

CiteSurvey

I-MAXING OUT

Addition to the Houston Museum of Natural Science

areas are evenly spread through the suburbs?

BK No. The analogy is to the heart: if the heart dies, the body dies. You need downtown as a center for the city. We just need to think differently about using it, particularly for living. If you're going to have housing, build it outside the inner freeway loop, so that people can look out their windows at the buildings as scenery, the way people in New Jersey can look at Manhattan.

I think, if we're talking about entertainment, that it should be applied to transportation. We should get Lucas to do one of the freeways, or better yet a transit line. That would be better than the Metro approach: put people in a tube and extrude them into the city center. If the transit system was conceptualized as a thrill ride, it would be more fun than getting on the bar car for a long ride to the suburbs.

JB What else would help?

BK The main thing would be to study the successful neighborhoods in the city, and to think about improving the linkages between them. That will preserve both the neighborhoods and the freedom to change that has worked for Houston in the past. There's usually a reason for a change in land use, and it's almost always unforeseen and unforeseeable. The idea should not be to block change but to link the successful parts of town with more successful connections. In the Third and Fifth wards, for example, linkages could focus on bringing jobs to those areas, and with establishing ways for people to get back and forth. That would help bring them back to life.

JB The City of Houston Planning Department has undertaken some community development projects, such as El Mercado. And the department recently increased its personnel substantially. Will this help with the effort?

BK That's an illusion. They just moved a bunch of plan checkers from the public works department over; as far as real planning effort going on, there is nothing new. The real burden, for now, is going to be on the design professions to lead the way. ■

Site plan, east entrance court, with memorial sundial, fountain, and garden.

Courtesy of Hoover & Furr



Museums in recent years have found themselves in a competitive fray for the public's entertainment dollars. In a world increasingly dominated by high-tech media and the hyperrealities of theme parks, museums have had to shift their emphasis from being passive, collecting institutions to becoming active learning centers featuring extravagant new attractions that combine learning and entertainment.

One of the most popular of these new attractions is the IMAX theater, the large-format, verisimilitudinous movie experience created by IMAX of Toronto. IMAX installations at museums in other parts of the country have produced dramatic increases in both attendance and revenues. When the board of the Houston Museum of Natural Science decided to bring the IMAX experience to Houston as part of the museum's expansion plans, they realized they would be competing with the proposed NASA Visitors Center, which was to include an IMAX theater among its many attractions. Progress on the NASA center has been seriously delayed, but, in an effort to be first in the Houston market, the museum had already expedited its fundraising and building activities. The design and the construction process were hostage to this race.

The new facilities – the Wortham IMAX Theater, the Cullen Grand Entrance Hall, and the Memorial Sundial, Fountain, and Garden – represent the latest chapter in a series of additions to the Houston Museum of Natural Science. In 1963, the Burke Baker Planetarium was the first building to occupy the museum's site in Hermann Park. Designed by George Pierce-Abel B. Pierce in association with Staub, Rather, and Howze, this Saturn-like building represented the beginning of the Pierce firm's relationship with the museum. An addition to the exhibition hall designed by George Pierce-Abel B. Pierce was completed in 1969. The museum was expanded again in 1980 by Pierce Goodwin Alexander. The current project by Hoover & Furr and 3D/I, completed in September

1989, was influenced by the continuing presence of George Pierce, now a member of the museum's design review committee.

The organizational diagram for the project respects and builds upon the bar-node concept of the Pierce design. The formal and material expression of the IMAX theater node reflects the design

idiom of the original museum block, although earlier schemes called for a pyramidal roof and dark-stone, horizontal banding of the façades. While the handsome stone facing reinforces the quiet reserve of the Pierce firm's museum building, it also masks the museum's new preference for interactive, kinetic, and fast-paced action on the inside.

The Cullen Grand Entrance Hall is a large, mall-like space that collects and organizes entries to the museum's various functions including the information and ticket kiosks, the exhibition areas, the Burke Baker Planetarium, the IMAX theater, a



Houston Museum of Natural Science, Cullen Entrance Hall, east face, 1989, Hoover & Furr and 3D/I, architects; Dushan Stankovich, designer; Charles Brookshire, project architect. Latest addition to the museum joins planetarium (left) and exhibit halls (right).

restaurant, and the museum gift shop. The space is 42 feet wide and 200 feet long, with a ceiling height of 33 feet. The 82,000 square feet of floor area on the main level are contained by a steel-and-glass wall with an exposed structure and a metal deck roof. A lower level, reached by stairs, provides an entrance lobby for the IMAX theater. Patrons proceed down from the main lobby level to enter the theater, moving up to their seats, and then exiting through the rear onto the main level.

The IMAX theater presents a motion picture experience unlike any other. Its 400 seats ascend in such proximity to the huge screen (80 feet wide and 59 feet tall) that the visual experience of seeing a movie becomes a physical one; sophisticated multispeaker sound enhances the sensual involvement. The high-tech elements of this cinematic environment are unfortunately cloaked by a corporate-looking interior. The complex projection system is not directly visible. The original scheme called for a bridge for observation of the second-floor projection room, but because of budget constraints it was replaced by a video presentation of the system in the lower theater lobby level.

The concept envisioned for the grand hall included the organization of the museum facilities and the visual connection of the museum with surrounding Hermann Park. Museum director Truett Latimer and several board members visited the Wyndham Hotel lobby at Greenspoint, which became a model for the project. IMAX sent theater consultants to work with the architects. However, travel to other IMAX installations was not undertaken. The original design scheme contained a number of elements that were omitted through budget review and value engineering as design and construction went forward. In the original design, the lobby extended the entire length of the museum exhibition block, with a large canopy providing protection for the entry; the lobby arcade had a vaulted glass roof, making it totally open to the park; and the below-grade entry to the IMAX theater was flanked by a cascading garden, which would have brought light and visual relief to the stairway. Besides these omissions, the exposed air-conditioning system (air columns) was modified and altered several times, interior finishes were downgraded, and the existing restaurant was not significantly changed. Although modifications to the design altered the architectural quality of the space, Truett Latimer maintains that the changes were not thought to be detrimental to the museum's goals. In fact, the IMAX theater has changed the way the public uses the museum. Visitors now often make it a day there, taking in the IMAX and the museum exhibits before lunch at the museum cafe, the planetarium and a park visit after lunch. Attendance and membership have dramatically increased. Last year 900,000 people visited the museum; as of August 1990, attendance was well over 1.5 million.

The Memorial Sundial, Fountain, and Garden are the focal point of a comprehensive landscape and site development plan for the museum's grounds. The design

consists of a 46-foot-8-inch-square podium rotated on a 72-foot-square plaza opposite the major museum entrance. The plaza's resulting corners are filled by two planting areas, a pool and fountain, and the steps to the sundial podium, where a ten-foot polished-granite gnomon casts its shadow across numerals and radiating lines, indicating the hours and months, made of stainless steel bars embedded in the travertine paving. Granite pyramids in the corners of the podium mark the compass coordinates.

This garden entrance greets visitors with a successful marriage of science and architecture. Patricia Rife, professor of space physics at Rice University, and Carolyn Sumners, director of astronomy and astrophysics at the museum, collaborated with the architects to incorporate an accurate demonstration of scale in our solar system on the entrance walk, where stainless steel circles are embedded to represent the size of the planets relative to the sun, itself represented by the planetarium dome. The sundial marks time by casting its shadow on the series of radiating lines marked on the podium's surface; sunlight passing through holes in the sphere found at the point of the gnomon marks the seasons. The edge of the fountain pool simulates the profile of the Texas coast (originally intended to be in Texas granite, but constructed of colored concrete). This scientific landscape is one of the most interesting entry plazas in the city, providing a unique connection between the park and the museum.

As a city built around strong technical and scientific interests, Houston has long needed a more ambitious and larger science museum. The expansion of the museum's facilities has certainly resulted in renewed public interest. But planning for future growth will require a better balance between the expediency of budget considerations and the need to build for posterity. Design decisions should be made for the long term and with concern for the next generation of visitors. ■

Geoffrey Brune



Interior, Cullen Entrance Hall, looking east.

Geoffrey Brune

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