The Architecture and Design Review of Houston

Cite

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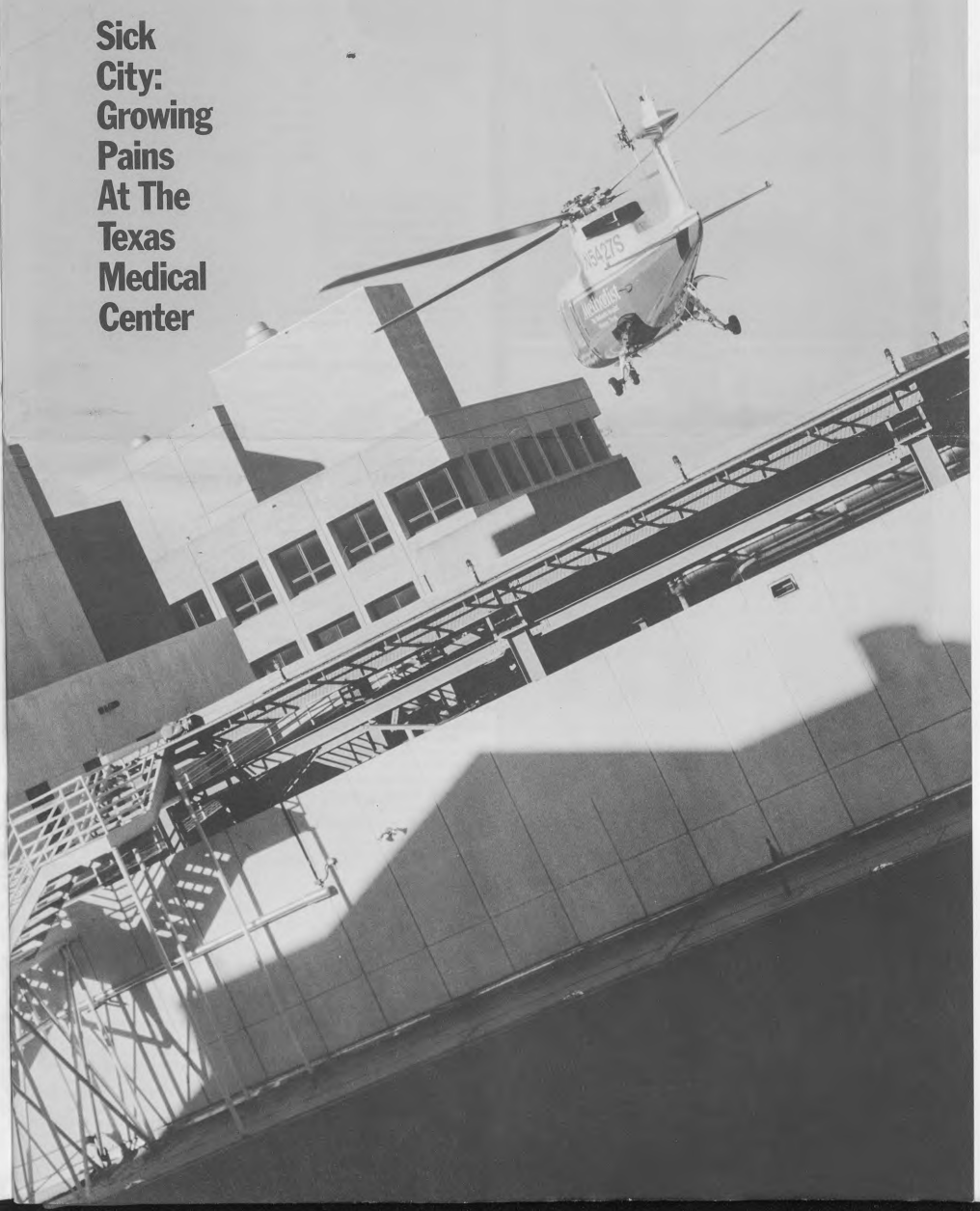
Sick City: Growing Pains At The Texas Medical Center



Cite

The Architecture and Design Review of Houston

A Publication of the Rice Design Alliance

Cover: *A helicopter landing on top of Methodist Hospital's Alkek Tower in the Texas Medical Center. Photo by Paul Hester.*

InCite

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Big Cité Beat

☛ Ah, capella! According to the November 1988 issue of *Connoisseur*, the **Menil Foundation** has made possible the recovery and restoration of 13th-century frescoes that had been removed from the apse and dome of a Byzantine church dedicated to Saint Themonianos in the village of Lysi, Cyprus, shortly after the Turkish occupation began in 1974. Under terms of an agreement concluded with the government of Cyprus and the Greek Orthodox church, a chapel will be erected on the Menil Foundation grounds in Houston, "allowing the frescoes to be seen and to function in their religious context" on loan for 15 years "subject to periodic review in the future."

☛ Sign offing: **Isaac S. Brochstein,** the Rambo of Houston's antibillboard movement, has been named an honorary member of the **Texas Society of Architects** for his longstanding efforts on behalf of **Billboards, Limited!,** which led to passage of the city's sign control ordinance in 1980. Brochstein is responsible for arranging the initial collaboration between **Philip Johnson** and **Gerald Hines,** at Post Oak Central. His generosity also helped make possible **James Stirling**'s first built commission in the United States, the Brochstein wing of the Rice School of Architecture, completed in 1981.

☛ I for image: *Progressive Architecture* magazine in its recent portfolio of convention centers (February 1989) recognized the **George R. Brown Convention Center,** designed by **Mario Bolullo** of Golemon and Rolfe (see *Cite*, Spring-Summer 1988), for its superior architectural image along with four other examples of the genre (New York's Javits Convention Center by I. M. Pei, 1986; Chicago's McCormick Place annex by Skidmore, Owings and Merrill, 1986; Seattle's freeway-straddling Washington State Convention and Trade Center by HNTB Architects with Pietro Belluschi, 1988; and the San Jose Convention Center by Mitchell/Giurgola, to be completed June 1989). The Brown Convention Center was also one of five cited for innovative structure.

☛ Rampant image: **Paul Hester**'s photographs of **Donald Judd**'s Marfa installations, taken for *Cite* (Spring-Summer 1988), appeared as cover, as frontispiece, and inside the Whitney Museum of American Art catalogue *Donald Judd*, by Barbara Haskell (Norton, 1988).

☛ Stymied: **Victoria Herberta,** with aid from RDA board member **Carolyn Farb,** has been trying for months to have

© 1989 Paul Hester, Houston

Hog haven: "Pigdom," Crawford at Eagle, vacated by Jeffrey Jerome during the recent huffing and puffing.

her pet pig **Jeffrey Jerome** returned to her home from a farm near Waller, Texas, where he has wallowed in exile since a neighbor complained that his presence violated a city ordinance. Jerome has helped Herberta raise funds to buy food, clothing, and necessities for Houston's other homeless and was honored at Studebakers on National Pig Day earlier this month. So far, 8,000 signatures have been collected on petitions asking that Jerome be allowed to return. For information on how to help, call **523-HOGS.**

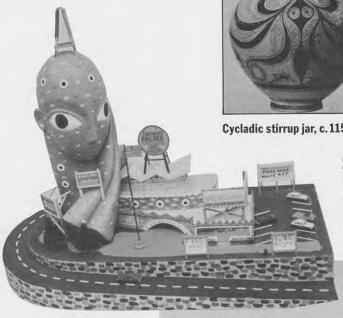
Citegeist


Copenhagen, National Gallery

Cycladic stirrup jar, c. 1150 B.C.

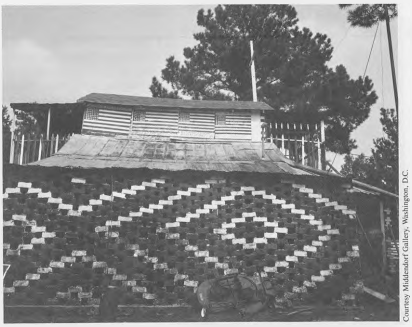
Octopus outlet

Building bored? Just when you thought it was safe to stay out of the water, Rodney Alan Greenblat's octo-plussed homage to Constantin Brancusi washed ashore as part of last summer's fare at the Contemporary Arts Museum. This mollusk in drydock, essayed with disarming, sea-worldly charm by the Pee Wee Herman of contemporary art, extends its neo-vernacular tentacles from South Texas to the prehistoric Cyclades like so much salt-water taffy. Eat your heart out, Shamu.


Courtesy Grace Mansion Gallery

Rodney Alan Greenblat, *Constantin's Palace Motel*, 1988.

Kent Barker, *Caravan Shell Shop*, State Highway 100, Port Isabel, Texas, 1985.


Courtesy Middendorf Gallery, Washington, D.C.

William Christenberry, *Reverend B. F. Perkins' House*, Bankston, Alabama, 1988.

Orange blossom special

Houston's folk environment par excellence, the Orange Show, is developing a clearinghouse for information concerning kindred places worldwide, but with a special emphasis on Texas and the southeastern United States. The Orange Show has already sponsored tours of the Houston and Beaumont areas as part of its "Eyeopener" series, and is planning a jaunt through the southeast for 1990. A folk-environment archive of slides, photographs, and assorted mementos will soon be stashed in a house across the street. Meanwhile, aficionados can compare notes at the Orange Show's bimonthly public lectures, called "Home Movies," next scheduled for Sunday, 9 April, 7:30 p.m., 2401 Munger. For more information, call 713/552-1767.

Wall buster

The less-than-civil visage of the 1958 Tarrant County Civil Courts Building has been slipcovered by the illusionistic tag team of trompe l'oeil muralist Richard Haas and architect George C. T. Woo, commissioned by the Sid Richardson Foundation at the instigation of trustee Sid Bass. The final product, which cost $1.5 million to execute, preserves four stylized, four-story-tall angels of justice from the original façade, ensconced within new wall planes that present a kinder, gentler face to Gunn and Curtiss's 1895 Tarrant County Courthouse with Fort Worthy results.


W. D. Smith, Inc.

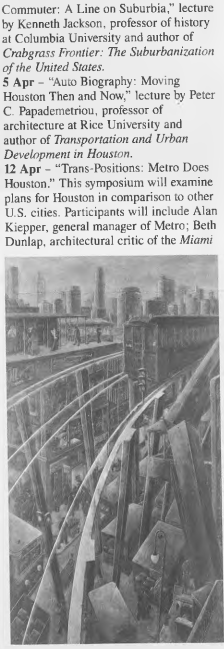

W. D. Smith, Inc.

Before: Wyatt C. Hedrick, architects, 1958. After: refaced, Richard Haas, artist, George C. T. Woo & Partners, architects, 1988.

Citelines

Spring Architectural Events

Rice Design Alliance
P.O. Box 1892, Houston, Texas 77251-1892, 713/524-6297
Spring Lecture Series – "Station to Station: Mass Transit and the Urban Environment," a four-part lecture series that will explore the history of transportation and urban development locally and internationally and provide a forum for discussion of the implications for Houston as the city refines its multi-million-dollar regional mobility plan. All lectures and the symposium held at 8 p.m., Brown Auditorium, Museum of Fine Arts, Houston.
22 Mar – "Subways to Paradise: Paris, London, Vienna," lecture by Donald Olsen, professor of history at Vassar College and author of *The City as a Work of Art.*
29 Mar – "The Semi-Detached Commuter: A Line on Suburbia," lecture by Kenneth Jackson, professor of history at Columbia University and author of *Crabgrass Frontier: The Suburbanization of the United States.*
5 Apr – "Auto Biography: Moving Houston Then and Now," lecture by Peter C. Papademetriou, professor of architecture at Rice University and author of *Transportation and Urban Development in Houston.*
12 Apr – "Trans-Positions: Metro Does Houston." This symposium will examine plans for Houston in comparison to other U.S. cities. Participants will include Alan Kiepper, general manager of Metro; Beth Dunlap, architectural critic of the *Miami Herald;* and Greg Baldwin, a principal in the Portland architecture firm of Zimmer Gunsul Frasca, which designed that city's well-received light-rail system.



Courtesy of the Wolfsonian Foundation, Miami, Florida

Peter Berent, *Sixth Avenue El*, 1938.

Underwriting for the series is being provided by Continental Airlines; The Continental Development Group; Corporate Realty International; CRS Sirrine, Inc.; Cultural Arts Council of Houston; Greiner, Inc.; Gerald D. Hines Interests; Houston Lighting & Power Co.; Law Engineering; Lockwood, Andrews & Newnam; PTI, Inc., Engineers, Architects, and Planners; and Tapley/Lunow Architects.

For reservations and information, telephone the Rice Design Alliance, 713/524-6297.

Farish Gallery
M.D. Anderson Hall, Rice University 713/527-4870
6-19 Mar – Gulf Freeway/Loop 610 Interchange Design Competition, Houston. Forty-four entries submitted for an open, one-stage design competition sponsored by the Texas Department of Highways and Public Transportation, the National Endowment for the Arts, the Cultural Arts Council of Houston, and the Department of Landscape Architecture, Texas A&M University.

Preview of entries, 6-14 Mar, noon-5 p.m. daily. Closed for jury, 15-16 Mar. Public reception, announcement of winners, 16 Mar, 4-6 p.m. Entries continue on display 17-19 Mar, noon-5 p.m. daily.

27 Mar-23 Apr – Exhibition: "Erik Gunnar Asplund: Buildings and Projects," 1917-1940. Drawings from the Asplund estate, documenting the development of his architectural career from Swedish romanticism to neoclassicism to modernism. Lent by the Max Protetch Gallery, New York, and individual collectors. Noon-5 p.m. daily. Opening reception, 27 Mar, 6-8 p.m.

School of Architecture, Rice University
713/527-4870
Spring Lecture Series continues; admission free.
20 Mar – Heather McKinney, "Building in Austin," 1 p.m., 210 Physics, Rice University.
27 Mar – Tod Williams, "The Art of Building," 4 p.m., Chemistry Lecture Hall, Rice University.
3 Apr – Adele Santos, "Case Study: Housing," 4 p.m., Chemistry Lecture Hall, Rice University.
10 Apr – Craig Ellwood, "Painting After Architecture," 1 p.m., 210 Physics, Rice University.

College of Architecture, University of Houston
713/749-1187
Spring Lecture Series–Topics to be announced; all lectures at 3 p.m. in the College of Architecture Theater.
8 Mar – Jacques Boulet, architect, Paris.
3 Apr – Neil Denari, Southern California Institute of Architecture.
4 Apr – Jean Nouvel, architect, Paris.
17 Apr – Stephen Fox, Fellow, Anchorage Foundation of Texas.

12-14 Apr – First Annual CUBIT International Symposium on Architecture and Culture, "Constancy and Change." Cosponsored by the colleges of architecture at UH and Texas A&M University. The symposium will launch a new international publication. All lectures held in Rudder Hall, Texas A&M University. For information, please call 409/845-7851.
12 Apr – Peter Jacobs, "Cultural Values in the Changing Landscape," 7 p.m.
13 Apr – Michael McCarthy, introduction, 9:30 a.m. Malcolm Quantrill, "The Philosophy of CUBIT: Measure for Measure," 9:40 a.m. Kenneth Frampton, "Rappelles à l'Ordre: The Case for Technology," 10 a.m. Karsten Harries, "Time Death and Building," 11:15 a.m. Christian Norberg-Schulz, "Constancy and Change in Architecture," 2:30 p.m.; discussion at 4:30 p.m. Paul Christensen, Sulfiker Ghose, and Herbert Lomas, poetry reading, 7:30 p.m.
14 Apr – "Within and Without," international jury of projects from Texas schools of architecture. Jury to include Kenneth Frampton, Christian Norberg-Schulz, Thomas Thiis-Evensen, Peter Jacobs, Standord Anderson, Kaiser Broner, Marja-Riita Norri, Peter Davey, and Karsten Harries.

Greater Houston Preservation Alliance
713/236-5000
Guided walking tours of the Main Street–Market Square Historic District usually scheduled the third Wednesday (noon) and the fourth Sunday (2 p.m.) of every month; group tours available upon request. Fee is $2; meet at the park-side corner of Preston and Milam. For more information call the Preservation Alliance.

Department of Architecture, Texas A&M University
409/845-7851
23 Mar – Rowlett Lecture Series: "Visualization by Design," Rudder Theater. Panel discussions of the impact of computer technology on the design, planning, and building professions. "Making Design Easier," 2-5 p.m., and "Making Design Better," 7-9 p.m.
12-14 Apr – First Annual CUBIT International Symposium on Architecture and Culture, "Constancy and Change." Cosponsored with the University of Houston. Please see entry under University of Houston College of Architecture.
17-20 May – The Architecture Review Workshop for the NCARB Uniform Architect Registration Exam. For more information, contact Linda Menn, 409/845-7851.

School of Architecture, University of Texas at Austin
512/471-1922
Through 12 Mar – Exhibition: "Robert Adam and Kedleston: The Making of a Neo-Classical Masterpiece." Harry Ransom Center.
8 Mar – Lecture: "On the Simplest of Terms: The Houston Bungalow," by William F. Stern, 4:30 p.m., Jessen Auditorium.
17 Apr – Lecture: "CE on CE," by Craig Ellwood, 4:30 p.m., Jessen Auditorium.
20 Apr – Lecture: "Coop Himmelblau: Architecture Is Dead. Long Live Architecture," by Wolf D. Prix, 4:30 p.m., Jessen Auditorium.

Building on Our Success

The corporate membership campaign of the Rice Design Alliance, "Building on Our Success," was launched in December. According to RDA corporate membership chairman Frank F. Douglas, 75 percent of the $50,000 goal has already been achieved. Corporate gifts of $1,000 or more enable RDA to provide public lectures and symposiums and to publish *Cite: The Architecture and Design Review of Houston.*

The Rice Design Alliance gratefully acknowledges the following companies and foundations for their support this year: Anchorage Foundation of Texas; W. S. Bellows Construction Corporation; Brazos Bookstore; Brochsteins Inc.; Browning-Ferris Industries; CBM Engineers, Inc.; CRS Sirrine, Inc.; Carpet Services; Central Houston, Inc.; Continental Airlines; Cullen Center, Inc.; L. Barry Davidson Architects AIA; Douglas Harding Group; Enron Corporation; Gensler and Associates Architects; Greiner, Inc.; Gerald D. Hines Interests; Hoover & Furr; Houston Chronicle; Houston Lighting & Power Company; IPM/Wynn Estes; Kendall/Heaton Associates; McCoy, Inc.; Office Pavilion; Partners Construction; Privatization Development of America, PDA; The SWA Group; Simmons & Company International Partnership; Edward C. Stanton, III; William F. Stern & Associates; Taft Architects; Vinson & Elkins; and Wilson Business Products. In addition, the RDA would like to thank the following companies for their pledged support: Continental Development Group; Corporate Realty International; O'Neil Gregory Architects; Haworth, Inc.; Interfin; ISD, Inc.; The Spencer Company; Transco Energy Corp.; and The Whitney Group.

If you are interested in corporate membership in the Rice Design Alliance or can donate in-kind services, please call Linda Sylvan at 524-6297.

SICK CITY

GROWING PAINS AT THE TEXAS MEDICAL CENTER

Richard Ingersoll

During the past five years Houston's building cranes have migrated en masse from the once-booming downtown business district three miles south to the Texas Medical Center. With the bust in the oil-and-finance economy, developers and builders turned their attention to the relative stability of the health-care industries, and the majority of the 42 institutions located at the Texas Medical Center have initiated major physical expansions costing more than $1.5 billion. This will double the building area within the world's largest medical center. The name Texas Medical Center refers to both a district of Houston, known as the Medical Center, and an umbrella organization, which for the sake of clarity will be called the TMC. The hospitals, research laboratories, schools, and health organizations located at the Medical Center are federated but autonomous members of the TMC. The conflict between individual institutions and collective needs is clearly legible in the uncoordinated urban pattern of an area that contains Houston's third most significant concentration of buildings. The TMC's power is negligible compared to that of its members, and therein lies the chief deterrent to concerted planning – no plan will work beyond the degree to which the members themselves are willing to cooperate.

Some of the finest works of public architecture in the Western world are medical buildings. The long porticos of Brunelleschi's Ospedale degli Innocenti in Florence and Baccio Pontelli's Ospedale di Santo Spirito in Rome are stunning examples of how hospital design in 15th-century Italy contributed to the orderly organization of urban space. In the 17th century both Jules Hardouin-Mansart's Hôtel des Invalides and Sir Christopher Wren's Royal Naval Hospital in Greenwich presented architecture of magnificent symmetry, geometrical regularity, and hierarchical clarity that served as a critique of the density, filth, and chaos of their respective metropolises. At the end of the century, however, hospitals were among the first buildings to be consciously identified as functionalist; perhaps the original use of the machine analogy in reference to architecture can be traced to Jean-Baptiste Le Roy, a scientist involved in the rebuilding of the Hôtel-Dieu in Paris, who proposed in 1773 that "a hospital ward is really a machine for the treatment of the sick."[1] The functionalist paradigm emphasized the importance of designing from the inside out, with the unfortunate consequence that buildings were no longer conceived as parts of an urban whole. In the 1920s, such Modernist evangelists as Sigfried Giedion and Richard Döcker[2] used medical buildings as exemplars of a new architecture. Hygienic regulation of light and air, unobstructed circulation, and stripped-down simplicity for ease of maintenance became axiomatic alternatives to traditional architectural styles.

Excepting the splendid machinery of the out-of-the-way Heating and Cooling Services building, there are few external signs of functionalism at the Medical Center. Certainly the interiors of the newer buildings are strictly governed by functional demands, but they are virtually unrelated to the exterior elevations. Although the attention recently given to façades indicates some desire to address the public realm, the effect has not been harmonious; each project competes with the others in scale, material, color, and style. The current batch of additions and new buildings ranges in style from the slick thermometer look of Smith Tower to the crusty, Postmodern mannerism of Dunn Tower across the street, heavily rusticated and trimmed with classical moldings. Both were built for Methodist Hospital during the same period, yet they look like rivals. Changes in medical technology and hospital functions have occurred so quickly that both Ben Taub and the Veterans Administration have found it more economical to build new structures than to adapt existing ones

The Medical Center is a microcosm of Houston, developed according to a defiant feudal logic . . .

(even though they are only 25 to 40 years old). The design of the new Veterans Administration hospital is indicative of the attempt to mask functionalism: fancy striated veneers and figural Postmodern corner towers cloak the highly flexible interior arrangement, which is based on interstitial floors. Mezzanine spaces eight feet high have been sandwiched between all floors for services and equipment so that adjustments for new technology – which have to be made every ten years – can take place without interrupting day-to-day operation. The static style of the exterior, which includes classical modillions and rustication, awkwardly contradicts the dynamism of the interior, making the building seem clumsy.

In general the buildings of the Medical Center are being transformed by an accretive process that adds new features in response to the need for operational efficiency and new programmatic demands, resulting in labyrinthine circulation on the inside and a confused jumble of volumes on the outside. An inchoate snarl of parking structures, unclear points of egress, and difficult connections between structures make the Medical Center an aesthetically and experientially unpleasant place that seems to promote a feeling of illness rather than relieve it.

"Sick City" is, of course, an unfair moniker for the Medical Center, not because it is imprecise, but for the reason that Susan Sontag warns against using illness as a metaphor: to make such analogies is an injustice to those who are not well. Yet to call it "Health City," as does the TMC's president, Dr. Richard Wainerdi, seems equally offensive to the well. In some ways the area is a microcosm of Houston, in whose urban development parts have been favored according to a defiant feudal logic with no concern for the whole. The environmental anarchy for which the city is famous has perhaps become too strong a model, because even in the planning circumstances of the Medical Center – where the TMC owns all the land and requires nonprofit status of its tenants – uncompromising, individualistic projects are pervasive. The member institutions, among which are 13 hospitals, two medical schools, the city's department of health, and several unique institutions such as the New Age Hospice and the High School for Health Professions, are in fact as much in competition with each other as they are in cooperation. Representatives meet with Wainerdi twice monthly to discuss mutual problems, and although they are able to concur on such urgent matters as storm drainage and power supplies, very little visible evidence of coordination results. The TMC has little authority over its powerful member institutions, nor would it want to jeopardize its tenuous standing by opposing their plans. Wainerdi's claim that "each of the institutions is like a store in a shopping center" is clearly a delusion, since the management of a

New buildings in the Texas Medical Center

Methodist Hospital, Dunn Tower, *Morris*Architects, to be completed in 1989.* Methodist is the elite hospital of the Medical Center, the first to offer valet parking, the millionaires' choice. The Dunn Tower addition is the most aesthetically pleasing work to come out of Morris*Architects in a long time: its rustication and moldings are more sensitively proportioned than the Wortham Theater Center's, and the alternating rhythm of the windows is original and captivating. The new three-story atrium lobby is an attempt to equate the hospital with the grand hotel.

Smith Tower, *Lloyd Jones Fillpot & Associates, 1988.* Methodist was also the client (with Century Development Corporation as developer) for this smooth-skinned 25-story tower across Fannin, notable especially for the elegance of its parking structure, which has two ramps spiraling in opposite directions at its base and beautifully taut aluminum slats drawn in horizontal patterns across its ten-story volume. The stodgy interiors of the tower are peculiarly incongruous with the no-nonsense exterior.

Scurlock Tower, *S. I. Morris Associates, 1980.* Methodist was again the client (with Gerald D Hines as developer) for this earlier and less well proportioned twin of Smith Tower. Black aerial tubes link Scurlock to Smith and both towers to the hospital complex. Scurlock's fourth floor houses the Sid Richardson Institute for Preventive Medicine, comprising both Chez Eddy (a restaurant named after oil-magnate donor Eddy Scurlock that serves a gourmet menu approved by the American Heart Association) and a health club with indoor track whose exuberant Postmodern interior, designed by William T. Cannady & Associates, inverts the tendency to dress up the façade.

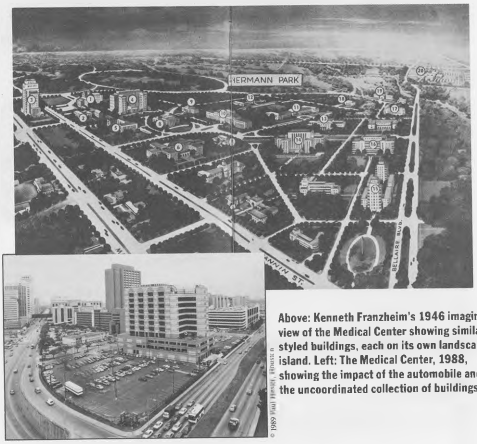
Ben Taub Hospital, *CRS Sirrine and Llewelyn-Davies Sahni, to be completed in 1989.* Ben Taub, one of two large hospitals operated by the Harris County Hospital District for patients unable to afford private care, is in fact one of the most handsome of the new structures under construction. The alternating brick bands take their cue from Cesar Pelli's work at Rice University, and the glazed stair towers offer the promise of orientation from inside the building. The original 1963 building will be taken over by Baylor.

shopping mall exercises considerably more control over the design and use of its property. Closer to reality is another of Wainerdi's analogies, comparing each institution to a separate city: Methodist City, St. Luke's City, Baylor City. In the same way that Houston has been unable to implement zoning or planning, the TMC cannot deal with most of the collective and urban matters that should concern all its members. The TMC's one claim to power is its control of the majority of the parking lots and parking structures, but this has not proven to be the key to either urban clarity or backyard diplomacy.

The Medical Center owes its reputation to the competitive pursuit of advanced medical technologies, especially in cancer research, organ transplants, and treatment of heart ailments (more open-heart surgery is performed here than anywhere else in the world). Its size and complexity are seen as its major attractions to researchers and doctors. There are three cyclotrons at the Medical Center, and the ultimate in sophisticated medical equipment, such as magnetic resonance imaging machines, can be found in many of its buildings. In 1976 the first helicopter ambulance services were introduced, and the whirlybirds land daily at three of the hospitals. According to Dr. Stanley Reiser, a professor of medical ethics at the University of Texas Health Science Center and Rice University, the latest notions of modern medicine treat diseases as having specific anatomical sites that specialized technology can act upon. The classic Hippocratic concept of health, on the other hand, is concerned with maintaining an equilibrium between the body and the environment, and in this respect is more like the Chinese approach to medicine, based on the interaction of parts of the body: medicine is meant to restore the balance. Whether or not Western technology is superior to these pretechnological concepts of health, the unbalanced urban pattern of the Medical Center accurately reflects the philosophy of treating the anatomical site in isolation from the rest of the body.

The TMC was founded in 1942 by John H. Freeman, W. B. Bates, and Dr. E. William Bertner (the TMC's first president) with an initial $20 million endowment from the foundation established by cotton-exporting magnate Monroe D. Anderson. It was conceived as both a charitable endeavor and an economic backup system for a city in need of diversification. The original 134-acre site, part of Hermann Park, was purchased from the city in 1943. Among the TMC's charter members were Hermann Hospital, on the site since 1925; M. D. Anderson Hospital and Tumor Institute (part of the University of Texas); and Baylor College of Medicine, which was lured away from Dallas in 1943, when the Houston Chamber of Commerce added a $500,000 grant to the TMC's invitation to settle in Houston. From the outset, the nonprofit institutions were looked at as businesses and infused with a competitive spirit. The medical symbol of the rod of Asclepius has proven to bear an uncanny resemblance to the dollar sign. The enormous profits that accrue to TMC members, which must dedicate 4 to 5 percent of their budgets to charitable purposes in order to maintain nonprofit status, are reinvested, which partially explains their ability to expand. The profits of Methodist Hospital during the past five years have been so healthy as to bring its charitable status under legal scrutiny.[3]

When the TMC was incorporated in 1945, it had a determined architectural program meant to supply "certain rules for the general guidance of the architectural design of certain buildings." Stone and brick, with a limited amount of stucco, were recommended – "no strong yellows, reds or dark colors shall be used" – and light terra-cotta tiles were recommended for the roofs, apparently in deference to the style of the buildings on the neighboring Rice University campus.[4] The site was planned by Herbert A. Kipp, the civil engineer who laid out River Oaks. Kenneth Franzheim, who in 1946 designed both an annex to Hermann Hospital and the Hermann Professional Building, also prepared at that time a conceptual view of the Medical Center, showing a series of similarly styled buildings set in isolation in their own landscaped parks. The scheme was consistent with the 19th-century "pavilion



Above: Kenneth Franzheim's 1946 imagined view of the Medical Center showing similarly styled buildings, each on its own landscaped island. Left: The Medical Center, 1988, showing the impact of the automobile and the uncoordinated collection of buildings.

principle" in hospital design, which advocated detached buildings with more exposure to light and air. Although automobiles are shown skirting the area's perimeters, failure to include the automobile is clearly the tragic flaw of this conceptual order; most of the buildings of the first decade – among them Baylor College of Medicine, the Jesse H. Jones Library, and the original Methodist Hospital – conformed to Kipp and Franzheim's scheme, but parking lots necessarily displaced the gardens and blotted out the connecting lanes. The landscaped islands were transformed into an immense superblock. The 1949 extension of Fannin Street through Hermann Park was meant to divert traffic from South Main Street, and the half-mile stretch that borders the Medical Center has since developed into one of the most densely built parts of Houston, with tall towers for the doctors' offices on one side and hospitals for them to fill with patients on the other. The symbiotic bond is clearly expressed by the vascular aerial walkways that span Fannin, Houston's equivalents to the Bridge of Sighs.

The TMC now owns 525 acres in eight distinct but proximate parcels. Most of the land between these parcels is currently vacant, and one of the most important gaps, the Parkwood Apartments tract between the Veterans Administration hospital and the original Medical Center site, is said to have been acquired by Baylor in late 1988. Over the years the TMC, either independently or through its members, has absorbed numerous adjacent structures and properties, such as Franzheim's elegant Prudential Building (1952), acquired in 1974 by the University of Texas, and the Mayfair Apartments, acquired by UT in 1969. Both buildings have been successfully retrofitted for use as teaching or hospital support facilities; an awkward elevated crosswalk was built in 1988 across Holcombe to connect the Mayfair and M. D. Anderson. A sad exception to this pattern of adaptive reuse was the TMC's acquisition in 1985 of the historically significant Shamrock Hotel, which the TMC chose to demolish rather than adapt as a conference center (in characteristic Houston fashion, however, the parking garage was retained on site). The recent restoration of Hermann Hospital's original 1925 Spanish-style building in lieu of demolition is a far happier accommodation of a historic structure.

Compared with medical centers in Chicago or Detroit, Houston's Medical Center has had a less deleterious effect on its surrounding neighborhoods, because it is fairly well bounded by public and semipublic territories: Rice University, Hermann Park, the Astrodomain, and State Highway 288. Only its southeastern neighbors, especially the subdivision of Devonshire Place, have suffered ill effects. The outer patches of TMC property serve mostly for housing or parking, while major public activities are conducted on the original Medical Center site. The ever-growing work force of 52,000 and the daily visiting population, which averages 105,000, have led to egregious traffic problems and inspired several planning studies. The first, jointly authored by 3D/International and CRS Sirrine in 1986, was quickly scuttled, except for a $1 million signage program.

Filippo Brunelleschi's portico for the Ospedale degli Innocenti, 1491, Florence.

Children's Nutrition Research Center, *3D/International and Bernard Johnson, 1988.* A rare instance of direct federal funding for a TMC member, underwritten in this case by the United States Department of Agriculture. The patriotic use of Texas pink granite (too much is never enough) and the Texas star reliefs at the top were the whim of Buford Nichols, director of the center. The lobby is one of the few in the Medical Center to feature a visible stairway to the second level. The top-story greenhouses might have been a delight to observe but are hardly noticeable.

Texas A & M University Institute of Biosciences and Technology, *Bernard Johnson, to be completed in 1990.* The first of two 11-story laboratory buildings, of concrete frame with brick veneer and designed according to the regimented taste of its client to be almost without character, will be built this year on the site of the Shamrock swimming pool. A "water feature" is being planned by the TMC (with funding from the Wortham Foundation) to liven up the Main Street tip of the triangular site.

Veterans Administration Medical Center, *3D/International and Stone Marracini and Patterson, to be completed in 1989.* This will be the largest and most innovative hospital of the new crop. With utilities floors sandwiched between the working floors, it will allow alterations to be made to the mechanical system without interrupting service. The plan, which from the exterior appears complex due to the shifted orientation of the corner towers and the jogging configuration of the bays, is actually based on a simple long corridor spine, 16 feet wide, running diagonally through the center of the building.

M. D. Anderson Hospital, R. Lee Clark Clinic, *Pierce Goodwin Alexander, 1987.* M. D. Anderson was the first TMC member to break with the style guidelines in the 1950s. The firm of MacKie and Kamrath (which was responsible for several buildings at the Medical Center, including the City of Houston Department of Public Health) designed in the manner of Frank Lloyd Wright the successive stages of the hospital, first using characteristic pink marble and long sun shades, then in 1976 adding the polygonal towers and cantilevered nests of the Lutheran Pavilion. The Clark Clinic is an uninspired box.

Fannin Street looking north: professional buildings and hotels, left, Texas Medical Center garage and Methodist Hospital, right.

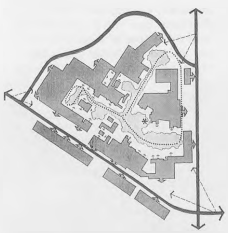
Another proposal, made in 1987 by a team led by David Scoular, is still being considered.[5] Scoular, director of planning at Baylor, wants what already works to work better. He labels Fannin the "front door" of the Medical Center and the buildings and institutions on the interior, which are less accessible to motor traffic, the "backyard." Methodist Hospital is moving its principal automobile entry and lobby from the internal street of Bertner to Fannin, an ad hoc implementation of a strategy to enforce the perimeter as the public façade, so that the distinction between vehicular and pedestrian areas becomes more clear. Other institutions might be encouraged to continue this trend; those located on the interior, such as Baylor, Texas Woman's University, and the Jones Library, would be served by M. D. Anderson Boulevard, a broad street that intersects Fannin perpendicularly. Internally one finds intense pedestrian traffic between buildings, some of which occurs below ground in 12-foot-wide tunnels – nasty but convenient, and for initiates only – that connect Baylor with Ben Taub, and Methodist with St. Luke's. Above ground a criss-cross pedestrian pattern links Methodist to Baylor and the UT Medical School to M. D. Anderson Cancer Center. Bertner is currently a four-lane core street collecting the four special Metro lines that connect the sites of TMC members (many employees are required to park at a distance and commute by bus to the central area). The major site of contention in this interior zone is the "K lot," a large surface parking lot between Baylor, M. D. Anderson, and Methodist. At the moment it is the favored site for a Metro rail station, although another faction supports locating the station on Fannin. Each of the member institutions has different interests for the site – some want to keep it for parking, others hope to see it used as a park or as a building site – and thus a compromise will be difficult to achieve. This inner core of the Medical Center desperately needs unifying elements. At present Wainerdi is implementing a landscaping program that is not conceptually coherent. Scoular's study recommends uniform paving and lighting elements and a complete signage system; the TMC's recently completed signage system only addresses automobile traffic and is less helpful for pedestrians.

The major improvement proposed by Scoular's team is a detached second-level walkway that shelters an exposed portico below it. This portico would follow an irregular pattern connecting the major institutions in the Medical Center's "backyard." The strategy derives from the oldest and finest aspects of hospital design, going back to Brunelleschi's portico. If the most exasperating Medical Center experience is waiting for the invariably sluggish elevators, corridors, by contrast, can be somewhat pleasurable: witness the active social life in the skyway connecting Smith Tower to Methodist Hospital. (James Stoller's recent memoir in *Architecture*, December 1988, about the "pike" at Boston's Peter Brent Brigham Hospital is further testimony to the virtues of long corridors as socializing spaces.) The proposed climate-controlled walkways would offer a more comfortable way to move between buildings during Houston's six-month hot spells. Most people working in the Medical Center would prefer to leave and enter buildings at the second level rather than renegotiate the lobbies; such a design provides the option of using either the exposed first level or the enclosed second. The design of the porticos should not be handled as a mere functional problem – they could in fact become a type of urban armature, like the ancient Roman colonnade, the Renaissance portico, or, more recently, the red boxes used by Bernard Tschumi to structure the immense area of Parc de la Villette in Paris. In Houston the spindly porticos at the University of St. Thomas are a successful example. Aerial walkways are being built at the Medical Center without the benefit of an overall plan, as witnessed on Fannin and Holcombe. If designed properly, these modern porticos could greatly enhance and visually unify what is currently a jumble of competing prospects. Scoular has himself built a timid example in the ground-floor portico connecting the rear of Baylor to its parking garage, which for all its good intentions is a reminder that the services of a Brunelleschi are needed.

The Medical Center is immense, indecipherable, and chaotic. While mandating the architecture of the area has proven impossible, there may still be time left to reorganize the parking, natural spaces, and pedestrian environments. But unless the TMC instills in its members a sense of greater public responsibility, emphasizing that the Medical Center is an urban environment that will benefit (and even profit) from architectural clarity, the confusion will continue. A healthy-looking environment ought to be on the agenda of an organization concerned with health: Sick City can be cured, if it will allow itself to be diagnosed. ■

Notes

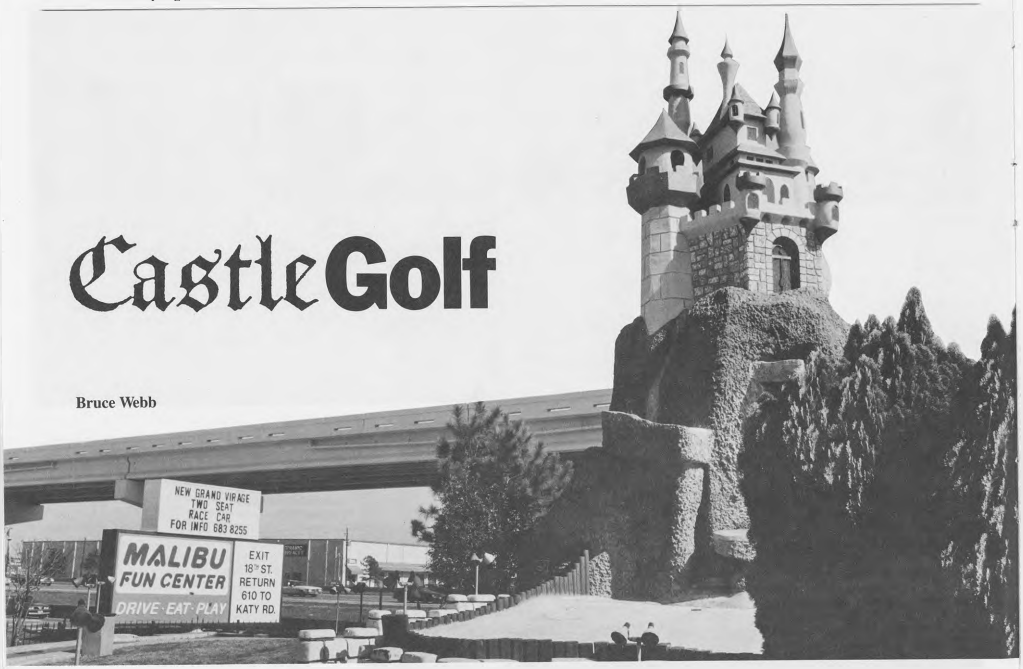
1 Nikolaus Pevsner, *A History of Building Types* (Princeton: Princeton University Press, 1976), p. 151.
2 Richard Docker, *Das Terrassenrup* (Stuttgart, 1929).
3 Pete Brewton, "Methodist surplus draws fire," *Houston Post*, 30 November 1988, p. A-1.
4 "Nation's health to be bettered by $100,000,000 Texas Medical Center now under construction in Houston," *Houston*, August 1946, pp. 6-11.
5 David Scoular, "Texas Medical Center Planning Study" (draft), January 1987; participants included Nathaniel Pierstone, Dr. Lloyd Fie, Bridgette Schleicher, Rosemary Mackey, and Ronald Shoup.



The original site of the Medical Center as analyzed by Scoular's plan shows the tendency of the perimeter to serve as the front door and internal areas as the backyard (' marks the K lot).

Castle Golf

Bruce Webb



The cloud-capped towers,
the gorgeous palaces,
The solemn temples,
the great globe itself.
Yea, all which it inherit,
shall dissolve...
We are such stuff as
dreams are made on...

– *The Tempest*, Act V, Scene 1

George Bernard Shaw was no friend to golf. When someone asked him about it, he replied that, as far as he was concerned, golf was a good way to ruin a nice walk. I doubt he would have found miniature golf much of an improvement. It even did away with the nice walk, leaving only the ruining part: the frustrating matter of "trying to control a small white ball with implements ill adapted for the purpose," to quote Woodrow Wilson, who, it seems, was also no friend to golf. Yet in spite of being the butt of countless critics and stand-up comedians, both big golf and little golf have enjoyed enormous popularity over the years. And both have left their mark on the American landscape: big golf in generous, bucolic preserves, mini-golf in colorful corners of kitsch and folk art – the common man's gardens of earthly delights.

The real heyday of miniature golf was the 1930s. Millions of players tried to forget their financial woes playing on the thousands of new courses that sprang up in depression-ridden America. John Margolies, in his picture book *Miniature Golf*, even credits the craze with providing a "much needed stimulus to such diverse industries as cotton, lumber, concrete, steel, roofing, and lighting" and claims it "saved 100,000 workers from soup kitchens and bread lines." But the passion for the "madness of the thirties" was short-lived. Miniature golf was soon openly attacked as slothful and wasteful, and communities duly enacted ordinances and imposed curfews to curb the mania. Even Will Rogers, who had earlier advocated mini-golf courses as a way to dress up desolate corner lots, turned against it, declaring: "There is millions got a putter in their hands when they ought to have a shovel. Half of America is bent over. In two more generations our children will grow upward as far as the hips, then they will turn off at right angles, and with the arms hanging down we will be right back where we started from. Darwin was right."

Miniature golf enjoyed a comeback in the fifties and to a lesser extent in our own time. (It may be a phenomenon of Republican presidencies.) I played my first game in the fifties on the boardwalk in Ocean City, New Jersey, with the surf rumbling in the background, and ever since the game has reminded me of vacations. Miniature golf courses exude a nostalgic charm, and because they depend so much on this charm, like doll houses and Lionel trains, they cannot change very much without losing their essence.

I first glimpsed Houston's Castle Golf out of the corner of my eye from a particularly jumbled patch of freeway on the West Side, but I never seemed able to find it again. I was prepared to give it up as a mirage – a product perhaps of an unusual conjunction of sunbeams falling on a patch of strip junk – when I came across it again. From the superscale of the freeway, Castle Golf appears as a distant, ideal village, like a page out of a children's pop-up book. Spread out under the protecting mantle of the hilltop castle, its hillside setting is crisscrossed with pastoral rills and majestic fountains spouting pure mountain water. If everything has an ideal distance and point of vantage from which it should be seen – especially stage sets, shams, and follies, which depend upon the principle of aesthetic distance to preserve their illusion of verisimilitude – for Castle Golf that point of view is from the freeway at 50 miles per hour. The closer one gets, the more the illusion breaks down and begins to melt; like Prospero it pronounces itself to be made of "insubstantial stuff." But it all doesn't break apart in the same way. The castle turns out to be a thin example of architectural trompe l'oeil on a concrete-block building whose anonymous interior is filled with the usual video machines and arcade games. And despite the presence of real live ducks (who must have been operantly conditioned to get them to live there), the extensive waterways have the artificial look and smell of blue toilet bowl water. But the quarter-scale buildings and bantam landscape, the only true miniatures on the grounds, reward closer scrutiny.

The human fascination with things in miniature constitutes a special case of control: making the very large into something instantly graspable. A true miniature, like a Bruegel painting, creates within itself little worlds of great detail and exactitude in which you can easily occupy yourself in corners selected at random. Only the most exquisite miniatures hold up under really close scrutiny, for miniaturization involves a process of reduction not only of size but

Photographs by Paul Hester

also of detail that taxes the mind as well as the craft of the maker. To a point in this downscaling process it is possible to distill a scene in miniature and still retain its essential, recognizable features, as though the object being depicted were being moved farther and farther from the eye. Beyond that point important elements drop away, and symbols with little or no pictorial resemblance to the things themselves must be brought into play – just as reading a map requires an interlocutory step before the content can be grasped.

Inside the precincts of Castle Golf you can't help remembering the view from the road. It gives you the feeling an actor must have facing the audience and looking at the backside of the scenery flats. The two landscapes, the miniaturized one of the golf course and the superscale of the freeway, relate to different scales of movement, and the two exaggerate one another. The relationship creates some serendipitous examples of collage: looking out to the road, the overhead freeway and the on-grade portion of Loop 610 create a long horizontal frame filled by a warehouse whose painted sign, in letters ten feet tall, proclaims the location of the "Wizard of Spas."

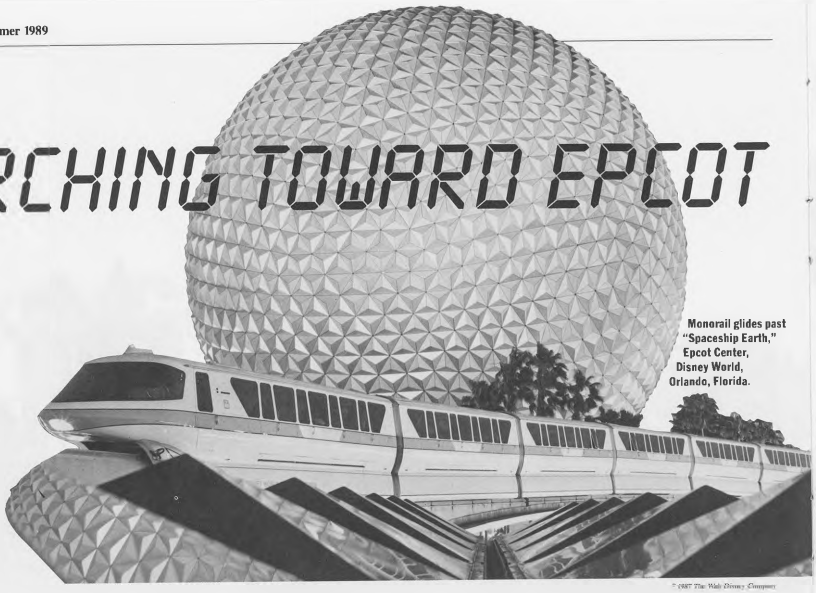
The inventors of miniature golf realized that reducing golf to a pint-sized essence could create an exercise in pure boredom. But by making the course in a sense episodic and creating a toy landscape, they could fashion a pictorial map through an obstacle course of figural demons. In Sweetwater, Texas, mini-golfers play on a course dedicated to the glory of God in which players work their way through the trials and epiphanies of the Holy Scriptures in settings depicting biblical scenes and populated by holy statuary. The scorepads cite scripture for each hole – a kind of Weberian exercise for those who need to justify their playtime. By comparison, the four 18-hole courses at Castle Golf seem to be lacking in specific allegorical inspiration. Instead the place has the look and feel of a generic model railroad layout. Most of the buildings, scatter-sited in the idealized landscape, look like doll houses, one-fourth the scale of the habitable replicas you might find in a suburban theme subdivision – miniatures of buildings that are themselves miniatures, in detail if not always in scale. And while the Castle Golf landscape has the innocence of a picture from a children's story book, the concrete-curbed golfing lanes and obstacles take their inspiration from the no-nonsense aesthetics of the freeway. The destructive operation of the one on the mood of the other seems the very model of the effect of the great road-building mania of the late fifties and early sixties on the American landscape.

The freeway and the golf course are near-perfect metaphorical extensions of one another. The obstacle course begins out on the road: going south on the Loop you have already gone too far when you pass the Malibu Fun Center signs. A note underneath tells you, "Next exit, return 610 N." Going north, the obverse of the same sign reads, "Exit 18th Street, return 610 to Katy Road." In the parlance of the golf course, getting off the freeway and onto the Castle Golf grounds is on the order of a par ten maneuver. From the feeder a gently curving road circles behind the castle into a parking lot flanked on one side by the Malibu Raceway and on the other by a batting cage. The batting cage is a splendid geometric construction, a large circular cage divided into pie-shaped segments, each one facing onto the center, where a mechanical arm delivers up pitches of precisely calibrated velocities to batters who insert tokens into a slot for the privilege of swinging.

The castle, front and center as you leave your car, is a hub of activity. Its concrete blocks are painted over to resemble gray stone and trimmed in the colors of a pack of Black-Jack chewing gum. The dark, blank space within, like the underside of an elevated freeway, harbors a near-deafening cacophony of buzzers, bells, and disembodied electronic voices. Passing through puts you on a promontory overlooking the golf course, and the sounds change to the vigorous aural massage of rushing water. As you move down along the course, the sound of the water gives way to the deep, persistent hum of traffic on the freeway.

Castle Golf inspires thoughts of a weird kind of Borgesian symmetry. Imagine a wall of infinite length in which there is a single window. On one side, the world is shrinking at an almost imperceptible rate. On the other, its equivalent is being constructed to an ever-expanding scale. Looking through the window at the expanding world, elements are losing their detail as their surfaces stretch. On the other side, detail is dropping away. For an instant the smaller version exactly reflects its bigger opposite, then the relationship changes. Both sides are headed for nothingness. At which point, perhaps, someone inserts a video screen into the window frame and the process of growing things from a dot or reducing them to a dot can be reenacted over and over for the price of a quarter. It's the kind of thought that can come to you as you push the little white ball up and down the alleys of Castle Golf. But at $4.50 a round ($3.50 for children), who can afford to follow it along to its denouement? ■

LURCHING TOWARD EPCOT



Monorail glides past "Spaceship Earth," Epcot Center, Disney World, Orlando, Florida.

Alan M. Field

TECHNOLOGY CHOICES FOR METRO'S SYSTEM CONNECTOR

In January 1988, voters elected in a referendum to allow the Metropolitan Transit Authority to spend $1.04 billion dollars developing a new "system connector" for Houston – a 20-mile-long mass transit system that would link various activity centers and bus-line terminals and that would influence the shape of the city well into the next century.

Now, more than a year later, it is apparent that many critical aspects of Metro's plan have yet to be determined: What kind of technology will the connector utilize – light rail, monorail, or some other system? What role will private entrepreneurs play in the design and construction of the system connector? Where will the tracks go?

Metro's hesitation in resolving these issues reflects to some extent the inherent complexity of such an undertaking, compounded by garden-variety political considerations. It appears now that definitive choices among the key variables will probably not be made until sometime this spring or later and that, in the absence of any compelling analytical basis, they will be made largely on subjective criteria.

Many Houstonians may still believe that last year's referendum specified a light-rail system – much like that utilized in Portland, Oregon, and favored by the Urban Mass Transit Administration of the U.S. Department of Transportation, a key source of construction funding. After all, Metro lacks the funds and public support to build anything like the $2.125 billion, 18.5-mile initial phase of the heavy-rail system rejected by voters in June 1983. Metro therefore intends to finance the new system connector from its own budget and available federal assistance – that is, without the bonding authority it sought in 1983. Moreover, Metro's own planners had recommended light rail to the nine-member Metro board as the best system available at the present budget.

But when the board finally got around to a detailed consideration of alternative technologies in January of this year, at a two-day conference held at Metro's downtown headquarters, little support materialized for a purely light-rail system. Instead a heated battle raged between proponents of a hybrid system called advanced rail and those who favored monorail, a technology more frequently associated with world's fairs (Seattle, Vancouver) or amusement parks (Epcot). Despite the emphatic counsel of Metro's own consultants, Lea + Elliott of Chantilly, Virginia, the monorail alternative seemed more seductive than was previously supposed.

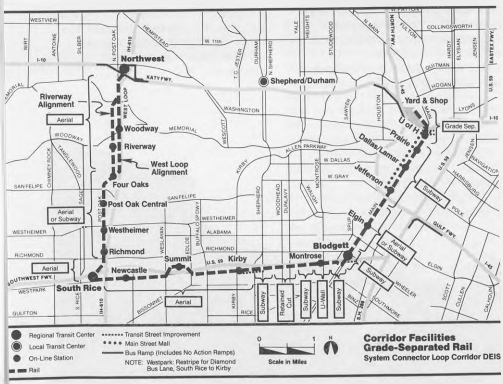
Lea + Elliott favors instead a "customized" combination of technologies it chose to call advanced rail: that is, automated rail (grade-separated with third-rail electric power) within the U-shaped trunk of the system connector (see map) and light rail (not grade-separated, power derived from an overhead catenary) for the feeder lines to the trunk. Among the reasons cited: this hybrid would use off-the-shelf technology that requires no further development; it would cost only $1.392 billion to construct, substantially more than the $1.04 billion voters approved last year, but far less than any other alternative under consideration (monorail would cost $1.8 billion); components and spare parts could be purchased and upgraded from a variety of suppliers, so Metro would never become dependent on a sole-source, proprietary manufacturer.

Overall, monorail ranked last among major technologies as evaluated by Lea + Elliott. Monorail, the report indicated, was too costly to build, too costly to operate, too clumsy in its switching, too potentially dangerous in its lack of emergency walkways. Perhaps worst of all, monorail is supplied only by proprietary manufacturers, who – since they provide everything that goes into a system – could command extraordinary prices for replacement parts and extensions. Such a sole-source supplier, of monorail or another proprietary technology, could even choose to get out of the business, leaving Metro with nowhere to turn. As Robert M. Eury, president of Central Houston, Inc., a downtown development organization, argued, "If you go with a single proprietary technology, no one else can bid, and once you build part of your system, it's very hard to use another type of technology in another part."

Those arguments hardly deterred monorail's supporters. Tom Stone (whose firm, TGI of Orlando, Florida, built the Disney World monorail and is a subsidiary of Bombardier, a Canadian firm that manufactures both monorail and light-rail systems), argued that virtually all the data presented by Lea + Elliott, not to mention its recommendations, were erroneous. According to TGI, monorail would cost Houston only about $1 billion. Switching, described by Lea + Elliott as slow and painful, was said to present no specific difficulty; maintenance would be cheaper and simpler. Safety concerns could be addressed by building emergency walkways. As for the risk of being locked into a proprietary technology, Stone promised great flexibility in making a deal with Houston: "You can negotiate a fixed price [allowing for inflation] for spare parts. . . . We will make the design available for bidding for others to build them. . . . We can probably extend parts at the same initial price."

In the selection of a technology it is not enough simply to compare such easily quantifiable factors as maintenance costs, average speed, and passenger capacity. Long-term economic values and aesthetics also count. Supporters of monorail consider aesthetics the key factor behind their advocacy. In contrast, Chuck Elms, senior principal at Lea + Elliott, ascribes no more weight to aesthetic considerations than to any other factor. He argued publicly that there was no industry consensus on which factors should be given greatest weight. (Elms's report did, however, give monorail the highest mark for aesthetics.)

Monorail's supporters believe that ultimately the public's aesthetic perception makes a greater difference than any other factor and that market appeal will be of paramount importance



North increment, grade-separated rail alignment proposed for Houston system connector. Compatible with monorail, magnetic levitation, and automated guideway technologies.

ACCORDING TO METRO CHAIRMAN ROBERT C. LANIER, "MONORAIL HAS A MYSTIQUE. I DON'T KNOW WHY–THE IMAGE. IT WOULD ATTRACT RIDERS, BECAUSE IT'S MONORAIL."

Texas Postal, December 1956, Houston Metropolitan Research Center, Houston Public Library

Houston's Trailblazer monorail, reinstalled in State Fair Park, Dallas, October 1956.

Monomania

Like 3-D movies and Tucker automobiles, monorails are among the quainter innovations of the recent future. Several years before Houston's singular contribution to the advancement of 20th-century urbanism, the Astrodome, came to South Main Street, two short "demonstration" monorail lines attempted to stake out the adjacent prairie.

The first began its brief transit in February 1956 on a 970-foot-long track erected in Arrowhead Park, near South Main and Old Spanish Trail. It was moved the following fall to Dallas, where more than 100,000 visitors to the State Fair paid a quarter each that season for a three-minute ride along its track, expanded to 1,600 feet. The monorail remained at the fair until 1964, long enough for a second monorail to begin runs back in Houston on a 1,250-foot-long track at South Main and Fondren in 1958. This second track was soon abandoned and came down in 1961.

The Arrowhead Park model, designated the "Trailblazer" and inaugurated with the help of Roy Rogers and children from a local orphanage, was conceived by a Houston engineer, Murel Goodell (in partnership with Francis Niven and Weldon Appelt). It was essentially an updated version of an eight-mile-long system erected in Wuppertal, Germany, in 1903, that was suspended from a train-track-like apparatus. Goodell's version was hung from a 30-inch pipe, which he promoted as offering "additional revenue possibilities such as carrying oil or public utility lines." The cargo mix may have suggested still other prospects for revenue enhancement to Goodell's backers, most of whom were local insurance men.

Except for Dallasites, whose credulity is sometimes the subject of unflattering speculation, Goodell's monorail found no other takers. He eventually relocated to Utah, where faith in novelty has never been in short supply. Meanwhile, more extensive and advanced monorail systems came into being independently at Disneyland (1959) and the World's Fair in Seattle (1960). With the completion of new lines at Disney World in Orlando (1971, 1982), Mickey Mouse became the technology's first repeat customer.

Drexel Turner

in counteracting Houston's decades-old infatuation with the automobile. They believe more commuters are likely to switch to mass transit *simply because* monorail is more visually alluring. Central Houston's Bob Eury may be right when he points out that "monorail is not a very new technology, it dates back to the 1950s," but for monorail supporters, that technology's long clean line – in particular its protruding nose – seems to spell The Future.

Many people don't care that, for example, the magnetic levitation ("MagLev") technology offered by Magnetic Transit of America (another proprietary technology dismissed by Lea + Elliott) is actually far more advanced than TGI's version of monorail. MagLev trains are square-sided, old-fashioned-looking boxes that remind people of subway cars. Says Allan Romano, a systems engineer and transportation consultant: "Monorail's mystique is its nose. It looks as if it's moving when it's standing still." Metro chairman Robert C. Lanier, former chairman of the Texas Highway Commission, apparently agrees. According to Lanier, "Monorail has a mystique, I don't know why – the image. It would attract riders, because it's monorail." Perhaps impressed when Tom Stone described the monorail TGI built for Disney World as "the single most memorable event there next to Mickey Mouse," Lanier imagined in almost poetic terms a ride northward from the Galleria on an elevated monorail, the downtown skyline visible to the east, the starkly modern architecture of Post Oak below. "It could be a tourist attraction," he concluded.

Is it irrational to choose a system because of its aesthetic superiority (assuming we agree it is superior)? Not if the other objections of safety, reasonable cost, switching ease, and so on can really be countered. Not if its futuristic mystique really will mean higher ridership on the system connector. Not if it somehow reinforces the image of Houston as Space City and helps encourage tourism and investment. If monorail spells more riders – both tourists and locals – it could be the most "rational" and cost-effective alternative.

On that score, the data are hardly convincing. John Carrara of the Goodman Corporation, transportation consultants, says that his surveys of Houston commuters indicate that "maybe one percent of people would be sold on mass transit as a result of this flashy technology." The vast majority, he adds, will decide to ride or not ride primarily on the basis of convenience and speed, not style.

Moreover, the Uptown Houston Association, which represents business and development interests in the Post Oak/Galleria area, is opposed to *any* elevated rail system along Post Oak, monorail or otherwise. To be sure, monorail can be constructed underground (or partially underground), but such a system would probably be less "futuristic" than its warmest supporters envisage – and less likely to attract riders.

A further problem is that Lea + Elliott apparently has not considered all the technological options available. Consultant Allan Romano faults Lea + Elliott for never taking a look at an advanced form of monorail built for the Sydney, Australia, harbor area last year by the Swiss firm Von Roll Habegger. This new technology, which Romano considers more suitable to Houston, runs on supporting columns along the curb instead of down the center of the street, allowing stations to be easily integrated into buildings and blocking less sunlight.

It's ironic, Romano argues, that the Lea + Elliott report failed to consider some new technologies on the grounds that they would require substantial development costs. Romano claims the hybrid "advanced rail" solution recommended by Lea + Elliott depends on a "bimodal" vehicle (light rail outdoors, automated rail indoors) that would require considerable additional development. "They recommended a vehicle that doesn't exist now," Romano says. "You'd need to develop something to pull the pantagraph [the electric pickup on top of the train] down as it enters the tunnel [when power begins to come from the third rail]."

Furthermore, the Lea + Elliott report appears to avoid a critical political consideration that might make TGI's monorail more appealing to Houston: this city's potential leverage for negotiating a good deal with TGI. Consider the situation: cities like Honolulu and Tampa, with similarly "futurist" transit boards, are waiting in the wings to make their mass transit decisions. TGI knows Houston's decision would have a substantial impact on the way these other cities go. It would be the first monorail to serve as the backbone of a major urban transit system. "A twenty-mile monorail system in the fourth-largest city in the U.S. would be a showcase for TGI," says Romano. "If they get Houston, Honolulu would be a sitting duck." That's good reason to suppose Houston would get favorable terms on a deal with TGI.

The question of the private sector's role in the process – the "privatization" issue – has provoked considerable controversy among Metro decision makers. Once the Metro board decides on a technology, should Metro then draw up detailed engineering designs of the connector and accept bids from private contractors? That is the usual procedure, but this method almost invariably results in cost overruns and long construction delays. Or should the private sector play a greater role in actually designing the new system? A lot of people think the private sector can work faster and do the job cheaper if it gets involved in the design process and assumes the financial risks; that is, if it goes far beyond merely executing a public agency's design. The thought is appealing in a city still economically depressed.

One extreme example of this approach surfaced last July when a group of developers known as Dacoma Transit Associates, led by Linbeck Construction, proposed to develop the system connector. For less than $900 million, Dacoma claimed, it could design and construct a "turnkey" project. After considering the Dacoma proposal, and the larger issue of how the private sector can participate in the development of the system connector, the Metro board adopted a resolution ruling out turnkey operations.

The Dacoma proposal failed in part because it was sketchily prepared. There were no guarantees that an adequate project could be achieved as cheaply as Dacoma proposed. Says John Thompson, a Metro consultant managing joint public-private development, "Dacoma didn't have a design, only a vague plan that changed alignments twice in six weeks." This vagueness suggested to the Metro board that the Dacoma people really did not know enough to steer their way through the rocky shoals of federal bureaucracy. That would be a major handicap, given the fact that the system connector will depend on funding from the Urban Mass Transit Administration of between $500 and $700 million before the year 2000. "To put together a one-billion-dollar system is fairly complex." Thompson argues. "There's a maze of government regulations and requirements to gain access to federal funds. Dacoma skirted that issue and left it to Metro to get the money."

Nevertheless, the Dacoma proposal seems to have sparked greater interest in the notion of privatization, given the financial constraints affecting Metro. But how much privatization? Explains Paul Bay, assistant general manager of Metro, "The definition of the system is the responsibility of Metro, but as we implement, we will use private firms to a maximum extent."

How will Metro's system connector affect the long-term evolution of Houston as a place to live and make money? It is widely recognized that, whatever the technology, under the right conditions rail transit systems can do far more than simply carry people from one place to another. They can also encourage pockets of economic activity by providing ready-made markets of commuters in and around rail stations. But given Houston's low population densities, its economic decentralization, and the loving dependence of its citizens on the automobile, probably no more than a small percentage of commuters will even ride the system connector to work. And since most rail stations will be in already active commercial areas, it will perhaps do little to stop the move outward or increase inner-city densities. As John Carrara observes, "The major stops are already at major points of development anyway."

But others expect that, whatever the technology or the role of private enterprise in its construction, the system connector will inevitably initiate a new age in the history of Houston: a slow compacting of the city around denser focal points within walking distance of the new stations. Metro consultant John Thompson argues that, even if most Houstonians remain fixed in their automobiles, "rail will tend to accentuate development along and near the [rail] stations. . . . Rail will foster development and density." Thompson points to the experience of Toronto, where the laying of rail tracks in recent decades has led to an "outcropping of development every ten blocks along the new line." Thompson believes that the impact of the system connector will be felt most dramatically downtown, particularly along decaying Main Street. How attached to their cars Houstonians will actually remain, though, will depend in large measure not only on the convenience but on the attractiveness of the system. And as Metro's Bob Lanier points out, "Without ridership, everything else falls off the table." ■

A Home of

Joel Warren Barna

Over the past 50 years, publicly financed housing has been afflicted by its own variation on the law of unintended consequences. Housing-construction programs, proposed in part to provide jobs for skilled tradesmen idled by the Great Depression, were intended to provide decent homes away from the crime-filled slums for working-class city dwellers. But as the working class, armed with FHA and VA loans, began to leave the cities for the suburbs after World War II, the political and economic basis for public housing changed. The focus shifted to helping the urban poor, themselves seen as people in temporary need of public assistance while they worked their way out of their economic and cultural disadvantages. By the beginning of the 1980s, however, public-housing programs had long since swelled into expensive travesties; in the public perception, the nation's low-income housing projects were the locus of an unending and unwelcome obligation to provide not for the temporarily disadvantaged but for an inexplicably permanent indigent class. Residence in public housing seemed not to lead the way out of, but to guarantee, continued unemployment and poverty. The Reagan administration, as inheritor of the widespread revulsion with the problem, took office vowing a change for the better, but succeeded only in clamping the lid on the cauldron by cutting off funding for new construction of public-housing units.

In Houston, however, where the economy was reeling through its worst slump in generations, the Reagan doctrine had a paradoxical effect: it ended the city's gridlock in public-housing matters by stimulating the creation of an innovative (for Houston) program.

The Housing Authority of the City of Houston (HACH), which oversees the bulk of public-housing activity in the city, is a quasi-governmental corporate entity created by federal and state laws that date back to 1937. HACH is overseen by a five-member board appointed by the mayor of Houston. The agency's money comes principally from federal Department of Housing and Urban Development (HUD) funds and from federal Community Development Block Grants funneled through the City of Houston's Planning Department; bond sales and rental revenues make up the rest.

Most of HACH's budget is spent operating the agency's 15 large-scale conventional housing developments, which contain 4,075 apartments. But a portion of the remainder is now being dedicated to scattered-sites housing, a program under which the agency buys houses from HUD (which got them from homeowners who defaulted on government-backed loans during the economic downturn of the mid-1980s), makes necessary repairs, and rents them to low-income families at a rate equal to 30 percent of the family's income. All the houses purchased for the program by HACH have three or four bedrooms and stand on conventional lots in subdivisions that are exceptional only in that they were particularly hard hit by bad times. Under a quirky requirement of the 1937 law that created HACH, all of these houses lie within five miles of the Houston city limits but not in any other community. Since 1986, when the program began, HACH has purchased 316 houses, at a cost of $13.9 million. At latest count, 208 were occupied by eligible residents, and the rest are being prepared for occupancy.

It was 1986, the year the scattered-sites program started, that marked a turning point for HACH. The agency had come under intense criticism for substandard conditions at its conventional housing projects, and for the high cost and low quality of the work performed by some of its contractors. The controversy over the fate of Allen Parkway Village, extensively debated in these pages (see *Cite*, Winter 1984), was in full swing. In addition, there was considerable pressure to build new housing projects. But residents of the Westbury area in southwest Houston had won a court order barring construction there of a HACH project in the works since 1982, and, with further legal challenges threatened, the agency's construction funding was rescinded by federal authorities.

"I could see that a lot of the blame for the whole situation was ours," said HACH executive director Earl Phillips during a recent interview in the agency's offices on San Felipe. "Some people thought that the opposition to these projects was racial, but I thought it was really because we hadn't done the necessary preparation work with the communities that were involved."

Phillips says he met with the HUD director for the Houston area to discuss funding, and they jointly arrived at the idea of converting some of the city's growing numbers of abandoned dwellings to public housing.

"It looked like a 'win-win' situation," says Phillips. "HUD could get the properties off their hands. We could get them for very low prices, since we were buying them in large parcels. While they were vacant, they were dragging down property values and stood open to vandalism and deterioration, so it was good for the neighborhoods to get them occupied." The scattered-sites program became the focus of HACH's expansion efforts. HACH began by buying 80 houses in neighborhoods around the edges of the city.

Meeting the Neighbors

Few residents in these neighborhoods saw themselves winning in Phillips's equation, however – at least at first. Opposition was strongly expressed at a series of public meetings that saw HACH officials grilled and threatened with legal action by residents.

"It's natural that people came with negative feelings that had to be turned into positives by experience," says HACH spokesman Marco Milazzo. "They imagined a lot of low-class trashy people moving in, destroying property values. We had to show them that we had mechanisms in place in the program that would address those concerns."

The HACH scattered-sites housing program has proven, with some exceptions, to be a success over the past two years largely because of those "mechanisms" – rules and conditions that help match scattered-sites program residents with their new neighborhoods. Much of the credit for coming up with these mechanisms goes to Leiv S. Platou. As president of the Westbury Civic Club, Platou was one of the people who fought HACH to a standstill in the early eighties. Platou is now a strong supporter of HACH's scattered-sites program and serves on its site-selection committee. He says that the scattered-sites projects in his neighborhood (two houses in a several-hundred-house area) have worked out well.

"The main thing that people say when they're against HACH purchasing a house in their neighborhood is that it will drive down property values," says Platou. "That's certainly true of a large-scale project next to a residential area. But the way I see it, the houses in the scattered-sites program had already been devalued when the owners walked away from them, and it was better to have them owned by an agency with some rules and some responsibility than to have them vacant or owned by an absentee landlord who would let them fall apart." At Platou's urging, the agency took steps that showed it was listening to the civic clubs and associations that stand guard in Houston against the entropic forces of real estate in a sinking market. HACH began notifying the groups when a house was being purchased for the scattered-sites program. The agency promised to be responsible for major repairs and to abide by all deed restrictions governing property maintenance and architectural standards, and it began paying mandatory and supplemental dues assessed by each civic association. HACH also restricted to no more than 20 the number of houses purchased in any given 13.5-square-mile Key Map area, so as not to overload a given neighborhood. "They got their act together with the civic associations," says Platou.

In addition, the agency set up eligibility rules for prospective scattered-sites residents. The program was restricted to families with between three and nine members, at least one of whom had to be employed full-time. The family's yearly income (after adjustment for child care and other expenses) had to be between $13,500 and $30,000. Families had to pass a check of their credit histories. At least one member of each household had to successfully complete an 18-hour "pre-occupancy training course," covering housekeeping standards, lawn care, and minor home repairs. Residents had to agree to be monitored in their upkeep by both neighborhood groups and HACH inspectors. And they had to agree not to own any pets, except fish or caged birds.

"Lawn care is a big concern," says Marco Milazzo. "People are most often willing to give the clients a chance to fit in with the neighborhood as long as they keep the property up and make sure the yard is in keeping with the rest of the block. This is a new responsibility for some of the residents, however. If residents don't stick with the rules, we try and help them comply. If they can't, they are subject to eviction. I think that these regulations give someone living next to a scattered-sites house a lot more protection than is provided by the normal marketplace for rental housing."

Some neighborhood groups say that the HACH mechanisms have not worked, however. John Pelliciotti, former president of the Oak Forest Civic Association in northwest Houston, charges that HACH "lied from the start about the program," violating early promises to notify neighborhood groups in advance of any purchase, misrepresenting the actual cost of the program to taxpayers, and failing to live up to its promises on maintenance. "The two houses in our neighborhood stood empty for almost a year after the housing authority bought them," says Pelliciotti. "We had to call the health department because the grass wasn't cut and there were rats in the yard."

Pelliciotti says that proponents of the program accuse Oak Forest residents

f One's Own

Can you find the scattered-site house in this picture ?

of racism. "That's their answer to every reasonable objection, and it's just absurd. Check the demographics of Oak Forest or go visit one of our schools, and you can see that. It's a fairness issue up and down," he says. Current Oak Forest Civic Association president Michael Lafferty says that complaints about maintenance at the projects have continued. "It's irresponsible what they [HACH] are doing," says Lafferty, "The people didn't keep the places up and there's been a lot of trouble out there."

The complaints of Pelliciotti and Lafferty are not the only ones. Residents of the Northglen subdivision vehemently oppose the placement of 12 scattered-sites houses in their area. But at its worst, HACH's scattered-sites program has fewer problems than similar efforts in other cities. In Chicago, for example, the local housing authority board voted in late 1988 to take its scattered-sites program out of the hands of its own staff and turn it over to a separate nonprofit corporation. "We were taking occupied buildings, boarding them up, and making them unoccupiable," the board chairman said in a nationally televised press conference.

At its best, the HACH scattered-sites program blends in seamlessly with suburban Houston. "We are very anxious for this program to work," says Milazzo. "We want the residents to be first-class participants in their neighborhoods. The anonymity of the residents is important to us, so that they don't get singled out for problems, and the only way they can keep that anonymity is by succeeding." Regina B. Thomas, area coordinator for the program, boasts that in some cases "you can tell a scattered-sites house from the others on the block because it's the one in the best condition." Says Leiv Platou, perhaps more realistically, "You can't tell the houses in the program in my area from the others on the block. They blend right in."

Urban Homesteading

HACH is not the only agency turning single-family foreclosures into subsidized housing: there is also the urban-homesteading program of the City of Houston Planning and Development Department. Begun in 1986 at the urging of city councilman Rodney Ellis and based on analogous schemes in East Coast cities, urban homesteading has an even more innovative premise than HACH's scattered-sites housing.

In Houston, following the national model, federal funds (from Community Development Block Grants and HUD's Section 8 housing budgets) are used to purchase abandoned dwellings in conventional tract-house suburbs. Eligible homesteaders who occupy and maintain a house for five years, pay rent on it, and otherwise meet the program requirements get clear title to the property.

As of January 1989, 149 houses in four neighborhoods (South Park, East End, Melbourne/Settegast, and Little York) have been successfully homesteaded. The median family income in those areas, where abandoned homes are numerous, is less than $20,000, and the average sale price for houses is below $32,000. Program coordinator Cele Quesada estimates that the city paid an average of $20,000 for each house and spent an additional $20,000 apiece on rehabilitation.

As in scattered-sites housing, prospective homesteaders must meet stiff criteria, according to Quesada. They must have an income of between 80 and 50 percent of the median income for the neighborhood in which they would be living. The applicants must demonstrate stable work and credit histories, as well as the ability to maintain the homesteaded property. Despite these restrictions, the number of applicants for the program vastly exceeds the number of houses available, so that the city has had to set up a two-stage lottery to handle applications. For the August 1988 lottery, for example, some 3,500 homesteading applications were filed. Of these 2,500 passed an eligibility check, and from that pool, 250 names were chosen in the semifinal drawing. After further screening, 50 homesteaders received houses.

The goals for urban homesteading are to help create new homeowners and to improve housing stock and revitalize neighborhoods. As with the HACH scattered-sites program, however, replacing traditional public housing doesn't quite fit the equation. Quesada says there is no intention to exclude residents of traditional public housing from the program, "but the income and employment requirements do have the effect of screening out almost all such applicants."

Perhaps because of strong demand and an unusual level of community support for public housing, the City of Houston Planning and Development Department has come under fire for the way it funds the urban-homesteading program. Barry Goodman, a planning consultant, recently estimated that only 10 percent of available community development funds go directly to housing – far less than the 55 percent allocated to housing in Pittsburgh or the 75 percent in Boston. Goodman recently chaired a task force appointed by Mayor Kathy Whitmire to study the planning and development department after the departure of director Efraim Garcia. The committee recommended sweeping changes, charging that the department scatters money that should be targeted and spends too much on administration, diluting any possible benefits to the point of inconsequentiality. In particular, the task force recommended setting aside 50 percent of available funds for low-income housing, and concentrating the money in specific neighborhoods. The city's current procedures (in which the city council approves all expenditures) politicize the process, the task force charged, arguing that a new nonprofit corporation, with clearly defined goals, should be created to administer housing programs.

Resolving Contradictions

The major success of the urban homesteading and scattered-sites programs has been in terms of the process they embody. Housing officials in other cities have been stymied by political and economic problems, but in Houston, particularly at HACH, the programs have been moving forward. "What the housing authority has managed to get done is significant," says Jeffrey Baloutine, a housing specialist at the Houston Committee for Private Sector Initiatives. "The 350 and more units they have put together in the program, that's on a par with the total of all the conventional housing projects that they were attempting to build in the early eighties. During a time when it has been very difficult to get any new public housing built and when there is an excess inventory on the housing market, this is a meaningful accomplishment."

Beyond this bricks-and-mortar success, there is the fact that the scattered-sites program (and to a lesser extent the urban-homesteading program) also marks a philosophical watershed: now not only critics but proponents of public housing argue that, as Marco Milazzo says, "in terms of fitting today's realities, conventional public housing has been a disaster. By forcing all the poor to live in one place, it institutionalizes poverty and cuts poor people off from contact with the mainstream institutions they need to get out of poverty. Scattered-sites housing at least offers them an option, a way out of the public-housing ghetto and into the mainstream."

This is a theme that housing officials are eager to expound upon. Milazzo was quoted in the *Houston Post* last October, saying, "The ideal public housing isn't to provide a safety net that [residents] can rely upon – it's to provide them a ladder to climb." And HUD official William Robertson told the *New York Times* in April that the scattered-sites program participants are former housing-project residents who "have demonstrated some ambition, some pride in their housing, part-time jobs, something that says they're trying to better themselves."

Such descriptions are misleading, however. The HACH and urban-homesteading rules about income, employment, and background that help applicants fit into suburban Houston exclude all but a tiny number of the residents of conventional public housing – not to mention the estimated 60,000 homeless people in the Houston area. In effect, the scattered-sites and urban-homesteading programs mostly provide housing for people who are just like the residents of the suburbs in which the houses are located. Herein lies a paradox: HACH and planning department officials have constructed programs that match the intent of the original legislation creating public housing back in the 1930s. In doing so, however, they have done little to help the clientele for conventional public housing. Until this population can be appropriately accommodated as well, these programs will remain only a very qualified success. ■

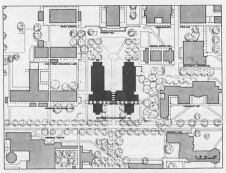
Bio Mass

Cambridge Seven's Recombinant Addition to the Rice Campus

Stephen Fox

In September, Rice University made public the schematic design for the second new campus building to be announced in 1988, a three-story, 107,000-square-foot laboratory and classroom building for the Institute of Biosciences and Bioengineering, to be called George R. Brown Hall. Designed by Cambridge Seven Associates with RWS Architects, associate architects, and Earl Walls Associates, laboratory consultants, the building is estimated to cost $24 million. Construction is to begin this summer and is scheduled to be completed in the winter of 1990. CHP and Associates are mechanical engineers, Walter P. Moore and Associates are structural engineers, and H. A. Lott Company is general contractor.

For guidance on the situation and configuration of the building, Charles Redmon, managing principal of Cambridge Seven Associates, and Dana Miller Baker, project architect, followed the well-trod path of James Stirling and Michael Wilford and of Cesar Pelli & Associates by consulting Cram, Goodhue & Ferguson's General Plan of 1910.[1] Since the mid-1970s, when a biochemistry research building was first proposed, the favored site for its construction has been a broad lawn between the Chemistry Building (1925, William Ward Watkin and Cram & Ferguson) and M.D. Anderson Biological Laboratories (1958, George Pierce–Abel B. Pierce). The lawn is flanked on the east by a dense grove of live oaks and by Herman Brown Hall, on the west by the narrow end elevations of the biology building and the Keith-Wiess Geological Laboratories, and on the north by the front elevation of Hamman Hall, a 500-seat auditorium, all designed by George Pierce–Abel B. Pierce. To the south lies a street that also passes in front of the biology and chemistry buildings. What makes this site critical in terms of the campus plan is that it lies at the head of one of the cross axes that project northward from Main Street and intersect the main, east-west axis of the campus, defining a line of sight and pedestrian movement that is reinforced by an allée of mature cedar elms and live oaks. This cross axis now stops at Hamman Hall. But the relatively small size and pavilionlike character of Hamman Hall render it unsatisfactory as an architectural terminus and insufficient to define spatially the deep, wide greensward it faces.



Cambridge Seven Associates

Site plan, George R. Brown Hall, Rice University, Cambridge Seven Associates, architects, RWS Architects, associate architects.

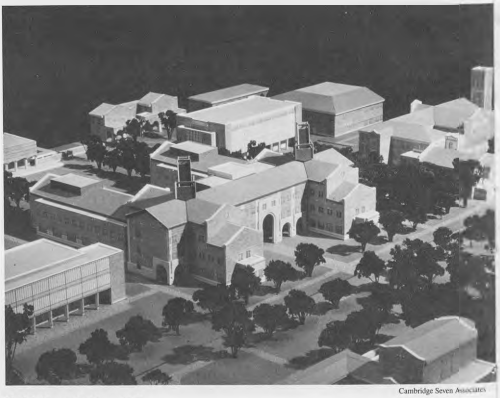
Cambridge Seven's site-planning approach – like Stirling & Wilford's and Pelli's – is remedial. They have sought to complete this sector of the campus in accord with the precepts of the General Plan, architecturally choreographing pedestrian movement and channeling it through a sequence of defined and varied outdoor spaces. For this portion of the campus the General Plan depicted a narrow, two-story slab, set parallel and close to the street. This building was to be bisected by a central passageway that carried the campus cross axis through it and into the first of two interlocking quadrangles, bordered on the west and east by two similarly long, narrow detached buildings. When, in the early 1940s, Cram & Ferguson and William Ward Watkin projected buildings on the site, each modified that arrangement, proposing instead a long central range set farther back from the street and framed by subordinate perpendicular wings that defined a shallow forecourt in front of the central range. The Master Plan for Growth, prepared by Cesar Pelli & Associates in 1983, responded to a directive to locate both a biochemistry/biochemical engineering building and a music school on the site. Pelli recommended setting two slabs parallel to the cross axis, each containing a bay adjacent to the street that was advanced forward to bracket the cross-axial approach. Pelli also suggested planting double rows of trees to enclose a smaller rectangular lawn between these two slabs and Hamman Hall.

Cambridge Seven has adapted the original General Plan configuration of a slender oblong bisected by a passageway. To its south-facing, street elevation they have appended transverse wings to frame the cross-axial approach, as was advocated in the 1940s, and they have projected these transverse wings back toward Hamman Hall on the north, as was done in the Pelli plan. Double rows of trees will bracket the lawn in front of Hamman Hall. The design for Brown Hall thus provides a more emphatic terminus to the cross axis than does Hamman Hall, without obstructing pedestrian movement or the vista of Hamman Hall. The new grove of live oaks between Brown Hall and Hamman Hall will define an outdoor space that is more inviting than at present and better scaled to the dimensions of the latter building. As was also recommended in the Pelli plan, a ground-level cloister will be tunneled through the south elevation of Brown Hall's central range, connecting the terrace walkway in front of the biology building to walkways in the grove of live oaks next to the Chemistry Building. This cloister will be ramped at its east and west ends to provide handicapped access to the building.

The plan configuration, massing, and detailed resolution of the elevations of Brown Hall reveal a close study of existing campus buildings. Internally, the H-shaped floor plates are organized with double-loaded corridors, independent of the cloister passages at ground level. The central range is treated as a three-story spine from which the projecting transverse wings step out and, in section, down to two stories. This was the organizational strategy used in the design of the Chemistry Building. The shallow-pitched, tile-surfaced ridge roofs are stopped on the transverse wings by extending the end walls up above the eaves to stone-capped triangular parapets, as on the Chemistry Building. Symmetrically placed exhaust hoods are metallic analogues of the Venetian Gothic tabernacles that served a similar purpose on Cram, Goodhue & Ferguson's Physics Building of 1914 and of the conical skylights of Stirling & Wilford's additions to the architecture building, Anderson Hall.

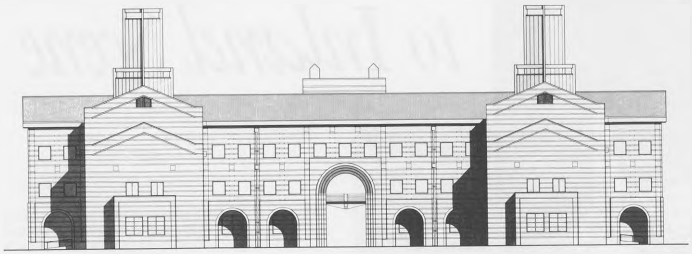
Stirling & Wilford's influence is most literally evident in the detailing of the brick-banded limestone panels that frame the cloister arches of Brown Hall, which project forward from the brick wall surface in an extruded reveal. The square-proportioned windows, with glazing bars aligned on the brick banding courses, and the decorative glazed bricks and tile keys that denote the structural armature of columns and beams behind the masonry curtain walls were appropriated from Pelli's Herring Hall. However, Cambridge Seven's most brazen steal is from Cram's administration building, Lovett Hall. Its Sallyport – the vaulted passage, 16 feet wide and 35 feet high, that Cram broke through the center of the Administration Building on line with the main campus axis – is reproduced as the architectural centerpiece of Brown Hall in order to maintain the cross-axial vista of Hamman Hall. Unfortunately for Cambridge Seven, the internal organization of Brown Hall appears to require that the central corridor on the second floor be continuous, so that it must bridge the double-height passage, fracturing its volumetric integrity.

As minor as it may seem in relation to the entire design, this one incident calls into question the glib contextual eclecticism

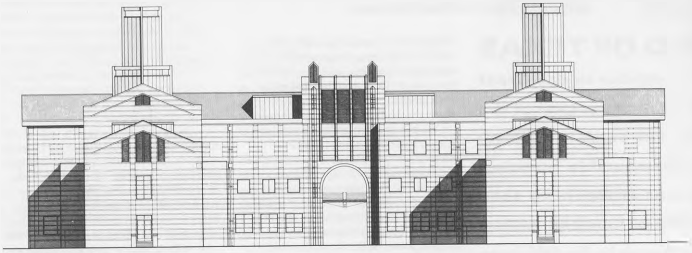


Cambridge Seven Associates

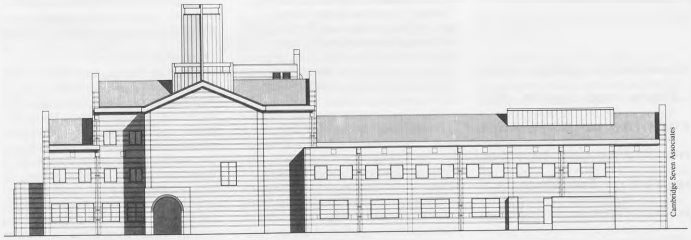
Model, George R. Brown Hall.



South elevation, George R. Brown Hall.



North elevation, George R. Brown Hall.



East elevation, George R. Brown Hall.

of Brown Hall. Stirling & Wilford, in their additions to the architecture building, and Pelli, in Herring Hall, certainly quoted and paraphrased existing architectural details at Rice. Yet each did so with critical acuity. For instance, the extruded reveals of Stirling & Wilford's stone detailing were deployed as ironic reversals of the shapes, materials, and compositional conventions of the building to which they were added. Their contextualism was subtle and ingenious; it slyly revealed the potential for delight latent in a building that no one had ever before thought very remarkable. The complex tapestry of masonry, tile, and glass with which Herring Hall is clad was born out of Pelli's ethical dilemma about how to make architecture that is simultaneously true to its place and its time. One might cite as well the brilliant work of Venturi, Rauch, and Scott Brown at Princeton University – Gordon Wu Hall and the Thomas Laboratory for Molecular Biology – as exemplary instances of new buildings in established places that make architecture out of the conflict inherent in this conjunction.

Instead of formulating an architecture that acknowledges the perhaps irreconcilable requirements of site, place, program, and construction, Cambridge Seven has deployed quotations from other buildings on the campus to simulate a contextual identity for Brown Hall that would elevate it to an architectural summation of Riceness. Harmless in itself, this combinatorial game has been played out to the point that it beguiled the architects into valuing the elegant paraphrase over architectural invention. In order to advertise symbolically the arch-representational role in which they aspired to cast Brown Hall, Cambridge Seven seems to have lost sight of the fact that what makes the buildings of Cram, Stirling & Wilford, and Pelli so provocative and stimulating is their inventiveness. Where Cambridge Seven has addressed building requirements directly, as in the zone above the north face of the central arch containing the third-floor windows of the institute lounge and the air-intake register of the mechanical penthouse, they demonstrate a capacity for critical acuity that requires no special pleading.

To judge from Cambridge Seven's existing work in Texas – Innova in Greenway Plaza and the alterations and additions to the San Antonio Museum of Art – the architectural detailing of Brown Hall's finished surfaces will be precise and polished, exhibiting a level of craftsmanship noteworthy in new Houston buildings. The attentive sit coordination of ground-level circulation, and the shaping of outdoor spaces will contribute appreciably to the filling in of the campus. But one cannot evade the gnawing dissatisfaction that Cambridge Seven's eclecticism produces. It is too ingratiating and too lax conceptually. Cambridge Seven needs to rise above this level of coy winsomeness. ■

Lewis Thomas Laboratory, Princeton University, 1986, Venturi, Rauch & Scott Brown and Payette Associates, architects.

Notes

1 Cambridge Seven was asked to examine three potential sites for Brown Hall: the one selected (which was preferred by the Institute of Biosciences and Bioengineering), one west of Keith-Weiss Laboratories and the Space Science Building, and one west of Anderson Laboratories and north of the site of Alice Pratt Brown Hall, the new Shepherd School of Music building.

HouTech New labs for UH

As Rice prepares for the construction of its bioscience-bioengineering building, the University of Houston is proceeding with plans for a laboratory building of nearly identical size, to be called the Houston Science Center Addition. The building's 120,000 square feet, spread over four floors, will contain research laboratories and support facilities for the Texas Center for Superconductivity at the University of Houston and the Institute of Molecular Biology.

Designed by Houston Science Center Architects (comprising Golemon & Rolfe Associates with James S. Walker II in joint venture with the White Bud Van Ness Partnership and John S. Chase), the science center is prominently sited on Cullen Boulevard across from Hofheinz Pavilion, between the Science and Research Building II and the Communications Center. It is anticipated that a construction contract will be awarded this summer and that the building will be completed late in 1990.

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Houston Science Center Architects were compelled by university officials to defer to the "context" all too evident in this sector of the campus – a surfeit of unarticulated brown brick sheathing applied with such relentless disregard for scale and texture as to induce acute environmental bland-out. Clearly visible in HSC Architects' correction of this depressing situation is the presence of Mario Bolullo of Harry Golemon Architects, designer of the George R. Brown Convention Center. Brown brick *is* used on the parapet and service-core screen walls that describe the building's basic shape. But, as at the Brown Convention Center, a spatial interpretation of the program results in a series of volumetric incursions and projections that bespeak differing internal uses and are reinforced by differences in surface treatments.

Color considerably enlivens the building. Floor levels in the projecting research bays, which are faced with white-painted steel panels, are denoted by charcoal-colored bands at window sill and parapet lines. Air-intake registers are faced with bright red grills, one set stacked vertically at the centers of the laboratory bays, another lined up in porthole openings alongside the principal entrance bays on the north and south sides of the building. Vertical reveals, marking the structural bay division, and horizontal reveals, keyed to the lines between inhabited and servicing spaces on each floor, divide the brown brick surfaces into panels, bestowing upon this abused material a sense of proportional clarity and order badly wanting in the Houston Science Center's neighbors.

Bolullo and Houston Science Center Architects have employed programmatic expression, volumetric composition, and technologically produced building components to give form to an intelligently conceived, articulately assembled design, one that avoids both the oppressive dumbness of the mediocre modern buildings that dominate the university's campus and the perfunctory figuration and exaggerated size that Johnson and Burgee used to give their Postmodern Architecture Building presence. The Houston Science Center Addition demonstrates that the choice is not confined to arbitrary image or anonymity: there is still a place for architecture.

Stephen Fox

From Mioce *to Inland Scene*

SEA WORLD OF TEXAS

The story is very similar in the Great Basin - in the West, in the region of the Edwards Plateau. The earth is splitting apart there, quite possibly opening a seaway. It is not something that happened a couple of hundred million years ago. It only began in the Miocene (5-10 million years ago), and is going on today. - John McPhee, *Rising From the Plains*

In cyclic rhythm with the other rock was limestone. Here and again, the highway was running on this soft impure limestone. It was sea-bottom lime, from dissolved or fragmented shells, which had lithified at least ten thousand feet lower than it is now.

- John McPhee, *Basin and Range*

Shamu theme gate, main entrance to Sea World of Texas. John Redlinger, architect.

Photographs by Paul Hester

Peter Waldman

The geological basis of the Edwards Plateau, a vast limestone reservoir of water and energy that stretches west of San Antonio for several hundred miles, is the calcified sea life of a long-vanished inland ocean. In outcroppings that now dot the dry, scrubby landscape of Central Texas and whose quarried, fossil-imprinted stones today face schools, courthouses, and buildings of commerce across the state are the remains of a prehistoric marine culture. Sea World of Texas is a 250-acre complex of intensely commercial aquatic pleasure grounds recently set up on this formerly submerged lithic shelf to accommodate the popular culture of postdiluvian America. It is also a cornerstone of Mayor Henry Cisneros's economic development strategy for San Antonio – a $170 million bet by its parent company, bookmakers Harcourt Brace Jovanovich, Inc., who previously wrought Sea Worlds in Orlando and San Diego before settling on the heartland of Texas.

Located 18 miles northwest of Alamo Plaza on the outskirts of San Antonio, Sea World seems certain to spawn myriad tributaries of lodgings and fast-food outlets. The grounds proper are prefaced by an asphalt sea of parking spaces, traversed at peak hours by super-scaled buses that deposit visitors at the five-acre entrance plaza, marked by colossal, high-tech arcades. The effect differs little from the approach to a somewhat flamboyant suburban shopping mall, save for the mist that comes each dawn from an all-encompassing sprinkler system, briefly activated to compensate for the natural aridity of the Edwards Plateau – the modern equivalent, as it were, of the *acequias* that once irrigated the Spanish mission city of San Antonio de Bexar.

Once within the compound there is much to choose from, with animals on the right and elysian fields on the left. One heads first toward the animal shows, whose monumental pavilions are easily recognizable from maps and whose entertainments adhere to strict timetables. One finds as well an unexpected treat in the modest urban condition of Cypress Gardens West, a *rambla* set in gardens whose modest scale contrasts with the purposeful monumentality of the four-pooled circus.

The pavilions of the four major shows – Shamu, New Friends, Beach Blanket Ski Party, and Spooky Kooky Castle – are dispersed and then connected up by streets and meandering paths. The pavilion and the street are two potentially powerful spatial typologies by which to construct a city, and the pavilions at Sea World, strongly grounded by passive bases cut deep into the flat ground and topped with tentative overhead canopies that compete with the low-hanging cumulus clouds, are most successful as monuments, having their own internal logic. The street, however, lacks a consistent logic that would make the trip between the variously distributed theaters worthwhile. Indeed, these mediocre passages raise the issue of why the animal shows were isolated from one another in the first place. The ancient civic typology of the forum and the economic discipline of the agora might well have been examined as models: the

Shamu Stadium.

n e

Cypress Gardens West.

Boy and a dolphin, Marine Mammal Pool.

distinct spatial realms of the theaters might have produced urban vestibules, tensioned by the necessity for vendors, rest houses, and refreshment.

Shamu Stadium is the largest – 4,500 seats – and most powerful of the pavilions. Home for several killer whales, the seven-million-gallon pool system required a substantial cut in the ground, and the section is clearly revealed through windows in the tank's retaining walls. The stadium is partly covered by a geodesic dome and partly open-air; the stands form a theater in the round, the audience turned in on itself as in a flooded colosseum.

In Spooky Kooky Castle one encounters a more familiar setting, the traditional theater stage set. On stage, sea lions, walruses, and sea otters amuse viewers as they mimic their keepers and the TV-detective farces of the fifties. No less remarkable is the freedom of expression and the version of civic life that these animals choreograph for themselves in their own disciplined, quasi-urban environment backstage.

The other two stadiums vary the spatial typologies. The water-skiers' one-sided stadium sets up a strong orientation looking northeast toward Cypress Gardens West; a deep linear cut in the ground defines a strong meridian, pointing north. The effect of the scale (12 acres of water) would rival that of the Circus Maximus had the pavilion been located in a tight urban fabric of streets and shops. This extended stadium's potential strength is complemented by the opposing New Friends stadium. The latter's design is the major innovation of the San Antonio Sea World, according to John Redlinger, chief architect since planning began in 1985: it is the first multispecies facility of its kind, a concept that has since been retrofitted into former Shamu stadiums in the other Sea World parks. Here whales and dolphins are held in connected ponds before joining together in the choreography of "New Friends," viewed by an audience of 3,000 sitting in the round. Together the four pavilions form coordinate points for the entire complex in terms of social and solar orientation, providing as well an awesome setting for Shamu at the western edge of this wilderness.

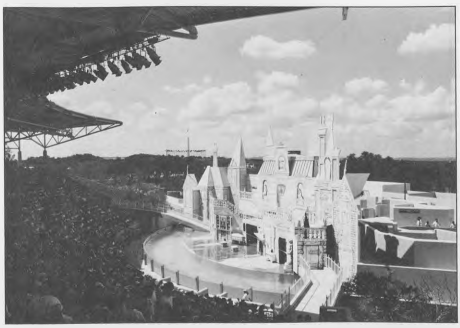
The penguin exhibit and the Coral Reef offer dramatic relief and are spatially and typologically distinct from the other pavilions. Strongly internalized volumes, they are dramatically lit from above. Given the strength of the sun outside, it is a relief to survey the polar world from spotlit darkness within the penguin exhibit hall, where it "snows" daily. Penguins and other polar birds are viewed first from a people mover in a delightful sequence of regimented orientation, then from a raised ramp where one has the chance to make one's own map, retracing steps to recapture points of vantage. The Coral Reef includes two huge tanks with reinforced glass walls, the larger containing a variety of sharks, sting rays, and sawfish, the smaller thousands of tropical fish.

The streets between the exhibits have the disappointing lack of intensity of a half-leased mall: too little activity scattered over too vast an area. With time, the street may fill in with future exhibitions. In the meanwhile, observing the beginnings of intermittent "lush" garden landscapes, one wonders why water has been stretched so far and so inconsequentially. The creators of Sea World might have learned from the Villa d'Este at Tivoli, where water is concentrated in orchestrated sequences rather than scattered in fine mists to create a thin veneer of green on the landscape. Judiciously placed fountains, water walls, and demonstrative water theaters would have benefited Sea World far more than attempts to re-create a wilderness that never was.

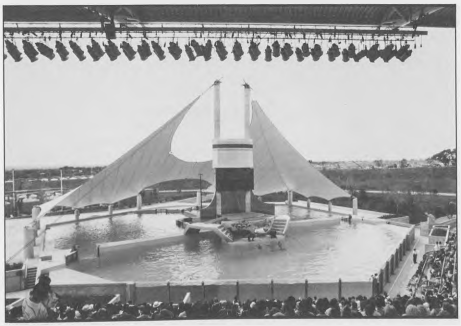
Leaving the Coral Reef, I took a short detour through Cypress Gardens West. Named after the famous natural tropical gardens of Florida, these Texas gardens are a successful artificial landscape of shadowy dark green and rushing clear water. Here the visitor encounters a properly intimate foil to the vast pools that establish the "turf" of the animals on exhibit. Here one can sit beside rushing waters, stare into silent ponds, listen for echoes. In this concentrated 16-acre garden one finds both a systematic density and individual features that suggest an alternative model for the entire 250-acre park. Here people "ramble" in proximity to one another, almost as though responding to social and spatial conventions of an urban order. The concentration of shade and society, dominated by the sound of lively water, works as an oasis, an accessible mirage amidst the enduring grain of the limestone.

Nonaquatic mammals, Texas Walk. Above: *Howard Robard Hughes*, Lawrence Ludtke, sculptor, 1988. Below: *William Barret Travis*, Glenna Goodacre, sculptor, 1988.

Today Americans partake of prosperity and amusement on a scale as big as Texas. It is only superficially anomalous that San Antonio, almost equidistant between the two oceans that limit the continent, is now home to the world's largest marine-life showcase. But here Sea World lies, with hidden logic, at the heart of what once may have been the greatest sea ever – an unintentional reclamation of geological time and a viable, if only partially realized, destination for late-20th-century travelers in the midst of one of the driest spells on record. ■



Spooky Kooky Castle.



New Friends Stadium.

Citesurvey

A Drive thru Margaritaville

David Kaplan

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Goode Company Hamburgers and Taqueria, adaptive reuse of Del Taco drive-thru, Kirby Drive.

When you drive up to your favorite Houston restaurant these days, you hope it's still going to be there. Two patio restaurants on Kirby Drive, on the other hand, frequently have long lines—Two Pesos and Goode Company Hamburgers.

The Houston-based, turquoise-and-pink Two Pesos restaurants are sprouting up like psilocybin mushrooms. Thirteen in town, 27 in all. They've spread as far as Georgia and Minnesota.

Why is this? There is better Mexican food. There is cheaper Mexican food.

There are many reasons for the success of Two Pesos, one of them obvious: it sells frozen margaritas for only 99 cents. It's happy, clean, even somewhat hip. Most importantly, it merges fast food with booze. Two Pesos stakes out its own piece of ground within the popular culture – between the fashionable, moderately priced restaurant and the drive-through joint. And with the economy the way it is, if you can come up with a trendy-looking place that has decent, cheap food (not *that* cheap, once you've gone back for your second margarita, extra soft taco, etc.), you've got something. Mexican food mixes well with the restaurant's open atmosphere. There are also the odd, entertaining details, such as the overhead, glass-enclosed conveyer belt that sends food from cashier to driver in the outside lane of the double drive-through window. The Kirby Drive location has an automatic teller machine.

Recently, Taco Cabana, a San Antonio-based company, sued Two Pesos for copying it architecturally. I visited Taco Cabana on Bellaire Boulevard for a comparison. Taco Cabana is pink on the outside; Two Pesos is turquoise. Taco Cabana is more cluttered inside, more authentically Mexican-looking. At Two Pesos the glass wall separating the service-counter area from the central dining room is clear; Taco Cabana's is covered with painted trees and birds. Taco Cabana also has an overhead conveyer belt in the drive-through, but it's mostly covered; you get to watch your food travel only during the last leg of its journey.

I also visited TaCasita, a family offshoot of Taco Cabana, at Richmond and Chimney Rock. It's very similar to Taco Cabana; its glass walls have painted monkeys, no birds.

Leaving TaCasita, I realized what it is I like so much about Two Pesos – its central dining area. Two Pesos looks like an old car garage turned into Don Johnson's birthday party. It has fake garage doors as walls, cement floors, and a stamped-metal ceiling. The architect of Two Pesos, Jim McDaniell, says he was going for the look of a "Casablanca bar on a cliff in Acapulco, overlooking the Pacific. . . in conjunction with the old Texas ice house at the side of the road." McDaniell says he wasn't aiming at the converted garage or service station look precisely, but for "the idea of *something* being converted." The garage doors, he says, help bring the outside in. He describes the cartoon-brilliant color scheme as "bordering on *Miami Vice*, something never done before in restaurants." Local design boards in other cities have rejected the color scheme, McDaniell says, but "here in Houston we don't have any of that."

Two Pesos seems to have universal appeal; customers include young black, white, and Hispanic couples on dates, West U. families grabbing a weekend meal, office buddies stopping for drinks after work, and friends meeting before the ball game. Two Pesos has a flexible personality. Later in the evening, it gets loose and loud, an all-night, open-air coffee shop with *salsa* bar.

For a while it looked like Jim Goode was taking over the world, or at least the Kirby Drive meridian. First he builds a successful barbecue restaurant, then he puts up another place across the street, then up pops a third one behind the second. When construction began in that same area for what would become Houston's Restaurant, I falsely predicted a Goode Company Visitors Center.

The second Goode Company, Goode Company Hamburgers, which is a combination mesquite-hamburger/Mexican-food operation, took over an abandoned Del Taco in 1984. Visual Del Taco references remain. Goode Company Hamburgers doesn't draw as wide a mix as Two Pesos, but is well loved by the West University crowd. Like Two Pesos, it has an enjoyable patio. "There was no grand scheme," Goode says, speaking of the patio. "It was kind of like everything else we do. Start off and just keep adding on." He and his wife, Kate, have been fiddling with the patio for several years. They started with "a concrete slab and a big red tent." The tent didn't work as a patio cover; the first big gust of wind blew it to the used-car lot across the street. They put up an aluminum roof, then added Saltillo tile, plastic windows, colored fluorescent bulbs, a fountain, and some potted plants. The colored bulbs, used decoratively, are a Goode original. "The only place I've seen it is in butcher shops, to make the meat look fresh. I bought colored film from a photo shop." The end result, according to Goode, is "a Mexican plaza kind of feeling."


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Fountain court, Goode Company.

Prior to becoming a restaurateur, Goode was a commercial artist. He oversees all design and sign-making at his restaurants. The patio's white wrought-iron chairs (noisy as hell) are from Mexico; he went to a factory in Monterrey to select his white porcelain table tops. The patio's centerpiece is a gigantic stone fountain, made in Guadalajara. Goode bought it from an importer on Westheimer. "This was his big deal on the lot, the one that said, 'Hey, I sell fountains.' I said, 'Hey, can you sell me *that* one?'" The patio area has been expanded once, and if he had room, Goode would expand it again.

Goode says that sometimes his restaurants have evolved in ways counter to his own tastes, to accommodate his customers. He says he feels a bit uncomfortable at his own Goode Company Texas Seafood restaurant, which has changed into a more "sophisticated" and "elegant" operation than he had planned; he had wanted a funkier, oyster-bar mood. "I can hardly relate," he says. "I'm not a full-service kind of guy." ■

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Overhead conveyer belt, outermost drive-thru lane, Two Pesos, Kirby Drive.

Regilding Goldsmith Hall

Deborah Morris

Goldsmith Hall still appears a bit raw and swollen after a long, troublesome surgery, but is better for having undergone its 27-month expansion/renovation. The initial steps were taken to upgrade and update the 54-year-old Paul Cret building in 1974, when the University of Texas at Austin School of Architecture burst its seams. Then occupying no fewer than six campus buildings, only one of which was designed to accommodate the special needs of design students, the School of Architecture sprawled from the northwest to the southeast ends of the 400-acre campus. The current Goldsmith project is phase two of a three-phase scheme to provide much-needed teaching, research, and administrative space for the school, which has quadrupled its enrollment since the 1930s.

Photomontage: Richard Stallion

Goldsmith Hall renovation and additions, Thomas Booziotis and Associates, architects, Chartier Newton, associated architect, 1988.

Ten years ago, architects Thomas, Booziotis and Associates, Dallas, and associated architect Chartier Newton, Austin, accepted the challenge of improving a facility dear to many as the cynosure of the UT campus – indeed a challenge, for ostensibly the only place to put an additional 25,000 square feet of building was underground. But seven and a half years later, the three-story addition began to materialize in a virtual crevice between the south wing of the building and the recently renovated Sutton Hall. Today it appears that Goldsmith grew almost naturally into its new profile, in a manner akin to a child filling out a new pair of shoes. Such a comfortable fit was anticipated by few and is considered by Booziotis to be the essence of the project.

The interior space planning was managed with the same ease and grace as was the massing of the building. An additional foyer at the south entrance reinforces the north-south axis and establishes a "through street" along its length. The intersecting south corridor, which hinges the new wing to the old, distinguishes itself on one side by an existing exterior limestone wall and by illumination from lengths of clear-paned skylights above. The disposition of the new building toward the old at once asserts the identity of the structure and a deferential respect for the Cret work.

A conscientious effort was made to restore the spaces of the existing building according to the 1934 design. Reclaiming the original concrete-beam ceilings entailed converting the entire mechanical system from horizontal to vertical distribution. Cret's use of fanciful stencils to animate the beams, the themes for which were provided by students, was preserved in the old building and carried over to the new, affirming the gregarious nature of the foyers and meeting places so embellished.

Dana Norman, UT Austin School of Architecture

Second-floor corridor, Goldsmith Hall.

New to the school are a fully outfitted teaching workshop and printmaking facility, a sunny, commodious student lounge and reading room, an audiovisual classroom (an acoustical marvel designed with the collaboration of David A. Nibbelin, Fort Worth), a new exhibition hall, a preservation lab, and adequate review space.

In contrast to the renovation's fluid and comprehensible spatial organization one finds, at points, a somewhat garbled language of details and finishing materials – an index, perhaps, of hasty decision-making and lost momentum in the final stages of a project during which work was abruptly and mysteriously halted for an entire year. But the slate and hardwood floors, plaster walls, limestone facings, and clay tile roofs, inherited from the original Goldsmith Hall, represent a commitment to longevity rarely observed in building today.

Visitors to the School of Architecture will not take every turn in breathless anticipation of the next architectural surprise, nor are they likely to gauge their response in aesthetic revelations per second. They will, however, experience a modest but confident building whose essential purpose is clear and whose sense of propriety and restraint is altogether admirable. ■

Dana Norman, UT Austin School of Architecture

Third-floor corridor, Goldsmith Hall.

Citeations

Sculpture Inside Outside

The Museum of Fine Arts, Houston
10 December 1988–5 March 1989

Reviewed by William F. Stern

"Sculpture Inside Outside" presented a survey of work by 17 emerging American sculptors. Organized by Martin Friedman, director of the Walker Art Center in Minneapolis, the sculpture was selected for an exhibition that opened the Walker's new sculpture garden. In judging the results, it is clear that the curators sought new work representing directions in sculpture that have not received nearly the close critical examination they deserve. Given the depth and diversity of this exhibition, it is unfortunate that outside of Minneapolis, Houston was its only stop.

There is a common ground to the work, which is guided by a traditional sense of craftsmanship explored in a language of new materiality with a highly refined sense of texture. The work tends more toward abstraction than representation, though abetted by implied representation and symbolism. A link to the Minimalism of the sixties and seventies is also evident in much of the work. Where that movement sought absolute definition through reductive representation, the minimalism of these artists is more broadly directed, concerning itself as much with illusion, symbolism, fantasy, and humor as with the purity of idea and form that absorbed the earlier generation.

At first glance the work of Robert Therrien, Jene Highstein, and Martin Puryear seems most closely allied to the previous generation of Minimalists, through its reductive qualities and apparently pure use of material. But closer examination shows a divergent strategy. Therrien's 1986 untitled piece is made from mixed media on bronze. The mixing of media represents a break from the purer treatment of a single material favored in the sixties and seventies. The piece consists of three differently sized spheres stacked, snowmanlike, in allusion to the human body. Martin Puryear's work has a singular minimalism to its forms that is not derived from mathematical purity or repetition but rather is totemic in its use of odd shapes and forms. *Noblesse O,* 1987, is fashioned in the form of a twisted cone. From a distance the piece appears to be made of tin, but in reality it is constructed of red cedar with aluminum paint, as though alchemy and magic were at work. Jene Highstein plays with gravity by making objects that appear heavy out of lightweight materials. His 1986-87 untitled piece appears to be made of a polished, molded heavy metal when in fact it is of plaster on a metal armature. Both abstract and figurative in its evocations, the piece provokes paradoxical responses.

The illusion of weight and of material transcendence is elegantly explored in the work of Robert Lobe and Tom Butter. For his 1985 wall piece, *Killer Hill C.W.,* Lobe hammered sheets of anodized aluminum around a rock and a tree stump he found in the northeastern woods. While what was left in the woods has great bulk and weight, the replicated form is actually a lightweight "cast" of the rock and trunk, sectioned in half and attached to a wall. The viewer is caught between the reality and the illusion – the forms of nature opposed to the sculptor's play of material and abstraction. Tom Butter also explores the idea of sculpture as a shell. His 1987 *Fleece,* a translucent flow of fiberglass, resin, wire, and wire lath, directs the eye through the wire mesh and thick fiberglass to an internal center from which light seems to emanate.

The weightlessness of Butter's and Lobe's work is contrasted in the work of John Newman, whose 1984 floor piece, *Slow Commotion,* was manufactured from treated steel and combines geometric, shell-like shapes to make a work of organic abstraction. Of all the work in the exhibition, Newman's sculpture harks back most directly to a modernist's sense of geometric abstraction, in this case also linked to botanical and biological forms. Newman's work, like that of many of the artists here, is accompanied by large exploratory drawings, richly colored and skillfully drafted. Phoebe Adams's work is fabricated in the traditional method of cast bronze. *Bilge,* 1987, made of bronze with patina, appears to be part of the wall it is attached to. It has a slack, slinky quality that contrasts with its true bulk and weight.

Cloud Hands Ritual Series 1982-83, a sculpture by Michael Singer, is among the most arresting pieces in the exhibition. A fragile framework made of slender pieces of wood supported by bits of rock and sticks, it is bound together by natural structural forces without any adhesive material. It has the quality of a fantastic city from another time or universe – a miniature world of elegant fragility. Jin Soo Kim's untitled installation creates instead a dark and lugubrious world that the viewer walks through, a strange, compressed Hades of twisted branches, moss, and human artifacts. Michael Singer's world we observe from a distance with abstract detachment, Jin Soo Kim's we enter and experience its earthiness.

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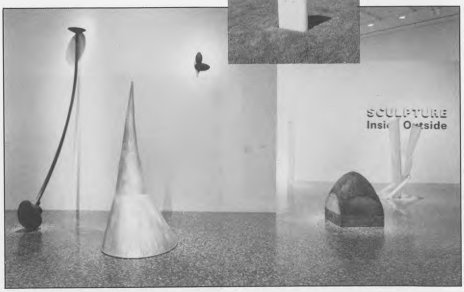
Robert Gober, *Half-Buried Sink,* 1987.



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Left to right: Martin Puryear, *To Transcend,* 1987; *Noblesse O,* 1987; *For Beckwourth,* 1980. Tom Butter, *S.C.,* 1985; *Orbit,* 1986.

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Foreground: John Newman, *Slow Commotion,* 1984. Background left to right: Jene Highstein, untitled, 1987; *Eolith 1,* 1986; untitled, 1986–87; *Blondie,* 1985. Far background: Brower Hatcher, *Starman,* 1985–88.

Brower Hatcher, Donald Lipski, Robert Gober, and Walter Martin move far away from pure minimal abstraction, adding illusion, fantasy, and humor. Hatcher's 1985-88 *Starman* commemorates the 1986 appearance of Halley's Comet. The telescope form is made of a wire lattice in which bits and pieces that allude to archaeological relics are caught. Lipski deals with sculpture as parable, altering the found object so that its meaning expands. With *Passing Time #502,* 1980, red-tipped matchsticks wedged through the toe of a woman's shoe, vintage 1920, transform the suggestion of red nail polish into an insidious torch. Robert Gober's work is starkly minimal but makes direct reference to real objects. His 1986 untitled piece is unequivocally a painted wooden bed complete with sheets and blanket. The piece was constructed by the artist, not bought or found, and has the lonely, dreamlike quality of an Edward Hopper painting. Walter Martin's *Of Bodies Born Up by Water,* 1987, a grandfather clock sharpened like a pencil at its base, bears a strange relationship to Barnett Newman's *Broken Obelisk.* Like Gober's work, this piece is not a found object but constructed as sculpture.

Judith Shea and Peter Shelton use the human form and clothing or allude to parts of the human form in their work. In Shea's *The Christening,* 1987, a hollow bronze torso stands between two fallen marble columns. The forms are direct, reduced and abstracted, but suggest

ancient art – an example of the recent trend toward historical allusion and figural representation. Peter Shelton mixes anatomy with illusion in *Bigflatsack*, 1984-86, which suspends a large sack of rusted iron from the ceiling.

Steven Woodward uses materials normally associated with architecture and building, things he has salvaged from old houses or bought from the lumberyard, as in an untitled work from 1986 in which a portion of an aged slate roof hangs behind a small slate chair. Meg Webster's *Moss Bed*, 1988, is a rectangular box three feet high made of chicken wire, filled with moist earth and topped with a layer of varied mosses. Fondly reminiscent of the earthworks of the seventies, it is nevertheless a contained structure, more object than setting.

It is encouraging to see museums seeking less celebrated work that has a cohesive relationship born of its own vision and integrity, here installed with intelligence and care by Alison Greene, the MFA's associate curator of 20th-century art. "Sculpture Inside Outside" gave audiences in Minneapolis and Houston a summary view of a bright, maturing group of sculptors and shows the fascinating range of possibilities in contemporary sculpture. ■

Dallas—Ft. Worth Guidebooks

Discover Dallas–Fort Worth, *by Virginia and Lee McAlester. New York: Alfred A. Knopf, 1988, 97 pp., illus., $9.95*

The Park Cities: A Walker's Guide and Brief History, *by Diane Galloway and Kathy Matthews. Dallas: SMU Press, 1988, 256 pp., illus., $10.95*

Cowtown Moderne: Art Deco Architecture of Fort Worth, Texas, *by Judith Singer Cohen. College Station: Texas A&M University Press and Fort Worth Chapter, American Institute of Architects, 1988, 206 pp., illus., $29.95*

Reviewed by Stephen Fox

Until recently, architecture exercised little claim to popular attention in Texas. For those who follow the subject, and especially for those who believe that buildings and places constitute important cultural resources, it has been encouraging to see the growth of interest in architecture that has taken place here since the 1970s. Three new publications, all intended for a general audience, contribute to this trend.

Discover Dallas–Fort Worth is the first in an anticipated series of guidebooks to American cities by Virginia and Lee McAlester of Dallas, who logically began the series with the cities they knew best. What will recommend this guidebook especially to architecture aficionados is the extent to which the McAlesters feature architecture as the critical medium through which visitors can experience a city – axiomatic perhaps for the great cities of Europe and Asia, but a startling proposition for all but a handful of American towns. It is therefore amusing to see a capsule illustrated history of the Dallas skyscraper and a time-line cartoon depicting the succession of Big D's tallest buildings function as implicit metaphors for the city's evolution. Poor Fort Worth: it has to settle for an overview of the cattle industry.

For both cities a number of "sightseeing districts" are identified and their major architectural attractions profiled and ranked in terms of relative significance. Detailed, color-coded maps are provided for each district, with axonometric projections of the two downtowns and other densely built precincts. The guide also directs visitors to districts with concentrations of cultural institutions (with sidebars on the major museums and their collections, including building diagrams), established inner-city neighborhoods, and the glitziest suburban shopping and office districts. Brief histories of economic development and urban expansion preface the city sightseeing chapters. In addition there are very comprehensive lists, for the most part annotated, of accommodations, specialty shops, restaurants, and entertainment, all keyed to separate sets of color-coded maps. Dr. and Mrs. McAlester and the book's designer, the Sarabande Press, have packed in an extraordinary amount of information. The writing is lively and concise, while organization – how to find one's way around both the city *and* the guidebook – must have been given considerable thought. The only serious lapse is the poor color photo printing; images tend to be dark and colors are oversaturated and garish.

Discover Dallas–Fort Worth is a superior guidebook. By taking their subjects seriously as places, rather than as fields randomly dotted with unrelated destinations, the authors persuade us that these cities might actually be interesting to visit. The challenge that will confront the McAlesters is to sustain this level of enthusiasm and insight as they move on to other cities.

The Park Cities: A Walker's Guide and Brief History, by Diane Galloway and Kathy Matthews, contains a series of walking tours of Dallas's two most elite residential communities, the suburban towns of Highland Park and University Park. Buildings are called out and architects identified, but discussion of the designed environment tends to get submerged beneath extended anecdotal accounts of past and present residents and obscure events. Individual entries are too long and digressive for a tour book. Although routes are clearly delineated, individual sites are not marked, and both the choice of illustrations and the quality of printing are poor. *The Park Cities* lacks the sparkling tone of *Discover Dallas–Fort Worth;* consequently, it makes you doubt whether you would really enjoy taking one of the tours, a fatal flaw in a guidebook.

The Fort Worth Chapter of the American Institute of Architects sponsored publication of Judith Singer Cohen's *Cowtown Moderne: Art Deco Architecture of Fort Worth*, an extensively illustrated catalogue of the major works of modernistic architecture built in Fort Worth from the late 1920s through the 1940s. Mrs. Cohen's account is so engaging that one wishes she had written a full-scale architectural history of Fort Worth between the wars. She perceptively discusses the stylistic preferences of Fort Worth's principal commercial architects, Wyatt C. Hedrick and W. G. Clarkson, and their respective designers, Herman P. Koeppe and Charles O. Chromaster. Photographs by the author's husband, Donald M. Cohen, are especially useful in illustrating the ornamental detail through which these preferences were given form, and they handsomely supplement a wide array of archival images. *Cowtown Moderne* makes one want to know more about the architectural heritage of Fort Worth. It is to be hoped that Mrs. Cohen and the Fort Worth AIA will continue their collaboration in future volumes. ■

Photographs by Catherine Wagner

Catherine Wagner, *Hyman Brand Hebrew Academy Classroom, Kansas City, Missouri*, 1987.

American Classroom
Museum of Fine Arts, Houston
10 September–27 November 1988

Changing Places
Farish Gallery, Rice University
17 October–25 November 1988

Reviewed by Joanne Lukitsh

Houston audiences this past fall had the opportunity to take a considered look at some of the recent images of Catherine Wagner, a young California photographer and a recipient of a Guggenheim Fellowship. The Farish Gallery exhibition featured Wagner's 1979-81 photographs of the construction of the George Moscone Convention Center in San Francisco and of the 1984 Louisiana World Exposition in New Orleans; the latter project was commissioned by the Canadian Center for Architecture in Montreal. Wagner's photographs of schoolroom interiors, "American Classroom," a subject which has interested her since 1982, were displayed at the Museum of Fine Arts, Houston. The two exhibitions presented an opportunity to evaluate how Wagner's cerebral style of self-conscious photographic objectivity negotiated the transition from the grandiose public spaces of convention hall construction and exposition site to the semipublic rooms of elementary schools, a police academy, and technical institutes.

In a 1987 lecture Wagner explained her approach to her subjects:

Choosing something as objective as a construction site [or an empty classroom] forces us to bring new emotions, our own emotions, to the way we view the picture. We are forced to reckon with our own culture, our own time, our own sense of being at this time, without a preconceived set of values and ideas.[1]

For Wagner, the objectivity expressed in her choice of subject and realized in the form of her photographs promises the viewer an experience almost primal in its intensity, but one achieved at the expense of an appreciation of the specificity and historicity of the "objective" construction site. From her characteristically high vantage point Wagner represents the Moscone Center's complex of girders, pipes, and excavated trenches as almost preternaturally inert; even the Louisiana World Exposition's profusion of idiosyncratic architectural details and entertainment activities is submitted to the stasis of her compositional order and dispassionate rendition of detail and tone.

Wagner's photographs of American classrooms cover a range of geographic locations and instructional purposes. Her early images were typically shot looking towards the front of the classroom, often featuring the characteristic blackboard and teacher's lectern. More recent images from the series are what she describes as "desktop still lifes": science projects, objects in a sandbox, graffiti on a desk surface. Common to nearly all of the images is the absence of students, a device that enables the viewer to scan the images almost as if they were sensitive photographs of period rooms at the local museum; but Wagner is not interested in constructing a topology of classrooms. The tangibility of all of the information represented in her images is, however, at odds with her style. In contrast, the more recent "desktop still lifes" unite her photographic form with a more circumscribed and poetic content. ■

Notes

1 Quoted in the essay by Anne Wilkes Tucker, "No-Nonsense Scrutiny in Search of Vernacular Beauty," published in *American Classroom: The Photographs of Catherine Wagner* (Millerton, 1988); the introjection is Tucker's.

HindCite

Hollywood Does Houston

Bruce Webb

Peter Brown, *Food Festival*, 1988. Lawn in front of George R. Brown Convention Center, Houston, looking west.

If current plans materialize, Houston will enter the next decade with two new tourist attractions embellishing its Space City moniker. Ever sensitive about its "visitor unfriendly" reputation – even more acutely so since the completion of the $104 million George R. Brown Convention Center – Houston has always valued the spectacular over the merely gracious. With few inherited advantages, from either a historic past or natural endowments, the city has relied on a kind of science of the artificial to create minor wonders-in-their-own-time such as the Astrodome or the Galleria to give visitors something to write home about. Now the city has turned to the ultimate myth-makers, the Hollywood film industry, for two new projects: one seeking to restore the Johnson Space Center to its former status as a high-profile tourist attraction, the other to make a virtue of a city-owned liability, the now empty Albert Thomas Convention Center, located in the middle of the recently discovered downtown theater district.

Disney Imagineering (with Waisman Dewar Grout Carter and Pierce Goodwin Alexander Linville, architects), the conceptual wizards behind the modern pilgrimage destinations at Epcot Center and Disney World, have found a natural client for their talent for combining education and entertainment in the nonprofit Manned Space Flight Education Foundation, which is planning to build a new visitors' center at the JSC in Clear Lake. The need to enhance the NASA adventure with an aura of excitement and entertainment is a remarkable commentary on the nation's acquired taste for hyperrealities. But in recent years, as NASA missions have become less spectacular and more ordinary, public fascination with space exploration has dwindled. The present visitors' center, although it continues to draw nearly a million tourists and schoolchildren a year, does little to stimulate the imagination or a sense of involvement, and its space relics and passive displays are disappointingly out of date. To youngsters accustomed to the latest in Hollywood special effects, Japanese video games, and Disney-like vacation destinations, the present JSC visitors' center seems more like a museum in the old warehouse sense than an interactive space-age learning center.

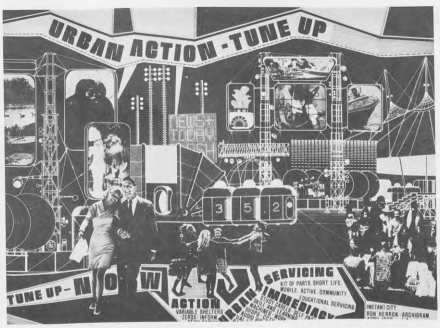
To make amends, the Disney group's proposal calls for a new 140,000-square-foot "experience center" to be housed in a world's-fair-type building on a 40-acre site (half of it parking) near the NASA Road 1 entrance to the JSC. Inside, DI's considerable talent for creating and vivifying popular culture will be given a Skinnerian twist when put to the task of affective education: in the words of the proposal, "We want a visible, measurable difference in behavior between those who have visited [Space Center Houston] and those who have not." To accomplish this the new facility promises a full day's worth of live demonstrations, live coverage of ongoing missions, large-format film and video displays, history exhibits, theaters, simulations, and mockups designed to make visitors feel they are part of the NASA adventure. Construction costs are targeted at $60 million. Foundation sponsors plan to obtain $10 million through a fundraising campaign and the rest through tax-exempt bonds, to be retired by a $5 admission fee together with the anticipated $7 per person spent at the center's gift store and two dining areas.

Even closer to home, city officials were unabashedly thrilled when they snared a spirited proposal from George Lucas (Skywaiker Development Company) and Kenneth Schnitzer (Century Development Corporation), with the Jorde Partnership, Los Angeles architects, in response to their invitation for proposals to redo the Albert Thomas Convention Center on the west side of downtown. Victorious over two lackluster competing entries, the Lucas-Schnitzer scheme, called Luminaire Houston, tries hard to be spectacular. Schematic sketches portray a high-tech blitzkrieg turning the nondescript Albert Thomas building into a cross between a C-plus Archigram project of 20 years ago and a Nevada casino – one in Winnemucca, perhaps, not Las Vegas.

Albert Thomas became a white elephant for the city when the Brown Convention Center opened last year (see *Cite*, Spring-Summer 1988). The 1967 building and its site are the largest remaining available city-owned properties downtown. The building, which resembles a very large box culvert with a kink in it, acquired additional nuisance value with the opening of the new Wortham Theater Center, the grand foyer of which looks out across a plaza to the Albert Thomas loading docks. It is further felt to intrude on the extension of the Buffalo Bayou linear park with its signature Sesqui-centennial Park nearby. The three-block-long building, which spans Bagby Street, not only impinges on the bayou corridor but effectively walls off the bayou park from a portion of downtown.

The Lucas-Schnitzer scheme seems to satisfy the recommendations and guidelines of a mayor's task force that studied the problem with an urban design team from the University of Houston's College of Architecture. Tying into downtown's extensive underground parking and tunnel system, Luminaire would become the hub and focal point of the theater district, featuring shopping, entertainment centers, restaurants, and nightclubs as well as a 100-foot-tall "lumisphere." The latter, a giant globe covered with fiber-optic lights, would contain a theater, bar, and visitors' center as well as Plexiglas walkways of gerbil cage inspiration, hints of laser lighting, and giant video screens to create a kind of high-tech honky-tonk atmosphere. Press releases for the project, orotund with hyperbole, call the scheme "a city within a city" and note the series of terraces, dining patios, entertainment pavilions, and food and music attractions that will overlook a newly created "harbor" for waterfront events on Buffalo Bayou.

Set aglow, Luminaire would be a highly visible addition of the downtown scene, especially when viewed from the surrounding freeways and adjacent buildings – a 21st-century lantern show built along the lines of the mid-20th-century vision of the future imagineered with far greater verve by its British proponents, Cedric Price, Peter Cook, and Ron Herron. Assuming, of course, that the city can resolve the post-Venturian dilemma of whether a lighted sign is a sign or a work of art (or architecture) in order to comply with the municipal sign ordinance, we may yet have yesterday's tomorrow today. ■



Instant City, Ron Herron-Archigram, 1969.

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Luminaire Houston, George Lucas with Jorde Partnership, architects, 1988.

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