Journal 3 2/7/25

Megan Dalton

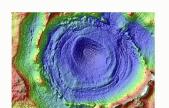
The site I had selected was Mars, which ended up being a difficult Topology to find public access to. I was able to find a site through the University of Arizona that had DTM of Mars. Unfortunately I was unable to figure out how to convert a DEM for free. I then decided to shift my focus to finning a location on Earth that could simulate the terrain of Mars. One of those areas was the McMurdo Dry Valleys located in Antarctica. Thankfully OpenTopography had a very in depth scan of this area with lidar. To the right you can see the full extent of the McMurdo Dry Valleys. I ended up taking the point clod data from the East due to the more flat and crater like conditions.

Digital Terrain Models

Overview How to Use DTM Map Release Summaries



Terrain Sample in Cydonia Region 4 Feb 2025



Degraded Crater in Utopia 7 Jan 2025

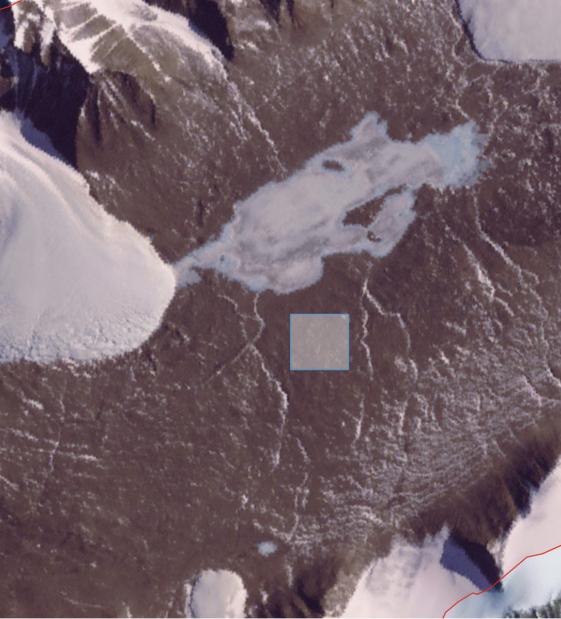


Dune Monitoring in Milankovic Crater 7 Jan 2025



Seasonal Polar Cap Monitoring Site 7 Jan 2025





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The McMurdo Dry Valleys offer a lot of unique terrain to chose from. For the sake of this project I ended up selecting a spot to the East. I had tried a few different locations to play with the scale and the amount of slope. The area I selected has a relatively flat area, especial when compared to the rest of the terrain. The goal with this would be to mimic the center of a crater located on Mars.

While I was unable to gain the actually topography of Mars, the solution of the McMurdo Dry Valleys allows for a greater understanding of how to get topology for future projects.

