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MAY·JUNE 1991

TEXAS ARCHITECT

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University of Texas Institute of Biotechnology, Hayden Head Laboratory Building, near San Antonio; photograph by R. Greg Hursley, Inc.

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TEXAS ARCHITECT

MAY · JUNE 1991 VOLUME 41 · NUMBER 4

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Technology and the future of Texas cities

IN EARLY MARCH, I took part in a forum sponsored by UT Austin's Center for American Architecture and Design, entitled "New Centers on the Periphery," which focused on the Houston Galleria, Solana, Las Colinas, and a host of other new business centers in Austin, the Dallas/Fort Worth area, Houston, and San Antonio.

Attendance was poor, which was unfortunate. It was an intricately organized event, rich in possibilities, and one almost ideally aligned with the ideas and events that I most want to cover in the pages of *Texas Architect*. There were none of the usual stars who might have helped boost attendance, but the forum provided more to grapple with for Texas architects than a dozen Kenneth Frampton lectures or Aldo Rossi slide shows.

An astonishing variety of people made presentations at the forum. There were academics, to be sure, along with a handful of architects from various cities. But they were all but lost among the developers, city councilmembers, transit and highway authority representatives, economists, and municipal and private planners, along with some people who simply made marketing pitches for their particular suburban developments.

Also astonishing was the way that the emotional tenor of the forum changed over its three-day run. Guest forum director Robert Brueggman of the University of Illinois at Chicago (perhaps best known in Texas for his articles in *Inland Architect*) started things off on a cheerful note, by urging those in attendance to put aside their prejudices against the seeming formlessness and anti-urbanity of sprawling, automobile-dominated suburban residential and commercial development, and to learn to love what was inescapably the mode of city growth for the foreseeable future. The job of architects and planners in the future, Brueggman suggested, was not to oppose such development, but to learn from it and to help it become better.

Gradually over the course of the symposium, however, the focus shifted away from the highlights of the better office parks in the northern suburbs to which all the jobs and interesting development ideas were migrating. Instead, the focus turned inexorably to the city that was being left behind by the emerging pattern of suburban growth, what David Dillon of the *Dallas Morning News* called "the hole in the doughnut." As planners and transit officials from Dallas and Houston, and representatives of developments from Solana to the Houston Galleria (the latter, it was said, had already replaced downtown Houston as the city's only Class A office center) spoke, the problems of managing those cities, and even those peripheral centers that were too closely tied in with the older city form (including, paradoxically, the Houston Galleria) began to seem all but insurmountable. On the last day of the forum, Ben Carpenter talked about how he planned and developed Las Colinas. After his presentation, there was a round-table discussion, in which Mary Ellen Degnan, director of the Dallas Institute of Humanities and Culture asked him whether, from his point of view, downtown Dallas should be revitalized or allowed to die. "In terms of marketing Las Colinas, Dallas [today] is nothing but problems," Carpenter replied.

Another participant in the forum was Amy Glasmeier of the UT Austin School of Architecture. As her feature story on the growth of high-tech industries in Texas (written with Jeff Thompson) shows, Glasmeier also sees a bleak future for the older parts of Texas cities, caused by the same forces that have pushed suburban growth statewide at the expense of urban development and that threaten the state's economic future. But Glasmeier's conclusion is a surprisingly upbeat call to action: Texas architects, she says, can help shape both the physical form and the ideology of future Texas cities, helping to create new opportunities for all Texas citizens in the process.

Joel Warren Barna

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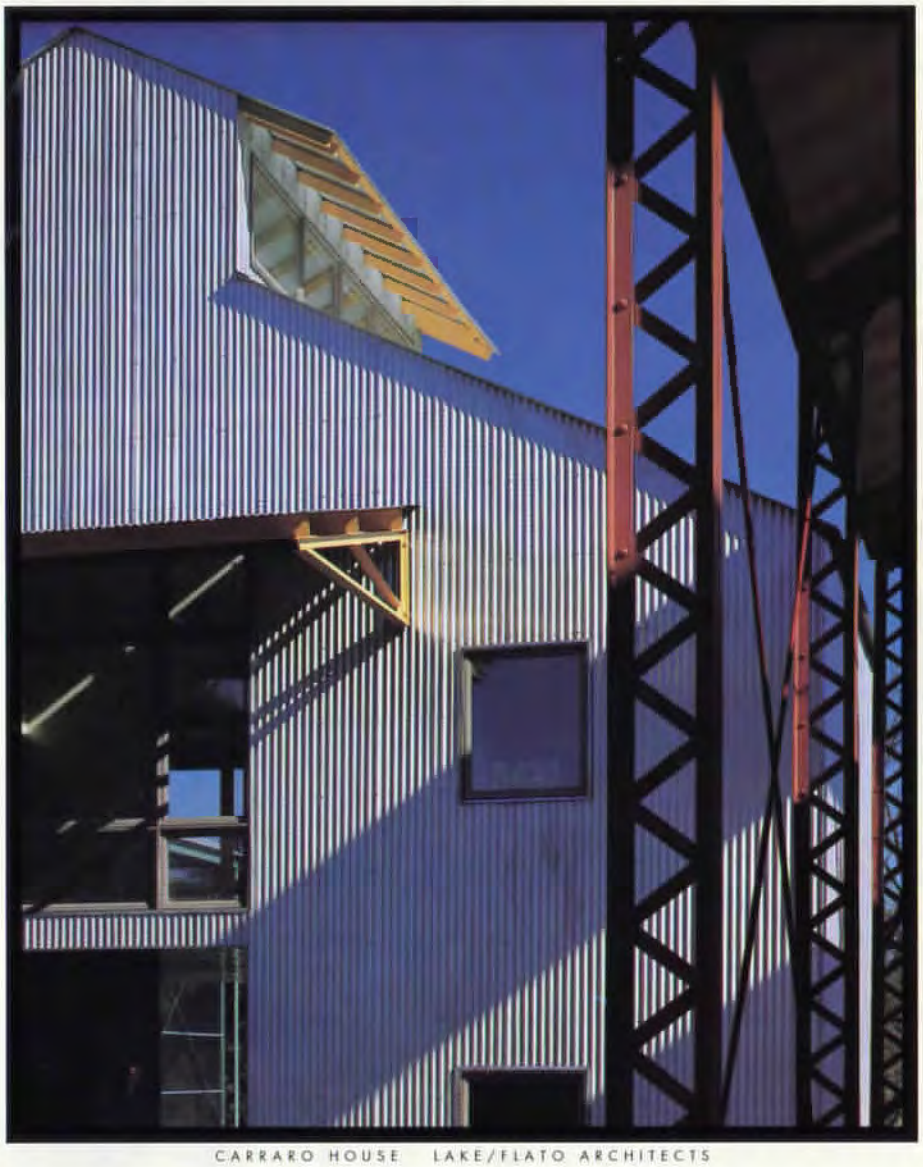

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NEWS

HOUSTON

American Rice floats 'Outlook'

CITING CONTINUED steady growth in the city's commercial real estate market, rising office-lease rates, and increasing office-space absorption, American Rice, Inc., announced plans in April for a 3-million-square-foot mixed-use center in near West Houston. Promoted as "Outlook Houston" and designed by Morris*Architects, the development would transform a prominent 39-acre site at the northeast corner of Memorial Drive and Studemont currently occupied by grain elevators and rice dryers used by American Rice for many years. Larry Dylla, an American Rice vice president, says the company does not intend to develop the land itself, but hopes to foster outside participation.

Outlook Houston, view from west toward downtown

"We would be willing to finance land acquisitions for qualified parties," says Dylla. "With a good lead tenant as partner, we might even want to joint-venture a new office building, shopping center, or whatever makes good sense."

The Morris*Architects master plan calls for nine office buildings, ranging in height from 6 to 35 stories; two 25-story, 250-unit apartment towers; a 350-room hotel; a health center; and retail areas. Project architect John Smart says the striking white rice granaries stimulated an all-white palette for the various buildings. One small silo would be preserved as part of the health center.

The Morris scheme is not the only possibility for the site, however, realtors handling the tract note. Both consortiums vying for a contract to build the state's high-speed-rail line (see "News," *TA* Mar/Apr 1991) are studying the site for use as a terminal for Houston's central business district.

Nevertheless, aside from the presently stalled 600-acre Founders Park development, Outlook Houston represents the most ambitious proposal to be considered in the city since the 1980s. ***Ray Don Tilley***

AUSTIN

Charette creates Council Grove

WITH $3,000 from Jack Brown Cleaners and other in-kind donations, the Austin Chapter/AIA and other local organizations have succeeded in turning energetic civic-mindedness into a small but important investment in the downtown fabric. Architects Heather McKinney, Mac Ragsdale, and Mac Holder were part of a winning team in a design charette held to transform an open section of the Town Lake hike-and-bike trail. The team arranged 33 trees and a meadow of wildflowers along the trail (see site plan below). Some trees are set along the path in linear fashion, while others are peeled away into shady clusters. Although just installed in late March (above right), the setting already has softened the encroachment of a boulevard to the south and railroad bridge to the west. More important, these plantings promise to encourage further voluntary civic landscape work by the AIA chapter and other organizations, fulfilling an often overlooked urban need. ***RDT***

Ray Don Tilley

SAN ANTONIO

Mexican splendors

THE Metropolitan Museum of Art's monumental exhibition, *Mexico: Splendors of Thirty Centuries*, opened Apr. 6 and runs through Aug. 4 at the San Antonio Museum of Art. Included are more than 400 paintings, sculptures, decorative pieces (flanged ceramic cylinder from about 690 A.D., shown at right), textiles, and woodwork pieces. Lake/Flato Architects designed renovations and minor additions to a previous storage building at the old Lone Star Brewery site, as well as a connective space from the new gallery to the existing museum, which had been renovated to a Cambridge Seven design in 1981. ***RDT***

SAN ANTONIO

Symposium seeks partnership

A DAY-LONG SYMPOSIUM sponsored by the San Antonio Chapter/AIA and set for May 10 will bring together Texan and Mexican architects to discuss the "possibilities of international working relationships" that are expected to be promoted by the free-trade agreement under consideration by the U.S., Mexico, and Canada. Speakers will present projects from their respective countries, emphasizing particular approaches and methods. Registration laws of Texas and Mexico will also be outlined. A private viewing of "Mexico: Splendors of Thirty Centuries" at the San Antonio Museum of Art will follow for symposium attendees. ***RDT***

HOUSTON

Urban design and the drive-thru

Below: McDonalds, Main at Travis

BANKING ON steady business from Metro patrons and nearby county office workers, McDonald's opened its latest downtown fast-food restaurant on the edge of the Market Square Historic District in Houston last July. Located on the southwest corner of Main and Travis streets, the restaurant filled the vacant portion of a lot and required the demolition of a historic structure to provide additional parking. Local preservation activists were not able to persuade McDonald's officials to rehabilitate the existing structure.

Houston architect Barry Moore, FAIA, writing in a recent article in the *Houston Press*, describes the project as "a late-model version of fast food architecture from the 'burbs plunked down in the middle of all these tall downtown buildings on their tight grid. It (is) a strange sort of focal point of blocks and blocks of empty ground-floor retail space along Main Street."

This type of development will clearly be stiff competition for efforts spearheaded by the Market Square Historic District Project and other groups and individuals interested in preserving and developing the unique character of this part of Houston. The design, however, does not necessarily reflect an antagonistic approach by McDonald's toward preservation and urban-design issues. As a local preservationist suggests, "Where there is no stated public vision, other public and corporate entities do not have any context to which to respond." ***Vincent Hauser***

OF NOTE

Progress, problems for rail programs

The Houston Metro board voted in March to hire Houston Monorail Team, a joint venture of 13 companies including the builders of the Disney World monorail, to build the $1.2-billion first phase of the city's planned light rail line. But before a spade is turned, other issues must be settled. The Texas Legislature may schedule a referendum on the rail plan, which would likely kill it; influential city business leaders, including Leo Linbeck of the Decoma Group, a losing bidder, have joined Bob Lanier and other suburban-based rail opponents in calling for the referendum. Soon after the rail contract was awarded, AEG Westinghouse, one of the two finalists, charged that the agency played favorites by not choosing Westinghouse's allegedly lower-cost, more-reliable system. In addition, the Harris County Attorney has threatened to investigate Metro's bid process for violations of state laws. In Dallas, the state highway department has begun widening the North Central Expressway. Part of Dallas Area Rapid Transit's new rail line was to run in boxes to either side of the roadway. But DART announced recently that a central subway tunnel might actually be cheaper. Enfuriated members of the Dallas City Council have threatened to withdraw the city from DART.

Plaza revision planned

The Prime Group announced in March it would renovate the 11-year-old Plaza of the Americas in downtown Dallas. Over the next year, Prime will create formal main lobbies in the project's two 25-story office towers, adding sculptured marble finishes. Outside, five-story granite entrances and European-style plazas will be added. Design of the original building and the renovations is by HKS Inc.

New Plaza of the Americas entry portal and plaza, designed by HKS for The Prime Group

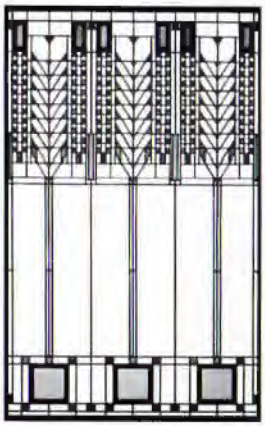
Capitol move begins; staff shuffled

The State Preservation Board restructured management of the Capitol project in early April, creating the position of executive director to take over many of the administrative duties previously handled by Capitol Architect Allen McCree, FAIA. Dealey Herndon, an Austin civic volunteer and Preservation Board member, was named to the new post, an awkward move, since she participated in the unanimous vote to create the position. McCree continues as architect of the Capitol project, for which work on the addition continues; office moves have begun to make way for restoration.

May/June 1991 Quote:

"I thought I invented Frank Gehry. I thought I invented Peter Eisenman," *Philip Johnson, FAIA*, portrayed as "Master Philip and the Boys" in *Spy* magazine's May 1991 issue.

CALENDAR



Domino's Collection
More than 70 pieces of furniture, art-glass windows, and other decorative elements designed by Frank Lloyd Wright (including the leaded-glass "Tree of Life" shown here) make up a traveling exhibition drawn from the Domino's Pizza Collection. Dallas Museum of Art (214/922-1200), *May 26 to July 21.*

Contextual Design, Historic Preservation
Texas Tech University is offering summer design workshops in Guanajuato, Mexico, and Santa Fe, N.Mex. Architecture Advising Office (806/742-3137), *June 3 to July 5*

Galveston Historic Homes Tour
Works by Nicholas Clayton, Alfred Muller, John Staub, and William Tyndall highlight the 17th annual tour. Galveston Historical Foundation (409/765-7834, 713/280-3907), *May 4, 5, 11, 12*

"Calendar," continued on page 10

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"Calendar," continued from page 8

Paul Hester

Tiel Way: An Architectural Tour
RDA's 14th Annual Architectural Tour of Houston will focus on five residences by MacKie & Kamrath (8 Tiel Way, above) and one by Northrop & Northrop, all located along Tiel Way. Architectural historian Stephen Fox will deliver a lecture on the works of MacKie & Kamrath at the MFAH's Brown Auditorium, May 8, to introduce the tour. Rice Design Alliance (713/524-6297), *tour: May 18–19*

IFRAA International Design Awards
Religious facilities completed since 1986 by registered architects are eligible. Interfaith Forum on Religion, Art and Architecture (203/966-9505), *entry deadline: July 10*

"Calendar," continued on page 12

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"Calendar," continued from page 10

Exhibit of Architectural Photography
Prints by architectural photographers from across the state, including Carolyn Brown, James F. Wilson, R. Greg Hursley, Michael Lyon, Joe Aker, BlackmonWintersKuhner, and John Dyer will be on exhibit at the gallery in the new Dallas Chapter/AIA office at 2811 McKinney Avenue. Dallas Chapter/AIA (214/871-2788), *through May 1.*

Galveston Sandcastle Competition
The 5th annual competition for the "Golden Bucket" award will be held at Apffel Park. Houston Chapter/AIA (Dancie Perugini Ware, 713/224-9115), *June 1*

"News," continued on page 14

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AUSTIN

Preservationists stress funding

THE SECOND ANNUAL "Preservation Day," sponsored by the Preservation Texas Alliance, was held Feb. 27 to highlight critical preservation issues for legislators and their constituents. In the keynote speech, Karl Komatsu of Fort Worth stessed the important role preservation will play in the future economic development and environmental awareness of the state. Of particular concern, he said, is a suggested 10-percent decrease in the budget of the Texas Historical

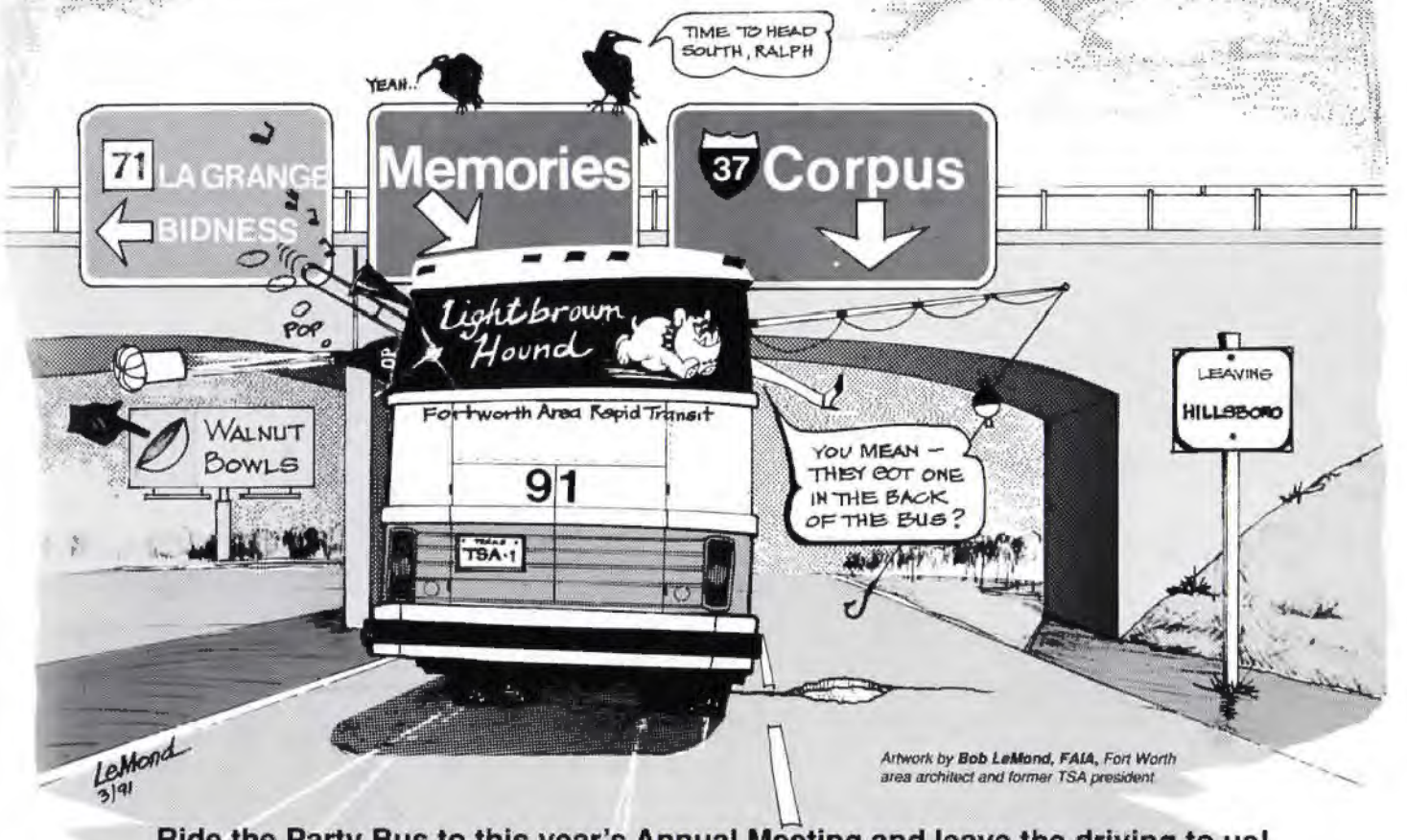
Preservation funding cuts in the proposed state budget may cost Texas $1.7 million in federal matching funds outlined by President Bush.

Commission. While the state budget has grown by 26 percent since 1984, the budget for the THC has decreased by 37 percent and will drop by an additional 51 percent if the Legislative Budget Board's recommended cuts are implemented. Ironically, President George Bush has recommended significant increases in his U.S. budget recommendation for historic preservation programs. Under the federal proposal, Texas would be the third largest recipient of matching federal funds, but only if it has the funds to match federal dollars. Under the proposed state budget, Texas would lose $1.7 million in matching funds.

Stan Graves, an architect with the THC in Austin, described the "Preservation Trust Fund," a new project to fund preservation projects that have languished in recent years. As late as 1981, Texas was a national leader in state preservation grant programs, with over 300 buildings restored that year throughout the state. Since the mid-1980s, however, grants have been so drastically reduced that funding will not allow for the restoration of even one building. The Preservation Trust Fund would not only provide a means for low-interest loans and grants, but would allow the state to use funds in the trust to secure matching federal monies. (Florida has placed $20 million in such a fund and now ranks second in the amount of federal preservation assistance.) Other speakers included Allen McCree, FAIA, Architect of the Capitol; Jill Souter, president of Texas Preservation Alliance; State Rep. Ralph Wallace of Houston, chairman of the House Committee on Historic and Cultural Resources, and Nancy Kenmotsu of the Old San Antonio Road Preservation Commission. ***Lila Stillson***

Lila Stillson is curator of the UT Austin Architectural Drawings Collection.

"News," continued on page 16



Artwork by ***Bob LeMond, FAIA,*** *Fort Worth area architect and former TSA president*

Ride the Party Bus to this year's Annual Meeting and leave the driving to us!

Party your way to Corpus Christi on one of three chartered buses and leave the driving to us. The low cost includes drinks, snacks, lunches, games, fellowship and fun! Buses will be leaving from two primary areas: Dallas/Fort Worth and Houston.

The Metroplex bus (the IH-35 route) will leave Dallas at 8 am Wednesday, October 30. It will stop for passengers in Fort Worth, Waco, Austin and San Antonio. In addition to passengers, the bus will also stop for lunch in Austin on the way down and on the return trip.

Non-stop Houston party buses (the IH-45 route) will depart on two days, Wednesday afternoon and Thursday morning. Buses leave Wednesday, October 30 at 2 pm, and Thursday, October 31 at 8 am.

For reservations please call TSA at 512/478-7386 and ask for Lee Bash.

IH-35 Party Route

Outbound to Corpus Christi
Wednesday, October 30

	Arrive	Depart
Dallas		8:00 am
Fort Worth	9:00 am	9:30 am
Waco	11:00 am	11:30 am
Austin	1:00 pm	2:45 pm
San Antonio	3:45 pm	4:15 pm
Corpus Christi	6:45 pm	

Return to Dallas
Sunday, November 3

	Arrive	Depart
Corpus Christi		8:30 am
San Antonio	11:00 am	11:30 am
Austin	12:30 pm	1:30 pm
Waco	3:00 pm	3:30 pm
Fort Worth	5:00 pm	5:30 pm
Dallas	6:30 pm	

Round-Trip Tickets: Dallas, Fort Worth, Waco–$65; Austin–$60; San Antonio–$55.
One-Way Tickets: All cities–$45.

IH-45 Party Route

Outbound to Corpus Christi
Wednesday, October 30

Leave Houston	2:00 pm
Arrive Corpus Christi	7:00 pm

Thursday, October 31

Leave Houston	8:00 am
Arrive Corpus Christi	1:00 pm

Return to Houston
Sunday, November 3
Both Buses

Leave Corpus Christi	1:30 pm
Arrive Houston	6:30 pm

Houston Tickets: Round-Trip–$55; One-Way–$45.

All prices subject to slight change due fuel price fluctuations.

Seating is limited so make your reservation today!

EL PASO

Alvidrez leads chapter honors

IN AN UNUSUAL APPROACH to judging local design awards, the El Paso Chapter/AIA called on Fort Worth/AIA members, under the chairmanship of Robert LeMond, FAIA, to consider this year's entrants. The jury recognized five projects, reserving its only Honor Awards for two schools by Alvidrez Associates Architects.

The first award went to Desertaire Elementary School, a scheme of two relatively linear portions, which were connected at a 60-degree angle. A circular library, topped by a conical skylight, marks the intersection of these two building legs. Eastwood High School Library, Alvidrez Associates' second Honor Award winner, was a 12,400-square-foot addition that continued the school building's existing rectilinear arrangement, while creating a striking "glass box" as a more visible entry and lobby. The principal-in-charge and project architect on both projects were David A. Alvidrez and Salvador Garcia, Jr., respectively. Team members were Maggie A. Alvidrez, Victor Gonzalez, Enrique Spencer, Jose Luis Lopez, and Gerardo Gutierrez, in addition to Renae Palmer on the Eastwood project and Laura Montoya, Daniel Soltero, and Roy Pacheeano on Desertaire Elementary.

Top: Desertaire Elementary School
Above: Eastwood High School Library

Ron Brown Architects (with Ellerbe Beckett) won a Merit Award for the El Paso Sports Complex, Cohen Center. Honorable Mention was given to MKMS Architecture (Edward McCormick, Terry Williams, Jeffrey Huff, and Daniel Haggerty) for the El Paso War Veterans Memorial Museum, and Wofford and Wofford for its offices. *RDT*

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The makers of WILSONART® have introduced GIBRALTAR™ Solid Surfacing, which features surface hardness and a high resistance to chemicals, stains, and scratches. GIBRALTAR is also coordinated with the entire Ralph Wilson Plastics collection of finishes.
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American Standard
The Heritage collection of two-handled faucets has been redesigned by Chicago architects Stanley Tigerman and Margaret McCurry as a highly decorative line of commercial and residential faucets that also provide ease of use by the aging and disabled.
Circle 82 on reader inquiry card

Kohler Co.
Designed with terraced side walls, the new Seawall six-foot Whirlpool features an integral spout, which runs the length of one of the side walls, and sends water cascading down the terraces to fill the bath. The cast iron Seawall is available in many colors.
Circle 81 on reader inquiry card

The Conrad Company
Design-A-Sink: DuPont Corian's sink collection comes in a wide variety of shapes and colors than can be combined into more than 400 different configurations. Add to that contrasting color and material inlays for even greater flexibility and interest.
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Nevamar Corporation
Vitricor® combines beauty and durability. Each sheet of the high-molecular acrylic is suitable for both decorative and functional applications. Its reflective gloss appearance provides saturated color that approaches the qualities of hand-lacquered finishes.
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&Baths

Kohler Co.
The new Rialto™ Lite™ toilet, pictured in Ice™ Grey, uses only 1.5 gallons per flush and retains the popular styling of the original Rialto. The round-front Lite is equipped with Kohler's Pressure Clean operating system for positive flushing action.
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Nevamar Corporation
Fountainhead solid non-porous surfacing blends beauty and practicality. The product line includes soft, neutral solid colors and "granite-like" patterns intended to provide a contemporary look and drama. Numerous colors and edge treatments are available.
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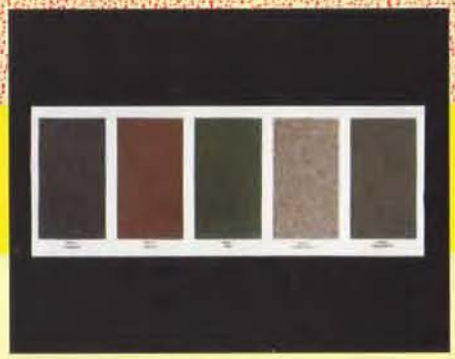

The Conrad Company
Corian Jewel Collection: Corian® has introduced five new Jewel Tones to its Sierra (granite-like) series. Sierra Sapphire, Garnet, Jade, Burnt Amber, and Black Pearl add new possibilities to designing with tones to compliment popular colors and wood tones.
Circle 77 on reader inquiry card

American Standard
Cadenza is the corner whirlpool in the Symphony collection—a style that responds to increased demand from designers and contractors. The two-person tub here includes a deck-mount tub filler, remote handles, and hand shower, with contrasting-color headrests.
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Ralph Wilson Plastics Co.
New to the Perma-Edge® line is Perma-Tiers, a decorative laminate edge molding consisting of two layers of matching SOLICOR® colorthrough laminate, with a contrasting pinstripe layer of SOLICOR in between. Perma-Tiers is offered in 12 standard combinations.
Circle 78 on reader inquiry card

The Urban Kitchen
Crystal cabinetry combines the sheen of high-gloss polyester in an array of colors, and also in a matte-finish option. Coordinating appliance panels and design details like the extended radiused sink edge are intended to provide complete performance and style.
Circle 84 on reader inquiry card

See the **Harbor Bridge**, at 620 feet across the ship channel the second-highest bridge in Texas.

Visit **Corpus Christi Beach** across the Harbor Bridge on the north side of the chanel. Park areas, picnic tables, showers, and lots of sand for castles.

Improve your **golf game** at any of the many area courses.

Visit an **art gallery**, such as the Art Community Center or Artisans Art Gallery.

Take a day and charter a **deep-sea fishing** boat. Try popular spots in Corpus or Port Aransas.

Enjoy the local and Broadway plays at the **Harbor Playhouse**.

Go **horseback riding** along Mustang Island, an activity that both experienced and novice riders will enjoy.

Take the **ferry** to Port Aransas and watch the dolphins playfully guiding you along.

Visit the **Centennial House**, a restored house that dates back to the Civil War and is considered the oldest building in Corpus Christi.

Eat, shop and relax at the **Water Street Market**, where gift shops and restaurants line an open courtyard.

Tour the **Naval Air Station**, headquarters for the Naval Air Training Command.

Rent an **aqua cycle** or **paddle boat** and see the bayfront up close. Ride with a friend or try it alone for a tranquil respite.

See the **open-air Catholic Church** on Padre Island, where worshippers dress in casual beachwear.

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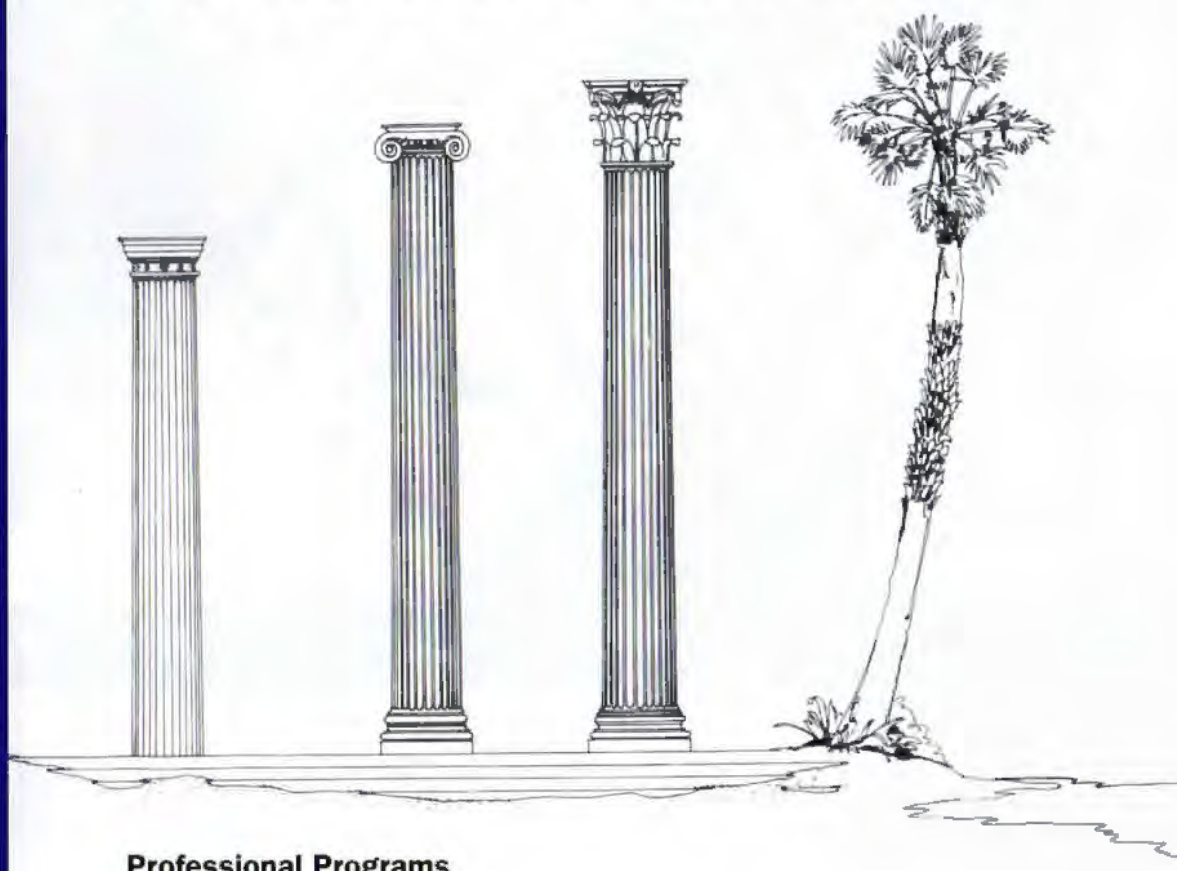

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CHOICES FOR HIGH TECH

By Amy Glasmeier and Jeff Thompson

CRYSTAL-BALL-GAZING is a hazardous profession. We usually try to describe the future based on past experience and trends. Unfortunately, for those who want to predict the future in Texas, the events of the 1980s evaded prediction to an unprecedented extent, casting doubt upon conventional analysis. That shouldn't have been surprising, however: The events of the 1970s were no less unexpected. Starting with the Arab oil embargo in 1973, the state experienced explosive growth. Population swelled by more than 3 million people. The second oil price hike in 1976 set off the state's economy, and growth seemed unstoppable. And just as oil prices began to fall in the 1980s, along came the "miracle" of high tech. First Compaq, then MCC, then a rash of technical branch plants, and finally, Sematech heralded the apparent transformation to a new economy. The state was on a roll. It seemed like everyone wanted a piece of the action in Texas. But when the bubble burst in 1986, housing prices went into a free fall and commercial space went begging. Texas woke up from its development binge with an incredible hangover.

The Past No Longer Prelude

THE MAIN FEATURE in the last issue of *Texas Architect* (see "Money and Building in the 1980s," Mar/Apr '91) underscored just how good and just how bad the 1980s were for architecture in Texas and hinted at what lay beneath the uncontrolled growth that swept through the state. Texas grew, but by many social indicators, the state failed to develop. High school graduation rates remain low (one-third of the state's students, including 45 percent of Hispanics, drop out); per-capita income levels are below the national level; family poverty is higher than the national average (18.3 versus 15 percent); and the regional distribution of employment opportunities is highly uneven. Consequently, the next decade will be spent in part attempting to rectify the problems created and exacerbated by twenty years of rapid and unequally distributed growth.

Once insulated from external events, Texas must now reposition itself for global competition. This will require constructing a new vision that emphasizes *development*, not just *growth*.

In the last two decades, Texas has been extremely fortunate. No other state except California has benefited from such a favorable combination of natural resources, government spending, and population inmigration. These factors helped in boosting growth in Texas for decades. But it is questionable whether these sources of growth will perform at anything near past levels. The end of the war in the Persian Gulf nations means that the world may soon be swimming in cheap oil, as the regional producers pump madly to raise revenues for rebuilding their countries. Defense spending, particularly for weapons systems manufactured by firms headquartered in the Texas, is contracting. And future growth must now come from indigenous development, as opposed to the extraordinary inmigration of skilled workers and professionals that the state has recently enjoyed.

Cheap oil, less government spending, and fewer skilled migrants add up to a conclusion very different from what one might expect after the past two decades. It is that the glory days are over. Once insulated from external events, Texas must now reposition itself to compete in the global economy.

The next decade will also be about choices: enhancing the environment for all Texans or continuing the status quo. Perhaps at no time since the inception of the modernist movement has there been so obvious an opportunity for architecture and planning to contribute to the formation of a new progressive social agenda. But this will require abandoning old priorities, radically reorienting goals, and constructing a new vision that emphasizes *development*, not just *growth*.

Global Forces

IN ASSESSING the blame for the recent economic downturn in Texas, it seems easy to point fingers at real estate speculators and their bankers. But the situation is more complex. Texas companies have been and are facing an increasingly competitive global environment. No sector of the economy is immune. Indeed, the effects of global competition are felt even by high-tech firms. Other countries have taken the lead in commercializing technologies developed in the U.S., and America's technological leadership in fundamental products and processes is being eroded. Now even the nation's monopoly in software is eroding. By emphasizing quality (America's weak point) firms in Japan and Europe are launching a move for market share.

International competition essentially requires constant restructuring. Firms continue to shift unskilled or semi-skilled labor-intensive assembly processes to low-cost locations south of the Texas border or to jobbers in Southeast Asia. The pending free-trade agreement with Mexico and ongoing GATT negotiations foreshadow intensification of global competition as market barriers fall. Elimination of trade restrictions will facilitate even more finely tuned location decisions, and in the U.S., markets and access to skilled labor increasingly will replace wages as the primary determinants for decisions on where to locate manufacturing facilities.

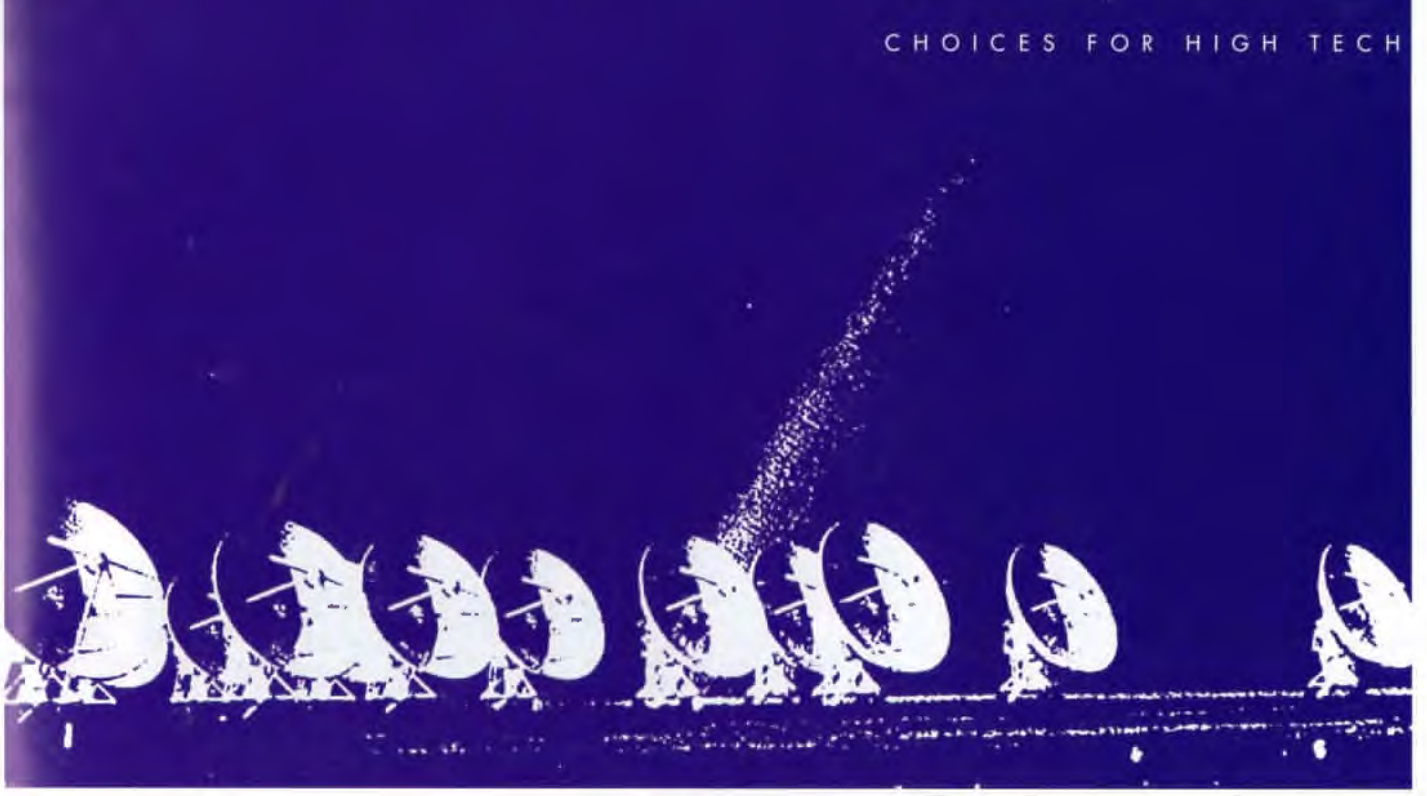
Will the 1990s herald another surge in growth similar to that of the last two decades? The question should be, "What factors will bring development to Texas?" Civic boosters tout recent relocations to northern Dallas of service functions such as J.C. Penney's corporate headquarters and Exxon's headquarters and R&D lab, as harbingers of things to come. But they may be isolated events. These and other corporate relocations have been in large part driven by temporary conditions in the commercial real estate market. Currently depressed housing markets throughout the state have also offered extraordinary locational advantages to cost-cutting corporate nomads eager to reduce salary and wage pressures. But commercial and residential real estate markets are now falling all over the country. Moreover, due to lagging productivity in the service sector, many economists predict a major restructuring in service industries, not unlike that which occurred in manufacturing. The outcome will be a contraction in employment and space demands and an upgrading in labor-skill-level requirements. So the new corporate agenda will probably be, "don't move, improve."

Firms can shift low-skilled jobs anywhere. From now on in the U.S., markets and access to skilled labor will increasingly replace wages as the primary determinants of decisions on locating manufacturing facilities.

The Superconducting Supercollider

THE DEVELOPMENT IMPACTS are uncertain at best for Texas' largest recent coup, the Superconducting Supercollider. Economic studies commissioned by the Texas National Research Laboratory project direct employment of 3,000 and indirect employment of 4,400 once the facility is operational. Yet this employment generation alone will have little relative effect on the overall Dallas–Fort Worth Metroplex. The studies project that two-thirds of the direct jobs will be filled by inmigrants to the region. Although the precise settlement pattern of the incoming migrants is uncertain, it appears most benefits will accrue to the southern exurbs of the Metroplex, reinforcing existing patterns of suburbanization. Indeed, the first scientists arriving to begin work on the project have largely located south of Dallas in Duncanville. By contrast, Ellis County, the SSC's future home, is projected to attain population growth rates that, at best, approximate those of the early 1970s.

Indirect economic impacts are harder to gauge. Texas' construction and cement industries will certainly gain from the project's scale and the countless tons of concrete needed to create the underground high-speed race track. Realistically, however, the impact of the SSC will probably not lead to a new boom in the state. Large research facilities rarely create spontaneous development. Potential benefits are more long-term. While the



SSC will generate thousands of high speed quarks, immediate commercial application of these invisible entities is doubtful. In the near term, the SSC will generate few new products; thus new business spin-offs will be limited. While the service demands of the project will not be insignificant, most of the specialized functions will remain internal to the lab.

Perhaps more 3M-like laboratories have an eye on Texas? Again, we must look at both internal and external factors. If interest rates continue to fall, then one hurdle will have been overcome. But a lingering national recession will limit corporate investments in new facilities. And as growth in the labor force levels off and the supply of technical workers stabilizes, companies may be forced to locate in other states (and increasingly to other countries) to tap existing skilled labor pools. Texas is already facing labor supply limits resulting from its fixation on growth at the expense of development.

What Development Means in Texas

TEXAS IS A STATE preoccupied with its business-climate image. How do we sell ourselves? The State Department of Commerce hawks Texas as a right-to-work state with the fourth-lowest wage rate of the most populous states. This view of low-profile government also holds true for taxes. Texas has no state income tax, and its overall per capita tax burden is minimal.

While not trumpeted with the same fervor, *The Texas Report: Business Climate Comparisons of the 15 Most Populous States* contains other, less flattering facts. Texas has the country's third-lowest expenditure-per-pupil ratio and the second-highest property-crime rate, far in excess of other large industrial states such as New York, California, or Michigan. High-school drop-out rates are high for all groups in the population, not just minorities. And the state also has an unusually high (and regressive) sales tax. It appears that our favorable business-climate statistics do not translate into ideal quality-of-life measures, indicators of human investment, or predictors of future productivity. But these statistics do underscore the point that Texas' future must be different from its past if the state wants to compete globally.

Texas sells itself as a low-wage right-to-work state with a minimal overall per-capita tax burden. But our favorable business-climate statistics do not translate into ideal quality of life measures or predictors of future productivity.

Like many southern states, Texas has historically sold itself as a low-wage alternative to the industrial heartland. Even today, political leaders make regular treks to other regions, and increasingly to other nations, to entice relocating branch plants to Texas. State leaders also compete for research and development facilities. Texas has not been unsuccessful, evidenced by the snaring of MCC and Sematech. Yet these prizes are relatively few and far between, and the rewards are not immediate. While R&D labs add value to a state in the long term, in a broader sense, they have little effect on current economic growth. If they are not backed up by investments in human capital, the facilities ultimately remain islands, unconnected to the local or regional economy and dependent upon skilled inmigrants.

Basing economic development policy on institutional or corporate relocation obscures the issue of the rising economic distress felt by many Texas residents, as well as the simultaneous reduction of their suitability for employment. As recent auto-plant site selections attest,

firms making location decisions seek skill levels and a work ethic that few American communities possess. For the thousands of American workers, including many Texas residents, without a minimum of a high school diploma, few job alternatives exist.

If skill levels really are the decisive factor in the immediate future, what does Texas have to offer? Demographic trends indicate that the future labor market of Texas will be younger, more female, and more Hispanic than national averages. To date the state has not been particularly successful at providing women and minorities equal access to quality education. The future must bring changes in access to training so these individuals can participate fully in the state's economy.

Aside from this mismatch of skill levels and employment opportunities, it is also important to recognize that the state's industrial-attraction policy has had deleterious spatial impacts. It has fostered unequal growth patterns by concentrating development in already affluent suburbs while providing virtually no meaningful employment opportunities for the disadvantaged in the city. In essence, the fundamental question is not simply how much employment is actually being generated. Rather, are Texas residents benefiting from such economic growth policies, and will they continue to do so in the future?

Firms making relocation decisions today look first at skill levels and the work ethic of target communities. If skill levels really are the decisive factor in the immediate future, what can Texas offer?

The Form of Cities

ACROSS THE NATION, rapid growth over the last two decades has resulted in a distinct pattern of spatial development. Central cities have been losing middle-income residents to adjacent suburbs. As the *New York Times* recently reported, Texas' cities are the quintessential example of suburbanization in the late 20th century. The forces shaping this physical form of development are many.

The urban cores of many American cites are hollowing, and this is especially true in Texas. The archetypal pattern of metropolitan growth throughout the state is nodal. Increasingly, social and economic interaction has become intrasuburban, instead of suburban-CBD. The resulting commuting patterns have fewer centralized destinations, and trips are growing in length and frequency. This contributes to greater congestion and strain on public infrastructure.

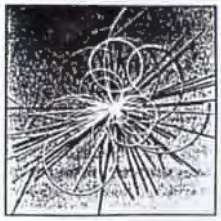
Moreover, the human dimension of this spatial form is dismal. As wealth drains from major Texas urban centers, income disparities rise, renewing the cycle of social deterioration. The concentration of minority populations, racism, and cultural and language barriers exacerbate the bifurcation of economic opportunities. Declining income levels and resultant social discord place additional burdens on cities' abilities to sustain their historic functions. Tax-base sharing between city and suburb holds out some hope of helping to maintain urban infrastructure. Yet rich suburbs balk at such suggestions.

Myopic resistance to burden sharing is particularly distressing given the current state-level debate over public school financing. Again the division between rich and poor is decisive. The 72nd Texas Legislature, under court pressure, has rewritten the state's school-funding laws to equalize the amounts spent per pupil in both rich and poor districts. But rich school districts now threaten to sue to protect their tax bases. Legislators, educators, and taxpayers may have to start over again.

The question of equitable distribution of school funding goes to the root of the economic development problems that the state faces. Texas needs to invest in human capital. The globalization of trade and production threatens the longevity of low-wage industries in developed countries. As Robert Reich recently argued in *The Atlantic*, to succeed in international markets, U.S. firms must target high-value-added goods, the production of which requires a skilled labor force.

The ability to attract and retain skilled workers will critically affect the state's economic development. The impending disaster in school financing aside, radically inequitable income distribution creates social division

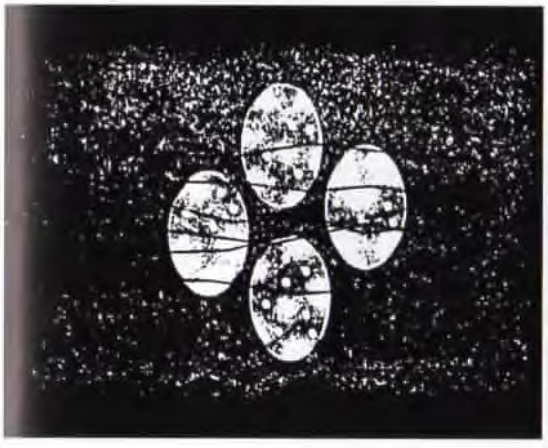
and geographic segregation. Not only do the poor suffer, but disproportional growth results in inefficient use of resources and creates strains on municipal finances. The long-term effect is an underskilled work force and a poorer overall quality of life for *all* Texans. In the end, both of these outcomes will make the Texas "business climate" considerably less attractive.



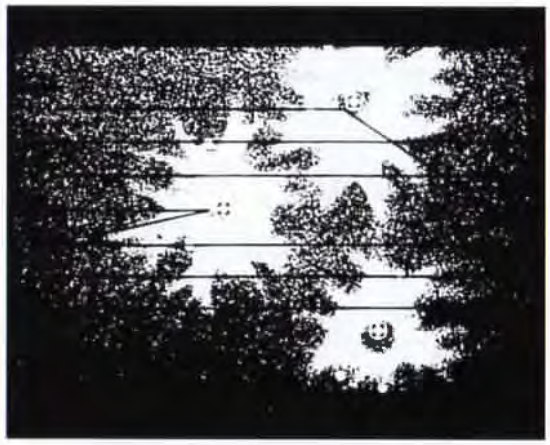
The Built Environment

THE MORE INTRACTABLE issues today have to do with our willingness to be an inclusive rather than an exclusive society. The future is malleable, but it has taken on a distinct trajectory. Out of the 1980s we have created a physical environment designed to defend privilege from the onslaught of social violence. Corporations are ensconced in impressive, fortified towers or pastoral, antiseptic settings. Retail establishments are corralled into limited-access malls. Residential streetsare gated, watched, and wired. In short, the language of design has been used to cloak societal ills rather than to make them explicit.

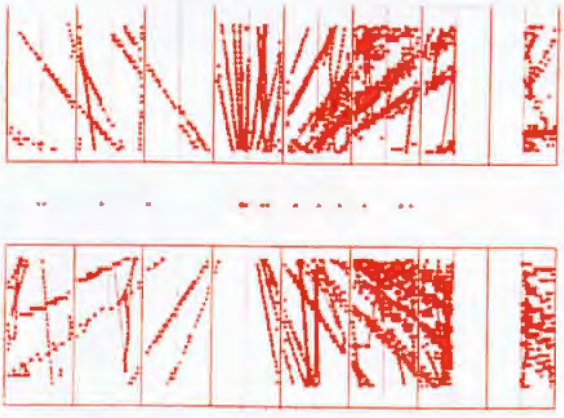
The design and planning professions have a decisive role to play in recovering a sense of place and community for Texas residents. Clearly the professions cannot directly resolve the education crisis, but indirectly, by upgrading the environments of all of the state's residents, they can help to diminish the effects of old barriers. While architects and planners cannot dictate to the development community, we must take on an activist social agenda, realizing that inclusion is the only available path to long-term growth.



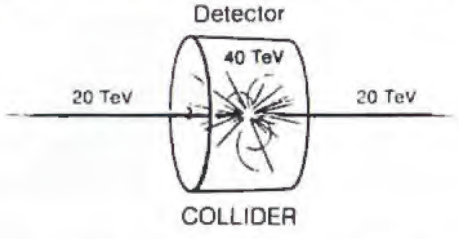
The state's industrial attraction policy has fostered unequal growth patterns by concentrating development in already affluent suburbs while providing virtually no meaningful employment opportunities for the disadvantaged in the city.



And there are indications of change. The Dallas Visions project of the Dallas Institute of Humanities and Culture, working with James Pratt, FAIA, other professionals, community groups, and local political leaders, proposes a number of bold physical changes to create new links among communities in the city. This project shows a growing recognition of the importance of rethinking cities and neighborhoods; among the proposals put forward by the group is a neighborhood bill of rights that incorporates community interests into the planning-and-design process. The revitalization of downtown Dallas, a major goal of Dallas Visions, thus secures the long-term development interests of the CBD by recognizing that stability is also crucial in a seamless urban fabric.



Another significant bridge between social idealism and professional practice is being constructed by a group calling itself Design San Antonio (DSA), headed by Boone Powell, FAIA, of Ford Powell & Carson. DSA, in the attempt to integrate design and industry, is exploring proposals for demonstration projects and institutional forms for application in San Antonio. As



DSA's original statement of intent says, "Design, most fundamentally, is the addition of value; and as manufacturing jobs shift increasingly to the Third World nations[,] the future of the industrialized world will depend on the addition of value at the level of concept rather than at the point of assembly." From the social scientist's point of view, such ideas address the vital con-

cern of raising productivity and competitiveness, thereby securing development, at least in the aggregate sense. At a more fundamental level, we also see this as a process of democratization and a benefit to the community at large. Even in Houston an embryonic commitment to cooperative behavior is evidenced by the city's recent move in the direction of zoning-like actions. Currently the city is burdened with over 37 million square feet of excess commercial office space, and the rapid segmentation of its office centers is accelerating economic obsolescence; large pockets of property are currently unsellable. Fifty percent of the city is undeveloped or underdeveloped. If for no other reason than to protect property values, it is clear that some sort of planning rationale must be injected into the development process.

Dallas Visions and Design San Antonio show a new interest in the role design can play in building communities.

Let us hope that the community's recent move toward land use regulation is but the first step toward accepting increased social responsibility.

Addressing a recent forum at the UT School of Architecture, Charles Kaplan of the National Association of Industrial and Office Parks in San Antonio provided a graphic image of the reckless 1980s. Then "a dollar borrowed was a dollar earned; a dollar of debt renegotiated was a dollar saved; and a dollar paid back was a dollar lost." This philosophy has not only turned millionaires into paupers, it has exacerbated social misery and urban disintegration. If we want our cities, or even our metropolitan regions, to be places that are livable and meaningful, then we must plan and design them that way. The process will not happen on its own. TA

R. Greg Hursley

Amy Glasmeier, Ph.D., is an Associate Professor of Community and Regional Planning in the University of Texas at Austin's School of Architecture. She publishes in the areas of technology and regional economic development and industrial competitiveness. Some of her recent publications include: Tech America: The How, When, Where and Why of America's Sunrise Industries, *Allen and Hyman, 1986; and* The High Tech Potential: The Future Economic Development of Rural America, *Transactions Press, 1991.*

Jeff Thompson is a Graduate Research Assistant in the University of Texas School of Architecture's Graduate Planning Program. He holds a degree in economics from William and Lee in Virginia, and has studied Architecture at the University of Texas, where he is finishing his master's thesis on the role of wholesale distribution in regional development.

RESEARCH AND JOBS

By Joel Warren Barna

Texas communities are turning to university researchers to help build a new industrial base.

IN THE 1980S, Texans discovered what people in other states had learned a decade or more earlier: Only economic diversification can promise steady, sustainable growth.

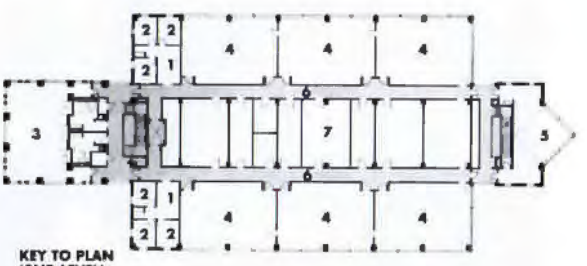
But such diversification is not always easy to come by, particularly in the face of international competition. As Amy Glasmeier and Jeff Thompson argue (see pp. 27-32), for example, MCC and Sematech have yet to live up to their promise to bring Austin limitless spin-offs and miraculous job generation, never mind saving the U.S. computer industry's market share from Japanese encroachment.

Things could be different later, however, and most would agree that it is better to have such research centers in Texas than elsewhere. In addition, the effort to attract them brought a number of lessons. Chief among these was that local resources count: Participation by the University of Texas at Austin and Texas A&M University, both strong in electrical engineering, helped tip the balance to Austin in both cases.

This fact was not lost on other communities. As the following pages show, university-based research facilities are springing up around the state. Many of them draw on the already strong reputation for medical research at the state's university-affiliated medical centers, and most of them are explicitly aimed at creating commercial links and spin-offs that will help diversify their local economies.

University of Texas Institute of Biotechnology, San Antonio

THE NEW San Antonio Research and Technology Foundation is an example. The foundation came into being after San Antonio lost out to Austin in the MCC competition; then-MCC head Bobby Inman told then-mayor Henry Cisneros that San Antonio couldn't hope to win an electronics consortium, but should instead develop



KEY TO PLAN (2ND LEVEL)
1 RECEPTION
2 OFFICE
3 CONFERENCE
4 LABORATORY
5 STAFF ROOM
6 CORRIDOR
7 SERVICE CORE

Top: The Hayden Head building anchors a new research park in San Antonio.

PROJECT *Hayden Head Laboratory Building, UT Institute of Biotechnology, San Antonio*
CLIENT *UT System, Austin*
ARCHITECT *Jones & Kell Architects, Inc., San Antonio*
CONSULTANTS *Pelton–Marsh–Kinsella (acoustical); W.E. Simpson Co. (structural); HMG & Associates (MEP); Earl Walls & Associates (laboratory design); Charles Field (artist); Project Control of Texas (project manager)*
CONTRACTOR *H.B. Zachry*
PHOTOGRAPHER *Greg Hursley*

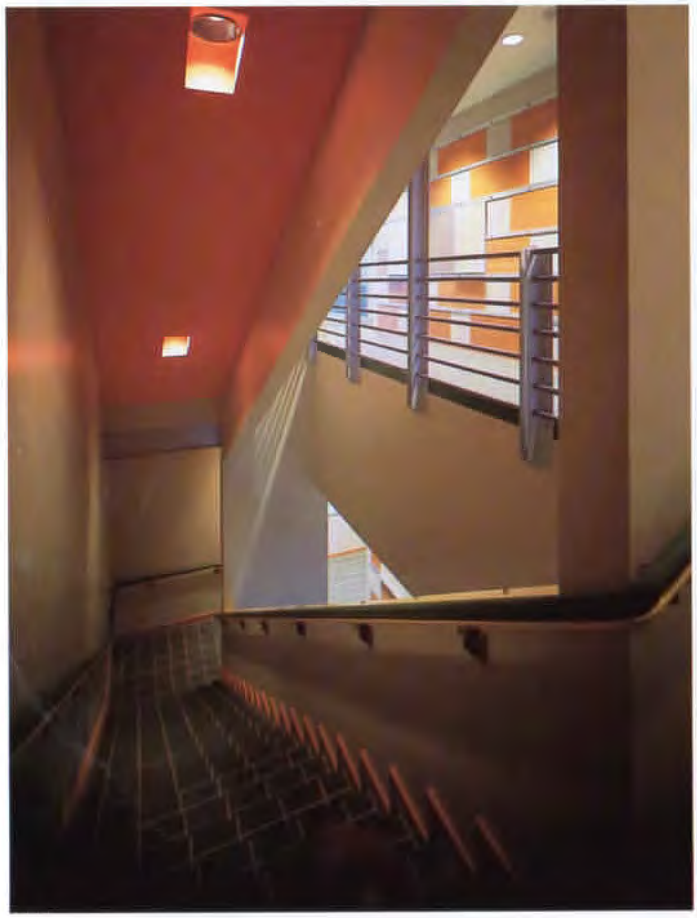
Below left: An interior stair connects laboratories outside the break/conference area.

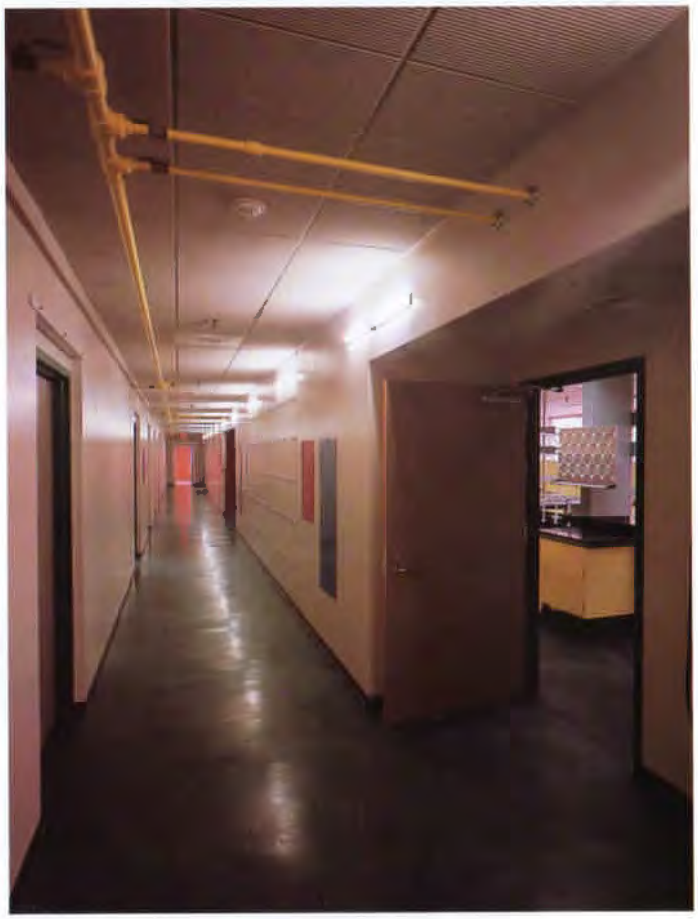
Below right: The modules of corridors and laboratories were studied for maximum flexibility.

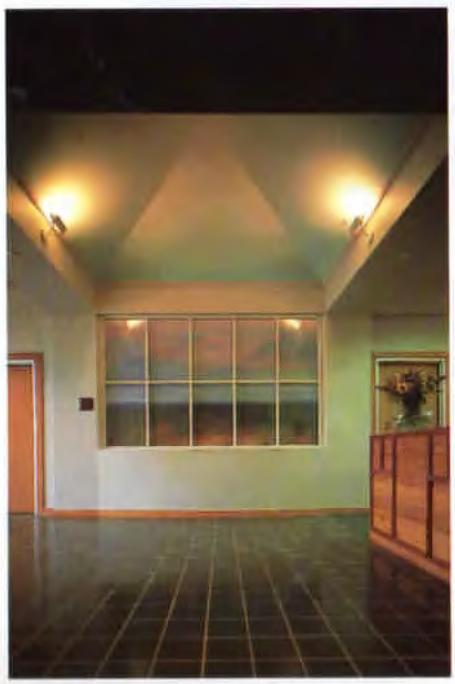
Bottom left: The entry features a painting of land on the South Texas ranch of Hayden Head.

Bottom center: The staff break room opens onto the hills near Castroville.

Bottom right: The main reception room can host conferences and dinners.







something using the city's internationally known military and civilian medical facilities as drawing cards.

The group decided to create a biotechnology research park, starting with first-class laboratory facilities and an endowment that would attract a star researcher.

"Our goal is the commercialization of technology from research institutions in San Antonio and Texas," says Jay Campion, foundation president. Eventually, it is planned, commercial companies will lease space to be near the university researchers at the park's center.

Land was donated. Jones & Kell drew up a master plan. The University of Texas at San Antonio pledged $30 million for equipment and research. Ross Perot donated $15 million for design and construction of the park's first structures, including the new Hayden Head Institute of Biomedical Research laboratory building (named for a former UT supporter), designed by Jones & Kell; a warehouse; and other support buildings.

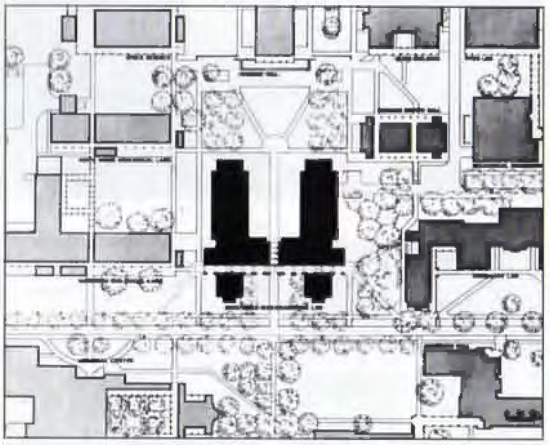
Approaching on the winding access road, one first sees the Hayden Head building's two-story facade of limestone and glass, given a manor-house character by a tall lead-covered roof and clusters of what seem to be chimneys—actually exhaust stacks for the required 100-percent-exterior-air ventilation system. The masonry-clad cube, entered from a circular forecourt, houses the institute's ground-floor offices and second-floor meeting room. Attached to it is a laboratory wing (on three levels, including a below-grade service area with cage space for laboratory animals) whose glass window wall pushes slightly out from the building plane. At the far end is a glass-and-masonry-clad wedge, which houses a break room and meeting rooms for the staff. "We have a laboratory block, and we framed it with pieces meant to relate it to the landscape and Texas traditions," says Kell.

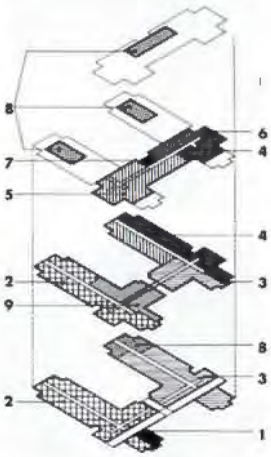
Remarkably, no chief researcher had been hired to use the facility when construction was started. As a result, a kind of generic program for a biomedical laboratory was developed, with easily partitionable work spaces and a P3-level clean room (an expensive arrangement of chambers and equipment that would allow the handling and study of hazardous materials such as hepatitis and AIDS viruses). Before completion of the building, however, Wen-Wha Lee, Ph.D., a researcher from California, agreed to move into the facility with his staff of 20. His work does not require a P3 clean room, however, so its equipment is being removed.

It is also remarkable that the research park is nowhere near San Antonio's medical centers; the donated land that helped get the park started is, instead, in the far northwestern suburbs of the city, only five miles from Castroville. On seeing the site, researchers requested on-site housing and support facilities; designed by Overland Partners of San Antonio, these are being built within walking distance. Kell says that a certain level of physical isolation is sought by researchers: "It helps create a feeling of community." Nevertheless, this isolation from San Antonio means that the project will repeat a familiar pattern: Whatever jobs are created will be in the already affluent suburbs.

Rice University, Houston

BY CONTRAST, the new George R. Brown Hall, a new home for a new institute of biosciences and bioengi-



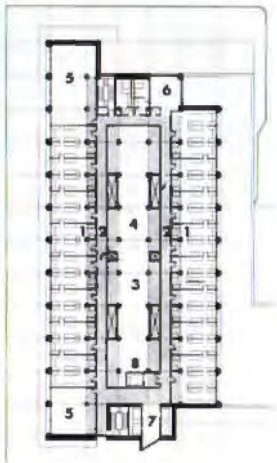


Brown Hall (top, with site plan, above), will unite biochemistry and cellular-development researchers and link existing chemistry and biology buildings.

PROJECT *George R. Brown Hall*
CLIENT *Rice University*
ARCHITECT *Cambridge Seven Associates; RWS Architects, associated architects*
CONSULTANTS *Walter P. Moore (structural); CHP Associates (MEP); Earl Walls (laboratory)*
CONTRACTOR *The Lott Group*
PHOTOGRAPHER *Paul Hester*

KEY TO STACKING DIAGRAM
1 INSTITUTE OFFICES
2 CELL & DEVELOPMENT BIOLOGY
3 BIOENGINEERING
4 ORGANIC CHEMISTRY
5 BASIC MEDICAL SCIENCE
6 ANIMAL SUITE
7 INSTITUTE LOUNGE
8 MECHANICAL
9 UNDESIGNATED

KEY TO TYPICAL SECTION, PLAN
1 LABORATORY
2 CORRIDOR
3 SUPPORT
4 UTILITY ZONE
5 OFFICE
6 LOUNGE
7 LOBBY
8 SERVICE ELEVATOR



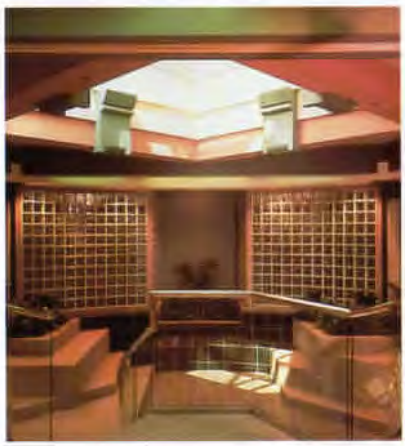
The Medical Research Building at UTMB features innovative air handling, minimizing the visual impact of exhaust stacks. Partial interstitial spaces give labs flexibility.

PROJECT *Medical Research Building, Galveston*
CLIENT *UT Medical Branch*
ARCHITECT *Hoover&Furr, Houston*
CONSULTANTS *Esmond and Clifford (MEP), Walter P. Moore & Associates (structural)*
CONTRACTOR *Robert E. McKee*
PHOTOGRAPHER *Nhan Nguyen/ Aker Photography*

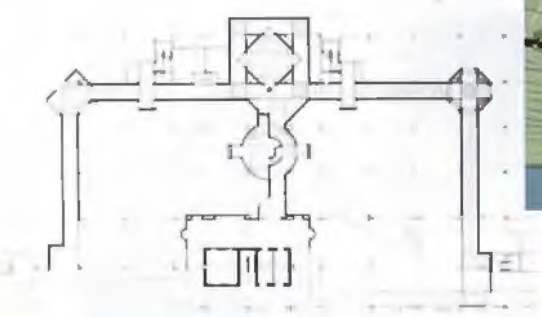
Right: Peter Jay Zweig Architects designed a crystal-like skylight for new research labs in Amarillo.

Below and below right: Contrasting colors brighten the informal gathering place formed by the junction of lab corridors.

Bottom right: Zweig's model of the proposed laboratory complex, linking buildings through underground corridors.



PROJECT *Laboratory Addition, Don and Sybil Harrington Cancer Center, Amarillo*
CLIENT *Don and Sybil Harrington Cancer Center, Amarillo*
ARCHITECT *Peter Jay Zweig Architects, Houston*
PHOTOGRAPHER *Peter Jay Zweig*



FLOOR PLAN

neering at Rice University, is planned to support a home-grown effort. The new building will unite existing biology and biochemistry faculties, and allow for expansion into new areas of research.

Designed by Cambridge Seven Associates of Cambridge, Mass. (with RWS Architects of Houston as associated architects), and approaching completion, the building sits athwart the north-south axis of the campus, physically linking the M.D. Anderson Biological Laboratories (1958, by George Pierce and Abel B. Pierce) with the Chemistry Building (1925, by Cram & Ferguson and William Ward Watkin) with a generously proportioned arcade. The three-story building, with its two laboratory wings, combines explicit references to the high central sallyport and decorative brick-and-stone banding of Rice's landmark Lovett Hall (1912, by Cram, Goodhue & Ferguson), although with none of the variation of wall depth and fenestration that give the original such presence; parapets partially obscuring the roofline also echo the 1983 Seely G. Mudd Computer Laboratory by Charles Tapley Associates and the western end of James Stirling and Michael Wilford's 1981 architecture school addition, nearby. The image of the building is dominated, however, by towering rectilinear metal exhaust-air stacks, rising from the junction of each laboratory wing with the crossing administrative wing.

In announcing the project in 1988, Rice University officials emphasized that links to the nearby Texas Medical Center (Houston's largest employment center) would help fund research and speed commercial application of new discoveries.

UT Medical Branch, Galveston

THE NEW Medical Research Building at the University of Texas Medical Branch in Galveston also serves an ongoing faculty effort. The seven-story building, nearing completion on the campus of the state's oldest medical school, was designed by Hoover & Furr Architects of Houston. The adjacent Basic Science Building (1967, Wilson Morris Crain & Anderson) was the last research building at UTMB; the buildings are linked by a two-level pedestrian bridge. Architect Kirby Keahy of Hoover & Furr, chief designer of the project, says that the building is part of an effort to rejuvenate research at UTMB; its four soon-to-be-occupied floors will relieve crowding of current research faculty, while three others will be used as new faculty is attracted. (The building can eventually be expanded to 11 floors.)

Hoover & Furr minimized the visual impact of the expected exhaust stacks (and saved on both construction and maintenance costs) by following the example of the National Institutes of Health; the building's fume hoods for each quarter of a floor are "manifolded" together. Another innovation that supports ease of maintenance in the building is the use of partial interstitial floors centered over the laboratory corridors; these create a service zone that extends seven feet into each lab module, and allow the ceiling to rise to 10 feet in the remaining 28 horizontal feet of space.

UT Permian Basin, Midland

OFFICIALS AT the University of Texas Permian Basin in Odessa also hope for help in diversifying the local

economy from the university's new Center for Energy and Economic Diversification. "The center was built as a partnership between higher education and private enterprise," says UT Permian Basin President Duane Leach. "Our aim is to promote new businesses by transferring technology."

Designed by Rhotenberry Wellen Architects of Midland, the new 30,000-square-foot center is located at a highway intersection near the Midland-Odessa airport. Whereas most similar research centers around the state are keyed to biotechnology (or, as in the case of the new Science Center Addition at the University of Houston, for research into superconductivity as well), this new West Texas Campus is a business incubator facilitating the flow of information between university and business leaders, with a library and auditorium, along with a wing of oil-and-gas-technology laboratories. Arranged around a central skylit circulation spine, the brick-clad center stands beside a small lake formed by flooding a caliche pit on the 183-acre site (its water is used for fire protection and irrigation, and is treated on site for use in the building).

Left: A small lake at The Center for Energy and Economic Diversification was created by flooding a caliche pit.

Above: The center's entry is strongly lit at night.

Left: The center's public area is set between a library and an auditorium.

Below: A pergola curves along the lake's edge.

Harrington Center, Amarillo

THE NEW LABORATORIES at the Research Center of the Don and Sybil Harrington Cancer Center in Amarillo, designed by Peter Jay Zweig Architects of Houston, are the first phase of a research center conceived by Phillip Periman, M.D., the center's president and medical director. Periman says he wants "to rival the Salk Institute and bring the best researchers in the world to Amarillo."

The 5,000-square-foot first phase of the center, completed in 1990, is built on the first level (a level below grade) within Northwest Texas Hospital (1982, designed by a joint venture of Hannon, Daniel and Dickerson of Amarillo; O'Connell Probst and Zelsman of Austin; and Wilson/Doche Architects of Amarillo).

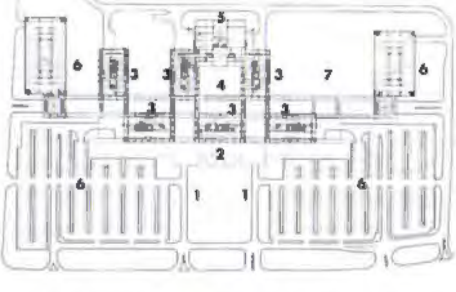
The first researcher working there is Allen Edmundson, Ph.D., who moved to Amarillo from the University of Utah. Edmundson is a molecular biologist who uses x-ray crystallography to delineate the three-dimensional structure of proteins. Zweig says that building under the existing hospital structure was especially suited to research involving crystallography: Edmundson's crystal-growing experiments last for years, and the temperatures in the "cold rooms" where they take place cannot vary more than half a degree.

Some 15,000 square feet of laboratories for research into hematopoiesis (blood formation) are now under construction. With Edmundson's laboratories, they are arranged around a circular central node, which Zweig says he conceived as a combination break room and plaza opening off a village street; in this glass-block-walled, brightly painted space, which receives daylight from a crystal-like glazed lantern that pokes up into an atrium within the hospital, researchers from different disciplines will cross paths and, it is hoped, fall into the chance conversations that spark creativity.

Interest in both basic research and its commercialization is strong in communities throughout Texas. The challenge will be to build on this new industrial base in creating livable cities for the next century. **TA**

PROJECT *Center for Energy and Economic Diversification, Midland*
ARCHITECT *Rhotenberry Wellen Architects & Planners, Midland*
CLIENT *UT Austin/Texas Permian Basin Foundation*
CONTRACTOR *Rose & Sons, Inc.*
CONSULTANTS *Agnew Storrs (MEP); C.W. Ellis (structural)*
PHOTOGRAPHER *Paul Hester*

PRIVATE SPACE, PUBLIC FACE



KEY TO SITE PLAN
1 ENTRY DRIVE
2 RECEPTION
3 OFFICE/LABS
4 COURTYARD
5 DINING HALL
6 PARKING
7 FUTURE OFFICE/LABS

By Ray Don Tilley

PROJECT *3M Austin Center, Phases 2 and 3*
CLIENT *3M, St. Paul, Minn.*
ARCHITECT *CRSS Architects, Inc. (Paul A. Kennon, FAIA, design principal; Jane Stansfeld, project director; Jim McGregor, design director; Robert Reid, technical director; Alison Boyles and Gerry Mercado, project architects; Lewis May, landscape/planner)*
CONSULTANTS *Jack Evans Associates (acoustical); MEP (cogeneration); Rolf Jensen (code); JanCom (communications); Sako Security (security); Craig Roeder (lighting)*
CONTRACTOR *Austin Commercial*

PROJECT *IBM Austin*
CLIENT *IBM/Prentiss Properties joint venture*
ARCHITECT *CRSS Architects, Inc. (Paul Kennon, FAIA, design principal; Jane Stansfeld, project director; Tim Conroy, project manager; Robert Reid, technical director; Jim McGregor, design director)*
CONSULTANTS *Jack Evans Associates (acoustical); Sako Security (security); Mulbauer/McCleary (food service); Rolf Jensen Assoc. (code); JanCom (telecommunications); Persohn/Hahn (vertical transportation); Pran (audio-visual); Theo Kondos (lighting); Peter Walker and Partners (landscape)*
CONTRACTOR *Austin Commercial*
PHOTOGRAPHER *R. Greg Hursley*

OF THE TWO CORPORATIONS whose projects are shown here, IBM has been in Austin longer. As early as the 1960s, IBM was making Selectric typewriters in the city, and over the years the company created a scattered campus of research and production buildings in North Austin, low-scale structures mostly hidden from the Burnet Road corridor by veils of landscape and security checks. 3M's presence, on the other hand, was created overnight. The Minnesota-based high-tech materials giant picked Austin during the city's '80s heyday as the new, more temperate base for four of its divisions.

3M is now doubling the size of its 1.2-million-square-foot office-and-research complex in far West Austin. The new project will fulfill the second and third of four phases planned for its sensitive 162-acre Hill Country site. It comes after work with local environmentalists and city government to protect the endangered golden-cheeked warbler, which populates the site's live-oak-studded canyon. For the warblers' sake and for employees' views, CRSS has rotated its second-phase lab buildings 90 degrees and pulled the block back 50 feet from its originally planned spot on the canyon's edge.

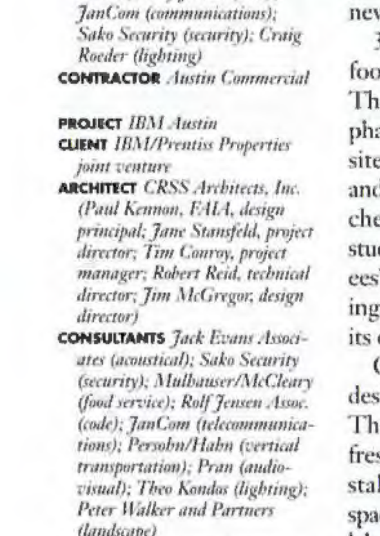
One key post-occupancy evolution of the architects' design for the first phase is 3M's unique skylight system. The series of paired reflectors, which are coated with a fresnel-lens materials developed specifically for the installation by 3M, creates a deceptively outdoor-like space from the enclosed "paseo" that connects offices to laboratory blocks. The first-phase system placed one reflector outside and one inside, creating a striking roof line of light "scoops" but also considerable maintenance needs. Second/third-phase reflectors will be completely enclosed, their arrangement adding, in fact, a pleasing alternation of pieces of direct light and strips of reflected light. One could assume 3M and CRSS will have the chance, in the project's final phase, to refine the marketable design even further.

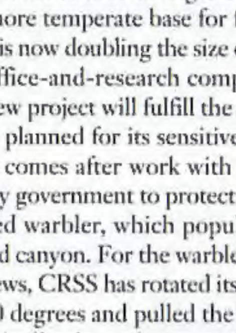
IBM's new IWD/ESD (workstation and electronic systems groups) Consolidation betrays its design "for the market," in comparison with design solely for a company, as with 3M's regional headquarters. Developed in joint venture with Prentiss Properties, the IBM project is a spartan, precast-panel-clad campus of six office-and-research buildings with nearly identical plans (a seventh structure and two more parking garages will fill out the master plan), centered on an entry–courtyard–dining hall sequence. IBM will initially use all the space for 3,400 employees, but it can easily scale back if needed and let Prentiss lease space to other tenants.

Outwardly restrained compared with IBM's Solana showpiece in North Texas, the buildings sport subtly elegant interiors and sit among well-landscaped connective spaces and parking areas. The parking that fronts the project, in fact, is mitigated by numerous Eastern Red Cedars (local cedars produce too much pollen).

IBM's complex also serves an important civic-like role. Amid its nondescript predecessors, it is a needed focal building, a rare public gesture along this inwardly focused high-tech corridor. Context did not allow another landscape-commanding Solana, but this IBM center, as it steps up a gentle southward rise, goes a long way toward kindling a missing community image. **TA**

Ray Don Tilley





KEY TO SITE PLAN
1 EXISTING RESEARCH
2 EXISTING ADMINISTRATION
3 EXISTING PARKING
4 WARBLER HABITAT
5 NEW RESEARCH
6 NEW ADMINISTRATION
7 NEW LOADING/SERVICE
8 NEW PARKING

Far left: View across canyon to Phases 2 and 3 site.

Above left: Phase 1 light monitor.

Above: Phase 2/3 monitor

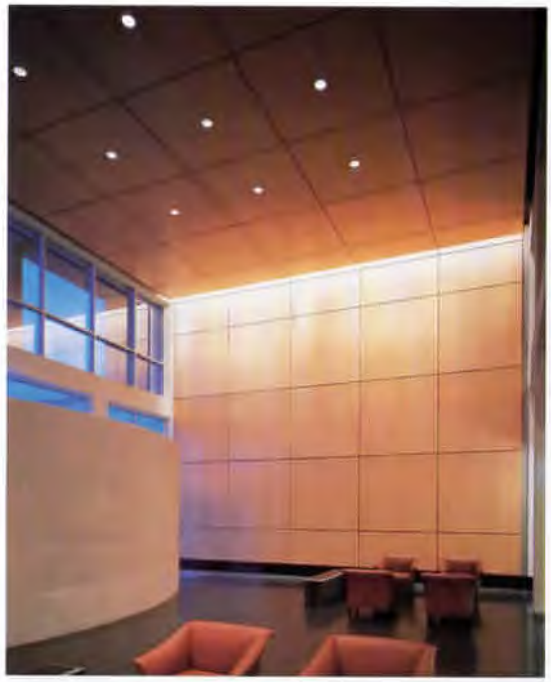
Right: Phase 1 monitor

Balthazar Korab

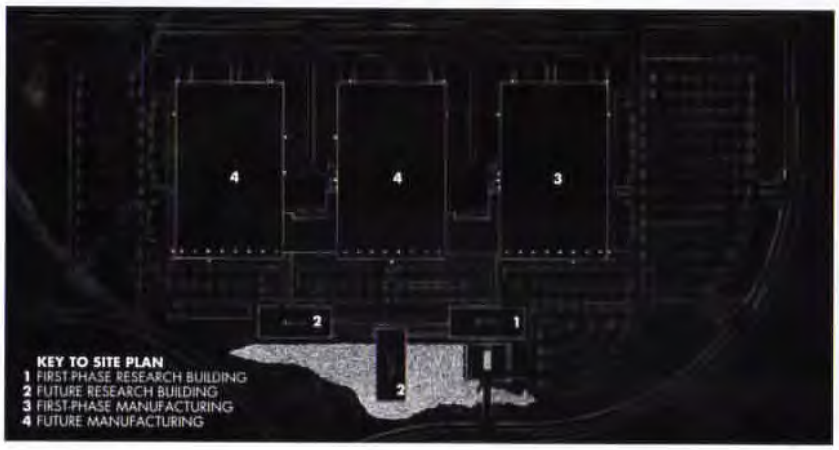
IBM's administrative and research complex (left) steps up a gentle slope in North Austin, a civic presence along a sparse high-tech industrial strip. Its landscape-softened connective spine (below) owes a debt to Solana, as do its subtle interiors (bottom, l-r: elevator lobby, interior corridor, perimeter corridor) by CRSS's Scott Strasser.

FUJITSU, PHASE I

By Joel Warren Barna



Plan of research building (below) shows motor court at bottom, lobby at center, guest services and training at left, open office at right.



Top: The lobby space of the Fujitsu research building, with its dramatic black-granite floor and coffer-lit, wood-paneled walls, is the only public area in the complex.

Above right: The research building, the first of three planned for the site, faces a small lake.

Right: Omniplan designed a facility of sharply delineated glass and concrete, matching the client's no-nonsense corporate culture.

THE 370,000-SQUARE-FOOT, $80-MILLION first phase of the Fujitsu America, Inc., facility in Richardson, designed by Omniplan, Inc., of Dallas and completed in 1990, is a milestone in the growth of a new industrial base in North Central Texas.

It is Fujitsu's first telecommunications-research and manufacturing center to be built outside Japan, and it embodies a major commitment by the company to the U.S. market. Later phases could nearly triple the size of the facility; construction costs at completion are estimated at over $250 million. Employment at the plant, company spokesmen estimate, will grow to 1,200 in 1992 and may reach 4,500 by the end of the decade. Most employees will work in the project's automated manufacturing plant, while up to 500 workers would be researchers in electrical and mechanical engineering.

The Fujitsu plant is only one of the latest additions to "Telecom Corridor," a concentration of technology companies begun by Rockwell International and Texas Instruments in what the local chamber of commerce magazine says was "a vast amount of barren land, once utilized for cotton fields" in the early 1980s in the North Dallas suburban city of Richardson. Other companies with facilities in the city include Swedish-based Ericsson North America (rumored to be on the verge of announcing a major new project); Northern Telecom/BNR (which has a new 18-story office tower and three-story research center under construction; Hardy McCullah/MLM of Dallas is architect of record, with Richard Ferrara, Architects, Inc., of Richardson, the design architects); MCI Telecommunications (see *TA* Jan/Feb 1991); and Electrospace Systems, Inc., a Chrysler subsidiary that manufactures communications equipment for military and industrial customers.

Omniplan designed Fujitsu's three-story research building facing a small lake on the site across a visitor-parking lot. The building's facade and materials—a reflective glass curtain wall set behind a taut concrete frame—reflect the client's no-nonsense corporate culture. A double-height foyer, with wood-paneled walls and black granite floors, in which light from the entry is screened by a curving limestone-clad wall, is the only public space in the project. Access to the laboratories and offices in the research building is tightly controlled. A cafeteria, looking out onto a landscaped courtyard, links the research building with the factory space. **TA**

PROJECT *Fujitsu America, Inc., Richardson*
CLIENT *Fujitsu America, Inc.*
ARCHITECT *Omniplan, Dallas (Lionel Morrison, project designer; Key Kolb, project manager; Michael Archer; Martha Schantz; Kevin Glassock)*
CONSULTANTS *Brockette.Davis.Drake (structural); Blum Engineers (MEP); Albert H. Halff Associates (civil); SWA Group (landscape); Architectural Lighting Design (lighting); H.G. Rice & Co. (foodservice)*
CONSTRUCTION MANAGER *TaiVan Construction Management*
CONTRACTOR *HCB Contractors*
PHOTOGRAPHER *BlackmonWinters*

TANDY'S BIG BLOCK

By Barbara Koerble

The Tandy Technology Center sits askew to the downtown grid (above) near the new courts building and Tandy Center, whose materials it echoes. Connections to Tandy Center will be made at and below grade (above left), splitting a terraced park (site plan, left) that fills the voids created by the Technology Center's rotated siting.

PROJECT *Tandy Technology Center, Fort Worth*
CLIENT *Tandy Corporation*
ARCHITECTS *HKS, Inc., Dallas (design architect: Jack Yardley; project manager: Glen Arden)*
CONSULTANTS *Newman, Jackson & Bieberstein (landscape); Blum Consulting Engineers (mechanical); Carter & Burgess (civil); Variable Acoustics (audio-visual); Schiff & Associates (security)*
CONTRACTOR *Robert E. McKee*
PARKING GARAGE CONTRACTOR *Thomas S. Byrne*
PHOTOGRAPHER *BlackmonWintersKubner*

UNLIKE MANY HIGH-TECH CORPORATIONS that have fled to suburbia, the Tandy Corporation located its new technology center in downtown Fort Worth, since it already held a four-block tract of land immediately to the west of the existing Tandy Center.

The design of the Tandy Technology Center, a six-story, 215,000-square-foot facility housing computer-research divisons, combines two broad base floors with a pierced upper volume that lets daylight into the top four levels. At the base of the square lightwell is a landscaped outdoor dining terrace covered with a pyramidal glass roof. The two lower floors contain a large computer room, video and conference rooms, a public information area, and a drive-through loading dock.

The interiors feature black and *rosa vanga* granite floors in reception areas, and a 6-inch raised floor in office areas, which achieves the flexibility of a "smart" building with all electrical, phone, and computer wiring fully accessible beneath the floor.

What is more problematic is how the center met its urban challenges. Rotated 45 degrees, the building sits like an isolated sculpture against the city's grid. It seems as introverted as if it were in a self-contained office park; it materials speak somewhat to the parent facility, but to little else around it, and its reflective dark windows are impenetrable to the view of passersby. Mundane precast concrete spandrels with red granite accents do not enhance the building's uncomplicated modernist volume.

Architect Jack Yardley says that since the four-block site is planned to incorporate future buildings at the west end, the Technology Center was rotated to create four triangular parks at its base, two of which have been developed in the present scheme.

The parks reflect a high degree of commitment to exterior landscaping, and should help soften the less sensitive aspects of the existing urban streetwall. All exterior groundworks were designed by Newman, Jackson & Bieberstein and will be completed by mid-July. Cedar elms, live oaks, and crepe myrtles, arranged in linear fashion, and double rows of yaupon holly trees surround both an outdoor amphitheater and a dining area visible from a lower-level glass wall in Tandy Center. An abundance of spiraling low seat walls, movable furniture, and limited areas of granite paving are functional touches organically incorporated into the lush planting scheme.

These spaces, however, are at best quasi-public: they were developed primarily to serve Tandy employees and patrons of the Tandy shopping center and are surrounded by an aluminum fence with lockable gates. While the gardens are sunken below street level, the architects' placement of large-caliper trees should form an enticing green canopy arching above the street entrances. Yet Tandy officials are still deliberating as to whether pedestrians passing on the street will have access during the day to the garden areas.

Tandy was the first large corporation to make a commitment to downtown Fort Worth by locating its offices and retail facility there. Thus far, the sum of Tandy's built complex of superblocks, however, contains numerous shortcomings. The urban parks it has included offer the best hope to mitigate insularity with a valuable public amenity. **TA**

INTERIORS

Where Concrete and Color Collide

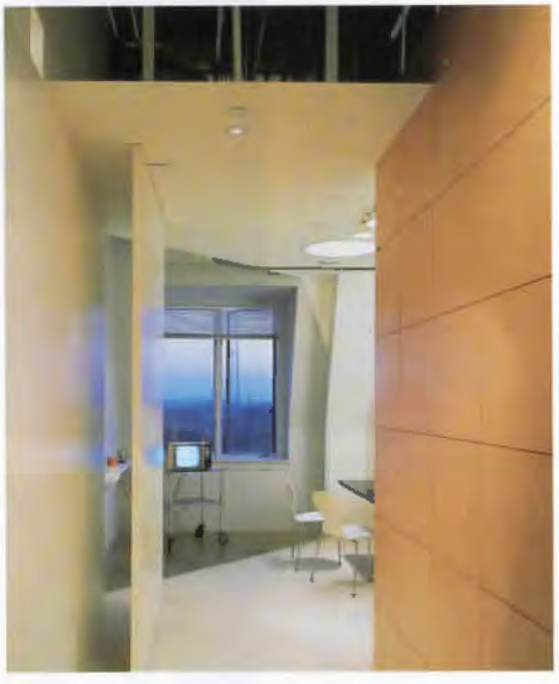
PROJECT *Offices for Joiner Rowland Serio Koeppel, Dallas*
CLIENT *Joiner Rowland Serio Koeppel*
ARCHITECT *CRSS Architects, Inc., Houston*
CONSULTANT *Theo Kondos, New York (lighting)*
CONTRACTOR *James Kurtz Construction, Dallas*
PHOTOGRAPHER *Chas McGrath, San Francisco*

LOCATED ACROSS from The Crescent in a faux-Second Empire brick building (complete with mansard), the new work spaces of the Dallas advertising firm Joiner Rowland Serio Koeppel derive nothing from the arriviste French provincial architecture that sprouted so luxuriantly in the neartown Dallas neighborhood since the 1960s. The 5,000-square-foot office, designed by CRSS Architects, Inc.'s interior architecture division, relies instead on a minimalist industrial vocabulary to express tenants' creativity.

Client spaces are immediately to the right of the main entrance. To the left, along a narrow passageway that bisects the bony, L-shaped plan are offices (on the window side) and service areas, including a funhouse-like series of storage closets that stretches the length of the hallway. In the angle of the plan, kept unpartitioned, is the design studio, while around the corner are additional offices and closets. The plan's unusually thick-looking walls are formed by the sloping roof into which this top-floor office has been nestled.

To establish a neutral backdrop for advertising-campaign presentations, the client-related spaces were treated in white tones and furnished with black and white chairs and light-colored wood tables (along with a chromium-yellow chair and gridded particle-board partition). The work area, on the other hand, was painted grey with strong color accents, and its floor and ceiling were left uncovered to expose concrete underfoot and ductwork and structure overhead. The fittings, such as track lighting, sliding barn doors, and exposed light bulbs, add to its intended coarse texture.

No attempt was made to hide the messy vitality of the work spaces: The studio can be seen at the end of the hallway, and offices are only a barn door away. In fact, as if to mock convention, the two zones collide abruptly along a random diagonal line that slices through the conference room and reception area. There, as in every other client space, one is shocked to see the pristine, snow-white carpet, for example, abut the raw concrete. (It is less clear why this dramatic effect is re-



peated in a private area such as the kitchen.)

The informal atmosphere is highlighted in the office's most public space, the reception area, which is furnished with little more than three less-than-plush armchairs and an out-of-the-catalogue desk. The architects' skill in this project has been to complement the client's deliberately relaxed attitude with equally relaxed yet industrious designs.

Niko Letunic

Facing page: The sparsely furnished reception area holds little more than three wooden chairs and a desk.

This page, top left: Past the reception desk is a narrow hallway leading to the studio. On the right are offices; on the left, storage closets.

Top: A yellow cutout partition separates studio desks from more utilitarian spaces, such as spray booths, light tables, and flat-storage files.

Above: View into the vendors' conference room, which expresses a collision between the office's two zones with concrete abutting white carpet.

PROJECT *The Jesse H. Jones Theater for Texas Studies, La Porte*
CLIENT *San Jacinto Museum of History Association*
ARCHITECT *Ray Bailey Architects, Inc.*
CONSULTANTS *Walter P. Moore and Associates (structural); MAS & Associates (MEP); Michael John Smith (lighting); Watts/Silverstein (AV production); Aves Audio Visual (AV equipment); Boner Associates, Inc. (acoustical)*
CONTRACTOR *W.S. Bellows Construction Corp.*
PHOTOGRAPHER *Rick Gardner*

State's Theater

BECAUSE OF its experience with several historic Texas structures, Ray Bailey Architects of Houston was selected to transform one of the underused art galleries at the base of the San Jacinto Monument (1937, Alfred C. Finn) into a state-of-the-art theater for film, video, and slide presentations, including *Texas Forever!*, a chronicle of the Battle of San Jacinto.

The architects met technology and seating needs for the new Jones Theater while adhering to Secretary of the Interior guidelines for rehabilitating National Register structures, and other stringent state rules. Most important, no attachments could be made to the existing terrazzo, limestone, or plaster, so that new construction could be removed later without damage to the original shell.

The architects inserted a free-standing stage and projection room that bracket a stepped seating platform for 160 spectators. Terrazzo was left uncovered on the perimeter; new acoustical walls, which conceal lighting, wiring, and speakers, reveal glimpses of the original walls; ductwork was placed above the existing ceiling; and the screen's framing was anchored to the exterior concrete wall by steel tubes inserted through air-conditioning grills. New features, such as a bronze railing and mahogany lecterns that echo the serenity of prewar design, may soon allow the theater itself to become a cherished part of the monument. *NL*

The theater (above) was inserted into an existing gallery, which included a plaque (right) honoring battle veterans. Mahogany lecterns and luminous sand-blasted-glass stars (far right) bring new richness.

For a Song

RECENTLY, the Austin Lyric Opera moved its headquarters away from the historic Sixth Street entertainment district to escape high rents, scarce parking, and occasional disturbances. The not-for-profit arts organization's bare-bones budget, however, would only have covered basic engineering services for an office to house 10 employees and 20 volunteers.

To ease the Lyric Opera's plight, Marla Bommarito, an interior designer and arts patron, donated her firm's services. Because of the economic crunch, The Bommarito Group not only designed the new space but scoured San Antonio and Austin for donated materials and labor.

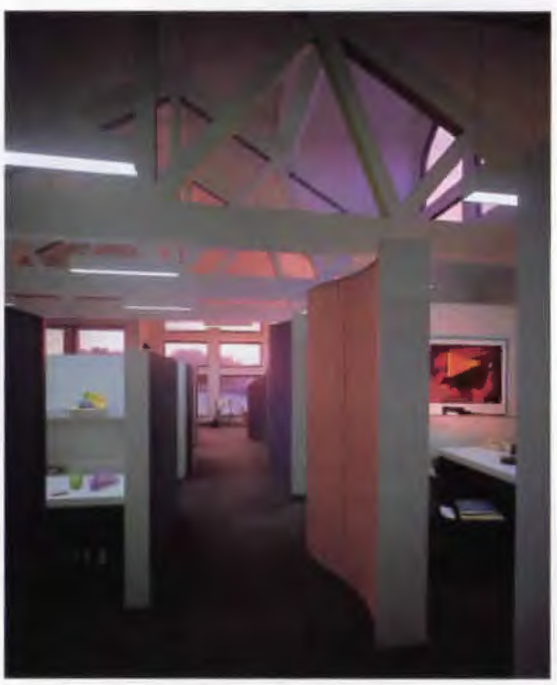
The response was so positive that, the designers claim, beggars became choosers. The new 2,000-square-foot quarters (across town in a retail/office complex off West Sixth Street) sparkle with the gifts of benefactors, from synthetic-marble counters to a mural of the "Phantom of the Opera," executed *pro bono* by San Marcos artist Susan Keller. All goods and services such as the lighting fixtures, carpeting, signage, painting, and engineering and construction services were fully or partly donated (see "Resources," p. 49).

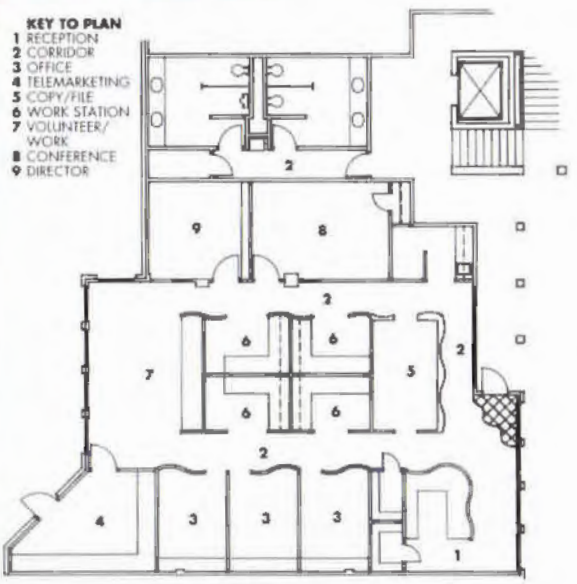
Most of the credit, however, belongs to the architects and designers, who compiled a wish list of materials and supplies and put them to creative use. The dominating curved corrugated-tin partitions and sprightly color scheme (which includes accents on the inside chords of the trusses), for example, complement generous window openings and ceiling heights to generate a lively, welcoming space for one of the city's most-respected cultural institutions. *NL*

Left: Inside the generously lit front entrance sit a custom-designed reception desk, corrugated-tin partitions, and existing windows and trusses.

Below left: Curving partitions produce a flowing rhythm, while painted trusses direct users' attention toward the high pitched ceiling.

PROJECT *Offices for the Austin Lyric Opera*
CLIENT *Austin Lyric Opera*
DESIGNER *The Bommarito Group, Austin (Marla Bommarito, principal-in-charge; Ben Adam, project architect; Susan Briggs Lanford, project designer)*
CONSULTANT *Gerling, Thomas, Ward, Inc. (engineering)*
CONTRACTOR *Architectural Habitat*
PHOTOGRAPHER *Greg Hursley*

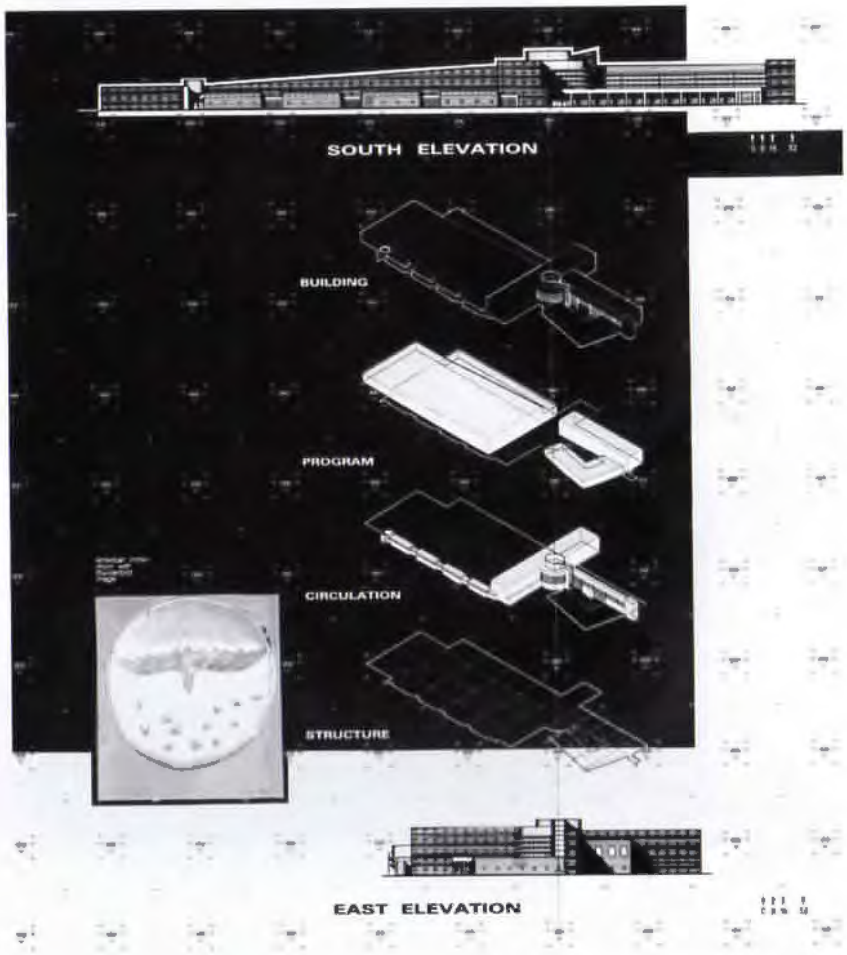




SURVEY

IN PROGRESS

High-tech center, local response



GROUND BROKE RECENTLY on the 95,000-square-foot Logistical Systems Operation Center at Tinker Air Force Base in Oklahoma City. The building is divided into two general masses, a rectangular volume for the computer room and supporting spaces, and a smaller administrative portion combined from a skewed pair of structural grids. These masses join along cruciform circulation corridors. A curved entry and lobby element marks their crossing.

Haldeman Powell Johns of Dallas designed a brick exterior that relieves the monotony of vast windowless surfaces by using a second brick color in a repeating pattern abstracted from textile designs and other imagery of local Native American tribes. The abstraction gestures to the culture and materials indigenous to the region and manages, quietly but effectively, to communicate the digital, high-tech functions and processes housed inside. ***Ray Don Tilley***

ECONOMY

Could Texas save the nation?

TEXAS WILL LEAD THE NATION out of recession soon, according to economist Jared Hazleton, director of Texas A&M's Center for Business and Economic Analysis, speaking at a recent seminar at Texas A&M.

"The only effect the national recession has had on Texas is to slow economic growth," said Hazleton. "The state's growth rates this year will not match 1980s levels but will continue to be good compared to the rest of the nation."

Even so, national and global economies remain increasingly critical to Texas' economic future, Hazleton stressed. Mexico, especially, will be an important trading partner, he said. Border towns, led by Laredo, saw employment grow substantially in 1990. "Much of this growth reflects recent events in Mexico that have opened up trade with the United States," said Hazleton.

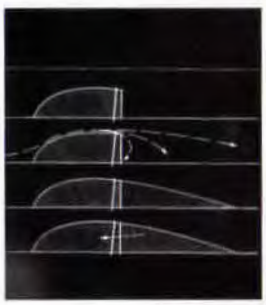
He also cited the Gulf Coast, buoyed by a strong petrochemical market, but said traditional oil, cotton, and cattle centers will continue to see only nominal growth.

"The lesson is that increasingly, Texas' economic growth depends more on human resources than natural resources," said Hazleton. "Investment in all levels of education is essential." ***RDT***

SCHOOLS

Students design Environment 1

UNIVERSITY OF HOUSTON architecture students John Major and Peter Dorsey won a competition last fall to design "Environment 1," a research station at the South Pole. Sponsored by the AIA, AIAS, and the National Science Foundation, the contest drew 176 entries from 71 universities. Students designed for the "most complex frontier of science, with technologies yet to be developed, while maintaining the essential pristine character of the vast polar region." Major and Dorsey created an aluminum sheathed "wing" that would slice through blowing snow, preventing accumulations. Snow heated on the leeward edge would meet daily water needs. Sponsors were Guillermo Trotti and Larry Bell. *RDT*



Top: winners Peter Dorsey and John Majors visited the South Pole as a contest prize. Right: overhead view of winning scheme Below right: section of detail model Below: wind study of building form

BOOKS

Balfour explores Berlin order

FEW CITIES IN EUROPE—indeed few cities anywhere in the world—have had such a checkered history as Berlin. Once the capital and leading commercial and intellectual center of Germany, it was virtually destroyed during the Second World War, only to rise again from the rubble. After the war, it was dismembered by the victorious Allies, becoming in the process the unwitting symbol of Germany's plight as one of the principal battlegrounds of the Cold War.

***Berlin: The Politics of Order 1737-1989* (Rizzoli, New York, 1990) by Alan Balfour, 270 pages, $39.95 cloth**

Viewed in the context of European history, Berlin's precipitous rise and fall occurred in an astonishingly brief time. Although the city had been the residence of the Hohenzollerns, the ruling dynasty of Prussia, since the Middle Ages, it did not emerge as an important metropolis until the unification of Germany in the 1870s. As late as the end of the 18th century, during the reign of Frederick the Great, Berlin was still a small, provincial town with a distinctly military cast. Of the city's 147,000 inhabitants in 1786, nearly one-fourth were soldiers. The rows and rows of gray barracks constructed to house Frederick's legions defined the character of the city's architecture as much as its baroque and rococo palaces and government buildings.

During the 19th century the city underwent a profound transformation. Beginning in the 1840s and '50s, it developed into a center for German heavy industry, and in the 1880s it saw the rise of newly created electrical industry giants such as Siemens and AEG. The city's growth as an industrial center was accompanied by an extraordinary population explosion. Thousands streamed into the city seeking jobs and new opportunities; in place of the old army barracks grew endless blocks

"Survey," continued on page 48

PRACTICE

Meeting the infrastructure crisis

Last October Congress designated 1991 as the Year of Infrastructure, hoping to bring to the fore one of the country's most pressing public-policy issues. The Infrastructure Partnership, a coalition of engineering, transportation, housing, and construction groups, sponsored "America's Crisis, America's Challenge, America's Future," a symposium held Apr. 8–9 in Washington, D.C. Invited speakers included such leaders as U.S. Sen. Daniel P. Moynihan; Atlanta mayor Maynard Jackson; Orlando, Fla., planning director Richard Bernhardt; and Douglas Porter of the Urban Land Institute in Washington, D.C. Topics discussed included recent technologies, innovation, and research that could solve the nation's infrastructure woes; growth management at state and local levels; options available in mass transit; and public-private ventures and privatization schemes to finance services and facilities.

Guide introduces environmental needs

Another symposium held in Washington brought together architects concerned about the environment last November to discuss energy and resource conservation. "Crossroads: Architects and the Environment" kicked off the new AIA Committee on the Environment, which is developing the AIA Environmental Resource Guide, intended as a standard design reference. The ERG could affect how billions of dollars are spent on construction by helping professionals evaluate the environmental impact of individual materials. The goal will be to encourage the construction of site-sensitive, energy-conscious buildings that employ longer-lasting, regional, recycled, and recyclable materials. While the guide is being compiled, AIA is offering its new Environmental Subscription Service newsletter to track the latest ERG research. For information, contact Douglas Greenwood (202/626-7463).

Architectural copyright law expanded

On Oct. 28, 1990, the Congress amended the Copyright Act by passing, among other laws, the Architectural Works Copyright Protection Act, which extends protection to architectural works, not just diagrams, models, and technical drawings as previously mandated. Copyrightable now are the overall form of a building, the arrangement and composition of spaces, and exterior and interior design elements. The legislation allows a judge to stop construction of a building that violates the law and even order a completed building to be demolished; additionally, statutory penalties of up to $100,000 may now be levied without proof of actual damage. A House report accompanying the Act noted that the amendment was prompted by the Berne [Switzerland] Convention of March 1989, which requires member countries to provide copyrights for architecture. ***Niko Letunic***

"Survey," continued from page 47

of worker housing. By 1920, Berlin had a population of four million and covered an area the size of the entire Ruhr industrial region.

In the period between the two World Wars, Berlin also emerged as a leading center for the artistic and scientific avant-garde, on par with Paris, Vienna, and London. Among the numerous luminaries working in the city in the 1920s were Albert Einstein, Max Planck, Peter Behrens, Erich Mendelsohn, Bertolt Brecht, Fritz Lang, and George Grosz. Once the stepchild of Europe's big cities, Weimar Berlin became synonymous with the experimental and the new, experiencing one of the most remarkable outpourings of creativity of this century.

In a spare, often lyrical, style, Balfour addresses not only the historical and architectural dimensions of this complex urban matrix, but its sociological and philosophical backdrop.

The 1930s and 40s, however, brought a terrible reversal of fortune. Like some great urban Icarus that had flown too high, the city fell—the victim of Nazi excesses, Allied bombs, and the harsh realities of the postwar order.

It is this story that Alan Balfour, dean of the Rice University School of Architecture, tells. Rather than presenting a history of the entire city, however, Balfour has focused on one small section surrounding the Leipzigerplatz near the center of the old Berlin. Situated just south of the Brandenburg Gate, the Leipzigerplatz and the adjoining Potsdamerplatz formed the busiest square in prewar Berlin, site of hotels, department stores, offices, and entertainment centers.

The great square grew up around the Potsdam Gate, built by Friedrich Wilhelm I in 1737. Over the next two centuries the area was remade over and over again, as each successive generation sought to impose its own stamp of order and meaning. Balfour traces these myriad changes and then discusses the many buildings and projects connected with the site, among them Gilly's unrealized monument to Frederick the Great, Schinkel's neoclassical gates, Mendelsohn's sleek modern Columbus Haus, Hitler's plans for a Great Hall and an enormous triumphal arch, and Eisenman's recent apartment house near Checkpoint Charlie.

In a spare, often lyrical, style, Balfour addresses not only the historical and architectural dimensions of this complex urban matrix, but its sociological and philosophical backdrop. He draws on a variety of sources, from the standard historical works to the writings of Walter Benjamin and Oswald Spengler. In this attempt to reach a deeper historical understanding—what Balfour calls "the ideals, myths, and fiction" of this place—lies the real value of his work.

Along the way one may have some reservations about some of Balfour's conclusions. I am not convinced, for example, that Mendelsohn's Columbus Haus, which in the early 1930s housed a Woolworth's and other similar establishments, represents "the simple negation and antithesis of the much more ambiguous products of modern commercialism." And I am puzzled as to why, given his interest in political and social history, Balfour did not devote more time to discussing the Wilhelmine era, when the Leipzigerplatz, with its great department stores and offices, became a symbol of the power and prestige of the new bourgeoisie.

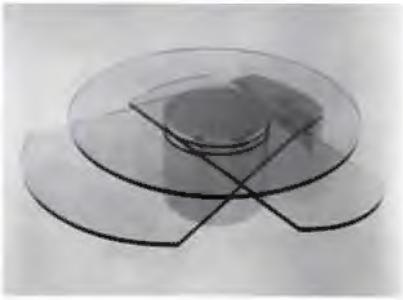
But such objections are minor. This is an important book and, in light of recent events, essential reading. ***Christopher Long***

Christopher Long is an architectural historian with the Texas State Historical Association.

New Products and Literature

The Classic Jackson collection from **Dakota Jackson, Inc.**, including the Saturn Stool (left) and Self-Winding Table (right) is available at David Sutherland Inc. in Dallas.

Circle 130 on the reader inquiry card.



Department of Transportation Symbol Signs are available on diskette from the **Society of Environmental Graphic Designers.**

Circle 131 on the reader inquiry card.

Wilsonart's Craftwood Tinted Veneers complement Color Quest laminates.

Circle 139 on the reader inquiry card.

Pre Finish Metals Inc. offers Enduratex™ the steel door that mimics wood.

Circle 136 on the reader inquiry card.

The $40.9-million TriParty improvements in downtown San Antonio includes 4.5 million multicolored concrete paving stones (covering 1.1 million square feet) from **Mobay Corp.**, a Bayer USA company.

Circle 135 on the reader inquiry card.

Vistawall Architectural Products has introduced Vistawall Glass Systems swing doors and sliders.

Circle 137 on reader inquiry card.

Kval Marketing originated the Niesanbach (knees-and-back) task chair for use as a traditional or an ergonomic knee-rest chair.

Circle 138 on the reader inquiry card.

RESOURCES

3M Austin Center, p. 38

Concrete block: Featherlite; **ceiling systems:** Rulon; **brick:** Acme Brick; **lighting:** Eliptipar; **systems furniture: Steelcase,** Hauserman; **carpet:** Milliken; **lab casework and fume hoods:** Kewaunee; **roofing:** 3M; **ceiling tiles:** Armstrong; **glass:** Guardian Glass

Joiner Rowland Serio Koeppel, p. 42

Tables: Herman Miller, Zeeland, MI; **seating:** Jasper, Jasper, IN; **carpet:** Stratton, Dalton, GA; **lighting:** Halo, Elk Grove Village, IL; NL Corp., Cleveland, OH; Prudential; **rolling files:** Lyons; **paint:** Devoe, Louisville, KY.

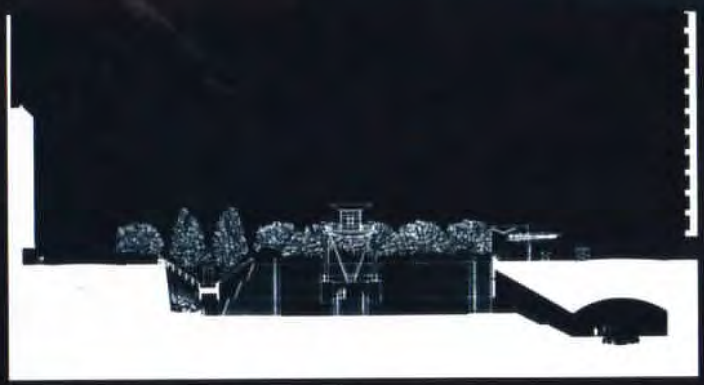
Jesse H. Jones Theater, p. 44

Door closers: Norton Door Closers, Houston; **concealed hinges:** Soss Hinges, Houston; **acoustical wall and ceiling:** Stretchwall System, Houston; **wall fabric:** Designtex, Houston; **carpet:** Bentley, Houston; **drapery:** Arc-Com Fabrics, Inc., Orangeburg, NY; **seating:** JG, Quakertown, PA; **custom lecterns:** Van San, Inc., Industry, CA; **lighting:** National Cathode Corporation, New York (cold cathode); Halo Lighting Division, Houston (downlights, track fixtures); Lighting Services, Inc., Houston (track, track fixtures); Norbert Belfer, Ocean, NJ (steplights); Prescolite, Houston (surface-mounted downlights)

Austin Lyric Opera, p. 45

Vinyl tile: Azrock Industries, San Antonio; **painting:** Spectrum Painting, Austin; **floor covering:** Carpet Services, Austin; **electrician:** TM Electric, Austin; **signage:** Austin Architectural Graphics, Austin; **lighting:** Focus, San Antonio; **solid surfacing material:** Gibraltar, by Ralph Wilson Plastics; **reception desk, pedestal:** design by Susan Briggs Lanford, The Bommarito Group

ADVERTISERS



Plaza 8-F laser against Houston skyline (left); model from south (below left); section facing north (bottom left); section facing east (bottom right)

Commemorating a City's Origins

ON PAPER

A YEAR AGO, during the AIA Convention in Houston, one of the most interesting attractions was not at the George R. Brown Convention Center but at the DiverseWorks gallery, among an ambitious exhibition of conceptual proposals, "Project: HOUSTON."

While architects and visitors strolled through the new convention center, one of DiverseWorks' exhibits commented boldly on the way the convention center itself had recast downtown Houston. "Plaza 8-F," conceived by Rafael Longoria of Longoria/Peters in Houston, proposed to create a community focal point amid the sea of parking lots and underdeveloped parcels at the new city center between the George Brown and the central business district.

Longoria designed the project for the former site of the Lamar Hotel, where city fathers gathered earlier this century in Suite 8-F for diversion and informal but effective direction of the city's development. A pit of alligators, symbolic of Houston's founding on the bayou, would draw visitors from the street, down a grand stairway, into the plaza. The subterranean memorial would connect to the city's tunnel network and could even house a subway station. A central kiosk, source of an upward-focused laser beam, could also project movies at night onto the facade of the neighboring Foley's building. More than just a striking image, Plaza 8-F asks Houstonites to embrace varied sources for a memorial to their city's origins. ***RDT***

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