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MOTIFS 1-9 AT TWO EARLY BASKETMAKER III SITES IN NEW MEXICO

by Linda Honeycutt

Part of A Study of Basketmaker III Black-on-white Bowl Motifs in the Four Corners Region

Abstract

Ceramic collections from two early Basketmaker III sites were examined to determine which, if any, black-on-white bowl motifs occurred at both sites. Of nine possible motifs, seven were identified in both collections. At both sites, the depiction of these motifs on the interior surfaces of bowls was apparently concurrent with the development of painted pottery sometime between A.D. 550-600.

Introduction

The past five years of research have yielded data that suggest nine Basketmaker III bowl motifs were in general use throughout much of the Four Corners Region by A.D. 650. To establish when each individual motif was developed, and to explore the issue of shared motifs, I focused on the ceramic collections from two of the earliest sites in my data base. The two earliest, dendrochronologically dated sites currently in my data base are 29SJ423 and LA2506 (see Table 1). Using sherd photographs previously taken at two museums and data from site excavation reports, I established the presence or absence of each motif at each site, and then compared the two collections to see which motifs were shared between them.

Table 1. Summary of Sites 29SJ423 and LA2506

Site	29SJ423	LA2506
Date Range (A.D.)	520-560 [excluding Pueblo III component]	500-625
Location	Chaco Canyon, NM	Tohatchi Flats, NM
Excavated	3 pithouses, 1 great kiva, 3 extramural features	12 pit structures, 5 surface structures, numerous extramural features
Sherds in Database	20	76
Curation	Chaco Culture National Historical Park Museum Collection, Albuquerque NM	Collections of the Navajo Nation at the Museum of Indian Arts and Culture, Laboratory of Anthropology, Santa Fe, NM

The two sites are situated 45 miles apart in northwestern New Mexico (see Figure 1). Site 29SJ423 is located in San Juan County within Chaco Culture National Historical Park. Site LA2506 is located in McKinley County on Navajo Nation lands. Both are large, multi-habitation sites which were only partially excavated.

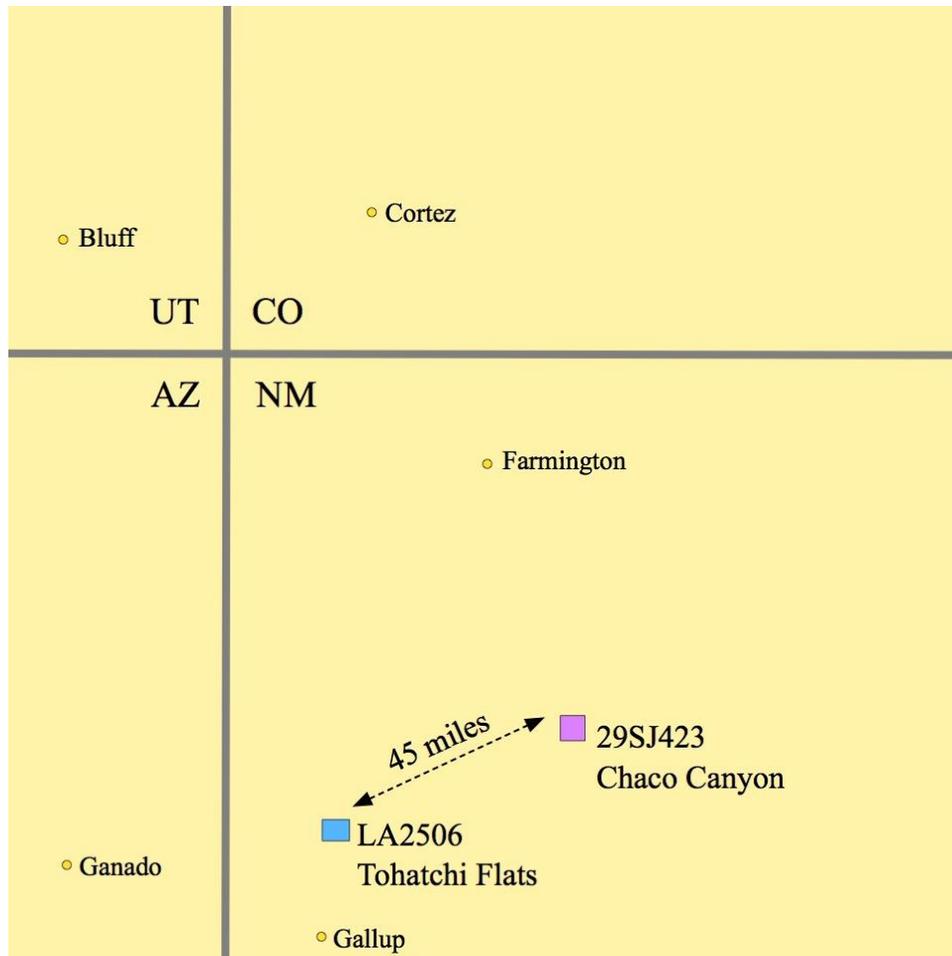


Figure 1. Map of Four Corners Region showing location of LA2506 and 29SJ423.

The two Basketmaker III components were roughly contemporaneous. They were both initially occupied circa A.D. 520. For the first several decades of occupation, only gray and brown ware pottery were produced. Then, between 550 and 600, painted pottery was either developed at or introduced into both sites. Sometime thereafter, but still during the Basketmaker III period, both sites were abandoned.

At 29SJ423, half (10/20) of the sherds illustrated in this paper were recovered from Great Kiva III, the last of three superimposed great kivas. Great Kiva III was built by A.D. 557 or slightly later (Windes 2015:119). The other 10 sherds were recovered from the site surface (8), Pithouse A (1) and the midden (1), none of which yielded dendrochronological dates.

At LA2506, the majority (62/75, or 83%) of the sherds illustrated in this paper were recovered from an area designated as the third occupation cluster. This cluster was composed of Pitstructures 3, 5 and 7, Surface Structures 1 and 3, and several dozen 2m by 2m grid squares over and adjacent to these structures. Pitstructure 3 yielded two dendrochronological dates: 550-594v and 528p-589vv (McVickar and Wails 2012:2-404). Of the remaining 13 sherds, 12

are from 2m by 2m grids of unknown provenience, and one is from a 2m by 2m grid adjacent to an excavated pitstructure which lacked painted wares and dated to A.D. 518 (ibid:405).

Four Notes on Sherd Photographs

1. The colors in a sherd photograph are not necessarily the actual colors of the sherd, both because I don't correct for white balance and because the photograph may have been digitally altered to increase contrast.

2. The sherd photographs for sites 29SJ423 and LA2506 are labeled as follows: site number.field specimen number.museum catalog number.

3. Sherd photographs for 29SJ423 Motifs 1-7, and stylized drawings of Motifs 1-7 are posted on my website www.basketmakeriiimotifs.org. The sherd photos for 20SJ423 are reproduced here for comparative purposes.

4. Presented in this paper, but not yet posted to my website, are: (1) stylized drawings of Motifs 8 and 9; sherd photographs for 29SJ423 Motif 9; and sherd photographs for LA2506 Motifs 1-9.

MOTIF 1

Three examples of Motif 1 are present in the two ceramic assemblages (see Figure 2). They are surprisingly similar: all three display the reduced form and are associated with dots. On the sherd from Chaco Canyon, the head and body are "fringed" with vertical lines, and the motif is separate from and above the dots. On the sherds from Tohatchi Flats, the heads and bodies are plain, and they are surrounded by dots.

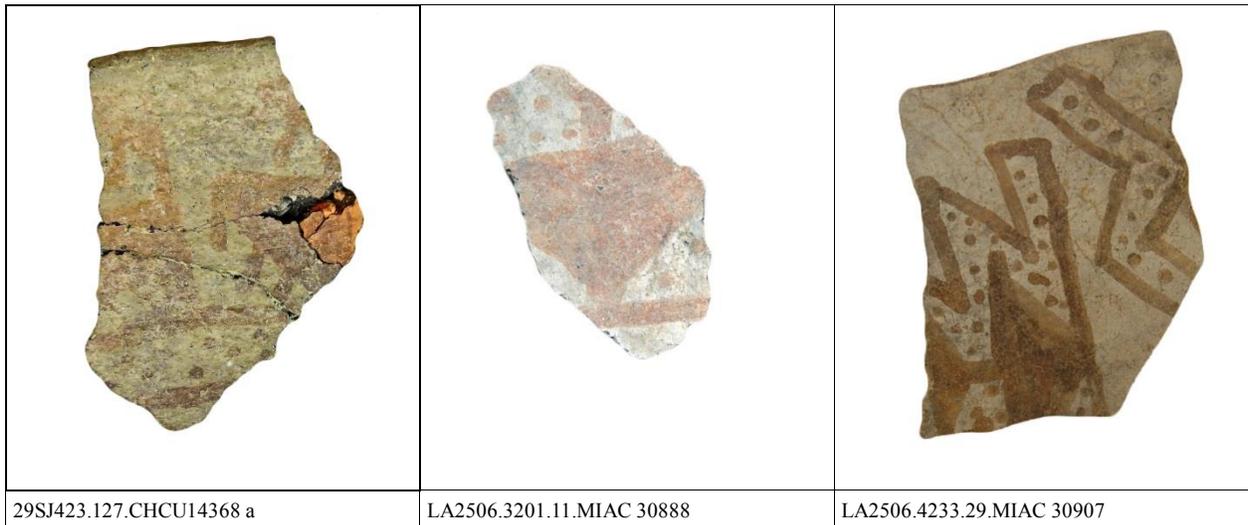


Figure 2. Photographs of Motif 1 sherds from 29SJ423/Chaco Canyon (left) and LA2506/Tohatchi Flats (middle and right).

MOTIF 2

Six examples of Motif 2 are present in the two ceramic assemblages (see Figure 3). Both of the Chaco Canyon examples are stepped. Of the four Tohatchi Flats examples, two are stepped, one is floating, and one is indeterminate.

			
29SJ423.388.CHCU14085 d	29SJ423.39.CHCU14309		
			
LA2506.3292.15.MIAC 30889	LA2506.4355.1.MIAC 30908	LA2506.4248.28.MIAC 30907	LA2506.4612.7.MIAC 30910*

Figure 3. Photographs of Motif 2 sherds from 29SJ423/Chaco Canyon (top row) and LA2506/Tohatchi Flats (bottom row).

MOTIF 3

Ten examples of Motif 3 are present in the two ceramic assemblages (see Figure 4). Site 29SJ423 has only one example, while site LA2506 has the remaining nine. All ten sherds display the 90-degree form. No 45-degree examples were observed in the ceramic collection of either site.

			
29SJ423.127.CHCU14368 b		LA2506.3081.10.MIAC 30887	LA2506.3195.15.MIAC 30888

			
LA2506.3532.12.MIAC 30893	LA2506.3719.7.MIAC 30897	LA2506.3976.15.MIAC 30904	LA2506.3986.8.MIAC 30905
			
LA2506.4019.6.MIAC 30905	LA2506.4493.19.MIAC 30908	LA2506.4529.370.3.MIAC 30908	

Figure 4. Photographs of Motif 3 sherds from 29SJ423/Chaco Canyon (top left) and LA2506/Tohatchi Flats (all others).

MOTIF 4

Fifteen examples of Motif 4 are present in the two ceramic assemblages (see Figure 5). Site 29SJ423 has only one example, while Site LA2506 has 14.

			
29SJ423.431.CHCU14413 b	LA2506.3346.9.MIAC 30891	LA2506.3358.7.MIAC 30891	LA2506.3369.11.MIAC 30891
			
LA2506.3378.10.MIAC 30891	LA2506.3484.22.MIAC 30891	LA2506.3515.3.MIAC 30893	LA2506.3515.14.MIAC 30893
			
LA2506.3515.15.MIAC 30893	LA2506.3540.8.MIAC 30893*	LA2506.3584.7.2.MIAC 30896	

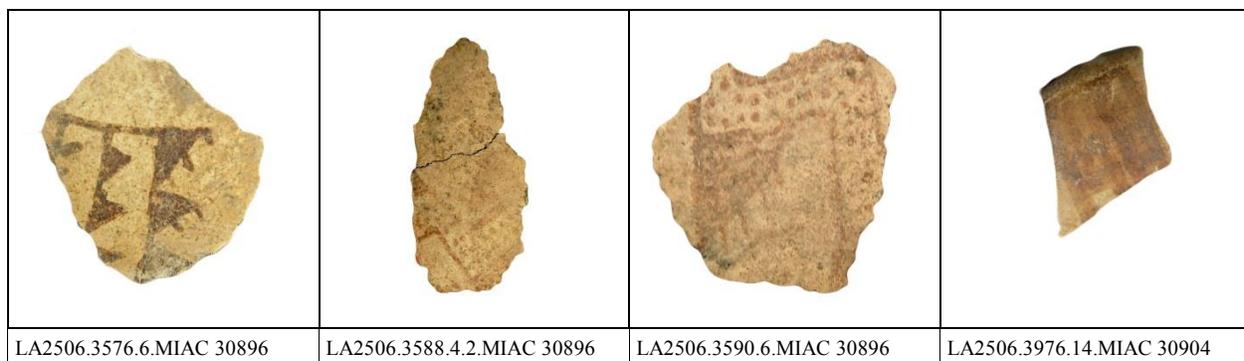
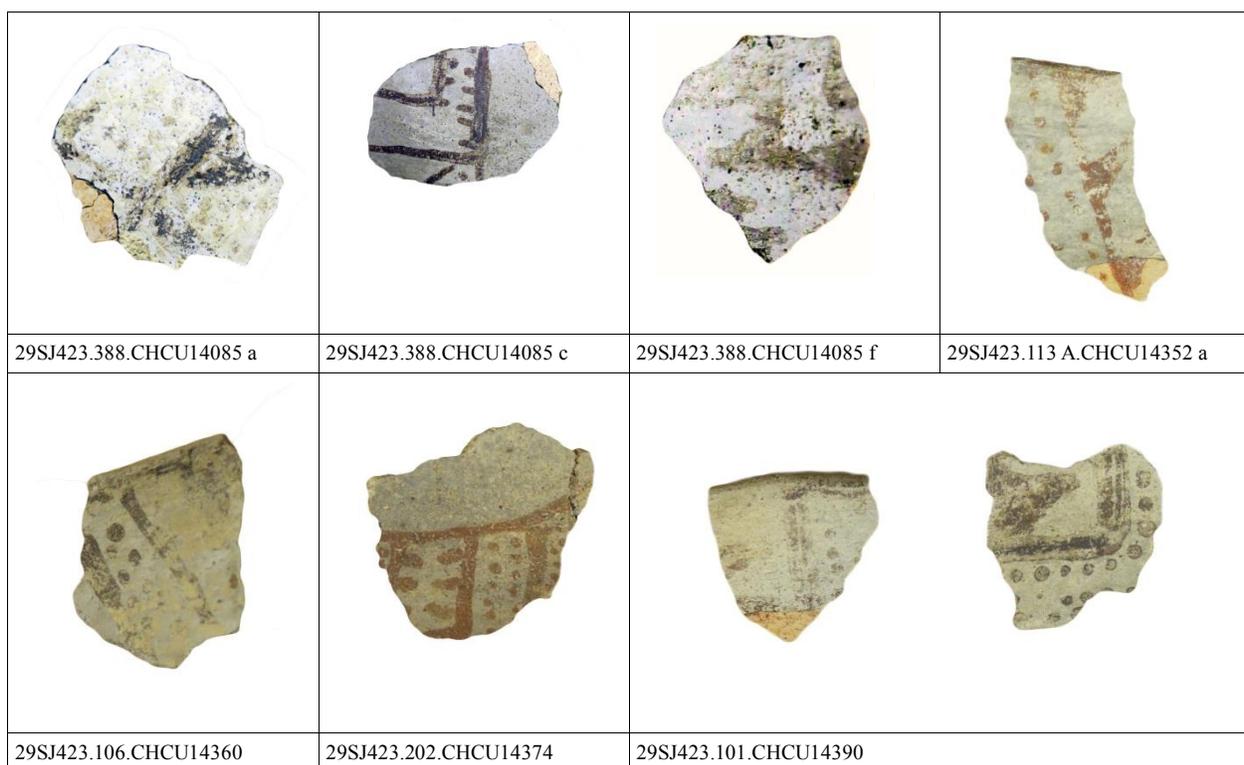


Figure 5. Photographs of Motif 4 sherds from 29SJ423 (top left) and LA2506 (all others).

MOTIF 5

Twenty-four examples of Motif 5 are present in the two ceramic assemblages (see Figure 6). Seven are from the Chaco Canyon site, and the remaining 17 are from the Tohatchi Flats site.



			
LA2506.3044.7.MIAC 30887	LA2506.3133.7.MIAC 30888	LA2506.3502.9 a.MIAC 30893	LA2506.3502.10.MIAC 30893
			
LA2506.3526.5.MIAC 30893	LA2506.3540.7.MIAC 30893	LA2506.3591.12.MIAC 30896	LA2506.3605.3.MIAC 30896
			
LA2506.3616.7.MIAC 30896	LA2506.3970.9.MIAC 30904	LA2506.4076.5.MIAC 30906	LA2506.4389.9.MIAC 30908
			
LA2506.4493.21.MIAC 30908	LA2506.4611.7.MIAC 30910	LA2506.4611.8.MIAC 30910	LA2506.4611.10.MIAC 30910

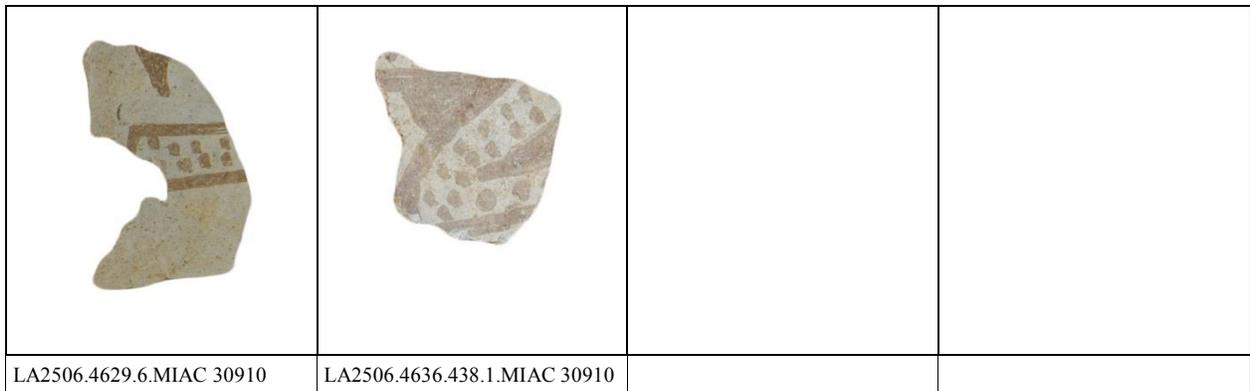


Figure 6. Photographs of Motif 5 sherds from 29SJ423/Chaco Canyon (upper two rows) and LA2506/Tohatchi Flats (lower five rows).

MOTIF 6

Six examples of Motif 6 are present in the ceramic assemblage from LA2506 (see Figure 7). No examples of Motif 6 were observed from 29SJ423.

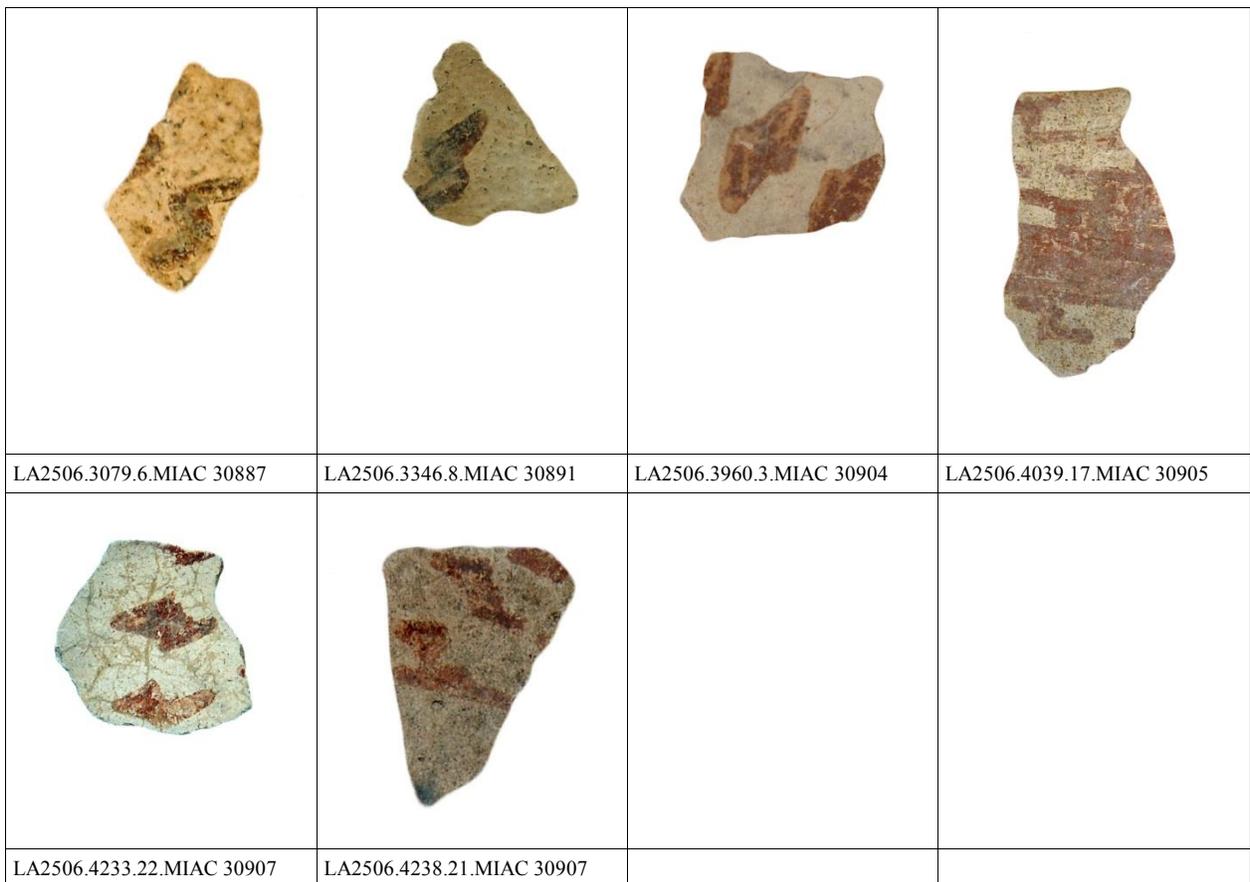


Figure 7. Photographs of Motif 6 sherds from LA2506.

MOTIF 7

Sixteen examples of Motif 7 are present in the ceramic assemblages of the two sites (see Figure 8). Four are from Chaco Canyon and 12 are from Tohatchi Flats.

			
29SJ423.388.C14085 b	29SJ423.388.C14085 e	29SJ423.431.C14413 a	29SJ423.127.C14416
			
LA2506.3031.63.MIAC 30887	LA2506.3031.66.MIAC 30887	LA2506.3199.12.MIAC 30888	LA2506.3225.6.MIAC 30889
			
LA2506.3502.9 b.MIAC 30893	LA2506.3521.10.MIAC 30893	LA2506.4028.12.MIAC 30905	LA2506.4217.25.MIAC 30906



Figure 8. Photographs of Motif 7 sherds from 29SJ423/Chaco Canyon (top row) and LA2506/Tohatchi Flats (bottom three rows).

Introducing Motifs 8 and 9

In order to discuss the remaining classifiable sherds from the two sites, it is necessary to introduce two additional motifs: Motif 8 and Motif 9. These two motifs have been “in development” for about two years, but have not yet been posted on my website. For each of these motifs, stylistic drawings are presented, followed by several photographic examples from Arizona, Colorado and/or Utah sites. Data on the two New Mexico ceramic assemblages is then presented.

Motif 8

Motif 8 captures single and multiple parallel lines which exhibit angles or curves, but lack appendages and/or fill (see Figure 9).

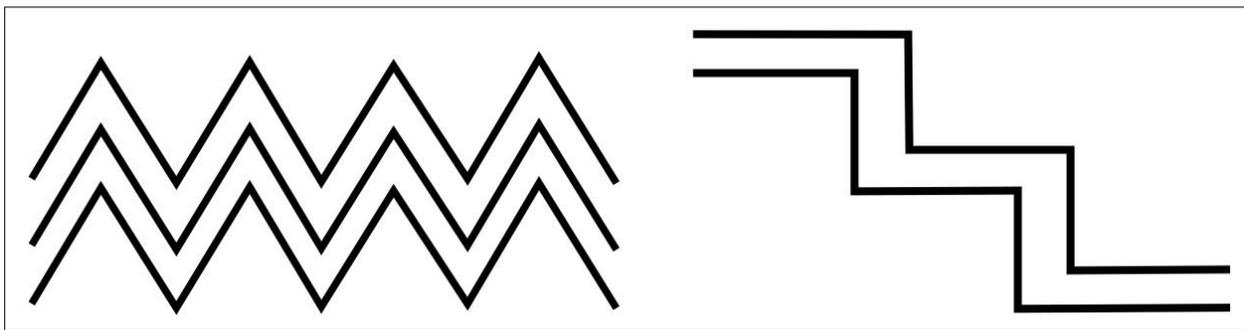


Figure 9 a. Stylistic drawings of Motif 8, showing the two most common forms: 2-6 parallel lines with repeated 45 (left) or 90 (right) degree angles.

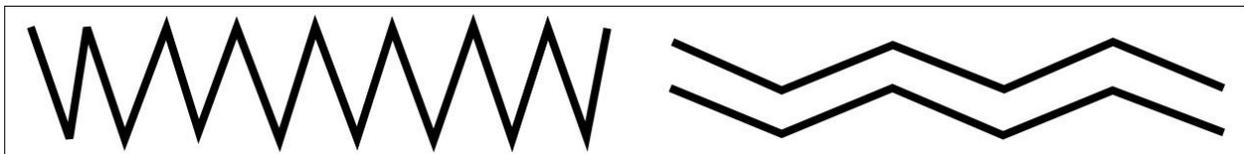


Figure 9 b. Stylistic drawings of Motif 8, illustrating angles smaller than 45 (left) or larger than 90 (right) degrees.

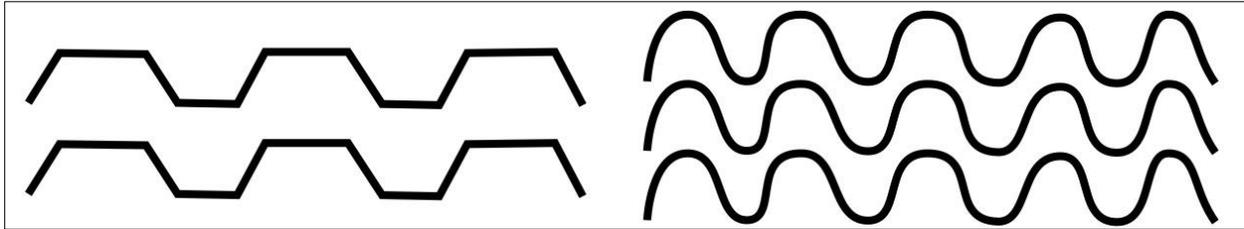


Figure 9 c. Stylistic drawings of Motif 8, showing the uncommon forms of squared (left) and curved (right) lines.

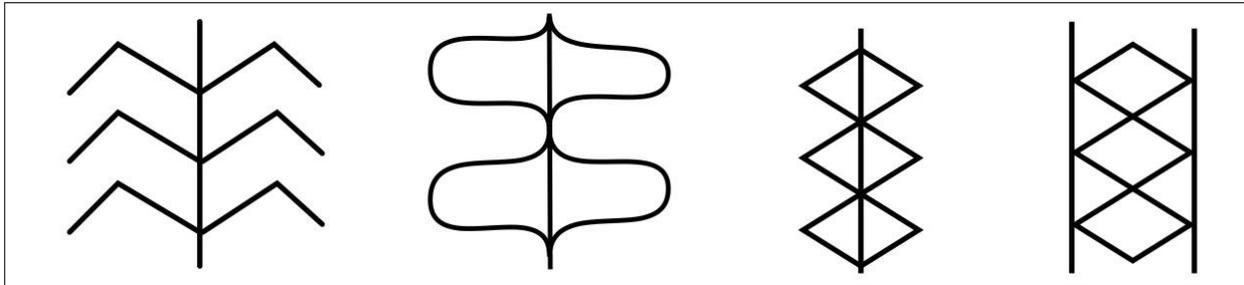


Figure 9 d. Stylistic drawings of Motif 8, showing variations.

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 (see Figure 10).

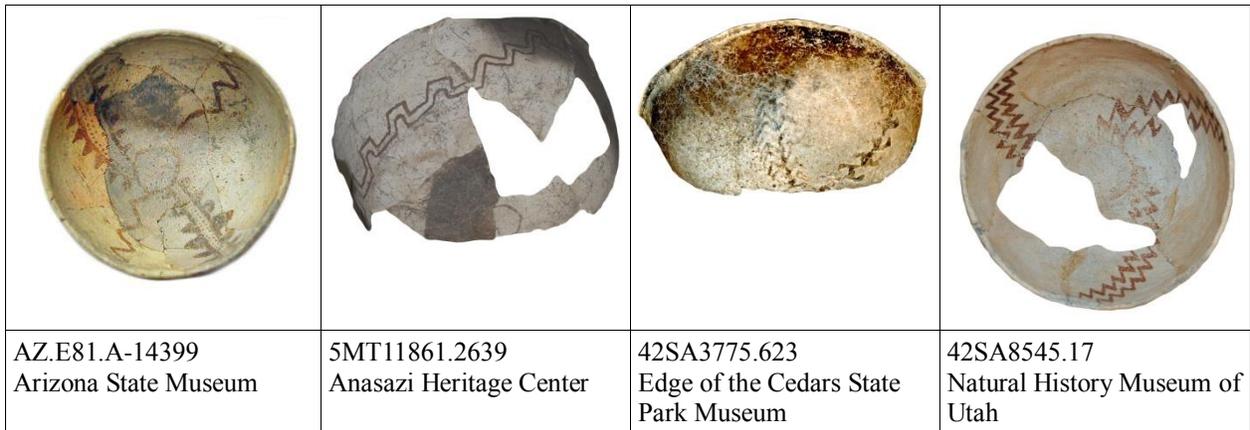


Figure 10. Examples of Motif 8 bowls from sites in Apache County, Arizona (left), Montezuma County, Colorado, (left center) and San Juan County, Utah (right center and right).

Eight examples of Motif 8 are present in the ceramic assemblage from LA2506 (see Figure 11). No examples of Motif 8 were observed from 29SJ423.

			
LA2506.3031.67.MIAC 30887	LA2506.3031.68.MIAC 30887	LA2506.3287.2.MIAC 30889	LA2506.3339.12.MIAC 30891
			
LA2506.3348.6.MIAC 30891	LA2506.3588.7.MIAC 30896		LA2506.4039.19.MIAC 30905
			
LA2506.4217.21.MIAC 30906			

Figure 11. Photographs of Motif 8 sherds from LA2506.

Motif 9

Motif 9 consists of one or two base lines appended by multiple parallel short lines attached at either 45 or 90 degrees. The base lines may be either two parallel lines (see Figure 12 a) or one center line (see Figure 12 b.)

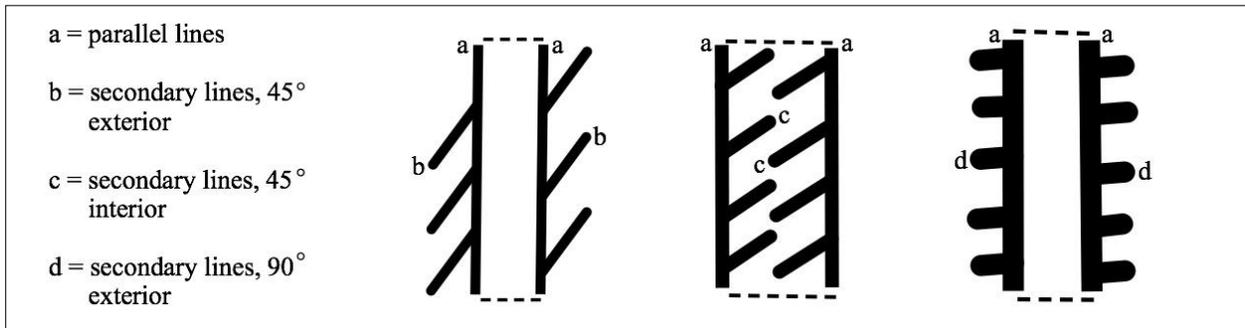


Figure 12 a. Stylistic drawings of Motif 9, illustrating parallel line form.

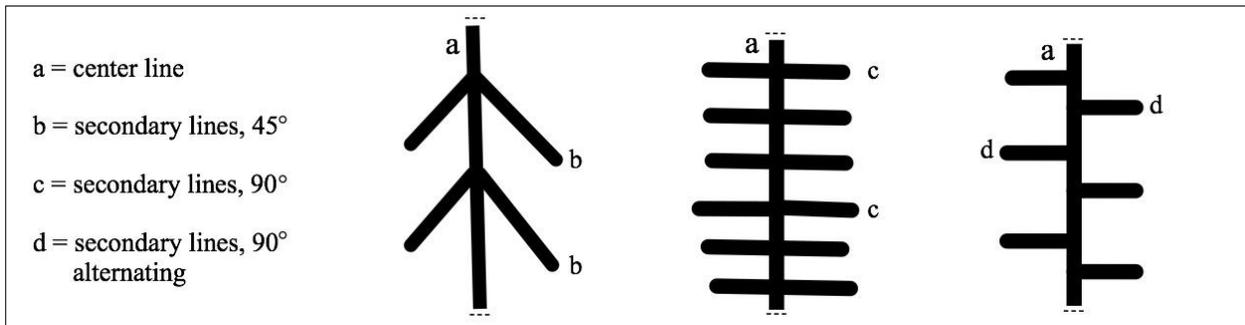


Figure 12 b. Stylistic drawings of Motif 9, illustrating center line form.

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 13 present several examples of Motif 9 from Arizona, Colorado and Utah.

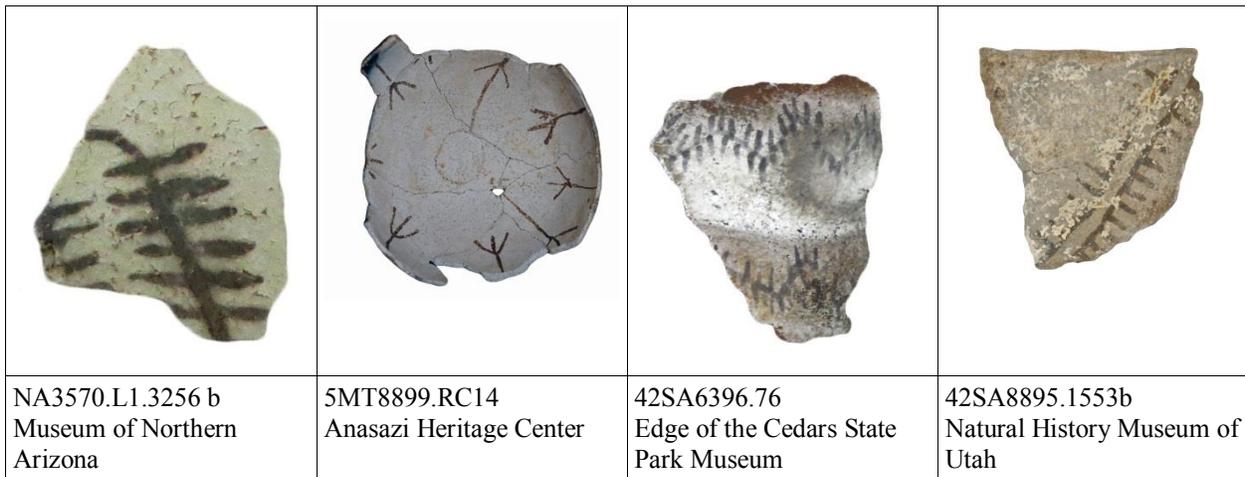


Figure 13. Examples of Motif 8 bowls from sites in Apache County, Arizona (left), Montezuma County, Colorado, (left center) and San Juan County, Utah (right center and right).

Four examples of Motif 9 are present in the ceramic assemblage from 29SJ423 and one example is present from LA2506 (see Figure 14).

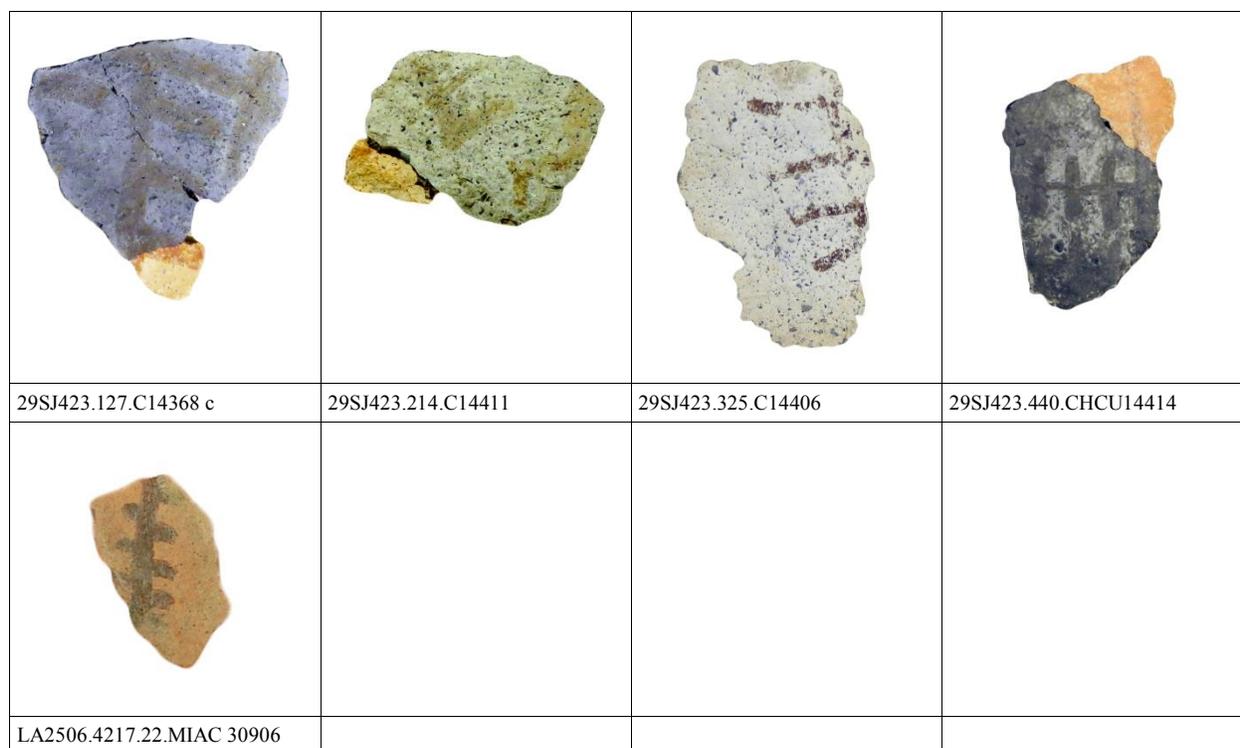


Figure 14. Motif 9 sherds from 29SJ423 (left) and LA2506 (right).

Summary

Motifs 1-5, 7 and 9 are present in the ceramic collections from both sites. Of these seven motifs, two in particular exhibit strong similarities. The three Motif 1 examples are all Reduced forms; no Basic or Joined forms were noted. The ten Motif 3 examples are all 90-degree forms; no 45-degree forms were noted. These findings might indicate that the absent forms were developed slightly later, or in another area.

Motifs 6 and 8 are present in the ceramic collection of LA2506, but absent from the ceramic collection of 29SJ423. This finding might indicate that these motifs were either unknown, or not relevant to, the occupants of the Chaco Canyon site.

Although both sites were initially occupied in approximately A.D. 520, painted bowls were apparently not produced at, or introduced into, either site until the second half of the century. When these bowls did appear, many of them depicted specific motifs, as shown in this paper.

The co-occurrence of motifs with painted bowls suggests that at least some of the motifs had been developed prior to the invention of fired paint technology. Several possible periods of motif development are suggested here.

The earliest period could have been during pre-ceramic Basketmaker II times (ca. A.D. 1 - 450). Motifs developed during this period might have been depicted on woven textiles, sandals and baskets.

The next period could have been during early Basketmaker III times (ca. A.D. 450-550) when only brown and gray ware pottery were produced. Motifs developed during this period might have been applied to woven materials, but not to pottery because fired paint technology was not yet developed.

The third possible period coincided with or immediately followed the invention of fired paint technology. These motifs could have been developed in recognition of the fluid nature of paint.

Regardless of when the motifs were actually developed, it appears that the occupants of 29SJ423 and LA2506 shared both the concepts of seven of these motifs and the methods of their ceramic depiction.

Acknowledgements

Thanks to Kate Arrighetti, Julia Clifton, Tim Kearns and Lori Reed for their help with LA2506. Thanks to Tom Windes for his help with 29SJ423.

References

Windes, Thomas C.

2015 Early Puebloan Occupation in the Chaco Region, Volume I: Excavations and Survey of Basketmaker III and Pueblo I sites, Chaco Canyon, New Mexico. Arizona State Museum Archaeological Series 210. Arizona State Museum, The University of Arizona, Phoenix.

McVickar, Janet L. and Scott A. Wails

2012 LA 2506: The Muddy Wash Site *in* Investigations at Four Sites in Tohatchi Flats, New Mexico, edited by Janet L McVickar and Timothy M. Kearns, pp. 2-1-2-408. Pipeline Archaeology 1990-1993: the El Paso Natural Gas North System Expansion Project, New Mexico and Arizona, Volume VI - Book 1, T. M. Kearns, general editor. Western Cultural Resource Management, Inc. Report No. WCRM(F)074. Farmington, New Mexico.

KNIFE-WING IMAGERY ON EL PASO POLYCHROME: USING DSTRETCH TO REVEAL OBSCURED CERAMIC DESIGNS

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Introduction

In a recent *Pottery Southwest* article, Thompson, Gilman, and Wykoff (2015) examine the presence and meaning of Knife-wing imagery on Mimbres Black-on-white ceramics. In their discussion of the distribution of this icon beyond the Mimbres region, they mention the discovery of a Knife-wing image on an El Paso Polychrome vessel from the Jornada Mogollon region. We also note that in a previous *Pottery Southwest* article (Honeycutt 2015: Figures 5-7) that avian figures painted in Basketmaker III (ca. A.D. 500-750) bowls appear to represent early Knife-wing icons. Given the recent interest regarding the origins of Southwestern ideologies, cosmologies, and related symbolic expressions, it was thought that a more detailed discussion of the Jornada image would be of interest. Additionally, a technical aspect of the study introduces the use of decorrelation stretch (DStretch) software to reveal ceramic designs obscured by sooting, fire-clouding, erosion, or by amateur attempts at vessel repair.

El Paso Polychrome Terraced Bowls from Twelve Room Pueblo

The El Paso Polychrome bowl with a Knife-wing image was recovered from Twelve Room Pueblo, located a few miles northeast of the modern city of El Paso, Texas on what is now Fort Bliss Military Reservation. Twelve Room Pueblo was excavated between January 1941 and January 1942 by Mrs. Glen E. Moore, the sister-in-law of Joe Ben Wheat. At the time of the excavation, Wheat was serving with the US Army Air Force. Publication of the paper was delayed by the onset of World War II and it was published five years later in Volume 18 (1947) of the *Bulletin of the Texas Archaeological and Paleontological Society*.

Twelve Room Pueblo is a typical El Paso phase (A.D. 1300-1450) Jornada settlement (Figure 1). As indicated by its name, the pueblo consisted of twelve contiguous rooms, including a “communal” room of larger size. Several rooms had been burned during what was likely a process of ritual closure and abandonment (Jackson and Thompson 2005; Miller and Graves 2009). Room 2 was one of the more heavily burned rooms and had several unusual interior walls that created long partitions. On the floor of the outermost partition and below the layer of burned roofing material was a termination deposit consisting of 13 El Paso Polychrome bowls and jars, three Chupadero Black-on-white vessels, one unidentified plainware bowl, two stone balls, groundstone tools, gourd and basket fragments, and a variety of shell, turquoise, pigment, and mineral items.

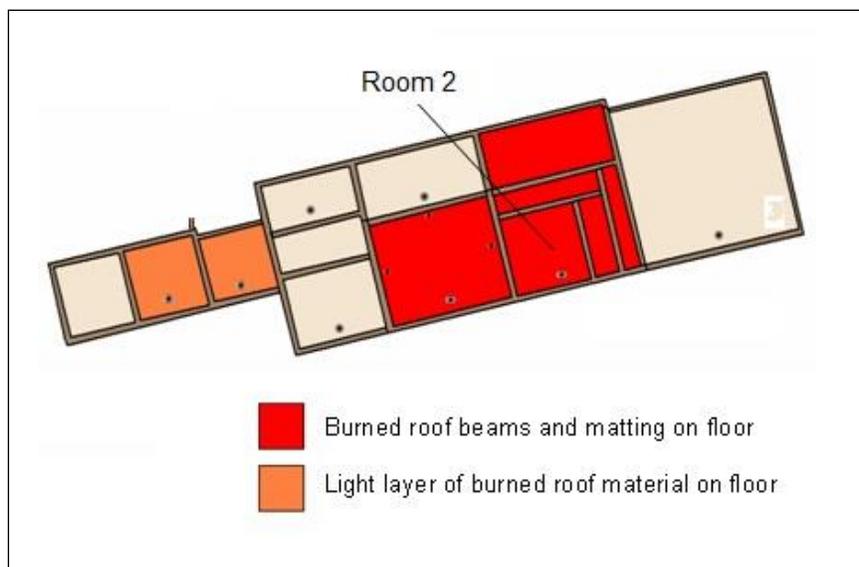


Figure 1. Plan view of Twelve Room Pueblo
(from Miller and Graves 2009; adapted from Moore 1947).

Three El Paso Polychrome bowls had modeled crenellations or terraces assumed to mark the four cardinal directions around the perimeter of the rim. The group of terraced vessels from Twelve Room Pueblo is the largest collection of this unique vessel form in the Jornada region. Ceramic bowls with modeled terraces are somewhat common among Pueblo V period settlements in the central and northern Rio Grande regions (Kenagy 1985, 1986) and were a conspicuous material aspect of historic Hopi and Zuni altars (Brody 1991; Fewkes 1927; Stevenson 1904). However, it is noteworthy that the earliest manifestations of such vessels are found in the Jornada region as early as A.D. 1300 (Jackson and Thompson 2005; Miller 2008).

The terraced bowl with Knife-wing image of interest to the present discussion has been the subject of several studies and presentations (Moore 1947; Jackson and Thompson 2005; Kenagy 1985; Miller 2008). Despite repeated viewings by dozens of researchers and curators – including the authors of this paper – the representational image in the interior of the bowl eluded detection for over 70 years. The figure is not mentioned in Moore’s 1947 article, nor are there any notes on the image among the curation records. We are somewhat mystified as to how the image remained undetected during repeated viewings for over seven decades. Our parsimonious explanation (or rationalization) is that studies of the vessel focused on the modeled terraces and overlooked the fire-darkened interior. Indeed, most photographic presentations of the vessel and other terraced vessels are oriented to best to display the modeled terraces rather than the designs on vessel interiors or exteriors. It is also likely that individuals viewing the bowl may have done so while wearing what may be thought of as a form of mental “blindness” imposed by the conventional (and erroneous) assumption that representational designs were non-existent among El Paso Polychrome vessels.

The Terraced Bowl and Knife-wing Image

The Knife-wing image was discovered in 2013 when, as part of an ongoing study of El Paso Polychrome designs, the senior author examined the vessel on display at the Environmental Division - Directorate of Public Works at Fort Bliss Military Reservation. During study of the vessel, two semi-circular elements within what appeared to be a head-shaped design were observed on the bowl interior below the rim. It was at first thought that the image might be a goggle-eye entity, one of the signature elements of the Jornada rock art style (Schaafsma 1980, 1992), but parts of the body were difficult to see due to the condition of the interior.

The condition of the vessel has been compromised by several factors, mainly resulting from exposure to heat and fire during the burning and ritual closure of Room 2 (Figure 2). Three of the four modeled terrace elements are missing. Two areas of the vessel were repaired with plaster and overpainted with a shade of red in an attempt to match the original red hematite pigment. One repair is below the intact terrace where it appears a fragment of the bowl was lost. The second repair is in the center of the bowl and the damage at this location is suggestive of a kill hole. It appears that wet plaster and diluted paint were smeared over areas of the exterior and interior. The smeared pigments extend beyond the actual repairs and further obscure the original paint and design.



Figure 2. Exterior views of El Paso Polychrome terraced bowl showing modeled terrace and plaster repair. Only one of the four terraces assumed to mark the cardinal directions remains intact. Photograph courtesy of the Environmental Division, Fort Bliss.

Because of the combination of burning and repairs, the painted image in the bowl was difficult to trace in its entirety (Figure 3). Having witnessed the use of decorrelation stretch (DStretch) software (Harman 2005) to enhance color spectra of eroded or obscured pictographs during several surveys of rock art on Fort Bliss, it was thought that the program might work with obscured designs on El Paso Polychrome vessels. With permission from the Environmental Division of Fort Bliss, the vessel was obtained on loan and several dozen high resolution digital photographs were taken from different perspectives and angles. The high resolution images were enhanced using conventional methods and by processing them using the DStretch software program.



Figure 3. Interior view showing the Knife-wing figure and modern repairs. Feathers may have been placed in the small holes in the upper surfaces of the modeled terraces. Photograph courtesy of the Environmental Division, Fort Bliss.

Figure 4 shows the original digital photograph and the image after processing with DStretch. The high resolution digital photograph was adjusted for color, brightness, and contrast. This brought out the main details of the image but certain areas remained obscured and indistinct from the combination of prehistoric sooting and modern repairs. These areas are clarified in the DStretch image. Using the DStretch image, it can be seen that the wings of the Knife-wing figure and the wavy double-line framing band are connected by two parallel lines of stepped frets. The left eye of the figure clearly has a pupil, while the right eye appears to have been damaged.

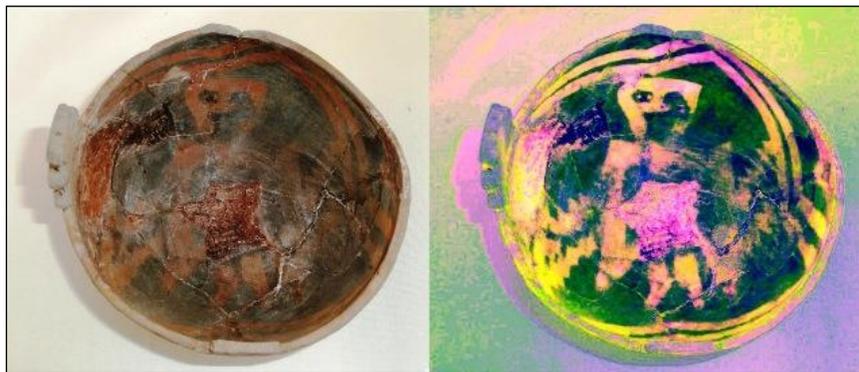


Figure 4. Digital images of the bowl interior: (left) the original digital photograph after minor enhancements on brightness, contrast, hue, and saturation; and (right) after processing with DStretch image enhancement on the YBL parameters. Modern repairs show up on the DStretch image as bright pink areas in the center and left wall of the vessel. The original hematite-based paint is enhanced on the yellow and pink-yellow spectra.

Discussion

The terraced bowl with Knife-wing image from Twelve Room Pueblo joins a growing list of El Paso Polychrome vessels decorated with representational motifs. Based on a review of 120 whole and partial vessels, Miller (2008) estimated that representational images were painted on

approximately 16% of El Paso Polychrome bowls and jars. Although not quite equal to the frequency of representational designs on Mimbres Black-on-white bowls, it is nevertheless a respectably high proportion, especially in light of the conventional wisdom that El Paso Polychrome lacked such design elements. Additionally, as El Paso Polychrome design elements are represented in prehistoric rock art of the Jornada region (Miller 2009; Stewart et al. 1990), so are Knife-wing images similar to that of the Twelve Room Pueblo bowl portrayed in pictograph and petroglyph panels. Two of the more prominent examples are at Three Rivers in the Tularosa Basin and Centipede Cave along the Diablo Plateau caprock of Hudspeth County (Figure 5).



Figure 5. Knife-wing images in Jornada rock art: (left) panel at Centipede Cave, Hudspeth County, Texas (from Berrier 2003; photograph courtesy of Margaret Berrier and Rupestrian Cyberservices, Inc.); (right) Knife-wing and terrace petroglyph, Three Rivers, New Mexico (drawing by Margaret Berrier, from Schaafsma 1980:229; Figure 188).

The Knife-wing images from Twelve Room Pueblo and in the petroglyph panel from Three Rivers have the conventional attributes of the icon seen on Mimbres Black-on-white vessels (Thompson 1999a, 1999b; Thompson et al. 2015) most notably its association with a terrace element placed above the head of the bird image (Figure 6). In the bowl from Twelve Room Pueblo, the Knife-wing figure is positioned so that the head is below one of the modeled terrace elements. We interpret the placement of the figure among the four terraces – presumably representing the cardinal directions – was intended to represent the zenith in a similar manner to the directional symbolism of Knife-wing icons on the Zuni altars described below.



Figure 6. Classic Mimbres Black-on-white bowl with Knife-wing icon and terrace symbol. Swarts Pueblo (after Thompson 1999b: Figure 56).

The Knife-wing figures paired with terraces are also commonly depicted on Zuni ceramics and painted wood altar pieces dating to the late 19th and early 20th centuries (Figure 7). Knife-wing effigies and paintings are a consistent and prominent feature of Stevenson's images of Zuni altars, including those used by the Eagle Down, Hunter, Galaxy, Sword, Great Fire, Ant, Cimex, and Little Fire fraternities (Stevenson 1904: Plates LVIII, LIX, CIV, CVIII, CXVI, CXXII, CXXVI, CXXVII). In each case, a Knife-wing figure is either affixed to the top of the altar or positioned above the altar. Terraced bowls, often referred to as prayer bowls, are another consistent aspect of ritual paraphernalia associated with the altars, an observation that is of particular interest when considering the symbolism of the bowl from Twelve Room Pueblo.

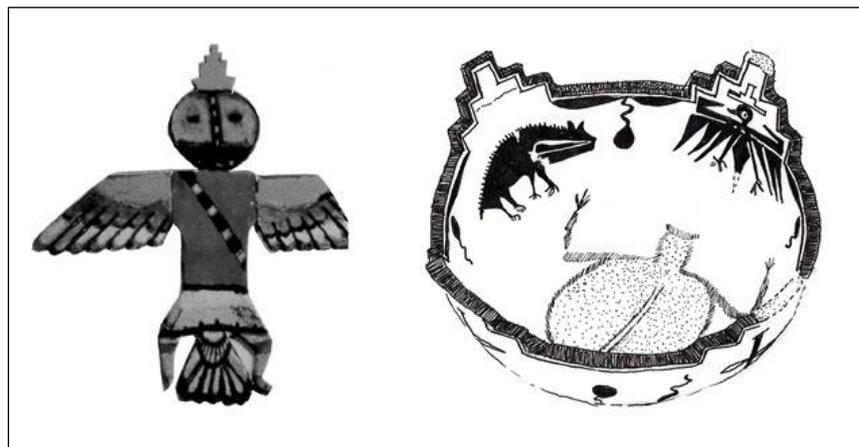


Figure 7. Knife-wing images in historic western pueblo art: (left) Zuni altar ornament of Knife-wing with terrace element on painted wood, provenience unknown, circa 1900 (after Thompson 1999b: Figure 57); (right) Zuni Polychrome terraced bowl, Zuni pueblo, 1880-1890, University of Pennsylvania Museum of Archaeology and Anthropology Object No. 61-34-3, drawing by Margaret Berrier

Conclusions

The symbolism and geographic distribution of Knife-wing imagery among Mimbres Black-on-white ceramics, and in other media throughout the Southwest and Mesoamerica, is reviewed by Thompson (1999a) and Thompson, Gilman, and Wykoff (2015). For the present study, we are concerned less with the metaphor and meaning of the image and more with its temporal and spatial distribution in the prehispanic and historic Southwest: where and when it has been portrayed in ceramics, rock art, or other media, and, equally important, where and when it was not portrayed.

Avian imagery, most likely representing an expression of the Knife-wing symbol, has been identified in a Classic (A.D. 1300-1450) El Paso Polychrome vessel from Twelve Room Pueblo in the Jornada Mogollon region. The image is also present among rock art panels that likely date to the same period. Similar images are present on Mimbres Classic (Style III) Black-on-white vessels dating from A.D. 1000 to 1130. Together, this suggests that the Knife-wing image and its underlying meaning existed for three centuries or more in the southern Southwest. If the avian imagery painted on some Basketmaker III bowls (Honeycutt 2015) represent Knife-wing, then the image may have greater time depth extending as early as A.D. 500. It is uncertain where and when the image was portrayed on pottery, if at all, after the abandonment of Jornada pueblo settlements around A.D. 1450, but by the mid-1800s it is again manifested as a primary component of Zuni altars and iconography (Stevenson 1904).

An important observation to consider is that the terrace element occurs above the head of Knife-wing images in Mimbres ceramics, Jornada ceramics and rock art, and the historic pottery and altars of the Zuni. However, this combination of elements is not common prehistorically in other regions. Knife-wing images with leg appendages are present in Mimbres Boldface, Transitional, and Classic Black-on-white vessels. Although the prehistoric Jornada examples do not have legs extending from the lower torso as seen in the historic Zuni examples, and therefore appear to lack the anthropomorphized aspect of the Zuni symbol, they nevertheless express the consistent symbol set of avian image, terrace, and terraced vessel. This is particularly germane to the Jornada example where terraced vessels, one having a Knife-wing image, were present in a ritual deposit of a communal room or kiva.

As a final technical note, the use of the DStretch program can help bring out paint and designs on ceramic vessels that were sooted, fire-clouded, or otherwise obscured as a result of prehistoric manufacturing or use, as well as vessels marred by amateur attempts at restoration.

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the Zuni Polychrome bowl. Last but not least, Jon Harman deserves a major credit for developing the DStretch program.

References Cited

Berrier, Margaret

- 2003 Centipede Cave: A Dramatic Mixed-Style Rock Art Site in Western Texas. *Rock Art Papers: San Diego Museum Papers* 41(16):17-30. San Diego Museum of Man, San Diego.

Brody, J. J.

- 1991 *Anasazi and Pueblo Painting*. School of American Research, University of New Mexico Press, Albuquerque.

Fewkes, Walter J.

- 1927 The Katcina Altars in Hopi Worship. *Smithsonian Institution Annual Report for 1926*: 469-486. Smithsonian Institution, Washington, D.C.

Harman, Jon

- 2005 Using Decorrelation Stretch to Enhance Rock Art Images. Paper presented at the Annual Meeting of the American Rock Art Research Association, Reno, Nevada. <http://www.dstretch.com/>

Honeycutt, Linda

- 2015 Motifs 1-7 Overview: A Study of Basketmaker III Black-on-white Bowl Motifs. *Pottery Southwest* 31(1):2-24.

Jackson, Lora, and Marc Thompson

- 2005 Form and Function: A Reassessment of El Paso Polychromes. In *Archaeology Between the Borders: Papers from the 13th Biennial Jornada Mogollon Conference*, edited by M. Thompson, J. Jurgena, and L. Jackson, pp. 1-7. El Paso Museum of Archaeology, El Paso.

Kenagy, Suzanne G.

- 1985 The Emergence of Crenellated Ritual Pueblo Ceramics During the Late Prehistoric Period. *Phøbus, A Journal of Art History* 4:78-85.

- 1986 Ritual Pueblo Ceramics: Symbolic Stylistic Behavior as a Medium of Information Exchange. Unpublished Ph.D. dissertation, Department of Art History, University of New Mexico, Albuquerque.

Miller, Myles R.

- 2008 Between Mogollon and Casas Grandes: El Paso Polychrome Design Styles. Paper presented in the Symposium: Integration and Interaction in the Medio Period World at the 15th Biennial Mogollon Conference, Western New Mexico University Museum, Silver City, New Mexico.

- 2009 Expressions of Jornada Rock Art Iconography Across Multiple Media. Paper presented in the Symposium: Rock Art in Texas at the 80th Annual Meetings of the Texas Archaeological Society, Del Rio, Texas.
- Miller, Myles R., and Tim B. Graves
2009 *Madera Quemada Pueblo: Archaeological Investigations at a Fourteenth Century Jornada Mogollon Pueblo*. Fort Bliss Historic and Natural Resources Report No. 03-12, Environmental Division, Fort Bliss Garrison Command, Fort Bliss, Texas.
- Moore, Mrs. Glen E.
1947 Twelve Room House Ruin. *Bulletin of the Texas Archaeological and Paleontological Society* 18:198-224.
- Schaafsma, Polly
1980 *Indian Rock Art of the Southwest*. School of American Research and University of New Mexico Press, Albuquerque.
1992 *Rock Art in New Mexico*. Revised edition. Museum of New Mexico Press, Santa Fe.
- Stevenson, Matilda Coxe
1904 The Zuni Indians. *Bureau of Ethnology 23rd Annual Report for the Years 1902-1902*. Smithsonian Institution, Washington, D.C.
- Stewart, Joe D., Paul Matousek, and Jane H. Kelley
2015 Rock Art and Ceramic Art in the Jornada Region. *Kiva* 55(4):301-319.
- Thompson, Marc
1999a Knife-wing: A Prominent Mesoamerican, Mimbres, and Pueblo Icon. In *Sixty Years of Mogollon Archaeology: Papers from the Ninth Mogollon Conference, Silver City, New Mexico*, edited by Stephanie M. Whittlesey, pp. 145-150. SRI Press, Tucson.
1999b Mimbres Iconology: Analysis and Interpretation of Figurative Motifs. Ph.D. dissertation, Department of Archaeology, University of Calgary.
- Thompson, Marc, Patricia A. Gilman, and Kristina C. Wyckoff
2015 What Mean These Mimbres Bird Motifs? *Pottery Southwest* 31(2):23-29.



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Barnett, Franklin

1974 *Sandstone Hill Pueblo Ruin, Cibola Culture in Catron County, New Mexico*. Albuquerque Archaeological Society, Albuquerque.

Wiseman, Regge N.

1986 *An Initial Study of the Origins of Chupadero Black-on-white*. Technical Note No. 2, Albuquerque Archaeological Society, Albuquerque.

Schroeder, A. H.

1987 *Vidal Great Kiva Site, LA 16254, Progress Report for 1986*. Albuquerque Archaeological Society, Albuquerque.

Sundt, William M., and Richard A. Bice

1989 *Tijeras Canyon Sites AS-10: Preliminary Report*. Albuquerque Archaeological Society, Albuquerque.

Bice, Richard A., Sheila Brewer, Bettie Terry, Phyllis Davis, Gordon Page, Elizabeth Kelley, William Sundt and Joan Wilkes.

1990 *The Vidal Great Kiva Near Gallup, New Mexico*, Summary Status Report. Albuquerque Archaeological Society, Albuquerque.

King, Dudley W., and Richard A. Bice

1992 *Subfloor Channels in Prehistoric Ruins: Anasazi Region of the Southwest*. Albuquerque Archaeological Society, Albuquerque.

Olson, Nancy H., and Richard A. Bice, edited by Alan, M. Shalette

1995 *The Albuquerque Archaeological Society: the first Twenty-Five Years, 1966-1991*. Albuquerque Archaeological Society, Albuquerque.

Bice, Richard A.

1997 *Field Guide to Mid-Rio Grande Pottery*. Technical Note No. 4. Albuquerque Archaeological Society, Albuquerque.

Bice, Richard A.

1998 *Prehispanic Pueblo Pottery*, second edition, Albuquerque Archaeological Society, Albuquerque.

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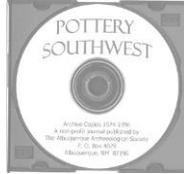
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