


Itamu umumi yooya' ökiwni (“We Will Arrive as Rain to You”^{*}): Evidence of Historical Relationships among Western Basketmaker, Fremont, and Hopi Peoples

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During Basketmaker II (~800 BC to AD 400), Kiowa-speaking Eastern Basketmaker (EBM) farmers who migrated north shared threads of common heritage with Fremont peoples [Ortman and McNeil, 2017. *The Kiowa Odyssey: Evidence of Historical Relationships among Pueblo, Fremont, and North Plains Peoples. Plains Anthropologist* 63(246):152-174]. But were EBM farmers alone on their migration north? In this paper, we draw upon linguistic, archaeological, and rock art evidence to argue that: (1) during BM II, Central Mesa Verde served as a “interaction zone” between Hopi foragers (or forager-farmers) and Kiowa farmers; (2) affiliated Hopi and Kiowa groups migrated through west-central Colorado and the Tavaputs Plateaus to the Uintah Basin; (3) both groups shared threads of common heritage with Eastern Fremont people; and (4) while Kiowa-Fremont farmers remained in the Uintah Basin until approximately AD 1300 [Finley et al. 2019. *Multidecadal Climate Variability and Florescence of Fremont Societies in Eastern Utah. American Antiquity*, in press]. Hopi-Fremont who became farmers left earlier (~AD 1050), embarking on a return migration south to join Hopi-speaking kinsmen in the south.

* See Emory Sekaquaptewa and Dorothy Washburn (2004:463).

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Durante el Basketmaker II (~800 aC a AD 400), los agricultores de Kiowa-speaking Eastern Basketmaker (EBM) que emigraron al norte compartieron hilos de herencia común con los pueblos de Fremont (Ortman y Mcneil 2017). ¿Pero eran los agricultores de EBM solos en su migración hacia el norte? En este artículo, nos basamos en evidencias lingüísticas, arqueológicas y de arte rupestre para argumentar que: (1) durante BM II, Mesa Verde Central sirvió como una zona de interacción « entre los foragers Hopi (o forager-agricultores) y los agricultores de Kiowa; (2) grupos afiliados de Hopi y Kiowa migraron a través del centro-oeste de Colorado y las mesetas de Tavaputs hacia la cuenca de Uintah; (3) ambos grupos compartieron hilos de patrimonio común con los habitantes de Fremont Oriental; y (4) mientras que los agricultores de Kiowa-Fremont permanecieron en la cuenca de Uintah hasta aproximadamente 1300 DC (Finley, et al. 2019), Hopi-Fremont que se convirtió en agricultores dejó antes (~AD 1050), embarcando en una migración de retorno al sur para unirse a Hopi-parientes hablantes en el sur.

KEYWORDS Western and Eastern Basketmakers, Hopi, Eastern Fremont, migration, loanwords, rock art, San Juan Red Ware, Gateway Tradition

Recent studies of Fremont culture apply the concepts of ethnic boundaries and interaction (Barth 1998 [1969]; Jenkins 1996, 1997) to understanding how it varied regionally while sharing core attributes (Madsen and Simms 1998; Searcy and Talbot 2015; Simms 2008). Since Earl Morss (1931) first identified “Fremont” as distinct from Ancestral Puebloan culture, researchers have pondered: ethnically who were Fremont peoples; what languages did they speak; and how did migrant farmers from the south and indigenous foragers interact to form Fremont culture (Madsen and Simms 1998; Searcy and Talbot 2015; Simms 2008)?

In this paper, we reconstruct Eastern Fremont ethnic boundaries and social interactions from their point of origin in the Four Corner area during the Basketmaker II period (500 BC to AD 500) to their *initial* departure from the Uinta Basin (ca. AD 1000–1050). We argue that pre-Hopi Western Basketmaker (WBM) foragers and pre-Kiowa Eastern Basketmaker (EBM) farmers first made contact in the CMV “Frontier,” after which they migrated north together or in tandem to the Uinta Basin over several generations. Initially (ca. AD 300–750), these ethnically distinct Eastern Fremont people depended on a mutually beneficial relationship to survive in an unpredictable environment. However, when climatic conditions improved (AD 750–1050), they embarked on divergent paths that included switching subsistence strategies (Madsen and Simms 1998) and adopting different types of social organization and ideologies.

We build this argument with archaeological and linguistic evidence suggesting that during BM II: (1) the CMV area served as a “interaction zone” between small groups of Hopi-speaking WBM II foragers (or forager-farmers) and immigrant Kiowa-speaking EBM II farmers (see Charles et al. 2006; Irwin-Williams 1973; McBrinn 2005; Ortman 2012); (2) small groups of pre-Hopi and pre-Kiowa affiliated and over several generations migrated together or in tandem (Clark and

Reed 2011:253–259) north through west-central Colorado to the Uinta Basin, arriving there around AD 250/300 (Finley et al. 2019; Talbot and Richens 1996); (3) after a period of variable precipitation (~AD 300–750), improved climate conditions ushered in a three century period of agricultural florescence (ca. AD 750–1050), during which the social dynamic between pre-Hopi and pre-Kiowa farmers became more competitive. Finally, (4) material evidence suggests that pre-Hopi Fremont farmers embarked on a “return migration” south to reaffirm kinship ties and shared beliefs. Their archaeological footprint (ca. AD 1000–1200) provides clues to the identity and ideology of people who settled at Range Creek and the Gateway Tradition (Pueblo II) Pueblos in west-central Colorado.

Who Were Western and Eastern Basketmakers?

Ancestral Puebloans are identified as either Eastern (Puebloan Tanoan) or Western (Hopi, Zuni, and Keresan), a spatial division that may be traced back to their respective origins as ethnically and linguistically distinct Eastern and Western Basketmaker peoples. Recently, a picture has emerged that the Kiowa-speaking EBM living in the Upper San Juan (USJ, Animas-La Plata) area of southwest Colorado abandoned the region due to drought by AD 400 (Charles et al. 2006:233). They represented the northwestern most members of the Proto-Tanoan (PT) speech community, most of whose members (speakers of Towan, Tiwan, Tewa languages) moved south to the middle Rio Grande Valley between AD 900 and 1275. Kiowa speakers inhabited the USJ area of southwest Colorado at least from the early Formative Era or Basketmaker II, which overlaps spatially and temporally with the Eastern Fremont cultural area (Ortman 2012; Ortman and McNeil 2017; Shaul 2014; also Simms 2008). Around AD 1300 (Finley et al. 2019), they abandoned the farming life way in the Uinta Basin and joined Northwest Plains Apache bison hunters in western Montana.

Regarding the reconstructed identity of Western Basketmakers (WBM), McNeil and Shaul (2018) made the case that WBM people represent an admixture of recently arrived Northern UA pre-Hopi high desert foragers with southern UA (Tepiman) committed desert maize farmers who migrated from the Tucson Basin-Border area around 1200 BCE. This migration narrative recounts how around 3000 BCE, Hopi speaking foragers left their speech community homeland near the Sierra Nevada foothills (Huckell 1996; Kelly 1995; Lyons 2003; McNeil and Shaul 2018:6–7, fig. 1; Shaul 2014) and migrated through the Grand Canyon to northeast Arizona. Members of the pre-Hopi speech community, who were bearers of Western Great Basin material culture (e.g. Z-slant twined bags and sandals, Elko series projectile points), arrived in the Kayenta and Black Mesa areas during the Late Archaic period (ca. 1200–800 BCE) (Guernsey and Kidder 1921). Concurrently, small groups of Tucson area farmers, bearing San Pedro material culture (e.g. 4 warp wickerware sandals, two rod and bundle basketry structure, San Pedro series, e.g. En Medio, projectile points) migrated north passing through the middle Little Colorado River area to Marsh Pass in the Kayenta area and soon after to Bluff, Utah area over several generations (ca.

1200–600 BCE). The amalgamation of these different groups of UA speakers, with their distinctly diagnostic material culture, formed the hybridized archaeological complex known as Western Basketmaker II culture.

According to Lipe and Pitblado (1999:130),

[T]he possibility exists that during the last millenium BCE, some groups continued to pursue a foraging adaptation, some used maize as a relatively minor ‘insurance policy,’ and others moved fairly rapidly to a substantial or even heavy dependence on the new food source.

The evidence suggests that the transition from foraging to farming occurred incrementally during the Early Agricultural Period (EAP) in the LSJ and CMV region. In the LSJ area during BM II (1000 BCE to 500 CE), Hopi-speaking committed farmers adopted corn agriculture from and became affiliated with southern UA (probably Tepiman) speaking migrant farmers from the south (McNeil and Shaul 2018). During this period, Hopi-speaking foragers (or forager-farmers) inhabiting the CMV area appear to have adopted farming more slowly, while maintaining a mutually beneficial relationship with their LSJ committed farmer kinsmen.

Central Mesa Verde “Interaction Zone”

During the EAP in the greater CMV “Frontier,” Diederich (2016:68–69) reports the presence of “residual (nomadic) populations in the Frontier” during the Basketmaker II period (Figure 1). Lipe (1999:155) reasons that foragers would have been drawn to the Mesa Verde-Mancos and Monument-McElmo drainages which have been rated high in foraging potential. Based upon our analysis of diagnostic data described in Colorado Office of Archaeology and Historic Preservation (hereafter OAHp) site reports for Montezuma County, Colorado, a substantial number of foragers inhabited the CMV area during the Basketmaker II period (previously as “Late Archaic/BM II, i.e. 1000 BC to AD 450/500”). This is based upon forager signature sites (n = 49) with ephemeral residential structures, wild plant (including pinyon nuts) and small and large game processing and an abundance of projectile points, suggesting reliance on hunting, along with the absence of corn and pottery (Chuijka et al. 2010; Diederich 2016:70; Horn et al. 2003; Hovezak et al. 2002; Lipe 1999:153). Notably, these materials are associated with the Western Great Basin Hopi speech community homeland (McNeil and Shaul 2018; Shaul 2014), for example, Elko series projectile points and z-slant twining technology used to make bags for burials and storage and square toe/heel sandals (Teague and Washburn 2013; Webster 2011).

However, mixed material evidence suggests that, in addition to foragers in the CMV area, some WBM Hopi-speaking farmers also inhabited the CMV area over the course of the “Late Archaic/BM II” (1000 BC to AD 500), the period cited in OAHp site reports for Montezuma, Dolores, and Montrose (CO) counties, as well as in the Utah SHPO site reports for San Juan county, Utah (Geib 2011). As expected, sites (n = 73) directly (radiocarbon) or indirectly (diagnostic material) dated to the BM II period contain material evidence associated with a *hybridized*

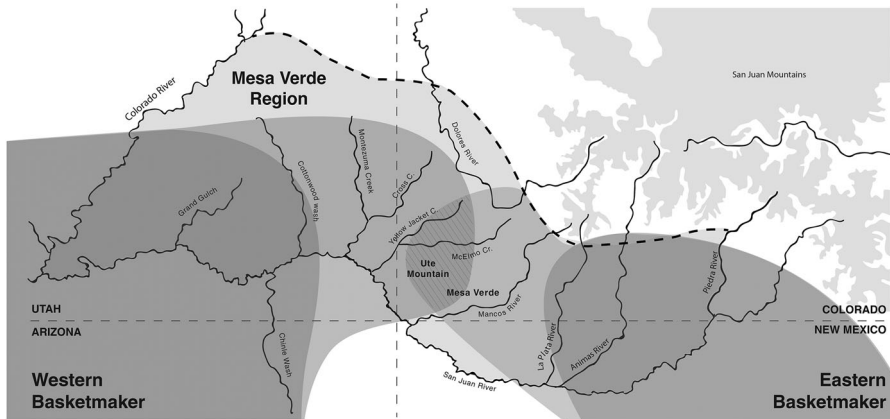


FIGURE 1. Map of the Central Mesa Verde, Lower San Juan, and Upper San Juan regions. Corinne Idler, graphic artist.

(i.e. Western Great Basin and San Pedro-Cochise) Western Basketmaker culture previously discussed here. Early agricultural WBM traits include: shallow, basin-shaped pithouses with four main post supports and approximately ten secondary posts, slab-lined entryway and bell-shaped cists both inside and outside the pithouse, and San Juan side-notched darts. WBM II hybridized materials include: (1) Western Great Basin twined bags and sandals plus borderland San Pedro culture four-warp wicker ware sandals, and (2) Western Great Basin Elko series corner and side-notched points plus San Pedro series En Medio corner-notched points (Figure 2a–d; see Supplemental Appendix A, Table 1).

To add another layer of complexity to the archaeological record in the CMV region, material evidence suggests that some Kiowa/Tiwan-speaking EBM people, who emigrated from the USJ area, settled in the CVM area during the middle BM II period (ca. 200 BCE to 200 CE). But instead of EBM people here living apart from WBM farmers, material and lexical evidence (the latter discussed below) suggests that some EBM farmers (pithouses $n=9$) co-resided with WBM Hopi-speakers. For example, in Lower Sand Canyon, a WBM type shallow basin pithouse (5MT5376) showed evidence of EBM materials and structures, for example, a stringer trench (but no cribbed roofs), two-hand manos, trough or basin metates, and projectile points comparable to Durango BM II (Charles et al. 2006; Gleichman and Gleichman 1992; Hammack and Walkenhorst 1991). These points include Cienga (Tularosa) corner-notched or En Medio corner-notched point with expanding stem (Morris and Burgh 1954) and resemble those from the Black Mesa Lolomai phase (Parry and Christenson 1987; also see Lipe 1999:149–151). This radiocarbon dated site, cal. 100 BCE to 100 CE, is contemporaneous with BM II sites in Durango area (Berry 1982:44–46), the Lolomai phase sites on Black Mesa Phase (Smiley 1985:386) and certain BM II sites excavated on Cedar Mesa in SE Utah (Berry 1982: Tables 14–15). Our analysis of several other BM II pithouse sites in the CMV area—classified as either “Late Archaic/BM II” ($n=49$) or “BM II” ($n=73$) in OAH site reports, such as

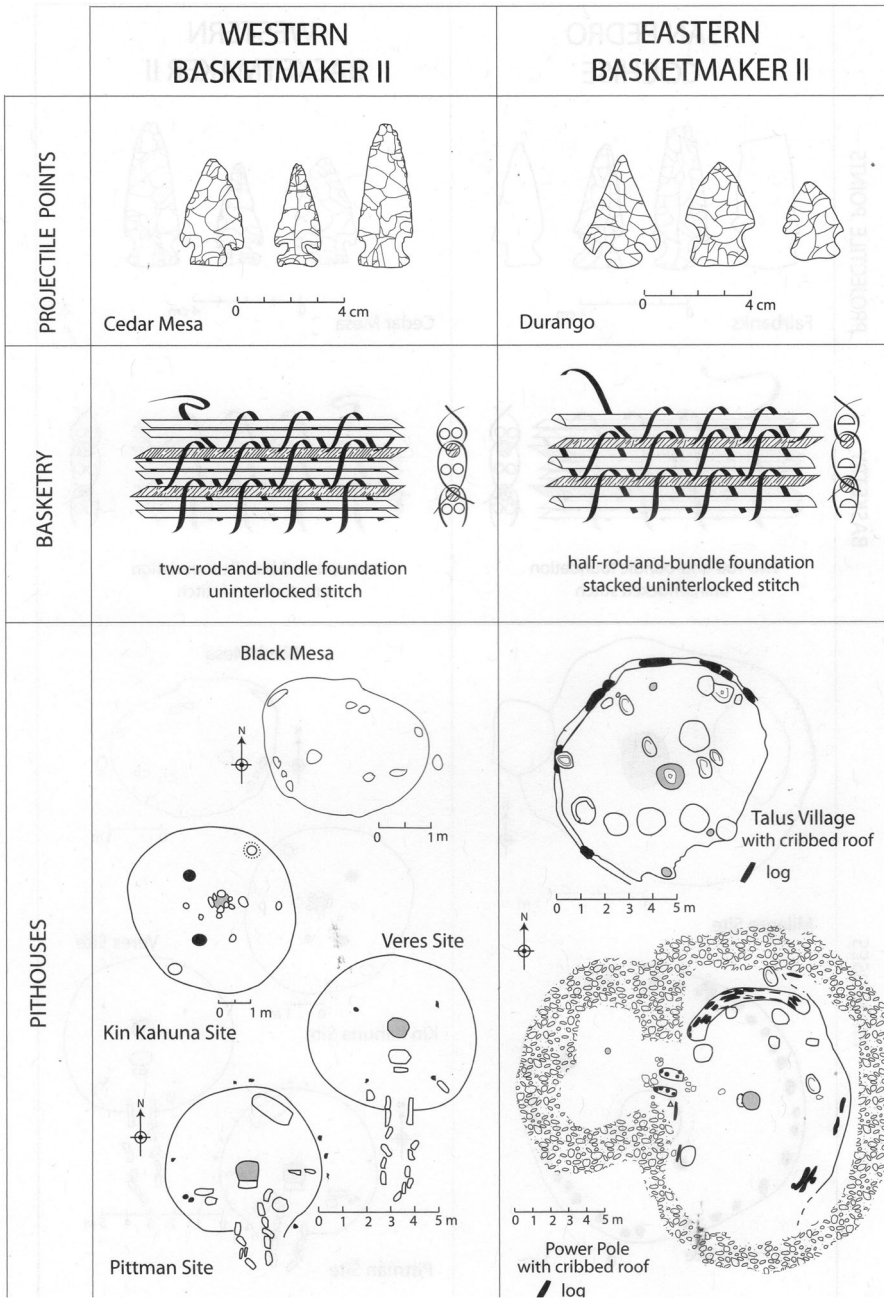


FIGURE 2. (a) WBM and EBM diagnostic materials and pithouses (Matson 1991, 2007); (b) WBM II four warp wickerware sandals (Webster 2011:15, Fig. 11f); (c) z-slant twined square-toe fringed sandals (Webster 2011:17, Figs. a, b); (d) EBM II (?) twilled or plaited sandals (Webster 2011:17, Fig. 13 with permission; new AMS dates suggest twilled sandals postdate occupation of Falls Creek rockshelters; Webster personal conversation 1/7/2020).

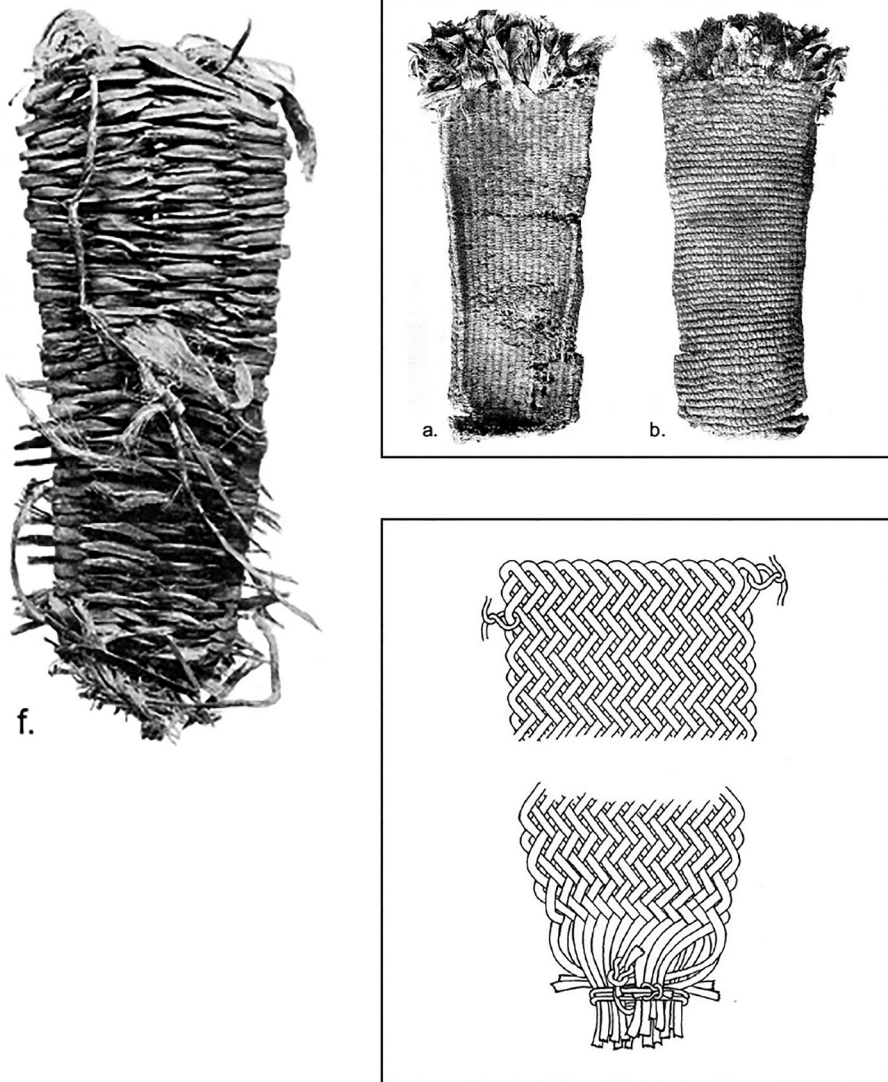


figure 2. *Continued*

5MT10525, 5MT4843, 5MT3270, and 5MT8635—reveals ($n = 9$) material evidence of WBM and EBM co-residence (see; Billman et al. 1997, C¹⁴ cal. 380–75 BC; Diederich 2016:92; Whitten et al. 1986:24; Winter 1976:284). For the complete list of BM II habitation sites in the study area, organized by WBM and EBM diagnostic materials, see Supplemental Appendix A, Table 2.

Fredrik Barth (1998 [1969]) argued that groups who adhere to distinct ethnic/identity boundaries, defined by language and culture, and who pursue complementary (not competing) subsistence strategies, such as forager and farmers, are more likely to form mutually beneficial or symbiotic relationships. Following this idea, we conclude that Hopi-speaking foragers and Kiowa-speaking farmers are the

most likely groups to have formed a mutually beneficial relationship in the CMV area. Evidence that small groups of WBM residual foragers and EBM committed farmers formed symbiotic relationships can be inferred from the archaeological record of the CMV “Frontier,” as already discussed.

Along with material evidence suggesting WBM forager and EBM farmer affiliation, the archaeological record attests that lethal violence occurred on the far eastern edges of the LSJ area (Hurst and Turner 1993). This affirms Barth’s idea that farmers of different ethnicities who compete for good farmland and other resources are likely to have a competitive relationship prone to violence. This appears to have been case when EBM (pre-Kiowa) farmers who migrated west from the USJ area, consequently intruding into the territory of WBM (pre-Hopi) farmers. According to Geib (2016:64 and personal conversation), the most dramatic incidents of BM II period lethal violence which occurred at Cottonwood Cave 7 in southeast Utah (42Sa22180) on the eastern border of the LSJ area and at Battle Cave in Canyon del Muerto (northeast Arizona) involved farmers. We believe it is highly likely that these farmer-on-farmer raids involved migrant, intrusive EBM (Kiowa) farmers and local WBM (Hopi) farmers.

Turning to rock art, we infer that some WBM and EBM groups in the CMV area affiliated, based in part on the iconography inscribed on a large rock art panel at Cannonball Mesa on the border of Montezuma county and San Juan county, Utah (Figure 3). This rock art panel depicts eight meter-scale figures in a EBM variant of WBM II San Juan Anthropomorphic (SJA) style. The EBM stylistic variant is characterized by solid-pecked trapezoidal shaped bodies, round heads typically depicted either with no headdress or with an Archaic/EBM type headdress,



FIGURE 3. Cannonball Mesa petroglyphs with mix of WBM II and EBM II variant. Selected figure with “maize” headdress and identical smaller figure depicted in bas relief in torso. Photo by J.A. McNeil.

which references a forager life way (see Charles and Cole 2006; McNeil and Shaul 2018:215, Table 3). The headdresses on the Cannonball Mesa figures, however, reflect an amalgam of Archaic/EBM headdress motifs (B, C, or F) and WBM SJA style headdress motifs which reference an agricultural life way, such as a 'maize plant' or 'stacked rain clouds' (U, V, or X) (see McNeil and Shaul 2018:218, Table 4). One of the more unique figures on this panel is depicted with a "maize plant" headdress (motif X) and an identical "mini-me" (or homunculus) figure in its torso area pecked in bas relief and wearing a 'maize plant' headdress, perhaps referring to a (proto) maize' clan lineage.

Linguistic Data: UA and Tanoan Interaction

In this section, we discuss linguistic artifacts that suggest evidence of contact between Uto-Aztecan (UA) and Tanoan speakers. We use the term "Tanoan" in place of "Kiowa-Tanoan" previously used in the literature. Tanoan speakers, who later migrated to the middle Rio Grande Valley, are now referred to as "Puebloan Tanoans." The Proto-Tanoan speech community was a dialect chain that stretched from the Four Corners area eastward into the San Juan Basin of northern New Mexico and adjoining southern Colorado, with Kiowa and Towan being the westernmost (Ortman 2012; Shaul 2018). The Proto-Tanoan dialect chain was like this:

	Tiwan	
Kiowa	Towan	Tewan Piro

Towan refers to Jemez and Pecos as a subfamily of Tanoan. Likewise, Tewan is made up of Rio Grande Tewa and Arizona Tewa. Tiwan refers to three languages: Taos, Picurís, and Southern Tiwa (Sandia, Isleta). Ortman's (2012:377, Appendix A; Harrington 1928) reconstruction of Proto-Tanoan vocabulary correlated with Basketmaker II period material culture included agricultural words that were limited to 'ripe (fresh) corn', 'popcorn', and 'squash/gourd'. The Proto-Tanoan speech community, including Kiowa, was familiar with maize agriculture as early as the BM II period.

The lexical artifacts in Supplemental Table 1 show that terms for edible plants and game (and prey) animals endemic to the region and important to a hunter-gatherer lifeway were borrowed from Tanoan into some Northern UA languages (Hopi, Numic; Shaul 2014:105). This exchange happened when UA speakers entered the Four Corners region, with the Tanoan languages (and their incipient corn agriculture) already there. The Numic subfamily of UA includes Northern or Western Numic (Mono, Northern Paiute, Bannock), Central Numic (Timbisha, Shoshone varieties, Comanche), and Southern Numic (Kawaiisu, Chemehuevi, Southern Paiute, Northern Ute, Southern Ute).

Hill's (2008 and earlier) hypothesis that certain UA agricultural words were loans into Proto-Tanoan has been contested by Shaul (2014) and others. Shaul's reconstructions and probability ranking suggest that most of these UA words in

Supplemental Table 2 represented chance resemblants or words adapted from a forager life way rather than UA:Tanoan loanwords. The words with a higher probability of borrowing (.6 or better) are ‘to plant’ and ‘planting stick’ (Shaul 2014:248, Table 8.12), which agrees with Ortman’s (2012) work that shows all members of the Proto-Tanoan speech community had corn agriculture, including Kiowa-speaking Eastern Basketmakers. Puebloan Tanoan has a larger set of lexical artifacts referring to agriculture: flour corn, kernel, planting, field, metate (Ortman and McNeil 2017:5, see Tables 1, 7–8). McNeil and Shaul (2018:211, Table 1) argue that WBM II people in southeast Utah were predominately pre-Hopi-speakers who adopted corn agriculture and a suite of agricultural words from other UA speech communities to their south (Tepiman in southern Arizona being the nearest possibility). Both the pre-Hopis and western Tanoans (Kiowa, Jemez/Pecos) were thus linked by the partial dependence on agriculture.

Furthermore, another linguistic artifact shows intimate linguistic interaction between UA (Numic, Hopi) and some Tanoan speech communities (Kiowa, Tiwan)—the ‘die’-verb semantic template (Shaul 2014:162–267). A ‘die’-verb in UA languages, it a compound of two verbs: the first verb names a mental or physical condition (‘angry’, ‘thirsty’, ‘hungry’ etc.), and the second verb is ‘die’ (with one actual verb for singular subjects, and one for plural). The actual roots (for the two ‘die’ lexical artifacts, and the lexical artifact naming a state of being) vary across UA languages – only the semantic template is constant. Shaul (2018) showed that Kiowa and the three Tiwan languages had this idiosyncratic pattern, and only Hopi and the Numic languages were the possible sources; neighboring languages that had the pattern had to come from Proto-UA. While our previous research argues that Hopi speakers were present in the CMV region during BM II period, it is less likely that Numic speakers were there that early. The Kiowa data for ‘die’-verbs is shown in Supplemental Table 3.

There is strong evidence (linguistic, ethnohistoric) that Hopi, Kiowa, and Towan peoples are identified with the later Eastern Fremont Culture in the Northern Colorado Plateau areas (Shaul 2014:79–82). The same evidence also holds that the Southern Numic people were peaceful neighbors of the Fremont, who traded with them but did not intermarry with them. While one cannot narrow UA contact with Kiowa and Tiwan down to Hopi, the possibility exists that at least part of it was between Hopi and western Tanoans, especially because of their common commitment to agriculture. It is very plausible that the linguistic data present in this section reflects intimate contact between speakers of select dialects of the macro Hopi speech community and the Kiowa speech community.

Basketmaker II Northward Migrations

Material evidence suggests that small groups of WBM foragers, possibly younger brothers denied good farmland in the LSJ and CMV areas (Simms 2008:202), and EBM farmers and their families migrated north together, or in close proximity, through west-central Colorado, the East and West Tavaputs Plateaus, to the Uinta Basin in northeast Utah. The mutually beneficial relationship between WBM foragers and EBM farmers persisted during their migrations north and during a long

span of environmentally difficult years (ca. AD 300–750) in the Uinta Basin. This sort of mutually beneficial alliance of foragers and farmers is consistent with cross-cultural ethnographies reported in Barth (1998 [1969]).

In this discussion of migrations from the CMV region to the Uinta Basin, we follow Clark and Reed's definition of migration as "a long-term residential relocation by one or more discrete social groups across community boundaries in response to spatially uneven changes in social and economic conditions" (Clark and Reed 2011:252; also see Clark 2001:2; Herr and Clark 2002; Lyons 2003; Talbot 2004:101–104). The detection of discrete groups of migrating WBM and EBM people is interpreted based upon the hybridity of culturally learned, low-visibility (Carr and Neitzel 1995) cultural materials reported at sites in the Frontier and at rockshelters and open pithouse sites dated to BM II extending from west-central Colorado (and Moab, Utah) and the West Tavaputs Plateau (Range Creek and Nine Mile Canyon) to the Uinta Basin (Figure 4).

Evidence of Basketmaker II material presence in west-central Colorado includes rockshelters (Dolores Cave, Cottonwood Cave, Tabeguache Caves I-II) and a few open sites near perennial water sources in Montrose county. Inhabiting rockshelters was also a BM II strategy employed by White Dog phase Basketmakers in the Kayenta/Marsh Pass area and southeast Utah (Kidder and Guernsey 1919). An increase in population in west-central Colorado may have been partially due to "the prime areas 'filling up' with people" (Reed

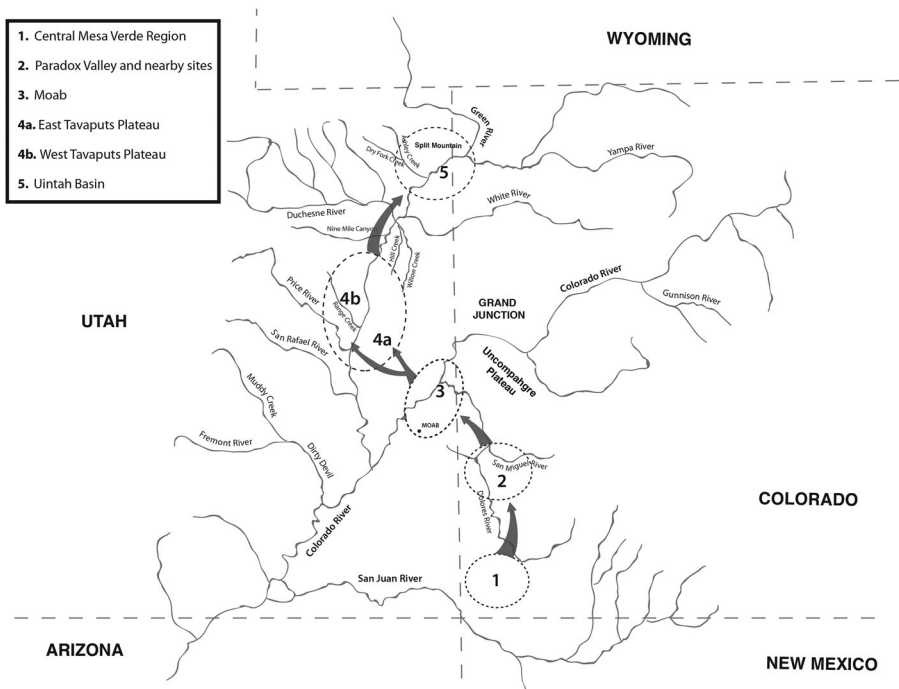


FIGURE 4. Map of BM II period migrations from the CMV region to the UB. Corinne Idler, graphic artist.

2005:27). He maintains that moderate residential mobility at the region's Formative sites is suggested by "anticipated long-term habitation" and more abundant storage structures accessed to be intermediate between those of Ancestral Puebloan, Archaic, and Ute.

A review of early to mid-twentieth century excavation reports for this region reveals that BM II structures and materials were found both in rockshelters and, in known rare cases, at open pithouse sites along the Dolores and San Miguel river drainages (Dolores and Montrose counties). Rockshelters with evidence of BM II period material culture include: Dolores Cave (5MN915), Cottonwood Cave with corn dating between 167 BC and AD 139 (Stiger and Larson 1992) and Tabeguache Cave I (5MN868) (Crane 1977; Hurst 1942, 1943, 1944, 1945, 1947, 1948; Woodbury and Woodbury 1932; Wormington 1955).

These early excavations in Montrose county, as well as those conducted more recently (Greubel et al. 2006, 2009; Reed 2005), report diagnostic artifacts pertaining to mixed EBM/WBM materials (Matson 1991; Teague and Washburn 2013; Webster 2011). See Supplemental Appendix A, Table 1. For example, at Dolores Cave, Cottonwood Cave, and Tabeguache Caves I-II, materials recovered included EBM Los Pinos phase half-rod-and bundle foundation stacked uninterlocked stitch and one-rod-and-bundle foundation stacked non-interlocked stitch (Wormington 1955:126-128, 142). Also found were small numbers of WBM White Dog phase two-rod-and-bundle foundation basketry specimens with interlocking stitches that are diagnostic of WBM II (San Pedro-Cochise) culture (Hurst 1943:15, Pl. II, fig. 14; see Simms 2008:2004 on immigrant women/basketry).

Distinctive WBM and EBM sandal types were found in Cottonwood Cave: one described as "wicker weave with crude twill" (WBM being wicker weave and EBM being twilled or plaited) and the other as double warp with a single weft, possibly a WBM variant (Teague and Washburn 2013:7-8; Webster 2011:17). Wormington (1955) also mentions En Medio corner-notched with expanding stem (EBM) and Elko side-notched (WBM) projectile points found at Cottonwood Cave (Hurst 1948:Pl. IV, nos. 3 and 5) and Tabeguache Cave II (Hurst 1943:Pl. II, fig. 2 (items 4, 6, and 7) and fig. 4 (items 2, 3, and 5); Hurst 1944: Pl. II (items 18, 29); Hurst 1945). Of possible ceremonial significance, several similar perishable objects made of yucca leaf or sumac splints forming a fringe were found in BM II rockshelters in this region and at later Fremont sites (Cole 2009 [1990]:238, Fig. 107). They were reported at Dolores Cave (Hurst 1947), Cottonwood Cave (Hurst 1948:13), and Tabeguache Cave II (Hurst 1944; see Morss 1931 from Fremont River area). They may have a symbolic association with the Classic Vernal style figures with a fringe ("rain") headdress, as discussed below.

With respect to BM II period open sites in Montrose County, Reed (2005) working for the TransColorado salvage pipeline project excavated two Formative-era sites. At the Schmidt site (5MN4253) near Norwood, Colorado, he excavated two basin houses. Macrofossils from corn on the floor of Structure 1 indicated occupation around 140 cal. BC and AD 80 cal. (Gruebel and Cater 2001:227). Corn from nearby Structure 2 indicated occupation 350 cal. BC and 1 cal BC. At the Transfer Road Hamlet site (5MN3876), three basin houses were found. A control

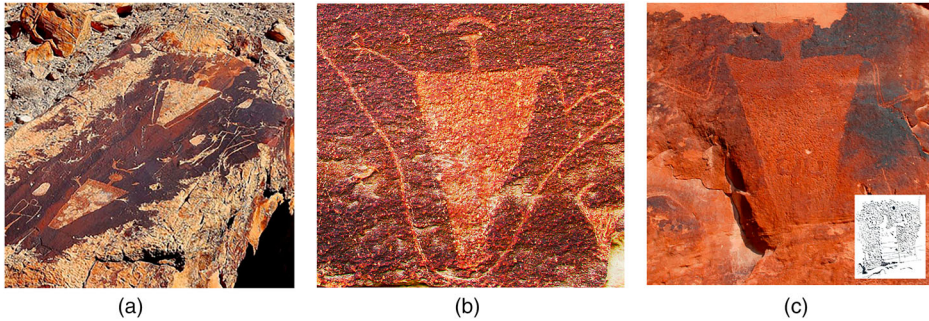


FIGURE 5. Basketmaker II period, EBM variants of SJA style petroglyphs. (a) near town of Green River, Utah, Photo J.A. McNeil; (b) Nine Mile Canyon (photo by Steven Acerson); and (c) Cub Creek (photo by J.A. McNeil).

soil sample from Feature 1 of one of the basin houses indicated occupation between 92 cal. BC and AD cal. 244 (Reed 2005:23).

According to Reed (2001), residential structures dated to the “Archaic” era with shallowly excavated floors are comparable to shallow pithouses of the Transitional BM phase of the La Plata Valley (Reed 2001). The high frequency of storage features among Formative components of west-central Colorado “(was) somewhat unexpected” (Reed 2005:24). This region’s Formative storage features excavated during the TransColorado Pipeline project include a slab-line pit in a rockshelter, subfloor pits within habitation structures, extramural earthen pits, and bell-shaped pits. Notably, this list implies the presence of a mixture of Archaic/EBM II and WBM II storage types (Lipe 1999) and by inference a mixture of peoples.

Several highly visible and stylistically similar (nearly identical) rock art panels appear along our proposed migration route from Paradox Valley to Tabeguache Cave 1 (5MN868; see Cole 1987:18), the East and West Tavaputs Plateaus, and finally arriving at Cub Creek and Cockleburr Wash (Uinta Basin) (Figure 5a-c; also see Supplemental Figure 5a-c). The eastern variant of SJA style rock art is characterized by the trapezoidal body shape, solid pecking, round head either without a headdress or with a two-horn headdress, and wavy-arms similar to BM II style anthropomorphs in the Uinta Basin.

Because radiocarbon or dendrochronological dates used to identify BM II habitation sites at Range Creek and Nine Mile Canyon are scarce, archaeological signatures pertain to alcoves and single, shallow pit houses for longer-term habitation, storage structures containing maize, WBM and EBM diagnostic projectile points (Elko series and En Medio series), basketry and sandals, and the absence of ceramics. In Range Creek, there are several BM II signature alcove or rockshelter habitation sites (maize and/or aceramic). For a list of BM II sites in Range Creek see Supplemental Appendix B, Table 1.

Basketmaker II Affiliations in the Uinta Basin (AD 300–750)

Along with EBM style rock art, Basketmaker II-like strategies with maize appeared concurrently in the Uinta Basin at Steinaker Gap (42UN2004) where

charcoal from a pit that contained maize was dated to AD 250 (Richens and Talbot 2004; Talbot and Richens 2004) and at Cub Creek (DNM) where directly dated maize ears yielded a date of AD 250–300 (Finley et al. 2019; contra Spangler’s 2000: Appendix 5.1). Some researchers claim that farming arrived in the Uinta Basin during the “Late Archaic” period through a process of maize diffusion followed by in situ development and incremental change over time (Janetski 1993; Matson 1991). However, the problem we and others find with an in situ development hypothesis is that the “Late Archaic” period has been revised to overlap with the Basketmaker II period, ~500 BC to AD 500. We follow Talbot and Richens (1996:197) who argued that “the change was incremental only in the sense that once agriculture was introduced [by migrating BM II farmers], its use spread gradually throughout the Fremont area, resulting in the regional farming tradition that we call ‘Fremont’.”

This said, the introduction of maize in the Uinta Basin during the first two centuries AD coincides with BM II northward migrations after which maize agriculture spread throughout the Uinta Basin gradually over time, not in situ development in the usual sense. Further support for the claim that maize arrived in the Uinta Basin with seasoned BM II migrant farmers comes from their maize-dependent diet (Coltrain 1994) and Basketmaker strategies such as bell-shaped pit storage technology and the very rapid spread northward of irrigation technology (Talbot and Richens 1996:197).

Employing a multidecadal climate variability dating method, Finley et al. (2019) found the period AD 300–750 to be one of high variability in precipitation – intermittent rain and drought – in the Uinta Basin. Despite this long period of hardship, Kiowa-speaking farmers persisted due in large part to the symbiotic relationship they apparently enjoyed with their Hopi-speaking forager allies, perhaps including other UA speaking (Northern Ute?) indigenous foragers (Finley et al. 2019). We infer this, in part, from evidence that Basketmaker II period migrant foragers and farmers settled in ephemeral and pithouse structures at Steinaker Gap (42UN2004) and at Cub Creek sites (Finley et al. 2019).

Social Change with Agricultural Florescence in the Uinta Basin (AD 750–1050)

The period of agricultural florescence in the Uinta Basin (AD 750–1050), specifically in the Cub Creek area (DNM), coincided with the intensification of maize horticulture and pithouse community formation (Breternitz 1970; Finley et al. 2019; Hora-Cook 2018; contra Spangler 2002; Talbot and Richens 1999). It also brought dramatic changes in subsistence strategies for pre-Hopi foragers (or forager-farmers), increased competition for farmland, the emergence of a pre-Kiowa “Big Man” social hierarchy, and distinct ideologies and their iconographic representations in CV rock art (see Ortman and McNeil 2017 on pre-Kiowa shield-warrior ideology and rock art).

With the onset of agricultural florescence, evidence suggests that substantial changes occurred in subsistence strategies and social organization for the

pre-Hopi and pre-Kiowa Fremont peoples (hereafter Hopi-Fremont and Kiowa-Fremont). Regarding a shift in Hopi-Fremont subsistence strategies, we examine a rock art panel (stylistically dated to ca. AD 750) at Rainbow Park area (DNM) that visually recounts a transformation narrative in which pre-Hopi bear-people, hunter-gatherers (on the left) become maize agriculturalists and rain-making people (Figure 6). The fringe-headdress figure (on the right) carries “gourds or small pots overflowing with water” in each hand, perhaps ancestral to the Hopi katsina *Hahai-wuti* (“Pour Water Woman”). Moreover, both figures are outlined by images of serpents, creatures associated with the watery underworld where rain originates.

We interpret this, and later Classic Vernal style fringe-headdressed figures, as Rain Beings (proto-Katsina), often depicted in close proximity to rain clouds, snake mediators to the watery-underworld, and agricultural fields. If true, then the Rainbow Park panel references a major switch in subsistence strategy for pre-Hopi Fremont foragers to forager-farmers—and later to fully committed Hopi Fremont farmers, a change that put them in direct competition with their former pre-Kiowa farmer allies.

At the end of the period of agricultural florescence in the UB (~AD 1000–1050), architectural evidence suggests that population reorganization occurred when some Fremont people in Cub Creek left the UB, perhaps in large part, to intergroup social and ideological differences (Finley et al. 2019; Spangler 2002:340). A possible social reason may be related to the idea that pre-Kiowa farmers were transitioning toward a more hierarchical, Big Man, type of society (Finley 2019, personal conversation), while pre-Hopi Fremont foragers, who had recently adopted maize agriculture ca. AD 750, continued to live in a relatively egalitarian society.

Concurrently with these social changes, different ideologies emerged. Kiowa-Fremont adopted a shield-warrior ideology (Ortman and McNeil 2017) and



FIGURE 6. Petroglyph panel in Rainbow Park, DNM, ~AD 750. Photo by J.A. McNeil.

Hopi-Fremont adopted a rain-being ideology expressed in CV style rock in fringe-headress anthropomorphic figures. While the archaeological record lacks direct evidence of UB Fremont intergroup warfare or violence, depictions of lethal violence in the form of trophy heads and scalps on poles appear in CV style rock art during agricultural florescence, in our view, mainly at McConkie Ranch and McKee Springs (Castleton 1984; Cole 1990:173–200; Cole 2009:243–298; Schaafsma 1971). These images may chronicle Kiowa-Fremont farmer violence against Hopi-Fremont emergent farmers who would have been competing at this time for farmland, living in a relatively more egalitarian society, and holding a different, i.e. rain-making, ideology.

Hopi-Fremont “Return” Migration South (AD 1000–1200)

We propose that these social and ideological changes provided the “push” behind Hopi-Fremont abandonment of the Uinta Basin causing them to launch a “return migration” south to rejoin kinsmen beginning ca. AD 900 and certainly after AD 1050 (Finley et al. 2019). While there is evidence of farming in the Tavaputs region during the period of florescence in the UB (AD 750–1050), an Hopi-Fremont return migration maps with the increase in the number of settlements and farms along Green River drainages in the West Tavaputs Plateau at Nine Mile Canyon ca. AD 950–1150 (Spangler 2002; Spangler and Spangler 2003:31) and Range Creek ca. AD 1000–1200, (Rittenour et al. 2015). During this time frame, archaeology and rock art evidence suggests that some of them would continue to migrate south to the Moab area (Mill Creek Canyon), west to the Escalante area (Grand Staircase, UT), and east to Turner-Look (Cisco, UT) and Sieber Canyon (Glade Park, CO) (see Figure 4 for return).

During the time frame when Cub Creek Fremont villages were abandoned by AD 1050, single or small clusters of residential structures, small villages (e.g. Valley Village, Sky House), and storage structures appeared in Nine Mile Canyon on the West Tavaputs Plateau (Spangler 2000b:59, Fig. 5.7; Spangler 2002). Despite this temporal overlap, the claim that some Fremont migrated south from the Uinta Basin to the West Tavaputs Plateau is thought to be problematic. According to Spangler (2000b), the Tavaputs Adaptive Strategy shows little resemblance to Uinta Basin architectural styles, settlement patterns, and pottery types. This appears to be true for Nine Mile Canyon where there is a paucity of middens; storage strategies reflect periodic or seasonal abandonment; pottery with basalt temper was derived from trade with the San Rafael Swell (Emery Gray ware) area, and Fremont period anthropomorphs, although similar in important ways (to be discussed), are generally smaller in scale and less ornately decorated than Uinta Basin CV style depicting large anthropomorphs.

However, one can account for these differences based upon the environmental constraints specific to Nine Mile Canyon. The scarcity of middens in Nine Mile Canyon implies seasonal or long-term abandonment, while pithouse pinnacle locations and numerous storage structures with maize suggests a defensive strategy to protect crops when farmers were away. Spangler (2000a:35) posited that Formative Era farmers in Nine Mile Canyon who planted maize along stream terraces and on outcrops in deeply striated canyons during the spring/summer, left those less able

to travel by foot, such as children and the elderly, to tend the plots, while the rest traveled to uplands to hunt and forage. They would return in the fall to harvest and store the corn crop and most likely wintered elsewhere.

On this last point, if we consider Range Creek in a regional interaction zone that included Nine Mile Canyon, Range Creek Canyon, and Turner-Look at the base of the Book Cliffs – then we find a nexus of connections to the Uinta Basin. Material evidence of Uinta Fremont influence or intrusion in Range Creek is apparent in the circular form of similar coursed masonry overlain with adobe, Uinta projective points, Uinta Grayware sherds, and Classic Vernal style anthropomorphs depicted wearing fringed and horn headdresses. In late fall, members of the Nine Mile Canyon community could have easily traveled through Cottonwood and Lighthouse canyons to aggregate during the winter with Range Creek people already living in large villages (Boomgardner 2015; Rittenour et al. 2015; Utah Division of State History 2018). See Range Creek Fremont villages in Supplemental Appendix B, Table 2.

There are also similarities, with local variations, shared by certain CV style figures in Uinta Basin, Nine Mile, Range Creek, Sieber Canyon, and Mill Creek Canyon (Moab, UT) (Figure 7a–d). The geographic distribution of CV style “rain-maker”

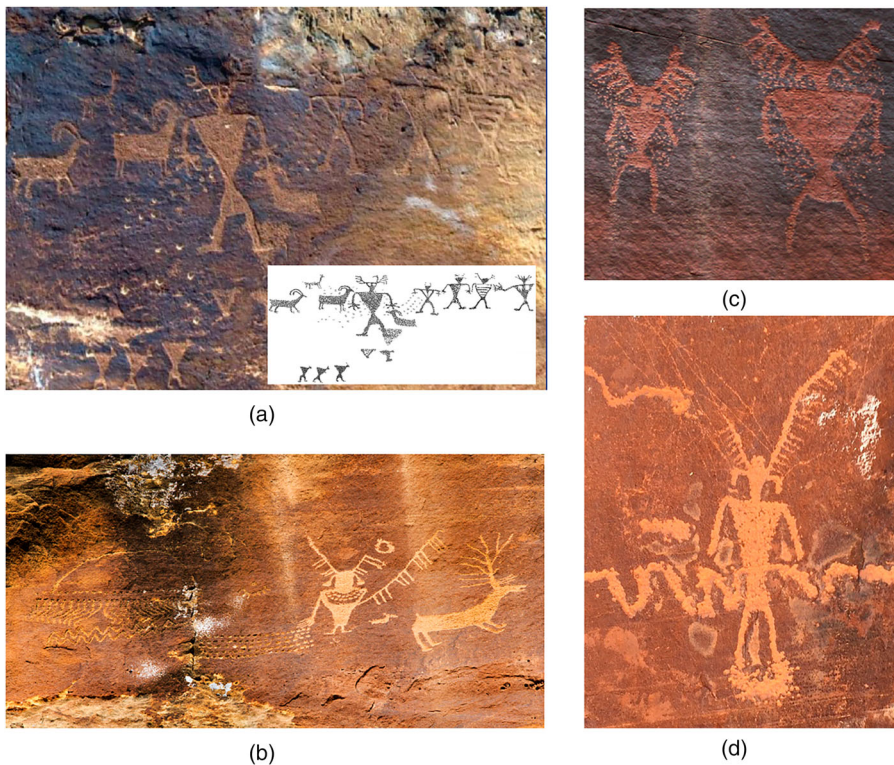


FIGURE 7. Classic Vernal style anthropomorphs with fringe-headdress. (a) Nine Mile Canyon, photo and drawing by Carol Patterson, with permission; (b) Range Creek, photo by Francois Gohier, with permission; (c) Sieber Canyon, Colorado; and (d) Mill Creek Canyon, photos by J.A. McNeil.

figures depicted with fringe-headdress extends from the Uinta Basin south (with one anomaly near Rock Springs, WY) to the places previously mentioned (McNeil 2017). This distinct type of Classic Vernal style rock art expressed iconographically what we interpret to be ethnographic and present day Hopi rain-making ideology. Courlander (1971:93) refers to this ideology as an historic Hopi “calling the cloud” symbolic complex which entreats snakes to act as mediators between humans and the watery underworld, the source of rain.

These rock art figures are often depicted with Hopi-like hair-whorls and kilts, reportedly worn by men (Guernsey and Kidder 1921:55, PL19; Webster and Loma’omvaya 2004:76–77 on Snake Dance priests’ rattlesnake kilts, *tsú’vitkuna*) and placed contextually with rain imagery (see “fringe” in Webster and Loma’omvaya 2004:76, Fig.4.1), rain clouds, lightning, snakes (i.e. messengers to the watery underworld), and dot patterns interpreted as Hopi garden plots (Patterson and Hadden 2016 on the latter). These fringe-headdress figures also sometimes appear with horned serpents, which may be ancestral to the Hopi horned water serpent, *Paalölöquaq* (Merrill 2013:230, Table 5 on this name in Hopi and southern UA).

In addition to rock art imagery, certain artifacts link Eastern Fremont (Hopi-Fremont) with ethnographic Hopi ritual objects. First, select CV style anthropomorphs, images of “trophy heads,” and Fremont Pilling figurines (<https://usueastern.edu/museum/exhibits/figurines>) bear similar hachure facial markings (“tears”) as those depicted on the cheeks of Hopi katsina masks (see Colton 1959 and Supplemental Figure 6). Second, Fremont Big Horn Sheep headdresses and similar rock art images (Garfinkel et al. 2019) resemble the big horn sheep headdress worn by the Hopi Two Horn Alóska priests (Fewkes 1899; see McNeil and Shaul 2018:228, fig. 9).

San Juan Red Ware and Rain-making Ideology

The geographic distribution of San Juan Red Wares, which we believe were linked to rain-making rituals, extends from southeast Utah, where they were produced exclusively, through southwest and west-central Colorado, Fremont sites in the West Tavaputs Plateau, and as far as the Uinta Basin. Archaeologists have sourced San Juan Red Wares (e.g. Bluff black-on-red, AD 750–900; Deadman’s black-on-red, AD 880–1100) exclusively to southeast Utah (Allison 2008:42–43; Allison et al. 2012; Hegmon et al. 1997) (Figure 9a–b; see Supplemental Appendix B, Table 3). They have been found in abundance at Pueblo I period McPhee Village; less so ($n = 10$) at Weimer Ranch Sites, e.g. Cottonwood Pueblo (5MN654) in west-central Colorado (Greubel et al. 2009:42, Table 6); at Turner-Look (Bookcliffs near Cisco, Utah) (Hurst 1948; Wormington 1955; Reed and Metcalf 1999:134, Table 7–3; UT SHPO database 2019); at Range Creek, ca. AD 1000–1200 (Boomgarden 2015; Rittenour et al. 2015), at Caldwell Village in the Uinta Basin (AD 1000–1100, Simms 2008:8–9). The diffusion of San Juan Red Ware north along our hypothesized Hopi-Fremont return migration route suggests the existence of an active trade relationship and close kinship ties between Western Ancestral Puebloan and Hopi-Fremont people (see Greubel et al. 2009:55 on Ancestral Puebloan migration; Janetski 2002: 352–353, 363).

San Juan Red Ware bowls were on average small (~8 in.), therefore, less suitable for feasting than for ritual use. This idea is supported by the finding that San Juan Red Ware “was linked to large sites and/or ritual structures,” such as great kivas (Hegmon et al. 1997:452). San Juan Red Ware and Tsegi Orangeware bowls are also analogous to ethnographic Hopi bowls, ladles, and seed jars associated with rain-making rites, such as asperger bowls used by Antelope Priests during the Oraibi Summer Snake Ceremony (Figure 8a–b; Voth 1903), a ceremony conducted when maize fields were in most need of rain.

Discussion

What we discover in this study has implications regarding the identities, languages, and social interaction of two groups who became known as Eastern Fremont people: pre-Hopi Western Basketmakers and pre-Kiowa Eastern Basketmakers. The first implication of our study of Late Archaic and BM II period sites in the CMV area suggests that pre-Hopi Western Basketmaker foragers did not all simultaneously adopt a farming lifeway. Instead, the archaeological record suggests that some of them were unable (i.e. landless younger brothers) or unwilling to take up farming full-time and, consequently, continued their forager lifeway. These circumstances would have been mutually beneficial for both WBM farmers and foragers.

The second implication of our research related to hybridized WBM and EBM diagnostic types of architectural construction and material culture provides insights into ethnic boundary maintenance and social interaction. Where we found hybridized elements at certain BM II sites in the CMV area and along the proposed migration route to the north, we reasonably assume that affiliated WBM foragers and EBM farmers co-habitated or traveled in tandem. Following Barth (1998 [1969]) on forager-farmer cooperation, we conclude that WBM foragers without farmland by choice or by chance found it beneficial to form a symbiotic relationship with migrant EBM farmers who tried farming in the CMV area, but before long decided to migrate north in search of better farming conditions. This idea is bolstered by evidence of pre-Hopi and pre-Kiowa sharing lexical artifacts that suggest that these ethnolinguistically different people formed a mutually beneficial, close relationship.

The third implication of our study pertains to how agricultural florescence in the UB, ca. AD 750–1050, impacted pre-Hopi foragers’ decision to adopt an agricultural subsistence strategy. At Rainbow Park (DNM), we interpret a rock art panel produced during the early stage of agricultural florescence, to iconographically recount a transformation narrative pertaining to the time when pre-Hopi foragers opted to become farmers. Following from Barth’s (1998 [1969]) theory, the Hopi-Fremont decision to become farmers would have put them in direct competition for good farmland and resources with their previous Kiowa-Fremont allies.

CV style rock art of this period of agricultural florescence provides a window into the ethnogenetic processes that shaped the distinct identities of Kiowa and



(a)



(b)

FIGURE 8. (a) Antelope Priests, “Oraibi Summer Snake Ceremony,” Voth 1903; (b) San Juan Red Ware. Abajo Red-on-Orange (bowl and seed jar on right), Deadman’s Red-on-Black (ladle), and Bluff Red-on-Black (remaining three vessels). “Photo Shoot Image #107,” US BLM Anasazi Heritage Center. Copyright Crow Canyon Archaeological Center (with permission).

Hopi Eastern Fremont. While farming in the UB, Kiowa-Fremont may have adopted a hierarchical social structure focused on Big Men or chiefly figures, such as those depicted on the “Sun Carrier” panel at McConkie Ranch. In contrast, Hopi-Fremont would maintain a relatively more egalitarian society focused on Rain Beings (proto-Katsina) depicted with fringe-(“rain”)-headdress and rain-making rituals involving San Juan Red Ware. We interpret the CV style fringe-headdress as a visual metaphor for “rain” (see Fig. 5c, Sieber



FIGURE 9. Painting by Joseph Mora, *Têu-Mahs Katchina* (*Tumas* or “Crow Mother”), from *Year of the Hopi: Paintings and Photographs by Joseph Mora, 1904-1906*. Smithsonian Press, Washington D.C., 1979.

Canyon Fremont figures), the sky-world inhabited by birds, and specifically the crow with its black iridescent (rainbow-like) feathers/wings. If true, these figures are ancestral to the proto-historic Hopi Katsinam *Têu-Mahs* or *Tumas* (“Crow Mother”) (see Figure 9). We infer the push factors behind Hopi Fremont departure from the UB, in large part, to be the result of social and ideological differences. We interpret the *pull* factors to be the desire to reunite with kinsmen in the Western Ancestral Puebloan area (Wilshusen and Ortman 1999; Wilshusen et al. 2012).

Another implication of this study pertains to the perplexing mixture of Fremont and Ancestral Puebloan (“Freazi”) habitation structures, stone artifacts, and ceramics (notably Red Ware) at Weimer Ranch sites associated with a Hopi-Fremont return migration (Greubel et al. 2009:42–43, Tables 5–6, 49, fig. 15). At Cottonwood and Tabeguache Pueblos (Gateway Tradition), Reed and Metcalf (1999:107) describe a “diluted form of Anasazi culture (mainly ceramics) [...] a short distance from the Anasazi homeland.” We interpret this mixture of Ancestral Puebloan and Fremont traits at Weimer Ranch sites (e.g, Cottonwood Pueblo, cal. AD 1020–1250 on maize; see Greubel et al. 2009:47, Table 8) as evidence of the

push–pull forces involving Hopi-Fremont migrants (men, farmers) and their Western Ancestral Puebloan kinsmen (women, potters).

The final implication of this study pertains to the historic processes involved in Hopi ethnogenesis for certain groups harkening back to Eastern Fremont culture. The frequent appearance of CV fringe-headaddress figures along our proposed Hopi-Fremont return migration route suggests that they may be ancestral to specific historic Hopi Rain Beings or Katsinas, e.g., *Téu-Mahs* or *Tumas* (“Crow Mother”) and *Hahai Wuti* (“Pour Water Woman”) (Figure 9). To this day, these two Katsinas play a central role in the spring equinox corn germination, purification, and rain-making rites of Powamuya (Voth 1901).

Conclusion

In this paper, we use archaeological, historical linguistic, and rock art evidence to build an argument that an historical relationship existed among pre-Hopi WBM, Eastern Fremont, and Hopi people.

During the BM II period, WBM and EBM people formed an affiliation in the CMV area while maintaining ethnic boundaries during their migrations together or in tandem north to the Uinta Basin (UB), arriving ca. AD 250/300. During years of high precipitation variability in the UB from AD 300–750, pre-Hopi foragers maintained a symbiotic relationship with pre-Kiowa farmers, over time becoming the Eastern Fremont. Three centuries of agricultural florescence (AD 750–1050) provided the impetus for pre-Hopi to switch from foragers to farmers, putting them in direct competition with pre-Kiowa allies. Unexpectedly, these improved conditions resulted in starkly different social structures and ideologies. While Kiowa-Fremont continued to farm in the UB until ~AD 1300, Hopi-Fremont abandoned farming there by AD 1050 and embarked on a return migration south to join kinsmen. As a result, they share a common heritage with inhabitants at Fremont sites in Nine Mile Canyon, Range Creek, Mill Creek, and Cottonwood Pueblo in west-central Colorado, among other places.

Finally, we hope this study contributes to the work of retracing the “foot prints” (*ang kuktota*) and ethnogenetic processes involved in historic Hopi identity formation. We believe that our study supports Hopi oral migration narratives recounting how certain groups ancestral to proto-historic Two Horn and Snake (or Rain-Cloud) Clans “came from the north” and subsequently coalesced at the Center Place on the Hopi Mesas in northeast Arizona (Ferguson and Colwell-Chanthaphonh 2006; Nequatewa 1967).

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Supplemental Material

Supplemental data for this article can be accessed <https://doi.org/10.1080/00231940.2019.1709770>

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