

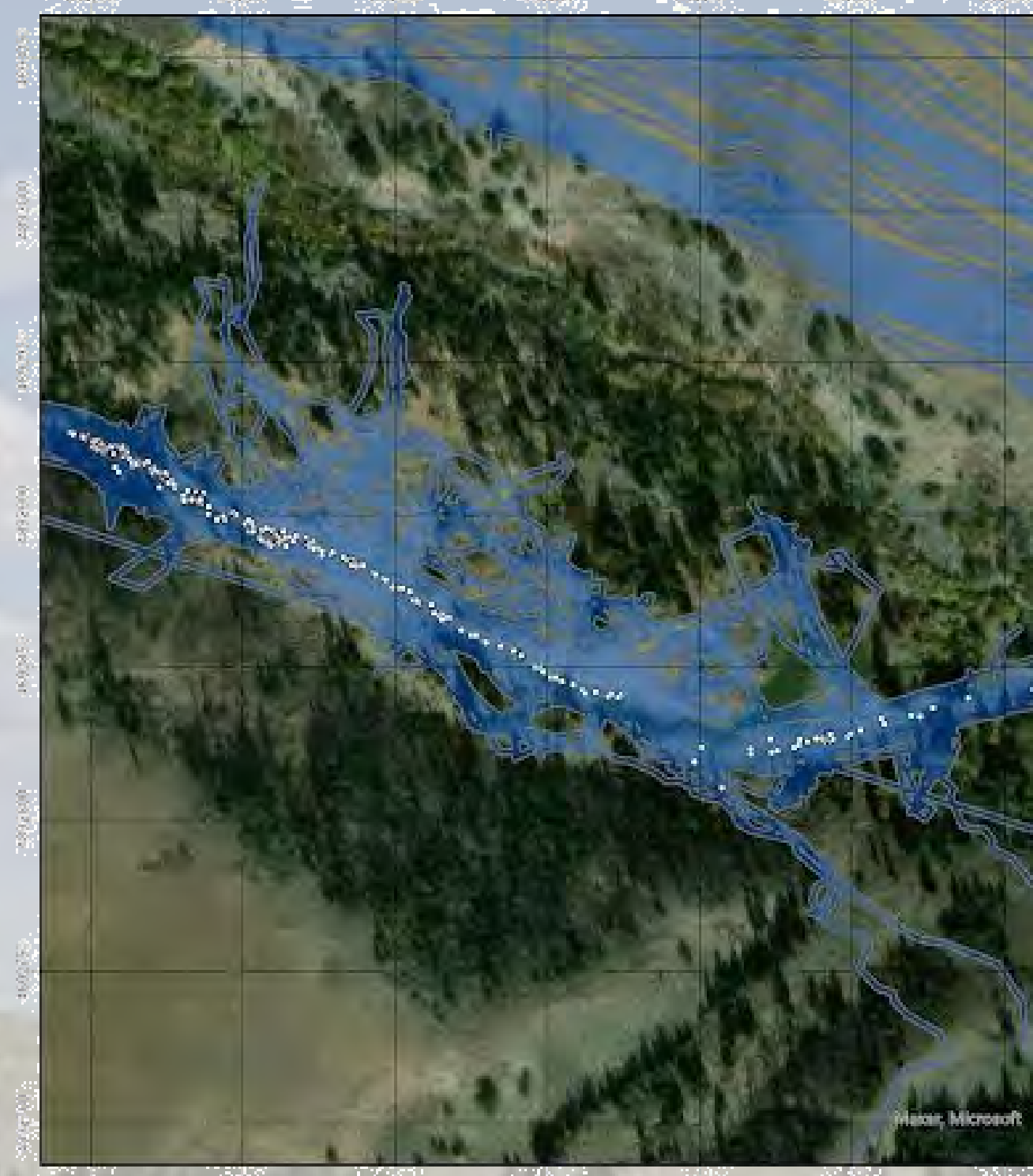
Modern Disturbance and Artifact Distribution: A Case Study of a Two-Track Road

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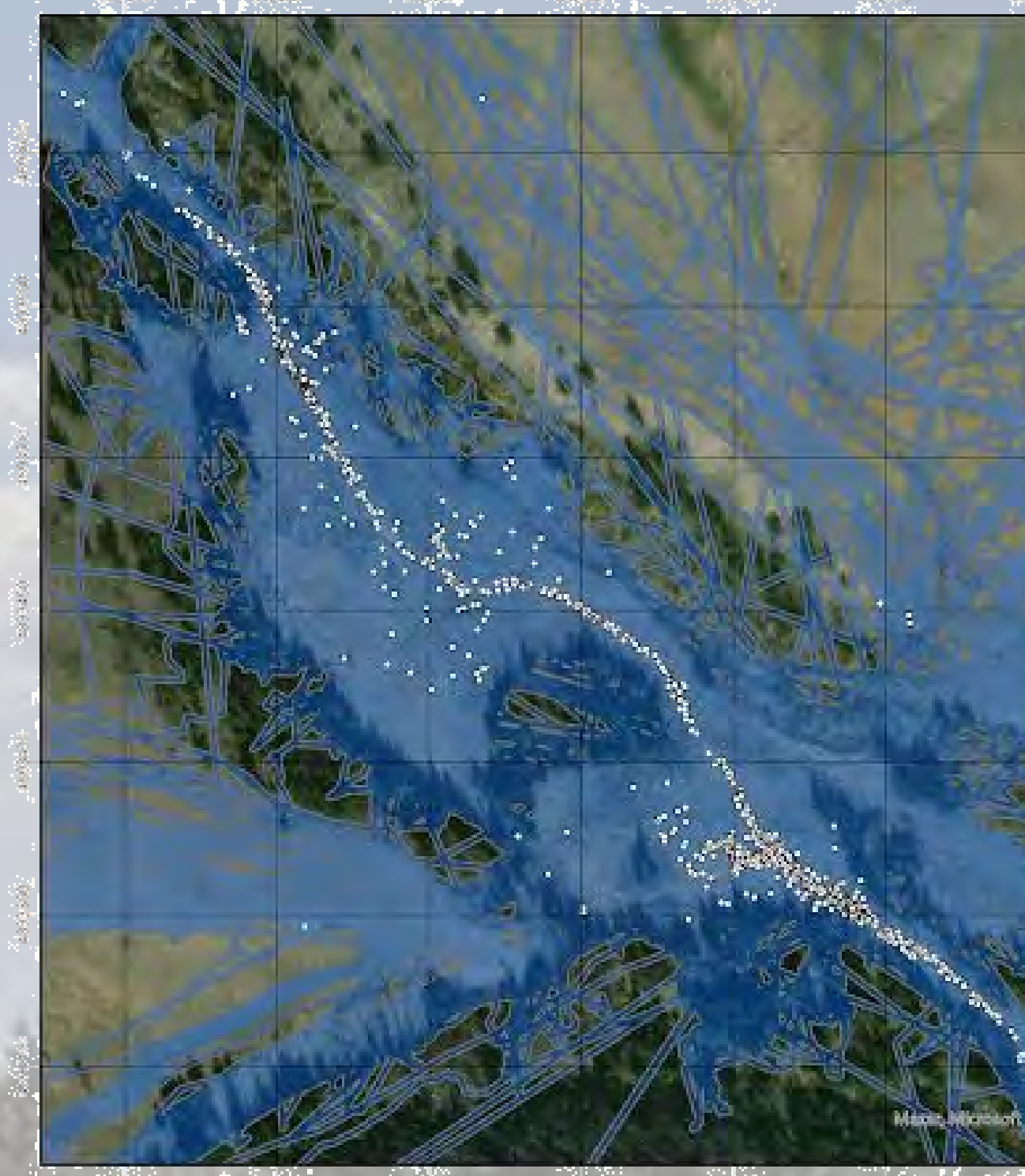
Abstract

During the 2025 GRSLE field season, one of the most intensively studied localities was a two-track road running through the center of our inventory block. Artifact density was markedly higher in the road than in adjacent surfaces raising questions about how modern disturbances affect archaeological visibility and integrity. This study explores several potential mechanisms underlying this pattern. Erosion and bioturbation (e.g., rodent burrowing) can expose subsurface artifacts. Conversely, vehicle traffic can fracture artifacts, thus inflating counts by reducing larger lithics into smaller fragments. This is being evaluated through comparative experiments with flintknapping and vehicular impacts. Surface visibility and collection bias are also considered, as well as suggestions that many exposed artifacts have been taken by campers whose use is evidenced by modern firepits. By examining these processes, the poster assesses how two-track roads complicate interpretation of artifact density and site significance in forest contexts.

I. What is the Distribution?

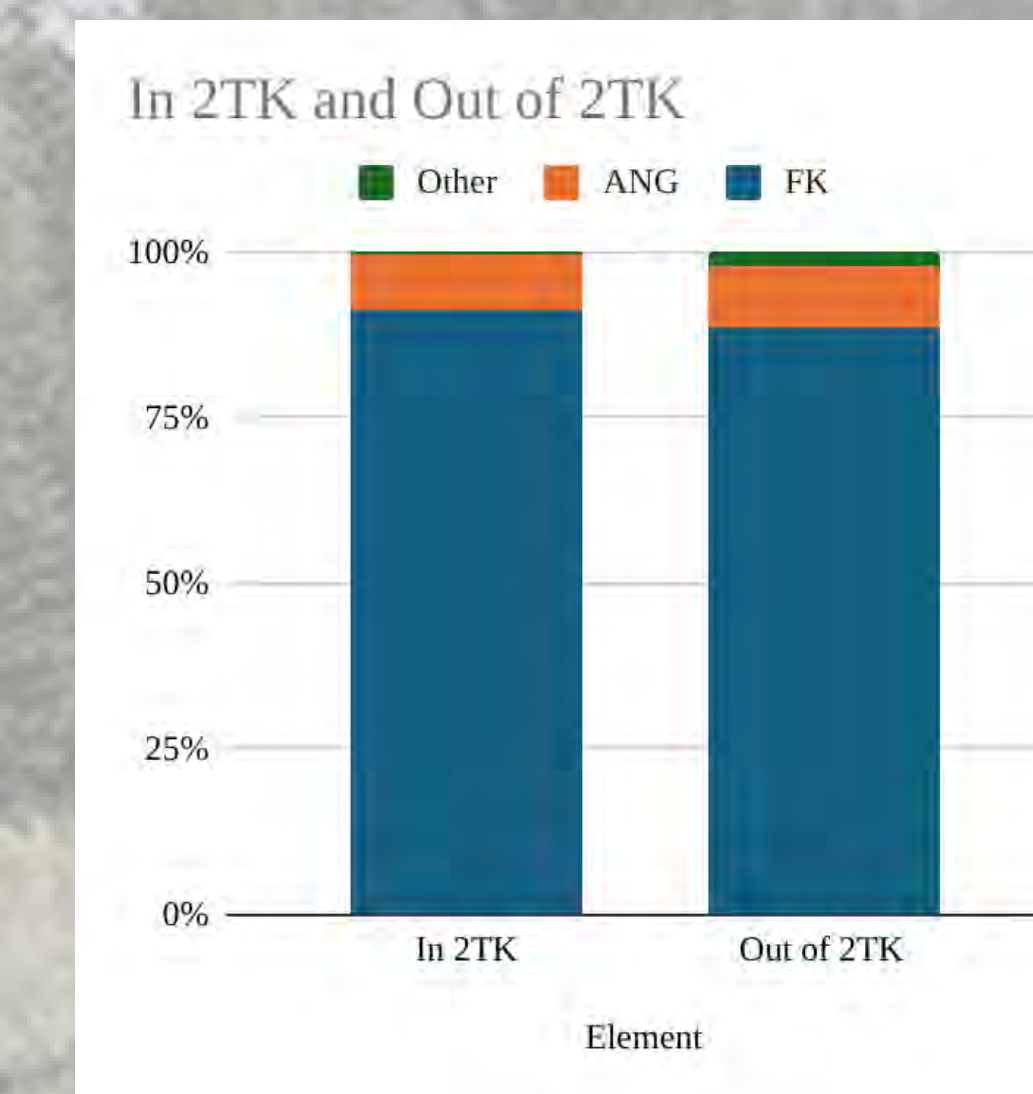
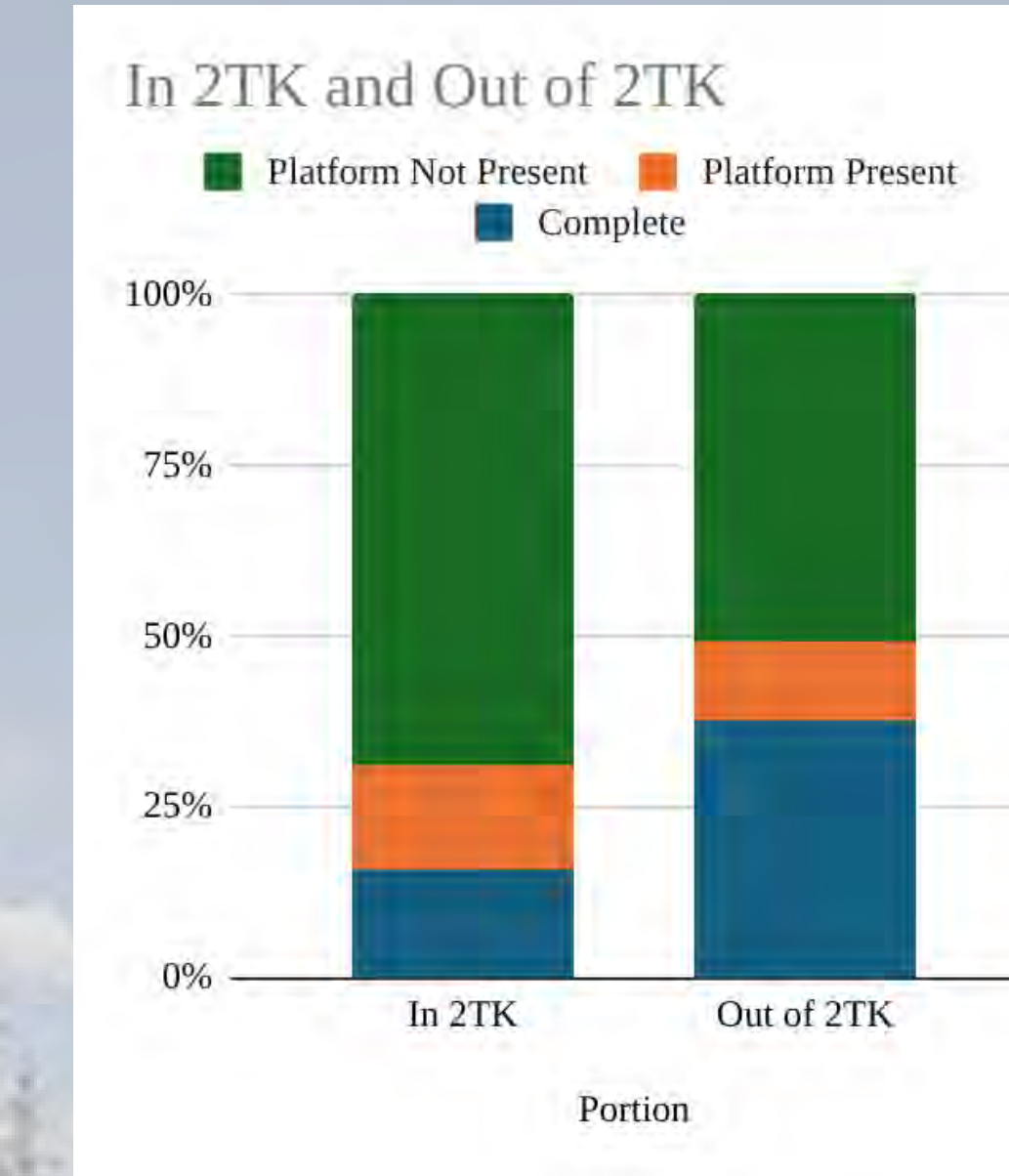


Cluster 20



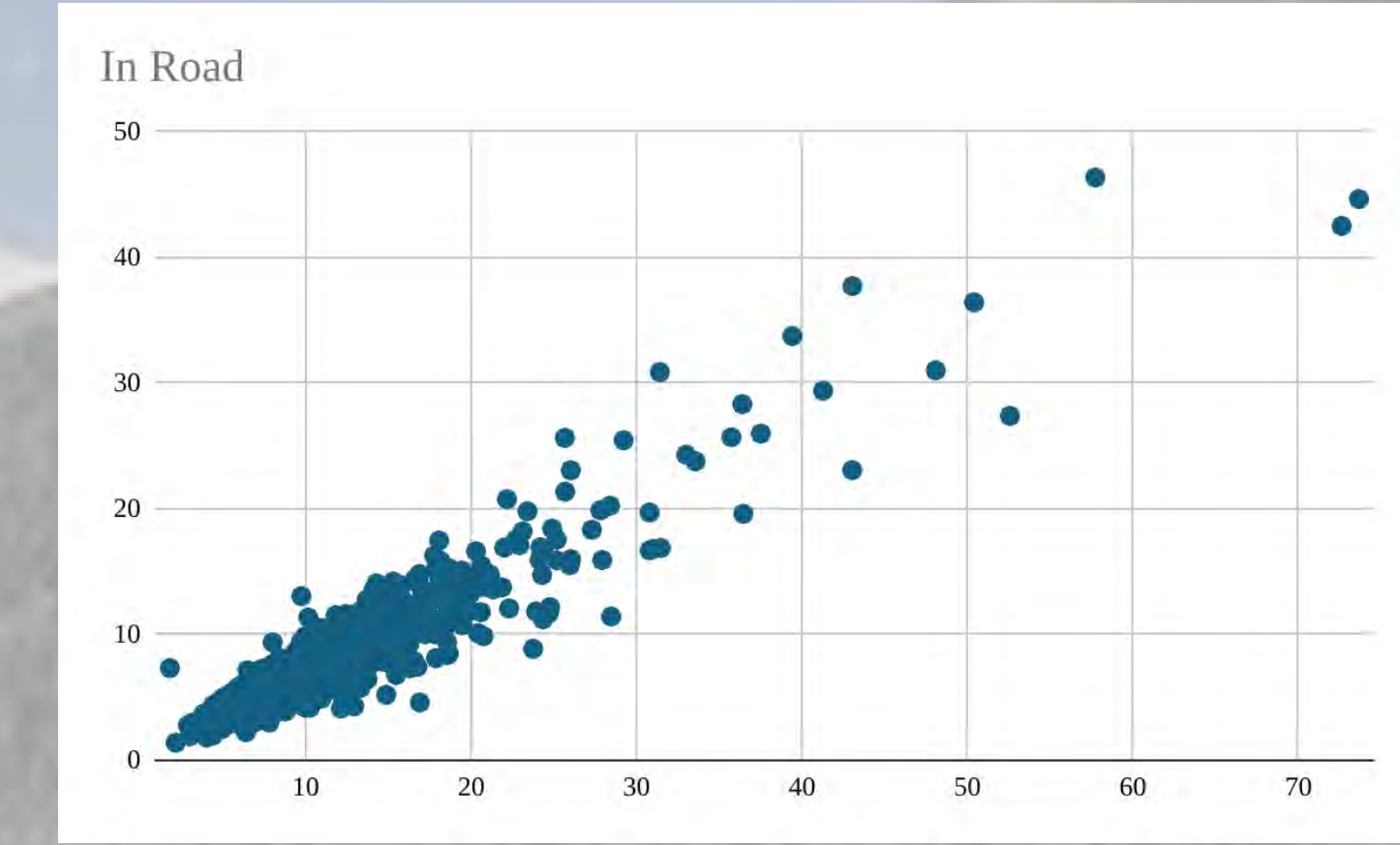
Cluster 02 - Used for this Study

In this figure white dots represent artifacts and blue lines show our track logs.

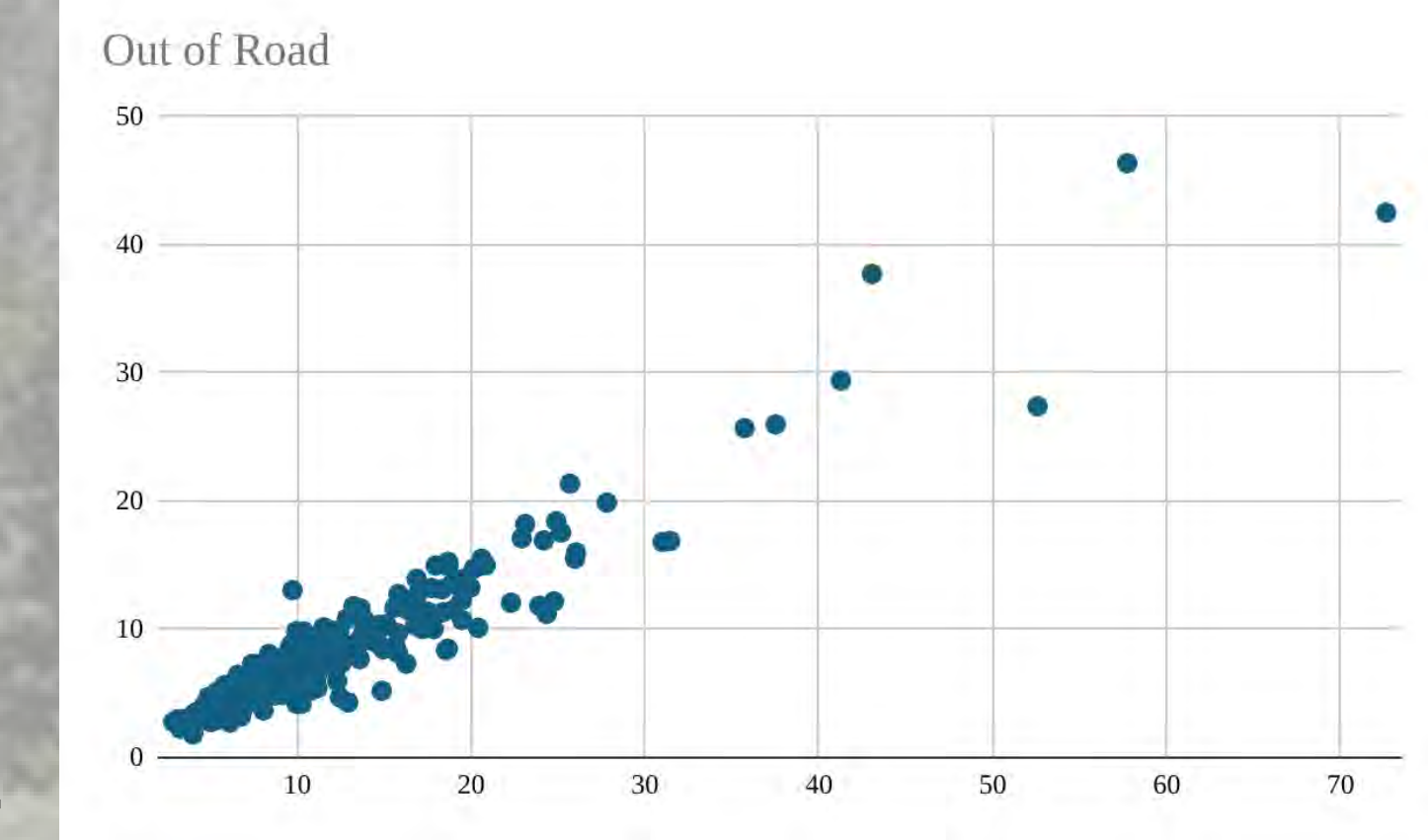


II. Basic Data Analysis

There is a much higher percentage of complete flakes outside of the road.



The flake to angular debris ratio is the similar inside and outside of the road. The difference in flake breakage inside and outside of the road is not affecting our ability to identify flakes.



Similar size distribution across both contexts

V. Middle Range Theory: Recreating the Behaviors that lead to a Taphonomic Outcome

A road going through an archeological site also increases public access to that site which increases risk of artifact looting

Breakage patterns from vehicles are different than those from flintknapping with more angular fractures.



Conclusion and Questions

A road is damaging to an archeological site, but it can also present a unique opportunity to visualize what could be beneath the surface.

Opportunities for Future Analyses

- Finish calculating volume of dirt missing from the road
- Continue modeling vehicle breakage with flakes
- Put test units in the site to see if the surrounding areas have the same lithic concentration as the road



Poster copy

III. Effects of Erosion: Measuring Road Volume

How much erosion has occurred? Is the road giving an indication of subsurface archeology the way a cutbank or rodent burrow can? To measure the displaced road volume we took cross-sections of the road.



IV. Other Effects of Access

Recent Hearths in site 48PA3789



We found this point on top of a pile of obsidian flakes near a recent hearth. It looks as though it was made by an amateur and did not fit any of the morphologies we were expecting. This is another form of impact to the site related to road proximity. We are planning to source this point as well to see where the material is from.

48PA3789

