MAUVELOUS COORDINATES.


One package. One color. One manufacturer.

For a package of color-coordinated samples, call 800-233-3823 and ask for Dept. Mauve.
We design the systems.
You design the ceilings.

Syllables™ is a collection of highly decorative, in-relief, acoustical ceiling systems. Each one contains various, distinctly different panel designs.

Arrange these panels any way you choose to create your own ceiling design.
Despite its intricate look, a Syllables ceiling requires no extensive design time. And it's available for immediate delivery.
For a portfolio, call 1 800 233-3823 and ask for Department Syllables. Armstrong

Circle 67 on information card
Silence is golden
Quiet is paprika.

And
Light Rose
Frost Blue
Flagstone
Caramel
Concrete
Desert Sand
Brown
Pearl Grey
Sea Green
Mist
Wheat
Khaki
Oatmeal
Coral
Persimmon
Green Neutral
Pewter
Wheat Neutral
Tiger's-Eye
Opal
Blue Neutral
Crystal Blue
Wedgwood
Rose
Rose Quartz
Garnet
Seafoam
Cream Neutral
Cameo
Quartz
Silver Neutral
Cherry Neutral

Soundsoak® acoustical wall panels come in 55 colors.
Five fabric finishes. Standard sizes. And most panels are tackable.
So even if your budget is limited, your options aren't. Soundsoak is your economical yet attractive alternative to custom fabric treatments.
Soundsoak products are available locally through Armstrong distributors and contractors. For product literature, call 1 800 233-3823 and ask for Soundsoak.

Armstrong
Circle 68 on information card
Ceilings that have the right feel.

Presenting six of our 11 textured patterns in acoustical tiles and panels.
For free samples, call 800 233-3823 and ask for Textured Ceilings.
Max...a completely new vocabulary of carved wood panels providing the subtle surface enrichment so desirable in today's more humanistic spaces. Precisely machined from hardwoods and softwoods, motifs are at once contemporary and enduringly elegant. Dimensions are easily adjusted to meet individual requirements. Available in a selection of natural woods, stain finishes and color. Explore the unlimited possibilities for walls...doors...ceilings...cabinets.
The Ninth Annual Review
Of New American Architecture

H.E. Butt Grocery Headquarters, Hartman-Cox with
Chumney/Urrutia.

Colgate Dining Hall, Herbert S. Newman Associates.

Van Leer Chemistry Building, Perry, Dean & Partners.

University of California Sports Arena, ELS Design Group.

Guthrie School, Bohlin, Powell, Larkin, Cymwinski.

Bulfinch Square, Graham Gund Associates Inc.

Penn State Agricultural Arena, Dagit-Saylor.

Bridge House on Maumee River, Hugh Newell Jacobsen.

The Architectural Panorama

National AIA Honor Awards

Introduction and previously shown works: Charleston Public Housing, Loyola Law School, Herring Hall.

Private Residence, Edward Larrabee Barnes.

Steel & Glass House, Kruck & Olsen Architects.

Parker Residence, James Cutler Architects.

Bergen Residence, Mayne & Rotondi Architects.

Wenglowski House, Peter Forbes & Associates.

500 Park Tower, James Stewart Polshek & Partners.

Cleveland Clinic Foundation, Cesar Pelli & Associates.

IBM Corporate Building, I. M. Pei & Partners.

Gottesman Exhibition Hall, Davis, Brody & Associates and Giorgio Cavagliari Architects.

Kaskel Library, Keith Kroeger Associates.

Battell Chapel, Herbert S. Newman Associates.

State and Local Award Winners

Events 66

Letters 66

News 66

Cover: House in Dallas by Edward Larrabee Barnes (see page 176). Photograph ©Nick Wheeler/Wheeler Photographics.

Donald Canty, Hon. AIA, Editor in Chief; Carole J. Palmer, Executive Art Director; Andrea Oppenheim Deiner, Executive Editor; Allen Freeman, Managing Editor; Nora Richter Greer and Michael J. Croshie, Senior Editors; Mary E. Osman, Hon. AIA, Senior Editor, Books; Lynn Nesmith, Associate Editor; Kathleen Vetter, Design Assistant; Karen Collins, Editorial Assistant; Robert Campbell, David Bilton, Carleton Knight III, Robert A. Ivy Jr., AIA, John Pastier, and Marguerite Villecco, Contributing Editors.

Michael J. Hanley, Publisher; John D. Payne, Associate Publisher; Christi L. Wilkins, Assistant to the Publisher; David S. Godfrey, General Manager; Jesse Sims, Production and Business Manager.

James P. Cramer, Magazine Group Publisher.

ARCHITECTURE, publication number ISSN0746-D554, official magazine of The American Institute of Architects, is published monthly by the AIA Service Corporation at 1735 New York Ave. N.W., Washington, D.C. 20006. Individual subscriptions: U.S. and its possessions; $30 for one year, $48 for two years, $65 for three years. Canada: $36 for one year, $56 for two years, $75 for three years. Foreign: $54 for one year, $96 for two years, $138 for three years. Single copies, $5 each (except for May and September issues, which are $10). Publisher reserves the right to refuse unqualified subscriptions. For subscriptions: write circulation department, ARCHITECTURE, 1735 New York Ave. N.W., Washington, D.C., 20006; allow eight weeks. Quotations on reprints of articles available. Microfilm copies available from University Microfilm, 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Referenced in The Architectural Index, Architectural Periodicals Index, Art Index, Avey Index to Architectural Periodicals. Second class postage paid at Washington, D.C., and additional mailing office. © 1986 by The American Institute of Architects. Opinions expressed by the editors and contributors are not necessarily those of AIA. vol. 75, no. 5.
VULCRAFT SUPER LON

185' 4" and 186' 8" super long span joints, both 120' deep, reach across the Land Center sports complex.
To build a sports complex as large and expansive as the Lund Center at Gustavus Adolphus College in St. Peter, Minnesota required a structural system that could go the distance. Vulcraft super long span joists were clearly the front runner.

As a result of careful analysis, Vulcraft super long span joists were selected over the other two alternatives: conventional trusses and rigid frame construction. The open configuration of Vulcraft super long spans provided a number of advantages. While long enough to span a basketball court, indoor tennis courts, and a running track as well as spectator seating, Vulcraft super long spans provided a strong, lightweight, and easy to install system. The open configuration of the Vulcraft joists also permitted the heating and ventilation ducts and electrical systems to be run through the spans. This created an uninterrupted ceiling line for the automated divider screens which separated the different sections of this vast sports complex.

Since the college is dependent on private funding, the savings afforded by using Vulcraft joists helped make it possible for the college to initiate the project. Also, by using Vulcraft's economical 3” N 20 gage deck, joists could be spaced farther apart. So, fewer joists were needed and construction costs were further reduced.

When your job has to go the distance, let Vulcraft put you out front. For more information concerning Vulcraft steel joists, joist girders and steel deck; or, for copies of our joist and steel deck catalogs, contact the nearest Vulcraft plant listed below. Or, see Sweet’s 5.2/Vu and 5.5/Vu.

P.O. Box 637, Brigham City, UT 84302-801/774-9433
P.O. Box F-2, Florence, SC 29502-803/904-8001
P.O. Box 169, Fort Payne, AL 35967-219/34-360
P.O. Box 186, Grapeland, TX 77857-8456
P.O. Box 186, Grapeland, TX 77857-8456
P.O. Box 59, Norfolk, NE 68701-402/44-8500
P.O. Box 1000, St. Joe, IN 46785-219/337-541

VULCRAFT
A Division of Nucor Corporation


Circle 3 on information card
This dramatic entrance to a popular shopping mall beckons thousands of people every day of the year. The closers which control this main entrance were chosen for their functional dependability and aesthetic compatibility with the inviting, open feeling of the architect's design.

The specifier's choice: LCN 4040 Series Super Smoother® Closers. The power adjustment of this heavy duty, non-handed closer helps accommodate shoppers. Hydraulic back-check safety cushions the opening swing and Liquid X, which maintains a constant viscosity through an extreme range of temperatures provides consistent operation.

For complete information, see Sweet's Section 8. Or contact LCN Closers, Princeton, IL 61356; (815) 875-3311. In Canada, Ingersoll-Rand Door Hardware, Mississauga, Ontario, L5E-1E4; (416) 278-6128.
J. Seward Johnson, Jr.

For brochure and information contact:
SCULPTURE PLACEMENT
P.O. Box 9709 • Washington, D.C. 20016 • 202-362-9310
LIFESIZE FIGURES PRODUCED IN LIMITED EDITIONS OF SEVEN OR FEWER
From Apples To Zebra

Let your imagination run wild. With American Olean ceramic mosaics, you can create anything under the sun with the broadest, most beautiful mosaics line in the industry.

Choose from scores of innovative new colors, shapes, sizes and textures. Count on us for total availability—our new mosaics plant in Jackson, Tennessee will bring you an additional 10 million square feet of material each year. And be confident that we'll cover you from A to Z with quality installation materials, superior personal service plus a top-notch mural design and color coordination service from our own design specialists.

For catalogs on ceramic mosaics and other tile products, write American Olean Tile Company, 3300 Cannon Avenue, Lansdale, PA 19446-0271; or call us at (215) 855-1111.
You're out front with American Olean
EVENTS

June 4-7: National Conference of the American Craft Council, Oakland, Calif. Contact: American Craft Council Conference, P.O. Box 30756, Oakland, Calif. 94064.


June 8-11: AIA Annual Convention, San Antonio, Tex. Contact: American Craft Council, Oakland, Calif.


June 14: Preparation Seminar for the NCARB Architect Registration Exam, Dallas. Contact: H.L. Murvin, 500 Vernon St., Oakland, Calif. 94610.


June 16-19: International Earth Sheltered Buildings Conference, Minneapolis. Contact: John S. Vollum, 220 Nolte Center, 315 Pillsbury Drive S.E., University of Minnesota, Minneapolis, Minn. 55455.


June 17-20: Course on Managing and Operating Housing for the Elderly, Washington, D.C. Contact: NAHRO Professional Development Programs, P.O. Box 2847, Washington, D.C. 20013.


June 22-29: The Society of Women Engineers Convention and Student Conference, Hartford, Conn. Contact: SWE, 345 E. 47th St., Dept. NM, New York, N.Y. 10017.

June 23-27: A/E Systems '86, Chicago. Contact: Michael Hough, P.O. Box 11318, Newington, Conn 06111.


June 30-July 1: AIA Historic Resources Conference, Providence, R.I. Contact: Ravi Waldon at Institute headquarters, (202) 626-7429.

LETTERS

Historicism in the '80s: The arguments of James Marston Fitch reported in the February issue [page 10] against present building design reflecting the past seem both puzzling and off-the-mark.

So much of the new architecture has gotten beyond the "historicising eclecticism" Fitch denigrates. In almost every city now there are expressive and strong new buildings that take the argument to the street— and win. One also has to wonder what a building "of our time" means! Is that blue glass with a prism from the '70s? That is my kind of architecture. I do, however, regret the publication of four-letter words in such a fine magazine. Please refer to page 32, line 16, last word and page 36, line 32, eighth word. There may be others.

Back to 'Elegance': Your new cover design is beautiful! In an era when a great deal of graphic design and architecture strive for aggressive ugliness, your magazine seems to have gone the other direction—back to simple elegance. Your new logo type also seems practical, as evidenced by how comfortably it accommodated the very different Charles Moore and Josep Esherick cover photographs.

I also like the new sections, Heritage at Kaleidoscope. In fact, the whole magazine keeps getting better.

Hugh Hardy, FAIA
New York City

Firm of the Year: Your article on Esherick Homsey, Dodge & Davis, winner of the AIA firm award [Feb., page 28] was most enjoyable, well written, and informative. That is my kind of architecture. I do, however, regret the publication of four-letter words in such a fine magazine. Please refer to page 32, line 16, last word and page 36, line 32, eighth word. There may be others.

Correction: Our coverage of the Houston Design Center [March, page 76] omits the credit of Lloyd Jones Brewer Associates, Houston, which collaborated with Cambridge Seven Associates.
Eljer presents exciting new concepts in contemporary baths from seven leading international designers.

To our customers:  
This brochure will be seen this spring by millions of readers in leading consumer publications.
The designs are theirs... but the choice is yours.

For more than 80 years, Eljer has been a respected name in quality plumbingware. As the bath becomes more sophisticated and elegant, Eljer has searched the world for designers and designs that lead the way, that set the trends rather than follow them. The new products and designs we present here are examples of Eljer's emergence as the new style leader in fixtures and faucets for the kitchen and bath.

Eljer commissioned seven internationally-recognized designers to create bathrooms for today, bathrooms that are as striking, as functional, and as full of rich surprises as our new line of international fixtures. The result of this year-long effort is bathrooms which display a vibrant expression of personality and lifestyle—a far cry from the strictly utilitarian bathrooms of yesterday.

Exciting things are taking shape at Eljer. Eljer is redefining what bathroom fixtures should be, taking the ordinary and making it extraordinary. At the same time, Eljer is creating a renaissance in bath design on an international level. Some examples: Eljer's new octagonal lavatories with integral vitreous china cascade water spouts. New whirlpool baths with four hydro-therapeutic jets. And newly-designed matching continental toilets and bidets.

We're very excited about all of this. Once you see the shape of things to come on the following pages, we think you will be too.

Meet the Eljer international design group.

Lyn Peterson and Kristiina Ratia. Designers Lyn (Rl. from New York, and Kristiina, from Finland, are a dynamic and prolific team. Their imaginative interiors have appeared in House Beautiful, Home, House and Gardens, and other publications. In addition, such clients as Ralph Lauren and Marimekko have used their home furnishing designs.

Gunther Krieglstein. Gunther is well known throughout Europe for imaginative and far-ranging plans for the building industry. He has created products, exhibits and designs for numerous companies, winning awards and setting new standards. He is a sought-after consultant and known worldwide for his expertise in design.

Sophie Robert and Jean Michel Wilmotte. When President Francois Mitterrand of France had his private apartment at the Elysee Palace redecorated, Sophie and Jean Michel did the design work. They've also done the offices of the French Ambassador in Washington, D.C., the interiors for the palace in Saudi Arabia, the Indian Embassy in Paris, the Brazilian Embassy in Cairo and the Merrill Lynch offices in Paris.

Stephen Mead. Stephen specializes in architectural and interior design. Considered a designer's designer, Stephen served as Architectural Editor of Better Homes & Gardens and contributes state-of-the-art solutions to many of the home decorating magazines. Among his major clients are Boise Cascade, Georgia-Pacific, Maytag Company and the American Plywood Association.

Michael de Santis. Michael's work appears around the globe—from the United States to the French Riviera to the Middle East. Many of his interiors have appeared on the covers of Architectural Digest and Interiort Design. Michael has received many awards including the prestigious Hexter Award. He is the designer of the model apartments at New York City's Trump Tower, which is now receiving extensive national attention.
Michael de Santis shows how a bath can be a room of beauty and place to relax and be soothed.

"When I saw Eljer’s bath fixture line in a new, muted dusty rose color, it evoked a feeling of softness and tranquility. It was a color, I knew, that would be comfortable for both men and women.

"Which led me to design this bathroom. I wanted an oriental feeling, an environment of harmony. That's why I placed a skylight above the bath. By looking through the skylight, you may watch the sky, sun, moon and stars. The Sohji screens also help set the mood. "Underneath the skylight is Eljer’s Renaissance whirlpool, selected for its oversized width which allows one to luxuriate as the water swirls about.

"For lavatories, I chose the Helene Shampoo rectangulars and encased them in a white lacquer ‘floating’ vanity. Note the Crescendo faucets in clear acrylic with gold trim. They, too, give a floating feeling.

"The Windsor water saver toilet and Valencia bidet blend well together and are placed side by side. "Today, with imagination and the wonderful Eljer products available, the bathroom can be as beautiful as any room in the house."

Michael de Santis’ PIQUANT bath features the following Eljer products: Renaissance Bath, Helene Shampoo Lavatory, Windsor Toilet, Valencia Bidet, Crescendo Faucets, Chrysta Accessories.

Fixtures shown in Dusty Rose.
Michael de Santis talks about how he designed Jet Splash. 

"I especially envisioned this bath for a penthouse apartment, using four black lacquer columns on either side of palladian-like windows. Eljer's Continental bath fits in perfectly with the neo-classic look I wanted to achieve. 

"To carry out this unifying theme, I placed Eljer’s new Romanique lavatories with integral spout and faucet mirrored niches, one on each side of the bath, for his or her use. 

"I also put Eljer’s Patti toilet and Valencia bidet by side. On either side of bath, you’ll notice there are leather cushions. Just in case person needs to rest, to get out the window, or to thir
For the interior designer, black and gold products bold and well tended, and a welcome on. They make a very scenic room:

Michael de Santis' JET SPLASH bathroom features the following Eljer products:
- Continental Bath
- Patrician Toilet
- Valencia Bidet
- Romanique Oval Lavatory
- Grandela Faucets
- Astoria Accessories

Fixtures shown in Versailles Onyx.

ELJER
Capture the excitement
Sophie Robert and Jean Michel Wilmotte introduce Symphony.

S.R.: “We have found in Eljer’s new color, ‘Versailles Ruby,’ the inspiration for the design of this bathroom.”

J.M.W.: “Versailles Ruby is a warm, vibrant hue. A very original and perfect color for the bathroom. Just look at this Renaissance whirlpool bath. Its deep, ruby color says you can really relax here.”

S.R.: “Just as you can relax the sofa under the skylight rotunda. It is a perfect place for conversation, little sec.”

J.M.W.: “On either side of bath, we have the ‘lady’s’ ‘gentleman’s’ area with El new Jonquil octagonal wash basins, delicately outlined a gold border.”

S.R.: “For greater privacy have put the toilet and bi...
in a partition. Here we used Eljer's luxurious piece Patrician toilet and Valencia bidet. An
tant detail—the Patri-
 flush is nearly silent. V: "The bathroom we created is a space
ed to comfort and pri-
We believe it's a place
you can renew your-
physically and mentally."

Robert's and Wilmotte's
SYMPHONY bath features
the following Eljer products:
Renaissance Bath,
Patrician Toilet,
Valencia Bidet,
Jonquil Octagonal Lavatory,
Dimension Faucets,
Grandeia Water Spout,
Chrysta Accessories.
Fixtures shown in Versailles Ruby.
Sophie Robert and Jean Michel Wilmotte discuss Athena.

J.M.W.: “The decor of this room is dominated by the opposition of opaque and transparent materials – the natural and the sophisticated.”

S.R.: “We used glass, patinated metal and wood as our basic decorating materials – taking special care to match the wood veneers of the walls to the Satin color of Eljer’s bathroom fixtures.”

J.M.W.: “In our bathroom, space is divided. Double-sided mirrors separate the bathing and lavatory areas from the dressing table.”

S.R.: “In the center of the room is Eljer’s Continental whirlpool bath. It’s quite a comfortable and relaxing place to be in with its anti-sliding base and brushed gold grab bars.”

J.M.W.: “As in all the bathrooms we design, we’ve isolated the Patrician toilet and Valencia bidet from the rest of the room, while the Eljer Lorraine pedestal lavatory is in the center of the room, facing a floor-to-ceiling mirror room divider.”

S.R.: “To complement Eljer’s new fixture designs and colors, we’ve created a bathroom with a warm, personal and contemporary atmosphere. In France we would say a bathroom with ‘ambience’.”

Robert’s and Wilmotte’s ATHENA bath features the following Eljer products:
- Continental Bath
- Patrician Toilet
- Valencia Bidet
- Lorraine Pedestal Lavatory
- Grande/a Faucets
- Clarisse Accessories

Fixtures shown in Satin.
Gunther Kriegstein's bath adapts to the human form.

"My design is inspired by the human body, which has no sharp corners and is round everywhere. From this idea, I decided my bathroom should have no corners either; that everything in it should be round, even the bathroom fixtures and accessories.

"That's why Eljer's beautiful new Contoura bathroom fixtures and accessories fit my idea so well. Each of these pieces has round, sculptured shapes, accented by flowing art lines.

"The Contoura two-piece toilet has a round tank with a pushbutton flush on top of the tank. A matching bidet complements it.

"The lovely Contoura pedestal lavatory has round faucets and matching ceramic soap dish and a toiletries shelf placed over the lavatory. Even the Renaissance bath fits nicely into a rounded niche—a perfect place to read a book, eat some fruit, even drink a little champagne.

"In the ancient Roman houses, the bathroom was a spa, a place to relax. But why not? Why shouldn't we enjoy the bathroom as the Romans did?"

Gunther Kriegstein's BLUE MOOD bath features the following Eljer products:
- Renaissance Bath
- Contoura Toilet
- Contoura Bidet
- Contoura Lavatory
- Avante Faucets
- Contoura Accessories

Bath shown in Glacier Blue. Toilet, bidet, and lavatory available in Blue Ice.
Stephen Mead shows how Eljer's Glacier Blue can unify a bathroom space.

"In this bathroom, I use color and detail to achieve an attractive and comfortable cohesiveness in a rather fragmented space.

"That's why I chose Eljer's new Glacier Blue for the fixtures. It is a classic color that does not intrude nor overpower the design, yet it is a color that is strong enough to unify the bathroom.

"Eljer's Coventry toilet is an elegant, new one-piece that features a slightly higher profile than most one-piece units and mates well with Eljer's Valencia bidet.

"The lavatory is another Eljer design. The Reminisce is a luxuriously roomy 30-inch by 20-inch oval in vitreous china. I've also selected a new line of Eljer faucets, called Ambiance Round, which I find quite attractive.

"The bath—Eljer's Continental model—is a deep, restful whirlpool unit installed in a platform and centered under a fixed-glass window.

"In all, the harmonizing effect of using color, texture and pattern results in a bath that encapsulates and encloses the user in a cozy, inviting atmosphere."

Stephen Mead's RHAPSODY bath features the following Eljer products:
Continental Bath.
Coventry Toilet.
Valencia Bidet.
Reminisce Oval Lavatory.
Ambiance Round Faucets.
Avente Accessories.
Fixtures shown in Glacier Blue.
Why Lyn Peterson (L) and Kristina Ratia chose a high-tech feeling for this bath.

L.P.: "We chose to decorate our Eljer bath in an eclectic high-tech style, because high tech combines high style and technology."

K.R.: "In many ways this bath is engineered rather than designed. The two new Eljer Jasmine octagonal lavatories are separated by the width of the Nobility bath, creating two separate spheres of activity."

L.R.: "The colors of the bath fixtures, which includes the Coventry toilet and Valencia bidet, are sleek and achromatic — Eljer's Classic Gray and Platinum. They're great decorating colors.

K.R.: "A bathroom like this desanctifies design. These Eljer bath fixtures and these surfaces — marble, tin, ceramic, sheet rock and chrome — are straightforward and honest."

L.P.: "They all deliver as promised. To us, this is what the bath is all about: private, personal and performance oriented. It works."

Peterson's and Ratia's METRO BATH features the following Eljer products:
- Nobility Bath
- Coventry Toilet
- Valencia Bidet
- Jasmine Octagonal Lavatory
- Dimension Faucets
- Chrysta Accessories

Bath shown in Platinum.
Toilet, bidet, and lavatory in Classic Gray.

Capture the excitement
The Taos Bath by Mead.

Stephen Mead reveals how modern materials suit Eljer’s Sandalwood bath fixtures to a “T”.

“Since I wanted to use Eljer’s new Glencove bath and wall-surround system, I chose modern, man-made materials for the bathroom’s interior to complement the super-smooth feel and look of this bath unit.

For the wall, I used a laminate which provides an easy transition from the bath material, and results in easily cleaned and maintainable wall surfaces.

“I found the sculptured, high-style shape of Eljer’s New Emblem toilet attractive. Its Sandalwood tan color playing well against the dark brown rubber tile floor. Ditto for Eljer’s Valencia bidet.”

“Eljer’s new and exciting Donegal hexagonal lavatories fit in perfectly, too. I’ve set two of them into the vanity at an interval that allows two people to use the space without congestion.

“Overall, I believe the color scheme results in a comfortable, upbeat atmosphere for an on-the-go couple needing space to spread out in a visually stimulating bathroom.”

Stephen Mead’s TAOS BATH features the following Eljer products:

Glencove Bath and Wall-Surround System.

New Emblem Toilet.

Valencia Bidet.

Donegal Lavatory.

Orleans Faucets.

Clairisse Accessories.

Fixtures shown in Sandalwood.
Eljer presents bathroom accessories with an international difference.

Get the exciting look in our five new lines of bathroom accessories. There's an international flair to help set off the daring look of Eljer's new bathroom fixtures and faucets. Fashioned from chrome, gold plate, crystal and porcelain, each is designed to match every designer's dream perfectly. See them all at an Eljer showroom soon.

**Astoria Series**
Gold striping on ceramic, with gleaming gold metal on surrounds and bars, creates a fantasy look of high style. Flowing curves harmonize with almost any bath decorating idea. Ceramic in onyx, ruby or white.

**Clarisse Series**
Clear acrylic and gold accents glisten and sparkle throughout this line. Clarisse makes a rich and beautiful statement anywhere it's used. In gold and clear acrylic or chrome and clear acrylic.

**Chrysta Series**
Swirling crystal accents capture the light and reflect the rich look of these accessories. In crystal with gold or crystal with chrome.

**Contoura Series**
Made from the same porcelain, and in the same art deco style as Eljer's new Contoura line of bathroom fixtures, these accessories are matchless. In Blue Ice.

**Amente Series**
No mistaking what this gleaming line of accessories says. Every inch reflects a bold, opulent look and makes any designer scheme look fabulously rich. In combination chrome and brass.
Some of the most exciting faucet designs in the world are Eljer's.

Where else in the world can you find faucets with a look like these? Only from Eljer, the maker who has exciting new ideas coming from all over the globe. Like the faucets shown here, some with curves as gentle as the moon's. See for yourself. Look at all of our new Eljer faucets in an Eljer showroom soon.

**Grandela**
These faucets for lavatory, bath, shower and bidet feature Eljer's unique vitreous china waterfall cascade spout. These faucets come in ruby, black or white with distinctive gold stripes. Or in platinum gray with chrome stripes. Faucets are available with gold satin, all-chrome satin or polished gold handles.

**Orleans**
This faucet line provides a subtle yet elegant hint of tradition in its attractive cross handle design. A variety of dazzling finishes provide a touch of contemporary style to the cross handle design.

**Dimension**
Form and function combine in the attractive cervical handles of the Dimension faucet line. A selection of attractive finishes allows you to complement your bath fixtures to suit your style.
Crescendo
A crystal remembrance of days gone by, simple graceful styling is the mark of this traditional style faucet line. Optional brown or white onyx handles and chrome or gold finish.

Innova
Unmistakably contemporary, the Innovia line combines sculptured metal with translucent acrylic. Optional brown or white handles are available in chrome or gold finishes.

vanite
The flavor of European styling is yours with vanite. The line offers a choice of traditional widespread or single holeount lavatory faucets, chrome or polished brass finishes and optional white and black marbel handles.

Ambiance
A stunning interpretation of the Ambiance line is achieved with an oval shaped handle. Two-tone finishes are available, chrome with brass accents and brass with chrome accents. Optional round or oval handles.
Eljer offers a complete portfolio of these designs plus a variety of adaptations...to fit your bath dimensions.

The ideas shown here can be a starting point for your own bathroom planning. In fact, to help you do just that, Eljer has developed a series of brochures with hints on taking the exquisite styling of these rooms and applying them to your own needs. There are model numbers of each of the Eljer bath fixtures in the plan, plus model numbers and descriptions of the Eljer faucets and accessories used. Featured is an alternate list of building materials and decorating items for more practical sizes and budgets.

For a complete set of brochures, send $5.00 to Eljer, Three Gateway Center, Pittsburgh, PA 15222. You'll get additional advice on bath design from some of the world's top designers, and have it right at your fingertips. You'll also see how Eljer's exciting new products and colors can give you a stylish bathroom for the eighties and beyond.

This Spring, millions of consumers will see this special insert in the pages of Architectural Digest, Better Homes and Gardens, House Beautiful, Metropolitan Home, and Southern Living.

Eljer
Capture the Excitement
REACH FOR THE SKY

Now there's a method of building glass and aluminum structures that reach higher and extend farther than ever available before in this budget range. Structures that meet and exceed all building codes for this category, yet give the versatility of your design an opportunity to be expressed. What you see is only the beginning. Our structures can do much more. Just put your dreams on paper and send them to us. We'll show you how our structures adapt to your needs and make your clients see the light.

ENGLISH GREENHOUSE PRODUCTS CORPORATION
1501 Admiral Wilson Blvd.
Camden, New Jersey 08109
Call Toll-Free 1-800-223-0867
In N.J. call 1-609-966-6161
Telex 83-1528 NET ENGR CMDN
Awards and Competitions

Gottfried Böhm Named Recipient Of Eighth Annual Pritzker Prize

To those who follow both architectural awards and the rise and fall of architectural reputations, the Pritzker prize for 1986 will be baffling. Established in 1979 by the owner of the Hyatt Hotel chain, Jay A. Pritzker, as a "Nobel of architecture," the award has followed a rather predictable path: Philip Johnson, FAIA, 1979; Luis Barragán, Hon. FAIA, 1980; James Stirling, Hon. FAIA, 1981; Kevin Roche, 1982; I. M. Pei, FAIA, 1983; Richard Meier, FAIA, 1984; and Hans Hollein, Hon. FAIA, 1985.

All of these winners had well-established American reputations, either through residence and work or through their frequent appearance in exhibitions and publications. They were essentially superstars of the architectural world, and even if Hollein had not built much, his small and exquisitely crafted work had been well known and avidly followed since the 1960s.

The 1986 Pritzker prize to Gottfried Böhm, Hon. FAIA, is more adventurous; it goes to a virtual unknown in American architecture, and to a body of work that lies outside the prevailing American stylistic channels. Indeed, much of Böhm's work challenges American perceptions.

The work of the 66-year-old Böhm (pronounced berm) is located almost entirely in West Germany, the exceptions being several early churches in Brazil and Formosa and a children's village in Italy. However, he has undertaken projects and competition designs for sites outside Germany, and recently he has taught at MIT and the University of Pennsylvania. This recent exposure certainly contributed toward the Pritzker recognition.

Both Böhm's grandfather and father were architects; his father was the leading Catholic church architect in Germany from the 1920s to the 1950s. Böhm trained in Munich in both architecture and sculpture and worked with his father until the latter's death in 1955. This intensely spiritual background and artistic training have remained important elements in Böhm's work; he seeks to transcend the functional and programmatic, and he also paints murals for some of his buildings.

The spiritual transcendence that Böhm seeks is most firmly rooted in that strain of German art and architecture known

Above, Pritzker prize winner Gottfried Böhm and some of his most celebrated works: left, the Bergisch-Gladbach Civic Center, 1980; and right, Bensberg town hall, 1964, erected on the ruins of a medieval fortress. Across page, above and below, exterior and interior of the Church of the Pilgrimage in Neviges, 1964.
as expressionism. As a design movement expressionism probably didn't exist; rather, it involved an attitude toward architecture that was romantic and intuitive, combining elements of fantasy, modernism, and tradition. Böhm's father favored the traditional side, and in Böhm's recent work, the use of gables, pediments, or towered facades is not a postmodern irony but a reach to and transcendence of the past.

The Bensberg Town Hall of 1964 indicates that a dialogue with the past is nothing new for Böhm. It was built as an extension on the ruins of a medieval fortress, and Böhm reinvents the Gothic sensibility with the rugged, almost geological tower and rough cast form work. The tower does make a bow to the expressionists and perhaps most overtly to Lyonel Feininger's cover for the first Bauhaus manifesto.

Böhm's best-known work is undoubtedly the Church of the Pilgrimage at Neviges, completed in 1964. Its vast crystalline forms of concrete remind one of German expressionist films such as "The Cabinet of Dr. Caligari." Juxtaposed against the sharp forms is a broad path of gracefully curving steps leading past the rounded facades of the pilgrims' hostels. What might be expected to be a heavy, confining interior is revealed to be open and expansive, a thing of wonder, light, and space. Böhm designed the stained glass windows. The church at Neviges deserves to be ranked with Wright's Unity Temple and Le Corbusier's Ronchamp as one of the great religious monuments of the 20th century, both for intensity of feeling and spatial achievement.

Free-form concrete continued to be Böhm's preference in materials until the early 1970s, when, as he claimed, it became too costly and the supply of craftsmen ran out. Steel and glass and more obviously industrialized and prefabricated components seemed to draw his attention. His drawing style changed markedly, from denseness to light. The types of buildings he designed changed also—fewer churches and more town halls and commercial buildings. The best-known of these works, the civic center at Bergisch-Gladbach, delights in a visual complexity. Tied to a late 19th-century baroque former pub, the civic center's facade is composed but yields an ad hoc quality, with such competing elements as towers, bays, hoods, and awnings. It recalls elements of the past without historicizing. The interior is perhaps less successful to American eyes, for Böhm tends to incorporate a variety of motifs ranging from high-tech to kitsch.

continued on page 36
Yet, as an experience, the spatial drama and intricacy are compelling.

Böhm is just reaching that point when the truly big and important commissions arrive. Some of his recent projects have revealed an unfortunate systemization and regularity of both plan and form. Whether this will become his mature style—which happens to many architects as they become more institutions than individuals—is, of course, unknown. One does hope that the Pritzker and the ensuing fame will still allow him to pursue his own particular intuition in creating some of the most remarkable, and possibly great, buildings of the last half of the 20th century.

The 1986 award ceremony took place in two parts. On April 16 at the Museum of Modern Art, Böhm was presented with a $100,000 tax-free gift. A second formal ceremony was to take place on May 7 at Goldsmith's Hall in London, when he was to receive a bronze sculpture by Henry Moore.

Juries for this year's selection were J. Carter Brown, Hon. AIA, director of the National Gallery of Art in Washington, D.C. (chairman); Giovanni Agnelli, chairman of Fiat in Torino, Italy; Thomas J. Watson, chairman emeritus of IBM Corporation; Ricardo Legorreta, Hon. FAIA, of Mexico City; Fumihiko Maki, Hon. FAIA, of Tokyo; and Kevin Roche of Hadid, Conn., winner of the Pritzker in 1982.

—RICHARD GUY WILSON

Dr. Wilson teaches architectural history at the University of Virginia.

Foster's Hongkong Bank Wins R. S. Reynolds Award

The Hongkong Bank building, designed by Norman Foster Associates of London, has won this year's R. S. Reynolds memorial award for distinguished architecture. The award's jury, which consisted of R. Bruce Patty, FAIA, Canadian architect Jack Diamond, and Eugene E. Aubrey, FAIA, cited the building as a "collaboration between the architect and the modern-day, high-tech aluminum craftsman and his technology. The finesse of the design and the contribution the building's plaza makes to the community and its urban setting is commendable."

Located on the northern coast of Hong Kong Island, the 47-story building is composed of two rows of four tubular steel columned towers at three heights, braced at each floor by horizontal members. Suspension trusses at five levels, expressed on the exterior, join the towers, which are also cross braced at each of the five levels. This elaborate structure is clad in approximately 1 million square feet of aluminum panels with a fluoropolymer finish.

In his critique of the Hongkong Bank

Young Hispanic Architects Competition Winners. Adolfo Perez, a graduate of Harvard University who now practices in Cambridge, Mass., was selected as the first place winner for his proposal for a new police station house in the Bronx in the second annual Hispanic talent search architectural competition. (Main entrance elevation shown above.) Second place was presented to Carlos Garcia-Bou, a graduate of the City University of New York school of architecture. Bernardo DePablo of Port Washington, N.Y., was awarded an honorable mention. The winners were presented prizes ranging from $3,000 to $500. The jurors were William Raczko, AIA; Abraham W. Geller, FAIA; Alexander Kouzmanoff, FAIA; Terrance Williams, AIA; and Fernando J. Domenech, AIA. Hamilton Smith, FAIA, a partner of the firm Gatje Papachristou Smith, served as the professional adviser. The competition was sponsored by Castro-Blanco, Piscionei & Feder, Architects, of New York City.

Unless otherwise indicated, the news is gathered and written by Allen Freeman, Nora Richter Greer, Michael J. Crosbie, and Lynn Nesmith.
THE RIBBON® RACK

environmental sculpture for bicycle and moped security™

For prices and information contact:
BRANDIR INTERNATIONAL, INC.
200 Park Avenue, Suite 303E
New York, NY 10166
212-505-6500

IDSA National Design Award Winner

©Copyright 1984, Brandir International, Inc.
Until now, about the only way you could reduce the heat of the sun was with windows that also reduced the light of the sun. That made for buildings that looked like mirrors on the outside, and a bit like caves from the inside.

Now, Andersen has developed a window that reduces the sun's heat $2^{1/2}$ times better than ordinary single-pane glass, yet it lets in twice as much light as mirror-like reflective glass.

**ANOTHER DESIGN OPTION, WITH WINDOWS THAT WORK.**

Andersen® High-Performance Sun windows don't have the impenetrable and inscrutable look of most reflective glass. Yet for all their effectiveness against heat gain, they are able to provide more natural light, too. And, unlike most windows you find in commercial buildings, ours open and close.

**BETTER LOOKING FROM OUTSIDE. BETTER LOOKING FROM INSIDE.**

These Andersen windows have a soft bronze tint that looks handsome from outside, yet it doesn't distort colors for the people looking out. In fact, it makes these colors look much richer. The greens are greener and the blues are bluer.
PLANTS FLOURISH, COLORS FADE LESS.

One more wonder. This window filters out 88% of the ultraviolet rays that fade fabrics, yet there's still plenty of visible light for people and plants to flourish. Add to all that two more pertinent points: these windows are eminently affordable and readily available off the shelf.

WHERE AND HOW. (IT'S NOT DONE WITH MIRRORS.)

It takes a truly remarkable window to control the awesome power of the sun. We call it the Andersen High-Performance Sun window. You can find out more about what's available and how it works by calling your Andersen distributor. And by consulting Sweet's File 8.16/An. Or write Andersen Corp., Box 12, Bayport, MN 55003.
Remodeled spaces have all the lighting problems of new construction without the benefit of long lead times.

This carefully-designed space is actually the clubhouse of the Minnesota Twins baseball team—a far cry from the bare-concrete and exposed-pipe image we usually associate with a locker room.

Despite its remarkable luxury, this job suffered under the usual remodeling constraints: an existing structure (the Metrodome) and the pressure of time (the opening of baseball season).

The designers wanted the look of linear fixtures and the even lighting that only a high-quality lensed indirect fluorescent system can deliver. Unfortunately, high-quality linear systems need eight to twelve weeks for delivery—acceptable for new construction but too long for time-sensitive remodels.

Here, the answer lay in a newly-developed modular system: FasTrac by Peerless, which promises four-week shipment on any order of up to 1000 feet.

Softshine optics: on the cutting edge

These 6" round linear fluorescent fixtures offer seven of the controlled optical systems that established Peerless as a leader in lighting technology.

Here, note the even ceiling and upper wall illumination, overall shadow-free environment and lack of glare. These two-lamp fixtures, hung 10' apart, use a wide spread Softshine lens that distributes the light into precisely the right viewing areas.

You can insist on the look and quality of the best linear lighting—even if you're up against a tight completion deadline.

Remodeled spaces have all the lighting problems of new construction without the benefit of long lead times.

This carefully-designed space is actually the clubhouse of the Minnesota Twins baseball team—a far cry from the bare-concrete and exposed-pipe image we usually associate with a locker room.

Despite its remarkable luxury, this job suffered under the usual remodeling constraints: an existing structure (the Metrodome) and the pressure of time (the opening of baseball season).

The designers wanted the look of linear fixtures and the even lighting that only a high-quality lensed indirect fluorescent system can deliver. Unfortunately, high-quality linear systems need eight to twelve weeks for delivery—acceptable for new construction but too long for time-sensitive remodels.

Here, the answer lay in a newly-developed modular system: FasTrac by Peerless, which promises four-week shipment on any order of up to 1000 feet.

Softshine optics: on the cutting edge

These 6" round linear fluorescent fixtures offer seven of the controlled optical systems that established Peerless as a leader in lighting technology.

Here, note the even ceiling and upper wall illumination, overall shadow-free environment and lack of glare. These two-lamp fixtures, hung 10' apart, use a wide spread Softshine lens that distributes the light into precisely the right viewing areas.

You can insist on the look and quality of the best linear lighting—even if you're up against a tight completion deadline.
Congress Considering $3 Billion
For Increased Embassy Security

Legislation to spend $4.4 billion on security efforts overseas, including an unprecedented $3 billion for new and upgraded embassy buildings (that figure is more than has been spent to date on the entire embassy construction program since World War II) is making its way through the U.S. Congress. The omnibus terrorism bill that authorizes the program passed the House of Representatives March 18, by a vote of 389-7 and is now pending in the Senate, staff members of which visited several overseas installations during the Easter recess. Following expected passage here and President Reagan's signature, the next step would be for the Administration to seek an annual appropriation of funds.

The State Department has told Congress it needs to build more than 70 major new embassies and rehab another two dozen during the next five years in such locations as Santiago, Istanbul, Vienna, Tel Aviv, Algiers, Copenhagen, Madrid, and Bangkok, among others.

Despite the tremendous increase in funding, the State Department's Office of Foreign Buildings Operations (FBO) intends to retain its three-decade-old panel system by which architects are selected and their projects reviewed. Designs about to move into construction, according to FBO, include chanceries in Dacca, Bangladesh, by Kallmann, McKinnell & Wood, and in Muscat, Oman, by James Stewart Polshek & Partners. An embassy compound in Amman, Jordan, by Perry Dean Rogers & Partners is in final design. A long-delayed design by Gatje Papachristou Smith for Damascus, Syria, has been on hold because of a necessity to change the site and now is unlikely to be built, according to FBO. A similar fate befell a design by Benjamin Thompson Associates for Ottawa. Neither site met the strict new security guidelines.

According to Representative Daniel A. Mica (D-Fla.), approximately one-quarter of the funds will be for the purchase of new or additional land. All new embassies must be set back a minimum 100 feet from the street, as suggested by the Inman Committee report (see Sept. '85, page 56), a requirement that will nearly preclude construction in urban areas. Addressing a policy forum, "Terrorism: Building the Best Defense," sponsored by Enserch Engineering and Construction in March, Mica related how a car bomb outside the new embassy in Lisbon did not damage the Fred Bassetti-designed facility because of the 100-foot setback. "We could have had another Beirut," said the congressman, who is chairman of the subcommittee on international operations of the House Foreign Affairs Committee, which oversees the building program.

Mica indicated that the proposed legislation would mandate extensive congressional review of new embassy construction. He declared to the conference guests, mostly government officials, that because of Gramm-Rudman deficit reduction law and the massive amount of funds to be expended, the legislation "lets us look at every single project before we go into construction. . . . You will probably see the most complete and total scrutiny of spending under this program that you've ever seen." He cited such elements as the seller and purchase price of the land as well as "what types of furnishings," among others, in explaining what he described as "micro-management" by the Congress. To a number of panelists present, the implication was that Congress would start reviewing esthetics, and there was memory of the Wayne Hays era, when that Ohio congressman brought FBO's efforts to a halt. Referring to an unnamed ambassador who ordered the removal of a metal-detection device from an embassy lobby, Mica said, "We put it in the bill. We can and will start to override the ambassador."

Mica also stated that the requirement for a 100-foot setback was in the legislation. That assertion has proved incorrect—it is in the State Department's regulations—but it prompted much discussion at the afternoon session of the Enserch conference, nonetheless. Christopher Degenhardt, president of EDAW Inc., landscape architects, and a member of the National Research Council Building Research Board committee of the National Academy of Sciences investigating embassy security, pointed out that the new setbacks will demand vast amounts of land. A typical 40,000-square-foot site when required to incorporate a 100-foot setback would grow into a 160,000-square-foot site. He noted that as an ameliorative effect, a wall "doesn't have to be at the perimeter"—he suggested a location in the woods as a possibility—and said that alternatives such as berms or a moat will also meet security needs.

The weak link, he said, is at "the access points," and the solution there is fewer such entries.

Architect George E. Hartman Jr., FAIA, designer of the new U.S. embassy in Kuala Lumpur, Malaysia, believes that such vast amounts of land and its concomitant cost make sites absolutely prohibitive anywhere near a city. He thinks an embassy's "representational factor," which results in part from close-in urban sites, should not be abrogated without close examination. Hartman also believes criteria for security should be established, not legislated, and "then let FBO and the architects solve them." The architect also suggested two building types—central courtyard and underground—as likely to result from the new emphasis on security, which reduces outside windows to a minimum. "In a funny, strange way, Edward Durell Stone's famous New Delhi embassy may be the prototype for the future," he stated. It is rectangular in plan, surrounding an open court.

George M. White, FAIA, architect of the U.S. Capitol, also questioned the prescriptive approach, saying, "Nobody ever said legislative language was the answer to problems. As a matter of fact, it often creates them, as we are seeing here." White also noted, "Everybody's an expert when it comes to problems. As a matter of fact, it often creates them, as we are seeing here."
The fiber of St. Francis (SKHHP prescribed anti-microbial Zeftron 500® ZX nylon). Healthy fiber for St. Francis Hospital? Smith, Korach, Haynie Partnership came up with the solution. Anti-microbial Zeftron 500 ZX nylon carpet ti

Zeftron 500® is a registered trademark owned by BASF Corporation.
Zeftron 500ZX nylon

it resist germs, wear-marks, wheel-marks. Solution-dyed Zeftron 500 nylon sun-resistant, bleach-proof. Its vibrant depth of color makes St. Francis in ami Beach, Florida seem more like being at home than being in the hospital.

BASF Corporation
Fibers Division

Circle 15 on information card
Because your buildings take many shapes, so do our frames.

You specify it. For masonry, steel stud, wood stud, dry wall or poured concrete. We'll fit it. Exactly.

Curries has more standard frame configurations to choose from than anybody else. In 12, 14, 16, or 18-ga.

cold-rolled or galvanealed steel. And 16-ga. stainless steel.

Order them any way you want. Knocked down. Set up and spot welded. Set up and arc welded. Or set up and full welded.

Curries custom frames fit only one way. Your way. And they can be fabricated locally, by your Curries distributor. So there's less chance of damage in shipment. And you don't have to put up with costly delays.


Call your Curries distributor today. He's in the Yellow Pages under "DOORS" or "DOORS-Metal." Or see Sweet's 8.2 Cur. Curries Company, 905 South Carolina, Mason City, IA 50401. Member Steel Door Institute.
"It comes to architecture." He pointed out that "design of buildings is only one aspect of preventing terrorism," and suggested that architecture must be combined with better intelligence and improved training of personnel running X-ray and metal detector equipment, for example. Architect Stuart L. Knoop, AIA, chairman of the afternoon panel and another member of the committee studying embassies, injected a note of unfortunate reality, exclaiming, "You can't protect against absolutely every possibility."

C. Paul Robinson, an executive with Basco Services Inc. and a former security official at the Los Alamos National laboratory, in closing the conference, asked, "Can we make a science out of designing buildings to protect against terrorists?" The answer, he said, is "not yet."

"Architects see "room for lots more innovation and lots of thinking."" Earlier, there was one positive sign, at least as regards FBO's architecture program. David R. Dibner, FAIA, senior vice president of Bernard Johnson Inc. and chairman of the committee studying future embassies, reported, in the morning session that in its charge to the committee, Congress felt there could be a design of specific embassy, the embassy of the future. Have one and place it all over," Dibner said that in his committee's deliberations, "it became obvious that you can't have just a standard embassy. Therefore, did Dibner, the former GSA assistant commissioner for design and construction, his panel had developed design criteria and guidelines for security. The panel's report as been sent to the State Department, which is now reviewing it to see what, if any, parts can be released without compromising security.

-Carlton Knight

Federal Task Force Supports Liability Insurance Reforms

The Reagan Administration has fully endorsed the recommendations of a government interagency task force on the liability insurance crisis and is drafting legislation to make significant changes in ability coverage, including limits on attorneys' fees and restrictions on damage wards for "pain and suffering."

Although the task force did not recommend specific legislation, the Administration's legislative package is expected to be based largely on the 80-page report it presented to the President on March 7. The task force, headed by Assistant Attorney General Richard K. Willard, outlines the problems associated with skyrocketing insurance premiums, availability of coverage, and escalating damage wards. The report also contains eight recommendations aimed at making insurance more attainable and affordable.

Comprised of representatives from the Justice and Commerce departments and the Small Business Administration, the task force found that a "veritable explosion" in the legal definition of liability by judges, legislators, and juries, as well as recent large underwriting losses by the insurance industry, have contributed to the crisis. However, the group determined the current tort system is the major cause of the availability and affordability of liability insurance, and reforms of tort law by the federal government could "significantly alleviate" the liability crisis.

Four specific problem areas were identified and addressed by the task force. The group criticized the move toward no-fault liability, which penalizes professionals and companies even in the absence of any wrongdoing on their part, and the undermining of causation through a variety of questionable practices and doctrines that shift liability to "deep pocket" defendants regardless of the cause of the underlying injury. The report also noted the explosive growth in the damages awarded in tort lawsuits and the excessive transaction costs of the tort system: Approximately two-thirds of every dollar paid out through the system is lost to attorneys' fees and litigation expenses.

The task force recommended eight reforms of tort law aimed at controlling the insurance crisis. The report called for a return to a fault-based standard for liability that restricts liability to the party determined to be at fault and to base "causation findings on credible scientific and medical evidence and opinions."

The panel also recommended limiting

continued on page 48

In Shape

An airy canopy of natural light. A spacious dome that covers without confining. A spiral roof that reaches far beyond the bounds of the ordinary. Sculptural, free-form shapes possible with Vestar's Architectural Fabrics provide a new dimension in design freedom. Vestar Architectural Fabrics combine the excellent weathering properties of silicone with the strength and durability of fiberglass. And offer a long lasting, light weight, highly translucent construction material that sends imaginations soaring.

An innovation in shape.

Project:
Crowne Center Square Pavilion
Kansas City, Missouri

Consulting Engineer:
Geiger Berger Associates

Architect:
Tom Lindley, AIA
Hallmark Cards, Inc.

Photographer:
Paul Rivett

Circle 17 on information card

ARCHITECTURE/MAY 1986 45
Haws.

Envision The Possibilities!

Not just one. Or two. Or even three. But as many design possibilities as you can envision. For no matter what architectural project you undertake, Haws' full line of outdoor, indoor and specialty fountain and water cooler designs help you meet the challenge. Successfully. Without ever compromising style or performance.

That's because Haws' designs assure you something extra: innovation, creativity, and beauty. Backed by a 75 year reputation for quality workmanship, durability and expertise.

No company has ever done it better. And we think no company ever will. Consider your options, then look to Haws. Our possibilities are endless!

For more information, contact your Haws Representative, see Sweets section 15.7C, or phone the Sweets BUYLINE®.
Government noneconomic damages, including "pain and suffering," mental anguish, or punitive damages, to a "fair and reasonable maximum dollar amount."

In addition, the group urged a limit on attorneys' contingency fees to "reasonable amounts on a sliding scale." (The report had found that in asbestos lawsuits over the last 10 years only 37 cents out of every dollar in awards were received by the victims.)

Other recommendations of the committee suggested eliminating "joint and several liability" that has allowed more than one party to be held liable for damages caused by one incident and reducing awards in cases where a plaintiff can be compensated by collateral sources to prevent a "windfall double recovery." The use of alternative dispute mechanisms to settle cases out of court was urged, as well as periodic rather than lump-sum payments of damages for future medical care or lost income.

Many states have already passed laws that relate to many of the recommendations of the federal task force, including setting maximum settlements and reducing double recovery. California has passed legislation that places a ceiling on damages for future medical care as well as periodic rather than lump-sum payments of damages for future medical care or lost income.

In late March, two representatives of AIA testified before congressional subcommittees to urge legislation relating to factors that have contributed to the rising cost and frequent unavailability of liability insurance for many American architects.

Des Taylor, Hon. AIA, executive vice president of the Texas Society of Architects, in testimony before the House ways and means subcommittee on oversight, called for reform of the country's tort system. Taylor recommended reforms to return "fairness and equity" to the civil justice system, which were similar to the recommendations of the federal government task force. Taylor also urged Congress to provide appropriate sanctions for filing of frivolous lawsuits.

The chair of the Institute's liability task group, Burton W. Thomas, AIA, testified before the House subcommittee on commerce, transportation, and tourism to urge passage of legislation that would set a federal standard of care for the safe removal and abatement of asbestos. He also recommended that the Environmental Protection Agency be required to adopt the National Institute of Building Sciences' guidelines on abatement procedures.

In his testimony, Thomas also stated that in 1985 almost half of the country's architects were sued, but fewer than one tenth were required to pay damages.

"Disarray in the insurance industry and the civil justice system have combined to create a liability crisis that is beyond the capability of architects to attack directly," said Thomas.

AIA has joined 11 other organizations in forming the new American Tort Reform Association, which was organized to reformat the tort liability system through federal and state legislation, education activities and the judicial system.

News continued on page 5
Transforming dreams to reality is a fragile and delicate procedure. Unite your visions with the power of Color Quest™ surfacing. Eight brilliant new pastels, in standard decorative laminates, SOLICOR® colorthrough sheets, matching tambours, and more.

For product samples, literature and technical information, call toll-free (within the continental USA):

1-800-433-3222

In Texas: 1-800-792-6000

Bringing new solutions to the surface™
FACTORY-BLENDS ITS BRICK SO YOU CAN BE SURE YOU’LL GET THE LOOK YOU WANT

One of the advantages of brick is that it embodies natural gradations of color — as does the earth from which it is made. That’s why brick provides a warm, organic look that’s unlike the sterile monotony of some building materials.

When you specify brick, you visualize such a look, and to make sure you get it, Belden takes an extra manufacturing step. We factory-blend our brick. That way we randomize and control the minor color variations within a given run of brick. Consequently, the brick can be laid up just as it comes off the package without concern for concentrated color variances.

Because Belden Brick is factory-blended, you can be confident of the color consistency you originally visualized. That’s important to you. And to us, because we’re not satisfied with our brick until you are.

LET US BRING OUR PLANTS TO YOUR OFFICE
You’re always welcome to visit us and see our manufacturing facilities. But if you can’t, we’ll gladly bring them to you on a seven minute videotape. For a showing, please write or call.

THE Belden Brick COMPANY CANTON, OHIO 44701
Telephone (216) 456-0031
"We do more than we have to."
Yeouch! That's how most people discover their bath water's too hot. Or their showers too cold.

Now there's a less painful way. The Ceramix Electronix™ from American Standard.

Our built-in sensor measures the temperature and our solar-powered digital readout displays it.

So now your customers know exactly what they're getting into. Before they get into it.

Our single-control faucet comes with some other terrific features, too. Like our washerless ceramic-disc valving. A lifetime drip-free warranty. And to top it off, a choice of 6 beautiful finishes.

We have a faucet for the bath and shower, bidet, and bathroom and kitchen sink. We even have a full line of Ceramix™ faucets without temperature readouts.

So carry the Ceramix Electronix. Not only will it keep your customers out of hot water, it'll keep you in the money.

For our luxury products brochures, write to American Standard, Department KBB, P.O. Box 2003, New Brunswick, N.J. 08903. To see Electronix, visit our Showplaces: Chicago (3 Crossroads of Commerce, Suite 100, Rolling Meadows); Dallas (2344 Inwood Rd.); Los Angeles (116 N. Robertson Blvd.); New York (40 W. 40th St.); Pittsburgh (100 Ross St.). Or call 1-800-821-7700 (ext. 4023) for your local showroom. © 1986 American Standard Inc.
BOTTOMLINE  BRILLIANCE.

Turn subflooring into a smart flooring system in one step with environmentally safe Homasote 4-Way® Floor Decking.

Smart architects have discovered that ordinary, hard, noisy, non-insulating wood subfloors are beneath them.

And they’ve found a better, smarter, more ingenious alternative: the Homasote 4-Way® Floor Decking System.

Better, because it’s more than just a structural subfloor.

It provides resilient carpeting underlayment. Adds up to R/4.5 insulation (six times the value of 5/8” wood subflooring). And deadens noise (system test ratings*: IIC-72; INR21; STC 50).

Smarter, because it’s 100% environmentally safe, with absolutely no asbestos or formaldehyde additives. And it installs in one step.

More ingenious, because this added performance helps fully satisfy the demands of today’s energy and quality conscious construction buyer.

Build this proven bottomline brilliance into your next commercial or residential job.

For full details, and free sample, call (609) 883-3300. Or write:

homasote  COMPANY
P.O. Box 7240, West Trenton, New Jersey 08628-0240

SMART ARCHITECTS CHOOSE HOMASOTE.

---

<table>
<thead>
<tr>
<th>Nominal Thickness</th>
<th>Nominal Size</th>
<th>Weight/Sq. Ft.</th>
<th>Joists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-11/32”</td>
<td>2’ x 8’</td>
<td>3.0 lb. 16” ac.</td>
<td></td>
</tr>
<tr>
<td>1-3/4”</td>
<td></td>
<td>4.1 lb. 24” ac.</td>
<td></td>
</tr>
</tbody>
</table>

The Institute

Mandatory Code of Ethics To Be Considered at AIA Convention

Having received the approval of AIA’s board of directors at its meeting in March, a new mandatory “code of ethics and professional conduct” will be voted on at the institute’s annual convention in San Antonio next month. Copies of the code will be sent to all component chapters and will be available upon request to all members.

The code, which the board recommended for approval at the convention, is the product of AIA’s ethics task force, which began its work in November 1984. A preliminary draft was completed in the summer of 1985, circulated among components and members for comment, and then reviewed by the board (see Sept. 15, page 65). The code was also considered at the meeting of Grassroots ’86 in January.

If approved at the convention, the new code will replace the voluntary “ethical principles” that have been in effect since June 1980. AIA terminated a previous mandatory code of ethics in 1979 after a ruling by the Justice Department that the code’s prohibition of supplanting violated the Sherman anti-trust act.

The new code, as was the previous one, is comprised of canons, ethical standards, and rules of conduct. While the canons, en masse, outline the broad principles of conduct, the 17 ethical standards delineate more specific goals “toward which members should aspire . . . .” The 30 rules of conduct are mandatory, and violation of these is subject to disciplinary action in the form of admonition, censure, suspension of membership for a period of time, or termination of membership.

The first canon concerns general obligations and ethical standards. The second is on obligations to the public, the third on professional competence, the fourth on obligations to the profession, and the fifth on obligations to colleagues.

Enforcement of the code would be the responsibility of a national judicial council appointed by AIA’s board. Formal charges could be filed with this council by members, components, or anyone “aggrieved by the conduct of the members.” The council would be required to defer action on a charge to allow a component, if it wishes, to obtain an informal settlement.

Ethics task force chairman Harry Harmon, FAIA, says that the method of enforcement is a compromise between components who wish charges of misconduct to be settled at a national level and those who wish to settle such matters locally. “It does not give the chapters the authority to levy sanctions,” Harmon points out. “They can only use persuasive powers to resolve a matter informally.”

If the code is adopted it will take effect on Jan. 1, 1987. Before that time, Harmon says, a number of actions would be necessary: appointment of a national judicial council; development of procedures for components and members filing charges; development of training programs for components and the judicial council; appointment of staff to handle code-related matters; and preparation of required bylaws changes.

Justice Department officials have given informal approval to the code as it has been developed through seven drafts. It has now been submitted for official approval, “and there is every indication that the department will give it a favorable business review,” Harmon reports. The department is expected to act before AIA’s convention. As to why the need for a mandatory code of ethics, Harmon says, “It’s important because it says that AIA stands for something.”


The Rev. Robert H. Schuller Named AIA’s Public Director

The man who commissioned the Crystal Cathedral in Garden Grove, Calif., television’s “Hour of Power” minister, the Rev. Robert H. Schuller, has been elected the public member of the AIA board of directors. The senior minister of Garden Grove Community Church and the author of more than 20 books, he was elected in March at the Institute’s board meeting in Los Angeles to serve a term expiring in December 1987. He succeeds Susan Stamberg of National Public Radio’s “All Things Considered.”

Norman L. Koonce, AIA, the Gulf States regional director who nominated the Iowa-born minister, said that pragmatic Schuller’s “possibility thinking, prob- continued on page 56

ENERGY EFFICIENT CLEARSPAN SKYROOFS . . .
Another of our major advances in the state-of-the-art . . .
the Structures Unlimited “Skyroof” System!

A material that transmits diffused daylight to eliminate lighting energy usage in the daytime; that controls solar heat transmission to allow maximum heat gain for passive solar applications, or as little as 10% (compared with glass) to save air conditioning costs that insulates up to 86%, more efficiently than single glazing!

Combined with our engineered aluminum structural system, Clearspan Skyrioso up to 100 foot span are a reality.

Complete, under only one contract – one responsibility!

STRUCTURES UNLIMITED, INC.

PO. Box 4105, Manchester, NH 03108 Phone 603-627-7887

Circle 24 on information card

ARCHITECTURE/MAY 1986 53
For samples, call Zip Chip, 1-800-524-0159 (In N.J. 1-800-624-1914).
ever before has Formica Corporation introduced so many exciting surfacing ideas at one time. 52 new colors, patterns and products from across the country and around the world. Each created to give you the competitive edge in your next design.

**New Colors.** We've added 20 new colors to Color Trends '86 for a total of 42 colorways. These, combined with the 72 colors permanently available in The Color Grid® system, bring our solid color collection to 114.

**New Patterns.** We have added Blackstone, a handsome black granite design and Birdseye, in Vanilla, Folkstone, and Copper Rose. The Premiere Collection, drawn from our international resources in England and France, include: Dust Patterns, in Stardust and Firedust. Stripes, in 18 striking designs. Lacque Métallique™ hand-made laminates in Bronze, Copper, Patina and Mandarin. So if you're looking for innovation, look to Formica Corporation. We're always bursting with new ideas.
The Institute from page 53

solving, and motivational abilities [which] enabled his congregation of some 10,000 to occupy the $21 million structure debt free" would serve the Institute well. He later said that Schuller "considers architecture to be an incarnation of God's creative process that lends dignity to man's use of his environment and his desire to gain inspiration in worship from it."

Schuller advocates humankind taking responsibility for stewardship and enhancement of the planet, one aspect of which is the built environment. "We all live on planet Earth," he says. "The skin cannot be stretched, and we need to protect it from ugly scars and enhance it by what we build."

Schuller is a long-time enthusiast of architecture. He commissioned Richard Neutra to design the Garden Grove Community Church's first building in the early 1960s. Later Philip Johnson, FAIA, and John Burgee, FAIA, designed the Crystal Cathedral, which was completed in 1980. That truncated star-shaped building, which bears some resemblance to a stylized version of a tent for a religious revival, is a white-painted steel space frame covered with 10,000 panes of mirror glass. The interior seats 3,000, and the chancel area can accommodate another 1,000 singers and instrumentalists. A mammoth door at the side opens to permit Schuller to address those parked in their cars, a reflection of Schuller's original ministry in California from the concession-stand roof of a drive-in movie theater.

Lately, he has been thinking of building a small chapel, and although nothing has resulted to date, he has talked with Johnson, Richard Meier, FAIA, Arata Isozaki, Hon. FAIA, and Frank Gehry, FAIA, about possibilities.

During an interview in his reception room under the Crystal Cathedral after Sunday service, Schuller said his interest in architecture was piqued while a student at Hope College in Michigan. "It was just enough to recognize there is an in structure and form," he says. After ordination and serving a church in Chicago, Schuller moved to California in 1955 and began to preach at an unused drive-in movie theater where the parishioners remained in their cars. Inspired by that experience, and in need of permanent quarters, Schuller decided to build a "walk-in, drive-in church." He engaged Neutra, who designed an extensively landscaped church that opened to the parking lot on one side. The church was completed in 1962, and four years later a 14-story tower and an office structure also by Neutra were added.

Schuller's congregation grew rapidly, and in the 1970s he engaged Johnson and

Right, Schuller beneath canopy of Johnson/Burgee's Crystal Cathedral.

When You Need More Than Just Glass...

Amcoa, the Southeast's oldest and largest manufacturer of 3/4 inch glass furniture, has the advanced technology to carve any design, pattern or logo of various sizes and shapes in glass or mirror. We offer a complete design service and worldwide shipping.

Anything in Glass • AMCOA
6301 N.E. 4th Avenue • Miami, Florida 33138
Toll Free (Florida) 800-432-4003
Toll Free (Outside Florida) 800-327-7514

Represented In:
ATLANTA—Patricia Preece
Associates (404) 231-3350
CHICAGO—Rozmolin (312) 467-8860
DALLAS—R.T. Mark (214) 748-7693
WASHINGTON, D.C. — Lozenby Associates (202) 484-3350

MIAMI—Amcoa (305) 751-2202
Broward: (305) 525-3737

Circle 26 on information card
A unique polymer with a 40 year performance record and a good balance of applications and properties...

**LP® POLYSULFIDE POLYMER**

- Aircraft sealants
- Airfield sealants
- Building sealants
- Canal sealants
- Chemical intermediates
- Dental molding compounds
- Epoxy copolymers
- Heavy construction sealants
- Insulating glass sealants
- Intumescent coatings
- Leather impregnates
- Marine sealants

- Excellent resistance to oils, solvents
- Good electrical properties
- Excellent resistance to aging, ozone, oxidation
- Excellent adhesion to most substrates
- Good stress/strain properties
- Good low temperature flexibility
- Wide operating temperature range
- Compatible with epoxies, polyesters

...is a polymer worth considering!

For more information write:

**Morton Thiokol, Inc.**  
Morton Chemical Division  
Mkt. Comm.-A, 333 W. Wacker Drive  
Chicago, Illinois 60606-1292

Circle 27 on information card
O’Keeffe’s

Custom Skylights

Citicorp Building
San Francisco, California
Architects, William L. Pereira Associates
Contractors, Swinerton & Walberg Co.
O’Keeffe’s Designer Handbook Series is available on request!
Nationwide 800/227-3305
In California 800/622-0721

O’Keeffe’s Skylights

Over 45 years proven experience in designing, manufacturing and installing custom and standard skylights. Our complete in-house design and engineering staff is available to work with architects from concept to completion.

O’Keeffe’s Quality Standards

- Innovative leader in design and engineering
- Skylights fabricated to any specifications
- Commitment to excellence in craftsmanship
- Capable and reliable in meeting design schedules
- Licensed applicator of PPG metal finishes
- Stringent quality control standards
- 10 Year watertight™ guarantee

Whatever your skylight needs, O’Keeffe’s will deliver with quality and excellence. For details and technical information see Sweet’s number 7.8/OK or call toll free.
700-622-0721 In California
800-227-3305 Nationwide

O’Keeffe’s Inc.

Aluminum Building Products
Williams Avenue
San Francisco, CA 94124
5-822-4222
ex #278927
puttin' on the pink

Architects are specifying it in a whole variety of insulation applications. Here's why:

- Outstanding moisture resistance properties that enable Foamular® to retain its high R-value of 5 per inch of thickness even after exposure to moisture. It's extruded, so year after year, it keeps on insulating.
- Tough, easy-to-handle, easy-to-install, lightweight panels offered in a broad selection of sizes, thicknesses and compressive strengths.
- "Family of Products" concept that lets you choose just the right product for your application—without overspecifying.
- Meets codes and standards.

For details, contact UC Industries, Inc., 2 Sylvan Way, Parsippany, N.J. 07054 • (201) 267-1600
New tests show...
Stanlock's gasket glazed systems are 40% "quieter" than metal glazed systems.

For 25 years Architects have used Stanlock lockstrip gaskets for all types of noise reducing applications in airport buildings, quiet rooms, hotels and hospitals.

**Call Toll Free** 1-800-431-1607
to get a copy of recent tests that show Stanlock gasket glazing is 40% better than metal framed windows or curtainwalls for reducing exterior noise transmission into a building.
Handicaps aren't always permanent. But they're always inconvenient.

That's why we've made the new Oasis® automatic water cooler so user-friendly it can even be started with a tap of the hip as our mother of twins has done.

In fact, just a tap on any one of the four conveniently located touch pads — with any part of the body — starts it. Cold water runs for 7 seconds, then stops. Automatically.

It's the only cooler available that even the most severely handicapped can use by themselves.

Electronically timed control means there's no need to maintain constant pressure to keep the water running. The secret is our exclusive membrane switch design that activates a solid-state, solenoid valve control circuit.

Overall styling adds convenience, too. There's more room under the basin for the wheelchair-bound. And there's no mirror distortion of the water flow for the visually impaired.

Get full details on this elegant new water cooler, Model OEP8WM-AE. See your Sweet's or Hutton Files. Or contact your nearest Oasis distributor. He's listed in the Yellow Pages. Ebco Manufacturing Co., 265 N. Hamilton Road, Columbus, Ohio 43213-0150.
The Unique POLARPANE® I/ST™ Butt Glazing Story for Insulating Glass

a CONTINUOUS tale that goes on... and on...

in sweeping straight lines and around attention-grabbing corners; providing a sleek appearance inside and out. Also, our internal vertical supports stay out of sight — providing "Inner Strength". What you don't get are interfering mullions. What you do get is an eye-catching fully compatible, mullionless, window system in unlimited combinations of glass and coatings... installed — or replaced — from the interior to save you time and money.

Hordis POLARPANE I/ST Units have a two-inch dead-air space between lites to improve thermal insulation and decrease sound transmission to levels consistently better than those possible with thinner air spaces — delivered complete with glass units, gaskets, metal, and accessories. The moral, an innovative alternative to structural glazing methods... improved aesthetics, performance, and simplified installation... a happy ending from HORDIS. For more information contact: POLARPANE I/ST Project Manager, Hordis Brothers, Inc., 825 Hylton Road, Pennsauken, NJ 08110, (609) 662-0400, TWX 710-892-1814.

POLARPANE® I/ST™ is covered by US and Foreign patents.

Building: Arthur Collins & William E. Fox Office Bldg., Stamford, CT
General: Frank Mercede
Contractor: & Sons, Inc., Stamford, CT
Architect: Bruce Campbell
Graham Associates, Westport, CT

Circle 121 on information card
When your new concept has you between a rock and a hard place, call us in.

Vistawall's expert engineering turns difficult stone installations into flexible, cost-efficient curtain wall systems.

It involves many painstaking hours to design an intricate stone exterior. However the job doesn't end there. Further precision engineering is required. And then it all has to work within a budget.

Vistawall has created stone-capable curtain walls that put the installed cost of a stone exterior well within the range of traditional curtain wall systems.

Our advanced systems give your project the natural, aesthetic appeal of stone and yet often require less structural steel than ordinary stone systems. And it's all backed by our staff of engineers who make sure your exterior will be rock solid.

See how easy it is to fill the void between your rock and a hard place. Write Vistawall at P.O. Box 629, Terrell, TX 75160. Or call (214) 563-2624. (Sweets 8.14/NL)

VISTAWALL
ARCHITECTURAL PRODUCTS
A division of Butler Manufacturing Company
in every detail
Accurate to 14 significant places. You depend on it... without a doubt. Dimensioning is automatic. It all is up... the first time.

in every background
Accurate in automatic generation of sloped ceilings, electrical, mechanical and other backgrounds from the base drawing.

in every revision
Consistently accurate as revisions to the base plan create new backgrounds. Later, you can visually check the impact of your revisions on each drawing.

in every schedule
Accurate for schedules since each schedule is generated directly from specifications embedded within the drawings themselves.

in every choice
Accurate in the representation of line weights, tick marks, text styles, doors, windows and other shapes. Choose from those supplied or create your own, and generate prints at different scales automatically.

in one place!
Accurate because all information about a drawing is stored on that drawing. Just zoom in to the drawing to see more details, imbedded specifications and even notes for revisions.

AUTOCAD AEC™ (AE/CADD)
From the world's leading CAD company.
Each year, as companions to the national honor award winners, we present buildings that have been honored by AIA's state, local, and regional component organizations. Although space limitations prevent publication of all the winners, the selection that follows represents a cross section of geographical areas, building types, and approaches. The presentation, starting here and continuing through the front and back of the issue, begins in Seattle and loops around the country, ending with the Northeast. A listing of included components is on page 70.

**Seattle Chapter.** South Arcade, Seattle; Jim Olson and Rick Sundberg as former principals of Olson Walker Architects, Seattle. As the southern anchor of the Pike Place Market district, this 260,000-square-foot complex of offices, housing, shops, restaurants, and parking extends the pedestrian activity south above the waterfront, reaching toward the Pioneer Square historic district. To reinforce the social diversity of the neighborhood, the project is in a sense three distinct buildings. In the northernmost building, Market Garden, 61 low-income, single-room occupancy dwellings surround a courtyard. Twenty middle-income units are located in a lowrise section, the Newport Building. The tallest component, 98 Union, houses 59 luxury condominiums on 14 floors. A collaboration between the architect and local artists resulted in decorative elements including mailboxes, sculpture, and elevators cabs. The jury said that South Arcade “maintains the character of the market yet represents a new imagery and panache in the tower.”
**New Snap-Seam™ design makes stronger, tighter standing-seam metal roofing systems**

Snap-Seam is a breakthrough in the performance of conventional standing-seam metal roofing in many ways:

- Increased load/span capacity
- Outstanding resistance to wind uplift
- No leakage
- No panel slippage or disengagement
- Minimized "oilcanning" of broad flat areas
- No male edge buckling
- Faster, easier installation without button punching or mechanical crimping

All this plus the widths, finishes, colors, textures and modern roll-forming technology that have long identified AEP-SPAN as the leader in metal roofing systems.

---

**New Apogee, incomparably flat composite metal wall panel offers new beauty in walls**

Now, architects and designers can take full advantage of a metal wall panel that is truly flat—flatter than any competing system. This uncompromising flatness means new textural freedom for smoother panels—there is no need for embossing. AEP's new wall panel is also stronger than competing systems because of its unique honeycomb construction. It's light in weight, durable, easy to install and offers a variety of finishes, colors, textures and modern roll-forming technology that have long identified AEP-SPAN as the leader in metal roofing systems.

---

*Patents pending on specific features of Snap-Seam Roofing and Composite Metal Wall Panels.

**NOW FROM AEP/SPAN!**

**3 New Opportunities fo**
Colors. Kynar 500, including the new metallic finishes, is standard with this product. We can color-match to our needs for an almost infinite variety of color choices. Most Kynar colors carry a 20-year guarantee consistent with the high performance expected with this product.

New Apollo linear metal ceiling system is engineered for better design

AEP's new Apollo system was created specifically in response to what architects are looking for: a deeper standard panel; a more attractive sight line; longer panels with fewer (and less noticeable) splices; carriers for radius and curved conditions; ease of installation and compatibility with industry standard modules. Suitable for exterior as well as interior use.

Apollo panels offer a choice of metals. A complete color range from muted to bright, including reflective mirror and brushed finishes. Dramatic woods and vinyl laminates are also available.

Whether your requirements are roofing, siding or ceilings, AEP/SPAN has the products that cater to your design needs. For further information on any of these three new design opportunities, call AEP/SPAN—the people who know structural metal building products.

Creative, High-Performance Design
Seattle Chapter. Gorton/Bounds Cabin, Decatur Island, Wash.: The Miller/Hull Partnership, Seattle. This 600-square-foot vacation cabin for a family of three is located on a steeply sloping, 100-foot-diameter circular site in a planned development on one of the San Juan Islands. Approach to the house is by a wooded trail that leads to a recess entry porch with a Dutch door. Living and dining areas have sloping ceilings with heavy timbered beams and floor to ceiling windows that take advantage of panoramic views. Wood-framed openings lead to the cabin core, which contains a bedroom, two sleeping lofts reached by ladders, the kitchen storage space, and a bathroom. Heating is provided by a wood stove with thermocstatic controls; all of the glass is double glazed.
The building materials and systems we make are a means to an end. And what a glorious end when they are part of the buildings honored by the American Institute of Architects in this annual tribute to design excellence.

USG Corporation congratulates the winners, these leading architects and the rising stars who so distinguish their profession.

And ours.
Color ceilings are all the news. And no wonder. Color's so elegant, so essential to truly coordinated decor. Now we're making color ceilings so available, so affordable, you'll want to use them to set moods, shape settings, ornament and modify space on any budget you have to work with! We've made 24 STANDARD on selected Acoustone® and Aurc Panels—the broadest new line of colors in the industry. We make it easy for you to coordinate with any furniture and fabric colors of leading office equipment manufacturers. Afforable color ceilings from U.
Wall Panels and Textone® Vinyl-faced Drywall. Join the colorevolution to integrate your total designs. Keep up with color now with USG ceilings!

For color brochure, SC-937 see our representative. See 9.1 Usg in Sweet's Catalog Files. Or write to us at 101 S. Wacker Drive, Chicago, IL 60606-4385, Dept. A586A

STICAL PRODUCTS COMPANY

© 1986 USG Acoustical Products Co.

Circle 44 on information card
Alaska Chapter. Prototype Elementary Schools, Anchorage and Eagle River, Alaska (above); ECI/Hyer, Inc., Anchorage. The design for three schools was developed in response to varying site constraints and a strict energy budget. The narrow, linear plan was designed to minimize grade changes across the schools on three distinctly different sites ranging from flat to steeply sloped. A central core separates primary and intermediate learning areas and allows sections of the building to be locked during community use of the facility. A traditional shed roof with clerestory windows admits sunlight to the corridors and classrooms.

Southwestern Oregon Chapter. Drain Civic Center, Drain, Ore. (below); Lutes/Sanel Architects, Eugene, Ore. Located one block south of the commercial district in a residential neighborhood, this 10,000 square-foot facility houses a public library and a multiuse community center with tall dormer windows facing the street. Flood zoning restrictions required the building's floor level to sit several feet above the ground plane.
Superior interiors...
yours to create with our practical magic colors and textures.

TEXTONE® panels offer unique creative options. Refined low profile patterns. Stylish rough textile looks. Realistic suede, cork and wood effects. All high fashion wall appeal in tough, heavy-duty vinyl. And all backed with SHEETROCK® Brand Gypsum Panels—the original fire-resistant gypsum walls for solid life safety protection. Check into the many advantages of TEXTONE vinyl-faced gypsum panels. None of the expense and general messiness of field-applied wall coverings. No costly scheduling delays. Expedite easy occupancy. No major decorating concerns. In fact, savings start with delivery to the job site.

Call our representative. See Sweet's General Building File, Sec. M.12. Or write to us for our NEW COLOR COORDINATOR at 101 S. Wacker Dr., Chicago, IL 60606-4385, Dept. 45886

UNITED STATES GYPSUM COMPANY

© 1986 US Gypsum Co.
California Council. Storer Residence Restoration, Hollywood, Calif. (above); Eric Lloyd Wright and Martin Eli Weil, AIA. The restoration of this 1924 Frank Lloyd Wright house called for repair of the unique textural concrete block system, reworking the electrical, mechanical, and plumbing systems without altering the fabric of the house, and correcting additions by previous owners. The jury commented on the owner's commitment to the restoration and the architect's "sensitivity to the original piece."

Los Angeles Chapter. Norton Residence, Venice, Calif. (right); Frank O. Gehry & Associates, Venice. A ramshackle beachfront cottage was remodeled and enlarged to a 3,000-square-foot, four bedroom house for a retired lifeguard turned songwriter and his wife, an artist. Set atop the ground floor studio, the observation tower serves as a study. The exterior materials are stucco, corrugated metal, chain link fence, and tiles in bright blue, green, and yellow.
Fast track to interior elegance!

ULTRAWALL® Movable Partitions put that solid prestige look and feel into walls that move. Quickly. Easily. Economically. Just four basic parts make these superior partition systems simple to dismantle and reassemble. Yet, the hefty ³⁄₄" gypsum panels add all the sound control and fire protection of a permanent wall.

Distinctive finishes and compatibility with other interior systems make ULTRAWALL partitions the key component in designing relocatable interiors for today’s highly integrated needs. In fact, new Systems/ULTRAWALL hardware accepts most wall supported furniture. Removable panels provide more than ample wall cavities for communications cable. And sizeable tax advantages make it the smart choice to separate space. Get specifics.

Call our representative. Or write to us at 101 S. Wacker Dr., Chicago, IL 60606-4385, Dept. A586C

© 1986, United States Gypsum Co.

UNITED STATES GYPSUM COMPANY
BUILDING AMERICA

Circle 46 on information card
USG STEEL FRAMING

Big job expertise is yours for the asking!

Building systems capability makes the major difference. United States Gypsum Company works with you to optimize systems performance—computer-sizes framing components from a total job perspective—delivers utmost economy in quantities, sizes and weights of USG®.
CALL US NOW:
Atlanta (404) 393-0770
Dallas (214) 357-6271
Chicago Area (312) 456-1086
Los Angeles Area (213) 320-4062
New York Area (201) 263-4635

framing. As a result we can pro-
duced edge over competition.
plete, readily available detail
enditions. In improved fastener
to logy. And in compatibility with a
ity of exterior materials. You're the basic benefits of lightweight
steel framing systems. Now look into
USG® Steel Framing advantages. You'll
find nobody supplies more building sys-
tems support to help you complete
projects sooner. Phone today. Or write
to us for specifics at 101 S. Wacker Dr,
Chicago, IL 60606-4385. Dept. A5850

UNITED STATES GYPSUM COMPANY
BUILDING AMERICA

© 1985 U.S. Gypsum Co. USG® is a registered trademark of USG Corporation

Circle 70 on information card
California Council. Petal House, Los Angeles (above); Eric Owen Moss, AIA, Culver City, Calif. In renovating a one-story, wood frame tract house, the architect added a new master suite and bath to create a second floor, added skylights and a sloping roof in the enlarged kitchen, increased living and dining areas, added a small entrance rotunda, and extended a new porch toward the street. The garage was reoriented to provide space for a pool, and a second floor guest house/studio was added. The roof unfolds to create a top floor deck with a whirlpool bath.

Shay Residence, San Francisco (right); James Shay, AIA, San Francisco. For his own house on a sloping wooded site, the architect chose bay windows, a barrel arch roof, and materials that blend with the character of the neighborhood to create, in the words of the jury, a "sense of monumentality in a small house." The design includes space that can be converted to children's bedrooms in the future.
Compare these versatile life safety walls for total performance. They go up faster, in any weather, for less. For a number of block-buster reasons.

USG Area Separation Walls offer 2- to 3-hour fire-rated assemblies with sound ratings as high as 57 STC/51 MTC™. Lightweight, they're a lot easier to handle than bulky masonry units. Large gypsum panels attach quickly to steel studs and runners to cut installation time. In fact, these unique walls can be erected the same day as framing and roof trusses. Save you up to 16 sq. ft. of space per floor, too. USG Separation Walls are available in two basic systems: Solid Type and Cavity Type. For specifics, see our Sweet's folder in Sec. 9.5. Or write to us at 101 S. Wacker Dr., Chicago, IL 60606-4385, Dept. A586E.

*MTCSM is a single number rating, resulting from a methodology developed and copyrighted by USG, as an index of partition performance in isolating music or mechanical equipment sound sources.

© 1986 U.S. Gypsum Co.
USG is a registered trademark of U.S. Gypsum Corporation
BUSINESS PRACTICE

U.S. Gypsum exclusive makes high STC/MTC ratings a reality.

STCM is a single number rating index of partition performance in isolating music or mechanical equipment sound sources. STC addresses sound sources, such as speech.

USG® Acoustical Sealant is a state-of-tomorrow product that effectively seals partitions, gaps and cut-outs for superior sound control. This extremely elastic, water-base sealant has been UL fire tested and approved as a component in meeting sound ratings of 60 STC/57 MTC™—fire ratings up to 3 hours—or ratings as high as custom needs dictate. USG Acoustical Sealant adheres tenaciously without "cobwebbing," even when applied overhead. It cures throughout to a tough, nontacky, rubber-like material—yet stays permanently flexible to "give" with movement. Nonflammable, non-toxic, easy-to-clean-up—meets ASTM C919-79 requirements and complies with ASTM C919-79. Put USG Acoustical Sealant and our computer-selected partition service to work on your specific project requirements. Call our representative. See our Sweet's folder in Sec. 9.5/Ud. Or write to us for information at 101 S. Wacker Dr., Chicago, IL 60606-4385, Dept. A586F

© 1986, U.S. Gypsum Co. USG is a registered trademark of USG Corporation

UL FIRE-TESTED APPROVED BY DEPT FOR USE IN FIRE-RATED SYSTEMS!
Arizona Society of Architects. Manning House, Tucson, Ariz. (above); The NBBJ Group/Gresham Larson, Tucson. As part of the renewal of a downtown historic area, the city acquired this twice remodeled 1907 Spanish colonial mansion by Trost & Trost. In converting the flamboyant house to office space, the architect restored the original exterior and added detailing to the faceless additions to create a unified appearance. Original colors were restored and the arcades and porticos reopened. A small pavilion was added to define an entrance facing the west parking lot.

The Pavilion, Phoenix (left); Edward B. Sawyer Jr., AIA, Phoenix. The two-story, speculative office building was designed and sited to create semiprivate courtyards and a central, landscaped atrium, black steel pedestrian bridges and balconies, and a central stairway that culminates in an observation platform. The gently sloping metal roof and the articulated base of gray masonry blocks were selected to blend with the adjacent Arizona Biltmore Hotel by Frank Lloyd Wright.
A keen eye for detail and a deft hand for expression provide Joseph Voelker of Springfield, Pa., with a mastery of pen-and-ink rendering of his subjects—particularly architectural subjects. Artist Voelker’s pen is the Rapidograph® technical pen with tubular nibs that allow the artist to stroke in virtually any direction on the drawing surface, much the same way a pencil is used. This is the great advantage of the Rapidograph® pen over conventional pens, such as the crow quill and fountain pen which, for the most part, cannot be stroked up—against a paper grain.

This versatility of movement in pen-and-ink drawing contributes to faster completion of drawings, which might account for artist Voelker’s prolific nature. In addition to his commercial and graphic arts output, he has created a series of fine-art drawings of famous and historical landmarks in and around the environs of Philadelphia, of which these illustrations are only a few.

Rapidograph® renderings present your architectural designs in the clarest possible . . . good ideas transmute into exciting visuals. These drawings by Voelker are examples of precision-interpretations which can be prese for any project—a restoration, a revision, a modern highrise, a neoclassical structure, and so on. Such drawings have a free-hand abandon or be developed with minuscule refinement to details in photographic blowups.

The tubular nib is available in widths. Just the weight of the pen and the handhold to keep the pen provide a consistent ink laydown. The patented dry, double-sealed mechanism keeps ink throughout the balanced flow system ready for instant start contributing to optimum drawing! Refillable ink cartridge also helps productivity high. The Rapidograph is designed for use with carbon-black india drawing inks that dry waterproof and smear-proof, allowing the artist to enhance drawings with other media such as colored drawing ink and color washes, or even pastels and colored pencils.

Look for the Koh-I-Noor Rapidograph® on the pen to be sure of its dependability and ease of performance that make the Rapidograph® pen most widely used technical pen in United States and Canada.
Single pens and pen sets are available. Ask your dealer or send the coupon for details. Koh-I-Noor Rapidograph Inc., 10 North St., Bloomsbury, NJ 08804 (01) 479-4124. In Canada: 1815 Meyerside Dr., Mississauga, Ont. L5T 1G3 (6) 671-0696.

Koh-I-Noor Rapidograph, Inc., 100 North St., Bloomsbury, N.J. 08804
In Canada: 1815 Meyerside Dr., Mississauga, Ont. L5T 1G3

Please send complimentary Catalog "E" describing Rapidograph technical pens, Koh-I-Noor inks and other artist materials.

Name (please print or type)

Company Name (If the following is a business address)

Number and Street, RD and Box, etc.

City State Zip

©1985 Koh-I-Noor Rapidograph, Inc.

Circle 48 on information card
Texas Society of Architects. LTV Center, Dallas (above); Skidmore, Owings & Merrill, Houston. The 50-story complex is the first commercial development in the Dallas Arts District. To encourage pedestrian activity, the building relates at street level to the adjacent Museum of Fine Arts, and a two-story skylit pavilion with shops, restaurants, and exhibition space stands separate from the tower. The lobby is a three-story rotunda, clad in white marble and bronze-cased panels of rosewood, containing a sculpture by Auguste Rodin. The jury said that the building sets “a new standard of architectural style for highrises.”

Church of the Good Shepherd, Tomball, Tex. (right); Wm. T. Cannady & Associates, Houston. A new sanctuary for a growing Episcopal congregation has the form of a Greek cross with formal entry through a gabled roof porch and a skylit narthex. Exposed wood and steel trusses resting on four steel columns support the roof structure. The sanctuary is finished in oak paneling and plaster. The jury praised what it called a feeling of restrained celebration: “This really looks like a church, even with the postmodern vocabulary.”
"The history of architecture is the history of the struggle for light..."

Le Corbusier
Lighting the way to tomorrow.

Today, windows are a bigger part of architectural design than ever before. That's because design is a bigger part of windows.

Kawneer's window line includes both Thermal and Non-Thermal models. Vertically and horizontally pivoted. Inswinging and outswinging casements. Projected, to hinged, fixed and high performance windows. Kawneer has them all. To open design opportunities. To open minds.

And Kawneer windows are not only constructed to meet AAMA performance standards but standards much higher. Our own.

Kawneer windows. They let you look at your design in a whole different light.
For full technical description, tracing details and specifications, contact your Kawneer representative or write to: Kawneer Company, Inc., Department C, Technology Park-Atlanta, 555 Guthridge Court, Norcross, GA 30092.

Circle 51 on information card
Cold Spring Granite. Its beauty is its strength.
Kawneer 3200 DesignWall. Its strength is its beauty.

The grandeur of granite requires the strength of design integrity to maintain its lasting impression. And now, Cold Spring Granite and Kawneer have put the two together in a single curtainwall system engineered to retain its beauty through the years.

Kawneer 3200 DesignWall allows Cold Spring Granite panels to be installed in a clean, flush appearance. Structural silicone holds the vision glass to the aluminum curtainwall vertical mullions. And, the result is a high performance package with aesthetic appeal. (Performance results are available on request.)

Cold Spring Granite panels for Kawneer 3200 DesignWall are available in nine different and distinctive colors and three handsome finishes—polished, honed, and thermal.

Cold Spring Granite and Kawneer 3200 DesignWall. Put them together by contacting your Kawneer Sales Representative or writing:
The Kawneer Company, Dept. C, Technology Park Atlanta, 555 Guthridge Court, Norcross, GA 30092

Circle 32 on information card
TALL ORDERS. IN SHORT ORDER.

No matter what your curtainwall needs are, you can look up to Kawneer. For design. For performance. For timely response.

Kawneer has a wide variety of engineered systems to meet a full range of building and design requirements. Low rise and high rise systems. Stickwall and unitized. Custom designed. And, energy saving, performance-boosting thermal systems.

Extend the reach of your curtainwall specs, without going far. Call on Kawneer. We can meet your goals. From top to bottom. From idea to reality.

For complete information about Kawneer Curtainwalls contact: Kawneer Company, Inc., Department C, Technology Park/Atlanta, 555 Guthridge Court, Norcross, GA 30092

Circle 53 on information card

Pacific Trade Center
Architects—Chapman Desai Sakata
Contractor—Pacific Construction
Installing Kawneer dealer—Granger Pacific

The Designer's Element
Houston Chapter. Sweetwater Sales Center, Houston (above); Ray Bailey Architects, Houston. In converting a 650-square-foot office trailer to serve as a sales and information center for a residential development, the architect added a large arbor to shelter the front door and a bay window. The trailer was clad with a diagonal lattice to be used for plantings. New trees were planted to link the building with trees lining the streets.

Christian Life Center, Houston (left); Denny Ray Wines Associates, Houston. A 69,000-square-foot recreation activities center for a Baptist Church was sited to be screened from the two adjacent major freeways and to take advantage of an existing grove of oaks and pines. The major circulation path, which also provides access from the parking lot to the existing sanctuary, has a 22-foot-high glass wall overlooking the trees. The plan is organized around the two basketball courts, and space for bowling, table games, roller skating, racquetball, crafts, and meetings border the courts on three sides. Soft cove lights illuminate the basketball courts at night.
Denver Chapter. Navarre Building, Museum of Western Art, Denver; C. W. Fentress & Associates and John M. Prosser, AIA, Denver. Built in 1880 as the Brinker Collegiate Institute, the building was converted in 1889 to the Richlieu Hotel, a gambling hall and bordello that remained open until 1904 when the city outlawed such activities. According to local folklore, a tunnel under Tremont Street linked the building to the famed Brown Palace Hotel so patrons could visit the brothel without being seen. The museum was designed to create a contemporary exhibition space within the historic building for a diverse collection of 19th- and 20th-century paintings and sculpture by Western artists. A core consisting of a glass-enclosed stairway and an elevator provides vertical circulation. Patrons ascend to the uppermost gallery floor, down the glass-enclosed stairway beneath the cupola space, and horizontally through each gallery floor to follow a chronological progress from earliest Western art on the third-floor gallery to more contemporary works on the first floor. An opening between the second and third levels establishes continuity and allows sculpture to be viewed laterally as well as from above. The first-floor temporary exhibition area has a vaulted ceiling with indirect lighting.
IS YOUR SIDING HOLDING UP YOUR BUILDING?

Every time your project is slowed down because your siding isn't going up quickly, you're being held up. In more ways than one.

So what's the cure to sluggish siding, Shakertown.

This ingenious system lets you put up 8-feet of shingles in a shake, directly to studs in most areas. And, simply put, means you're saving the expense and time of putting up sheathing.

Then there's the clever self-aligning groove in the back that turns ordinary carpenters into speed demons.

Shakertown has even thought of the little things that make a job go faster. Like giving you matched nails for free, and cutting our siding to stud spacing.

The point of all this is to get your project done, you can get your money out.

But that doesn't mean you should use Shakertown just because it installs quickly.

The real reason is the way it looks:
Handcrafted. Natural. With the unmistakable beauty of genuine Western red cedar.

In other words, the look so many buyers are looking for right now.

That can only mean, when Shakertown is your siding, your building will move quite quickly. Both before it's done and after.

Circle 49 on information card

SHAKERTOWN SIDING

For free catalog, call toll-free 1-800-426-8970
In Washington state, 206-785-3501
Or write P.O. Box 400-AP5 Winlock, WA 98596

Architect: David Furman Architect/Builder: Martin Development Group, Inc./Developer: Corley Capital Group
Porcelain Enamel can provide you with a lifetime finish in a creatively broad array of colors to meet custom design requirements. It can also offer the versatility of being available in a full range of finishes, extending from soft, earthtone matte to rich gloss and semi-gloss.

And with these remarkable design dimensions comes trustworthy functional integrity.

Porcelain Enamel offers unrivaled long-term weatherability, documented by decades of on-site exposure tests. Few construction materials can make such claim—or assure such permanent, maintenance-free classic beauty for exterior and interior applications. For more complete information, contact:

Architectural Advertising Group
Porcelain Enamel Institute
1911 N. Ft. Myer Drive, Arlington, VA 22209
(703) 527-5257

Circle 56 on information card
Colorado West Chapter. Beaver Creek Clubhouse, Beaver Creek, Colo.; Morter Fisher Architects, Vail, Colo. The clubhouse for a year-round resort 10 miles west of Vail is the first component of a three-building complex that will include a condominium apartment building and a lodge. The resort's strict design guidelines and the harsh winter climate lead the architect to choose the exposed laminated beams, clusters of hewn round columns, and extensive stone. Forms, detailing, and materials will be repeated in future buildings. The pro shop is located directly off the main floor lobby, and the top floor dining room and bar have panoramic views of the valley and the golf course. Locker rooms and health club facilities are located on the lower level. Jurors praised the building's "strong relationship to the site . . . and its well-resolved massing, proportion, and detailing."
More design options and all the benefits

Summitville's extensive choice of colors, shapes and styles has a solution for the most demanding architectural requirements.

It's the ceramic tile that can make your projects something extra special.

Summitville has a natural beauty that other floors can't match. A durability carpeting, vinyl or wood won't provide. And quality that's hard to find in other floor products.

Summitville's Quarry Tile, shown above, is extruded to provide a tough, durable surface that's fireproof, dentproof, fade-proof and highly resistant to stains.

It's easy to maintain and keeps its good looks for years. Even in heavy traffic areas like lobbies, restaurants and shopping malls.

See Sweet's File 9.18/Sum for our complete line of ceramic tile, including custom colors, wall murals and decorative insets.

Specify Summitville.

The ceramic tile that adds more beauty and value to any installation.

Summitville's Quarry Tile is available in six color ranges, with smooth or abrasive surfaces. Choose from seven shapes plus trim units.
EXCELLENCE IN ARCHITECTURE

Tubelite Entrances

Hood Museum, Dartmouth College, Hanover, New Hampshire
Charles W. Moore, FAIA, and Chad Floyd, AIA, of Centerbrook Architects
For more information on Tubelite products, see Sweet's 8.1 Tu and 8.1a Tub.

Tubelite Architectural Products Division of Indal Inc.,
8200 Mackinaw Trail, P.O. Box 118, Reed City, Michigan 49677 Tel: (616) 832-2211 Fax: 832-2611

Circle 58 on information card.
Minnesota Society. Wick Residence, Cohasset, Minn. (above); Damberg, Scott, Peck & Booker, Virginia, Minn. Located on a wooded site along the Mississippi River in northern Minnesota, the house was designed for a well-known doll designer and her carpenter husband who had requested a “Scandinavian look.” Two barn-like wings are connected by a tall foyer reminiscent of a Finnish clock tower, and large windows are detailed with heavy pine trim. Living spaces are grouped in the right wing, and the left wing is a studio.

Pine Point Experimental School, White Earth Chippewa Reservation, Minn. (right); Thomas Hodne Studio of the Hodne/Stageberg Partners, Minneapolis. The architect worked closely with members of the Indian tribe to combine cultural traditions and functional needs. Classrooms and other educational functions are grouped around a central area for open school and community meetings. The building’s round form recalls the traditional “mandan earth lodge,” and colorful concrete entrance banner repeats the circular symbolism. “The recognition of the cultural traditions not only in the design of the exterior but in the basic plan as well is commendable,” said the jury.
Holophane is adding a new dimension in prismatic glass lighting, with the introduction of our Edmund Stevens Collection. Two new ceiling-mounted fixtures and a wall-mounted design that take the best idea in lighting a step further. Prismatic glass shades give subtle sparkle to the lighting. Holophane construction assures you of long-lasting durability. And Edmund Stevens added his personal touch for a timeless statement of unequaled elegance.

Contact your local Holophane representative or call Jodi Swanson, (303) 978-2451, for ordering and product information. Holophane Division, Manville, P.O. Box 5108, Denver, Colorado 80217. Available for Export.

Circle 59 on information card
AIA Component Awards

Grand Valley Chapter, Michigan. Steel-case Kentwood Energy Center, Kentwood, Mich. (above); Daverman Associates, Grand Rapids, Mich. The architect’s master plan for a 450-acre industrial complex provided for a centrally located energy generating facility. The system’s primary fuel is coal, but it can also be powered by oil or gas. The building has a steel frame and a curtain wall of insulated glass in aluminum frames to provide public display of the interior energy systems. Heat generating and trestle distributing systems were painted in contrasting colors for identification and visual enhancement. The chimney is made of a European precast concrete.

Wisconsin Society of Architects. Gaetano’s On the Grand, Milwaukee (right); Joseph Valerio, AIA, Chicago. Located within a downtown shopping arcade developed by Rouse, the restaurant has walls of gray marble accented with green stone striping and tile porcelain detailing in primary colors. A series of walls separates the triangular space into private dining areas, and a circulation axis was created to draw people past the bar into the restaurant.
Inspired design by Stubbins Associates and Skidmore, Owings & Merrill Architects originated this magnificent entrance to the Pac-west Center in Portland. Glazing Contractor Culver Glass Co. called upon Brite Vue for the quality fabrication required to meet the exacting specifications.

This striking entrance is an example of the versatility and quality of Brite Vue tempered glass entry doors, sidelites and transoms. Hinged, sliding, stacking and balanced doors utilizing continuous and/or corner fittings are ideal for interior or exterior applications. Fittings are available in all popular architectural metals and finishes. With the capability and desire to fulfill innovative designs we are dedicated to quality, committed to service.

Write or call now for detailed information on Brite Vue entrance systems.
Karastan exhibits great grace under pressure.

It's not how good a carpet looks when it's new that's impressive. It's how good it continues to look over the years.

So Karastan's Lehigh carpet was woven on our advanced Kara-loc® II loom, creating an exceptionally dense, stable surface.

The design, a solid background of ultra-dense cut and loop pile, will retain its texture for years.

Karastan Rug Mills, a Division of Fieldcrest Mills, Inc.

The fiber, ANTRON® nylon, provides soil-concealing easy care, durability, and built-in static-control.

Practicalities aside, Lehigh is also available in 19 elegant Karastan colors.

So bring on your high heels and wet galoshes. Track in your mud. We can take it. For years.
Detroit Chapter. U.S. Customs and Immigration Inspection Facility, Detroit (left); Smith, Hinchman & Grylls, Detroit. The program called for a 7,000-square-foot customs building, a 2,000-square-foot bus inspection facility, and automobile and truck inspection lanes. Traffic patterns dictated the central location of the customs building on the 1929 Ambassador Bridge on the Canadian border and the placement of the primary inspection booths north of the existing booths. The building's footprint of approximately 20x150 feet was also dictated by traffic constraints. Punched windows, a projected base, ziggurat entry portals, and limestone coloration were chosen to recall detailing of the original bridge. The canopies are fascia panels of gray porcelain enamel.

Michigan Society of Architects. Kessler Family Doghouse, Detroit (below); William Kessler & Associates, Detroit. The jury presented a special award for the architect's design approach and presentation of a doghouse. The needs of the client were determined and design criteria established in the same way the architect approaches larger projects. The program and design solution read, "The user is a single, middle-aged female whose basic needs were programmed at a living space of nine square feet. No cooking and/or eating areas were required, and sanitary facilities were to be found in the immediate environs. Among the design goals were: year-round use; temperature and weather resistant; rodent resistant; mobility and variable design options (materials, colors, etc.). The solution to this most complex program is submitted here illustrating a 48-inch-long, 30-inch-diameter spun air duct..."
Central Illinois Chapter. Tri-County Women Strength Shelter, Peoria, Ill. (above); LZT Associates, Peoria. The shelter provides temporary living and counseling facilities for women and children who are victims of domestic violence and sexual assault. Play areas are fenced, exterior doors are secured and monitored, and parking areas are well lighted. The 8,800-square-foot facility has a residential scale, and all security features were designed to blend with the neighborhood.

Michigan Society of Architects. Municipal Building Renovation, Village of Grosse Point, Mich. (below); Robert C. Wakely Jr., AIA, Farmington Hills, Mich. The Albert Kahn-designed village hall of 1918 had undergone six remodelings that had removed the original 13-foot-high arched windows and almost all of the interior finishes. The building was stripped to the original wood frame and masonry walls, and the interiors were completely reconstructed. A 6,000-square-foot addition set to the north behind a framed glass screen has brick coursing and patterns based on the original Kahn design. Police, fire, and public spaces are located on the first floor and village administrative functions occupy the second.
Rugged beauty that means business.

"Natura Liberty" is more than beautiful; this glazed ceramic tile is tough enough for the busiest floors — commercial or residential. Its unique color-on-color glazes have enduring good looks that can withstand high-traffic locations. Yet it won't overwork you when it comes to maintenance.

See the entire line of the new, easy-care "Natura" ceramic tiles in the showroom of your Florida Tile distributor. For the name of your nearest distributor call: 1-800-FLA TILE.
Chicago Chapter. Cathedral of St. James, Chicago (above); Holabird & Root, Chicago. Numerous alterations had left this 1875 cathedral with only the outline of its original elegance. The entire wood floor structure was replaced and the pews and woodwork were stripped and refinished. The original stencil work was uncovered and 24 stencil designs recreated in 25 colors. A new shingled roof with copper downspouts was added, stone and mortar joints were repaired, and the stained glass windows were restored.

Bannockburn Green Retail Center, Bannockburn, Ill. (right); Hammond Beeby & Babka, Chicago. For a new shopping center in a wooded section of a suburb north of Chicago, the architect attempted to create the atmosphere of an 18th-century mill. Materials and details include Douglas fir structural members bolted with steel angles and gusset plates, red cedar siding and cedar shake roof, stonework, and stucco. The complex is organized around a two-story stone office/retail building overlooking a mill pond.
More than 15 years ago, we installed the first PVC single-ply roofs in Europe. More than 2 years ago, we installed the first PVC single-ply roofs in the United States.

And ever since, we've heard people say: "PVC won't last."

Quite frankly, in the early days, they were sometimes right. Experience was lacking and membranes were not always thick enough. But at Trocal, there was (and still is) a big difference: we're dedicated to single-ply roofing.

So, those early mistakes were soon corrected. (And, we stood behind our customers by living up to our warranty every time they had a problem.) From that point on, Trocal PVC membranes have performed quite well, thank you.

Sure, there are problems now and again. (You'll never find a roofing system that's 100% perfect.) But, we provide service to our customers and fix their problems fast.

One more important point.

Recently, we took test cuts from ten and fifteen year old Trocal roofs and gave them to an independent testing laboratory.

The results were impressive. Every sample tested showed physical values equal to or better than published minimum standards for new materials. We were pleased but our customers were even happier.

Now, without fear of contradiction, we can simply state: Trocal PVC membranes meet all the criteria necessary for long-term performance in the roofing environment. We have the track record. We have the proof. (And, we'd be happy to discuss it with you further.)

To be sure, we don't expect people to stop saying "PVC won't last."

It's nice to know they're wrong. We know Trocal PVC will last. And last. And last.

We'll talk again soon.

Known by the companies we keep dry.

TROCAL ROOFING SYSTEMS

Innovative Building Products by Dynamit Nobel

10 Link Drive, Rockleigh, New Jersey 07647, 800-526-4610 (In NJ: 201-767-1660)
Architecture: A deliberate weave of technical skill and creative imagination.

Donn Corporation joins in offering highest praise to the individuals honored here by the American Institute of Architects. They have successfully tested both their skills and their imaginations, blending form with grace and style with function. Their efforts have resulted in art.

For more than 35 years, Donn Corporation has strived to offer products that complement the skills and imagination of architects throughout the world. Today, we are proud—and honored—to be associated with the architectural profession.

Our sincerest congratulations.
You’ll like the look, because there’s less to like.

This is the Centricitee™ ceiling system. Grid so thin it virtually disappears. It’s the only narrow faced, 2 hour fire-rated grid you can buy. So while there’s a lot to like, there’s also less to like.

Centricitee
Standard Grid

Donn Corporation
Westlake, OH 44145

©1986 Donn Incorporated. Donn®, the Donn logo and Centricitee™ are trademarks of Donn Incorporated.
Circle 64 on information card
Look closely. This is Fineline® slotted ceiling grid. It costs little more than conventional ceiling grid. Not a big difference.

But the look. Now, that's a big difference.
Fluid, sweeping lines. And a wealth of graceful curves. But sharp as a knife when cornered.

Paraline® linear metal ceilings. From Donn Corporation.

A whole new perspective in design.
It's easy to be confused about access floors. Yet, when used in the right applications, they are a superb solution to a complex set of design problems.

Put simply, the more important flexibility is to you, the more you need access floors. Because access floors allow building management a great deal of latitude in adapting an interior space to changes in occupancy, work flow and technology.

For example, access floors are the logical choice for open offices, CRT facilities, word processing areas, telecommunications rooms, laboratories and, of course, computer rooms. Experience has shown that access floors are highly cost-efficient in office buildings with:
- A 50% + open office plan.
- A 10% or more annual move rate.
- An occupant density of 200 sq. ft. or less per person.
- And technology-oriented workstations with as little as 20% computer terminal density.

In short, the best time to use access floors is whenever the productivity of occupants is most dependent on the network of electronic, communications and computer support systems.

There are times when a project is better served using traditional service distribution concepts. But they may be fewer than you'd expect.

While today's average access floor plenum height is only 6", access floors can add to total building height in some instances. Also, facilities in which 90% or more of the plan will remain unchanged each year should probably continue to provide services via in-floor trenches.

Cost is a key, obviously, but most people just assume that access floors will be more expensive. In today's marketplace, you may find access floor costs competitive in more installations than you ever imagined.
How to tell the difference.

This part can get very tricky. Comparing the initial and long-term costs of access floors with other construction techniques is no simple matter. You need a computer to factor in labor, material and operating costs.

Which is why we developed the DesignAid™ cost-comparison system. It will use data for your specific project to help you compare design options. It will even provide you with detail drawings, breakouts and specifications.

Obviously, we're pretty confident that our access floors will hold their own against any other system you're considering. But when you should be using another system, we'll tell you. Honest. And we'll even help you choose the best alternative.

How to learn more.
This is the really easy part. You can get full details on Donn access floors and the DesignAid system by talking with your Donn representative.

We can help you buy our product. We can help you buy somebody else's product. And we can help you decide for yourself.

Donn Corporation
Westlake, Ohio 44145

DesignAid™ and Donn® are trademarks of Donn Incorporated.
Circle 74 on information card
SPACELINE™

A unique system of beams and intersections, SpaceLine™ creates a lowered ceiling plane in bold contemporary terms. SpaceLine adapts to most conventional methods of lighting or lets the stars shine through from natural skylights. Dress it up for drama or down for simplicity — the possibilities are endless.

Integrated Ceilings, Inc.
11500 Tennessee Avenue,
Los Angeles, CA 90064
(213) 478-0781

Circle 65 on information card
A few years ago we noted that this annual issue was in essence an attempt to assess the state of the art of architecture in America by presenting the best recent buildings we could find in conjunction with one another and thus in perspective.

It remains so. On the following pages is a set of buildings of the editors' choosing; then a collection of views of what is right and wrong about current architecture from some astute observers outside the profession; then the 1986 AIA honor awards, starting on page 172. In the front and back of the issue are some winners of AIA component awards, broadening the issue's reach in terms of type and location.

Based on the buildings on these pages, our own opinion is that the state of the art of architecture in America is a healthy one. There is a great deal of originality here, but also a great deal of solidity. There is a notable degree of responsiveness to program and context.

In terms of trends there is little hard-core postmodernism; there seems to be less around generally. Direct quotations of that movement's leaders' motifs and mannerisms are rare. At the same time there is ample evidence of postmodernism's influence, particularly in three areas: a new freedom to experiment, the renewed respectability of ornament, and a revived respect for architecture's past. D.C.
Complex of Solid Regional Character

H.E.B. headquarters, San Antonio; Hartman-Cox. By Allen Freeman
Recognizing potential in a derelict, overbuilt Army ammunition depot required an impressive leap of imagination by Warren Cox, FAIA. The result is an even more impressive achievement. Blessed with a sophisticated client, Hartman-Cox with Chumney/Urrutia have made over San Antonio’s old arsenal complex into a corporate office complex of extraordinary Southwestern character.

During the Civil War, the Confederate Army manufactured bullets and leather saddles here; during the First and Second world wars, the U.S. Army stockpiled munitions. Today the complex comprises six dissimilar buildings—two of them faithful restored, two extensively altered and adapted, one renovated, and one entirely new—on 12 acres south of and adjacent to downtown. One of the pleasures of visiting the H.E. Butt Grocery Co. headquarters is trying to discern the old from the new.

Another is the transition from the street entrance (photo above to the interior courtyard. You enter the grounds on the west side—away from the San Antonio River that flows in a concrete channel on the east—through gates protected by a little military style guardhouse. Hard on your right is a long, mostly one-story building; directly ahead and a little to the left is an echo of th
wardhouse, a drop-off pavilion attached to a covered arcade. Together, the pavilion and arcade define an entry court from which you penetrate the building on your right at its double-eight end piece, an entrance marked by a portico with heroic yet friendly looking eared pediments. Now you are in a 35x65-foot entrance hall, distinguished by 20 oversized columns, that seems neither grand nor small.

From a central reception desk you turn 45 degrees and proceed through oversized glass doors into the courtyard. Roughly 00x225 feet, its four sides are enclosed by an arcade, and behind it buildings of one to four stories, all in cream stucco.

At opposite corners of the courtyard, as if protected and afforded places of honor, stand two simple, limestone buildings—a long, uninterrupted arsenal (with thick walls, only two little slits for windows on the ends, and a vaulted ceiling under a gable roof, again with eared pediments)—and a stable. The arsenal is to become a museum; the stable a conference facility.

The courtyard, punctuated with rectilinear gravel pathways and limestone watercourses, is serene. It is not a place that you enter for the first time and want to say “Wow!” The subtleties of the courtyard and the play of buildings that surround it are best absorbed slowly. Had these buildings been sited, designed, and built from scratch, for example, the walls of the arsenal and stable probably would have aligned perfectly with the enclosing buildings (which they do not), and the long, west elevation of the arsenal, which contains that building’s only entrance, would not have fit so snugly against the courtyard’s west building. And the ensemble would have been duller for being more neatly configured. As in urban streetscapes built over time, imperfections have created tensions borne of necessity. What might have been turned into a movie set seems instead solid, permanent.

Interiors are also untrendy. Interior finishes are mostly plain
On these pages, views of the courtyard. Top, the two-story segment of the west building, from which you first enter the courtyard. Above, the north building, stable, acequia, and gravel paths. Top right, the stable from the porch-like arcade of the river building north. Right, pre-restoration view of stable.

vanilla—no rich marbles, no exotic woods. In public spaces, the floors are gray-green slate, and panel reveals are gyp board trimmed in painted wood. There are many different colors in the executive suites of the all-new north building, for instance, but none is saturated. New windows have been detailed to match the simple, old metal frames retained in the recycled buildings.

Selling groceries is an unglamorous, low-margin operation in which most of a company's workers toil in stores removed from headquarters. This was a prime consideration for the officers of H.E.B. Charles C. Butt, president and chairman of the family-owned chain, says that the last thing he wanted was an ivory tower for 500 of his 21,000 employees. (All 21,000 are called “partners . . . to reflect their participation in the management and growth of the company,” according to a handout.) Opposed to corporate or personal ostentation, Butt told Cox that he wanted
The headquarters to be comfortable like a sturdy San Antonio leather belt rather than flashy like a Houston alligator belt. Butt had selected Cox's Washington, D.C., firm from a list drawn up by Jonathan Barnett, FAIA, of New York City. Barnett, who rarely consults for corporations, made an exception for H.E.B. "because they wanted to do something of high quality," he says. Of his final selection, Butt says simply, "I wanted an individual—not just a firm—who could lead us through the process, beginning with site selection." (Chumney/Urrutia later associated with Hartman-Cox and, under a separate contract, signed some of the office interiors. James E. Keeter was landscape architect.)

Before selecting the arsenal, the first choice of Cox, H.E.B. had three additional sites under option, all green fields or wooded, in the developing north end of town. Butt's initial reaction to the arsenal was that it was too much work. It seemed a hopeless hodgepodge of nine crammed-together buildings, with only the arsenal and stable having any architectural interest and the able particularly ramshackled. The former dates from the Civil War; the latter from Reconstruction days. The rest were built during the First and Second world wars and, though structurally sound, in general disrepair. Cox's proposal of selective removal and rebuilding around a courtyard was the clincher for Butt, who already appreciated the river setting, the practicality and symbolism of a central San Antonio site accessible to "partners" from all parts of town, and the potential for public good will generated by restoration of a local landmark. (H.E.B. conducts tours of the complex.)

Reportedly, Butt's contribution to the design was his tendency toward simplification. Flagpoles substituted for a tower at the entry court ("Charles said he didn't want a Blenheim," remarks Cox), and a swath of English grass for a courtyard pool. And simplicity is carried through in the choice of materials—common but durable, in the spirit of the stable and arsenal—and in execution of details. The details reference new to old, and they are integrated so well that you are hard pressed to know which are old and which are new.

The seamless look of H.E.B. hides five years of hard work. When I visited the complex in January, some droll "partner" had floated a rubber duck in one of the watercourses. It seemed a good analogy for H.E.B. Stay calm on the surface while you paddle like hell.
Below, the hypostyle entrance hall, with centered reception desk, in view toward the courtyard. Column capitals in this new room were borrowed and adapted from a cornice detail of the 1917 south building, seen through sapling branches at left edge of photo at right. Bottom, lobby of all-new north building.
'A Brotherhood of Geometric Parts'

Dining hall, Colgate University; Herbert S. Newman Assoc. By Michael J. Crosbie
Going away to college, being far from home for the first time, can be a lonesome experience. The location of Colgate University in Hamilton, N.Y., is beautiful but isolated. Set within the rural hills and dales of upstate New York, one might long for a welcoming environment like home. Colgate's new dining hall, the work of Herbert S. Newman Associates of New Haven, provides just the right domestic setting not only for nourishment, but for socializing with one's peers under gracious, natural light that is all the more coveted in this region of heavy cloud cover and gloomy winter days.

The dining hall is sited in the southwestern precinct of a campus that is distinguished by steep terrain. The college buildings are built on a series of shelves rising from north to south above a lake. With a backdrop of trees and the edge of the campus beyond, the dining hall establishes a refuge near the woods and serves as the terminus of a series of paths following the campus's terraces from east to west.

Approaching the building from the east, one sees the Ohio sandstone-framed portal held out from the gable end, with a hint of the white structure within. The older campus buildings are sharply defined boxes with taut skins made of an irregular green stone native to the area. In contrast, the dining hall is more a conglomeration of shapes, a brotherhood of geometric parts that at first glance might appear to be a collection of smaller structures. These appendages work well to direct one around the building to the entrance, especially from the approach to the northeast, where a gently curving, corbelled bay directs your eye to the next round element to the east, which has a tighter radius and sweeps one up and around a crescent staircase to the front door.

To the west of the corbelled bay, the building becomes boxy and stiff, seeming to grow as the grade descends, and holds up a flat palm as if to discourage passage around the corner to the

*Left, dining hall from the northeast as its geometric forms advance up the site, directing diners to the sandstone-frame portal.*
loading dock and service spaces. At the southeast corner, just beyond the entrance, another square element pops out to contain the flow of students into the building and stop the eye from exploring the dining hall's backside, which is uneventful and loaded down with a lot of necessary but ugly mechanical equipment, much of it, unfortunately, visible from the eastern approach.

Again in contrast to the neighboring buildings, the dining hall appears immovable, rooted to the site, its smooth, brick walls rising from a solid base of square-cut ashlar stone, as if from the shell of a ruin. The stone walls have a depth, owing not only to their sandstone canting but also to the pink mortar that ties in with the color of the brick. Except for one arched and one round window, the fenestration, like the stonework, is square-cut in a variety of sizes and is subdued with dark brown sash and frame.

Inside, through a short, vaulted airlock, one is greeted by a great lantern of a room, long and tall like the mind's image of an Elizabethan dining hall, stretching the length of the building. Natural light pours in through the south-facing windows at the roof's peak and a row of square windows, framed in gyp board to look like masonry openings. The windows are mirrored across the hall in unglazed openings that deliver additional sunlight into the dining spaces. The room terminates in a huge, brick fireplace whose corbelled opening and sandstone insert recall the entrance.

The inside of the dining hall comes as a surprise—a straight, ordered, rectilinear space that belies the collection of geometric shapes outside. Where is the rest of the building? Meal ticket in hand, we pass through a garden gate, pick up a tray, and walk to the left into the "scramble," a low-ceilinged area full of food service hardware and help, all the object of scrambling undergraduates who dart about assembling their meals. Unlike traditional cafeterias with lines, the scramble allows one to run immediately to the sandwich board, or hot food, or dessert, or beverages without having to file by each one. To the first-time user it's a bewildering task to steer around this dining dodge 'en but for those who eat here three times a day, the scramble can be mastered after a few meals.

Out of the scramble and back into the hall, for the first time it becomes clear that this large room is only marginally for seeing, unlike a traditional dining hall. According to the architect the hall is to suggest a street, tree-lined and lit with copper fixtures and mercury vapor lamps, with seating along its edge in the style of a sidewalk cafe. The analogy seems a bit forced, considering that the majority of the circulation is across the hall's long axis from the scramble to seating. It appears more like a tile and slate-paved garden path—domestic in scale, green and warm with its oak furnishings (even tray dispensers, hot tables, and other service elements are faced in oak). Seating along its edges takes the form of comfortable oak booths with hefty rails that one steps up into, elevated from the pedestrian traffic.

Off the main hall, narrower paths lead to the secret spaces
behind the bulbous exterior. Each path is ramped and skylit, allowing one to survey the collection of dining areas available. To the northwest is a high-ceilinged square of space, subdivided into smaller squares defined by low walls. Due north is a shallow curve of space with a fan of windows framing views across the campus and to the hills beyond. And toward the northeast is a round space, divided into a half circle on one level and a quarter circle on another. Connecting all three spaces is a promenade with low brick walls, lined with tables and chairs, accessible from the three paths that take one into larger dining areas. The dining spaces range from intimate (with one table) to communal, providing a variety of settings suitable to whatever the diner’s mood.

All of these dining spaces terrace down from the main hall to allow views through the building over each successive tier. It was the intent of the architect that the tier system would also allow diners to check each other out without being too obvious about it. The dining hall is, after all, a social center where gossip is swapped, tests studied for, and strategy planned for weekend dates.

There are two other areas for dining off the beaten path that might be discovered a week, a month, or a year after first visit-

*Right, main hall from entry, distinguished by trees, light, oak furnishings, and fireplace at east end. Below, main hall from the east with view toward main entrance over oak booths.*
ing the dining hall. Behind the fireplace is a comfortable nook with dark maroon felt wall covering, which makes it feel like a faculty club. In fact its furnishings are dark wood, and the room is often used by faculty or clubs. To the southwest is another dining area with walls washed with fluorescent lights that suggest daylight. The room's high point is a round dining podium naturally lit from above that offers views through the woods. If one really wants to be away from the action, this is the place to lounge.

Lounging, in fact, appears to be the dining hall's greatest amenity. Reportedly the students spend more time here than in the average college dining facility, and certainly the domestic quality of the place encourages students to linger in this home away from home. As in any homelike setting, the inhabitants are naturally curious about strangers. "A bunch of us were wondering what you were doing here," one student asked while I scribbled in my notebook. After my explanation she spoke for her friends: "We love to come here because it's a friendly place to eat and it feels like home. This dining hall was one of the reasons I decided to come to Colgate."
‘Indeterminate But Handsome’

Seeley G. Mudd Chemistry Building, Vassar College; Perry, Dean, Rogers. By M.J.C.
The Seeley G. Mudd Chemistry Building at Vassar College in Poughkeepsie, N.Y., responds on a variety of levels to its context, but it does so without sacrificing its own unique and powerful identity. Designed by Perry, Dean, Rogers & Partners of Boston, it assumes a posture on the campus that is respectful but not timid.

The 42,000-square-foot building is comprised mostly of laboratory spaces for undergraduate chemistry instruction, with support spaces that include offices, classrooms, and lounges. It is sited just southeast of Vassar’s imposing Main Hall and next to the facility whose function it replaces, the Sanders Chemistry Building of 1909. The old chemistry building and the Sanders Physics Building of 1926 sit at right angles to each other, forming two sides of a quadrangle. Diagonally across this quad is the England Hall of 1901, which, although small, defines a western edge.

The new Mudd building’s program dictated energy efficiency, so a clear southern exposure was required. Sited northwest of the old chemistry building, Mudd neatly completes the quad, with its south wall facing the open space. Charles F. Rogers, principal in charge of the design, explains that after construction began on the new building a photograph of the site was discovered in Vassar’s archives that showed the college’s first science building, constructed in 1881, sitting precisely where Mudd is today. Although it recalls none of the Victorian/Romanesque architecture of the original building (which was demolished in the 1930s) Mudd re-establishes a presence that the architects of the Sanders buildings no doubt responded to in creating the quad in the first place. So sited in the company of symmetrical buildings, Mudd in kind is symmetrical, the same width as the physics building, and placed on axis with it.

Mudd’s exterior is indeterminate but handsome at the same time. Walls of solid brick seem pushed apart (or glued together?) by a rectilinear web of translucent glass block. On the north, the block is a veiled housing for the wealth of mechanical equipment necessary for the labs, culminating in a central tower crowned with vent pipes. Mudd’s brick and limestone trimmed walls establish the cornice line of its neighbors and are scored...
to recall the decorative brickwork of the older structures. Above Mudd’s cornice line the building extends another story and a half, devoted entirely to mechanical equipment space, whose sheet-metal enclosure is rendered in verdigris green, alluding to the physics building’s copper roof (the old chemistry building’s roof, like Mudd’s, is green painted sheet metal).

Sheltered by brick to the north, east, and west, Mudd demonstrates its energy features as it faces south with a long, solar wall. Patterned to recall the bay and panel composition of the Sanders buildings, the solar wall is all glass and creates a two-foot slot of air space against the building’s brown, concrete block wall. Open at the bottom, air rises through the cavity and is heated. Fans at the cornice line pump the heated air into the mechanical system, which distributes it through the building. This surplus air is essential in the efficient operation of the 46 exhaust hoods in the labs, under which students work with chemicals. At this time, the hoods do not operate as effectively as they should, Rogers explains, because of insufficient dampening, requiring all the hoods to exhaust when only one is being used. Modifications to the system should solve this problem. The building also has active solar collectors on the roof.

As a link between the science quad and the larger collection of public spaces north, the Mudd building’s “front” is necessarily ambiguous. Buildings on quads usually front on quads, as the older Sanders buildings do, and Mudd’s south side is distinguished by a glass-block entrance that appears to grow out and down toward the quad like a crystal. But that’s not Mudd’s front. The north side is the main entrance to the building, and it is much more symmetrical and formal than the south side. You pass through a heavy, brick portal, which sandwiches a glass-block interstice, and on into a tall lobby. The lobby is midlevel between the partially sunken first floor and the second floor. It’s vaguely shrimplike too, displaying a portrait of the building’s donor, which recalls the elaborate concrete plaque outside. These talismans were program requirements, and the architect has displayed them with relish.

Entering the building on axis, one then moves west to a stair case and up. The second floor, like the first, is devoted to lab spaces, dense with pipes, tubes, and other mechanical hardware and not entirely welcoming to the visitor due to its no-nonsense quality. It’s proper for these labs to be uninviting to the outsider, maybe a little bit intimidating, because this is where most of the instruction and learning takes place, and a visitor should feel no more comfortable waltzing through than into a classroom. A row of work tables is strategically placed across the axis, in effect barring casual passage through the labs.

The vaulted and light-filled third floor, in contrast, is very hospitable, made so by the immediate visual connection through public lounge and a large, square window to the physics building across the quad, whose limestone plaque is perfectly framed. It beckons you on. To the east are two classrooms that are pinched together with a glance of the eye through a series of superimposed windows (shades can be drawn for privacy), offices, and a wavy, glass-block-walled faculty lounge. To the west are lavatories, a seminar room, and a library. Having reached the central lounge, you are midway through your journey, and again mo
off the axis, this time to the east, into a glass-block enclosed staircase that winds down like a fly in a Ball jar, and are finally deposited into the quad, on axis once again with the Sanders Physics Building.

This sequence of entering through the north portal, passing through the building, and then arriving at the open quad replicates in miniature the experience of entering Vassar’s campus through a main gate (which is actually a building), passing through it, and then arriving in a grand, open space on axis with Main Hall. Apparently the students have caught on to this shortcut through Mudd, Rogers reports, because they regularly go through it rather than around it.

The only problem with the Mudd procession is that upon close inspection one discovers that the building is actually off axis with the physics building by about three feet to the east. It’s such a small error, of course, that you’re not even aware of it while moving through the building, and it probably wouldn’t make much difference to anyone but an architect. But in a quirky way it’s appropriate, being detectable only by viewing the building from across the quad, because that’s the view of Mudd from the quarters of the college’s resident physicists, who know that even the seemingly ordered and rational universe has its own unsettling indeterminacy.

Mudd’s interior is all nuts and bolts, taking its cue from the building’s most important spaces, the labs, which occupy the center and are ringed by offices and service spaces. The two levels of labs, which were planned in collaboration with the chemistry faculty, appear to be models of efficiency, with all structure and mechanical equipment left exposed. Each floor of labs is divided into three areas, defined by movable cabinets, shelves, and exhaust hoods. The work tables are rendered in Vassar’s own collegiate color of rose, and can be disconnected from the overhead mechanical equipment and moved around. Fluorescent task lighting, which can also be relocated, cuts energy consumption.

Spaces outside the labs are likewise bare-bones. In the north lobby the steel frame is mauve with staircase and railings (sporting the same ornamental cross-bracing as found in New England Hall) in green. In the lounges and classrooms partitions are always exposed as infill between the steel members. As Rogers points out, this kind of interior demands that the building trades pay close attention to the quality of their work, which is usually concealed. Except for some instances of shoddy drywall work and sloppy painting, the trades shine through. Revealing the building in this way, such as how the brick curtain wall ties into the steel frame, is pedagogically akin to the work conducted in the labs: an investigation into the nature and structure of things. As such, the Mudd building wouldn’t make a bad architecture school either.
The University of California at Berkeley's new recreational sports facility is a temple for toning. The result of the sheer demand of more college students who want to pump iron as much as they want to pass tests, Berkeley's recreational sports building is on the order of a huge health club, separate from intramural sports and open to the entire university community.

The local firm of ELS/Elbasani & Logan was given a tight site for this building, which includes handball/racquetball courts, exercise rooms, three gymnasiums accommodating seven basketball courts, administration offices, and parking for 230 cars (it also covers and makes accessible eight pre-existing subterranean handball courts). The site is hemmed in on all sides by boundaries that allowed no encroachment: to the north, a baseball field; to the west, a concrete-walled stadium from the 1930s; to the south, Bancroft Way, which defines the southern border of the campus; and to the east, Harmon Gymnasium (built in 1931) and a pool. The architect parceled the program into three distinct building blocks, set on a flat podium that hovers above the sidewalk and street as they slope west, with parking below grade. The largest of these three blocks (which contains two gymnasiums, four exercise rooms, and nine handball courts) is four stories tall. This block extends to the street edge and takes center stage, bookended by the smallest block to the east (which is three stories tall and contains the facility's main entrance and offices), and to the west by an intermediate-sized block (also three stories and containing a field house gymnasium).

The program required that the interior of the two larger masses have as little natural light as possible, so fenestration could not be used to break down their large scale and mitigate their presence on Bancroft Way, with its small residential and commercial buildings across the street. A university stipulation that the facility be naturally ventilated and cooled without air-conditioning, however, required a significant square-footage of louvered vents, which the architect broke down into a variety of square modules that were then manipulated to decorate the "shoe boxes," as Donn Logan, FAIA, calls the blocks. The block farthest west, containing the field house gym, is perforated on its north and south sides with large louvers, blank panels, and...
exit doors, with small louvers grouped at the center. The larger block is punctured by a row of louvers at its midsection.

The building’s appropriately scaled entrance through the smallest of the three blocks faces a deep, south plaza, distinguished by a path of red concrete that rolls out to Bancroft Way like a carpet. The entrance lobby doesn’t live up to the red carpet, though, because here the facility’s security-conscious management has placed a bingo table, folding chair, and stanchions for the student guard who checks I.D.s. But once past this makeshift Checkpoint Charlie, things only get better. Just beyond the entrance, part of the old Harmon gym’s exterior has become an interior wall, proudly displayed like an archaeological fragment that pins the old and new buildings together. The wall fragment now serves as a portal into Harmon, and has been painted beige to match the new facility’s public space.

To the west of Harmon’s wall, a large and (for a recreational center) sumptuous, skylit atrium extends the length and height of the center block, revealing at a glance almost the entire building interior and knitting together the individual blocks. On the atrium’s north wall are glass-enclosed handball courts with windows above, the entire plane recalling the exterior arcade. At the west end of the 250-foot-long atrium is the entrance to the field house gym. This west wall of the atrium is a composition of bands in buff and terra cotta. In fact it’s more like an exterior wall that passes through the atrium and back out again, distinguishing the field house gym as a separate block. The atrium’s south wall is almost hidden behind a grand, double staircase accessible from either end of the space. At ground level, one walks beneath the staircase to enter the four exercise rooms, devoted to weight-lifting, martial arts, combative sports, and dance. All four are decorated in soothing colors—mechanical equipment and structure in pastels—and illuminated with non-glare, mercury vapor uplights. Padded wainscoting in each room recalls the building’s familiar banded motif.

About a third of the dance studio’s area was recently partitioned off by the university to accommodate a campus-run sports equipment store that now opens onto the building’s exterior south arcade. This renovation was not done by ELS (and looks it), but it does activate the arcade, something Logan had wanted early in the design but which was discouraged by the recreational sports department.

The staircase’s first landing brings one to the mezzanine level, allowing views down into the exercise rooms and access to the curved-front balcony overlooking the atrium. The mezzanine extends from the administration offices into the field house gym as a small balcony and stair; it was to connect with a running
Above left, view into field house gymnasium, whose entrance on ground level is framed by atrium’s west wall, above right. Across page, gate-like exhaust ducts from underground parking punctuate stair from Bancroft Way to west side plaza.

track that would circle the gym at midsection, but the track was deleted. At the stair’s top are twin gyms in which the steel structure and diagonal bracing are revealed. ELS also redesigned circulation through Harmon, its new swimming pool locker rooms, and seismically upgraded the 55-year-old building, all with the same sensitive touch evident throughout the new facility, no doubt responsible for the center’s campuswide popularity with the students.

The most sweeping and memorable use of color and decoration is on the sports facility’s exterior. As it extends to the street edge, the largest block meets the podium with a concrete arcade, its back wall banded with subtle shades of peach and punctured with high, square windows, shrouded in the shadow of the arcade. Above the arcade the block becomes stucco, painted bluish green and grays. A darker gray band marks the floor level of the gyms and cascades down the block’s east and west sides, contained by zigzagging fire stairs. The top band of bluish green makes the block dissolve into the sky, while a lighter gray articulates the building’s steel frame. On the south elevation the bluish green band is diagonally scored to suggest the steel bracing behind the walls (curiously, the same diagonal bracing in the east and west walls is not expressed outside).

The field house gym is treated differently, rendered in a single shade of peach, banded with thin, aluminum channels in terra-cotta, which do a similar diagonal dance on the south facade, only without the precedent of steel structure behind. This box has a terra-cotta-colored lid, meant to suggest Berkeley’s tile-roofed campus buildings (but, as university officials nervously cautioned, not so red as to suggest Stanford!).

All of this massing, banding, scoring, and color effectively reduces the perceived size of the facility and animates it, while simultaneously drawing upon a palette of decoration that is local in its associations. □
Adapting a Gritty Hillside School

Wilkes-Barre, Pa.; Bohlin Powell Larkin Cywinski. By Andrea Oppenheimer Dean

Infashionable and refreshingly coarse textured, the gritty cities of the Northeast grew up at the turn of the century, flourishing with the hegemony of steel and chemicals, railroads and waterpower, textiles and coal. Many of their old mills and stories, even some of their downtowns, fell derelict, with the demise of the industries that sustained them, though some old buildings have recently been restored. Among them is the George R. Guthrie School of 1914-15 on a fringe of Wilkes-Barre, Pa.

The former school, which was abandoned in 1970, occupies hilltop site embracing the once important coal town with a protective gesture as did castles of old, which, from afar, its rear elevation resembles. It is a tough-looking old brick bastion with tower to each side, one for stairs, the other an air shaft. The street facade, on the other hand, which is the one that was meant to be seen up close, is reminiscent of such buildings as Mackintosh's Glasgow School. With ample glazing and a continuous cornice under a hipped roof, it has an elegantly functional look. In 1914 the building was innovative because of its steel structure, abundant natural light, thermal comfort, and efficient use of energy.

Its present use is an unexpected one. In part as a civic gesture, Intermetro Industries purchased this dilapidated school a residential neighborhood and hired Bohlin Powell Larkin Cywinski of Wilkes-Barre, Pittsburgh, and Philadelphia to convert it into corporate headquarters.

Since one requirement was to provide off-street parking, the architects turned the building front to back, creating a new axis, the former street elevation the architects simply restored, pairing brick, terra-cotta, and stone.

The new entry facade, (formerly the rear of the building), at close range like a found object from some arcane expressionistic time. Partner Peter Bohlin, FAIA, recalls, "We were tickled to have such a nice, strange thing with interesting massing to deal with." The architects here added site work (lights, bollards, benches) with an industrial look "to fit the building's toughness," says Bohlin. As a new entry they created a free-standing masonry and steel trellis structure reaching almost to the roof so that it could be seen from a distance. And, because this elevation faces southeast, they also mounted over the first three floors motorized awnings that automatically respond to weather changes.

Inside the building and out, the architects tried, at one and the same time, to clearly distinguish the new from the old while creating echoes of the old in the new. Bohlin, therefore, worked largely within a "tough" esthetic look, which works well outside but less successfully indoors. The new vestibule, for instance, a place of passage between outside and in, is paneled in mahog-
any and stainless steel—the company produces steel products—and resembles a bank vault, though some employees apparent call it the mausoleum. Its relationship to the new lobby as well as the old portions of the building is more iconographic and intellectual than visual. As Bohlin admits, the new public portions of the building, especially the lobby with its heavy banding, hard edges, giant classical details, and peaked shapes are in his words, “more predictable and mannered” than his usual work. Missing is the sure sense of nuance, subtlety, and gentle humor of his best work, as seen at the Girl Scout Center in Miquon, Pa., (May ’84, page 168) and the house for Norman Gaffney (Mid-May ’81, page 175).

Very successful, on the other hand, is the manner in which the designers have capitalized on the inherent characteristics of the building. They removed partitions between classrooms to create a mix of open and private offices, glazed the original stair to bathe it in natural light, replaced window sash throughout, incorporated modern double glazing, rebuilt and reglazed skylights, and used the building’s original high ceilings, natural light, and views to create spaces that are bright and airy even in bleak weather. The abundant daylight, of course, also reduce energy consumption.

The building’s top floor is also its high point architecturally. Used for executive offices, it consists of attic space beneath: hipped roof separated into offices that are illuminated by slanting overhead skylights and resemble little houses. These spaces are marked by soft natural light, a comfortable scale, fine detailing and a balance between architectural elements that convey a set of energy and activity on the one hand, of quiet and calm on the other.
Below, small seating arrangement between two fourth-floor offices, each of which receives natural light from two tiers of skylights. Right, top floor elevator lobby with view toward glazed stair.
Stately Ensemble Unified by a Courtyard

Bulfinch Square, Cambridge, Mass.; Graham Gund, FAIA. By Robert Campbell

Bulfinch Square is a miracle the accomplishment of which required so many lucky accidents that, in retrospect, the whole thing seems as improbable as a nuclear freeze. Yet it happened.

It seems crazy, as you look at this fine cluster of buildings today, that they were supposed to be demolished. But as the Cambridge Historical Commission wrote in its 1965 guide to East Cambridge: "Dating back as far as 1814, these solid, red-brick, 9th century structures are soon to be replaced by a skyscraper-oriented complex of modern buildings and landscaped plazas."

The new skyscraper—a county courthouse—did get built, right across the street from what is now Bulfinch Square. You can see this grim concrete tower, carefully masked in shadow by the photographer, in the background of the photo above. Luckily for the future Bulfinch Square, the skyscraper construction was plagued by a major scandal. Because of the brouhaha, a reform slate of county commissioners came into office in 1974. They canceled the rest of the proposed redevelopment. Then, in 1976, the Preservation Tax Act was passed in Washington. In 1977, Cambridge created a Multicultural Arts Center and this new organization began looking for a home. In 1979, money became available from a federal Urban Development Action grant. (By then, one of those reform county commissioners, Paul Tsongas, was a U.S. senator, and the congressman from Cambridge, Tip O'Neill, was speaker of the House.)

Had any link failed in this Rube-Goldberg sequence of events, Bulfinch Square would almost surely not exist today. It simply wasn't "economically viable," as we say in our odd contemporary jargon. It still isn't, for that matter, and may not be for a few more years. What Bulfinch Square possesses is a longer-term kind of value that will, sooner or later, translate into profit.

Bulfinch Square is a group of former county government buildings—courtrooms, mostly—the oldest of which (the one with the cupola) was originally designed by Charles Bulfinch in 1814. It has been fully renovated, partly as commercial restaurant and office space and partly as a home for the Cambridge Multicultural Arts Center. The architect and developer is Graham Gund, FAIA.

Viewed as either architecture or urban design, Bulfinch Square is one of the best American historic renovations of recent years. Working with the delicacy of a surgeon, Gund amputated a cluster of infill buildings that had concealed the architectural form of the complex. He sutured the resulting wounds in the old buildings with new construction that appears, literally, to be equal in quality to the original work—a remarkable achievement in our age of slapdash crafts. Documents were searched, of course, for every hint of evidence of the buildings' original appearance. A new porch, for instance, is copied from an original now known only from an 1850 lithograph. Where such evidence was lacking, Gund chose not to imitate historic styles, but instead to invent with gusto and confidence in the spirit of the originals.

The result is an informal grouping of compatible buildings from different eras pulled into unity by a central courtyard. The ceremonial facade of the oldest of the buildings, with its cupola and porch, fronts onto the courtyard, giving this space the sense of

Facing page, the 1814 Bulfinch Building from inside the block; above, the opposite side facing Third Street in East Cambridge.
of being a center. The courtyard also reaches out to organize Bulfinch Square's neighbors by creating a new north-south axis. The axis runs from the imposing portico of the 1896 Registry of Deeds, which stands across Otis Street to the north, through the courtyard and on to the aforementioned Middlesex Courthouse tower on the south.

The axis makes Bulfinch Square the center of something larger than itself and begins to make urbanistic sense out of the whole three-block area. At this writing, unfortunately, the effect is incomplete. The city is supposed to close off Otis Street between Bulfinch Square and the Registry, making it into a linear park (to be designed by Carol Johnson) that will connect up with the major new Lechmere Canal Park a block away (also being done by Johnson). On Bulfinch Square's south side, bureaucrats have rejected Gund's intelligent proposal to bridge his axis across Thorndike Street into the second floor of the courthouse tower—even though the tower was designed to have its main entrance at this elevation, and even though the doors are already in place, now hanging helplessly a full story above the sidewalk. Gund responded to this rebuff by designing a gazebo at what would have been his bridgehead. It is now under construction.

Even in its present state, however, the courtyard is a lively new piece of public realm added to the city. It is evocative of its past without being obsessed by history, for its strongest connections are those that reach out to the contemporary world around it and to the future.

In the interiors, the architectural restoration work is often stunning. Abandoned for a decade, with windows broken, with floor and ceilings devastated by water damage, with furnishings and ornament stripped by vandals or even sold at public auction, the interiors were truly a wreck by the time Gund began work. You'd never guess it to see them today. Original plaster moldings, carved woodwork, and paint colors were meticulously researched and restored. The outside of the cupola dome was regilded, and inside it the old clock mechanism was renovated and the 1,000-bell carillon electrified. Everywhere, details and surfaces glow with renewed life. A chronic problem in such restorations is a problem here as well: The decision to restore the ornamental plaster walls and ceilings left little space for necessary mechanical systems, with the consequence that one of Bulfinch Square's drawbacks is the sometimes obtrusive sight
Opposite, the north-south axis view (top photo) and 'before' a bird's-eye view. Right, the double-height former courtroom with cast iron balcony railings, before and after.
and sound of local units in the walls. But as the photos show, the price was worth paying for the remarkable beauty of many of the interior rooms, most of which will become elegant lawyers' offices.

The new Multicultural Arts Center, which is subsidized by the Cambridge Arts Council (with the National Endowment for the Arts and others), is an organization that does not promote its own art programs but instead provides space and facilities for use by Cambridge's many existing arts groups. It occupies an 1887 wing of Bulfinch Square and includes studios, galleries, offices, and a theater. The theater is in the biggest and most impressive space in all Bulfinch Square, a double-height former courtroom. Here, however—for once—the use is incompatible with the space. Ornate cast-iron balcony railings have become merely the trellis for a shrubbery of stage lights, and the floor and walls are often hidden by makeshift platforms and black back-curtains.

Economically, things have been cool at Bulfinch Square. Space has been slow to rent. There is still, at this writing, no tenant for a proposed restaurant that will someday spill out in terraces onto the courtyard. Lawyers, who it was hoped would wish to be near the new courthouse, have not flocked to Bulfinch Square. East Cambridge is still in a state of transition. Its manufacturing uses have disappeared, and its elaborate waterfront redevelopment along the Lechmere Canal and Charles River basin is still largely a construction site. Parking, too, remains for the time being a problem. But in any such situation, someone must have the courage to take the first step. It's to the credit of architect-developer Gund that he has been willing and able to renovate Bulfinch Square at a level of quality as high as that which he would have aspired to if he had known that high-rent tenants were clamoring for entry. Luckily for Cambridge, he is patient enough to wait for the market.

Charles Bulfinch, incidentally, designed almost nothing that remains of Bulfinch Square. Another architect, Ammi Young, redid everything in 1848, and many further changes were made after that. But stars are stars: Everyone has at least heard of Bulfinch and nobody has heard of Young, although he was a noteworthy architect who designed Boston's Custom House. So Bulfinch Square it is. Just as Mark Twain tends to be credited with everything funny said in the 19th century, and Olmsted with every good piece of landscape, so Bulfinch's oeuvre in Boston tends to grow over time. We forget, too, how easy architecture must once have seemed. Bulfinch's plans and elevations (which is all that he did) for his courthouse are mere cartoons by today's standards. He received only $100 for the job, less than one-hundredth of 1 percent of the construction cost—not much of a windfall, but still better than Bulfinch did in an earlier venture in Boston when he tried to double (like Graham Gund) as developer. The time, Bulfinch went into bankruptcy—and into jail.
Rich Surfaces on a Sophisticated Barn

Agricultural Arena, Penn State University; Dagit•Saylor. By A.O.D.

Though it is the least complicated of buildings and uses the most ordinary of building materials, the Agricultural Arena at Pennsylvania State University by Dagit-Saylor of Philadelphia embodies the best of mid-1980s architecture. It retains the functionalism, lack of fussiness, and simplicity of modern architecture while incorporating characteristics that have recently enriched and enlivened its appearance while liberating us from its strictures, namely, a more artful and imaginative use of materials and shapes, a heightened regard for a building's surroundings and their history, and the "decriminalization" of ornament.

Dagit-Saylor chose an oversized barn shape for the arena in part because it is in Pennsylvania Dutch country where the landscape is dotted with farms. Also, the building needed to be tall, as are barns, because, as Charles Dagit says, "When you assemble 25 cattle in a space and put people in it, you need good ventilation." The building is used as a permanent exhibition and demonstration hall by agricultural industries and associations, and for meetings, workshops, and celebrations by Penn State's agriculture and other departments.

Since the site is next to the university's football stadium, which attracts large crowds from all over the state, the architects saw the arena as a second gateway to Penn State and wanted it to be prominent from the entrance and photogenic from the Goodyear blimp that would hover over it during football games and bring its image into American homes across the land.

The architects arrived at their colorfully patterned image while
Left, barn-like space is spanned by overhead monitor admitting indirect natural light. Above, view from mezzanine balcony. Right, building’s patterned motif was formed by laying concrete blocks diagonally on base to create diamonds and squares, and, above it, turning siding horizontally to contrast with roof.

searching for a way to make the base of the building attractive yet tough enough to withstand punishment from cattle and horses. At the same time they were researching old Pennsylvania Dutch barns adorned with hex signs and other markings. To create a batter-proof yet attractive building base, they laid concrete blocks on the diagonal to form a pattern of diamonds and slightly raised squares, and raised into shallow relief the top layer of blocks beneath a double strip of belt coursing.

Above it, they used metal siding, first turned on the horizontal to form a broad blue band framed in peach-colored metal molding. Then, giving the appearance of dentil molding is a strip of white corrugated steel under a rose-colored gutter topped by a wide white roof, again of corrugated metal. There are also deft touches such as the peach-colored curved pediments again a blue-colored ground that look like windows in the rooftop louvering system. At a distance, the effect is of a skillfully drawn and proportioned giant barn. Up close, the resemblance is to patchwork quilt stitched together with industrial materials.

The interior is one large space spanned by an overhead, translucent clerestory that admits diffused natural light. Indirect light was a necessity, especially for horse shows where a sun ray hitting the eye of a horse or rider can create havoc, especially when jumping hurdles in equestrian events. Integrated with the overhead light monitor are louvers for ventilation that are reminiscent of the elaborate shutters on some traditional barns. Service spaces are tucked under the mezzanine balcony used for viewers, juro

The new arena is simple, elegant, and festive looking, as is appropriate for a building that since its completion in 1984 has hosted, among other events, an annual horticultural show and a graduation celebration for over a thousand.
House Plays Against A Rugged Bridge

Near Toledo, Ohio; Hugh Newell Jacobsen, FAIA. By A.O.D.

Its forms respond to a gently decaying, abandoned stone railway bridge dating from 1908, whose crumbling joints are filling with tangled growth. Designed by Hugh Jacobsen, FAIA, this house outside Toledo, Ohio, off one of those flat Midwestern roads indistinguishable from countless others, was, until recently, surrounded by farms, which have been replaced by mostly new, mostly expensive suburban houses stamped from similar molds. None is distinguished or really vulgar. Occasionally there is a glimpse of the Maumee River, which parallels the road to the east.

If Jacobsen’s house weren’t topped by four fat and elongated chimneys poking over its shallow hillock, you’d miss it altogether. As it is, you loop down the drive from which there’s still no sign of the bridge. It’s been purposely concealed by the architect behind the house itself. Low-lying and seamless-looking, topped by vaulted roofs and those giant chimneys, the entry facade is a wide-angled L, broken only by a row of newly planted young birch trees. Though made of wood, it looks like a concrete building, and appears very white and mute. “I rarely put windows toward the driveway,” says Jacobsen. “It makes it easier to find the door. A good house is a drama unfolding from the driveway, here as gravel tinkling on the underbody of your car.”
Upon entry the main event is unveiled in dramatic regalia. In the domed portico/atrium with half-moon skylights is a surreal-looking view of the romantic-looking, arched bridge. It virtually fills the vaulted window wall of the living room just ahead, looking like a huge apparition from a 17th century French neoclassical landscape painting. As you move down the V-shaped steps into the living room, the bridge fills less of the window, appearing to diminish in size. Jacobsen playfully calls it “the incredible shrinking bridge.”

The atrium with its haunting image is the spiritual and physical fulcrum of the house, marking the center of Jacobsen’s vaulted cruciform plan. Its long crossbar runs parallel to the river and houses three bedrooms on one side of the atrium; on the other, adjoining the living room, is a kitchen-cum-family-room with casual sofa and armchairs and an eating table for four overlooking a terrace with herb garden enclosed on three sides. One of the ends of the short crossbar containing the living room and its window wall is aimed directly at the bridge, the other—also an arched window—separates the library from its partially enclosed terrace. Beyond it stretches a meadow recently planted with black-eyed Susans.

By tugging his plan off axis, Jacobsen created parallelogram rooms—each less formal than if it were a rectangle—and pervading asymmetries that give spaces more tension and liveliness than if they were symmetrical. Vaulted ceilings, echoing the arches of the bridge, open rooms upward in an embracing gesture. Meanwhile, boundaries between indoors and out are blurred by floor-to-ceiling glazing, outdoor terraces, and walls that are pushed outward by overhead skylight strips where they meet ceilings. They appear to float as planes rather than being sides of a closed box.

Top left, aerial view looking toward the river; above, toward the entry; right, from the riverside.
The magician/prankster in Jacobsen has had fun with this house not only by making it appear to open out and look somewhat permeable and applying funhouse principles of perspective to distort the apparent size of the bridge, but in hiding television sets in walls that swing out, by fashioning a living room bar that when unused vanishes into a fold-away wall, and by creating a library that can be converted in seven minutes into a formal dining room. The transformation is achieved by moving the long library table to the center of the room, producing 14 stacked chairs from a concealed closet, and ranging them around the table. The relish with which Jacobsen shows you such tricks is directly related to the pleasure he derives from having successfully spirited into existence this conjury of seamless and graceful-looking oddly angled rooms and nooks.

From the outset, the clients instructed Jacobsen that they didn't want another of his formal-looking, all-white houses. What they got and now love is a comfortably scaled, modern, light-filled house that ingeniously captures both the rising and setting sun, and feels warm and alive. The kitchen, for instance, has—apart from casual sofa, armchairs, comfortable table overlooking a terrace and the bridge—a fireplace. So does the library, in its vaulted window wall. Both library and living room are lined with horizontally oriented mirrored shelves that tend to multiply their collection of books and antique decoys. And furnishings designed by the architect in both tend toward the comfortable rather than the sleek.

In the living room, facing sofas, a cocktail table, and two benches float like an island between facing fireplaces flanked by indoor trees with overhead natural light. Jacobsen calls the color scheme Etruscan—terra-cotta pink, faded blue, and tan on a handmade carpet on travertine floors. To further avoid a starchy look, Jacobsen has spaced his furniture according to anthropologist E. T. Hall's findings about the distances at which people feel most comfortable with each other, as published in The Hidden Dimension.

It is a title oddly descriptive of this house. As the clients say they are constantly discovering about it something new, a hidden dimension. □
The Architectural Panorama

Part of the annual review each year from its inception has been a set of essays on current directions in American architecture, sometimes by architects and sometimes by commentators outside of the profession. This year we turn outside, to a highly diverse but astute and articulate group of non-architects. We have asked them two questions: "What do you like most about American architecture today? What do you dislike most?" They were invited to respond either in terms of general directions or specific works. We are grateful for their responses, which follow. D.C.

Gudmund Vigtel: "Today's architect has taken the romantic part of the artist."

When the New Haven architect, Ithiel Town, first saw the painting he had commissioned of Thomas Cole in 1840 he rejected it outright, to Cole's great consternation. The large composition, which Cole had named "The Architect's Dream," shows Town dramatically enveloped in a black cloak, resting in deep reverie on top of an immense column with grandiose visionary architectural prototypes fading into a luminous distance. Ithiel Town refused the painting, ostensibly because he had expected landscape to play a much more prominent part in it. It is possible that he was embarrassed by the melodramatic role in which Cole had cast him.

It is worth noting that Cole's interpretation of the eclectic mid-19th-century architect was particularly apt. Town, himself, was noted for his work in both the Greek revival and Gothic styles. Today's postmodernist fits Cole's romantic image of the architect as dreamer, as the artist/architect even better. What's more, today's architect often deliberately strikes the stance of the artist and dreamer in dress and manner, with no trouble identifying with the Gothic, Roman, Greek, and Egyptian styles as they recede in deep perspective into the past. The fact is that each of the ancient styles shown in Cole's picture is part of a real repertory for today's architects who have only added new forms with the use of industrial materials such as sheet metal, glass, and plastic. One thinks of I. M. Pei's pyramid in the courtyard of the Louvre, the current use of Greek and Roman forms in numerous varieties, and Philip Johnson's Gothic IBM tower in Atlanta, now under construction as examples.

Today's architect as dreamer is, indeed, a happy change from the architect as businessman of previous postwar decades, when "less is more" degenerated into les style and most cost efficiency. Be that as it may, today's architect has once more laid claim to kinship with the innovators of the past and taken the romantic part of the artist, the individual as creator.

One has to have great respect for architects who may not only be inventive artists but who have developed their craft after years of disciplined preparations; who, unlike other artists, also possess extraordinary abilities for methodical organization and formidable skills of communication. To pull together teams of professional designers who develop an architectural idea that must be sold to a client in the face of budgetary obstacles and the resistance of arbitrary opinions, requires a pronounced political sense, not to mention a death-defying obstinacy based on fiercely dedicated egos.

This may account for the frequent conflicts between the client's simple needs and the architectural vision, or the architectural monument that fails to serve practical purposes. On the opposite end of the scale, where architects seem to play a completely passive part, are those constructions of no particular intent that dominate endless stretches of urbanized livir.
Robert Coles: "The sin of pride working itself into designs for buildings"

Sometimes, as I travel from one American city to another, I lose my bearings, begin to wonder where I am—a confusion not altogether the result, I believe, of an early Alzheimer's disease. So many of the downtown buildings of our cities look alike—big silos, or yet another attempt to suggest a bit of irregular geometry.

The worst predicament of all is to be caught inside one of those new hotels: water everywhere; no clear idea where to check in or go eat; the ride on an elevator amounting to participation in a public spectacle. I used to love to go into an elevator; I could close my eyes and begin to withdraw from the world. Now one is in an amusement park, and an induced excitement, a dreary hype, is one's ticket to psychological normalcy. As for all those semitrropical plants, they incite a wistful memory of an old meadow of childhood days, where there were only wild grass and skunk cabbage and a few scrappy bushes: maybe not the right stuff, but the real thing, all right—a place people knew and used and felt to be part of their lives, rather than someone's prettied-up abstraction, set down as an obligingly chic response to what has been called a "trend."

What always pulls me out of my disorientation is whatever landscape has not been touched by renovation and decoration and so-called landscaping—a river, a lake, a mountain, the ocean, a hilly stretch of land that is red, or sandy, or thoroughly black. I can with such help realize that I am out West or down South or in such-and-such city or town. But as I contemplate what has happened to certain riverfronts, and will be happening to others, I begin to realize that soon enough some of the old standby cues will be gone. I'll be staying in hotels where the water outside is as drearily tamed to the tastes of all those planners and builders and designers as the water I see flowing along or pouring down as I try to find my way in and out of someone's late-20th-century idea of a hotel: so-called "exotica" become a mass-produced omnipresence. God save us all, in such hotels, who think of winning the public response has been nowhere more pronounced. A remarkable example of this is the new building for Atlanta's High Museum of Art. The collaboration between the museum's guiding forces and the architect, Richard Meier, FAIA, in their programmatic development led to a building that serves the museum operations admirably and at the same time provides the visitor with a particularly agreeable and refreshing environment. The new building is perceived as a work of art on the order of the best of what it contains. The public's response has been to double and redouble its support. Could there be a finer conclusion to the architect's dream? Thomas Cole would understand.
Stephen Jay Gould:
‘Mind has broken the hold of history.’

My interest in architecture has a strictly parochial basis. As an evolutionary biologist, I am fascinated with other systems—language and building in particular—that also develop through time under a central tension between two interacting (and often discordant) principles regulating the history of life as well. In evolutionary biology, these principles establish the two utterly different meanings of our common word “similarity.”

The first principle, called homology, is similarity by simple historical connection. People and wart hogs both have hair because our common ancestor was a hair-suit mammal, not necessarily because hair does either of us any good today. The second, called analogy, is similarity by separate and active evolution for common function (in different lineages). Birds and bats both have wings because you can’t fly without them.

In biological systems, homology must dominate as the primary basis of similarity because historical ties cannot be broken and inheritance transmits an elaborate past into any modern creature. Analogies, however striking externally (stick insects are dead ringers for twigs and gain protection from enemies thereby), can only be superficial.

Homology is the mark of history’s hold—the sign of quirkiness and oddity. Why should I write this essay, a bat fly, and a horse run with the very same finger bones—unless we all received them by homology from an evolutionary past. Analogy is the rational principle of good design actively acquired. Any engineer can identify similar features of proper aerodynamic construction in the wings of birds, bats, and butterflies.

Mind has broken the hold of history, and the domination of homology, in different evolutionary systems based upon human abilities and institutions. At one extreme, mind might actually fracture homology completely—an inconceivable prospect in biology—and produce historical sequences regulated only by rational design. When I look at buildings by epi­gonies of the International Style from New Palz to Nairobi, I often get the eerie feeling that history has disappeared—a chilling prospect for any evolutionary biologist. (I make no aesthetic judgment from my alien perspective, only an abstract observation.)

But if mind can banish history, mind also soars free to accomplish something truly incredible and forever foreclosed to biology—it can reach into a past lost to the genealogy of objects themselves (and preserved only in repositories of memory and documents), and reconstitute old features in current contexts. Such a retrieval has no name in the lexicon of biological similarity. It is not analogy, for no principle of common function underlies its development in separate lineages. It is not homology, because it lacks unbroken historical connectedness. It is, simply, history reconstituted. Mind has freedom to play with history, to combine and eliminate by rational principles beyond the genealogical constraints of organic continuity.

Thus, although I have seen the clichés (already!) of postmodernism in Dallas and around the Silicon Valley-like Route 128 in Boston, I remain astounded that a broken pediment can bedeck a skyscraper in New York and that a castle in plate glass can rise in downtown Pittsburgh. Life cannot juggle its past, cannot even again use creatively (or badly) what it has lost. Extinction is truly forever.

One final thought from an evolutionist. Variation is the raw material of evolutionary change. Regional diversity is the first level of alteration—and the foundation of more extensive change. Evolutionists tend to conflate the factual with the ethical, and come to love variety, especially variety with a coherent geographic basis, for its own sake. Even if rationally optimal organisms existed, and we could standardize life throughout the world to an array of truly best designs, we would be horrified.

Natural selection and the principle of analogy require that organic structures work well enough, usually very well indeed, but they reach no abstract perfection divorced from context. Quirks and oddities—parochial regionalisms with little logic beyond the paths of history—abound to record the primary fact that organisms are tied by genealogy.

Buildings need not imitate life—no reason at all why they should. I have only offered a parochial musing that tries to explain why one biologist loves signs of history and values regional diversity—perhaps only because he wishes (quite unfairly) to impose the comfortable views of his own profession upon others operating (quite properly) with different materials and standards. Unless, of course, esthetics has a greater universality after all.

Herbert M. Franklin: ‘Will future generations flock to see the U.S. style?’

The request for my views on American architecture arrived during the afterglow of a recent trip to the hilltowns of Italy and its centers of classical and Renaissance architecture. As a result, my aesthetic interests have lately been focused on the past rather than on the present.

I suppose there are few greater contrasts than that between the vernacular patterns of the Italian fortress village and the high-gloss, high-tech style of much contemporary U.S. architecture. Will future generations, I wonder, flock to see the U.S. style as they undoubtedly will continue to marvel at the lively adaptation of centuries-old buildings and neighborhoods in Italy? Probably not, but perhaps tourist appeal is not the standard by which U.S. architecture—and its international inheritance—should be judged.

Nevertheless, a consideration of the fundamental differences between the old that attracts millions and the new—on which the jury is still out—has helped me articulate what I like and dislike about U.S. architecture today. My comments are focused primarily on commercial and civic rather than domestic architecture.

In the Italian hilltowns, buildings reflected the local climate, available materials, and topography. The limitations of technology also dictated a respect for human scale. Because urban change came slowly, incremental additions to the built environment were stylistically consistent without being monotonous, with each new element placed within a well-established context. The element of surprise—the narrow winding street suddenly bursting into the open piazza—is ever present. It would be silly, of course, to criticize current urban design for a failure to charm the pedestrian in such ways. Change is swift and the tight urban fabric was lost or torn long ago in most places. The automobile dominates—even, alas, in Italian towns.

But the lessons that can be drawn from those delightful and surprisingly functional towns do suggest some design principles that influence my attitude toward what I see and experience today in this country.

Materials: Our love affair with technology has produced buildings with extraordinary virtuosity in the use of materials, with components that dramatically shine, soar, and sheath. Many of these treatments strike me, however, as the equivalent of the label “New and Improved!” on household detergents. They capture momentary attention but ultimately will bore. On the other hand, materials that may not be so shiny or reflective or malleable—wood, stone, brick—used with sensitive attention to detail will delight the eye and heart for a long time to come.
Perhaps it's the difference between attaching a fireworks display and taking a arm bath.) Cities like Boston or Washington that have a texture and hue composed of natural building materials are somehow violated by large, imposing buildings primarily of glass or metals. Such materials in certain contexts are simply out of place no matter how impressive they may be in isolation. In Houston or Dallas, however, the opposite may be true. He conservative style that seems to be hurting long-standing older building designs and the desire to make them look imposing in leasing deposits. What I like least about American architectural trends would be complete without applauding the brilliant and sensitive rehabilitation work that has refurbished and adapted older historic structures. Indeed, no better demonstration of the power of tax incentives can be found, and we are all the beneficiaries of this stimulus to new value in our architectural heritage. In city after city old buildings that a few years ago would have been demolished or left to decay have found new vitality as offices, shops, and housing. With governmental oversight the results have been magnificent and from an economic standpoint will probably prove successful over time. In a way, some of the greatest architectural triumphs in the U.S. today are to be found in this growing specialization of adaptive use.

Pet peeves: It would be unfair to single out specific buildings for brickbats (especially if they are made of glass). But the opportunity to sound off in general is too welcome cliché, although when the glass is 30 stories above ground its effect quite attenuated. Without human scale as the interior, such a roof will provide light without feeling or sense of space. Even at its worst, however, it beats the closed box.

Revising the old: No comment on current American architectural trends would be complete without applauding the brilliant and sensitive rehabilitation work that has refurbished and adapted older historic structures. Indeed, no better demonstration of the power of tax incentives can be found, and we are all the beneficiaries of this stimulus to new value in our architectural heritage. In city after city old buildings that a few years ago would have been demolished or left to decay have found new vitality as offices, shops, and housing. With governmental oversight the results have been magnificent and from an economic standpoint will probably prove successful over time. In a way, some of the greatest architectural triumphs in the U.S. today are to be found in this growing specialization of adaptive use.

Pet peeves: It would be unfair to single out specific buildings for brickbats (especially if they are made of glass). But the opportunity to sound off in general is too inviting to resist. Here are a few pet peeves regarding some contemporary American architecture:

- hotel lobbies overwhelmed with the sound of falling water or bad orchestras, making normal conversation difficult or impossible;
- sterile, open plazas that will expose any user to sunburn or windchill even though the spaces look imposing in leasing brochures;
- buildings that turn a blank wall or worse to the urban sidewalk, deadening the streetscape and inviting graffiti;
- suburban automobile-oriented developments that look great in photos but which 98 percent of users approach through a dimly lit, ugly garage with poor signage to direct them to the real entrance;
- reflective glass curtain walls used without some energy saving rationale; and
- imposing entrances that turn out to be nonfunctional (a particularly Washington, D.C., phenomenon).

But the level of achievement is improving. Had I been asked to vent my views on this subject 15 years ago I would have given U.S. architecture a "C." Right now it's a "B+"—a lot higher, I suppose, than architects would give to lawyers!

David A. Morowitz: Expanding space.

What I like best about contemporary American architecture is the increasing employment of expanded interior space, particularly the decision to amalgamate rather than subdivide, with the bringing inside of natural light and the wedding of architecture and environment. Its inspiration was Frank Lloyd Wright's Falling-water, it continues in John Portman's hotels and the residences by Richard Meier and Hugh Newell Jacobsen, and reaches its zenith at the museum designs of Louis Kahn, particularly the Yale Center for British Art, New Haven, and the Kimbell Art Museum, Ft. Worth.

What I like least about American architecture is its tendency to embrace the dotty, another way of saying a building is what it isn't. Pennsylvania Station was not the Baths of Caracalla, the Brown Derby was not a derby, Chicago's Tribune is not a Gothic bell tower, and Philip Johnson's AT&T Building is not a Georgian highboy.

Henry G. Cisneros: Preserving our heritage.

To me the most enlightened trend in American architecture today is the care we are taking in preserving our historical architectural heritage.

In San Antonio we are refurbishing two old train stations, the Missouri-Pacific Depot and the St. Joseph's Depot. Both will be used as modern market places but will continue to bear witness to the past, a past when the railroads were the engines that drove our economy.

In residential neighborhoods, such as our King William District, citizens are preserving our cultural past, in this case houses that original German immigrants built around the turn of the century. This movement in American architecture not only is preserving architectural history, but also maintains our cultural heritage as a daily presence in our lives.
AIA Honor Awards 1986

Seven of the 14 Institute honor award winners for 1986 are residential, an unusually high percentage for a single use, and four are varied buildings for school clients. Of the remaining three, one honors a corporate office building, one the restoration of an important room in a public library, and the third a clinic.

Of this year’s choices, culled from over 600 entries, jury chairman Michael McKinnell, FAIA, said he and his colleagues “sought the authenticity of an architecture that springs from the materials and methods of its making, joined with the effort to dignify the human activities that it serves to accommodate.”

The seven residential works range widely in location, size, cost, client, and design aesthetic: in the Northeast, a house on a Maine island and a Manhattan tower; in the Middle West, a Chicago steel and glass house; in the South, Charleston’s scattered-site infill public housing and a Dallas private residence to also accommodate an art collection; and on the West Coast, a small addition to a Venice, Calif., house and new living quarters inserted in the shell of a 60-year-old fisherman’s net-drying shed on Bainbridge Island, Wash.

Two of the works for schools involve adaptive use or restoration, and two are all new: For a preparatory school in Tarrytown N.Y., conversion of a 1900 assembly hall into a library. For Yale University, a restored 1876 chapel. For Loyola University in Los Angeles, an urbanistic law school. And for Rice University in Houston, a new graduate school of administration.

A green-field-sited corporate office building for IBM in Purchase, N.Y., restoration of a 1911 exhibition hall in New York City’s 42nd Street public library, and a new clinic in Cleveland round out the field of honored buildings.

In addition to McKinnell of Boston, the jury panel consisted of Charles F. Davis, an architecture student, of Seattle; Merrill Lynn Elam, AIA, of Atlanta; landscape architect Dan Kiley of Charlotte, Vt.; William C. Muchow, FAIA, of Denver; John Pastier of Los Angeles, a contributing editor to this magazine; Rober Tremonti, Associate AIA, of Troy, Mich.; William D. Warner, FAIA, of Exeter, R.I., and Frank D. Welch, FAIA, of Dallas.

We lead our presentation with three winners shown and described extensively in previous issues. Considered together, they are remarkable for the varied ways they respond to their very different contexts. Allen Freeman

Long a staple of the architectural heritage of South Carolina seaport city, the Charleston single house has been ingeniously reconstituted as low-income housing (see July ’85, page 44). The local housing authority program encompassed 11 units, the majority located in Charleston’s older neighborhood and near the historic district. Bradfield Associates of Atlanta was responsible for roughly half the sites, including the only or actually within the historic district (right). This was chosen as the prototype site because the design would have to meet the approval of several local, state, and national historical review boards. Richard Bradfield, AIA, took cues from the surrounding houses, particularly the porches (known as “piazzas”), railings, shutters, roof pitches, parapet walls. After provisional approval from the local planning board, Bradfield sent two associates from his office to measure the details of the single house around the site. Incorporating the climatic features of the original 18th century single houses, the units are cool, well ventilated, and a perfect fit within Charleston’s historic fabric. Michael J. Crosbie
With "exaggerated perspectives, colonnades, plazas, odd blank facades, mysterious towers, and a muted sense of the surreal," Loyola Law School in Los Angeles relates to its complex urban setting in a nonliteral way, wrote Contributing Editor John Pastier in last year's annual. The small campus by Frank O. Gehry & Associates with Brooks/Collier is "a distillation of the paradoxical variety" of a city that is "home virtually every style of building," he continued. Located on the fringe of downtown, the school comprises five buildings: faculty, administration, classrooms, and a bookstore in a four-story block (left in photo); a chapel in polished plywood (left center); and three freestanding lecture halls (one is at right in photo). Cost was less than $5 million. Said the jury: "With a limited budget and unlimited imagination," Gehry created "a unique experience through the placement of buildings, evocative forms, stimulating use of color, and the unprecedented use in professional school setting of common, prosaic materials."
Cesar Pelli & Associates related their building for the Jesse Jones graduate school of administration to a more conventional academic setting: the ample, treed campus of Rice University in Houston. Herring Hall comprises two offset rectangular forms, one gable-roofed and the other vaulted, connected by glass-enclosed corridors. It is clad in a warm, orange brick with contrasting raspberry glazed brick, laid in horizontal bands on the long sides and making a diamond pattern on the end elevations. “The architect has presented a personal, creative interpretation of the forms and materials of nearby structures, creating a building that achieves solidity without being institutional or monolithic, and that reflects great individual character without losing its sympathetic relationship with the campus fabric,” said the honor award jurors. In our coverage last May, Contributing Editor David Dillon wrote that Herring Hall “is not simply an isolated example of enlightened contextualism. It can serve as a paradigm” for development of Rice. A.F.
Blend of Modernism and Regionalism

House in Dallas; Edward Larrabee Barnes. By David Dillon
Here is an exemplary Texas house designed by a New York architect in a style that evokes Luis Barragán, Le Corbusier, Mykonos, and a 12th-century Cistercian abbey in the south of France. So much for the notion of an unsullied vernacular tradition. If there were such a thing as international regionalism, this would be a superb example.

In its citation, the AIA honor awards jury called this house by Edward Larrabee Barnes Associates and Armand P. Avakian Associates “a thoroughly romantic architectural vision, functioning within the Modernist vocabulary while borrowing significantly from the traditions of Southwestern architecture.”

Much of the romance comes from Barnes’ imaginative handling of the lush, sloping site, so rare in Dallas that it took the client two years to find it. Along the street the house maintains a cool minimalist presence—two offset white towers, with a low white rectangle between them and a majestic live oak tree to provide a visual center for the entire composition. Its public face is serene and private, in the best Spanish colonial manner.

But the picture changes dramatically in back, where the site drops off toward woods and Barnes breaks the house down in a romantic tumble of separate elements—towers, terraces, courtyards, and stairways. Some are tucked into the hillside, others are pulled out to create a dynamic interplay of solids and void. The austerity of the public facade thus gives way to a subdued exuberance in the private domain.

One obvious source for all of this would be Mykonos or the hilltowns in Spain and Italy, in which the unity between building and environment is paramount and where individuality is typically expressed in a context of overriding visual unity. Bu
Finally telling precedents lie closer to home, in Barnes' Haystack School on Deer Isle, Me., and his farm complex in Wayzata, Minn. Completed in the early 1960s, both projects are based on the concept of a “village” of clearly discrete buildings tied together by a central organizing device. At Haystack, that device is a cascading wooden stairway that runs from the top of a hill to the edge of the water. At right angles to the stairway Barnes ranged some 20 dormitories and studios, like pods on a long em, to create subtle tensions between autonomy and restraint, parts and wholes. The Wayzata farm is a cluster of small white buildings around a central court, all linked by continuous flat roofs and low walls yet maintaining their individuality by virtue of massing and details.

The Dallas house has elements of both, compressed and refined to fit different conditions. It is ringed by low white walls like Wayzata, and it runs downhill like Haystack School. But the critical element is the two-story living and dining room, which locks individual pieces together while making an elegant transition from the bedroom towers above to the gallery, library, and master bedroom suite in an adjoining wing. This configuration allows owners and guests a maximum degree of privacy and autonomy yet also provides a grand space for parties and family gatherings. And all of this is accomplished internally, almost invisibly, without the aid of the glazed galleries and corridors that disfigure many sprawling Texas houses. The covered verandas on the outside of the house are picturesque options for visitors, not essential parts of the house's circulation plan.

The original owners collected classical and contemporary art, and insisted on a house that wouldn't upstage their treasures. Among their points of reference was Thoronet Abbey in Provence, an austere and meditative retreat that has been a source of inspiration for many American architects.

As he did at the Scaife Gallery in Pittsburgh and the Dallas Museum of Art—the latter built concurrently with this house—Barnes designed a sequence of clean, uncluttered spaces in which art is allowed to sing. No quirky spaces or idiosyncratic ges-
Across page, two-story living room with pristine fireplace and skylight: top and above, views of the same space from the curving entrance balcony and the double-height dining room.

The living room, with 17-foot ceilings, can accommodate large contemporary paintings and sculpture. The landing on the grand staircase, paved with the same Indiana limestone as the Dallas Museum staircase and recalling it formally, provides space for viewing smaller paintings and sculpture at close range. The vestibule gallery, a long, narrow room with an eight-foot ceiling, is ideal for displaying classical and Etruscan sculpture, while serving as the link between the living room and a large, secluded library. It is this sensitivity to the presentation of art in a residential context that makes this house special. Even the windows enhance the effect, their crisp edges and symmetrical openings framing dramatic views of the landscape and various sections of the house. The concept of a house for an art collector—a set piece for architecture students for generations—has been carried out here with exceptional refinement.

If one problem of the "house/village" is making individual elements relate to a larger whole, an obvious advantage is making gargantuan houses seem more intimate and humane.
Dallas house contains over 13,000 square feet, including a major addition for the new owners by Barnes and Dallas architect Howard Glazbrook III. Nevertheless it remains serene rather than daunting, thanks largely to the variety of the interior spaces, which go from grand to intimate, and the ease of movement between interior and exterior spaces. The three terraces and courtyards are laid out on the same seven-foot module as the rest of the house and function as exterior rooms.

The courtyard off the master bedroom is planted with flowering pear trees, making it a kind of magical garden for reflection. The living room terrace contains a shallow, rectangular pool filled from above by a limestone canale, recalling numerous Barragán designs at El Pedregal in Mexico City. The falling water animates what is otherwise a formal abstract composition. Also in this case the flow is languid and measured, suggesting the scarcity and preciousness of water in the Southwest. The largest courtyard, adjacent to the master bedroom and one of the guest wings, is dominated by a rectangular swimming pool. The pool is part of the architecture of the house—no kitschy kidney shapes here—and together with the white stucco walls and the precisely edged green lawn resembles a gigantic, abstract painting, in the style of Albers, perhaps, or Brice Marden.

The influence of Barragán is clearest in these spaces, where everything is compressed to an intense interplay between wall, light, and openings. Only the brilliant Mexican colors are missing. "Any work of architecture which does not express serenity is a mistake," Barragán once observed, and in these spaces Barnes shows himself a faithful disciple.

The remaining vernacular touches in the house are spare and understated. The verandahs surrounding the pool and connecting the bedroom wings are covered with standing seam metal roofs, a familiar Texas touch that is often grossly misused. The expanse of white stucco recall the haciendas along the Rio Grande and throughout Arizona and northern Mexico.

In its essence, however, this is a classic Barnes design, an amplification of the lyrical modernism that has infused his work from the beginning of his career. It is clear, rational, and extremely self-assured, with none of the stylistic ambivalence found in Asisi House or the recently completed Equitable Center in Manhattan. Whenever Barnes doffs his cap in the direction of postmodernism the results are usually awkward and mannered, as though his heart just isn't in it. This house derives from deeper and more dependable sources, and together with the Dallas Museum of Art represents the best of his recent work.
Dramatic Elaboration of Miesian Theme

House in Chicago; Krueck & Olsen. By Nora Richter Green
It seems fitting that the first work of the partnership of Ronald Krueck and Keith Olsen, both of whom graduated from the Illinois Institute of Technology, would follow the tradition of Mies van der Rohe. The borrowed form is the rectangular glass and steel house. But, while many of Mies' basic principles are adhered to—a rhythmic repetition of identical elements, a clear and precise expression of structure, simple volumes, and surfaces—Krueck & Olsen Architects goes beyond that by introducing a highly articulated interplay of geometry, light, and color. What they did, Krueck suggests, was take Mies’ “pure, simple sentences” and make “complex sentences and paragraphs.”

For the design of this 5,000-square-foot house, Krueck & Olsen was given several preconditions: The house was to be “industrial” in its exterior esthetics, it was to be located on a 67x127-foot lot in Chicago’s Lincoln Park area (with the street and alley sides—west and east, respectively—being the 127-foot-long sides), and although located in a dense, residential part of the city, the house was to have the type of privacy and quality and quantity of natural light more easily achieved in suburban buildings.

Krueck & Olsen started with a basic Miesian rectangle and tripled it, twisting two around to be perpendicular to the first. The ultimate form is U-shaped. The back of the U is a two-story, 70x22-foot living room. Its back wall (north side) is windowless and has been pushed back slightly. This allows for a vertical row of square-shaped windows set at each side to light the back wall during the day. The living room’s front wall (facing south) is totally sheathed in glass, offering a view out into the central courtyard and letting in an abundance of natural light. Appropriately, the patio’s width is the same as the living room’s back wall, thus abstractly creating a fourth rectangle.

The east leg of the U contains a housekeeper’s bedroom and bathroom, the kitchen, and dining room on the first floor; and on the second floor, a guest bedroom and bathroom and a study/library that overlooks the living room. The west leg contains the entrance foyer, powder room, and garage on the first floor and the master bedroom suite on the second.

Left, steel frame infilled with opaque, transparent surfaces. Below, glass block stair tower behind wall of steel grating.
Above, a glass block bridge spans the living room. Above the bridge are skylights; below are tube lights. Left, the central courtyard, living room, and west wing as seen from the sun porch.

Throughout, the pure rectangle is broken by assertive forms—a steel and glass block bridge traverses the living room along the glass wall, uniting the second stories of the west and east wings. A steel ladder descends into the living room from the library above. At the entrance foyer, the stairs are hidden from the guest’s view by a glass block half cylinder. In each bedroom, the bathroom takes the form of a smaller rectangle. The guest bathroom juts out onto a sun deck and shelters an outdoor shower. The closets add to the geometry, being part of the lacquered cabinets that in most places are freestanding.

The house's configuration, in conjunction with its exterior cladding, meets two of the client’s requirements—privacy and light. The living room’s back wall, which is side lit by those two rows of square windows, looks toward the north neighbors and is entirely clad in ribbed, metal siding, a skin that is repeated at the ends of the U legs (which face the south neighbors). Other areas have surfaces entirely of glass or a combination of clear glass, opaque glass, or glass block. In general, the owner’s bedroom and the living spaces are oriented toward the courtyard. The guest bedroom and housekeeper’s quarters are oriented to the rear. The entrance surface is steel grating—meant to be understood as a cage around a faceted jewel, in this case the glass block stair tower.

The house is constructed of fabricated steel angle frames that are bolted together in connection with steel beams that span
Right, the living room as seen from the study, with glass block bridge at left in photo. Above, the entrance foyer with its wall of steel grating and stairwell of glass block.

the second floor and the roof. (Steel bar joists carry floor and roof loads.) These steel frames support a prefinished steel window system that appears like lattice work filled in with different materials. Where the vertical wall sections are parallel to the structural framing, the skin is set flush; where perpendicular, the skin is pushed back as infill. At the south and north elevations, the ribbed metal siding seems pulled tautly across the structure. Overall, an important touch is the red painted, thin metal strips set onto the steel framing, a detail that lends a coherence to the multisurfaced skin by reinforcing the esthetic of the steel frame.

Once inside, that touch of color softly grows into a richly, though subtly, toned interior enlivened further by the use of exotic, sensual materials. The living room colors are toned down—grays, soft purples set against a polished terrazzo floor. The kitchen has green marble counters. The master bedroom has six different tones of lacquered surfaces, with burgundy being the dominant color. The upstairs bathrooms are clad in polished granite. All these colors change, depending on whether the day is clear or cloudy, or if it is dawn, dusk, or late evening.

Perhaps where Krueck & Olsen kept closest to the Mies tradition was in the careful attention to proportions and details. For instance, one might imagine the living room as pretentious, overpowering in its volume, or unfriendly; it is actually elegant and exhilarating and spatially is in perfect harmony with the rest of the house. And, too, throughout, the hard industrial exterior gives way to an interior of softness and delight.
House Built Inside the Shell of a Shed

On a pier off Bainbridge Island, Wash.; James Cutler Architects. By A
Blue west of Seattle across Puget Sound lies Bainbridge Island. It's 30 minutes by ferry from the city to the island town of Winslow, which nestles in picturesque Eagle Harbor. Across from Winslow, where the inlet's southern shoreline is steep and lush, new construction is allowed at water level. But a determined couple found a way around the prohibition by purchasing a 1920s fisherman's net drying shed and agreeing not to build outside its envelope. Considering the protracted approval process of most two years, it seems especially rewarding to all involved at the house James Cutler Architects designed "demonstrates respect for the environment and an appreciation of the unique site," in the opinion of the honor awards jurors.

The two-bedroom house within the shed's shell occupies a low pier over the water. Because occasional extra-high tides up at the pier's underside, the architects first had the building jerked up by its bottom plates and a new floor built underneath, permanently elevating the structure by two feet. They found the 2x4-stud frame to be sound, but replaced a centered row of interior structural columns with a row six feet from the west wall; they furred the studs with 2x2s and insulated the walls R-19.

The two-story plan is straightforward and open. If the house were a ship leaving the shore, its glazed, double-height porch could be the prow, the kitchen would be aft with the guest bedroom above it, and the living-dining room and master suite would be stacked amidship.

The house, garage, and a footbridge connecting the two are clad in red cedar shingles. Interior finishes are also mostly wood, horizontally laid hemlock paneling, lightened with an almost transparent stain, surfaces the perimeter walls; floors, windows, posts, beams, and stair treads and risers are fir; and the simple, graceful spindles and rail, designed by Cutler, are maple.

"Here in the Northwest, where there is an emphasis on the use of wood, it is often done with a rustic approach," notes Charles F. Davis, honor awards juror and graduate student in architecture at the University of Washington. "What is nice about this house is that it is so highly refined, integrated, and elegant."

As another juror, William Muchow, FAIA, of Denver, puts it: "The house is designed on a tradition of craftsmanship and knowledge of carpentry and detailing. But unlike many buildings conceived on a tradition—buildings that lack a sense of spontaneity and creativity—this is a very exciting house."

One source of excitement in the house is its sense of procession. As Davis describes it, you "leave the county road and proceed down a driveway to enter a parking area next to the garage and above the house, descend a flight of steps, cross a bridge, and enter the house. You are on the upper level, where in front of you is the formal stairway that widens as you go down to the main part of the house. It seems an easy, flowing progression from the top of the hill. Once on the main floor, you have a complete panorama of Puget Sound and the harbor. Houses in the Northwest can feel claustrophobic because of all the trees and shade. But here, right on the water, you have an open feeling. And the changing tides give you a wonderful sense of time passing."

Proximity to the water also illuminates the interior. Especially at dusk, when the orange sunlight filters back inside, the house seems to glow with a rich, amber tone.

Opposite, the amply glazed north front. This end of the house, with a slightly lower roof, was originally unenclosed. Garage sits on higher ground on this axis: its roofline is above house's.
Above, view from the west toward Puget Sound and Seattle, whose skyline is visible on clear days. Right, custom woodwork is evident in first-floor dining area at foot of stairs. Far right, stairs splay from west wall as they descend. Beams, which run in pairs across house, straddle columns; beams and posts connect with T-shaped steel plates concealed so that only bolt heads and nuts are visible.
On Being Hip
In Venice with Conviction

Bergren house, Venice Calif.; Mayne & Rotondi (formerly Morphosis).
By John Pastier

If architectural regionalism is still possible in our global culture of instant and multiple publication, then the smallest such region probably consists of a few square miles of coastal Los Angeles. There, Frank Gehry, FAIA, and a handful of younger architects have established their offices and built a dozen or so buildings of some stylistic diversity, but rooted in a collage sensibility based on ordinary materials and sharing a heightened self-consciousness and artistic ambition.

At minimum, these buildings embody a hip, solipsistic imagery that speaks to a dilettante audience. Done well, they can transcend self-referential artiness and demonstrate impressive architectural conviction. (Either way, they offend segments of the local design community with consistency.) Gehry demonstrated the latter course with his own remodeled Santa Monica house (see Mid-May ’80, page 168), and continued with other houses and two larger buildings, the Loyola Law School (May ’85, page 202) and the Aerospace Museum, that established inland beachheads for the Venice sensibility. And lately, some of his younger colleagues have also produced works of emergent stylistic maturity: Eric Moss in his Petal House (page 80), and Mayne & Rotondi Architects in Venice III.

Here some explanations are in order. Venice III is the Bergren house, the third small back-lot residential addition designed by the partnership of Thom Mayne and Michael Rotondi, formerly called Morphosis, in the Venice section of Los Angeles. Mayne and Rotondi also teach at Sci-Arc, the Southern California Institute of Architecture, a determinedly free-form private school. Teaching there subsidizes younger practitioners such as Mayne and Rotondi, allowing them to take on small commissions that would not be commercially attractive. As a result, these projects are given unusual design attention and often amount to much more, architecturally, than one would expect from their modest programs.

All three of Mayne & Rotondi’s Venice projects have been well-published, internationally, yet only this one approaches full residential functions. At 850 square feet, it is the largest of the trio. Designed for UCLA classics professor Anne Bergren and her young son, it is grafted onto a pleasant but unexceptional white-clapboard, 1920s bungalow whose interior had been speculatively remodeled by another young local architect just before she bought it.

Joined to the original house at the kitchen, the new portion was designed to eventually become a separate unit. A small basement study could be fitted out as a kitchen, making the addition into a one-bedroom apartment. Above this study is a notably nonstandard bathroom, with a sculpturally conceived, freestanding sink and medicine cabinet assembly anchored by guy wires, and a glass block window set into one side of the bathtub. Seen from outside, this last detail resembles a built-in aquarium whose occasional occupants are not tropical fish but semitropical humans.

Cantilevered steel-grating steps lead from the living room, past

Amid the clutter of its beach community, Venice III house sits below its twin, pyramidal, canvas-shaded skylights.
the midlevel bathroom, to an unusually light and airy bedroom. The stairs then continue outdoors, forming part of a small roof deck.

The main living space is at grade, down a few steps from the floor of the old house and up a few from the study. It is set askew to the main building and the lot lines, but an attached library alcove aligns with the older geometry. Its wooden bookshelves form a pattern that is repeated in a screen wall separating the living room from the stairs, and are mounted on an exterior wall that seems to float a foot or so above the ground. This effect is accomplished by having the wall bear on a beam that rests on (and cantilevers beyond) a small pyramid set into the ground, and glazing the resulting voids. Another pyramid anchors a steel cable that passes over a pulley to support the external end of a beam that in turn supports the upper stair landing. Atop this wall, cantilevered beams at roof level hold cables that connect to a Rube Goldberg assembly of steel tubes, wires, connector joints, metal arms, and counterweights, all pressed into service to hold a pair of pyramidal canvas awnings that screen the bedroom skylights during the summer months.

These structural gymnastics are poetic, amusing, and preposterous, in the order described above, but also tend to stay in the background. What one notices most about the exterior are tough, unsentimental forms carefully composed and clad in exactly the right materials. The main volumes of the addition are sheathed in light and dark gray asphalt shingles edged with metal trim. The prism housing the study and bathroom is covered by galvanized sheet metal with standing seam joints. The rooftop skylight walls are given a similar surface treatment. Concrete, steel pipe rails, and baluster wire complete this basic pa
left, view from the south, with original bungalow at far left in photo. Addition’s study/bathroom/roof deck module is metal heathed, while asphalt shingles are rendered as masonry. Above, clockwise from lower right, screened stair offers view of living space; bathroom is exposed to stair and living area; view to kylit bedroom across stairway from roof deck.

te of gray and pewter. The only color not integral to the materials themselves is the black paint on the wooden French doors of the living room and bedroom.

What Mayne & Rotondi produced, after nearly two years of design and another year of construction, is a highly convincing reality. This is said in full awareness that the design also shows one of the excesses of youth, teetering at times on the brink f overcomplication, structural excess, and self-contradiction.

It stands with one foot in the art scene, and the other in a more pragmatic nautical-industrial world. In many ways it resembles a beached houseboat whose elegance coexists with its proletarian finishes.

The Bergren house recalls Aldo Rossi in its pyramidal rooftop forms and small square windows, Gehry in its plan forms and its use of materials and top lighting, Carlo Scarpa in its lapidarian attitude toward detail, and R. M. Schindler, that rarely recognized spiritual father of so much avant-garde Los Angeles architecture, in some of its fenestration, its intimately scaled differentiation of interior space, its de Stijl library wall, and its sense of hands-on construction involvement. At the same time, these influences have been assimilated so thoroughly, combined so deftly, and expressed so passionately that it seems fair to call this Mayne & Rotondi’s most personal and original design to date.

ARCHITECTURE/MAY 1986 197
Bottom left, library alcove on first floor as it faces living area; below left, view from bedroom area over stairway, with glimpse of roof deck through square window. Across page, south elevation at night. Illuminated skylights reveal elaborate pulley system for adjusting canvas shades.
Triad of ‘Temples’ in the Woods

Wenglowski house, Deer Isle, Maine; Peter Forbes & Associates. By R. C.

The Wenglowski house, silent and monumental, stands like a cluster of temples on a rocky little acropolis overlooking the incredibly beautiful, island-studded Penobscot Bay off the coast of Maine. Two of the temples are anchored by overscaled, nearly freestanding granite fireplaces at one end, as if the fireplaces were the surviving ruins of an earlier civilization and the architect, Peter Forbes & Associates of Boston, had discovered them already here on the site and had merely attached his new temples to them.

There are three temples in the main complex, two of them glass pavilions, one a wood cottage. The pavilions are a living/dining room and a master bedroom; the cottage is a children’s house. All three have similar shapes and gray lead-coated copper hip roofs. Together they triangulate a family courtyard, paved in granite and grass and furnished with slim firs and birches.

This courtyard and the whole complex are hushed and austere. Neither the trees nor the buildings have fussy shapes or ornamental features. There are no other houses within a half-mile on the coast, and the only sounds are the wind in the trees and the slow roll of the ocean against the dark rock and shingle of the beach.

Peter Forbes, FAIA, has designed a number of vacation houses on the New England coast, all in the same uncompromisingly austere design vocabulary. In each house, he has explored some variant of a single continuing theme, that of a long, tall, barn-like or basilica-like volume. His architecture arises out of the disciplined exploration of this formal idea, not merely out of the circumstantial chances of the site or the client. Like the writer of a sonnet or a fugue, he chooses to work within a given formal envelope.

At the Wenglowski house, the basilica shape isn’t obvious at first because it’s been broken into two parts. It includes both of the living pavilions and is bookended by their two fireplaces. A granite flagged path, emerging like an arrow from the children’s house, splits the two pavilions and opens a slot of space and a view to the ocean beyond. At the slot, a great deal of energy collects; it is the place at which you find yourself pausing again and again as you explore the house.

Of the three components that make up the house, the children’s cottage is the most ordinary. Made of conventional wood framing and siding, it contains two bedrooms and a loft for music, television, and the like. It presents a windowless blank wall to the rest of the complex, preserving the privacy of both generations of the family. The blankness of this facade, together with its symmetry and its placement at the end of the axis that splits the pavilions, give it a surprisingly monumental character.

Much more surprising, however, are the two glass living and bedroom pavilions. Here Forbes has indulged a love of explicitly dramatized structure and of massive piles of masonry, as well as a taste for a monkish gray severity that is the antithesis of the conventional seaside vacation house with its clutter of cheerful porches, awnings, dormers, and flagpoles.

Structurally, each pavilion is a kind of tent. A light, rigid, welded framework of white steel tubes rests, at its corners, on four massive round concrete columns, as if the Wright brothers had landed on Stonehenge. The steel frame in turn supports,
Across page, living pavilion from northeast with view through the building toward the ocean. Bedroom pavilion is at left in photo. Above, bedroom (at left) and living pavilions from children’s cottage, framing view across site with water beyond.

By means of elegant little steel clips, the rafters and decking of the roof. Every joint in this elaborate system is crisply celebrated, with the kind of joy in exposed construction that has largely passed out of contemporary architecture. The spans are, of course, enormous for a house, and they give the living pavilion something of the sense of a public hall or meeting room.

Aside from the structure, there is little else to the pavilions except the immense fireplaces, each of which fills an entire end of its pavilion. The walls are sliding glass, opening onto continuous wood decks that hinge up ingeniously to cover the glass when the owners are away. The floors are granite, without carpets. In the living pavilion a small wood house, reminiscent of the children’s cottage, encloses the kitchen, and a half-circle, recontaining wall, reminiscent of the Tugendhat house by Mies, shelters the dining room table.

The pavilions are as exceptional for what they do not contain as for what they do. There are no bookshelves, no places to hang paintings or family photographs, no obvious place for shell collections or stacks of forgotten board games or trunks full of old Life magazines to leaf through on rainy days. The house, instead, demands to be understood as a retreat, a retreat almost in the religious sense, from all such pleasant fripperies of everyday life. It is a place where you come to draw closer to yourself, to your family, and to nature. Its tentlike forms suggest an
Left top and bottom, interior of living pavilion is populated with simple, white structures that enclose kitchen space and form backdrop for dining room, all beneath a hefty frame. Above, a night enclosure dissolves to render interior dominated by fireplace impermanence, a sense of camping out in the great natural setting.

One of the owners is a painter, and for her a studio, a fourth temple, filled with evenly glowing north light, has been built in the woods at a distance from the others. A fifth, not yet built, will be a garage, blocking the driveway's vista toward the ocean and deflecting visitors into the courtyard, so that their first view of Penobscot Bay will be through the glass pavilions themselves. A sixth will be a guest house, two stories high and sited at the
ge of the little acropolis, between the children's cottage and the living pavilion. The guest house will disrupt the axial symmetry and uniformity of rooflines that now exist, and will make the family courtyard feel both more enclosed and less formal.

Of all the places in this somewhat stern house, the most impressive is the master bedroom pavilion. Here two heavily symbolic elements of domestic life, the bed and the fireplace, confront each other at surprisingly close quarters. The fireplace is as big as a cave—you can walk into it—and it makes the bed, on its granite floor under its tentlike roof, feel half outdoors, as if it were perched on a granite ledge in front of the cave/fireplace. To her side the walls are all glass, giving a view toward the far horizon of the wilderness bay on one side and toward the enclosed domesticity of the courtyard on the other. There is a primitive power in the elemental simplicity of this space.

In the living pavilion, by contrast, things aren't quite so clear and strong. The kitchen-shed and dining-wall seem unrelated to the larger volume in which they stand, confusing it a little. But the great granite-block fireplace, almost identical with the one in the bedroom and quarried, like all the granite in the house, from a nearby island, has tremendous presence inside the room, as does the view of the bay.

Remarkably original in both concept and execution, the Wenglowski house is austere but not unpleasingly so. It joins a bold, formal concept with a striking natural site and makes, out of the two, one place. □
Contextual Tower Rises Above a '50s Classic

500 Park Tower, New York City; James Stewart Polshek & Partners. By Cervin Robinson

The renovation and expansion two years ago by James Stewart Polshek & Partners of a building that was originally designed by Gordon Bunshaft, FAIA, of Skidmore, Owings & Merrill for the Pepsi-Cola Co. and constructed in 1958-59, a building that later belonged to Olivetti, has a distinctly historical dimension.

Examples are all about us of the difficulty of renovating and of supplementing the space of historic structures without draining them of much of what made them worth keeping. The practice is routine for such monumental 19th century buildings as libraries and is now being applied to the best mid 20th century museums. One would not have thought the Pepsi building promising grist for this mill. Much urban preservation assumes that a building's exterior and interior are two quite different things, that one is public and subject to preservation and the other private and not subject to it. A glass box can clearly not be so easily split between exterior and interior: its interior space is at least at some times of day very much a part of its exterior as it has turned out in this instance, the renovation and expansion of one glass box was carried out with skill, tact, and success. This landmark (which cannot be officially so designated until 1990) survives as less the fragile pavilion it once seemed and more a tough, classical monument.

The original plan of the Equitable Life Assurance Society, which owned the building, and of Tishman Speyer, the developer, was simply to renovate the original building. But Polshek was eventually called upon to add space at the rear of the building, an addition that eventually took the form of a 40-story tower of which the lower 12 stories augments the space of the older building and the upper 28 house 56 condominium units.

The new building was designed in some respects to provide a contrasting setting for the old building; in part it also made a point of discreetly reusing the materials of the earlier building. On its south and west sides the new tower was faced, as is the original building, in aluminum and glass, but now in a smaller-scaled, tighter-skinned version, its narrower bands of windows marked by thinner, flush mullions and transom trim. The north and east elevations of the new tower that form a backdrop to the old building were faced in a thermal-finish gray-green granite, with squarish windows deeply set, except for an area of the 59th Street facade where an oriel of the new glass and aluminum cladding extrudes from the granite at the height of the principal floors of the old building. Extending from the east face of the tower and cantilevered over the original, a stack of 25 floors of apartment space also was faced in the new aluminum and glass skin. The oriel makes it clear that the lower floors of the tower extend the original office space. The cantilevered aluminum and glass "L" above and a change of fenestration in the granite from square to notched openings indicate the transition from offices below to residential space above. The sense of continuity between the new and the old that the reuse of aluminum and glass provides is further developed by the repaving of the sidewalk plaza below the old building in the same gray-green granite that faces the tower behind it.

In its original incarnation the Bunshaft building was a box of nine floors (plus a penthouse) raised above plaza level on five pairs of columns. It provided the sort of measured but boundless horizontal space that the fluorescent tube had made commercially feasible after World War II. At night the openness of its spaces was attested to by the uninterrupted planes of illuminated ceilings that could be seen from the street. By daylight the ground floor lobby provided a taste of the space above. Described as "for exhibitions," this lobby was characteristically empty except for a desk and, below a Pepsi logo, a Pinkerton guard.

In the renovation the office floors were divided. From the street a new ceiling lighting fixture is visible in each bay of the old building, its purpose being in part to preserve the rhythm of the original fenestration. Generally each of these bays does

Across page, new granite, aluminum, and glass tower rises above SOM's 26-year-old office building at the corner of Park Avenue and 59th Street. Axonometric diagrams how new building meets old.
Above, marble clad elevator lobby on retail level of tower; right, detail of granite-faced north elevation whose restrained fenestration contrasts with liberally glazed south side (across page).

now represent a separate, approximately cubical office, and in practice the lighting fixtures reinforce the bays in such a way as to emphasize the separateness of each sheet of glass and the office behind it. (In the process the mullions come to read almost as classical pilasters.) The recessed ground floor below also was divided to provide commercial spaces, one of them for the Amro Bank, from which the building now takes its name, and spaces for the separate office and residential elevator lobbies. The divisions between these various uses fall either on columns of the old building or on mullions.

The effect of the new cell-like spaces above and of the tactfully handled divisions below are likely to be seen (and ignored) as the minor and mildly regrettable price we pay for the building's continued existence. Alternatively they can be seen as a special sort of enrichment that only time can bring. The Renaissance palazzi that fill the arches of an ancient Roman theater also can be seen as either mildly regrettable or an enrichment. In either case it would seem perverse to overlook the facts of the additions and the effect they have. At 500 Park Avenue the expansion of the original space has been handled with grace and tact, but the special pleasure that the original pavilion now gives comes from a subtle exploitation by Polshek & Partners of the change that almost 30 years have made in our notion of space and the ways in which it seems appropriate to use it.

Cervin Robinson is an architectural photographer and writer who lives in New York City.
Cleveland is one of those older rustbelt cities that, justly or not, has come to symbolize American urban decline. And big-city hospitals are great intractable beasts of buildings that seem as immune to architectural design efforts as a rhinoceros is to a hypodermic needle. Thus, by accepting a commission for a new building in an immense and aging Cleveland medical center, Cesar Pelli & Associates did not enter the easiest of professional situations.

As it turned out, however, Pelli was just what the doctor ordered for the Cleveland Clinic Foundation. His office produced a master plan, a unifying elevated circulatory spine, a grand open space, and a centerpiece building of unusual quality. What was a sprawling and nondescript collection of 15 buildings on a 100-acre site now has the beginnings of a comprehensible overall structure, as well as a rock-solid anchor whose interiors transcend the standard for the building type.

Although its name implies outpatient service to the urban working class, the Cleveland Clinic is a blue-chip institution charging full fees and providing complete hospital functions and the most advanced medical technology. Dalton, van Dijk, Johnson & Partners, associated architects on the clinic building, were also architects for a simultaneously built addition to the main hospital building. Here is where the Shah of Iran came for more-is-no-object medical treatment after his political demise. This is the second-largest referral center in American medicine, with over 800 staff physicians, interns, and residents—topped only by the Mayo Clinic.

Pelli's building is a clinic, but the treatment it houses include sophisticated surgery as well as more ordinary ministrations. Its complexity can be deduced from a program of 22 separate clinics, whose space requirements span a 12-to-1 range, plus administrative and support functions. All these embrace 3,000 rooms
Opposite, evening view of the Cleveland Clinic's front facade, overlooking 470-foot-long mall. Right, north-south view of exterior's epped planes of granite and glass. Below right, neighboring church contrasts with clinic's symmetrically sculpted mass.
Below, diminishing size of floor areas responds to varying sizes of individual clinics. Top right, main lobby and elevator core. Below right, a nurses’ station and examination room corridor. Facing page, three-story main lobby with wood-wrapped columns.

... and 620,000 square feet and accommodate 600,000 annual outpatient visits. That complexity is not as easily read, however, from the building's regular and symmetrically stepped mass, where the extreme diversity within has been organized to fit into a highly restrained envelope.

Indeed, in its outer appearance, the granite and glass clinic at first seems a bit cold and reticent. If it were a doctor, it might be said to lack an ingratiating bedside manner. But that first impression gives way upon closer scrutiny to a sense of clarity and imperturbability. Here is a stepped, 14-story mass of granite, about 200 feet tall, somewhat similar to a ziggurat or a Mayan pyramid. The building skin is horizontally banded, with four divisions to a typical floor. Glazing is nearly continuous and coded according to purpose: Office and examining room windows are one band high, corridor windows twice that, and waiting room fenestration is three bands high. A minor departure from this system occurs in the transition between single- and triple-height glazing.

These windows wrap around a building form made up of 3-separate stepped planes. The sides and rear exhibit all of this volumetric complexity, combining steps in plan and section to produce a rich pattern of receding surfaces. (This effect will be multiplied if the building expands, as planned, toward the east.) In contrast to this rhythmic surface articulation, the ma
est front is a single monumental plane, as though a larger build-
ging has been sectioned with surgical skill. Here is where the
dulated fenestration best represents the clinic’s inner workings.

The grand scale of the clinic’s west front is matched by that of the adjoining green, a deceptively simple 470-foot-long mall designed somewhat in the French landscape tradition and sown by rows of white oak, arborvitae, liquid amber, and crab apple. These trees, planted in rows of graduated length to create a perspective illusion of greater depth, exhibit strong seasonal variation. Movable wooden benches set on the lawn complete the composition.

The south and east sides of the green adjoin two legs of an enclosed T-shaped pedestrian bridge that links the clinic, its arking structure, the hotel, and the old and new hospital wings. Like similar spines that played prominent roles in Pelli’s buildings of a decade or two ago, it functions as a place of social and professional exchange as well as a means of circulation. Analogously, it is the public spaces that give the clinic building such of its architectural distinction. The lobby is a stepped, tree-story volume that recapitulates the overall building mass. Generously proportioned, it weds space and light in a manner that we have come to associate with the grand hotels of the 19th century, albeit without theatrics or ostentation. In a nice alaesque gesture, the bottom six feet of the tall lobby columns are girded with convex oak slats to express a human height.

Wood trim pervades the clinic’s upper lobbies and waiting areas as well. Planters and appointment and reception desks are banded with light oak half-rounds that contrast subtly with their darker fields. This horizontality recalls the exterior window pattern and provides an elegant unifying motif to the public spaces. Waiting rooms are stacked so that they share two-story-high atria that face west for dramatic views of the mall and, three miles beyond, the downtown skyline. Half of these spaces are in effect deep balconies, while the rest have double-height portions. Like the various departments they serve, they are further differentiated by individual color schemes and by numerous artworks. And while the examining rooms and offices do not provide the same opportunity for spatial expression, they nevertheless proclaim a humane design sensibility more than an institutional one. Indeed, this is the prime accomplishment of the clinic: While it performs like a hospital, it feels like architecture.

The Cleveland Clinic is a design achievement of remarkable subtlety and maturity. Nothing about it stands out dramatically. It gains its power from a steady accumulation of basic elements and simple details, organized with transparently obvious logic. Pelli makes it all seem so simple and inevitable that you wonder why every hospital isn’t this good.
Geometric Plan in a Suburban Setting

IBM building, Westchester Co., NY; I. M. Pei & Partners. By Carleton Knight III
the chagrin of some property owners, suburban Westchester county, N.Y., just outside New York City, has during the past decade become home to a growing number of major corporations. Wealthy residents of the once-rural countryside dotted with estates now find themselves cheek-by-jowl with office buildings as well as colleges and suburban housing developments.

In the late 1970s, the expanding Nestlé Co. decided to join this migration, commissioning an I. M. Pei & Partners-designed corporate headquarters amid large houses in Purchase, N.Y. Architect John L. Sullivan III, a Pei firm senior associate, says Nestlé as concerned from the start about community opposition to its plans: “The client did not want a typical office building that bows its way into the community.”

The architects took particular care in the design to make the building fit; I. M. Pei, FAIA, notes with pleasure, for example, an 800-car garage was “tucked into the enormous drop in grade” at the back of the building so that no cars can be seen from the street. Overall, Sullivan describes the design as contextual, comparing it to a large Palladian house with central sec-on and connecting wings. The shapely scheme allowed the architects to utilize a variety of triangles, circles, and rectangles. “The facets and curves play against each other,” says Sullivan of the extensively geometric plan.

This effort on the part of the architects to be neighborly by reaking the building down into understandable parts also diminishes concern by employees that the huge, low building would resemble a warehouse. The various components help create an identification and reduce the feeling of being lost in the necessarily large (450,000 square feet) building. The architects designed the building around what they describe as a “main street” linking the various office and service areas with circulation systems and offering glimpses of the exterior. A secondary circulation path ranges along the large curved sections where the secretaries rather than the private offices are placed on the perimeter to take advantage of the views through floor-to-ceiling glass.

All was not well, however, with the client, who began to face economic difficulties after construction had started. Nestlé sold a division that was to move into the new building, and for a time considered renting out one wing. Then the company began to make changes and cut back on finishes, according to the architects. In the end, International Business Machines Corporation bought the half-constructed building, and, according to Pei, “breathed new life into the design.” The computer giant restored the original features and finishes, completing the building as designed and in a handsome setting planned by landscape architect Laurie Olin. Some changes in layout were necessary—IBM did not need the large number of test kitchens—and the cafeteria was upgraded substantially. (In a bit of irony, Nestlé now plans to move into a speculative office building of little architectural character under construction next door.)
The stepped-box, rectangular form of the main facade with its long, poured concrete lintel over the entry seems derived from Pei's angular design of the National Gallery of Art's East Building. In this considerably less expensive variation on that theme, travertine has replaced marble. Butt-glazed mirror glass bands are held in polished stainless steel heads and sills.

While the exterior has some interest, it is the building's interior that is a visual spectacle. The travertine-walled main lobby could easily be a museum, although as yet, there is only a small tapestry hanging. The 50-foot-high space needs some color, and IBM is reportedly working on this shortcoming. (Given the building's gestation, the firm might commission Andy Warhol to paint a large Nestlé's Crunch Bar.) A scooped-out section of wall at one end invites visitors into the building proper.

Each of the two quarter-circle wings centers on a three-story skylighted court wrapped on two sides with a poured-in-place concrete frame. This frame with an offsetting pattern of columns appears to be almost freestanding as it is set 12 feet from the interior wall, permitting it to define the space without enclosing it. The columns are canted and sliced off at one side, not unlike the way the architects treated the colonnade at Boston's Christian Science Center. A deep, semicircular recess at the back of each gives the appearance that a round column had been removed. The third side of each court is a zigzag step wall, continuing a theme from the exterior. Overhead, pitched-roof skylights rise from the top of a deep concrete frame, giving a strangely, but charmingly, historic quality to the space.

Since the building is only three floors, plus a level below grade, the architects believed the staff would walk up and down, and thus provided spiraling ramps at the end of each wing. These ramps are indeed widely used, in part because of the views of the surrounds (one can even see the New York City skyline). The central drum of each spiral contains an elevator.

West pavilion

Center pavilion

Ground floor

North pavilion
Highlights of interior are light-filled courts. Left, travertine-walled main lobby. Far left, one of two matching atria with handsomely detailed concrete screen walls. Plan shows play of angles and curves; 'main street' is outlined in color.
Exhibition Hall
Returned to Its Original Grandeur

At Manhattan's main library, Davis, Brody with Giorgio Cavaglieri. By Lynn Nesmith

When Carrère & Hastings' magnificent New York Public Library on Fifth Avenue opened 75 years ago it was heralded as one of the city's great Beaux-Arts treasures, but by 1982 years of neglect and numerous alterations had taken a heavy toll on many of the interior spaces. That year an ambitious multiphase restoration program funded jointly by the city and private sponsors was launched to recapture the library's original glory.

A major component of the first stage of the restoration by Davis, Brody & Associates in collaboration with Giorgio Cavaglieri Architects was the reopening of the first-floor gallery space, which has been renamed the D. Samuel and Jeane H. Gottesman Exhibition Hall.

During World War II the library's exhibition program was discontinued, most of the collection was shipped to upstate New York for secure storage, and the exhibition hall soon became territory for expansion of support facilities. Along the way, the room acquired a hodgepodge of suspended fluorescent lights, dropped and plastered ceilings, partitions, metal desks, and mechanical systems. Partner Lewis Davis, FAIA, said that when he first went into this cluttered office space it reminded him of the Homestead Act. "When anyone had required a work space they were told to go through those two beautiful doors and wherever they found space it was theirs. But they must provide their own lighting, wiring, and furniture," he said.

Located on axis with the restored grand entry foyer, the 6,400-square-foot exhibition hall is entered through a pair of ornate bronze and glass doors. Its far door opens onto the library's 88 miles of book stacks. Once one is inside the room, the opulence of the original materials and craftsmanship is evident in the white Vermont marble walls, the graceful archways, the 24 columns of gray streaked Cipollino marble, and the oak carved ceiling. Four arches flanked by Ionic columns and pilasters divide the hall into six small alcoves best suited for viewing small artworks and books. The grandeur of this space outweighs any constraints the classical articulation places on staging exhibitions.

Right, restrained restoration of the exhibition hall highlights the classical elements. Below, 'before' view of the space.
Davis says the main focus was to restore the exhibition hall to its original design, while program requirements called for upgrading the hall to a “museum quality” space.

Without disturbing the integrity of the original detailing, the architects have successfully integrated mechanical systems and lighting to accommodate changing exhibitions. The geometric-patterned Renaissance-style ceiling by Maurice Grieve was restored and adapted with a flexible lighting system with thin, removable tracks. Screw holes are concealed with plugs when not in use. The six bronze and leaded glass inlay chandeliers are reproductions of an original Carrère & Hastings design, with an added uplight component to illuminate the ceiling.

The restored marble, mosaic-patterned floor recalls the design of the ceiling, and removable marble cover plates bound with bronze provide access to underfloor mechanical systems.

To meet strict temperature and humidity requirements (the building had no airconditioning system), a new ventilation system was installed in the existing ducts that had been used previously for warm air and between the marble walls and shelving. Vents were installed below the original window sills. Permanent translucent screens to reduce ultraviolet light were installed on the exterior of the six windows.

The honor awards jury commented, “The rebirth of the hall has returned not only a great exhibition hall to its former glory, but has satisfied one of the most important functions of architecture—bringing beauty and delight where once it had been snuffed out.”

Left, ornate entrance door leads from the hall to the restored grand foyer, Astor Hall. Right, Ionic columns flank the room’s four grand arches.
Lining an Auditorium with a Library

At Hackley School, Tarrytown, N.Y.; Keith Kroeger Assoc. By L.N.

The Hackley School is an eclectic hilltop enclave amid a recent rash of ordinary suburban office buildings in rapidly developing Westchester County. From a busy highway, a winding drive leads to a picturesque, free-form courtyard surrounded by three connected buildings that range in styles from half-timbered Elizabethan revival, to turreted Tudor revival, to neoclassical. The luster was constructed in stages at the turn of the century.

The neoclassical building, called Goodhue Memorial Hall, was a handsome assembly hall designed by the Boston firm of Wheelwright & Haven in 1900. More recently, when the 750-student preparatory school started to outgrow its library, the trustees decided to relocate it to Goodhue Hall, in part because the building's location facing the main lawn would underscore the library's importance.

The building had never undergone a major renovation or "modernization," so most of the original detailing was intact. At the time of the renovation the open, barrel-vaulted hall was furnished with metal folding chairs that faced a slightly elevated wood stage under a three-part stained glass window with coats of arms. On the opposite wall, above the main entrance, was a large Palladian window, and along one wall were two tall fireplaces.

Keith Kroeger Associates of Chappaqua, N.Y., was engaged to convert this assembly hall to the new Kaskel Library. "Our goal was to nestle a library of 20,000 volumes within the hall in a way that would enhance the significant features of the existing room," says Keith Kroeger, AIA.

Several different schemes were reviewed, including a "high-tech" plan with double stack of bookshelves in the middle of the room. But Kroeger, who is a Hackley alumnus, said that this was clearly a case in which he wanted to draw on the past.

To preserve the integrity of the original building and to allow the new library to be seen as a unified whole, the architect created a "room within a room." Although the concept is simple, its execution proved quite complicated, says project architect Leonard Woods. The room was adapted with a structural system to support the new construction that encircles the hall. Resting on new footings under the floor, a steel frame supports the balcony, as well as the double row of cabinetwork fitted with the bookcases and the built-in circulation desk.

Under the balcony extension is a double row of bookcases with framed openings for the main entrance, the doorway to the small periodicals reading room, the circulation desk, and the two fireplaces. The aisle between the two shelves creates the illusion of "stacks" that are found in larger libraries, while the fireplace hearths become "friendly sitting areas" nestled among the bookcases.

Encircling the room is a new balcony with bookshelves along the walls and desks built into the railings that provide students a nice view while studying. The height of the balcony is sympathetic to the barrel-vaulted ceiling, and the detailing and scale recall the original molding and trim.

A double stairway leads to a landing that is level with the bottom of the restored stained glass window; the balcony level is up an additional four steps.

Under the stairway, the architects placed shelves for primers and other young children's books. The low ceilings and intimate scale provide a cozy space for the school's smaller students. (Hackley School encompasses kindergarten through 12th grade.)

The jury commented that the "addi-
tion of cleverly designed and carefully crafted balconies, bookcases, and reading areas is so harmoniously achieved that it looks as though the building has always been just as it is now.”

Both wings were previously hallways that connected Goodhue with adjacent facilities. One wing is now a small reading room; the other houses staff work areas and the librarian's office.

The architect’s recommendation to retain the existing chandeliers and to use tables with reading lamps surprised some school officials. The table lamps create a warm background light and provide a human scale to the space. Both the lamps and the tables are custom designs by the architect, while the chairs are a standard design from the company that produced the tables.

Howard Kaskel, the library’s benefactor, selected a quotation that is inscribed above the circulation desk: “Live always in the best company when you read.” This library is a wonderful place to keep good company. □
In 1876, on the dedication day of Yale University's Battell Chapel, designed by Russell Sturgis, the assembled may have had only a glimmer of the beautiful gold leaf and colored stenciling that lined the walls and danced about the ceiling high above their heads. The stained glass windows and gaslight did little, no doubt, to reveal the richness of decoration that has recently been recreated in this AIA honor award-winning restoration by Herbert S. Newman Associates of New Haven.

The chapel did not long remain in its original, pristine condition. In 1893 the south wall, which faces the Yale quad, was punched through with three squat Gothic arches and a wing added to accommodate more seating on the main floor and in the balcony. Ten years later the chapel was electrified, shedding some light on an interior that was probably beginning to fade. By the mid-1920s, the interior was the target of some "updating," which took the form of imitation ashlar applied over the stenciling. Subsequently the organ was removed from behind a large, ornamental screen in the apse, relocated in the north balcony, and a new, modest screen installed. By 1984, the nearly 10-year-old ashlar finish that had covered the stenciling for more than half the chapel's life was also in bad condition, faintly howing the decoration it once concealed.

Below, view of apse and north balcony before restoration, showing 1940s altar screen and imitation ashlar. Left, same view showing restored, vibrant decoration and new screen incorporating old, all framed by arched opening made for 1893 addition.

Clues to the chapel's former glory were found in photographs from Yale's archives that were taken shortly after the building's completion. Using this evidence, the walls were first washed and then spectrophotographically analyzed to determine where the major bands and elements of decoration might be. Then long, vertical strips of the ashlar finish were removed to determine the exact location of the decoration and the intensity of its colors, accounting for aging. The diaper pattern on the lower walls, below the sills of the stained glass windows, was discovered beneath a plaque on the east wall that had not been removed when the ashlar finish was applied.

Stenciling was then designed using the uncovered patterns, and paint in 15 colors and gold leaf was applied over a gray coat above the window sills and a red coat below the sills. The meticulous stenciling is the work of John Canning, a Scottish painter and decorator from Southington, Conn., who has done similar work at the Connecticut State Capitol in Hartford. The wooden ceiling, although faded, was simply cleaned and refinished with a nonyellowing acrylic varnish. In the apse, the vaults were discovered to be made of canvas stretched between wooden ribs, decorated with a star pattern on a blue field.

To provide more room in the apse, the 1947 screen displaying the emblems of Yale's colleges was dismantled, pushed back, and incorporated into a new screen designed by the architect based on photographs of the chapel's original screen. The new screen follows the curve of the apse and goes no higher than the diaper pattern, tying it into the east wall and giving the...
organ pipes a solid, new base on which to rest. A new hardwood floor was installed in the apse and the altar area.

The provision of more light for the interior was achieved with a sensitivity to the chapel’s original fixtures. The three-pronged gas jets that are barely visible in the 1876 photographs were removed when the chapel was electrified. In the restoration, new fixtures were placed according to the old photos. Although not replicas of the old fixtures, the new lights are incandescent, covered by simple, clear glass globes held in place by three vertical arms that recall the original gas jets. These new fixtures were actually designed by the architect by combining pieces of different fixtures by the same manufacturer.

In the ceiling, new recessed can lights were installed with a minimum of intrusion, while over the south balcony additional can lights were fastened directly onto the ceiling due to the shallow roof structure. Four metal and glass chandeliers in the main chapel space were cleaned, rewired, and lowered to bring them in line with a thick ornamental band that divides the interior at its midsection. In the apse, uplights were installed behind the screen to illuminate the decorative ceiling and stenciling above. A new, sophisticated lighting board at the back of the chapel allows sets of lights to be individually adjusted for intensity with a delayed dimmer that brings the lights up or down slowly and smoothly, giving a hint of what the character of the chapel might have been 110 years ago.

Other improvements to the interior include refinished woodwork, newly installed carpeting, reupholstered seat cushions, an effectively concealed sprinkler system, a retrofitted heating system, brass railings in the balconies, refurbished stained glass windows now protected outside by plexiglass, and access for the disabled.

Below grade, service spaces for the chapel were created by enlarging a crawl space that was previously accessible only through a small hole in the wall of the narthex. Loads of building rubble were removed, and the basement was carefully excavated by shoring up columns and walls to make room for restrooms, easier access to mechanical equipment, and a corridor that runs from the narthex to the apse. This allows the clergy and choir to move to different parts of the chapel without passing through its aisles. On the chapel’s exterior, mortar joints were scraped and repointed, and a new slate roof was installed in the original pattern.

Commenting on the quality and scope of the restoration of Battell Chapel, the awards jury wrote: “Through careful research, painstaking craftsmanship, and unobtrusive modernization, the architects have uncovered a treasure and restored it to its proper place as one of the great architectural resources of its historic campus.”

228 ARCHITECTURE/MAY 1986
Is it reasonable to suggest that the tangle of nylon shown running across this ad can provide the best way to drain water from subsurface walls? Give roots room to develop in planters? Shut down noise between floors?

As unlikely as it may seem, builders and specifiers are using this same lightweight geomatrix for all these reasons. And with some remarkable, and cost-effective, results.

**Enkadrain® Matting:** Outerwear For Subsurface Walls.

Positioned against basement and retaining walls, Enkadrain eliminates hydrostatic pressure by providing water an escape route. Its unique construction resists compression and an incorporated filter keeps it free from clogging, so the passageway stays permanently clear. In contrast to graded aggregates or sand blankets, there's no need for heavy equipment. So Enkadrain "pulls" to the sides of the pipe, as it encourages lateral drainage. (See Sweet’s 2.7d/Ame)

A layer of Enkadrain diffuses hydrostatic pressure along underground walls, preventing seepage and water damage. (See Sweet's 2.7d/Ame)
Enkasonic between floors effectively shuts down both and airborne noise. (See Sweet's 13.10/Am)

Get The Full Story On Our Black Magic.
Find out more about the practical powers of Enkadrain and Enkasonic by letting us know about applications that currently interest you. Contact Geomatix Systems, BASF Corporation Fibers Division, Enka, NC 28728, (704) 667-7713. Or call Sweet's Buyline at (800) 447-1982 for the name of your nearest distributor. We'll send all the proof you need that this kind of magic really works.

Light, thin, and airy, Enkasonic adds as little as 3/4" to any flooring system.

Gaining Ground Thru Ingenuity.

BASF

Circle 71 on information card
Join fellow AIA members on an exciting Architectural Study Tour in 1986!

MAIL TO: American Institute of Architects
c/o Trans National Travel
P.O. Box 272, Back Bay Annex
Boston, MA 02117-9990

Name ____________________________
Address __________________________
City_________________ State______ Zip Code_____

FOR IMMEDIATE RESPONSE, CALL
TOLL-FREE 1-800-262-0123 TODAY!

(Please check)

☐ Yes! I am interested in more information on The
Complete Orient vacation and other destinations. Please send me the 1986 AIA Travel Guide
featuring vacations to the British Isles & Ireland, the Orient, Scandinavia, Alaska, South Pacific
and Europe.

Yes! I am interested in more information on these
AIA Architectural Study Tours:

☒ The Complete Orient
  (Departing August 1, 1986)

☐ Paris, The French Countryside & Switzerland
  (Departing September 18, 1986)
If you don't use it, you're liable to be at a loss. Poor specifications make you more vulnerable to liability. That's why more and more firms are safeguarding their spec-writing with MASTERSPEC® than any other spec-writing system. MASTERSPEC® relies your editing its existing specs, as opposed to "cutting and pasting" or "filling in the blanks". It's all there to start with. You reduce the risk of making the most serious error — omitting work from specifications. Complete, concise and up-to-date, MASTERSPEC® gives your spec-writing quality control. Can you afford to be without it?

MASTERSPEC®

In hard copy & diskette
It takes a lot of work out of a lot of your work.

SPEC THIS OR CALL 800-424-5080.
You'll receive your complimentary portfolio complete with MASTERSPEC® Table of Contents and a sample MASTERSPEC® section.

MAIL TO: AIA Service Corporation
1735 New York Ave., NW, Washington, DC 20006

Circle 79 on information card
The problem: How to design condominiums without creating an oceanfront barrier for neighboring inland villagers.

The solution: Stepped clusters stacked in multi-levels to minimize interruption of the view corridors.

"Cedar shingles eliminated the need for border elements and an undesired 'crisp' look. Also cedar blends and weathers nicely in its natural state."

—Donald Sandy

For our color brochure "27 New Commercial Ideas in Cedar (and a few old ones)," write Suite 275, 515-116th Ave. N.E., Bellevue, WA 98004. (In Canada: Suite 1500, 1055 West Hastings St., Vancouver, B.C. V6E 2H1.)

These labels on red cedar shingle and shake bundles are your guarantee of Bureau-graded quality. Insist on them!

Windswepet condominiums, Kiawah Island. Architects: Sandy & Babe

Handmade adze with cedar handle used by Suquamish Indians to carve canoes.

Cedar. To touch the earth.

Circle 80 on information card
This U-shaped headquarters for a fraternal insurance organization has a cul-de-sac entrance with a landscaped courtyard and a fountain. A freestanding brick colonnade serves as a screen to the glass wall beyond to define the entrance. The brick exterior is detailed with bright blue mullions and tinted reflective glass. The lobby is a skylit atrium with segmented stairways to the upper floors.

Chicago Chapter. American Academy of Pediatrics Corporate Headquarters, Elk Grove Village, Ill. (above); Hammond Beeby & Babka, Chicago. The sloped suburban site suggested a midlevel entrance that leads axially through the foyer to an elevator lobby and terminates in a skylit atrium overlooking a lake. Exposed steel ornamental stairways flank both sides of the atrium to provide the main internal circulation of the building. The ground level houses support facilities and a conference center, and the second and third floors contain offices. The exterior is clad in two colors of brick with limestone trim and cornice pieces. Painted steel plate columns and cornices create the east atrium colonnade.

Catholic Order of Foresters, Naperville, Ill. (below); Holabird & Root, Chicago.
A/E/C SYSTEMS '86

A/E/C SYSTEMS '86 has it all...
everything you need to put computers to
work for you! During five information-
packed days (June 23-27), you'll:

- see, hear and touch the products that will put you on the inside track
to increased productivity — and profitability
- hone your computer design, production and management skills in
unique educational sessions tailored to your present level of
expertise — basic, intermediate or advanced
- learn creative management and systems solutions from experts who
have "been there"
- discover new ways to streamline run-of-the-mill operations and free
yourself for more creative activities

Whatever you are looking for . . .
- computer graphics (CADD) for design and
drafting applications
- software for design analysis
- reprographics products and services
- project or office management systems

. . . you can have it all at A/E/C SYSTEMS '86,
the total computer and management show for
architects, and the world's largest such event —
18,000 attendees; 100,000 net square feet of
high-tech exhibits, close to 100 conference
sessions, plus 75 participating professional
associations and publications.

To receive complete details, call toll free
800-237-3900, or send your business card to
PO. Box 11318, Newington, CT 06111. Tell us
how many free exhibit tickets you would like.

A/E/C SYSTEMS '86
The Seventh International
Computer and Management Show
for the Design and Construction Industry
June 23-27, 1986
McCormick Place – Chicago
(800) 237-3900
Confronting Risk

Confronting Risk—whether it's the awesome financial risk of professional liability or the risks of judgment and decision you take daily in the business of architecture—will be a major theme of the 1986 AIA National Convention in San Antonio. That means you'll find hundreds of hours of Professional Programs—from small-group consultations to full-day seminars—designed to sharpen your skills and understanding in virtually every aspect of professional practice. It means you'll find a vast AIA Exhibit of New Products and Technology filled with innovations designed to reduce the likelihood of liability. And it means an exclusive forecast of tomorrow's risks from an impeccable source—Robert Bleiberg, editorial director and publisher of Barron's.

The 1986 AIA National Convention, San Antonio Convention Center, June 8-11, 1986. Call (202) 626-7396 for information—and don’t risk missing the best learning opportunity of the year.

Please send me more information and registration forms for the 1986 National AIA Convention.

I am an: 
☐ AIA member 
☐ Fellow 
☐ Nonmember

I am most interested in: 
☐ Theme Program Sessions 
☐ Professional Programs 
☐ Exhibit of New Products and Technology

NAME ___________________________ TITLE ___________________________

FIRM ___________________________

ADDRESS ___________________________

CITY ___________________ STATE ______ ZIP ______

TELEPHONE NUMBER ___________________________

Return to: American Institute of Architects
1735 New York Avenue, NW • Washington, DC 20006

Circle 83 on information card
North Dakota Chapter. Depot Plaza Gazebo, Fargo, N.D. (top); Clark Holman & Moorhead, Ltd., Fargo. Designed to call attention to the recently revitalized community plaza and Cass Gilbert railroad station, the gazebo has a glass and aluminum cupola above a copper standing seam roof and fascia on a steel frame. Painted bead ceiling board soffits were designed to recall the train station.

Cleveland Chapter. Union Branch Public Library, Cleveland (above); Collins Rimer & Gordon, Cleveland. As part of a library consolidation program, the branch library was built to replace two smaller libraries while increasing circulation and providing space for community activities. The brick and masonry trim were designed to relate to the adjacent church.
Our newest collection offers a warm, rich range of moods for the contract or residential environment. All wallcoverings feature a class A Flame Spread Rating in accordance with the ASTM-E-84 tunnel test.
The nautilus shell—product of nature's master builder—signals the call for entries in BUILDER'S 6th annual Builder's Choice design and planning awards program recognizing the best design and planning in the built environment.

Builders, architects, planners, designers and developers are invited to enter Builder's Choice. Submit housing and commercial projects. Large developments and one-of-a-kind homes. Attached and detached. New and remodeled.

A team of industry experts will choose winners in 26 categories and designate the single best project of the year. Winning entrants will be honored at a BUILDER awards dinner in Washington, D.C., this fall. And all winning projects will be featured in our October issue.

Eligible projects are those completed between June 1984 and June 1986. The entry deadline is June 21, 1986. For more information and an entry form, mail in the coupon or call BUILDER at (202) 737-0717.
Architects Society of Ohio. Festival Park/Portsdie Festival Marketplace/Trinity Plaza, Toledo, Ohio: The Collaborative, Inc., Toledo. The architect worked with various clients, funding agencies, and citizens' groups to create a cohesive scheme for these three projects that have become the city's focal point of downtown revitalization. The central public space, the three-acre Festival Park, has a stepped terrace that serves as an amphitheater for performances. The large open space provides unobstructed views from Summit Street to the Maumee River. The 12,000-square-foot Trinity Plaza is set atop a parking garage one-half floor above street level and was designed to be used as part of the downtown pedestrian circulation network. The two-level, 80,000-square-foot marketplace accommodates 80 to 90 shops or restaurants of varying sizes and functions.
Presenting...

The American Classics
from The Georgia Marble Company

The Georgia Marble Company, quarryers and fabricators of famous Georgia Marble for over a century, introduces a new line of marble tile. There are eight varieties, never before available except by custom order. The marble tile comes in a standard size, 12” square, 3/8” thick. These are some of the most beautiful marbles in the world.

Please contact us for more information.

Marble Tile: Georgia Peach,
Interior Shown: Flamingo Grill,
Myrtle Beach, SC.

Call us toll free for further information.
In Georgia: 1-800-342-1382,
Other States: 1-800-334-0122.
Gulf States Region. Johnson Family Home, Madison County, Miss. (above); Samuel Mockbee, Architect, Jackson, Miss. A team of volunteers organized by a Catholic nun built a house for a poor rural family with seven children. The architect placed enclosed rooms off a large central living space and used traditional materials and forms (gable roof and front porch). Volunteer labor and materials totaling $7,000 resulted in a cost per square foot of $6.83. The jury said that this house "illustrates the fact that no task is too small or humble to engage the talents of creative people."

Heritage Center West, Little Rock, Ark. (left); Allison Moses Redden, Little Rock. In converting a concrete frame warehouse to speculative offices and retail space the architect replaced one solid brick wall of the original building with a grid of glass and colored frames. The renovated building provides a link between the downtown area and the city's riverfront.
This building, designed by Arthur D. Steinberg, was built a dozen years ago. Since then it's had two owners and a lot of different tenants, yet it still looks new. Part of the reason is its glass: Solarcool reflective glass from PPG. Solarcool is available in a range of aesthetic effects: Silver Bronze, Silver Gray, Silver Black, Dark Brown and Dark Gray. Solarcool is made to be durable and attractive. And to stay that way.

Since PPG introduced Solarcool 15 years ago, it's been a favorite of architects, builders and owners. Because durable: in proper storage, there's no limit to its shelf life, and it keeps its great look for years and years after application. So it retains its value for long-term rentability.

Architects like the way Solarco
ective glass is consistent from lite to lite. So the building will look the way it was designed to look.

And builders are confident using Solarcool because it's so easy to use. Solarcool can be cut right on site, tempered and fabricated locally.

And it's backed by PPG, the company with the most experience in the business and a warranty no one tops. It's no surprise that Solarcool has been "The Right Glass" for architects, builders and owners for many years.

See Sweet's 8.26a/Pp. Or write

PPG Industries, Inc.,
SL9, P.O. Box 8727,
Harrisburg, PA 17105.

Circle 88 on information card.
Mississippi Chapter and Gulf States Region. Roosevelt State Park Bathhouse, Morton, Miss. (above); Eley Associates Architects, Jackson, Miss. This wood and brick pavilion-style bathhouse serves as a gateway to the lake and accommodates showers, toilets, ticket booth, and concession area. The building's two wings are connected by a sheltered outdoor porch that has a deep overhang and trelliswork at the rear roof and along the front chase wall.

Florida South Chapter. Clary House, Sanibel, Fla. (below); Andres Duany and Elizabeth Plater-Zyberk Architects, Miami. This vacation house was designed for a married couple with frequent live-in guests. Located on an island in the Gulf of Mexico that is prone to flooding during storms, the house rests on pilings that are screened by wood latticework. "It is excellent and effortless with a great deal of character, a high level of refinement and polish," said the awards jury.
Another Steelcraft® FIRST!

OVER 2450 SQUARE INCHES

of glass now permitted in Steelcraft UL-Listed Frame

1. 16 gage frame section with ⅝" high stop, minimum 4⅛" jamb depth, maximum 12⅝" jamb depth.

2. 16 gage mullion section with continuous stiffener channel.

3. ¼" Wire Glass
   Maximum sidelite—32" x 78"
   Maximum Transom-lite—35" x 41"
   Actual maximum glass size—2496 square inches.

4. Available with anchors for masonry wall, wood stud and steel stud partitions.

5. Maximum Door Size
   Single—4'0" x 8'0"
   Pair—8'0" x 8'0"
   Maximum overall Frame Size—10'10" wide x 10'11" high.

Tested by Underwriters Laboratories Inc in accordance with UL 10 G (ASTM E152) without hose stream for 20 minutes. Frame can be used in any application where 20 minute frames and doors are required.

Steelcraft by American-Standard

Circle 90 on information card
LOF Glass introduces ECLIPSE reflective glass, the pyrolytically-coated float that leaves traditional alternatives fading completely from sight.

ECLIPSE reflective is a dramatic new alternative for the building designer’s palette, combining high reflectivity with excellent daylight transmission. Exteriors take on a striking yet subdued appearance; interiors are bathed in a soothing warm glow. Beautiful.

Technically speaking . . . absorption so low that colored substrates in most vision applications require no heat treating; UV control that blocks over 90% of the sun’s damaging ultraviolet rays; sealant compatibility that borders on universal. And the list goes on.

ECLIPSE reflective means options: Cut, temper and fabricate it as you would any annealed glass. Expose the coated surface to the exterior. Use it as the second surface in an insulated glass unit. Bronze. Grey. Blue-green. The choices are yours.

Choose ECLIPSE reflective for the fastest, most reliable delivery. Choose ECLIPSE reflective for the commitment and expertise of the manufacturer that cares about providing the industry’s best float.

Choose ECLIPSE reflective from LOF Glass. Be part of a remarkable solar occurrence.

Call: (419) 247-4803. Write: LOF Glass, FGP Marketing Department, 811 Madison Ave., P.O. Box 799, Toledo, Ohio 43695.

Circle 91 on information card

Visibly Superior.

LOF
Glass
A Libbey-Owens-Ford Company

© 1985 Libbey-Owens-Ford
Florida Association. Florida A&M School of Architecture, Tallahassee, Fla.; Clements Rumel Goodwin Associates, Jacksonville, Fla. The design for this 64,000-square-foot facility was chosen through a two-stage competition sponsored by the state and the university. Comprised of four connected wings of varying sizes and configurations, the $5.3 million facility accommodates 400 students and 35 faculty and staff. A passive energy system uses a solar greenhouse-like collection system to return heat into the air in winter and takes advantage of natural ventilation in summer to supplement cooling requirements.
This fine product is a favorite of architects, builders, and homeowners. When applied to untreated wood, Cabot’s Bleaching Oil actually bleaches the wood, imparting a delicate gray tone that weathers in a few months to a natural driftwood gray. This effect, heretofore found only in seacoast areas after years of exposure to salt air, is now attainable anywhere in the country. Cabot’s Bleaching Oil, a refined and clarified oil with bleaching ingredient, is suitable for all exterior wood: shingles, siding, and clapboards.

For further information on Cabot’s Bleaching Oil, write:
Samuel Cabot Inc.
East Coast: One Union St., Dept. 545, Boston, MA 02108
West Coast: 23284 Eichler St., Dept. 545, Hayward, CA 94545
Sweet’s Buyline: call toll-free 1-800-447-1982

Circle 92 on information card
Built in 1981 at a cost of $330 million, the Tropicana Hotel & Casino is a special blend of elegance and excitement. With 515 guest rooms, 4 lounges, 7 restaurants, 8 shops, and a 50,873 sq. ft. casino, the Tropicana is an emporium of activity with all the conveniences of home.

There's no gambling on efficiency or comfort in the Tropicana Hotel and Casino with Sloan OPTIMA® No-Hands system.

Atlantic City's Tropicana Hotel and Casino never leaves the service and accommodations of its patrons to chance. Their concern for comfort and cleanliness amid the glitter of neon and mirrors was the main reason for installing Sloan OPTIMA® No-Hands automated flushometers in the casino washrooms.

A Sloan OPTIMA system uses an electronic device to "sense" the user and automatically flushes the sanitary fixture—or turns the faucet or appliance on or off—only as needed. This insures that faucets and hand dryers are turned off after use and eliminates unflushed urinals and toilets.

The results: Improved comfort and convenience for patrons with more sanitary washrooms. Reduced costs for management with fewer repairs, reduced water usage and less daily maintenance.

The Sloan OPTIMA system meets all building code requirements and installs easily—and unobtrusively—in any new or retrofit situation. The system also adapts to soap dispensers, hand dryers, shower heads, and more.

Ask your Sloan representative about Sloan No-Hands automated systems. Or write us.

SLOAN VALVE COMPANY
10500 Seymour Avenue, Franklin Park, IL 60131
A Tradition of Quality and Pride

Circle 93 on information card
Washington Metropolitan Chapter. Wilmington AMTRAK Station Renovation, Wilmington, Del. (above); Skidmore, Owings & Merrill, Washington, D.C. The renovation of this 1905 Frank Furness railroad station required the reconstruction of the hammered glass and wrought iron canopies and the red clay tile roof. The exposed trough-beam ceiling in the main waiting room was restored, and the elegant wrought iron and brass detailing and railings were re-established. AMTRAK services and concessions were reorganized, and elevators and escalators were added to meet increases in the number of patrons.

Baltimore Chapter. Private Residence, South Miami (below); Aragon Associated Architects, Baltimore. Located on a long shallow site, the house is organized on a linear plan with hallways on either side of the principal interior spaces and has a series of outdoor pavilions with a trellised courtyard. Punched windows in the clerestory provide natural light to the dressing rooms. Exterior walls are concrete block and stucco.
From Du Pont:

A MATTER OF

TOP SECURITY

How HYPALON® can lower your defense budget.

A good roof is your best defense against spiraling maintenance costs. This is especially true in today's market where you can sink a lot of extra money into roofing that may not be the best for you over the long haul. But you can lower your defense budget by understanding a few facts about Du Pont and a polymer product known as HYPALON® synthetic rubber.

Time tested

For more than 30 years, HYPALON synthetic rubber products have held up under some of the most demanding industrial conditions— as jackets for power transmission mining cables; as automotive hose covers for the extreme heat and corrosive atmosphere of the engine compartment; even as liners for landfills, reservoirs and industrial waste treatment ponds.

Success in roofing

Still, the transition to roofing was not a simple one. Extensive dialogue with Du Pont customers led to the conception and development of this polymer as a single-ply roofing material. And since the early 1960's, HYPALON has proven to be ideal for this demanding application.

The secret is out

Today, you'll find roofs based on HYPALON on plants, offices, shopping centers, churches, schools—any building where cost and efficiency are primary concerns. That means buildings like yours. Whether you're an owner, contractor, architect or engineer, it pays to specify roofing systems based on HYPALON. They offer durability, weatherability, and oil, chemical, and flame resistance. What's more, roofing systems based on HYPALON are among the most economical on the market today.

It's a matter of top security. Commercial systems based on Du Pont HYPALON are your best defense against spiraling maintenance costs and the whims of weather.

For more information about Du Pont HYPALON and the companies who manufacture roofing systems based on HYPALON, call 1-800-441-7111.

Only Du Pont makes HYPALON®
Specify it by name.

*Du Pont manufactures HYPALON®, not single-ply roofing membranes or systems.
Now you can build strictly around the codes.
without looking like you have.

Few would argue with the critical need to conscientiously comply with building codes. Yet, for those whose task it is to design beautiful, functional buildings, the influence of volumes upon volumes of code requirements is undeniable.

Fortunately, Won-Door's folding doors now provide a way to comply with critical building codes and still allow you to design your building to look and function the way you choose.

For example, Won-Door Fireguard® doors can provide:

- Code Required Fire Exit Corridors and as high as needed by folding from hidden wall pocket.
- Code Required Occupancy Separation without compromising the appearance of an elegant stairway or other design feature.
- Code Required Area Separation necessary for large open space areas.
- Code Required Elevator Lobby Separation without cumbersome swing doors or floor tracks.
- Increased Building Security as an added bonus with optional automatic opening and closing systems.

Call Won-Door toll free 1 (800) 45 or your nearest Won-Door dealer for the details.

Won-Door Fireguard® protecting property and beautiful building design.

WON-DOOR CORPORATION
1865 S. 3480 W.
Salt Lake City, Utah 84104

Circle 95 on information card.
Philadelphia Chapter. Renfrew Center, Philadelphia (top); Atkin, Voith & Associates, Inc., Philadelphia. A new 42-bed dormitory and dining facility for a clinic for sufferers of eating disorders was added to complement a 1929 manor house that was converted to house administrative and therapeutic offices. The building has a straightforward corridor plan with a residential scale, and a curved terrace surrounds the dining room and leads to flower and vegetable gardens that will be used in the treatment program. The jury praised the building for its siting, humanism, and lack of institutional character.

Pennsylvania Society. Provident Mutual Interiors, Philadelphia (bottom); KPA Architects, Philadelphia. The architect's use of natural and artificial light and choice of materials contributed to the success of this carefully detailed office interior and entrance hall.
New Jersey Society of Architects. Mermaid Hill, Block Island, R.I. (above); Herman Hassinger Architects, Moorestown, N.J. The architect, who was formerly a Coast Guard officer, used forms, details, and materials to recall a traditional New England lifesaving station for his own vacation house. The first floor has a large, open living space with separate areas for children and adults and two guest rooms. Three bedrooms are tucked under the eaves on the second story. The observation tower on the north wing is reached by a ship’s ladder through a hinged hatch. Exterior cladding is traditional cedar shingles and painted trim.

Pittsburgh Chapter. 227 Fort Pitt Boulevard, Pittsburgh (right); L. D. Astorino & Associates, Pittsburgh. In converting an 1880s bank to their own offices the architects added a large, colorful bay window facade based on the nearby historic buildings along the riverfront. Private offices overlook a landscaped interior courtyard with arched skylights. The architects designed built-in work stations, storage units, and a reception desk.
Responding to new trends in design, Fry Reglet, over 10 years ago, began radiusing many of its aluminum moldings. Today, most standard shapes can be radiused. No longer a purely functional product, Fry radius moldings introduce a design enhancement that literally follows the architect's concept. The addition of custom-matched finishes provides limitless aesthetic options.

By specifying Fry radius moldings, designers can add surprisingly dramatic effects to curved perimeters, archways, columns, and curved ceilings. Specify Fry.

Fry Reglet is Molding Technology.

625 S. Palm Avenue, Alhambra, California 91803
(818) 289-4744
2777 Peterson Place, Norcross, Georgia 30071
(404) 441-2337
Look for us in Sweets Catalog 9.5/Fr.

Circle 96 on information card
Boston Society of Architects. Souweine House, Amherst, Mass. (top left); Williar Rawn Associates, Boston. The construction of this Greek revival-inspired house for a family of four was the subject of the recent best-selling book, *House*, by Tracy Kidder. The owners wanted a "more traditional" design with defined rooms but also wanted to take advantage of passive solar energy. The front of the house ha
n asymmetrical porch and a large circular window in the gable end, while the outh side has six double-hung windows with a band of fixed glass panels above and below.

Before further text. There's an image of a large, ornate room, likely part of a church or cathedral. The architecture is elaborate, with high ceilings, arched windows, and intricate details.

The text reads:

Summerolo Barns, Greenwich, Conn. (bottom): Ferris, Franzen & Associates, Southport, Conn. This 4,000-square-foot barn has 14 open-air stalls, a feed room, tack room, and a hay loft. A 10-foot overhang on both sides, which is supported by Doric columns, provides circulation and access to all the stalls. The stable is clad with cedar shingles and clapboard reminiscent of the New England vernacular. The jury said, "It's obvious on this estate you're lucky to be a horse."

Old South Church Restoration, Boston (above); Shepley Bulfinch Richardson & Abbott, Boston. In renovating the 1874 Venetian Gothic church by Cummings & Sears, the restoration architect repaired the polychromatic masonry exterior and elaborately detailed copper roof, redesigning the interior in the "spirit of the last century." The chancel platform was redesigned to accommodate both religious ceremonies and musical performances, and a new chancel screen was added.

ARCHITECTURE/MAY 1986 259
The Hotel Inter-Continental is a $70 million ass-clad high-rise tower, designed with aatical silhouette to give every guest room a ew of the San Diego Harbor and to minimizestruction of the harbor's view from downtown San Diego.

The glass of choice is Sunglas HP Reflective — sed here with a durable silver coating applied to lear glass for 8% nominal light transmittance. his version (SI-08) provides a subtle reflectance f the harbor's ever-changing color as well as aduction in the hotel's air conditioning istallation and operating costs.

Sunglas HP Reflective is part of Ford's Sunglas mily — a family of over 30 different solar anagement glasses with colors and shading eefficients for virtually any application. All sunglas HP Reflective products are also backed y Ford's ten-year coating warranty.

The next time you specify reflective glass, pify the total performance and versatility of sunglas HP Reflective by Ford and see the lite or Quality, variety, and availability in solar anagement glass — Nobody outglasses Ford.

For more information call: 1-800-521-6346
n Michigan call collect: 1-313-446-5915)
n Canada call: 1-416-363-7561)
ner: Torrey Enterprises, Inc.
architect: Hope Consulting Group
Leonardo, Architect. Carlo Pedretti. (Rizzoli, $75.)

"Leonardo would have greatly profited, if he was not of such a varied and unstable nature, for he began to learn many things and once begun he would abandon them." So wrote Vasari who, like many of Leonardo's contemporaries, could not see the sense in neglecting one's true vocation by playing around with matters remote and strange to the artist's world. I think Vasari was right. Who would not press it?

But Leonardo thought of himself as a gentleman, a courtier (he had to live down the fact that he was an illegitimate son). Such a man might paint but, if that was all he did, he was like Michelangelo, hardly more than a glorified workman.

Carlo Pedretti, who probably knows more about Leonardo than any other person, has given us a book that purports to present one facet of the master's genius. He writes: "I approach the subject of Leonardo as architect in the same way I approached the subject of Leonardo as painter ... namely with an almost dogmatic brevity and without footnotes." Almost dogmatic the book is; brief it is not. It surely contains in its more than 500 illustrations every scrap of Leonardo's work that bears on architecture and much that does not, in any but metaphorical definition. There are designs for a loom and textile machine, for ladies' purses and embroidery patterns, for all sorts of hydraulic devices, for anatomical studies, for a "device for opening a prison door from within," as well as many examples of gadgets designed to make mincemeat of the enemy. It seems that anything Leonardo designed of a craft or mechanic nature is subsumed under the rubric of architecture by Pedretti.

I cannot believe that Leonardo did not make some sort of distinction between architecture and technics even though, seeking a job, he wrote, "... and in times of peace I believe I may be most favorably compared to any other in the field of architecture, in the designing of public and private buildings and in the conducting of water from one place to another."

All those Renaissance architects were polymaths—Brunelleschi, Bramante, Alberti, Michelangelo—but what makes Leonardo so special is not the variety of his skills, but a quality, hard to define, that I consider magical. A look at the brooding, tenebrous landscapes in his paintings—mountains, rocks, and flowers never seen on earth, in colors never seen on earth—suggests what I mean. I think this is a common feeling—anyone who goes to the Louvre will always find a line of people waiting to see the Mona Lisa—surely not the Mona Lisa as an art object, but as the personification of some half-remembered dream.

One would presume that a man capable of evoking such feelings would discuss esthetics in his writings. In architecture, for example, the nearest he comes to esthetics is providing dimensions, which though unexplained, supposedly give "proper proportions." What he does advise on are the proper ventilation of privies, the cost of decorating a room, why a wall cracks, or sometimes on a more theoretical level, "what is an arch?" On city planning his interest is in canals, roads, fortifications. The same is true of his writings on painting and sculpture: no "fine-art" talk, just a lot of practical recommendations on perspective, shades and shadows, how to "represent a tempest," or "someone speaking to a crowd of people," and "how to paint wind." Is it possible that in the fabulous 15th and 16th centuries the feeling for proportion, correctness, style, were so pervasive that no more instruction or explanation was needed than is needed to tell the healthy heart how to beat or the lungs how to breathe?

Thumbing through this scholar's book, I search for an architectural sketch that even suggests Leonardo's genius. I come up only with what the most banal architect of the period would have drawn; his house plans are ordinary, his churches conventional and similar, and there is no evidence that his lost design for the Milan cathedral lantern had any special merit.

Carlo Pedretti is really too much in love to see that his hero has a weakness. It is apparently with good reason that "no building which can with certainty or even probability be credited to Leonardo exists," according to A. E. Popham, once deputy keeper of prints and drawings at the British Museum. The drawings themselves clearly show the weakness. When the sketch is of machinery, an anatomical detail, a geometrical proposition, or roughly conceptual, the line is vigorous and explicit, but any drawing showing the actuality of a building of his design is fuzzy and uncertain.

History tells us that Leonardo was imaginative, had a seeking mind, was well informed, had an extraordinarily keen eye and unsurpassed manual dexterity. That his devices, machines, and gadgets influenced the development of technology is debatable. What is not debatable, however, is that to us, swamped as we are in technological inventions of the most fabulous and subtle kind, Leonardo's wheel and pinions are little more than quaint when not seen as clumsy or simply absurd.

But what is incontrovertible is that his paintings, even the least of them, are as fresh, touching, and remarkable as when they were painted. Do we not agree with Vasari? And in this book does Pedretti not make clear, perhaps inadvertently, that the great man was no architect? Perhaps the book should have been entitled Leonardo: His Playthings, bearing in mind what Freud wrote in his study of the master: "... the great Leonardo remained infallible in some ways throughout his life. ... As a grownup he still continued playing, which sometimes made him seem strange and incomprehensible to his contemporaries."

—PERCIVAL GOODMAN, FAIA

Mr. Goodman, professor emeritus, graduate school of architecture and planning Columbia University, is an architect, author, and critic.

History of Architecture: Settings and Rituals. Spiro Kostof. (Oxford University Press, $45.)

"Ten years in the making. A history of architecture that ranges from the first prehistoric environments on record to the most recent examples of architectural and urban design. A landmark work of impressive scope..." Spiro Kostof has written a book in the conviction that, "everything is worth studying."—From the dust jacket.

"Reconcile the traditional canon of monuments with a broader more embracing view of the built environment; no strict distinction between architecture, building, urbanism, high and low culture; an epic story of humans taking possession of the land and shaping communities through the act of building; not all-inclusive; concerned with the use and structure of urban process; motivation and ritual sequence; an offering of cultural history. . . ."—From his introduction.

When an author sets himself such an ambitious program, spends 10 years to accomplish it in 788 oversized pages, 800 halftones, and 150 drawings, the reader has the right to expect a consistent architectural statement. If such an organizing principle exists in this book it has escaped this reviewer.

There is a great number of fine drawings. There are photographs—some good, some excellent, some unusual, and some blurred. Some are familiar redrawings, some from Bannister Fletcher.

There are omissions, but given the author's statement of intent that his book is editorial privilege. However, if a history is to be, and all histories are, even he monumental work of Bannister Fletcher and his successors, only a selection from the complete store of human-civilization's building, then there must be a unifying idea to give cohesion to the presentation.

We must assume that the subtitle of Kostof's book, "Settings and Rituals," is a statement of the author's organizing principle. Site we understand as place, but ritual is a more complex idea. A ritual (as defined by Webster, of course) is the solidification of a cultural event; a prescribed form or manner governing words or actions. It can be a ceremony, a formal act or a series of prescribed acts, or an action performed only formally with little or no significance.

The author's intent cannot be faulted. He states that modest structures in the periphery of monuments are essential to understanding the monuments themselves. To ignore context is a misreading of the primary structure. Kostof intends "to put aside the invidious distinction between building, architecture, and engineering, architecture and speculative development, and treat buildings with equal curiosity whether they are religious or intended to be monumental, utilitarian, or residential without discrimination."

This is laudable. We must assume, however, that the unique insight Kostof brings is a revelation of the ritualistic significance of their siting.

Kostof uses the technique of historic vignettes to encapsulate an epoch. This is workable if they do indeed typify, but it can lead to simplifications verging on misrepresentation. For example, we read in chapter I that the Alhambra, "plain to any student of its fabric, is shoddily built."

Here Kostof makes the point that despite its material failures it was a memorable building. This may or may not be true, but is this an essential observation in five lines describing this building? Certain parts of the building may lack structural validity, and painted plaster and wood decorations have deteriorated. How are these blemishes important in the brilliant execution of an extremely refined design which, incidentally, in later pages he describes poetically?

Just how shoddily built was this building that has survived for over 600 years? The city of Granada, and the Alhambra particularly, withstood a siege of eight months by savage and determined Christian knights before it surrendered to end the glories of seven centuries of Islamic Spain.

Almost everyone, even Bannister Fletcher, agreed that the Alhambra was and is a most extraordinary achievement. The Alhambra was something more than "the gift of making place for some human purpose," as Kostof puts it, despite the failures of some of its decorations. Postmodern philosophies simply do not apply.

In another instance we find that the Maya seem to have suffered from understatement. Kostof says their arches were corbeled. They were not, and this is a significant point. Mayan builders were much too sensible to painfully true six sides of an arch stone, pecking away at it with stone tools, and then bury most of their work in the mass of their structure. They, instead, devised an ingenious system of rubble lime concrete masonry. Their famous "Mayan arches" were not arches at all. They were instead monolithic rubble masonry faced on the exterior with masonry veneer.

Kostof also makes a number of disturbing statements. They may, of course, be incredible insights as new historic perspectives. However they need more documentation to be convincing. If they are insights, the reader is owed more documentation. If they are "off-hand" comments made by a lecturer to enliven his class, they should have been set in script or some other warning device telling the reader to take them with salt.

On page 354 we read, "Perhaps two-thirds of French and English bastides were never provided with walls." This certainly makes the reader sit up and take notice, for it appears to be an absolute contradiction to the definition of bastide itself, which is a fortified town.

We also read the lively statement on page 349, "there is no such thing as a medieval town." Wow! One would hope Kostof would elaborate on such provocative declarations.

Kostof's contention that the true physical reality of things built lies not in the things themselves but the conditions that caused them to be built appears sound. However, the built object is an unmistakable condition, and to leave it out is to take away the main course and leave us with dessert and seltzer.

Building materials and the techniques by which they are employed are almost genetic in that they carry with them seeds of human culture. The difference in the cultural conditions of stone, copper, or iron societies is a difference in the division of labor, social organization, the power of the village and the tribe. They spell the difference between men's and women's work and the relation to each other. Settings and rituals are shaped by these realities.

A theory of architecture or a story of architecture cannot be successful unless it is based on a theory of man, as Plato, Alexander Pope, and others have been telling us for a long, long time.

Apparently this is what Kostof intended. The book is estimable in intent. Its failure is a concentration on superficial concept. Harvey Wheeler told us 15 years ago that any solution proposed to a problem must be proposed on a scale equal to the problem. Kostof's failure is that sites and rituals are not as large as the vital motivating imperatives of the age that uses them. They are only the outward manifestations of cultural actions and do not substitute for the imperative itself.

Kostof conceived the book well enough in broad terms but chose the least attractive definition of ritual: an action performed only formally with little or no significance. —Forrest Wilson

Dr. Wilson, a former editor of Progressive Architecture, teaches architecture at Catholic University.

This small book intends to give the everyday American a "basic knowledge of architectural history and styles." Through introductory remarks, line drawings (by Wolcott B. Etienne), and visual "clues"—elements of styles—the authors hope to encourage readers "to look closely at buildings, to appreciate their special qualities and sources of inspiration, and to savor our varied and alive architectural heritage."

Style guidebooks are generally alike. Written from an esthetic point of view, they tend to be a bit precious toward their subject. That's what inspiration and savoring are all about, as if the built world were delectable. This book fits the mold. As for its organization, it owes much to Blumenson's Identifying American Architecture. The contents are arranged chronologically by style beginning with New England colonial—a saltbox whose accompanying style clues are a plan, a "jetty," shingles, casement windows with leaded diamond panes, a board and batten door, and a pendant. The style categories cover the traditional classifications of American architecture, including a few extras such as the mid-20th century "contemporary." The examples are uniformly the same quality with high style design and landmark buildings, many derived from HABS drawings and photographs, as the principal sources.

To be successful, these kinds of books need to integrate the graphic, written, and historical information at all levels, so the accuracy and appropriateness are maintained. This is no easy assignment when cutting through an entire history of architecture. This book succeeds generally, but there are times when the language or the clues labeling is imprecise or inappropriate. For example, the pages devoted to the Italianate style illustrate the Bonneville house in Fort Smith, Ark. (1880) as the prime example. Things to look for in the style include a cupola, a cast-iron front arched and tall windows with hood moldings, a tall tower (villa form), corner quoins, elaborate entrance, and a commercial row (four buildings). The text refers to the Italianate as "one of the most common of the picturesque styles." Since most American architecture is picturesque by intention or default, why bother giving the reader this kind of judgment when you really want the reader/viewer to discover the style? The reason the reader is told what to see is that the authors want to communicate a preferred point of view about style. That's what appreciation is about: framing the response within a set of values that represents the authors, rather than representing the architecture itself.

The Romance of Architecture. Roloff Beny. With an introduction by John Julius Norwich and an anthology drawn from architectural writers and travelers from Vitruvius to Sacheverell Sitwell (Harry N. Abrams Inc., $49.50). The exceedingly handsome architectural photographs in this book are arranged by design elements—walls, columns and colonnades, arches, domes, ceilings, roofs, staircases, floors—and there are photographs as well of aqueducts and bridges and towers, spires, and castles. Preceding each section is a short descriptive paragraph, and there are many appropriate quotes from well-known commentators. The late Roloff Beny's photographs have been called poetic, evocative, and mystical, which they are. Shown above is a view of the Great Mosque, Kairouan, Tunisia.
The sparkle of chrome. The glint of brass. Such beauty is only a reflection of the quality of Stanley hinges.

To bring you these new bright finishes, we've made a serious investment in equipment that runs each hinge through a mile's worth of buffing. The resulting finishes are rich. Dazzling. So the doors in your building convey a silent message: this is quality. Right down to the hinges.

From stock to finish, it's what you expect from Stanley.

Quality. Our new bright finishes prove it. But to appreciate them, you have to see them. And you can. Contact your nearest Stanley Hardware sales representative or call or write Stanley Hardware, 195 Lake Street, New Britain, CT 06050.

(203) 225-5111.
Féraud de Chantelou, a royal steward, to accompany Bernini and act as his interpreter. Chantelou became Bernini's constant companion—and friend—keeping a day-by-day diary of what took place during the architect's stay.

This first complete English translation of the diary is delightful to read, giving insights into the French king and court and the customs of the 17th century. Chantelou was a faithful diarist, even reporting jokes and other small talk. But the diary, called by scholars one of the most important art documents to come out of the 17th century, gives unique glimpses of Bernini's artistic tastes, opinions, and theories. It also reveals Bernini as a man, showing his arrogance and vanity and also his dedication to duty and generosity toward people he liked.

On another level, today's architects who may not have scholarly pretensions will enjoy the diary for its revelations of how Bernini, considered an artistic dictator in Rome, dealt with a client who was an ambitious king bent on his own dictations; how the architect had to endure the jealousies of Parisian architects, and clashes with the king's chief minister who, after all, was responsible for the funds expended by the king on all these projects.

A postscript says that after 1674 Bernini was not paid the handsome pension he was promised for his designs and for other works, including a baroque bust of Louis XIV. Enemies he made in Paris contrived to have his plans for the Louvre abandoned, and he died in 1680, ending "in sadness and frustration one of the grandest projects of the whole baroque period." Nonetheless, his engravings of the Louvre had wide influence. As the late Anthony Blunt points out, they became a model "of what a royal palace should be," affecting the design of Hampton Court in England, the royal palace in Stockholm, and even Ashton Webb's 1909 facade of Buckingham Palace.

—Mary E. Osman, Hon. AIA


If the societal concern for energy conservation is to have a true impact upon architectural design, then architects must consciously address the reciprocity between energy and form. Conventional design strategy suggests that energy concerns should be directly utilized to generate form. Other requirements, however, may supersede energy conservation as a design priority. In this case, the consequences of these other design decisions upon energy use must be understood.

G. Z. Brown's intention in writing this book was to provide insights and information to architects concerning the relationships between architectural form and energy use. He wants architects to consider this relationship during schematic design when most of the significant decisions influencing form are made. Therefore, the book format is that of a ready reference guide, to be used at the drafting board. Each technique or strategy is presented in a one- or two-page format with a brief verbal explanation and ample graphic illustration. Precision in quantitative analysis has been sacrificed for ease and speed of use through rules of thumb and quick reference charts. Only those energy issues that have a direct design impact have been included. Thus, the concentration is on passive means of heating, cooling, and lighting because they are more directly related to building form.

The book is organized in three parts, the first of which, on analysis techniques, helps the designer understand the climate as context, how sun, wind, and light relate to program and form. Part two, on design strategies, is organized by scale, building groups, buildings and building parts, and then by architectural element (streets, rooms, windows, walls, etc.) at each scale level. This is the heart of the book, the part most useful to the architect in schematizing a design. Part three, on strategies for supplementing passive systems, illustrates how some passive design strategies can be successfully integrated with conventional systems. It is both the shortest and weakest part of the book, for the complexity of this kind of integration requires many more examples to demonstrate sufficiently.

The result is an eminently useful book for both professional architects and architectural students alike. Every energy principle or design strategy is stated, explained, and illustrated with clarity and succinctness. Actual completed buildings, many well known, are used as examples. This heightens credibility and makes each lesson easier to remember. The book's organization, cross referencing, and index increase its usefulness as a reference guide. Of particular note are the consistency and quality of the many illustrations done in careful freehand by Virginia Cartwright. The author has done all architectural designers who are not energy experts a great service in producing this book. It should take its place next to Architectural Graphic Standards at every drafting board.—MICHAEL J. BEDNAR, AIA

Mr. Bednar is associate professor of architecture, school of architecture, University of Virginia.

The Late, Great Pennsylvania Station. Lorraine B. Diehl. (American Heritage; trade distribution: Houghton Mifflin, $19.95.)

A landmark lost has its story to tell and the significance of its destruction. The story began with the vision of Alexander Cassatt, president of the Pennsylvania Railroad, of a station in New York City itself that would obviate the necessity of his trains stopping on the New Jersey shore of the Hudson River. But before this could be accomplished, there had to be a way of getting the trains across the river. Bridges had been proposed, but the development of electricity as a means of propulsion made tunnels feasible.

The drama and romance of this are all presented in chapters dealing with the vision, the hazards of the tunnel construction, the design of the station itself by Charles Follen McKim, and its construction. The station served its function well, but eventually fell on evil days, with changes that spoiled its character, and led at last to its final destruction, although a station of sorts still exists.

Preservationists will be interested in the efforts made to save the station and the fact that its destruction was instrumental in promoting a landmark law in the city. This readable account is well supplemented with pictorial material.

—GEORGE E. PETTENGILL, HON. AIA

Mr. Pettengill, a railroad buff, is AIA's librarian emeritus.


A neoclassicist who sought design sources in Italian Renaissance architecture and its modifications in English and French architecture and adapted them to his own time and place, Charles A. Platt (1861-1933) studied art in Europe, later turning to landscape design, and finally to architecture, a profession he entered without academic training or apprenticeship. He hired assistants, leaving himself free for design concepts and the nurture of wealthy clients. He even beat out Frank Lloyd Wright for the commission of Harold McCormick's mansion in Lake Forest, Ill., having become one of the most prominent designers of houses in the country. When the graduated income tax was introduced in 1913, such clients were harder to come by, and Platt moved on to design public buildings, such as the Freret Gallery in Washington, D.C.


Although some buildings may have barrier-free interiors, they are not accessible to many people because of site barriers. An outgrowth of previous research and publications, the book brings helpful site guidelines together concisely. It considers a host of solutions to a barrier-free environment, from the design of ramps and walkways to outdoor planting, lighting, signage, and site furniture. It shows how to design exteriors that are barrier-free for children, the mentally retarded, pregnant women, and others who are impaired visually, auditorily, or physically. The drawings, which are a decided asset, are by Richard K. Dee and Christopher Nothstine, who, like the editor, are landscape architects. □
UNIQUE NEW LIGHT-SENSITIVE DESIGN SERIES lets you create dynamic, 2-tone effects with revolutionary Reflecto-Lite™ faces.

UNUSUAL SHADOWS AND HIGHLIGHTS with sculptured block such as Rib™ and Flared™ faces.


SCALE & PATTERN provide versatility for individual designs, such as 8 x 8 scores.

RELIABILITY. Proven performance in all kinds of weather, for over 35 years. Maintenance free.

ECONOMICAL INITIAL/LIFE-CYCLE COSTS and still enjoy design flexibility and proven performance.

The Burns & Russell Co., Box 6063, Baltimore, MD 21231. Phone 301-837-0720. 4.4/Bu in Sweet's. Innovative Masonry Products Since 1790.

*Trademark of The Burns & Russell Co. © 1984, all rights reserved; ®reg. U.S. Pat. Off., Canada & other countries; patented & patents pending; products & process licensed by The Burns & Russell Co.
The design called for a curtainwall material that was lightweight. It had to be both flat and formable, and accept a custom painted finish.

The solution was Alucobond® material.

Lightness: Alucobond material is two thin sheets of aluminum with a polyethylene core. It weighs considerably less than solid sheet aluminum.

Flatness and Formability: Alucobond material does not oil-can, yet can be curved to a minimum bending radius of fifteen times the material thickness.

Paint Acceptance: A custom thermally Duranar® 200 finish was applied to match window frame extrusions and provide protection against weather and chemical attack.

Attachment: To provide for a very flush connection, Alucobond material was applied in an edge grip extrusion system.

More information: Alucobond material

Project: Salt Palace, Salt Lake City, Utah.

UCOBOND® MATERIAL

Available from Consolidated Aluminum, a leading developer and producer of composite materials for specific needs. For technical data and specifications, see our catalog in Sweets General Tile, section 7.5/ALU. (In Canadian Sweets, pre/AL.) For more information contact Sales and Marketing Manager, Carla Lane, at 812-2346.

Consolidated Aluminum, Composite Material Division, 11960 Westline Industrial Drive, St. Louis, Missouri 63146. Aucobond is a registered trademark of Consolidated Aluminum for its composite material.

CONSOLIDATED ALUMINUM
Composite Material Specialists

Circle 99 on information card
Contemporary styling rounds the bend with Falcon's sleek new Sutro Lever. And Sutro's sweeping lever line features a return that satisfies even the toughest handicap codes. Available in a wide selection of finishes, including Polished and Satin Stainless Steel. Falcon's Sutro: more of the kind of leverage that makes any job easier.

FALCON LOCK
5555 McFadden Avenue
Huntington Beach, CA 92649
(714) 891-0384
Design Competition for Master Plan.
The City of Baltimore is sponsoring a design competition for a master plan for a 300-acre site in the Coldsping New Town area and the adjacent Cyburn Arboretum and Botanical Gardens. The scheme should address the overall site design and placement of residential units and provide for the revitalization of the recreational areas and arboretum. Awards totaling $50,000 will be presented. An application with a registration fee of $50 is due by June 2; final submission are July 24. For more information, contact John W. Hill, FAIA, Professional Adviser, Coldsping/Cyburn Design Competition, P.O. Box 23935, Baltimore, Md. 21203.

Rome Prize Fellowship Winners.
The American Academy in Rome has named seven winners for the 1986-87 Rome Prize Fellowships in architecture, landscape architecture and design. They are: Norman Krumholz, president of the American Planning Association and director of the Cleveland Center for Neighborhood Development; William P. Bruder, president of his own architectural firm; Jeanne Giordano, of the urban division of Rouse and Associates; Julie Riefler, an associate in the graphic design firm of Donovan and Green; Frederick Biehle, an associate with WPG Design Group; Kathryn A. Dean, currently with Kohn Pedersen Fox; and Elizabeth Dean Hermann, landscape architect with Sasaki Associates.

Architectural Design Awards Program.
The Interfaith Forum on Religion, Art and Architecture and the Judah L. Magnes Museum of Berkeley, Calif., are sponsoring an awards program for excellence in religious architecture. Awards will be presented in three categories: completed new buildings, completed restorations and renovations; and unbuilt projects. Entries must be received by June 2. For more information, contact Tish Kendig, Executive Director, IFRAA, 1777 Church St. N.W., Washington, D.C. 20036.

Campus Center Honored.
The Elizabeth van Huyzen Mayer Campus at Tufts University by Jung/Brannen Associates of Boston (see Oct. '85, page 42) was honored with the Walter Taylor award for "architectural excellence" by the American Association of School Administrators and AIA.

Sullivan Exhibition.
An exhibition of architectural ornamentation designed by Louis H. Sullivan will be exhibited until July 6 at the Octagon Museum in Washington, D.C.

Housing Information.
The Department of Housing and Urban Development has established the HUD user program to provide current information on housing and urban developments. A monthly newsletter, resource guides, and computer searches are available through the program. For more information, contact Rick Slaten, HUD User, P.O. Box 280, Germantown, Md. 20874 or call toll free (800) 245-2691.

Orin Bullock Honored.
The AIA presidential citation was presented to Orin M. Bullock Jr., FAIA, of Rising Sun, Md., for his role in the original restoration of Williamsburg, Va., and his book The Restoration Manual.

Energy Award Honorees.
Lawrence Cook, AIA, of Falls Church, Va., and John G. Lewis Jr., AIA, of Richmond were recently awarded the Virginia governor's energy award for their firms' passive solar designs.

Wright's Johnson Wax Exhibit.
An exhibition of the Johnson Wax Company's administration building and research tower and Frank Lloyd Wright's sketches from his unpublished Taliesin archives are being exhibited at the Renwick Gallery through Sept. 1. The exhibit was organized by the Herbert F. Johnson Museum of Art at Cornell University.

Georgia Tech Prize Winners.
Three students were awarded prizes in the 1985-86 Southern Gf Company competition, sponsored in collaboration with the Georgia Tech college of architecture and the AIA/Atlanta Chapter. Bruce Fabrick of Atlanta was first place winner; Melissa Wauford of Atlanta was second place winner; and Bradley Davidson of Roswell, Ga., was third place winner. Awards totaling $10,000 were presented, and the first place winner was also awarded a sculpture by Arnold Pomodoro.

NEA '87 Grants Program.
The 1987 theme for the Design Arts Program of the National Endowment for the Arts will be the design of cities. Grant amounts will range from $5,000 to $40,000 for design advancement projects, and matching grants to $100,000 are also available for national design competitions. A program guideline with information about grant categories and qualifications for funding is available from the Design Arts Program, NEA, 1100 Pennsylvania Ave. N.W., Washington, D.C. 20506.

Architecture of the Future Competition.
The Los Angeles Chapter/AIA is sponsoring an international competition and exhibition to recognize innovative works that deal with specific architectural concerns of international importance. The competition theme is "Visions of Architecture in the Year 2010." Winner of the competition will be awarded $10,000 and a bronze trophy by sculptor David continued on page 272

BRIEFS

DEATHS

James Bailey, AIA, Nutley, N.J.
Norman Barnes, AIA, Portland, Ore.
Charles J. Betts, FAIA, La Grande, Ore.
John S. Blair, AIA, Sun City, Ariz.
C. E. Croom, AIA, Syracuse, N.Y.
G. M. Drury, AIA, Portland, Ore.
G. G. Elliott, AIA, Monroeville, Ala.
George Farley, AIA, San Francisco
Richard A. Fisher, AIA, New York City
W. H. Fowler, AIA, Amarillo, Tex.
Thos B. Garman, AIA, Pittsburgh
W. J. Gavin, AIA, Lowell, Mass.
Donald P. Gustafson, AIA, Trenton, Mich.
Ralph H. Harman, AIA, Springfield, Ohio
R. Holbrook, AIA, Bradenton, Fla.
G. H. Kanady, AIA, Ponca City, Okla.
W. Kemp, AIA, Jacksonville, Fla.
E. G. Kratz, AIA, Kansas City, Mo.
A. F. Lambert, AIA, West Somerville, Mass.
A. A. Lydick, AIA, Omaha
Albert Mayer, FAIA, New York City
Edwin J. Myers, AIA, Cupertino, Calif.
Warren Patterson, AIA, Seattle
O. H. Reid, AIA, Red Bluff, Calif.
O. Richards, AIA, Tacoma, Wash.
Larry R. Rowe, AIA, Great Falls, Mont.
Christine Salmon, FAIA, Stillwater, Okla.
Faurice Salo, AIA, Mineola, N.Y.
R. R. Shirley, AIA, Millbrook, N.Y.
A. S. Smealie, AIA, Baltimore
A. Snipes Jr., AIA, Atlanta
Abor Stone, AIA, Austin, Tex.
I. F. Thornton, AIA, Miami
David M. Tourelot, AIA, Chicago
Albert Tynan, AIA, Columbus, Ohio
C. Van Dyke Jr., AIA, Santa Rosa, Calif.
Joseph Vanek, AIA, Chicago
David Vhay, AIA, Reno
L. Wilson, AIA, Easton, Conn.
ALTER D. Wood, AIA, Melbourne, Fla.
J. Laron S. Wyeth, FAIA, Palm Beach, Fla.
DeMars. The entry fee is $30, and must be received by July 15 at the LA/AIA, 8867 Melrose Ave., Suite M-72, Los Angeles, Calif., 90069.

AIA Archivist Honored.
Tony Wrenn, Institute archivist, was awarded the Lower Cape Fear Historical Society's first society cup for his book, *Wilmington, N.C.: An Architectural and Historical Portrait*.

Hardware Handbook.
“Basic Architectural Hardware” handbook, published by the Door and Hardware Institute, is available for $7.50 per copy. The handbook describes hardware products and includes a detailed glossary of terms. To obtain a copy, write to DHI, 7711 Old Springhouse Road, McLean, Va. 22102-3474.

Pfister Wins Interiors Award.
Charles Pfister was named designer of the year by *Interiors* magazine for his “phenomenal rise to success as president of his own firm started five years following his 15-year career at Skidmore, Owings & Merrill.”

Architecture Study Tour.
International Design Seminars is sponsoring a 15-day tour, Aug. 12-26, which will focus on baroque and Bauhaus architecture, interior design, landscape design, and art. The tour will visit Helsinki, Stuttgart, Munich, Potsdam, Dresden, Dessau, and Berlin. For more information, contact Kennie Lupton, IDS, 4206 38th St. N.W., Washington, D.C. 20016.

Student Planning Report Cited.
A planning report by students of the community and regional planning program of the school of architecture at the University of Texas at Austin won the American Institute of Certified Planners’ 1986 student project award for the application of a planning process. The report will be used as a model for future economic development evaluations in Austin. The winning student team was comprised of Paul Andrew Cauduro, Barbara Jean Grace, Rolf Joseph Pendall, Suzanne Rossel-Haas, Barbara Ann Stocklin, and Frederick Joshua Wells.

Measured Drawings Contest.
The Landmarks Preservation Council of Illinois and the Historic American Buildings Survey are sponsoring a competition for measured drawings of any previously unrecorded historic site in Illinois. The competition is open to both students and practicing architects interested in historic preservation; four cash prizes will be awarded to the best set of drawings. The entry deadline is Aug. 31. For more information, contact Sean P. Murphy, Landmarks Preservation Council of Illinois, 407 South Dearborn St., Chicago, Ill. 60605.

Architectural Competition.
The Brooklyn Museum is sponsoring an international, single-stage, invitational architectural competition for the design of a master plan to guide the institution’s growth into the 21st century. For more information, contact the Brooklyn Museum, Public Affairs, 200 Eastern Parkway, Brooklyn, N.Y. 11238.

CRSI Award Winners.
The Concrete Reinforcing Steel Institute has cited seven buildings in its eighth biennial design awards program that recognizes “outstanding examples of the best cast-in-place, reinforced concrete design.” The winners are Kagan-Rudy Chapel in Houston by Clovis Heimssath Associates; Tabor Center in Denver by Kohn Pedersen Fox Associates; 320 N. Michigan Ave. in Chicago by Booth/Hansen & Associates; Lawson Residence in Alta, Utah, by Margaretta L. Woolley, AIA; Tele globe Canada Communications Station in Honolulu by Johnson Reece Luersem Lowery Architects; InterFirst Tower in Fort Worth by Geren Associates and Sikes Jennings Kelly; and Huntington Station of the Washington Metropolitan Area Transit Authority by Harry Weese & Associates.

Places As Art.
The National Endowment for the Arts Design Arts Program has published the 96-page book, *Places As Art*, as part of its design of cities theme. Copies may be obtained for $14.50 from the Publishing Center for Cultural Resources, 625 Broadway, New York, N.Y. 10012.


CREDITS


This ad is printed on coated gloss book stock, an exceptionally smooth paper. But as smooth and refined as this paper truly is, it can never compete with the ultra-smooth finish of a new mahogany door from Simpson's private collection. Simpson's private collection of doors. Eight in all. Impeccably styled and remarkably constructed, no other doors are like them.

For a full color brochure write Ed Young, Simpson Door Company, 900 Fourth Avenue, Seattle, WA 98164. All leaded and beveled glasswork is insulated and protected between two sheets of glass.

Circle 101 on information card

Simpson

MASTERMARK
HANDCRAFTED DOORS FOR AMERICA'S FINE HOMES


continued on page 27
As nearly all architects are now aware, TCS (Terne-Coated Stainless Steel) is chrome-nickel stainless coated on both sides with an 80% lead/20% tin alloy.

But the question may still remain as to why any coating of stainless is desirable.

In the first place, the application of such a coating creates an end product which is demonstrably superior to both stainless and copper in durability and corrosion resistance. Secondly, TCS weathers to an attractive and uniform warm gray. Stainless, on the other hand, retains its original bright finish indefinitely, while the weathering of copper has been highly unpredictable in recent years. TCS also solders perfectly without special preparation whereas copper must be pretinned, and stainless requires a time-consuming and relatively costly procedure to obtain a leak-proof joint. Furthermore, TCS, unlike copper, is neutral toward other metals.

Expressed in the simplest terms, where roofing and weathersealing are involved there is no standard architectural metal available in the world today, including stainless and copper, which can match TCS in its performance characteristics and built-in safeguards against failure.
For High Traffic Doors, Specify Von Duprin...

and get High Style in the Bargain!

When you need exit devices for high traffic doors, you don't have to give up style to get durability.

Von Duprin offers you a choice of two attractive touchbar series — the 33 and 99. Both are exceptional combinations of design and value, giving you great flexibility, with latching applications that include mortise, vertical rod or rim type, for narrow or wide stiles...and options that let you custom design your job.

Both designs are UL listed for Accident Hazard and Fire Exit Hardware (A Label). And they meet handicapped access codes.

Smooth, easy-operating Von Duprin 33 and 99 series touchbar exit devices look so good you won't believe how tough they're built. If you looked inside you'd find the rugged construction and precision fit that show skilled craftsmanship.

At Von Duprin, door exit hardware is our only business. So when you need exit devices that will give your project style without sacrificing durability, give us a call...or write for complete information. Von Duprin, Inc., 400 W. Maryland Street, Indianapolis, IN 46225, (317) 637-5521

"The Safe Way Out"
VON DUPRIN
Part of worldwide Ingersoll-Rand

Circle 105 on information card
Porch-Lift

Vertical Wheelchair Lift
Provides a Safe, Simple Solution to Architectural Barriers

Whether you're modifying an existing building or designing a new one, accessibility for the handicapped is important. Porch-Lift provides the simple, economical solution indoors or outdoors. This safe vertical wheelchair lift platform anchors permanently beside the steps, using a minimum space. Motor and mechanisms are enclosed. Runs on 110 volt current. Waterproof finish. Choose from seven models with varying lifting heights, including the new half-side-encloses "Series E" models. Shipped ready for installation.

Write For a Free Brochure and Name of the Dealer Nearest You.

American Stair-Glide Corporation
Dept. AIA-6556, 4001 East 138th Street, P.O. Box 9
Grandview, Missouri 64030

Pierce Erasers
Lead and Ink On Paper and Film

Pierce Electric Erasers and more
For Toll-Free Information Call:
Pierce Business Products, Inc.
1-800-ERASERS (1-800-372-7377)

Continued on page 278
Credits from page 277


Credits from page 278

EXCELLENCE

SINCE 1928 CHENEY FLASHING COMPANY
HAS EXCELLED IN PROVIDING INNOVATIVE
PREFABRICATED FLASHING PRODUCTS
TO THE LEADING DEVELOPERS
& ARCHITECTS

CHENEY
FLASHING
COMPANY
623 PROSPECT ST.
TRENTON, NJ 08605
PHONE 609-394-8175

Write or call for latest color catalogs

278 ARCHITECTURE/MAY 1986 Circle 108 on information card Circle 109 on information card

N O V A
Electronic Touch-Switch

A new concept in lighting control systems, featuring:

- On/Off control
- Incandescent, fluorescent
- 1 to 10 locations
- 1000W capacity
- No additional wiring required
- White is standard; black, gray, brown and beige available
- UL Listed

Light touch, micro-travel activation

Call today for free color brochure
800 523-9406
800 222-4909 in Pennsylvania
D. Samuel and Jeane H. Gottesman Exhibition Hall, New York City (page 218).


MORE FACILITIES MANAGERS MAKE THEIR MOVES WITH CALCOMP CAD SYSTEMS.

From design standards and space layouts to workstation design and installation, with CalComp System 25 CAD, you move fast and efficiently. CalComp's System 25 serves the entire facilities cycle. From planning and design, to construction documents and facilities management. CalComp's experience in the Architecture-Engineering-Construction and Facilities Management markets has produced a system tailored to solving your facilities needs.

With System 25, information for critical management decisions is "on-line." Automatic area take-offs, inventory counts, and location reports are accurate and up-to-date. Automated space planning and furniture lay-out reduce project response time and enhance design quality.

Mechanical and electrical systems are easily documented. Move ahead in time, by looking at future projects with CalComp's modeling software. Review occupancy plans with stacking and blocking diagrams produced by the facilities planning and management application.

And you're up to speed with System 25 in no time. The interactive graphics with automatic prompting is a breeze to learn.

As one of our users in Minneapolis said, "We provided complete planning and
design for 92,000 square feet of office space with over 500 modular office systems in just five and one-half weeks. Our CalComp System 25 has paid for itself from day one."

System 25 is the only facilities management CAD system that lets you start small and grow with complete compatibility. Because it's not just one system, but a continuum, from the PC-based 100 Series through the 300 Series to the high-performance multi-user 600 Series.

And System 25 is backed by the world-wide resources of a Fortune 500 company. CalComp's commitment includes installation, training, regional support teams and an 800 number hotline.

To learn more about why more facilities managers make their moves with CalComp, just write or call CalComp, P.O. Box 3250, Anaheim, California 92803. Call toll free 1-800-CALCOMP.
Avis features GM cars. Buick Century.

Your association membership means new, uniform low flat rates at Avis. And there's no charge for mileage. Choose from subcompact through full size 4-door car groups:

**DAILY RATE**

<table>
<thead>
<tr>
<th>Car Group</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUBCOMPACT</strong></td>
<td><strong>$36.00</strong></td>
</tr>
<tr>
<td>(Chevrolet Chevette or similar)</td>
<td></td>
</tr>
<tr>
<td><strong>FULL SIZE 2-DOOR</strong></td>
<td><strong>$42.00</strong></td>
</tr>
<tr>
<td>(Buick Century or similar)</td>
<td></td>
</tr>
</tbody>
</table>

These uniform low flat rates make it easy to know your rate before you go. To reserve a car, call Avis toll free: **1-800-331-1212**

Be sure to mention your Avis Worldwide Discount number: A/A991400.

Flat rates are available at all Avis corporate and participating licensee locations in the contiguous U.S. Flat rates are nondiscountable and are not available in Manhattan between 1 PM Friday and 3 PM Sunday and during holiday periods. An additional charge per day will apply in certain locations including Newark Airport, NJ; LaGuardia Airport, NY; Kennedy Airport, NY; and all Manhattan locations. Check with Avis for the amount. Rates, discounts and additional charges subject to change without notice. Cars must be returned to rental location or higher daily rate and a one-way service fee will apply. Cars and particular car groups subject to availability. Refueling service charges, taxes, optional CDW, PAI and PEP are not included. Renter must meet standard Avis age, driver and credit requirements.

© 1985 Avis Rent A Car System, Inc., Avis®

Circle 117 on information card
THESE 30-SECOND PHOTOS COULD SAVE YOU 30 HOURS.

Nothing provides more life­like design perspectives than good scale model photographs. They make selling a concept easier by showing clients realistic views. Plus they reduce the need for perspective drawings, design iterations and model changes.

The problem is, scale model photography often means expensive cameras, blurred images, limited depth of field, and deceiving distortions. Plus long waits for prints.

Well, now all that has changed.

Introducing the Charrette Scale Model Camera—a way to get simulated eye-level photographs instantly, easily, inexpensively. With sharpness from 2.5 inches to infinity. And true perspective.

In just 30 seconds. On-the-spot. No experience required.

So you'll have a practical way to see how a design will relate to its surroundings. A quick means to explore design options and develop ideas. And realistic Polaroid photographs to show a client how a design will actually look—inside and out.

At just $495 (special to AIA members only)—the Charrette Scale Model Camera can pay for itself in its very first month of operation. We'll even let you try it—no cost or obligation—for three full weeks.

Now, all it takes to get a better perspective on what you do is to contact us: Charrette Corporation, 31 Olympia Avenue, Woburn, MA 01888, (617) 935-6010.

Circle 118 on information card
GHI has done it again!

The unique GRAPH/NET Computer-Integrated Design* System is still available on the Super High Resolution T-2 minicomputer workstation and now also on the new multi-user Sun Microsystems series 3.

GRAPH/NET is still the only system that lives up to its name, Computer-Integrated Design with integrated programs for Space Planning, Layout Optimization, Layered Drafting, Dynamic Perspective and Project Data Management.

It's as easy to use as your pencil and it stays sharp all the time.

And even better news. GHI is investing millions of dollars on development of new AI Expert Systems which will begin to pay off for you with the first module available in June of 1986. Others will follow in quick succession.

Don't select a dead-end draft-only system when you can have GRAPH/NET for PC prices.

Call or write for information and a demonstration. See us at A/E Systems '86 and the AIA Convention.

Graphic Horizons, Inc.
125 CambridgePark Drive
Cambridge, MA 02140
(617) 491-6530

Circle 113 on information card
MORE ENERGY-EFFICIENT BY DESIGN

With natural gas you've got the power to make every size project more energy efficient. Because today, there's a whole new generation of super-efficient gas equipment to give you the options you need. Advanced, fuel-saving gas heating and cooling systems that keep operating costs down. And that can make whatever you're designing look even better.

Gas. America's best energy value.
Six Easy Pieces

From hospitals to educational institutions to conference centers, Kroin Canteen and Work Furniture is the easiest way to fill any assortment of needs.

The choice of four colors and materials can be easily mixed and matched. Design around it or create a new atmosphere in existing spaces. Structurally, the soundness of its tubular steel epoxy coated frames and wood or laminate surfaces make it ideal for hardworking environments.

Best of all, what you see here is only a small part of a much larger selection that includes tablet chairs, a wide variety of table sizes, trolleys and specialty work furniture.

For the pièce de résistance, contact Kroin, exclusively.

Circle 78 on information card.