WHERE LAND ENDS:

A WATER MUSEUM ON THE POTOMAC

by

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Design thesis submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of

MASTER OF ARCHITECTURE

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June 1984
Blacksburg, Virginia
ABSTRACT

The Building: A complex for viewing and studying those things relating to the water; a building composed primarily of three parts.

The Site: Defined by an architecture that forms a link between the city and the waterfront.
To each student and professor who gave freely his encouragement and knowledge.

To Herb, whose support was unfaltering.
"Whatever you do, see that you do it."

Corbusier's mother
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INTRODUCTION

In the course of developing this design thesis, I have dealt with two separate, but interlocking issues which are relevant to the project.

The first is the nature of a museum; in particular, a Water Museum.

Second is the issue of architecture on the waterfront. I have dealt with the problems and opportunities of a particular site in Alexandria, Virginia, but many of these issues may be relevant to any other waterfront site.
THE BUILDING

According to the definition from The American Heritage Dictionary of the English Language, a museum is "A place or building in which works of artistic, historical, and scientific value are cared for and exhibited." A closer look at the origin of the word suggests a broader purpose for the building: "[Latin museum, library, study, museum, from Greek mousion, "a place of the muses".]. The museum now becomes a complex for studying and examining all things related to the water; a building composed primarily of three parts:

1. A museum to include exhibits on underwater life, water as a support system for life, and its role in the evolution of life forms, the role of water in the development of Alexandria and other waterfront settlements, and exhibits on means of water transportation and navigation.

2. Office and laboratory space to be occupied by those groups and individuals whose purpose involves the water: wildlife and water conservationists, those involved in waterfront development, and those involved in water-related research.

3. A small theatre/meeting hall for films and lectures to inform the public of the findings and research work being done by the occupants of the office/lab space. The theatre serves as a link (both functionally and physically) between the public and private sectors of the museum complex.

For the "first-time" visitor, circulation is basically linear, insuring a continuity of the exhibits; cross-paths exist to allow frequent users to modify their course. Skylights mark the cross-paths at the second floor level; light filters into the lower level through glass block floor panels under the skylights. These cross-paths also serve as spaces for temporary exhibits contributed by the occupants of the office/lab space.
The quantity of light in the exhibit spaces varies from very bright to very dim, and depends on the type of exhibit to be illuminated. Exhibits dealing with underwater matter (aquariums, a shell collection) are displayed in darkened rooms with only the objects illuminated. Those whose content is primarily about water itself (conservation, tides, physical properties) are exhibited in skylit corridors, and exhibits dealing with objects on or over water (boats and navigation, bridges) are displayed in a linear atrium, brightly lit by a curving glass wall.

Support systems for the museum, such as quarantine and feeding areas, holding tanks and water-handling systems are housed below the first floor of the museum in a partially underground service floor. Air and water ducts serve the exhibit floors through a service core wall which runs the length of the museum.
THE SITE

The Water Museum occupies a site in Alexandria, Virginia, just outside of the city's "old town" section. The Oronoco Bay site was chosen because it lies along a proposed boardwalk/promenade to run between Dangerfield Island to the north, and Jones Point to the south. Presently a park among many along the waterfront, Oronoco Bay could become a point of interest for those enjoying Old Town and the Alexandria waterfront.

Approaching the site from the west, the grid of the city ends, leaving the waterfront empty. Until one passes down Wythe Street, through the string of tall buildings lining Fairfax Street, it is not apparent that one is near the Potomac. The museum complex serves as a link between the city and the river giving access to the river in the form of a boardwalk which penetrates the building. The building lines the river's edge, becoming both a part of the land and a part of the water, while leaving the majority of the site open for outdoor exhibits and communion with the water's edge. Provisions are also made for those approaching from the water by including dock space for small pleasure craft.
SYNTHESIS

The geometry of the museum complex is a synthesis of the grid of the city and the unstructured water's edge. From inside the exhibit areas, the solid walls of the city facade focus attention towards the water, and the view of the river is completed as one passes through successive layers of exhibit spaces. At the cross-paths, there are glimpses of the outside world: views giving the visitor an orientation to city and river. The curving glass wall serves as a physical link between land and water. It rests on a concrete retaining wall which penetrates the surface of the river. Approaching either from the waterfront promenade or from the city, one has the choice of entering the building, lingering on the grounds of the museum, or continuing along the waterfront.
MATERIALS
Poured in place concrete structure and walls
Aluminum window and skylight structure
glass
glass block
THE PROJECT: Drawings
Model
MUSEUM CIRCULATION
PROCESS: Sketches
GRID OF CITY ERODES AT SHORELINE: CAN BUILDING ERODE ALSO?

Canal Lock

Oronco Bay

Office

Presentation Room

Restaurant

Library

Offices / Research

Museum

Water

UNION ST

R.T.

Robinson Terminal
ENCLOSED BAYS FOR PERMANENT EXHIBITS

CONNECTORS FOR CHANGING EXHIBITS

GLASS CONNECTIONS BETWEEN 3 SECTIONS

CAN BE USED FOR CROSS-CIRCULATION

VIEW IN BOTH DIRECTIONS

WATER A REFERENCE POINT

BRIGHT, SKYLIT, DARK ROOMS

BOATS + LARGE EXHIBITS

TANK + POOL

SMAI TANKS, EXHIBITS

ALEXANDRIA
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