POST INDUSTRIAL APPALACHIA
Nuttallburg Coal Mining Complex and Town Historic District, West Virginia
This project, located in the former mining town of Nuttallburg West Virginia seeks to create a new connection between the abandoned mining town and the New River Gorge National River. This 10,000 Sq ft visitor and environmental remediation center is sited along the river edge leading to the base of the historic tipple structure, which formally loaded coal onto railcars moving through the site. The project is designed as a modularized system, which can grow and compress over time.

Through the introduction of new industrial infrastructures, the design has the ability to construct itself using material offloaded from the existing freight railroad. As such, the project becomes a new industrial piece to this post-industrial site.

Post Industrial Appalachia forms a new entrance to the site, framing the view of the tipple as one moves into the town. The massing consists of a series of heavy timber trusses supported by steel support towers cantilevering out over the New River Gorge National River. A series of Cross Laminated Timber modules are offloaded from the train and inserted into the truss by the overhead crane system, forming the programmatic blocks. Embedded into the hill, a bar of services containing mechanical and storage spaces form the spine of the project. In section, the truss seeks to minimize impact on the existing land, while keeping most of the program on grade with the parking area to preserve accessibility throughout the lower site. Because of this, Post Industrial Appalachia forms a new connection between the existing town and the river, negotiating the steep terrain and existing infrastructural pieces of the site to create a new and dynamic insertion into the former town’s urban fabric.
The site located along the banks of the New River Gorge National River contains a steep topography, sloping up from the river over 80' in elevation. As a result, the form of the building was determined by this topography, as well as the active CSX train line below, requiring 20' of clearance to the top of the locomotive. The heavy rock outcropping along the shoreline acts as the foundational system for a series of steel support towers supporting the truss and the crane above.

All infrastructural pieces, including support towers, crane, and foundational systems are in place on site and allow for enough clearance for the train below. These act as the initial framework for the heavy timber truss assembly insertion. The crane structure is utilized to offload modules and materials from the train and move them throughout the site as needed to facilitate the variability of the structural system over time.

The 200'-0" heavy timber truss is assembled on the staging platform to the east and is placed on its foundation and the support tower through the use of the overhead crane. This truss will house interior program blocks with an observation point at the end inside of the support tower. The height of the truss is dictated by the 20' clearance of the underside of the adjacent Tipple structure, creating a relationship to the existing infrastructural typologies on the site.
A New 'Station' of Travel

By placing the program within the trusses and embedding the infrastructural systems into the hillside, a new promenade is created into the site ending at the Tipple structure. This move preserves the former loading tracks which lead up the Tipple, from which coal was loaded and moved to the rest of the United States. The materiality of the weathered steel grating is meant to evoke the existing industrial character of the site, evoking the rough material qualities of Appalachia. Throughout the site, the new overhead crane structure becomes an important beacon, communicating the potential variability and reorganization of the design over time.

Open Spaces

The modularized CLT assembly system allows for the creation of large open spaces, fostering habitable work environments for visitors and researchers alike. The CLT allows for a minimalist interior devoid of any joints which creates a contrast between the exterior truss assembly. The space is intended to be transparent to the outside, with expansive windows located on the outer edge of the module while the inner edge adjacent to the exterior circulation path has a screening system built into it. The modules allow for shelving and table units to be integrated into the wall system, while mechanical piping and radiant heating are embedded into the raised floor system.

Social Spaces

Each block of program is connected to each other through a transparent glass assembly blurring the line between the interior and exterior. This assembly is formed with structural glass by bonding of millions to maintain full transparency throughout the structure. The spaces are protected from the sun by the exterior grating system wrapping the truss assembly. As a series of connective open-program spaces, the glass columns become visual conduits, which through the screen systems allow the interior to extend outside. The glass structure is also a social incubator, which through pivot doors have the ability to fully open to the outside during the warmer months. The exteriors of the program blocks are clad in a dark wood cladding, providing a visual constraint through the exterior shading system.

New River Gorge National River

This project is situated within the lower valley of the New River Gorge National River. The tower assemblies form a row of structural infrastructures which support the crane structure above. This design utilizes the existing rock outcroppings of the river as the foundations for the tower, allowing for a minimum encroachment on the town behind. The project, like the tipple becomes a new beacon along the gorge, acting as a way point for hikers and a docking point for rafters. Throughout the area while providing unprecedented views above the class 5 rapids raging below.