RICE UNIVERSITY

The Many World Manifold

by

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Master of Architecture

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Abstract

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This thesis produces an architecture that relates to the way in which digital technologies have changed our lives over the past twenty years. My interest lies specifically in the digital media devices that allow us to occupy multiple “worlds” simultaneously. Beyond multi-tasking, these technologies produce a phenomenon I call “multi-placing”; a mode of existence that has become a dominant characteristic of the developed world. In an effort to produce similar effects the architecture of my thesis is characterized by a broad horizontal space populated by discrete architectural worlds that interface with the horizontal planes of the floor and the ceiling. With little visual disruption the horizontal expanse connects all worlds together into a single manifold. These worlds introduce specificity into the horizontal vacuum while preserving the equalizing effects of the universal space.
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This thesis produces an architecture that relates to the way in which digital technologies have changed our lives over the past twenty years. My interest lies specifically in the digital media devices that allow us to occupy multiple “worlds” simultaneously. Beyond multi-tasking, these technologies produce a phenomenon I call “multi-placing”; a mode of existence that has become a dominant characteristic of the developed world. I would define multi-placing as the simultaneous occupation of distant worlds; each consisting of their own unique and immersive environment (See Figure 1). To produce similar effects the architecture of my thesis is characterized by a broad horizontal space (or manifold) populated by discrete architectural worlds that appear as apertures within the horizontal planes of the floor and the ceiling (See Figure 2). With little visual disruption the horizontal expanse connects all worlds together into a single complex of multiple of worlds.
These worlds introduce specificity into the horizontal vacuum while preserving the equalizing effects of the universal space that allows for spatial co-occupation of multiple worlds. This characteristic of my thesis is the primary architectural move and my position within the disciplinary context. The immersive capacity of these worlds fundamentally changes the historical diagram (See Figure 3) drawn from Mies van der Rohe’s projects. This thesis understands Mies’ horizontal space as the architectural equivalent of “multi-tasking”, or the simultaneous inclusion of multiple subjects within a single continuous world. In contrast, the Many World Manifold constructs multiple separate worlds that are accessed simultaneously. The horizontal datum facilitates the simultaneous detection and exploration of each world. These worlds lie just underneath or above the datum, which acts as a universal access point to worlds defined by geometry and material composition (See Figure 4).
multi-task (Mies)  multi-place (Me)
The project is located in downtown Houston (See **Figure 5**) in a vacant lot surrounded by high rise buildings. Downtown Houston was chosen as a site due to it’s vertical stratification of worlds (See **Figure 6**). This stratification consists of office space, amenities (fitness clubs, restaurants, convention centers), the street, subterranean parking, and a vast series of tunnels (filled with consumption-based programs) that connect various towers within the downtown district.

This project infiltrates the vertically segregated worlds of the city’s downtown with the addition of a single manifold at street level (See **Figure 7**). This manifold serves as a public plaza and urban connector. Rather than creating public space with urban voids, this project inserts itself into the local highrise typology as an *architectural void*. The manifold (or *architectural void*) interfaces with each of the city’s worlds simultaneously and allows for “multi-placing” events to occur within the architectural field.
The vast system of underground tunnels in Houston consist of retail, restaurant, and other commercial uses. This system is used almost exclusively by the professionals working downtown that have access to the office towers. The scale of this tunnel network and the intensity of the programs that occupy it create a tension between the street level activities (and Houston’s urban network at large) and the subterranean life below that rivals the surface’s condition of urbanity in terms of “public” and commercial traffic. This condition positions the street level plaza of the project at the threshold between charged and otherwise disparate worlds. (See Figure 8).

The office tower rests on top of the amenity floor that floats over the city plaza. Each world is defined either by architectural form or void; thus the project’s ultimate form is a distilled version of Houston’s existing diagram (See Figure 9).
This view from the street level plaza depicts the apertures in the floor and ceiling of the public plaza. From left to right; The void to parking below, up the escalator to the tower lobby, down into an auditorium situated in the tunnels, and up into a fitness center that resides within the amenity floor above (See Figure 10). The intensity of this view demonstrates a particular saturation of “worlds” necessary for the simultaneous effect. The success of this aspect of the thesis is determined by the organization of the plan (See Figure 11).
The plan is calibrated in such a way that the voids below and above facilitate the close proximity of a number of different apertures (See Figure 12). This is achieved while still providing enough space for the plaza to function as it’s name suggests; a public space that large groups of people can gather in. These worlds are simultaneously connected to, and separate from the horizontal space below (See Figure 13).

From within these worlds a connection is maintained to the horizontal space. In some cases, even though no direct circulation route exists (such as the auditorium) the ceiling above reflects the crowd occupying the plaza and collapses multiple worlds into a single view (See Figure 14).

These reflective surfaces supplement the extent to which an occupant can simultaneously observe different worlds by increasing the radius in which these views are made visible to the viewer.
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Separate and Simultaneous

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Ludwig Mies van der Rohe, “Museum,”
Architectural Forum 78 (May 1943), 84.
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