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Volume 31

Number 1

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In this Issue:

Building Materials

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IDP Update

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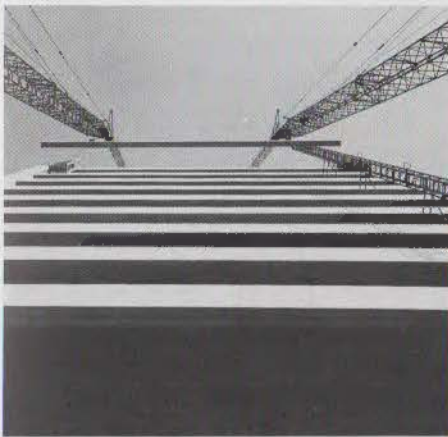
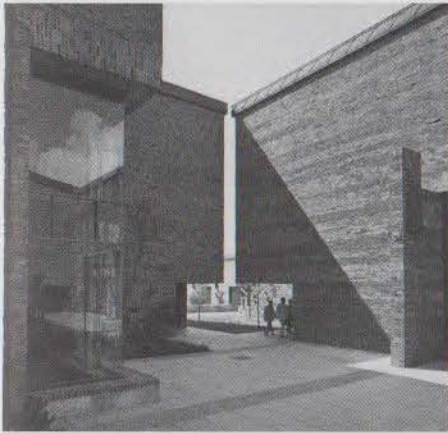
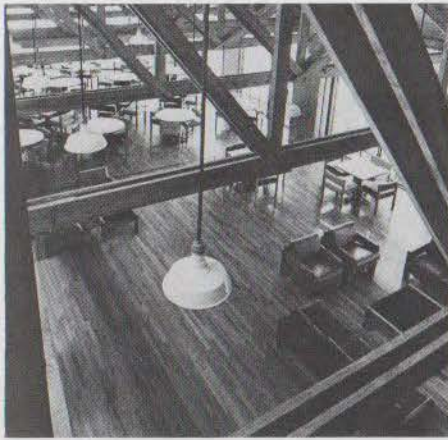
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Contents



On the Cover: Glamourless but vital materials merge at the soil-line of a concrete foundation. Photo by Richard Payne.

In the News 11

About this Issue 21

Materials
The following four articles feature recent work of four Texas firms as a means of examining the respective qualities of major building materials:

Wood 22
And the work of Charles Tapley, Houston.

Glass 26
And the work of 3D/International, Houston.

Brick 30
And the work of Pratt, Box and Henderson, Dallas, with a sidebar on El Paso Architect Mack Caldwell's use of adobe.

Precast Concrete 36
And the work of Omniplan, Dallas.

The Texas Brick 44
Austin architectural intern Robert Steinbomer draws from his exhaustive research on the history of brick in Texas for this brief summary.

Glassy is Classy? 48
Former Texas Tech architecture chairman Nolan E. Barrick, FAIA, considers the influence of "slick" materials on the depersonalization of architecture.

Building Security 56
From interviews with architects and security consultants, Dallas writer Don Sloan makes a case for security as an early consideration in the design process.

IDP 70
Mississippi architect Robert V. M. Harrison, FAIA, national coordinator of the NCARB Intern Development Program, discusses the halting progress of IDP.

On Materials and a Snake 77
Architect, humorist and regular contributor Dave Braden, FAIA, considers man's experience with materials—from the very beginning.

Letters 79

Coming Up: The March/April issue will feature the "Second Review of Texas Architecture," which draws from the Texas Society of Architects' recent statewide design awards program. And, in conjunction with Dallas' Condes 81, the Contract Design Show, TA will include a review of new interior products and an article on space planning for today's irregular plans.

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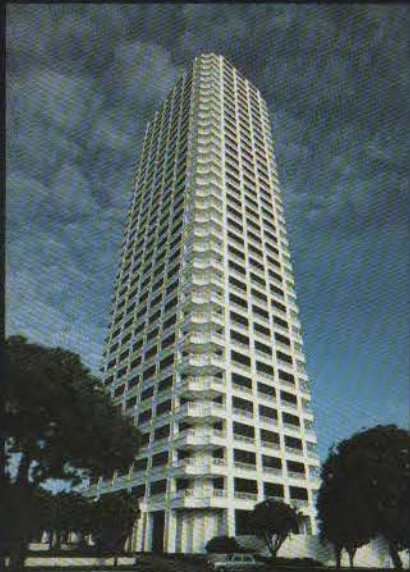
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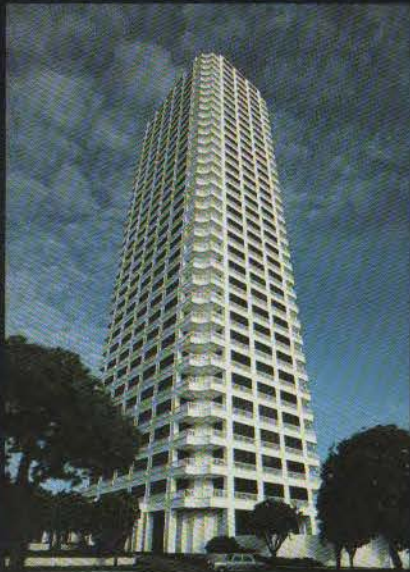
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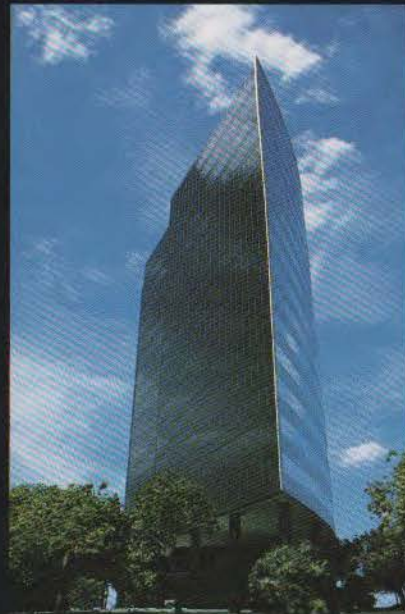
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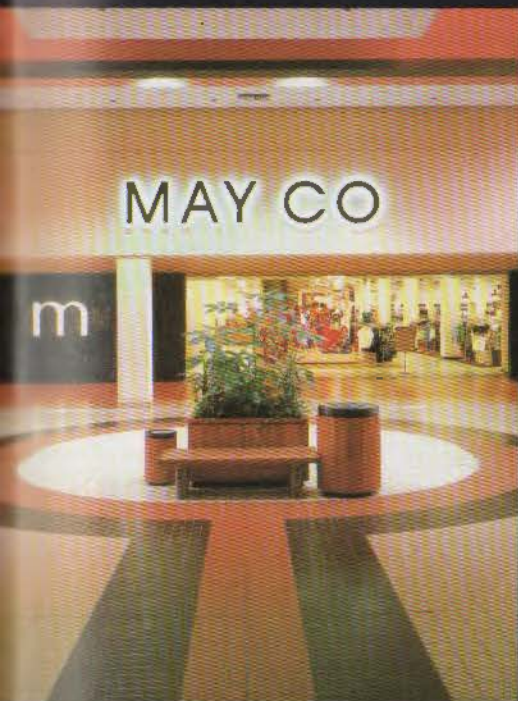
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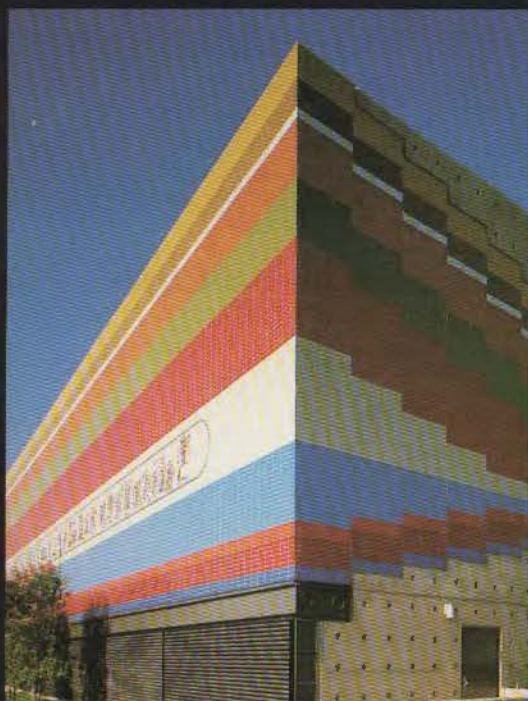
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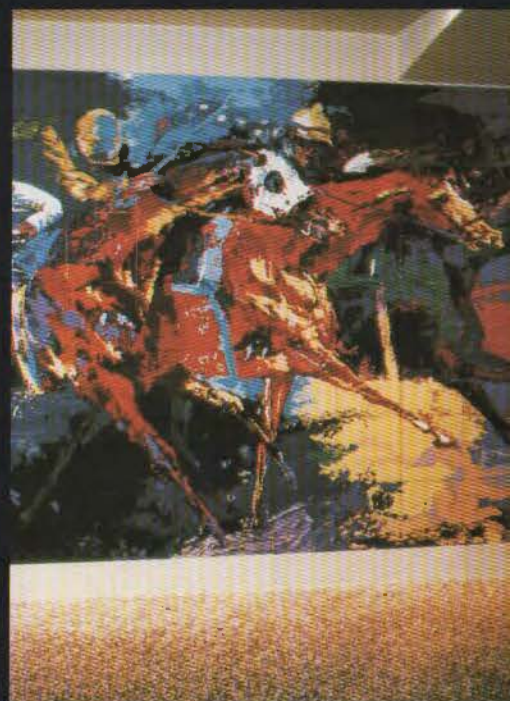
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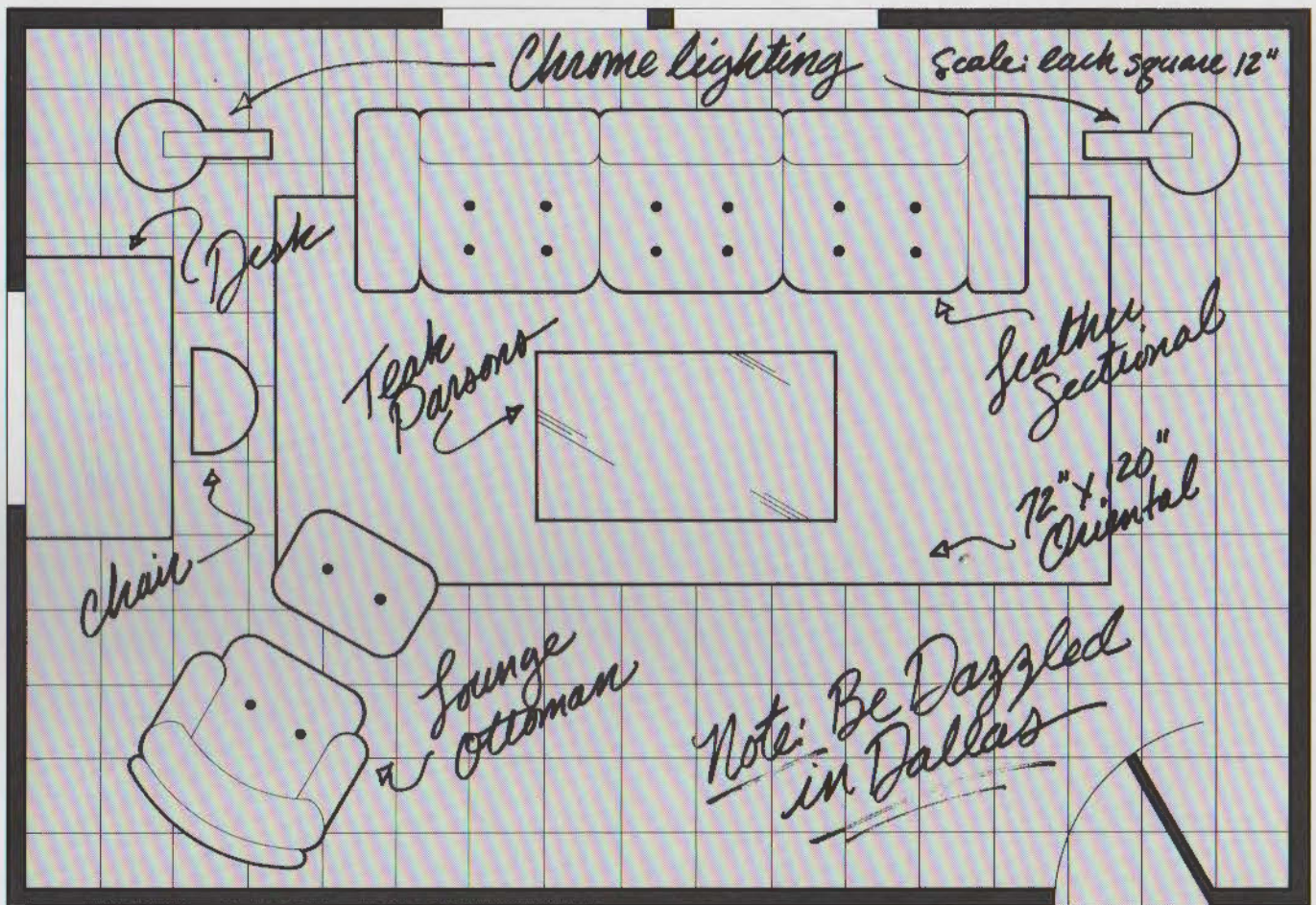
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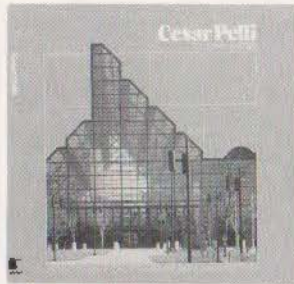


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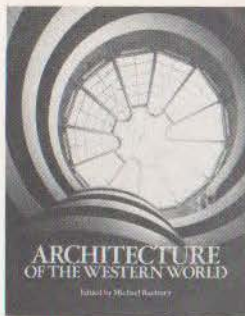
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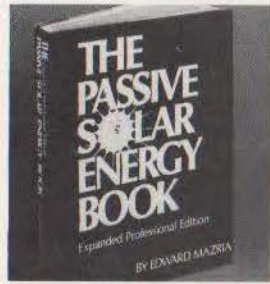


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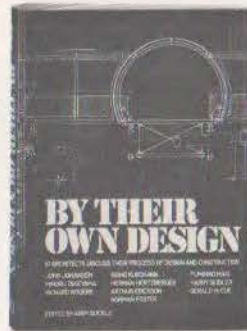
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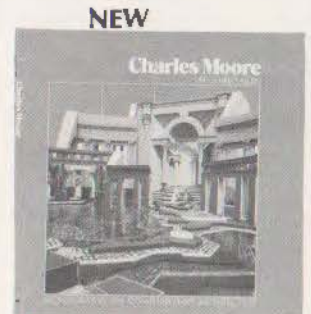
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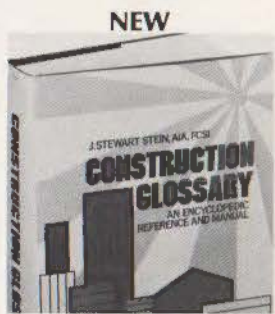
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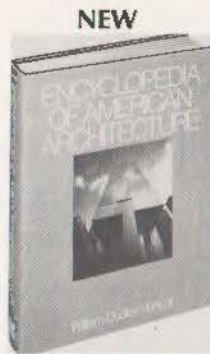
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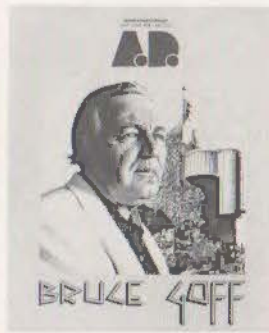
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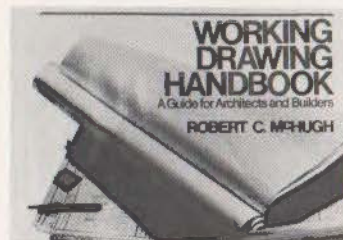
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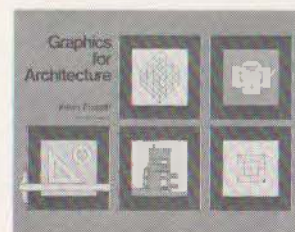
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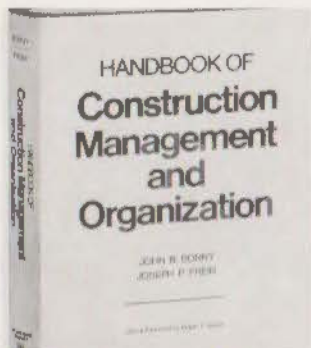


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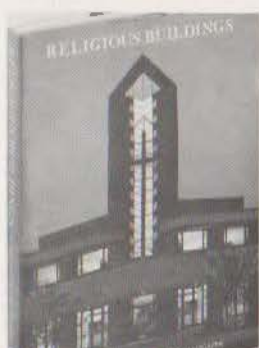


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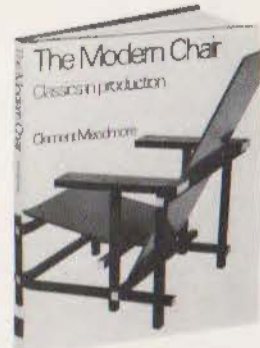
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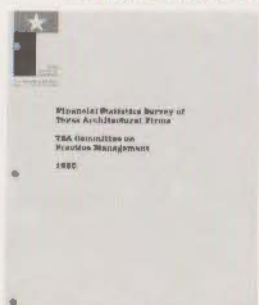
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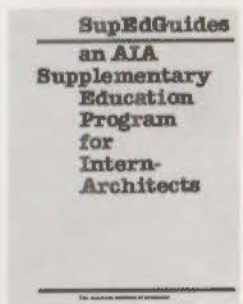
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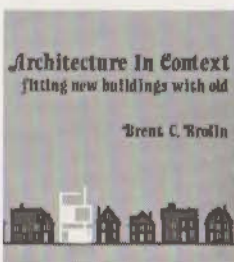
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TSA President Lee Roy Hahnfeld.

Lee Roy Hahnfeld Assumes 1981 TSA Presidency

Fort Worth architect Lee Roy Hahnfeld has assumed the duties of president of the Texas Society of Architects for 1981, succeeding Boone Powell, FAIA, of San Antonio.

Hahnfeld received a Bachelor of Architecture degree from Texas A&M University in 1955 and, after eight years of employment in Fort Worth, established his own practice there in 1963. Hahnfeld Associates, Architects/Planners, Inc., is an eight-person firm whose largest volume of work currently is for financial institutions, school districts and churches.

Intent on following each project personally to its completion, Hahnfeld does not aspire to build a large practice. "I couldn't manage a big firm in the way I would want to," he says. "Even now, it's difficult to give each client and each project the personal attention I think they deserve. There's a certain scale of practice I feel comfortable with; beyond that,

architecture becomes more of a business and less of an art."

The new president takes office in the wake of TSA's successful year-long goals program—TEXAS TOMORROW—and also as the state's 67th Legislative Session is getting under way in Austin. Those two endeavors provide the basis for his primary focus during his one-year term.

Charged with initiating the achievement phase of TSA's goals program, Hahnfeld has appointed a task force to develop immediate priorities for action based on responses to a recent member survey designed to pinpoint the highest priorities in each of the six goals areas—Growth/Resources/Environment, Consumerism and the Profession, Public Policy, The Professional Society, Architectural Education, and The Profession. Heading the task force is Reagan George, Dallas architect and author of "The Professional Society," one of six essays on which the goals program was based.

"TEXAS TOMORROW has been a landmark program," Hahnfeld says, "but the challenge now is to maintain the momentum we've built up and to channel it into tangible results. I'm not saying we can go out and change the world overnight. But without some sort of concerted action—even if it's on a small scale—goals are virtually meaningless."

Having been active on the Texas Architects Committee—TSA's political action arm—since its inception, Hahnfeld is viewed as being particularly well-qualified to lead the Society during this legislative year. He is intensely interested in supporting and strengthening the process by which architects are represented in the legislature. "We have in TAC a highly effective means of communicating our attitudes and opinions on a broad range of social and environmental issues, as well as on those which directly affect the practice of architecture," Hahnfeld says.

"It is important that architects not only support our efforts financially, but that they let TAC—and their legislators—know how they stand on various questions as they emerge." The most controversial issue he sees looming ahead for architects this session involves proposed amendments to the architects registration law. While ostensibly strengthening the language by requiring the seal of an architect for certain categories of buildings, the new legislation also would legitimize the work of currently unregistered building designers by setting forth licensing procedures which would qualify them to perform a specific range of design services.

Regardless of how architects fare in this legislative session, Hahnfeld is optimistic about the long-term well-being of the architectural profession, particularly in Texas and the Sunbelt. "The economic forces in this region are so strong that opportunity appears to be unlimited," he says. "And what I find particularly gratifying is that there seems to be more interest in quality growth. Clients are becoming more sophisticated—less and less convinced that the cheapest way is always the best way."

On the other hand, Hahnfeld bemoans the fact that architects apparently are moving further and further away from being able to make a real impact on the quality of housing. "We architects have virtually abandoned the housing market," he says, "and it's only because we've had to. Added to the high cost of construction, the average individual realistically can't afford the fees we have to charge to design a house. The shame of it is that housing is where most construction occurs. It's what people see the most and what shapes their tastes and attitudes about the built environment. Yet housing is something we influence very little."

An avowed traditionalist, Hahnfeld



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prefers the standard client/architect/contractor form of practice, despite current trends within the profession toward the expansion of architectural services to include such "extras" as construction management. Regarding architects' compensation, he maintains that "anyone with a measure of talent who is willing to work industriously within the free enterprise system can be fairly compensated. I am disturbed, however, by the fact that it takes many years before our young interns can say their architectural education has payed off monetarily. But of course the rewards of practice go far beyond financial considerations."

On the subject of TSA/AIA membership, Hahnfeld observes that, "Even from an economic standpoint, participation in one's professional society is invaluable. Through the use of AIA documents alone, I get my dues money back every day. But there are so many other advantages to consider—such things as camaraderie, the exchange of ideas, opportunity for professional development. For me, the decision to participate is an easy one."

While Hahnfeld hopes to see TSA membership increase, another of his priorities is to make each current member feel as if he has more of a voice in Society affairs. "I think it's important," he says, "that we stay in touch with the grassroots level. All members are welcome to attend all of our board meetings and most of our committee meetings. All of our policy decisions are open to their review." In that regard, he sees as symbolic the fact that he and his wife Joan hosted a reception for all attendees at TSA's January board meeting in Fort Worth. "I wanted to establish a precedent from the very beginning of my term," he said. "I've opened my doors, and the doors will remain open, all year long."

—Larry Paul Fuller

RDA to Present Exhibit and Lectures On Philip Johnson

The Rice Design Alliance in Houston, in cooperation with the Museum of Fine Arts and the Anchorage Foundation, will present in February an exhibit of and lecture series on Philip Johnson and his work in Houston between 1950 and 1980.

"Philip Johnson: A Three Decade Retrospective," funded in part by a grant from Gerald D. Hines Interests, will feature drawings, photographs and models of Johnson's Houston work, from the

University of St. Thomas to Pennzoil Place, as well as lectures by Robert A. M. Stern, William Jordy, Vincent Sculley and Johnson himself.

The exhibit of Johnson's work will be held each weekend in February at the Anchorage Foundation Gallery in Houston. Lectures will be presented Feb. 10, 12 and 17 at the Museum of Fine Arts and Feb. 19 at Rice University's Hamman Hall.

For more information, contact the Rice Design Alliance, P.O. Box 1892, Houston 77001. Telephone: (713) 520-8238.

John Chase Receives Presidential Appointment To Commission of Fine Arts



Houston architect John S. Chase, FAIA, was appointed by President Carter last November to serve a four-year term on The Commission of Fine Arts in Washington, D.C., beginning Dec. 9.

The seven-member Commission was established by Congress in 1910 as an independent advisory board of "well qualified judges of the arts" whose primary role is to review proposed designs of Federal and District of Columbia government buildings, parks, monuments and memorials.

As a 1948 graduate of Hampton Institute in Hampton, Va., with a bachelor's degree in architectural engineering, Chase was the first black to enter and graduate from the University of Texas, receiving a master's degree in architecture in 1952. Two years later he established his Houston firm, John S. Chase, Architect, and in 1960 became Texas' first black member of both the AIA and the National Council of Architectural Registration Boards (NCARB). He was named an AIA Fellow in 1977.

Bill Caudill Receives 1980 TSA Pitts Award

Houston architect William W. Caudill, FAIA, received TSA's Llewelyn W. Pitts Award, considered the highest honor the Society can bestow upon one of its members, in ceremonies Nov. 7 during TSA's 41st Annual Meeting in Dallas.

The award was established in 1967 in memory of former TSA President



Bill Caudill receives standing ovation as he approaches podium to accept Pitts Award during TSA annual meeting in Dallas last November.

Llewelyn W. "Skeet" Pitts of Beaumont and is presented for outstanding contributions to the profession of architecture.

Caudill received his bachelor's degree in architecture from Oklahoma State University in 1937 and his master's degree in architecture from the Massachusetts Institute of Technology in 1939. In 1946, following war service in the U.S. Navy, Caudill joined with John Rowlett, Wallie Scott, Jr., and William Peña to form the Houston firm Caudill Rowlett Scott. In the years since, CRS has grown to be one of the leading architectural and engineering firms in the world, winning some 200 design awards in the process as well as the AIA Architectural Firm Award in 1972. Caudill currently serves as CRS Chairman of the Board.

'Texas Solar Realities,' Statewide Conference, To be Held March 16-17

"Texas Solar Realities," a statewide conference on the development of renewable energy resources in Texas, sponsored by the Texas Energy and Natural Resources Advisory Council and the Texas Solar Energy Society, will be held March 16-17 at the Hilton Hotel in Austin.

The conference will address "a full range of renewable resource utilization strategies," according to sponsors. In light of TENRAC's adoption last year of industry-boosting recommendations from its solar advisory committee, as well as the increasing number of projects just now coming on line, those attending the conference will have a lot to see and talk about.

Twenty-eight presentations will focus on such institutional, technical, and case-study developments as financing for solar, biomass, adobe, solar airconditioning, photovoltaic cells and passive solar design. Exhibits also will feature some of the latest in renewable resource technologies.

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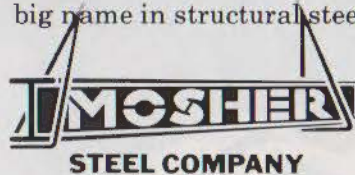
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For more information, contact Russell Smith, Executive Director, Texas Solar Energy Society, 1007 South Congress, #359, Austin 78704. Telephone: (512) 443-2528.

Ed Beran Dies in Taiwan At 56 During Business Trip



Dallas architect Edwin E. Beran, FAIA, a founding principal of the firm Beran & Shelmire, died of a heart attack Nov. 17 in Taipei, Taiwan, during an overseas business trip. He

was 56.

Beran graduated in 1949 from The University of Texas at Austin with a bachelor's degree in architecture. He also was a recipient that year of AIA's Student Medal as an outstanding student of design. In 1958, following a nine-year tenure with the Austin firm Page, Southland, Page, Beran joined with co-worker Overton Shelmire to form the Dallas firm Beran & Shelmire, Architects.

Active in historic preservation, Beran also gained widespread recognition for contemporary architectural design with such projects as the Lakeway World of Tennis near Austin, the Armstrong Cork Co. Glass Container Plant in Waxahachie and the World Trade Center and Loews Anatole hotel in Dallas.

Fort Worth Adopts First High-Rise Fire Code In Wake of MGM-Grand Fire

Following the tragic MGM Grand Hotel fire in Las Vegas last November, the Fort Worth City Council voted to adopt the International Council of Building Officials' 1979 Uniform Building Code, including a locally controversial fire-safety provision for buildings over a certain height.

Fort Worth had been without a high-rise fire code since 1973, when the first high-rise provision appeared in the standard ICBO Uniform Building Code. In 1976 and 1979, when subsequent ICBO codes were up for adoption, a study committee composed mainly of AIA architects and AGC contractors recommended that the high-rise provision be

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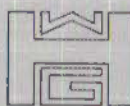





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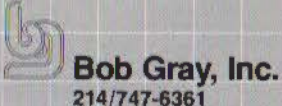

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deleted from the code for being too restrictive. Local sentiment was against hampering the high-rise development of Fort Worth and putting it at a "competitive disadvantage" with Dallas and other booming Texas cities.

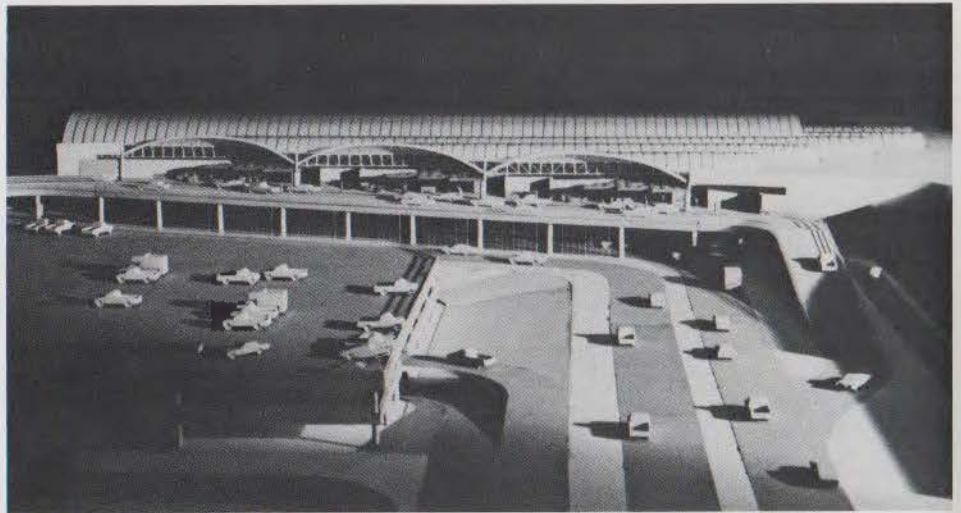
Instead, the study committee recommended a modified high-rise provision, based not only on building height but also on building occupancy over a 24-hour period and its type of use, a provision which would distinguish between office buildings, for example, and high-rise hotels. In favor of this approach were the local AIA chapter, the Building Code Board of Appeals, the local chapter of the Associated General Contractors and the Building Owners and Managers Association. Opposed were the "fire people"—Fire Chief H. L. McMillen, Fire Marshall Donald Peacock—and City Manager Robert Herchert, who favored instead the 1979 UBC as is, which called for sprinkler, smoke-detector, fire-wall and communications systems, among other safeguards, in any building over 75 feet in height.

As it happened, the city council was trying to decide which provision to approve when the MGM Grand burned in Las Vegas. Shortly thereafter, the council approved the '79 UBC with its original high-rise provision intact.

After the Las Vegas fire, says Fort Worth AIA Chapter President Ward Bogard, "the city council was in an emotional state of shock." So were local architects and contractors after the council vote. Bogard says that years of hard work by the UBC study committee went down the drain, local architects "got a black eye" and Fort Worth now has a fire code that will drastically increase the cost of future high-rise construction.

The "first ramification" of the new code, says Bogard, will be an increase in the cost of the \$18 million city/county jail project, now under construction. In strict compliance with the new code, Bogard says, the completed eight-story building will cost an additional \$900,000.

The "black eye" Bogard refers to is the bad press local architects have received for being "opposed" to fire-safety codes in high-rise buildings. Bogard attributes this to local newspapers' not understanding how the architects really stood on the issue, which he says involved a conflict between those who felt the stricter the code the better and those who believed that standard codes should be modified to more appropriately apply to local conditions.



San Antonio International Airport Terminal.

New San Antonio Airport Terminal Cited In Design Award Program

The San Antonio firm The Marmon Mok Partnership, in joint venture with W.E. Simpson Co. of San Antonio and Heery & Heery of Atlanta, has received an award of excellence in design from the South Atlantic Regional Council AIA for the San Antonio Airport Terminal, scheduled to begin construction in late 1981.

Now underway as part of the new terminal complex is a 1,300-car parking garage, to be completed in late 1981. Construction will then begin on the new terminal for American, Braniff, Delta,

Mexicana and Southwest airlines, complete with roadways, aircraft aprons and drainage improvements.

The new terminal, with 13 loading positions, also will include a new Federal Inspection Station for arriving international passengers. A two-level roadway will separate arriving from departing traffic, with ticketing on the second level and baggage claim on the first. Pedestrians will be able to walk from parking to the new terminal without crossing traffic by using a lower level walkway.

Carter Signs Bill To Extend Tax Act Preservation Incentives

Legislation to extend historic preservation incentives contained in the 1976 Tax Reform Act for an additional three years was signed into law Dec. 17 by President Carter.

The bill, HR 6975, introduced by Texas Sen. Lloyd Bentsen, extends the opportunity for the owners of a certified historic structure to use the same accelerated methods of depreciation available to owners of newly constructed buildings, which amount to significant tax deductions.

It also extends the use of amortization of rehabilitation costs over five years rather than over the remaining life of the structure. In the original act, these provisions were to expire on June 15, 1981.

Cost disincentives in the 1976 act for altering or demolishing historic buildings also have been extended. The same accelerated methods of depreciation allowed for owners of historic structures are prohibited for any new building erected

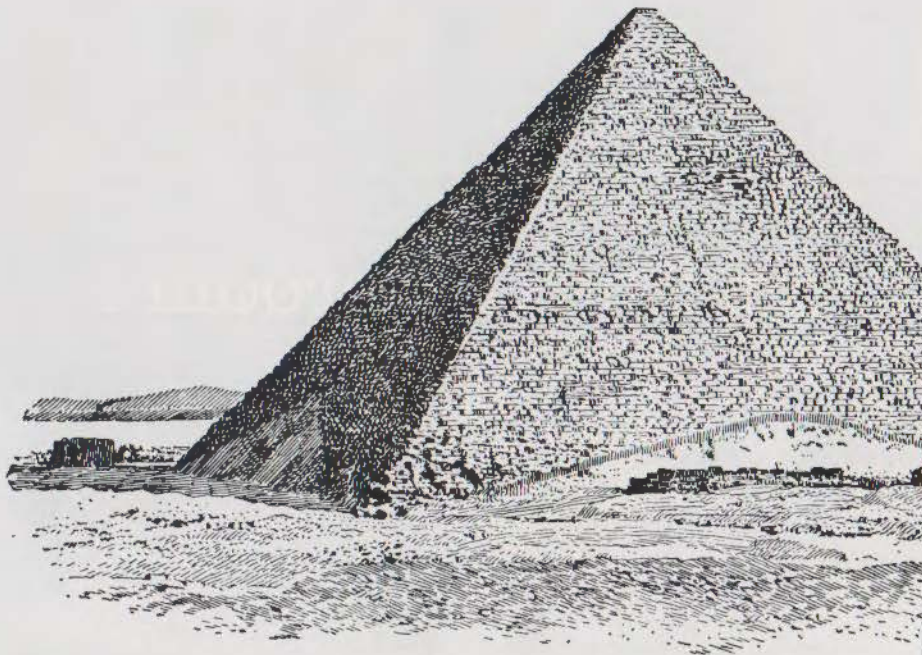
on a site where a certified historic structure has been razed or substantially altered in a manner "inconsistent with the preservation of the historic character of the structure."

In addition, the cost of demolishing a historic structure must be capitalized and added to the value of the land on which the structure was located.

According to the *AIA Journal*, the Department of Interior's Heritage Conservation and Recreation Service has, as of September 1980, approved 1,800 rehabilitation projects valued at more than \$875 million. Since 1976, some 35 to 40 million dollars' worth of preservation projects in Texas have been stimulated by these tax incentives, according to Truitt Latimer, executive director of the Texas State Historical Commission.

—Ray Chalmers

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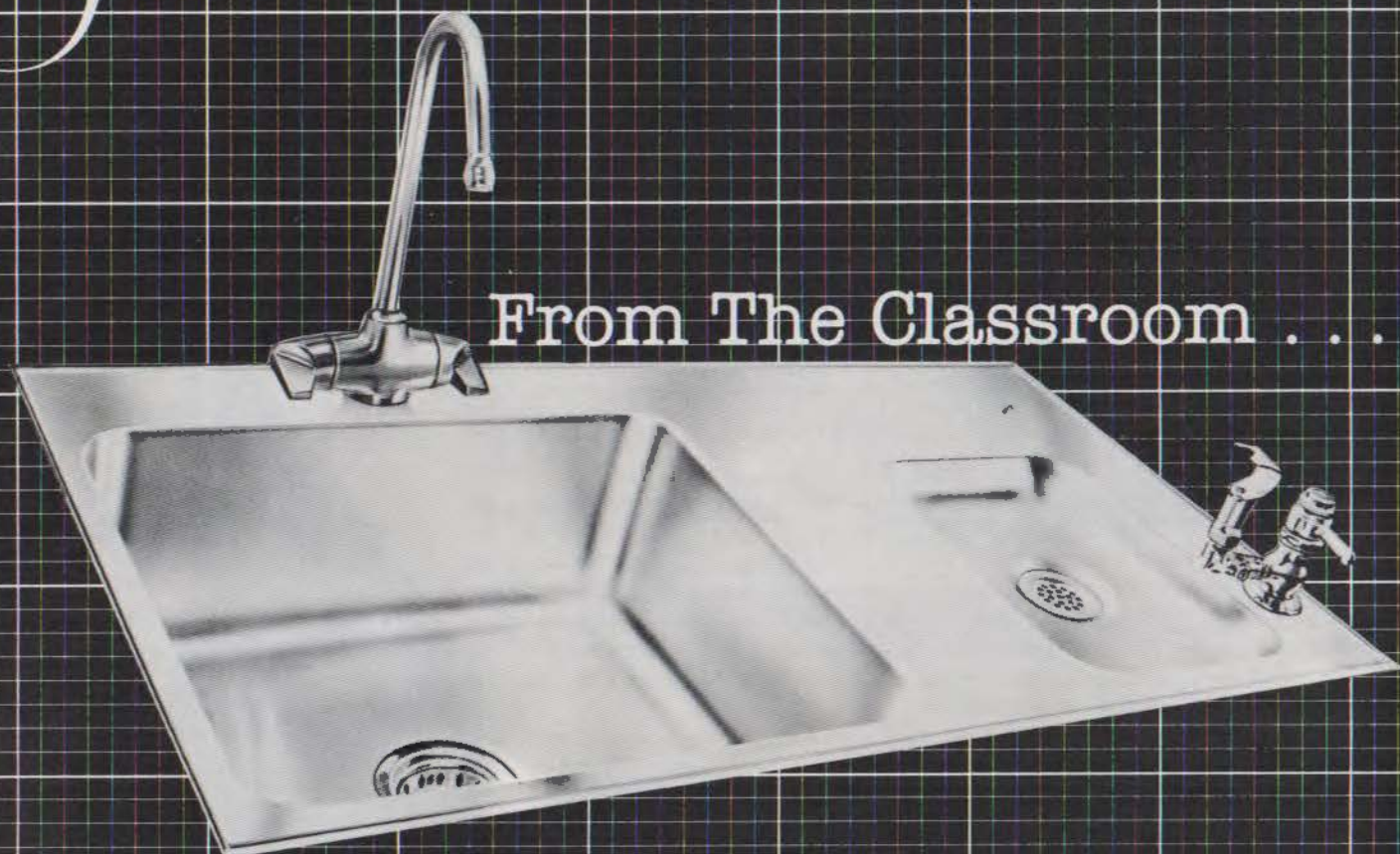


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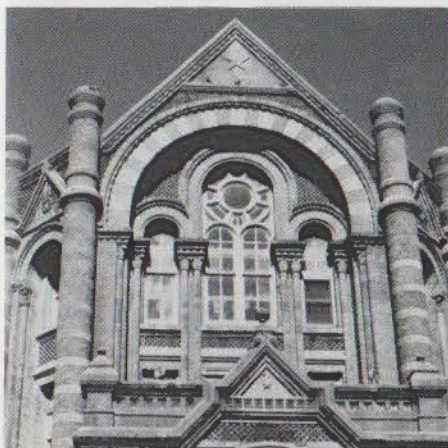
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About this Issue

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Our aim in this issue on “building materials” is not to document the latest trends in plastics and polymers or in improved technologies or in exotic new uses. Nor is it to analyze market conditions and prospects for availability, or to suggest rational choices in response to global awareness of limits to growth. Rather, we have focused on four familiar construction components—wood, brick, precast concrete, metal-and-glass—as a format for presenting recent work by four Texas firms, each renowned, to some extent, for accomplishment in one of these four media.

We were not altogether surprised, in preparing this issue, to find architects reluctant to acknowledge a predilection for a particular building material, even when their work had been heavily concentrated within one medium. Aside from the limitations on one’s practice such a stereotype would impose, there is a basic artistic premise at stake: any creative act best begins with a full range of possibilities. The creation is completed through a continuing process of what architect William Hubbard refers to as “deciding what to do and what not to do” in the face of an infinite number of possibilities at any given moment. Thus, while numerous considerations begin immediately to restrict the range of choices, it is preferable to start with nothing less than a full palette of materials from which to choose. The objective, in popular terminology, is the selection of “appropriate” materials—as structure, as finishes or as a combination of both.

Determining appropriateness is of course a highly subjective and involved process which nevertheless includes certain basic criteria which should be mentioned: *structural capacities*—tensile and compressive strength; *practical considerations*—cost, durability, thermal behavior, maintenance, availability, labor-intensity, energy-intensity; *aesthetic and sensory appeal*—color, timbre, texture, odor, shape, scale, mass, transparency, hardness, softness, coldness, warmth; as well as *cultural significance* and *contextual compatibility*. While all of these factors are important, one in particular—cost—warrants further elaboration here.

Except in the case of “prestige” buildings backed by inflated budgets, economic realities are placing increasingly strict limitations on architects’ use of the noble, high-quality natural materials that are so much a part of traditional architecture. Out of necessity, the trend is toward ever-cheaper means of enclosing space to keep new construction financially feasible. This economic bind has garnered varying responses. One manifestation is the continuing interest in preservation and restoration as ways to enjoy otherwise unattainable levels of quality in materials and craftsmanship—a mahogany stair, a hand-carved door.

Another response has come in the form of modified sensibilities, as in the Hi-Tech movement, which glorified the industrial aesthetic, or as in the work of Frank Gehry and others, in which common, inexpensive materials are vested with new uses and therefore higher levels of acceptability.

Still a third response has been the Postmodern attempt to recall the magnificence of classical architecture through historical allusion, implemented primarily in shape and color. Hence we find a grand corbelled arch recalled in the form of a punched opening in stuccoed sheetrock. Or we are asked to “think terra cotta” when viewing painted wallboard. But clever allusion is not necessarily clever illusion. The problem comes in calling on painted stucco to convey the heft of stone, the gleam of brass, the cool smoothness of marble. Perhaps this is the best we can do, but hollow flimsiness somehow falls short; it lacks the ring of truth.

—Larry Paul Fuller

Charles Tapley Keeps in Touch with the Most Touchable of Materials

By Michael McCullar

As the Eskimo puts every part of the harpooned whale to good use, modern man takes maximum advantage of the harvested tree. Nothing goes to waste. The core of the sawlog, from whence the growth rings of alternating spring- and summerwood radiate to indicate the tree's age (more or less), is used for heavy timber. The outer layers, with fewer voids and knots, are sawn into clear lumber. And the rounded sides, unsuitable as lumber, are chipped into smaller pieces for the pulp mill. Even the bark is used for fuel and mulch, the sawdust for particle-board.

In this advanced age of glass, steel, concrete and plastic, man still remains in touch with wood and its byproducts. And wood remains one of the most *touchable* of materials, says Houston architect Charles Tapley, FAIA, of Charles Tapley Associates, a firm that has gained widespread recognition for its work in wood. Its architectural value "comes from its tactile attractiveness," Tapley says. "Wood has what most people feel is a warmth. It is lovely to touch. Some woods, in fact, *improve* with touch." Tapley is quick to add that wood is a very fine structural material as well, "for which we have a very long history of examples to draw from."

Indeed, wood and building go way back. Paleolithic man used branches to form a framework for his huts of interwoven thatch and mud. Neolithic man used split timber. And as early as 900 B.C., log cabins built of interlocking logs, like 19th century pioneer cabins in East Texas, were constructed in Central Europe. All the way until the late 19th century, in fact, with the advent of structural steel, wood was the only material that could be used to form flexible and strong building framework.

Although wood has continued to the present day to be a structural mainstay

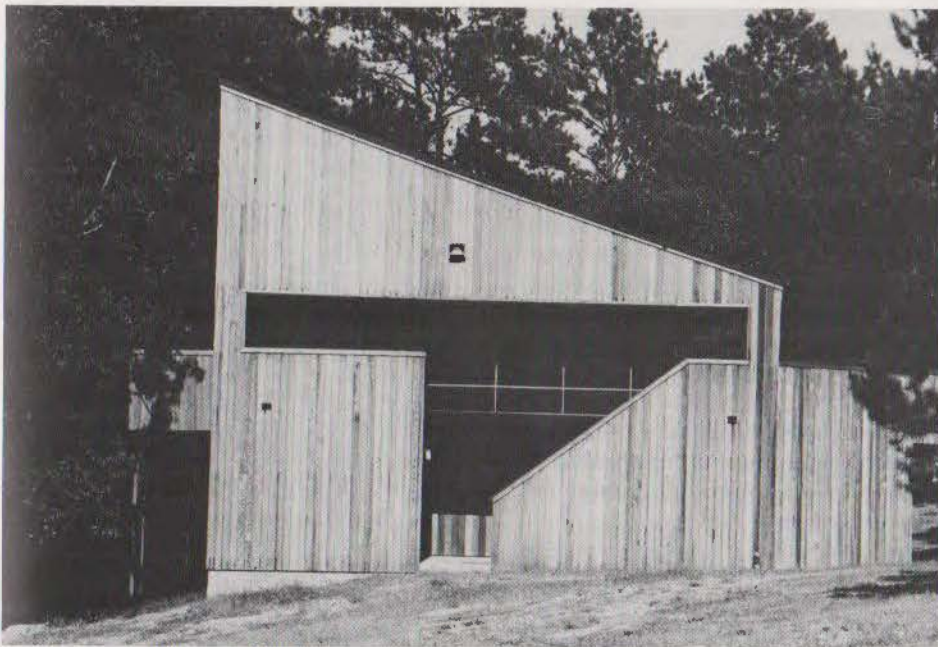
Photos by Gerald Moorhead, unless otherwise indicated.



Camp Allen Conference Center interior.



Camp Allen Conference Center.



Conference Center guest housing.

for residential construction, it has come to be more of an ornamental accessory for larger building types. Charles Tapley Associates, however, has designed a number of institutional as well as residential buildings in Texas in recent years that have featured wood as both a primary structural and finish material.

The award-winning Camp Allen Episcopal Conference Center in East Texas, for example, projects a regional imagery with building forms recalling the simple geometry and rustic materials of rural Texas barns and sheds. Among 30 struc-

tures on half of the 700-acre Piney Woods site, the conference center, cabins and assembly buildings feature exposed pine rafters, joists and trusses inside, with exteriors of cedar siding and floors of oak or pine. Tapley says that exposing the structural frame work inside is a simple way to give some indication of the wood structure itself and to enhance the feeling of spatial height, dimension and scale. The conference center and assembly buildings also include pine tables and benches.

After a while, however, architects "got

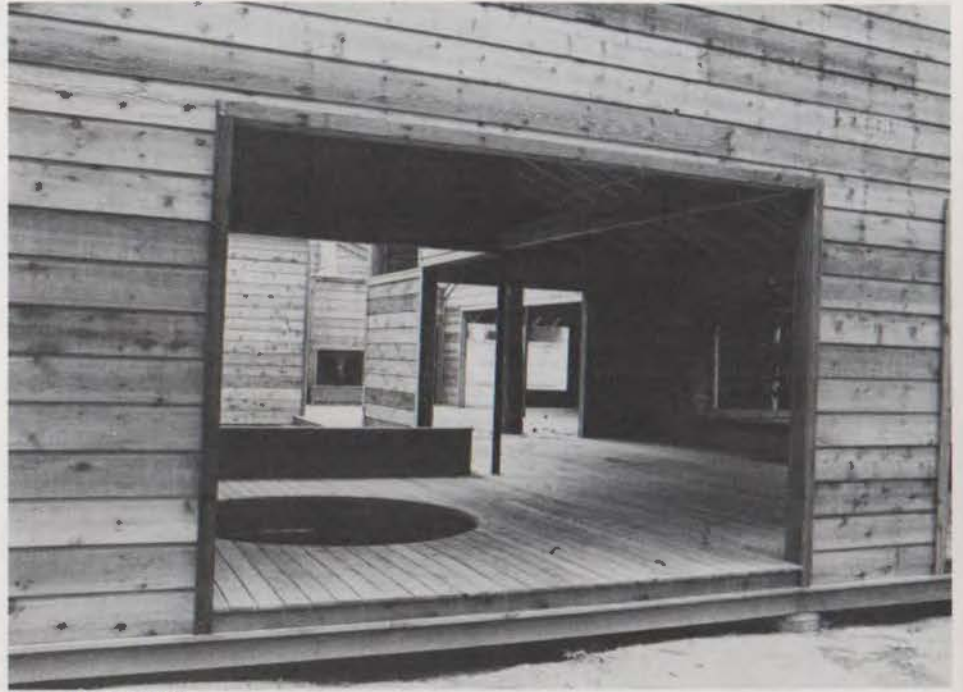
tired of looking at all that wood," Tapley says. So they splashed all the doors with primary colors to serve as a contrasting accent. The conference center's composition roof also features a dramatic color pattern of red, green and white stripes. All other roofs are of galvanized metal, which Tapley associate Gerald Moorhead points out creates its own various colors as it reflects the sky and surrounding foliage.

Wood served a monumental as well as structural and superficial purpose with Tapley's Block residence in Houston. A "triumphant" entry arch established a dialogue with the street and adjacent colonial houses. Inside, the house is organized to "touch and nurture a personal cord in the client's life." The pine-frame house, clad in redwood, features oak as well as carpeted flooring and natural-finish birch plywood cabinetry.

And three recent church projects in Houston feature an exposed structure of wood on the inside with exteriors of masonry veneer. With one of the churches, however, the choice of wood for the framework was not made by the architects, who in fact were "pushing steel." Clients for the St. Thomas Aquinas Catholic Church were delighted to find out that wood frame was less expensive than steel, Tapley says. "They also preferred wood because of the personal association that goes with a wood structure; it gives a more comfortable feeling." On another of the church projects, an addi-



Bathhouse interior.



Assembly Building.

tion to Christ the King Lutheran, architects specified wood frame that would consist of laminated trusses, curved braces and hammer-beams bearing on four central columns to recall the Normanesque, proto-Gothic style of the existing church.

Tapley's favorite woods for structure or finish are Southern yellow pine from East Texas, cedar, redwood and fir from the Pacific Northwest and cypress from Louisiana. Redwood, cedar and cypress have a certain built-in "self-protection," Tapley says, which makes them more "resistant to the swamp" of Southeast Texas. So-called cedar—actually a western juniper common to the Texas Hill Country—has an enduring fragrance that Tapley considers one of wood's finest qualities. And he likes Southern yellow pine, East Texas' major cash crop, because it is still moderately priced, readily available and good for both structural and finish work.

Southern yellow pine is indeed a remarkable building material, according to the Texas Forest Service. Tests have shown that yellow pine (actually the milled product of four regional pinetrees—loblolly, slash, longleaf and shortleaf) has the strongest nail and bolt-holding power of all building woods (among others: fir, spruce, cedar, hemlock, redwood) and is actually stronger, pound for pound, than cold-rolled steel. Moreover, a one-inch thick wall of kiln-dried, pre-shrunk yellow pine provides the same thermal insulation as five to six inches of brick or 12 to 15 inches of concrete (due

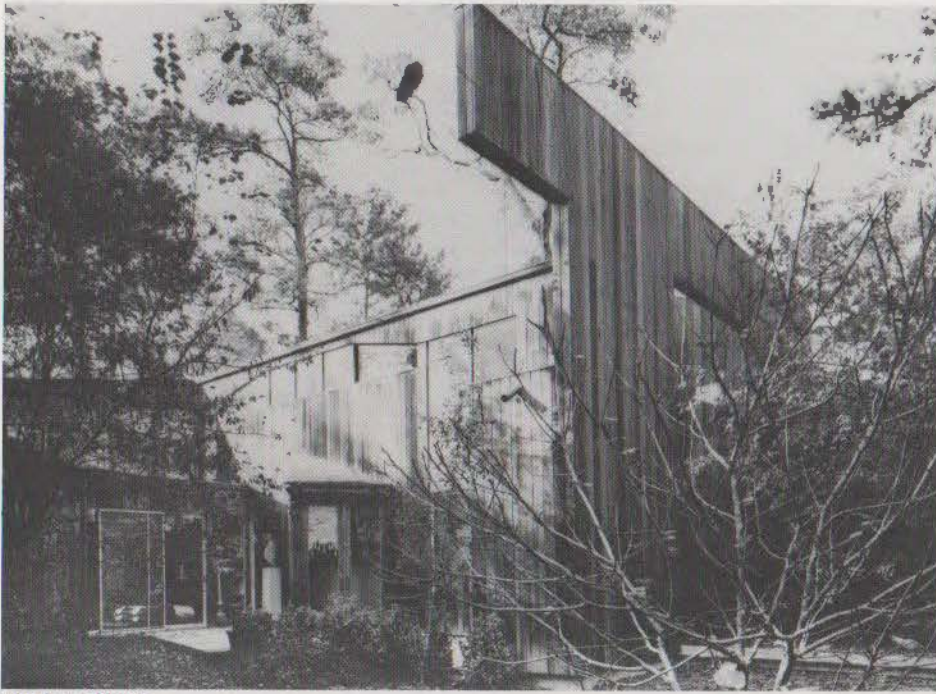
to the dead-air space in the cell cavities of dried wood, according to the Texas Forest Service).

Unlike brick and concrete, however, Southern yellow pine will burn, along with any other building wood. Devastating apartment fires in Houston in the summer of 1979 were attributed to cedar shingles, for example, which have been virtually eliminated from the Texas market by the wave of local building code restrictions that followed swiftly across the state. According to the Texas Forest Service lab in Lufkin, however, the current development of effective fire retardants "looks good." Forest Service researchers also point out that heavy timbers of a certain thickness (at least four inches) will endure fire better than steel. While steel weakens with intense heat, a heavy wood beam will protect itself with a one-inch outer layer of charcoal. Architects must also be aware of wood's "orthotropic" characteristic, which is a mixed blessing. Due to the various orientations of its fibrous cells, wood has three directions of grain, each with a unique aesthetic appeal yet also with varying levels of strength and elasticity.

Aware of wood's peculiarities, Tapley is a careful specifier, often asking the contractor to furnish samples before any wood is purchased, against which the final delivery will be judged. Depending on the size of the project, Tapley will try to obtain wood without so much as a mill mark, which he will go and pick out

himself. "We will either work off the samples or go see it." As far as supply is concerned, Tapley says "it hasn't really been a problem, but I think it could be."

The Texas Forest Service agrees. National lumber production was estimated to be 37.5 million board feet in 1979, according to TFS figures, three percent of which came from the piney woods of East Texas, the eastern edge of a Southern timber-belt extending all the way to Virginia. The industry predicts that this Southern timber belt, a veritable "woodbasket," according to the Southern Forest Products Association, will provide an increasingly greater share of the nation's lumber in the 1980s. This is due largely to the fact that most of the commercial timberland in the South is privately owned and unfettered by the "burdensome use regulations" that plague—in the industry's eyes—publicly owned lands in the west. Demand, however, may very well outstrip supply. Nineteen Seventy-Nine was the first year in the history of the Texas lumber industry that harvest of pine exceeded growth. New ways of producing plywood from veneer logs were responsible in part for this growth/harvest deficit, as was the fact that of nine acres harvested, on the average, only one acre was replanted. Even though private landowners in Texas, who own 63 percent of the state's commercial forests, are less strict than the federal government about regulating timber harvests, they also are less interested in the long-



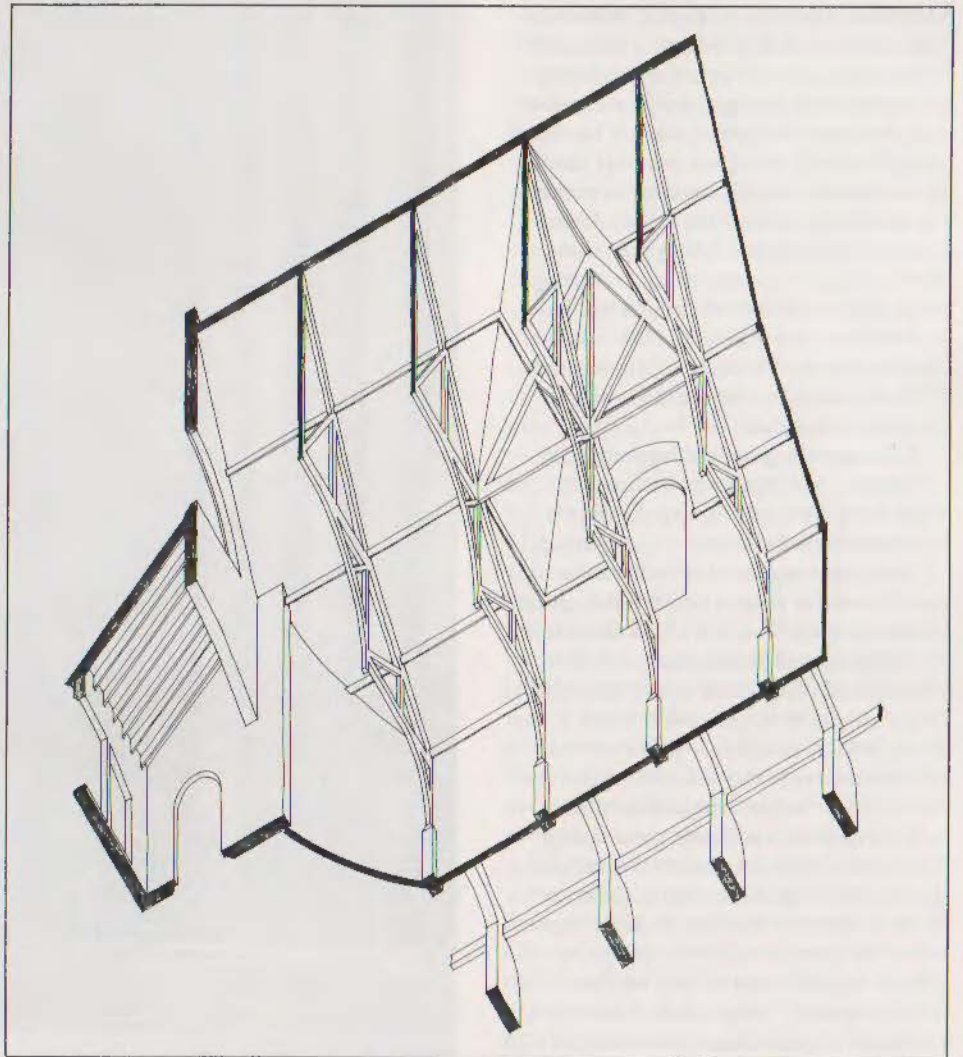
Block residence.



Block residence kitchen.

term investment of replanting. "With consumer demands for housing and overall wood products expected to steadily increase," says the Texas Forest Service in a 1979 study, "outlook for this pattern looks bleak. Unless steps are taken to improve upon the timber supply in Texas, future shortages are imminent."^{*}

Meanwhile, Charles Tapley Associates is using wood only when it emerges on its own as the most appropriate material for the project, never forcefully. "There is no strong predisposition to impose wood on a job," says Moorhead. Nevertheless, they do like the material for certain inherent qualities, not the least of which are its cost-effectiveness as a structural material and its warmth and tactility as a finish material. And Moorhead appreciates a certain "slick, fitted craftsmanship" in buildings made well of wood that makes them look and feel "almost like good furniture."



Truss system in Christ the King Lutheran Church.

^{*} Since 1979, according to the Texas Forest Service, steps have been taken to increase the productivity of private, non-industrial timberland in Texas, mainly through industry subsidies for private landowners.

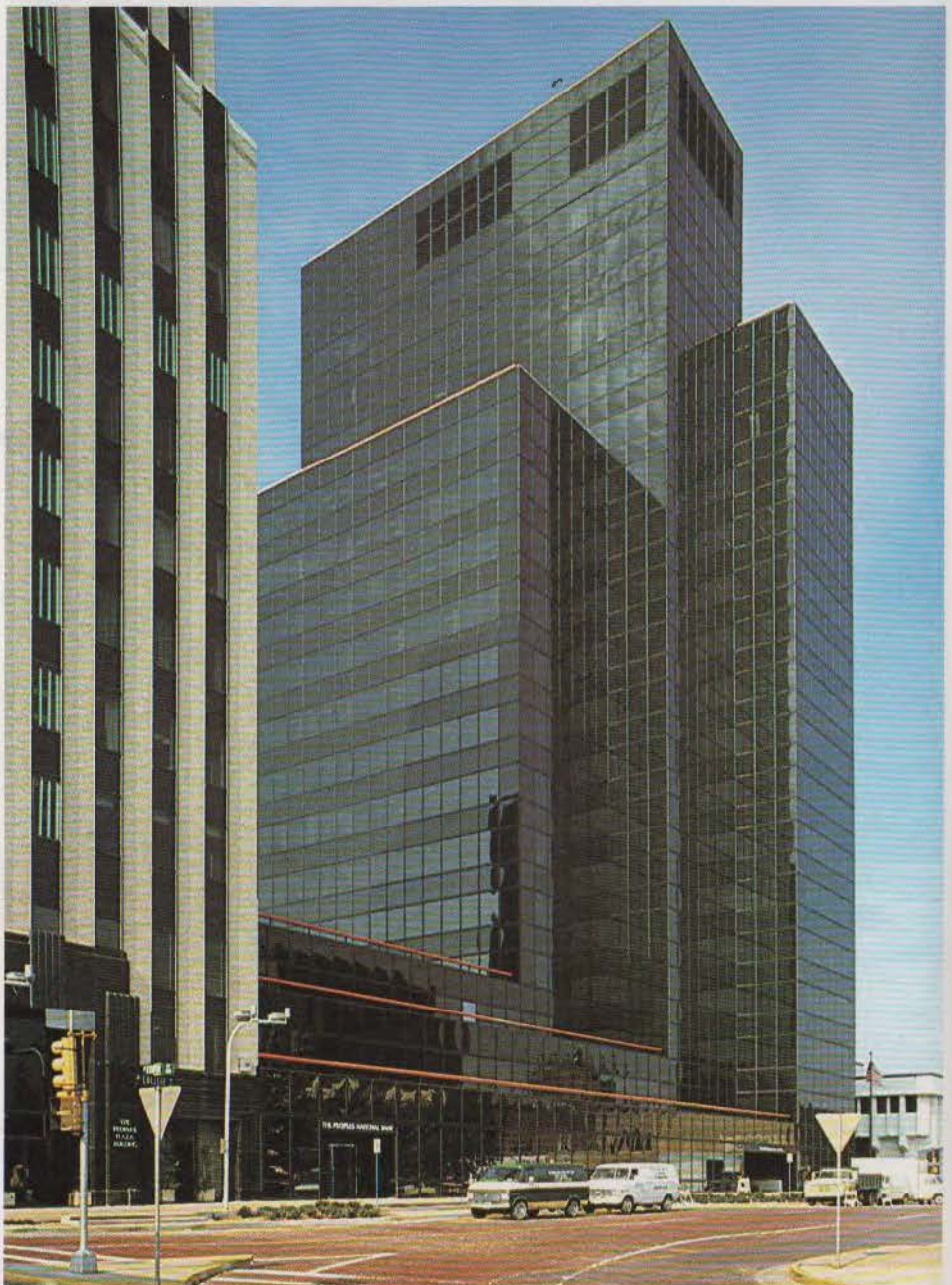
Metal and Glass

With Recent Examples by 3D/International

By Larry Paul Fuller

With the commercial building boom which followed World War II began the proliferation of that most ubiquitous component of the American skyline—the metal and glass curtain wall. During the past 25 years, literally hundreds of buildings have been produced in that architectural genre by the Houston firm 3D/International, which until 1972 was known as Neuhaus + Taylor. While the firm always has drawn from a full palette of materials, and though it resists being associated with a single design methodology, the sheer volume of work it has completed in metal and glass for large corporate clients and big developers makes the stereotype difficult to avoid. And of course there was that rather notorious three-page glass company ad, featuring some of the firm's work, which hit the architectural press in 1975. The bold headline read: "Neuhaus + Taylor and PPG. And the one beautiful glass that brought us together."

3D/I and the glass industry are still "together," as this selection of recent work illustrates, but firm spokesmen point out there definitely is no marriage. "There's no question that in absolute numbers we've done a lot of buildings in metal and glass," says William Bonham, 3D/I director of architecture. "And we're proud of what we've accomplished in that medium. On the other hand, I would hasten to add that we've done a lot that are *not* metal and glass solutions. And even if the percentage is less than half, it represents a sizable production. That's something we wouldn't want people to ignore when they think about us." In fact, although Bonham feels the metal and glass curtain wall "will always be with us and will evolve even further technologically," he predicts that—for a variety of reasons to be discussed—3D/I will find itself choosing that design alternative less often in the future. It is



Peoples Plaza, Tyler, newly-opened expansion of the adjacent bank, faceted to relate to the original tower. Sheathed with bronze reflective dual-glazed vision areas and insulated bronze opaque glass.



LEFT: Alfa Industries Division office building, Monterrey, to be completed this year. Horizontal banding and massing of reflective glass and aluminum panels express the dynamic lateral movement of surrounding site conditions. BELOW LEFT: Natural Gas Pipeline Co. Tower, Houston, for Gerald D. Hines as part of his Lake on Post Oak development. Sheathed in bronze glass and aluminum. Column-free corner offices overlook lakes below.



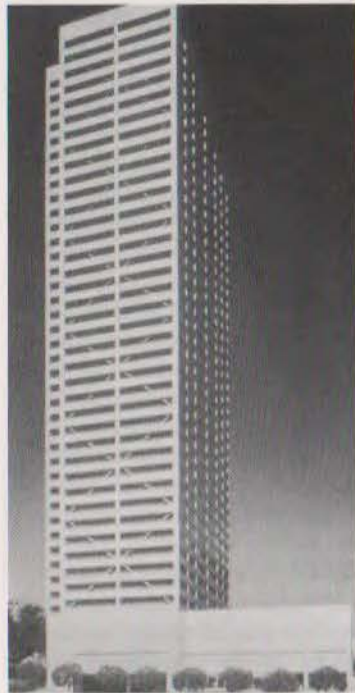
becoming increasingly important to remember that, as Director of Architectural Design Marcus Tucker puts it, "There's more than one way to skin a building."

But it is not difficult to understand the widespread popularity of metal and glass buildings, particularly when considered in their historical context as products of the Modern Movement. Prior to the mid-19th century, the weight of solid masonry construction utilizing conventional load-bearing walls had imposed limits on the height of buildings. But with the development of the steel frame structure—which requires no load-bearing walls—and with the invention of the elevator, safe and economical high-rise structures became feasible.

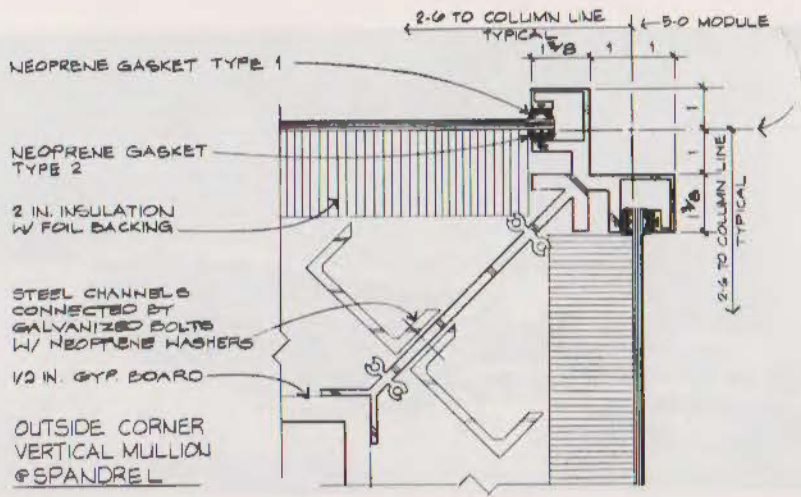
Strong taste for the Revival styles in the early 1900s caused many tall steel-frame structures to be sheathed in cloaks of masonry, but metal and glass—premier materials of the International style—later emerged as the logical and accepted components of the ideal skin for tall buildings. As conceived by Gropius, Mies and other pioneers of the Modern Movement, the skin was a transparent hanging membrane—quite distinct from the structural "bones"—which kept the weather out while vividly revealing the interior volume of space and the activity within through a medium which was itself alive with light and drama. (The ideal was to have the structural columns occur behind the glass wall so as to achieve a total separation between skin and bones, with both still visible. But in some schemes, as in most of Mies' work, the structural frame was revealed on the exterior of the building, either at the surface of the wall or projecting in front of it. Later, with the development of mirror glass, the compulsion to reveal the structure subsided somewhat.)

Glass fit neatly into the machine

RIGHT AND FACING PAGE: Curtain wall details for Peoples Plaza, Tyler. BELOW: Seafirst Fifth Avenue Plaza office tower and data processing center, Seattle, for Seattle First National Bank and Gerald D. Hines, to be completed in September. Clad in 1/8-inch aluminum sheets coated with metallicized Kynar fluoropolymer finish and grey tinted glass. Diagonal cross-bracing of the structural frame is visible through the glass.



ABOVE: Design for Brookhollow Central III, Houston, developed by PIC Realty Corp. and scheduled for completion in August. Judged as the best example of energy-conscious design in the third annual energy management competition of the Houston Chapter of ASHRAE. Uses high-performance coated glass and panels of mineral asbestos, instead of aluminum. Average wall has thermal U-value of .30.



aesthetic of the 1930s. It was a lightweight, clean material which was impervious to the elements and which retained its "newness" indefinitely. It served the functional capacity of admitting natural light and was adaptable to emerging construction technologies and modular systems. As Frank Lloyd Wright once observed, "Tradition did not leave any orders concerning glass. It is strictly modern."

Gropius had utilized the metal and glass curtain wall in his Fagus Factory by 1913 and his Dessau Bauhaus of 1926. But it was the American work of Mies—including his Lake Shore Drive Apartment towers in Chicago (1951) and, with Philip Johnson, his Seagram Building in New York (1958)—as well as SOM's Lever House in New York (1952), which served as models for innumerable skyscrapers in the postwar boom years and the decades to come. The skin-and-bones architecture was made feasible by advances in glass technology, as well as better metallurgy, improved fabrication techniques and effective heating and cooling systems. A major innovation was the development of tinted glass—such as the green-blue used in Lever House—in which small amounts of metallic oxides are added to the basic soda-lime-silicate glass formula to reduce light transmission and increase heat absorption. (As the glass becomes warm, it reradiates the heat, only part of which is directed indoors.)

The next advance, in the late 1950s and early 1960s, was the insulating window—two pieces of glass with a dry air space between them—which was developed to control solar heat gain and glare in summer and to reduce heat loss in winter. And then in the mid-1960s came a whole new generation of curtain wall materials—reflective glasses—achieved by coating clear and tinted

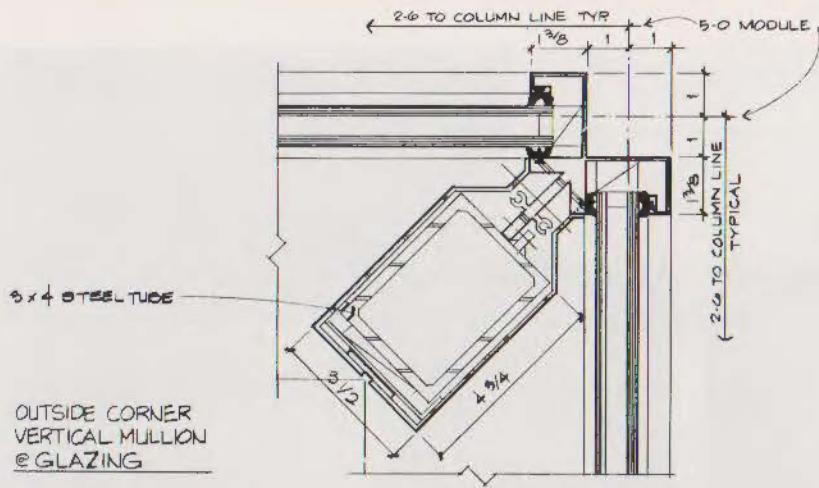
glasses with thin, transparent metallic or metallic oxide films which form a mirror-like surface intended to "shrug off" the heat of the sun. Reflective glass comes in now-familiar shades of gray, bronze, green and gold and is the most energy-efficient of all glasses, particularly when installed as a two-pane unit.

Aesthetically, these mirrored surfaces are touted because of their uniformity; in daytime, draperies and window clutter do not show through the monolithic facades. In addition, structures of reflective glass have been designed to serve as "background" buildings whose mass is said to be minimized as they reflect the surroundings to which they defer. A classic example is the John Hancock Tower in Boston's Copley Square, designed by Henry Cobb of I.M. Pei's office and completed in 1975, in which the mirror glass—now that initial installation problems have been overcome—reduces the obtrusiveness of the mass and acknowledges the presence of the historic Trinity Church.

The aesthetic appeal of buildings done in metal and glass long has been a matter of critical debate, although virtually everyone agrees that there are both very good and very bad examples. But, as the 3D/I experience affirms, there are several practical considerations which seem to be working against a continuing proliferation of the metal and glass curtain wall.

Energy

An obvious factor—but apparently not the most significant one—is energy conservation. During the last decade, glass buildings have come under intense scrutiny as energy guzzlers. It is generally accepted that an all-glass building (with floor-to-ceiling vision area in the curtain wall) is more energy-intensive than one with a more traditional use of glazing, regardless of location. But the energy per-



BELOW: TownCenter phase II, Southfield, Michigan, for PIC Realty Corp., designed to complement phase I tower in foreground. Gold insulating glass occupies approximately 35 percent of the surface area. A bold accent stripe, laid into a recess within the metal panels, wraps horizontally around each floor.

formance of certain kinds of metal and glass curtain walls can be impressive. "I don't think it is fair to say that the pressure away from metal and glass is because of low energy efficiency," says Russell Laird, 3D/I's director of engineering. "If you pay the premium, you can get just about the same protection with a metal and glass approach as you can with the others." He maintains that comparisons with other wall options reveal that "we can achieve similar U-values as long as we maintain the same percentage of glass."

The trend, then, is toward more metal and less glass, with about 35% vision area considered optimum. "We're continually cutting down on the percentage of glass used," says Marc Tucker. "Each building has a little bit less exposed to the solar gain. You're going to see that as a trend, along with more compositional variation from one facade to the next on the same building."

Once the percentage of glass is severely reduced, however, the most compelling advantages of the window wall are diluted. The wide open views from within—which constitute a strong selling point for lease space—are made less dramatic. As less sunlight enters the building, the much-touted reduction in cost for artificial lighting is negated. And generally speaking, as the percentage of metal goes up, so does the cost of the curtain wall.

Cost

The bottom line is that, with high performance glass used in relatively small proportions and assembled so as to achieve low infiltration levels, the metal and glass curtain wall can be energy-efficient. But the cost for such quality is becoming a serious drawback. "We see a trend which makes it clear that, unless you have a premium budget, the metal and glass curtainwall solution simply is not viable," Tucker says. "Whereas econ-

omy used to be one of its advantages, the price has gone up to the point that it is now one of the most expensive ways to skin a building."

Part of the high cost undoubtedly has been due to high demand; prices have escalated as a normal function of the marketplace. But, to some extent, the glass industry is becoming a victim of its own success. Premium prices and slow deliveries are making developers—primary curtain wall users—increasingly wary. And, perhaps equally significant, a shift to the use of traditional materials might be the only way to satisfy certain clients looking for "something different" in a building. "If a client wants something really unique," Tucker says, "there's a limit to what you can accomplish through unusual geometry in a metal and glass curtain wall. The skyline is already full of variations on the same theme."

If indeed there is a shift away from the metal and glass building, part of its legacy will be the technological advances which have accompanied its development. William Bonham observes that "We have a sophisticated curtain wall technology which will assert itself in the reevaluation and reuse of what are known as traditional materials." Another aspect of that legacy will be what Bonham considers to be a positive impact on the aesthetic appeal of the urban setting: "As a pure architectural experience, one of the most pleasant things I can think of right now in December of 1980 is to sit in my office on the West Loop and look at downtown Houston at various times of the day and observe the play of the sun on the great variety of curtain walls throughout that vista. The whole is a very interesting piece of kinetic sculpture that I find quite exciting."



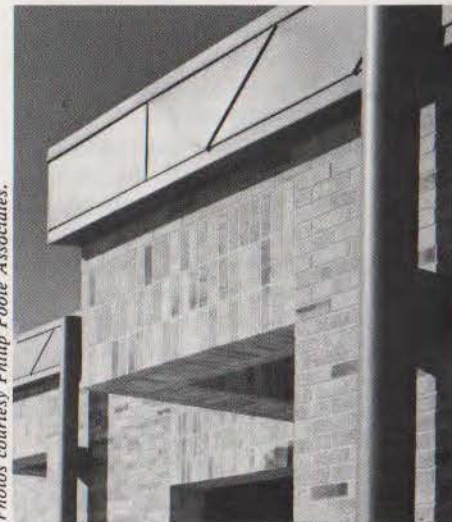
ABOVE: City Center, Fort Worth, for Bass Brothers Enterprises, Inc., by 3D/I in association with Paul Rudolph, the design architect. Includes 35- and 40-story office towers scheduled for completion in 1983. Sheathed in clear glass with reflective coating. Unique corner offices extend beyond the basically square outline in pinwheel fashion, providing windows on three sides in some offices. Metal-clad column clusters extend five to seven stories above ground.

Pratt, Box & Henderson Enhance it by 'Artificial Means'

By Michael McCullar



Details of glazed and plain walls at Brookhaven College.



Photos courtesy, Philip Poole Associates.

It doesn't burn, rot, corrode, dent, peel or warp, as long as it is sufficiently fired. Nor can it be eaten by termites, as industry brochures are quick to point out, and it never needs painting. And it is of the earth, each 3 $\frac{5}{8}$ inch by 2 $\frac{1}{4}$ inch by 7 $\frac{5}{8}$ inch modular brick a composite sampling of surface clays, shales, sands and silts, complete with various impurities. Vegetable matter, for one, will create deposits of carbon in the brick as it is fired, and gypsum may cause cracks in the brick's face. But all-important texture and color are enhanced in part by iron oxide impurities in the clay.

The burnt brick, perfected by Roman builders 2,000 years ago, still appeals to the modern architect, on whom the irony of beauty from imperfection is certainly not lost. More and more, however, modern production techniques have created a somewhat "overstandardized" product, says Dallas architect James Pratt, FAIA, and architects are having to resort to "artificial means" to relieve the overall uniformity that results.

Pratt, a principal in the Dallas firm Pratt, Box, Henderson & Partners, was

partner in charge and chief designer of Brookhaven College in Farmer's Branch near Dallas. This nine-building campus, completed two years ago, encloses a total of 300,000 square feet of interior space with some two and a half million bricks. And Pratt says specifying brick for the project was no easy task. Architects went to "extreme pains" to obtain the rich blend of brick they desired, he says, working for three months with Acme Brick representatives in their Denton plant to get a "natural look."

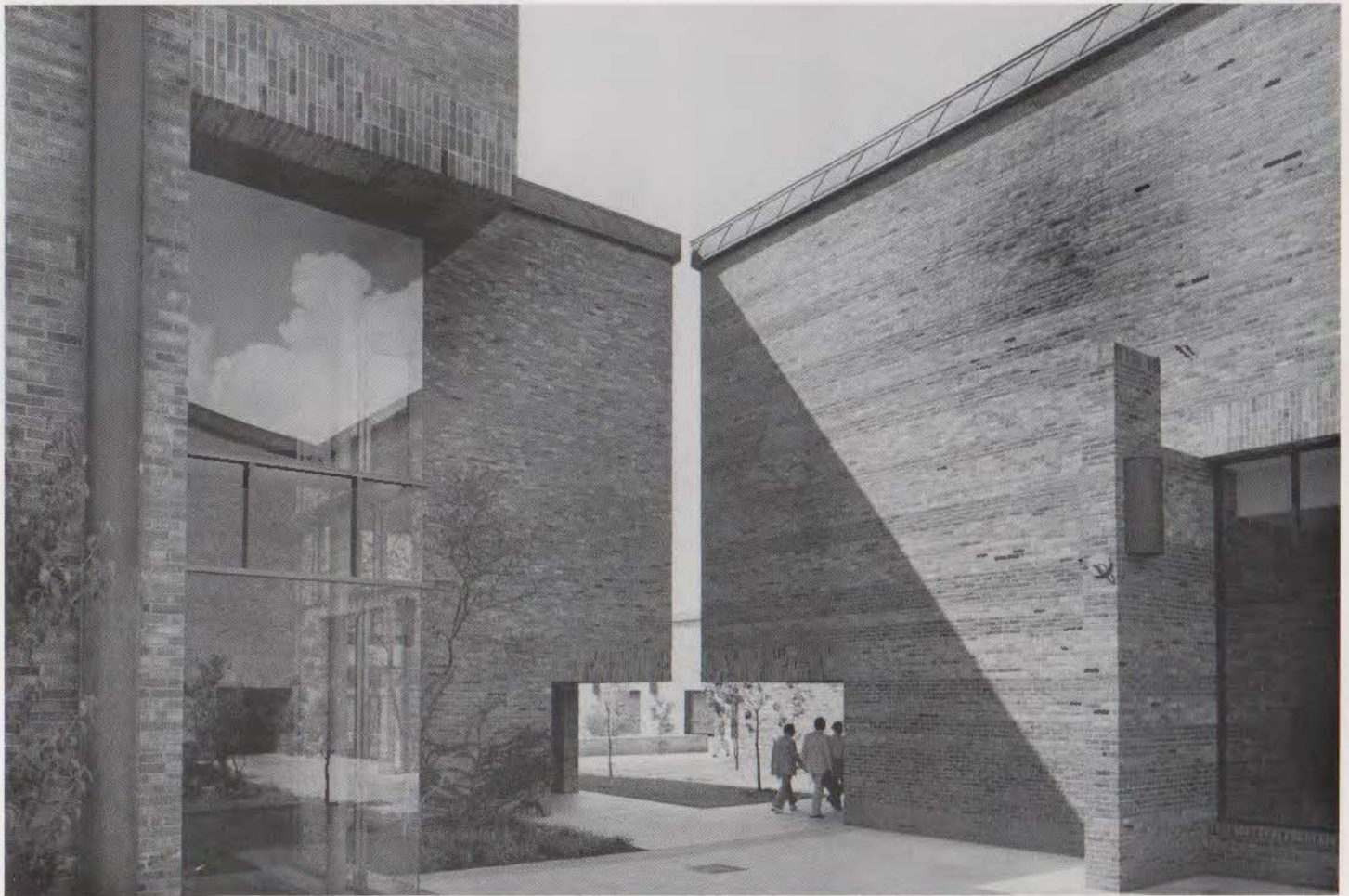
Most everyone agrees that they don't make brick like they used to.

"It used to be that when you opened a round kiln you would find a vast range of color," Pratt says, "varying enormously from top to bottom and from the center out to the edges. Now they run the brick through on a railroad car. It no longer has that *pointiliste*."

Brickmaking today is indeed a carefully controlled process, says Acme general production manager John Cokes. Although Acme—the largest brick manufacturer in the country—still employs some of the old periodic round kilns

for "matchwork" (using the same kind of brick in additions to older structures) most of its annual production of some 750 million bricks from plants in five states is a space age process. Clays are "homogenized" at the mine, carefully blended, screened, extruded and cut on the assembly line and fired for anywhere from 18 to 40 hours at temperatures as high as 2300 degrees F. on computerized "kiln cars." Product "continuity" and "uniformity" are not just by-products of the process, says Cokes, they are ends in themselves. Nevertheless, although modern brickmaking does eliminate *undesirable* "contaminants," Acme does try to guard against an antiseptic purity in the final product. "We still want to give the impression that God and man had something to do with it together."

The "artificial means" Pratt used on the Brookhaven project, to enhance man's role in that divine partnership, was a green glazing compound applied to the brick after it had been fired and had already assumed its final color. The distinctive green bands serve to accent the walls and to relieve "too much of the

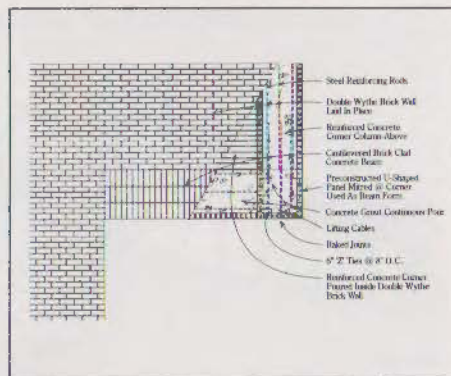


Cantilevered brick corners (center) and wingwall (right) for solar shading. *BELOW: Cantilever components.*

same material," Pratt says, in lieu of elaborate brick pattern work. "We wanted some special emphasis without complicated labor. The green-glaze strips seemed to be an easy way to achieve that effect."

In spite of the need to enhance its chromatic features, Pratt says, the brick cavity wall system chosen for Brookhaven did prove to be more economical and efficient than steel or concrete frame. Given the market conditions of the day (late '70s) brick was economical because a surge of interest in stucco drove down masonry costs. The brick system, built for \$7.31 per square foot of wall area (in 1978 dollars), also minimized formwork and the "whole hassle of getting a wall built."

The standard 16-inch-thick walls at Brookhaven consist of two wythes of 4 inch brick with an 8 inch space in between reinforced with concrete grouting, vertical steel piers and horizontal mesh and insulated with 24 inch by 36 inch urethane panels. Cantilevered corners, long spans and lintels are made of prefabricated U-shaped brick channels, reinforced with the same grouting and steel piers and forming concrete beams inte-



grated with the rest of the structural wall system. "In effect," says Pratt, "we were using brick instead of plywood for our forms."

The double-wythe cavity wall provided a finished brick wall inside as well as outside. And because the brickmasons "did everything," from laying the brick to building the lintels at the Acme plant to installing the reinforcing piers and grouting and insulation, the number of building trades involved in the project was substantially reduced, streamlining the building process and cutting back on labor costs. Oriented for maximum solar

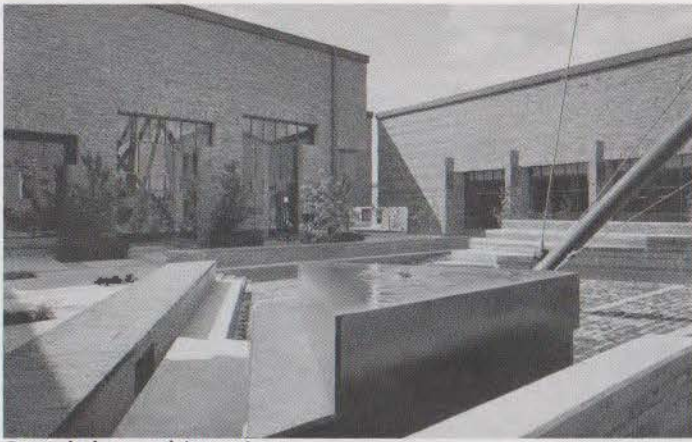
defense or gain, depending on the season, the buildings also feature various brick shading devices, such as wingwalls as well as the cantilevers.

Reducing the number of building trades involved in the project also brought architects closer to the men who handle the materials, which Pratt and Henderson believe is one of brick's major benefits.

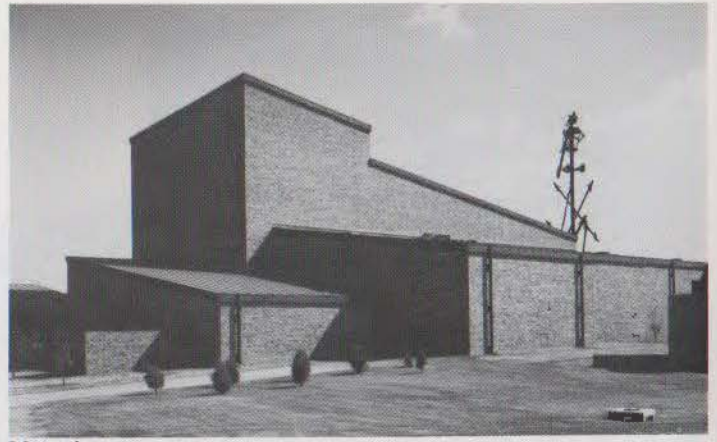
"When you're working with brick," Pratt says, "you're working closer to the trades. You can get their involvement in a project in a way you can't do when you're infilling a steel frame with a panel wall system."

Henderson agrees: "Brick is still a material with which a craftsman can perform creatively, as long as the architect is articulate about what he wants and has interest to work with the individual craftsman. You've got to work directly with the person and establish a rapport. I want him to understand the design concept and bring something to it himself, to get him to have a stake in the results."

Neither Pratt nor Henderson considers himself a brick "specialist." Brick com-



Central plaza and fountain.



Main theater.

prises perhaps a third of the firm's work, says Henderson. And Pratt doesn't prefer one material over another, believing instead in using the most appropriate material for a given project. The firm has used less and less wood in recent years largely because of the problem of its availability in the Dallas area, a problem they never have had with brick, with eight active brick plants within a 50-mile radius of the Metroplex. As far as any "regionalism" in their use of brick is concerned, Pratt says that, aside from such factors as ready availability and building traditions (Dallas historically has been a brick city due to the lack of limestone in the black earth around it) it is not a prime

determinant. In fact, Pratt firmly believes that appropriately regional, or "organic," architecture can be made of just about any kind of building material, not just brick or wood or limestone.

"I think you can make organic architecture out of glass and chrome," Pratt says, "as long as those materials fit the function of the building." Building materials form an "envelope that houses human purposes," Pratt says. "It's organic if it works for those purposes."

Generally speaking, however, the firm likes brick, mainly because of its color and texture and the scale it imparts to a building. And, again, "It doesn't have to be a brick of this place," as Henderson

says. "If I wanted a particular kind of brick from Minnesota and I could afford having it shipped it would be O.K. with me." Brick also allows the architect to place and "celebrate" windows and other openings in the wall with more flexibility, Pratt says. "With brick you have the opportunity to express the lintel, for example, in the way it is carried over a window. Even with a brick veneer building, you can at least run a soldier course across the top." And with more flexibility in the placement of openings in the wall, Pratt says, "the architect has better design control than when he just accepts a rigid catalogue component product like a 4X8 panel."

Solar Adobe in El Paso

As brick continues to enjoy a lasting popularity among Texas architects, its historic precursor—sun-dried adobe—is making a comeback in El Paso, where a local architect is championing the age-old building material as a savory ingredient in passive solar design.

El Paso architect Philip Mack Caldwell, Yale graduate, former Peace Corps volunteer and a founding member of the El Paso Passive Solar Energy Association, has been designing and building almost exclusively of adobe since 1978. That was the year he and a local contractor entered a prototype adobe design in the 1978 Passive Solar Residential Design Competition and Demonstration, sponsored by HUD, DOE and the Solar Energy Research Institute. They not only won an award in the program but also a grant to build their prototype entry, a 2,000-square-foot single family residence. The award generated a lot of good publicity in El Paso, Caldwell says,



Passive solar adobe house in El Paso by Mack Caldwell.

and the more he worked with adobe the more he "marvelled at its diversity and usefulness."

Adobe, as it happens, has a remarkable capacity to absorb and re-radiate heat from the sun, just like the earth from which it is made and not so very far removed. It is also a "wonderful medium" for architectural expression, Caldwell says. "It is totally plastic, capable of being molded into any design style from Pueblo to Santa Fe Territorial, from Spanish Hacienda to

Contemporary." He also likes the fact that adobe is "organic, growing from the inside out in response to climate, user needs, terrain and dreams."

Of some 11 or 12 projects Caldwell has done in the last two years, only two have *not* been solar adobe by design. He has built four adobe custom homes in El Paso, in the \$100,000 range and up. And now under construction or ready to start is a \$118,000 rehabilitation of a low-income multi-family housing project;



Plaza and windmill structure.

With metal panels, or even finished coursed ashlar stone, Henderson says, the success of the exterior depends upon a smooth Bauhaus precision. "You can't have caulking oozing out of the joints, for example. But with brick you can be freer and a little messier, which can translate into texture."

Brick also offers the advantage of holding up well in the harsh north Texas sunlight, Pratt says, particularly bricks of medium color value. Brick also requires minimal maintenance and provides a good thermal mass in this age of energy conservation. Brick manufacturers are now touting their product for its U-values and its capacity to absorb and reradiate



Loggia with metal-plank ceiling.

a \$180,000, 7,500-square-foot, multi-family apartment block for low-income residents; a \$21,000, 900-square-foot single family residence, funded by a DOE appropriate technology grant; a 15,000-square-foot, \$1 million multi-purpose center for the handicapped; and a \$70,000, 1,500-square-foot single family residence. All are passive solar adobe, with fireplaces or gas-fired heaters for backup winter heating and evaporative coolers for summer cooling.

Adobe's roots in the El Paso area are deep, as they are in most arid regions of the world. The colonial Spanish picked it up from the Indians in the 16th century in what is now the American Southwest. It is close in the vernacular to wattle and daub but somewhat more lasting in the right region, where annual rainfall is minimal and the lack of wood precludes not only wood construction but kiln-firing brick as well. Much of El Paso's historic architecture—old Spanish missions, the circa-1875 Magoffin home-

stead, ranch outbuildings and 60- to 80-year-old houses in the older parts of town—is made of adobe and still standing.

This most recent adobe revival, taking place mainly in New Mexico and the Rio Grande Valley down to El Paso, stems from its effectiveness in keeping a room warm in winter and cool in summer (as the Indians knew well), thereby cutting down on mechanical heating and cooling systems. And compared to concrete block and kiln-fired brick, according to Caldwell, you get more for your money. A 16-inch-thick wall of adobe, at \$4.08 per square foot of wall area, has a "specific heat" (an ability to absorb and re-radiate heat) quotient of .24. The same volume of concrete block has a specific heat of .20 and costs \$12.36. Brick also has a specific heat of .20 at a cost of \$9.18.

Adobe also is good for the local economy, Caldwell says. When it's produced locally, the money stays in El Paso. And as a fairly labor-inten-

sive material in the construction phase, it puts people to work. But adobe doesn't require much manpower to produce. As in ages past, four or five people can make all the adobes a crew of masons could know what to do with—500 to 5,000 blocks a day. And the production process is primitively simple, having changed very little in the last millennium. Adobe blocks are handmade of clay, sand, a binder (straw or wood shavings, nowadays, instead of horse manure) and water, then dried in the sun for two weeks.

Caldwell is currently getting his adobe for 16 to 19 cents a block from two sources: Juarez, El Paso's *ciudad hermana* just across the border, and Anthony, an El Paso suburb. The adobes come in blocks 16 inches long by 10 inches wide by four inches thick. To build Caldwell's standard 16-inch thick passive solar wall, a whole 10-inch-wide block and a five-inch half block are laid with a one-inch air space in between, into which Caldwell puts a reflective foil sheeting for in-

heat for passive solar design. And well-fired and laid brick also holds up well, *period*, which Henderson says has made a lot of owners and developers take a closer look at "first cost" in a project, putting more money into masonry up front, knowing that brick won't require a lot of costly upkeep over the building's 40 to 50 year life span. "Brick is a very lasting material," Pratt says, "a quality the public holds very dear."

It is brick's texture and color, however, that most often emerge as its finest qualities in the eyes of Pratt and Henderson, who also want those qualities to reach the eye of the lay beholder from any distance. "It's the kind of detail that you might see in the lintel over the fireplace or in the floor paving or in the glazing," Henderson says, "brick's *tapestry* quality." Or it can be Pratt's "pointiliste," a maculation of earthen greys and browns and buffs blending together at a certain point of view. Brick works well as brick, as Henderson says, "when it looks good from a distance and it looks good up close."



sulation. Outer walls are covered with a plaster lath, nailed directly to the adobe, and stuccoed with portland cement. Masons lay the blocks with adobe mortar, which is applied with a shovel instead of a trowel.

Adobe still has its drawbacks, however. Caldwell's biggest problem right now is getting enough of it when he needs it. A good masonry crew can lay about 700 adobes a day, which means that blocks have to be stockpiled on the site to keep the masons rolling. This can be a problem on a constricted urban site. And with most of his adobe coming from Mexico right now, Caldwell says he is at their mercy as far as delivery times are concerned.

Adobe also has received a lot of *bad* press in recent years. HUD, a cosponsor of the 1978 passive solar design award program, indicated in late 1979 that it would not allow adobe to be used in federally funded public housing projects because of its poor insulating abilities. But, as Caldwell points

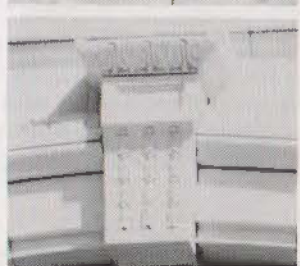
out, while adobe's resistance to heat transfer may be poor, its capacity to absorb and re-radiate heat is uniquely superb, which far outweighs its insulating deficiencies in climates with little humidity and high temperature extremes. HUD has since come out in favor of adobe's appropriate use, but Caldwell says the stigma prevails. Even though El Paso has revised its city building code to include a section on adobe construction—the best adobe building code in the country right now, Caldwell says—some people still think it's an outlawed building material.

Adobe also has its structural limitations. It is a low-strength material, Caldwell says, and one generally shouldn't go higher than two stories with it. Caldwell says he's not taking any chances, "beefing it up" with a bond beam (a course of concrete block) around the top of the walls to distribute the weight of the conventional wood roof and to provide something to anchor the adobe to.

All things considered, however,

adobe is still a good building material for West Texas, says Caldwell, just as it's always been. Contrary to popular belief, he says, adobe weathers quite well, as long as it's properly maintained. Like wood siding, which has to be regularly painted to be preserved, adobe should be restuccoed every five to seven years. Adobe would even weather well in rainier, more humid climates, Caldwell says, if you prevent rivulets from forming on the walls from water draining off the roof, which can erode adobe in no time, and which can be prevented by the use of simple, well-designed overhangs. "If I built a wood house out there and left the studs exposed," Caldwell says, "it wouldn't last two seasons. Adobe is just another organic building material, and there are certain things you have to do to protect it."

—Michael McCullar



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Precast Concrete

With Examples by Omniplan

By Larry Paul Fuller



Texas A&M University Soil and Crop Sciences and Entomology Center, 1977. Structural, architectural and mechanical needs are served simultaneously by the precast building components.



U.S. Mission, Geneva, Switzerland, 1980. Load-bearing structural elements were combined with insulation and a finely detailed skin and erected as single components. Erection of the shell, with windows, took only ten weeks.

A Very Brief History

The history of building has been influenced profoundly by a very elementary natural phenomenon: certain abundant clay-like materials become malleable when mixed with water and become rigid when allowed to dry. A very rational appropriation of this process in building yielded cement or mortar with which individual stones could be merged to form a solid mass. By 200 B.C., the Romans were adding stone and clay aggregates to their cements to form concrete, which was strong enough in itself to be used as the structural material of buildings, bridges and aqueducts.

Because concrete's primary strength is in compression, it was not until the mid-19th century—when it was first reinforced with iron to give it the tensile strength it does not inherently possess—that concrete could begin to meet its full potential as a building component. The work of French architect Auguste Perret in the early 1900s, which defied the plasticity of concrete in favor of structural rigor and restraint, was the most noteworthy expression for emulation by a younger generation of architects throughout Europe who turned to concrete as the most modern of building materials—universally available and infinitely flexible. Other early innovators in reinforced concrete include Le Corbusier, whose *brut* gave rich texture to sculptural forms; Swiss engineer Robert Maillart, who designed beautifully efficient concrete bridges; and Italian engineer Pier Luigi Nervi, whose complex, curvilinear forms have been widely imitated.

The popularity of reinforced concrete remains high today because it affords a wide range of expressions readily adaptable to industrialized production techniques, particularly when the components are precast in a factory prior to being assembled on site. Precasting reduces on-site labor and construction delays, enhances quality control and, through repetition, makes the use of complex shapes economically feasible. The practice of placing the encased reinforcing rods under tension has further increased the tensile strength of concrete components, an advantage often utilized in creating large areas of column-free space.



LEFT: Blue Cross-Blue Shield of Texas, corporate headquarters, Richardson, nearing completion. Sixty-ton U-shaped bents, combining two columns and one beam in a single cast, form the major structural and architectural element and provide for long spans. BELOW: Citizens Bank Center, Richardson, 1974. Bold form is achieved with 105-foot-long precast girders which provide column-free space and uninterrupted vistas on each floor.

At the mention of precast concrete, observers of the Texas architectural scene are likely to think of architect E. G. Hamilton, FAIA, of the Dallas firm Omniplan. Hamilton, and his consulting engineer Thomas Taylor, of Datum Structures Engineering in Dallas, have achieved quite a reputation for innovative use of precast components which serve as both building and structure.

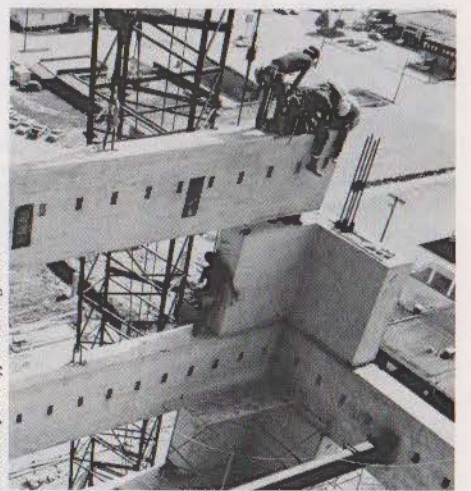
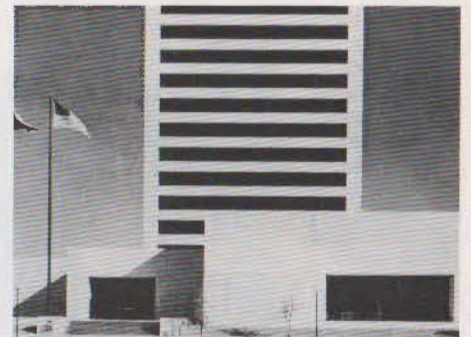
"I started out with a lot of interest in exploring what we could do with large, prefabricated pieces," Hamilton says. "There is some intrigue for me in trying to reduce a building to the fewest parts. It's a search for simplicity—trying to discover what you can boil it down to." A good example is his much-publicized Citizens Bank Center of Richardson, a bold composition of solids and voids utilizing deeply recessed bands of glass in juxtaposition with 105-foot-long, 60-ton precast girders which rest on L-shaped precast columns at the four corners. In the nearly-completed Blue Cross-Blue Shield corporate headquarters, also in Richardson, components were further simplified by combining two columns and a beam in one cast to form a 50-foot-long U-shaped bent that serves as the major structural and architectural element. In both projects, the structure provides large areas of column-free space.

Concrete elements are slightly more complex in the Texas A&M Soil and Crop Sciences and Entomology Center, where structural spandrels and columns were hollowed out to accommodate laboratory services and utilities, and at the U.S. Mission Office Building in Geneva, Switzerland. In the latter, the precast components were fabricated as sandwich panels containing insulation positioned between the concealed load-bearing half of each panel and the exterior facade piece. The sandwich panel is a significant improvement over typical precast construction,

as Taylor explains: "Normally, you insulate on the inside of the wall by furring out with studs and sheetrock. But that leaves the structure itself vulnerable to expansion and contraction with changes in temperature, whereas in the Geneva project, expansion devices allow the exterior piece to shift with thermal conditions as the insulation protects the half of the sandwich that is actually the structure."

While both Hamilton and Taylor have derived satisfaction from their work in precast concrete, neither considers it a panacea. Taylor says he sees it as being applicable primarily for very regimented buildings. "For some projects, precast wouldn't enter my mind. They're too strung out, too irregular. You must have the opportunity to repeat the pieces over and over again for the economics to work out." Hamilton feels precast often is aesthetically inappropriate: "On the taller things we're doing, we're trying to emphasize the form more than the texture. When you get much higher than Citizens, that type of geometry really doesn't work too well; you start getting distortion in the image." And, from a practical standpoint, the heavy components become too unwieldy for tall buildings.

Another limitation has been problems with supply that Hamilton and Taylor attribute to heavy demand for simple, repetitive precast elements for such projects as highway construction and parking garages. "The precasters are already very busy," Hamilton says. "And what we ask them to do is more painstaking and less profitable." He goes on to summarize his overall attitude quite succinctly: "I like precast, but there are a lot of things for which it is not appropriate. And, besides, I wouldn't want to spend my time doing just that alone."



Photos by Geoff Wittingham

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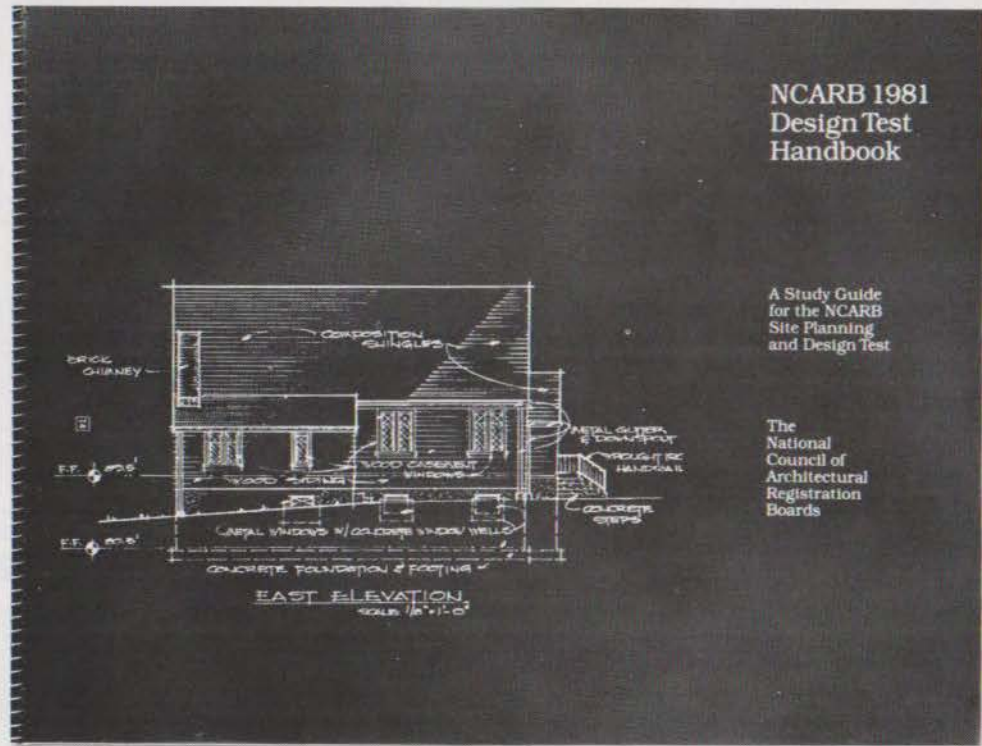
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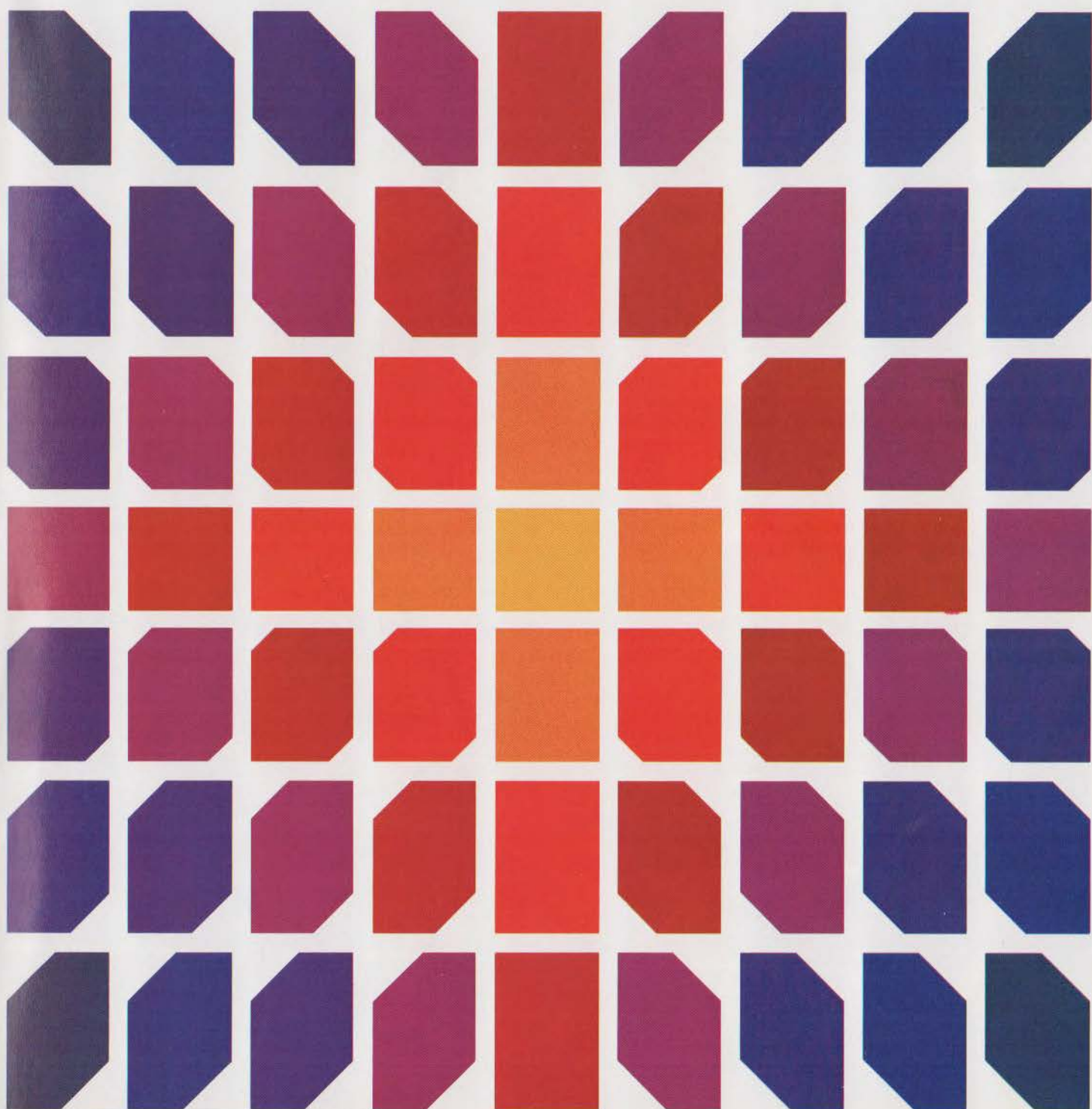
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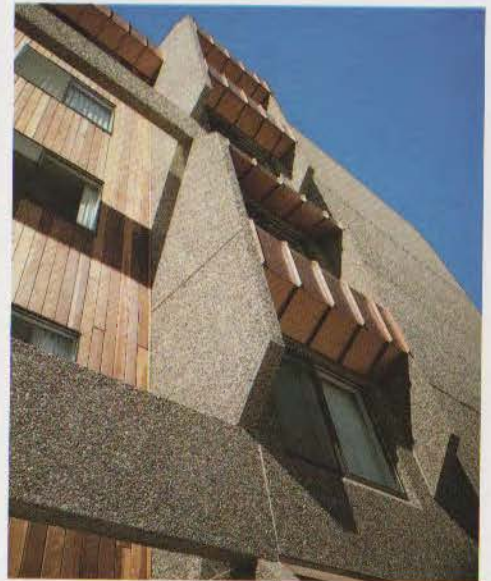
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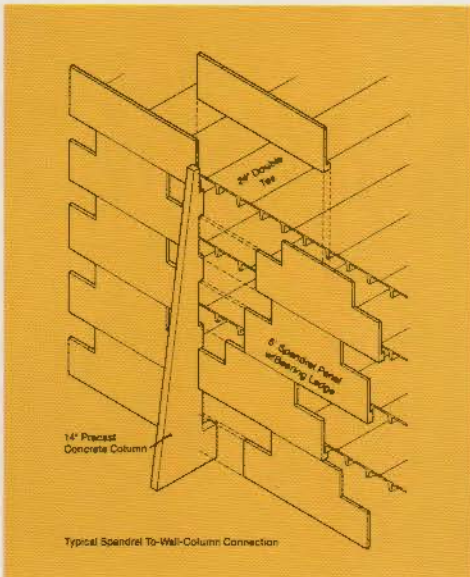
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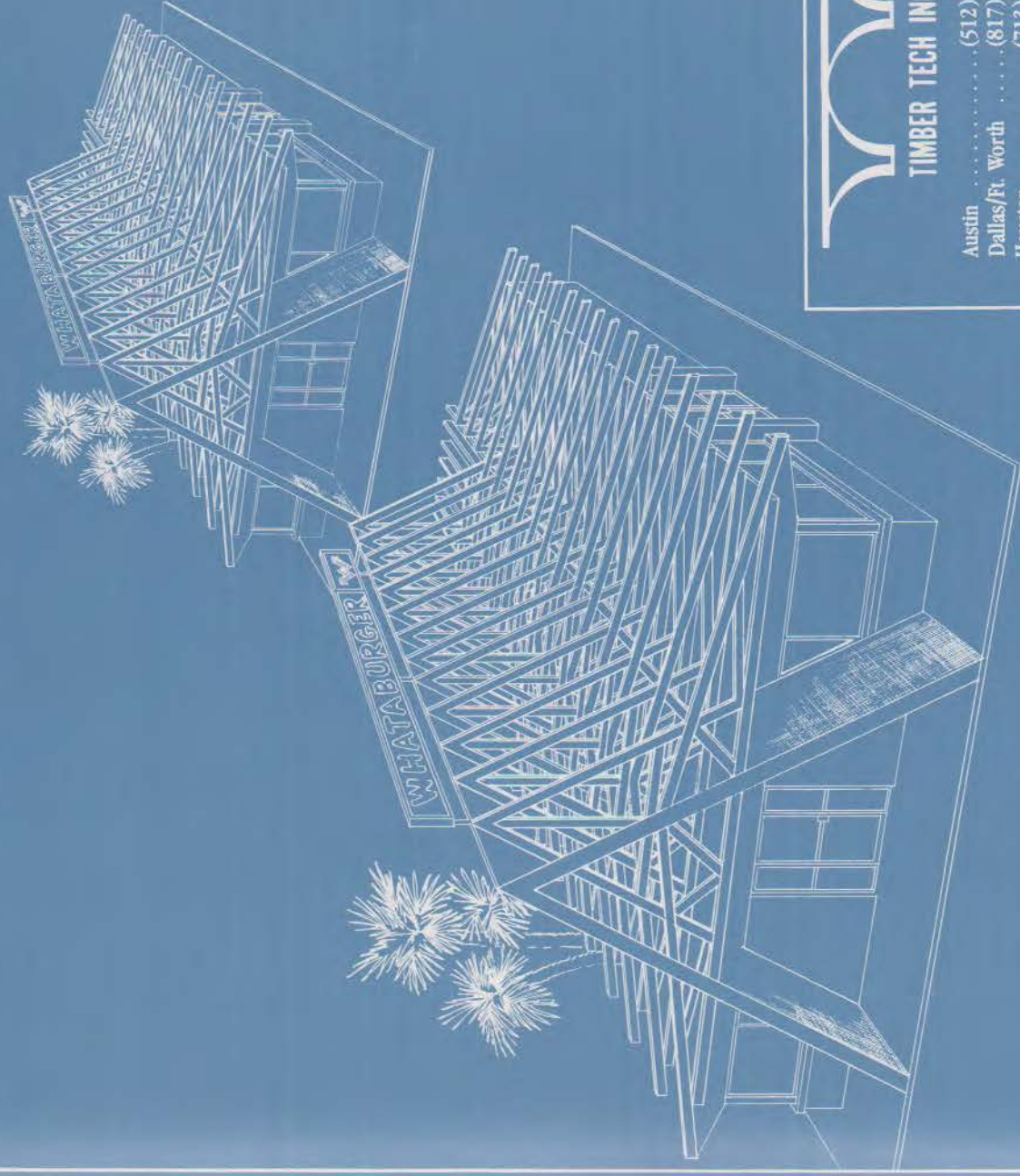
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A Brief History of the Industry and its Product

By Robert Steinbomer

Editor's Note: *The following article is adapted from the author's comprehensive, though yet-to-be-completed, study entitled Brickmaking in Texas: A History of the Industry and its Product, funded by a grant from the San Antonio Conservation Society and the Texas Architectural Foundation.*

Brick is the oldest of all manufactured building materials. The earliest brick, comprising civilization's first great cities in Mesopotamia, were sun-dried and unfired blocks, much like the "adobes" historically common to the American Southwest. Man soon learned that brick exposed to high temperatures was more durable and waterproof. By the first century B.C. a tradition of burned-clay brickmaking and construction was established which has passed with little change from culture to culture, century to century.

Brick's relationship to architectural style, on the other hand, has not been so enduring. By the 1920s, with the advent of the "International Style," brick became anathema to the machine-aesthetic architects who could not allow the touch of a human hand to be revealed on the surface of a building. Now, in the midst of a growing re-evaluation of that style, brick has made a comeback, due largely to a growing appreciation for historic architecture, human scale and touch, color, pattern and energy conservation. And nowhere is this revival more evident than in Texas, which today ranks second (behind North Carolina) in brick production nationwide.

Brickmaking in Texas, along with Texas culture and architectural tradition, had its earliest history written in Spanish. Burned-clay technology is evident in archaeological remains at Missions Espada, San Juan and San Jose in San Antonio. After Mexico gained its independence from Spain in 1820, the production and use of brick in Texas build-



Robert Steinbomer

Texas Press-Brick, circa 1910-26.

ings received its greatest impetus with the influx of Anglo and European settlers. The first settlers came equipped with little material wealth but a fortune in ambition and experience, which included an expert working knowledge of brickmaking and brick masonry construction.

Even in areas where wood or stone were abundant, colonists used brick for foundations, chimneys, hearths, wells and cisterns. Due to the lack of sophisticated tools in these early settlements, it was infinitely easier to mold a soft plastic mass to form part of a building than to chop away the pieces. Stonecutting required more skill, more tools and possibly more time than forming and burning crude brick.

Most of the pre-Civil War "Greek Revival" style architecture was built with brick as the predominant material. The style reached Texas late, along with the southern settlers, mostly after independence from Mexico and annexation to the U.S. in 1845. Many slaves were relocated to Texas from plantations in major brick-making states and many were well-acquainted with the brickmaking technology so associated with slavery since biblical times.

Noted Austin contractor Abner Cook was listed as a slaveowner during the period he built the Texas Governor's Mansion, the Pease Mansion and other

significant brick buildings in Austin. During part of this period he was associated in business with another Austin entrepreneur, Michael Paggi, who owned a significant piece of the same southern shore of the Colorado River later quarried for brick clay by Michael Butler, founder of Elgin-Butler Brick. The still-standing Paggi House, built before 1860, is made of brick identical to that used in many of Cook's houses and other early Austin buildings. It seems very possible that the famous "Cook brick" were made near the Paggi House, perhaps in partnership with Paggi himself. Color, consistency and composition of the brick closely approximates Butler products made near this site in later years.

Clay brick is a material of the earth, and as it is taken up, burned and formed, it imparts the color and texture of the earth to the buildings it comprises. Before the advent of cheap railroad transportation, which spread brick from one particular region to another, whole towns and cities took on the color and texture of the precise earth upon which they rested. Characteristics of local clay bestowed upon the city of Jefferson its deep red color. Austin and cities along the Rio Grande, from El Paso to Brownsville, are the subtle buff yellow color of the clays around them. Early Houston had the same reddish-brown color as Buffalo, Green and Cedar Bayous. Most of pre-skyscraper Fort Worth and Dallas was red and orange, and to feed these cities' building needs, large brick plants sprung up in Millsap, Thurber, Ferris, Palmer, Denton, Corsicana and Athens, each contributing a special tint to the color of the Metroplex.

Houston was surrounded with all manner of building materials. Piney forests to the north and east would supply timber for thousands of structures over the years. Stone also was available, though



Building beehive kiln in Elmendorf, near San Antonio, before 1900.

less abundant. But the greatest wealth of permanent building material was that upon which the city was built. The ground was almost solid with calcareous clays well-suited for the making of common brick. Lumber could be had cheaper, almost for the cost of hauling, but it didn't store well for long periods and it had one critical drawback as a building material—it burned. It was that fact more than any other—more than economic status or aesthetic factors—which caused early Houston to become a city of brick. Before 1865 a devastating fire virtually leveled downtown Houston, comparable in effect, if not in size, to the 1666 London fire. New legislation was quickly enacted requiring almost all structures in the urban core and commercial district to be built of non-flammable materials.

The military also had use for brick in the construction of forts and lighthouses in Texas. Government specifiers for these projects, however, located mostly in Washington, D.C., specified brick produced in the Northeast. Part of F. R. Holland, Jr.'s, documentation of the Aransas Pass Light Station includes a reference to a sailship sinking off the coast of Texas with a hold full of New Jersey brick bound for that lighthouse site in 1856. The brick finally arrived in another ship and was formed into a struc-

ture which still stands. Government specifications paid off. During the Civil War the lighthouse withstood a Confederate-placed charge of dynamite, which cracked the lighthouse shell but hardly destroyed it. The recorded cost of that brick was \$30 per thousand, a very high price in 1856, even accounting for expensive transportation, when good brick could be had in Texas for \$5 per thousand.

Another military installation, Ringgold Barracks at Fort Brown, in Brownsville, was constructed with clay brick, the primary building material native to the area. The brick probably were fired and their assembly assisted by one of the finest brick craftsmen to work in Texas, a German citizen named Heinrich Portscheller. His work in Brownsville, Rio Grande City, Laredo and, most notably, in Roma, is well known to architectural historians. Portscheller was in Roma (Starr County) by 1883 and had gained the prize building commissions in Roma at that time. With two partners, Portscheller operated a brickyard in Roma sometime between 1886 and 1907. With his large building contracts and his own brickyard, it seems that he would have been responsible for much of the branded and common brick we see there today. Portscheller is also known for his design work and well-crafted brick construction. Often laying up the details and

corners himself, he and his masons utilized cut-and-rubbed or filed bricks to execute intricately detailed cornices, friezes and pediments, many of which still grace the streets of Roma.

Still a relatively new territory, Texas was experiencing tremendous growth in the latter part of the 19th century, due to a great influx of settlers, businesses, and industry on the clicking heels of the iron horse. After 1865, the Reconstruction period brought new building and new demands for material, and the railroad was beginning to work its magic on Texas real estate and industry. Brickmaking, as a result, increased considerably between 1850 and 1870, though not nearly as much as it would between 1870 and 1890. Writing for the *Southwestern Historical Quarterly*, Vera Dugas states that growth in the paint and brickmaking industries suggests many people had abandoned their log cabins for frame dwellings in 1870 and were by 1880 either dressing up the old places or building substantial new homes, allowing that "a brick home or store in Texas in 1880 had the prestige value of a Cadillac in 1950!"

Nationally, the industry as a whole was lagging at the turn of the century, with the 1900 Census of Manufacturers finding 411 brick plants idle in that year. A census report of that period attributed the decline to the "modern" steel-frame

building displacing common brick, which also was soon to be completely displaced from the sidewalk and street by asphalt and concrete.

The period from 1900 to 1929 was marked by growth as well as new challenges to the brick industry. Lumber, its popularity for urban buildings long hampered by the threat of fire, again asserted itself in the residential market, boasting of fireproofing from new methods of sheathing with gypsum board inside and stucco or brick outside. And in the urban commercial market major intrusions were being made by glass and steel buildings. With the advent of brick-veneer frame houses in the early part of this century, however, the lumber and brick industries found common ground and a mutually beneficial relationship. Designers of the bungalow style of residential architecture, basically a frame building technique, first used wood siding and stucco but soon became enamored of the rustic appearance offered by using brick clinkers and other heavily-textured brick or stone for a veneer. The brick industry had found a market for what was essentially a waste item and the lumber industry could boast of a new, more fire-proof housing type.

The days of solid brick masonry walls for houses and commercial buildings ended with the introduction of concrete and steel. The engineering advancements made in those areas completely surpassed brick in a short time, leaving the masonry industry temporarily in the 19th century. After 1890, steel frame buildings seemed to be the ultimate solution. The work of architects like Louis Sullivan; Burnum & Root; Bertram Goodhue; McKim, Mead & White; and others, accompanied by advancements made in elevators by Elisha Graves Otis, allowed buildings to soar above the previous limit of six floors until they seemed to scrape the sky.

The building industry was changing radically. Swept along by a current of rationalism and "purity" flowing from Germany and France, brick as a structural force was on the ebb. Even brick veneer had too often been associated with decoration or ornament, words which may have fit earlier styles but certainly didn't fit the International. When brick was used, it was often covered by stucco, glass or, at the very least, paint. Building brick manufactured during the 1930s, 1940s and early 1950s were used mostly for residential veneer or back-up material. Except for the obvious decline of all industry during the Depression, brick



Robert Steinbomer

A patio of historic Texas brick in author's backyard in Austin.

production increases during the thirty-odd years following the 1929 Barcelona Fair were due more to expanded population and requirements of architects working in "Traditional" motifs than to any real expansion of the use of brick. Except during a brief period of post-World War II optimism, new entries to the brick business following 1940 were rare and too often short-lived. The big companies were mostly mechanized and well-financed so they survived the Depression and various recessions to follow by simply reducing payrolls and switching to other products.

Between 1955 and 1980 fuel and transportation costs rose radically, effecting a subsequent rise in the cost of clay products. The brick which sold for less than three cents each in 1955 would cost 15 cents in 1979, or \$150 per thousand—an increase of 500 percent.

For those manufacturers who survived, be it through conglomeration, efficiency or sheer tenacity, the future holds some promise. Fuel shortages which threatened to be the death of the burned brick industry may prove to be somewhat beneficial. The trend in both commercial and residential architecture is away from unconsidered use of glass and towards the use of energy efficient brick. After a few years of energy frivolity, brick masonry construction is once again in demand for

its permanence, thermal qualities and regional aesthetic.

Bolstered by a renewed interest in variety of color, texture, and pattern, building material salvage companies can now charge more for old, soft brick than brick manufacturers can for new, hard brick. Years of effort by brick manufacturers have finally resulted in a product of uniform size, color and texture. The development of extrusion machines and tunnel kilns was aimed primarily at increasing the quantity of brick, but an added benefit was uniformity. Unfortunately, the desirability of machine-like products peaked and passed sometime during the late 1950s and early 1960s.

Then residential building contractors discovered that consumers liked "antique" brick. Old brick is not only hand-sized but *looks* as if a person made it. The edges are sometimes rounded, sometimes straight, the colors varying immensely, yet within a basic range, determined by locale. Spurred by consumer demand and not finding enough old brick in salvage yards to consistently meet that demand, the construction industry turned to the vast vestige of "primitive" brickmaking: Mexico.

The problem with Mexican brick is that, with one or two notable exceptions, it is a thoroughly substandard product. It is much too soft, with absorption rates

below any standard. The brick are often made in the open with mud mixed by lumping it in a pile with water and then stomping around in it. After molding and sun-drying, the brick are placed in an up-draft kiln and, contrary to markings of "gas-fired" on some products, most are fired with mesquite wood at relatively low temperatures. The product is viable only as a veneer or in sidewalks in San Antonio or the Valley; it will often crumble in a few years when subjected to coastal humidity and air pollution.

The brick salvage business is doing well for the same reasons the Mexican brick business is. Salvage brick once was used only for rubble-fill or sidewalks and patios. Now it's also prized for walls, floors and by a handful of avid collectors. Its price in the past couple of years has risen sharply, along with recognition of its scarcity. American manufacturers have continued dropping out of the "antique" brick market. More than one brick company has spent a great deal of effort and money trying to re-create the look of old, soft-mud buff brick, now at a premium, but modern techniques don't lend themselves to hand-made appearances, so most of the attempts have ended in frustration.

Where lumber, glass and steel were the threat a few years ago, the industry and its organizations are now fighting similar battles against brick imported from Mexico. According to industry representatives, Mexico is now sending about 750 million bricks a year into Texas. A massive media campaign has begun to thwart this influx. Radio and newspaper advertisements, newspaper articles, legal action by the state comptroller's office and mass mailings to builders and dealers, all have extolled the virtues of Texas-made brick and decried the poor quality of most Mexican brick.

Texas brick manufacturers have good reason to complain. Their main mode of delivery is diesel truck, which must be licensed, registered, insured, and taxed, with records kept on each delivery. Safety standards must be met and load limits adhered to. Many trucks carrying brick from Mexico, however, meet few or none of these costly criteria. Considering this grossly unfair, the Texas brick industry, largely under the auspices of the Brick Institute of Texas, urged a crackdown on "outlaw" drivers with untaxed, overloaded or unregistered rigs. Their efforts have been somewhat fruitful, but Mike Butler, president of the Brick Institute of Texas, still estimates that as much as 50 percent

of the brick sold in Texas comes from the 84 brick plants operating less than five miles south of the Texas-Mexico border, and 65 percent of Texas residential construction is now brick veneer. In yet another example of the paradoxical attitude of the American free enterprise system, the Mexican government protects its own brick manufacturers by not allowing American brick in Mexico, but Mexican brick is not only *allowed* in the United States, it receives preferential treatment as being produced in a "developing country" by having U.S. import duties waived in its behalf.



Robert Steinbomer

Austin Brick, circa 1903-13.

The net effect of Mexican brick on the Texas brick market has been more than competitive—it has been economically lethal. Butler attributes the demise of 17 Texas brickmakers since the early 1960s on just that lethal competition. That is a sizeable chunk of the state's producers. In 1980, there remained only 21 producers with a total of 30 plants in operation within the geographic confines known as "Texas." This represents the lowest number of operating brick plants in the State since 1870 (with the single notable exception of the peak Depression year 1933, when Texas still supported 29 active plants).

But bricks are making a comeback in building. Despite the massive influx of brick from Mexico, Texas manufacturers in 1977 and 1978 enjoyed solidly high production. Rising utility rates and fears of shortages have caused homebuyers to seek out more and more homes built with energy-conserving materials such as brick. Innovations and new engineering approaches emerging from engineered-brick-masonry techniques of the 1930s have led to new optimistic expectations for the future of brick as a structural material.

As the history of brickmaking continues to be written, new charges are placed upon the brick industry. Manufacturing techniques, responding to eco-

nomical and stylistic pressures, have been streamlined, resulting in a narrowing of product variety. The industry seems to have reached its pinnacle of product uniformity, ironically, just as a whole new attitude pervades architecture, creating a demand for wider ranges in color and shape. We now have a few scattered manufacturers, each of whom offers a *very* limited palette of brick shapes and styles, supplementing their own line with each other's products.

Architects once again are seeking product variety—not uniformity. The desire to conserve energy may well involve new kinds of brick walls with new shapes required of the units. When special shapes are requested, however, brickmakers must average in the cost of shutting down the linear extrusion process to change dies. The loss in production of standard products must be offset by increases in custom-unit costs. If architects and clients understand that cost, it will be easier for the plants to comply with special requests rather than clinging to a fairly bland product line. Brick companies tend to respond to orders-in-hand rather than perceived trends. As the demand for glazed brick, curved face or other special shapes increase, architectural trends will once again effect changes in the brick industry.

And the responsibility for these trends lies with the design community. International Style "decoration" relied heavily on light and shade through articulation of building masses. As this style began to change, for various reasons, a more traditional polychrome brick pattern decoration began to emerge in the work of a small group of Philadelphia architects—Venturi, Rauch and Scott-Brown and Friday Architects—who have shown an innovative use of vari-colored brick in their recent work. As building costs escalate rapidly, due in part to a penchant for articulation, "applied" decoration in the form of brick patterns and textures may become an attractive and economical alternative for progressive Texas architects.

Robert Steinbomer is a 1977 graduate of The University of Texas at Austin School of Architecture and is an intern now with the Austin firm Sinclair Black, Architect.

Glassy is Classy?

Notes on the Depersonalization of Architecture

By Nolan E. Barrick, FAIA

"If it ain't glassy, it ain't classy," a motto posted by architecture students in a University of Texas design studio about 1951, has proven to be far more prophetic than was apparent at the time.

The motto was a reaction to a series of lectures in the History of Architecture tracing the decline of the masonry exterior wall as the major structural and design element in high-rise buildings. The usual sequence of examples included the majestic Monadnock Building, last of the great multi-story masonry structures, with deep reveals and walls 72 inches thick; the Tacoma Building, with its daring use of glass areas; and Jenney's Home Insurance Building, with its iron bird cage skeletal concept not clearly portrayed.

The lectures also cited, for contrast, a selection of small projects including Victor Horta's Maison du Peuple and Willis Polk's Hallidie Building to illustrate the creative and decorative use of glass and iron—with little recognition of structural definition—stimulated by Art Nouveau. Functional applications of the glass wall virtually independent of the structural fabric were illustrated by Gropius' Fagus factory and his Dessau Bauhaus. The imaginative and theoretical designs for glass skyscrapers by Frank Lloyd Wright and Mies van der Rohe (whose 860 Lake Shore Drive Apartments project was a topical work covered in journals at that time) exemplified trends toward ultimate realization of the true glass-clad building, free of restraints imposed by acknowledgment of the structural elements. The entire series of lectures was erroneously interpreted by the students as a vigorous sales pitch for glass.

Although the curtain wall barrier soon would be breached by SOM in Lever House, major design considerations at that time tended toward restatements of patterns in geometrical applications, whether vertical as in Hood's Daily News

Building or more textured like the Philadelphia Savings Fund Building by Howe and Lescaze. The glass skin as we know it was not yet entirely feasible.

Viewed from this end of the three-decade span, it is clear that the anticipated developments have been realized; glass has virtually replaced masonry as the major exterior wall material in large projects. Our skylines are becoming collections of reflective glass towers rather than monumental decorative structures of masonry topped by Greek temples, stepped pyramids or Gothic finials. If the students' motto were posted today, it might more properly state: "If it ain't flashy, it ain't classy."

With the change to simple geometric massing and the reduction in the vocabulary of materials, individualized designs are becoming more scarce. Buildings such as the Chrysler Building, Rockefeller Center and even the glass-clad Seagram Building have become enduring legacies of an era when the individual client sought architectural identity (perhaps an extension of Renaissance concepts) through buildings of high quality.

Such individualism too often has been supplanted by the rationale of the current corporate client, frequently more economic than aesthetic, in which the "bottom line is what counts." In fact, the Transamerica Building has been criticized for being a design seeking individual identity, although the architect clearly states other reasons for the form.

Unfortunately, this shift in the aesthetic, for whatever reason, has resulted all too often in good buildings but unappealing architecture. As a tabular column of figures or a computer print-out is of interest to the corporate management and the major stockholders, yet holds little fascination for the average person, so the buildings resulting largely from economic determinants often leave much to be

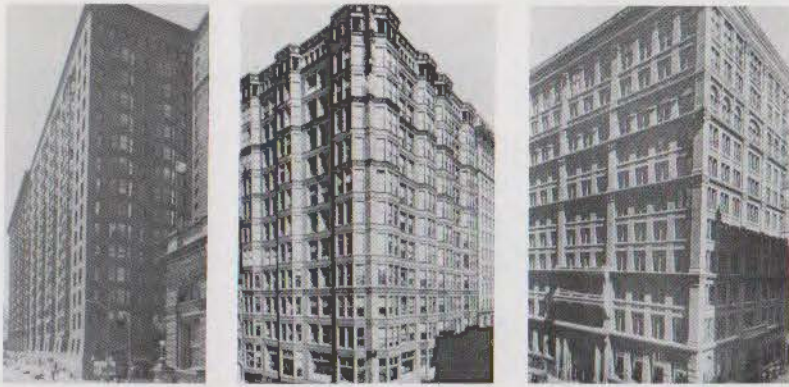
desired visually. There is frequently little charm, nothing to be discovered or savored over a period of time. There is nothing to "look for" within the coldly efficient design as the built environment becomes an outer covering which often overpowers the individual and which affords little on which to base a personal relationship. Buildings are more than shelter. Movement through spaces should be pleasurable experiences.

The current depersonalization of architecture has been accompanied by an increasing nostalgic trend, currently called Post-Modernism among other things, in which past values of the decorative arts are moving out of the shadowed position into which they were thrust by the more functionalist trends of the post World War I developments. Draftsmanship and emotional content are once again considered respectable and are admired without apology, a fact attested to by the enormous enthusiasm for recent exhibitions of Beaux-Arts architectural drawings, or the general response to the grand and decorative spaces of the Netherland Hilton during the AIA Cincinnati Convention, where the quality of design could be contemplated during tedious proceedings.

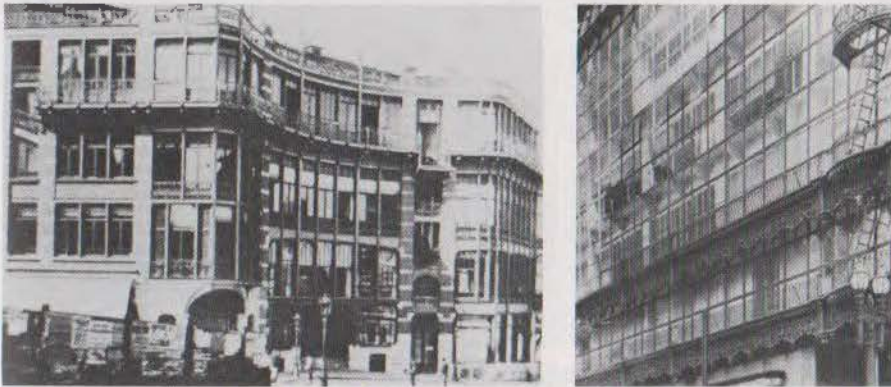
Aesthetic Blanks

Contempt for eclecticism, a characteristic of the period dominated by the Bauhaus philosophy, often left blanks in the aesthetic expression where the exclusion of ornament was not replaced with a satisfying substitute. Basic geometric forms, though decorative in themselves, do not meet the same need.

Current works sometime include at least a nodding recognition of historic precedent and merit. Johnson/Burgee's AT&T Building, with its pedimented top and arched entry (reflection of the Pazzi Chapel or of Palladio?), or their PPG Industries Building, with its suggestion of



LEFT TO RIGHT: *Monadnock Bldg., Chicago, 1891, Burnham and Root; Tacoma Bldg., Chicago, 1889, Holabird and Roche; Home Insurance Bldg., Chicago, 1885, William LeBaron Jenney.*



Maison du Peuple, Brussels, 1899, Victor Horta; Hallidie Bldg., San Francisco, 1917, Willis Polk.



Bauhaus, Dessau, 1926, Walter Gropius; Project for a glass skyscraper, Berlin, 1921 and Lake Shore Drive Apts., Chicago, 1951, Mies.



Lever House, New York, 1952, SOM; Daily News Bldg., New York, 1930, Raymond Hood; PSFS Bldg., Philadelphia, 1932, Howe & Lescaze.

Gothic-type pinnacles, follow their Post Oak Central in Houston, which is labeled "Art-Deco," because it has horizontal stripes and rounded corners. Hood's McGraw-Hill Building in 1931, with horizontal stripes and *square* corners, was simply called "Modern."

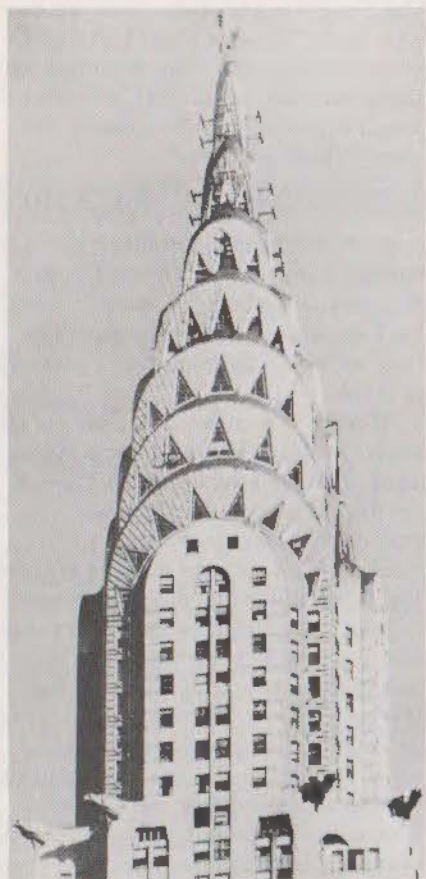
The significance of the growing trend toward the classification of current work is not at all whether such titling is correct but that it is considered necessary, as if to achieve acceptance or identity through the association, and that the classifications are within the context of a past style or styles.

Changes in popular acceptance are not always rational. The remarkable popularity of Art-Nouveau and Art-Deco at the present time is something of an anachronism since those styles were based on handcraft and ours is a machine age. Is it possible that this trend is something of a revolt against the impersonality of a machine, mass-produced aesthetic, the lack of something with which to relate? Is it possible that, somehow, we miss the delicate filigree ornament of Sullivan, which reduced the larger scale to parcels visually consumed over and over again without loss of interest due to the vitality of the craftsmanship and the subtle alterations provided by the play of light and shade over delicately textured and patterned surfaces?

Mobility

The current architectural scene has been impacted by the ease of mobility, a factor never faced in previous periods, which has been the most drastic and decisive influence in architectural history excepting perhaps the Industrial Revolution. The increased velocity of our mobility has abruptly divided our visual environment into "high-speed" and "pedestrian" architectural scales. High-speed provides opportunity only for impersonal and fleeting views from the ever-changing positions on the observation platforms, which are most often roadways created by the slashing surgery of the freeway systems through and around our cities. Pedestrian affords the luxury of relaxed enjoyment and appreciation as one approaches a building with more personal involvement and sequential changes of scale and emergence of detail.

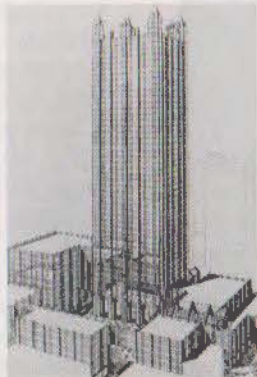
As the student motto suggested an either/or situation, we seem to have tacitly accepted the premise that buildings must be either "high-speed" or "pedestrian" when, in fact, each one must fill both categories at different times. Perhaps no better means can be provided for



Chrysler Bldg., New York, 1930, William Van Allen; Transamerica Pyramid, San Francisco, 1972, William Pereira.



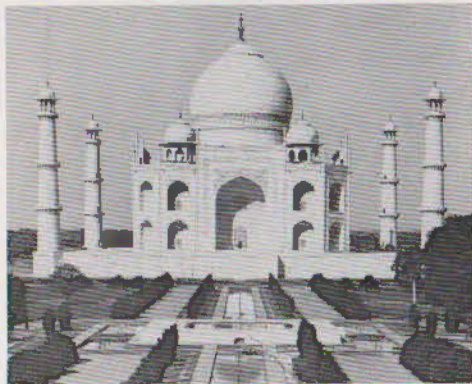
Rockefeller Center, N.Y., 1940, Reinhard & Hofmeister with H.W. Corbett and R. Hood; Seagram Bldg., N.Y., 1958, Mies and Philip Johnson.



Works by Johnson/Burgee: AT&T Bldg., New York, and PPG Bldg., Pittsburgh, in progress; Post Oak Central, Houston, 1978.



McGraw-Hill Bldg., New York, 1930, Raymond Hood; Taj Mahal, Agra, India, 1648.



the change of speed, this change of scale, than the introduction of suitable ornament as an integral part of the design—not as a separate piece of sculpture placed near the building but as a carefully studied “point of arrival,” a feature sadly lacking in many buildings.

Current buildings we most admire are usually those which have been designed as pieces of architectural sculpture (a Baroque concept?), yet they frequently lack that total integration of form and enrichment possessed by those masterpieces of the past which have been appreciated for centuries. The Taj Mahal is not great because of its sculptural mass, but for its detail, or more specifically, the total integration of the detail and the form and the subtle handling of scale relationships. It is a building to be viewed from afar but steadily increases in appeal and beauty as the nearer approach is made. There is new visual discovery and excitement with each increment of approach and change of scale.

Our current notions about “taking time to smell the flowers” should be extended to the savoring of the detail and quality of design in our architectural environment. But of course that would mean placing detail and quality there in the first place, a talent we have neglected but seem to be rediscovering.



Nolan E. Barrick served as chairman of the Department of Architecture at Texas Tech University from 1953 to 1978, when he returned to full-time teaching. He retired from the University in 1979 and now maintains a limited practice in Lubbock.



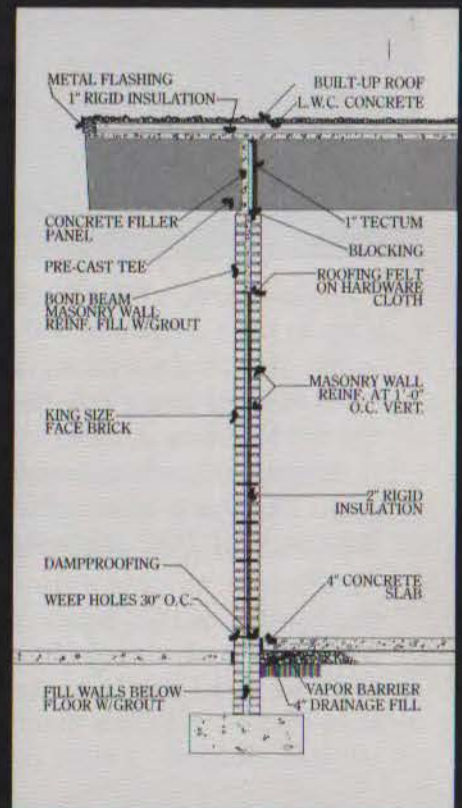
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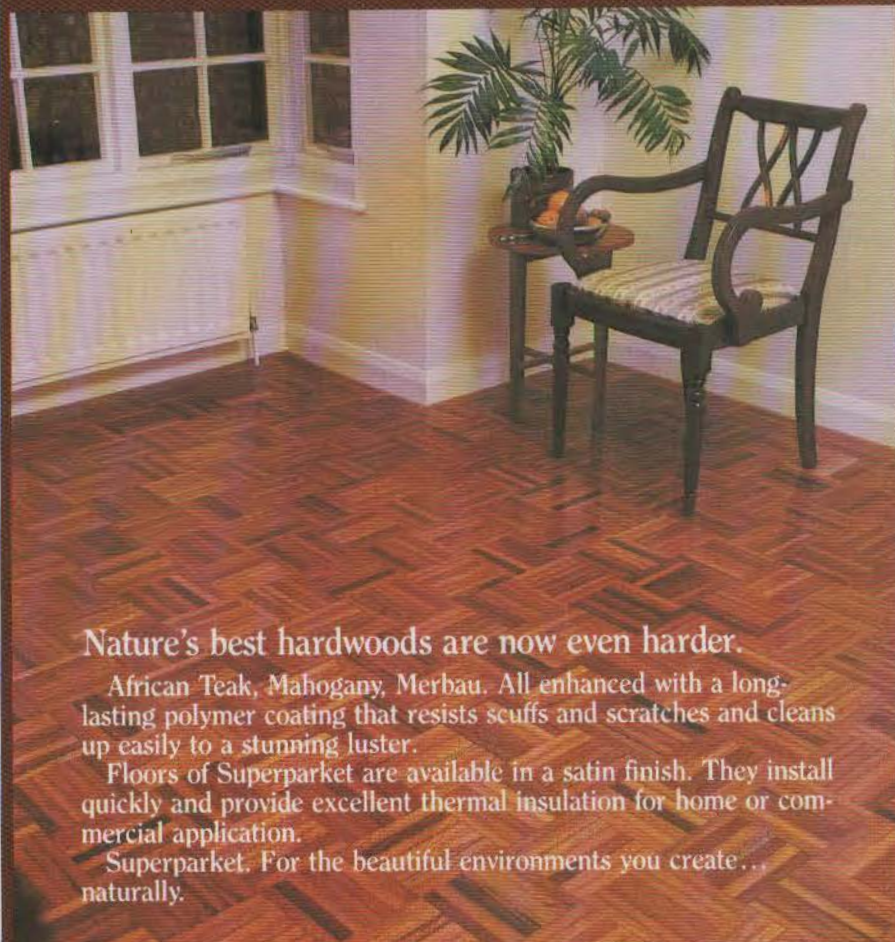
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Building Security



The Case for Planning Ahead

By Don Sloan

Capt. John Burns, Chief of Security, St. Paul Hospital, Dallas



Don Sloan

In the not-too-distant past, a company's security program might have consisted only of an elderly pensioner in a guard uniform, left overnight with a gun at the building's front door. Sometimes, this was effective.

Many times, say crime and fire statistics, it was not.

Today, particularly in the wake of the tragic MGM Grand Hotel fire in Las Vegas last November, building owners and developers are more and more concerned about security. And they are looking to architects to design it in for them.

U.S. Department of Justice statistics show that 25 out of every 100 businesses in the country were victims of burglaries or robberies last year. However, security industry analysts point out that, when pilferage by employees and losses due to fire or acts of nature are considered, a more realistic estimate of a business's chances for security-related trouble are about 80 in 100.

Eugene Aubry, FAIA, of Morris * Aubry Architects, Houston, says security is a major consideration in many of the buildings his firm is designing today.

"You have to think of security right from the beginning. If you don't, it can come back to haunt you later. We've designed several buildings—Brown and Root, Texaco, and the Gulf Oil computer center here in Houston—where security completely dominated the design of the building."

Don Jarvis, a principal in the architectural firm of Jarvis, Putty, Jarvis of Dallas, says there isn't any question we're living in an age where problems involving vandalism and terrorism are on the rise. "Anything big today—large corpora-

tions especially—are natural targets,” he says. “It would be foolhardy to ignore that trend.”

Still, with the bewildering array of electronic gadgetry on the market today and the variety of security problems that can face building planners, architects often find it difficult to stay abreast of new developments in the technology. Out of this need has emerged one of the more recent breeds of consultant available to architects—the security systems expert, or, in broader terminology, the assets protection consultant.

J. C. Matlock, of Total Assets Protection, Inc., in Arlington, points out that the term “security” goes beyond protection from burglary and fire to include preserving the integrity of corporate information and the personal welfare of corporate executives who might be the target of terrorist activity. “Worldwide political conditions and crime rates are such that corporations are more sensitive than ever to the need for security,” Matlock says. “You will be finding more and more frequently the appointment of a risk management officer who reports directly to the chairman of the board.”

Matlock’s firm works with architects on a consulting basis to provide a turn-key security design package or merely specific advice on equipment selection. “We know what is considered ‘state-of-the-art’ as far as security and fire protection systems go,” Matlock says. “And since we’re not representing particular product lines, we can tell a client exactly what he needs—or doesn’t need—to make his structure secure. We take into consideration a profile of the community—location within the city, the kinds of companies going into the building, security problems unique to those companies, and, of course, the building itself—and then design a security system according to those needs.”

Visual Contact

Don Jarvis says he feels strongly there is no substitute for direct, open visual contact. “In my opinion, electronic monitoring is a poor substitute for the human eye. We’ve reviewed jails and other buildings like them, and seeing something on a TV screen is like number one on a scale of one to ten. Actually catching something—even out of the corner of your eye—is much better, closer to ten.”

Aubry agrees. “If a building is designed properly, with proper visual contact, a lot of personnel aren’t needed; that’s a cost savings. One receptionist can handle many entrances if the design is right.”

He describes such a setup in Texaco’s credit card and computer center in Bellaire. His firm planned the shape of the building, the location of the elevators, and the entry point so that one person can monitor everyone entering or leaving. “Cameras are there,” Aubry says, “but they’re really just a backup.”

Matlock refers to such a setup as the best of both worlds. “Reliable security equipment, strategically positioned, combined with the eyeballs of a trained security officer will provide the most cost-effective protection.”

Another project by Aubry’s firm, the Brown and Root headquarters, also allows easy control of entry to the building and controls movements inside. Employees are moved on escalators from a central point to their work locations and visitors enter another area entirely, providing no opportunity for strangers to wander around the building.

Truck docks are also deliberately placed in separate areas. Access to the building is controlled by a ring road, making it easier to move people and to control where they go. The exits and entrances to parking areas and building areas are controlled by the very nature of the circular road.

“What we did,” Aubry says, “was put all the elements of the building in the proper location for maximum control. That’s good planning.”

Matlock says that if an architect plans to use a consultant for security planning, timing is crucial. “We like to be called in as early as possible to work with the design team—even as early as site selection. Typically, though, we’re called in after the architect has sized the building, gotten a location and started developing a set of drawings for space allocations. Security planning should be an integral part of the initial design considerations for maximum cost-effectiveness.”

In addition, he maintains that designing protection in at the beginning of the project is the best guarantee of a totally integrated system. “Many of the people out there are operating under a false sense of security because they’ve plugged up a few holes but have left the back door wide open.” Matlock says fire protection seems to be the most common deficiency in buildings and that, while current Texas building codes offer adequate life safety measures, the codes should be enforced retroactively. “Sure retrofits are expensive,” he says, “but the whole expense could be exceeded by the cost of one lawsuit.”

Matlock also points out that some companies require more security than others. Typically high-profile industries such as oil companies, banks, airlines and telephone companies have high risks. “Here the threats are more external than internal, and security must be tight,” he says. “But you can also have overkill. We try to suggest a balanced scale approach. On one side, a company has a lot of assets and on the other side it needs to spend time, money and effort to protect them. But the cure shouldn’t exceed the risk. With security too tight, you could end up with a morale problem.”

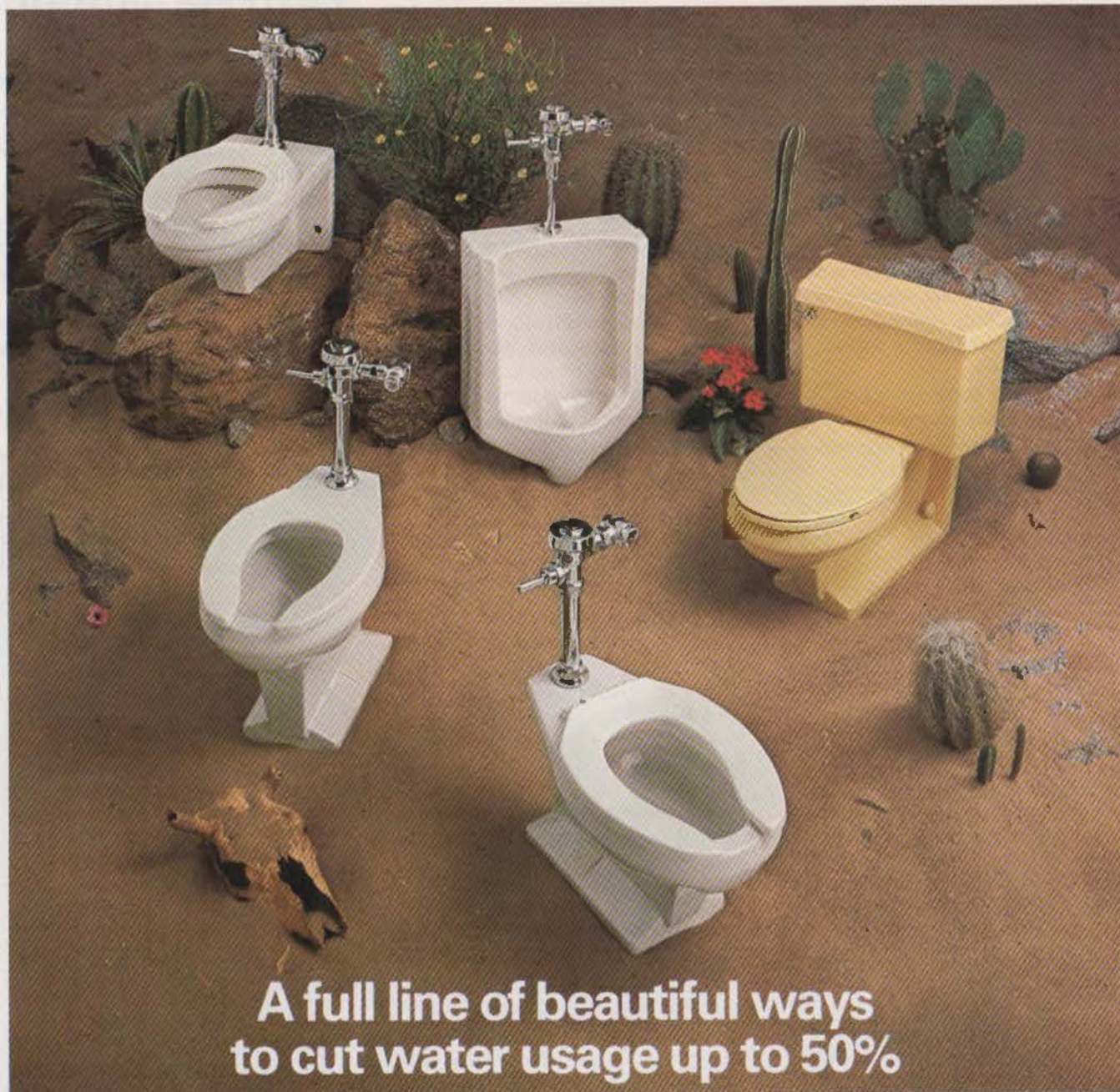
Aubry adds, “Some companies take security to the extreme. They’re just paranoid about it. It affects the attitude of the people who work there. I know I wouldn’t want to work in a company that had armed guards everywhere. When you have to do something about security, it’s the architect’s responsibility to see that it’s done in a humanistic way.”

Blaming the Building

Jarvis observes that building designs are sometimes wrongfully blamed for security problems. “If you ask prison guards, school officials, anyone in security positions, they’re always going to blame the building for a breach—if only this glass wall had been brick, if this pretty little courtyard with trees and benches had been roofed over and enclosed, then we wouldn’t have had a problem. It’s easy to squeeze out all the people-pleasing things in architecture—the things that nourish the spirit—in favor of more practical considerations. But we shouldn’t allow that.”

From Matlock’s perspective, there is little need to compromise aesthetic appeal in the name of security. “The main requirement,” he says, “is simply to think about security up front, at the start of the project.” Then, the system emerges as an integral part of the building. To do otherwise, he says, is to ignore an increasingly important responsibility to the client. “If you’re an architect, it’s much better for you to point out the need to him than for him to point it out to you—especially if it’s after the fact.”

Don Sloan is a communications coordinator for a Dallas-based oil company.



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In the News, continued.

Harper Receives Humanitarian Award From NCCJ



Dallas architect Terrell Harper, FAIA, senior partner in the Dallas firm Harper, Kemp, Clutts and Parker, received the annual Brotherhood and Humanitarian Award from the National Council of Christians and Jews in ceremonies last November in Dallas.

This is the second year in a row that an architect has received the award. Honored last year was Dallas architect and *Texas Architect* contributing editor David Braden, FAIA.

Also winning the award this year was Andre H. Zilbermann, executive vice president of Brandt Engineering Company in Dallas.

The National Conference of Christians and Jews was founded in 1928 to promote justice and understanding among Protestants, Catholics and Jews. The Conference's Dallas chapter, established in 1939, is the third oldest chapter in the country.

Houston Chapter AIA Cites Eight Projects In 1980 Interiors Program

Eight projects demonstrating "excellence in interior architecture" received honor awards in the fourth biennial interior architecture awards competition sponsored by the Houston Chapter AIA.

The 1980 program included categories for historic preservation/adaptive reuse, institutional, commercial, residential and international projects. Although the interiors could be located anywhere in the United States, they must have been designed by members or member firms of the Houston Chapter AIA.

The eight winning projects in two categories, selected from 44 entries in the program, are:

Historic Preservation/Adaptive Reuse

The offices of Lloyd Jones Brewer & Associates in Houston, Lloyd Jones Brewer Architects; the Julia Ideson Building in Houston, Morris*Aubry Architects; and Saint Mary's Cathedral in Galveston, by Paul Herzog and W. H. Linustaedter Architects.

Commercial

Braniff Place at the Dallas/Fort Worth International Airport, Morris*Aubry Architects; Distribution Systems, Inc.,

in Houston, Pierce Goodwin Alexander Architects; Nicholson Opticians, Inc., in Houston, Gensler and Associates Architects; The Federal Land Bank in Houston, Morris*Aubry Architects; and the M. D. Anderson Library at the University of Houston, Kenneth E. Bentsen Assoc., Architects, ISD Incorporated, interiors architect.

Jurors for the 1980 program were Olga Gueft, editor-emeritus of *Interiors* magazine; Boone Powell, FAIA, of Ford, Powell & Carson Architects in San Antonio; and Andrew Belschner, interiors department of Robinson Mills Williams Architects of San Francisco.



Richard Payne

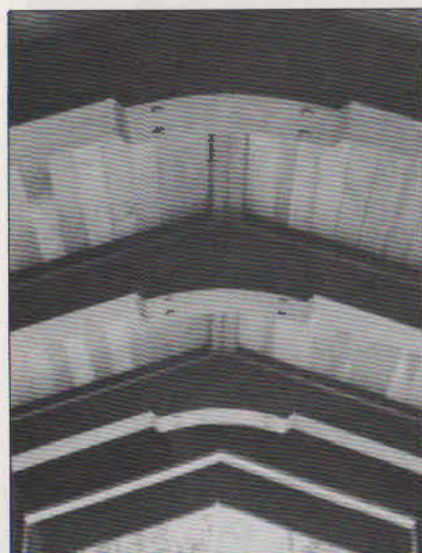
Hirshfeld Mansion in Austin.

Five Projects Cited In Austin Chapter AIA Design Awards Program

Five projects emerged as winners in the Austin Chapter AIA 1980 Design Awards Program, with awards presented Dec. 7 during the chapter's "December Gala" in the newly renovated Littlefield Building in Austin.

The program's top Design Excellence Award was presented to Austin architect Wayne Bell of Bell, Klein & Hoffman, for the firm's joint venture with Chartier Newton of Austin in restoring the Henry Hirshfeld Mansion and Cottage in Austin.

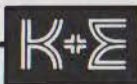
Receiving Merit Awards in the program were Sinclair Black for his remodeling of the Stephen Pyle residence in Austin, winner of a 1978 TSA design award (see *Texas Architect*, March/April 1979), and the South Austin Multi-Purpose Center, in association with Chartier Newton and the Austin firm



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Villalva-Cotera. The Austin firm Shefelman and Nix also received a Merit Award for its design of the Shefelman residence (see *Texas Architect*, March/April 1979) and the Michael Putnam residence, both in Austin.



Tyler Public Library.

NE Texas Chapter AIA Cites 3 Projects in 1980 Design Awards Program

Three projects emerged as winners in the Northeast Texas Chapter AIA's 1980 Design Awards Program.

A First Honor Award went to the joint venture firms Sinclair & Wright of Tyler and Fisher & Spillman of Dallas for their design of the 47,824-square-foot Tyler Public Library, completed in July 1980.

The Longview firm Allen/Buie Partnership, Inc., received two awards, one for the Piuertree Elementary School and one for the Greifenkamp residence, both in Longview.

Jurors for the program were Houston architects John Perry, Richard Keating and Richard Fitzgerald, who selected the three winning projects from a field of 16 entries.

CRS Wins Energy Award From Owens-Corning

The Houston firm Caudill Rowlett Scott (CRS) has received an energy conservation award from Owens-Corning Fiberglas for its design of the Federal Correctional Facility for Youth Offenders in Bastrop and the Shell Oil Exploration and Production Office in Houston.

The 500-inmate Bastrop facility, completed in 1978, is designed to demonstrate the technical feasibility of active solar systems. The 160,000-square-foot complex is composed of four living units set at the outskirts of a group of low-rise buildings on which the solar collectors are mounted.

The system is designed to provide 96.6 percent of the domestic hot water, 45.5

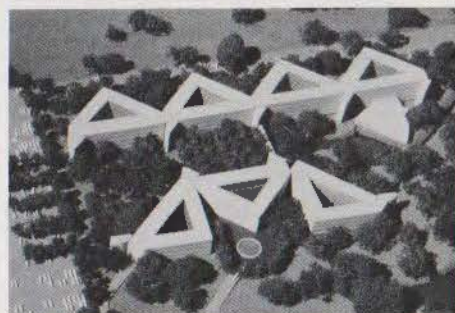
percent of the space heating and 8.6 percent of the space cooling. While clerestories provide the common areas of the living quarters with most of the required lighting during the day, a combination of fluorescent and incandescent lighting is used to provide a relatively low level of illumination at night.

The 828,000-square-foot Shell Oil building in Houston, now under construction, is designed to use 50 percent less energy than the average energy efficient office building in Houston by maximizing the use of natural daylighting.

The building will be composed of seven modules, each of which will be triangular in plan enclosing an open atrium. The design calls for 60 percent of the offices to have a view to the outside, the remaining 40 percent with views to the atrium.



Youth Correctional Facility, Bastrop.



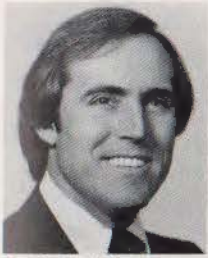
Shell Exploration Office, Houston.

Unlike most office ceilings, which are nine feet high, those in the Shell facility will be 11 feet, 10 inches high, to allow deeper sun penetration. Trellises and the precast concrete structure of the building will provide overhangs to shade the windows from direct sunlight when need be.

Diffuse light will enter the offices from two windows: a larger one below an HVAC duct, and a smaller window above it. The top window will allow light to pass into the office by bouncing off the duct's reflective surface.

Tisdale Succeeds Brown As TA Editorial Consultant

Austin architect Jack Tisdale has been appointed editorial consultant of *Texas Architect*, succeeding Austin architect Hyder Joe Brown, who has been elected



Jack Tisdale.



Joe Brown.

1981 treasurer of the Texas Society of Architects.

Duties of the *TA* editorial consultant, who must be an architect, include reviewing each issue's "galley proofs" for technical accuracy and working closely with the magazine staff and the TSA Publications Committee in planning future issues.

Tisdale, 30, is an Austin native and a founding partner in the Austin firm Oteri Tisdale Dorsey. He received his bachelor's degree in architecture from The University of Texas at Austin School of Architecture in 1973. In the years since, in addition to his active involvement in all phases of architectural practice, Tisdale has served on TSA's Publications Committee, the executive committee of the Austin Chapter AIA, on the Travis

County Historical Commission and as co-author of *Austin and its Architecture*, published by the Austin AIA chapter.

Outgoing editorial consultant Brown, director of professional affairs at the UT-Austin School of Architecture, had served as *TA's* editorial consultant since 1977. Since then, the magazine has won several awards and has dramatically expanded both its size and coverage of Texas architecture.

Wentletrap Restaurant Wins Interior Design Award From *Institutions Magazine*

The Wentletrap Restaurant in Galveston, designed by the San Antonio firm Ford, Powell & Carson as one of several commercial establishments in the historic T. Jeff League Building, has won a 1980 Interior Design Award from *Institutions Magazine*.

The Chicago-based trade journal presents awards each year to recognize creativity in interior decor as "an important part of a dining experience."

The Wentletrap features an interior designed by Robbin Black "that remains faithful to the League Building's historic



Rick Gardner

Wentletrap Restaurant, Galveston.

Victorian character," according to the magazine. "Lighted in part by a building-length atrium, the restaurant and its adjacent piano bar work for a low-key sophistication via exposed brick walls, combinations of vinyl and handwoven wool upholstery and the changing textures of ceramic tile floor and patterned carpeting."



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Taylor Appointed To AIA Insurance Trust



TSA Executive Vice President Des Taylor has been appointed one of seven trustees in AIA's newly re-vamped Insurance Benefit Trust. Taylor's new three-year term began Dec. 1, 1980.

Projects in Progress

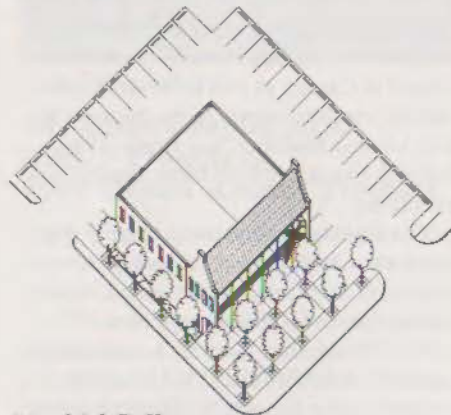
Stoneleigh P Now Rising From Its Ashes Near Downtown Dallas

Now rising from its ashes across the street from the Stoneleigh Hotel in Dallas is the legendary Stoneleigh P bar and grill, razed by a four-alarm fire last January and mourned ever since by an intensely loyal band of patrons.

Project architect John Mullen, who offices two blocks away, says he's probably eaten more hamburgers and spinach salads

at the Stoneleigh P than any other architect in town. He has lovingly designed the new restaurant to be somewhat larger than the original on virtually the exact same spot at the corner of Wolf Street and Maple Avenue.

Rebuilding the Dallas institution as close as possible to its original location was important, Mullen says, in order to retain its original character and clientele. But it wasn't easy. Current city codes require a 25-foot setback for new structures, and the grandfather clause exempting the circa-1920s Stoneleigh P went up in smoke when it did.



Stoneleigh P, II.

"Zoning would have forced the new building to the back of the lot, with all the parking in front," Mullen says, "like a 7-11."

Mullen and Stoneleigh restaurateur Tom Garrison convinced the city that the new Stoneleigh P, as such, just wouldn't be the same. The board of adjustment granted a variance allowing only a 12-foot setback from the property line on Wolf Street.

The most drastic change, says Mullen, is that the new building will be only half the size of the original corner retail strip of which the Stoneleigh P was a part, with the rest of the site devoted to parking. A second story was added to the design to maximize parking space—a chronic problem with the old establishment—and to meet a demand for office space in that part of town. The parking lot will be laid out in an L-shape from one side of the building to the back, more than doubling the amount of parking space.

The new 7,400-square-foot Stoneleigh P will be clad in mottled-buff brick with standing-seam metal roof and a two-story iron porch, making for sort of an "Early Texas-French Quarter" style, says Mullen. False-chimney gables on each end of the structure will recall the profile of the original Tudor-style bar and grill.

The first Stoneleigh P was originally a lunch-counter drugstore in the '20s called the Stoneleigh Pharmacy (the "P" was all that was left of the word "Pharmacy" on the storefront sign when the drugstore became a bar and grill in 1973). The new Stoneleigh will feature an assortment of old drugstore fixtures and furnishings, along with high, pressed-metal ceilings and ceiling fans.

Over the years, the Stoneleigh P gained a staunchly loyal following, mainly young Dallas professionals, writers and artists. Among its unique amenities, which shall return: an extensive collection of magazines and an old jukebox with vintage classical, jazz, '40s-swing and rock and roll. And the menu still will feature popular Stoneleigh P staples, such as the provolone cheeseburger, spinach salad and lentil soup.

New Statesman Complex Going up in Austin

A new 235,000-square-foot complex for the *Austin American-Statesman*, Austin's major daily newspaper, is now under construction on a 12-acre site on the south shore of Town Lake near downtown Austin.

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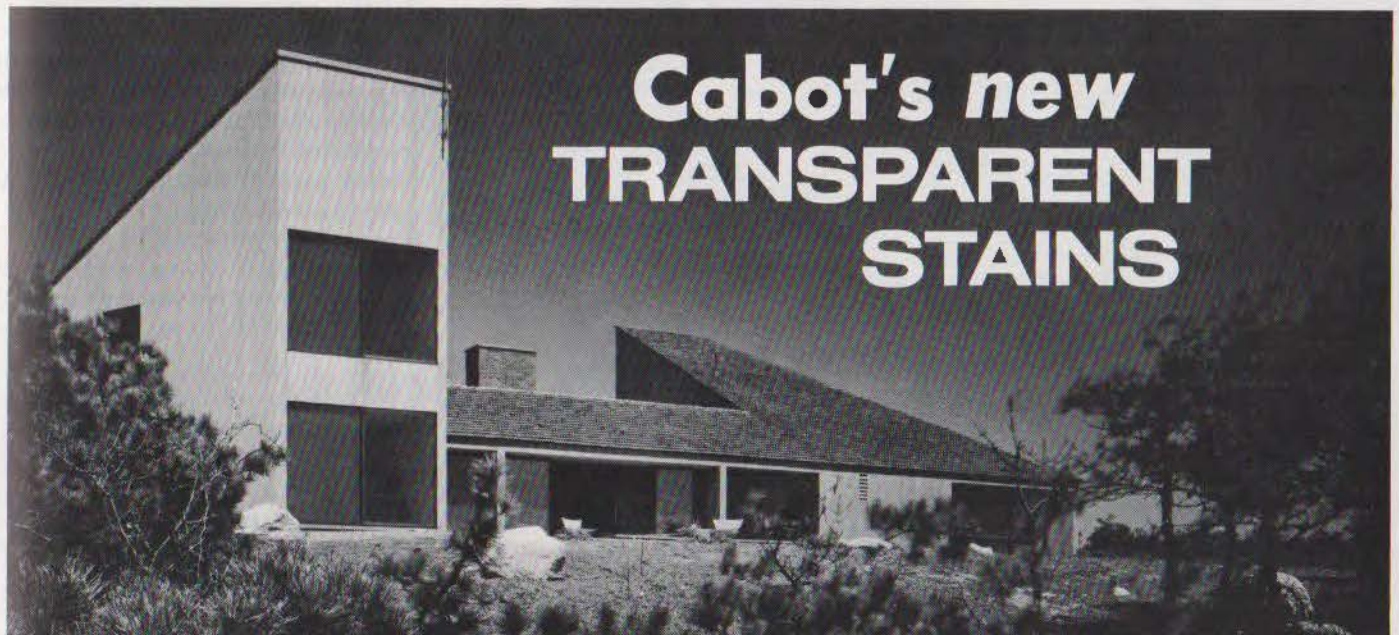
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American-Statesman building, Austin.

The \$14 million complex, designed by the Houston firm Crain/Anderson, will include a three-story office building, a newsprint warehouse and production and distribution facilities, all formed around a triangular landscaped courtyard. Glass-enclosed pedestrian bridges will connect

the office building with the other two facilities.

One prominent feature of the complex, according to architects, will be the production facility's press room, a "super space" featuring beige and orange presses and a polished aluminum plank ceiling.

A major part of the project is extensive landscaping of the site, which is a former landfill. Large trees on the lake shore will be retained, and some 200 new trees will be planted. The site also will include a hike-and-bike trail along the shoreline. Landscape architects are Myrick, Newman, Dahlberg, Inc., Austin.

Plans Announced For Renovation Project In Downtown San Antonio

Construction is scheduled to begin soon on the renovation and expansion of the 13-story San Antonio Savings Association building on the corner of Commerce and Soledad Streets in downtown San Antonio.



SASA Building, San Antonio.

The project, designed by the San Antonio firm Callaway/McWilliams, will quadruple the amount of lease space in the existing building by combining a new 20-story "wrap-around" addition with the 13-story tower. The resulting "split-level," 250,000-square-foot structure will be covered in earthtone brick and bronze reflective glass. Plans also call for a two-story atrium in the main entrance off Soledad, health club facilities and limited retail space, including a men's clothing store and a restaurant on the ground level.

The project is scheduled to be completed in mid-1982.

Correction

Texas Architect regrets not mentioning, in the "Projects in Progress" department of the Sept./Oct. 1980 issue, the fact that the San Antonio firm Chumney, Jones & Kell (formerly Bartlett Cocke & Associates) served as associate architects on the Lone Star Brewery renovation project in San Antonio. In that same issue, the firm also was misrepresented as having won a merit award in the San Antonio Chapter AIA 1980 design awards program for its Government Employees Credit Union. The firm actually won an Excellence in Architecture award for the project, the highest honor in the program.

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News of Schools

Pelli Commissioned For Museum Project At UT-Austin

Cesar Pelli has been named by The University of Texas System Board of Regents as one of the project architects for a new museum of fine arts at UT Austin.

Pelli joins the Dallas firm Fisher and Spillman Architects in a joint venture to prepare a feasibility study for the UT museum and to produce its subsequent design.

UT's proposed museum of fine arts will allow the university to centralize and expand its art holdings, improve academic use and public access to such holdings and increase exhibition space.

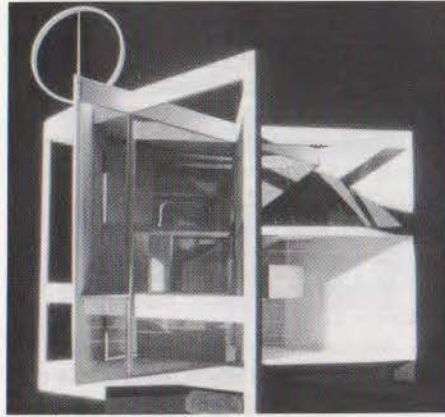
Two Texas Professors Win Merit Award in National Design Competition

A design by two Texas architecture professors was one of five cited for design excellence among 227 entries in the 1980 Innovations in Housing design competition sponsored by the American Plywood Association, *Better Homes & Gardens* and *Progressive Architecture*.

Peter Jay Zweig, AIA, an associate professor of architecture at the University of Houston, and James E. Deininger, an assistant professor at Texas A&M, collaborated on the design, which won a Citation of Merit Award in the program.

The design features skylights which, when closed in winter, trap sun-warmed air in the living spaces. In hot, humid climates, the house can be elevated on a space designed for mechanical systems.

SENIOR ARCHITECT: Applicants must be capable of full project management with the ability to coordinate the work of consulting engineers. Applicants will consult with clients to determine functional and spatial requirements and prepare information regarding design, specifications, materials, equipment, estimated cost, and building time. Job will require capacity of design, presentation, construction documentation, and site supervision. Projects will include primarily multi-story high rise office and residential facilities. Applicants must have five years experience and a B.S. in Architecture and professional registration. Salary of \$30,000 per year plus company benefits for minimum 40 hours per week. Contact David Miller, A.I.A., H.C. Hwang and Partners, Inc., 5444 Westheimer, Suite 600, Houston, Texas 77056, 713-961-9560.



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Judging entries in this year's program were David R. Hauptert, building editor of *Better Homes & Gardens*; James A. Murphey, AIA, executive editor of *Progressive Architecture*; Walter J. Richardson, FAIA, a principal in the Newport Beach, Calif., firm Richardson, Nagy, Martin Architecture/Planning; and Roy B. Fitch, Jr., of Fitch Creations, Inc., Chapel Hill, N.C.



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UT-Austin Announces Spring and Summer Workshop Series

The Division of Continuing Education at The University of Texas at Austin has announced the following schedule of workshops for architects and other design professionals to be held this coming spring:

- **Income-Property Analysis**, with Martin Kermacy as faculty member, will be held Feb. 5-6 at the La Mansion del Rio Hotel in San Antonio; March 19-20 at the Sheraton Marina Inn in Corpus

Christi; April 16-17 at the Houstonian Inn in Houston; and May 1-2 at the Midland Hilton in Midland. Cost of the workshop is \$350.

- **Black Communities in the U.S.**, with Everett and LaBarbara Fly as instructors, will be held Feb. 27-28 in Austin. Cost of the workshop is \$125.

- **Urban Design Policies**, James Amis faculty member, will be held March 13 in Austin. Cost is \$95.

- **Advanced Studies in Visual Resources Production and Conservation of Color Transparencies**, with Henry Wilhelm, Dan Jones, Arlene Farber Sirkin,

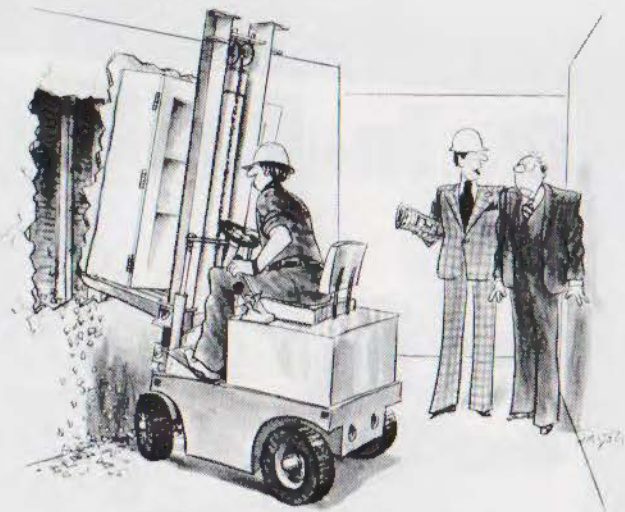
Christine Sundt and Ed Wiitala as faculty members, will be held March 27-28 in Austin. Cost is \$135.

- **The Business of Interior Architecture** will be held April 3 in Houston. Cost is \$35.

- **Design/Build**, Arthur T. Kornblut as instructor, will be held April 10 in Austin. Cost is \$225.

- **Starting Your Own Architectural Firm**, James J. Amis, instructor, will be held April 13, 20 and 27 and May 4, 11 and 18 in Austin, \$15 per session.

- **The Role of Time Management in Architectural Practice**, with Maitland Huffman as faculty member, will be held May 8 in Austin. Cost \$95.



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Books

A Century of Chair Design, edited by Frank Russell with drawings by John Read and an introduction by Phillippe Garner. Rizzoli International, New York, 160 pages, \$37.50.

Surveying the development of chair design between 1850 and 1950, the book covers the so-called Arts and Crafts, Art Nouveau, Art Deco and Modern movements in Europe and the United States, featuring the work of such noted architects and designers as the Thonet brothers, Charles Rennie Mackintosh, Frank Lloyd Wright, Marcel Breuer, Le Corbusier, Mies van der Rohe, Alvar Aalto and Charles Eames, with biographical information on each.

Historic Homes in and Around Fredericksburg, by Elise Kowert, with photography by Art Kowert, Fredericksburg Publishing Co., Fredericksburg, 206 pages, \$12.60.

Elise and Art Kowert, publishers of the *Fredericksburg Standard*, document 82 additional historic homes in and around Fredericksburg in a companion volume to their 1977 edition *Old Homes and Buildings of Fredericksburg*. While the format is similar to volume one, the author points out, the contents are entirely new. Included in this edition are homes in the countryside around Fredericksburg as well as some in the city that were not included in the first book. And while special emphasis is placed on the architecture of the buildings, Kowert says, the text also includes family histories of those who built, owned and lived in them.

A Line on Texas, by Norman Baxter. Lone Star Books, Houston, 116 pages, \$6.95 (paperback).

Norman Baxter is the artist who draws the cover art for Southwestern Bell *Yellow Pages* directories in Texas. He is perhaps better, though less popularly, known as a keen observer and recorder of Texas environmental texture with a fine point pen. *A Line on Texas* is a paperback re-release of his original limited-edition collection of 160 of his line drawings published in 1973 by his Houston graphic design firm Baxter & Korge, Inc. This new volume is divided into six geographical regions—East Texas, North Central Texas, South Texas-Gulf Coast, Central Texas, West Texas and Panhandle-Plains—and includes pen-and-ink sketches of a wide range of Texas features: “her cities and countryside, buildings and trees, homes and castles, history and geography, people and machines.”

News of Firms

The Austin firm **Robert Jackson Architects, AIA**, has relocated to 1135 West Sixth Street, Suite 124, Austin 78703. Telephone: (512) 472-5132.

Houston architect **William T. Steely's** new office is at 8401 Westheimer, Suite 244, Houston 77063. Telephone: (713) 975-8235.

Holt Fatter Scott, Inc., Austin, has moved to the Littlefield Building, office 400, Austin 78701. Telephone: (512) 474-8101.

The Dallas firm Warden and Evans has become **Warden/Evans/Hill, Architects-Planners, Inc.**, with the addition of Allan Hill as partner. The firm also has new quarters at Regency Center II, 5501 LBJ Freeway, Suite 801, Dallas 75240. Telephone: (214) 934-9300.

Shefelman and Nix Architects, Austin, announces the addition of new staff members Rick Burnight, Jeff Bates, Robert Anderson and Roy Canino.

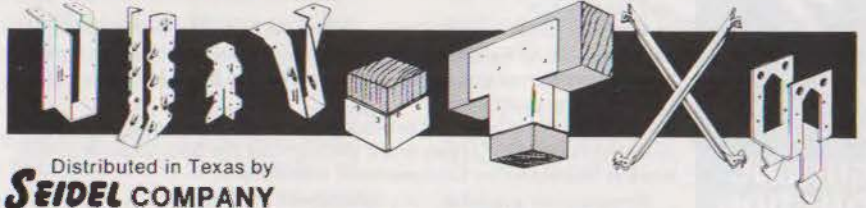
The Dallas firm **Charles R. Womack & Associates—Architects, Inc.**, announces the addition of new staffers Carol Foltz, Steve Arnold, Jim Cashion and Ed Copeland.

Samuel G. Catli, Jr., has been named vice president of Houston's **Robert Douglass Associates, Inc.**

Houston's **Caudill Rowlett Scott, Inc.**, announces the appointment of Christopher G. Macaulay as senior project man-

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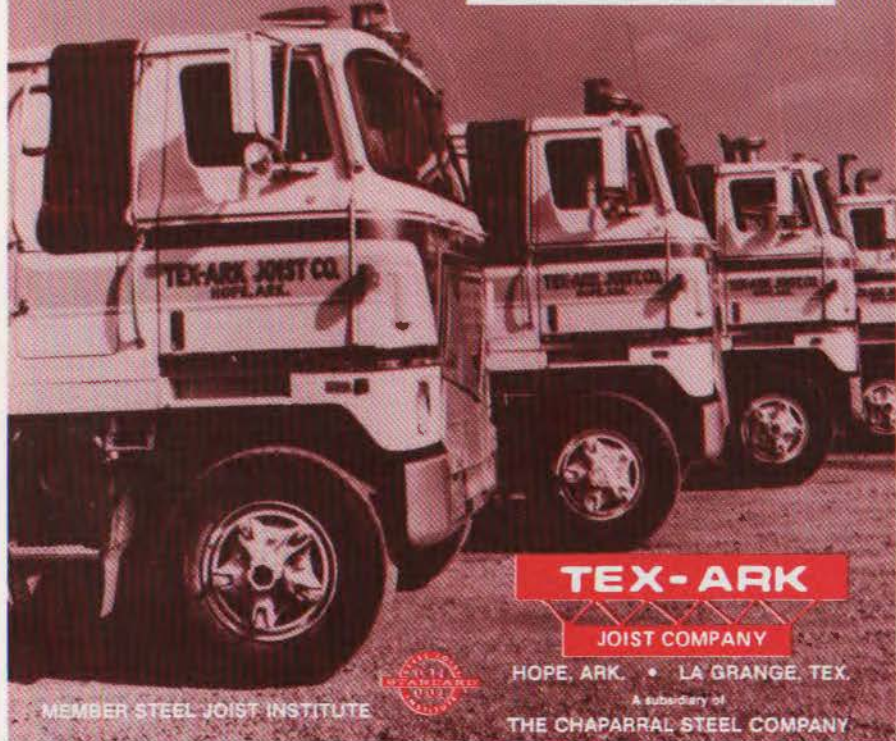
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ager in the firm's interior architecture and facilities management group.

Guillermo "Gee" Trotti has been named project architect for **Jason Frye & Associates, Houston**.

Houston-based **Gensler and Associates** has added Bill J. Davis to its staff.

Midland architect **Warren F. Pate** has moved his office to the Western State Bank Building, 1030 Andrews Highway, Suite 211, Midland 79701.

Fort Worth-based Lovett, Sellars, McSpedden, Gober has changed its name to **Sellars McSpedden Gober, Architects-Planners**, with offices at 700 Loop 820 NE, Suite 100, Fort Worth 76118; and 3115 Loop 306, Suite 100, San Angelo 76901.

The Houston firm **Taft Architects** has relocated its offices to 807 Peden St., Houston 77006. Telephone: (713) 522-2988.

Harwood K. Smith & Partners, Dallas, has moved its offices to 1111 Plaza of the Americas North, LB 307, Dallas 75201. Telephone: (214) 748-5261.

Gary Juren Architects has opened its offices in Denton at 606 North Locust, Denton 76201. Telephone: (817) 566-3316.

William P. Z. German, III, has been promoted to the board of directors of **McCleary Associates, Inc., Houston**. David P. McGuinn, David E. Anstrand and David A. Lewis have been named associates of the firm.

The Austin firm **Graeber, Simmons & Cowan, AIA, Architects, Inc.,** announces the promotion of Jerold W. Fine to associate.

Industry News

'CONDES '81' to be Held March 26-28 in Dallas

"CONDES '81," the first Dallas contract/design show to be staged apart from the January winter homefurnishings market, will be held March 26-28 at the Dallas Market Center.

Five seminars are scheduled for the three-day market, one of which will be presented by *Progressive Architecture* Editor John Morris Dixon, FAIA, who will discuss "Architectural Remodelling—A Future for the Past." Another, featuring H. Davis Mayfield, III, director of business development for Morris* Aubry Architects in Houston, will probe the intricacies of "Marketing Design Services."

Other seminars will consider "changes in roles, technology, energy limitations and design trends predicted for the contract field in this decade."

Also participating in the market will be showrooms in the World Trade Center, Trade Mart, Dallas Decorative Center and Homefurnishings Mart, featuring contract furnishings, floor and wall coverings and fabrics.

For more information, contact the Dallas Market Center, 2100 Stemmons Freeway, Dallas 75207. Telephone: (214) 655-6257.

In Brief . . .

American Yazaki Corporation, which recently opened its U.S. headquarters for solar airconditioning sales in Dallas, has introduced its new "double effect" lithium bromide absorption chiller to the American market. The unit, available in 20- and 30-ton light commercial models, has a c.o.p. (coefficient of performance) rating of .90, according to Yazaki, and will "enable its users to realize as much as 35 percent reduction in their utility bills when compared to conventional gas fired equipment." American Yazaki Cor-

poration, 13740 Omega Road, Dallas 75234. Telephone: (214) 385-8725.

GRC Products, Inc., in Schertz, has recently begun manufacturing and marketing a non-combustible, fire-resistant board "with excellent impact strength and good physical properties suitable for many industrial uses." The board is made of portland cement and calcium carbonate reinforced with an alkali-resistant glass fiber and comes in thicknesses of one-eighth, one-fourth and three-eighths of an inch, widths of four feet and lengths of eight and 10 feet. GRC Products, Inc., 17051 IH North, Drawer J, Schertz 78154. Telephone: (512) 651-6773.

A new full-color, 40 page brochure entitled *Expressions* is now available from **Eljer Plumbingware** in Pittsburgh, Penn., featuring six new bathroom designs. Included in the brochure are floor plans and lists of materials used in each illustrated bathroom, along with tips on bathroom planning and product selection. Price is \$2. Eljer Plumbingware, Wallace Murry Corporation, Three Gateway Center, Pittsburgh, Penn., 15222. Telephone: (412) 471-2402.

Three Dallas landscaping firms—Naud Burnett-Howard Garrett, Inc., Naud Burnett Landscape Company, Inc., and Lambert Landscape Company, Inc.—have agreed "in principle" to merge their operations into a single full-service landscaping firm called **Lambert's**. The new firm will office at the present location of Lambert Landscape Company fronting LBJ Freeway, between Coit and Hillcrest. Lambert's, P.O. Box 30031, Dallas 75230. Telephone: (214) 239-0121.

Dallas-based **ESI** has recently been appointed the Southwestern distributor of the "Verosol" shade, available in two fabrics—semi-transparent and semi-opaque—and a "moderate color line." Also new from ESI is the "Heritage" one-inch and two-inch horizontal wood blinds. ESI, 3027 Routh at Carlisle, Dallas 75201. Telephone: (214) 748-6411.

Isgo Corporation, a Chicago-based wall-covering distributor, has opened a warehouse and sales office in San Antonio. This new subsidiary, Isgo's third in Texas, will be headed by Ed Tusa, Jr., formerly of Isgo's Houston office. Isgo Corporation, 1530 Sentinel Drive, San Antonio 78217. Telephone: (512) 657-6868.

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Account of a Relative Success in Mississippi

By Robert V. M. Harrison, FAIA

Editor's Note: *The Intern Development Program (IDP), heralded by AIA and NCARB in 1975 as the best span yet erected between architectural education and licensed practice, has not yet reached far enough in Texas. An attempt to formalize the traditional architectural apprenticeship, during which the recent graduate gains practical experience before licensing by working in a real-world office, the program focuses on 14 training criteria which interns must meet and document before taking the registration exam. Although the IDP is not mandatory in Texas, meeting the 14 criteria is, and it is generally acknowledged that the best way to meet those criteria is through participation in the IDP. To help try out the original concept, Texas was one of four states chosen as a testing ground for the IDP five years ago. AIA and NCARB sponsors figured that if the program could work in Texas, considering the state's sprawling size, it could work almost anywhere. Results were encouraging. Some 1,000 potential Texas interns expressed an interest, as did a number of practitioners and educators. Since the IDP was officially implemented in 1978, however, results have been mixed. According to TBAE Executive Director Phil Creer, FAIA, the program is making slow progress in Texas, due in part "to lack of knowledge on the part of both candidates for licensing and practitioner-employers of the scope and value of the program." To help spread the word, Creer asked his friend and colleague Robert V. M. Harrison, FAIA, Mississippi architect, member of the NCARB board of directors and national IDP coordinator, to reflect in the pages of Texas Architect upon the relative success of the program in Mississippi. Here is his account.*

As the IDP coordinator for Mississippi with three years background in development of the pilot IDP, I started the program in the summer of 1978. Naturally, I expected immediate success and 100 percent enrollment by the end of the year. Covering an entire state, consisting of 110 architectural firms and 220 licensed architects, I knew 90 percent of all of the architects and felt a close and respected relationship with all of them. It was impossible to believe they would not endorse the IDP immediately with full enthusiasm.

My first step was to make three presentations over the state to introduce everyone to IDP. Attendance ranged from two to 40. It was easy to become discouraged at that point since this was a voluntary effort on my part with no compensation. I followed the presentations with publicity in our AIA chapter newsletter, plus special mailouts to all architects (AIA and non-AIA), to emphasize that meeting the IDP criteria was a requirement for eligibility to take the professional exam. Still there was no stampede to enroll. By the fall, we had our first four enrollees and by the next spring there was a total of 10 intern-architects in the program.

I use this experience only to emphasize, as I have told other states, that you should not be discouraged over slow enrollment. Allow at least a year for the program to become operational. After all, this is a volunteer program and all professional participants must first manage their own businesses. Also, since you have set a compliance date of 1983, I am sure the intern-architects will not be too concerned until that time draws closer. Our compliance date was 1½ years after adoption, and with the experience time retroactive, we found no problems with this shorter time frame. After all, formal architectural education has existed for

over 100 years and the licensing examinations for over 50 years. A structured internship program which completes the process—education, experience, examination—has only been available for 2½ years. We need to nurture, encourage, and support the IDP into becoming a full partner with education and examination, thereby helping assure the public that a licensed architect has been properly educated, trained and qualified to perform his services for the protection of life, safety and welfare.

There has been much discussion regarding the practical training criteria. Many categories were developed for the criteria, for it was felt that the broadest of activities that an architect performs in rendering services should be the minimum of training that the intern-architect needed. Represented in the criteria are all of the routine activities a project generates going through an architect's office. This covers everything from the initial contact with a potential client to the final acceptance of a completed project. These were assigned different quantities of time to closely reflect the amount of participation an office would devote to a single project. To place an added dimension to these formative years, a small amount of time is devoted to professional activities to introduce the future architect to a commitment of public service. Also, to allow diversification in an Intern's professional development, or to expand a particular interest, or to work in an allied field, the category of "special related activities" was included. Free electives of 144 units, 20 percent of the program, or three-fifths of a year, may be used in any way the intern-architect needs or desires. These may be used with the special related activities to allow up to a year in any specialty outside of a traditional office setting, including teaching, or additional education beyond the first profes-

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sional degree. They may also be used as extra experience in any of the 14 categories.

IDP may appear awkward, time consuming or restrictive, but when you analyze the educational process with its required educational units within a minimum time frame, and maybe five to 10 percent free electives, then IDP becomes a logical extension of the educational process. When you analyze the examination process with its structured evaluation of knowledge and skills, exercised within a fixed time frame, then IDP becomes a logical partner within the time honored

professional development process of education, experience, examination. In surveying intern-architects, I found very few who have any complaint of the criteria being impossible to complete. Of course, some of the activities may seem a bit heavy in their requirements but that is usually caused by a firm's lack of desire to help the intern in that particular area. The most commonly heard concern of the intern is in the area of construction administration and office management. These are the areas traditionally not exposed to the intern. Those completing the process all admit that obtaining maximum

exposure in these two areas became vital to their educational experience as an intern and helped them pass the professional exam the first time around. This proves these areas are invaluable, even if difficult, and by completing the total program, the intern is the beneficiary.

The results of any endeavor must be evaluated to determine effectiveness. Mississippi's first four interns to complete the IDP and take the professional exam in December 1979 passed the first time around, and all with excellent grades. Their average IDP enrollment period was 1½ years. The national average of first time candidates having completed IDP was 80 percent. The non-IDP candidates had a 57 percent pass rate and this included all retakes. We have almost unanimous consent from our intern architects and their sponsors that the program was extremely informative and created a more knowledgeable and valued employee. Of course, there is some discontent, but this usually comes from sponsors not being totally interested in helping their intern or due to lack of initiative from the interns themselves. Truthfully, all of our interns are from small offices of from two to 15 employees where total interest is normally given to everyone. We recognize the problem large departmental offices have in not being structured to offer the variety of experiences required of the IDP. These firms must find a method of making this program work or they may be losing the best employees.

A very successful method worked with the intern in my office. He was one of those first graduates passing the exam on the first attempt and he was in the program 1½ years. After evaluating his previous work experience, we determined what he needed to accomplish to complete the IDP. A small neighborhood fire station project had come into the office so we assigned this intern to be project director, and under the supervision of his sponsor he met with the client, developed the program, designed the project, completed all the construction documents, and performed all construction administration services. This total involvement took approximately one year and helped him fulfill the IDP criteria without any problems. It proved to be the best educational experience he could have obtained, and he is convinced his excellent showing on the exam, particularly the construction exam, was a result of his exposure in IDP.

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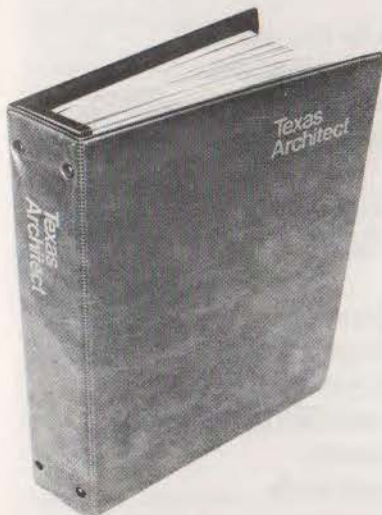
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On Materials and a Snake



Humor by Braden

And so it was, Beloved, that in the beginning there was a Man and a Woman living in this Completely Controlled Environment (CCE). It is said that Man was the first to arrive, and after some business with a rib bone, Woman appeared (a theory which has been completely discredited by ERA).

It suffices to say that all was serene, divine, beautiful and wonderful in the CCE until an evil, apple-selling serpent slithered in. For it was at that particular point in history that personkind discovered an overriding, uncompensating, motivating human force called hanky-panky.

And so it came to pass that Man and Woman were cast from the serenity of the CCE and bade to "go forth, be fruitful and multiply." To this day, this bidding is delivered in the form of a simple hand gesture flung at one another by irate motorists on freeways.

Thus it was that Man and Woman discovered the Real World and that basic axiom of life: Man cannot live by bread alone; he must have BUILDING MATERIALS (and perhaps a little hanky-panky).

If it hadn't been for that darn Snake...!

I really should stop this piece right here while I am ahead—if indeed I am. I have found that if you mix hyperbole with history you can get hysterical if not satirical. (Go back and read that last sentence again—it's a beauty!) My wife reviewed the preamble to this bit and pronounced it suitably satirical. She pointed out that in the first paragraph alone I have offended the Moral Majority, Women, and the supporters of Darwin's Theory. I am disturbed that she read this sinister meaning into my writing. My real intent was only to take a gentle poke at Hare Krishnas.

It has occurred to me that once I explored why we ever got into this building materials mess to start with, there would be little I could say on the subject that has not already been suitably documented and illustrated by Sir Bannister Fletcher in his "History of Architecture." I am completely convinced that I do not have the time to sketch all those pen-and-ink drawings a second time.

But it is true that personkind had no need for building materials until the Real World was experienced. The elements of heat and cold and wet created roof leaks,

which we have been struggling to stop for centuries now. Our success to date obviously has been limited.

For thousands of years man created shelter out of what was at hand. At first it was the cave, then as needs became more functionally demanding, various assemblages of stone and timber or mud and reeds served to keep out the weather. Yes, they leaked, but there was no liability. As a matter of fact, there were no lawyers either, so maybe the Garden of Eden (CCE) lasted a lot longer than we think it did.

Since that beginning, there have been only four improvements on the basic building material scene: the discovery of brick masonry, concrete, steel and glass. Everything else we have created falls into the category of putting tail fins on a Cadillac. Until the dawn of our industrialized society in the late 1800s, architects just struggled along with the basics, refining here and there to make architecture an art. From 1900 on, we really went bananas, to the point that my office contains a 24-volume set of Sweets Catalogs that do nothing but list the available building material options open for my selection. This is accompanied by a 5-foot shelf of Building Codes and Fire Ordinances telling me what I *cannot* do with my options. And there's a whole host of building officials and fire marshalls threatening to fine me \$200.00 a day if I do.

Somewhere along the line we developed a thing called building technology, which has really gotten out of hand. It is now legally permissible to put a skin on a high-rise building that would make Sir Christopher Wren spin in his grave like a top. Who would have thought that you could glue gravel on a piece of 1/4-inch thick asbestos board and make a building skin out of it? There is no need to worry about leaks because the cracks between the boards are filled with Wrigleys chewing gum (preferably Juicy Fruit). VOILA! Building Technology has given us artificial stone! Why do we need artificial stone when we have *real* stone? Huh?

This is only one of the many horrors

handed architects by Building Technology. If you are really looking for the worst, I suppose it would be a toss-up between Carrara glass or the azure blue porcelain enamel curtain wall panel set in a framework of bright aluminum tubing. Carrara glass (now deceased) was an opaque colored glass, made in assorted flavors, and glue-stuck on the facade of old brick stone fronts to make them "pretty." Fortunately, for structural reasons they never went higher than the first story in sticking on Carrara glass. Most of it finally broke off anyway. But most unfortunately, there is not a major city in America which does not have a bright blue porcelain enamel high-rise reaching (or is it retching) up from the heart of the C.B.D.

Once we get past the basics, new building materials seem to multiply only when motivated by a state of cheapness or fadism (which are one and the same). From that point, there are huge spin-off industries existing to take care of the problems generated by the new building materials. It seems to me we have yet to devise a new material which will not rip, rap, ravel or run down at the heels in less than 10 years.

Why do we bother? Take reflective glass. How did we get it in the first place? It was not developed by building technology. It was invented by some guy sweating in the late afternoon of a Texas summer in an under-airconditioned apartment house with west windows. He did the obvious thing with the roll of Reynolds Wrap from the kitchen. Building technology jumped on that number like ugly on an ape (you can interpret that literally). Some builder puts in a west window and we have a whole new reflective glass skin scene sprouting.

There is some speculation that the high energy use factor in the production of building materials may reduce our options back to the basics. As in education, there may be much merit for our society in this return. High-tech may be left high and dry and Post-Modernism may be left at the post without all those materials to play with. While we will never make it back to the Completely Controlled Environment, we might discover how wonderful it is to build once again without the benefits of glue and chewing gum.

Ah, if it hadn't been for that darn Snake!

Dave Braden is a partner in the Dallas firm Dahl/Braden/Chapman, Inc.

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Letters

Editor: Mr. J. H. Eccleston (Excy) Johnston, Jr.'s, work on Austin's West 6th Street in the November/December issue sure photographs nicely—like a chipboard study model! The real thing is a travesty—another quasi-intellectual bit of exhibitionism that the West 6th Street area could have done without. For once, a strip of several blocks was developing with a kind of quiet integrity until this thing comes along and gives the old sign to the rest in hopes of rising above it all. Too bad!

Chartier Newton, AIA
Austin

Editor: At a recent Fort Worth City Council meeting concerning the adoption of new fire codes (following the MGM Grand tragedy), it was quoted in the newspaper that a representative of the American Institute of Architects spoke against the adoption of the new ordinance (citing cost, etc.). We as architects should hide in shame when the public welfare is concerned and someone represents or misrepresents us in this manner.

The licensing law for architects is based on public welfare for our very existence, and when we or someone representing us speaks against the public welfare it is certainly not in our best interest.

In my opinion, the Texas Society of Architects should take the lead in promoting the adoption of the proper fire codes in the interest of public welfare. A task force in each chapter should be appointed to meet with local officials and study codes and work out the proper code for public safety. Let's do something for the public instead of ourselves—then maybe we could receive some positive publicity for a change. If we wait long enough we can turn this over to the TSA Disaster Action Committee.

Tom Caffall, Jr., AIA
Bryan



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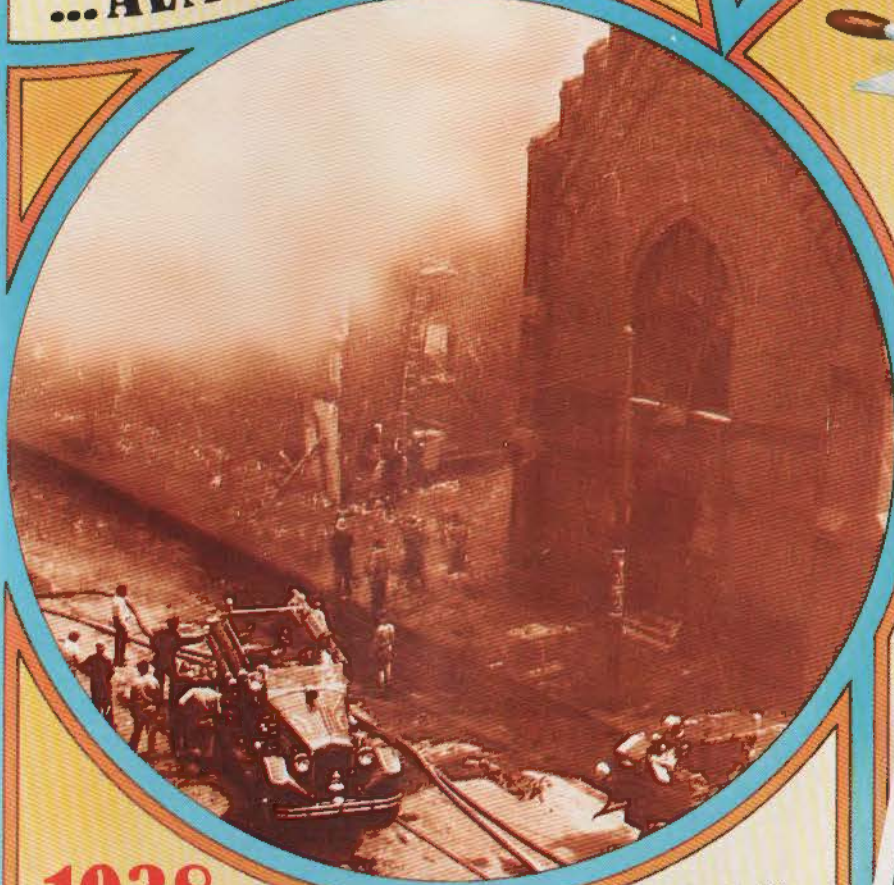
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FIRE DESTROYS CHRIST CHURCH CATHEDRAL ...ALMOST



1938

In the early morning hours of March 22, one of Houston's oldest landmarks caught fire. The fire began at a furniture store next door. According to one fireman at the scene, "We've been expecting this for 40 years. We knew if that store ever caught fire, Christ Church would go."

The fire spread quickly.



In all, 20 buildings and stores were destroyed or damaged. The furniture store was burned to the ground. But at 7 a.m., amid the smoke and rubble, amid the sounds of sirens and firemen still fighting isolated blazes inside the church, the Christ Church bell began to ring . . . its exterior masonry walls still stood. Sometimes it takes a disaster of this magnitude

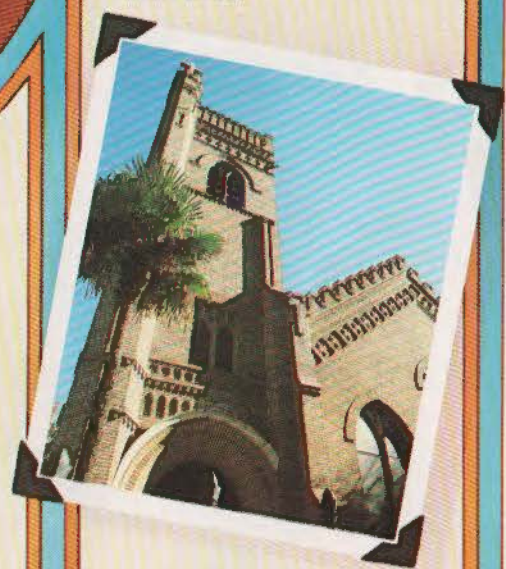
for people to fully realize and appreciate the fire resistance of masonry. The members of Christ Church did. Only five days after the fire, with most of the rubble dug out, all three Sunday services were held in the church.



Today, Christ Church Cathedral stands much the same as it did before that fiery night... a Houston landmark built of masonry.

To find out all the facts about masonry's fire resistant capabilities, call or write the Masonry Institute of Houston-Galveston.

A landmark should be built to withstand more than time.



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