



Distribution of Axe Head Styles at Salado Settlements

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Introduction

The Salado Phenomenon (AD 1300-1450+) in Southwestern New Mexico and Southeastern Arizona was a unique coalescence of Mogollon and Hohokam groups native to the region with Kayenta (Ancestral Pueblo) immigrants from the North (Schollmeyer 2015). This poster focuses on one type of artifact which can be differentially diagnostic of these groups--the ground stone axe head.

- Two forms of axe head are common in Salado sites
 - ¾ groove heads, where the axe is notched on the top and sides but left flat on the bottom, are characteristic of Mogollon and Hohokam groups (Forton 2015)
 - Full groove heads, where the notch circumscribes the entirety of the axe, are characteristic of Kayenta immigrants (Forton 2015)



¾-Groove axe (left) and Full Groove axe (right). Photos by Allen Denoyer.

Methodology

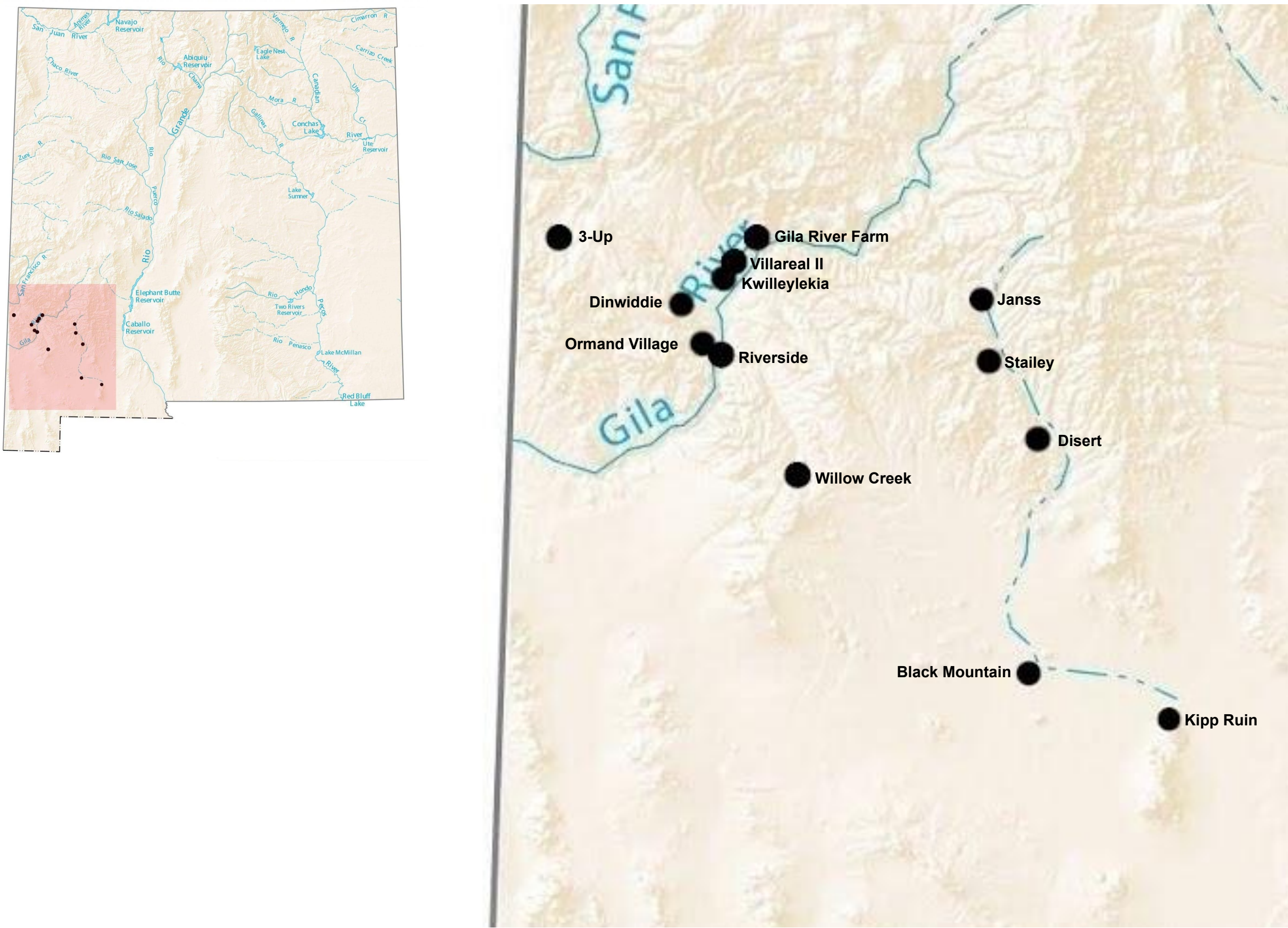
The initial hope of this study was that the data gathered could be put through statistical analyses, both between and within sites. After combing through the records of all 13 known, excavated Salado sites, however, it became apparent that the data would be insufficient to draw confident conclusions from on its own.

Because of this, this poster will instead focus on compiling the data in a way that it can be used by future researchers as a complete reference for axe heads in Salado sites. This poster will attempt to provide not only the counts and distributions, but all pertinent qualifying information surrounding those counts and the sites they were obtained from.



Replica of a ¾ groove axe with minor use wear and resharpening, hafted to an oak branch with rawhide binding. (rawhide is possibly an inaccurate material, as the only Salado axe recovered with intact hafting was bound with plant material, likely yucca or beargrass).

Personal photo.



New Mexico Lakes and Rivers Map (without sites) Source: GISGeography.com

Site (Number)	# ¾-Groove	# Full-Groove
Black Mountain (49)	---	---
Janss (12077)	---	---
Disert (15021)	1	1
Stailey (18939)	1	1
Kwilleylekia (4937)	12	2
Ormand Village (5793)	“A few” (Wallace, Hammack)	---
Villareal II (34794)	6	---
Dinwiddie (106003)	17	6
Gila River Farm (39315)	6	2
3-Up (150373)	---	---
Kipp Ruin (153465)	---	---
Riverside (34789)	---	---
Willow Creek (135229)	---	---

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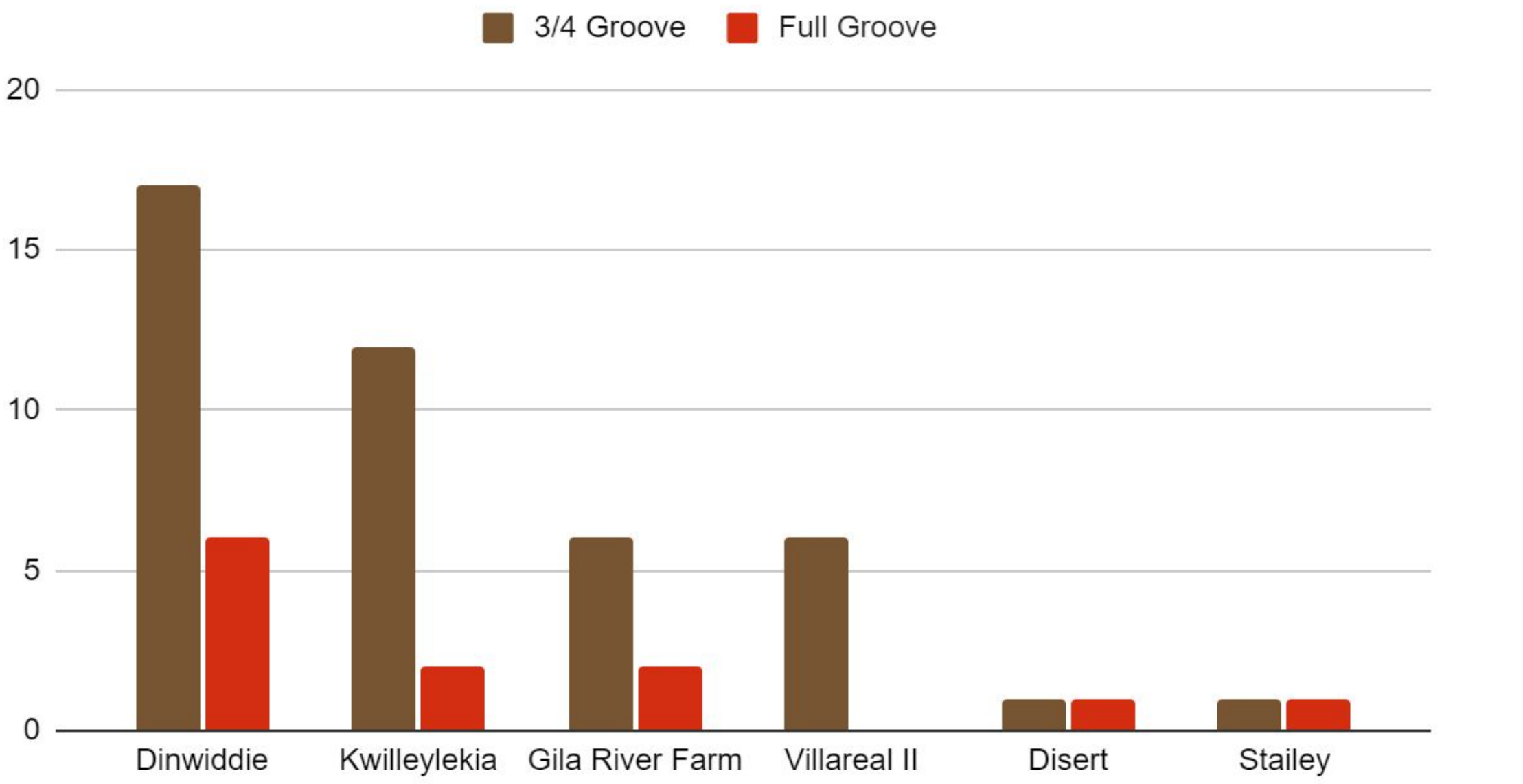
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The Data

- The sites with the most axe heads were also the most extensively excavated (Dinwiddie, Kwilleylekia, Gila River Farm, Villareal II)
 - These sites show a much higher number of ¾ groove axes than full groove
- With the exception of Riverside, the sites with no or few axe heads were all subject to:
 - Limited excavation** (Janss, Disert, Stailey, Ormand Village, Willow Creek)
 - and/or **heavy disturbance/looting** (Black Mountain, 3-Up, Willow Creek)
- The exact count for Ormand Village is unknown as both the preliminary report from Hammack (1966) and the final report from Wallace (1998) only list the number of axe heads as “a few”
- Due to the extreme dirth of publicly available information, Kwilleylekia counts were obtained from the auction gallery for the Ellison’s private collection
 - We are still awaiting the release of a third and final lot which may or may not contain additional axe heads
 - Even with this final lot, we will not know the true count without the Ellison’s notes

3/4 Groove and Full Groove



Concluding Thoughts

- Axe heads are relatively durable tools, so an abundance of replacements would not be necessary in the same way they are for flaked tools or ceramics
- Axe heads are not expedient tools (Denoyer 2019), and it is possible the relatively high time expenditure required to make them contributes to their relative scarcity at sites in a number of ways
 - Axe heads would often be re-sharpened and used until they could not be anymore (Denoyer 2019)
 - One head found at Gila River Farm was broken to the point that it was almost unidentifiable. It is possible that many former axe heads are no longer identifiable as such at the point of disuse (Archaeology Southwest 2022) (Denoyer 2019)
- These factors reduce the likelihood that archaeologists would recover a functional axe head, and may help explain their scarcity in records



A used up axe head (left) and another, badly damaged axe head (right). Both are ¾ groove, though the left is less clearly identifiable.

Photos by Allen Denoyer.