How can landscape architecture be used to reclaim and repurpose former iron mining sites in order to preserve cultural identities?

Project Goals:

- **Gateway to The Range**
  - Define Ironton and Crosby as a first destination to tourists visiting the Iron Range.

- **A Living Museum**
  - Creation of an outdoor “discovery trail” allowing visitors to interactively learn the history of the Iron Range.
  - Development of community involvement programs that celebrate Iron Range history and culture.

- **Toxin Cleanup**
  - Phytoremediation of toxins caused by the sintering process.
  - Education of locals and tourists on the ecological effects of the mining industry.

Why the Iron Range?

The iron mining industry paved the way for the majority of the development within the Iron Range. Mining was, and to a degree still is, the lifeblood of the region and has instilled a sense of pride for those from “The Range.”

Mining in the region brought people from across the globe including those from Italy, Finland, Croatia, Sweden and Norway.

By the late 1880s nearly 70% of mine-workers were foreign born. This created a unique cultural region in the Midwest.

The invasive nature of the mining industry provides ample opportunity for environmental restoration. The sintering process, which was done on the project-site, specifically produces the toxins lead, zinc and mercury.

Mining the Past

a celebration of history and culture in Minnesota’s Iron Range
Terracing

The landscape throughout Portsmouth Mine Discovery Park has been sculpted to reflect pit-mines commonly found throughout the Iron Range. The terraces, rising organically from the ground, are imprinted with words such as "iron" and "shovel" in the native languages of the primary immigrant groups.

Climbing Wall

To embrace the outdoor culture of the Iron Range the former sintering furnace has been transformed into a climbing wall, something not currently available in the area. The wall will be incorporated into competitions and will change with the season to allow ice-climbing in winter months.

Purpose

The design of Portsmouth Mine Discovery Park invokes the industrial heritage of the Iron Range. Each element reflects a specific feature of that heritage while unifying under the concepts of remembrance and celebration. Portsmouth Mine Discovery Park serves symbolically and functionally in the development of Ironton and Crosby into a "Gateway to The Range."

Feature Design

The design of the site furniture, from benches and light poles to signs and bike racks, incorporates iron mining industry lexicon. Heavy materials including wood, metal and stone are used throughout the site while the sparse planting scheme reflects the slow regrowth of mining sites with autumn color symbolizing the redness of iron ore.

Entry

A defined entrance greets visitors as they enter Portsmouth Mine Discovery Park. The theme of the entrance, like that of the park as a whole, reflects the industrial heritage of the region in both material and form. The added vegetation symbolizes the regrowth of damaged ecologies while adding further aesthetic appeal and definition.
A Living Museum

Purpose

The combination of the selected plants uptake the primary toxins lead, zinc and mercury as well as diesel fuel and gasoline by-products. While some of the plants uptake only a single toxin, the majority can uptake two or more. This, combined with a planting scheme designed to slow the flow of water, uptake toxins and stabilize soil ensures a thorough and complete remediation process.

Changing Focus

Each of the major nationalities represented within the Iron Range have a two-month time period in which events will be focused. These specifically events include Italian spaghetti cook-offs during August and September and Norwegian viking festivals during October and November. Some of these exhibits are partially hidden and must be discovered with a keen eye. These “discoverables” will change with both season and cultural focus allowing for a new experience with each visit.

Discoverables

Below/Right: Tires and scoops used in current mining operations expose visitors to the scale at which modern mining is conducted compared to the push-carts and hand-shovels of the past. These exhibits would be sourced from decommissioned mining equipment donated by the companies operating within the Iron Range.

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Software Used: Google SketchUp, Adobe Creative Suite 4

Through the creation of a “Gateway to the Range”, the interactive “Living Museum” and the remediation of past ecological damages, Mining the Past not only recognizes the history and culture of the Iron Range, it celebrates it.

Purpose

Surrounding Portsmouth Mine Pit Lake, the Discovery Trail is a key feature under the “Living Museum” concept. Exhibits include historic and present day mining equipment as well as cultural artifacts. Some of these exhibits are partially hidden and must be discovered with a keen eye. These “discoverables” will change with both season and cultural focus allowing for a new experience with each visit.