. Whether they were designing a doghouse, private residence, housing development, hospital or research institute, they were a dynamic force in the development of modern architecture in Minnesota.

Lisl Close’s background led her easily into the architectural profession. Born in 1912, she grew up in Vienna in a house designed by Adolf Loos, an early modernist. Her architectural training in Vienna led to a scholarship at the Massachusetts Institute of Technology, where she completed her bachelor’s and master’s degrees, and met Winston Close. After a year with housing expert Oscar Stonorov in Philadelphia, she moved to Minnesota to work with Magney & Tusler for two years. In 1938, she opened an office with Winston Close. Shortly thereafter, they were married.

In 1969, the Closes were inducted into the Fellowship of the American Institute of Architects, the first time a husband and wife were simultaneously elected. In his recommendation of Fellowship, one of Lisl’s clients, Elmer L. Anderson, wrote of her work on a family cottage: “Our total structure is on several levels and very ingeniously and interestingly put together so it does not seem contrived, and yet is fascinating to live in and use . . . I know of no one who combines all of the attributes of professional skill and personal effectiveness as does Mrs. Close.” — C.L.

Close on domestic architecture

When I started practicing architecture, I had a somewhat difficult time persuading people it was okay to have a woman architect. People were especially distrustful of women in technical fields. After I got my master’s degree at MIT, I thought, ‘Okay, now I should be able to get a job.’ But it was the Depression. And I didn’t want to work for just anybody. They had to have a modern approach.

There were three architects I wanted to work with in the United States. One told me he couldn’t hire a woman because it would disrupt the drafting room. Another one said I could come but it would cost me $20 a month to work for him. So I tried Oscar Stonorov, who was in public housing. He was an emigré like I was. He hired me and raised my salary after a week. Yes, it’s easier for women now. There’s no question about it. People are a lot less distrustful of professional women. Many women have become successful in architecture.

Domestic architecture, which I’ve been doing all my life, has really changed in the last 50 years, as well. Many of those changes have to do with new domestic machines and technology: washers, dryers, dishwashers. For instance, when we started designing houses the laundry was done in the basement, then taken upstairs and hung outside to dry. The house we bought in Kenwood after World War II had wash-tubs in the basement.

Now houses have washing machines and dryers on a floor that’s more handy, where you don’t have to haul things up and down the stairs. Every time some domestic device is changed or simplified, or a new piece of machinery is invented, the arrangement of spaces changes. An architect has to adjust and make room for these things.

Another change in domestic architecture has been the increasing need for the home office. Our great big old house in Kenwood had a porch in back. We converted it into an office. I was home, the kids were small and I often needed someone to take care of the children. People working at home, including working mothers, require a different arrangement of spaces. Also, architecture is not a part-time occupation. If a woman wants to be an architect and a mother, it helps to have someone full-time in the house.

Regarding our approach to architecture, we had a questionnaire that we asked our clients to complete; a series of check sheets, with questions like who is using this room and how will it be used, to establish what the program should be. This is something you would expect to do for any large project, but we did it for small projects—in fact, every project we had. We also always negotiated with invited contractors. It was better to select the builder and negotiate, because of changes during construction. Our approach, essentially, was simplification. We tried to simplify everything.

We also paid attention to site, which should be a number-one concern for any architect. It’s critical to be sensitive to vegetation, solar orientation, wind. Many of our clients actually took us along to help them pick out the site where we would design their house.
While I think there continues to be an appreciation of the work of architects such as myself, many of our designs aren’t standing any more: people tear down the houses for the site and then rebuild. One of our houses in Indian Hills was very interesting, very different. The woman had to move, sold the house and the new owners didn’t want to remodel it, so they tore it down because they wanted the land.

On the other hand, the owners of another house we did in Minnetonka considered selling it, then decided not to. The prospective buyers wanted to put a different roof on it and the owners said, “No, you can’t have it.” So it’s nice that project still stands.

Most houses, you know, are bought today, bought finished. They’re not designed by architects. Most of them are too big. Show off. They’re terrible. They’re much too large for the site and require a lot of maintenance. It’s pretty scandalous.

I’m not a stylist, so I don’t think of architecture in terms of style at all. I like things to be clean and simple and direct. I don’t like things cluttered up. My principles are ease of maintenance, natural light and use of natural materials. No false stuff, no faux. Essentially, a house should not be designed for show off, but for use.

And the design should permit change as families evolve. Kids grow up and leave, people age and a house should be able to accommodate those changes. The houses we designed took all of this into consideration and for me their appeal will never change.
Søvik on the theology of architecture

Assuming that 50 years ago the concepts of modern architecture were established in schools and common in practice, the biggest change in architecture has been the aberration into post-modernism and the merciful trend back toward modernism. Post-modernism has no inherent integrity; the faults of doctrinaire functionalism could have been and have been corrected without reverting to the historical whimsies, bizarre details and capricious inventions of post-modernism.

The virtue of modern architecture as idealized 50 years ago had a lot to do with honesty, integrity, truth. Pure functionalism is too limiting an idea. And although the idea was touted in theory, no architect practiced design as if function was the lone criteria, as if making a piece of machinery work well would make it beautiful. Architecture is more complicated than that and everyone in practice knew it.

What was lacking in modernism was not truth, but goodness. Much of the work was brutal, impersonal and boring (which was the worst sin). It was hard to admit, but our production as modernists brought drabness and a weary landscape to our cities. Post-modernism hoped to correct this and sometimes helped. But the best architects, for instance Saarinen and Aalto, were able to make buildings that were good—kind, gracious and lively—and still utterly modern. They should have been the icons, not Venturi.

Changes in practice? They’ve been immense. When I started we sharpened our pencils with knives and sandpads, and held our drawing paper in place with pins. That wasn’t entirely bad. The hand and eye worked together. It was a fine way to do our work—mind, eye and hand together—a joyfully direct experience, when making a beautiful drawing had some connection with the ultimate, finished structure. It’s too soon to say, but I wonder whether the sensitivity to form, to proportion, to scale that comes with drawing can come from operating a computer.

There have been changes in practice, as well. Architecture is now almost always a collaborative venture. In some early projects, I designed footings and structure, even electrical work. With collaboration comes specialization. I worry that the comprehensive, wholistic vision that is the professional duty and birthright of architects is being lost.

The architectural press reflecting the profession is always in the market for novelty. Perhaps this has always been so. I would be happier if the attention were focused on the ancient triad of Truth, Goodness and Beauty. The implications of Truth as an architectural ideal are infinite, from the notion that the building is the transition between man and the universe to the use of authentic materials.

Goodness: architecture as human habitation ought to have the quality of generosity and amiability; it ought to be good company, not only shelter. And Beauty? Take care of Truth and Goodness, and Beauty will come of itself. It’s not likely to
come under force. Beauty comes, like happiness, by means, accomplishments and attitudes. An undefinable mystery of infinite variety, Beauty is the only good symbol of the mystery of the divine.

Beauty, the invitation to wonder, appears necessarily in the architecture of religion. But it ought to be a part of all architecture—religious and secular. For if faith isn’t merely a matter of the hour of worship but of every hour every day, then all of our architecture ought to be beautiful so as to be week-long symbols of faith.

There really is no way of excluding from the architect’s concerns the evidence of faith from everything he or she does. If you look at architecture historically you’ll see it, often in places where there are no candles burning, no crosses mounted; but in places where faith is present and can be shared by all humanity.
Valerius Michelson, FAIA

In documents nominating him to the Fellowship of the American Institute of Architects, to which he was inducted in 1979, Val Michelson, FAIA, is described as designing buildings that "combine masculine robustness with precision of detail and purpose." An early proponent of energy efficiency, he made "a conscious decision to let climate and terrain shape his idiom," and used earth embankments, natural light and solar orientation in his designs.

Michelson's "disciplined honesty in expressing structure, materials and building technique defy any influence of changing fashion," the writer continued. Most important, "his concentration on technical and aesthetic means does not imply an indifference toward social goals, but is the result of a strong belief in the potential of architecture as a civilized tool."

Born in 1916 in St. Petersburg, Russia, Michelson received his initial architectural education in Russia. But in 1941, as he was finishing his thesis, he was conscripted into the Soviet Army. Over the next five years, Michelson fought in defense of Leningrad, survived typhus and, while working in a field hospital, advanced and retreated with the army's front lines through Russia, Ukraine, Romania, Poland and Austria.

In 1949, Michelson came to the United States. After receiving his master's degree in architecture from Columbia University, he joined Marcel Breuer and Associates in New York. In 1958, he came to Minnesota to represent Breuer's firm as the resident architect at St. John's Abbey and University in Collegeville. After completing the Abbey Church, he opened his own practice, Val Michelson and Associates Architects, in St. Paul.

Michelson's completed projects include high schools, community sports facilities, banks, senior housing, underground squash courts, a Benedictine priory and a master plan for Itasca Community College. Michelson taught at the University of Minnesota for two decades, where he expressed his life-long commitment to excellence in design education. — C.L.

Michelson on architecture as commodity

The past 50 years have brought a paradigmatic shift in architecture. The almost universally accepted principles of modernism in the 1950s were supplanted, toward the end of the century, by a whole range of diverse, highly subjective and primarily aesthetic choices in design. Two trends in today's practice constitute changes that either contributed to this shift or resulted from it: mistaking architecture for a marketable commodity and using the computer as a generator of form.

In 1972, I started our students on computers. I think that was right, because computers simplify and speed up all aspects of routine business. When conjoined as a network, computers permit an immediate interchange of developing design data between team members and create a virtual reality that displays—on screen—modifications due to clients' requests.

This freedom, however, is seductive. The designer, searching through virtual space for an aesthetically satisfying form, may hit upon an eye-catching possibility that excites his or her personal taste, and leads an obedient team to design a project of an illogical but buildable exuberance. That the newly discovered form has no meaning and no functional purpose is forgotten. Novelty has a marketing appeal and, if sufficiently praised by the press, guarantees a brand name to the designer.

Artificial intelligence produces artificial art that fails to translate for you the enigma of world. Architecture has duration. It lives several generations and indicates there's something beyond our short time of life. Great architecture engages the mind and heart, not by arbitrarily chosen forms, uncertain metaphors or decorative flourishes, but by rousing an empathy for its structural and spatial expression.

When someone can produce a thing arbitrarily, what's the purpose of producing it? To make a marketable commodity. A marketable commodity is not architecture. So we have those two things. One is the neglect of the perpetual community—the ultimate arbiter of architecture as art. The other thing is use of artificial intelligence to do something that human intelligence should do.

Another concern I have is that architects are focusing on teams. Members of the interdisciplinary team help each other achieve results, the perfect solution for a functional purpose. It has nothing to do with design as art. Design becomes art when your contribution goes beyond your own preferences and becomes something that creates an emotional reaction in observers. If a building doesn't touch your heart, it's not architecture.

It's difficult to see how a leaderless collective can produce something that moves you. Like an orchestra, a team needs a conductor to lead it toward artistic achievement. A combination of a well-assembled team and a strong leader may create a socially significant architecture. It depends on how much the architect feels the need to transcend mere functionality.
A concern with civilization rather than with profits is not natural for a working team, whose bottom line depends on a successful marketing of its services. The purpose of advertising is to reach the potential living consumer, not the unknown posterity. Thus the team leader (architect) is goaded to regard his or her creation as a marketable commodity with an immediate appeal, rather than an object of art destined to endure.

My advice to young architects is to be more of a generalist. Forget the reliance on a big team, or at least know enough of what every member of the team knows to contribute. An architect who doesn’t know structure, who doesn’t know materials, who doesn’t know soil and climate is no architect in my opinion. It’s not the exact technical knowledge one needs; it is a sense or feel of what you are shaping.

You know we have this museum [Weisman Art Museum], which is a shell around a good museum building. Some people think it’s a heap of cans. It is not funny, because there’s this large percentage of the public not influenced by propaganda. If they look at something and think it’s bad, it is bad, because a great building has an appeal beyond limits of class, income and race. When you have something that’s obviously slapped onto something and obviously computer modeled, I’m afraid it becomes a market commodity. It’s a case where architects don’t think about people as an enduring community for whom a building, through many generations, shall be a pointer to eternity.
In recent years, world-class museums around the globe have been constructing new facilities to expand exhibit areas and create travel destinations, while supporting a social mission. New museums in London, New York and Bilbao, for instance, entice visitors as much with their architecture as with their collections.

The Walker Art Center in Minneapolis recently announced plans to expand its facility and campus to fully realize the legacy described in 1944 by then-director Daniel Defenbacher: "An art center is a 'town meeting' in a field of human endeavor as old as man himself—by definition, it is 'a meeting place for all the arts'—providing space in which the public can both participate and be spectators."

To help the institution fulfill its legacy, the Walker hired internationally renowned architectural firm Herzog & de Meuron, of Basel, Switzerland, to design its expansion. The architects have started exploring ideas based on strategic plans and a vision developed by the Walker's staff and board of directors, and will publicly present a master plan for the project after the first of the year.

Architecture Minnesota talked with Kathy Halbreich, director, Walker Art Center, Steve Watson, trustee and president, board of directors, and Dan Avchen, FAIA, chief executive officer, Hammel Green and Abrahamson, Inc., Minneapolis (the project's architectural firm of record), to discuss the Walker's expansion, selection of an architect and social role in the larger Twin Cities community.

WHEN DID THE WALKER KNOW IT NEEDED TO EXPAND?

STEVE WATSON Our discussions with Allianz Life Insurance Company of North America, which sits behind us on the hill above the Walker, go back 20 years. That site, obviously, is the best possible piece of property for the Walker to expand on. It just so happens that our opportunity to acquire that piece of property occurred at a perfect time. We had been looking at the need for an expanded Walker building. For instance, the collection has grown significantly but we don't have enough space to show it.
KATHY HALBREICH  Seven or eight years ago, the staff analyzed their present, mid-term and long-range needs. We wanted to see whether those needs could be accommodated either in Allianz—this was before we knew we could actually acquire it—or a space near to it. The more research we did, the more we realized that the original site of the residence of T.B. Walker [the museum’s founder], which is where Allianz now stands, should be returned to the Walker campus. Dan [Avchen] orchestrated a planning process, which involved Allianz, the Guthrie Theater and the Walker, which quickly resulted in the understanding that not all of us could expand on this property.

DAN AVCHEN  Yes. There wasn’t a preconceived notion of who would stay. We originally tried very hard to expand all three facilities, but were constrained by many planning issues.

WATSON  It was pretty much the Guthrie’s desire to have its own identity and its own space. They made that determination before it was altogether clear that it was not possible for everyone to expand on this site.

HALBREICH  At a certain point, Allianz realized that it would be more expedient for them to leave.

AVCHEN  Martin Friedman [former Walker director] felt that the expansion in 1984 [by Edward Larrabee Barnes and HGA] would satisfy the Walker’s needs for quite a long time.

HALBREICH  Yes, and 1984 is a long time ago in institutional history. What Martin and the board knew was that in order for an urban-based organization to prosper, it has to be in control of its destiny through the acquisition of additional land. There was always a very clear sense that vital, feisty, ambitious organizations grow, and if they don’t grow they die. So Martin and the board tried to secure the future of the organization. It took 20 years.

WHAT WERE SOME OF THE EXPANSION ISSUES IDENTIFIED IN THE WALKER’S STRATEGIC PLAN?

WATSON  The vision of creating something more than just a museum really caught the interest of the board.

HALBREICH  I think back to an early drawing, a massing study that HGA did. I remember us coming very quickly to the same idea: that there should be some animating public space that draws people inside, as the Sculpture Garden does outside. The actual moment we decided to create a “town square” came almost at the end of this long-range planning process that was completed a year ago May.

WHAT HOPES AND/OR DESIRES DOES THE WALKER INTEND TO CAPTURE IN THE NEW DESIGN?

HALBREICH  One thing that’s important to me is the social mission of this institution. It never made sense to me that the so-called untraditional audiences—teenagers, people of color, low-income families—wouldn’t find this place reflecting their own aspirations, dreams and hopes. We have had some remarkable success, in terms of changing and adding to the demographics of this institution, that reflect such audiences. So our strategic plan tries to open the doors and windows of the institution to both the local and global public.

Transparency is a symbolic word that becomes literal. We have this gem of a modernist icon [originally designed by Larrabee Barnes in 1971], but it’s so introspective. There are some windows punched into it, but if you pass by you have no idea what’s going on inside. There are lectures, conversations, movies and performing-arts events going on from 9:00 in the morning ’til midnight. Wouldn’t it be electrifying to actually let a passerby know there is action inside? That’s what I mean by transparency. The building has to help us tell this story.

AVCHEN  And that idea of transparency was an important criteria behind the hiring of Herzog & de Meuron.

KATHY AND CHIEF CURATOR RICHARD FLOOD EXAMINED THE WORK OF 35 EMERGING ARCHITECTURAL FIRMS FROM AROUND THE WORLD BEFORE SETTLING ON HERZOG & DE MEURON. HOW WAS THIS FIRM SELECTED?

HALBREICH  Seventeen expectations guided our search. One was to find practitioners who would respect the present building and extend the modernist vocabu-

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endangered
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As part of the request-for-proposals process, a MCDA consultant estimated redevelopment costs for a theater to be nearly $2 million. But that cost spread may have been based on different project approaches. MCDA assumed a thorough restoration of all building components, rather than one that emphasizes sympathetic rehabilitation for the many general building components, as well as certain noncritical historic elements, with a focus on restoration of principal historic features.

For example, restoration of interior plaster, which is costly, is usually not required for most historic-preservation projects; drywall is acceptable. Also, given the widely acknowledged fact that almost every preservation effort has a limited budget, elements that may function without repair (if they do not detract from the overall historic character) are often left alone. At an early site visit to the Hollywood Theater, historic-preservation representatives communicated this parsing of rehab and restoration to Finley and MCDA staff.

Finley apparently applied this rehab-restoration concept to the Hollywood, which prevented the cost run-up of a full-scale restoration. In July, MCDA disseminated another consultant's report that projected a rehab cost more than double Finley's most recent estimate. Some of the items are expenses Finley had not included that would be necessary for this project.

But the hard construction numbers implied a somewhat crème-de-la-crème restoration that would probably exceed the expectations of historic-preservation requirements in the building-permit-application review process. According to Finley, the consultant did not contact him to ascertain the type of theater venue he is proposing; nor did the consultant call Minneapolis Heritage Preservation Commission staff to learn preservation guidelines for this building.

At this time, Finley's proposal remains in limbo. He participated in an informal review with HPC commissioners who told him he was in line with preservation guidelines, but the drawings seemed too vague for contractors to use. Finley is now
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Preparation of architectural drawings. Council member Ostrow continues to pursue the neighborhood's desire to save the Hollywood Theater and states he will back Finley in his negotiations with MCD. If his proposal falls through, the Hollywood will have to suffer another winter. Its deterioration may accelerate, endangering its ultimate rescue.

In the 20th century, scientists discovered that timing is critical to technology's productivity. At a precise moment, timing sends spark into an engine's combustion chamber, synchronizes sound with image in film and makes intelligence happen in computers. Historic preservation, however, often suffers from a lack of timing. Opportunity and expectation can be misaligned by years, even decades.

Northeast Minneapolis has become the artistic center of the city, and many of its residents see the renovation of the Hollywood as a catalyst in broadening perceptions of the community as a valued place in which to live and work. But can this languishing architectural landmark, with its clean-cut geometric features, survive long enough for cultural expectation to intersect with marketplace opportunity?

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This new position also presents an unusual opportunity for me to step back from the fray of journalistic and consulting deadlines to undertake more contemplative research. I want to reconsider the creative approaches of the Design Institute's constituent disciplines, to determine what kinds of questions are worth asking about design and its relation to culture right now.

How will your experience inform and shape the newly created position of director, and the future of the Design Institute?

In my work as a writer and contributing editor for I.D. Magazine and a number of other professional publications, I've been struck by how remarkably isolated the different design professions are from each other—a handful of publications cover the gamut, but the cross-conversations are few and far between. Yet there are many occasions when a single project incorporates work by several design disciplines. Creating a new product, for example, involves graphic and package design, as well as industrial engineering. I'm amazed by how weak the graphics are in so many architectural projects. It's as if architects simply don't know who to ask when it comes to doing excellent signage and typography.

My experience at the Netherlands Design Institute in Amsterdam is extremely relevant. Under its founder and director, John Thackara, NDI established an innovative model for a design research institute that went well beyond the typical boosterish agenda of most national and local “design centers.” I shall take some cues from my experience there—applying what I learned about the sorts of projects that work in such a context and those that don't—and try to improve on that model. For example, while at NDI in 1998, I edited the inaugural issue of the journal IF/THEN: Design Implications of New Media, whose theme, “play,” is definitely worth picking up and developing further.
What is your vision for the Design Institute?
I would like it to be a place for constructive dreaming—a sanctuary from the pressures of the commercial world, a place where ideas can be grown. Time for reflection is critical in order to produce deeper, more challenging and, hopefully, even controversial work.

Since I believe the most interesting work is occurring at the junctures of the creative fields, I’ll be focusing on connections and collaborations between the design fields, which are conventionally understood as product design, graphic design, new media, architecture, interior and landscape design, etc. The Design Institute will also reach beyond these disciplines to integrate ideas and knowledge from other fields, such as the social sciences and performing arts. I’ve always enjoyed putting together explosive mixtures of disparate creative talent in the events I’ve programmed elsewhere. Designers can learn a lot about storytelling and the shaping of experiences from chefs, dancers and musicians.

A Design Institute research project might include anthropologists and psychologists, as well as designers. A friend of mine who designs Websites told me he finds himself serving as sort of a corporate psychoanalyst for his clients. As organizations grow, their internal divisions may not communicate effectively with each other, let alone with the outside world. Creating a Website forces a more integrated approach to communications because suddenly the company must present a coherent message to a mass audience.

In addition to researching the impact of new media on the roles of designers, I’m interested in exploring the limits and potential of software—in particular, the range of electronic tools used by design professionals—to better understand the ways they employ these codes of representation and the resulting impact on design.

I have a head full of ideas and some strong hunches about the kinds of projects and events I want to launch. But

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I’m going to resist declaring an agenda until I’ve had a chance to meet and listen to a lot more people, especially in the Twin Cities. One of my first moves, however, will be to undertake a “knowledge map” of the design world—the organizations, publications, competitions and curricula that effectively define the discourse today—so that, having charted the known territory, the Design Institute can move beyond it.

What are the greatest challenges the design professions face? Demystifying what they do and participating in public discourse. Architects, artists and others engaged in creative activities often find it difficult to communicate about their work because they are so immersed in the creative process. They tend to speak rather arcane dialects that can be off-putting to outsiders. But I find non-specialists are often hungry to understand the design process, and are enthusiastic and appreciative once their imaginations are engaged.

The Design Institute can assist in expanding the dialogue, both in terms of the range of audiences and the media used to reach them. We’ll be using a variety of delivery channels to communicate about design: print and broadcast media, the Web and plenty of live events.

What can individual architects and designers do to make a positive difference for their professions? They can be hungry and alert—voracious about observing what’s going on in the world around them and involved in activities outside of their professions. It’s also vital to find new opportunities to apply design thinking. The rigor of design training is valuable because it teaches people to think in a structured manner about complex physical and social systems, while recognizing serendipity and delight as essential aspects of everyday experience. AM
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recyclable. A copper roof, after lasting for 100 years, will be valuable when scrapped, which certainly can't be said of asphalt shingles, wood siding or nearly any other building material.

Architectural copper is also an investment. Like all commodities, its price fluctuates. High-grade copper now fetches about $1,700 a ton, half of the cost in 1989. Even so, material costs for copper roofing are higher today than installation labor costs. Current construction data shows that a standard copper roof runs about $8 a square foot, with material costs slightly higher than labor costs. An asphalt-shingle roof prices out at less than $1.50 a square foot, with labor twice the material cost. But a properly installed copper roof will last three to five times longer; first cost generally proves itself in long-term, life-cycle savings.

Copper's high cost relative to other building materials and the skilled labor needed to install it have traditionally limited its use to long-established institutions. The use of copper on the exterior of the new BankVista Financial Center in Sartell, Minnesota, for instance, capitalizes on this perception (see Architecture Minnesota, July/August 2000). The copper cladding helps make the bank "an immediate community fixture," says Richard Lundin, AIA, CONstruct Architects, Inc., Minneapolis.

Architectural copper also signifies stability, in part because it doesn't corrode. The appearance of the material, however, shifts over time. The process of oxidation weathers copper from its characteristic dark, reddish tone to green, with a range of hues in between. Moisture, salt and high-sulfur pollution accelerate the process. The weathering copper on the BankVista Financial Center, Lundin notes, "reflects the client's aspiration to age, evolve and grow with the community."

Copper cladding on the Type/Variant house in Wisconsin by Vincent James, AIA, harnesses this same trait

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(see Architecture Minnesota, May/June 1997). "Rain, snow and airborne impurities all leave their marks on the surface," the owner has said in previously published articles. Furthermore, the cladding was not cleaned or buffed during construction; worker fingerprints and smudges were left as signs of the building process. Surface imperfections provide a striking counterpoint to the home's pristine modernity.

The new corporate headquarters for Ceridian in Bloomington (see page 30), designed by Hammel, Green and Abrahamson, Minneapolis, illustrates the use of copper with a curtain wall. Composite panels—copper sheets bonded to a solid substrate—hang in the spandrel position between the curtain wall's window bands. "Bevels and steps in the copper panels help ensure a random, mottled weathering" according to Kara Hill, AIA, project designer, while the patina contrasts with the curtain wall's clean, machined quality. The potential for green staining due to rain-water runoff was a concern at Ceridian, which Hill avoided through careful attention to a basic architectural concern: how water sheds off a building.

Not all architects have been fond of copper's weathering and its potential to stain. In the early 1900s, lead-coated copper gained widespread use in addressing this issue. Coating copper with molten lead produces a roofing material lighter than lead alone, with a weathering process less pronounced than copper's, and its light color does not markedly stain stone, brick or wood as copper salts can.

Another concern in copper assemblies is preventing corrosion by ensuring dissimilar metals don't touch one another. "To prevent galvanic action," Hill notes, "we made sure the aluminum curtain wall and aluminum sun shades did not directly touch the copper." Copper is close to lead, tin and stainless steel in chemical makeup, thus it is not necessary to isolate them under most

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circumstances. Aluminum, however, corrodes in contact with copper. Stainless-steel fasteners and gaskets in Ceridian’s curtain wall limit contact between the copper and aluminum.

Modern fabrication methods were necessary to fuse the composite copper panels to the substrate. Crimping, staking, riveting and bolting are all traditional, mechanical means of joining copper pieces to one another. Soldering, brazing and welding are the most widely used processes for bonding copper metals. Copper is also readily shaped to required form and dimension by such common fabricating processes as rolling and stamping at cold temperatures, as well as rolling, extruding and forging at high temperatures.

At the WCCO-Television Headquarters on Minneapolis’s Nicollet Mall, copper shingles sport a subtle texture pressed into the metal, as well as a rich patina. In addition, the shingles cover both roof and walls. Few materials are so plastic they can effectively wrap and seal both vertical and horizontal building surfaces.

And while many metals do not have an inviting warmth, copper certainly does; which is why Albuquerque architect Antoine Predock and the Minneapolis firm KKE Architects chose copper cladding for the University of Minnesota’s McNamara Alumni (“Gateway”) Center. “As an entry point to the campus, the Gateway building needed to communicate permanence and tradition, as well as a sense of invitation and welcome,” says Dave Broesder, AIA, principal, KKE. “As a material choice, copper’s organic quality and its change through weathering offered tremendous appeal and interest.”

Human history and copper are so intertwined that our affinity and appreciation for the material is seemingly hard-wired. Despite its common use in the humble penny and as part of a building’s inner workings, a copper roof or curtain wall still impresses passersby as anything but common. AM

practice
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house, a National and Minnesota AIA Honor Award-winning home in northern Wisconsin, features a largely copper exterior (see Architecture Minnesota, May/June 1997). Similarly, a team member from Rozeboom Miller had worked with the University on other projects, James says, and brought that “inside knowledge” to the project.

The relationship between firms resulted in the development “of strong team camaraderie and friendships,” says Steven Miller, AIA, principal. The biggest challenge of having a trio of firms working on one building, he adds, is “making decisions and ensuring those decisions are communicated to everyone involved.”

Technology certainly makes such collaborations easier. Sharing files through the use of a file-transfer-protocol Website, operated by one of the firms, allows every member of the team who has a password to view constant updates, design files and changes in blueprint details. Email is widely used by architects on collaborative projects; and with high-speed connections, blueprints can be sent quickly between team members for review. That old standby, the telephone, also gets a workout during collaborations.

Not all collaborations, however, involve big-name, out-of-town architects looking to partner with local firms. For instance, James is working with David Salmela, AIA, Salmela Architect, Duluth, on a proposed new Cable Natural History Museum in Cable, Wisconsin. The architects met at least six times to share ideas and designs before crafting a proposal for the first phase: a dormitory in which museum interns will live.

“We decided to collaborate because we like each other’s work, even though we have different perspectives,” James says. “When collaborating, it’s critical that you share the same goals for the project. To put it bluntly, if the collaborators don’t share a common goal you can have big problems.”

Knowing when to keep an ego in check also goes a long way in collaborations, James adds. Lead architects on a project, he continues, must listen closely to the advice of partners and incorporate ideas that make

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 phenomenon... but will not undermine the vision. Conversely, firms not leading a project are expected to offer suggestions for improvements. Partnering firms can even negotiate to oversee greater portions of the project, as James did when sharing responsibilities throughout all phases of the CALA project.

Collaboration also requires a certain selflessness on the part of team members. Assigning clear responsibilities—from design to contract documents to overseeing construction—saves time and misunderstandings among team members, says Daniel Avchen, FAIA, chief executive officer, Hammel Green and Abrahamson, Inc., Minneapolis. “It’s important to make clear that one team is leading the design and one is leading the implementation,” Avchen says. “You have to make that specific or you’ll end up with problems.”

HGA is currently working with the Swiss firm Herzog & de Meuron on an addition to the Walker Art Center, which has been a client of HGA’s in the past (see page 56). Herzog & de Meuron has responsibility for the design of the Walker addition, and will collaborate on contract documents and other aspects of the project with HGA. This collaboration will work because of a simple concept, Avchen says: “Respect; our people respecting their vision and design, and their people respecting what we can bring to the project in terms of implementation.”

In the process of collaboration, rare learning opportunities arise for architects. Pelli’s devotion to creating models for a project—even before computer or paper designs—impressed Johnson, who now wants his firm to begin modeling earlier in the design process. Similarly, James was intrigued with Holl’s ability to “hang tough” during negotiations with CALA, to safeguard his design from concessions he felt might damage its architectural integrity.

Nor is it easy to keep a team of architects who work for different firms moving together toward the same vision. Yet with a shared purpose and a solid partnership—and a little help from technology—the spirit of collaboration remains alive in the pursuit of a better built environment. AM
Welcome to Architecture Minnesota's fifth annual Directory of General Contractors. The following paid listings were solicited from the membership of the Associated General Contractors (AGC) of Minnesota, a statewide association of building, heavy/industrial, highway and municipal/utility contractors since 1919.

General Contractors are important team players in the building and design industry. We invite you to use this directory as a resource for upcoming projects - both in Minnesota and out-of-state.

**ADOLSON & PETERSON CONSTRUCTION**

6701 West 23rd Street
Minneapolis, MN 55426
Tel: 763/544-1561
Fax: 763/525-2333
E-mail: sweenitch@a-p.com
Web: www.a-p.com
Year Established 1946
Total Personnel MN Office: 380
Contact: Scott Weicht, 763/525-2325

Other Offices: Denver, CO; Phoenix, AZ; Wausau, WI; Dallas, TX
Total Personnel in Other Offices: 220

Continued on next column

David Adolfson, Chairman
Michael Peterson, President
Scott Weicht, Executive VP
Brook Adolfson, VP Field Operations
David Mula, Vice President
Clyde Terwey, Vice President

Adolfson & Peterson Construction is a national commercial construction company bringing great diversity and value to our clients. For over 54 years, we have offered total construction services including general construction, construction management, design/build and controlled environments (clean-rooms). A&P has grown to over $250 million in sales and is currently ranked 151 on the ENR Top 400 General Contractors list.

Hawthorne Transportation Center, Minneapolis, MN; Norman Pointe Office Building, Bloomington, MN; Great Lakes Aquarium, Duluth, MN; Howard Young Medical Center, Woodruff, WI; Fair Arts Middle School, Crystal, MN; Sherburne County Government Center, Elk River, MN

**BITUMINOUS ROADWAYS INC.**

9050 Jefferson Trail W.
Inver Grove Heights, MN 55077
Tel: 651/686-7001
Fax: 651/687-9857
Web: www.hitroads.com

Other MN Offices:
Minneapolis, 612/721-2451;
Shakopee, 952/233-1660
Contact: Tom Haller, 612/721-2451

Kent Peterson, President
Tom Haller, Vice President
Ed Otrema, Treasurer
John Kittleson, Secretary

Bituminous Roadways, Inc. is an asphalt paving contractor working in the Minneapolis/St. Paul area. We have been in business over 50 years. We construct streets, parking lots, tennis courts, play areas, running tracks and do all maintenance on existing asphalt surfaces from patching to sealcoating. Bituminous Roadways Inc. has three of its own asphalt plants in Minneapolis, Shakopee and Inver Grove Heights to supply our crews with their hot mix asphalt needs.

Gethsemane Cemetery, Repave Roads, New Hope, MN; Greenway Bike Trail, Minneapolis, MN; Bloomington 2000-101 Street Project, Bloomington, MN; St. Paul Technical College, St. Paul, MN; Cottage Grove Street Sealcoating, Cottage Grove, MN; Unisource, Brooklyn Park, MN

**BOR•SON CONSTRUCTION, INC.**

P.O. Box 1611
2001 Killebrew Drive, Ste. 141
Bloomington, MN 55440
Tel: 952/854-8444
Fax: 952/854-8910

Established 1957
Total Personnel MN Office: 350
Contact: Frank Delmont,
Sales/Marketing, 952/854-8444

Wm. Arthur Young, President
James Mrozek, Chief Financial Officer
Ray Schwartz, VP Estimating
Roger Raum, VP Field Operations
James Williams, Director Risk Management
Frank Delmont, Director Sales/Marketing

BOR•SON, one of Minnesotas largest and most diversified construction firms, provides pre-construction planning, design/build, construction management and general construction services. Founded in 1957, the employee-owned firm specializes in commercial, industrial, institutional, healthcare and multi-housing projects.

Milwaukee Road Depot, Minneapolis, MN; RiverStation, Minneapolis, MN; Hastings High School, Hastings, MN; University of Minnesota Science and Math Facilities, Morris, MN; CentraCare Health Plaza, St. Cloud, MN; GrandMarc at Seven Corners, Minneapolis, MN

**CHRISTIANSEN CONSTRUCTION CO., INC.**

2805 Washington Ave. SE
PO Box 456
Bemidji, MN 56619-0456
Tel: 218/751-4433
Fax: 218/751-0946
Year Established 1948
Total Personnel MN Office: 19
Contact: Edie Christiansen
Edie Christiansen, President
Don Berg, Vice President
Marilyn Paulson, Secretary/Treasurer
Commercial and industrial buildings, Design/build, Concrete work, Full service general contracting, Crane service.

ISD #31 Elementary School, Bemidji, MN; Zion Lutheran Church, Blackduck, MN; Paul Bunyan Rural Telephone Co., Bemidji, MN; AC Clark Library, Bemidji State University, Bemidji, MN; Lakehead Pipe Line, Bemidji, MN; Teal’s Super Valu, Cass Lake, MN; Concordia Language Village, Bemidji, MN

**CONSTRUCTION RESULTS CORPORATION**

14100 23rd Avenue N.
Plymouth, MN 55447
Tel: 763/559-1100
Fax: 763/553-0494
E-mail: constructionresults@msn.com
Year Established 1999
Total Personnel in MN: 4
Contact: Mark D. Snyder, P.E., 763/559-1100

Mark D. Snyder, P.E.
Steve W. Lindroos

Construction Results Corporation provides professional general contracting services for renovation work as well as new construction. We can perform demolition, concrete and carpentry work with our own crews. We work on design-build, negotiated or competitive bid projects.

Metrodome Renovation Service Contract, Minneapolis, MN; Menards Expansion, Richfield, MN; Twin City Twisters Addition, Champlin, MN; Camp Snoopy Retail Work, Mall of America, Bloomington, MN; Reliant Energy Office Remodel, Minneapolis, MN; Stillwater Good Samaritan Structural Wall Repairs, Stillwater, MN

**CRAWFORD-MERZ CONSTRUCTION COMPANY**

2316 Fourth Avenue S.
Minneapolis, MN 55404
Tel: 612/874-9011
Fax: 612/874-9015
E-mail: wandaerson@crawfordmerz.com
Year Established 1886
Contact: Wayne Anderson

Thomas J. Merz, President
John P. Merz, Vice President
Wayne Anderson, VP Operations

For 114 years, Crawford-Merz has been providing first class service to our clients for commercial and luxury residential, new and remodeling projects. We excel when participating as a team member on design/build and negotiated projects, providing our expertise through design and construction.

Room & Board Corporate offices, Golden Valley, MN; PriceWaterhouseCoopers, LLP, Minneapolis, MN; IBM, Minneapolis, MN; Norwest Bank, Bloomington, MN; St. Stephens Episcopal Church, Edina, MN; St. Paul's Episcopal Church, Minneapolis, MN
Now celebrating 30 years in business, we offer earthwork, utilities, demolition and landfill closures for commercial/industrial projects. Specialty turf for athletic fields/golf courses, bituminous work, hazardous/contaminated material removal/disposal and concrete/bituminous recycling are other areas of service we can provide. ON TIME and ON BUDGET are our goals in maintaining customer satisfaction.

Montgomery Ward Demolition, St. Paul, MN; Minnesota Mutual High Rise, St. Paul, MN; Quarry Retail Center (Target/HomeDepot/Rainbow Foods), Minneapolis, MN; Arlington Business Park, Commercial Development, St. Paul, MN; Cap Landfill Closure, Inver Grove Heights, MN; Home Depot Stores, MN and WI; Bethel College Baseball Fields, Bethel, MN

**W. GOHMAN CONSTRUCTION CO.**
815 E. County Road 75
St. Joseph, MN 56374
Tel: 320/363-7781
Fax: 320/363-7207
E-mail: mgohman@cloudnet.com

Established 1959
Total Personnel MN Office: 9
Contact: Bruce Gohman

Bruce Gohman, President Michael Gohman, Executive VP
Denis Anderson, VP Project Administration

Dennis Klehr, VP Field Operations

W. Gohman Construction Co. specializes in commercial, industrial and institutional building with extensive experience in re-modeling, renovation and retrofit. We provide complete general contracting, construction management and design build services along with estimating, budgeting, value engineering and construction services to Owners throughout the greater Central Minnesota area.

Cold Spring Granite Shot Saw Foundations and Building, Cold Spring, MN; State Bank of St. Joseph, New Bank Building, St. Joseph, MN; Nahan Printing Expansion, St. Cloud, MN; Kanabec County Courthouse Additions and Remodeling, Mora, MN; St. Michael's Church Addition, St. Cloud, MN; CentraCare Health Systems, 6th Floor NW Bed Expansion at St. Cloud Hospital, St. Cloud, MN

**GRAY COMPANY INC.**
205 Western Avenue
Faribault, MN 55021
Tel: 507/332-7461
Fax: 507/332-6867
Year Established 1956
Total Personnel MN Office: 5
Contact: Steve Gray,

Paul S. Gray, Chairman of Board
Steve M. Gray, President
Paul A. Gray, Secretary/Treasurer

Gray Company Inc. founded in 1956, provides complete construction services including: planning, design/build, construction management, negotiated and bid work for commercial and residential projects. Specializing in projects involving the Food and Hospitality Industry in a 12-state area. Renovation of existing facilities. Offices in Faribault, MN and Helena, MT.

Microtel Motel, Faribault, MN; South Central Human Relations Building, Owatonna, MN; Iowa Bakery, Iowa City, IA; Depot Bar & Grill, Faribault, MN; Arby's, Helena, MT; Burger King, Great Falls, MT

**KNUXTON CONSTRUCTION SERVICES, INC.**
5500 Wayzata Blvd., Ste. 300
Minneapolis, MN 55416
Tel: 612/546-1400
Fax: 612/546-2226
E-mail: ecottiss@knutsonconstruction.com

Established 1911
Other MN Office: Rochester, 507/280-9788
Total Personnel MN Offices: 350
Contact: Edward B. Curtis, 612/546-1400

Other Offices: Iowa City, IA

Steven O. Curry, President/CEO
Chad Lewis, Gen. Mgr./Exec. VP
Edward B. Curtis, Vice President Richard H. Peper, Vice President Lawrence A. Trom, Vice President Michael D. Wolf, VP/CFO

Knutson Construction Services, Inc. provides construction management, general construction, design/build and turn-key services utilizing in-house project management and estimating personnel, state-of-the-art software systems, and highly trained and skilled construction professionals. Knutson employs a nationally-award-winning workforce of 250 to 450 skilled craftspeople who allow us the capability to self perform concrete, masonry, rough and finish carpentry, ironwork and stonework.

St. Paul (MN) Port Authority Parking Ramp; John Nassef Heart Hospital, St. Paul, MN; Fairmont Hospital and Clinic, Fairmont, MN; St. John's University Science Center, Collegeville, MN; Treasure Island Resort and Casino, Red Wing, MN; Carlson School of Management, University of Minnesota, Minneapolis, MN

**KRAUS-ANDERSON CONSTRUCTION COMPANY**
525 South Eighth St.
Minneapolis, MN 55404
Tel: 612/332-7281
Fax: 612/332-8739
E-mail: jcampobasso@k-a-c.com

Web: www.krausanderson.com

Year Established 1897
Total Personnel in MN Office: 575
Contact: John Campobasso, 612/332-7281

Bruce Engelsma, Chairman/CEO
Jerald Drehs, Chief Financial Officer

Founded in 1897, Kraus-Anderson Construction Company is currently ranked in the top 50 General Contractors/Construction Managers in the U.S. by "Engineering News Record." Kraus-Anderson Construction Company provides general contractor, construction management, and Design/Build Services from five divisions and offices: Minneapolis, St. Paul, Building, Midwest, and North - all located in Minnesota

ADC Telecommunications Corporate Headquarters, Eden Prairie, MN; La Crescent-Hokah Middle School, La Crescent, MN; Bridges Medical Center, Ada, MN; Centennial Lakes Office Park, Edina, MN; Gustavus Adolphus College International House, St. Peter, MN; Cabella's Retail Store, Dundee, MI

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**DONLAR CONSTRUCTION COMPANY**
480 Cedar Street, Ste. 500
St. Paul, MN 55101
Tel: 651/227-0631
Fax: 651/227-0132
E-mail: jon@donlarcorp.com
Established 1972
Total Personnel MN Office: 160
Other MN Office: St. Cloud, 320/253-3354
Contact: Jon Kainz, 651/227-0631

Lawrence S. Dotte, Chief Executive Officer
Donald A. Kainz, President
Bruce E. Ellington, VP Finance/Admin.

Ron Kraemer, VP Field Operations
Wm. Boom, VP Project Admin.
Jon Kainz, VP Business Development

Donlar provides a full range of construction services including general contracting, construction management and design/build services for commercial, institutional and industrial owners. We specialize in religious, educational, institutional and medical facilities with extensive experience in expansion, renovation and restoration.

St. Cloud State University Learning Resource Center, St. Cloud, MN; St. Michael/Albertville Middle School, St. Michael, MN; Maple Grove Government Center, Maple Grove, MN; Monticello Community Center, Monticello, MN; College of St. Benedict Apartment Complex, St. Joseph, MN; Centracare Neurological Clinic, St. Cloud, MN

**F.M. FRATTALONE EXCAVATING & GRADING, INC.**
3066 Spruce Street
St. Paul, MN 55117
Tel: 651/484-0448
Fax: 651/484-7839
E-mail: info@fmfrattalone.com
Web: www.fmfrattalone.com
Established 1970
Total Personnel in MN Office: 200+
Contact: David Grismrud, 651/484-0448

Frank M. Frattalone, President
Tony Frattalone, Executive VP
Nick Frattalone, Treasurer
David Grismrud, VP Finance
Susan Kees, Corporate Secretary
Dylan Larson, VP Operations

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Continued on next column
LENCI ENTERPRISES, INC.  
P.O. Box 6  
1021 South 2nd Avenue  
Virginia, MN 55734  
Tel: 218/741-3482  
Fax: 218/741-3483  
E-mail: dhlenc@virginiamm.com  
Established 1972  
Total Personnel MN Office: 3  
Contact: Dale Hansen, 218/741-3482  
— Michael Ralston, President  
— Dale Hansen, Corporate Secretary  
— Lenci Enterprises, Inc. is a General Contracting firm specializing in commercial and industrial projects ranging in size up to $3 million. We perform work throughout the Mesabi Iron Range area of Northern Minnesota.  
— Minnesota Power Service Center, Coleraine, MN; Ironworld USA Control Building, Chisholm, MN; Public Utilities Office Building, Hibbing, MN; Physical Education Building, Virginia, MN; Chisholm-Hibbing Airport Terminal, Hibbing, MN; Babbitt Municipal Center, Babbitt, MN  

MCGOUGH CONSTRUCTION CO., INC.  
2737 North Fairview Ave.  
St. Paul, MN 55113-1372  
Tel: 651/633-5050  
Fax: 651/633-5673  
E-mail: info@mccough.com  
Web: www.mccough.com  
Established 1956  
Other MN Office: Rochester, 507/356-4870  
Other Office: Phoenix, AZ, 602/522-9897  
Contact: Tom McCough, Sr., 651/633-5050  
— Tom McCough, Sr., President/CEO  
Tom McCough, Jr., Chief Operating Officer  
Dennis Mulvey, AIA, Vice President  
Jim Frisell, Vice President  
— McCough Companies provides a broad range of services including preconstruction planning, development, design/build, construction management, general contracting and facility management. The company delivers projects on a national basis to a variety of clients across a wide spectrum of industries.  
— Continued on next column  

MEISINGER CONSTRUCTION CO., INC.  
750 S. Plaza Drive, Ste. 100  
Mendota Heights, MN 55120  
Tel: 651/452-4778  
Fax: 651/452-4868  
E-mail: tmeisinger@aol.com  
Established 1970  
Total in MN Office: 25  
— Other Office: Omaha, NE  
Total in Other Office: 2  
Contact: Rick Reed, 406/860-2930  
— Thomas J. Meisinger, President  
— David Meisinger, Vice President  
— Thomas M. Meisinger, Vice President Field Operations  
— Joe Meisinger, Head Estimator  
— Nick Meisinger, Field Engineer  
— Meisinger Construction, a family-owned and -operated Commercial/Industrial General Contractor and Design Interiors specializes in architectural concrete, heavy structural concrete telecommunication switch facilities and Interior Renovation projects.  
— Womens' Suffrage War Memorial, St. Paul, MN; Harriet Island Pedestrian Entrance, St. Paul, MN; McLeod USA Telco switch site, Omaha, NE; Winn-Telecom switch site, Mt. Pleasant, MI; Oshman's Superstores, Mall of America, Minneapolis, MN; Columbia Heights High School Renovation, Columbia Heights, MN  

M. A. MORTENSON COMPANY  
700 Meadow Lane North  
Minneapolis, MN 55422  
Tel: 763/522-2100  
Fax: 763/287-5430  
E-mail: km.sorensen@mortenson.com  
Web: www.mortenson.com  
Established 1954  
Total Personnel in MN: 400  
Contact: Ken Sorensen, 763/287-5326  
— Continued on next column  

Other Offices: Denver and Colorado Springs, CO; Seattle, WA; Milwaukee, WI; Honolulu, HI; Los Angeles, CA; Chicago, IL  
Total Personnel: 1600  
— John Wood, Senior Vice President  
— Ken Sorensen, Vice President  
— Tom Gunke, Executive VP  
— Tom McCune, President  
— Founded in Minneapolis in 1954, Mortenson is a diversified construction company providing its customers with state-of-the-art services in general contracting, construction management, design-build, consulting, preconstruction and development services.  
— Xcel Energy Center, St. Paul, MN; Minneapolis Convention Center Expansion, Minneapolis, MN; Regions Hospital Expansion 2000, St. Paul, MN; McNamara Alumni Center, University of Minnesota, Minneapolis, MN; Rush City Correctional Facility, Rush City, MN  

OLSON CONSTRUCTION CONTRACTORS, INC.  
5010 Hillsboro Avenue N.  
New Hope, MN 55428  
Tel: 763/535-1481  
Fax: 763/535-1484  
E-mail: mail@olsongc.com  
Web: www.olsongc.com  
Established 1909  
Total Personnel MN Office: 10  
Contact: Ed Sorgatz, 763/535-1481  
— Robert Olson, President  
— A design/build general contractor with over 90 years experience in all facets of industrial, commercial and institutional construction, including interior buildings and historic restoration and remodeling. An emphasis is placed on utilizing the contractor's experience and resources during the design process, to assist in guiding the project to desired goals, especially those which are budget related.  
— Systematic Refrigeration, Ramsey, MN; U.S. Filter Control Systems, Vadnais Heights, MN; Twin City Diecast, Monticello, MN; Open Book, Minneapolis, MN; West Lutheran High School, Plymouth, MN; Ideal Printers, St. Paul, MN  

PCL CONSTRUCTION SERVICES, INC.  
12200 Nicollet Avenue S.  
Burnsville, MN 55337  
Tel: 952/882-9600  
Fax: 952/882-9900  
E-mail Address: pclinfo@pcl.com  
Web: www.pcl.com  
Established 1906  
Total Personnel MN Office: 200  
Contact: Fred Auch, Vice Pres./District Mgr.  
— Other Offices: Denver, CO; Orlando and Ft. Lauderdale, FL; Seattle, WA; Los Angeles, CA; Phoenix, AZ. In Canada - Edmonton and Calgary, Alberta; Regina, Saskatchewan; Toronto and Ottawa, Ontario; Winnipeg, Manitoba; Vancouver, British Columbia; Yellowknife, Northwest Territories  
— Fred G. Auch, VP/District Mgr.  
— Terry Brickman, Mgr.  
— Special Projects Div.  
— Daniel L. Itten, AIA, PE, Dir.  
— Design/Constr. Services  
— Collin Terras, Operations Manager  
— Brad Hendrickson, Chief Estimator  
— PCL Construction Services, Inc. is one of MN's largest, most diversified construction firms. The company is engaged in industrial, health care, institutional, high technology, commercial, and civil construction - delivering projects as a general contractor, construction manager, and as design-builder. PCL also has a Special Projects Division that specializes in interiors, renovations, and remodeling.  
— Science Museum of Minnesota, St. Paul, MN; American Express Client Service Center, Minneapolis, MN; Rainforest Cafes, Various Locations Throughout U.S.; Pillsbury Company, Various Locations Throughout U.S.; CentraCare Health Plaza, St. Cloud, MN; Mystic Lake Hotel and Buffet Expansion, Prior Lake, MN
SHAW-LUNDQUIST ASSOCIATES, INC.
2757 West Service Road
St. Paul, MN 55121-1230
Tel: 651/454-0670
Fax: 651/454-7982
E-mail: info@shawlundquist.com
Web: www.shawlundquist.com
Established 1974
Total Personnel MN Office: 102
Contact: Paul Nelson,
651/454-0670
—
Fred Shaw, President
Hoyt Hsiao, Vice President
Thomas J. Meyers, Vice President
Shaw-Lundquist Associates, Inc. specializes in commercial, industrial and institutional construction services. We coordinate and manage our projects with a focus on construction management, general construction and design/build. Our competitive advantage comes from self-performing the following activities: concrete, masonry, rough/finish, carpentry and demolition.

—
Metropolitan Airports Commission
New Concourses A & C, Minneapolis/St. Paul International Airport, MN; New Apple Valley City Hall, Apple Valley, MN; Lake Owasso Residence Replacement, Shoreview, MN; University of Minnesota Preferred Contractor, Multiple Projects, Minneapolis/St. Paul Campuses, MN; Church of Saint Michael, New Facility, Farmington, MN; St. Paul Technical College Renovations, St. Paul, MN

STAHLE CONSTRUCTION COMPANY
5900 Rowland Road
Minnetonka, MN 55343
Tel: 952/931-9300
Fax: 952/931-9941
E-mail: cschmidt@stahleconstruction.com
Web: www.stahleconstruction.com
Established 1981
Total Personnel MN Office: 52
Contact: Cathy Schmidt,
952/931-9300
—
Wayne A. Stahl, Chairman/CEO
Phillip P. Baum, President/COO
Scott E. Everson, Vice President
Paul M. Perzichilli, Vice President
Continued on next column

STAHLE Construction Company provides construction management, design/build and general contracting services to public and private clients throughout the Midwest. Services include strategic planning, budgeting, value engineering, scheduling, project management, and on-site field supervision. We perform for our clients by fulfilling our commitments and following through on our promises.

—
Anoka-Hennepin Public Schools, Coon Rapids, MN; Mounds View Public Schools, Arden Hills, MN; 1600 Tower, St. Louis Park, MN; Outlets at Albertville, Albertville, MN; TownePlace Suites, Eagan, MN; St. Mary’s Greek Orthodox Church, Minneapolis, MN

SWEDENBOURG-SHAW CONSTRUCTION, INC.
7685 Corporate Way
Eden Prairie, MN 55344
Tel: 952/937-8214
Fax: 952/934-9433
E-mail: jschwed@swedenborgshaw.com
Established 1977
Total Personnel MN Office: 10
Contact: John N. Shaw (Jack),
952/937-8214
—
John N. Shaw (Jack), President
James B. Swedenborg, Chief Financial Officer
Swedenborg-Shaw Construction, Inc. is a design/build general contractor successfully providing: new construction, additions, tenant improvements and unique construction within the commercial, light industrial, manufacturing and retail construction markets. Swedenborg-Shaw Construction, Inc.’s construction products and services have developed long-lasting relationships with owners, developers, architects and engineers throughout the Twin Cities and Upper Midwest.

—
122,000 s.f. Telemarketing and Distribution Center, Sauk Rapids, MN; Lonnonderry Shops Multi-tenant Retail Shops, Edina, MN; Office, Lab Additions, Interior Renovations, Phillips & Temro Industries, Eden Prairie, MN; Warehouse and Office Addition, Fargo, ND; Restaurant Construction for D’Brian’s Deli, Edina, MN

TOWER ASPHALT, INC.
15001 Hudson Road
Lakeland, MN 55043
Tel: 651/436-8444
Fax: 651/436-6515
Year Established 1964
Total Personnel MN Office: 65
Contact: Ronald L. Hockin, President
—
Ronald L. Hockin, President
Mike Leuer, Vice President
Gary Balk, Controller/Secretary
Paul Hofmann, Quality Control Tech.
RuthAnn Morancey, Government Compliance
Founded in 1964, Tower Asphalt, Inc. is an asphalt paving contractor. We operate a state certified hot mix asphalt batch plant located on the Minnesota-Wisconsin border, 15 miles east of downtown St. Paul, MN; Tower Asphalt operates in Minnesota and Wisconsin. We are experienced in the construction of roads, highways, airports and commercial construction. Projects have ranged from $5000 to $6 million.

ULLAND BROTHERS, INC.
P.O. Box 340
Cloquet, MN 55720
Tel: 218/384-4266
Fax: 218/384-4110
E-mail: estrain@ulland.com
Web: www.ullandbros.com
Established 1929
Other MN Offices:
Alberta Lea, 507/373-1960; Hibbing, 218/262-3406
Total Personnel MN Offices: 275
Contact: Collin Strain,
218/384-4266 x15
—
Robert Ulland, Chairman
Mark Ryan, President
Collin Strain, Vice President
Ken Johnson, Vice President
Joan Ford, Vice President
Ulland Brothers, Inc. provides quality craftsmanship on site preparation, bituminous paving, grading, underground utilities and aggregate production. Ulland Brothers operates many gravel pits and rock quarries in northern and southern Minnesota supplying decorative landscape, slope, shoreline and roofing rock throughout Minnesota and as far away as Michigan.

—
Wal-Mart Super Store, Hibbing, MN; I-35 Rest Area, Albert Lea, MN; Home Depot Store, Bemidji, MN; Target Expansion, Duluth, MN; Oppidan Center Development, Austin, MN; Cloquet Golf Course Expansion, Cloquet, MN

VEIT AND COMPANY INC.
14000 Veit Place
Rogers, MN 55374
Tel: 763/428-2242
Fax: 763/428-8348
Web: www.veitcompanies.com
Year Established 1947
Total Personnel MN Office: 220
Contact: Don Rachel
—
Vaughn A. Veit, CEO
Don Rachel, President
Veit & Company, Inc. is a General Contractor specializing in site development, commercial grading, selective and total demolition. Veit has been in business since 1928 and has an excellent reputation for quality work, on time and on budget. Veit has the latest in equipment technology, the best trained and experienced field employees, and a management staff second to none, ready for your next project.

—
Wild Arena Site Development, St. Paul, MN; Grain Belt Brewery Selective Demolition, Minneapolis, MN; Town & Country Golf Club Farway and Creek Reconstruction, St. Paul, MN; Ordean Stadium Total Demolition/Site Development, Duluth, MN; Marquette Plaza Selective Demolition, Minneapolis, MN; Metropolitan Transit Maintenance Facility Site Redevelopment, St. Paul, MN

WATSON-FORSBERG CO.
1433 Utica Avenue S., Ste. 252
Minneapolis, MN 55416-1571
Tel: 952/544-7761
Fax: 952/544-1826
Established 1965
Total Personnel MN Office: 40
—
John Forsberg, Chairman
Dale Forsberg, President
Mike Ashmore, Vice President
David Forsberg, Secretary/ Treasurer
Watson-Forsberg provides general contracting and construction management services. Expertise in commercial, retail, multi-family, religious, educational, medical and industrial projects. Projects include new construction and renovations.

—
A Chance to Grow/New Vision School, Minneapolis, MN; University of Minnesota North Family Practice Clinic, Minneapolis, MN; Redstone Grill, Minnetonka, MN; Redeemer Missionary Baptist Church Renovation, Minneapolis, MN; East Village Apartments, Minneapolis, MN; Hazelden Mediation Center, Center City, MN
colloquium

Continued from page 57

lary. We really did not think it was appropriate to commission, if you will, an independent sculpture. I initially thought it would be appropriate for the Walker to offer a somewhat untested architect the opportunity to do her or his first major commission. That fits very much within the Walker’s artistic mission. But the deeper we got into it, the more we realized it was impossible. This was just too complex a site, too complex a program, too complex a timeline to throw somebody untested into.

WATSON We listened to some really intriguing ideas, but we didn’t know how in the world anyone could ever execute them. Herzog & de Meuron had the ability to think outside of the usual museum context, to create something dynamic that could work in our urban environment.

HALBREICH What we are trying to do is design something that none of us have seen yet. I think that is one of the reasons Herzog & de Meuron agreed to take the project. They knew this institution would be pushing them.

HOW WAS THE RELATIONSHIP BETWEEN HGA AND HERZOG & DE MEURON ESTABLISHED?

HALBREICH Herzog & de Meuron made the choice, though HGA is our most favored partner. The two architectural firms have already formed a partnership. John Cook [AIA], the HGA architect assigned to this project, is at every single meeting with the Swiss team. It isn’t as if HGA is simply going to get the drawings and build from them. It is much more integrated.

AVCHEN We don’t see the project as a hand-off. The process is collaboration. In fact, one or more persons from Herzog & de Meuron will be working in our office on the drawings. As we get into schematic design—we are in pre-design right now—I would anticipate that we may have someone from our office working in Basel or making frequent trips. HGA will be the architect of record and will be credited as design architect. It will be, in the best way, collaboration.

HOW IS THE WALKER INTERACTING WITH THE MINNEAPOLIS COMMUNITY ON THIS PROJECT?

HALBREICH We’re having meetings with City officials about our vision, before there even is a design. Twelve or so government officials, in fact, have met the architects. These meetings will be ongoing. We are also assembling, with Minneapolis City Council member Lisa Goodman, a committee of community folks from the four neighborhoods surrounding the Walker. This focus group will be a sounding board for the Walker as the project goes forward. I am anticipating that this will be an extremely useful tool for us based on our experience working with community groups on artist programs over the years.

This extension to the Walker will only get built if the community believes in it and believes in this institution. We will educate, we will listen, we will respond repeatedly over the next five years.

Witcher construction Co.

9855 W. 78th Street, Ste. 270
Eden Prairie, MN 55344
Tel: 952/830-9000
Fax: 952/830-1365
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Established 1945

Total Personnel MN Offices: 200

Contact: Ken Styrlund, President.
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952/830-9000

Other Offices: Witcher is a wholly-owned subsidiary of Kansas City-based Dunn Construction Group.

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Continued on next column
This year alone, more than 2,300 companies participating in EPA's Green Lights® and ENERGY STAR® Buildings programs will save nearly $282 million in energy costs, and help prevent over 5 billion pounds of air pollution emissions. This means they'll not only improve their bottom line, but the environment as well. Imagine what these savings could do for your organization.

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Millwork: Architectural metal
Window
Photographer: Jon Landscape
Construction administration: Civil-engineering
Structural-engineering
Architect: Hammel, Interior-design
Electrical-engineering
Principals-in-charge:
Ceridian Corporate Headquarters
Location: Bloomington, MN
Client: Ceridian Corporation, Joe Haugle, client project manager
Architect: Hammel, Green and Abrahamson, Inc., Architects, Engineers and Planners
Principals-in-charge: Roger Santelman, Anita Barnett
Design principal: Loren Ahles, FAIA
Project designer: Kara Hill, AIA
Project architect: James Butler
Project architectural team: Todd Kraft, Christine Peterson, Cheryl Thornton, Steve Herr, Dan Grothe, Brian Schroeder
Structural-engineering team: Yanik Shagalov, Ken Peterson, Johanna Harris
Mechanical-engineering team: Tim Anderson, David Harrison, Dan Weiss, Nancy Green
Electrical-engineering team: Mark Benjamin
Civil-engineering team: Ken Horns, Jim Tiggelaar, Jim Goulet
Interior-design team: Laurie Rother, Brenda Lemmer, Ruth van den Niewenhuizen
Construction administration: Mike Pederson
Landscape architect: Tom Oslund, Ted Lee, Brian Stalock
Construction manager/General contractor: McCoug Construction
Stone: Chilton, Bed Face Ashlar, Buechel Stone Corporation
Window systems: Harmon Glass
Architectural metal panels: Mitsubishi Metal Panels
Millwork: Arrow Carlson
Flooring systems: Bentley Carpet
Photographer: Jon Miller ©Hedrich Blessing

Sanderson Stable Restoration
Location: Edina, MN
Client: Paul and Janet Sanderson and family
Architect: Porth Architects, Ltd.
Principal in charge, lead designer, project manager: Andrew Porth, AIA
Project team: Timothy Thurik, Meriwether Felt, AIA, Kirk Albison
Structural engineer: McConkey, Johnson, Sotermann, Inc.
Landscape design/build: Sticks and Stones General contractor: John Erler
Cabinet work: Michael Swilka, Everett Nelson
Decorative painting: Terry Langeland of Plane Intrigue
Floor system: Bomacron (concrete), E. F. Bulach Construction
Windows: Marvin
Concrete work: E. F. Bulach
Millwork: Cliff Carey Carpentery, John Erler
Photographers: Marnie Fiedler (b & w before photos), Dana Wheelock, Wayne Jenkins

East Hampton Airport Terminal
Location: East Hampton, NY
Client: Town of East Hampton
Architect: Robert Lund Associates Architects
Principal-in-charge: Robert Lund, AIA
Project lead designer: Robert Lund, AIA
Project team: Christina Huff, Daniel Green, Gayle Pickering
Mechanical-engineering team: TM Consulting Engineers
Electrical-engineering team: TM Consulting Engineers
Civil-engineering team: C & S Engineers, Inc.
Construction manager: C & S Engineers, Inc.
Face brick: Smithtown Concrete products; Glen Gary Middle Plantation Solids (for pavers)
Stone: Royal Precast, Bayshore, NY
Cabinetwork: Lipsky Enterprises, Inc., Bayport, NY
Flooring systems/materials: Wood Frame, ceramic-tile flooring “mica” by Crossville

Window systems: Andersen; YKK Skylights, Entrances, Doors
Millwork: Lipsky Enterprises, Inc.
Community liaison: Project for Public Spaces, Inc., New York, NY
Photographer: Elizabeth Glasgow

Rushmore Center
Location: Ellsworth Air Force Base, SD
Client: Department of the Air Force
Architect/Engineer: Setter Leach & Lindstrom
Principal-in-charge: Robert G. Egge, AIA
Project manager: Robert G. Egge, AIA
Project architects: Jim Fredeen, Debra Young
Project lead designers: Jim Fredeen, Debra Young
Project team: Tim Bauer, Stephanie Wing, Brenda Wentworth
Structural engineering: Steve Nordin, Mark Mehrman, Gary Weihemuller
Mechanical engineering: Dave Lindahl, Bernard Pawlicki
Electrical engineering: Byron Byraigh, Ray Johnson, Craig Dolby, Steve Simonson
Civil engineering: Jim Sokolowski, Mark Longendyke, Scott Strickland
Lighting designer: Byron Byraiah, Ray Johnson
Interior design: Laurie Regan Zadra, Zulay Furlong
Landscape architect: Martin & Pitz Landscape project team: Roger Martin
Face brick: Sioux City Brick (Phase I & II)
Cast stone: Artstone (Phase I & II), Kroger (Phase III)
Cabinetwork: Anderson Millwork
Flooring systems/materials: Shaw Industries Carpet, American Oleum Quarry Tile
Window systems: CMI Architectural Millwork
ARCHITECT/ENGINEER
Sanderson Stable Restoration

ARCHITECTURE

GENERAL CONTRACTOR

CONSTRUCTION MANAGEMENT

INTERIOR DESIGN

MECHANICAL ENGINEERING

ELECTRICAL ENGINEERING

STRUCTURAL ENGINEERING

Photographers: George Heinrich, Philip Prowse

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In 1890, the city of St. Paul extended its section of the Short Line Railroad (a commuter track that connected the city with Minneapolis) west to Fairview Avenue. While the extension improved service to St. Paul’s western neighborhoods, it also created an awkward intersection where the rails crossed Selby Avenue at a greatly skewed angle. The City Council determined that in order to avoid accidents, a new bridge would have to carry Selby Avenue over the tracks.

The responsibility for the design of that span—a difficult project due to the angle of the railway—fell to Andreas Munster, an engineer in charge of the city’s bridges. Born in Norway, he had worked as an engineer for the Norwegian rail system until his emigration to the United States in 1882. After two years in Montana as an engineer for the Northern Pacific Railway, Munster joined St. Paul’s engineering staff.

For Selby Avenue, Munster designed a bridge unlike any other in the region. It was 248 feet long, an unusually long length made necessary by the tracks below. He determined that a double-span structure would cost less than a single-span bridge, and he placed each short truss opposite a long one. Although the end piers, made of yellow sandstone, ran perpendicular to the line of the bridge, the two center piers had to be offset. Distinctively latticed guard rails ran along each set of sidewalk planks. The final cost was $91,000.

Later, Munster gained distinction as a designer of the city’s Robert Street Bridge, Smith Avenue High Bridge and Wabasha Avenue Bridge. He became chief engineer of the Chicago and Great Western Railway in 1904, and ended his career as a Seattle-based engineering consultant.

In 1976, building materials stored under the east end of the Selby Avenue Bridge caught fire and severely damaged the structure. Closed for repairs to the floor system, the bridge reopened two years later. By the next decade, metal supports had badly rusted, a train had damaged a center floor beam, regular maintenance was swallowing up $11,000 a year and trucks carrying loads in excess of the five-ton limit threatened to cause a collapse. In 1989, the city closed the bridge to all but pedestrian and bicycle traffic.

Suddenly, residents of the Snelling-Hamline and Lexington-Hamline neighborhoods could no longer easily visit each other. Neighborhood groups lobbied for a replacement bridge, which was built in 1993 shortly after the razing of the old one.

But the old Selby Avenue Bridge has not completely disappeared. The retaining wall now running along the Ramsey Street side of Summit Outlook Park in St. Paul contains sections of bearings and piers from the bridge, and 300 feet of the bridge railing—blasted of its lead paint and recoated—lines another edge of the park. Jack El-Hai
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12:00-2:30 P.M.

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