**Tool-Stone Procurement Patterns in the Northern Mimbres Region**

**Analysis of the Flaked Stone Debitage and Stone Tools from Twin Pines Village (LA 75947), Catron County, New Mexico**

Paul A. Duran, 2015 NMSU Field School, New Mexico State University, Las Cruces, New Mexico

---

**Introduction**

The lithic data from Twin Pines Village (LA 75947) can shed new light on stone tool procurement strategies in the American Southwest. Twin Pines Village is a Classic Northern Mimbres site located in Catron County, New Mexico and was occupied from A.D. 1000 to 1130. Investigation from the excavation at Twin Pines Village proceeded and used different lithic types to identify specific material sources for particular purposes. It employs an interpretive mass analysis (Ahler 1999), individual flake analysis (Judd 2009), and X-ray fluorescence sourcing (Shackley 2016) to address these variations of lithic procurement behaviors and stone tool variability. These types of analyses allow us to understand general and specific patterns of raw material distributions and lithic reduction processes at the site. For local and regional materials, I address the following points:

1. What types of tools were manufactured using specific raw materials?
2. What is the likelihood that Twin Pines Village residents manufactured stone tools at the site instead of areas away from the main habitation area?

My analysis ends with a discussion of local and regional interaction within the landscape and stone tool variability between local and regional raw material sources. This analysis lays the groundwork for further lithic analysis concerning procurement strategies dealing with material selection and tool manufacture in the Northern Mimbres region.

**Research Objectives**

- Identify the tool-stone procurement patterns at the Twin Pines Village during the Classic Mimbres period, A.D. 1000-1130.
- Address procurement strategies and behaviors by examining the stone tool manufacturing processes for expedient, modified, and formal tools.
- Track the provenance of the obsidian artifacts and tools (flake debitage, bifaces, and projectile points) through X-ray fluorescence spectrometry.

---

**Excavation Unit 4**

The lithic assemblage that is the focus of this investigation was recovered from Twin Pines Excavation Unit 4 in 2015. Unit 4 is located in the center of the site by a large ponderosa pine tree that recently collapsed into the excavated unit. This Unit 4 is one possible roundhouse identified by cobble stone wall alignments, adobe floors, and Classic Mimbres cultural fill. A total of 2,097 flaked debitage fragments from this unit were examined individually. This unit’s lithic assemblage was addressed because it produced stratified cultural fill with the least amount of disturbance from previous excavations and looters.

**XRF Analysis of Obsidian Debitage**

**Mass Analysis of the Lithic Assemblage**

---

**Tool-Stone Procurement Patterns in the Northern Mimbres Region**

---

**Projectile Points by Source Provenance**

---

**Summary of Research**

This analysis reveals the types of materials procured from local and regional sources for expedient, modified, and formal stone tools. Rhylitic raw stone material was provided more than any other material type. The residents at Twin Pines Village most likely selected most of their expedient stone tools from local sources surrounding the site. For formal stone tools (such as projectile points), the procurement strategy shifted from local “opportunities” to something more emboldened or straightforward. The majority of obsidian flake debitage, all the bifaces, and 14 points were traced back to Antelope Creek/Mule Creek over 80 km away. The obsidian points and bifaces are small and may have been procured from secondary depositions when collecting resources in the region but to what extent is unknown. There must have been major influences and interactions with neighboring villages to the west. Tool manufacture has been a common activity among the Northern Mimbres people for centuries and interactions in their area. This research has contributed to the knowledge of lithic procurement strategies and stone production at a Classic Mimbres site in the Northern Mimbres region.

---

**Special Thanks to:**

NMSU Anthropology Dept., Patti Jackson, Phil, Kelly Nickis, Dr. Steve Shackley, Phil Gigli National Forest, 2015 Summer field school, NMSU, Museum Lab Volunteers, Mimbres Scholars and Archaeologists