

Architect

Fall 1995/Issue No. 95:213 Three Fifty



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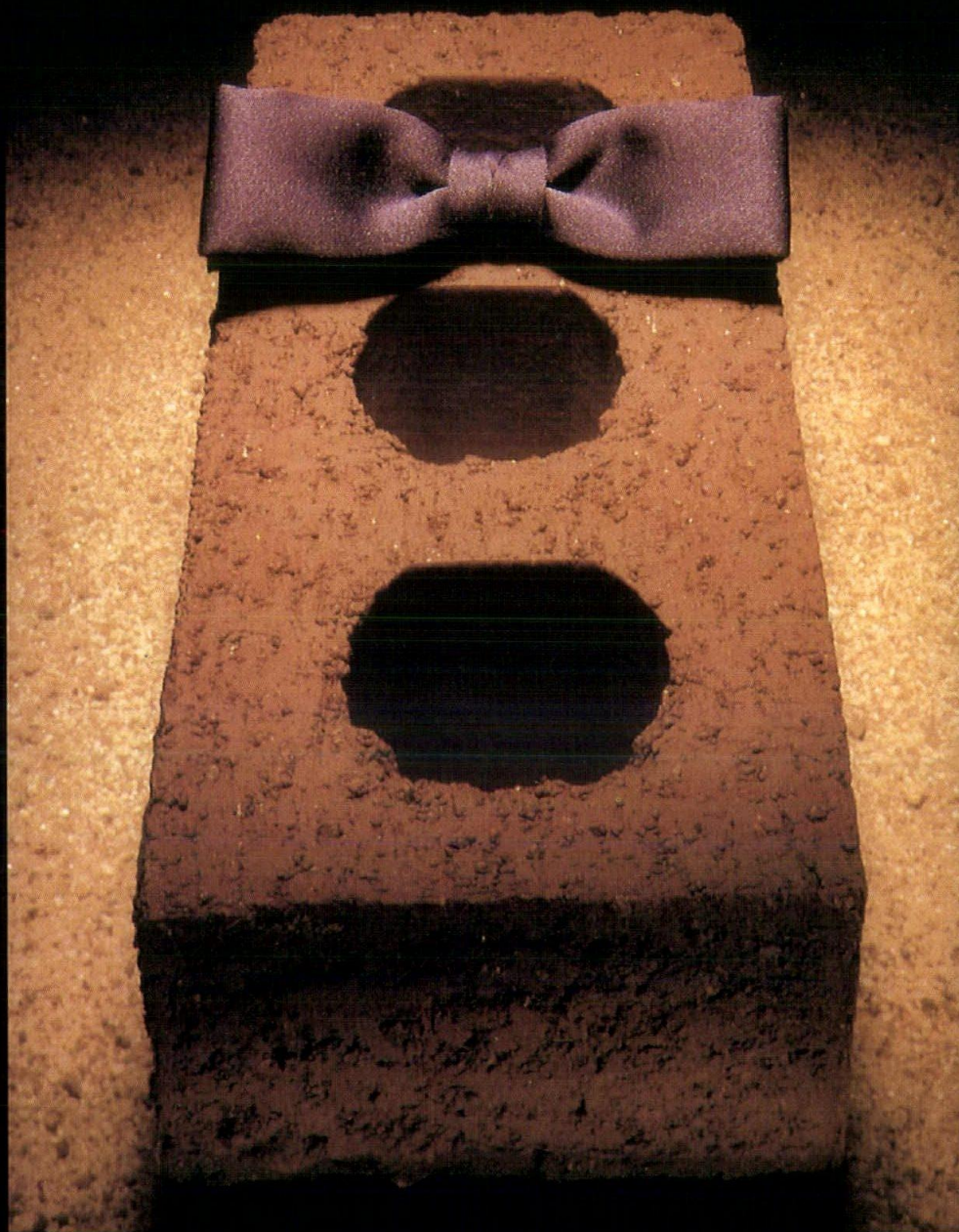
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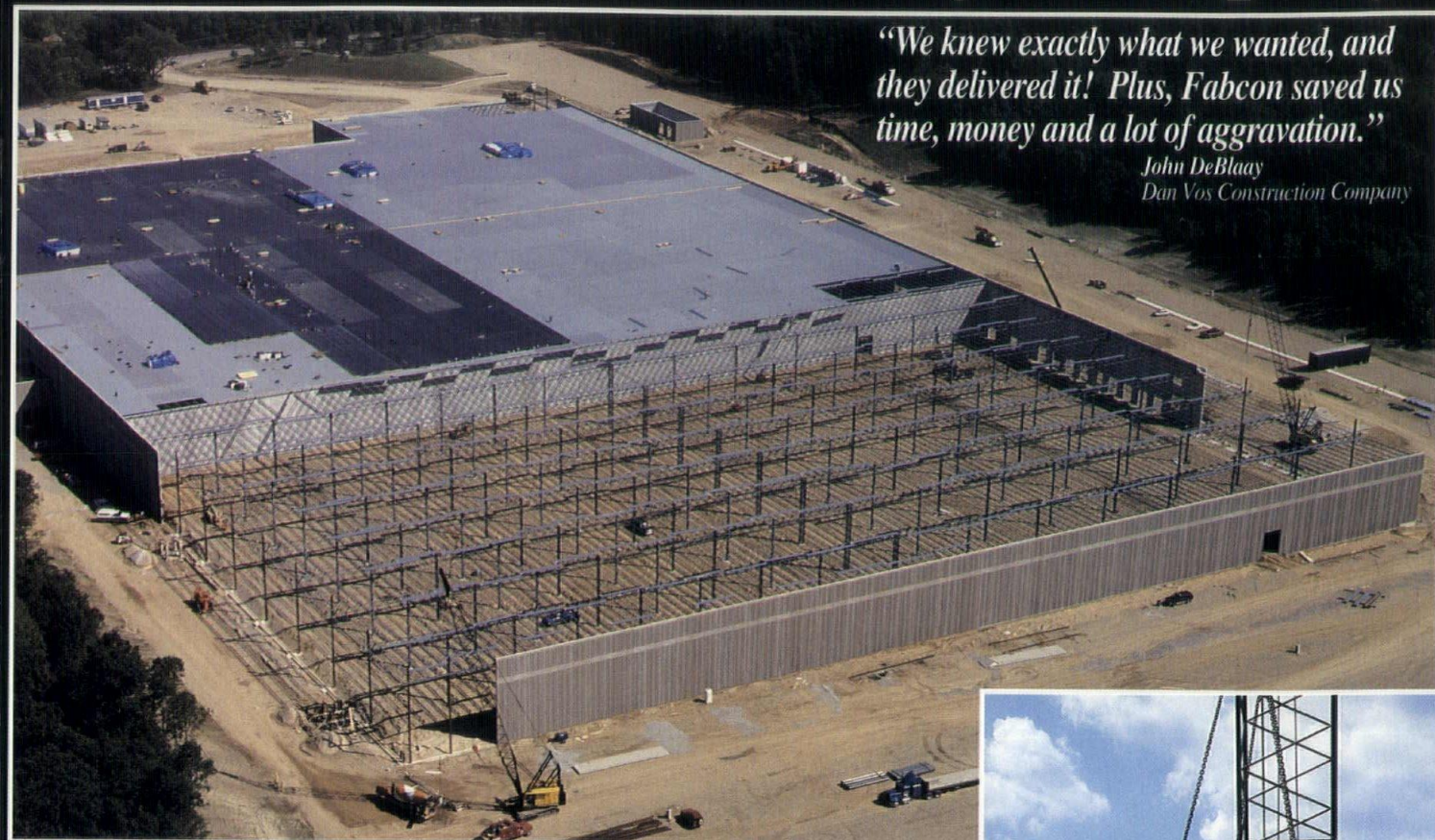
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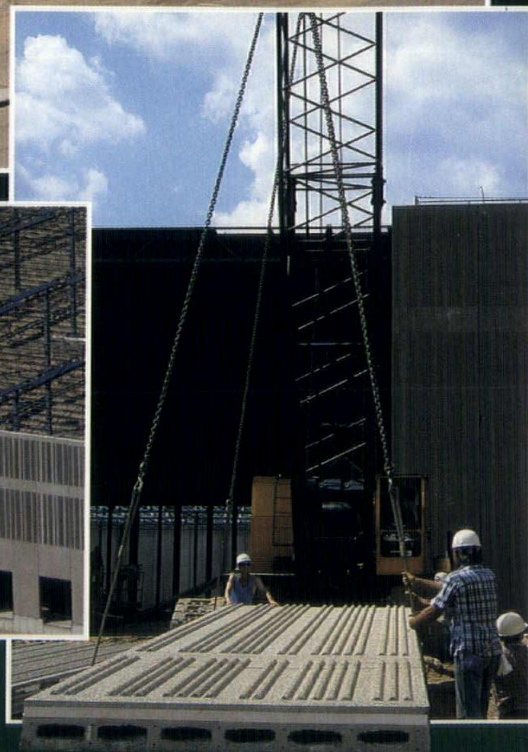


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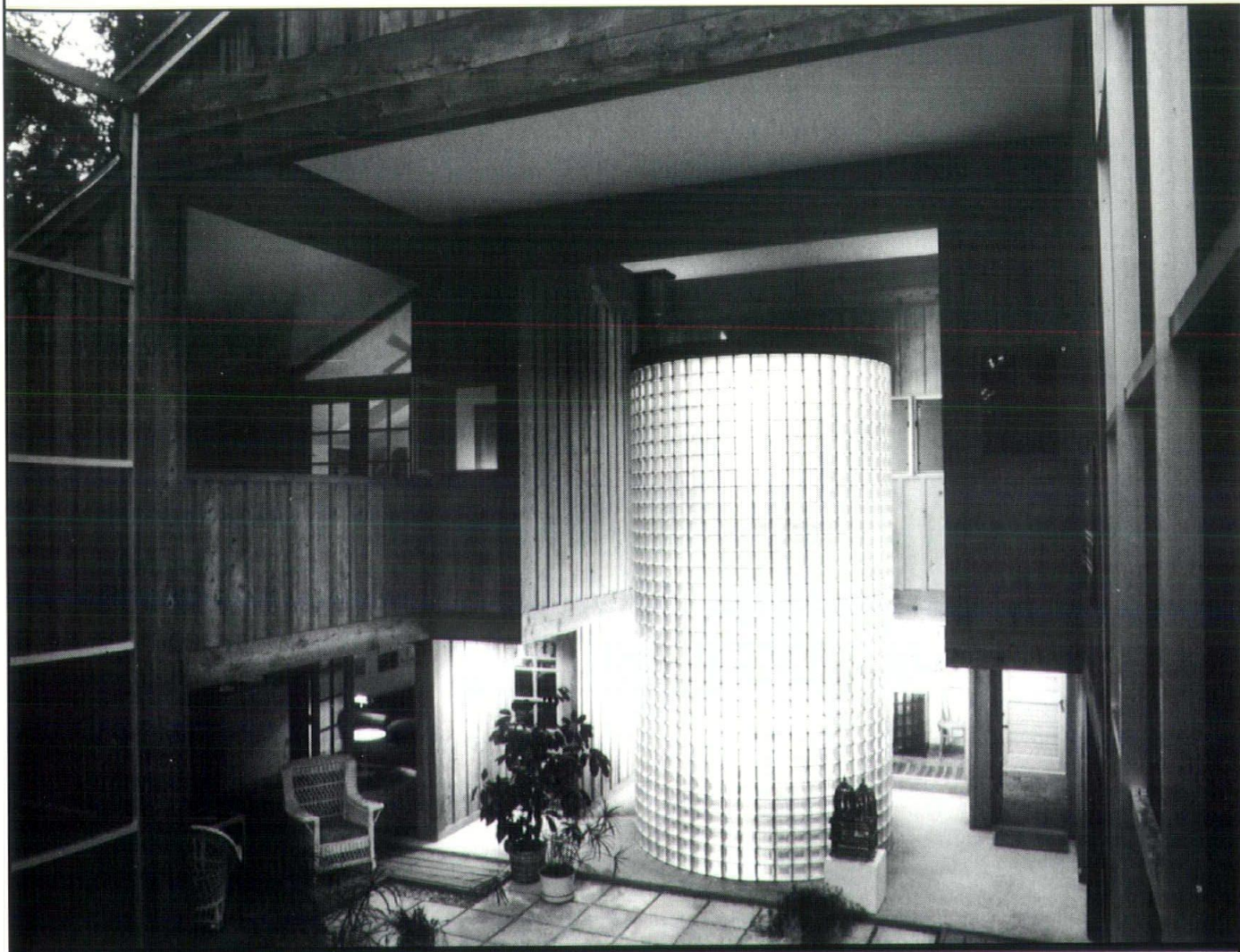
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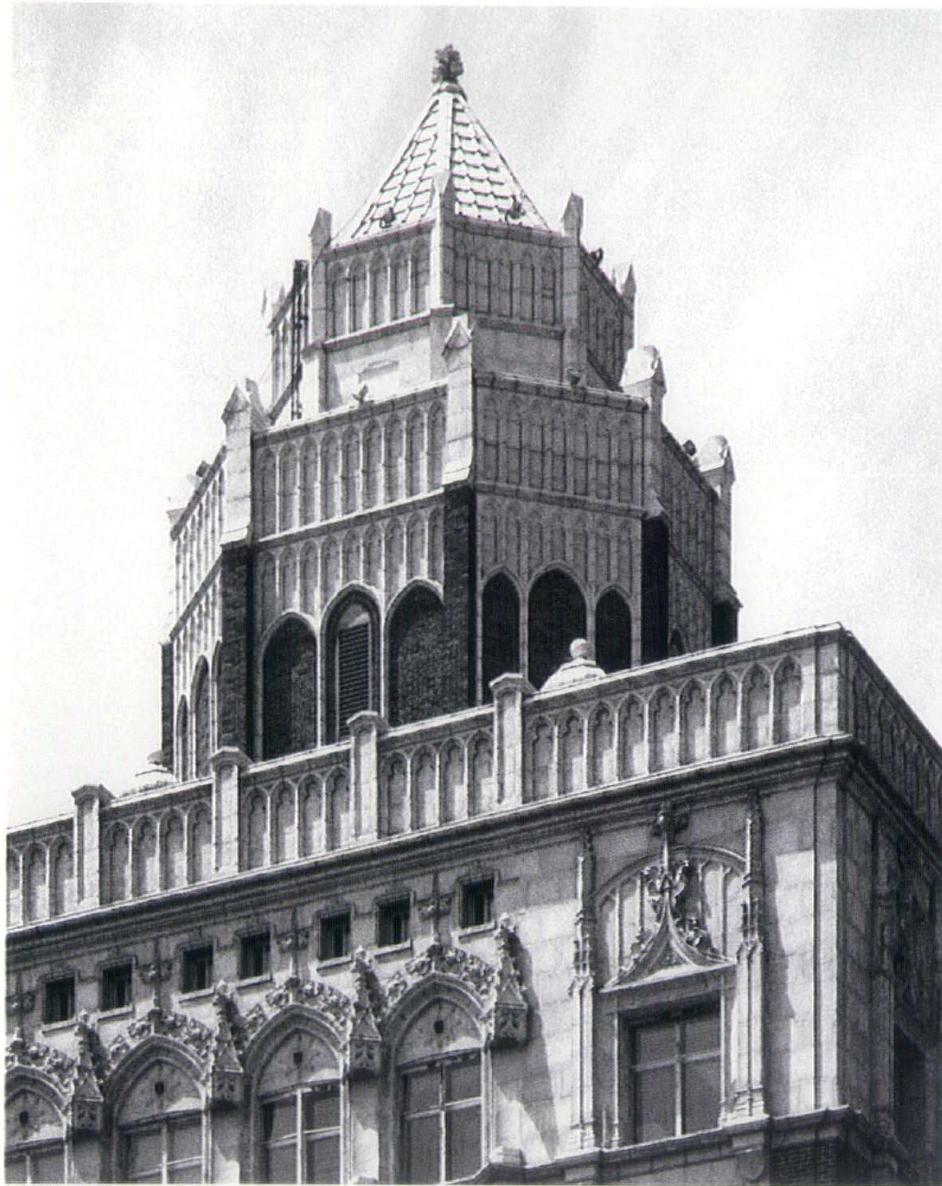
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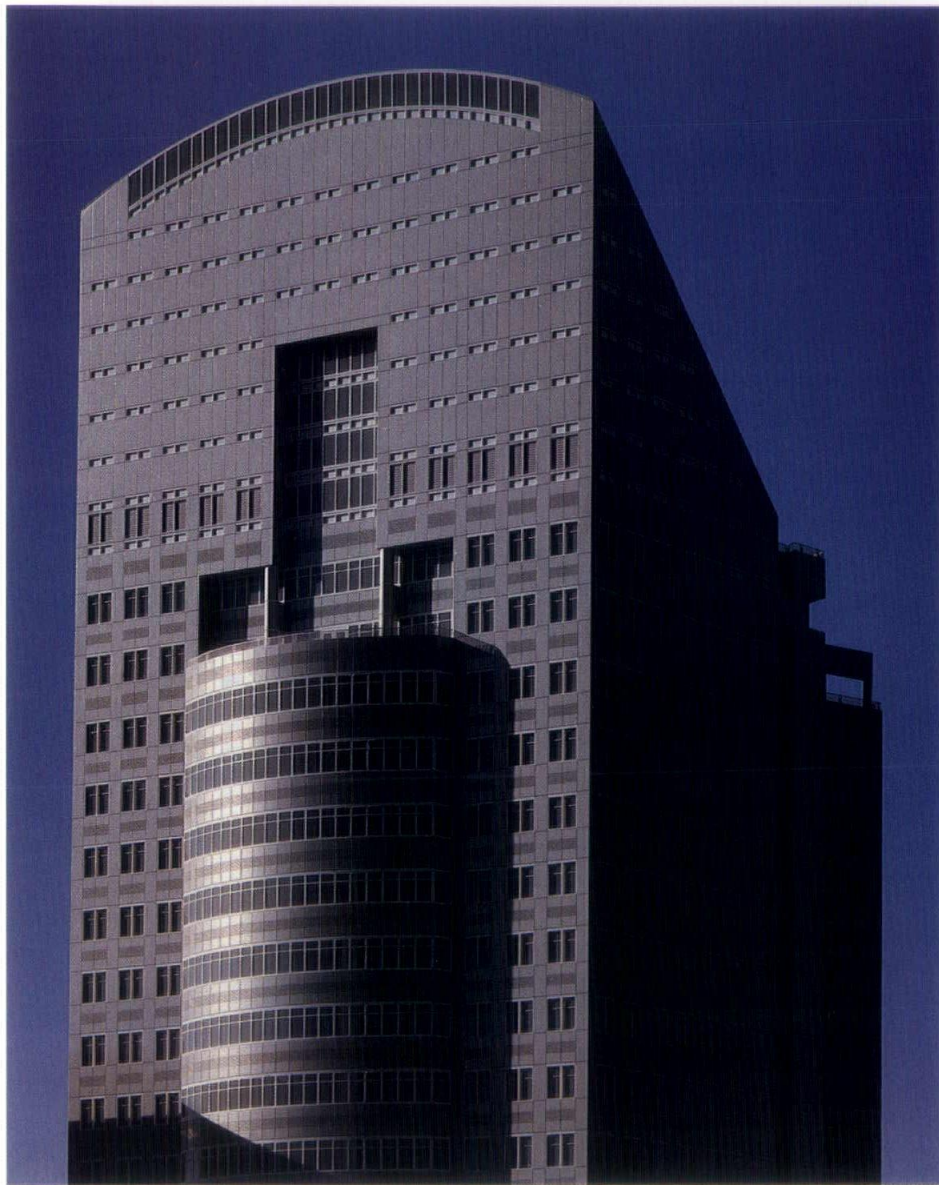


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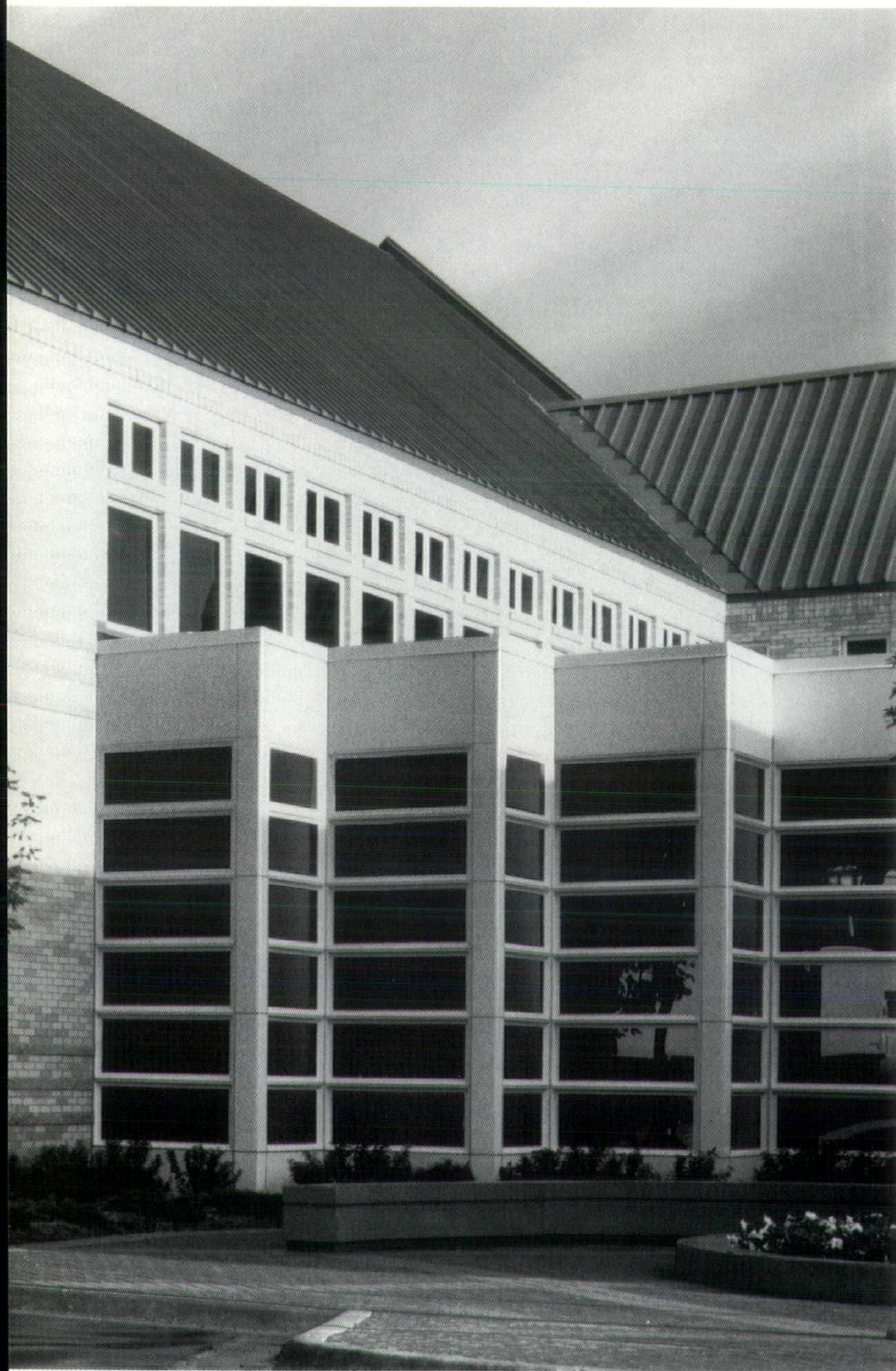


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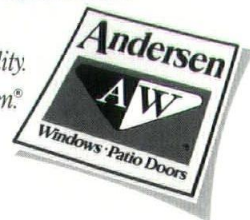
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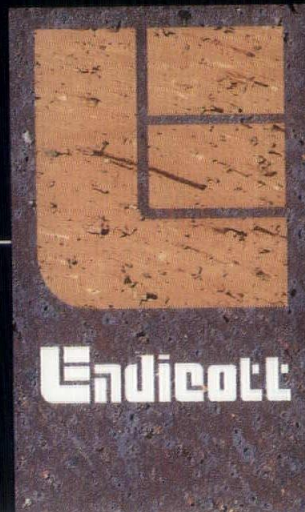
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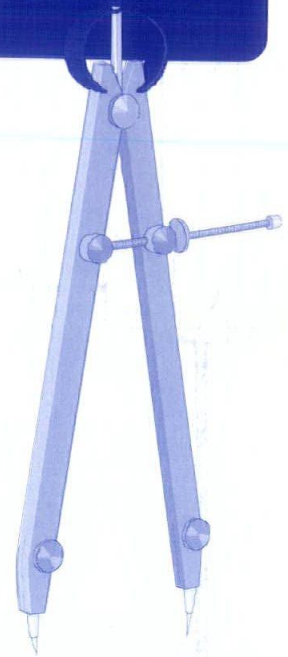
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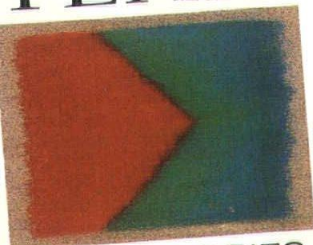
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Cover

Helmick Penthouse,
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The Electronic Drafting Table

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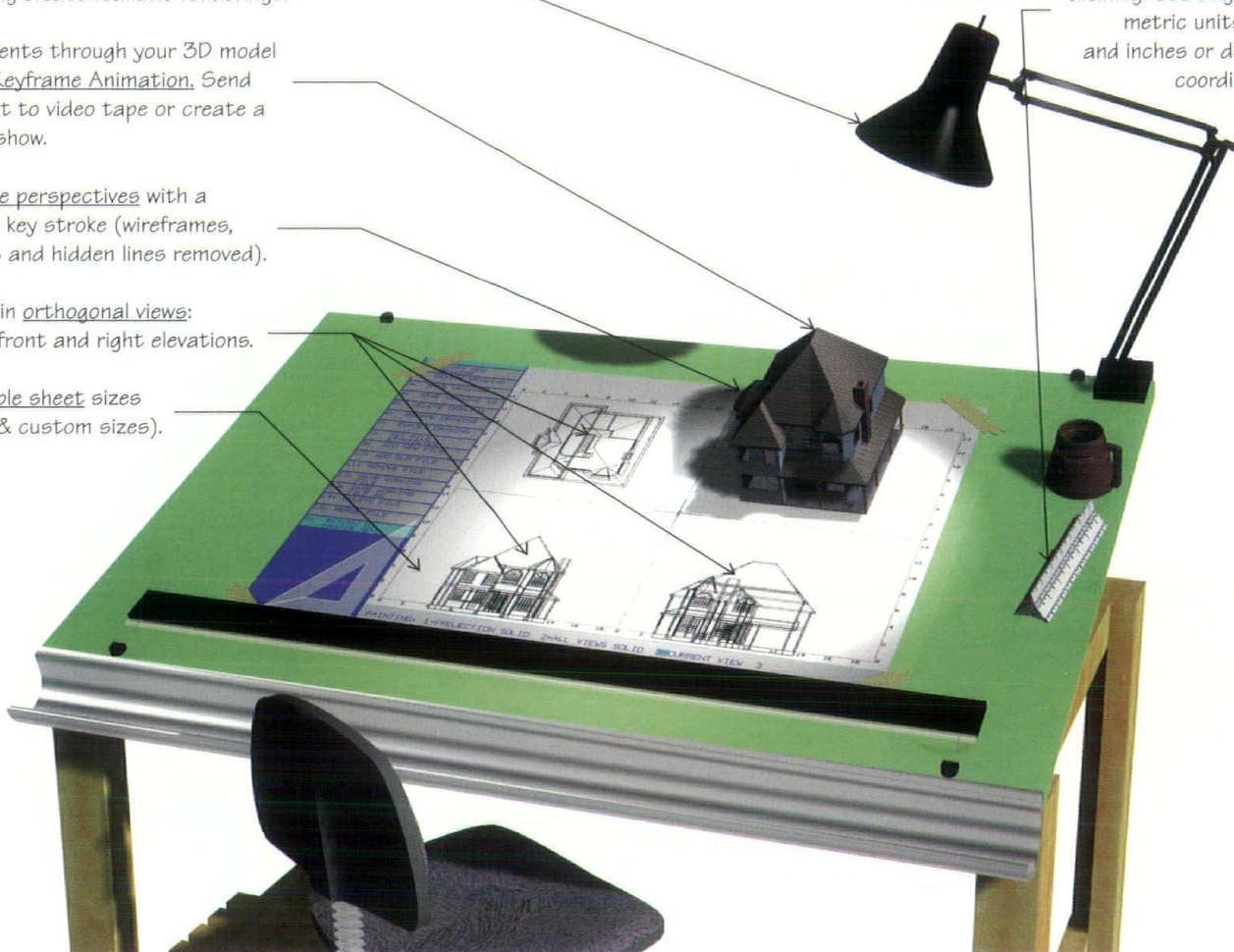
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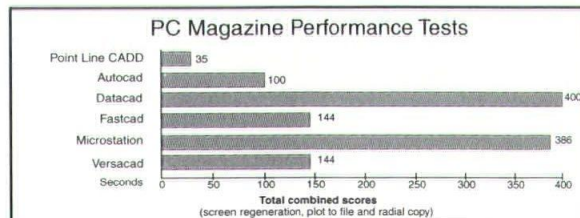
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craft process

Architecture's deepest roots emerge from the compelling action taken by our ancestors to shape their environment. Cave painting, the shaping of ceremonial earth mounds and humankind's first domestic architecture all predate recorded history. The intense intertwining of observation and myth, decoration and elaboration, building material and construction and intentionality regarding our habitat were, and remain, at the core of architecture.

In this issue of *Iowa Architect* we take up the themes of craft, materiality and fabrication. Ancient traditions come with us in fresh guises. The raw material of architecture—clay, pigments, glass, stone, metal—is transformed through architectural action, by architects and crafts persons, the masters of invention and fabrication.

In "On Process: Architectural Work," Clare Cardinal-Pett

examines architectural method in two quite different architectural practices. There are a materiality and craft particular to architectural invention, refinement and representation—in these cases and not representation solely of images to those outside the process, but representations of ideas and technologies for designing and building, the media for collaboration.

"The Stuff of Architecture: A Portfolio of Detail, Material and Craft" by Roger Spears looks at the results of such processes. Nine projects are presented up close; in their material detail is the fabricated architectural work we experience in its "finished" state. We are engaged in the collaboration of architects, designers, clients, contractors and individual crafts persons and the necessities of material fabrication through which architecture is realized.

The closing piece, "Sullivan's Owatonna Bank: Drawing/Building Architecture," stems from an exhibition curated by Clare Cardinal-Pett. The exhibition and this essay draw us into the very intersection of representation and fabrication in Sullivan's full size detail drawings, where each nuance of the elaborately detailed bank's architecture is drawn, and from which the bank was built.

Architecture's inception and construction are cultural acts involving many people. The fabricated material result—the physical reality of our environment—is experienced simultaneously as idea and object. Through their examination of craft, method and detail, the articles in this issue of *Iowa Architect* peer into the realization of architecture.

Gregory Palermo, FAIA
Associate Editor
Chair, 1995 AIA Iowa Convention

The intense intertwining of observation and myth, decoration and elaboration, building material and construction and intentionality regarding our habitat were, and remain, at the core of architecture.

IOWA Architect

Andrew Wyeth

The first retrospective in nearly 20 years of the work of popular American artist Andrew Wyeth will be presented by the Nelson-Atkins Museum of Art in Kansas City, Missouri, September 29 through November 26, 1995. Kansas City is the only United States venue for *Andrew Wyeth: Autobiography*, which brings together 142 tempera paintings, watercolors, drybrush works and drawings by one of America's greatest living painters.

Talking Pictures

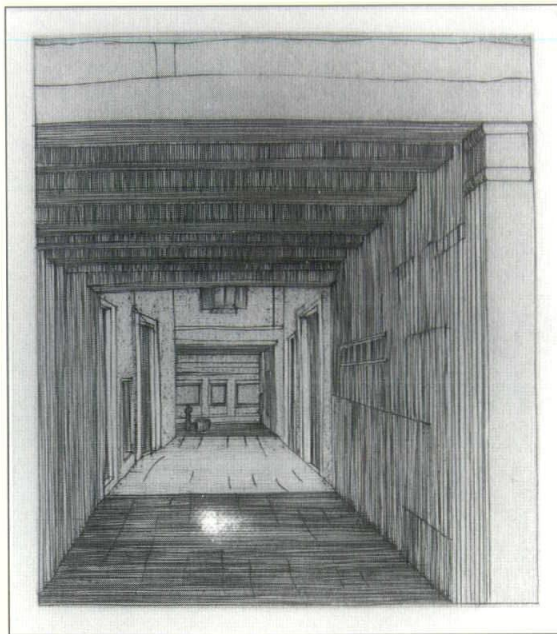
The High Museum of Art in Atlanta, Georgia will present *Talking Pictures: People Speak about the Photographs that Speak to Them* July 15 through October 7, 1995. This exhibition explores photography's power to transform memory, imagination and our perception of the past, present and future through 65 images selected by 65 famous and not-so-famous people whose lives have been changed by photography.

Melvin Edwards

The Indianapolis Museum of Art will feature 16 sculptures by Melvin Edwards July 1 through September 24, 1995. The sculptures are part of a series entitled *Lynch Fragments*, which Edwards has been working on throughout his 30-year career. The abstract works combine Edwards' desire to address social issues—particularly the suffering of African Americans—with aesthetic values of both contemporary and African art.

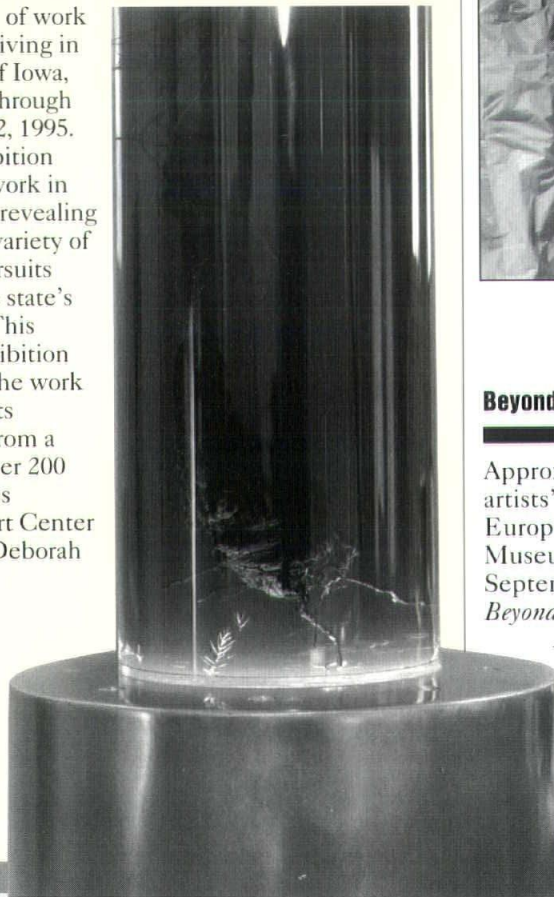
PAUL MANKINS, AIA

ARTS



Iowa Artists 1995

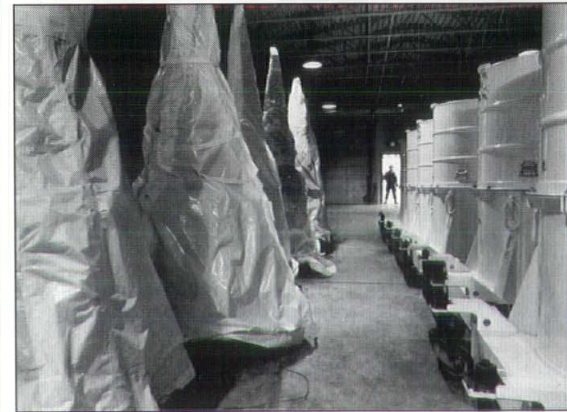
The Des Moines Art Center will present *Iowa Artists 1995*, a juried exhibition of work by artists living in the state of Iowa, August 5 through October 22, 1995. The exhibition includes work in all media, revealing the great variety of artistic pursuits within the state's borders. This year's exhibition includes the work of 35 artists selected from a field of over 200 by the Des Moines Art Center Curator, Deborah Leveton.



Paul Shambroom

An exhibition of large-scale color photographs by Minneapolis-based artist Paul Shambroom will be on view at the Walker Art Center in Minneapolis, Minnesota, July 23 through October 22, 1995. *Paul Shambroom: Hidden Places of Power* will feature documentary

works exploring the uncanny, rarely-seen aspects of various places of power. Shambroom's seemingly straightforward approach offers a surprisingly unofficial behind-the-scenes view of his subjects, which include factory, office and nuclear weapons sites.

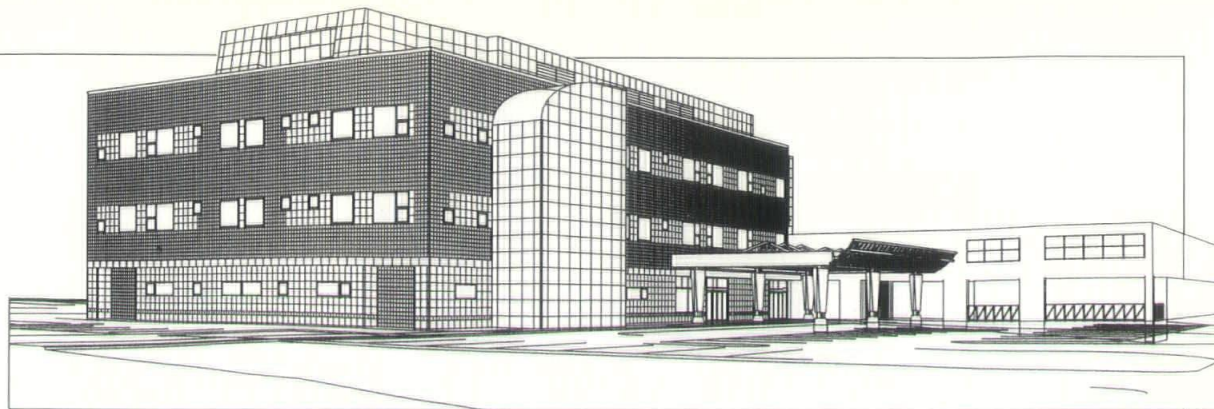


Beyond Belief

Approximately 40 recent works by 12 artists and artists' groups from six Eastern and Central European countries will be on view at the Museum of Contemporary Art in Chicago September 2 through November 26, 1995. *Beyond Belief: East Central European Contemporary Art and the Continuing Culture of Contentiousness* includes work in a variety of media including painting, sculpture, installation and video. The exhibition, organized thematically rather than geographically, explores the common thread which runs through the recent work from this region.

St. Tammany Parish Hospital

Designed by Hansen Lind Meyer of Iowa City, this 45,000 square-foot addition to St. Tammany Parish Hospital in Covington, Louisiana is currently under construction. The addition includes a new ER and ICU on the ground level plus two levels of new patient rooms. The footprint of the new building was restricted to that of an earlier one-story design not built. A 2'-8" x 2'-8" module was overlaid on the given dimensions to establish an underlying order. Within this framework, spaces and rooms were developed as dictated by the programmatic requirements. The building exterior is composed of brick, concrete block and metal panels which are dimensional derivatives of the building module.



The penthouse and stair towers are additive volumes used to

mitigate the rectangular form of the basic building. The project is

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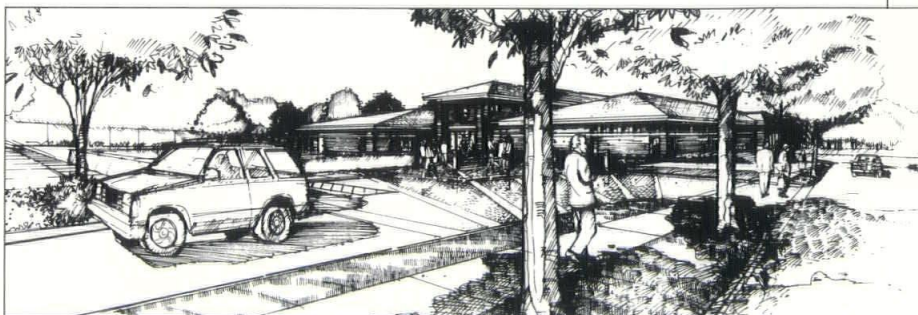
Downtown School

OPN Architects has completed design for a 15,000 square-foot downtown school and daycare in Cedar Rapids. The design transforms an existing bus terminal into ten classrooms, administrative offices and a large activity area termed the Atilier. The Atilier is housed under a multi-tiered space frame and skylight

system. A variety of spaces was created to allow degrees of contemplation and interaction; materials and finishes were chosen to provide a multitude of tactile experiences; and natural light and color were combined to vary the level of visual stimulation. The project is scheduled for occupancy in January 1996.

Winterset Public Library

The Winterset Public Library is a proposed 14,000 square-foot facility currently in the preliminary design phase and awaiting funding. A community-based design charrette process was employed and culminated in a two-day interactive design session. The proposed site presented a challenging design issue with an approximate 12-foot vertical grade change from corner to corner. The solution was to create a limestone plinth that emerges from the hillside to create a plateau from which the building will rise. Pitched roofs along with the stone base strongly relate to this community's architectural character.



Base Civil Engineering Maintenance Complex

Construction is nearly complete for the Base Civil Engineering Maintenance Complex for the 185th Fighter Group of the Iowa Air National Guard, located in Sergeant Bluff, Iowa. The complex, consisting of an 18,300 square-foot administration and shops building and a 2,000 square-foot vehicle storage building, was designed by FEH Associates, Inc., and combines all base maintenance departments into one facility. The primary entrance is handicap accessible and highlighted with steel trusswork supporting a skylight system.

TODD GARNER, AIA

ON PROCESS

Architectural Work

A firm rooted in Iowa explores the value of regional influences with five projects sited in New England.

Educating future architects is a challenge. Buildings are extraordinarily complex cultural artifacts and the skills necessary to produce them are diverse and numerous. No school would ever presume it could graduate its students fully capable of professional practice—architectural education must continue in the context of everyday work, where buildings are conceived and constructed within constraints of client demands, budgets and fickle weather. In real life, architectural practice is rarely the clean, meditative endeavor students become accustomed to in school. Apart from ensuring that our students have some basic knowledge to sustain future decision making, the most important educational mission is to teach these future practitioners that day-to-day practice is a profoundly social activity, the consequences of which have an enormous impact on the communities the profession serves.

In my daily contact with students, especially freshmen and sophomores, I am frequently caught off guard by how little these young people know about what goes on in an architectural office; their images of the profession are defined by their own limited life experiences. I suspect my students' preconceptions are mirrored somewhat by those of the general public. For most of the population, architecture is a mysterious affair. There is great irony in this, of course. Our clients and the people who use the buildings we make are the profession's primary concern.

The profession itself is probably somewhat to blame for perpetuating, at times unwittingly, this aura of mystery. We learn in school and on the job methods of production and forms of communication that are often illegible to anyone uninitiated in the art of making buildings. These methods are essential aspects of practice, however, and constitute the ties that bind us together as distinct professionals. Methods of visualization, methods of construction documentation—drawing, modeling, digital documentation—are the secret handshakes of the profession. Our methods of production define us as architects.

While it is true that, in everyday practice, architects must conform to certain conventions of construction documentation in order to get the job done, these conventions are frequently challenged by innovative firms. There is no method of production in contemporary architectural practice that has not at one time been invented or borrowed from some other practice. Conventions are simply conventions, social agreements that work well for a particular culture over particular periods of time. The impulse to break with convention is usually

driven by the need to find other, more effective methods to get the job done, to make buildings in new ways with new materials. Those secret handshakes, then, are not so much a fixed set of traditions but dynamic social bonds that we as educators and practitioners constantly revise.

My distance from everyday practice allows me to think about process more abstractly and I do not take its significance lightly. In fact, I think the slow evolution of the profession's methods of production is the most meaningful history of architecture. For example, we all have a tendency to take drawing conventions (plan, section, elevation, etc.) for granted, but Greek and medieval architects rarely used drawings; before the formalization of projective geometry and the discovery of paper-making technology, designing and constructing were inextricably linked activities—"drawing" full size on the construction site was a typical practice. The development of drawing has, to some degree, separated designers from builders.

The fairly recent introduction of computer graphics into common practice at first mirrored existing practices, allowing faster production of the static conventions, and, eventually, stunningly realistic perspectival views. While these tools are useful and increasingly necessary, other images of architecture are beginning to appear: dynamic scenarios of light and movement and models of "invisible" processes such as gravity, wind, and aging. These images are about how the building works, not what it looks like. Some of the current experiments with computer-aided manufacturing in firms like Frank Gehry and Associates and Renzo Piano's Workshop show promise of reestablishing more direct relationships to building craft.

My challenge as a teacher, then, is to help my students understand that the choices they make on a everyday basis—their methods of practice—have profound consequences. This is hard to do when very little of their work actually gets constructed. They naturally tend to think of their drawings and models as final products. Images of building supplant the real thing, and make materiality mysterious.

In the two stories that follow, stories of two active practices—Architects Wells Woodbury O'Neil and Conway+Schulte, I have attempted to describe not the buildings these firms produce, but how the firm produces. Central to each story are methods of drawing and modeling. Hopefully, the similarities and differences between these two practices will be interesting reminders that the images we make reflect our values and determine what we build.

Project United States Federal Courthouse

Location Des Moines

Architect Douglas A. Wells, Des Moines

Structural Engineer Charles Saul Engineering, Des Moines

General Contractor Neumann Brothers Inc., Des Moines

Photographer King Au

CLARE CARDINAL-PETT



(Left) Front view of the new Federal Courthouse annex in Des Moines.

(Below) Conceptual drawing of the Federal courthouse.

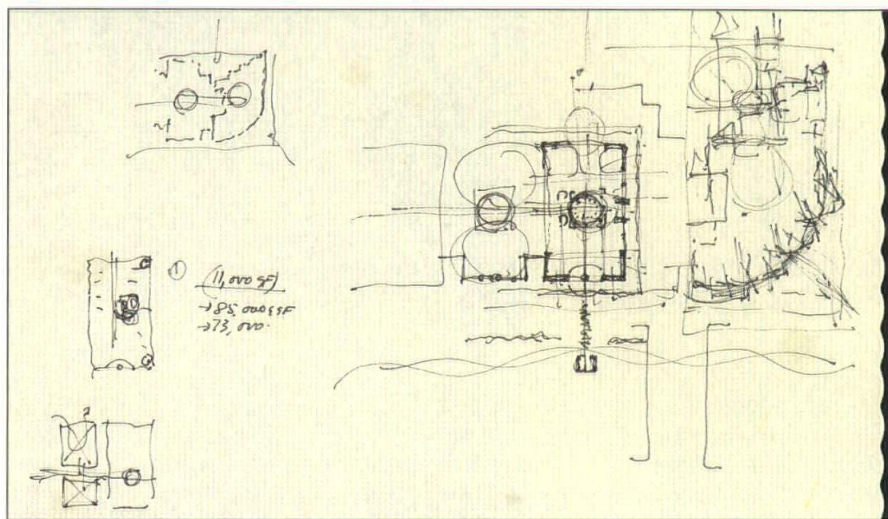
Architects Wells Woodburn O'Neil Making a Federal Courthouse

The story of the new Federal courthouse annex in Des Moines reveals the extent to which traditional nineteenth-century techniques persist into the late twentieth century—and coexist with the electronic. If older techniques persist, it is because they still work; for most of us architecture is still very much a question of formal composition. The building elegantly occupies its site with several other neoclassical structures along the Des Moines River. It is monumental, hierarchical and civic.

The project is a rich cultural artifact. It was initiated by the General Services Administration (GSA) as a competition advertised nationally, and was supported and guided by the City of Des Moines and its Urban Renewal Board. Architects Wells Woodburn O'Neil (AWWO) entered the competition in collaboration with Fred Powers and Associates of St. Louis, Neumann Brothers and the development team of John Mandelbaum and Doug Wells, AIA, a principal of AWWO. While other more established developers entered the competition, Mandelbaum and Wells teamed up specifically for this project.

The competition, with its ponderous set of guidelines prepared by the GSA, was conducted in two phases: the first, a call for design proposals for a site along the river with parameters defined by the City of Des Moines, and second, a financial plan. The early stages of the design process were directed by Gregory Palermo, FAIA, while Doug Wells worked on financial issues. Against this complicated background of governmental regulations and money moves, the building began to take shape. Palermo's first drawings are diagrams of massing and orientation, shorthand scribbles meant to capture the right gesture for this building on that site.

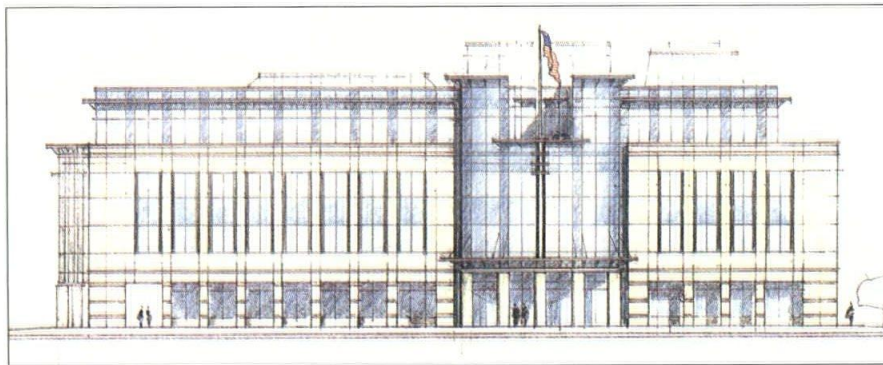
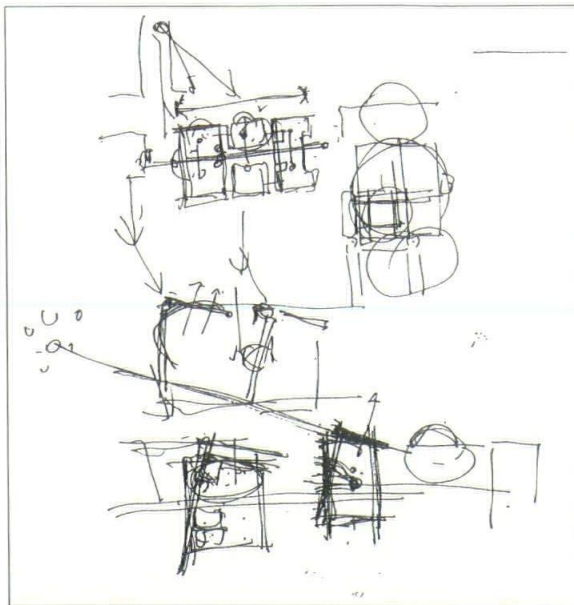
"The napkin sketch" is a fairly old convention, an evolution of the Beaux Arts "parti" which attempts to capture the formal essence of the whole building before its particulars have been imagined. It is a method of designing which subordinates the parts to the whole. Palermo's diagrams are primarily



plans, another old tradition of inscribing the dominant spatial order of the building as a figure on the ground plane. The primary issue to be resolved at this stage was how to make the building work on the site—how to locate the main entrance on the west and still make a formal gesture to the river front. Many of these early sketches were made during brainstorming sessions with Wells and Powers and record the decisions which later govern the entire project.

As the diagram for the courthouse was being discussed, ideas for the facades came into play and necessarily raised questions about materials and detailing. Palermo's early studies of the elevations, in colored pencil on specially ordered cream-colored tracing paper over Xerox enlargements of various hand-drafted trials, begin to define the building's envelope.

As Palermo sketched and conferred with Wells and Powers about the merits of various schemes, a number of chipboard study models were produced and the office's computer specialist, Doug Buffington, AIA, began to model the building and its immediate context in electronic space. The hand-made models focused on the more three-dimensional aspects of the elevation, entry and river front porch, investigating alternatives for column



These studies break the building's simple massing down according to a formula derived from the tripartite nature of classical columns: base, shaft and capital and bottom, middle and top. This composition ties the courthouse to neighboring buildings and organizes all subsequent articulations of the building's surface such as the fenestration patterns, entry and river front porch.

spacing and projecting elements. The computer model, which later became the project's primary documentation, was used to study perspectival effects; an important question was how the entry would be perceived from more oblique angles. The final rendering of the proposal submitted in the competition was modeled on the computer and hand-rendered by Kevin Nordmeyer, AIA.

The courthouse as built deviates only slightly from the rendering included in the competition entry. Design revisions occurred during the fast track construction process, generated by issues of material detailing. For example, the large round limestone columns in the initial scheme were changed to fins, saving \$150,000. In a visit to the quarry, Wells learned that methods of cutting curved pieces were significantly more expensive. The architects hauled full-size samples of aluminum, glass, stone and precast down to the site as they resolved the elevations and later presented material samples as part of the competition proposal.

This early commitment to detailing was viewed with suspicion by some other competitors, who questioned the ability of the firm making such choices so soon in the design process. This consideration of the building's materiality as part of its conception is one of the project's great strengths; the winning design was more than an exercise of formal composition on paper, for the proposal anticipated its own construction.

The competition entry was a richly considered shell, designed to closely follow the guidelines set out by the city. After winning both phases of the

competition, the building interior became the subject of a long negotiation process with the GSA. While Fred Powers' office continued development of the shell, AWWO worked on space planning. These activities were coordinated through meetings in St. Louis and the transmission of computer drawings back and forth from Des Moines. Documents were printed out and compared and revised by hand with overlays on a light table. The steel frame, skin and roof were already constructed when the space planning finally won approval.

The general contractors, Neumann Brothers, were in on the project from the beginning, providing early advice and estimating services for the second phase of the competition. The construction process went smoothly and quickly, in part because Wells was able to approve all design changes himself as co-principal of the development corporation. In fact, many details and detail revisions were hand-drawn on letter-sized grid paper, often on the construction site. These details were included in the project computer documentation after-the-fact in response to the rigorous GSA requirements and inspections.

The tight budget, rigid federal regulations and fast track construction process created enormous pressures in the AWWO office. Palermo had left the firm for a full-time teaching position at ISU, so internal coordination of the project was assigned to Gary Griggs, AIA. During this time, Wells spent most of his time on the construction site, tweaking the design and working with various officials associated with the project, including the judge whose chambers required special attention and who often made requests for revisions to other parts of the building.

While the computer documentation of the courthouse will be used to maintain the building and guide future expansion, the building is almost out of the architects' hands. All that remains of this complex collaboration is one final installation, a sculpted plaster wall in one of the judges' chambers that Doug Wells will make himself. It will be just a single signature from one of the many who made this project happen, tucked away in a private space in a very public building.



(Left) DE-CODE/RE-CODE Atlanta gallery installation at the Nexus Contemporary Art Center in Atlanta.

(Above) Competition board

Conway+Schulte

Architecture as Inquiry

The simple, bright studio that William Conway and Marcy Schulte, AIA, rent across the street from the Ames Public Library is crowded with drawings and models, evidence of the firm's recent intense activity. Last year they won one of four first prizes in a competition sponsored by the Architecture Society of Atlanta and the Corporation for Olympic Development in Atlanta for their proposal DE-CODE/RE-CODE Atlanta, a project which challenges conventions of urban design. While competitions are a tradition in architectural history and common methods of getting work, some draw so many entrants that the odds of winning are more like those of lottery. Few firms can afford the financial risk involved in such high stakes gambling—entering

high profile competitions usually takes place during off-hours, after other work is finished.

Conway and Schulte work overtime. In addition to their regular jobs as architecture professors, they practice, managing an ever-shifting group of employees (often architecture students or recent graduates) and collaborators. While they look for work anywhere they can get it, just like everyone else, they also consider what they do on an everyday basis as research, a process of questioning both architecture and its methods of production. As a team they share an interest in designing; Conway also brings his extensive background in construction to the firm, and Schulte experiences working on large projects as a former Cesar Pelli employee. Because the firm is small, the people they hire also put their own individual marks on the work, and they collaborate with professionals in other disciplines.

Project DE-CODE/RE-CODE Atlanta

Location Atlanta, Georgia

Architect Conway+Schulte

Principals William F. Conway, Marcy Schulte, AIA

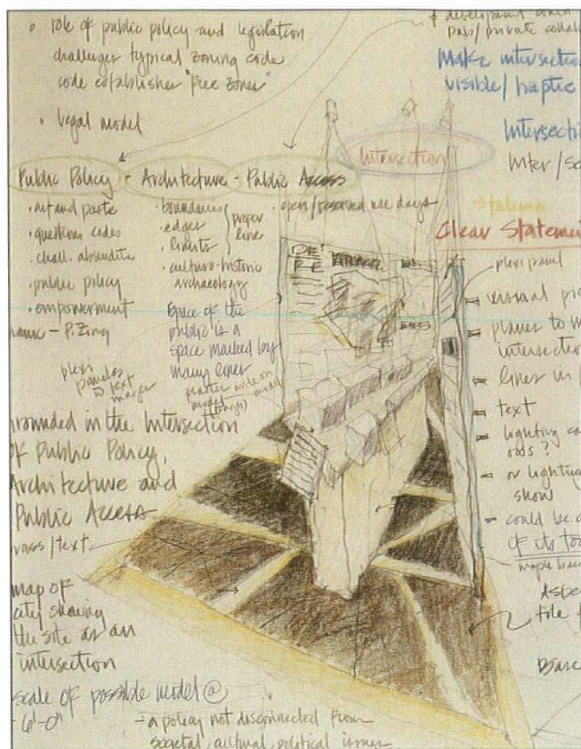
Collaborator Paula Waran, Nexus Contemporary Art Center Installation

Project Assistants Marcelo, Pinto, Timothy Wolfe, Jan Scott, Douglas Pfeiffer, Kathryn Rogue, Russell Anderson

(Right) Design sketch for Nexus Contemporary Art Center installation.

(Far right) Gallery installation at Iowa State University, College of Design, Office of the Dean. (Photograph by Greg Scheideman)

(Below Right) Jones Residence renovation and addition. (Photograph by William Conway)



The work of the firm shows a facility with formal composition but the final product is never developed from a traditional parti—the initial representations may be bits of text which frame a question or fragments isolated from previous projects. In the case of the Atlanta project, they began with a copy of the city zoning ordinance and official maps of the site. The competition entry was not an architectural intervention but a “manifesto” which proposed a re-reading and rewriting of both the codes and the site to make “public space in the new American city.” The presentation board was the conceptual image of a method of inquiry, not a formal solution.

Just after winning the competition, all winners were asked to make an installation of their projects at the Nexus Contemporary Art Center in Atlanta. Conway+Schulte’s installation constituted the next stage in the project’s design process, a chance to mock up and test some of their initial ideas. They marked up the gallery in a manner analogous to their “designs” for the site. The exhibit is an array of lines, walls, and text fragments. Lines are derived from existing but invisible lines on the site (setbacks, property lines, retracings of notable events and landmarks such as the freedom walk and an axis to the historic center of the city, the terminus stake). Walls or vertical planes stand in for conditions of information display and storefront boundaries, which are existing architectural divisions of public and private. Bits of revised ordinance were inscribed on the ground plane. The installation was meant to be inhabited, not just to be looked at.

The process of designing the installation involved full-size mock-ups in their studio. In a sense, they designed it through building it. While the fabric of the exhibit included some traditional architectural materials and great attention to detailing, the most important “material” was information—crafting this slippery substance architecturally was the project’s first challenge. The firm brought Graphic Designer Paula Curran into the design process and the team spent many hours testing and editing the inscriptions,

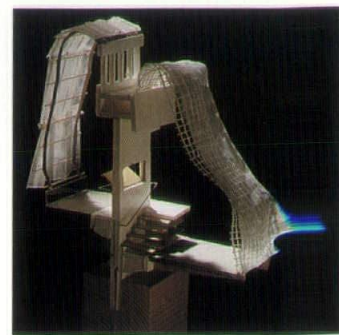
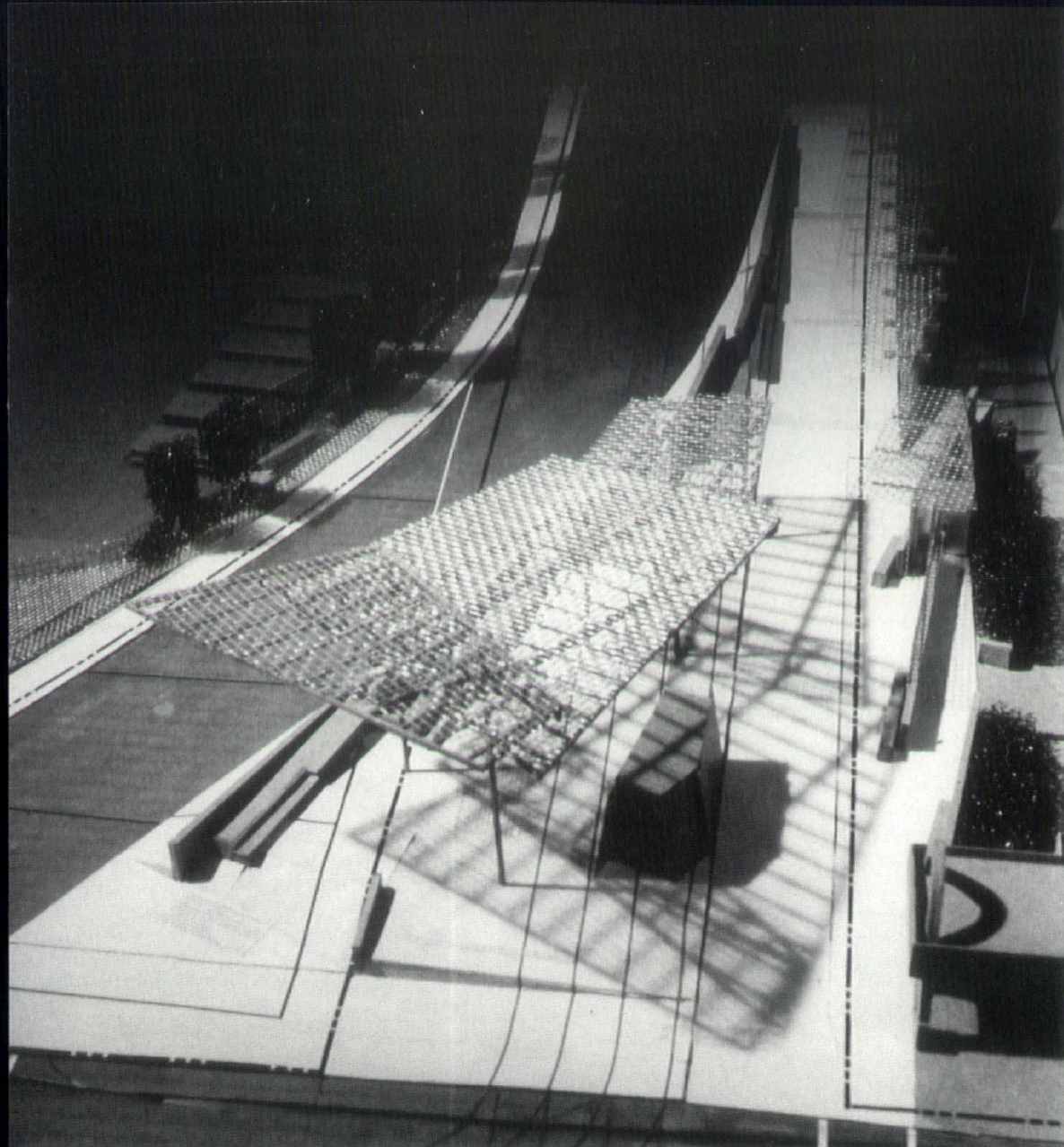
the typography on the computer and in the studio mock-up. They dismantled the final installation and drove it in a rented van to Atlanta where it was reassembled in the Nexus Gallery.

Another version of the installation was assembled at the Dean’s office gallery in the College of Design at Iowa State University. This exhibit was site specific: taking cues from existing boundaries and passageways, it called attention to the architectural conditions of the space in and around the office and “rewrote” them. Conway and Schulte are quick to say that bringing their work into the academic world is an essential part of their process. Not only does the school provide opportunities to demonstrate and test ideas, but it also is itself the source of ideas which the firm later pursues in practice. Studio projects framed for their students are often continued in their office. A studio exercise devoted to an exploration of storage, involving dismantling and reconfiguring the pieces of a corn crib, led to an extensive investigation of storage as a generative device in the Jones house remodeling. Even after the house was constructed the office extended the study; those speculative models now line the window sills. In this firm there is an investment in excess documentation, products of research with no predetermined client or site.

Like the Jones house, the Atlanta project is a bridge between Conway and Schulte’s practice and

Project Jones Residence
Location Corona del Mar, California
Architect Conway+Schulte
Principals William F. Conway (Project Designer), Marcy Schulte, AIA





(Left) DE-CODE/RE-CODE Atlanta design development model.

(Above) DE-CODE/RE-CODE Atlanta site model.
(Photograph by Jonathan Hillyer)

pedagogy: the ideas driving the Atlanta project framed a fifth-year studio exercise last fall. Students were asked to make architectural proposals for a site in Ames that they had researched for code restrictions and then made their own revisions. This "Non-Conforming Lot" project was shared with city officials who were invited to participate in the students' final project review.

The firm's work is decidedly proactive; they are looking for ways architecture can make a difference. They have been involved in some grass-roots community projects such as Big Table Books in Ames and the rehabilitation of a historic round building in New Providence. They think it's ironic, then, that the Atlanta project—a project which is an effort to build a rich public space in a difficult area of the city—will probably be funded by the McDonald's Corporation, which recently built a prototype of their new franchise concept on the competition site. These prototypes contain no public amenities; hamburgers to go is all they offer.

Now into the design development stage, the office is making a large variety of drawings and models. A conceptual site model, which described the scope and intention of the proposal, was presented to the Corporation for Olympic Development (CODA) in

Atlanta in February and, given general approval for the scheme, the firm went to work modeling a more specific segment of a one-block site, using materials which start to suggest architectural elements.

The investigation has focused on a narrow corridor along the street marked invisibly by setbacks and property lines. Design development includes selecting materials—Georgia granite and metal paving strips for marking ground plane lines and a combination of metal screens and trees to define vertical planes. They are using computer models to study pedestrian views. As they detail the elements of this project—seating areas, places to gather, and public restrooms—with traditional architectural drawings (plan, section, elevation, perspective), they are also experimenting with those drawings on another drafting table—superimposing plan and section, for example. This superimposition is excessive labor, a method of "putting the work into crisis" in order to reveal new issues and generate the unforeseen.

Clare Cardinal-Pett is the Associate Chair for Academic Affairs in the Department of Architecture at Iowa State University.

THE STUFF OF ARCHITECTURE

A Portfolio of Detail, Material and Craft

In this overview of architectural detail, the expressive potential of architecture's most elemental fabric is explored. The idea of detail is shown to be more than the mere accommodation of necessity. It is, most specifically, the historic, sensual, tactile and constructive substance of architecture which lies at the root of every designer's manner of expression.

(Right) A simple door pull, designed for the sanctuary of St. Francis of Assisi.

Project Medical Laboratories Building Firestairs, University of Iowa, Iowa City, Iowa

Architect Herbert Lewis Kruse Blunck Architecture, Des Moines

Project Team Rod Kruse, AIA, Todd Garner, AIA

Structural Engineer Charles Saul Engineering, Des Moines

Mechanical Engineer Alvine and Associates, Omaha, Nebraska

General Contractor McComas Lacina Construction Company, Iowa City

Photography Farshid Assassi

ROGER SPEARS

Begin with something simple . . . for example, a door pull. Its form arises from necessity. A slender, vertical shaft of forged iron presents a surface to be grasped by the hand. Two stout metal flanges at top and bottom anchor the shaft to a thick iron plate, bolted to the door's face. Firmly grasped, the door pull transmits contractions of muscular energy, from hand to handle, from door to hinge, from frame to anchoring wall. The door's impediment yields, access is gained, necessity is fulfilled.

But look again at this humble, forged iron door pull, designed for the sanctuary of a Roman Catholic Church in West Des Moines, Iowa. Can necessity alone explain every nuance of its form? Is its shaping only a matter of utility, or are other considerations at work?

The handle's shaft is twisted in the characteristic figure of a spiraled iron spindle. It has been formed at great temperature, clutched in the iron monger's vice and turned continuously about its own axis. The process strengthens the metal, but the consequence of the act suggests more. It describes the manner of its making, born in the fires of a white-hot blacksmith's forge, and its form bears the signature of its maker, raw muscle applied forcefully but skillfully to the momentarily ductile metal.

Finished and mounted to the door, the twisted metal shaft fits comfortably in the grasp of the hand. Each seamed groove seats an individual finger as the pull is engaged in the act of opening the door. There is as well, in this simplest of artifacts, the subtle but tangible suggestion of age, the hazy remembrance of something very old, something almost medieval in character.

A simple door pull: at once a utilitarian object, but one which also bears the memory of its maker, of its making, of its heritage and of the hands which will engage its surfaces for the reminder of its useful life.

Such memories—such considerations—form the stuff of architecture. The useful, the tectonic, the tactile, the sensual and the historic are evident in each architectural act, from soaring skyscraper to unassuming tract home. But it is only at the level of detail in which these considerations of architecture become explicit and acutely decipherable. It is, to cite a well-worn cliché, architecture "up close and personal."

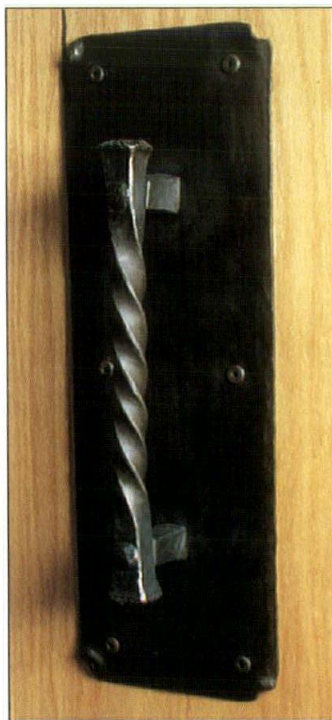
Too often on these pages, we examine architecture only from afar. We paint picture postcard portraits of

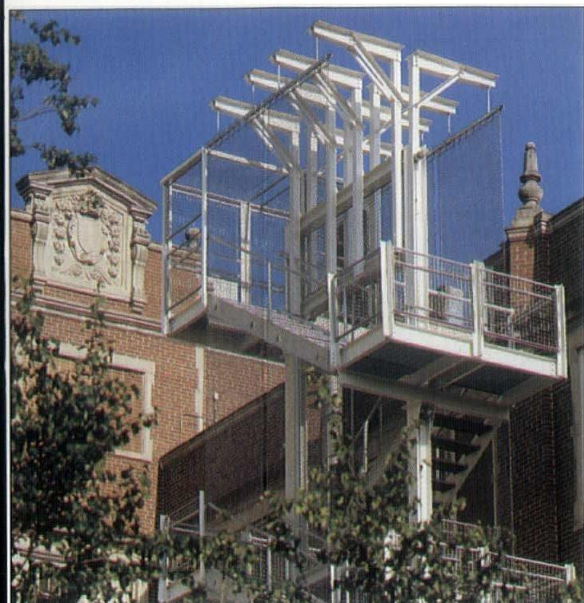
architectural works in crisply-edited, six-hundred word synopses and cunningly-staged photographs which rarely probe beneath the superficial trappings of form and function. We represent buildings as grand, idiosyncratic gestures, discrete and opportunistic, engaging less for what binds them to the great tradition of architecture than what in gross and macroscopic terms distinguishes one from the next. And though consideration of buildings as individual entities posed within a broad context of environment and culture is an endeavor of some consequence, this viewpoint nonetheless possesses its own inherent limitations.

In our fixation on the wholeness of a work of architecture, we invariably neglect to recognize the significance of its constituent parts: the grace with which a delicately sculpted handrail leads us down an unfamiliar staircase or the ease with which a precisely positioned window directs our gaze to some precious and lovely outer view. It is this very deliberate manner in which the detail of architecture attends to our immediate tactile and visual senses, in which architecture elicits the supple comfort of our memories, in which architecture speaks to our understanding of its substance, that ultimately either commends or confounds our appreciation of an architect's work.

Accordingly, the stuff of architecture, those elements of its material and assembly which reach out and grab hold of us, is a matter of considerable importance and deliberation in the work of an architect. Yet, it is also a subject too often discounted in glossy overviews of award-winning projects, a subject too frequently dismissed in our clients' discussions of functional priority and budget, a subject which is, more than most of us would like to admit, consigned the all too convenient status of something "to be worked out in the field."

Such unsettling attitudes are the least fortunate progeny of both the Modernist Movement and the economics of contemporary architectural practice. The detail which once regulated the constructive fabric of the builder's art is now all too frequently relegated to secondary stature. Too frequently, form follows proforma and the stuff of architecture becomes mere appendage, grafted onto a set of construction documents by junior drafters working "cookbook style





(Above) The Medical Laboratories firestair at the University of Iowa

(Above left) The firestair's distinctive profile arises from the tectonic language of its assembly.

(Above right) At the stair's cornice, the supporting steel armature is willfully modeled to reflect the forces it bears.

from their firm's catalog of preferred detailing practices.

Ludwig Mies Van der Rohe, that bastion of mid-twentieth century Modernism, claimed to have discovered God within the detail of his buildings. Yet despite Mies' professed reverence for such matters, there remains in the legacy of Modernism his example inspired an unfortunate tendency to privilege image before substance and form before detail.

It is therefore heartening to discover in this not yet entirely post-modern era poignant examples of contemporary architecture for which the patient consideration of detail rises to at least an equivalent footing with Modernism's more frequent intentions as self-absorbed object. These pages are examples of the stuff of architecture, drawn from the portfolios of Iowa architects who have each clearly chosen to celebrate not the narrowly expected, formalist tendencies of Modernism, but its more fruitfully historic, sensual, tactile and constructive substance.

Medical Laboratory Firestairs, The University of Iowa

When the state fire marshal required a second means of egress from upper-story medical laboratories at the University of Iowa, its architects, Herbert Lewis Kruse Blunck Architecture (HLKB), might have responded with the expected, ubiquitous masonry box, appended to the building's perimeter wall. Instead, the architects have wisely chosen to explore a willfully tectonic expression of the stair's constructive fabric.

Rising to a height of four stories alongside the laboratory's venerable brick and limestone facade, the stair is delicately hung from two thin I-beam columns. This conceptual strategy allows natural light to penetrate through the stair, illuminating the laboratory spaces which lie beyond. Further, the relative lightness of the stair's structure suggests a kind of updated, gothic tracery which gracefully plays against the original building's stout, load-bearing construction.

To accentuate the uniquely tensile properties of its steel construction, the stair consciously assembles a series of conventional metal components—steel decking and stair treads, off-the-shelf structural sections and cyclone fencing—in an unconventional fashion. Intermediate landings are cantilevered from the central structural framing, a gesture which

effortlessly suspends the stair's principle bulk outward, seeming to float on thin air alone. In lieu of the accustomed grid work of vertical and horizontal guardrail members, a sheer scrim of cyclone fencing is stretched from the stair's crowning steel armature to its brusque concrete base below. This lithe, screening lattice not only meets the building code's requirements for side rail protection, it gilds the staircase in a wispy, translucent veil which both describes its enclosure yet denies the explicit delineation of form.

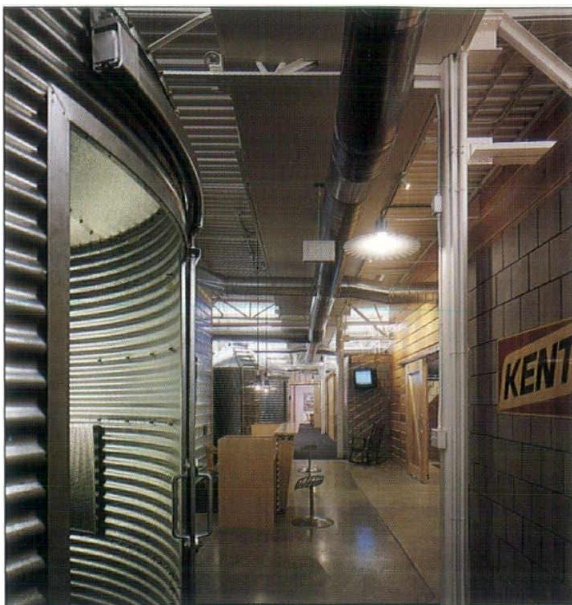
The resulting construction is deliberate and forthright, but also subtly anthropomorphic. The structure rises on two "legs," stretches its "limbs" upward and outward, and is capped with a tectonically ornate "head" piece." As body metaphor, the stair is suggestively, if not expressly, feminine in character, its metallic bodice seductively draped before its figure like the shimmering lace gown of an expectant bride.

The coyness of this work arises from its detail. It is articulate; it "speaks" deliberately regarding the manner of its making. The joinery of each member is clearly evident in its frankly expressed bolts and fasteners, in its visibly unabashed welded connections. At the same time, however, there is an equal concern for the modeling of individual components, particularly at connections between the stair's cyclone fencing and its outstretched, supporting armature. Cantilevered beams conspicuously taper to describe the mechanics of the static forces they must bear. Tensile rod connectors linking the armature overhead and the stair's cyclone screen are visually attenuated, expressing the tensile pressures they are obliged to resist. Together, the stair's detailing skillfully juxtaposes conditions of its own matter-of-factness against astute refinements of its constructive fabric. The stair is at once both plainly familiar and enticingly enigmatic. Such deliberate but purposeful ambiguity is an uncommon departure from the narrowly construed tenants of formal Modernism, an ambition born out of a patient, probing consideration of the stuff of architecture.

(Right) The rustic character of Meyocks and Priebe is drawn from a careful study of Iowa's rural farm vernacular.

(Far Right) The project's boardroom convincingly recreates the experience of a traditional Iowa corn crib.

(Below right) Throughout the project, simple materials are assembled with the kind of deliberate expediency which is characteristic of a rural farmstead.



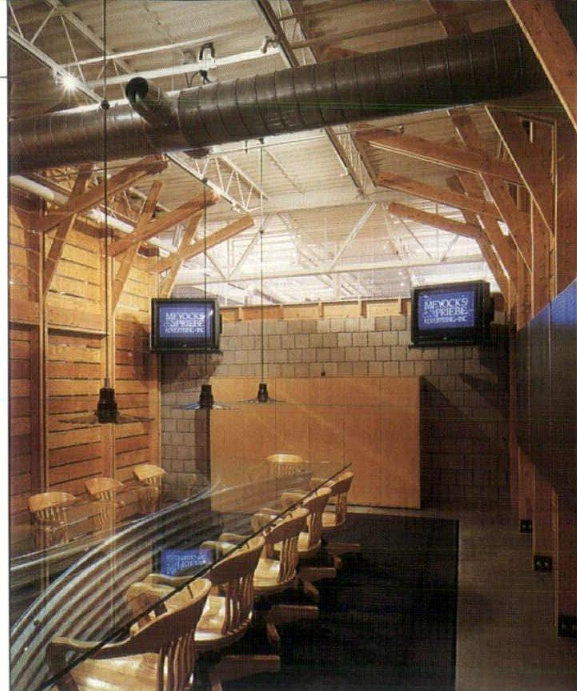
Meyocks & Priebe Advertising Inc. West Des Moines, Iowa

Another recent HLKB project, the buildout of tenant lease space for the West Des Moines advertising agency Meyocks and Priebe, illustrates a divergent approach to realization of architectural detail. The agency's client base is comprised almost exclusively of advertisers specializing in the field of agribusiness. A scheme which makes distinct references to the affects of the Midwest's farm economy was, from the onset, an obvious thematic choice.

The decision would, of course, pose difficult questions for its designers. What precludes such a project from quickly digressing into mere nostalgic recollection? What distinguishes an authentic architectural expression of the farm vernacular from cosmetic and sentimental assemblage? How does such a work become something beyond an elaborately staged setting of agrarian props and scenery? The appropriateness of the architects' response would lie in their careful exploration of architectural detail.

Working from a general plan which formally ordered both the agency's functional requirements and the 14,500 square-foot lease space, the architects and their client began a directed but admittedly intuitive investigation of Iowa's farm vernacular. Characteristic construction practices were observed and recorded; common farm building materials were documented, and their use, finish and means of attachment noted. The designers poured over standard references on rural construction as well as catalogs of farm implements, machinery, hardware and agricultural supplies. Equally helpful were the recollections of Meyocks and Priebe principal Dick Meyocks, who was himself raised on a Midwestern farmstead.

Out of this inquiry, instinctive reinterpretations of vernacular farm imagery were selectively adapted to various uses throughout the lease space. Corrugated metal grain bins, the most literal of the designers' interpretations, become meeting areas for the agency's staff and outside vendors. Raw, stud-framed walls, variously clad in unfinished plywood, translucent fiber-glass sheathing and sheets of perforated metal panel enclose common work areas, paste-up rooms and office space for the "creatives," agency designers responsible for the inception of the firm's advertising campaigns.

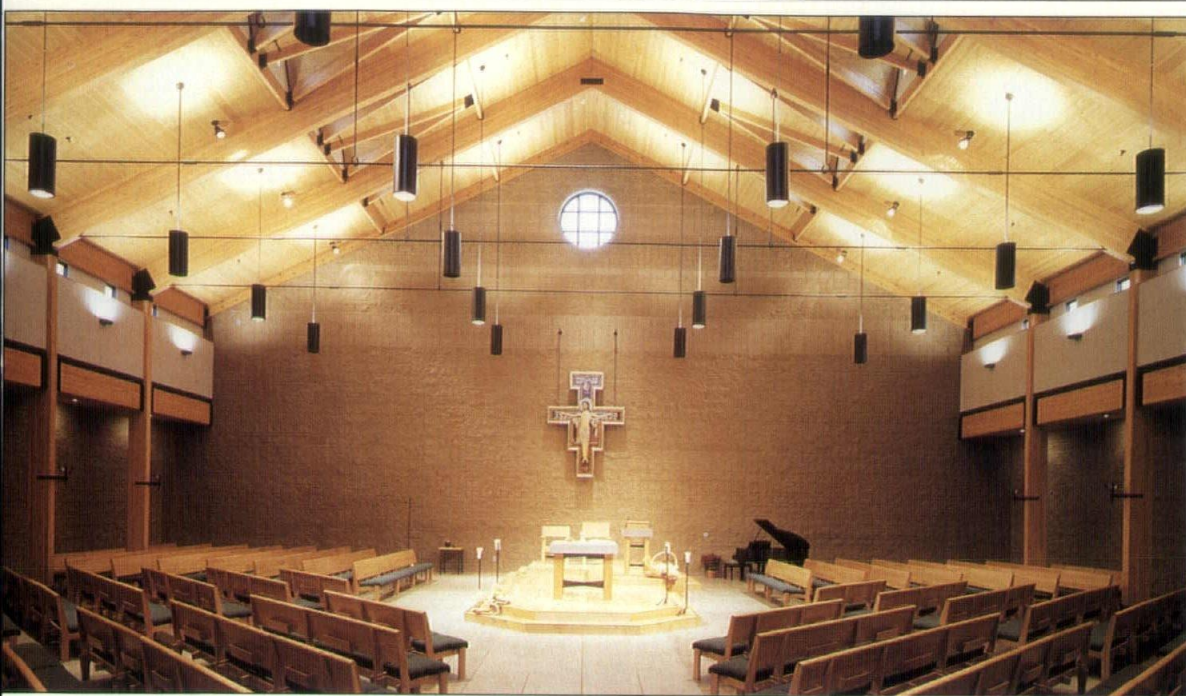


For the centrally-located boardroom, the scale and atmosphere of a lowly Iowa corn crib is convincingly recreated. Subdued, external light hazily drifts through the room's humbly rendered, slat-wall enclosure. Paired sidewall studs extend upward, engaging stoutly-anchored cross bracing and undressed stud rafters. Even the room's broad, glass and corrugated metal conference table picks up the thematic fervor, appearing more the hastily ad-hoc invention of a farm hand's immediate need than an artful and expensive piece of contract furniture. Add a few bales of straw, sawdust and the pungent aroma of freshly mown alfalfa and the allusion becomes complete.

As any farmer worth his or her day's sweat will attest, a farm survives by meeting the needs at hand with what lies at hand. So, if a farrowing sow requires a heat lamp to warm her new-born brood, the farmer, half-inch drill bit in hand, immediately runs conduit and wire through a stud wall to her preferred nesting spot. A late summer thunderstorm whips up out on the horizon and the farmer ties down his freshly



Project Meyocks & Priebe Advertising Inc., West Des Moines
Architect Herbert Lewis Kruse Blunck Architecture, Des Moines
Project Team Cal Lewis, FAIA, Will Worthington, AIA, Scott Worth, AIA
General Contractor Taylor Ball, Des Moines
Photography Farshid Assassi



(Left) The main sanctuary of St. Francis of Assisi.

(Below left) As reflected in this stoutly proportioned ambo, the detailing of St. Francis responds both to functional imperatives as well as an equally important spiritual program.

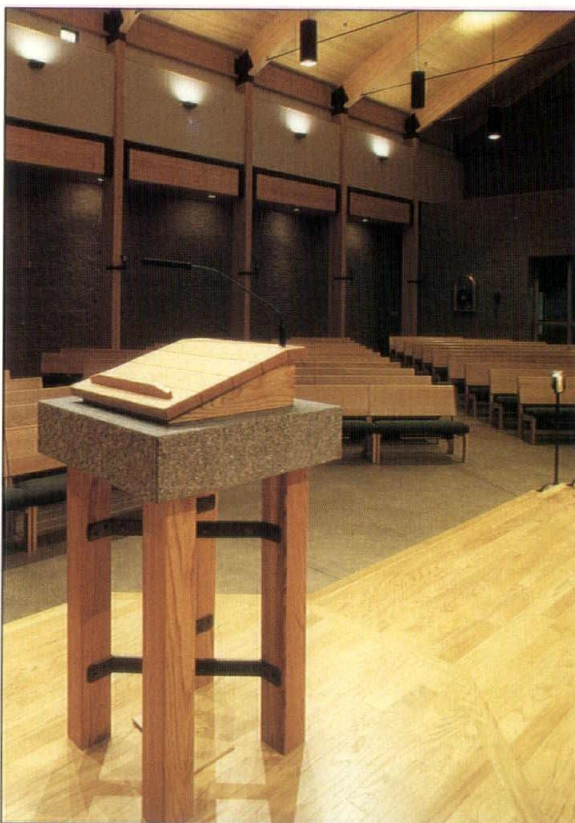
picked crop of soybeans with tarp secured by spare scraps of baling twine and unused fence wire. The farm vernacular, though conscious of the value of craft, privileges the utility of expedient innovation.

The architects of Meyocks and Priebe recognize this contingent character within the farm vernacular, particularly in their development of the project's expressive articulation. Things happen as they must happen. And so, a bare bulb, porcelain light fixture is wired to galvanized conduit that blithely runs wherever it must: through ceiling rafters, across intervening partitions or around intruding ductwork. Sheathing yields to piping and duct runs, terminating in oversized, rough-framed openings. Casework and shelving, hung with exposed hardware and inexpensive metal brackets, crops up whenever and wherever most needed. Throughout the project, there is a consciously expedient hand at work, satisfying local circumstances with precisely what is necessary and immediate and nothing more. It is a daring aesthetic strategy for architects more practiced in the compulsive consistencies of Modernist philosophy, but one which any seasoned farmer would nonetheless understand and admire.

The aesthetic is, of course, not tectonic in any physical sense. These agrarian appointments do nothing beyond supporting themselves and the ambiance of the project's thematic program. Their intent as detail is one of reflection and recollection. They represent not real construction but the memory of real construction: real barns and silos, corn cribs, fence rows and days spent tilling the soil beneath a broad Midwestern sky.

St. Francis of Assisi Catholic Church West Des Moines, Iowa

The persuasive utility of reflection is an equally important consideration for the detailing of St. Francis of Assisi, a recently completed Catholic church in West Des Moines, Iowa. The project, collaboratively designed by RDG Bussard Dikis and RDG Shutte Wilsam Birge, is a fellowship hall and sanctuary which



represents only the parish's initial phase of development. Ultimately, a series of educational, administrative and celebratory spaces will expand the complex of buildings to just over 100,000 square feet.

The architects' design team was guided by Brother William Woehner, F.S.C., of the Omaha Archdiocese, who served as liturgical consultant (see accompanying article). Together, Brother William, the parishioners of St. Francis and their architects have forged an artfully crafted, spiritually uplifting environment for worship. Their success is due, in part, to the thoughtful, reflective quality of the details which gracefully articulate both this sanctuary and the liturgy of faith it shelters.

Project St. Francis of Assisi Catholic Church, West Des Moines
Architect RDG Shutte Wilsam Birge, Omaha, Nebraska; RDG Bussard Dikis, Des Moines
Project Team Joseph Lang, AIA, Scott Pfeifer, AIA, Bill Catenech, Phil Hodgkin, AIA, Jeff Schaub, AIA
Liturgical Consultant Brother William Woehner, F.S.C.
Structural Engineer Shuck-Britson, Inc., Des Moines
Mechanical & Electrical Engineer John Pulley and Associates, West Des Moines
General Contractor Breiholz Construction Company
Artisans Ron Loken-Ironwork; Ed Fennel-Blown Glass; Wood Specialties-Furnishings
Photography Tom Cessler, Omaha, Nebraska

(Below right) One of fourteen exquisitely crafted candle sconces which align the colonnade of the sanctuary.

The sanctuary was "programmed," not only in the traditionally functional sense, but also in descriptions which defined its spiritual and liturgical presence. Its artifacts, from ambo to baptismal font to the smallest of vestments, were each accorded their own reverent purpose in expressing the rich symbolic legacy of the Roman Catholic faith. This liturgical program was drawn from a variety of sources: from the tenants of contemporary Catholicism as defined by the Vatican's liberating second encyclical; from the vernacular traditions of the Italian village of Assisi, home of San Damiano, the medieval church reconstructed by St. Francis and his followers; and most important, from the instincts and aspirations of the parishioners themselves.

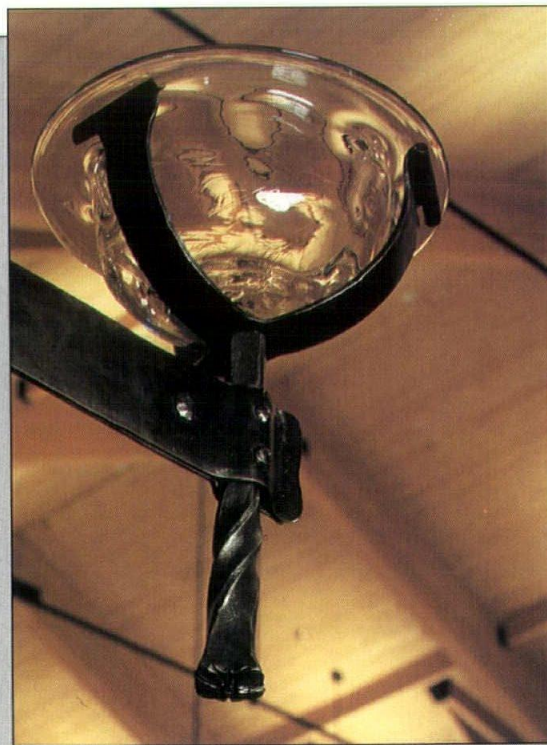
Accordingly, each detail within the sanctuary carries with it a multitude of clearly discernible, iconic references which purposefully evoke the continence of the building's liturgical program. A candled wall sconce, for example, mounted abreast one of the sanctuary's fourteen interior columns, signifies a Station of the Cross. Its hand-crafted, forged iron armature and blown-glass shroud recall the traditions and craft of medieval, Italian artisans. Its lighting by the hands of a parish altar boy marks the onset of one of many significant celebrations in the church's ecumenical calendar. Detail, here and

throughout St. Francis, transcends mere utility. Its expression serves as a lucent window which illuminates the foundations of the Roman Catholic faith, its long-standing traditions, its spiritual consequence and the personal meaning each parishioner discovers in its abiding presence.

The Helmick Penthouse, Des Moines, Iowa

For the Helmick Penthouse, an entirely different attitude regarding detail, or for that matter, architecture itself, is acutely evident. This coolly adroit renovation, again by Herbert Lewis Kruse Blunck Architecture, eschews the fervent and the impassioned. It is a strident, unyielding exploration of architecture's essence, which offers neither the comfort of tectonic self-examination or the reassurance of historical reference. This is a work, despite its minimalist allusions, which remains almost exclusively about itself alone.

In such a spare field of inquiry, the use of material, the nature of its form and the relations which circulate between each are all that truly matter. At the entry foyer, a gleaming stiletto bud vase, slick and baneful, menacingly lances a razor-edged, stainless steel display shelf, which in turn crisply cleaves its



Project The Helmick Penthouse, Des Moines

Architect Herbert Lewis Kruse Blunck Architecture, Des Moines

Project Team Kirk Blunck, FAIA, Paul Mankins, AIA

Artisans Two Rivers Glass and Door-Glass and Metals; Holt Tile and Marble-Tile and Stone; Neumann Millwork-Millwork; Allied Construction-Gypsum Wallboard; Noel Electrical-Electrical

Photography Farshid Assassi

The Spirit of Detail

When asked to describe the characteristics of a spiritually-meaningful architecture and its detail, Brother William Woeger, FSC, liturgical consultant for St. Francis of Assisi, will respond in terms comfortably familiar to any contemporary architect.

"We begin," he states, "by defining the spiritual criteria for each appointment or artifact and ask ourselves very basic questions. What is the importance of this artifact's quality? Does it have its own integrity? In other words, is it what it appears to be and not made to look like something it is not?"

Brother William is equally concerned that each appointment evidence "the mark of its maker." "Has the artifact been consciously fashioned and crafted?" he asks. In his work with parish building committees and architects, Brother William has developed a close collaborative association with many area artisans and crafts people. He relies upon their intimate understanding of material and craft in the design of each building appointment. As a consequence, the finished artifacts communicate not only their spiritual significance, but the intensely personal expression of



supporting backdrop of silky Portuguese limestone. Beyond, an eternally deep vacuum of solid, black-ash panel doors cloak living spaces from view, but extend the foyer's perceived depth to infinity. As the introductory passage of the penthouse's formal composition, this foyer is a striking and sensuous stroke, the architectural equivalent of film noir: haunting, starkly unapproachable beauty imbued with the faint but palpable suggestion of imminent peril.

The effect is as deliberately calculated as it is stunning, for each material employed is pressed to the outer limits of its apparent physical tolerance.

the artisans responsible for their making.

Brother William will go on to question the suitability of the crafted object. Does it serve its liturgical function "appropriately, in terms of its use, its region of origin and the parish it represents?" For St. Francis, appropriateness equates with a recollection of the Medieval craft traditions of Assisi. For another parish, in another setting, the choice of an artifact's formal character might differ, but its relevance and suitability would not.

Finally, Brother William will ask whether an artifact is "capable of bearing the weight of mystery. Does it convey the sense of God's presence to the beholder?" The question is only one small step removed from Louis Kahn's own similarly spiritual inquiry: "What does a brick want to be?"

Integrity, craft, appropriateness and evocation of the sublime: these are qualities prized by any conscientious architectural designer. Not surprisingly, they are also the same qualities valued by those charged with a significantly more divine objective.

—Roger Spears

How thinly can a sheer plane of stainless steel be drawn? How sharply can ductile metal sheeting be pointed? How darkly can common hardwood paneling be stained? By probing the extremities of each material's form and finish, and then placing the conclusions juxtaposed one against the next, the designers of the Helmick penthouse elicit a terse, edgy architectural dialogue which is startling in its frankness yet alluring in its abjectly detached beauty.

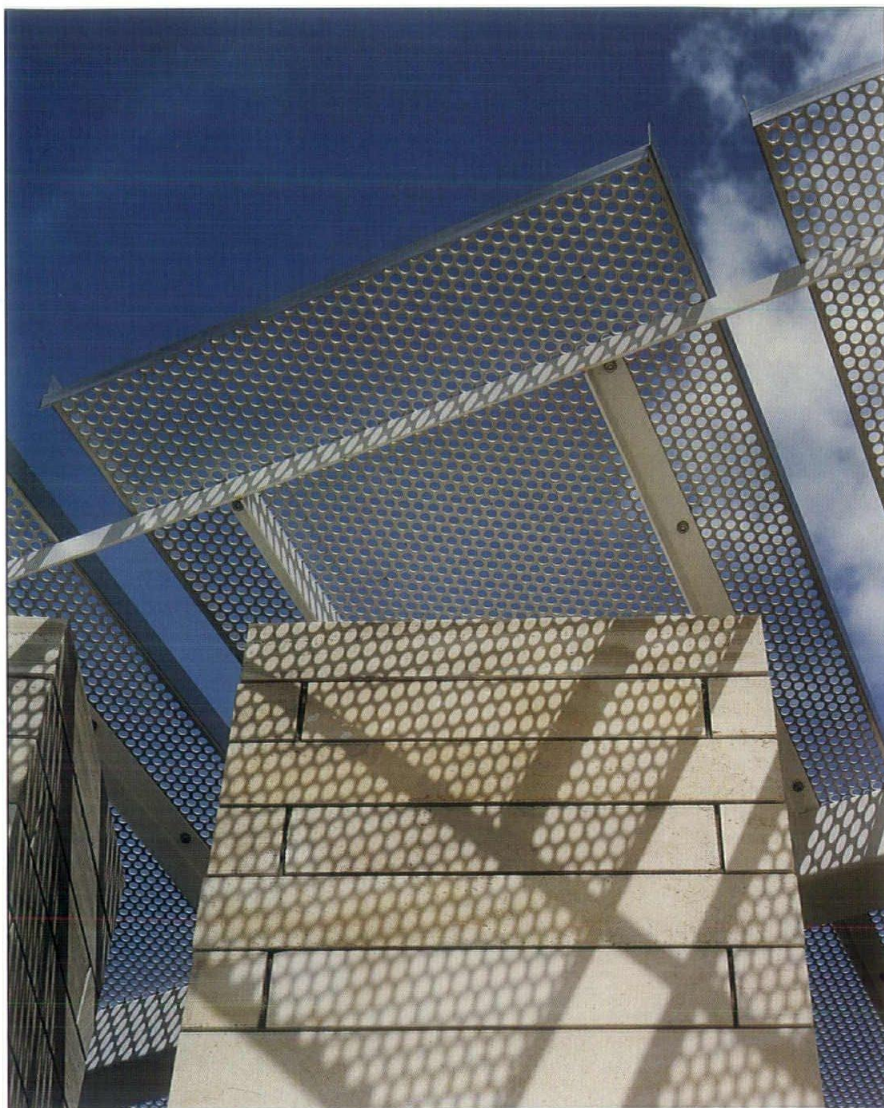
Such effects do not, however, come easily. Like the simple and seemingly homogeneous, cross-shaped columns of Mies Van der Rohe's Barcelona Pavilion, which were, in fact, composed of many separate sub-components, the detailing of this project demands a complex and, at times, convoluted conception and assembly. A pointed example is the shimmering, opalescent partition which screens the penthouse's kitchen from the entry foyer. Its lustrous quality is the product of not one material, but a series sandwiched in successive layers. An outer veil of green-tinted glass has been fused with a thin film of reflective mylar and suspended before a densely painted partition of black gypsum wallboard. The evident simplicity of the wall's appearance cunningly belies the underlying complexity of its execution.

Strangely, what is most experientially pervasive in the Helmick penthouse are the tactile sensations it evokes. It is strange because the project willfully contradicts our expectations of a textural architecture, an architecture which must be touched to be understood and appreciated. The Helmick penthouse is instead inescapably desirous of touch without offering an explicit invitation to do so. Its surfaces and forms long to be stroked and caressed, yet the language of their architectural expression suggests such behavior would be entirely inappropriate. The experience of the materiality of the work is, as a consequence, appreciably heightened. It is in this material dichotomy, a formal aloofness charged with an undercurrent of solicitous desire, that the Helmick penthouse generates its entrancing power.



(Above left) The kitchen's handsomely suspended screen wall suggests little of its constructive complexity.

(Above) The starkly austere entry foyer of the Helmick penthouse.



Kautz Plaza, The University of Iowa, Iowa City, Iowa

Project Kautz Plaza/Free Speech Wall, The University of Iowa, Iowa City

Architect Herbert Lewis Kruse Blunck Architecture, Des Moines

Project Team Rod Kruse, AIA, Paul Mankins, AIA

General Contractor Suburban Contractors

Photography Farshid Assassi

Project Bradshaw Fowler Proctor and Fairgrave Law Offices, Des Moines

Architect Herbert Lewis Kruse Blunck Architecture, Des Moines

Project Team Rod Kruse, AIA, Jeffrey Morgan, AIA, Steve Strassburg, AIA

Mechanical Consultant Waldinger Corporation

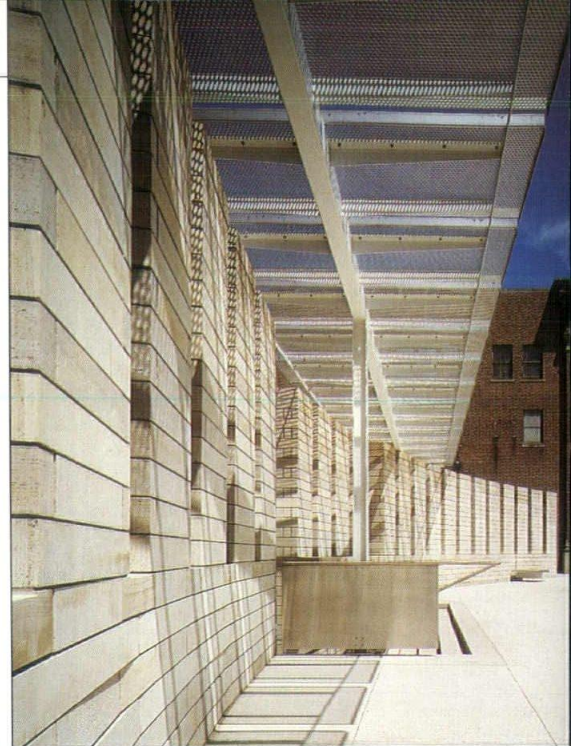
Electrical Consultant Baker Electric Company

General Contractor Ringland Johnson Crowley, Des Moines

Photography Farshid Assassi

This HLKB project, like the Helmick penthouse, is also concerned with the formal composition of materials and their discrete assembly, but its use—a public forum—and audience—college students, their faculty and administrators—demanded a far more accessible demeanor. Intended to create an intimate place of public assembly and accommodate handicapped access to an important campus circulation path, the project is conceived as a broadly arcing, limestone garden wall, capped by a delicate cornice of steel girders and perforated metal screening.

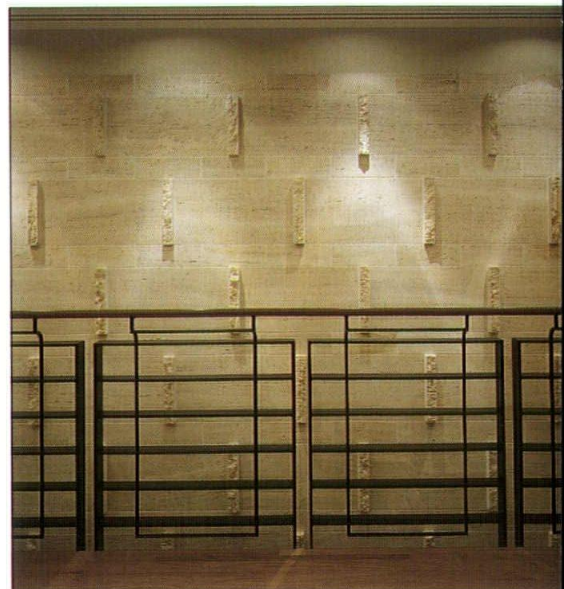
The composition is an assured but far more gentle exploration of the expressive properties of material use. Its sturdy limestone bearing wall exploits the intrinsic plasticity of unit masonry, bowing to model the implied pressure of the exterior plaza it contains, carved with incremental, slotted openings to admit swaths of daylight to the sheltered ramps and stairs beyond. By contrast, the rigid, precisely detailed metal cornice above exhibits steel's characteristic penchant for straightly drawn edges and crisply delineated profiles. Together, the juxtaposition of steel against stone, animated by the motion of the sun, creates an almost playful backdrop for the studious inhabitants of Kautz Plaza.



Bradshaw Fowler Proctor and Fairgrave Law Offices, Des Moines, Iowa

This snapshot of constructive detail, also crafted by Herbert Lewis Kruse Blunck Architecture, lies somewhere between the minimalist clarity of Kautz Plaza and the intentional historicism of St. Francis of Assisi. Its tautly rendered metal guard rail describes, in its designer's words, the "inherent linear tension" of the material. Its accompanying passage of veneer travel delineates a contrasting sense of compression and solidity. For the designer, both expressions seek to "establish an architectural language based on tectonic logic which evokes the respective nature of their construction."

The wall and its guardrail appear familiar—the textural coursing of the veneer masonry is, in fact, a subtle reference to comparable representations of traditional stone construction—but their evocation of age remains enticingly unspecified. Posed as the setting for Bradshaw's antique but historically-varied collection of period furnishings, this uniquely ahistoric constructive fabric proves a facile and accommodative backdrop.





The Hoffman Residence, Iowa City, Iowa

Of all the works thus cited, the Hoffman Residence, designed by Nowysz-Jani, Architecture and Design, represents perhaps the clearest demonstration of a deliberate conceptual, constructional and formal integration between detail and form. In effect, detail appears to prescribe form, while at the same moment, form just as concertedly appears to dictate the delineation of detail. It is a kind of intricate "chicken and egg" proposition in which the origins of the conception are probably far less significant than their architectural consequence.

A single, simple idea—the recurrent overlapping of rotated cubic volumes—defines both the smallest of architectural details as well as the home's overall formal composition. A centrally rotated staircase, exquisitely detailed in naturally-finished maple, establishes an elegant orthogonal spatial grid. The same conditioning grid work appears, though at a much smaller scale, in the constructive fabric of the home's furnishings: as the supporting armature for dining and coffee tables, and as the framework for pedestals which carry works of sculpture or potted plants. At the opposite extreme of scale, the house itself can be understood as an expanded, equally elaborate version of the stair's predominant geometric predilections.

Which came first? The question is irrelevant. What is important is the resultant effect, a wistful composition



which, in the architect's words, elicits its owner's "sense of adventure and whimsy" while articulating a "deeply rooted love for . . . the traditional designs found in Arts and Crafts cottages and Medieval castles."

The Maher Residence, Des Moines, Iowa

Finally, there is a project which is noteworthy as much for its manner of creation as its finished appearance. Intern architects Peter Goché and Biron Brattel not only designed this Arts and Crafts-inspired exterior sun deck, but constructed it with their own hands. Its detail arises both from the designers' predispositions of architectural intent and the contingencies of real-life, real-time constructional experience.

As a demonstration of detail, it is tectonic. It could not have been assembled without a careful understanding of the relationship of each of its parts. It is tactile and sensuous. It bears the mark of its creators in their careful crafting of the materials of its creation, as well as the occasional, innately human signatures which result from a mis-struck hammer stroke or misaligned bolt anchorage. It is historic, for it represents our culture's collective memory of the manner in which things are made. It is also, as Peter Goché might casually remark, "a pretty cool thing to do," precisely because it brings into focus the fundamental and constituent elements of the substance of architecture. It is, without question, evidence of the compelling virtue of the stuff of architecture.

Roger Spears is advisor for publications created by students of North Carolina State University's School of Design.

(Opposite, far left) The projects' most compelling feature is the lyrical juxtaposition of steel and stone set against the sky

(Opposite, near left) HLKB's gracefully arcing backdrop for Kautz Plaza.

(Opposite, below left) For the interior appointments of a Des Moines law firm, a composition of linear metal guardrails is played against the solidity of travertine veneer construction.

(Above far left) In the Hoffman Residence, the architects explore a cunning interplay between architecture's formal language and its development in detail.

(Below far left) A detail of Hoffman's elegant maple staircase.

(Above left) The Maher deck, hand-crafted by its designers, suggests the potentials of the stuff of architecture.

Project The Hoffman Residence, Iowa City

Architect Nowysz-Jani, Architecture and Design, Iowa City

Project Team William Nowysz, AIA, Sanjay Jani, Jigna Jani

Structural Engineer Jack Miller and Associates

General Contractor Colangelo Builders

Landscape Architect Jessica Neary

Photography Sanjay Jani

Project The Maher Residence, Des Moines

Architectural Designers Peter Goché and Biron Blattel

Builders Peter Goché and Biron Blattel

Photography Peter Goché

SULLIVAN'S OWATONNA BANK

The National Farmers' Bank, Owatonna, Minnesota

"It would be possible, I think, to write a history of Western architecture that would have little to do with either style or signification, concentrating instead on the manner of working. A large part of this history would be concerned with the gap between drawing and building. In it the drawing would be considered not so much as a work of art or a truck for pushing ideas from place to place, but as the locale of subterfuges and evasions that one way or another get round the enormous weight of convention that has always been architecture's greatest security and, at the same time, its greatest liability."

— Robin Evans

(Right) Blueprint of the original drawing by George Elmslie unearthed for the National Farmers' Bank in Owatonna, Minnesota.

(Opposite) Interior view of the National Farmers' Bank.

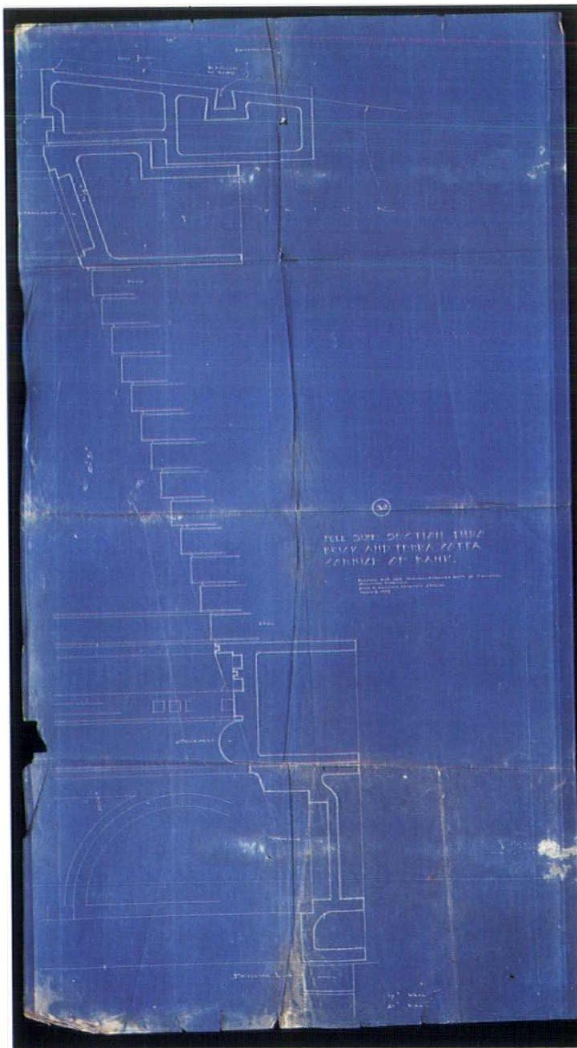
The National Farmers' Bank in Owatonna, Minnesota, by Louis Sullivan, is often cited by architectural critics as an example of regionalism. It is interesting to point out that this label is a recently constructed frame of reference for a building that was, at the time of its construction, an anomaly. In 1906, Sullivan's first bank project was an excessively complicated and expensive building for the small farming community that supported its construction. It was, in every sense, exotic.

The National Farmers' Bank is not a homegrown product but an odd transplant, a weed that found the occasion to grow. Sullivan was recruited for the job by the bank president, Carl Bennett, after a national search for an "architect whose aim it was to express the thought or use underlying a building adequately, without fear of

precedent, like a virtuoso shaping his material into new forms of use and beauty." The bank can only be considered regional in the same sense that any rural medieval cathedral is regional—as an exceptional and transcendental architectural event. The National Farmers' Bank, now a Norwest branch bank, marks the corner of Cedar Street and Broadway as boldly as ever. Thanks to some sensitive restoration by the Norwest Corporation, every visitor—and there are hundreds each year—is momentarily confused by the fabulous interior. The bank is most certainly a house of spirits.

Like many of us, I have always been enchanted by the building and curious about Sullivan's alchemical process. The bank was an obvious choice for my current research into historic methods of working drawing production. I was both delighted and dismayed to find the only surviving set of construction documents, an almost complete set of blueprints, unceremoniously rolled up in the bank's basement. Over the past several decades, the drawings have been unearthed only occasionally for building remodeling and restoration projects. In 1975, David Bowers, a Minneapolis architect, carefully catalogued the prints, but they have never been archived. I recently produced a traveling exhibit of a select group of the prints and an accompanying catalog, funded by Iowa State University and the Graham Foundation. The exhibit was also supported by the Norwest Corporation's Arts Program Director, David Ryan, who has initiated a long-term preservation and archival effort.

The previous disregard of these blueprints is emblematic of the status of the working drawing in architectural history and theory. Most studies of architectural drawing and modeling privilege the ideogram and the formal "presentation," neither of which address the true complexity of architectural practice; the building is reduced to an exclusively visual image whose cultural significance is limited to style or iconography. When architecture is so narrowly defined, the construction document seems to contain too much information. In the real world of architectural practice, however, working drawing production is a complicated ritual of transmutation. In the Middle Ages, methods of building production were mystical practices that lent significance to the act of construction. Today these practices are slowly being delegated to machines. The history of construction documentation is an untold history of architecture. My case study of the Farmers' National Bank blueprints is the first in a series that attempts to rescue everyday practice from historical disregard.







(Above) Front view of the National Farmers' Bank in Owatonna, Minnesota.

The working drawings of the Farmers' National Bank harbor many stories about Sullivan's architectural practice, particularly the degree of collaboration required to fabricate such an elaborate artifact. The actual construction history of the bank contradicts the popular myth of Sullivan as tyrant and solitary genius. Sullivan did not draft a single line of the construction documents; he trusted George Elmslie, his chief drafter, and his subcontractors to materialize the work.

In Sullivan's case this was not so much an act of ordinary delegation of menial tasks as it was an invitation to participate in the design process. Not unlike the design and construction of a medieval cathedral, individual craftspeople were responsible for the specific features of the bank, many of which were developed during the construction process. The team included Louis Millet, who orchestrated the colors of the stained glass, the plaster details, stencils and mosaics; Kristian Schneider, a sculptor whom Sullivan had personally trained to model terra cotta, cast iron and plaster ornament; and William Winslow of Winslow Brothers Ornamental Iron Company, who pioneered casting techniques for high quality mass production of intricate

ironwork. Most of the significant bank design resolved through negotiation and dialogue; working drawings set that activity in motion, various supplementary methods of documentation, templates and models became the primary link in the manufacturing process.

This team, and the other lesser known artists involved in this project, have been cast as extra in a morality play about the place of single-minded vision in architecture. While Sullivan's own rhetoric reinforces that perspective, the concrete evidence of his practice dismantles it. The debate among architectural historians about George Elmslie's role in the bank design seems pointless when the need to claim individual authorship for a work of architecture is given up. It is amusing, however, that Elmslie himself claimed that Sullivan designed only the "bad" ornament on the interior arch soffit and the exterior cornice, which is, in Elmslie's judgement, "a wee bit out of scale." If these features of the bank are indeed the only instances of Sullivan's direct signature on the building, they endure as poignant reminders of his lifelong struggle with scale and the relationship between structure and ornament.

Driven by a desire to define an organic architecture where the parts generated the whole, Sullivan's office tended to make many large-scale and full-size drawings at all stages of building production. The full-size section of the bank cornice is one of the many full-size construction documents in the set of blueprints. Full-size drafting was common practice during Sullivan's lifetime but, given the extra labor and material required, his financially unstable office made an excessive number of enormous drawings for this bank project. Some prints are over eight feet long. I am intrigued by the possibility that the convention of full-scale documentation provided the occasion for invention and collaboration.

The practice of full-size drafting is at least as old as medieval architecture, when building templates were figured out on a large plaster floor, constructed of wood and canvas, and then used as projection devices on the building site. Most of these "drawings" were destroyed by the construction process. Ordinary blueprints are similarly worn out on the job, although they are rarely destroyed. Many blueprints in the bank's collection bear traces of the construction process, including notes, comments and revisions. Most of these addenda are difficult to decipher, but they could reveal much about the translation from drawing to building. One of the most badly damaged sheets is number 43, the full-size plaster details for the banking room. Torn and covered with plaster stains, the original image can only be found by retracing the prick marks used to transfer the plaster profiles. There is evidence here of a direct confrontation with materials that begs to be recovered.

The practice of full-size drafting began to disappear during the 1920s and 30s when architectural ornamentation was abandoned. Today it is too slow and expensive for most of us to consider, and unnecessary when details are premanufactured or standardized. The loss of this drafting room practice also coincides with a general decline in craftsmanship in the building industry and the architect's ability to collaborate with artisans—it is too slow and expensive.

These pairs of losses do not have simple one-to-one relationships; they are only symptoms of the gradual dematerialization of architectural practice, a process that began as early as the Renaissance but has been accelerated by recent developments in mechanical and electronic reproduction. A more critical look at our conventions of construction documentation might offer some grounds for resistance. Sullivan's practice is a reminder that the



(Right) Full size plaster detail for banking room ceiling.

best architecture is driven by a desire to materialize the transcendental, not the other way around.

Clare Cardinal-Pett is the Associate Chair for Academic Affairs in the Department of Architecture at Iowa State University.

(Left) The Agriculture Building has been a long-time tradition of the Iowa State Fair since 1904.



THE PLACES OF IOWA

The Iowa State Fair Grounds: A Lasting Treasure

The fairground structures represent the architectural equivalent of the “Midwestern work ethic.” They serve their agrarian purpose quietly, fulfilling their use as exhibition structures without being an exhibit in themselves.

The Iowa State Fair. To most of us, this annual celebration conjures up images of corn dogs, funnel cakes, Ferris wheels, and big—make that HUGE—pigs. The fair is a right of passage, a festival to mark the end of summer and the beginning of the harvest. Rodgers & Hammerstein set a musical there, and, like the stage sets for that musical, the Fair buildings serve as a backdrop for our celebration. These structures, however, have a dignity and unique appropriateness to their function that merits a second look.

The Iowa State Fair has been around nearly as long as Iowa itself. The first celebration was held in Fairfield in 1854. The three-day event was an immense success; the Fairfield Ledger reported on November 2, 1854, that “such a concourse of people never before assembled in Iowa. We think we are safe in estimating the number at 7 or 8,000.” From the beginning, fair

organizers felt establishing a permanent location for the event was critical to its continued success. However, twenty years would pass before the fair would find its final home in Des Moines. In 1884, the State Legislature appropriated \$50,000 for the purchase of land contingent upon the City of Des Moines raising an equal sum for site improvements. The new grounds were dedicated on September 7, 1886.

Within the first year, 56 buildings, including Pioneer Hall, were constructed on the new Iowa State Fair Grounds. While these buildings served the fair well, a twenty-year building program began at the turn of the century that resulted in most of the major structures we are familiar with today, including the Livestock Pavilion (1902), Agricultural Building (1904), the Horse Barn and Swine Pavilion (1907), Grandstand (1909), the Varied Industries Building (1911), the

The Iowa
Architectural
Foundation

Sheep Barn (1915) and the Cattle Barn (1920).

The short construction period resulted in a uniform material palette and similarities in expression. With few exceptions, the structures are symmetrically composed, constructed of red brick masonry, and have exposed steel structural elements. These similarities, in some regards, blur the distinctions between individual structures and enable them to act as a cohesive whole. As a result, fair visitors leave with an impression of what the buildings are like without, perhaps, specific recollections about individual buildings. Clearly some exceptions exist—the Livestock Pavilion and the Beaux Arts Agriculture Building—but mostly the Iowa State Fair Grounds are remembered as a collection of buildings cooperating to form a fabric.

Ironically, these buildings' ubiquitousness—their “unmemorable” quality as individual buildings—is fitting to their function as a backdrop to the state's great festival. In many regards, these structures represent the architectural equivalent of the “Midwestern work ethic.” Most are well built without being grand—grounded in hands-on craft, perhaps, rather than academic art. In architectural terms, they serve their agrarian purpose quietly, fulfilling their use as exhibition structures without being an exhibit in themselves.

In 1986, a full century after their dedication, the 400-acre Iowa State Fairgrounds was listed on the National Registry of Historic Places. The fair's buildings, many of which are over 75 years old now, continue to serve as a site for events throughout the year, and will welcome over 900,000 people during the 11-day celebration in August. Even the best built structures, however, can show the ravages of time and weather. Years of differed maintenance have resulted in visible deterioration. In 1992, the Blue

Ribbon Foundation was formed to help raise the \$30 million for much needed repairs. The “Treasure Our Fair” campaign is, perhaps, the last chance to save these dignified, historic structures. Many fairs in the last century have celebrated aspects of our state's heritage. It is time, perhaps, that our state celebrate one of its greatest treasures—the Iowa State Fair itself.

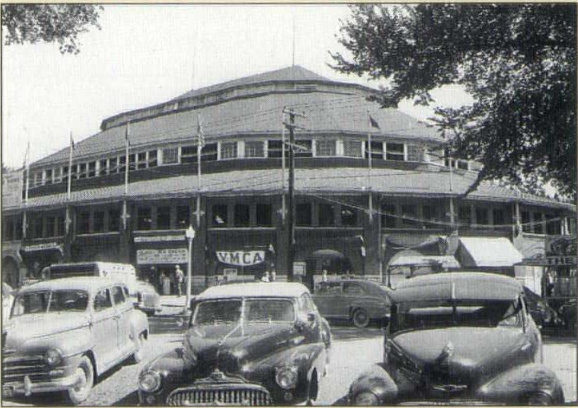
To learn more about the Iowa State Fairgrounds and how you can help restore them, contact the Blue Ribbon Foundation at Two Ruan Center, Suite 900, 601 Locust Street, Des Moines, Iowa 50309, 515/245-3730.

Paul D. Mankins, AIA, is Editor-in-Chief of Iowa Architect.

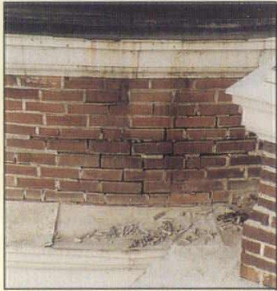
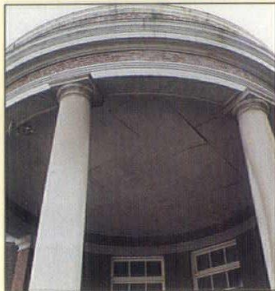
(Below) Front view of the Fish and Game building.

(Below left) The Horse Barn and Swine Pavilion at the Iowa State Fair Grounds. Built in 1907.

(Bottom, left to right) Traditional features of the Agricultural Building including the door entrance, rotunda area, deteriorated sheet metal and brick.



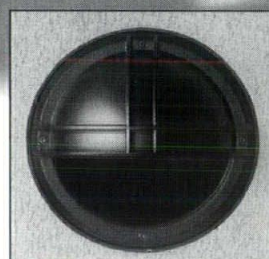
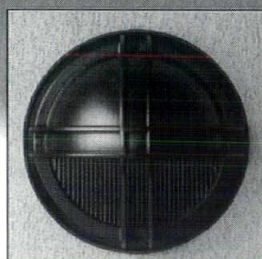
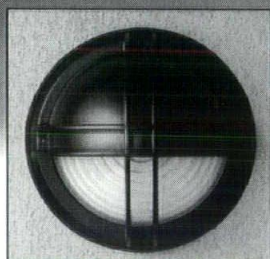
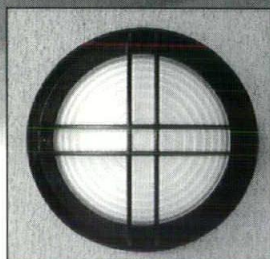
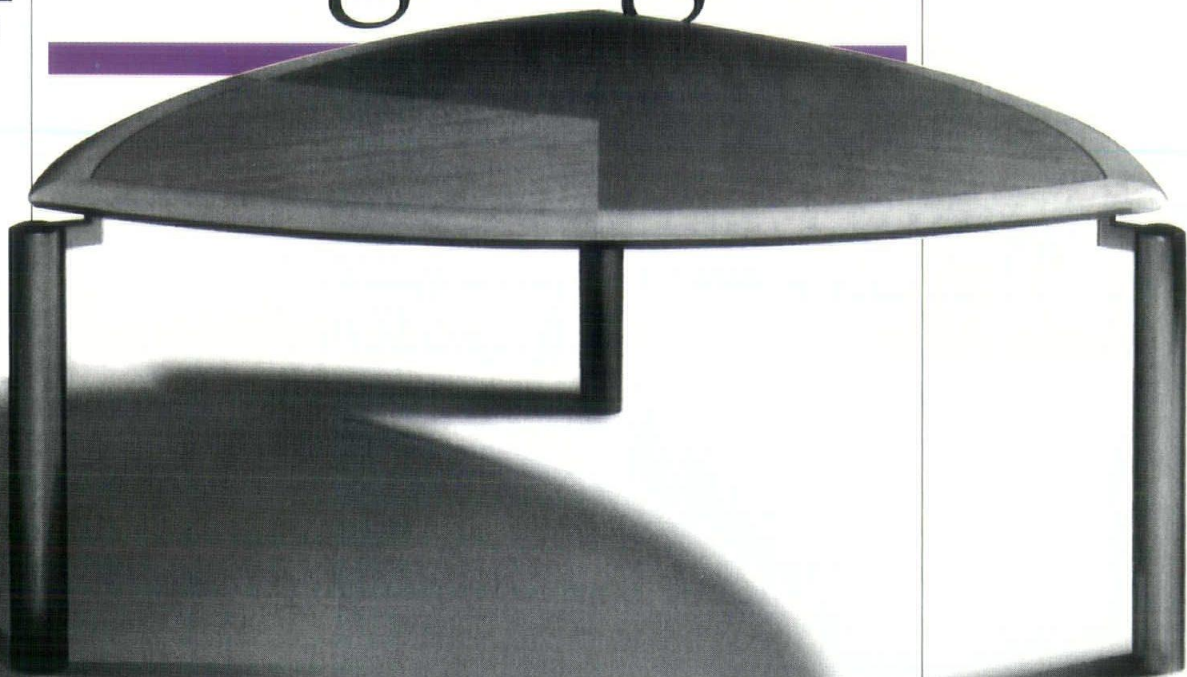
“The Places of Iowa,” sponsored by the Iowa Architectural Foundation, will appear periodically in Iowa Architect and feature the architecture and landscape of Iowa's communities. The Iowa Architectural Foundation seeks to encourage understanding of architecture, a public art. For more information on the Iowa Architectural Foundation, write or call 1000 Walnut Street, Suite 101, Des Moines, Iowa 50309, 515/244-7502.



**The Eclipse Table
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A unique cantilevered leg design gives the impression of a table top "floating" above the legs. The dining and occasional tables have triangular tops with bookmatch veneers and black inlays. Legs are hand polished stainless steel.

Design Digest



**Wall Forms
Kim Lighting
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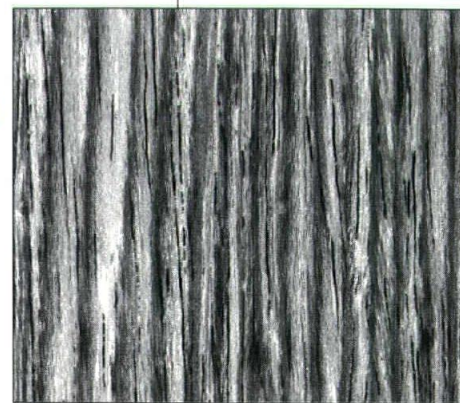
These architectural luminaires are designed with four complementary face configurations to address a variety of lighting conditions. All fixtures are constructed of die cast aluminum. Lenses are glass and will allow the use of the HID lamps for efficiency and long life.

**Narrow Stile Balanced Doors
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Ease of operation and extraordinary craftsmanship are the hallmarks of this custom specified entrance. By combining 1-inch narrow stiles and a continuous exposed clad hinge shaft, these doors have a virtually frameless appearance. The doors are available in bronze, stainless steel or aluminum.

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The composite veneer is both environmentally responsible and high-tech. The manufacturing process starts by harvesting "A" grade Koto logs from Africa. The special grain characteristic is achieved by a uniform computer controlled dye process achieving exact color specification and corduroy-like straight grain.



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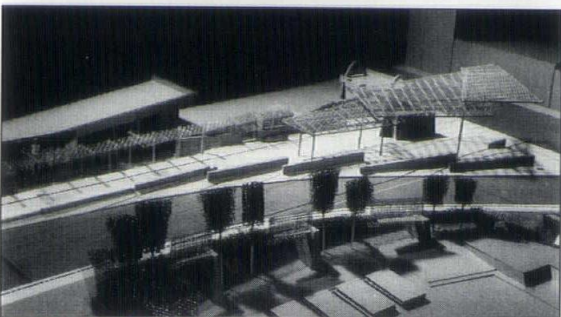
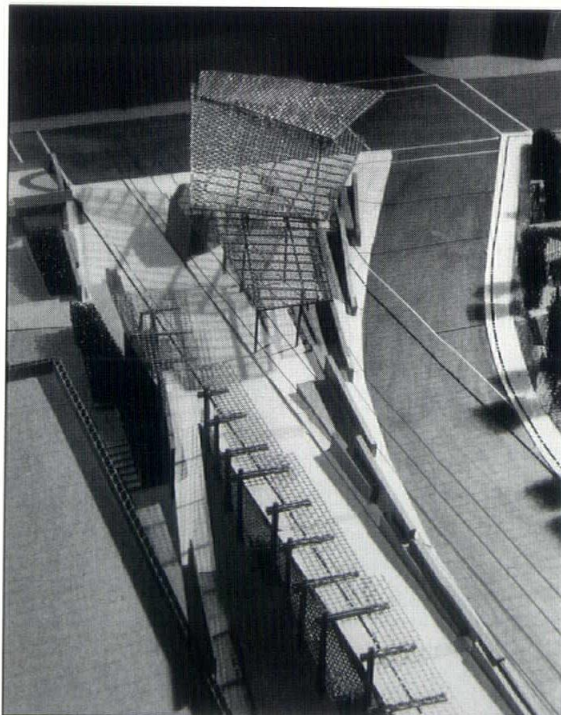
Journal

World War II Memorial Charrette Held

Five teams of architects, landscape architects and artists gathered July 14-16, 1995, to develop design concepts for a World War II Memorial to be built on the State Capitol grounds. The American Institute of Architects, Iowa Chapter, and the Iowa Arts Council are serving as advisors to the project sponsored by the World War II Monument Committee, a nonprofit organization formed to facilitate the creation of an appropriate memorial to honor Iowans who served in World War II.

The charrette provided teams the opportunity to develop innovative design concepts in a short period, while providing interested groups the opportunity to participate in the design process. The memorial will honor Iowans who served in World War II, but will also reflect the highest standards of design excellence and compliment and enhance the site, surrounding environment and long-range plans for Capitol grounds.

The Capitol Design Advisory Committee will review the conclusions of the charrette, and make recommendations to the World War II Monument Committee and the Capitol Planning Commission. Ground breaking ceremony is set for May 31, 1996, with the dedication to be held November 11, 1996.



Iowa Firm Receives Award

Conway+Schulte, Ames, has received an Honorable Mention in the Seventh Annual *Landscape Architecture Visionary and Unbuilt Landscapes* Competition for their project DE-CODE/RE-CODE Atlanta. The competition called on architects, landscape architects and artists to respond creatively to the need for a renewed vision for the open spaces in cities, towns, suburbs and beyond. The Conway+Schulte project received first prize in the competition Public Space in the New American City/Atlanta 1996, focusing on the relationship between the political landscape as defined by the encoded language of ordinances, codes and planning guidelines, and the constructed landscape often defined as "public space."

AIA Iowa Member Receives Loeb Fellowship

Patricia Zingsheim, AIA, has received a Loeb Fellowship in Advanced Environmental Studies from Harvard University. The fellowship offers individuals who have displayed leadership in the design and environmental professions awards for independent study. Zingsheim heads the Planning and Urban Design Division for the City of Des Moines and is currently co-directing a public-private team developing the downtown plan.

Zingsheim, an architect, planner and urban designer, has played an instrumental role in Des Moines' landmark planning process and in awakening community interest in revitalizing the downtown riverfront. Zingsheim chairs the Iowa Architectural Foundation, serves on the Iowa Architect Editorial Board and has been an adjunct professor in the urban design studio at Iowa State University.

Based at the Graduate School of Design and established in 1970, the one-year fellowship is awarded to 10-12 professionals each year to use to benefit society. There are no specific background requirements, but applicants must have worked professionally for a minimum of five years. As a Loeb Fellow, Zingsheim will study urban design theory and methods relevant to the culture, form and vitality of the American central city beginning in September 1995.



Patricia Zingsheim, AIA

Convention Caps Architecture Month

On July 27, Governor Terry Branstad proclaimed September 1995 Architecture Month. This annual celebration recognizing the contributions of Iowa architects culminates with the AIA Iowa Convention, scheduled for October 5-6, 1995, in Des Moines. The convention features four speakers from across the country: Gary Cunningham, FAIA, Dallas; Katherine Diamond, AIA, Los Angeles; Carol Ross Barney, FAIA, Chicago; and Bill Tsein, New York City. Each will give their interpretation of the 1995 AIA Iowa Convention theme "Craft, Materiality and Fabrication."

Besides the annual Design Awards, AIA Iowa will also present the inaugural Excellence in Craft Award, recognizing those who craft works of distinction and encouraging excellence in execution and construction. The fifth AIA Iowa Medal of Honor, the highest recognition the chapter can bestow on a member, will be presented, recognizing distinguished service to the profession.

If you have questions about the 1995 AIA Iowa Convention, contact AIA Iowa at 1000 Walnut Street, Suite 101, Des Moines, Iowa 50309-515/244-7502.

A list of
contractors and
manufacturers for
major building
elements in
featured projects.

RESOURCES

Federal Courthouse Annex, page 21

Ceilings: USG; **door hardware:** Sargent; **doors:** Weyerhaeuser; **elevators:** Schumacher; **exterior cladding:** Bybee Stone Co., Midwest Concrete, Exterior Sheet Metal; **floor covering:** Cold Spring Granite, Dal-Tile, Mannington, Prince Street, Tech., J&J Industries, HVAC: York; **interior finishes:** Iowa Paint; **lighting:** Lithonia Fixtures; **millwork and trim:** RCS Millwork; **miscellaneous ornamental ironwork and metals:** Parker Welding; **plumbing fixtures:** Crane, Sloan, Delta; **premanufactured cabinets:** Crystal; **toilet accessories:** Bobrick; **toilet partitions:** Global

The Helmick Penthouse, page 30

Glass: custom - Two Rivers Glass and Door; **lighting:** C S L Lighting, Lightolier, Osram; **millwork:** Neumann Millwork; **plumbing fixtures:** Kroin; **stone:** Portuguese limestone - Holt Tile and Marble

The Hoffman Residence, page 33

Appliances: Dacor, Subzero, Asko; **cabinets:** Knapp Woodworking; **door and cabinet hardware:** Schlage; **faucets:** Kohler, Grohe; **fireplace:** Vermont Casting, Doure; **lighting:** Juno, Leucos, Kichler, Beverly Hills Fan Co.; **plumbing fixtures:** Kohler, Elkay and Whirlpool; **shingles:** Certainteed; **skylights, windows and exterior doors:** Pella Windows

Kautz Plaza/Free Speech Wall, page 32

Lights: Hydrel; **metal fabrication:** 4L Manufacturing; **stone:** Weber Stone Co.; **tables:** Forms & Surfaces

Medical Laboratories Building Firestairs, page 27

Lighting: Stonco; **metal grating:** Klemps; **windows:** Hopes

Meyocks & Priebe Advertising Inc., page 28

Architectural millwork: Woodcraft Architectural Millwork; **blinds:** American Blind; **carpet:** Ralph N. Smith, Charleston Carpet; **chairs:** Jasper Seating; **doors:** Doors, Inc.; **drywall:** Allied Construction Services, Inc.; **electrical:** ABC Electric Inc.; **glass:** Clark Glass; **glass block:** Pittsburgh Corning; **grain bins:** PAX; **hardware:** Richard-Wilcox; **lighting:** Capri, Luraline, Lethonia; **masonry:** Seeddorff Masonry; **mechanical/plumbing:** Baker Mechanical, Inc.; **metal fabrications:** Taylor Industries; **paint:** Color Inc., Iowa Paint; **perforated metal:** Harrington & King; **rough carpentry:** Taylor Ball; **sprinklers:** Continental Sprinkler; **systems furnishings:** Kimball from Koch Brothers

St. Francis of Assisi Catholic Church, page 29

Acoustical ceiling system: Celotex; **acoustical wall panel:** Metal Building Interior Products Co.; **acoustical wood ceiling:** Ventwood; **air handling equipment:** McQuay; **aluminum doors and windows:** Winco; **carpet:** Patercraft; **cast stone:** Edward Precast Concrete Company; **concrete floor:** Crown Building Materials; **concrete masonry units:** Shiely Masonry Products; **exterior insulation and finish system:** Senergy; **finish carpentry, woodwork:** Inst. Equipment Inc.; **forged ironwork:** Ron Loken; **glue laminate beams and decking:** Timberweld; **light fixtures:** Lightolier, Metzlux; **membrane roofing:** Carlisle; **paint:** Mautz Paint Company; **sheet vinyl:** Armstrong; **shingles:** Certainteed; **sound reinforcement:** Electronic Sound; **wood doors:** Ceco

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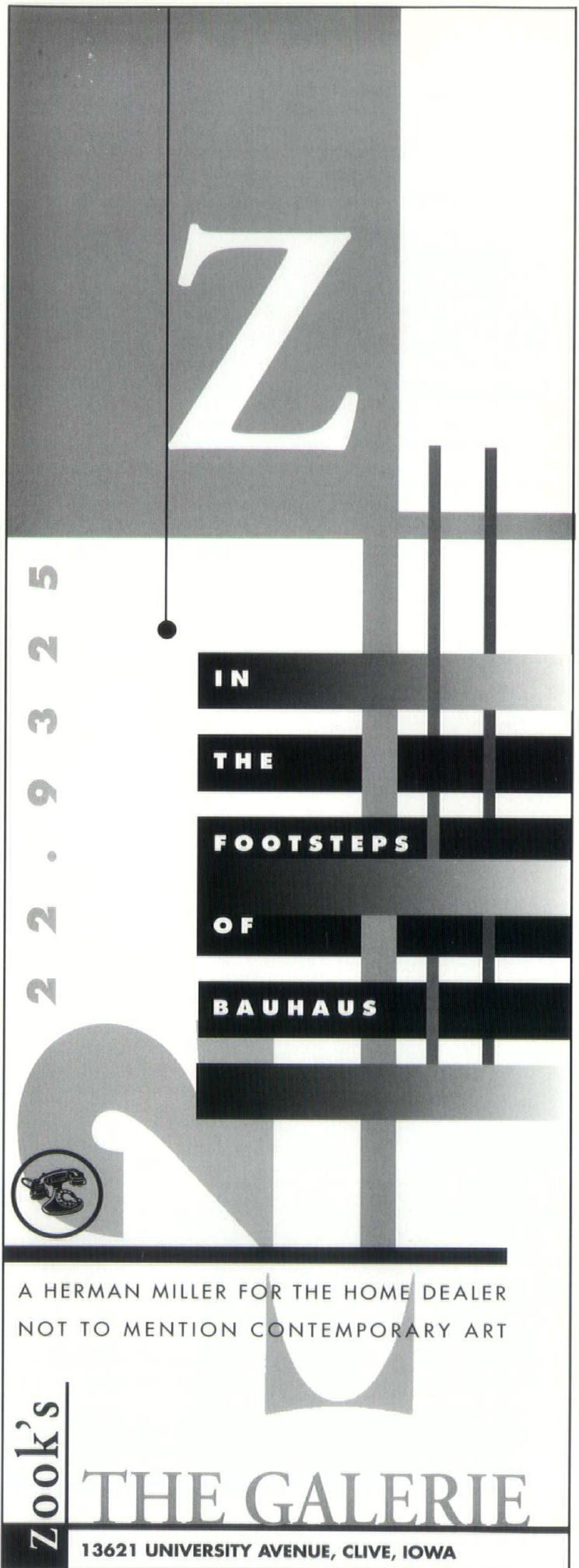
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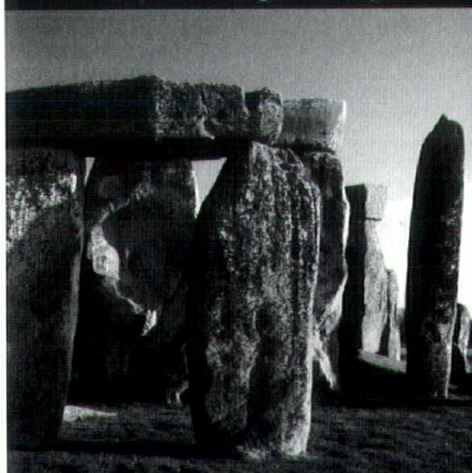


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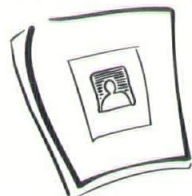
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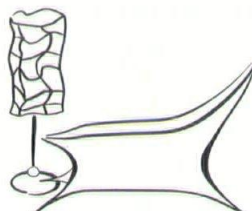
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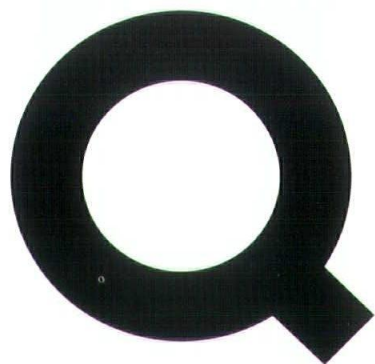
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