Environmental Analysis with Ladybug

Grasshopper Script

Create Sun Path Diagram

Create August to May Sky Dome, Attempt to Make Mesh Semi-Transparent

Import Weather Data

Create 8 a.m. Sky Dome

Identify Time Duration (August to May) for Sky Dome

Create 12 p.m. Sky Dome

Create 4 p.m. Sky Dome
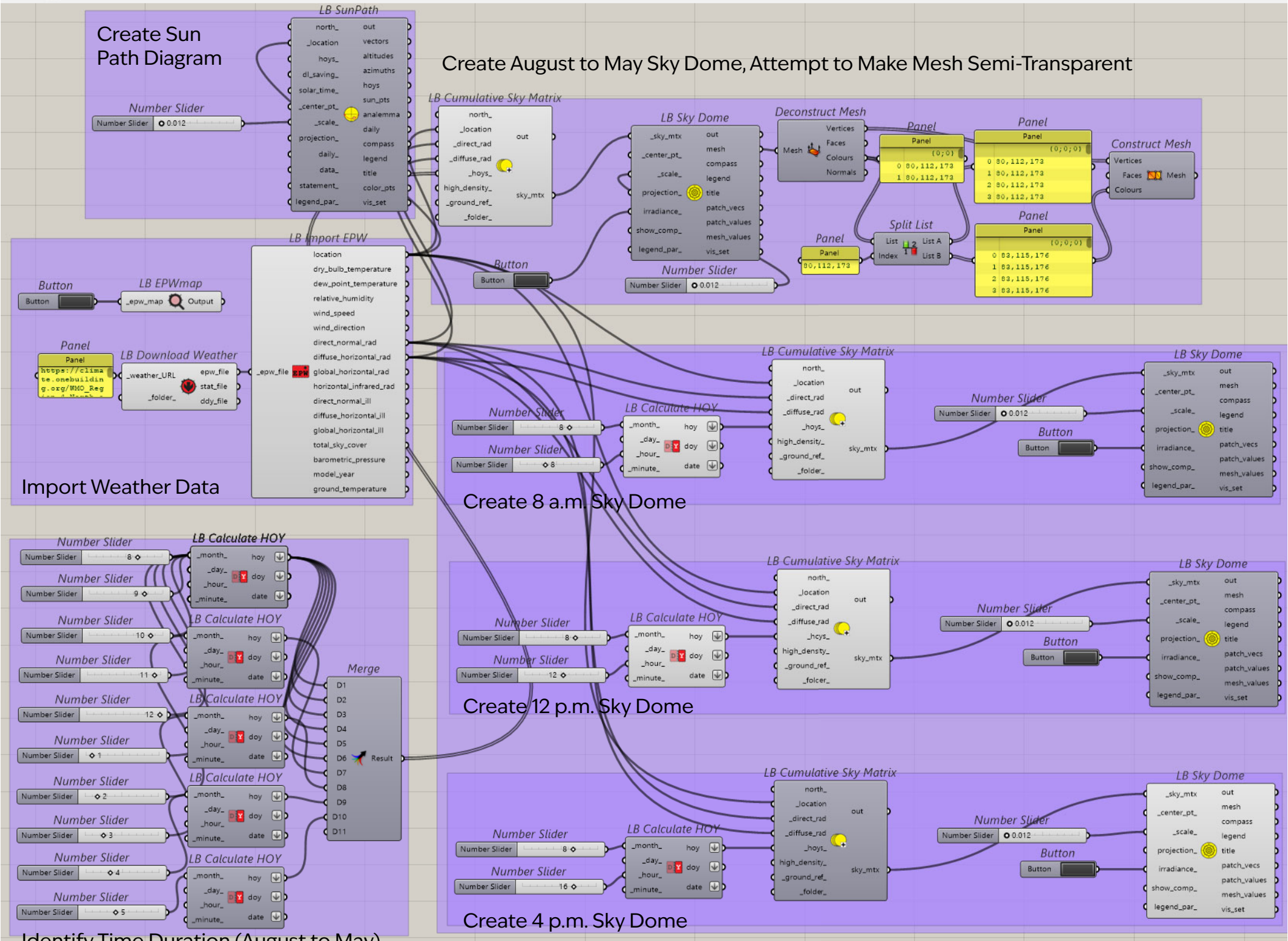
Data Visualizations

As a next step in my project and to learn how to use the various grasshopper components associated with the Ladybug plugin, I created a sun path for my site in Bozeman, along with 4 different sky domes representing solar radiation through the months of the school year and the hours of a school day.

I attempted to find a way to make the domes semi-transparent, but have so far been unsuccessful. The next task I plan to work on for my project is to conitnue to develop the site by resolving the separate mesh issue (see previous journals) and add buildings, roads, and other site components to my model.
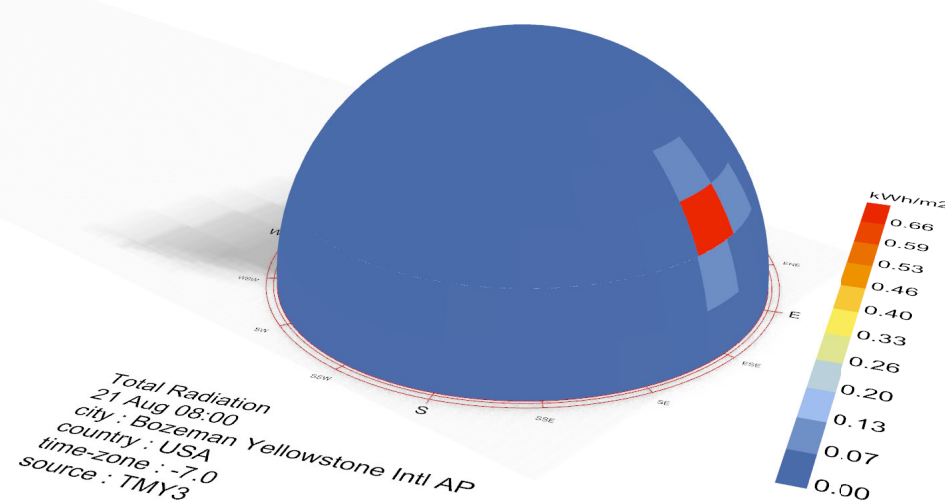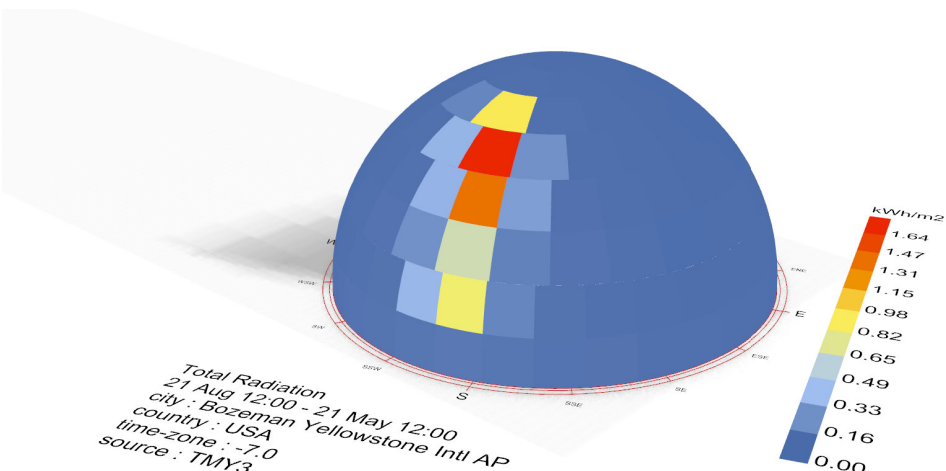

Sky Dome for Bozeman, Montana Displaying Total Solar Radiation for 8 a.m., August 21
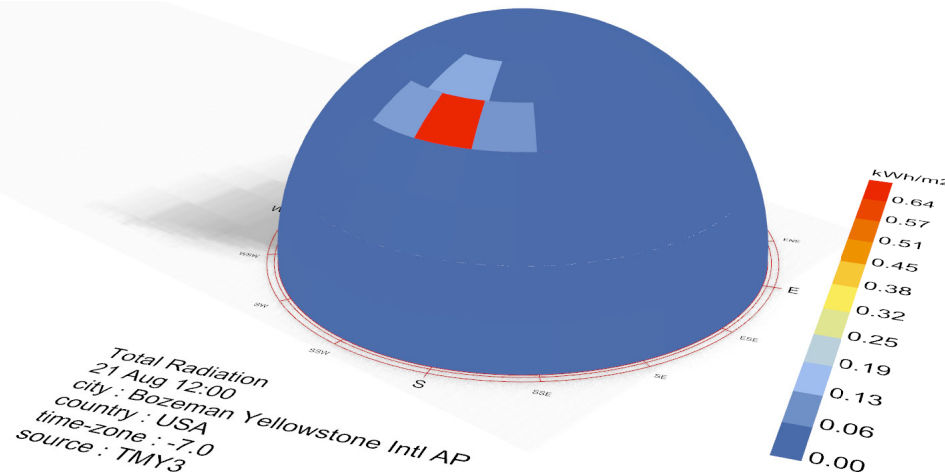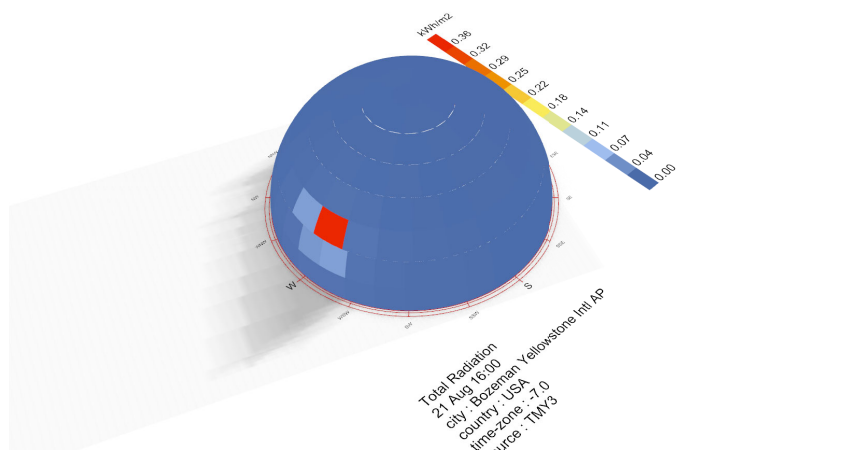

Sky Dome for Bozeman, Montana Displaying Total Solar Radiation for 12 p.m., August 21
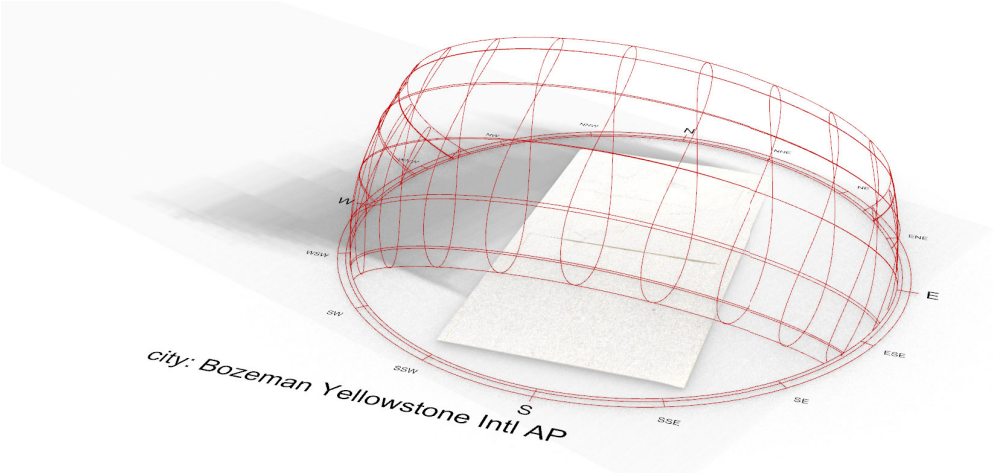
Sun Path for Bozeman, Montana over Site Model

Sky Dome for Bozeman, Montana Displaying Total Solar Radiation for August through May

Sky Dome for Bozeman, Montana Displaying Total Solar Radiation for 4 p.m., August 21