This model represents a section cut through the site from the street level to the river. It is an early study in how volumes and masses may be assembled in order to accommodate the permeation of tidal water into the building itself. Water pathways are meant to weave under and between museum spaces.

This model is also a study of “Nitinol” metal roof panels that react to the heat of the sun and arch upwards under specific temperatures. The Nitinol wires are woven into copper conductive panels which distribute the heat evenly. The panels open to let in light during sunny hours and are counter-weighted to close at cooler temperatures. The Nitinol works by being programmed at very high temperatures to “memorize” a specific shape, and through its molecular make-up, will return to that shape at 70 degrees F. At any lower temperature, the metal becomes ductile enough to bend easily under pressure, while maintaining relatively high tensile strength at the same time. The panels in this model react in this manner under the simple application of heat through a hand-held torch.

Initial Studies

Like several paths converging into a common pool, the paths of initial exploratory ideas start from different origin points, yet each contributes to the final design. This book is a map to understand how each of these initial ideas has contributed in its own way in the larger context of the project.

Initial study models show various abstract interpretations of site, and explore relationships between parts, fluidity of connective spaces, motion and methods of joinery as well as overall feelings expressed in materials.
A study of potential paths of motion at different levels, with building orientation and anchoring on the site. Each level of the acrylic glass may rotate around the central circular "anchor." The abstract drawings on each level of glass unravel into the water portion of the site plan on the lowest level of glass, redefining the drawing's composition while doing so. Elements of the building along the shore are meant to interact with the water, and play notes like keys on a piano.

These early sketches convey a sense of scale, massing and materiality to the building. The sketch also choreographs the building's overall impact on the site through the rendering of repetitive smaller abstractions held and linked together by larger "anchors," or a hub. This hub will later become the location of the lighthouse.
Study of the intersection of building circulation, pedestrian circulation, and water/boat penetrations.

Early sketch of a scheme that illustrates the importance of drawing ships into the building itself. An idea central to the project was to create a strong interaction between pedestrians, the building, and the boats for display as well as use.