Native American lithic procurement patterns and sites in the Bootheel of southwestern New Mexico (abs.)

K. E. Zeigler¹, C. Hughes², A. Kurota² and P. Hogan²

¹Zeigler Geologic Consulting, Albuquerque, NM, 87123, zeiglergeo@gmail.com
²Office of Contract Archeology, University of NM, Albuquerque, NM, 87131

Multidisciplinary field projects can be very useful to a more fundamental understanding of the world around us, though these projects are not as common as they should be. In particular, the combination of archeology and geology combines our understanding of human behavior and human use of the landscape with an intimate knowledge of geologic processes and the materials available for human use in order to gain a broader understanding of human-Earth interaction. Here we present data from a cross-disciplinary project that uses a common dataset, archeological artifacts, to explore the anthropological and geologic implications of usage patterns. Archeological excavations and surveys conducted by the Office of Contract Archeology in 2007 along the route of the proposed international border fence reveal patterns of use of geologic materials by Archaic, Formative and Protohistoric Native Americans in the Boot Heel of southwestern New Mexico. Thousands of artifacts were recorded in multiple sites from Guadalupe Pass in the southern Peloncillo Mountains to the Carrizalillo Hills west of Columbus. We identified the lithologies of artifacts, ranging from projectile points to groundstones, and then constructed material movement maps based on either known procurement sites (“quarries”) or outcrops identified as the closest source to a given site for each lithology. Not unexpectedly, the majority of the rock types utilized by native peoples are local siliceous volcanic materials. However, several artifacts constructed from obsidian were transported into the region from northern Mexico and eastern Arizona, indicating long-distance travel and/or trade routes. We also examine usage pattern difference between Archaic, Formative and Protohistoric sites. Additionally, a dramatic change in distribution of sources for geologic materials occurs between one pre-Spanish site and one post-Spanish site that are adjacent to one another.

Keywords:
archeology, anthropology, lithic fragments

pp. 53, https://doi.org/10.56577/SM-2010.642

2010 New Mexico Geological Society Annual Spring Meeting
April 16, 2010, Macey Center, New Mexico Tech campus, Socorro, NM
Online ISSN: 2834-5800