Harpers Ferry is located at the point where the Shenandoah and Potomac rivers meet. The downward-flowing rivers served as vital transportation routes during the Civil War. The rivers on each side of Harpers Ferry come from separate paths until they merge together and form a larger unified whole. The town features many drastic changes in elevation while also being surrounded by the Blue Ridge mountains. The concept of “unity” is used to represent two forces uniting. These two distinct forms represent the main architectural features they possess, the vertical section of the building features descending walls and sloping angles as a tribute to the downward flow of the rivers surrounding Harpers Ferry. The horizontal sections are influenced by the geometry of nearby railroad bridges and mountains, with the sides of the building featuring a grid structure for the windows that represents the steel structure of the local steel truss bridges. The flat forms in the design are representative of the level areas of a mountain that hikers can use as a place of refuge. Where these two distinct areas intersect, the main exhibition space is created. This space utilizes both elements to create a large open area that serves as the focal point of the museum.

The museum utilizes sustainable initiatives such as natural daylighting, photovoltaic cells, thermal mass walls, and recycled materials. Utilizing all planned initiatives, the Museum earns a potential rating of 69/110 for a Gold LEED v4 award.

Proposed Site Plan

Parti

Diagram

South Elevation

West Elevation

Floor Plan

Tectonic Detail: The detail shows a solar shading screen that will be installed in the main museum area, this will help to further reduce direct sunlight.

Sustainable Sites:
Landscaped retaining walls with native plants, open outdoor spaces with a vegetated roof.

Water Efficiency:
Utilizes low-flow facilities as well as permeable pavement and green roofs for outdoor space.

Materials and Resources:
Locally sourced stone and materials, recycled goods used, materials salvaged and repurposed.

Indoor Environmental Quality:
Plentiful natural daylighting, views of surrounding area, materials with low VOC used.

Energy and Atmosphere:
Thermal mass walls utilize direct sunlight from southern exposure, photovoltaic cells provide a renewable energy source.

Study Model: South Elevation

Exterior Perspective

Study Model: South Elevation

Exterior Perspective