

Reassessing Mimbres Mogollon Red-slipped Pottery

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OBJECTIVE:

Examine the attributes and chronology of the red-slipped ceramics associated with Mogollon early (circular) pithouses.

SIGNIFICANCE:

Currently, there is no uniform typology for the red-slipped pottery associated with Mogollon early (circular) pithouses. Red-slipped ceramics (San Francisco Red) are often seen as a diagnostic characteristic of the Georgetown phase in the traditional Mimbres Mogollon chronology.

DATA:

A sample of red-slipped sherds from seven pithouse sites and pithouse chronometric dates

METHODS:

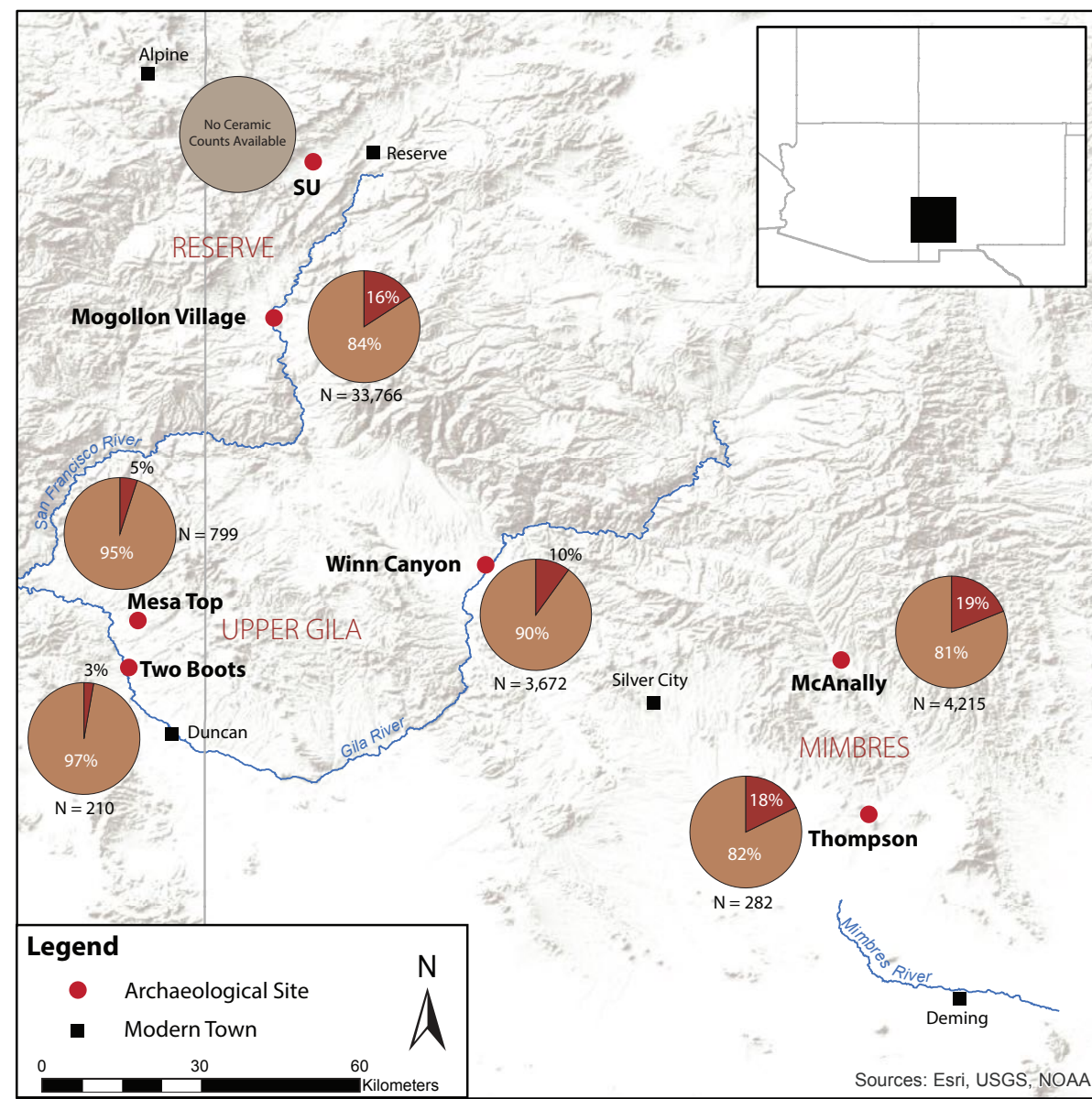
Attribute Analysis, Oxidation analysis, Bayesian Chronological Modeling

KEY QUESTIONS:

- 1) What are the characteristics of Mogollon early red-slipped pottery?
- 2) Is the early red-slipped pottery the same across the Mimbres, Upper Gila and Reserve areas of the Mogollon?

- 3) How does the early red-slipped pottery differ from San Francisco Red?

- 4) When did the red-slip pottery first appear?



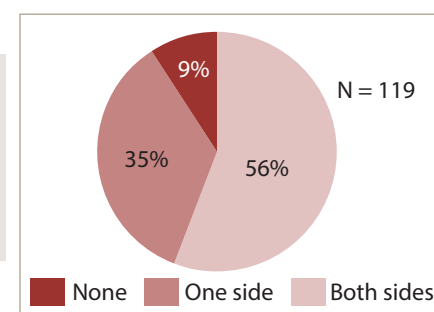
Mogollon sites used in this study. The pie charts represent the frequency of plain brown and red-slipped ceramics recovered from excavation. Notes: Ceramic totals do not include indeterminate or other types, which are no more than 3% at any site. The Winn Canyon totals are from the remaining ceramics and not reported excavated (Fitting 1993) totals given that over half of the ceramics are missing. Ceramic totals from the 1988-1989 excavation of SU (Wills 1991) are not available. The Mesa Top totals are based on the re-examination of excavated sherds by the author given only a random sample of sherds from the excavation were typed (Berman 1978). Additional references: McAnally and Thompson (Anyon et al. 2001); Two Boots (Barkwill Love 2020); Mogollon Village (Gilman n.d.).

	Site	Plain Red-Slipped			San Francisco Red			
		Bowls*	Jars	Indeterminate	Bowls*	Jars	Indeterminate	
Mimbres	McAnally (LA 12110)	6	21	1	28	None		
	Thompson (LA 14976)	1	0	0	1	None		
Upper Gila	Winn Canyon (La 34813)	12	4	2	18	None		
	Mesa Top (AZ CC:4:12 ASM)	0	9	2	11	None		
	Two Boots (AZ CC:4:32 ASM)	1	1	0	2	None		
Reserve	Mogollon Village (LA 11568)	27	5	1	33	4	2	0
	SU (LA 64931)	3	14	3	20	None		
Totals		50	54	9	113	4	2	0

Analyzed Sherds. From the available ceramics, red-slipped sherds (rim or body sherds) that were 2 cm or larger in either width or height were selected for analysis. Notes: For Winn Canyon, only rim sherds were selected. At Mogollon Village, only rim sherds that were 2 cm or larger in both width and height were selected. For this study, Plain red-slipped is any sherd with red slip on the interior, exterior, and/or rim. San Francisco Red was defined by the presence of dimples on the exterior. Bowls* includes sherds identified as bowl sherds as well as sherds slipped on both sides, which are likely bowls. Attribute and oxidation analyses were conducted on all sherds.

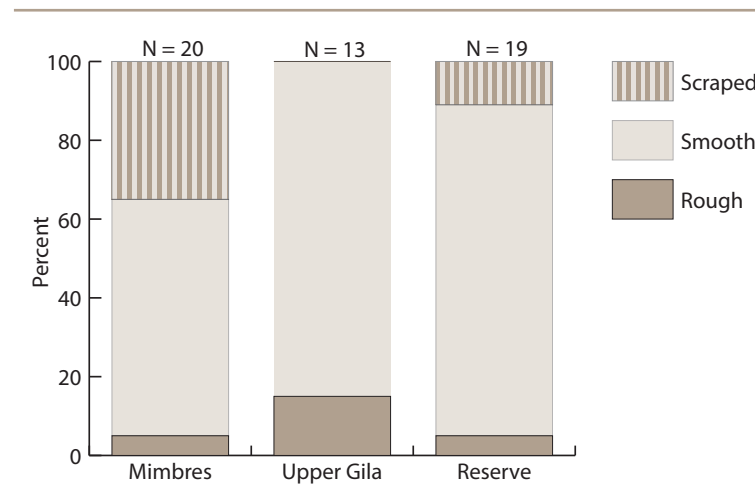
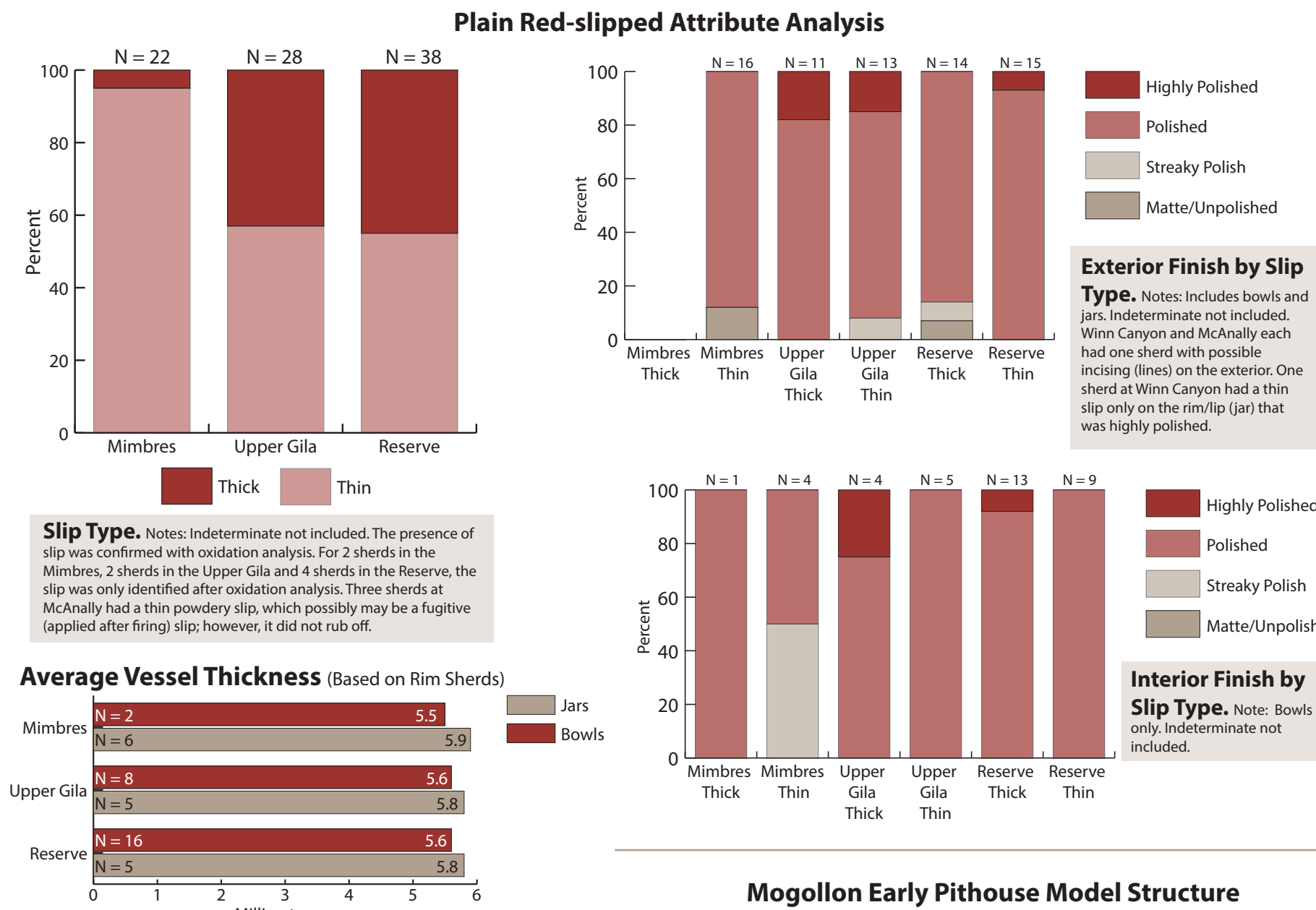
Sherd Erosion.

The majority of the sherds had at least a partially eroded or exfoliated surface.

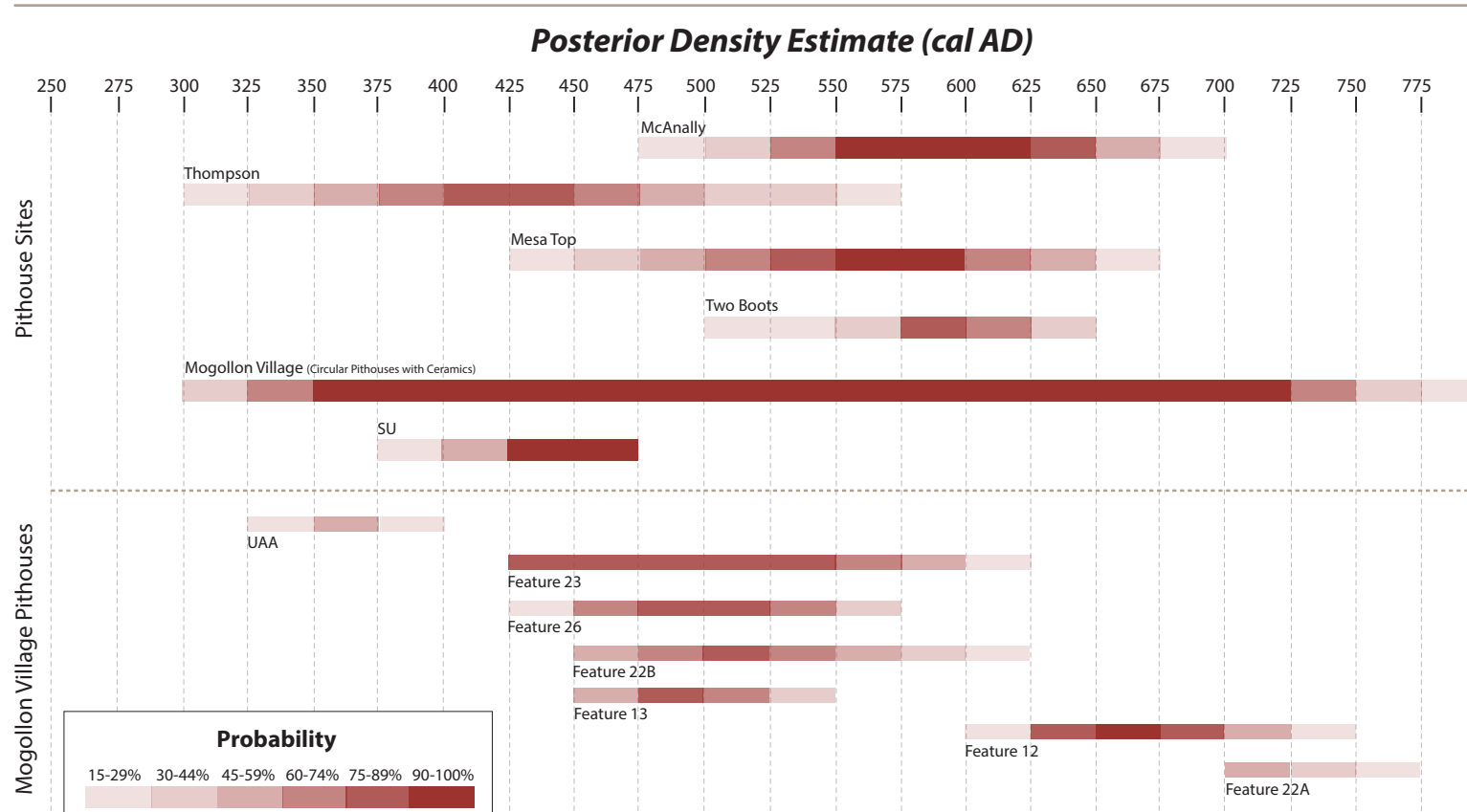


Pithouse	Plain Red-Slipped		San Francisco Red	
	Roof Fall	Floor	Roof Fall	Floor
F23	4	1	0	0
F26	0	2	0	0
F22B	2	4	0	0
F13	18	8	0	0
F12	28	13	3	0
F22A	2	4	2	0

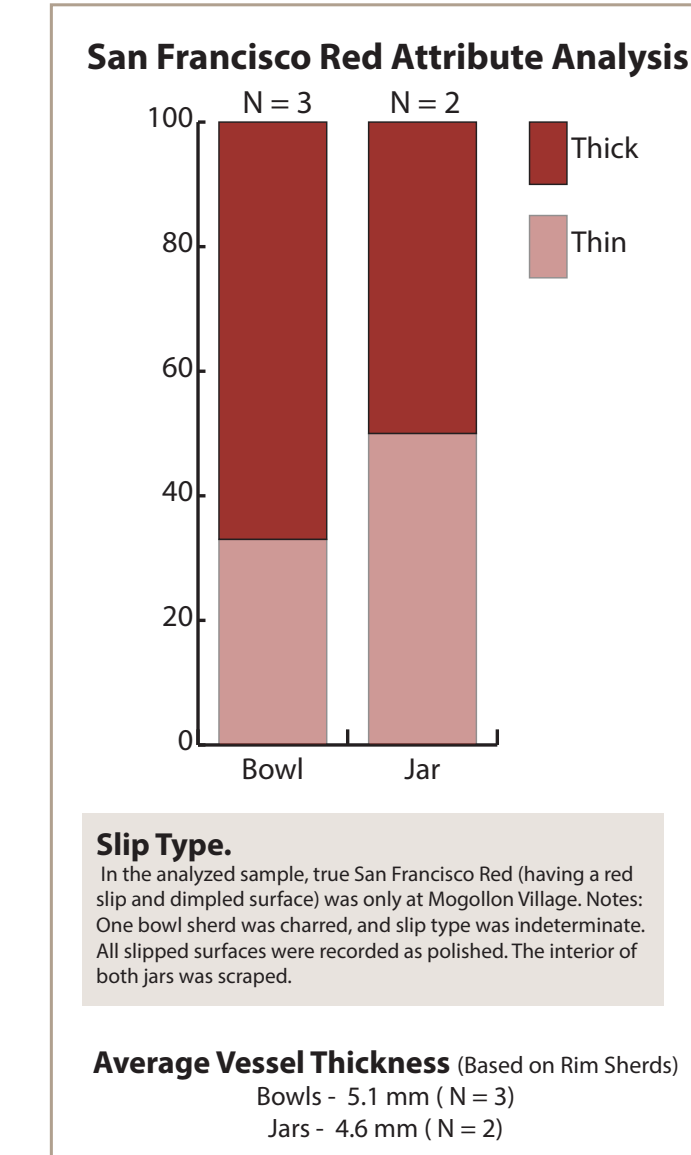
Mogollon Village Sherd Counts. Counts of plain red-slipped and San Francisco Red from roof fall and floor contexts by pithouse from the 1989 excavation. Overall, red-slipped pottery from a roof fall or floor context represented: F23 (11%), F26 (8%), F22B (7%), F13 (16%), F12 (12%), F22A (14%).



Jar Interior Texture. Notes: Indeterminate not included. Plain red-slipped jars with scraped interiors were only found at McAnally and SU. One red-slipped, scraped interior jar sherd (LBP050) at McAnally was sourced (NAA) to the SU area (Barkwill Love et al. 2022).



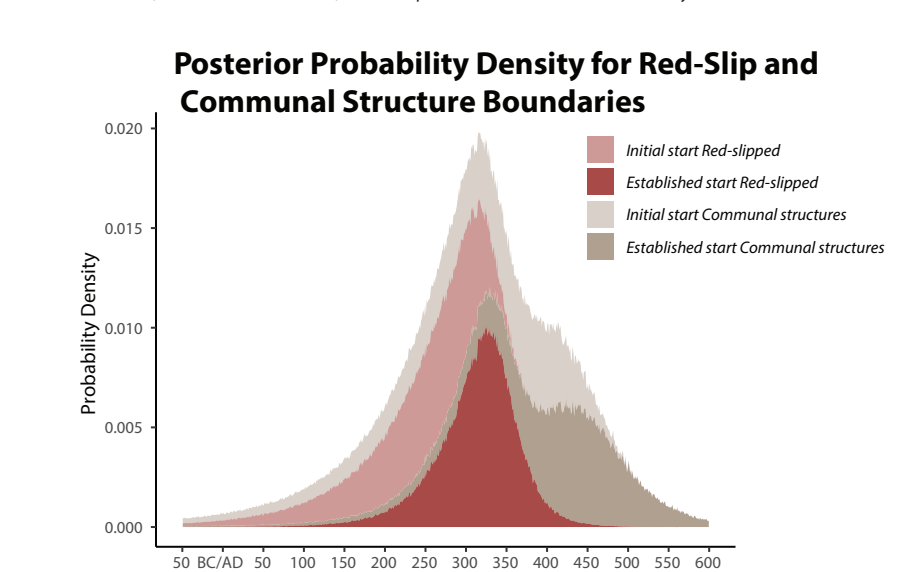
Periods of use schematic diagram for the sites and structures used in this study. From the individual Bayesian site models (Barkwill Love 2020, 2022), date estimates for periods of use were calculated for each site as well as some of the individual structures at Mogollon Village (Barkwill Love 2021). The diagram shows the probability that the site or structure was in use during any given 25-year period from AD 300 to 800 (the darker the shading, the higher the probability). Notes: Except for Mogollon Village and SU, some or all the dates used in the models for McAnally, Thompson, Mesa Top, and Two Boots do not pass the data hygiene protocol. Winn Canyon only has two radiocarbon dates, one of which is old wood (Barkwill Love 2015), and the other on wood charcoal (N-1556, 1640 ± 80 BP) calibrates to AD 240-590.



Model Construction Overview. The model is based on 28 radiocarbon dates and 3 tree-ring cutting dates from 14 pithouses/communal structures from 8 sites. A stringent data hygiene protocol was used that only incorporated sites/structures dated by AMS dates on short-lived specimens, tree-ring cutting dates, and/or multiple statistically consistent radiocarbon dates (Barkwill Love 2020, 2022). First individual Bayesian models were created for each site with at least two radiocarbon dates. The synthetic model for red-slipped and communal pithouses was then created by incorporating the posterior density estimates for the beginning and ending dates from the individual site models as the standard likelihoods. The different pithouse types were modeled as independent sequences to allow for the possibility of overlap between the types. The model uses trapezium boundaries (Lee and Bronk Ramsey 2012) to provide estimates for a gradual start of red-slipped ceramics and communal structures. All models were run in OxCal 4.4 (Bronk Ramsey 2009) with the IntCal20 calibration curve (Reimer et al. 2020) set at a resolution of one year.

Highest Posterior Density Intervals for Key Parameters

	68% Probability	95% Probability
start Circular Pithouses with Red-Slipped	275-370	190-415
Initial start Red-Slipped	195-330	50-350
Start Complete Red-Slipped	305-455	235-585
duration start Red-Slipped	0-210 yrs	0-430 yrs
end Circular Pithouses	765-805	765-870
Circular Pithouses with Red-Slipped span	415-450 yrs	395-510 yrs
start Communal Pithouses	345-515	190-600
Initial start Communal Pithouses	240-445	25 BC-490
Start Complete Communal Pithouses	395-645	285-845
duration start Communal Pithouses	0-315 yrs	0-635 yrs
end Communal Pithouses	875-945	875-1085
Communal Pithouses span	410-460 yrs	370-465 yrs



RESULTS/CONCLUSIONS:

Red-Slipped Pottery Attributes
 ■ Fugitive slip (applied after firing) is rare and not representative of the early pottery. Both thick and thin slips can be found on the pottery. The red slip is not always obvious.

■ Ninety-one percent of the pottery had at least some erosion on the surface. Given the likelihood of erosion, surface treatments (i.e., polish) should not be used as a diagnostic characteristic.

■ Polish was commonly found on both thick and thin red slips.

■ Early red-slipped pottery is highly variable.

Regional Comparisons
 ■ Early red-slipped is found in low frequencies throughout the region at Early Pithouse sites, although maybe more common in the Mimbres than Upper Gila or Reserve.

■ Thin slip and less polishing were more common in the Mimbres area, but this does not appear to be a chronological difference.

■ Rim thickness of bowls and jars was roughly uniform across the Mogollon.

■ Scraped interiors of jars was common in the Mimbres area.

San Francisco Red Attributes
 ■ San Francisco Red had both thick and thin slip like the Plain Red-Slipped. None of the San Francisco Red sherds were highly polished in this sample.

■ San Francisco Red bowls and jars were thinner than the Plain Red-Slipped.

Chronology
 ■ Red-slipped pottery likely first appeared in the early fourth century AD. San Francisco Red possibly appeared in the early seventh century AD.

■ At Mogollon Village in the UAA (~ AD 350) several sherds of a bowl were recovered. The sherds had a thick red-slipped and polish, suggesting that the earliest red-slipped was not thin slipped and unpolished.

■ There is likely an association between the red-slipped pottery and communal structures. The red-slipped pottery appears shortly after the appearance of communal structures.

■ At Mogollon Village, except for F22A, which is later in time, F12 and F13 (likely communal structures) had a higher percentage of red-slipped ceramics.