

***JOURNAL OF
CONTEMPORARY ANTHROPOLOGY***

RESEARCH ARTICLE

VOLUME III

2012

ISSUE 1

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ABSTRACT

People have long argued about the origins of agriculture in the northern U.S. Southwest. While the roles that maize and other plant foods played in early agricultural (Basketmaker II) communities have been frequently investigated, the utilization of faunal resources during this time has not been as thoroughly studied. This issue will be addressed by presenting the results of zooarchaeological analysis conducted on a sample of faunal remains from the Darkmold site, a Basketmaker II site near Durango, Colorado. Using the Artiodactyl Index, these results will be compared to sixteen other Basketmaker II sites and will show that the Durango Basketmakers relied more on artiodactyls (deer and their relatives) and less on lagomorphs (jackrabbits and cottontails) than did Basketmakers outside of the Durango area. This difference will be explored as it relates to the origins of the Basketmaker II peoples and farming in the region.

* Sincere thanks to Mona C. Charles and the Fort Lewis College Archaeological Field School as well as Drs. James Enloe, Thomas Charlton and Glenn Storey of the University of Iowa. I would also like to thank Drs. Margaret E. Beck and Matthew E. Hill, Jr. for their help and great advice in revising various drafts of this paper, Patrick Sheridan for his assistance and support, and the great recommendations of the anonymous reviewers. Some taxonomic identification would not have been possible without the help of Dr. Holmes A. Semken, Tiffany Adrain, and John Cordell of the University of Iowa. Many thanks also to Timothy M. Kearns and Western Cultural Resource Management, Inc. for data regarding the Meat Milling Site. This research was made possible by the Colorado Council of Professional Archaeologists' Ward F. Weakly Memorial Fund, a Research Grant from the University of Iowa Student Government, and a Graduate Fellow Appointment from the University of Iowa Department of Anthropology.

INTRODUCTION

In the northern U.S. Southwest, the Basketmaker II (BM II) period (1500 BC-AD 500) is the time when maize and squash agriculture come to the Ancestral Puebloan (or “Anasazi”) region. The nature of this shift is not fully understood, and archaeologists disagree on the means by which it happened. The basis for this disagreement can be found in two main theories regarding the initial presence of maize agriculture in the region. These two theories can be called the *migration model* and the *in situ developmental model* (also called the *diffusionist model*). Proponents of the first model (e.g., Berry and Berry 1986; Berry 1982; Morris and Burgh 1954) have argued that there was a migration of agriculturalists from the south that moved north into the area. Proponents of the second model (e.g., Cordell 1984:176-178; Irwin-Williams 1967, 1973, 1979; Merrill et al. 2009) have argued that a slow adoption of maize agriculture occurred, wherein the native hunter-gatherers who had long lived in the region were incorporating this new method (learned of from their agricultural neighbors through cultural diffusion) into their everyday lives. (See Gilpin 1994, Matson 1991 and Merrill et al. 2009 for discussions regarding the various arguments about the beginnings of agriculture in the northern U.S. Southwest).

It is widely recognized that the entire BM II region cannot easily be explained through one of these models alone, but that regional differences occurred, with some areas developing out of local hunter-gatherer groups while others were settled by incoming farmers. In fact, it is often proposed that Basketmakers living in the eastern Colorado Plateau (the “Eastern Basketmakers”) represent an *in situ* development (having adopted an agricultural way of life through cultural diffusion), while those in the west (the “Western Basketmakers”) are descendants of farmers that moved into the area from the south (see LeBlanc et al. 2008; Matson 1991). To be sure, differences between Eastern and Western Basketmakers are seen in a variety of forms, including rock art styles (Cole 1993; Robins 1997; Schaafsma 1980), mortuary practices (Mabry 1998; Mowrer 2006), material culture (Charles and Cole 2006; Matson 1991, 1994; Webster and Hays-Gilpin 1994), and dental traits (LeBlanc et al. 2008; Turner 1993). Furthermore, various culture traits tend to reveal stylistic similarities between Eastern Basketmakers and preceding local Archaic groups, but reveal few similarities between the Western Basketmakers and preceding local groups. At the same time, similarities are visible between Western Basketmakers and a southern group known as the San Pedro Cochise, but no similar stylistic relationship can be seen between the San Pedro Cochise and the Eastern Basketmakers (Matson 1991, 1994). There is thus much to suggest that what we may call the “ethnicities” of BM II peoples as a whole were likely quite varied, perhaps stemming from two rather distinct origins.

As expressed by Matson (1994:219-220), one cannot ignore the fact that “this two-source origin for the Anasazi obviously has important implications for our understanding of later developments and needs to be carefully evaluated.” While this is of course very true, it also has important implications for the development of the Basketmakers themselves. In fact, the very issue of diet and faunal use is intertwined with the origins of the Basketmakers, as some groups may have been entering a new region while relying upon a developed tradition of farming, while others were making the transition to farming in place. It is possible that these varied histories may have impacted the economic decisions made by each group, a topic to be explored herein.

THE BASKETMAKER II DIET

Though the BM II time period is meant to mark the presence of agriculturalists in the northern Southwest, the degree to which BM II populations are thought to have depended upon

agriculture is a topic of contention. Some archaeologists (i.e., Bearden 1984; Irwin-Williams 1973; Wills 1992; see also Amsden 1949:97-105) argue that even the late BM II peoples were largely hunter-gatherers with little dependency on domesticated maize and squash. Others, in contrast, have long argued that BM II populations were heavily dependent upon domesticated crops, particularly maize (e.g., Berry 1982; Kidder and Guernsey 1919:154; Morris 1939:15). Recent research has tended to support the latter line of thought and has shown that the BM II peoples were greatly dependent on domesticated crops. In fact, their reliance on cultigens was barely smaller, if at all, than during the later Basketmaker III and Pueblo time periods (e.g., Chisholm and Matson 1994; Coltrain et al. 2006, 2007; Martin et al. 1991; Matson 1991:92-99; Matson and Chisholm 1991).

Since the BM II period is considered the beginning of farming in the northern southwest, most discussions concerning subsistence patterns in this time period have dealt largely with maize and other plant products and have, in comparison, given less attention to faunal exploitation patterns (cf., Brown and Brown 1993; Hovezak and Schniebs 2002:437-441; Leonard 1989). This is unfortunate, as the BM II period is quite distinctive from later periods in four ways that all may greatly affect the manners in which people would utilize faunal resources (Rohn 2006:169-170): first, the BM II people did grow corn and squash, but did not grow beans, and were thus without an important source of fat and protein available to their descendents; second, the BM II people used an atlatl and dart rather than the more efficient bow and arrow (but see Charles and Cole 2006; Reed and Kainer 1978); third, the BM II people, for the most part, lacked pottery (but see Charles and Cole 2006; Reed et al. 2000; Reed 2000:8; Toll and Wilson 2000), which would affect the means in which resources were stored and cooked; finally, though recent evidence suggests that at least some BM II people had the domesticated turkey (Speller et al. 2010), it was not a widespread phenomenon and they do not seem to have been an important source of meat until much later (Badenhorst and Driver 2009; Driver 2002; Judge 2006:228-229; McKusick 1986:151). (See Blackburn and Williamson 1997, Charles 2006, Charles and Cole 2006, Lipe 1993, Lipe 1999, and Matson 2006 for informative discussions regarding the cultural attributes of the BM II peoples). While agriculture sets the BM II people apart from the Archaic peoples before them, these qualities set BM II populations apart from their descendents.

The end of the BM II period is thus marked by these very changes: domesticated beans were added to the diet, providing more readily available vegetable protein and a more complete cultivated diet; the bow-and-arrow was added to the Southwestern toolkit, allowing for more efficient hunting; pottery became ubiquitous; and the widespread use of the domesticated turkey provided people with easily accessible sources of feathers as well as meat and/or eggs. Rohn (2006:152) argues that the addition of beans was particularly important in changing subsistence practices, in that though the BM II peoples successfully combined maize and squash agriculture with hunting and gathering, “by Basketmaker III, cultigens including common beans replaced products of hunting and collecting as the most prominent subsistence resources” (see also Gumerman 1974).

Thorough analyses of the faunal remains from BM II sites are thus necessary to better understand the adoption of agriculture in the northern U.S. Southwest. However, as explained by Lipe (1993:7), this type of analysis has not been prominent in previous BM II research:

In the absence of beans and turkeys as sources of protein, the Basketmaker II people may ... have done more hunting for wild game than did their successors in the area; this has

not been demonstrated by systematic comparative studies, however. In general, we still have much to learn about if and how Basketmaker II subsistence varied through time, in different geographic settings, and with different local population densities.

This research begins to address such issues by presenting the results of a zooarchaeological analysis of a sample of the faunal remains from the Darkmold site, a BM II site near Durango, Colorado. The site has yielded a large number of faunal remains, and the analysis of them will be essential to understanding the economic behavior of the BM II peoples in the Durango area, a main locus of the Eastern Basketmakers. The results of this analysis are then compared to two other Durango BM II sites and 14 sites outside the Durango area. Together, the faunal assemblages from these sites will give us insight into how the diet varied regionally during the BM II period, and we will explore what this may mean for debates regarding the adoption of agriculture in the northern U.S. Southwest.

THE DARKMOLD SITE

The Darkmold site is located on private property 4.5 miles north of Durango in La Plata County, southwestern Colorado. Excavations at the site began when human remains were encountered during the construction of footer trenches for the land owners' home (see Charles 2000; Charles 2006; Charles and Cole 2006; Charles et al. 2006; Reynolds 2007a, 2007b). The property was then the site of the Fort Lewis College (FLC) Archaeological Field School, under the direction of Mona C. Charles, during the 1999 through 2008 field seasons. This open-air site sits within the Animas Valley on a bench roughly 650 meters west of the Animas River at an elevation of 6,700 ft (2,042 m) above sea level (see Charles 2000 for a more thorough description of the site's location and surroundings). Excavations at the site have revealed a complicated, heavy BM II occupation with a later, less concentrated Pueblo I occupation.

Located one half mile south of Talus Village and just east of the Falls Creek Rock Shelters made famous by Morris and Burgh (1954) (see below), the Darkmold site is one of just a few BM II sites in the Durango area (see Duke and Matlock 1999; Fuller 1988; Lipe 1999; Lister 1997; Reynolds 2012; Smiley and Robins 1997). The site's features include typical BM II slab-lined and bell-shaped cists, and the method of construction seems to be very similar to that reported by Morris and Burgh (1954) for nearby Talus Village, wherein the inhabitants built their features into the natural slope of the site by creating false terraces.

The Darkmold Sample

The sample discussed in this paper is comprised of nearly 2,500 specimens from Pit Structure 2 NW ¼, a pit house that was one of the most prominent features of the Darkmold site. The pit structure itself was largely removed during initial mechanical excavations for the land owners' house, leaving behind only the northwest quarter, which was excavated by field school staff and students during the summers of 2000, 2001, and 2002. All of the sediments from this feature were sieved through quarter-inch and eighth-inch screens, and sampled sections were also processed through a flotation device. Stratigraphic layers were identified during excavation, but as they are all thought to be BM II in age (see below), the results presented in this paper are aggregated into one sample.

It is generally thought that the pit structure was used as a midden after it had been abandoned as a pit house. The majority of the feature's fill is thought to be BM II in age due to both chronometric dates and stylistically BM II material culture. The four projectile points, all

stylistically BM II, and the lack of any ceramics until the stratum above the pit structure (Pueblo I in age), imply a BM II/Pre-ceramic date. Furthermore, chronometric dates of a corn kernel taken from Layer 2 (a lower cultural layer within the Pit Structure) give a corrected date of AD 75-250 (Mona C. Charles, personal communication 2007; see Charles 2011 and Charles et al. 2006). Since this feature has been dated using maize, our assemblage is freed from the “old wood problem” (see, for example, Smiley 1994:175-176).

The faunal remains from Pit Structure 2 NW $\frac{1}{4}$ are very important to the site’s history, as the bones from this feature make up roughly twenty percent of the non-worked bone specimens recovered from the site. It is for this very reason—the high percentage of the site’s faunal materials located within one well-dated, large feature—that the analyses of the Darkmold fauna will begin with the Pit Structure 2 NW $\frac{1}{4}$ materials.

METHODS

Quantifying the Darkmold Results

Though a large variety of zooarchaeological quantification techniques exist, the variables important for this discussion are the Number of Identified Specimens (NISP) and the Minimum Number of Individuals (MNI) (see Grayson 1984, Klein and Cruz-Uribe 1984, and Lyman 2008 for summaries of zooarchaeological quantification procedures). NISP is the count of every identified bone for each taxon (see Grayson 1984 and Klein and Cruz-Uribe 1984). The Minimum Number of Individuals (MNI) (White 1953) is calculated by analyzing the remains from each taxon (represented as a whole as the NISP), and determining the minimum number of individual animals that could have produced the assemblage. During this portion of the analysis, relative age, side of body the element came from, portion of the element represented, and element size were all taken into account. For example, three right tibias and two left tibias of a cottontail could only account for three individuals (seen in the three right tibias), but if the three right tibias are all from mature individuals (their epiphyses are fully fused), and one of the left tibias was not fused at all, then the MNI would here be concluded as four.

The main flaw associated with MNI is that the resulting numbers are almost certainly biased by how the analyst conducted his/her research, and the means by which one reaches their MNI counts are very rarely reported by analysts. Due to this lack of explanation and consistency, analysts regularly rely only on NISP to make comparisons between assemblages in an effort to avoid biased or compromised analyses. Though this has solved one problem, Muir and Driver (2002:172) have noted that “the exclusive use of derived measures of abundance (e.g. MNI estimates) by some researchers has precluded the possibility of direct comparisons to other assemblages.” Thus, to allow the results of this project to be used in a variety of comparative analyses in the future, both NISP and MNI will be shown when presenting the results of the Pit Structure 2 NW $\frac{1}{4}$ faunal assemblage. However, the comparative portion of this paper will rely solely on NISP.

Comparing Assemblages: The Artiodactyl Index

Zooarchaeologists frequently analyze faunal exploitation patterns through the use of what have been called abundance indices (AI) (also called “efficiency indices”—e.g., Janetski 1997:1077). These have been created to look at patterns (trends over time or space) regarding which taxa people are relying upon (see Broughton 2002:62-64 for the history of AI). Many of these indices are directly related to ideas regarding optimality and efficiency (as is reflected in the term “efficiency indices”), as they commonly compare ratios between high- and low-ranked

prey by, for instance, looking at the use of species belonging to different sizes (generally correlated with prey rank), captured using different technologies, or belonging to specific prey patches.

The comparative part of this analysis will make specific use of the Artiodactyl Index (Spielmann and Angstadt-Leto 1996:83; Szuter and Bayham 1989:83), an index commonly used by Southwestern archaeologists to compare the utilization of two of the region's most important faunal resources: artiodactyls (deer and their relatives) and lagomorphs (rabbits) (e.g., Brown and Brown 1993; Dean 2001; Diehl and Waters 2006; Driver 2002). The Artiodactyl Index is a measure of the relative abundance of artiodactyls versus lagomorphs, and is calculated by dividing the number of artiodactyl specimens by the sum of the artiodactyl and lagomorph specimens:

$$\frac{\sum \text{artiodactyl}}{\sum (\text{lagomorph} + \text{artiodactyl})}$$

Expressed most simply, “values less than 0.50 indicate relatively more lagomorphs while values greater than 0.50 indicate relatively more artiodactyls” (Brown and Brown 1993:349).

Before the analysis begins, it must be recognized that Dean (2005) has brought to light the very real impact that artiodactyl bone tools may have on the representation of artiodactyls in certain sites and assemblages, as they were often probably curated, involved in complex exchange networks, or buried in ceremonial ways ensuring their preservation. For this very reason, the analysis that follows does not include artiodactyl bone tools in the calculation of artiodactyl indices.

RESULTS AND COMPARISONS

The Darkmold Sample

Of the nearly 2,500 faunal specimens from Pit Structure 2 NW ¼, only 151 were in some way identifiable to specific taxonomic categories (see Table 1). The remainder of the assemblage is composed of extremely fragmentary specimens—likely fractured as a result of grease processing (see Church and Lyman 2003; Lupo and Schmitt 1997; Munro and Bar-Oz 2005; Outram 2004a, 2004b; Saint-Germain 1997)—that could be identified only as medium-large mammal. As a whole, the faunal assemblage from Pit Structure 2 NW ¼ is dominated by artiodactyls, though there is a strong presence of lagomorphs and various rodents (see Table 1). Cottontail specimens appear three times more often than jackrabbit specimens, and the artiodactyl portion of the sample appears to be dominated by the mule deer. The Artiodactyl Index for the Pit Structure 2 NW ¼ sample is 0.86, evidence of the high importance of artiodactyls versus lagomorphs at the Darkmold site (see Table 2).

Taxon	NISP	MNI
<i>Mammalia</i>		
<i>Rodentia</i>	19	3
<i>Neotema species</i>	1	1
<i>Microtis species</i>	1	1
<i>Thomomys species</i>	4	2

<i>Lagomorph</i>	5	1
<i>Sylvilagus species</i>	15	3
<i>Lepus species</i>	1	1
<i>Erethizon dorsatum</i>	3	1
<i>Artiodactyla</i>	49	3
<i>Odocoileus-Antilocapra</i>	10	1
<i>Odocoileus-Ovis</i>	1	1
<i>Odocoileus hemionus</i>	37	6
Medium-sized canidae	1	1
<i>Aves</i>		
<i>Order Passeriformes</i>	1	1
<i>Order Galliformes</i>	2	1
cf. <i>Meleagris gallopavo</i>	1	1

Table 1: NISP and MNI chart for Darkmold's (5LP4991) aggregated Pit Structure 2 NW¼ assemblage. (This does not include bone tools from Pit Structure 2 NW¼).

The Artiodactyl Index results from Pit Structure 2 NW ¼ will now be compared to the Artiodactyl Index results from sixteen other assemblages. As advised by Driver (2002), only sites with fifty or more specimens of lagomorphs and/or artiodactyls are used in this comparison.

Comparative Data from the Durango Area

In addition to the Darkmold site, two BM II sites in the Durango area contained faunal assemblages that were large enough to use in this comparison: the North Falls Creek Shelter and Talus Village (Morris and Burgh 1954; Reynolds 2012; Rodeck 1954). The species identified at these sites include coyote, black bear, porcupine, beaver, and various other small mammals (see Reynolds 2012 and Rodeck 1954), but both assemblages are heavily dominated by mule deer. The Artiodactyl Index supports this conclusion, with an index of 0.96 for the North Shelter and 0.97 for Talus Village (Table 2). All three of the Durango assemblages (Darkmold, North Falls Creek Shelter, and Talus Village) are thus heavily dominated by artiodactyls.

Sites in the Durango Area				
Site	Lagomorph NISP	Artiodactyl NISP	Artiodactyl Index	Source
Darkmold (Pit Structure 2 NW¼ sample)	16	97	0.86	This analysis; expanded upon in Reynolds 2007b
North Falls Creek Shelter	5	106	0.96	Reynolds 2012; Rodeck 1954
Talus Village	6	201	0.97	Reynolds 2012; Rodeck 1954

Table 2: NISP of lagomorphs and artiodactyls as well as the Artiodactyl Index results for Durango sites with at least 50 specimens identified as artiodactyl and/or lagomorph.

Comparative Data from Basketmaker Sites Outside of the Durango Area

Fourteen BM II sites beyond Durango have faunal assemblages containing at least fifty specimens identified as lagomorphs or artiodactyls. These are Sand Dune Cave from the Navajo Mountain region (Lindsay et al. 1968), eight sites from Black Mesa (Leonard 1989), the Meat Milling Site from the Southern Chuska Valley (Freuden 1998), and four sites from the Transwestern Pipeline Expansion Project, located in the San Juan Basin, the Upper Puerco River Region, and the Wide Ruin Wash Region (Brown and Brown 1993). When the NISP of lagomorphs and artiodactyls for these sites are compiled and presented as the Artiodactyl Index, we see that these sites are all heavily dominated by lagomorphs (see Table 3).

Sites Beyond the Durango Area				
Site	Lagomorph NISP	Artiodactyl NISP	Artiodactyl Index	Source
Sand Dune Cave	68	27	0.28	Lindsay et al. 1968
423-158	2618	3	0	Brown and Brown 1993
442-3	315	2	0.01	Brown and Brown 1993
442-12	495	1	0	Brown and Brown 1993
442-13	77	28	0.27	Brown and Brown 1993
D:7:0236	88	22	0.2	Leonard 1989
D:7:0239	931	11	0.01	Leonard 1989
D:7:3013	39	13	0.25	Leonard 1989
D:11:0244	59	7	0.11	Leonard 1989
D:11:0499	159	6	0.04	Leonard 1989
D:11:1410	557	1	0	Leonard 1989
D:11:3131	93	15	0.14	Leonard 1989
D:11:3133	357	0	0	Leonard 1989
LA 80419 (Meat Milling Site)	663	0	0	Freuden 1998; Western Cultural Resource Management, Inc.

Table 3: NISP of lagomorphs and artiodactyls as well as the Artiodactyl Index results for the 14 sites outside of the Durango, Colorado area discussed in this paper.

A Summary of the Artiodactyl Index at Basketmaker II Sites

When calculated for each site, the Artiodactyl Index reveals the variety within BM II faunal procurement strategies. With Artiodactyl Indices of 0.86 and higher, the Durango sites stand in striking contrast to the other BM II sites considered here, as all 14 sites have Index

results of 0.28 or lower (see Figures 1, 2a and 2b). Clearly, artiodactyls were quite important to the Durango BM II peoples. In fact, when one considers a number of additional sites with samples that are either too small or are not specific enough in taxonomic assignment to be used in this comparison (e.g., Potter and Edwards 2008:282-283), Durango BM II sites in general appear to be heavily dominated by large mammals, most specifically artiodactyls (see Reynolds 2012 and her sources). In contrast, when one moves beyond the Artiodactyl Index and looks at assemblage compositions as a whole, most BM II sites outside of the Durango region appear to be heavily dominated by a large number of small mammals (e.g., Brown and Brown 1993; Freuden 1998; Leonard 1989).

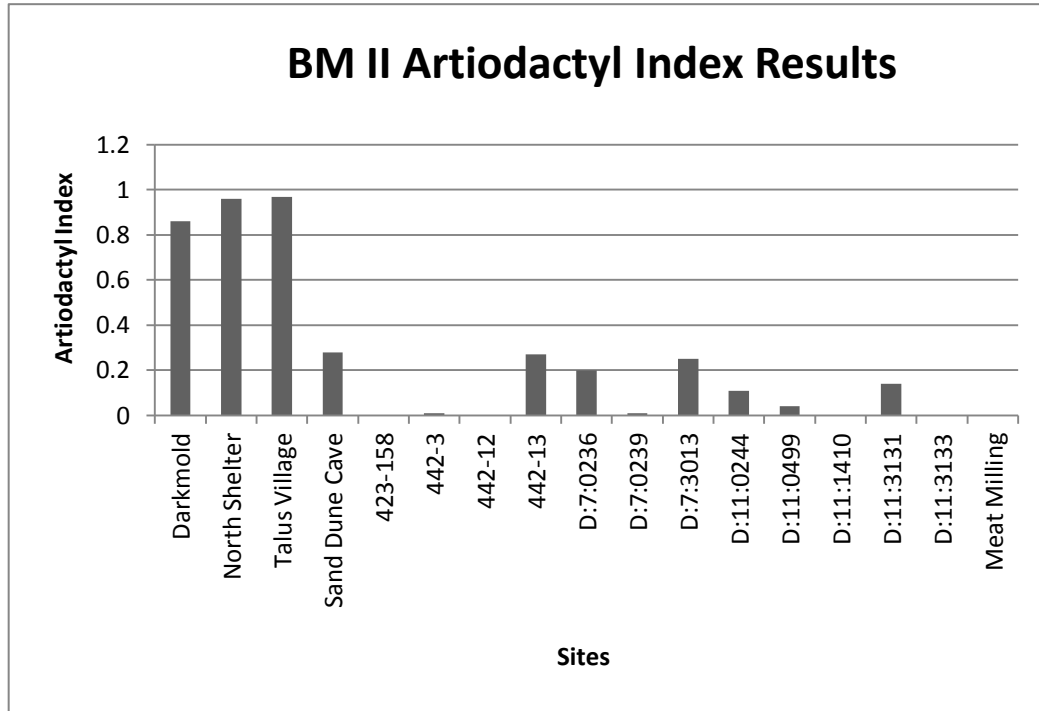


Figure 1: Artiodactyl Index results from the 17 BM II sites discussed in this paper. Data taken from Brown and Brown 1993, Freuden 1998, Leonard 1989, Lindsay et al. 1968, Reynolds 2007b, Reynolds 2012, and Rodeck 1954.

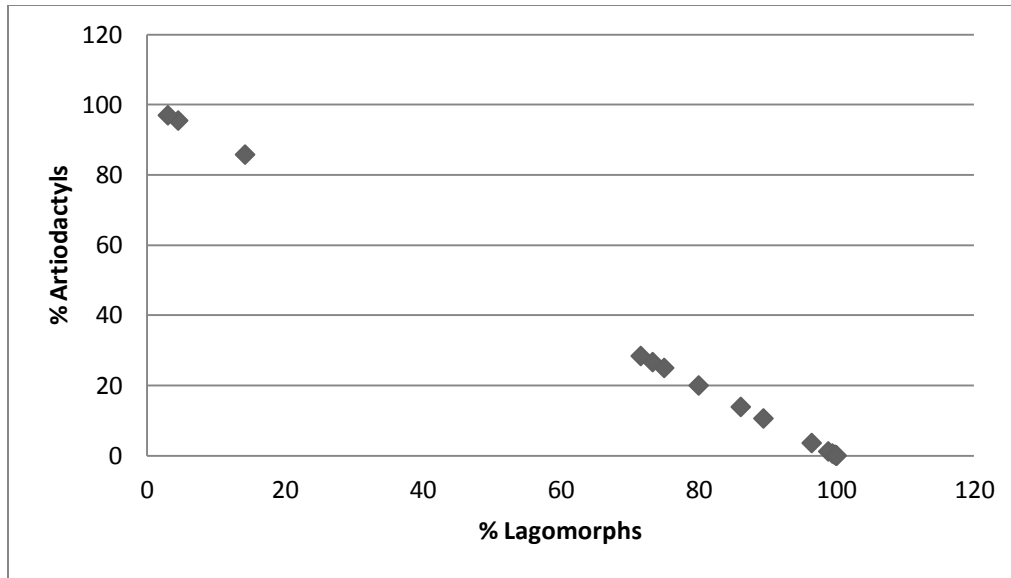


Figure 2a

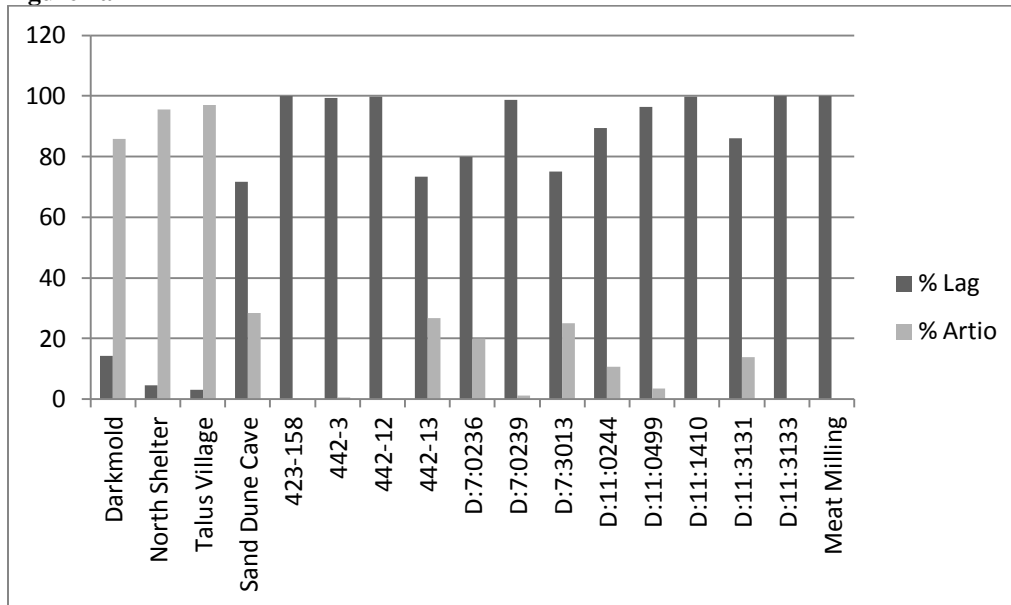


Figure 2b

Figures 2a and 2b: Figures showing the percentages of artiodactyls and lagomorphs—relative to each other—from the 17 BM II sites discussed in this paper. In Figure 2a, the three sites with high percentages of artiodactyls are the Durango sites (Darkmold, Talus Village, and the North Falls Creek Shelter). (Data from Brown and Brown 1993, Freuden 1998, Leonard 1989, Lindsay et al. 1968, Reynolds 2007b, Reynolds 2012, and Rodeck 1954).

DISCUSSION AND CONSIDERATIONS

Though the seventeen assemblages presented here do not represent the entirety of BM II faunal assemblages, and though focusing on the Artiodactyl Index is just one way to investigate regional differences, it is widely used and is a fruitful avenue into the faunal exploitation practices of prehistoric populations. With that in mind, what do the differences between the Durango BM II faunal assemblages and those outside of the Durango area, as evidenced by the presence of lagomorph and artiodactyls, really mean?

As one explanation, Brown and Brown (1993) interpreted the BM II faunal assemblages from the Transwestern Pipeline Expansion Project—all dominated by lagomorphs and other small mammals—as being the result of garden hunting, a method associated with a sedentary, farming-reliant lifestyle (see Linares 1976). Of interest to the current study is Brown and Brown's (1993:368) suggestion that assemblages with high artiodactyl indices would be one measure of data that does not fit the garden hunting strategy, and, as shown here, BM II sites in the Durango region appear to be heavily dominated by artiodactyls. However, this is not necessarily an easy correlation to make, as Brown and Brown (1993:350, Table 49) themselves even list deer and antelope as two of the species attracted to agricultural crops and agriculturally disturbed lands. High artiodactyl indices, therefore, could still suggest that the Durango BM II peoples were sedentary farmers relying upon animals that were attracted to their gardens.

Another explanation, which may or may not be related to the garden hunting hypothesis, is that the differences in BM II faunal assemblages from one region to another may be related to the questions of the Basketmaker origins. As mentioned above, some archaeological data suggest that differences in origins and/or ethnicities may exist between the Western and Eastern Basketmakers. More specifically, some scholars (e.g., LeBlanc et al. 2008; Matson 1991) have argued that the Durango Basketmakers were the result of an *in situ* transition, while their neighbors had migrated into the area as agriculturalists. Following this argument, one could say that the Durango Basketmakers were part of a long-lived local tradition, and being the descendents of mountain adapted hunter-gatherers, they were familiar with good hunting grounds and animal migration routes, facilitating more successful artiodactyl hunting forays than people who had moved into a new area.

Further, even if agricultural products do appear to have at times been very important to the Durango Basketmakers (e.g., Coltrain et al. 2006), the high presence of artiodactyls may indicate that the Durango Basketmakers were possibly less reliant upon cultivated crops and were thus more able to take advantage of hunting opportunities. Nelson (1996:118), for instance, notes that hunting large game can conflict with maize cultivations, since “in the Southwest, artiodactyls ... are most concentrated and in best condition in the fall, which is also when cultigens must be harvested.” Thus, the migrants (Western Basketmakers) may have had an economy based more thoroughly upon agriculture, while the Durango Basketmakers may have continued to rely heavily on their hunting and gathering practices once they had learned about agriculture.

However, while cultural factors would have certainly impacted how people hunted, what technologies they used to capture prey, and how they understood and interacted with the surrounding landscape, it is likely that if high-ranking resources such as deer were easily available, people would have utilized them (see Barlow 2006). The patterns revealed here may thus be more reflective of issues regarding resource availability than of cultural preference or cultural histories. The faunal variability shown in this report could therefore be the result of any number of factors impacting which resources would have been available in different places and at different times. These factors include variations in human settlement patterns, population densities, environmental restrictions and changes, and the overexploitation of prey resources by humans. With this in mind, then, data regarding BM II settlement patterns, chronologies, and environmental reconstructions must be more closely analyzed and integrated with the faunal data if we wish to understand BM II faunal procurement patterns. Current research thus seeks to investigate these other variables, most notably the impacts that resource stress and environmental differences over time and space may have had upon faunal exploitation patterns. Additional sites

and assemblages are also being incorporated into the analysis, and the Darkmold assemblage in its entirety is currently being analyzed. This research is sure to provide exciting results.

SUMMARY AND CONCLUSIONS

Regional differences between “Western” and “Eastern” BM II populations have long been identified by Southwestern archaeologists. The issues of how and when various groups of people began depending upon agricultural crops are often deeply entrenched within these discussions. In contrast, how faunal procurement strategies changed over time or varied by region have not been as thoroughly explored when discussing the BM II period. And while the issue of how the diet changed as the Ancestral Puebloans became increasingly agricultural is an important one that must be investigated, a lack of research regarding BM II faunal assemblages is one obstacle impeding our understanding of this process in its entirety. This paper has shed some light on these issues by presenting the results of a zooarchaeological analysis of a sample of faunal remains from an Eastern BM II site, the Darkmold site. Furthermore, this report has also presented the beginning stages of the author’s ongoing synthesis of (and comparative investigation of) previously published BM II faunal assemblages in the northern U.S. Southwest.

These initial comparisons have shown that the faunal remains from the Durango BM II sites (Darkmold, Talus Village, and the North Falls Creek Rock Shelter), at least when considering lagomorphs and artiodactyls, stand in striking contrast to BM II faunal assemblages outside the Durango area. Since scholars have argued differences in origins and ethnicities on the basis of other BM II cultural attributes, the argument could be made that the faunal patterns shown here also reflect the distinct origins and histories of the Eastern and Western Basketmakers. Is this high use of artiodactyls (and relatively low use of lagomorphs) just one more piece of evidence separating the Durango Basketmakers from their more distant neighbors, linking them to the mountain adapted hunter-gatherers who came before them (and, thus, indicating an in situ transition)?

Though distinct ethnicities and/or origins may in fact have contributed to differences in how various groups of Basketmakers utilized faunal resources, it is likely that faunal procurement patterns are more closely related to a large number of factors not necessarily related to group origins. Future analyses, then, will help determine the multitude of factors behind these differences, looking closely at chronology, population densities, settlement patterns, environmental restrictions, and faunal procurement patterns as they are visible within a much larger variety of animals than those discussed here. A prime objective of this investigation will be looking at what taxa were actually available on the landscape, and what factors (natural environmental change, pressure due to growing sedentary populations, etc.) may have influenced which resources were available at different times and in different places. These analyses will thus allow us to better estimate the true complexity of the BM II diet as it varied over both time and space.

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