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CLOSING THE CIRCLE: APPLICATION OF THE RESOURCE APPROACH TO CERAMIC ANALYSIS FOR DETERMINATION OF THE PRODUCTION PROVENIENCES OF MESA VERDE ORANGE AND RED VARIETY POTTERY TYPES

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*And the seasons they go round and round
The painted ponies go up and down
We're captive on the carousel of time
We can't return we can only look
Behind from where we came
And go round and round and round
In the circle game*

Joni Mitchell, The Circle Game Song

Keywords: Resource Approach to Ceramic Analysis; Resource Proposition; Production Proposition; Sourcing Analysis; Ceramic Typology; Production for Exchange; Ethnoarchaeology; Ceramic Ecology; Landscape Archaeology; Archaeometry

Abstract

A compare and contrast essay format summarizes the results of two long-term research projects focused on determination of where production of orange and red variety pottery types occurred, other than “somewhere” in the large cultural landscape of the Mesa Verde Region of the Northern Southwest. A Resource Approach to Ceramic Analysis guided the generation and analysis of compositional data critical to tethering individual sherds to a discrete resource landscape (their production provenience) accompanied by a GPS waypoint of their recovery provenience, which creates an unambiguous record of ceramic exchange and interaction. The Resource Proposition references the tenets of ceramic ecology to link potters to specific locales where they lived in residential association with the temper sources used for making pottery while the Production Proposition enlists the compositional attribute of refired clay color to link individual sherds of those pots to discrete production zones with matching clay sources. This novel approach to sourcing analysis reveals that two temporally distinct communities of immigrant potters lived in residential association with the same two geographically separated resource landscapes in Southeastern Utah and used two different ceramic technologies to produce two distinct color versions of serving ware pottery that moved across the cultural landscape through exchange.

Introduction

As discussed in an earlier Pottery Southwest paper (Lucius 2010), wondering where the orange pottery sherds found at the Bodo Ranch site in Ridges Basin near Durango, Colorado (Duke 1985) were made led to a career-long interest in finding the answer. Closing the circle of inquiry requires summarizing the research and resulting data accumulated by the Blanding Red Ware Project (BRW) (Lucius 2010) with its focus on Pueblo I orange variety pottery production and

the San Juan Red Ware Sourcing and Exchange Research Study (SJRWS&ERS) (Di Naso et al. 2019) that focused on Pueblo II red variety production. All analysis data resides on a Master Microsoft Access file, with separate sub-files for sherd analysis data and clay voucher sample data. Data tables and charts derived from Microsoft Excel were formatted using Microsoft Word. Upon publication of this article, digital and hard copies of the paper will be forwarded to the Edge of the Cedars Museum repository along with copies of the Clay Voucher Sample and Technological/Typological Ceramic Analysis databases referenced in the manuscript. Because both databases contain sensitive locational data of clay voucher sample and site GPS coordinates, Edge of the Cedars will require proper credentials from those wanting to access those databases.

Ancestral Pueblo potters who immigrated from the Kayenta Region into the Mesa Verde Region of the Northern Southwest subsequent to its depopulation at the end of the Basketmaker III period (Lucius 2022; Sinensky et al. 2022) produced three distinct orange variety pottery types (Lucius 2020:Figure 6) of serving ware whose presence appears to be the response of the potters to high quality red clays unsuitable for gray or white pottery production. These painted types represent stone polished, unslipped orange body clays fired in an oxidizing atmosphere to earthenware temperatures. Abajo Red-on-orange (Abajo R/o) exhibits red iron painted designs, while Abajo Polychrome (Abajo Poly) combines red iron and black manganese paints, with production beginning by A.D. 750. At A.D. 800 production switched to Bluff Black-on-orange (Bluff B/o) with its black manganese painted designs (Breternitz, Rohn, and Morris 1974). Creation of a grouped-category of Early Pueblo Orange (EPO) allows for inclusion of untypeable Pueblo I unpainted body sherds into the database (Lucius and Breternitz 1992). Orange variety pottery production ceased with the depopulation of the Mesa Verde Region and the outmigration of potters at A.D. 900 (Wilshusen and Ortman 1999:380-383).

During the Early Pueblo II period of reoccupation of the Mesa Verde Region, potters produced a distinctive black-on-red manganese-painted serving ware type, Deadmans Black-on-red (Deadmans B/r) (Abel 1955:4; Breternitz, Rohn, and Morris 1974:61-63), which appears without any local antecedent type. All sherds exhibit stone polish of a dark red surface color fired in a reducing atmosphere. Production began at approximately A.D. 950 and ceased by A.D. 1050, signaling the end of red pottery production in the Mesa Verde Region and the outmigration of those potters.

Sourcing of Mesa Verde Region Orange and Red Ceramics

The emphasis of traditional Southwestern ceramic typology on stylistic traits for recognizing pottery types with their associated time spans allows for assignment of sites and site components to occupational periods (Breternitz 1966; Hayes 1964:Table 6). However, such typological ceramic types, those based only on stylistic traits, cannot resolve production locales smaller than the Mesa Verde Region and are therefore mute concerning the precise location on the landscape where pottery production occurred. Rather than accept the unwarranted assumption that pottery collected from a site was, with the exception of some obvious imports, made at the site (Kidder 1942:i), the initial step for sourcing Mesa Verde Region ceramic artifacts was to develop a model of ceramic production that allows for matching the temper types observed in pottery sherds with specific Manufacturing Tracts within the larger Mesa Verde Region where potters had universal access to the distinctive rock types that were used as temper for pottery production (Lucius 1988:33; Shepard 1942:178).

The author developed a technological-based Resource Approach to Ceramic Analysis that records the temper and clay type data necessary for sourcing pottery sherds (Lucius 1988) for the Dolores Archaeological Program (DAP) in Southwestern Colorado (Breternitz 1993). Attribute analysis of Abajo R/o and Bluff B/o sherds recovered from DAP sites revealed that those types consistently exhibit a crushed diorite temper not available in the DAP geology. Preliminary fieldwork linked its production to the Blanding Manufacturing Tract (Figure 1) in southeastern Utah, a drainage-bounded geographic locale where potters had universal access to diorite temper in the southern drainages of the Abajo Mountain laccolith (Mutschler, Larson, and Ross 1998:243).

Fieldwork assembled sherd collections from known sites and utilized a program of landscape archaeology for the location and collection of temper and clay voucher samples necessary for sourcing analysis, which unambiguously links individual sherds to one of two resource landscapes where two different communities of potters lived in residential association with the clay sources used for production.

The forward focus of sourcing analysis is on temper type analysis. There is very little variability in temper type used for Pueblo I orange production: the great majority of production (99%) occurred in the Blanding Tract (using diorite temper), with minor production (1%) in the adjacent Cedar Point Tract (using crushed conglomerate sandstone). Production of Pueblo I orange ware did not occur anywhere else in the Mesa Verde Region. Sherds of the Early Pueblo I type Sanostee Red-on-orange (Wilson and Peckham 1964; Windes 1977:295) with trachybasalt temper from the Chuska Region (Arakawa et al. 2016) were not observed in the collections.

The second step of sourcing pottery requires attention to clay type, recorded in Munsell soil color notations only after sherds are refired in a research kiln to 950 degrees C in an oxidizing atmosphere that serves to bring all sherds to a comparable refired state. Figure 2 presents the refired clay colors of all Pueblo I orange sherds in the BRW/SJRWS&ERS analysis database regardless of type status. Note that clays with the 2.5YR Munsell notation when combined account for 78 percent of the observed refired clay color variability. Those with the 5YR Munsell notation when combined account for another 18 percent of the variability. The remaining refired clay colors include vitrified sherds, which is an irreversible condition due to overfiring. All data summaries in this paper reference sherd weights unless otherwise stated.

All of the Pueblo II Black-on-red sherds (Deadmans B/r) in our database exhibit a black manganese paint over a dark red surface color. Replication studies verify that when fired in a reduction atmosphere the red iron of the surface and the manganese in the paint creates a eutectic reaction that lowers their respective melting points, resulting in a shiny black glaze paint (Lucius 2020:53; Van Keuren, Neff, and Agostini 2013:697-680).

The presence of a red clay slip that refires to the 10R range in Munsell notation is a primary determinant for type assignment as Deadmans B/r (Hargrave 1974). Figure 3 documents the refired body clay colors of the Deadmans B/r sherds made in the Blanding Tract. 10R refired clay colors document the use of red slip clay for pottery construction, which means that 16 percent of all Deadmans B/r sherds were unslipped because those potters used the red slip clay as the body clay (the None slice in Figure 4). Comparison of the red slip body clay variability in Figure 3 with the range of refired colors of the red slips on Deadmans B/r sherds (Figure 4) reveals that only two of the red slip clays were also used for body clays. It is possible that only potters living in residential association with the red slip clays that refire to 10R5/6 and 10R5/8 constructed those pots.

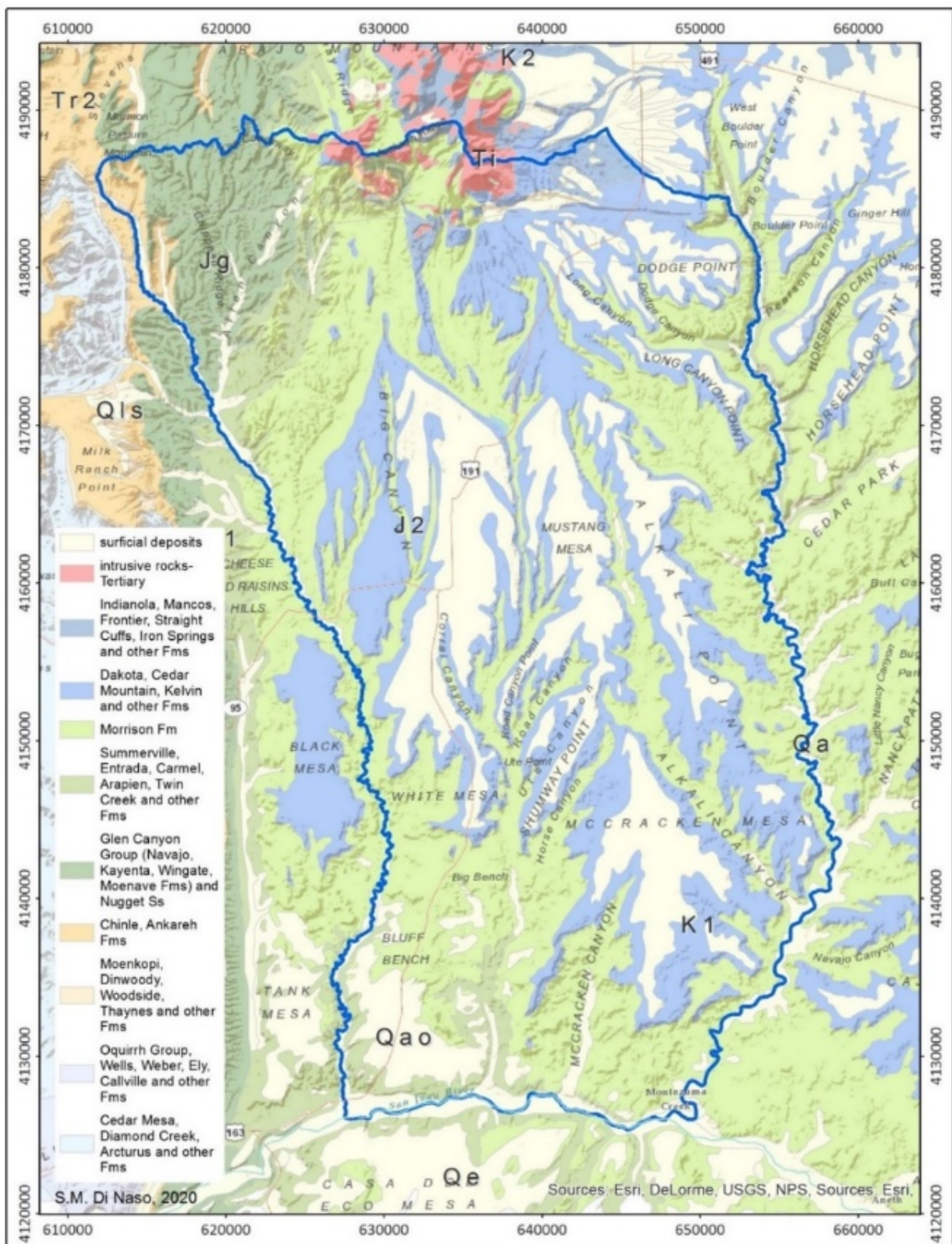


Figure 1. The Blanding Manufacturing Tract in SE Utah with Formation Notations.

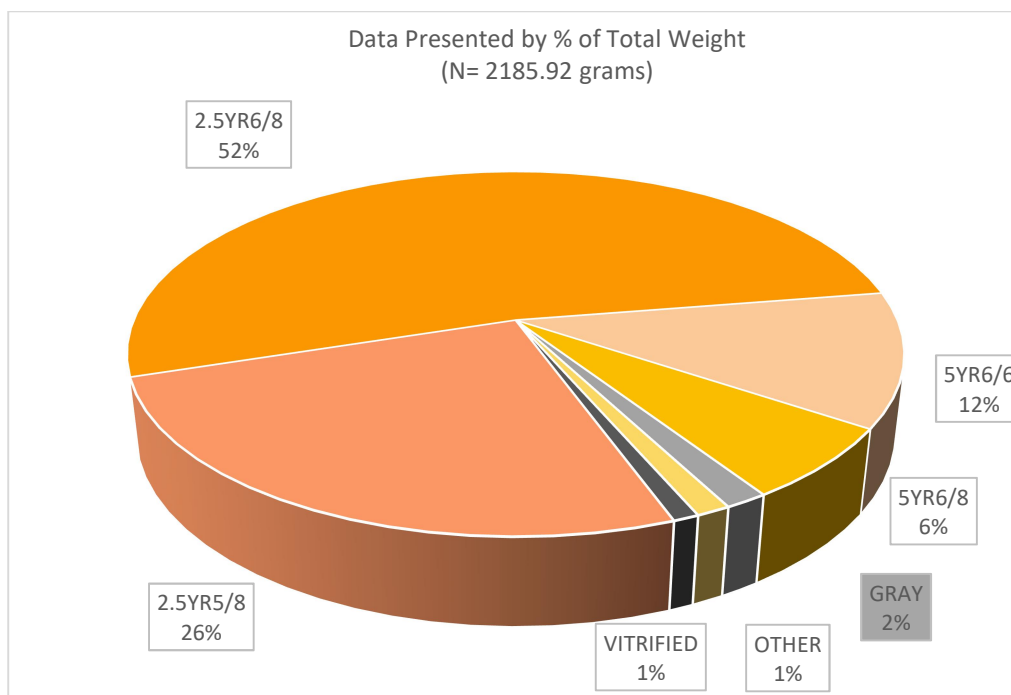


Figure 2. Pueblo I Orange Sherds Refired Color, All Types, All Sites.

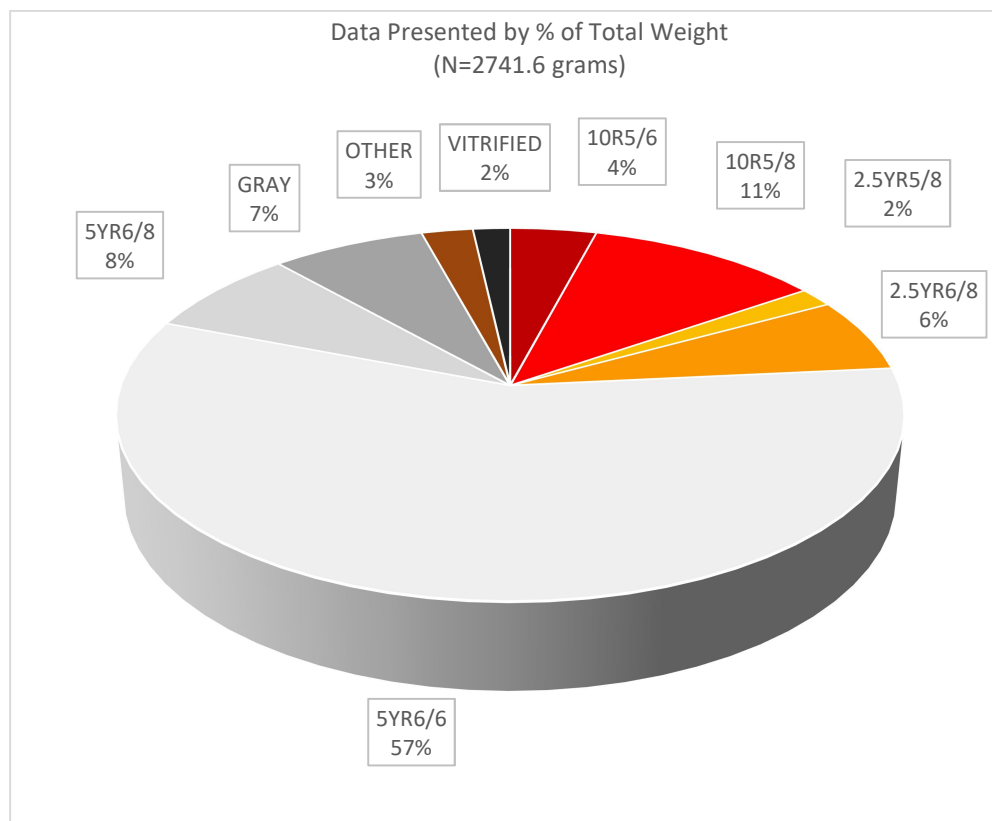


Figure 3. Pueblo II Deadmans B/r Clay Body Refired Color, All Sites.

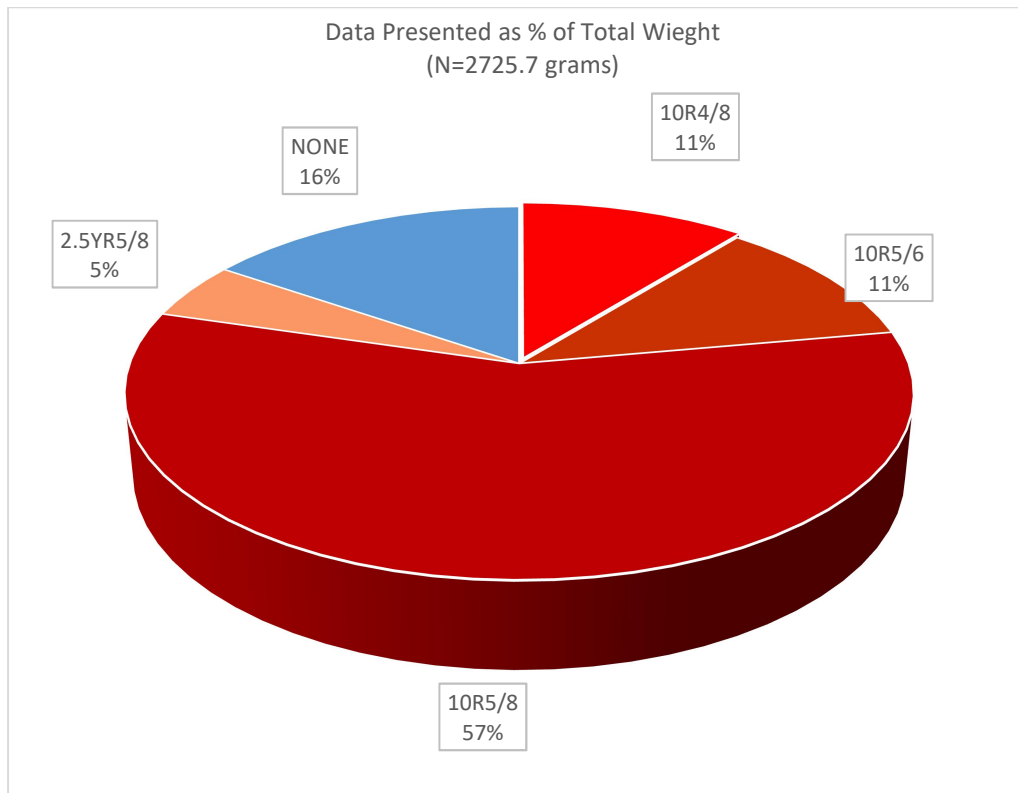


Figure 4. Pueblo II Deadmans B/r Red Slip Body Clay Refired Clay Color, All Sites.

Upper Brushy Basin red clays that refire to 2.5YR5/8 and 2.5YR6/8, when combined, account for only 8 percent of the production because these body clays tend to vitrify and bloat in response to the reduction firing required for glaze paint pottery production. Clays with the 5YR and gray Munsell notations represent refractive clays that are more suitable for reduction firing and when combined account for 70 percent of the observed refired clay color variability. The percentage of vitrified sherds is comparable with Pueblo I orange pottery. A total of 98 percent of all the vitrified sherds exhibit the presence of diorite or sherd and diorite temper (93%) diagnostic of manufacture in the Blanding Tract or conglomerate sandstone or sherd and conglomerate sandstone diagnostic of manufacture in the adjacent Cedar Point Tract (8%), with only occasional sherds (2%) with temper types suggestive of extra-regional production. Table 1 presents the locations where these extra-regional sherds were collected by site number. Those sherds as well as all sherds representing Cedar Point production have been filtered out of the subsequent data presentations, leaving only sherds produced in the Blanding Tract.

Following the 1972 Ceramic Conference (Breternitz, Rohn, and Morris 1974:v) the type Deadmans B/r was moved from the Kayenta Region into the Mesa Verde Region, and the temper type was changed (incorrectly) to crushed andesite. Because the “new” type has priority, Pueblo II black-on-red sherds with quartz sand or sherd and quartz sand temper in the collection have been tentatively assigned to the type Medicine Black-on-red (Medicine B/r) of the Kayenta Region. Those with sherd and crushed rock temper (rock type unknown) have been tentatively assigned to the type Wingate Black-on-red (Wingate B/r) of the Cibola Region. A single sherd from an unknown region where potters utilized a distinctive gray mica for temper has not been assigned

to a type. Although subject to typological verification beyond the scope of the current study, those data suggest the presence of multiple Black-on-red production locales across the Northern Southwest sharing a distinct ceramic production technology during the Early Pueblo II period.

Table 1. Non-Mesa Verde Glaze Paint Black-on-red Sherd Occurrences.

REGION TEMPER TYPE TYPE NAME RECOVERY SITE	# OF SHERDS
CIBOLA	
SHERD & CRUSHED ROCK	
WINGATE BLACK-ON-RED	
42SA20711	1
5MT10991	3
SUBTOTAL	4
KAYENTA	
SHERD AND QUARTZ SAND	
MEDICINE BLACK-ON-RED	
LA126581	2
5MT10991	1
BROWN SITE	1
J FINLEY	4
LA 8619	2
WALLACE RUIN	1
SUBTOTAL	11
UNKNOWN	
GRAY MICA	
UNKNOWN	
LA8619	1
SUBTOTAL	1
GRAND TOTAL	16

Both Pueblo I orange and Pueblo II red pottery types occur in sites across and exterior to the Mesa Verde Region, suggesting that communities of potters practiced production for exchange rather than for household production geared to provisioning and replacement of broken vessels, as posited by Wilson and Blinman (1995:65) and Plog (1995:269). Comparison of production proveniences with recovery proveniences documents that exchange occurred, which implies a between-hands transfer of items across the cultural landscape of the Northern Southwest (Earle 1982:3-4). Unlike trade, which is a this-for-that transfer of items between people without formal cultural ties (Sahlins 1972:Chapter 6), gift exchange occurs between clan segments participating in an ongoing cultural system of kinship and obligations (Lucius 2021; Ware 2018:639-641).

Tethering Sherds to the Resource Landscape of Production

A basic (and unwarranted) assumption of the original research design was that attention to the refired clay color of sherds collected from sites within the Blanding Tract would point to individual clay outcrops with matching refired clay colors and by extension to adjacent habitation sites where production occurred. After three seasons of fieldwork dedicated to accumulation and analysis of sherds, it became clear that there is nothing about where sherds were recovered that is informative of where they were made! That is, despite variability resulting from sample size, every ceramic assemblage looked identical from site to site, even those sites exterior to the Blanding Tract.

Table 2 lists the recovery proveniences of Pueblo I orange variety sherds, accompanied by a derived stacked chart of refired clay color similarity (Figure 5). Table 3 presents a list of the recovery proveniences of Pueblo II Deadmans B/r sherds, followed by a stacked chart of refired clay color similarity (Figure 6).

Table 2. Pueblo I Orange Sherd Occurrences by Site Number and Total Weight.

Site Number*	Sum of Weight	Site Number*	Sum of Weight
42SA00013**	203.4	42SA12002	77.7
42SA00712	108.5	42SA12196	82.1
42SA00822	13.7	42SA12224	118.7
42SA00920	7.3	42SA12604	43.2
42SA00926	7.1	42SA12655	29.3
42SA00971	43.9	42SA13085	176.0
42SA01964	95.9	42SA13144	1.8
42SA02096	104.6	42SA14362	15.8
42SA02110	24.1	42SA14430	13.5
42SA02117	2.4	42SA16377	26.5
42SA02907	66.6	42SA17347	7.7
42SA03217	15.7	42SA20711	19.7
42SA05170	14.3	42SA23761	3.0
42SA05265	15.7	42SA24432	7.2
42SA07127	47.4	42SA24568	9.6
42SA08135	11.0	42SA33768	13.9
42SA08455	9.2	42SA33968	39.4
42SA10340	66.4	5DL02333	19.0
42SA10374	68.7	5MT01905	62.0
42SA10805	23.9	5MT10991	45.9
42SA10811	42.4	5MT11555	3.3
42SA11700	54.0	CARVELL	15.6
42SA11757	16.8	GALLAGHER	8.1
42SA11770	13.7	HATCH	13.2
42SA11783	25.3	ISMAY 2	11.6
42SA11787	37.2	ISMAY 4	31.9
42SA11801	36.6	LOST CANYON	13.9
42SA11885	37.9	LA 198684	2.1
42SA11937	57.9	Grand Total	2,207.7

* Site Number Prefixes: 42SA = San Juan County, Utah; 5DL = Dolores County, Colorado; 5MT = Montezuma County, Colorado; LA 198684 = Farmington, New Mexico; Site Names = privately owned sites or sites awaiting site number assignment.

** Yellow Highlights = those sites used for stacked bar chart construction (Figure 5).

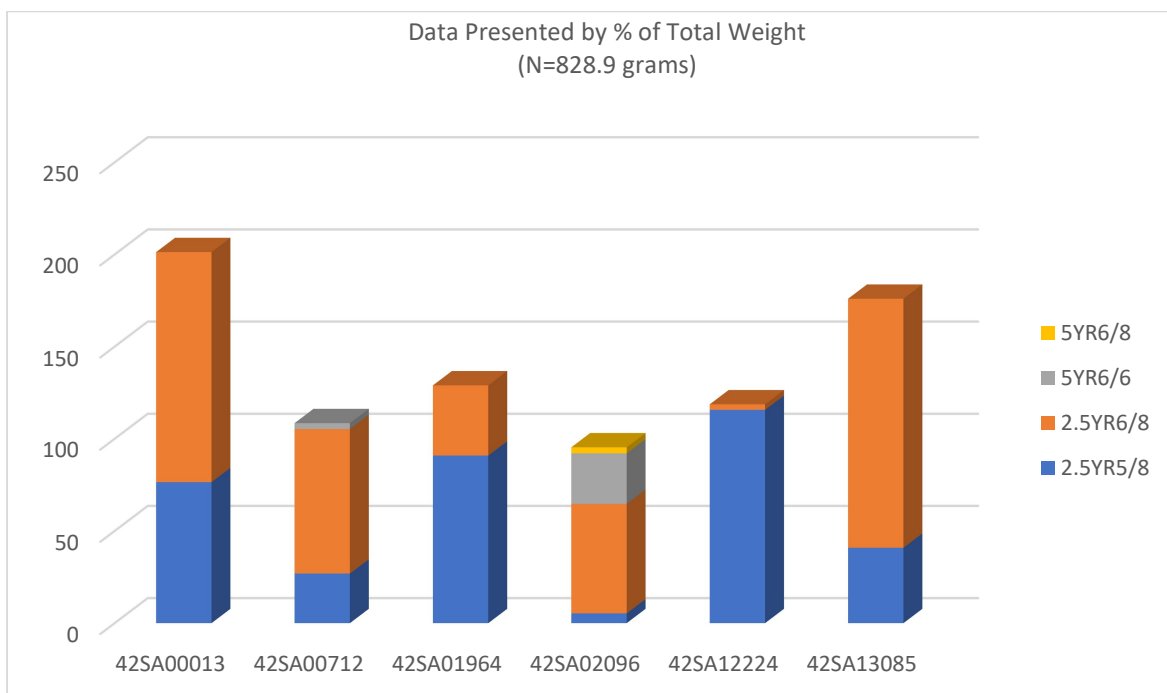


Figure 5. Stacked Graph of Sherd Refired Clay Color Variability of Pueblo I Orange Sherds by Selected Site Number.

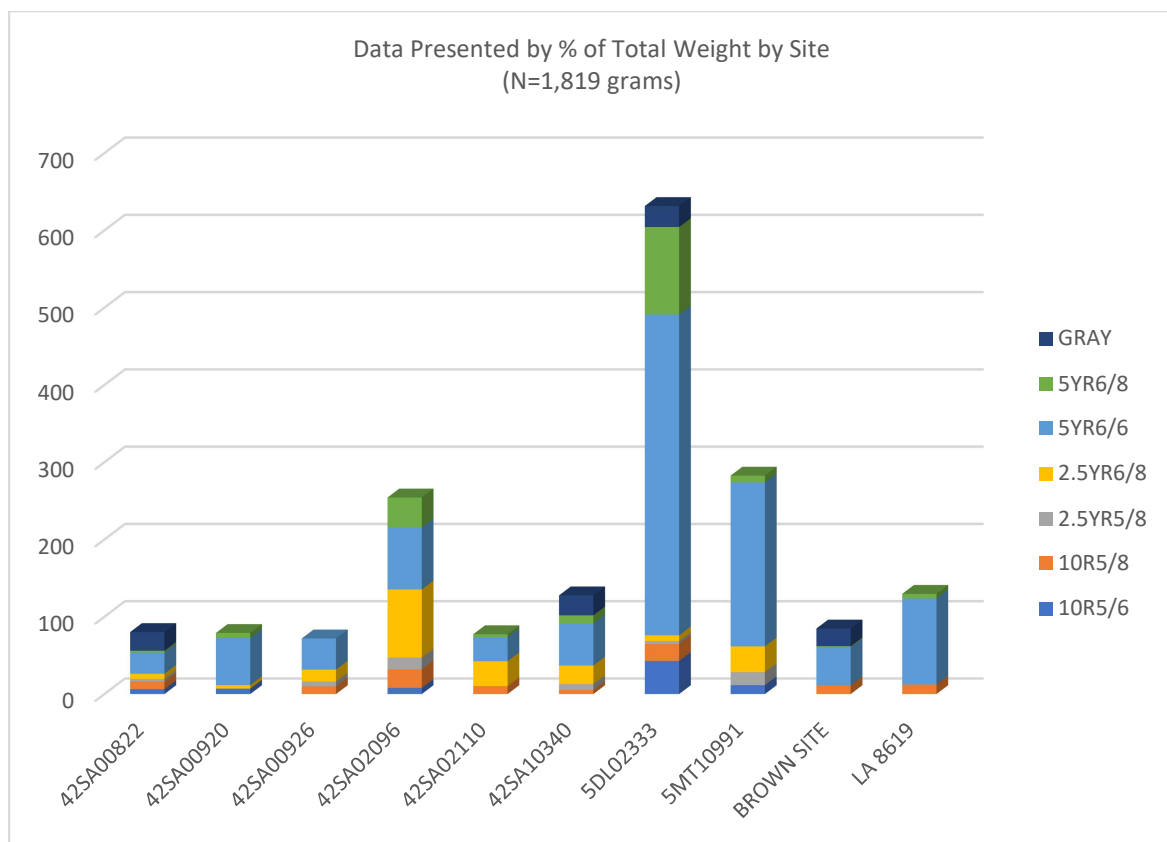


Figure 6. Stacked Graph of Sherd Refired Clay Color Variability of Pueblo II Red Sherds by Selected Site Number.

Table 3. Pueblo II Red (Deadmans B/r) Sherd Occurrences by Site Number and Total Weight.

SITE NUMBER*	SUM OF WEIGHT
42SA00016	35.0
42SA00712	5.5
42SA00822**	60.2
42SA00920	71.7
42SA00926	82.5
42SA00971	18.7
42SA01964	19.1
42SA02096	167.6
42SA02110	75.5
42SA02117	45.1
42SA02907	51.4
42SA03217	39.9
42SA05265	47.6
42SA08135	16.9
42SA08455	17.5
42SA10340	61.3
42SA10805	26.8
42SA10811	40.8
42SA12224	5.0
42SA12604	10.8
42SA14430	46.4
42SA17347	47.9

SITE NUMBER	SUM OF WEIGHT
42SA20711	51.9
42SA23761	34.0
42SA24432	30.7
42SA24568	3.2
42SA33768	15.0
42SA33968	32.2
5DL02333	669.6
5MT01905	85.1
5MT10991	234.5
5MT11555	48.2
BROWN SITE	106.1
CARVELL	23.3
GALLAGHER	38.7
HATCH	50.2
ISMAY 1	56.3
ISMAY 2	17.5
ISMAY 4	28.6
J FINLEY	30.7
LA 8619	129.6
LA126581	18.2
LOST CANYON	17.5
NEEDLE ROCK	3.8
WALLACE RUIN	18.9
Grand Total	2737.0

* Site Number Prefixes: 42SA = San Juan County, Utah; 5DL = Dolores County, Colorado; 5MT = Montezuma County, Colorado; LA 198684 = Farmington, New Mexico; Site Names = privately owned sites or sites awaiting site number assignment.

** **Yellow Highlights** = Those sites used for stacked bar chart construction (Figure 6).

Because there is no simple way to link sherds to their clay sources from the perspective of surface sherd collections alone and given the presence of numerous Pueblo I and Pueblo II habitation sites and multitudes of clay outcrops, the third step of sourcing analysis requires a program of clay voucher sampling dedicated to identification of distinct clay-bearing formations that were the focus of pottery production within the Blanding Manufacturing Tract, as documented by sherd refired clay color. The Resource Proposition, which states that, following least cost principles, potters in traditional societies such as the Ancestral Puebloans of the Northern Southwest lived in residential association with the compositional resources selected for pottery production (Chang 1975:221; Lucius 2010). Ethnographic ceramic ecology studies (Arnold 1975; Matson 1965) document that in pedestrian societies, the bulky temper and clay sources are

situated within a 5-kilometer radius of the potters' residences (the resource catchment) and that finished pots, rather than the bulky temper and clay used for production, are moved through exchange (Arnold 1975:189). Restated as a sourcing axiom (Binford 1972:126; Hill 1970:21-22), the Production Proposition states that a known community in residential association with usable clay sources matching those documented in the sherds by refired clay color signifies the presence of a ceramic production locale. Additionally, the presence of associated kilns and/or unfired sherds constitutes unambiguous evidence of ceramic production (Shepard 1936:399-400).

Sherd refiring analysis accompanied by familiarization with the complex geology of the Blanding Tract revealed that Pueblo I and Pueblo II potters targeted a narrow range of clay outcrops, specifically the red clays associated with the Upper Brushy Basin Member of the Jurassic Morrison Formation and gray clays of the overlying the Cretaceous Burro Canyon Formation (Skipp and Aubrey 1992), which simplifies the search for clay sources with refired clay colors that match the clay body of the sherds. To assess the possibility that Deadmans B/r production may have occurred at Early Pueblo II villages in Montezuma Canyon, clay voucher samples from Lower Brushy Basin contexts that refire to the 5YR Munsell notation (Figure 7) reveal that without exception they are bentonites, which derive from chemical alteration of volcanic ash beds and display extreme swelling and gel formation rendering them unusable for pottery production given their high shrinkage, warping, and vitrification upon firing (Shepard 1939:259).

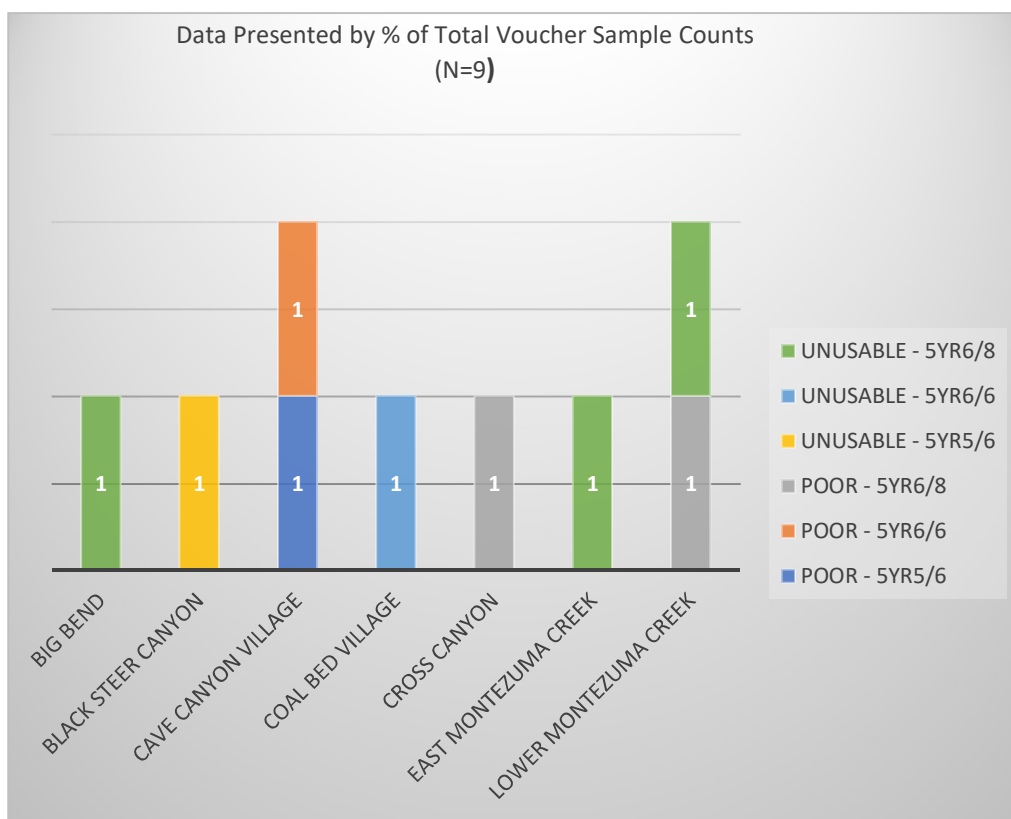


Figure 7. Lower Brushy Basin Red Clays Usability Scores.

Intensive clay voucher sampling of the red clay outcrops of the Upper Brushy Basin Member reveals that, with few exceptions, they match the sherd refired clay colors of 2.5YR5/8 and 2.5YR6/8, as recorded for both Pueblo I and Pueblo II sherds. Those clays outcrop in the upland elevations from Big Canyon in the west to Alkali Point in the east (Figure 1) where erosion and incised drainages expose clay outcrops and overbank deposits associated with oxbow cutoffs of meandering streams that reworked and redeposited bentonitic clays of the Lower Brushy Basin Member (Donselaar, Bhatt, and Ghosh 2017). Of the 33 clay voucher samples collected from Upper Brushy Basin Member contexts, 81 percent were unusable for pottery production due to the presence of shale fragments not seen in sherd cross sections, limited plasticity, and/or high shrinkage upon refiring (Figure 8). Of the excellent clays, only four exhibit the 2.5YR5/8 or 2.5YR6/8 refired clay colors of Pueblo I orange variety sherds and only two of those outcrops have unambiguously associated residential communities.

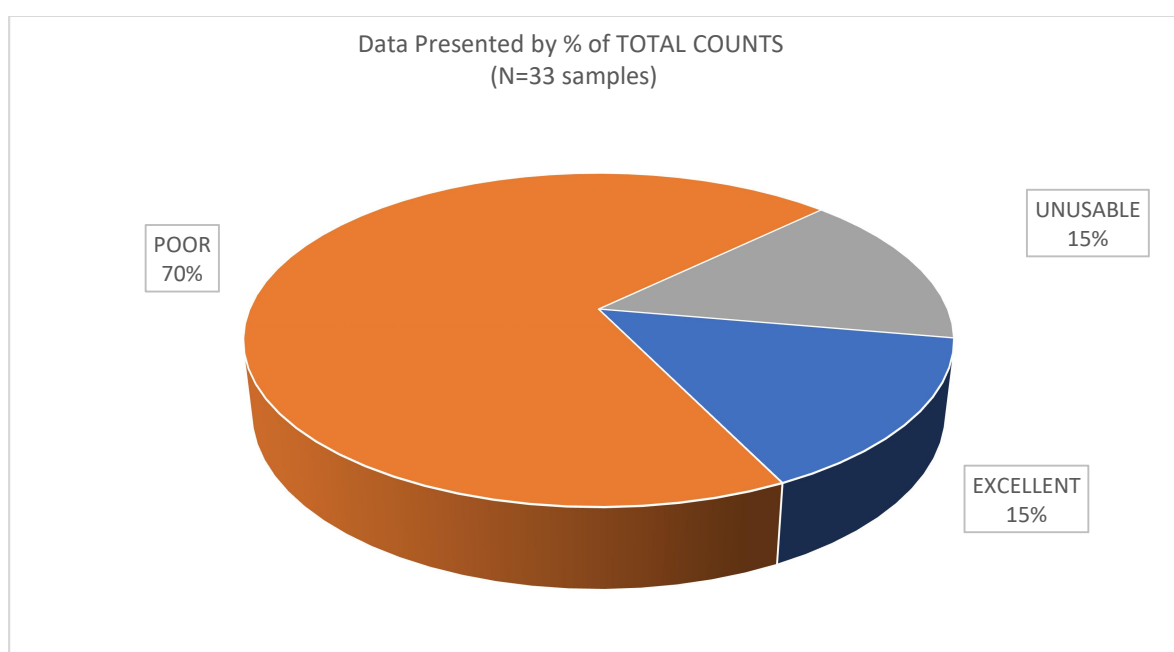


Figure 8. Upper Brushy Basin Member Red Clays Usability Scores.

The Alkali Point Resource Procurement and Production Zone exhibits clays from the Upper Brushy Basin Member of the Morrison Formation. Clay voucher sampling in the vicinity of the excavated site of Alkali Ridge (42SA13) on Alkali Point, an Early Pueblo I (A.D. 750-800) village that is also the type site for Abajo R/o (Brew 1946), identified a usable Upper Brushy Basin clay source (02CVS03) that refires to 2.5YR5/8. Bureau of Land Management records revealed that an archaeological reconnaissance for a proposed drill pad in Alkali Canyon documented the presence of a pottery kiln, later obliterated by drill pad construction. Additionally, an Upper Brushy Basin clay source (02CVS01) that refires to 10R5/8, matching the refired clay color of Deadmans B/r red slip clay, is located within the resource landscape of 42SA07, a Pueblo II site located just north of the Alkali Ridge Site (42SA13). Potters resident in the Alkali Point Resource Procurement and Production Zone (Rands and Bishop 1980:20) variously selected from those clays for PI orange and PII red variety pottery production.

The White Mesa (Figure 1) Resource Procurement and Production Zone (Lucius 2022) exhibits Upper Brushy Basin red and Burro Canyon gray clays. Clay voucher sampling on the west edge of Recapture Wash immediately north of the modern town of Blanding on White Mesa identified a usable Upper Brushy Basin clay source (01CVS01), with a refired clay color of 2.5YR6/8. The author performed ceramic analysis at the Jensen Site (42SA22747), an Early Pueblo I production site with kilns and unfired sherds of Abajo R/o matching the Recapture Wash Upper Brushy Basin clay source (Lucius 2022). Clay sources that refire to 5YR6/6, 5YR6/8, and gray Munsell colors from the Cretaceous Burro Canyon Formation also outcrop on White Mesa. Jensen Site potters used those clays primarily for gray variety utility ware production and occasionally for orange variety serving ware production; unfired sherds of those sources were recovered from the site. Recent clay voucher sampling identified a usable clay source (23CVS10), located within the resource catchment of 42SA13895, an Early Pueblo II site. Its refired color is 5YR6/6, which matches not only the Jensen Site gray variety sherds but also the majority of Deadmans B/r sherds in the database. However, the physical location of the clay source that refires to gray remains unknown.

Table 4 displays the refired clay colors associated with each production zone by type. Pueblo I orange types (Abajo R/o, Bluff B/o, and Early Pueblo Orange variety) sherds with the refired clay color 2.5YR5/8, represent production in the Alkali Point Production Zone, whereas those sherds with refired colors 2.5YR6/8, 5YR6/6, or 5YR6/8 point to production in the White Mesa Production Zone. Deadmans B/r sherds with the refired clay colors (not slip refired colors) 10R5/6, 10R5/8, and 2.5YR5/8 document production in the Alkali Point Production Zone. Deadmans B/r sherds with refired clay colors 2.5YR6/8, 5YR6/6, 5YR6/8, and gray document production in the White Mesa Production Zone. Figure 9 presents data in a stacked graph format illustrative of Pueblo I orange variety types and Pueblo II red pottery by production zone. The continued use of the Alkali Point red clay source for Bluff B/o pottery production after the depopulation (by A.D. 800) of the Alkali Ridge Site (42SA13) suggests that a community of potters remained in the area until the end of the Pueblo I period. The graph documents that the ratio of production between Alkali Point and White Mesa became established early in the Pueblo I period and continued into the Pueblo II period despite several decades of depopulation.

Summary and Conclusions

After almost five decades of thinking, planning, literature review, formulating research designs, fieldwork, and endless hours dedicated to the tasks of refiring analysis and ceramic analysis, the answer to the question posed in the introduction is at the same time simple yet elegant. For orange and red color variety sherds exhibiting crushed diorite or diorite and sherd tempers, attention to refired clay color alone is sufficient to associate them with either of two production zones within the Blanding Manufacturing Tract of Southeastern Utah, Alkali Point or White Mesa. Although it is too late to revisit the orange sherds from the Bodo Ranch Site, a single Bluff B/o bowl sherd recovered from the surface of a pitstructure (LA 198684) near Dulce, New Mexico was submitted for analysis by Peter McKenna. It exhibits diorite temper with the refired clay color 2.5YR6/8, which is characteristic of production in the White Mesa Production Zone. A Google Earth map reveals 231 kilometers between its production provenience and its recovery provenience, although the actual route it followed would be more complex than a straight line linking the two points.

Table 4. List of Ceramic Types and
Refired Clay Colors by Production Zone

PRODUCTION ZONE
Type Name
Refired Clay Color
ALKALI POINT
Abajo R/o
2.5YR5/8
Bluff B/o
2.5YR5/8
Early Pueblo Orange
2.5YR5/8
Deadmans B/r
10R5/6
10R5/8
2.5YR5/8
WHITE MESA
Abajo R/o
2.5YR6/8
5YR6/6
5YR6/8
Bluff B/o
2.5YR6/8
Early Pueblo Orange
2.5YR6/8
5YR6/6
5YR6/8
Gray
Deadmans B/r
2.5YR6/8
5YR6/6
5YR6/8
Gray

The focus of the research on orange and red variety pottery production was intentionally narrow, and necessarily excluded any concern with Pueblo I and Pueblo II period production of white variety serving ware and gray variety utility ware pottery types. The above models and research design are universally applicable for those types, in case anyone has a desire to adopt our sourcing analysis procedures. This report serves to summarize some of the amazing things we never expected to know and some of those things that still need to be done before we can say that our research is finally completed, especially the application of elemental analysis techniques to verify a shared identity of body clays and clay voucher samples (Shepard 1976:Foreword). Models by their nature are simplistic; our simplistic conclusions may change with additional data.

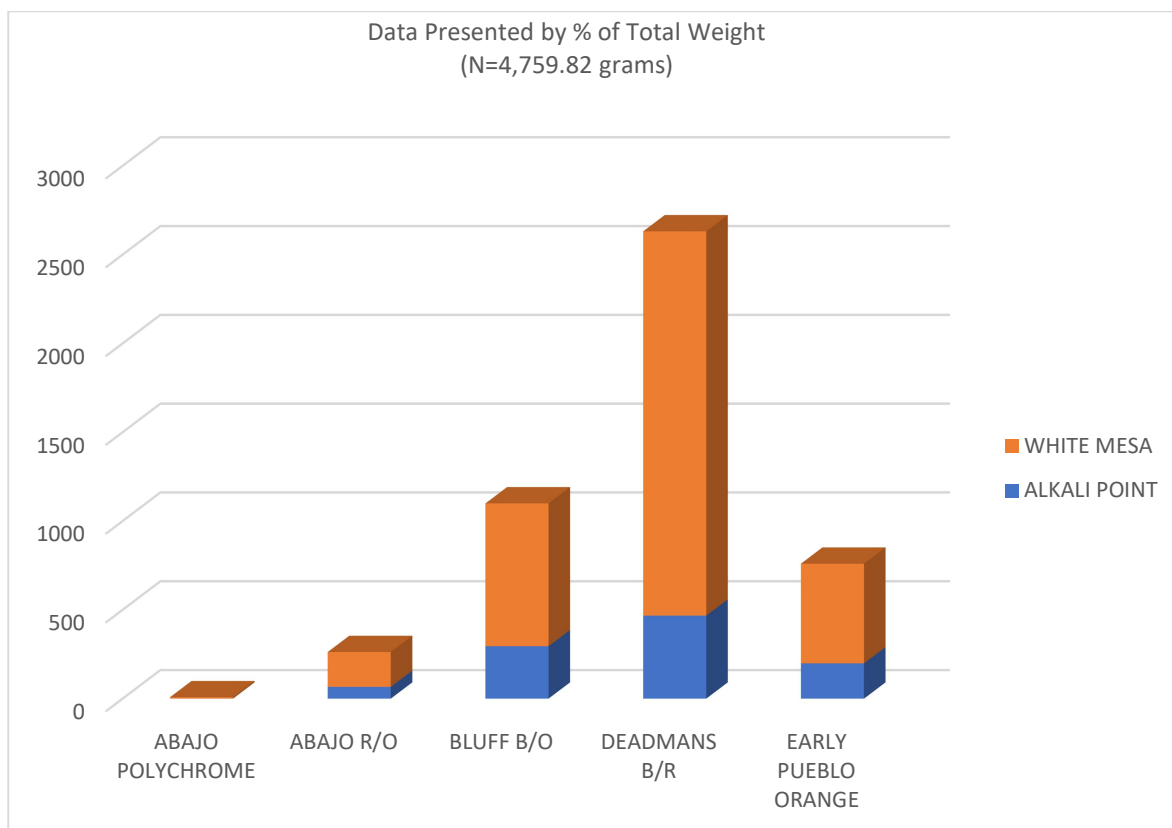


Figure 9. Diorite Tempered Pueblo I and Pueblo II Pottery Types by Production Zone.

Acknowledgments. Fellow archaeologist Winston Hurst of Blanding, Utah engaged his phenomenal familiarity with the landscape and archaeology of White Mesa to sample Burro Canyon clay outcrops in a search for the location of the clay source that refires to 5YR6/6. Thanks also to Peter McKenna, who volunteered a Bluff B/o sherd from a site near Dulce, New Mexico for analysis. It served as a perfect foil to show the ultimate power of knowing both production and recovery proveniences. And thanks to Jonathan Till at Edge of the Cedars Museum for offering to host the sensitive locational information associated with the Clay Voucher Sample and Technological/Typological Ceramic Analysis databases referenced in this paper. Thanks also to the sharp-eyed Pottery Southwest editorial board who pointed out several deficiencies in previous drafts, which led to what I hope is a significant contribution to the ceramic typology of the Northern Southwest. And as usual, I dedicate this paper to my wife and editor, Irene Lopez Wessell.

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THE PRESENCE AND PERSISTENCE OF FOUR CORNERS REGION BASKETMAKER III MOTIFS IN THE FAR WESTERN ANCESTRAL PUEBLO REGION

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Keywords: Basketmaker III motifs; Four Corners Region; Far Western Ancestral Pueblo Region; Jackson Flat, Utah; Lowland Virgin Area, Nevada

Abstract

This study was undertaken to determine whether any ceramic bowl motifs in the Far Western Ancestral Pueblo Region are similar to nine such Basketmaker III motifs already identified in the Four Corners Region of the southwestern United States. The research was conducted through the examination of several hundred photographs of ceramic artifacts from sites in the Far Western Region. These photographs were obtained from three sources: organizations directly engaged in scientific archaeological research, museums which curate artifacts from such excavations, and publications which document such excavations. The results were unexpected—while all nine motifs were identified, only five were from Basketmaker III sites, with the remaining motifs being from Pueblo I and Pueblo II sites. Furthermore, while the Basketmaker III motifs were accurate representations of established motif forms, the Pueblo I and Pueblo II motifs displayed modifications to those forms. These findings point to inter-regional connections between the Far Western and Four Corners regions over a period of 600 years, from approximately A.D. 500 to 1100.

Project Overview

Research conducted for this article was based on the examination of ceramic artifact photographs from 13 Basketmaker III, Pueblo I, and Pueblo II sites in the Far Western Region, compared with ceramic artifact photographs from 115 Basketmaker III sites in the Four Corners Region. This research shows that nine ceramic bowl motifs developed in the Four Corners Region were transmitted to the Far Western Ancestral Pueblo Region (Far Western Region) during the Ancestral Pueblo period in the southwestern United States. Based on the limited data presently available, it appears that five motifs were transmitted during the Basketmaker III period, and the remaining four were transmitted during the Pueblo I period.

These findings expand on research which was originally focused solely on Basketmaker III black-on-white bowl motifs from the Four Corners Region (Honeycutt 2015a, 2015b). Subsequent research has shown that some of these motifs were developed during the Basketmaker II period (Honeycutt 2018) and that some persisted into Historic and modern times (Honeycutt 2019). The present research therefore continues the trend to expand the spatial and temporal extent of the nine motifs beyond the original scope of research.

The goal of this paper was to provide the evidence for, and discuss the implications of, the presence of all nine motifs in the Far Western Region during the Ancestral Pueblo period. The database developed for the Four Corners Region project (discussed later in Methods) was used for comparative purposes on the Far Western Region project.

Project Location

As can be seen from Figure 1, the Far Western Region comprises portions of Utah, Arizona, and Nevada. Of the 13 sites referenced in this article, 2 are in Utah and 11 are in Nevada. The Utah sites are presently submerged under Jackson Flat Reservoir in Kane County, but they were originally situated on Jackson Flat, an open sage flat adjacent to Kanab Creek (Ahlstrom et al. 2022:28). The Nevada sites are presently submerged under or located near Lake Mead in Clark County, but they were originally situated above the Muddy or Virgin rivers in an area referred to as the Lowland Virgin Area (Lyneis 2000:257; Shutler 1961). In relation to the Four Corners Region, Jackson Flat is approximately 200 miles west of the intersection of the four states, while the Lowland Virgin Area is approximately 300 miles west of the same point (see Figure 1).

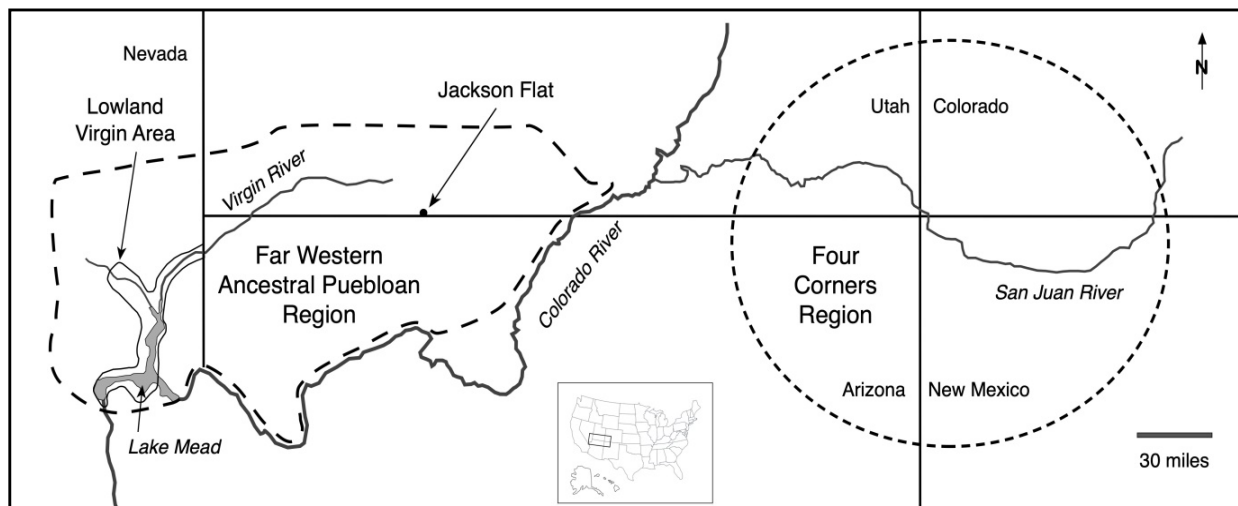


Figure 1. Map showing the locations of Jackson Flat and the Lowland Virgin Area in relation to the Far Western Region (after Roberts 2022:Figure 1.2 and Lyneis 2000:Map 12.2) and the Four Corners Region (after Honeycutt 2014:Project p. 3). Map services and data available from U.S. Geological Survey, National Geospatial Program.

Project Sites

The two Jackson Flat sites referenced in this article were excavated between 2009 and 2013 in association with construction of the Jackson Flat Reservoir east of the town of Kanab, Utah (Wintch 2022:11). Both sites, 42KA6164 and 42KA6165, were multi-component, multi-locus habitations (Roberts and Ahlstrom 2018:2-12 - 2-23) that contained Mesquite Black-on-gray (AD 500-700) and Washington Black-on-gray (AD 700-900) ceramics, dated to the Basketmaker III and Pueblo I periods respectively (Hagopian 2018:3-40). These ceramics, part of the Tusayan White Ware Virgin Series, are thought to have been widely produced and distributed east and west of Kanab Creek, and are considered local to Jackson Flat (Hagopian 2018:3-73).

Most of the eleven Lowland Virgin Area sites referenced in this article were excavated in the 1930s in association with the construction of Boulder Dam (now Hoover Dam) and the filling of Lake Mead (Shutler 1961). These sites were habitations composed of pithouses and/or surface rooms of Basketmaker III, Pueblo I, and/or Pueblo II cultural affiliation (Shutler 1961:21-27;

Lyneis 2000:262; Virginia Lucas, personal communication 2023). They are referenced using four systems: Smithsonian numbers (26CK2029, 26CK2079, 26CK2092), name (Bonelli), house numbers (94, 99, 102), and plate numbers (41u, 46d, 47c, 49a). The ceramics recovered from them are part of the Tusayan White Ware Virgin Series, and comprise six black-on-gray types: Mesquite (Basketmaker III), Lino (Basketmaker III-Pueblo I), Boulder (Basketmaker III-Pueblo II), Washington (Pueblo I), St. George (Pueblo II), and Sosi (Pueblo II).

Methods

For the present Far Western Region study, the author examined several hundred existing photographs of Basketmaker III, Pueblo I, and Pueblo II bowls and bowl sherds looking for painted designs that matched, or even just resembled, the motifs in the Four Corners Region database. In contrast to the author's usual method of personally photographing artifacts, due to the Covid pandemic and other factors, none of the artifacts for this article were examined or photographed in person by the author. Most of the photographs utilized for the study were published in online or hard-copy reports of excavated sites. Many of the reports suggested the absence of any Four Corners Region motifs, although a few of them [e.g., McFadden 2016:Figure 32, Varley 2002:Figure 14(a')] did indicate their presence.

The original plan for the Far Western Region study had been to examine ceramics from just the Basketmaker III period, as was done in the Four Corners Region study. However, the photographic search revealed that (1) in general, Basketmaker III ceramics displaying painted motifs of any sort were rare, and (2) Pueblo I and Pueblo II ceramics displaying painted motifs were present. For these reasons, the research for the Far Western Region study was expanded to include ceramics from the two later periods.

The two locations for which the most numerous and useful photographs existed were eventually selected as the focal points of this study: Jackson Flat and the Lowland Virgin Area. For Jackson Flat, 160 digital photographs and associated data were provided to the author by Janet Hagopian, who served as the ceramic analyst for the Jackson Flat project (Hagopian 2018). For the Lowland Virgin Area, five sources of photographs and data were utilized: the Lost City Museum (formerly the Boulder Dam Park Museum), the Nevada State Museum, Harrington (n.d., but circa 1937), Lyneis (2000), and Shutler (1961). From these six sources, 47 photographs of black-on-gray bowls or bowl sherds were selected for use in this study. Since four of the photographs illustrate ceramics associated with human burials, neither these photographs nor digital graphics of them are shown in this article.

All motif analysis was done by the author, using procedures similar to those used for the Four Corners Region study, as described in the remainder of this paragraph. The data collected for the Four Corners Region project was designed to answer two questions regarding Basketmaker III black-on-white bowl motifs in the Four Corners Region. These questions were: (1) did distinct motifs exist, and if so, (2) were they associated with distinct populations from different areas? In order to address these questions, more than 3,000 artifact photographs were taken by the author at, or obtained from, 15 museums in the United States. Each photograph was examined by the author, and assigned to one of nine motifs based on pattern recognition. Data fields were created to allow for coding variations in both structural elements and secondary embellishments. All

nine motif classifications were created by the author, and motif numbers were based on the chronological order in which they were classified. The project database (Filemaker Pro) contains records on 2,650 bowls and bowl sherds from 115 Basketmaker III sites which had been scientifically excavated and documented. For each motif, one or more stylized drawings were made, also by the author, to summarize both the structural elements and embellishments which were variously used to create the motif. The resulting research established that, yes, nine distinct motifs existed (Honeycutt 2015a, 2015b) and no, they were not associated with distinct populations from different areas. The results of this research are posted on the author's website <https://www.basketmakeriiimotifs.org>.

Limitations of Data

The data from the Lowland Virgin Area sites have two notable limitations. First, due to both temporal and environmental constraints, neither dendrochronological nor radiocarbon dates were obtained for any of the Lowland Virgin Area sites used in this article. Sites and their associated ceramics were dated on ceramic typology and, possibly, architectural data. Second, problems with project supervision, funding, reporting, and collections management resulted in the loss of data both during and after the excavations (Lyneis 1992:3-5). By the 1960s, ceramics for approximately half of the sites could not be relocated (Shutler 1961:22), including those ceramics from the four Basketmaker III sites specifically noted during excavations as containing painted pottery (Shutler 1961:14, 67). In addition, many of the ceramics that could be located could not be matched with any site documentation; Shutler referred to these as "no location."

Four "no location" ceramics are used in this article. Since these artifacts could be from any or none of the seven provenienced sites referenced below, the total number of sites is between seven and eleven. The "no location" ceramics are referenced by their Plate numbers and letters as assigned by Shutler (1961), except for those where subsequent work by staff at the Nevada State Museum identified the actual site number.

Results

A total of 47 ceramics was selected for use in this project (see Table 1). Two-thirds (33) of these artifacts are from the Jackson Flat sites, while the remaining one-third (14) are from the Lowland Virgin Area sites.

Most of these ceramics are illustrated with photographs, usually accompanied, for visual comparative purposes, by stylized drawings of comparable Four Corners Region Basketmaker III motifs. In the four instances where ceramics were associated with burials, photographs are not presented in this article, but they are published in the original reports referenced in text.

Motif 1

Motif 1 is a zoomorph, and the most complicated of the nine Basketmaker III motifs. It is composed of at least one head, a body box, and a pair of appendages. The head is usually either triangular or T-shaped. The body box is rectangular and, depending on the form, either plainly visible or inferred. The appendages are almost always triangular and appear to depict wings. A

variety of embellishments may be applied to the basic components, mainly fringe, floating dots, or Zs, and/or outlining. Motif 1 occurs in three forms: Reduced, Joined, and Basic.

Table 1. Motifs 1-9 as Recognized at Selected Sites in the Far Western Region.

Site	Motif									
	M1	M2	M3	M4	M5	M6	M7	M8	M9	Total
42KA6164	-	-	-	-	2	1	1	1	-	5
42KA6165	-	3	6	3	6	-	1	2	7	28
26CK2029	1	-	-	-	-	-	-	-	-	1
26CK2079*	-	-	-	-	1	-	-	-	-	1
26CK2092	-	-	-	-	2	-	-	-	1	3
Bonelli*	1	-	-	-	-	-	-	-	-	1
House 94	-	-	-	1	-	-	-	-	-	1
House 99	-	1	-	-	-	-	-	-	-	1
House 102*	-	-	2	-	-	-	-	-	-	2
Plate 41u	-	-	-	-	-	-	1	-	-	1
Plate 46d	-	-	1	-	-	-	-	-	-	1
Plate 47c	1	-	-	-	-	-	-	-	-	1
Plate 49a	-	-	-	-	-	-	1	-	-	1
Total	3	4	9	4	11	1	4	3	8	47

* Denotes site with artifacts discussed but not illustrated in this article.

Motif 1 in the Far Western Region is represented by three ceramics, all of which are from the Lowland Virgin Area. They represent structurally modified versions of the Motif 1 Basic form (Figure 2a) and Reduced form (Figure 2c). All three of these artifacts are known, or suspected, to post-date the Basketmaker III period.

Basic Form—Pueblo I. The modified version of the Basic form is depicted on a bowl (not illustrated here) from the Bonelli Site. The two structural modifications are (1) the elimination of the upper pair of wings and (2) the replacement of the horizontal white-filled body box with a thin black line. Non-structural embellishment consists of partial outlining and fringe on the head and wings (Harrington n.d.:Figure 8). The Bonelli Site was a multi-pithouse habitation dating to about A.D. 800 (Lyneis 2000:257). This bowl, originally classified as “Late Basketmaker” (Harrington n.d.:Figure 8), was subsequently reclassified as Lino Black-on-gray (Lyneis 2000:261).

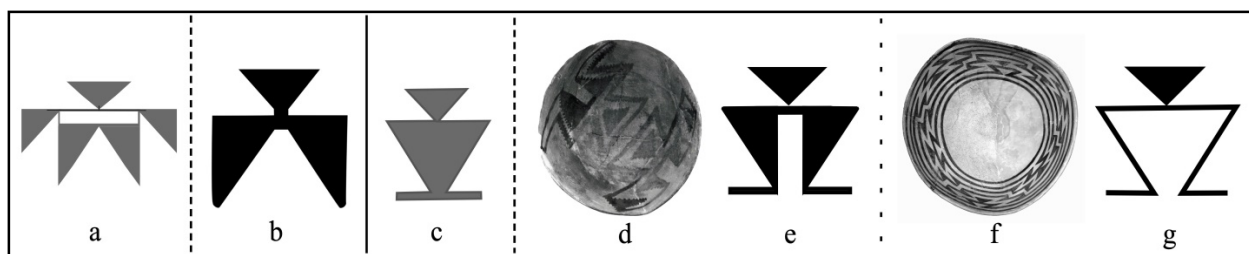


Figure 2. Stylized drawings and photographs of Motif 1: (a) Basic form, Basketmaker III, Four Corners Region; (b) Ignacio 7:23 (Carlson 1963:Plate 14a); (c) Reduced form, Basketmaker III, Four Corners Region; (d) Plate 47c; (e) detail Plate 47c; (f) 26CK2029.10; (g) detail 26CK2029.10. Photographs courtesy of Nevada State Museum (Plate 47c) and Lost City Museum (26CK2029.10); drawings by author, (b) by permission of University of Colorado Museum of Natural History. [Note: portions of the bowl illustrated in Figure 2d appear to the author to have been historically modified.]

This modified version of the Basic form has also been found in the Four Corners Region. Four motifs on two ceramics were recovered from a pithouse habitation (Ignacio 7:23) constructed in A.D. 763 (Dean 1975:37) in southwestern Colorado (Carlson 1963:Plate 12b, Plate 14a). The sherd which displays the motif illustrated in Figure 2b is classified as Lino Black-on-gray, Durango Variety (Carlson 1963:Table 1).

These findings support research on the Bonelli Site previously conducted by Lyneis (2000:261-262). In the Bonelli ceramic collection, she identified four Abajo Polychrome sherds, manufactured in southeastern Utah between A.D. 775 and 825. She concluded that the inhabitants of the Bonelli Site had “indirect connections to the northern San Juan region further to the east” (Lyneis 2000:263).

Reduced Form—Pueblo II. Two modified versions of the Reduced form are depicted on two bowls (Figures 2d and 2e and Figures 2f and 2g).

The first prehistoric modification was the removal of the vertical, paint-filled, rectangular body box and its associated portion of the horizontal base line from between the two wings. Instead of the body box, a thin line connected the two wings to each other, with the head either floating above this line or connected to it by a short neck. This modification is clearly seen in Figures 2d and 2e, but can also be inferred from Figures 2f and 2g.

The second modification, shown only in Figure 2d, was the enlargement of each individual motif. Instead of occupying about 10 percent of the bowl’s interior, as in the Four Corners Region during the Basketmaker III period, each motif now occupied approximately 50 percent of the bowl’s interior. The bowl shown in Figure 2c is classified as Boulder Black-on-gray (Shutler 1961:82), a ceramic type produced from the Basketmaker III through Pueblo II period (Shutler 1961:28). Based on the large scale of the two motifs, it was probably not manufactured during the Basketmaker III period. Instead, based on several large-scale motifs discussed later in Motif 3, it was probably manufactured during the Pueblo II period.

The third modification, shown in Figures 2f and 2g, was the omission of paint fill from the triangular wings. With neither the paint fill nor the paint-filled body box, the existence of each

wing was now only indicated by the hypotenuse and the shorter of the triangle's two legs. The bowl in Figure 2f is classified as Tusayan Virgin Series, Black-on-gray corrugated Sosi style, with clapboard indented corrugation and Sosi designs by Virginia Lucas (personal communication 2024). This ceramic type dates to A.D. 1100-1150 (Lyneis 1992:5, 35). This bowl establishes the presence of a highly-modified version of Motif 1 Reduced form in the Lowland Virgin Area in the late Pueblo II period.

Motif 2

Motif 2 is derived from the head of Motif 1. This motif always appears in multiples, either floating, stepped, or attached to a base line (Figure 3). It most commonly occurs in the paint-filled triangular or T-shaped form; less commonly it occurs as multiple stacked horizontal or parallel vertical lines, similar to the less common forms of Motif 1's head.

The Motif 2 T-shaped form is represented in the Far Western Region by four sherds, three from Jackson Flat and one from the Lowland Virgin Area. These sherds depict the T-shaped Joined (Figure 3b) and Stepped (Figure 3f) forms of Motif 2, and date to the Basketmaker III and Pueblo I periods respectively.

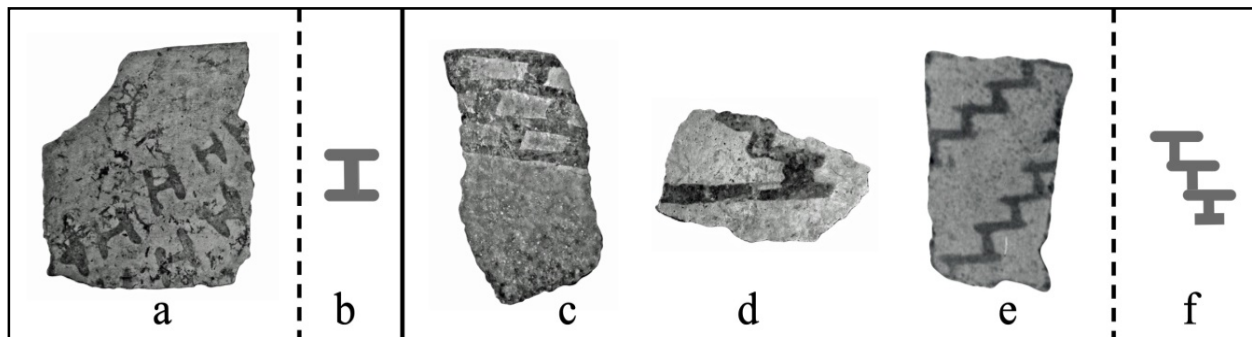


Figure 3. Photographs of four sherds from the Far Western Region and stylized drawings of two comparable Motif 2 T-shaped Basketmaker III forms from the Four Corners Region: (a) 42KA6165.4422.45; (b) T-shaped Joined; (c) 42KA6165.2835.6; (d) 42KA6165.2561.7; (e) House 99 catalog #BP 2960; (f) T-shaped Stepped. Photographs courtesy of Janet Hagopian (42KA6165) and Nevada State Museum (House 99); drawings by author. [Note: The Lowland Virgin Area sherd shown in Figure 3e was listed by Shutler (1961:82) as Figure 41h, “Lost City, no location.” Research conducted by staff at the Nevada State Museum, in association with providing the author photographic permission for Plate 41h, established that this sherd, catalog #BP 2960, was from House 99 where no burial was noted (April Van Wyke, personal communication 2024).]

T-Shaped Joined Form—Basketmaker III. The Basketmaker III sherd (Figure 3a), classified as Mesquite Black-on-gray by Janet Hagopian (personal communication 2017), shows five T-shaped Joined forms in two parallel rows. This sherd compares favorably with its counterpart in the Four Corners Region (Figure 3b), and indicates that Motif 2 T-shaped Joined was present in its original form in the Far Western Region during the Basketmaker III period.

T-Shaped Stepped Form—Pueblo I. The three Pueblo I sherds (Figures 3c, 3d, and 3e) show two types of modification to the Basketmaker III T-shaped Stepped form (Figure 3f) as seen in the

Four Corners Region. The two Pueblo I sherds from Jackson Flat (Figures 3c and 3d), classified as Washington Black-on-gray by Janet Hagopian (personal communication 2017), both display necks that are proportionately two to three times thicker than their corresponding heads. One of these sherds (Figure 3c) also shows its three sets of steps connected into a lattice or grid. The Lowland Virgin Area sherd (Figure 3e), also classified as Washington Black-on-gray (Shutler 1961:82), shows the head of each “T” has been shifted so far to the right on the neck that it looks more like an inverted “L.” Overall, these are fairly minor modifications of the Four Corners Region Basketmaker III form. However, they are sufficient to suggest that local variations, based on changes in line proportions and placement, were incorporated into the Motif 2 T-shaped Stepped form in the Far Western Region during the Pueblo I period.

Motif 3

Motif 3 is a zoomorph in profile which occurs in two forms: 45 Degrees and 90 Degrees, based on the motif’s angle relative to its base line (Figure 4). The zoomorphic nature of this motif is indicated by the presence of an ear, forehead, jowl, or muzzle on some (but not all) depictions. When these zoomorphic indicators are absent, the motif merely looks like a pair or trio of triangles pointing to either the right or left 9 (Figure 4d).

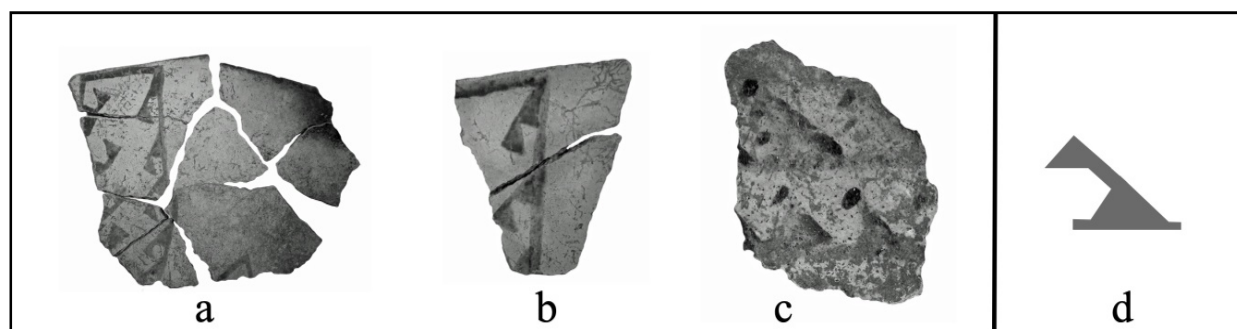


Figure 4. Photographs of 11 sherds from the Far Western Region and stylized drawing of one comparable Motif 3 45-Degree Basketmaker III form from the Four Corners Region: (a) 42KA6165.1899.1.2 and 2.6; (b) 42KA6165.3102.11.2 and 12.1; (c) 42KA6165.635.6.1.; (d) 45-Degree Basketmaker III Form from the Four Corners Region. Photographs courtesy of Janet Hagopian; drawing by author.

Nine examples of Motif 3 were identified for the Far Western Region: six from Jackson Flat and three from the Lowland Virgin Area. Both the 45-Degree and the 90-Degree forms are represented. All nine examples displayed some degree of motif modification, and dated to either the Pueblo I or Pueblo II period.

45-Degree Form—Pueblo I. The three examples of the 45-Degree form are from site 42KA6165 at Jackson Flat, all classified as Washington Black-on-gray (Hagopian 2018:Figure 3.9c and Figure 3.20) and dated to the Pueblo I period. Two groups of sherds (Figures 4a and 4b), probably from the same bowl, depict eleven motifs which individually compare very well with their counterpart from the Four Corners Region (Figure 4d). However, these Far Western Region motifs are aligned along the interior of boxes or polygons, while Four Corners Region motifs are always aligned along the exterior. It is not known whether this was the result of inter-

regional miscommunication or intentional modification. Figure 4c shows four motifs distributed on two parallel, horizontally stacked lines. The two on the top row resemble multi-tiered 90-Degree motifs that have been tilted to 45 degrees, an arrangement that is absent from the Four Corners Region database. The two on the bottom row compare favorably with the Basketmaker III form of the motif.

90-Degree Form—Pueblo I. The three Pueblo I examples (Figures 5a, 5c, and 5e) are all sherds from Jackson Flat classified as Washington Black-on-gray by Janet Hagopian (personal communication 2017). Figure 5a shows an unusual arrangement of two one-tiered (single head) motifs, each mounted on the corner of a three-sided polygon, with the smaller motif nested inside the bigger motif. This arrangement is far more complicated than, but may have derived from, the one-tiered Basketmaker III motif as shown in Figure 5b. Figure 5c displays a two-tiered motif with paint-filled head and wings, but an unpainted body box. Figure 5e displays two multi-tiered motifs, four- and five-tiered respectively. This is a variation which is found in the Four Corners Region on Basketmaker II sandals and bags, but not on Basketmaker III painted bowls, which have three-tiered motifs, as shown in Figure 5f. The two possible triangles with pendant dots above the multi-tiered motifs do not appear to represent any Four Corners Region motif, a situation which has been noted elsewhere in this article for Washington Black-on-gray ceramics.

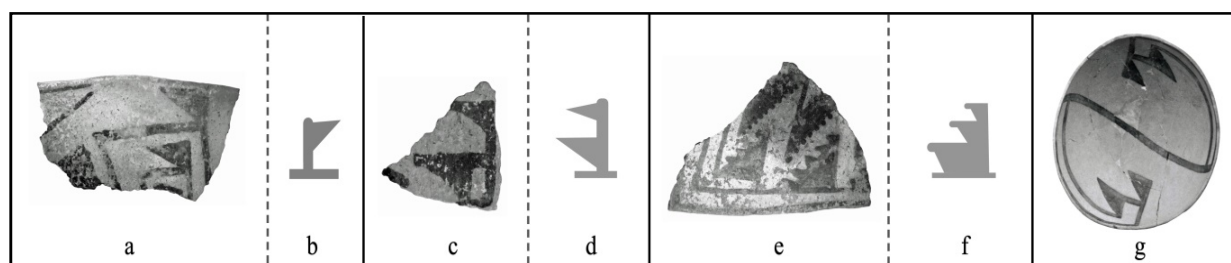


Figure 5. Photographs of four ceramics from the Far Western Region and stylized drawings of three comparable Motif 3 at 90 Degrees Basketmaker III forms from the Four Corners Region: (a) 42KA6165.1970.9; (b) One-tiered; (c) 42KA6165.2283.8; (d) Two-tiered; (e) 42KA6165.1965.16; (f) Three-tiered; (g) Plate 46d. Photographs courtesy of Janet Hagopian (42KA6165) and Nevada State Museum (Plate 46d); drawings by author.

90-Degree Form—Pueblo II. Of the three Lowland Virgin Area bowls which display the 90-Degree form, one is from an unknown location (Figure 5g) and two are from House 102 (not illustrated here). Figure 5g is classified as St. George Black-on-gray (Shutler 1961:82, Plate 46d). It displays two two-tiered motifs with paint-filled heads and wings, but unpainted body boxes (like Figure 5c). The body boxes are open and remain so until their basal lines terminate against the bowl's central dividing line. Each of the two motifs occupies one-half of the bowl interior. The two bowls from House 102 display similar motifs (see Shutler 1961:Plates 56a and 57d). The bowl shown in Plate 56a contains two three-tiered versions of Motif 3 at 90 Degrees. Like Figure 5g, each motif occupies one-half of the bowl interior. Each has a paint-filled head, but the lower two tiers are not paint-filled. The body boxes of the Plate 56a bowl are closed, but greatly extended along the curvatures of the bowl. This bowl is classified as St. George Black-on-gray (Shutler 1961:83). The bowl shown in Shutler's Plate 57d contains one three-tiered version of Motif 3 at 90 Degrees. This motif occupies one half of the bowl's interior, while the other half is occupied by a roughly Z-shaped figure. Like Shutler's Plate 56a bowl, the motif has

a paint-filled head, and the lower two tiers are not paint-filled. Like Figure 5g, the body box of the Plate 57d bowl remains open until it terminates against the bowl's central dividing line. The Plate 57d bowl is classified as Boulder Black-on-gray (Shutler 1961:83), a ceramic type manufactured from Basketmaker III to Pueblo II (Shutler 1961:28). Given its similarities to the two St. George bowls, the Plate 57d bowl was probably produced during the Pueblo II period.

Motif 4

Motif 4 is a zoomorphic form which depicts fringed (or feathered) wings similar to those shown on some versions of Motif 1. The Triangular form consists of a right-angle triangle, the hypotenuse of which is embellished with 3 to 8 graduated parallel lines that are perpendicular to the far edge or attachment line. The hypotenuse can be either straight or stepped and both types can be found on a single artifact. In the E-F Letter form, the triangle is omitted and only the lines are present; these lines may be the same length, or they may be graduated.

Four examples of Motif 4 are present in the photographs examined for this article (Figure 6). Three are from 42KA6165 and are classified as Mesquite Black-on-gray (Figure 6a) and Washington Black-on-gray (Figures 6c and 6d) by Janet Hagopian (personal communication 2017). The fourth (f) is from House 94 (April Van Wyke, personal communication 2024) and is classified as Washington Black-on-gray by Janet Hagopian (personal communication 2024).

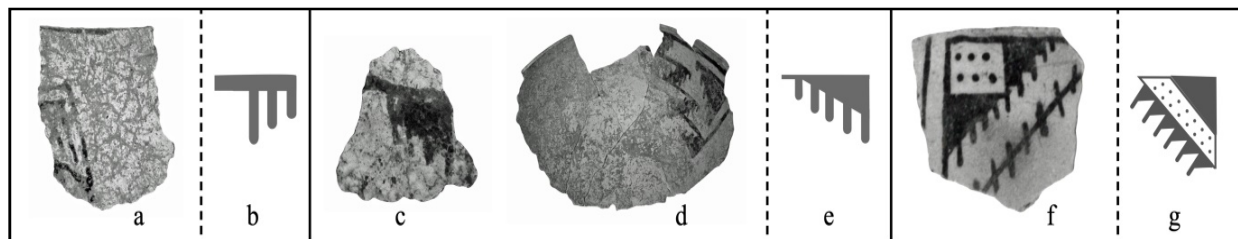


Figure 6. Photographs and stylized drawings of Motif 4: (a) 42KA6165.1419.11; (b) Line Wing form; (c) 42KA6165.428.1; (d) 42KA6165.3206.1-4; (e) Paint-filled Triangular form; (f) House 94; (g) Wing Complex form. Photographs courtesy of Janet Hagopian (42KA6165) and Nevada State Museum (House 94); drawings by author. [Note: The sherd illustrated in Figure 6f was originally noted by Shutler (1961:Plate 40t; 82) as “no location” and classified as North Creek Black-on-gray. Subsequent research by staff at the Nevada State Museum established its provenience as House 94, Room 4, Catalog #BP 2945 (April Van Wyke, personal communication 2024), and subsequent re-analysis by Janet Hagopian classified it as Washington Black-on-gray (Janet Hagopian, personal communication 2024).]

E-F Letters Form—Basketmaker III. The single Mesquite Black-on-gray sherd (Figure 6a) shows the distal end of a simple E-F wing which has a sparsely fringed outline. It is similar to its counterpart (Figure 6b) in the Four Corners Region and indicates that this form was established in the Far Western Region during the Basketmaker III period.

Paint-filled Triangle Form—Pueblo I. Each of the three Washington Black-on-gray sherds displays a single paint-filled triangle, in association with other painted objects not normally seen with the Four Corners Region forms. Figure 6c's wing has a stepped, fringed hypotenuse; below this is an indistinct cluster of dots and a line. Figure 6d's wing has a straight, fringed hypotenuse.

Surrounding this motif is an irregular construction consisting of two perpendicular lines and three shorter lines with four steps composed of paint-filled and fringed irregular polygons. Figure 6f's wing consists of a partially paint-filled triangle with a straight, fringed hypotenuse. Inside the triangle is a box containing six dots. When compared to Figure 6g, this motif raises two questions: does the dot-box's location in the triangle's corner, rather than along its hypotenuse, reflect a long-distance miscommunication between the Lowland Virgin Area and the Four Corners region? Or does it show an intentional disregard for information about how Motif 4's Wing Complex was depicted during the Basketmaker III period in the Four Corners Region?

Motif 5

Motif 5 is characterized by dots (Figure 7). These are often arranged in rows enclosed within a stepped polygon or a rectangle which is itself often embellished with lines or triangles. Motif 5 is also depicted "free" in rows descending from the bowl rim toward the center, or inside triangles or contiguous rectangles where they are not arranged in rows.

Motif 5 is represented by 11 ceramic artifacts, of which ten are illustrated here. The seven Mesquite Black-on-gray sherds (Figures 7a-g) and the single Washington Black-on-gray sherd (Figure 7j) are from the two Jackson Flat sites (Janet Hagopian, personal communication 2017). The two Lino Black-on-gray sherds (Figures 7h-i) are from the Lower Virgin Area site 29CK2092 (Virginia Lucas, personal communication 2020).

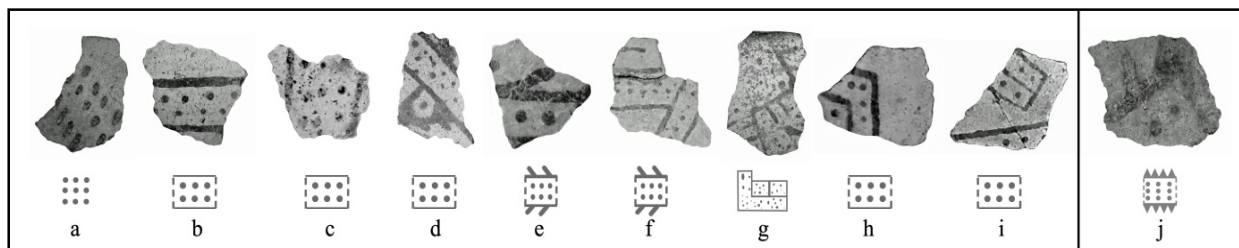


Figure 7. Photographs (upper row) and stylized drawings (lower row) of Motif 5: (a) 42KA6164.27.4; (b) 42KA6165.3237.7; (c) 42KA6165.3237.8; (d) 42KA6165.4897.1; (e) 42KA6165.199.7; (f) 42KA6165.2218.14; (g) 42KA6165.3177.12; (h) 26CK2092.1931.2.2b; (i) 26CK2092.1931.2.2c; (j) 42KA6164.247.1. Photographs courtesy of Janet Hagopian and the Lost City Museum; drawings by author.

Multiple Forms—Basketmaker III. The nine Basketmaker III sherds (Figures 7a-i) depict versions of the Free (Figure 7a), Parallel Lines (Figure 7b, 7c, 7d, 7h, and 7i), Parallel Lines with Bristles (Figure 7e and 7f), and Honeycomb (Figure 7g) forms. Most are virtually indistinguishable from Motif 5 forms in the Four Corners Region. The exception is Figure 7d, which shows an enigmatic dot-filled and fringed shape appended perpendicularly to one of the two parallel lines; a second shape is suggested on the other line.

A Mesquite Black-on-gray bowl (not illustrated here) from site 26CK2079 (Virginia Lucas, personal communication 2020) also fits well within the variations recognized for Motif 5. It displays two rather sparse panels, each composed of two motifs connected by a single line. Each motif consists of a vertical rectangular box containing one, two, or three vertical rows of approximately ten dots each. Two of the boxes also display external rows of dots parallel to the long axis of the boxes.

Parallel Lines Form—Pueblo I. The single Washington Black-on-gray sherd (Figure 7j) represents the continued use of Motif 5 at Jackson Flat into the Pueblo I period.

Motif 6

The basis of Motif 6 is a single element which resembles the letter "Z" or its approximate mirror image, an angular letter "S" (Figure 8). Elements occur in multiples comprising one or more rows. They are usually spaced at fairly regular intervals and oriented in the same direction. When present, enclosing lines can be straight or curved, and plain or appended with bristles or paint-filled triangles. One widely accepted interpretation of this motif is "basket stitch."

Free Form—Basketmaker III. One example of Motif 6 was identified (Figure 8a). It is from Jackson Flat and is classified as Mesquite Black-on-gray (Janet Hagopian, personal communication 2017). This Basketmaker III sherd displays three examples of the Free form of Motif 6. It shows the somewhat casual disregard for symmetry often found in this motif in the Four Corners Region. It compares favorably with its counterpart (Figure 8b), and indicates that Motif 6 was present in its original form in the Far Western Region during Basketmaker III period.

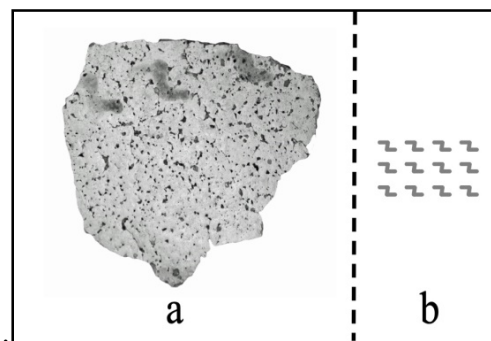


Figure 8. Photograph and stylized drawing of Motif 6: (a) 42KA6164.665.1; (b) Free form. Photograph courtesy of Janet Hagopian; drawing by author.

Motif 7

Motif 7 is characterized by paint-filled triangles which are arrayed along straight, stepped, or circular lines (Figure 9). In contrast to Motif 2, which also contains paint-filled triangles, Motif 7 triangles are neither free form nor attached to a line by a point (angle). The triangles range from purely geometric to sub-triangular with rounded corners; the motif may even include lines of varying thickness that are not triangles.

In the Far Western Region, Motif 7 is represented by four Washington Black-on-gray ceramics—two from Jackson Flat (Figures 9a and 9c) and two from the Lowland Virgin Area (Figures 9e and 9g). No examples of Mesquite Black-on-gray or Lino Black-on-gray Motif 7 were noted in the photographs examined for this article.

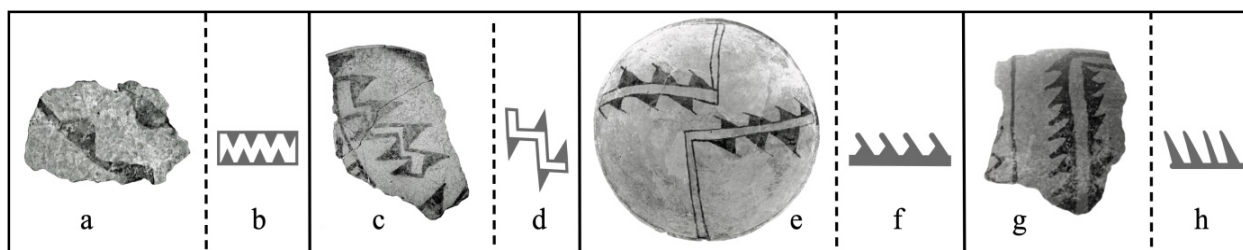


Figure 9. Motif 7: Photographs of four ceramics from the Far Western Region, alternating with stylized drawings of four comparable Basketmaker III forms from the Four Corners Region. (a) 42KA6164.397.5; (b) Alternate Opposed; (c) 42KA6165.3221.4; (d) Stepped; (e) Plate 49a (Shutler 1961); (f) Tipped; (g) Plate 41u (Shutler 1961); (h) Irregular. Photographs courtesy of Janet Hagopian (9a, 9c) and Nevada State Museum (9e, 9g); drawings by author.

Multiple Forms—Pueblo I. The four Motif 7 ceramics (Figures 9a, 9c, 9e, and 9g) depict four forms: Alternate Opposed, Stepped, Tipped, and Irregular. Although all four ceramics were manufactured during the Pueblo I period, the two from Jackson Flat (Figures 9a and 9c) more closely resemble Motif 7 in the Four Corners Region than do the two Lowland Virgin ceramics (Figures 9e and 9g). The Figure 9c Jackson Flat sherd shows this with its smaller scale and increased complexity through the use of a four- or five-stepped polygon, each step of which contains two small triangles. In contrast, the two Lowland Virgin ceramics are drawn on larger scales and in simpler layouts through the use of one-stepped polygons with multiple contiguous triangles on only one segment. Both of the Figure 9c and 9g sherds display asymmetrical lines to the left of their stepped polygons, which are unlikely to occur on Basketmaker III Motif 7 in the Four Corners Region.

Motif 8

Motif 8 captures single and multiple parallel lines which exhibit angles or curves, but lack appendages and/or fill (Figure 10). Motif 8 can divide the interior of a bowl either horizontally, as a band below the rim, or vertically, often in conjunction with a center circle.

Motif 8 is represented by three sherds, all from Jackson Flat. One is classified as Mesquite Black-on-gray (Figure 10a) and two are classified as Washington Black-on-gray (Figures 10c and 10d) (Janet Hagopian, personal communication 2017).

End Box—Basketmaker III. The “end box” (see Figure 10a) is not a motif in itself. It is just a configuration of lines that often, but not always, are fragments of an outlined cross as in Figure 10b. In the Four Corners Region, abundant use was made of both outlines and polygons, and this Mesquite Black-on-gray sherd suggests such an approach was also present in Jackson Flat. It compares favorably with its counterparts in the Four Corners Region, and shows that the “end box” was present in its original form in the Far Western Region during the Basketmaker III period.

Parallel Stepped Lines—Pueblo I. Figures 10c and 10d are good examples of Motif 8 parallel stepped lines. However, they both also contain indeterminate painted objects underneath, as has been previously noted for other Washington Black-on-gray sherds which display Four Corners Region motifs. These sherds support the observation that Pueblo I ceramics at Jackson Flat bore a proportionate resemblance to their underlying Basketmaker III motifs.

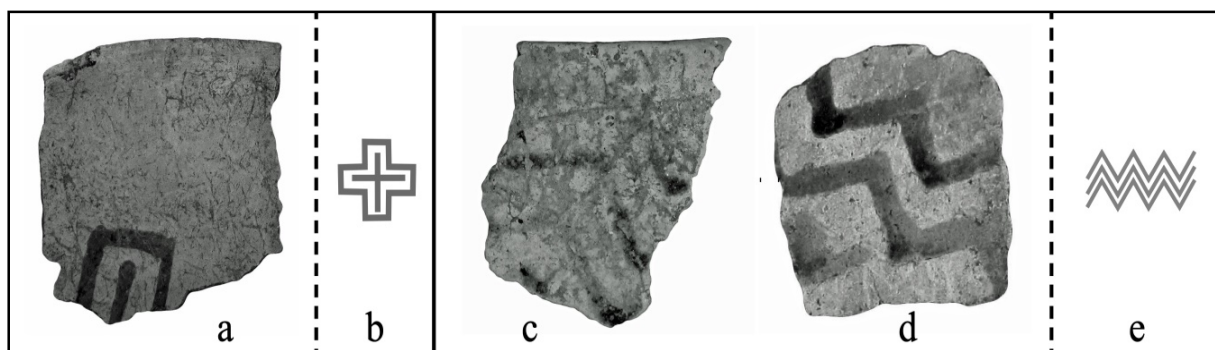


Figure 10. Motif 8: Photographs of three sherds from the Far Western Region and stylized drawings of two comparable Basketmaker III forms from the Four Corners Region. (a) 42KA 6165.1956.11; (b) outlined cross; (c) 42KA6164.524.37; (d) 42KA6165.509.17; (e) parallel stepped lines. Photographs courtesy of Janet Hagopian; drawings by author.

Motif 9

Motif 9 consists of one or two base lines appended by multiple parallel short lines attached at either 45 or 90 degrees (Figure 11). The base lines may be either two parallel lines or one center line. Motif 9 can occur on the interior of a bowl as a band below the rim, as panels, or as stepped polygons originating from a center circle.

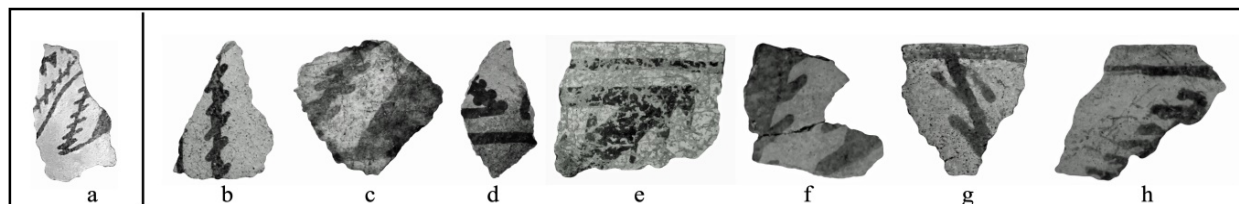


Figure 11. Motif 9: Photographs of eight sherds from two sites in the Far Western Region: (a) 26CK2092.1931.2.2d; (b) 42KA6165.188.3; (c) 42KA6165.254.6; (d) 42KA6165.930.8; (e) 42KA6165.1648.5; (f) 42KA6165.2834.6; (g) 42KA6165.4113.12; (h) 42KA6165.4083.3. Photographs courtesy of The Lost City Museum (26CK2092) and Janet Hagopian (42KA6165).

Motif 9 is represented by eight sherds from the Far Western Region. One is a Lino Black-on-gray sherd (Figure 11a) from the Basketmaker III portion of 26CK2092 (Virginia Lucas, personal communication 2020); seven are Washington Black-on-gray sherds (Figures 11b-11h) from 42KA6165 (Janet Hagopian, personal communication 2017).

Not Described—Basketmaker III. The Lino Black-on-gray sherd shown in Figure 11a was recovered in 1934 from the floor of a pithouse which was dated to the Basketmaker III period (Virginia Lucas, personal communication 2020). This sherd displays two examples of Motif 9 that are not described in the Four Corners Region database. Each is composed of a single base line crossed by short secondary lines set variably at 45- to 90-degree angles. These motifs most closely resemble the two Pueblo I motifs shown in Figures 11b and 11c, although those two have even shorter lines. This motif is also shown on a Pueblo I sherd (Figure 6f), where it is described

by Janet Hagopian as “what Colton calls railroad tracks across the line” (personal communication 2024).

Multiple Forms—Pueblo I. Of the seven Washington Black-on-gray Motif 9 sherds, five (Figures 11b-11f) display motifs not described in the Four Corners Region data base. Figures 11b and 11c feature extremely short lines which cross their baselines at approximately 45 degrees. Figure 11d displays four dots which are alternately attached to either side of a single line. Pendant dots such as these are not observed in the Four Corners Region database for either Motif 9 or Motif 5. Figures 11e and 11f show motifs with exceptionally thick baselines to which are appended secondary lines at approximately 45 degrees. These five examples are probably best described as locally developed motifs which may or may not have any relationship to the Four Corners Region Motif 9. Figures 11g and 11h resemble Four Corners Region Motif 9 motifs without any obvious modifications.

Summary

The transmittal of the nine Basketmaker III motifs from the Four Corners Region to the Far Western Region occurred, intermittently, over a period of 600 years, from approximately A.D. 550 to 1150. Five or more instances of exchange might have occurred before all the motifs reached their final destinations in the Jackson Flat and Lowland Virgin areas (see Table 2).

Basketmaker III (approximately A.D. 550-750)

During the Basketmaker III period, five of the nine motifs (Motifs 2, 4, 5, 6, and 8) were present in the Far Western Region, as shown in Table 2. Of these, Motif 5 is apparently the only one which was established in both Jackson Flat and the Lowland Virgin Area. No evidence for Motifs 1, 3, 7, or 9 was seen for either location during the Basketmaker III period. These results may well be influenced by the loss of artifact collections from four Basketmaker III sites in the Lowland Virgin Area.

The methods for transmittal of the individual motifs remain undetermined. Inter-regional trade is one possibility, although no evidence in the form of non-local painted bowls displaying any of the motifs was noted for the period A.D. 550-750 in either Jackson Flat or the Lowland Virgin Area. Inter-regional non-ceramic trade is another possibility, with the ideas for the motifs being transmitted incidentally and indirectly through verbal descriptions or drawings. Finally, non-trade travel is a third possibility, with the knowledge of motifs arriving in the form of individuals who had previously produced such pottery in the Four Corners Region.

The routes for transmittal of the individual motifs also remain undetermined. Some of them could have been established during the preceding Basketmaker II and Archaic periods (Ahlstrom 2022:Table 4.2; Shutler 1961:67) by ancestors who had traversed the region for hundreds, if not thousands, of years. Others could have been more recently established in response to existing climatic conditions, and the proximity of relatives, friends, and foes. Although Jackson Flat is approximately 100 miles closer to the Four Corners Region than the Lowland Virgin Area, this was probably only one of several considerations for route determination.

Table 2. Presence of Motifs 1-9 from Basketmaker III through Pueblo II Periods in the Far Western Region at Jackson Flat (J) and the Lowland Virgin Area (V).

	Basketmaker III	Pueblo I	Pueblo II
Motif 1	-	V	V
Motif 2	J	J, V	-
Motif 3	-	J	V
Motif 4	J	J, V	-
Motif 5	J, V	J	-
Motif 6	J	-	-
Motif 7	-	J, V	-
Motif 8	J	J	-
Motif 9	-	J, V	-

Limited observations can be made about the timeliness and reliability of contact between the Four Corners Region and the two locations in the Far Western Region. The high degree of accuracy in the replication of Four Corners Basketmaker III motifs in the Jackson Flat motifs and the relatively high percentage of motif types (55%) suggest that good inter-regional communication existed during the Basketmaker III period between the Jackson Flat/Kanab Creek area and the Four Corners Region. It is more difficult to interpret the data from the Lowland Virgin Area due to two factors—the absence of any hard chronometric data associated with the ceramics, and the apparent loss of ceramic collections from the four Basketmaker III sites known to have contained painted wares (Shutler 1961:14, 67).

Pueblo I (approximately A.D. 700-900)

During the Pueblo I period, eight of the nine motifs were present in the Far Western Region. Both locations now contained Motifs 2, 4, 7, and 9, while Jackson Flat also had Motifs 3, 5, and 8, and the Lowland Virgin Area also had Motif 1. At Jackson Flat, the presence of Motifs 2, 4, 5, and 8 represented a continuation from the preceding Basketmaker III period. In the Lowland Virgin Area, Motif 5 persisted from Basketmaker III to Pueblo I, while Motif 1 persisted from Pueblo I to Pueblo II. Motif 6 never reappeared in either location.

Seven of the eight Far Western Region Pueblo I motifs (Motif 5 being the exception) displayed some degree of modification from the Four Corners Region Basketmaker III period forms. These modifications included changes in scale, proportion, relative positions, absence of fill, isolation of motifs, and/or elimination or addition of elements. Because no systematic analysis of Pueblo I motifs in the Four Corners Region has been done (except for that discussed in Motif 1

in this article), it is not known if the modifications shown on the Far Western Pueblo ceramics were derived locally or reflected modifications which had already occurred in the Four Corners Region. If derived locally, it is not known if these modifications represent instances of long-distance miscommunication or intentional disregard of previously established ways of depicting motifs.

At Jackson Flat, these changes might have been associated with an intrusion of people from the Kayenta region (Roberts and Spangler 2022a:113). In this instance, changes in motifs would have occurred concurrently with changes in architecture, artifacts, patterns of mineral and shell acquisition, and mortuary practices (Roberts and Spangler 2022a:113).

In the Lowland Virgin Area, the Bonelli Site is notable for yielding two lines of evidence for Pueblo I inter-regional trade or travel. The first line was established by Lyneis (2000:261) with the identification of four Abajo Polychrome sherds from southeast Utah in the Bonelli site ceramic assemblage. The current project (Motif 1 in this article) produced a second line of evidence with the identification of two ceramics from Ignacio 7-23 in southwest Colorado that display motifs similar to the one shown on a bowl from the Bonelli site.

With regard to the presence of these motifs during the Pueblo I period, the Bonelli Motif 1 bowl and the Jackson Flat Motif 3 sherds are of particular interest. The Bonelli bowl and its Ignacio 7-23 counterparts are the only examples of modified Motif 1 Basic known for the Pueblo I, or any succeeding, period. Future research into this issue could clarify whether this motif form persisted beyond the early A.D. 800s. The Jackson Flat sherds constitute the first recorded examples of Motif 3 at 45 Degrees during the Pueblo I period. These sherds help reduce the gap between known Basketmaker III and known Protohistoric and Historic Period examples of Motif 3 at 45 Degrees in the Ancestral Pueblo ceramic record (Honeycutt 2019:Figure 13).

Pueblo II (approximately A.D. 900-1150)

By the Pueblo II period, only Motifs 1 and 3 were represented, and only in the Lowland Virgin Area. The two Jackson Flat sites were abandoned by the late A.D. 900s, and neither site was found to contain Pueblo II ceramics (Roberts and Spangler 2022b:115).

All five Pueblo II ceramics display highly modified versions of Motif 1 Reduced or Motif 3 at 90 Degrees. The Sosi-style ceramic (Figure 2d) depicts Motif 1, the two Boulder Black-on-gray ceramics depict Motif 1 (Figure 2c) and Motif 3 (the Shutler Plate 57d bowl) respectively, and the two St. George Black-on-gray ceramics (Figure 5g and the Shutler Plate 56a bowl) depict Motif 3.

The presence of these two modified motifs in the Far Western Region expands on previous research showing that both Motif 1 Reduced (Honeycutt 2019:Figure 11) and Motif 3 at 90 Degrees (Honeycutt 2019:Figure 13) persisted into the Pueblo II period in the Four Corners Region. These ceramics provide additional evidence for the presence of inter-regional links between the Far Western and Four Corners regions.

Conclusion

This paper provides the first evidence of the transmittal and use of nine specific Four Corners Region Basketmaker III motifs in the Far Western Region during the Basketmaker III, Pueblo I, and Pueblo II periods. It shows that motifs produced during the Basketmaker III period are accurate renditions, while motifs produced during the subsequent Pueblo I and Pueblo II periods display significant modifications. By greatly expanding the known temporal and spatial extent of distribution of these motifs, the Far Western Region ceramics establish that networks of inter-regional contact existed over a period of approximately 600 years between the Four Corners Region and the Far Western Region.

Future work can focus on further clarifying the presence and form(s) of the nine motifs. In particular, additional data concerning the Basketmaker III period is needed. Photographs and/or drawings of individual sherds and/or bowls should be included when possible to clarify for the reader what words often cannot convey. Since the actual temporal and spatial distributions of these motifs remain to be determined, researcher in areas beyond the Ancestral Pueblo Region should examine textiles and ceramics for indications that any of these motifs were present prehistorically or historically.

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EXHIBITS AND EVENTS

The **Southwest Kiln Conference**, an annual gathering of potters, archaeologists, and enthusiasts who come together to explore and recreate ancient Southwestern pottery techniques, will be held September 17-20, 2026 at Salmon Ruins Museum in Bloomfield, New Mexico. Participants bring their own clay pots, fire them in traditional setups like trench or pit kilns, and swap ideas about how the old masters pulled it off. Details at <https://swkiln.com>.

The **Arizona Archaeological Council Fall Conference** will take place on October 2, 2026 at the Santa Cruz County Provisional Community College District in Nogales. The meeting theme is “Frontiers and Exchange”/“Fronteras y Intercambio.” Details at <https://aac.wildapricot.org/conference>.

The **Colorado Archaeological Society Annual Conference** will take place in Cortez from October 2-5, 2026 hosted by the Hisatsinom Chapter of CAS. The theme of the meeting is “A Four Corners Heritage Confluence.” Details at <https://www.coloradoarchaeology.org>.

The **23rd Biennial Mogollon Conference** will take place in Las Cruces, NM from October 8-10, 2026. Sponsored by the Anthropology Graduate Student Organization and the New Mexico State University Anthropology Department, the conference will be held at the Corbett Center Auditorium on the NMSU campus. Details at <https://www.lonjul.net/MogollonAC2026>.

The **NM Archaeological Council Annual Conference** will take place on November 7, 2026 at the Hibben Center on the University of New Mexico campus. This year’s meeting theme is “New Mexico Archaeology: Future Directions.” Further information will soon be available at <https://nmarchcouncil.org>.

The 20th Biennial **Southwest Symposium** will take place in El Paso, Texas, from February 18 to 20, 2027, focusing on the theme "Continuities and Transformations." Further information will soon be available at <https://southwestsymposium.org>.

The Colorado Council of Professional Archaeologists will hold its annual meeting in Golden, March 25-28, 2027 at the County Fairgrounds. Further information will soon be available at <https://www.coloradoarchaeologists.org>.

The **Archaeological Society of New Mexico** will hold its annual meeting in Taos, May 7-9, 2027, at the Sagebrush Inn. Hosted by the Taos Archaeological Society, the theme is “Archaeology of the Taos Valley and the Northern Rio Grande.” Further information will soon be available at <https://archaeologicalsocietynm.org>.

The annual Pecos Conference returns to Pecos, New Mexico August 12-15, 2027. Further information will soon be available at <https://www.pecosconference.org>.

Grounded in Clay, a unique traveling exhibition featuring over 100 historic and contemporary works in clay, is back in New Mexico at the Indian Pueblo Cultural Center in Albuquerque until February 21, 2027. It offers a visionary understanding of Pueblo pots as vessels that carry community-based knowledge and personal experience. Organized by the School for Advanced

Research and the Vilcek Foundation, Grounded in Clay's first stop was the Museum of Indian Arts and Culture in Santa Fe. Following a four-year national tour, it is at the IPCC as the leading program of the Center's fiftieth anniversary celebration year. Additional information at <https://indianpueblo.org>.

Coiling Kin: The Life of Pueblo Pottery has opened at the Maxwell Museum on the University of New Mexico campus. Open until May 27, 2028, this new exhibit presents a comprehensive exploration of the museum's permanent collection through Pueblo artists' perspectives.

Makowa: The Worlds Above Us is open through January 31, 2027 at the Museum of Indian Arts and Culture on Museum Hill in Santa Fe. It juxtaposes ways of seeing, noticing, and understanding the skies and the beings in them. Told through stories of an ever-changing world, the exhibition connects science, stories, and observations.

Here, Now and Always, a permanent exhibition at the Museum of Indian Arts and Culture on Museum Hill in Santa Fe, is open through July 2, 2028. The exhibit centers on the voices, perspectives, and narratives of the Indigenous peoples of the American Southwest. The groundbreaking exhibition features more than six hundred objects from MIAC's extraordinary collection of ceramics, jewelry, paintings, fashion, and more. Additional information at <https://indianartsandculture.org>.

The Maxwell Museum's People of the Southwest permanent exhibit at the University of New Mexico in Albuquerque celebrates the cultural history of the Southwest, especially the close relationship Southwestern peoples have had with the land around them. It includes a collection of pottery from the Colorado Plateau to the Sonoran desert dated 975-1600 CE, with samples of prehistoric Mimbres, Cibola, Rio Grande, and Casas Grandes objects.

The **Western New Mexico University Museum** in Silver City is the home of the NAN Ranch Collection—the largest and most complete collection of Mimbres materials in existence from a single prehistoric Mimbres site, and the largest and most comprehensive permanent interpretative exhibition of Mimbres pottery and artifacts in the world. Other collections include the Eisele Collection of prehistoric Southwestern pottery and artifacts, including basketry; and the Back Collection of historic Maria and Julian Martinez San Ildefonso Pueblo pottery and Santa Clara Pueblo pottery.

The **El Paso Museum of Archaeology's** permanent exhibit **Paquimé and the Casa Grandes Culture** features its collection of Casas Grandes pottery, one of the largest in the Southwest. Pieces from the Naylor Collection donated a few years ago are on display for the first time.

The **Museum of Northern Arizona** in Flagstaff has an ongoing exhibition called **Histories in Clay** in the Babbitt Gallery. MNA co-founder Harold Colton was instrumental in creating the classification system still in use to sort the vast array of prehistoric Southwestern ceramic design styles, manufacturing techniques, and cultural traits. The coalescence of these views is expressed in the exhibit Histories in Clay, which features about 150 prehistoric and contemporary ceramic vessels from both the Babbitt Collection and MNA Collections. Also in the Babbitt Gallery is a display specifically covering ancient to modern Zuni pottery, a display of contemporary Navajo pottery, and the Tim's Cave pottery and basket fragments. Tim's Cave, a site abandoned for 500

years, was discovered in 1991 in cliffs near Sedona. The display covers the discovery, the loss, and return of the objects in the cave, and the touching story of how the cave got its name. The Archaeology Gallery exhibits also include many ceramic artifacts.

The **Arizona State Museum** in Tucson has an ongoing exhibit called **The Pottery Project** which celebrates indigenous pottery-making traditions in the U.S. Southwest and Mexican Northwest by showcasing 500 specimens from the larger, renowned collection of 24,000 whole vessels. The exhibit features interactive displays, interviews with archaeologists and Native potters, videos, and hands-on experiences.

The **Edge of the Cedars State Park Museum** in Blanding, Utah contains one of the largest collections of Ancestral Puebloan (Anasazi) pottery and artifacts in the Southwest. Permanent exhibits feature one-of-a-kind objects such as a macaw feather sash (dated to AD 1150) and rare items such as the Horse Rock Ruin basket collection and turkey feather blankets. One of the most popular exhibits, Visible Storage is a combination of laboratory space and exhibit. Glass walls allow visitors to observe the curator at work and to see an extensive collection of pottery from southeast Utah. The pottery dates from the late Basketmaker III period to the Pueblo III period.

The BLM **Canyons of the Ancients Visitor Center and Museum** in Dolores, Colorado contains permanent and temporary exhibits that focus on Ancestral Puebloan, Native American, and historic cultures in the Four Corners region. Many ceramic items from their extensive collection are on display. The Museum also houses a research collection of more than 3 million artifacts and records from archaeological projects in Southwest Colorado.

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When *Pottery Southwest*'s editor emerita was asked where to find Ted Oppelt's *Prehistoric Southwestern Pottery Types and Wares: Descriptions and Color Illustrations*, Ted's widow, Pat Oppelt, generously offered us her only remaining copy of Ted's 2010 expanded edition. At our suggestion, she agreed that AAS could digitize the volume to make it available on a CD. This volume responded to Ted's concern that “written descriptions were inadequate to understand what a pottery type looked like” (Oppelt 2010:i). Thus, he scanned sherds and whole vessels to produce a volume with illustrations and descriptions of 27 wares and 228 types. The order form for this CD is on the last page of this volume.

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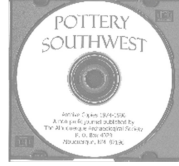
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