

Floating City

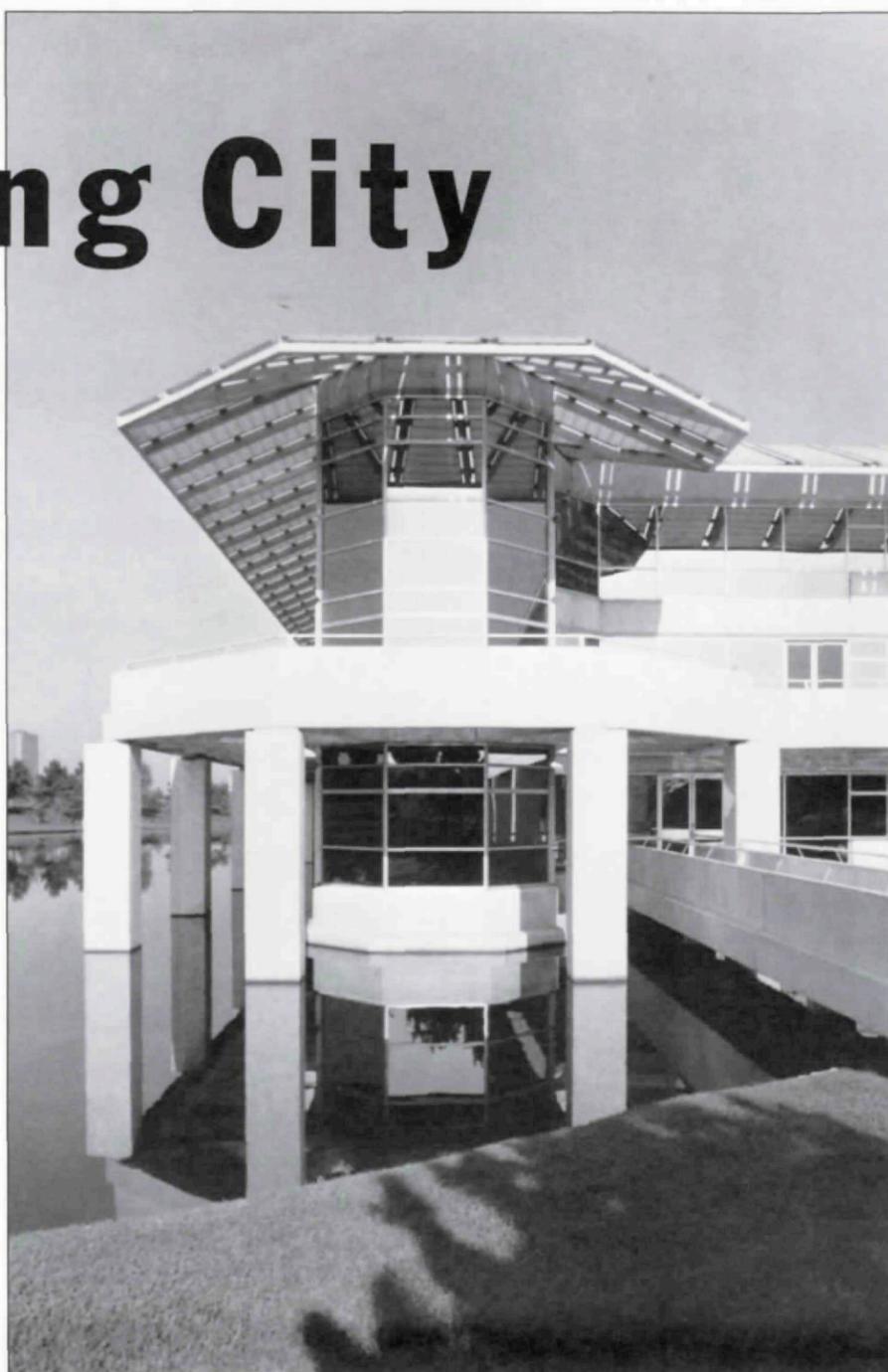
Conoco's Corporate Headquarters
by Kevin Roche

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During the recent period of intense building activity in downtown and suburban Houston, an elegant, albeit unassuming office building joined the ranks of corporate Houston without fanfare. In 1985, Conoco Inc. moved its headquarters toward the city's western edge, leaving a multistory office tower in Greenway Plaza for a series of three-story pavilions set in a park along the Katy Freeway (Interstate 10). Conoco's new 1.2-million-square-foot building was designed by Kevin Roche of Kevin Roche John Dinkeloo and Associates, the architectural firm whose reputation was established in the mid-1960s by the Ford Foundation Building in New York City.¹ It is a commentary on our time that Conoco, a building whose design innovatively addresses the requirements of a contemporary working environment, is far less celebrated than the more prominently displayed, stylish tall buildings of Houston.

Conoco is perhaps the best example in Houston of the office campus, a building type that has become popular in the outer limits of America's corporate suburbs. Conoco and its neighbors, Shell, Exxon, and Amoco, are part of a new kind of suburb defined by Robert Fishman in *Bourgeois Utopias* as the "technoburb." The traditional suburb, as found in the 19th- and early-20th-century American city, was an extension of the urban center, a place for living and recreation linked closely to the workplace of the center city. The technoburb, a development of the late 20th century, with its massive shopping malls, housing tracts, and office parks built along the freeways, loops, and interstates that surround the older city, exists independently of the center city. The technoburb is so detached and self-sufficient that its population need never venture to the city center. Because of the concentration of oil-related service companies along this stretch of I-10 near Highway 6, the technoburb around Conoco is known as the "Energy Corridor." Conoco's three-story complex, built in a 62-acre park, represents an alternative to the self-contained, multistory office building. Indeed, if Conoco had chosen to build an office tower, its height would almost have equaled that of the 64-story Transco Tower adjoining Houston's Galleria. By moving farther from the center of the city Conoco was able to spread the building components out, making a completely self-contained environment, a workplace in the garden of the technoburb.

In 1979, Roche Dinkeloo and Associates was awarded the commission for Conoco



Faceted end pavilion with conference rooms projects over man-made lake.

Inc.'s Houston headquarters. Using an approach he had developed a few years earlier at the Union Carbide corporate headquarters in Danbury, Connecticut, Roche began by interviewing representative groups of employees from all ranks of the company. From these interviews he ascertained what was currently unsatisfactory and what employees wanted in the workplace: for instance, they disliked waiting for elevators. He also learned that, as at Union Carbide, disparities in office size and proximity to outside windows fostered jealousy and affected morale; moreover, time and money (up to \$2 million annually) were consumed in altering offices whenever promotions or personnel shifts occurred.



Awning canopy covers employee parking at either end of the complex.

Employees felt cramped and compartmentalized in the impersonal surroundings of Conoco's high-rise quarters and shut off from the world in its many interior offices. What the employees wanted was an office environment more akin to the living rooms or libraries of their homes. They also expressed a strong preference for covered parking, with easy access to individual offices. Clearly many of these desires could more readily be realized in a building unconstrained by its site, a site that would permit the dispersal of office functions over several acres.

Conoco's white concrete maze of

buildings is approached by automobile from the freeway feeder. Although Conoco closely borders the Katy Freeway, it would be easy to drive by and only barely notice the 16 buildings that make up the complex. This is accomplished by Roche's strategic placement of an undulating grass berm, which shields the buildings from the noise and view of the busy interstate. Passing through Conoco's security gates, one is scarcely conscious of the 18-wheelers and Suburbans speeding along eight lanes of freeway only a few yards away. From that moment, one enters the serenity of a lush green park of trees and grass, and of buildings meandering over a still lagoon.

Kevin Roche has for some time been intrigued with the idea of the superhighway as an organizer of and distributor for the great distances to be traveled in the technoburb. In describing the relationship of the highway to the building at Union Carbide, Roche remarked:

The front door . . . is the act of arrival by automobile. You drive from home on a highway system. You get off the public highway onto a private highway system which goes straight into the garage, and for an employee is the first act of entry.²

At Union Carbide the highway literally enters either side of the building, terminating with parking garages at the center. At Conoco the highway is also terminated by parking, contained this time within two outdoor covered areas for 1,500 cars on the east and west sides of the complex. Roche further extends the metaphor of the superhighway as distributor with an elevated and enclosed second-level pedestrian walkway, nearly a third of a mile long, linking the two employee parking areas. Access from the ground-level parking to the walkway is



Two-story atrium connects the three adjoining buildings of each of the five groupings.

by escalator. From this main avenue, and on the same level, a secondary system of interior as well as protected outdoor walkways links the adjoining three-story buildings. From both central and secondary distributors the journey to the ground or third levels is only one story. At Conoco, Roche has devised a clear and efficient system of circulation, one that gives employees easy access from the automobile to their offices. Beneath the raised east-west walkway a street for visitor, executive, and service vehicles penetrates the center of the complex, with guest and executive parking under the main building, next to the visitor entrance.

The three-level Conoco complex is composed of 16 buildings arranged in five groups, with an additional service structure at the center. A 60-foot-wide bay with double corridors is the regulating module for each building. In keeping with the employees' desire for views to the outside, offices face outward to the garden; storage, toilets, and service facilities are situated in the middle of the 60-foot bay, between the corridors. Roche also established a standard office size, designing a universal office module of 12 feet by 16 feet to achieve a more democratic distribution of personnel. The exception is a series of double-module offices for top executives in the central building. Each office is separated from the corridor by a five-foot-three-inch-high storage wall for files, shelving, and closets, with mullionless glass to the ceiling above the storage wall allowing daylight into the corridors and interior service rooms. In an effort to satisfy individual tastes, employees are given a choice of three basic office styles — traditional, transitional, and contemporary. The drawback of the democratic office, however, is a uniformity that tends to be disorienting and repetitious. This problem might have been addressed through shifts of interior finishes and decor as well as a bolder selection of art.

Functionally, Conoco's 2,300 employees work in buildings divided between the "upstream" business of exploration and production, occupying the western half of the campus, and the "downstream" business of refining, marketing, and transportation on the east. Between these two, a central service building, larger than a football field, provides executive and visitor parking, third-floor executive offices, basement mechanical services, loading docks, a fitness center, a computer center, employee cafeterias, a credit union, and a travel agency. The multitude of services and amenities was located



Protected outdoor walkway connects buildings at the second level and also serves to shade the offices on the first level. Translucent fiberglass awning projects 13 feet to screen second- and third-level offices.



Open corridor between outward-facing offices and interior service rooms.

intentionally in the central building so employees would have little need to leave the grounds during the workday. The overall layout and positioning of building groups surrounding the center was determined compositionally rather than in response to programmatic requirements. The 15 adjoining buildings, arranged in five groups, vary in size from 33,000 to 100,000 square feet. The three buildings of each group form a pinwheel; a pair of two-story atrium spaces at right angles to each other extend from the pinwheel's center. A single elevator serving the three buildings sits at the juncture of the atrium spaces, but most employees prefer to use the stairs in the naturally lit wells at the ends of the buildings. On each floor, near the stairwell, a conference room pokes out from the building's end with a semi-octagonal glass bay. The three buildings of each grouping define an irregular



Pedestrian bridges traverse the lake.



Escalator from employee parking to second-level interior walkway.

pattern of outdoor courtyard spaces laced in and around the lagoon.

In discussing the outdoor space, Roche has remarked:

In Conoco . . . we do not have the central community space; instead we turn the idea inside out and create a park into which the whole building is placed. It is a campus and will have the same felicitous effect on the occupants as if they were working in a well-planned university campus.³

The community space Roche refers to was first introduced in his work at the Ford Foundation and became a prominent element of many designs to follow. In such programmatically diverse buildings as the additions to the Metropolitan Museum in New York City and the corporate headquarters for General Foods in Rye, New York, Roche has used the indoor communal space as a primary organizer. At Conoco, Roche realized the site's potential for year-round green by placing the communal space outside, surrounding an informally designed lake with an indigenous garden of willows, oaks, and pines. Carolina jasmine and fig ivy climb the columns and trellises of the ground-floor arcade. Even though the grounds are easily accessible and are popular for picnicking, walking, jogging, and occasionally fishing, it is from the inside looking out that one most effectively experiences the calm of this idealized landscape.

In making the garden, Roche turned Houston's semitropical climate to his advantage. Going further, he also

ingeniously adapted the complex of buildings to the extremes of sunlight and heat in south Texas. Giving strength and drama to Conoco is an awning system made from a translucent fiberglass sandwich panel supported by an aluminum frame that projects 13 feet outward from the face of the wall to screen the offices from the relentless summer sun. Controlling levels of natural light and providing protection from the sun has been an ongoing concern in the work of Roche Dinkeloo. The awning canopy that distinguishes the Conoco building was introduced as a screening device in earlier, similar work, most notably at Richardson-Vicks (1974), Kentucky Power Company (1978), and more recently Union Carbide (1982). But the Conoco awning is perhaps the most expressive and developed use of this device. Whereas the awning at Union Carbide projects above each level, Conoco's white, translucent awning extends only from the roof parapet, giving the appearance of a great eave gracefully hovering over and sheltering the structure below. Like the overhanging eaves of a Frank Lloyd Wright Prairie house, the awning draws the building into the landscape. In combination with silver reflective glass, the 13-foot projection adequately screens the east, west, and south façades on the second and third levels. The north face is unscreened, as direct sunlight to this exposure is minimal. To shade the ground level, a three-quarter-mile elevated outdoor walkway runs beneath the awning, serving also to connect the complex at the second level. Responding to the employees' desire for covered parking, the canopy design is repeated for the outdoor parking in what is surely the finest architectural solution in Houston for disguising the endless sea of automobiles and asphalt. From the parking area the canopy climbs over the escalators at either end of the complex, running the length of the second-level central walkway. The expression of the awning is synthesized with the structural expression that defines the character of building at Conoco. Hefty poured-concrete columns support precast concrete beams, framing members, and wall panels and a poured-concrete floor. The translucent white of the awning is reiterated in the milky white of the concrete, rendering a bright cohesiveness against the surrounding garden.

As Houston continues to grow outward, it is likely that the office campus will be a choice for the corporation seeking

consolidation of its operations under one roof.

Where land values are lower, this building type is a viable alternative as well to the multistory office building. As the technoburb matures, communities with the assets and planning sophistication of the traditional suburb will become increasingly needed. In many ways Conoco points to future possibilities for the workplace and office buildings in the technoburb. Take away the steel security fence that surrounds the Conoco grounds, and one might imagine a series of similar buildings, loosely connected to make an extraordinary landscaped park on the scale of the 18th-century French gardens. Conoco emphatically reaches a new plateau for office design in Houston. Kevin Roche at the Conoco headquarters has dignified the office community by considering and responding to the aspirations of the employees. Moreover, he has intelligently resolved the conflict between the imposition of man-made structure and nature's opposing forces. What was formerly dull, empty land along a noisy freeway is now a peaceful park with a series of handsome structures straddling a lake, within a sculpted landscape of grass and trees. ■

Notes

- 1 Kevin Roche and John Dinkeloo had previously been partners in the office of Eero Saarinen & Associates in Bloomfield Hills, Michigan. From 1950 to 1961, the year of Saarinen's premature death at the age of 51, they were closely associated with Saarinen projects. In 1961, Roche and Dinkeloo opened their office in Hamden, Connecticut, outside New Haven. Until his death in 1981, John Dinkeloo was actively involved in all projects. Kevin Roche, principal designer for the firm, has continued the practice under the name Kevin Roche John Dinkeloo and Associates.
- 2 Francesco Dal Co, *Kevin Roche* (New York: Rizzoli, 1985), p. 64. These remarks are taken from a conversation between Roche and Dal Co that makes up the majority of the text of the monograph.
- 3 *Ibid.*, p. 58.

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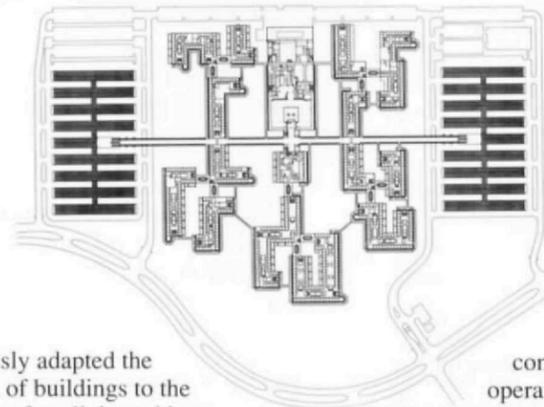
- Francesco Dal Co, *Kevin Roche*, New York: Rizzoli, 1985.
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- Carlton Knight III, "Serene Pavilions Traversing a Lake," *Architecture*, December 1986.



Union Carbide Headquarters, Danbury, Connecticut, 1982.



Aerial view, Conoco, 1985.



Second-level plan.

Courtesy Kevin Roche John Dinkeloo and Associates

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