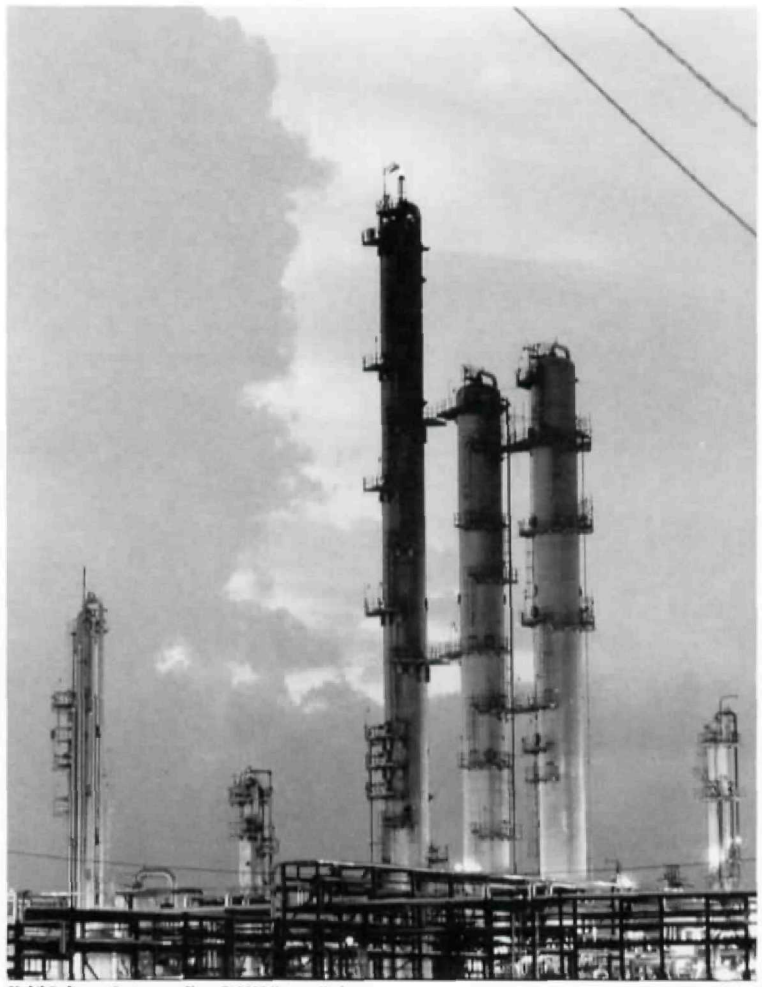


Mobil Refinery, Baytown. Photo © 1997 Hester + Hardaway

THE ARCHITECTURE OF OIL

arta Galicki

The oil industry has reconfigured the Texas landscape with wells, pumps, gas stations, refineries, and storage tanks, all of which have made a profound impact on the environment. Corporate towers, research centers, and outstanding residential architecture have been commissioned by companies and families whose wealth was founded on or amplified by oil. The oil elite has also used its wealth to support Texas philanthropies and cultural and educational institutions to an astounding degree. Housing for oil workers and their families began with tents and temporary shacks or simple wooden cottages and evolved into tract housing and residential communities planned and developed by the oil companies themselves. The architecture of Texas towns and cities during this century to a large degree has been shaped by oil money.

Significantly, the modern petroleum industry evolved in Texas as the camera came into common use. Professional and amateur photographers recorded all aspects of the business but particularly the dramatic images of exploration and production. Frank Trost (Port Arthur), F. J. Schleuter (Houston), Charles Steele (San Antonio), Meador (Mexia), Stephenson and Herkimer (Wichita Falls), and Jack Nolan (Kilgore) among many others contributed to the rich visual record of Texas oil. Walter Rundell, Jr., in his book *Early Texas Oil* (College Station: Texas A&M Press, 1977), presents over 325 historic pictures from the 1860s through the 1930s that provide an intimate view of life in the oilfield as well as dynamic shots of the Texas landscape as it was covered with derricks, pipelines, machinery, and boom towns. The unease and fascination with which modern eyes view these photographs result from the environmental havoc that eventually transpired.

The Texas oil saga began at Spindletop, just south of Beaumont, when Captain Anthony F. Lucas struck one of the greatest gushers of all time on January 10, 1901. By that evening, trainloads of passengers began to arrive in Beaumont. The 500 to 600 oil companies that were set up as a result of Spindletop included the J. M. Guffey Oil Company (Gulf Oil); the Magnolia Petroleum Company (Mobil Oil); the Sun Oil Company (Sunoco); and the Texas Company (Texaco). Officials of the Shell Oil Company from London paid a visit to Beaumont. W. B. Sharp and Howard R. Hughes's tool company had its origins at Spindletop, as did other oil-related industries. By 1916 Spindletop was almost depleted, but it got a new life in 1925 when the Beaumont wildcatter M. Frank Yount introduced deep drilling techniques. This second boom lasted until 1933 and was concurrent with huge oil discoveries in North Texas and the Panhandle in the teens and twenties in such places as Burkburnett and Borger, in the Permian Basin of West Texas in the twenties, and in East Texas during the Depression, where Kilgore had the densest concentration of oil derricks in the world.

Today at Spindletop, there is not a hint of a hill or any other indication of the Lucas well site. Sulphur mining in the postwar period by the Texas Gulf Sulphur Company caused the land to subside. Tourists are directed a mile away to a pink, granite obelisk dedicated in 1941 to Spindletop and the Lucas gusher. Displaced from its original site, this monument now stands, on a parcel of flat grass adjacent to a freeway interchange outside the recreated Gladys City Boom Town Museum, a frontier theme park. The Texas Energy Museum that was to have been adjacent to Gladys City is

Kilgore, 1943. Photo by John Vachon, courtesy: Library of Congress

housed in downtown Beaumont. The replicated Gladys City is educational but too tasteful and neat. There is little indication of the struggle or exhaustion of oil field work or of its danger, damage, and drama — no working wells nearby, no noises or smells. Gladys City appears sterile and sanitized compared to what period photographs and written accounts suggest that it was: busy, gritty, noisy, muddy, filthy, chaotic, hazardous, and lawless.

Spindletop left Beaumont with a doubled population, enormous wealth, and an oil economy that grew as refineries and pipelines were constructed to accommodate new fields discovered nearby. As a result, successful wildcatters built splendid houses there. The huge Colonial revival house at 1906 McFaddin Avenue in Beaumont was occupied by William P. H. McFaddin, a member of a prominent, old-monied family that increased its wealth when the Spindletop field was brought in on pastureland under its control. Frank Yount's three Beaumont partners, Talbott F. Rothwell, J. H. Phelan, and J. Cooke Wilson, built grand houses in the late 1920s and 1930s, paid for by the recuperation of Spindletop.

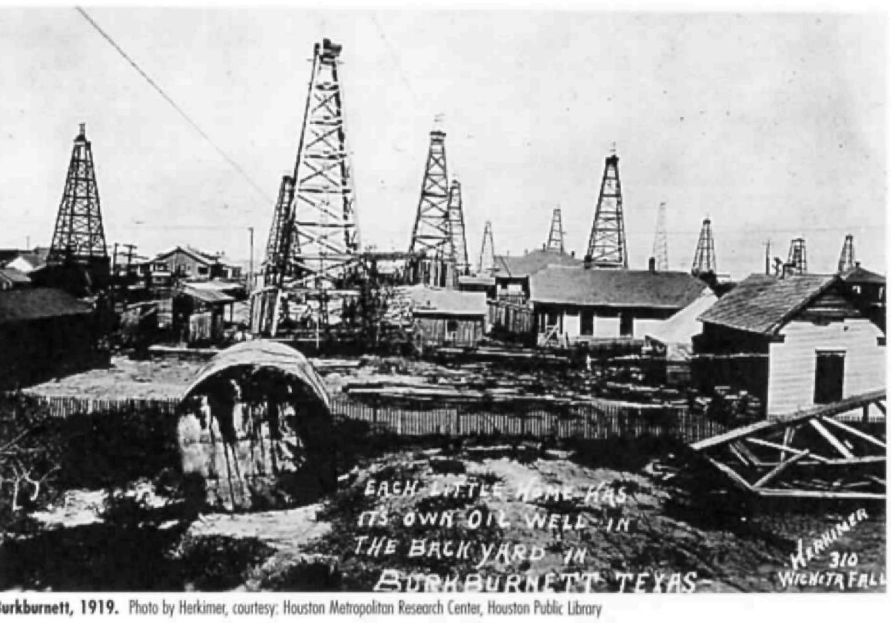
Port Arthur, on the western shore of Sabine Lake, was platted by the Kansas City entrepreneur Arthur Stilwell as a seaport and tourist resort in 1895, before the discovery at Spindletop. It was oil that determined Port Arthur's future. John W. ("Bet-a-Million") Gates, the Wall Street investor, became the town's chief financial backer in the early 1900s. His widow, Dellora R. Gates, endowed the Gates Memorial Library in his memory. Located in the town center, this solid neoclassical building was designed in 1918 by Warren & Wetmore, best known for New York's Grand Central Station. Also in Port Arthur, the wonderfully idiosyncratic Eddingston Court, defined by shell-encrusted walls and entry piers [see page 42 this issue], is a private-place development of 1929. It was built for oil tycoons who required the discreet privacy of its charming brick apartments, executed in the Tudor style.

Meanwhile, there was a concerted and successful effort by the financial powers in Houston to lure the oil industry. Soon oil began to compete with cotton as the most important export shipped from the Houston Ship Channel. The industrial development of the channel's waterfront was a direct result of the discovery of oil: the long, protected channel provided an ideal location for oil refineries.

Westmoreland was Houston's first planned elite neighborhood and its first example of the St. Louis-type private place. From 1902 until about 1910, Westmoreland was brimming with oil families: a larger concentration lived there than in any other Houston neighborhood. As soon as the discovery at Spindletop was known, oilman Joseph S. Cullinan moved his operations from Corsicana to Beaumont, and he started the Texas Company there in 1902. By 1905 Cullinan moved his headquarters to Houston, an event considered critical in the establishment of Houston as the oil hub of the Southwest. Cullinan was instrumental in persuading the city of Houston to retain the distinguished St. Louis architect and city planner George E. Kessler to lay out Main Boulevard and plan Hermann Park. He also commissioned Kessler in 1916 to plan the elegant enclave neighborhood Shadyside and invited his oil business associates and friends to build there. Three co-founders of the Humble Oil and Refining Company — R. Lee Blaffer, Harry C. Wiess, and William Stamps Farish — built their houses in the country-house tradition in Shadyside, which features the work of the prominent New York architect Harrie T. Lindeberg as well as such local architects as Birdsall P. Briscoe, Alfred C. Finn, and John Staub.

But what of the oil workers and their families? The 50-mile Houston Ship Channel transformed the agricultural economy of eastern Harris County into the densest concentration of petrochemical industries in the world. Miles and miles of oil refineries and storage tanks define the industrial towns that line both sides of the Ship Channel with romantic names like Magnolia Park, Pasadena, Galena Park, Deer Park, Baytown, Goose Creek, and Channelview. These settlements are working-class subdivisions that grew out of the agricultural market towns of the late 19th century into early-20th-century petro-suburbs. This was their good fortune and their tragedy. Together they make up the largest area of blue-collar communities in Houston. On the southern shore of the channel, between Deer Park and La Porte, the San Jacinto Monument rises in concert with the refineries.

Magnolia Park in the East End is Houston's most historic Latino neighborhoods. Mexican-Americans started to settle there around 1911 in the wake of the Mexican Revolution. Many early resi-



Burkburnett, 1919. Photo by Herkimer, courtesy: Houston Metropolitan Research Center, Houston Public Library

Housing at the Phillips refinery, Borger, 1942. Photo by John Vachon, courtesy: Library of Congress

dents of this community worked on the dredging and widening of the Ship Channel and later became refinery employees. An active community supporting Mexican cultural and religious institutions evolved. Although Our Lady of Guadalupe parish was founded in 1912, the existing Romanesque brick church on Navigation Boulevard dates from 1923. Still an important landmark in the community, it was designed by the San Antonio architect Leo M. J. Dielmann. In 1935 money was raised in the community to acquire a small piece of land on Buffalo Bayou near the turning basin for the creation of Hidalgo Park. The park was donated to the city, and the Mexican-American community sponsored a spectacular molded concrete kiosk, designed and fabricated by Vidal Lozano.

Pasadena, the largest and best known of the cities along the Houston Ship Channel, is an example of a town that made a shift from an agricultural to an industrial economy in the early decades of this century. J. S. Cullinan's move to Houston required a waterfront site with extensive acreage for Texaco's refinery. He chose a site opposite Pasadena at Galena Park (originally called Clinton). The initial refinery there was constructed by the Galena Signal Company of Texas, and in 1935 Clinton changed its name to Galena Park.

Deer Park, east of Pasadena on the southern shore of the Ship Channel, was laid out in 1893 by Simeon Henry West.[1] He planted pear trees and chose the name Deer Park because of the abundant deer in the area. The Great Storm of 1900 and the oil discovery at Spindletop three months later meant that his plans for an agrarian community were literally swept away. In 1928 Shell Oil arrived to build a refinery. A tent city, including a school, was established for construction workers and their families. By 1929 Shell was busy building the first suburban housing developments: the Shell City Addition and the Deer Park Addition. These were laid out in a linear suburban pattern and set the tone for subsequent development in Deer Park. In 1940 Humble built a toluene plant in Deer Park for the production of TNT.

Because of the war effort, industry along the Houston Ship Channel increased dramatically. By 1942, 14 refineries plus associated petro-related industries were located along the channel. In 1948 Diamond Shamrock, like Shell, built a plant on the site of "old" Deer Park, and others soon followed. Deer Park today is a tidy suburban town with open green spaces, shade trees, postwar tract housing, and a hint of prosperity. In the background, separated from the town by the La Porte Freeway, the massive Shell refinery glistens in the sun next to the Ship Channel.

Back in downtown Houston, corporate oil office buildings were under construction. Many of the first generation of oil skyscrapers survive including the Texas Company Building (Warren & Wetmore, 1915); the Humble Building (Clinton & Russell, 1921); the Petroleum Building (Alfred C. Bossom, 1924–27); and the Gulf Building (Alfred C. Finn, Kenneth Franzheim, and J. E. R. Carpenter, 1929). The Tenneco Building (Skidmore, Owings & Merrill, 1963) is still considered a modern classic. One Shell Plaza (SOM and Wilson, Morris, Crain & Anderson, 1971) was the first downtown project of Gerald D. Hines Interests and celebrated the move of Shell's headquarters to Houston. Twin-towered Pennzoil Place (Johnson/ Burgee Architects and S. I. Morris Associates, 1976) is Houston's most significant example of late-20th-century skyscraper architecture.

In contrast to the glassy corporate oil towers downtown, some companies chos to move to the suburbs. Schlumberger was the pioneer when it built a suburba headquarters (McKie & Kamrath, 1953) along the new Gulf Freeway, which was completed in 1952. The inventive Conoc Headquarters (Kevin Roche, John Dinkeloo & Associates, 1985) is a low-rise, 16-building campus on a 62-acre site in Dairy Ashford. It was built along a stretch of I-10 in West Houston that came to be called the Energy Corridor in the early 1980s because of the concentration of energy corporate offices there.

The ubiquitous gas station is more closely tied to corporate identity than an other product of the oil industry. It began with a need for easily accessible, safe distribution of gasoline. By the 1920s, oil companies were selling a wide range of petroleum products at roadside service stations, and companies like Shell and Humble had begun a nationwide chain of service stations whose the attendants wore standard uniforms. Cleanliness and equal treatment of customers were the order of the day. The earliest generation of corporate gas stations included urban models. In 1918–19 Alfred C. Finn designed Humble's first service station on Main Street and Magnolia's two-stor

Humble Oil & Refinery Service Station, Houston. courtesy: Houston Metropolitan Research Center, Houston Public Library

Petroleum Building, Houston. courtesy: Houston Metropolitan Research Center, Houston Public Library

garage-type station on Fannin Street (both now demolished). In Houston, a 1920s service station designed by John F. Staub for the Humble Oil & Refining Company survives as a used-car dealership on Washington Avenue at Henderson Street.

One of Humble Oil's most important acquisitions was its 1938 purchase of the West Ranch, located 22 miles south of Houston on Clear Lake. Humble developed two oilfields there, but ultimately this transaction proved more important for the effect it had on the development of Houston. In 1958 Humble's board gave 22 acres of the tract, along with the large Mediterranean-style ranch house, to Rice University. After Congress began to fund space exploration in the late 1950s, Texas Senator Lyndon B. Johnson was elected chairman of the Senate Aeronautics and Space Committee, and Congressman Albert Thomas of Houston chaired the Independent Offices Subcommittee of the House Ways and Means Committee, which handled the NASA budget. Thomas was also a close friend of several Humble board members. Between 1958 and 1960 Johnson and Thomas "applied heavy political pressure to secure the space headquarters for Houston."[2]

Shortly after John F. Kennedy and Lyndon B. Johnson's inauguration, Humble gave a total of 1,600 additional acres of the West Ranch to Rice, with the understanding that the land be transferred to the United States government for the Manned Spacecraft Center (MSC). By September 1961 it was announced that Houston met all the criteria for the MSC site, and NASA began plans to develop part of the former West Ranch as the MSC.

In 1962 the Del E. Webb Corporation and Humble formed the Friendswood Development Company to develop the remaining 15,000 acres of the West Ranch as a planned new town, Clear Lake City. Humble developed the portion of the ranch fronting Galveston Bay as the Bayport Industrial District. By the 1970s Friendswood had begun to develop Kingwood, a 14,000-acre planned residential community in northeastern Harris County in partnership with the King Ranch. Clear Lake City established a precedent for oil corporations investing in large-scale suburban real estate as can be seen in the Woodlands, a project of the Mitchell Energy & Development Company.

Texas oil families proved to be generous and inspired philanthropists. In Houston, three women had an enormous impact on the direction of architecture and design — Ima Hogg, Nina J. Cullinan, and Dominique Schlumberger de Menil.

In the 1920s, Miss Hogg with her brothers Will and Mike used their personal wealth to finance the development of River Oaks as a model of planned commercial development. Ima Hogg's house, Bayou Bend, was likewise conceived as a model of stylish domesticity. She carried this idea to its logical conclusion by transforming her house and gardens into a showcase of American decorative art, which was opened to the public in 1965 as part of the Museum of Fine Arts, Houston.

In the 1950s Nina Cullinan funded the building of Cullinan Hall at the Museum of Fine arts, designed by Ludwig Mies van der Rohe. Among other philanthropy, Miss Cullinan willed $4 million to the Houston Parks Board.

Dominique and John de Menil commissioned Philip Johnson to design their house and the University of St. Thomas. Howard Barnstone and Eugene Aubry designed the Rothko Chapel for the de Menils, and in 1980 Mrs. de Menil commissioned Renzo Piano to design The Menil Collection in collaboration with the English engineers Ove Arup & Associates. The Cy Twombly Collection, also designed by Piano, was completed in 1995 and her Byzantine Fresco Chapel by François de Menil in 1997.

The economy and culture of oil is materially represented in every aspect of Texas life — corporate towers, elite neighborhoods, refinery towns, cultural institutions, universities, and planned suburbs. Even NASA's destiny was shaped by Texas oil. Although the history of oil tells us that it is a massive generator of wealth, there have been environmental costs that have yet to be fully confronted. ■

1. Patrick Peters, "Deer Park," unpublished manuscript, 1990.

2. Bennett H. Wall and Gerlad Carpenter. *Growth in a Changing Environment: A History of Standard Oil of New Jersey* (New York: Exxon Corporation, 1988), p. 155.