Partial Plan & Sketches of Saltwater Exhibit Building

Legend
1. Support, Food Prep, Veterinary
2. Secondary Saltwater exhibits
3. Water storage
4. Outer ramp of main tank
5. Main tank
6. Glass tube and moving ramp on interior of main tank
7. Viewing platform along the interior ramp
8. Monitoring station for main tank

The Saltwater exhibit design exemplifies the driving premise behind this thesis. It emphasizes the interplay between macro and micro-scales.

Outer ramp around main saltwater tank.

Secondary saltwater exhibits.
Building Elevation

The Aquarium’s elevation massing is influenced by the surrounding context. The Freshwater and Entry towers respond to the surrounding Treasury and Agriculture buildings. The breakdown and repetition of the massing and height reflect the context.

Dominating the design are two cylindrical Saltwater Exhibit tanks. The cylinders anchor two corners of the site. Distinct enough in form to convey a difference in function, they are influenced by landmarks of the surrounding context.

Massing also became important in creating compression/release points, city walls and threshold elements along Maryland Avenue, 14th Street and I 395. These begin to identify changes within the context.

Issues including locations along a path, ideas of threshold, entry and definition of the city perimeter became important tools of analysis for this design’s development.

For example the Research and Support Facility building forms a compression element along the axis when coupled with the end wall of the secondary saltwater exhibit building. It also forms a city wall along I 395 helping to define the perimeter of the city.

The center atrium breaks down the scale of the Research Facility and serves the functional purpose of growing food supplies for the aquarium exhibits and letting natural light into the laboratory wings. Two solid tower masses matching in height with the secondary saltwater exhibit building provide enclosure for the atrium and definition of the city perimeter.
Building Elevations

Materials used in the aquarium project reflect the context. Pre-cast concrete panels make up the field pattern grid of the subordinate buildings such as the Freshwater and Entry towers and the Secondary Saltwater Exhibit buildings. The panels give a human scale to the massing. The monolithic casting of the cylinders is intended to convey the massive scale of the oceans which is hinted at by the panelized system used on the smaller buildings. The cylindrical Saltwater tank buildings are constructed of cast-in-place concrete. Each layer is cast with a slightly different concrete mix, color, and or aggregate. This suggests the sedimentary layering of the ocean’s floor.
Circulation & Building Section

How people move through an aquarium and how to keep them oriented is similar to how people move through the city.

Circulation within the aquarium follows a primary path but also has secondary opportunities to pause, rest and reorient visitors through views within the aquarium and out to the city.

Each exhibit is located as it occurs geographically. The exhibits inform visitors of their location.

The primary path takes visitors from an open sunlit interior space down to the gradually darkening and enclosing lowest level. Supportive secondary exhibits at the lower levels reference deep water environments. At that point the only light is coming from the bottom of a primary ocean exhibit. Moving towards the light visitors then access the bottom of the main ocean tank exhibit.

The moving path of the main tank propels visitors up through the ocean tank creating the sense of being a part of the macro-ecosystem environment and ends at the glass domed arboretum.

A ramp down the outside of the primary tank now creates a sense of being an outsider looking in. There are places along the ramp that open up to secondary ocean exhibits or micro-systems. The design emphasis conveys the integral and important relationship between micro and macro-ecosystems.