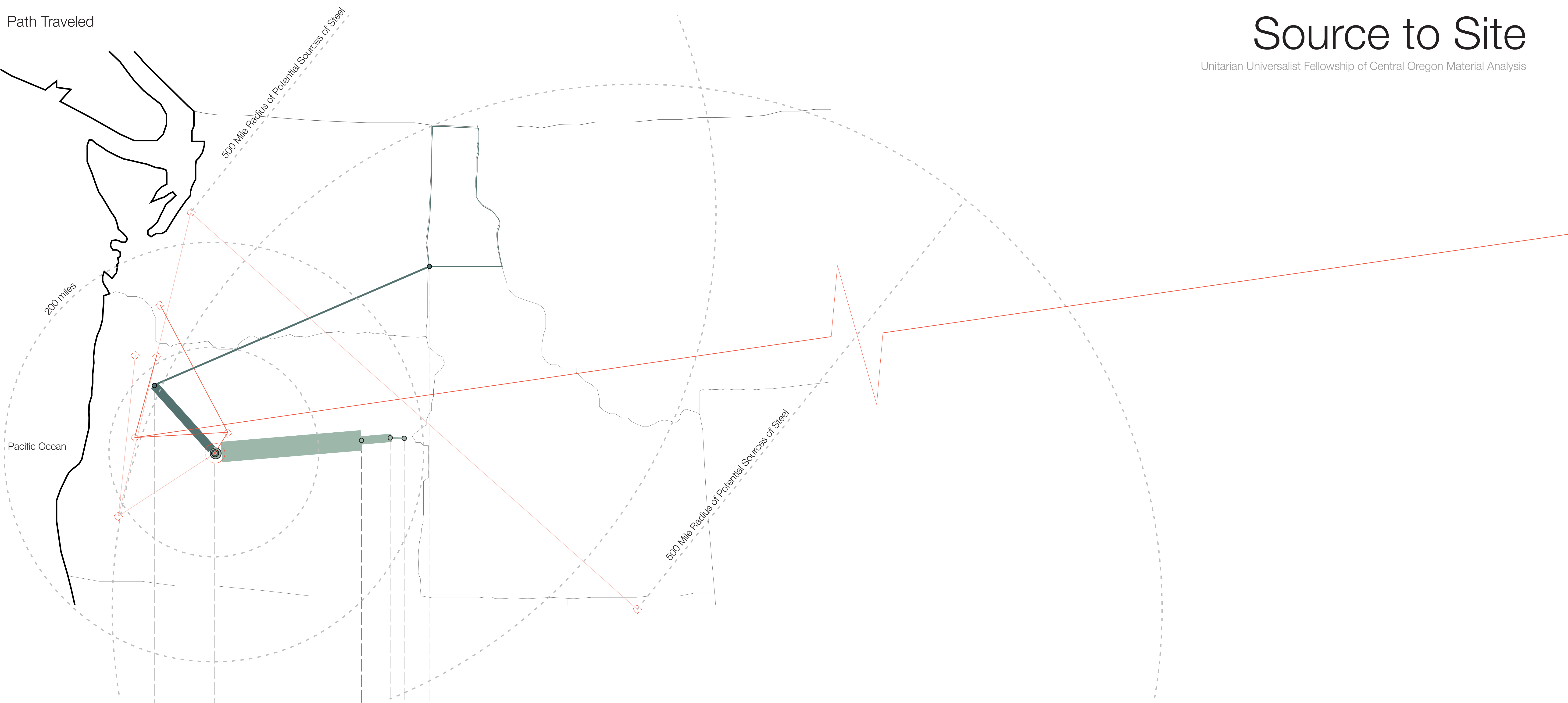


Source to Site

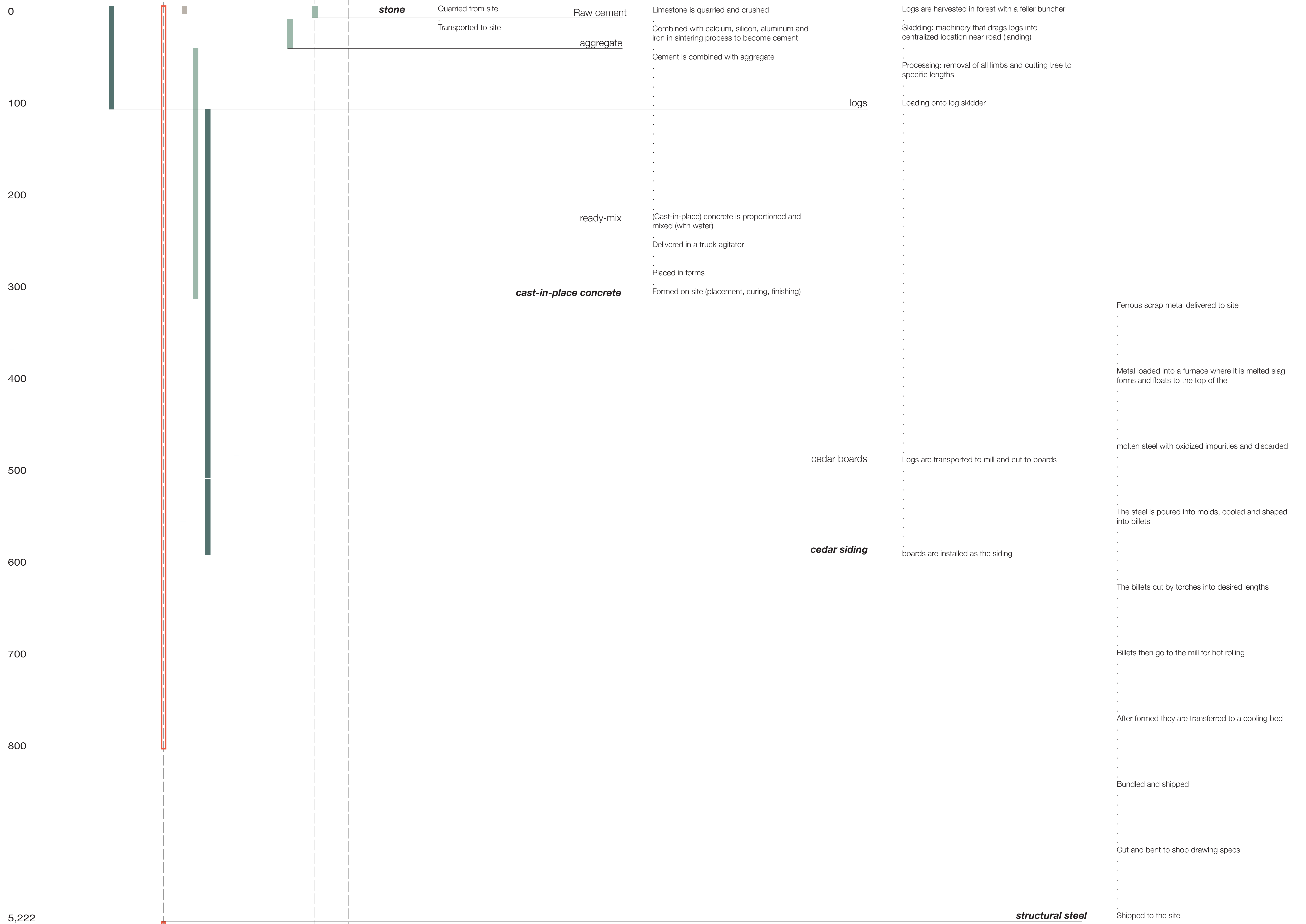
Unitarian Universalist Fellowship of Central Oregon Material Analysis

Path Traveled



- Cedar Siding
- Cast-in-place Concrete
- Stone
- Steel

Total Distance Traveled (in miles)



Source to Site

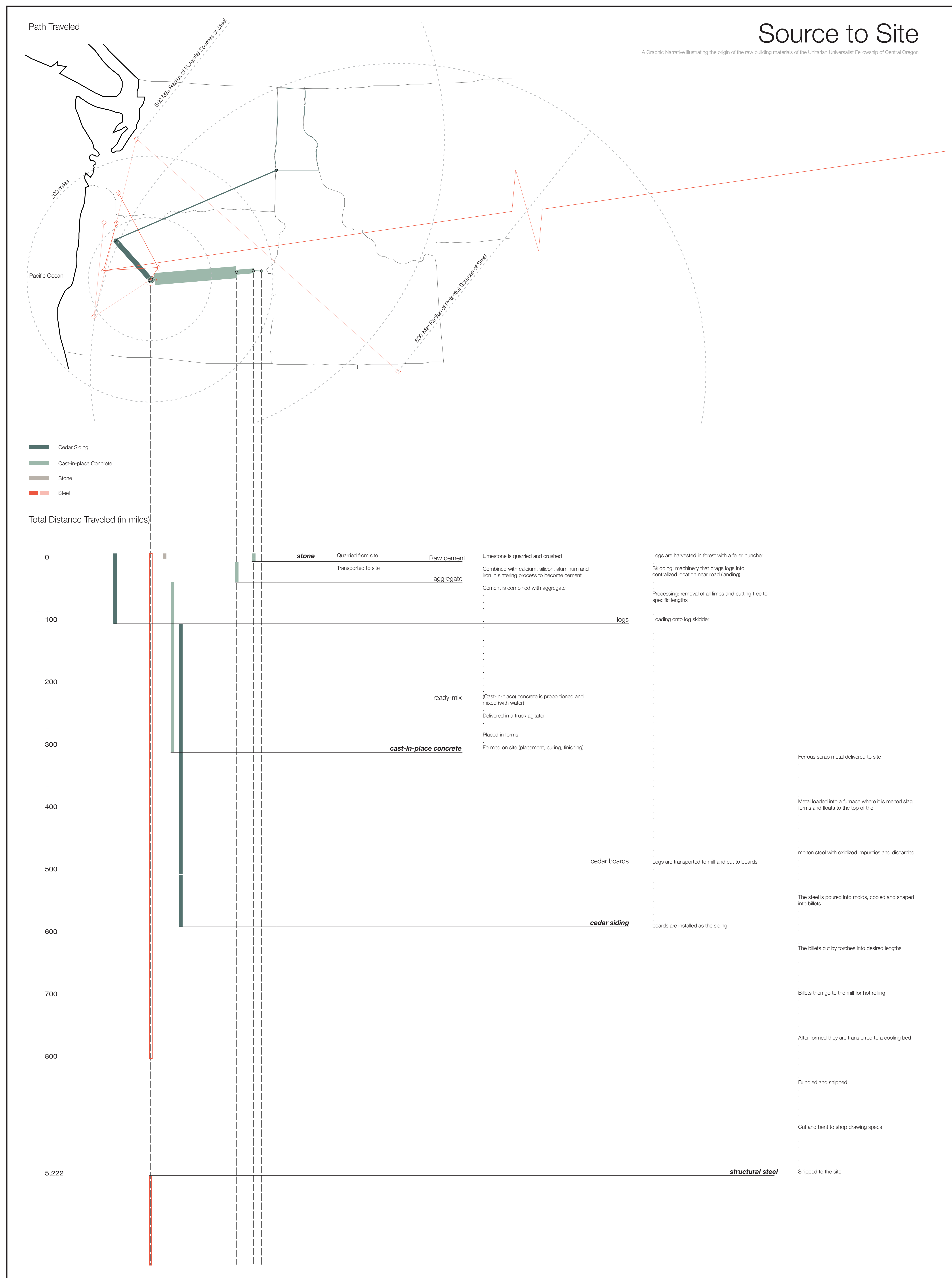
Unitarian Universalist Fellowship of Central Oregon Material Analysis

Abstract

The object of this research was to conduct a material analysis of the Unitarian Universalist Fellowship of Central Oregon Church in Bend, Oregon designed by Hacker Architects (Portland, Oregon). This research produced an infographic narrative depicting the place of origin of the primary building materials used in the church: wood, steel, stone, and concrete. An investigation of the project specifications and the material submittals developed the basis for this graphic narrative. The providers, contacted by the research students, gave insight into the initial sourcing location of the raw form of the material. This research examined a larger narrative about the sustainability of the material selection process in the design of the built environment.

Keywords: material, narrative, architecture, raw material, graphic design, sustainability

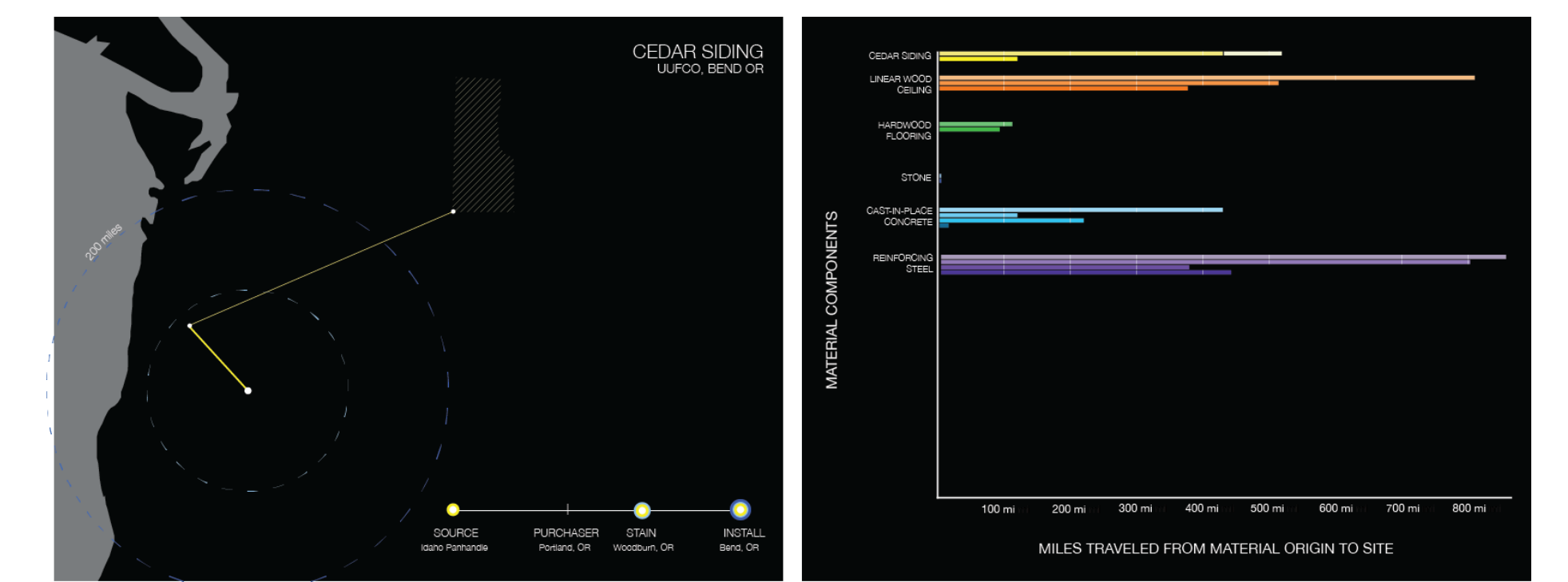
Narrative



Methodology

Economic and environmental complexities lend to the fascinating challenge of tracing a single material to its original source location. The Freakonomics podcast on "1, Pencil" documents the production and process of a single #2 pencil. This method of research inspired the designers at Hacker Architects to conduct an "1, Pencil" analysis of the materials within the Unitarian Universalist Fellowship of Central Oregon (UUF) church. Thus, a proposal for a material analysis of the UUF emerged. The process resulted in an infographic narrative depicting the place of origin of the primary building materials of the church: wood, steel, stone, and concrete. The scope of the literature reviewed for this research exposed various definitions of "material analysis" in architectural design. Communication with the architectural firm, analysis of the architectural specifications and research of the material source companies encompassed the methodology for obtaining the information for the graphic analysis. The design of the visual narrative focused on the total distances between the raw source and the site, resulting in a larger narrative about the sustainability of the material selection process in the design of the built environment.

Process



Conclusions

In producing a graphic narrative that tells the story of four building materials from source to site, it can be concluded that the process of tracing a given material in terms of the length of time it took to complete the genealogy and the number of participants within the process reflects the innate qualities of the materials itself. The complexities encountered within the process of tracing steel correlates with its ability to change states and to be recycled, translating to a greater number of stakeholders involved and a more intricate web. While there will continue to be energy intensive materials within the built environment, such as steel, there are equally as many material decisions to be made by architecture firms in which taking an active position in recognizing the materials' environmental impact and selecting locally sourced materials will not only benefit the environment and the economy, but also inform the firm's overall design decisions.

Methodology Timeline

