

Introduction
Description

Scope of Work

Introduction

Background

Picard Cemetery is a small cemetery located near the town of Dorris, CA. In 2021 the Oregon Tech Geomatics club visited the site and performed monument locating, surveying, photography, and aerial photography.

For my Project I wish to continue to build off of this work by establishing monuments that will going forward allow easy grass site plot establishment with simple measuring tape, as well as GIS

Project Deliverables

GIS of Existing Burial Plots

- Orthorectified Imagery Used
- Individual Burial Sites represented in Polygon Feature Class
- Ability to pull up Grave Site close up images
- Initial Product in ArcGIS Online
- Potential for ArcGIS independent product on Neocities or another webhost.

Close

Critical Path

Timecard Totals

After tallying up the timecards, the total billable cost of the project came out to \$4,505 is more expensive than the initial estimate, however believe this is mostly to do with my relative inexperience in the work I was doing. Some aspects of the project I was effectively learning ~~was~~ which greatly inflated the amount of time spent compared to how long it would take me to do future projects. Nonetheless it was an interesting exercise thinking about billing.

Background & Research

Historical Data

For this specific project I decided to submit the headstone photos to a data entry service to obtain usable data in the format I needed.

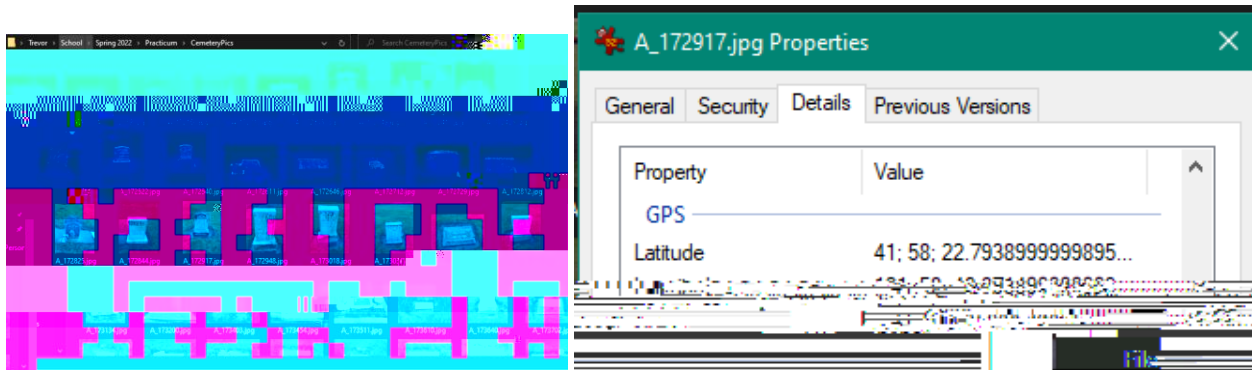
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Raw Data

The only raw data used consists of the Headstone Photographs and the Orthorectified Aerial Photo. The Three Dimensional Model was used to produce an image displayed on the homepage but this was

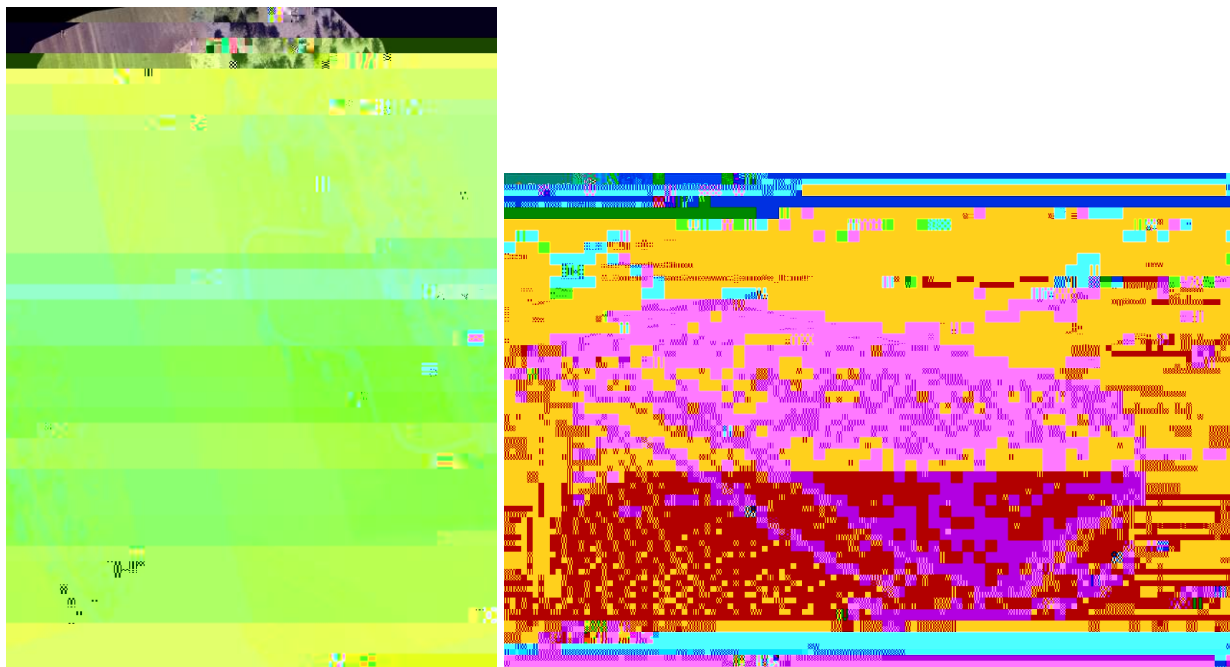
Headstone Photographs & GPS Data

The Geomatics club went to the cemetery and using a combination of an Android Smartphone and Garmin GPS units with cameras approximately 800 Geotagged images were captured.



Aerial Imagery:

I experimented with the opensource OpenDroneMap Software, but ultimately settled for using the products generated by Prof. Jack Walker with 4D because of their higher resolution. I imported the ThreeDimensionalmodel into Blender but only ended up using it to generate a cosmetic aerial photo for the homepage of the website.

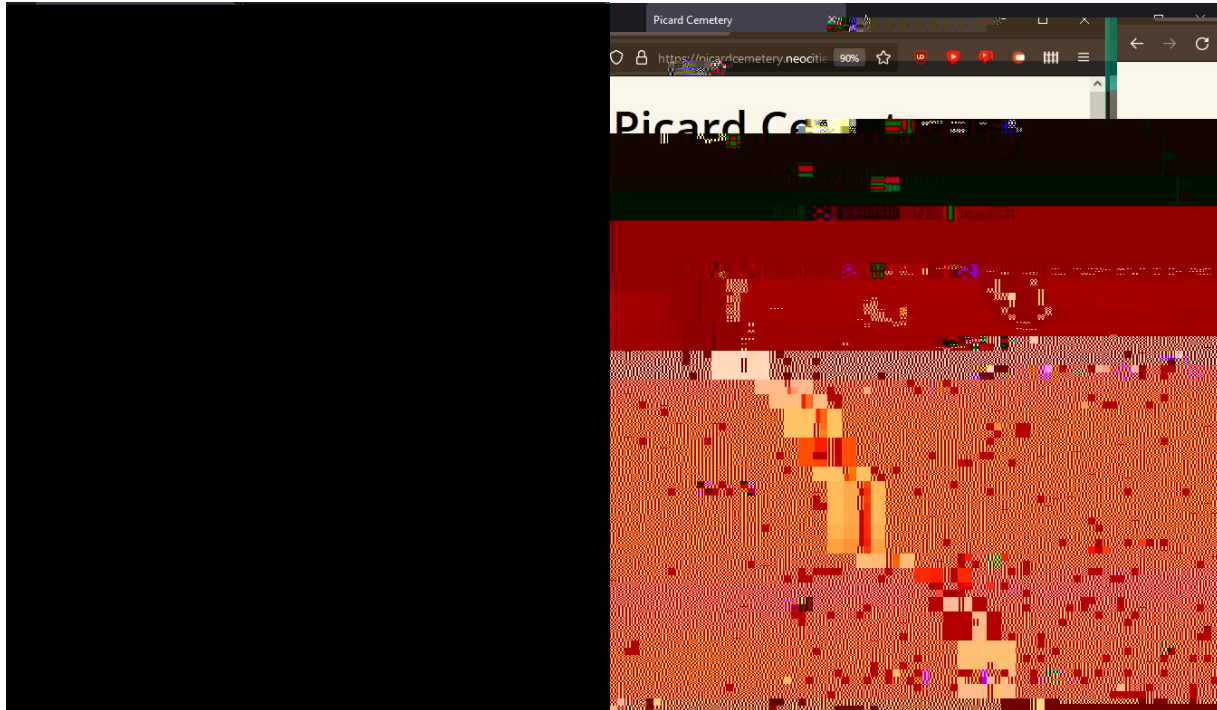


Computed & Generated Data

Aerial Image "Touch-Up" in GIMP Image Editor

For cosmetic reasons I imported the orthorectified image into the GIMP image editor and used the

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Completed Documents

Completed Website

The website is as of writing hosted online at:

<https://picardcemetery.neocities.org/>

platform. It is my hope they continue to succeed as an organization and the website remains hosted for many years to come.

Image Attributes CSV File

This file is a spreadsheet listing each person buried in the cemetery, along with an associated image. This file can be updated, and the Website Generator script is needed going forward.

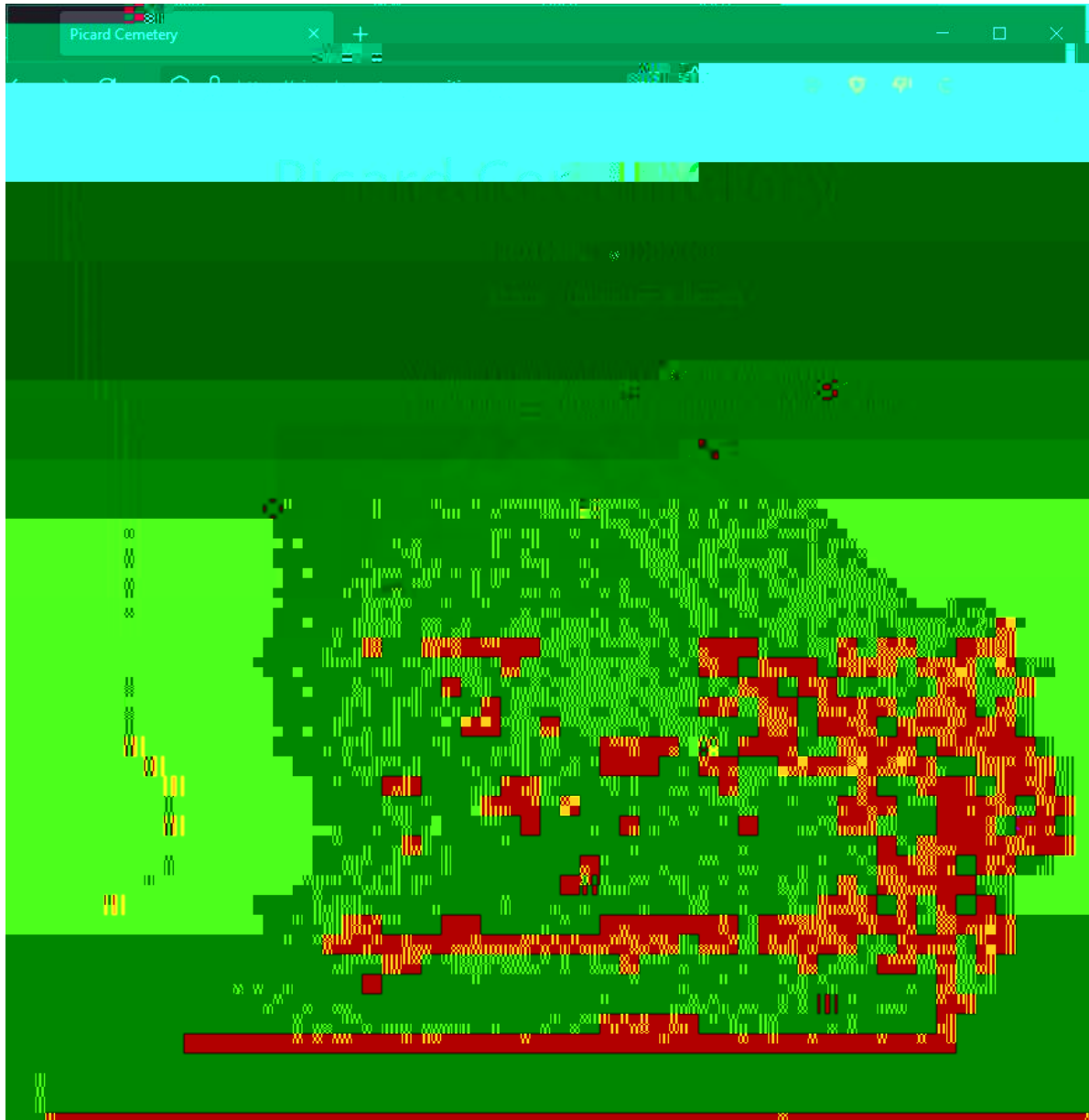
Map Generator Python Script

The map generator script includes the pin image and background image needed, it takes in Geotagged Images and produces images of maps of where to find the headstone in the photograph. It depends on the following easy to install software packages:

Python 3

- o Available in an easy to use Windows Installer <https://www.python.org/downloads/>
- o Pandas
- o Wand (ImageMagick Wrapper)





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