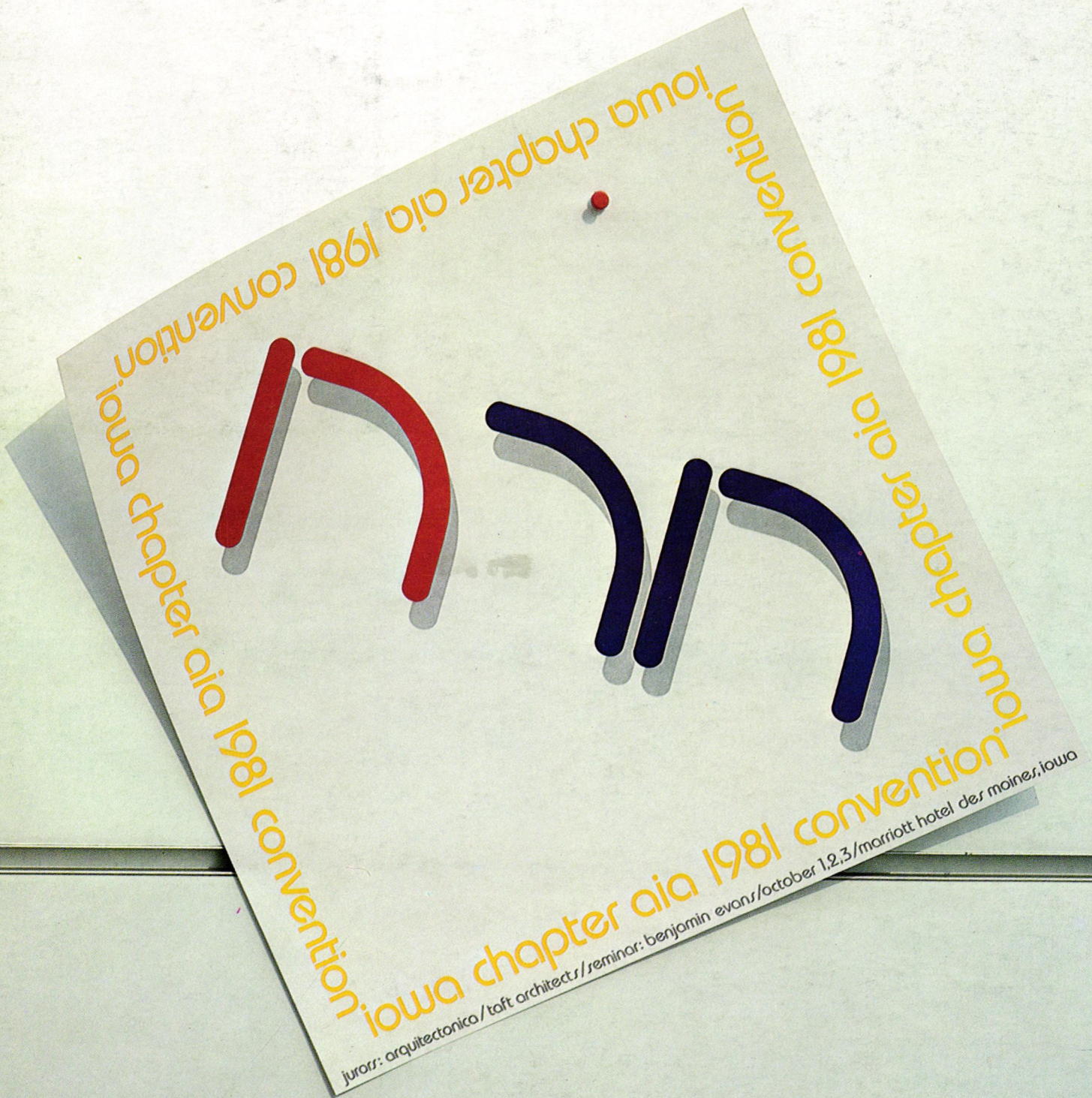


# IOWA ARCHITECT

September/October, 1981



iowa chapter aia 1981 convention

iowa chapter aia 1981 convention

iowa chapter aia 1981 convention

jurors: arquitectonica/toft architects/seminar: benjamin evans/october 1,2,3/marriott hotel des moines,iowa



# Another Major Iowa Project



CONTINENTAL WESTERN LIFE INSURANCE CO.  
WEST DES MOINES, IOWA  
NEUMANN BROTHERS, INC.  
GENERAL CONTRACTOR, DES MOINES, IOWA

BROOKS, BORG & SKILES  
ARCHITECTS, DES MOINES, IOWA



INTERIOR FINISHES

**ALLIED CONSTRUCTION  
SERVICES, INC.**

DES MOINES • DAVENPORT • PEORIA



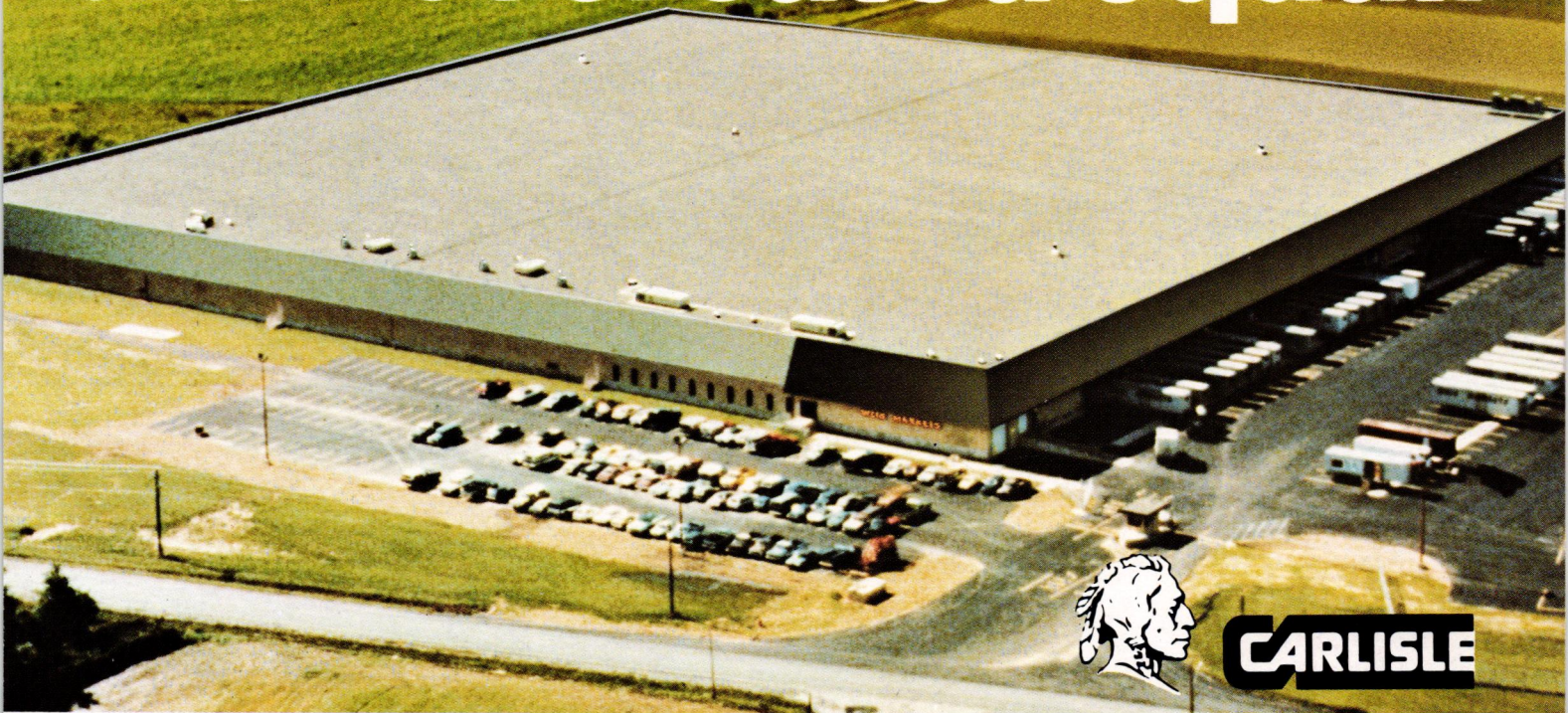
EXTERIOR FINISHES

**Forman, Ford & Co., of Iowa**  
DES MOINES, IOWA

*For more information circle no. 13 on the datacard.*



# All single ply roofs are not created equal.



Aerial view of the Carlisle roof on the new Milton, Pennsylvania Distribution Center

## The roof that's got the future covered.

You probably already know about the many benefits of single ply roofs over traditional built-up roofs. Benefits that are making "single ply" the new industry standard. But you should also know that all single ply roofs are not the same. Carlisle offers you all these major exclusives:

**Carlisle** produces and applies Sure-Seal® elastomeric membrane—the single ply sheet we pioneered more than 23 years ago.

**Carlisle** has single ply roof applications successfully in place for over 20 years now. Roofs that stubbornly refuse to crack or leak after two decades of punishment by the sun, rain, wind, hail and snow.

**Carlisle** produces factory-fabricated single ply sheets in super huge dimensions. In fact, we offer single sheets as big as 45 feet by 150 feet, which minimizes field seaming.

**Carlisle** provides one-source reliability. Everything you need—membrane, sealant, flashing and accessories—comes from one reliable American source.

**Carlisle** operates an ongoing and mandatory two-day training school for single ply applicators, to assure top quality workmanship in every Sure-Seal roof.

**Carlisle** single ply roofs receive a five-year "watertight warranty" that can be extended for an additional five years!

**Carlisle** single ply roofs are backed by nationally respected Carlisle Tire & Rubber Company—leader in the research, engineering and manufacture of waterproofing materials for almost three decades.

These are some of the features that have made the Carlisle Sure-Seal roof *the single best, single ply system*. You owe it to yourself to find out more. Call or write today!

For more information circle no. 7 on the datacard.

"Over 250 applications in Iowa"



## STETSON BUILDING PRODUCTS

Rock Island, Illinois

619 11th Street • Phone 309/788-8412

Des Moines, Iowa

510 S.W. 9th • Phone 515/243-6286



# Quality that is Unmistakably

## St Charles



Copyright © 1981 by Meredith Corporation  
Des Moines, Iowa All Rights Reserved.

BETTER HOMES AND GARDENS® TEST KITCHENS  
MEREDITH CORPORATION  
Des Moines, Iowa  
NEUMANN BROS., INC.  
General Contractor

CHARLES HERBERT & ASSOCIATES  
Architects

*Our Design Interpretations Derive the Utmost Efficiency from  
Every Work and Storage Area - and Variations are Limitless*

**NDS Company**

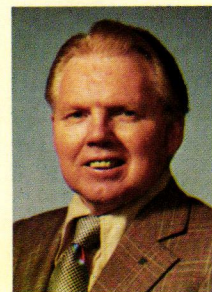
**Negley Design & Sales Company**

3839 MERLE HAY ROAD • DES MOINES, IOWA

For more information circle no. 15 on the datacard.

Phone  
515/276-5500

Also Distributors for  
**DWYER**  
Compact Kitchens



Phil Negley, President  
NDS Company



# CARD

Use the convenient  
datacard  
NEXT TO PAGE 49

to get  
fast information  
on products  
advertized  
or featured  
editorially  
in the

## IOWA ARCHITECT

Issues are \$10.00. Copyright  
1981. Reproduction of this  
material by any means  
without the permission of the  
publisher is strictly prohibited.

**Send all address changes**  
(Form 3579) to: Ia. Chap.  
A.I.A., 512 Walnut Street,  
Des Moines, Ia. 50309

**Editor:**  
Kirk V. Blunck, AIA

**Managing Editor:**  
Mick Enabnit

**Publisher:**  
Midwest Advertising Service,  
Inc., Des Moines

**Editorial Staff:**  
Edward Soenke, AIA  
H. Ronald Walker, AIA  
Mark Schmidt, AIA  
Bryan Shiffler, AIA  
Gary Moriarty, AIA  
Dave Sanders, AIA Assoc.

Iowa Chapter American  
Institute of Architects

**Executive Director:**  
Claudia Cackler

**President:**  
William Dikis, AIA  
Des Moines

**1st Vice President and  
President Elect:**  
James Wilkins, AIA  
Des Moines

**2nd Vice President:**  
Gordon Mills  
Dubuque

**Secretary:**  
Tom Waggoner, AIA  
Mason City

**Treasurer:**  
Kirk Colvig, AIA  
Des Moines

**Directors:**  
Glen Huntington, AIA  
Storm Lake  
Howard Pals, AIA  
Des Moines  
Richard Kruse, AIA  
Iowa City

**Ex Officio:**  
Kenneth J. Steffen, AIA  
Des Moines

**Des Moines Architects  
Council President:**  
Doug Sires, AIA  
Des Moines

**Cedar Rapids/Iowa City  
Architects Council:**  
Jerry Kneeland, AIA  
Mt. Vernon

**Eastern Iowa Section  
President:**  
Greg Larrison, AIA  
Bettendorf

**N.W. Iowa Section**  
Davey L. Blanton, AIA  
Sioux City



**ON THE COVER:**  
AIA Poster Design  
William Anderson and  
Mark Rees

Cover Design and  
Photography: Farshid Assassi

Cover Separations courtesy  
Swanson Gentleman

7

**Works In Progress**

8

**Sources — Pre-Modern to  
Post-Modern**

Two important architectural  
directions have emerged as  
reaction to modernist theories  
and building.

19

**Attention to Detail**

The detailing of a project can  
be a soft understatement of  
its visual delights.

27

**1981 — AIA Convention**

Introduction to the events,  
speakers and jurors for the  
Iowa Chapter AIA meeting.

33

**Practice Challenges and Op-  
portunities**

The challenge of the 80s will  
be one of professional survival  
in the face of heavy competi-  
tion.

37

**Designing Cities for Children**

An environment that facilitates  
the development of children  
will, curiously, do the same for  
adults.

47

**News**





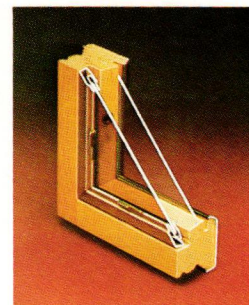
# When You Need Replacement Windows



## **BOSTON CENTER BUILDING**

**ARCHITECT:** Griffith Company, Ft. Dodge, Iowa

**CONTRACTOR:** Kolacia Const. Co., Ft. Dodge, Iowa



The Pella double glazing system with solarcool bronze glass in roomside glazing panel U .41 R 2.43

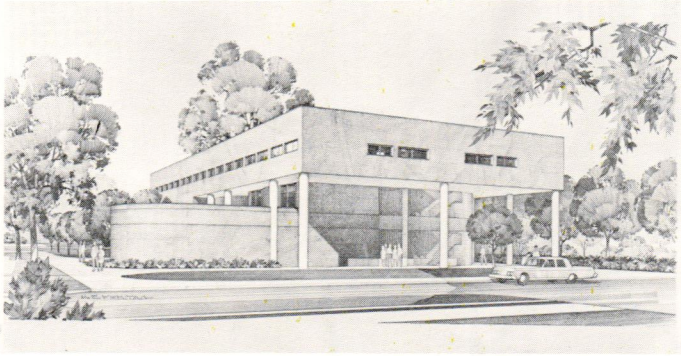
**Sponsored by Your Nearby Pella Distributor**

LOOK IN THE YELLOW PAGES FOR THE ONE NEAREST YOU

*For more information circle no. 22 on the datacard.*



# WORKS IN PROGRESS



## College of Business Administration for Drake

Construction has started on Drake University's College of Business Administration building, Aliber Hall. Designed by Bussard/Dikis Associates, Ltd., the 47,300 square foot facility is being fast tracked and is scheduled for completion in July of 1982. The building will serve as an educational facility as well as provide space for Des Moines' business community to use for developmental seminars and training courses. Contained within the structure are classrooms, a lecture hall, administration offices, community service offices, staff offices and support facilities.

The three story above grade and one story below grade building responds to Drake University's established "tree-top" building height and is sited to maintain the master planned north-south greenspace which extends from University Avenue to Forest Avenue. The building character and brick exterior recall existing material and forms to tie the new facility to the established campus.

Planning within the building concentrates heavy traffic areas on the lower and grade levels. Administrative and staff offices are more remotely located on the upper two levels. The classrooms, administrative offices and staff offices can be physically and environmentally isolated to allow partial operation of the facility.

## IGF Employs Vernacular Forms

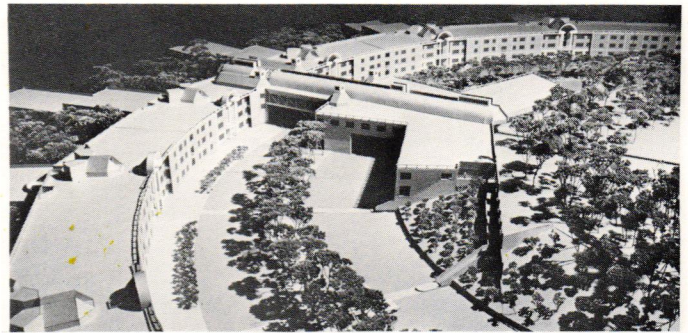
Designed by Higgins Shirk & Colvig, P.C., Architects-Engineers, is the new IGF Insurance Company and Association Headquarters. The 17,000 square foot building, located in Urbandale adjacent to Living History Farms is an architectural composition of forms reminiscent of those commonly seen in rural areas and employs traditional materials such as brick, limestone and copper roofing. The lower level features an open lobby area with a clerestory providing natural light, board room, open plan office space, printing room, employee dining and entrance. A third level attic mechanical room is provided for easy access and maintenance of fans and other equipment.

Taking advantage of a site which slopes to the south, the building is set into the hillside with the primary orientation to the south and earth berming on three sides. The walls and roof are heavily insulated for further thermal protection. In addition to these passive solar design features, two active systems are being employed. The southern facing windows are triple glazed with metal blinds between the interior pane and exterior panes. Fans draw interior air through this blind space extracting the warm solar heated air for use in the winter months and expelling this air in the summer. Also, roof mounted solar panels assist heat pumps located throughout the building. It is expected that two thirds of the building's heating requirements will be met by these two systems.

The site will be extensively landscaped with a pond and fountains forming a focal point as well as a means to remove excess heat from the air conditioning system.

Construction of the \$1.2 million project was commenced in September.

## Retirement Communities Envisioned



The "North Hill" project, by Engelbrecht and Griffin Architects, is a retirement community incorporating 375 dwelling units, common spaces and a sixty bed nursing facility. The plan cascades five levels over the symmetrically shaped, heavily wooded site in suburban Boston, and takes its form from juxtaposed "natural" and "urban" orders centered about a grand space carved into the slope.



Another retirement community by Engelbrecht and Griffin will occupy a hill in Southbury, Connecticut. This program envisions the construction of 200 flats, arranged in five relaxed clusters, and a commons with an attached 45 bed nursing wing.



# SOURCES

## Pre-Modern to Post-Modern

*The questions now raised by architects — innovation vs. tradition, esthetics vs. function are certain to be central to a period seeking to reintroduce architecture into popular culture.*

*photography — James Dwinell, AIA*

This issue began as a review, a visual record of Iowa architecture notable now-if not 50 years ago-as an example of remarkable ornamentation and of a style of detailing vanished among modernist aesthetics and modern economics. Just as easily, it could have been posed as a post-modern sourcebook; a collection of faces, of forms, of compositions presently reappearing in the planar, articulated building elevations of Michael Graves, Robert A. M. Stern, Charles Moore, and others of post-modern sensibilities.

Evident by this contradiction, two important architectural directions have emerged coincidentally as a reaction to modernist theories; one (Post-modernism) loosely reusing the forms so assiduously restored by the other (Historicism). Despite the contradiction, however, patterns emerge that suggest there is some conceptual unity amid the discontinuity of architectural approach, some order in the visual disorder.

The 1970's saw a popular and professional renewal of interest in restoration and renovation of existing building resources. Recording historical building images, collecting them materially as well as visually, grew also, car-

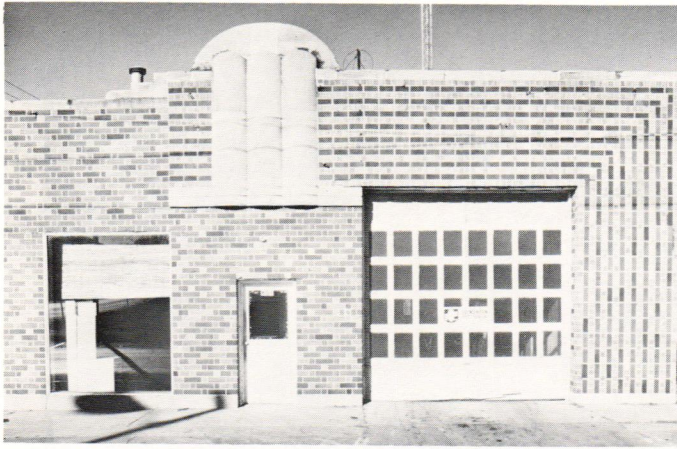
ried to various degrees but occasionally with an obsession for historical authenticity.

The 70's were similarly marked by a search for a "way of making architecture that would reflect a consensus between architects and the people experiencing it." An architecture that would embody the demands and desires of both. The public desires, of course, were manifested in part by a proliferation of antique shops and theme restaurants, by a consistent revival of fashion and furniture recovered by the past, and by consumption of almost any item that could employ nostalgia as a marketing strategy. Nostalgia marketed as a commodity was not necessarily true interest in the past. But it sold anyway.

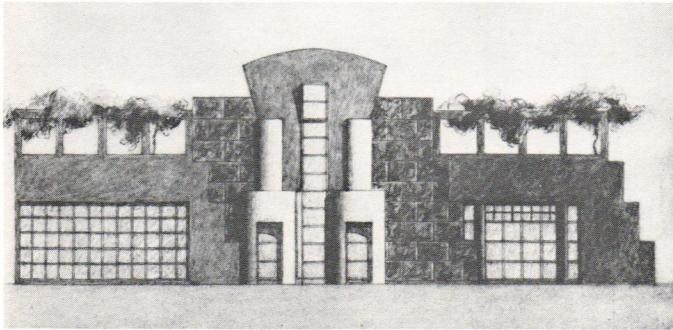
Suzanne Stephen's essay, "Beyond Modernism", (*Progressive Architecture*, December, 1979) recognized the predictability of this social obsession:

"The search into the past did not begin ten years ago. As a reaction to Modern Architecture's progressive clean-slate approach, the historicist impulse forms a motif that occurs and recurs throughout the last five decades. Paradoxically,

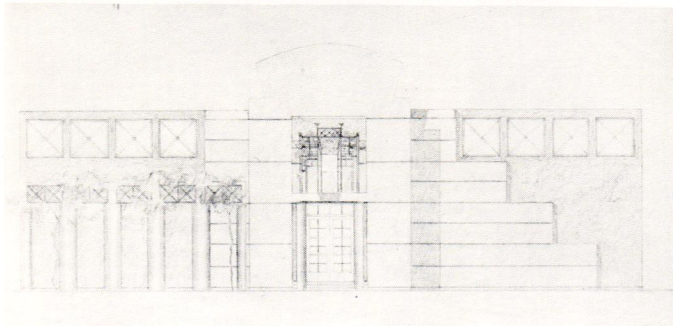




Taxi service garage, Boone, Iowa ca. 1935.

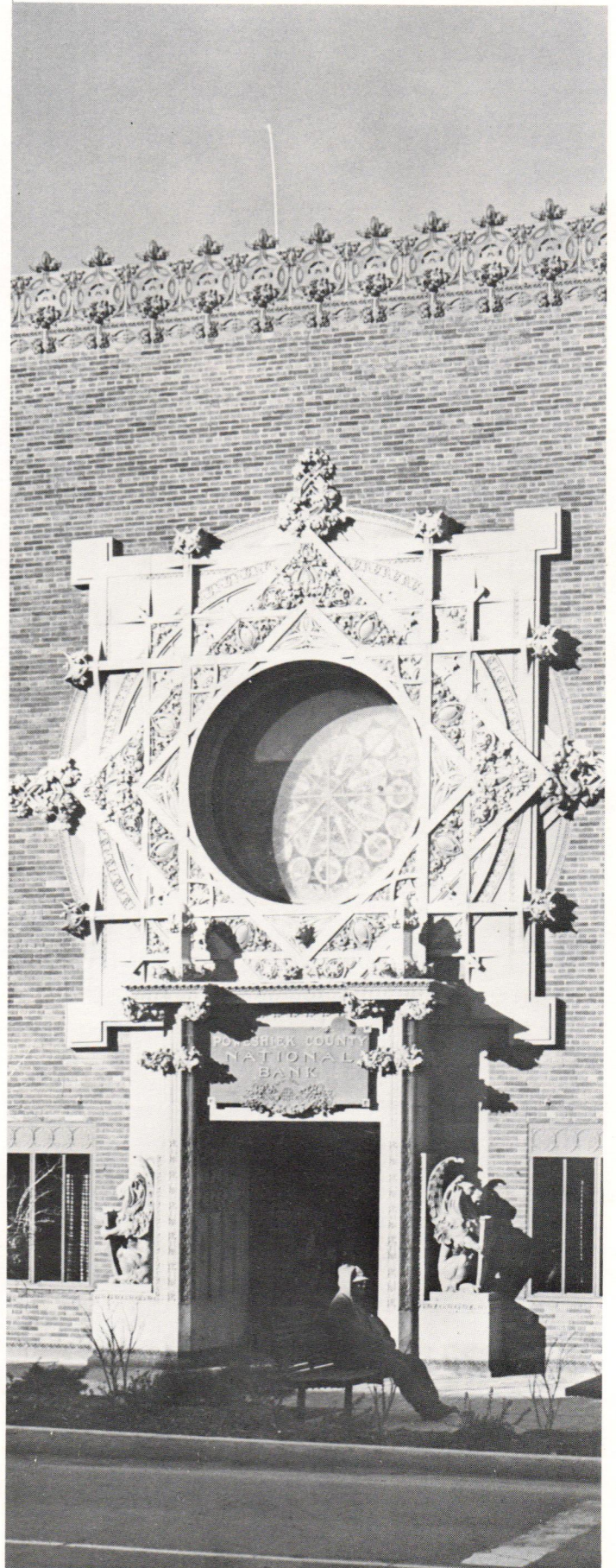


Kalko House, South Facade, Green Brook, N.J. 1979, Michael Graves, Architect.



Above, Kalko House, North Facade. Right, Merchants National Bank, Grinnell, Iowa, 1914. Louis Sullivan, Architect.

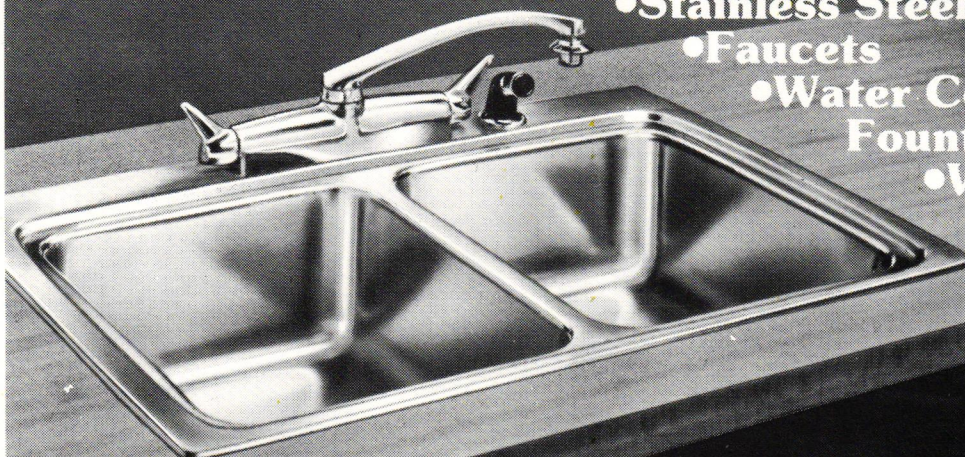
just at the moment when Modern Architecture came to prominence in this country as part of the post-World War II building boom, the historicist strains began surfacing more virulently than before—latently in the classicizing compositions of Mies van der Rohe at IIT, for example, and blatantly in the gothicizing tendencies of Minoru Yamasaki. These surface subversions, however, were to be accommodated in the 1950's within the modernist code as overlays on a gridded plan or column and beam frame, they were not seen as fractures in the "language" of Modern Architecture. "Robert Venturi's *Complexities and Contradictions in Architecture* (New York Museum of Modern Art, 1966) brought into relief this urge for recovery of past architectural modes. The book could be interpreted as a timely polemic against "Modern" architecture, serving as an important cynosure for the awakening historical consciousness."



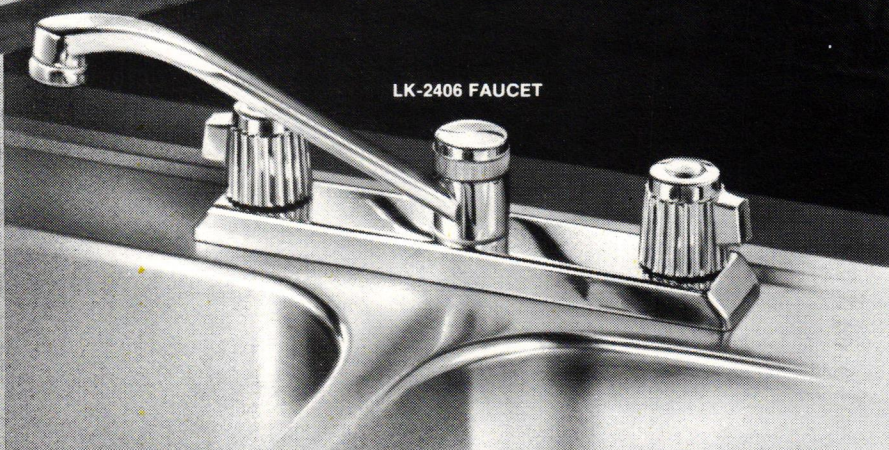


**ELKAY ...the name that means quality in**

- Stainless Steel Sinks
- Faucets
- Water Coolers and Fountains
- Waste Food Disposers



LR-3322 SINK shown  
with LK-2201 FAUCET



LK-2406 FAUCET



EWCA-SERIES  
WALL COMPACT WATER COOLER



The POWERFUL Ones  
WASTE FOOD DISPOSERS

*\*Represented In Iowa Exclusively By*



**associates, inc.**

MANUFACTURERS' REPRESENTATIVES

523 NORTHWESTERN • BOX 688 • 515/232-3338 • AMES, IOWA 50010

For more information circle no. 20 on the datacard.



# THE BEST OF BOTH WORLDS Grasscrete

Now making it possible to park and drive vehicles on a beautiful lawn

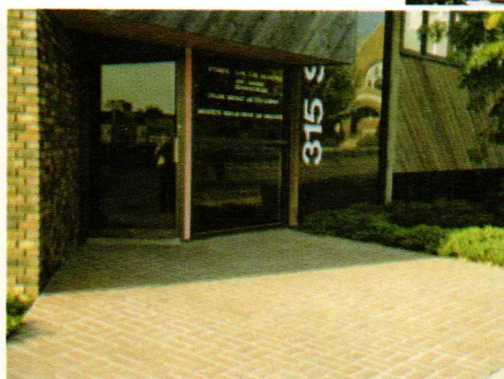


Medical Arts Building Parking Facility, Ames, Iowa

Grasscrete provides a load-bearing characteristic, durability and level surface of a slab, with holes in which grass is planted, maximizing land use and blending parking and landscaping into one. ...and Grasscrete doesn't cost all that much more than plain concrete when you consider all the advantages. In commercial and industrial use it is self draining, eliminating the run-off problem associated with conventional paving. That's why we call it "The Best of Both Worlds"



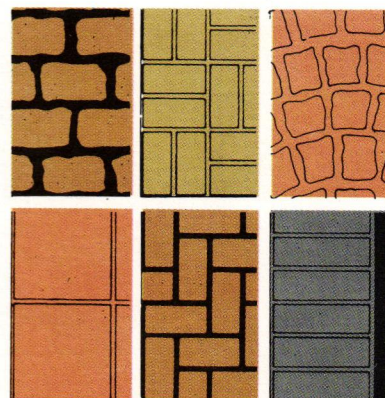
A patio installation in the Parview area at a residence in Ames, Iowa. Design is "Bomanite" Basketweave Brick in brick-red and antiqued with gray colors.



Offices of Rudi/Lee/Dreyer & Associates, Architects at 315 Sixth Street in Ames, Iowa. Design shown is "Bomanite" Basketweave Brick in brick-red color.

"THE BEST IMPRESSION YOU CAN MAKE ON CONCRETE!"

**Bomanite**



Examples of Bomanite Designs Available

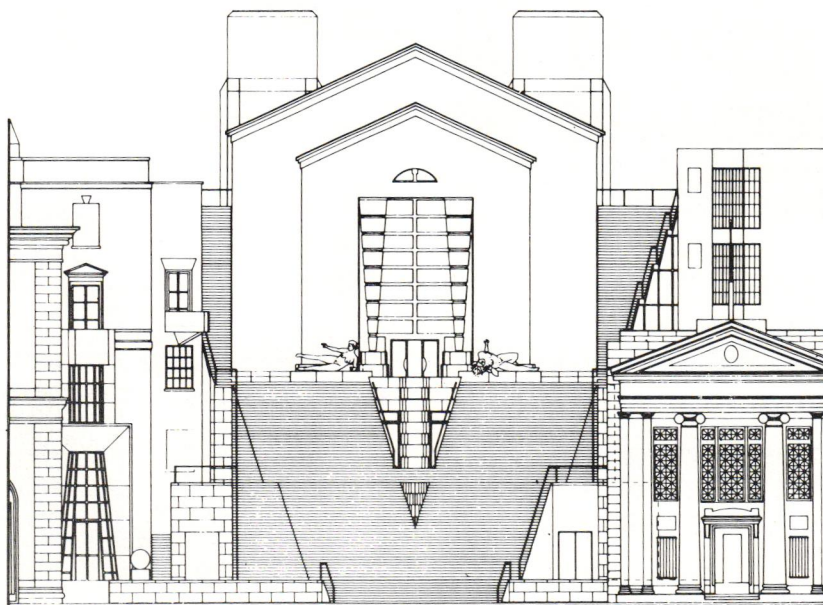
**STENBERG CONCRETE CONSTRUCTION INC.**

1907 POLK • AMES, IOWA 50010 • PH. 515/232-3889

Licensed Bomanite and Grasscrete Contractors in Iowa

For more information circle no. 19 on the datacard.

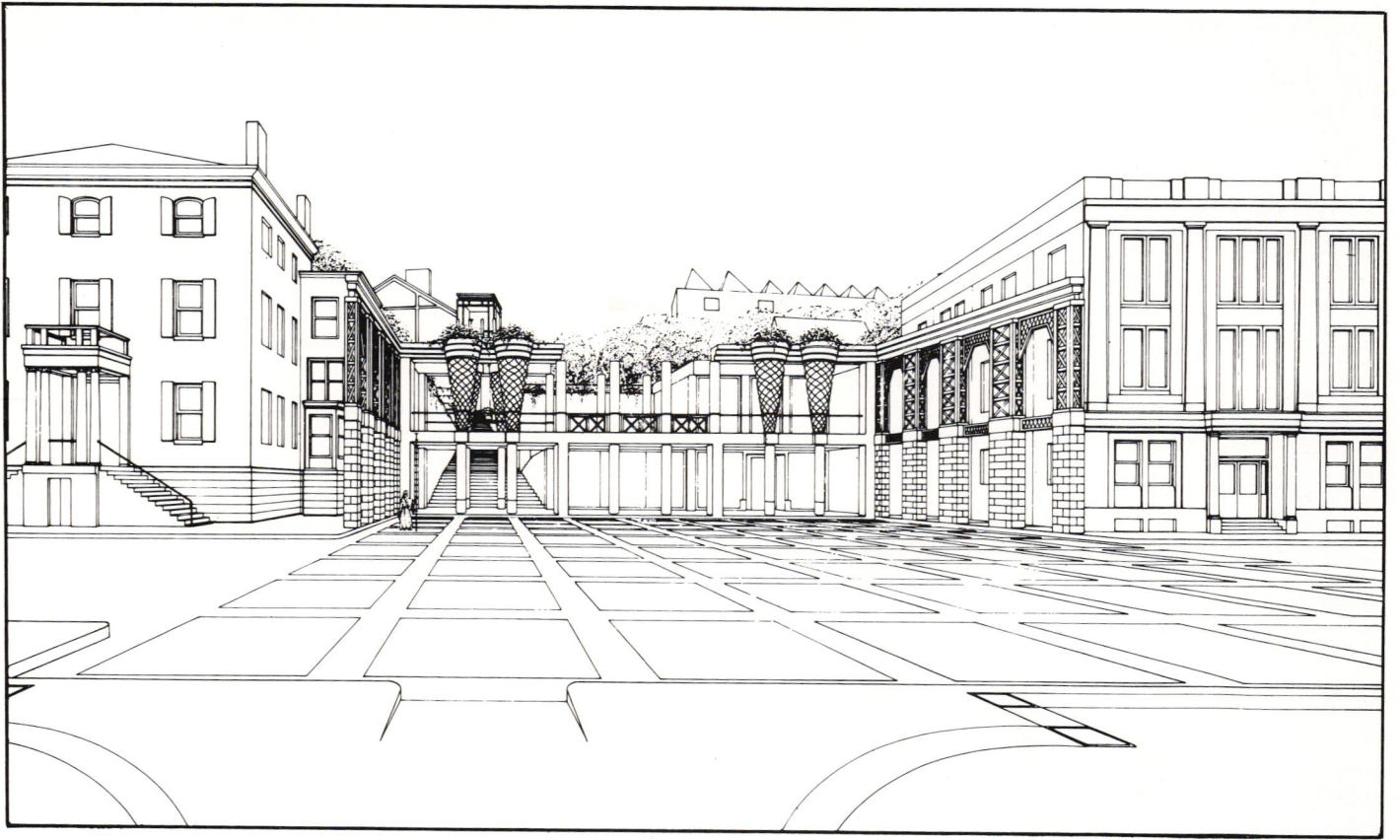




Top left, Corner Store, Creston, Iowa. Top right, Franklin County Courthouse, Hampton, Iowa 1890. Bottom, Facade. The Steps of Providence, Project for Rhode Island School of Design, Providence, R.I. 1979, Rodolfo Machado and Jorge Silvetti, Architects.

Opposite, Top, Frazier Terrace, The Steps of Providence. Bottom, Opera house and Hotel, Greenfield, Iowa.



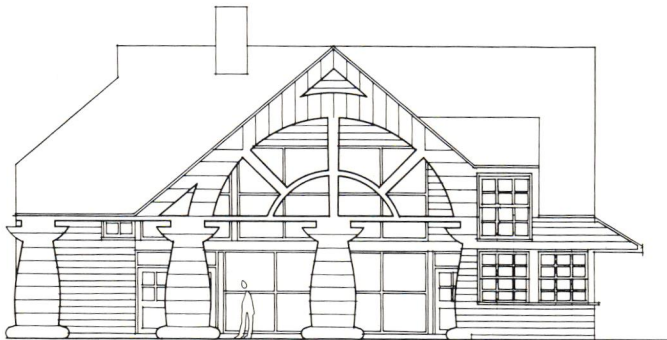




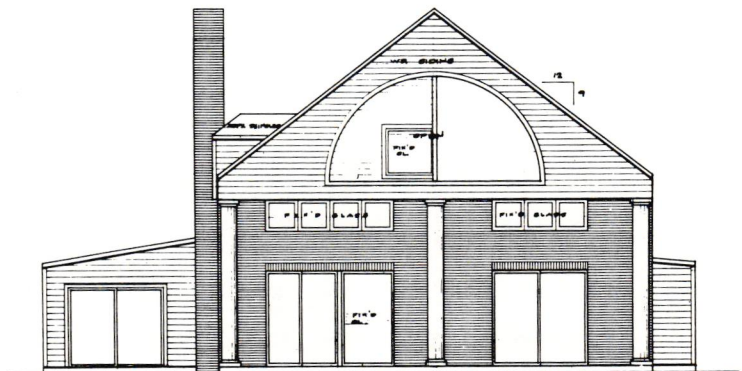
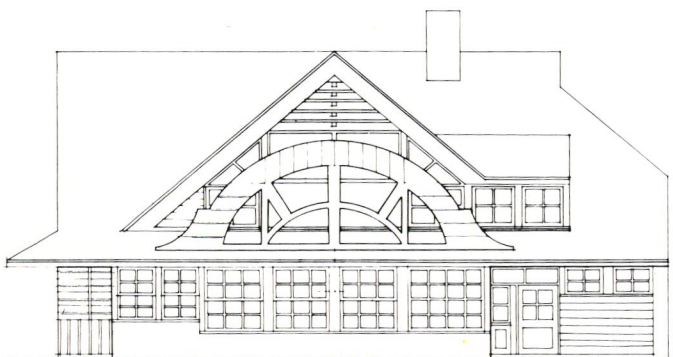


Concurrently, disillusionment with the modernist idiom had led to a scattering of design energies beyond historicism and nostalgic replication of vernacular forms. Influenced by the historicism ethic but unwilling to embrace it or more fully disaffected with the extreme manifestation of these concerns, a group of architects emerged intent to realign and re-introduce as fragments familiar, classical elements. Architect Robert A. M. Stern described the intent: "In its inclusiveness traditional Post-Modernism does not propose an independent style; it is a sensibility dependent on forms and strategies drawn from the Modernist and pre-Modernist work that preceded it; though it declares the obsolescence of both" (PA, December, 1979).

What resulted was a both/and approach to architectural construction and criticism rather than the more tidy (and more comfortable to many) either/or polemic. Left with few constraints, architects are forced to rely on a certain self-conscious discipline and an increasingly sophisticated explanatory language for their architecture.



Top, Worth County State Bank, Northwood, Iowa. Middle and Bottom left, Private Residence, New Castle County, Delaware, 1979, Venturi, Rauch and Scott Brown Architects. Bottom Right, 'Builders' house, Houston, Texas, 1977, Taft Architects.

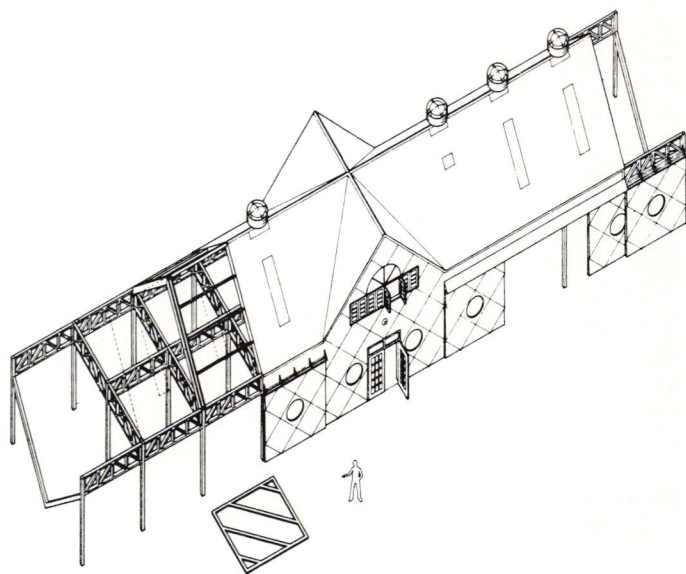
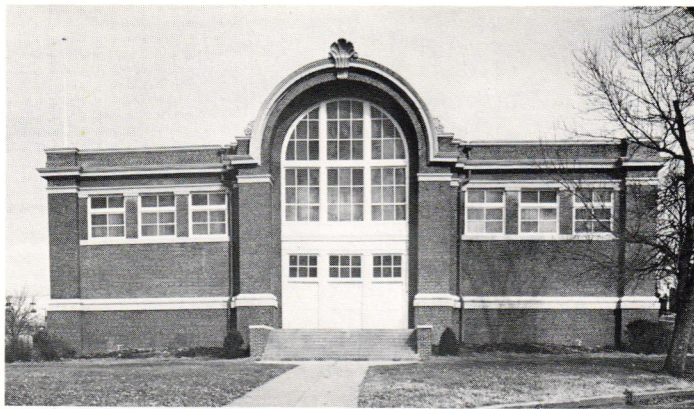




Architecture, of course, has always referenced elements from known styles, usually seeking to transform and absorb them into a larger framework. Blatant reproduction of elements for ironic effect, however, further relied on sophisticated wit and a good deal of restraint. As Stephens explains:

"The plucking of known elements from one context (from a past historical style) does not guarantee the metaphorical operation will work—that meaning will automatically emanate from the act. Too often fragments are installed indifferently in various contexts with no attention paid to local circumstance. Cut adrift, their meanings are further diluted." ("Beyond Modernism", *Progressive Architecture*, December, 1979).

So it is, architecture at a threshold; or two really, one promising a more equitable and positive assessment of the economic and social value of historical buildings; the other forwarding the proposition that since an essential aspect of people's interaction with buildings is the mean-



Top, Agriculture Hall, Iowa State Fairgrounds, Des Moines, Iowa ca. 1930. Middle, Peaceable Kingdom Barn, Artist workshop and living space, Houston, Texas, 1979, Taft Architects. Bottom, Keokuk National Bank, Keokuk, Iowa.

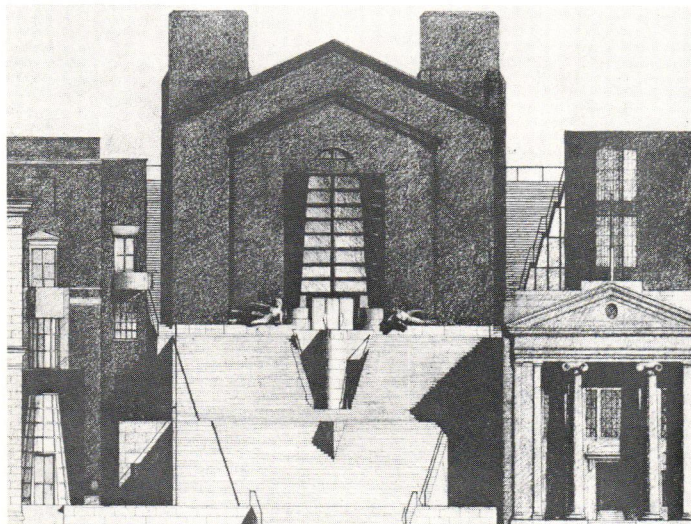
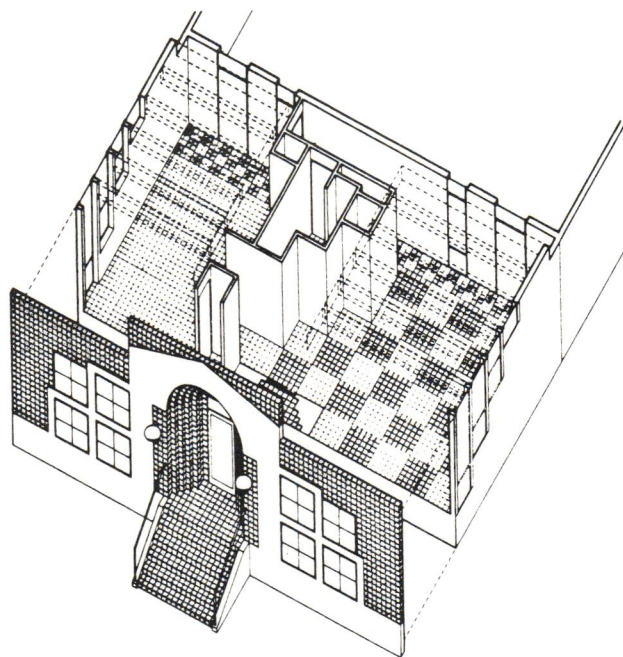






ing they associate with those buildings, good design should encompass a conscious manipulation of intended meanings. With historicism established as a unifying interest, architecture was pushed to both thresholds by a loss of faith in modernist principles.

We cannot know whether the classical style so routinely emulated by architects 50 years ago retained any clearer 'meaning' for its users than the purified forms of modern architecture have provided (or failed to provide) us. Nor do we really know that combined Post



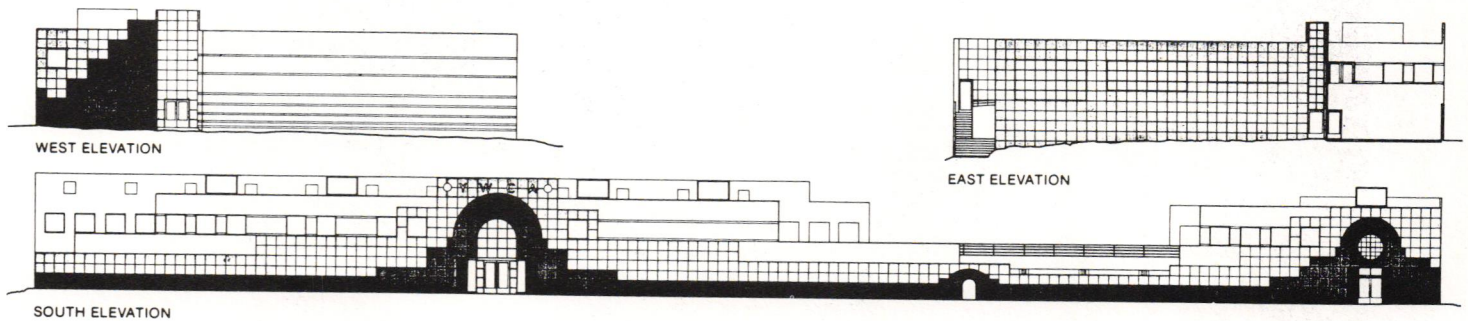
Top, State Capitol Dome, Des Moines, Iowa, 1890. Middle, Quail Valley Control Building, design for sewage treatment plant, Houston, Texas, 1980, Taft Architects. Bottom, The Steps of Providence, Project for Rhode Island School of Design, Providence, R.I. 1979, Rodolfo Machado and Jorge Silvetti, Architects.



Modern references to Palladio and Art Deco will not soon be perceived as a confusing, jumbled eyesore.

One must wait and wonder if, as borrowed images and rearranged historical elements proliferate and as restoration efforts broaden, too they will lose the ability to communicate and enthuse. In the meantime, we collect in these pages a few examples of architecture being created by some architects exploring these issues and some resources of Iowa's past to inspire the exploration. [Kirk V. Blunck]

Top, YWCA Downtown Branch & Metropolitan Office Building, Houston, Texas, 1979, Taft Architects. Bottom, Main Street Theatre, Independence, Iowa ca. 1930.



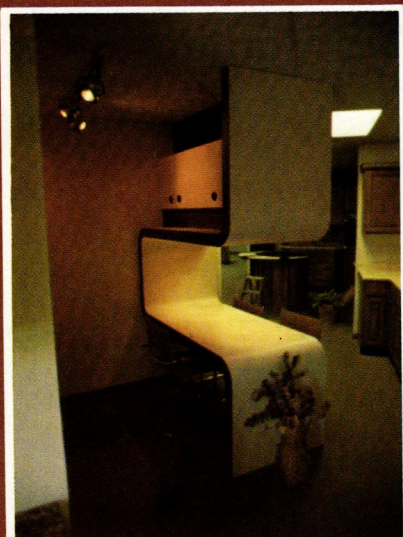




## S & E *Cabinet Originals*



Cherry wood kitchen designed for Clarence & Dorothy Sierens - Contractor: Bob Reinert, North English



Example of contemporary kitchen design.

Unique Environments  
Designed Especially For You

### S & E Custom Cabinets

107 2ND AVENUE P.O. BOX 5581  
CORALVILLE, IOWA 52241 • PH. 319/351-1487

SPECIALISTS IN CUSTOM CASE WORK: RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL WOOD PRODUCTS

*For more information circle no. 26 on the datacard.*



# Attention To Detail

By William J. and Rhonda Schnutte

*The detailing of a project can be a soft understatement of its visual delights. To achieve that clarity of image, it is worth the patience, the extra time, the occasional aggravations that are inextricably bound with a concern for detail*

Occasionally, situations arise where a certain type of architectural decoration is necessary to complete a design. The usual practice is to examine the product lines of various manufacturers by catalogue or to search for older used objects, hoping in some way to satisfy the current requirements. Manufactured items, however, were developed to appeal to as large a market as possible and much of the old accent pieces were also originally created for another project, looking "added on" in their new setting. Even the limited edition or 'custom' manufactured items are found repeatedly in many different projects. Another method of fulfilling this design need is to consult individual artists and craftsmen in the field of designing and creating custom architectural ornamentation. It is an old speciality that has not been eliminated, but one that has been overshadowed by readily available manufactured products. Excellent examples can be sighted where consultation with the client

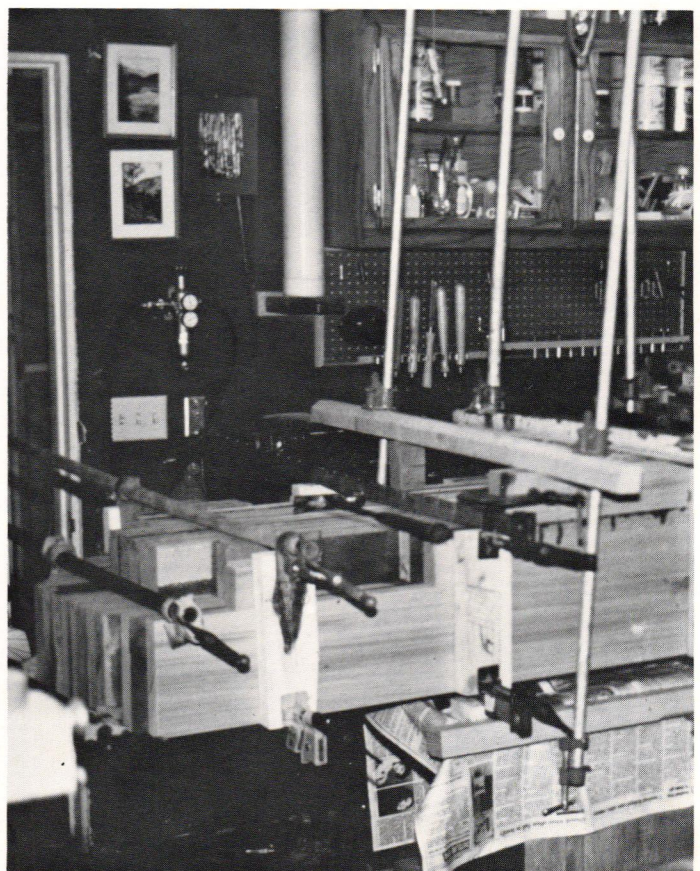
and artist resulted in a truly singular ornamentation that embodied client concept and expectations.

Signs are most often the first introduction to a commercial establishment or residential development. Indeed, this impression can be vital to the very existence of businesses. Signs must convey the information required and be understandable in relationship to the distance, type and speed of traffic they are intended to address. Equally important though, they should fit into their surroundings and be, as much as possible, a work of art in their own right. It is unfortunate that many city and county signage ordinances specifically disallow imaginative or innovative types of signs, and one is soon limited to those plastic and metal signs commercially available through large sign companies. Where architects and their clients persevere in order to achieve the image for which they are searching, excellent and innovative works result.

The developers of Westview Acres, a rustic wooded area near the Coralville Reservoir in Johnson County, wanted an identification for their residential project. While exploring the potential site for this sign it was pointed out that a covey of quail was usually seen in this location. The use of quail, the sun graphic, and the



1.



2.



# Call Hirshfield's Contract Dept.



**(612) 370-2626.** For the latest commercial and designer wallcoverings and fabrics. For creative, innovative wall and window treatments. For the complete line of Fuller-O'Brien paints. For consulting and personal attention and service concerning every last detail of your job. Hirshfield's . . . the Twin Cities' largest, most complete decorating products supplier . . . since 1894.



**Contract Sales Showroom: 824 Hennepin, Mpls. Hours: Mon-Fri, 8 AM-5 PM**  
**New Harmon Court Designer Showroom: 1128 Harmon Place, Mpls. Hours: M-F, 9 AM-5 PM.**

*For more information circle no. 30 on the datacard.*





3. Great Midwestern Ice Cream Company. 4' x 8' x 18" deep, stack lamination of nine layers of two inch redwood.

rounded corners of the sign suggesting the gentle hills of the area and local vegetation were combined to create this fully hand carved sign. (figure 1) Waterproof glue was used to edge glue as well as stack laminate portions of the design in redwood. The added lamination tends to highlight and add greater depth to the bird.

A further example of this stack lamination to achieve design goal is represented by the Great Midwestern Ice Cream Company sign located in downtown Iowa City. (figure 3) The owners wanted a sign that would represent their product, both identifying the actual store location and capable of use as a product identification recognizable in stores and on mobile selling units at public fairs and gatherings throughout the state. It was decided that the sign would have the overall aspect of a medallion and should complement a newly renovated brick and cedar store front. The illustration (figure 2) of the glue up procedure for this sign shows some of the nine layers of two inch redwood laminated to achieve the depth required to give this sign its dynamic impression. Because signs perpendicular to building fronts are not permitted in Iowa City, a depth of 18 inches was needed to aid in store identification when viewed down the street, while satisfying the definition of fascia signs.

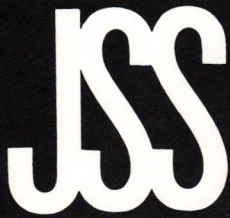
A further layer of identification is presented by entryways and, doors, acting as an interface between indoors and outdoors. Residential doors are probably more difficult to design because a close collaboration between the owner and artist is required. The owner may



4. Red Tailed Hawk and Oak Branch Door, cedar.



# Architectural Signage



Johnson Specialty Sales  
P.O. Box 2691  
Des Moines, Iowa 50315  
Phone [515] 285-2483

**Distributors of exterior and interior signage systems of all types and sizes**

*For more information circle no. 8 on the datacard.*

## **bear facts - essential to your next project**

your dependable source for

- structural steel ■ steel joist and girder systems
- metal roof deck ■ laminated wood ■ metal sidewalls
- retractable partitions ■ wood fiber roof deck ■ skylights
- waterproofing systems ■ lockers and wardrobes
- replacement windows ■ louvers and vents ■ single ply roofing



**david bear inc.**  
construction components  
515/262-8251 • 319/365-7133  
IN IOWA 800/362-2786

*For more information circle no. 9 on the datacard.*

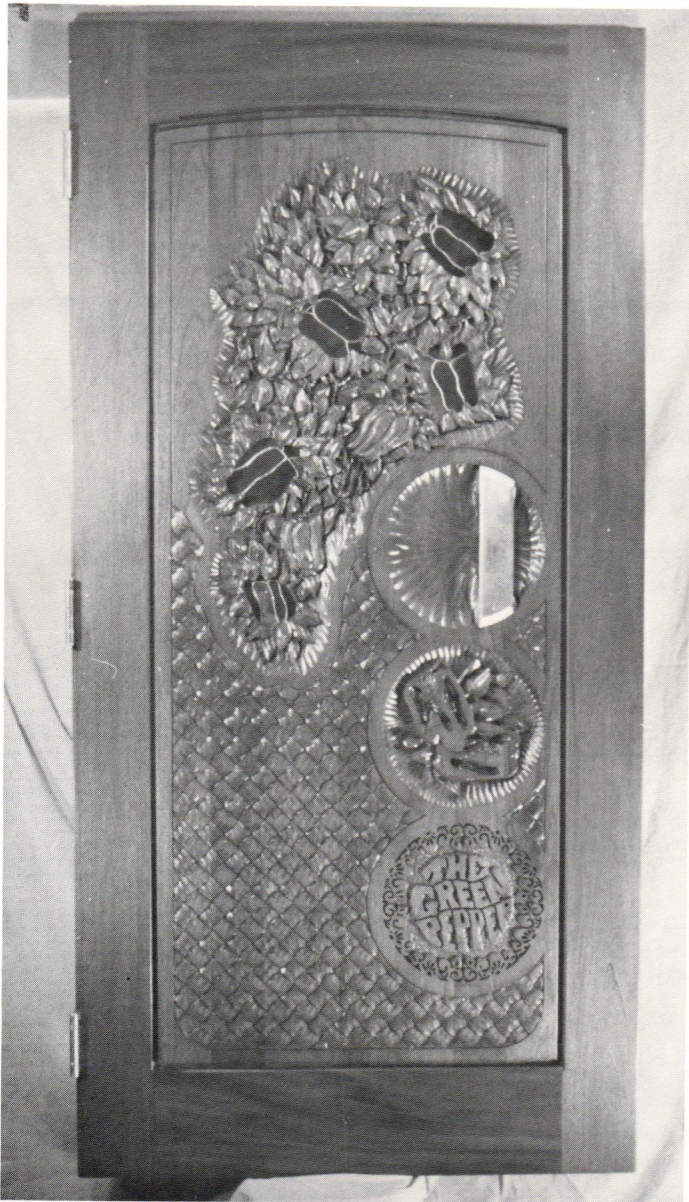


never have given thought as to what they would like the outside world to know about them nor considered their entryway as an introduction to the interior of their homes as well as themselves.

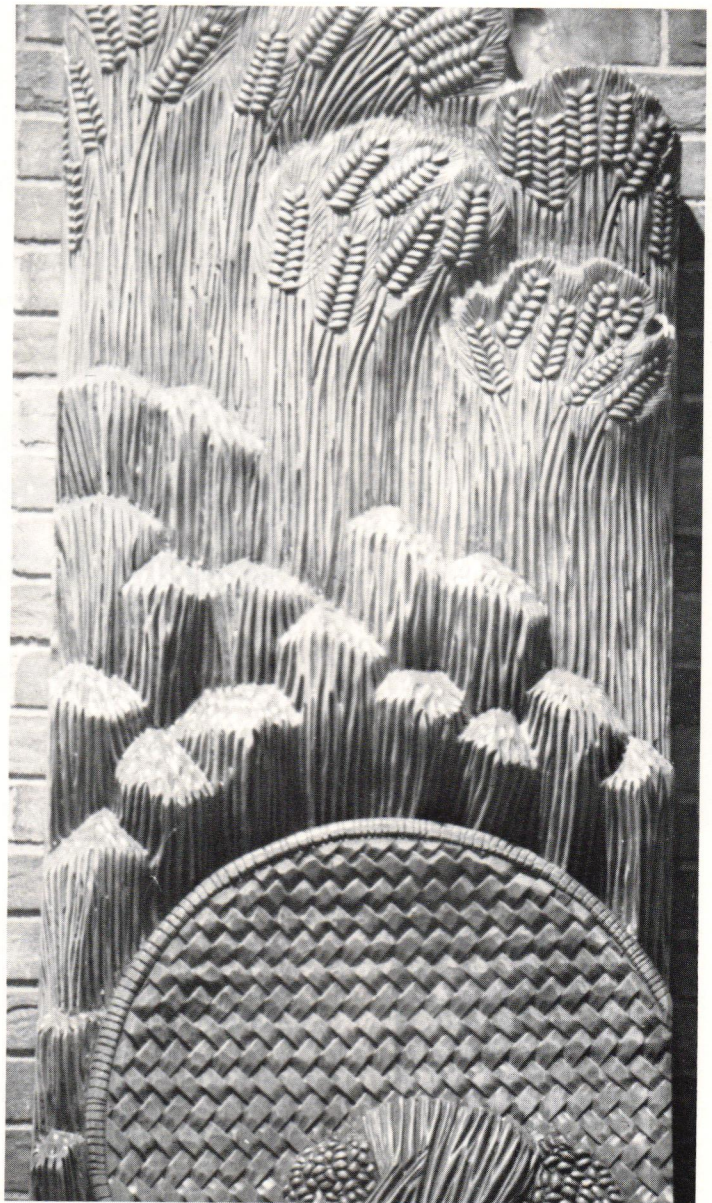
A heavily wooded and carefully landscaped area, as well as the interest of the owner in the University of Iowa athletic program, suggested the use of the red tailed hawk and oak branches for a residential home in Des Moines, Iowa. The cedar for this door was selected in Vancouver, British Columbia, for color, clarity and thickness and was glued up into a door panel with some areas exceeding six inches thick. Cedar was chosen to match exterior siding on the house and this cedar panel

was laminated to an architectural grade oak door to match the oak trim inside. This door is well protected from the weather and special lighting was installed to highlight the carving. (figure 4)

Commercial doors and entryways are defined more by the overall theme that a business attempts to convey. The Green Pepper door combines several aspects that seem pertinent to this type of business. (figure 5). The use of green pepper and its foliage, the brass, the stained glass, mahogany, and basket weave all convey a sense of naturalism and sets the stage for what one expects to find inside. In fact, you do find on the interior an extensive use of plants, old stained glass and more hand



5. Commercial Door, mahogany, stain glass, and brass, 84" x 36" x 1½" deep.



6. Detail, Wheat Panel, First Presbyterian Church, Bettendorf, Iowa.



# WOOD-MODE<sup>®</sup>

**America's best-selling  
custom-built cabinetry**

**introduces...**

## alpha

Innovative design, traditional craftsmanship. Wood-Mode's new Alpha is a beautiful, subtly European expression of contemporary style. And it embodies the very qualities that keep Wood-Mode *number one* in custom-built cabinetry.

It's innovative...with a special concealed hinge never before seen in America. Yet, it's traditional...with genuine separate-board, tongue-and-groove door construction.

Visit our showroom so that we can show you how Alpha's modern beauty and old-fashioned quality can be integrated into virtually any decor.

Including yours.

*For Information on Local Dealers in Midwest Contact  
Representative's Office*

**Swanco Enterprises, Inc.**

BOX 1030 • MARSHALLTOWN, IOWA • 50158

PHONE 515/752-1072

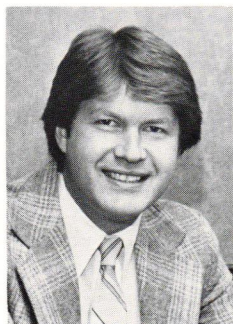
*For more information circle no. 25 on the datacard.*



**515/265-9801**

*Iowa's Most Complete Commercial Carpet Line*

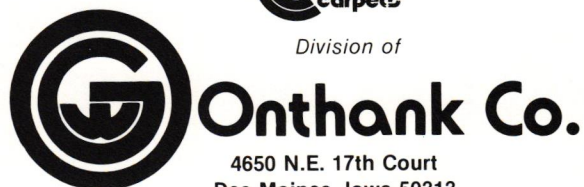
BACKED UP BY PROFESSIONAL CARPET MEN  
TO ASSIST YOU IN YOUR CARPET NEEDS



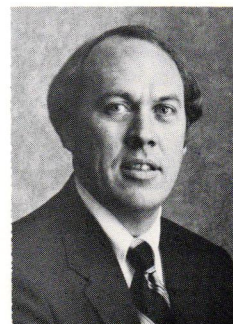
Sam Douds



*Division of*



4650 N.E. 17th Court  
Des Moines, Iowa 50313



Larry Mithelman

*For more information, circle no. 11 on your Datacard.*



carved items used as directional signs and various menu graphics. (figure 9)

Church ornamentation has a long history of utilizing craftsmen and artists to depict earthly and visible images. It has also attempted to reach the spiritual, and probably no design work is more difficult. The multiplicity of an appointed committee of the congregation to decide how this ornamentation should look and what it should depict may be a difficult collaboration, but it is a collaboration that can work; illustrated by two panels designed and carved for the First Presbyterian Church of Bettendorf, Iowa. (figure 7,8) Required was some representation of the Communion with bread and wine. It

was designed to begin at the base with a graphic interpretation of earth, forming a backdrop for the speaker standing in the pulpit. From this, the precursor elements of the bread and wine emerge, supported in the design by elements (the trellis work and winnowing basket) which indicate the hand of man in the organization of the church.

A graphic representation of the hand was also used in the design of the baptistry of the St. John's Lutheran Church in La Grange, Ill. Craftsmen of the Weber Stone Company, Stone City, Iowa, shaped to order an Anamosa limestone disk, chipping the edge to expose numerous crystalline pockets, cutting the bowl into the top and



7. Wheat Panel, linden, 36" x 90" x 6" deep.



8. Grape Panel, linden, 36" x 90" x 6" deep.





9. Salad Bar Carving, redwood and stains.

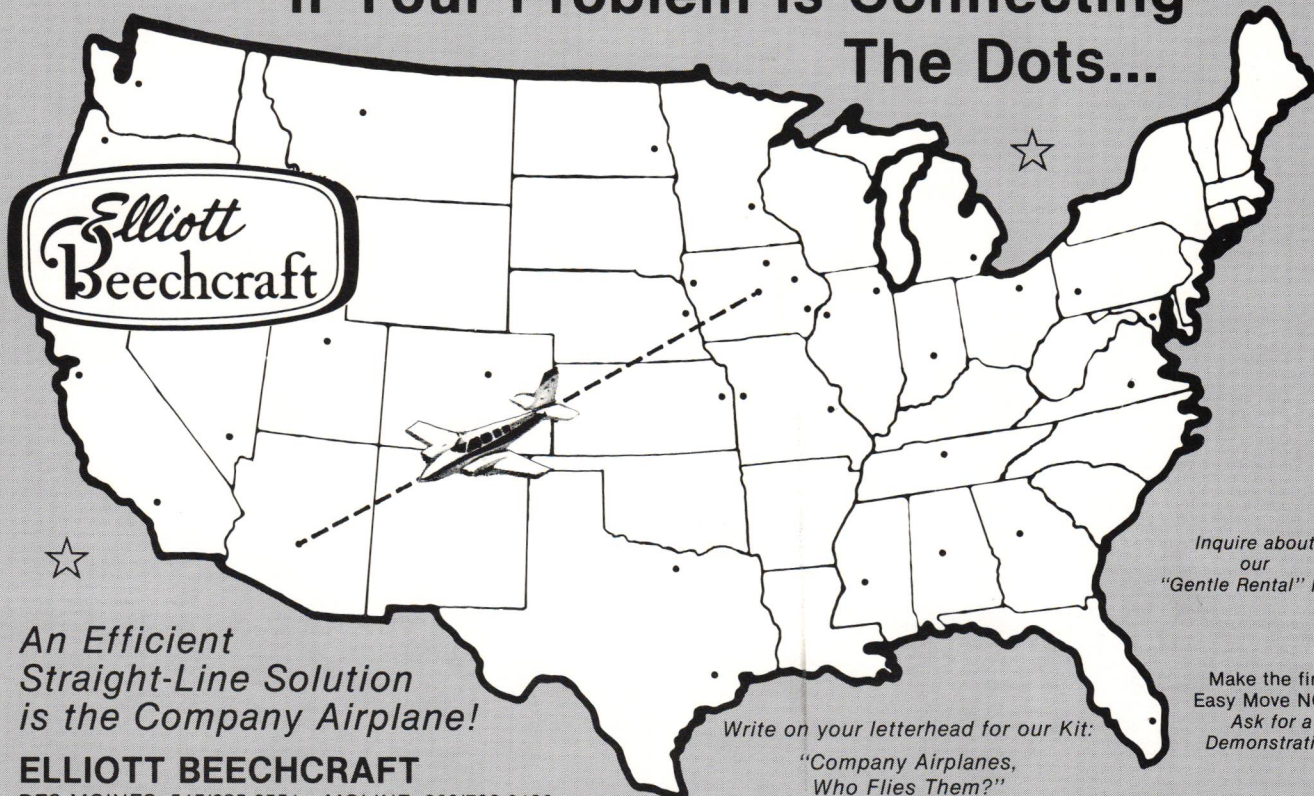
polishing the top surface which was then inletted into the large sculptured redwood form. Brick and redwood panels complete the base. In both cases, woods, stains and materials were used to match and complement existing features to make a personal statement by the congregation that could not or would not be duplicated anywhere else.

When a project requires individualized details, selection from catalog sources universally available are clear-

ly not the only recourse. A few of these examples are unique not because their exclusivity has been maintained by premium pricing or because their differences are a result of idiosyncrasies in mass production techniques, but because the collaboration between artist, architect and client created a truly singular product satisfying more than functional requirements alone.

Material was furnished by the Oak Leaves Studio.

## If Your Problem Is Connecting The Dots...



*An Efficient  
Straight-Line Solution  
is the Company Airplane!*

**ELLIOTT BEECHCRAFT**

DES MOINES: 515/285-6551 MOLINE: 309/799-3183  
MINNEAPOLIS: 612/944-1200

Write on your letterhead for our Kit:

*"Company Airplanes,  
Who Flies Them?"*

**ELLIOTT BEECHCRAFT**

Dept. DFH-1A • Box 100 • Moline Ill. 61265

*Inquire about  
our  
"Gentle Rental" Plan*

*Make the first  
Easy Move NOW.  
Ask for a  
Demonstration*





## SCHEDULE

### Thursday, October 1, 1981

All Day	Registration
9:00 - 3:00	Set up of exhibits
1:00 - 4:00	Theme seminar, Daylight in Architecture
4:00 - 7:00	Grand opening - exhibits - special 1981 feature guest night for architects and related design professionals
7:00 -	Iowa Chapter host party - exhibitor's tickets included with registration

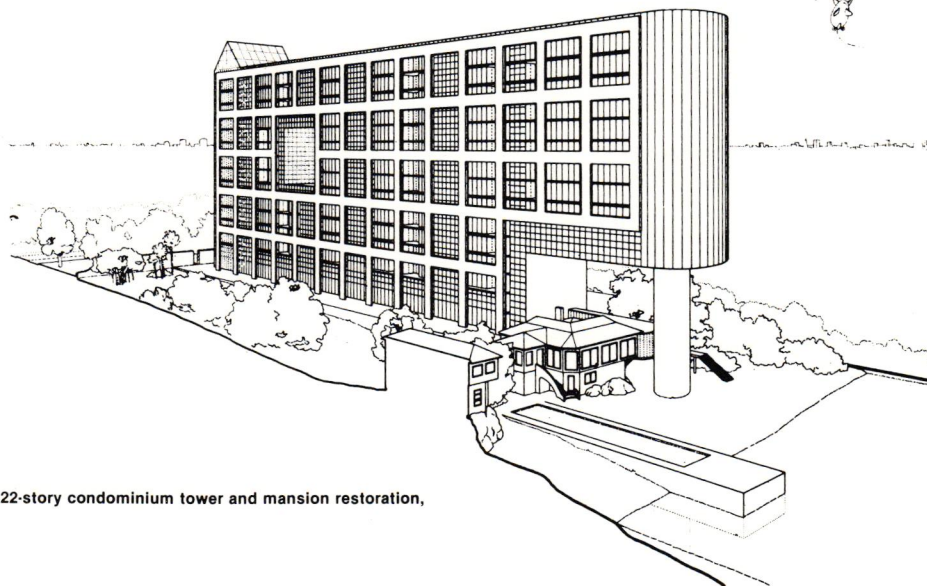
### Friday, October 2, 1981

All Day	Registration
8:30 - 7:00	Exhibit time
9:00 - 11:00	Convention program
11:00 - 12:00	Exhibit time
12:00 - 1:30	Lunch in exhibit area/exhibit time - exhibitor's tickets included with registration
1:30 - 2:30	Convention program
2:30 - 3:00	Exhibit time
3:00 - 4:30	Convention program
4:30 - 7:00	Exhibit time
7:30 -	Banquet/awards - exhibitors' tickets included with registration

### Saturday, October 3, 1981

8:00 - 11:00	Booth dismantling
9:00 - 11:00	Iowa Chapter business session





The Atlantis, Miami, Florida 22-story condominium tower and mansion restoration, Arquitectonica, 1980.

## jurors, 1981

**Bernard Jacob, FAIA** is a practicing Minnesota architect and architectural critic. He is president of Team 70 Architects, Inc., an interdisciplinary design firm located in Minneapolis. In addition to his practice Mr. Jacob is former editor of *Architecture Minnesota* and this spring was named architectural critic for the Minneapolis Tribune. Mr. Jacob is a graduate of Cooper Union in New York and the University of Minnesota. In 1980 he was awarded the Jerome Foundation Scholarship in the field of architectural criticism. This past May Mr. Jacob was elected to the College of Fellows of the American Institute of Architects.

Mr. Jacob was founding chairman of the Heritage Preservation Commission of Saint Paul. He was also a member of the Saint Paul Planning Board and more recently served as a member of the Urban Quality Committee of the Minneapolis Chamber of Commerce. This fall he will be lecturing at the Minneapolis College of Art and Design on the Evolution of Modern Architecture.

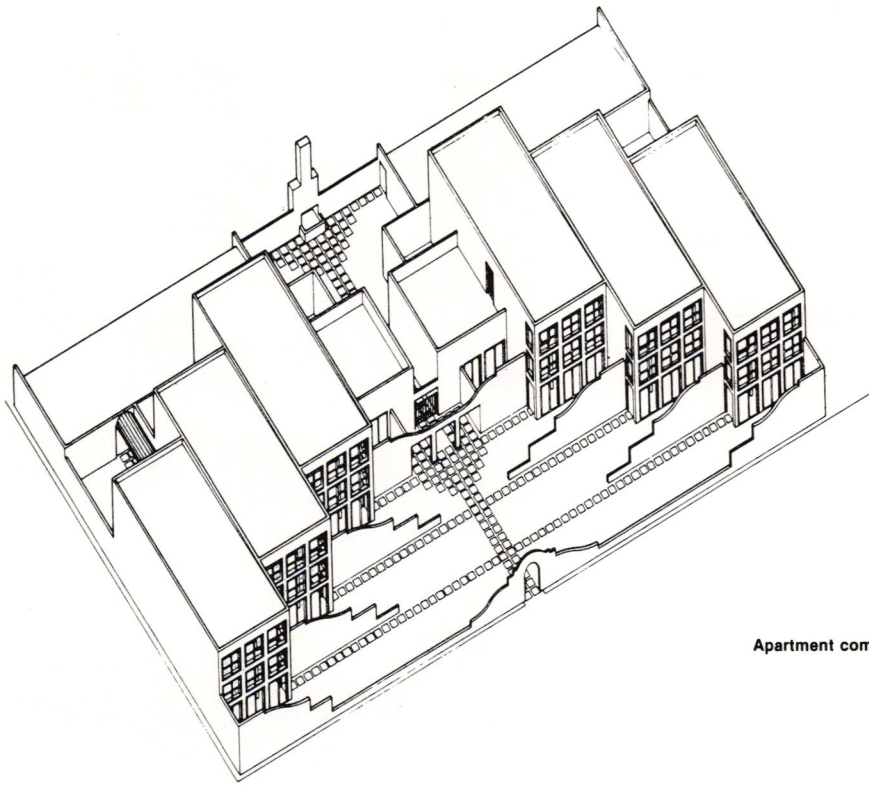
**Arquitectonica**, a firm based in Coral Gables, Fla., is headed by the husband-and-wife team of Laurinda Spear (born in Minnesota in 1950) and Bernardo Fort-Brescia

(born in Peru in 1951). Since its founding in 1977, Arquitectonica has enjoyed a rapid rise to critical attention. Their Spear house in Miami (designed for Laurinda Spear's parents) is an exceptionally fine work in a modified modernist mode, and its widespread publication in 1979 made it virtually the house of the year. Strikingly conceived and handsomely executed, it pays homage to "Miami Beach Moderne," a sub-genre typified by a pronounced populist and regional emphasis.

Arquitectonica's impressive series of condominium towers now under construction in Florida are among the most interesting high-rise structures to be designed in this country in recent years. The architect's artful recombination of strong, modernist-influenced elements has a suprisingly playful air that makes the massive geometry seem rather like stacked children's building blocks. The finished buildings will reveal whether Arquitectonica has been able to make the difficult transition from small-scale houses to large-scale public buildings.

**Taft Architects** is a small office with a proven record





Grove Court Townhouses  
Apartment complex, Houston, Texas, Taft Architects, 1980.

## seminar lecturer

of design excellence and professionalism. Projects the office has undertaken over the years have been diverse, both in scale and type.

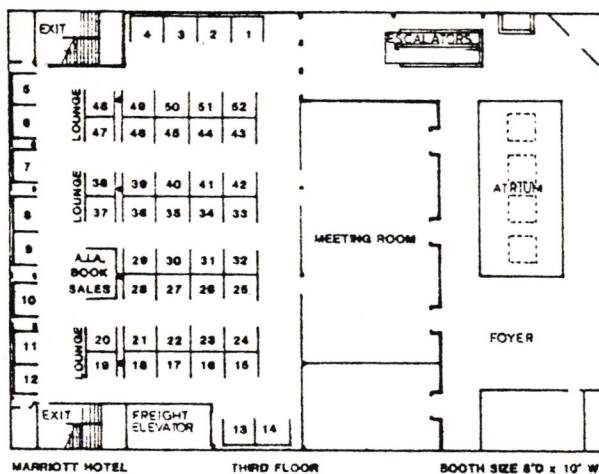
John J. Casbarian, Danny Samuels and Robert H. Timme are the members of the Houston office. Opposed to every kind of reductionist method or functionalist determinism, their declared approach is pragmatic and progressive, free from all aesthetic prejudice and inspired by the reality of the environment.

Taft Architects are anxious to point out the method they adopt: "Design *partis* are synthesized and explored for their formal logic and structure. These investigations are conducted apart from any requirements of functional determinism. The formal structures of the solutions and the relationship of elements within those structures are then evaluated in terms of their responsiveness to context and programme. What often occurs is an interaction of formal systems which evolve first into a hybrid *parti*, and then into an elaborated design."

**Benjamin H. Evans, AIA** is the author of the book just published by Mc Graw Hill entitled *Daylight in Architecture*, and heads Daylighting/Energy Design Associates, consulting firm which has been employed by over 100 architectural/engineering firms in the United States. He is also a professor at the College of Architecture at Virginia Technical University. Formerly, he was Director of Research and Education for AIA and spent six years with the National Academy of Sciences doing building research.

With minimal use of technical jargon and scientific theory and no use of complicated daylight calculation formulas, but with abundant use of visuals, Benjamin Evans will explain the architectural design potential of daylight. He will discuss the creative and functional use of daylight to achieve aesthetically pleasing designs, produce quality visual conditions, and realize significant energy savings. Copies of his book will be available at the AIA Bookstore.

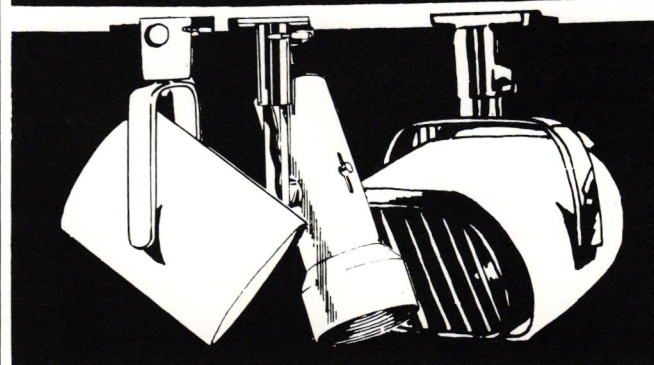
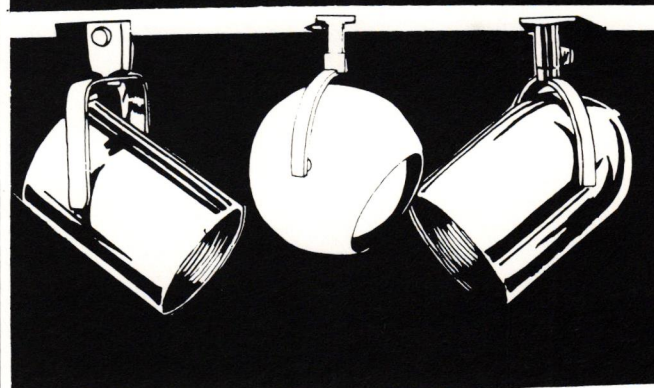
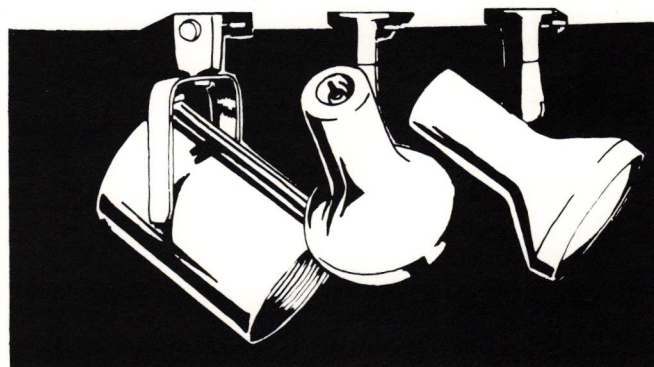




### Exhibitors for 1981 Iowa Chapter AIA Convention

Exhibitor	Booth Number
Allied Construction Services, Inc.	5,6,7 and 8
Andersen Windowwalls	29
Barcol Overdoor Company, Inc.	14
David Bear, Inc.	49
Beckley and Associates	39
BMS Carpet Company	22 and 23
Can-Tex Industries	31
Central Iowa Plastics, Inc.	30
Commercial Construction Products Co.	18 and 19
Continental Elevator Co., Inc.	13
Elliott Flying Service, Inc.	45
Forman Ford Company of Iowa	1
The Gerkin Company	28
Hamele Recreation Co., Inc.	10
Haworth, Inc.	38
Fred G. Anderson, Inc.	12
Hi-Co Distributors, Inc.	15 and 24
Iowa Architectural, Inc.	33 and 42
Fred T. Lowy Distributors	36
M and M Sales Company	34
Marquart Concrete Block/Demco, Inc.	3
Masonry Institute of Iowa	2
McKee Enterprises	11
Montgomery Elevator Company	50
NDS Company	4
Onthank Co.	21
Frank Paxton Lumber Co.	17
Pella Co.	46
O'Keefe Elevator Company	20
Quick Copy Center	37
Pigott, Inc.	41
Storey-Kenworthy Company	9
Swanco Enterprises, Inc.	32
Swanson Gentleman, Inc.	43 and 52
The Timmerman Company	16
United Brick & Tile Co. of Iowa	51
Valley View Specialties	40
Velux-America, Inc.	25
Western Waterproofing Co., Inc.	44
Zephyr Aluminum Products, Inc.	27 and 48

## Lytespan® Track Lighting Systems



## LIGHTOLIER

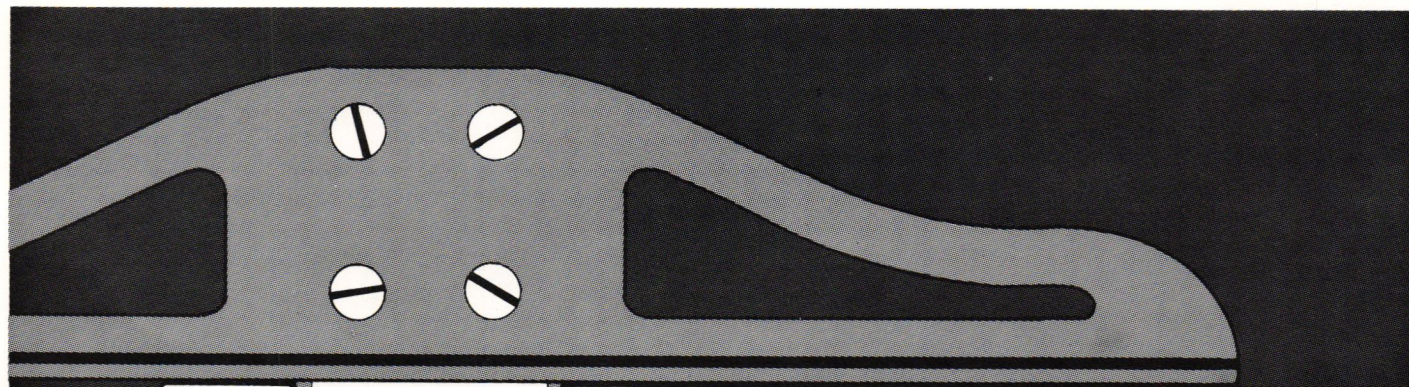
**LIGHTOLIER** is most specified  
**LIGHTOLIER** has excellent Architectural Service  
**LIGHTOLIER** produces quality lighting  
**LIGHTOLIER** develops innovative designs  
 Architectural Record Survey

THE *Lighting*  
 CENTER  
 of  
 Iowa

**E. Mullan and Sycamore** Downtown Waterloo  
 (319-235-9377) P.O. Box 930  
 South of U.S. Highway 20 on U.S. Highway 63 50704

For more information circle no. 36 on the datacard.





# Make energy efficiency part of your plans.

You can make a long-term contribution to sensible energy management.

Your foresighted use of energy-efficient, innovative designs and systems will result in permanent and substantial cost savings throughout the life of the structures you plan. And leadership in the private sector helps counter the movement toward increased government regulation of systems and structural design.

**Together, we can  
continue working for an  
energy future we can  
all live with.**



*For more information circle no. 2 on the datacard.*



PROTECTION FOR THE



80's...AND BEYOND

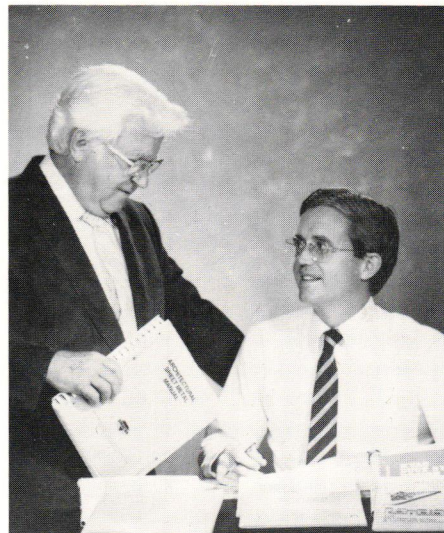
## SEALANTS SALES DIVISION

1/319-322-5213 • 210 So. Gaines St. • Box 3673 • Davenport, Ia. 52808

For more information circle no. 28 on the datacard.

## Contracting For Creativity

Combine the technical knowledge we provide with your creativity, for greater client satisfaction. The accumulated knowledge of 2,800 experienced contractors will help you solve your sheet metal problem.



Julian Serrill Field Representative discussing Architect/Engineering Aids with Dennis Hogan Executive Vice President., SMCI.



THE ASSOCIATION OF

## SHEET METAL CONTRACTORS OF IOWA

201 WEST WINDS 1454 30TH STREET • WEST DES MOINES, IA 50265 • 515/223-6568

For more information circle no. 12 on the datacard.



# Practice Challenges And Opportunities

by S. Scott Ferebee, Jr., FAIA

As we enter the decade of the 1980s, the scenario for the practice of architecture has never been more uncertain. On the positive side, the 1980s will provide a period of sustained and healthy growth. Current political trends toward reduced taxation and creation of incentives for investment in plant and equipment will result in higher productivity and more jobs. The majority of the population will be in their most productive years, creating a greater demand for housing, recreation and leisure facilities, goods and services.

There is evidence that today's young adults have a better understanding of what constitutes good design and are more concerned for the appearance of the world in which they live than did many of their parents. Consequently, we can expect public support for architectural excellence and a growing demand for the built environment to blend harmoniously with that of nature.

In spite of the reassurance of experts that a shift from the use of fossil fuel to renewable sources of energy will solve our shortages in this area in the 21st century, there is no doubt that the energy crisis will be the number one problem facing the world in the 1980s and early 90s. Although this will create many problems for individuals and the nation alike, it offers tremendous opportunities for architects. Retrofitting of environmental systems, renovating and recycling of existing buildings, and the design of rapid transit facilities and new plants to produce energy conserving materials and controls will be a growing market for the enterprising design professional.

The architectural profession is on the verge of breaking into the technological age. Computer aided drafting, reprographics, word processing, and computerized financial management will be the norm in medium to large size firms by 1990. An abundance of well educated, aggressive, young graduates, trained to use these tools, will force a breakaway from traditional methods of design and drafting. As the use of standard details and word processing improve the quality of documents and reduce the time required to produce them, we can expect to see more time spent in design and management and less in drawing.

On the negative side, there appears to be no end in sight to inflation. Indexing of labor contracts, Social Security, and government retirement to the cost of living will guarantee a continuation of the inflationary spiral. Higher interest rates and increasing cost of labor and materials will make new construction less feasible and will encourage the recycling and renovation of our existing building stock.

Competition will be an overriding ingredient of architectural practice in the 1980s. It will come from both outside and inside the profession. The professional design firm's share of the market will continue to decline in the face of increased pressure from construction management and design/build organizations. Within the profession, the approach to marketing will undergo dramatic change. The success of the Justice Department in breaking down professional codes of ethics regarding competition on the basis of fees, advertising, supplanting and other rules that are seen (by those having little understanding or appreciation of the nature of professional service) as self-serving, will lead to a more aggressive and sales oriented approach to marketing design services. Firms that are unable to operate efficiently and economically will face difficult times, as the inclusion of fee proposals with qualifications submittals becomes more prevalent.

Clients will continue to become more sophisticated and knowledgeable. Although government will continue

**"Low wages created by an over supply of architectural personnel, will be followed by union infiltration of professional firms."**

to be a major market for design services, the current public demand for reduced taxation and a belief that business should be given a major responsibility in revitalization of the economy will mean that corporations and developers will also be major client sources. Owner interest in single point responsibility will continue. As neighborhood organizations and public interest groups force planning agencies to carefully evaluate the impact of new development on communities, entrepreneurs will recognize and appreciate the value of the architect as a member of the development team. A natural outgrowth will be more and more involvement in development by architects. This, in turn, will create conflicts of interest as the architect endeavors to represent the interests of both the client and the public.

## Human Resources

Interest among young people in the environment and the creation of new schools of architecture to meet the design demands of the 1960s and 1970s will result in continued overproduction of architectural graduates through much of the 1980s. In contrast, more experienced personnel, particularly at the project manager level, will be difficult to find. The interest of women in architecture will lead to 50 percent or more of the



graduates from architectural schools being female by 1990. The perception by minorities that architecture does not offer the same opportunities as other professions in terms of economic success and community recognition will continue to restrict the entrance of these groups into the profession, making it more difficult to meet government demands for affirmative action programs.

Low wages created by an over supply of architectural personnel, the perception that women will work for lower wages than men, and a wide differential in salary scales between architects, engineers and planners with equivalent education and experience, will contribute to employee unrest. A trend toward collective bargaining may result, followed by union infiltration of professional firms. Motivation and challenge of the young graduate to the goals and objective of the firm will be essential ingredients of a good professional development program.

- Should AIA become an advocate for better working conditions, pay and benefits for the employed architects and young graduate? If so, is this role more appropriate for the Institute or its components?

### **Support Services**

The cost of the increased use of computer aided drafting, word processing, and financial management will impact heavily on small and medium size firms in the years ahead, and may contribute to their demise. Client prepared contracts will include more stringent requirements pertaining to professional liability and quality of services, making good legal advice essential. Good standard documents and liability insurance programs will be equally important.

- Should AIA expand the role of PSAE to provide computer service centers for its member firms in regional locations across the country? If so, could these service centers be better operated by component offices which are located closer to the user?

### **Specialization**

As architectural practice becomes more complicated and sophisticated, firms are developing a need for professional and/or non-professional personnel with specialized knowledge and interest in particular fields. These individuals tend to develop a common interest and soon form professional organizations or trade associations of their own. The first, of course, was the Construction Specifications Institute. This was followed by the creation of the Society for Marketing Professional Services and the Professional Management Association.

This trend has been carried further in the engineering profession through the creation of organizations of professional firms such as the American Consulting Council and Automated Procedures for Engineering Consultants.

- Does the creation of splinter groups serving the design professions lessen the effectiveness and need for AIA programs and services?

### **Continuing Education**

As the profession develops more and more need for management, marketing and computer expertise, the successful practitioner will be forced to expand his knowledge and understanding in these areas. Concurrently, the pressure to require recertification of professional licenses can be expected to grow and recertification may be a requirement in most states by 1990. The need for continuing education programs in which professionals can gain additional knowledge and recertification credits is already recognized by the AIA and will be an increasing concern in the decade ahead.

- What should be the role of the AIA in continuing education? Should the conduct of advanced training and refresher programs be by AIA staff specialists? If AIA is to play such a role, what should be the involvement and responsibilities of local components?

### **Public Policy**

The American Institute of Architects has been the most successful of the professional societies in creating an image of placing welfare above the self-serving interest of its members. Our National Policy for Urban Growth, our National Housing Policy, and our stand on the west front of the Capitol, the Metric System, building energy performance standards and environmental legislation are a few of the issues on which AIA's public position has advocated policies that could adversely impact on the design practice of its member firms.

- Have threats to the profession from outside competition reached the point that AIA's public policy effort should be shifted more toward preservation and protection of the profession?

The challenge of the 1980s will be one of professional survival in the face of heavy competition and a need for highly efficient management, marketing, design and production methods. The firms who can meet this challenge will find it to be an exciting and profitable period. Those that fail to adapt will find it difficult and frustrating. AIA has a mandate to assist and support its members in meeting the challenge.



# Let **Wascomat** Help Design Your Next Laundry Room

**INSTITUTIONAL LAUNDRY  
EQUIPMENT FOR THE WORLD**

Wascomat Washer-Extractors  
Have Set The Standard of Excellence  
For Over 50 Years

## **R.J. KOOL, CO.**

BOX 2515 4299 MT. VERNON ROAD S.E.  
CEDAR RAPIDS, IA. 52406 • 319/364-1592  
*For more information circle no. 29 on the datacard.*



# Silicone Construction Sealants

- Outstanding glazing, caulking, weatherproofing & automotive sealants
- No mixing, ready to use
- Long life reliability
- Easy gunning at all temperatures
- Meet Federal specifications  
TT-S-001543A (COM-NBS) & TT-S-00230C (COM-NBS)



## **STETSON BUILDING PRODUCTS**

**Rock Island, Illinois**  
619 11th Street • Phone 800/447-1240

**Des Moines, Iowa**  
610 S. W. 9th • Phone 800/362-2181

Authorized Distributor

**GENERAL  ELECTRIC**  
Silicone Construction Sealants



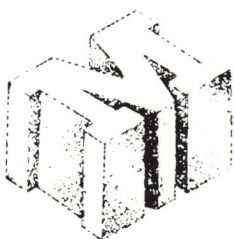
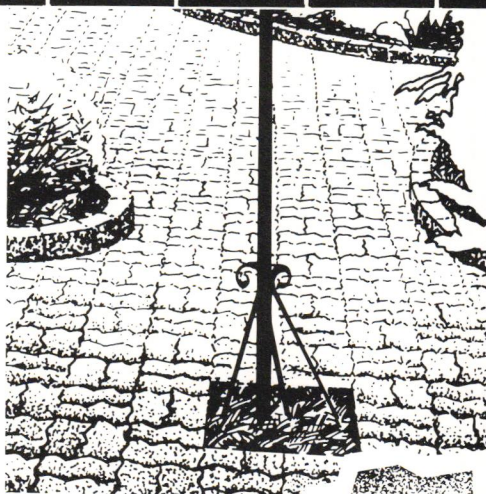
## PAVING STONE. As Attractive As It Is Strong.

Whoever said paving surfaces had to be dull. Not Marquart. Right now Marquart has Paving Stone on display. It is an attractive paving surface available in design patterns and a variety of colors.

Tested and tried in the European market for thirty years, yet Paving Stone is the new paving surface in our area that's as strong as it is attractive.

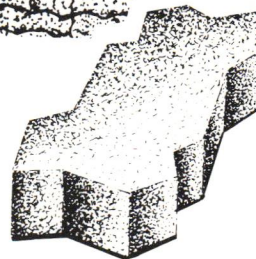
Use long-lasting Paving Stone for driveways, parking lots, patios, pool decks, and sidewalks.

Paving Stone. Another great building block from Marquart Concrete Block Company.



**MARQUART**  
CONCRETE BLOCK COMPANY

110 Dunham Place, P.O. Box 990  
Waterloo, Iowa 50704 (319) 233-8421



*For more information circle no. 16 on the datacard.*


## Caterpillar Standby Power **The Ready Reserve**

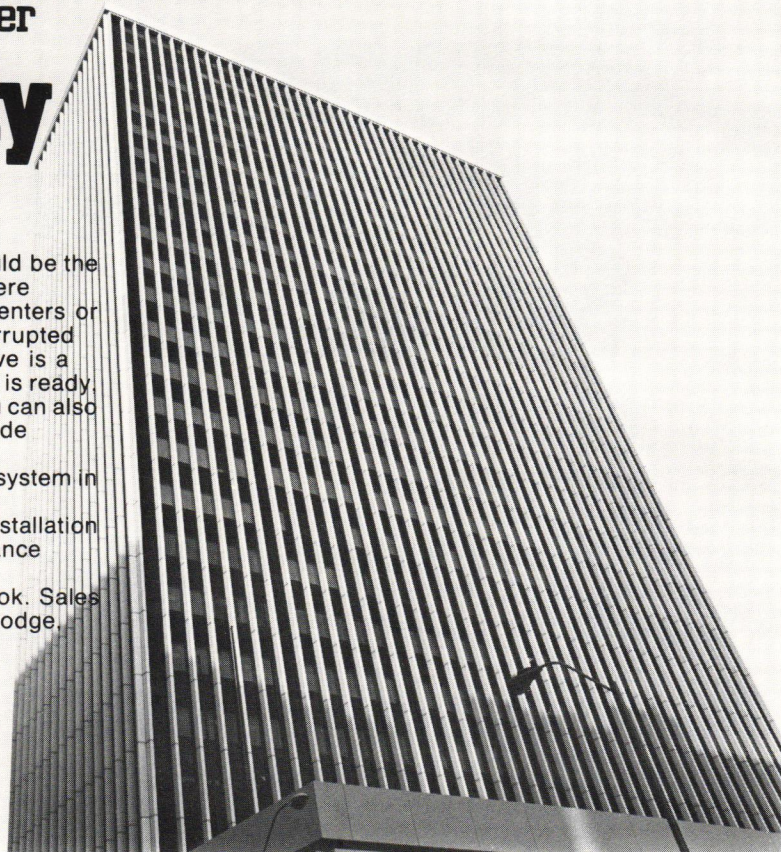
A Caterpillar Standby Power system could be the only thing standing between you and severe economic loss. For hospitals, computer centers or any operation that depends on an uninterrupted supply of electricity, a ready power reserve is a must. And your Cat Standby Power system is ready, willing and able when you need it most. You can also plug it in to meet peak demands or provide economical supplementary power.

Cat Standby Power has its own back-up system in the form of Total Product Support from Gibbs/Cook. We handle the design and installation of your system and provide any maintenance needed to keep it in top condition.

The Ready Reserve . . . from Gibbs/Cook. Sales and service facilities in Des Moines, Ft. Dodge, Mason City and Postville.

**YOUR CATERPILLAR DEALER**  
**GIBBS/COOK**  
...for more than the expected

104th and Hickman Road, Des Moines, 50322 Phone (515) 270-2800  
Caterpillar, Cat and  are Trademarks of Caterpillar Tractor Co.



*For more information circle no. 17 on the datacard.*



# Designing Cities For CHILDREN

By Anthony J. Filipovitch

Associate Professor, Urban and Regional Studies Institute, Mankato State University

*Dr. Filipovitch has been on the faculty at Mankato State for the past three years. He has also taught at the University of Tulsa and Allegheny Community College. His B.A. from the University of Michigan is in Psychology, his M.A. from Duquesne University is in Phenomenological Psychology, and his Ph.D. from Portland State University is in Urban Studies. In addition to his teaching and research on children in the city and on neighborhoods, he has been a consultant for both public and private planning concerns.*

"It is too often forgotten in our brash, practical, modern world that twilight, shadow, and beauty are as important to a growing child as food and air."

Marjorie Allen, *Planning for Play*

How many times have you driven by a neighborhood park, complete with swings, slides, and teeter-totters, yet curiously lacking in children to use them?

And then, not more than a block away, you had to slow down to give the children time to clear the street from the game of street hockey or curb ball that they were playing. Why don't the little blighters play where they belong?

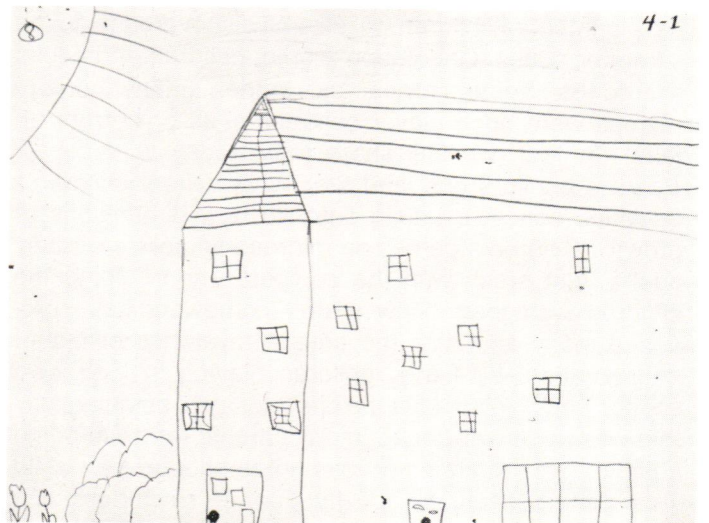
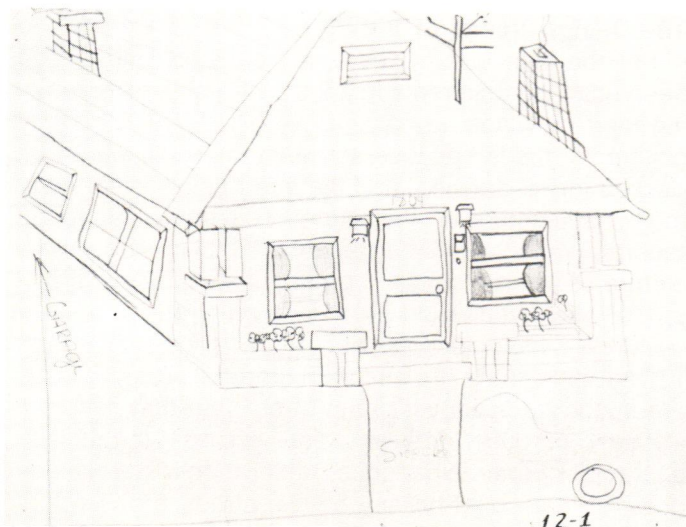
This is only one example of the misfit between the designs we build and the needs of the children who use them. Children are injured or killed in traffic; the motorist didn't see the child (but the child probably didn't see the motorist, either). Children living in apartments can't use their "sidewalk toys" outdoors because no one thought to provide each apartment with a secure place outside for storing toys. Children are considered a nuisance when they congregate around the entrance of a variety store — a store that sells toys and other items that are

attractive to children, and even puts candy at the checkout counter near the door! The list could go on indefinitely.

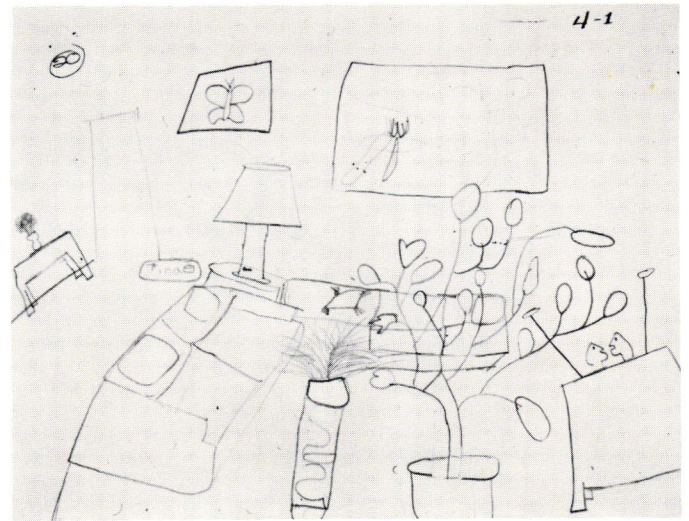
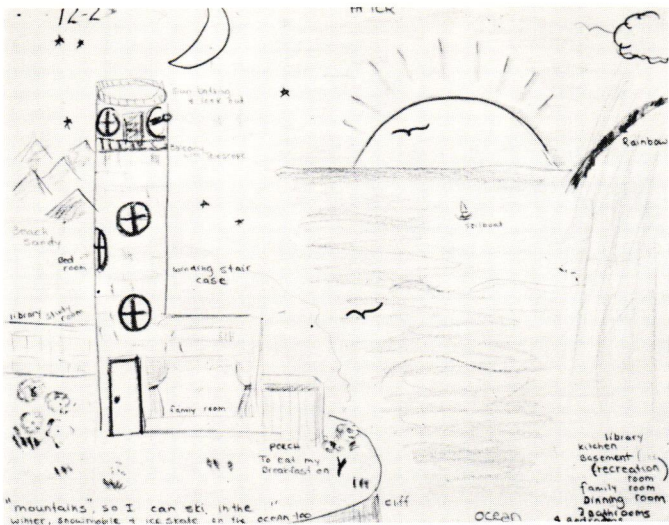
## The Importance of Designing For Children

Of course, such failures of design are inconvenient, both for adults and for children. But the importance of fitting the design of cities to children goes beyond simple convenience. Good design for children is essential both for the present livability and the future development of our urban society.

At the least, taking the needs of children into account in the design of cities would reduce conflict between children and adults, resulting in greater ease and comfort for all involved. Those who are responsible for the care of children would not have to worry about the safety of their children. Nor would they have to spend as much time and effort supervising the play of children, secure in the knowledge that the children's activities are being absorbed into the life of the city and the activity of the adults, rather than competing with the adults for time and space. The children, on their part, would be free to give full vent to their exuberance and inquisitiveness, without fear of reprisal from some crabby adult who thinks keeping a fancy lawn is more important than a good game of tag (or something). The other adults would have the option of observing (or even sharing with) the children at their activities, or pursuing their own activities (perhaps with children observing, or even sharing).







But good design should go beyond the reduction of conflict to actively foster the growth and development of children. Children are more sensitive to the immediate physical environment than are most adults. Adults are more mobile and can remove themselves, if only temporarily, from an unsatisfactory environment. Along with those whose mobility is limited by a physical handicap or an illness, children are the client group most needing of superior design, both in buildings and in the cityscape.

The problem with this requirement is that, as a client group, children are not homogeneous. Much more radically than adults, children change their skills, interests, and needs as they grow older. Since the changes occur so much more rapidly, they must usually be met by the same environment. Design for children must be flexible enough to offer the child increasingly higher levels of challenge as she/he matures. This can be achieved by structuring an environment that is at once simple, so it lies within the domain of the young child, and yet reveals layers of complexity as the child grows enough to recognize it, or by creating an environment that is unstructured yet invites the child to draw his or her own structure out of it.

Curiously enough, an environment that facilitates the development of children will also be discovered to do the same for adults. Once upon a time, children and adults shared the same games and stories (many nursery rhymes were once clever commentaries or current affairs). In fact, we still share them today in baseball, *Peanuts* comic strips, and *Star Wars*. Often, children's activities can give adults entry to new dimensions of growth: children's games on microcomputers are many adults' first brush with the computer, and helping the children with their "new math" homework has introduced many adults to the arcane mysteries of higher mathematics. Similarly, children playing in their own spaces can give an adult the opportunity to some activity that was once well-honed: many parents return to riding a bicycle (or swimming or running) to encourage a child who is interested in the activity. Further, since designing

for children takes into account their limited mobility, it also benefits many adults. Clearly, it will benefit those whose mobility is permanently limited. But it will also benefit the much larger proportion of the adult population who experience temporary restrictions on their mobility: parents (particularly mothers) tied down by the mobility of the children they are caring for, people with broken legs (or worse, broken cars), and the elderly (which, eventually, means most of us).

Finally, designing cities and buildings for children as well as adults should help recall us to our humanity. In *Modern Times*, Charlie Chaplin demonstrated how modern cities grind down men's souls. In our quest for greater efficiency and a higher standard of living, we can forget our humanity — we can forget the purpose that all the efficiency is supposed to serve. If children are integrated into our adult world (not, as was once supposed, as "little adults" but as people who are different in needs and abilities but similar in interests), they would recall us to that purpose — if not by their mere presence, then by their questions. This last benefit, while perhaps more ephemeral than the other three, is in the long run the most important of the four.

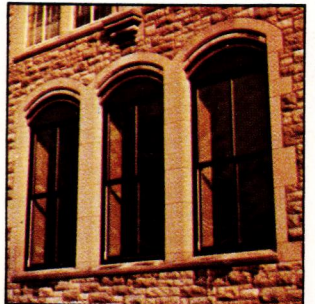
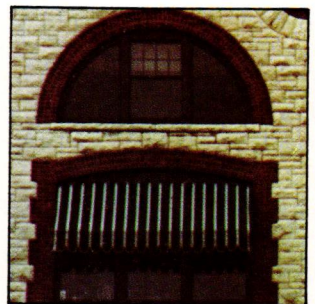
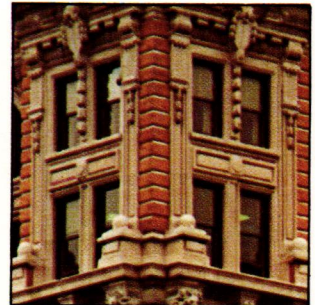
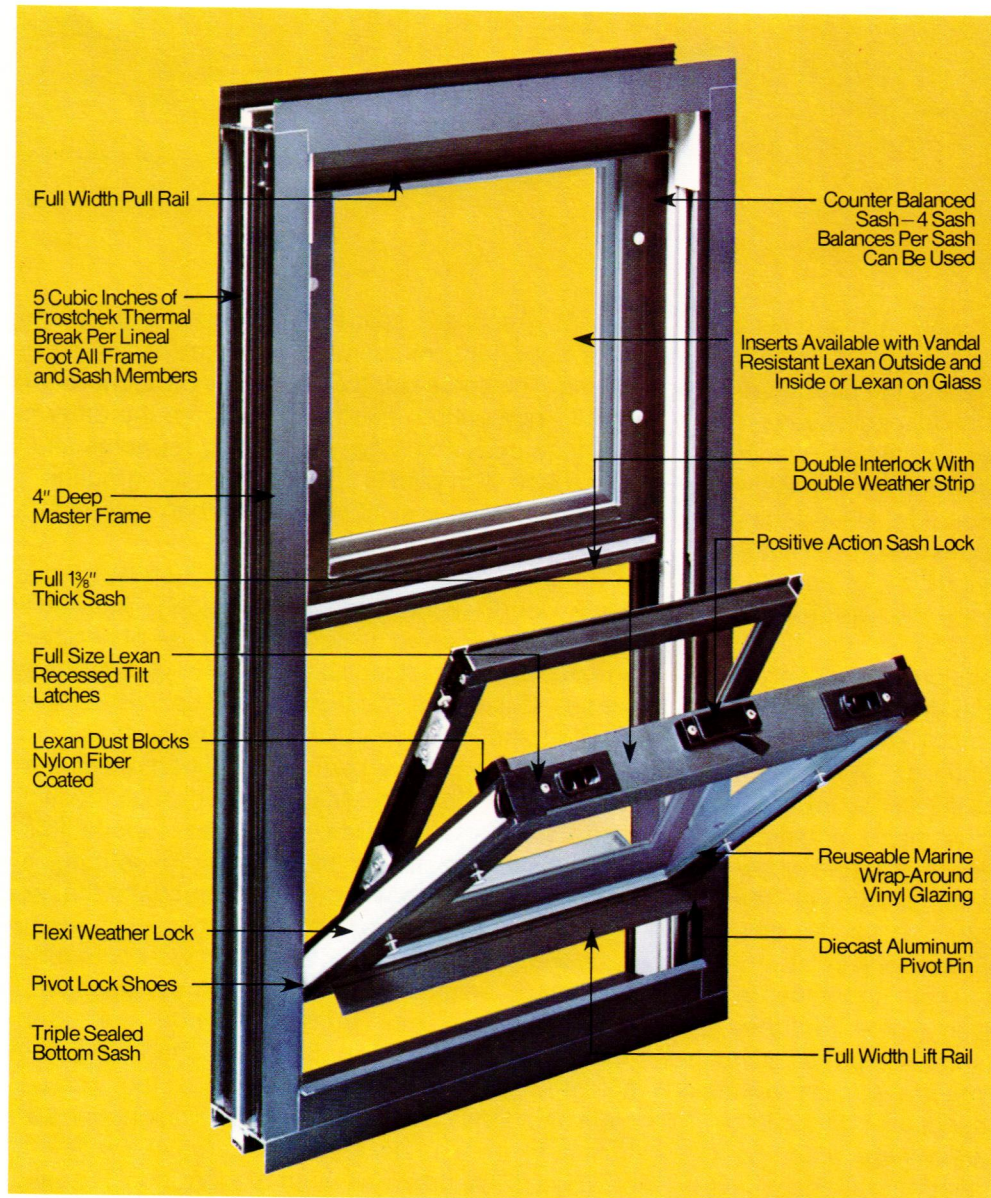
### The Design Needs of Children

For the last several years, my students and I have been studying children's images of the city. We are using their drawings, rather than verbal reports, to study children's needs because so much information can be packed into a drawing, and the information is not commonly subjected to the same censoring as verbal reports. We have kept our requests simple: "Draw me a picture of where you live," or sometimes, "Draw a picture of where you would like to live when you are on your own." We have focused our efforts on 10-, 13-, and 17-year-olds, (9th, 7th, and 12th graders). Ten-year-olds are about the youngest group of children that can consistently produce drawings that express the unique character of their experience, rather than a stereotyped drawing that could be any house, street, etc. Twelfth-



# Specify the Best

## The New VRW 610 Thermal Replacement Window



### The Advantages:

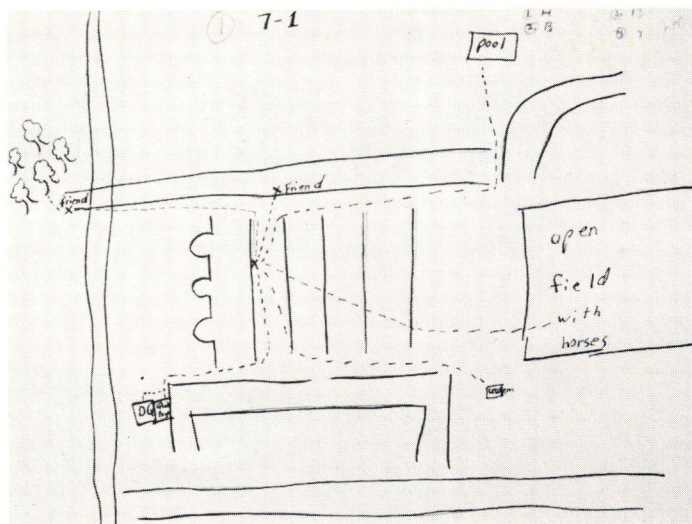
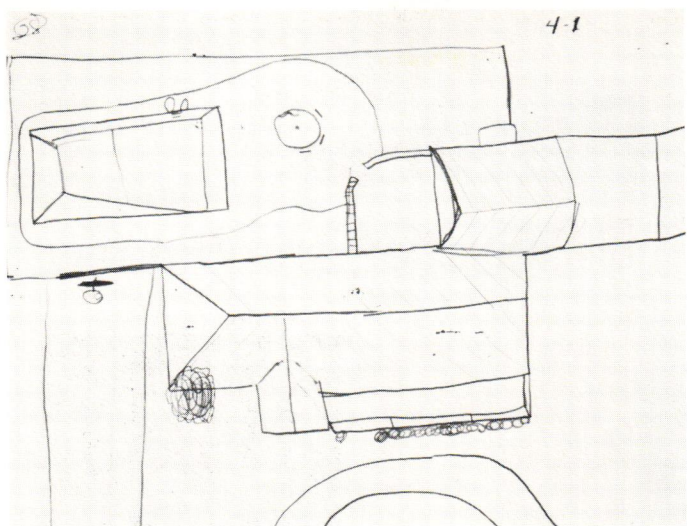
- Unique "Frostcheck®" thermal protection
- Outstanding structural integrity
- Appealing aesthetic design
- PLUS...Tough vandal-resistant poly-carbonate glazing

*We have hundreds of installations of the nature shown above in the Iowa area as well as a diverse selection of quality replacement window and entrance systems to suit your needs & budget*

**IOWA ARCHITECTURAL**

**PRODUCTS, INC.** • 801 33rd Ave. SW, Cedar Rapids, Ia. • **800/332-5235**





graders were included because, while they are basically adults in their skills and mobility, they are still treated as children. In addition, they can present the final stage, the culmination of the process of childhood development. When we examined the children's drawings, we looked for what they included as well as what they chose not to include. And we looked for where they placed things in the drawing — at the focus of the action, "landmark", on the edge of the scene, "boundary", or as a navigational marker for getting around in this world which the child offered, "path".

A quick reading of the drawings provides several striking, overall interpretations. While there are elements of individuality, fourth-graders usually presented simple, stereotyped drawings of their houses. The house, frequently elongated, is usually at the center of the drawing. Seventh-graders, on the other hand, present more maps, show more paths, and use a greater richness of landscape elements than either fourth- or twelfth-graders. It is interesting to note that for the seventh-graders, home is not always where one lives. Swimming pools, stores, shopping centers show up as the central feature of some maps and drawings. It is as if they are saying that what I *do* is where I live. It was the seventh-graders who provided us with maps that were veritable walking tours of their neighborhood, with dotted lines indicating paths. Frequently streets were drawn in but were not on the pathways that were shown. One seventh-grader went so far as to locate his house very accurately within his home state. The twelfth-graders return to the house as the center of attention, but now the houses are individualized and personalized. When they drew where they would like to live, they drew mansions and deserted islands. The emphasis was on open space and grand scale. Isolation (desert island, lighthouse, mountain cabin) was a common theme, perhaps reflected also in a tendency to emphasize their own room when drawing a picture of where they live now.

We see, then, that children have different needs at different ages. Fourth-graders see the home as most im-

portant. Adequate space right around the dwelling is most important for them. Seventh-graders are out exploring. The home environment does not loom very large in their perception. Twelfth-graders, on the other hand, are done exploring. They are looking for home and their own space. The yard is now enlarged to "grounds," and seems to serve a symbolic rather than utilitarian function.

There were exceptions to these trends, of course. Some fourth-graders produced highly individualized drawings, or showed a sophisticated use of perspective. And some of the older children drew very stereotyped scenes. But overall, the themes held up. It is curious that none of the children drew multi-family structures, or showed any typical urban spaces when drawing a picture of where they would like to live, despite the fact that many were city children. It is also curious that the seventh-graders showed the greatest home-range in the spaces that they drew. Perhaps the range of the twelfth-graders is so great that they no longer even attempt to draw the whole thing. In some recent work with rural and small-town children, we found that the younger rural children had real problems with the idea of "neighborhood" ("there is no neighborhood — just fields!"), although by the twelfth grade, they had no problem and drew the local area with the neighboring farms. In fact, for both rural and town children, the wide-ranging scenes of the urban seventh-graders don't usually appear until the twelfth grade. This is probably a reflection of the greater opportunity for mobility in urban areas; there are more places to visit and a child can get there more easily under her/his own power.

A more detailed analysis uncovers several other interesting trends. First, despite Clarence Perry's "neighborhood concept" which focused most neighborhood planning since World War II around the local school, we found that the school was not necessarily focal to children's neighborhoods. Schools were not common elements in children's drawings, and when they were shown they were as likely to be a limiting point to the child's space as they were to be the focus of



# HAYDITE

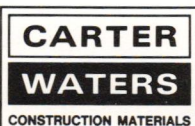
and **CITY CENTER SQUARE**

... naturally ...

1. Pumpability—with vacuum saturated Haydite.
2. Significant deadload weight reduction.
3. Greater fire resistance.
4. Improved insulation rating.
5. Total overall project savings.

**CITY CENTER SQUARE**—another example of how light-weight concrete made with Haydite can make a big difference in your project. For more details, contact your local supplier, or call us direct.

ARCHITECTS & ENGINEERS:  
Skidmore, Owings & Merrill  
DEVELOPER:  
McCloskey Development Co.  
READY MIX:  
Stewart Sand & Material Co.



2440 WEST PENNWAY  
POST OFFICE BOX 19676  
KANSAS CITY, MO. 64141  
PHONE: 816-471-2570

For more information circle no. 1 on the datacard.

## Sweeney Associates

"Manufactures Representatives"

400 5th St. • West Des Moines, Ia. 50265  
515/274-2050

- **PARKER** Mirrors & Washroom Equipment
- **HALSEY TAYLOR** Water Coolers & Modular Wall Systems
- **SLOAN** Flush Valves
- **STERN WILLIAMS** Terrazo Mop Sinks, Shower Receptors
- **SYMMONS** Non-Scald Pressure Balanced Shower Equipment



"Buck" Sweeney



Frank Hupperts  
319-377-6607

- **JUST** Stainless Steel Sinks
- **RAR** Washroom Vanities & Accessories
- **BOCK** Commercial Water Heaters
- **HUMID-AIRE** Humidifiers
- **HYDR-O-MATIC** Sump Pumps & Sewage Ejector Systems
- **DAVIS** Efficiency Kitchen Units

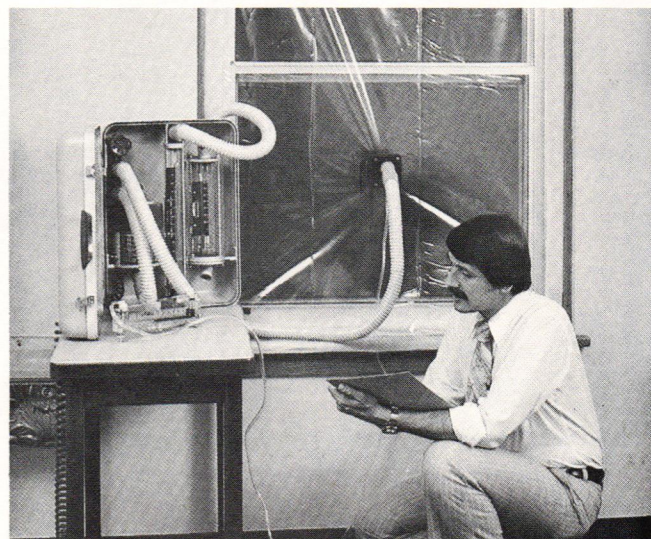
For more information circle no. 18 on the datacard.



## Replacement windows

**HIGH PERFORMANCE PROVEN**

• BEFORE • DURING • AFTER INSTALLATION



**Performance testing** of installed windows has become more important throughout the country. Architects, consultants, government agencies and window industry representatives see the need to go beyond conventional laboratory product tests for:

Energy audits, establishing the heating/cooling losses of existing windows for estimating annual savings potential and life-cycle-cost of window improvements.

Establishing conformance of installed sample (seen above) to performance specifications before bid award. This enables the architect or owner to verify performance and choose the best value.

Random testing of windows during installation and before final acceptance assures the continuance of quality work.

For added information on DeVAC windows call:

Des Moines Area — 515/832-6353

Dubuque — 319/588-2036

Quad Cities — 309/762-0005

*Expertise-Experience, Expected from*



**ALUMINUM  
PRODUCTS  
INCORPORATED**

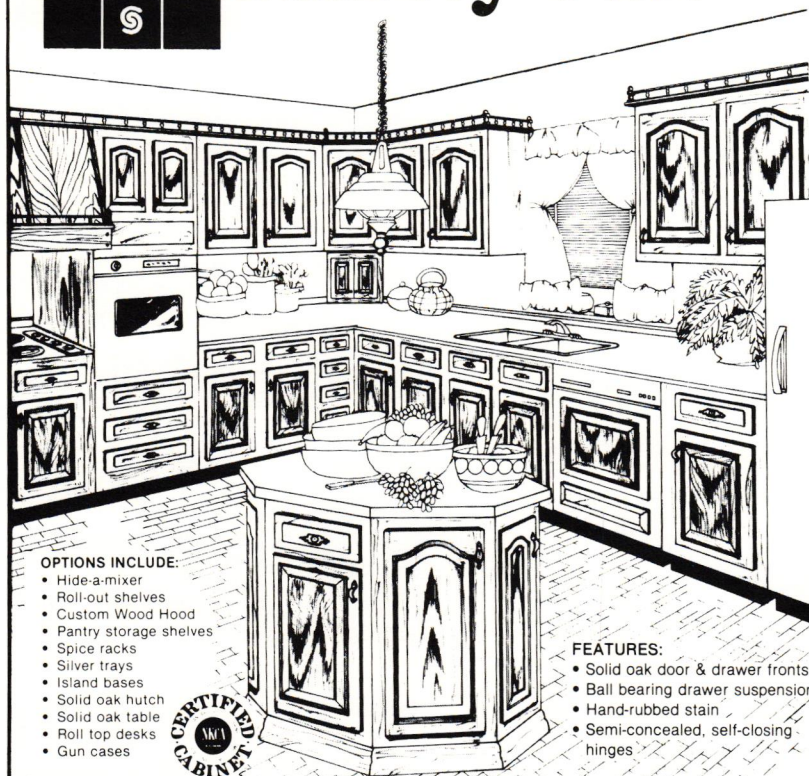
1 MAIN ST. • DUBUQUE, IA 52001 • PH. 319-588-2036

For more information circle no. 24 on the datacard.





# Knotty Oak



#### OPTIONS INCLUDE:

- Hide-a-mixer
- Roll-out shelves
- Custom Wood Hood
- Pantry storage shelves
- Spice racks
- Silver trays
- Island bases
- Solid oak hutch
- Solid oak table
- Roll top desks
- Gun cases



#### FEATURES:

- Solid oak door & drawer fronts
- Ball bearing drawer suspension
- Hand-rubbed stain
- Semi-concealed, self-closing hinges

Depend on Schneiderhahn's for planning assistance and prompt merchandise delivery.

#### Cabinets

SKC  
SKC/Northern  
Kitchen Kompact

#### Built-in Food Processor

Nutone

#### Convertible

Barbecue Ranges  
Dacor

#### Postform

Counter Tops  
SKC

#### Range Hoods

Broan

#### Appliances

Frigidaire  
Hotpoint

Visit our Showroom or call us for specifications on any of these products.

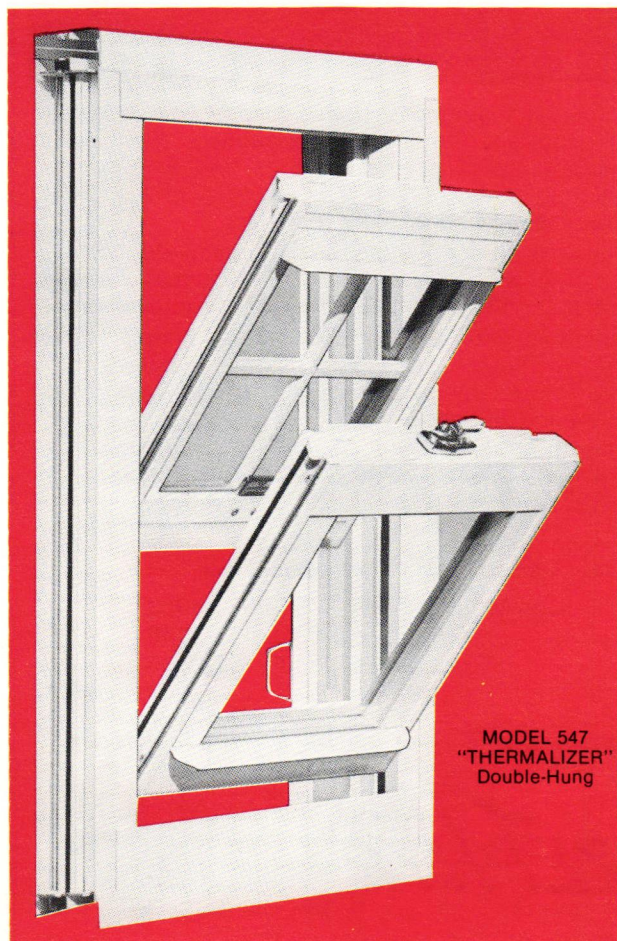


A. A. SCHNEIDERHAHN CO.

P.O. BOX 10304, DES MOINES, IOWA 50306

515/244-2541

For more information, circle no. 14 on your Datacard.



MODEL 547  
"THERMALIZER"  
Double-Hung

## We Have A Complete Line Of Thermal Windows

Integral thermal barrier system created by a poured and debridged vinyl throughout the master frame and sash frames. Double weatherstripping throughout. Standard 7/8 inch insulating glass, optional triple glazing. No-draft ventilation, easy cleaning...virtually maintenance free!

*Our Representatives  
are available to help you on  
any retrofit projects*

WE PRIDE OURSELVES ON PROMPTNESS  
IN FURNISHING QUOTES OR BUDGET FIGURES



**Dealers Warehouse  
Company**

Call Free On Our  
Wats Line  
800-362-1873

P.O. Box 646 • NEWTON, IOWA 50208

For more information circle no. 33 on the datacard.



the space. This does not mean that the neighborhood concept is no longer a valid planning concept; the school may still serve as a symbolic focus of the neighborhood for adults. In fact, one of the objections many parents have to the bussing of small children is that it destroys the "neighborhood school" and gives the parents less control over their child's education. But this finding does suggest that a neighborhood school will not provide an adequate sense of place for the **children** who live there. Their needs will have to be accommodated in other elements of neighborhood design.

Second, we found that public parks were also not the focus of children's perception of their home environment. City parks are mostly ignored, even by children living in a city that provides small neighborhood parks within four blocks of almost any residence. Keep in mind that the youngest children we dealt with were ten years old; public parks may be more important for even younger children since they are less mobile. Natural open spaces are more commonly represented in the drawings we studied. This lends some support to other research which has suggested that children tend to play outdoors in "found space" or on the stoops and sidewalks around the house. But, except in the case of fourth-graders, the support is weak.

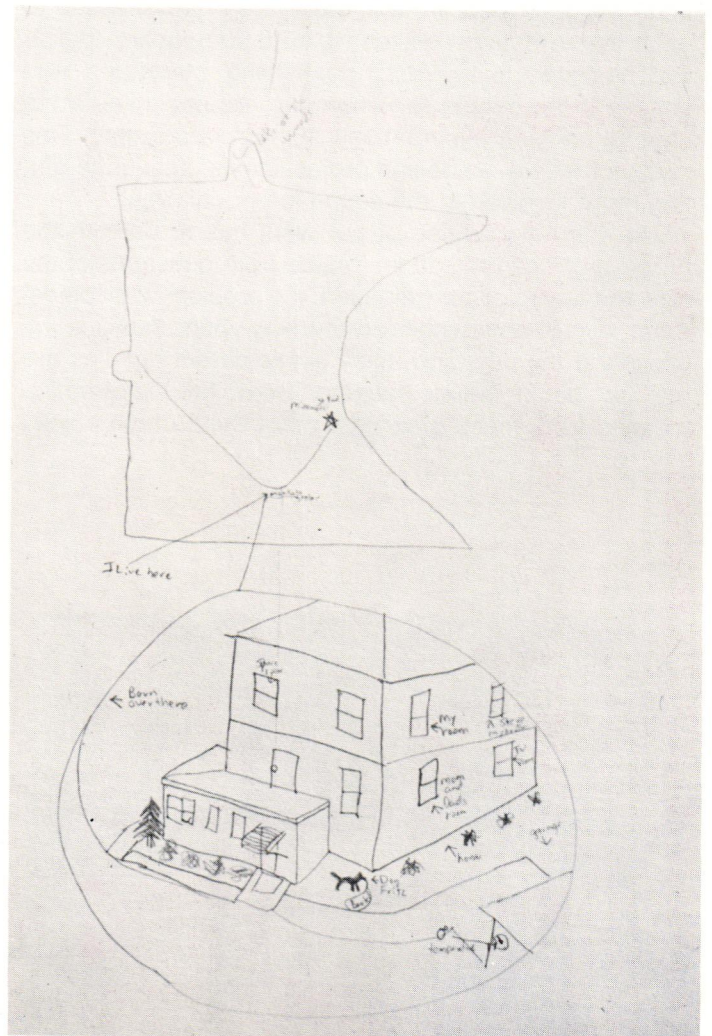
If the drawings which the children gave us actually represent how the children use the city, their activity would appear to focus on **planned** spaces — recreation centers and stores. This is more true of the older children than the fourth-graders, and the relationship is weaker for small-town children than for urban children. This leads us to a third conclusion, one which presents a very different image of childhood than the traditional Tom Sawyer image. Children are found to be consumers, not saying how much they spend, just that they are aware of the possible uses of any disposable funds. Further, even when they engage in Tom Sawyer's pursuits, they do it urbanely. They do not draw swimming holes although there were creeks available that could be adapted — they draw chlorinated swimming pools. They do not show themselves shooting marbles in the dirt, but playing basketball on asphalt courts. It should also be noted that the children may not necessarily use these planned spaces in the way that was intended. Most stores, for example, were not designed to provide kids with a place to "hang out."

In summary, there are three important themes for designers to be drawn from the children's drawings studied. From their drawings of planned spaces, particularly stores, we recognize that children are adults-in-training. Since we spend our Saturday afternoons wandering the shopping malls, is it any wonder that our children practice the same skill? We try to build action and interest into the places we design; is it any surprise that children also like to be where the action is? This leads to a second theme. While children may be drawn to the same spaces that adults use, children do not necessarily use these spaces as the adults intended. While they know and draw the streets of the city, children's paths do not necessarily follow the sidewalks

but cut through backyards and over fences. While they hang out near the stores and shopping centers, their limited purchasing power means that they spend more time practicing for future consumption rather than actually performing. The third theme is as important for what it tells us about adults as for what it tells us about children: as children grow older, space becomes more and more a symbol. For the fourth-graders and the seventh-graders, the spaces they drew were *lived* spaces. For the twelfth-graders, space was a symbol, something that can tell others about oneself. This is seen in the emphasis on one's own room, or drawing what is unique about one's house. As adults, we recognize this in ourselves and even trade on it in terms like "pride of ownership" and "neighborhood quality."

### Application

The work that has been done with children has several important implications for design professionals. At a minimum, it offers another tool for the designer's arsenal — or rather, the application of an old tool in a manner that is not usually considered. Architects and planners, of course, are used to consulting with their clients. Architects may even ask a client to produce a sketch. But it is difficult to interview children since they are not as verbal as adults. Their drawings, however, can produce a





wealth of information, both about their present environment and their preferences for a new environment, a difficult question for a child to deal with verbally. And it is an information-gathering technique that works as well with a group as with an individual. While planning a new shopping center or a neighborhood improvement plan, a designer could gather information from a large number of children in a short time by visiting a classroom or a youth program and asking for drawings.

A disturbing implication of our work comes from the children's responses to our request to "draw a picture of where you would like to live." The drawings of twelfth-grade "children", people who are about to enter the world of adults, settle down and raise a family — their drawings betray both a lack of appreciation for what a city has to offer and completely unrealistic expectations of what the future has to offer them. The only time the twelfth-graders drew museums, libraries, or even game rooms or gymnasiums was when they were incorporated into the child's own private pleasure palace. We are failing to infuse in our children an appreciation for the *public* domain of life. And yet it is precisely in the public domain that cities have the most to offer. Were it simply a matter of preferences and choices, one might conclude that it is a shame that the advantages of cities are forgotten. The future, however, will not permit us to all live on forty acres, each with our own swimming pool and helicopter pad. In fact, we will be hard-pressed to each live in detached housing on 6,000 square feet. It will be difficult to design satisfying structures and spaces if the people for whom we are designing them have unrealistic expectations of what is possible. This implies that we, as design professionals, should be getting more involved in the education of children.

The third implication of our work has to do with the process of "gentrification." Aside from questions of the size and timing of gentrification, the problem of displacement, etc., it does appear that many young families are staying in the city (and many single-parent families are moving back there. Judging from the information gleaned from these drawings, there will be both advan-

tages and disadvantages to this. Certainly the cities offer more opportunities for mobility and more "planned spaces" for the children to explore. They will have access to a greater number and a greater variety of places to practice their adult role: in addition to large department stores, they will have access to things like museums, large sports facilities, even college campuses. On the other hand, traffic will be a serious problem for younger children. Recall that, for the fourth-graders, the space immediately around the home (including the stoop and the sidewalk) are focal. Yet lots in the city are smaller, providing less space for play. In older parts of the city, street widening will have taken away much of the space that used to buffer the front yard from traffic. In fact, "found space" in general will be hard to come by in cities which are already mostly built up. Given children's tendency to use planned space, but not necessarily for its intended purpose, we can expect to find children playing at demolition and construction sites and playing tag using the elevators in office buildings.

*A more formal presentation of some of the research results which are discussed here is available in a paper, "Children's Perception of their Home Environment," published in Design Research Interactions, edited by A. Osterberg, C. Tiernan, and R. Findlay (Washington, D.C.: EDRA, 1981).*



**Coming...**

**NOVEMBER/DECEMBER**

**1981 DESIGN  
AWARDS ISSUE**

**DEADLINE**

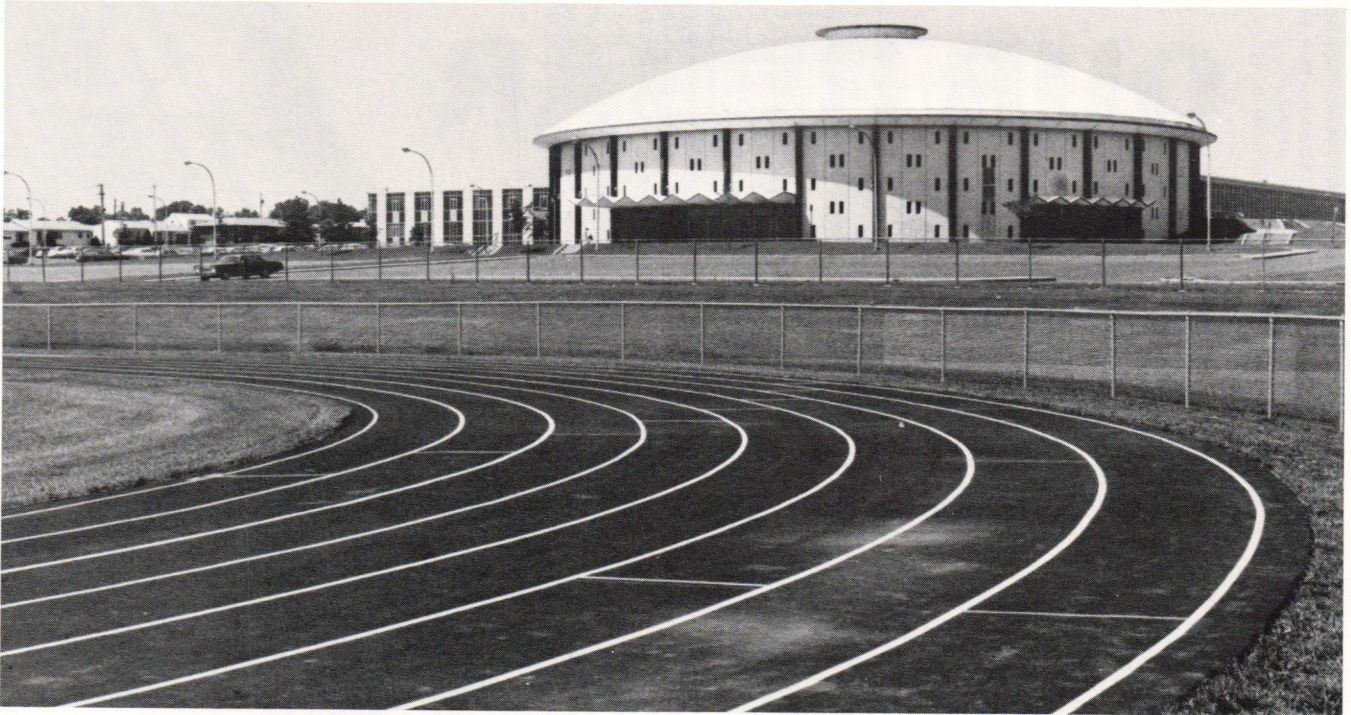
**OCTOBER 15, 1981**

*Make sure your company is represented in this outstanding issue. For pennies per exposure you can reach and hold important customers for your products and/or services.*

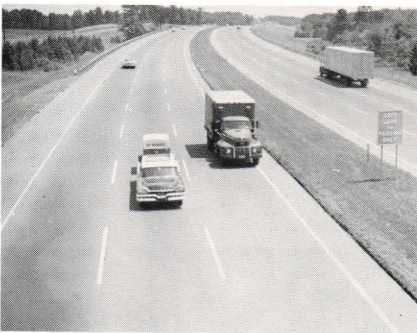
**FOR MORE INFORMATION CALL:  
515/270-0186 or 515/277-1881**



# More Pavement Per Dollar



## Asphalt Paving!



### APAI and Quality Paving

The ultimate quality of your asphalt paving project is directly related to the experience, skill and equipment of the contractor doing the work. That's why the Asphalt Paving Association of Iowa urges you to contact an APAI member in your area about your project. All APAI members are experienced and reliable. Check your Yellow Pages under Asphalt & Asphalt Products.

It doesn't happen often that you can get a better product by paying less! But that's exactly what happens when you specify Full-Depth Asphalt for your paving projects.

In the past, asphalt paving has cost only about 70 per cent as much as its competitor. Yet, in surveys of city and county officials, and studies conducted on the state level, it's been shown that Full-Depth Asphalt outperforms other pavement types.

And that's not all. Full-Depth Asphalt has many other advantages:

- Smooth, quiet, thump-free ride.
- Less energy use, and 100% recyclable.
- Faster and easier construction. Traffic may use the pavement immediately following rolling of each asphalt layer. This capability of "stage construction" keeps equipment out of the mud and provides for storage of construction materials.
- Safety features include high visibility of lane markings, less reflected glare from sunlight and headlights, reduction in noise, quicker melting of ice and snow, and the chance of dangerous and costly blow-ups are lessened.

So if you have a paving project — whether it's streets, highways, airport runways, parking lots/drives, or recreational projects — specify Full-Depth Asphalt. It offers the "best buy" . . . for the Iowa taxpayer!



### Asphalt Paving Association of Iowa

541-31st Street ■ Des Moines, Iowa 50312 ■ 515 244-3127

For more information circle no. 37 on the datacard.



# OUR REBAR IS BETTER WHY? **SERVICE!**



- Large inventory  
certified grades
- Precision cut and bent
- Buildings, culverts, bridges, elevators,  
waste-water treatment plants

**CALL US TODAY FOR COMPETITIVE  
BIDS ON YOUR NEXT PROJECTS.**

***Sioux City Foundry Co.***

P.O. Box 3067, Sioux City, IA 51102

Ph. 712-252-4181

Telex 480145

Call toll free in Iowa 800-352-4986.

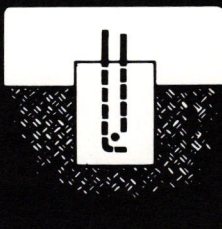
Outside of Iowa, call 800-831-0874.



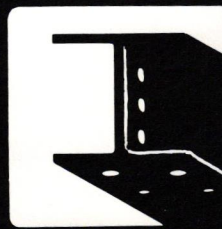
FOUNDRY DIVISION



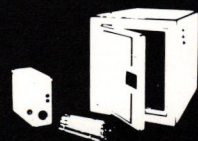
WAREHOUSE DIVISION



REINFORCING STEEL DIVISION



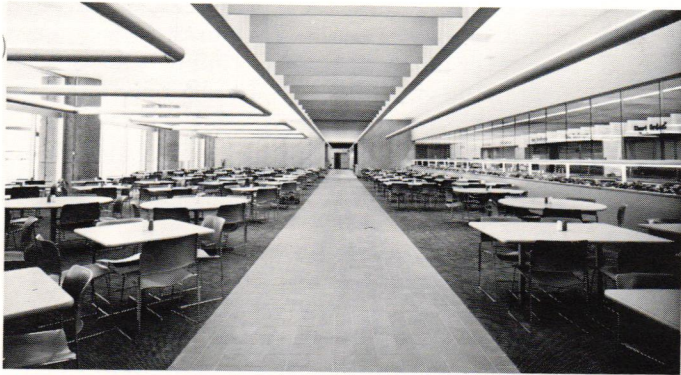
FABRICATED STEEL DIVISION



CONTRACT MFG. DIVISION



## Employee Cafeteria Wins Design Award



Bright colors, custom signage and a semi-scramble serving line combine to provide an efficient, contemporary atmosphere in the employee cafeteria at Rush-Presbyterian-St. Luke's Medical Center. The project was recently selected as one of *Restaurants and Institutions* Interior Design Award winners.

Since the project is located in an unfinished area of an existing building, the layout had to respond to a long, narrow space with windows on one side. Serving counters are located at the back of the space in a semi-scramble arrangement allowing patrons to choose from several different stations.

Multi-colored baffles define the circulation areas and tie together three dining rooms seating 800.

The project is a joint venture of Hansen Lind Meyer, P.C., Iowa City, Iowa, and Solomon, Cordwell, Buenz & Associates, Inc. Hysen & Associates, Inc. was the food service consultant.

## Deadlines Approach For 1982 Awards Nominations

Members are urged to submit entries and/or nominations now for the broad range of architectural achievements and professional contributions to be honored through the AIA's 1981-82 awards programs.

Foremost among these are the annual AIA Honor Awards — the nation's highest professional recognition of design excellence — which can recognize any conceivable building type. This year's 15 innovative winners, awarded at the Minnesota convention, range from a small farmhouse in Pennsylvania to a large, new energy-efficient office building in Washington, D.C.

Entries for the 1982 AIA Honor Awards — both current-use and extended-use projects — must be postmarked by Oct. 2 and mailed to the national office. Completed submission binders must be returned to the AIA, postmarked by Nov. 9.

Postmark deadlines for mailing nominations for other AIA awards:

- Honorary membership, Oct. 5;
- ACSA/AIA Award for Excellence in Architectural Education, Oct. 6 (final documentation, Jan. 12);
- Institute Honors (AIA medals), Oct. 16;
- Homes for Better Living (custom and production housing), Oct. 16 (submissions, Feb. 12);
- R. S. Reynolds Memorial Award, Nov. 23 (submissions, Dec. 21);
- Library Buildings Award, Dec. 14 (submission, Jan 25);
- Reynolds Aluminum Prize for Architecture Students, Feb. 11.

For all awards contact: Maria Murray, AIA awards programs, (202)626-7390.

## The AIA Elects Robert Broshar, FAIA, First Vice President/President-Elect for 1981-82

Robert Broshar, FAIA, of Waterloo, Iowa, was elected May 20, 1981 first vice president/president elect of The American Institute of Architects at its 113th national convention here.

He will assume office in December 1981 and will become president one year later. Robert M. Lawrence, FAIA, of Oklahoma City, the Institute's current vice president, will succeed R. Randall Vosbeck, FAIA, of Alexandria, Va., as president of the 37,000-member national professional society this December.

Also at the 1981 convention, delegates elected three national vice presidents: Ellis Bullock Jr., FAIA, of Pensacola, Fla.; James R. Nelson, AIA, of Wilmington, Del.; William A. Rose Jr., FAIA, of White Plains, N.Y.

Broshar is completing his second term as a national vice president of the AIA and was chairman of the AIA's national convention in Minnesota. Previously, he represented the Central States Region on the AIA Board of Directors, chaired the AIA Education and Professional Development Commission and served on numerous AIA committees. He also has been active in the AIA task forces on registration, ethics, professional liability and professional development.

Also at the national AIA level, Broshar has served as a director of the AIA Foundation, AIA Corp. and Production Systems for Architects & Engineers Inc., and as the Institute's liaison to the National Architectural Registration Boards. At the state level, he was president of the Iowa Chapter/AIA.

Active in community affairs, Broshar has served as director of the Waterloo Chamber of Commerce, a local savings and loan association and his county's YMCA.

Broshar is an honor graduate of Iowa State University and a principal in the 15-person firm of Thorson-Brom-Broshar-Snyder, Architects, Waterloo.



# Financial Security For Your Future

Make plans now with Bankers Trust to provide stability for your family in years ahead.

Our Trust Department, located on the 7th floor, offers expert financial counseling and services that include investments, trust, estate planning and others, all individually tailored to your success and wishes.

One very attractive service, called IDEA (Invested Dollars with an Extra Advantage) Annuity, enables you to build a retirement income for the future that you cannot outlive. The \$10,000 minimum premium accumulates tax-deferred at high-yielding, current money market rates until you draw on it as retirement income.

To learn more about IDEA Annuities, or our trust and investment services, call or stop in and visit with our financial consultants.

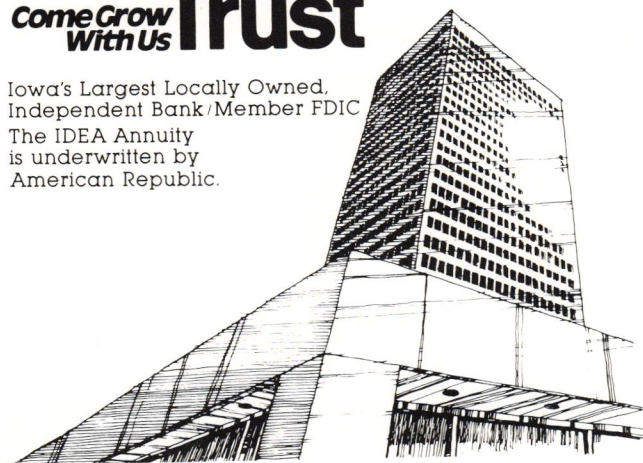
We'll work with you and your attorney to make the most of your success now, and assure your family's financial security in the future.

Trust Department, Seventh Floor

**Bankers**  
*Come Grow With Us* **Trust**

Iowa's Largest Locally Owned,  
Independent Bank/Member FDIC

The IDEA Annuity  
is underwritten by  
American Republic.



For more information circle no. 23 on the datacard.

Thailand Teakwood Importers, Inc.

## TEAK & KARPAWOOD

...for parquet floors



The warm, natural look of a Teak or Karpa-wood parquet floor is treasured now more than ever before. These two imports are a delight to those who love the rich-grained beauty of wood.

TEAK is the ultimate in beauty, elegance and prestige...yet, it is very hard and will last for decades.

KARPAWOOD, known in Thailand as iron-wood, is harder than oak, and has an extremely low coefficient of expansion.

Both woods are available in quantity from our Chicago warehouse in many UNfinished and PREfinished patterns.

Phone (collect) for free samples, brochures of 80 floor designs, technical information, prices. Or, write:

Thailand Teakwood Importers, Inc.  
645 North Michigan Avenue  
Chicago, Illinois 60611 (312) 337-3938

(We are Midwest distributors for Bangkok Industries, Inc., Philadelphia.)

For more information circle no. 21 on the datacard.

### ADVERTISERS' INDEX

- |                                 |                                  |
|---------------------------------|----------------------------------|
| 13 Allied Construction Services | 24 G. W. Onthank Co.             |
| 48 Bankers Trust Co.            | 6 Pella Dealers of Iowa          |
| 22 David Bear, Inc.             | 50 Plymouth Rubber Company       |
| 41 Carter-Waters Corp.          | 32 Quint City Stone Center, Inc. |
| ins. Continental Elevator Co.   | 42 A.A. Schneiderhahn Co.        |
| 42 Dealers Warehouse Co.        | 18 S & E Custom Cabinets         |
| 10 Elkay Mfg. Company           | 32 Sheet Metal Contractors Assn. |
| 26 Elliot Beechcraft            | 46 Sioux City Foundry            |
| 36 Gibbs-Cook                   | 3 Stetson Bldg. Products         |
| 20 Hirschfield's                | 35 Stetson/G. E.                 |
| 39 Iowa Arch. Products          | 11 Stenberg Construction Co.     |
| 45 Iowa Asphalt Paving Assn.    | 24 Swanco Enterprises            |
| 31 Iowa Power                   | BC Swanson Gentleman             |
| 51 Jack Beavers & Assoc.        | 41 Sweeney & Associates          |
| 22 Johnson Speciality Sales     | 48 Thailand Teakwood Importers   |
| 49 Koch Bros. Office Supply     | 49 United Brick & Tile Co.       |
| 35 R. J. Kool Co./Wascomat      | 41 Zephyr Aluminum Products      |
| 30 The Lighting Center          |                                  |
| 36 Marquardt Concrete Block     |                                  |
| 4 NDS Company                   |                                  |