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**Large Mammal Resource Depression and Agricultural Intensification:
An Empirical Test in the Mimbres Valley, New Mexico**

Michael D. Cannon

A dissertation submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

University of Washington

2001

Program Authorized to Offer Degree: Department of Anthropology

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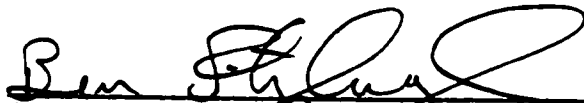
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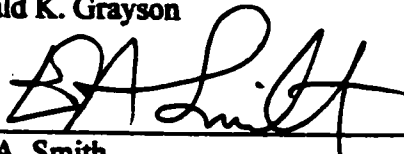
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Abstract

**Large Mammal Resource Depression and Agricultural Intensification:
An Empirical Test in the Mimbres Valley, New Mexico**

Michael D. Cannon

**Chair of the Supervisory Committee:
Professor Donald K. Grayson
Anthropology**

Many archaeologists have argued that reductions in the energetic returns provided by wild resources led people in the past to devote more time to farming. Despite the popularity of this explanation, however, no one has tested the proposition that wild resource foraging efficiency declined in any archaeological case in which there is evidence that agriculture became more important. This dissertation is a study of hunting and farming in the Mimbres Valley of southwestern New Mexico that is directed at conducting such a test.

I first present a theoretical model of central place foraging that allows derivation of predictions about the patterns that should be observed in archaeofaunal assemblages in cases in which people experienced depression of large-bodied vertebrate resources. I also discuss an opportunity cost model of time allocation that can be used to understand the conditions under which people might devote increasing amounts of time to farming.

I then analyze tightly-dated faunal samples from four Mimbres Valley archaeological sites to evaluate whether hunters in this area experienced resource

depression. I focus on large mammals such as deer and pronghorn, which undoubtedly provided the highest post-encounter caloric return rates of any prey in the region. I find that there is evidence of large mammal resource depression and a resulting decline in hunting efficiency between perhaps A.D. 400 and A.D. 800 or 850, while large mammal capture rates apparently remained relatively stable after this time. To the extent that it is possible to control for taphonomic variability, changes in resource procurement strategies and climate change, these factors cannot account for the patterns observed in Mimbres Valley faunal assemblages.

Changes in settlement pattern and in both the size and the morphology of the tools used to grind crops suggest that people in the Mimbres Valley allocated increasing amounts of time to agricultural tasks, which likely also reduced the efficiency of agriculture, during the same period in which there is evidence of large mammal resource depression. Existing data from the Mimbres Valley are thus consistent with the hypothesis that reduced wild resource foraging efficiency led to an increase in the importance of agriculture.

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DEDICATION

To my parents, Dale and Becky Cannon

Chapter 1. Introduction

A growing body of research from archaeology and other fields suggests that non-industrial peoples are often instrumental in structuring the natural environments in which they live (e.g., Blackburn and Anderson 1993; Day 1953; Delcourt *et al.* 1986; Delcourt *et al.* 1998; Kirch and Hunt 1997; Minnis 1978, 1985; Thomas and Kirkpatrick 1996). Several of these studies have indicated that people can be quite effective, in particular, at reducing local populations of large-bodied vertebrates (e.g., Alvard 1993, 1994; Alvard *et al.* 1997; Bodmer *et al.* 1994; Broughton 1994a, 1994b, 1997, 1999; Hames and Vickers 1982; Hildebrandt and Jones 1992; Hill *et al.* 1997; Janetski 1997; Kay 1994, 1998; Redford and Robinson 1985; Szuter and Bayham 1989; Wilke *et al.* 1998; Winterhalder and Lu 1997).

At the same time, many researchers have argued that declines in the per capita energetic returns provided by wild resources, due ultimately to human population growth, played a major role in causing people to rely more heavily on agriculture in the past (e.g., Binford 1968, 1983:195-213; Cohen 1977; see also Boserup 1965; Gremillion 1996; McGuire 1984; Winterhalder and Goland 1997). This explanation for increases in the importance of agriculture has been invoked by archaeologists working in several parts of arid western North America (e.g., papers in Fish and Fish 1984; Glassow 1980; Hard 1986; Larson 1996; see also Barlow 1997), including the Mogollon region of southwestern New Mexico (Diehl 1996).

The attempts that have so far been made to test this idea, however, rely primarily on correlations between human population size and the importance of agriculture, without evaluating whether population growth actually led to declines in the rates at which people harvested wild resources (e.g., Glassow 1980; Larson 1996; Lightfoot and Plog 1984; though see Hard 1986). Larson (1996:55), for example, assumes that “as population levels increase among arid-land hunters and gatherers there is an inevitable decline in the ratio between the quantities of wild resources and a region’s population”.

Population growth need not inevitably lead to declining rates of encounter with wild resources, though, because these resources are capable of regeneration to a degree through reproduction and immigration (e.g., Winterhalder *et al.* 1988; see also Winterhalder and Goland 1997 on “population pressure” explanations). It is also entirely possible that any observed correlations between human population size and the importance of agriculture are the result of population growth caused by increased agricultural yields (e.g., Winterhalder and Goland 1997), rather than increases in the importance of agriculture caused by population growth. In order to truly test the population growth explanation for increases in the importance of agriculture in a particular case, the proposition that the availability of wild resources declined due to population growth must be evaluated empirically (cf. Hard 1986).

This dissertation is a study of large mammal hunting and farming during the pithouse and pueblo time periods in the Mimbres Valley, southwestern New Mexico, and its purpose is to test the population growth explanation for increases in the importance of agriculture more directly. To do this, I first evaluate whether hunters in

the Mimbres Valley reduced the availability of large-bodied mammals on the landscape through their own hunting of these animals. I then explore whether the resulting declines in wild resource foraging efficiency can account for the increases in the importance of agriculture that occurred here during the span of time that I consider.

I find that there is evidence of a reduction in the abundance of large mammals in the valley, and that this was most likely caused by increased rates of harvest by human hunters. The decline in hunting efficiency that would have resulted from this reduction in large mammal abundance occurred during the same period of time in which it appears that people spent increasing amounts of time cultivating and processing domesticated crops and in which the efficiency of agricultural production likely declined. These results support the hypothesis that agriculture became more important in the Mimbres Valley due to a reduction in the net returns provided by wild resources.

More generally, in this research I am addressing one question about the impacts that people in the Mimbres Valley had on their natural surroundings and another question about the effects that these impacts had on people in return. These two questions involve issues that have been the subject of much archaeological study – *resource depression* and *resource intensification* – and a more detailed consideration of these issues provides a useful point of departure for this dissertation.

Framing the Problem: Resource Depression and Intensification

For over a thousand years, the Mimbres Valley was occupied by people who lived in small pithouse villages or moderately-sized pueblos and who farmed crops

including maize, beans, squash and cotton (Minnis 1985:101). I discuss several lines of evidence in the next chapter that suggest that farming became more important to people in the Mimbres Valley as time progressed. Increases in the importance of agriculture such as those that we see here may constitute a form of *resource intensification* (e.g., Basgall 1987; Boserup 1965; Broughton 1994a, 1994b, 1997, 1999; Wood 1998), which can be defined as an increase in the total caloric yield obtained from an area of land at the expense of a proportionately greater increase in the amount of labor that goes into producing that yield¹. In other words, the gross amount of food obtained may have increased, but because of higher labor costs per unit of food, it may have done so at the expense of a decline in net productive efficiency, with efficiency referring simply to the amount of food obtained per amount of time spent acquiring food.

If this were the case, and if resource harvesting efficiency were at all important as a decision-making “currency” (see Haccou and van der Steen 1992; Smith and Winterhalder 1992; Stephens and Krebs 1986; Winterhalder and Goland 1997), then it is reasonable to expect that the declines in net efficiency entailed by resource intensification would not have occurred unless something happened that somehow precluded earlier higher levels of efficiency from being maintained. As noted above, one such factor that is often proposed to account for agricultural resource intensification is a decline in the returns provided by wild resources due to human population growth.

¹ Resource intensification is sometimes defined simply as an increase in yields without explicit reference to the idea of reduced efficiency due to increased costs. However, this idea is fundamental to the concept of intensification if the concept is to be at all interesting because any new technology or behavior that increases yields without reducing efficiency does not present a situation in need of much explanation (see also Boserup 1965:28).

If the net caloric returns obtained from wild resources declined because human harvest of these resources reduced their abundance on the landscape, this would qualify as an instance of *exploitation resource depression* (Charnov *et al.* 1976). Resource depression refers generally to a reduction in a predator's prey capture rate due to that predator's own activities, and exploitation resource depression refers specifically to such a reduction that is the result of the removal of prey from a habitat directly through predation. If the prey types whose availability was reduced were among the most profitable within a habitat in terms of the amount of calories obtained per amount of time spent pursuing and processing them, then the foragers who reduced the availability of these resources would likely have experienced lower wild resource foraging efficiency as a result. And, as Winterhalder and Goland (1997) have noted, when faced with a choice between foraging for wild resources and cultivating domesticated crops, a decline in wild resource foraging efficiency may well lead individuals to invest more time in farming (see also Barlow 1997; Gremillion 1996).

In this study I build upon a theoretical and methodological framework developed by zooarchaeologists for testing hypotheses about resource depression and reduced foraging efficiency with archaeofaunal data (e.g., Bayham 1979; Broughton 1994a, 1994b, 1997, 1999; Broughton and Grayson 1993; Szuter and Bayham 1989; see also Grayson and Cannon 1999). I focus on large mammals like deer (*Odocoileus* spp.) and pronghorn antelope (*Antilocapra americana*), which were undoubtedly the most profitable wild resources available to people in the Mimbres Valley (e.g., Simms 1987). To link changes in the efficiency with which these animals were harvested to changes in

the importance of agriculture, I employ a framework designed to explore the tradeoff between allocating time to farming and allocating time to foraging for wild resources, given that the net returns provided by both activities may vary (e.g., Barlow 1997; Gremillion 1996; see also Winterhalder and Goland 1997). As part of this, I also evaluate whether the increases in the importance of agriculture that we see in the Mimbres Valley truly constitute a case of agricultural intensification, entailing a decline in net productive efficiency, or whether they occurred due to increases in the efficiency of agricultural production.

Overview of the Following Chapters

Before getting into the details of my analyses, I first present, in Chapter 2, a brief summary of Mimbres Valley archaeology, focusing on the changes that took place here during the pithouse and pueblo periods that are most relevant for my study. Both wild and domesticated resources were used by people in the Mimbres Valley throughout this span of time, but there is evidence that farming became more important to people as time went on. It also appears that people became more sedentary over time and that major changes occurred in the size of the human population within the valley.

Chapter 3 describes the theoretical framework that guides my research, and it also lays out the predictions that I will test in the analyses that follow. I first consider previous zooarchaeological resource depression studies, which draw heavily on models from foraging theory (e.g. Stephens and Krebs 1986), and I then present a model of central place foraging that incorporates several factors that have to date been treated

using separate models. I next discuss a model of time allocation from evolutionary ecology that can be used to link hunting returns to the importance of farming.

My analysis of Mimbres Valley archaeofaunal assemblages, which was conducted to test hypotheses about large mammal resource depression, is presented in Chapters 4 and 5. Faunal assemblages were analyzed from four sites: Old Town, which is located in the southern, lower part of the Mimbres Valley, and Galaz, Mattocks and McAnally, which are all located in the central portion of the valley. Chapter 4 discusses the depositional contexts of the faunal samples that I used from these sites as well as the methods by which these deposits were dated. The results of my faunal analyses, including a detailed consideration of potential confounding factors, are presented in Chapter 5. As noted above, I find evidence that hunters in the Mimbres Valley did experience declining rates of encounter with large mammals over time, most likely due to their own hunting of these animals. It appears, however, that this occurred much earlier than archaeologists working in the region have previously thought.

I evaluate the evidence that exists for increases in the importance of agriculture in the Mimbres Valley in Chapter 6, paying particular attention to how the efficiency of farming might have changed as people devoted more time to it. Chapter 7 links this evidence to the results of my faunal analyses to determine whether reduced wild resource foraging efficiency can account for the increasing amounts of time that people in the valley allocated to agricultural tasks. I find that the available evidence from the Mimbres Valley is consistent with the hypothesis that a reduction in wild resource foraging efficiency led to an increase in the importance of agriculture.

Chapter 2. Mimbres Valley Archaeology

The Mimbres Valley is located in southwestern New Mexico in a region of Basin and Range topography (Figure 2.1). The Mimbres River drains the Mimbres Mountains to the east, the Black Range to the east and north, and the Pinos Altos Mountains to the north and west, and it runs southward until its surface flow disappears in the desert of the Deming Plain. It is the only major river with perennial surface flow between the drainages of the Rio Grande and the Gila River, and its wide floodplain provides some of the best agricultural land in the region (Anyon and LeBlanc 1984; Hanson *et al.* 1994; Minnis 1985). Outside of the riparian zone adjacent to the river there is a great deal of biotic variability in the Mimbres Valley, with the semidesert grassland of the southern, lower valley grading into pinyon-juniper woodland at higher elevations and then into ponderosa pine-dominated forest in the highest reaches of the valley (Brown 1994; Brown and Lowe 1980; Minnis 1985; see also Cannon 2000).

This chapter presents a brief overview of the changes apparent in the archaeological record of the Mimbres Valley that are relevant to the questions that I address. The span of time in which I am most interested encompasses the Early Pithouse through Early Pueblo culture historical periods (Table 2.1). I follow the culture history scheme presented for this part of the Mogollon region by Nelson and Anyon (1996; see also Anyon *et al.* 1981; Haury 1936), though I incorporate modifications proposed by Wills (1996), Diehl (1994), and Hegmon *et al.* (1999). This sequence is divided into periods and phases, which in practice are identified mainly on

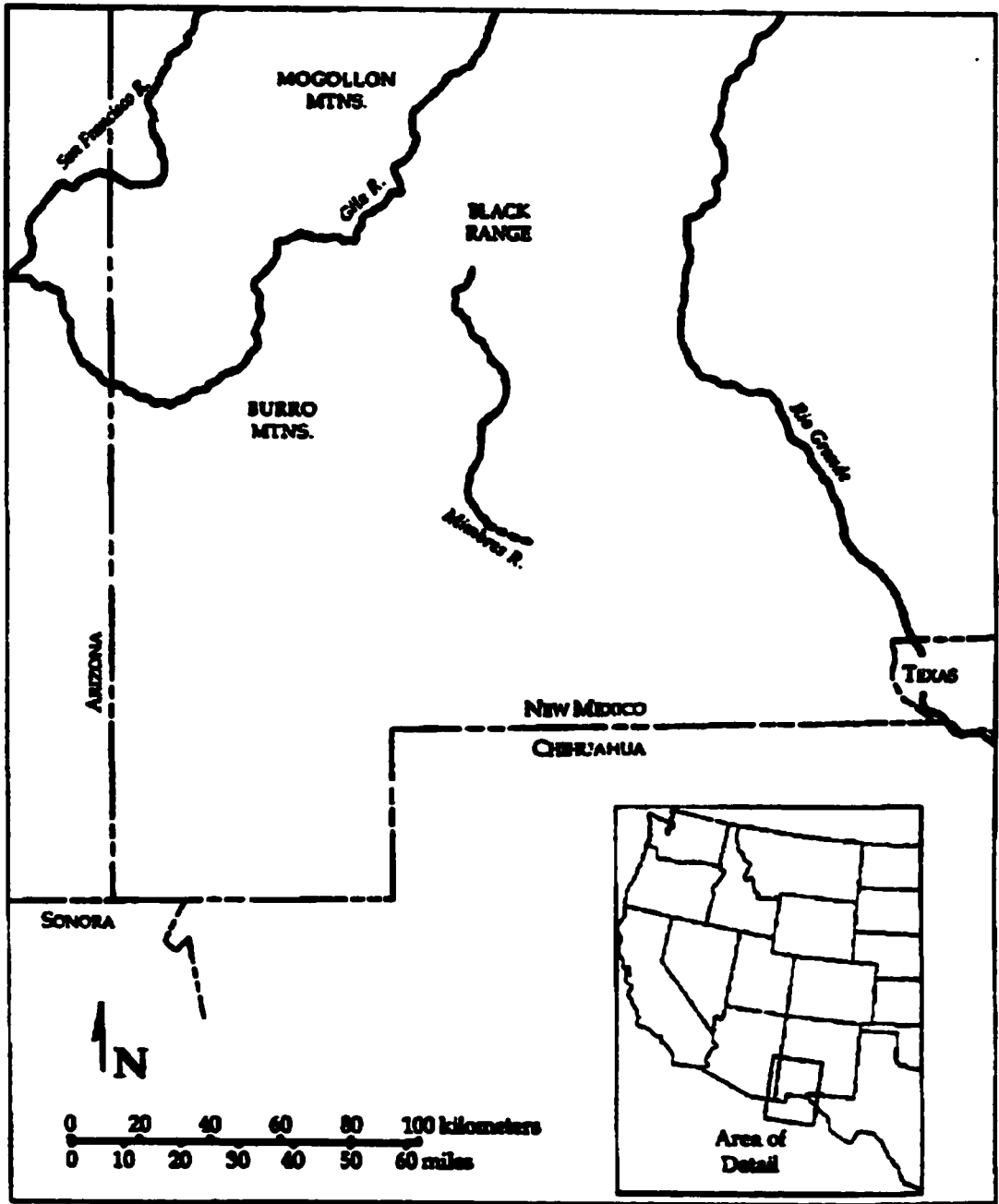


Figure 2.1. Map of the Mimbres Valley and surrounding region.

Table 2.1. Mimbres-Mogollon culture historical time periods (after Anyon *et al.* 1981; Diehl 1994; Hegmon *et al.* 1999; Nelson and Anyon 1996).

Period	Phase	Abbr.^a	Dates (A.D.)
Late Pueblo	Cliff (Salado)	-	1300-1450
	Black Mountain (Animas, El Paso)	BM	1200-1300
Early Pueblo	Terminal Classic	TCM	1130-1200
	Classic Mimbres	CM	1000-1130
Late Pithouse	Three Circle	TC	825/850-1000
	San Francisco	SF	700-825/850
	Georgetown	GT	550-700
Early Pithouse	Cumbre	EP	200/400-550 ^b

a. Abbreviations for time periods used in tables and figures in this dissertation.

b. Nelson and Anyon (1996) place the start of the Early Pithouse period at A.D. 100, rather than at A.D. 200 as most authors do (following Anyon *et al.* 1981), but they provide no explanation for why they do this. Wills (1996) suggests that A.D. 400 may be a more appropriate starting date for the Early Pithouse period (see text).

the basis of ceramic and architectural attributes. As I discuss in Chapter 4, stylistic variation in ceramic decoration allows finer-scale cross dating of archaeological deposits than is provided by the period-phase sequence outlined here (e.g., Anyon and LeBlanc 1984; Shafer and Brewington 1995; Shafer and Taylor 1986; Stokes 2000).

The Pithouse and Pueblo Periods in the Mimbres Valley

Domesticates such as maize and squash were used by at least some groups in the region that is today the southwestern U.S. and northwestern Mexico as early as about 1000 B.C. (e.g., Hard and Roney 1998; Hard *et al.* 1999; Huckell 1995; Mabry *et al.* 1997; Smiley 1994; Smith 1998; Wills 1989, 1991, 1995, 1996). In the Mimbres Valley, however, there is no evidence of occupation by people who grew crops until the

Early Pithouse period, which begins well over 1000 years after this. The transition from the Late Archaic (which is poorly known in the Mimbres Valley) to the Early Pithouse period has traditionally been associated with the appearance of ceramics in the region, and this is usually assumed to have occurred around A.D. 200 (after Anyon *et al.* 1981).

Recently, though, Wills (1996) has reconsidered the dating of early ceramic sites in the Mimbres region, and he notes that the A.D. 200 figure is based on only five radiocarbon dates from two sites: two that fall in the A.D. 500s, two that fall in the A.D. 300s, and one that falls at A.D. 180 ± 60 . Wills points out that it is possible that any of these dates may be as much as 200 years too old due to the "old wood" problem (e.g., Smiley 1994), and he also notes that the earliest secure dates associated with ceramics in the Mogollon highlands to the north of the Mimbres Valley are two tree-ring cutting dates of A.D. 460 and 462. Wills thus suggests that A.D. 450 is a more conservative starting date for the Early Pithouse period in the highlands, and he proposes that A.D. 400 is a more appropriate starting date for this period in the Mimbres area¹.

Regardless of its beginning date, the Early Pithouse period is characterized by the earliest pithouse villages in the Mimbres area. There are sites dating to this period that contain more than 60 pit structures (Anyon *et al.* 1981), though only a portion of these were probably occupied at any given time (e.g., Cameron 1990; Linse 1999). It appears that people in the Mimbres Valley did grow crops during the Early Pithouse

¹ Wills does not consider the relatively well-dated Mogollon Village site (Haury 1936; Linse 1997; Mauldin *et al.* 1996), which is located approximately 30 km south of the highland sites he discusses. I note, however, that the only pre-A.D. 400 dates from this site are radiocarbon dates that are subject to the "old wood" effect or obsidian hydration dates, which Mauldin *et al.* (1996) state may be incorrect.

period because maize is present in the few flotation samples that have been collected from sites in the valley that date to this period (Minnis 1985:105).

The beginning of the Late Pithouse period is placed at A.D. 550, and this period is subdivided into three phases: Georgetown (A.D. 550-700), San Francisco (A.D. 700-825/850), and Three Circle (A.D. 825/850-1000) (Anyon *et al.* 1981; Diehl 1994; Haury 1936). The Late Pithouse period is characterized by settlements that are larger than those of the Early Pithouse period. In addition, pit structures gradually change from round- or oval-shaped to square or rectangular during this period, and by the Three Circle phase some have cobble masonry walls (Anyon *et al.* 1981; Creel 1997b; Diehl 1997; Haury 1936; Minnis 1985).

It is often argued that Early Pithouse period residential sites in the Mimbres region were located on high isolated knolls, and that settlements were moved down to the lowest river terraces above floodplains at the start of the Late Pithouse period, remaining in this location throughout the rest of the pithouse and pueblo periods (e.g., Anyon *et al.* 1981; LeBlanc 1989, 1999; Minnis 1985). LeBlanc (1999:129-131; see also LeBlanc 1980, 1983, 1989) has proposed that sites were placed on hilltops during the Early Pithouse period for purposes of defense. Recently, however, Linse (1999) has analyzed settlement pattern data from a large area of southwestern New Mexico, and she has concluded that there is no evidence of a sudden shift in site location in this region at A.D. 550. I return to this issue in Chapter 6 because it may be important for our understanding of increases in the importance of agriculture in the Mimbres Valley.

The Classic Mimbres phase (A.D. 1000-1130) follows the Late Pithouse period and is marked by a transition to pueblo architecture (Anyon *et al.* 1981; Minnis 1985; Shafer 1995). Many large pueblos, most or all of which were built on top of Late Pithouse period structures, are present along the floodplain in the Mimbres Valley during this time, and there are also many smaller settlements both within the valley and along tributary drainages (LeBlanc 1989; Minnis 1985; Nelson and LeBlanc 1986). Following Gilman (1987), the shift to pueblo architecture is considered by most researchers to represent a substantial increase in residential sedentariness and the degree to which economic activities were organized logistically (*sensu* Binford 1980). Based on apparent increases in the amount of energy invested in pit structure construction, Diehl (1997) argues that such a trend towards increased sedentariness and logistical organization began even earlier during the Late Pithouse period.

The nature of the transition between the Late Pithouse period and the Classic Mimbres phase has been the subject of some debate. Anyon *et al.* (1981) argue that the shift from pit structures to pueblos was abrupt. They contend that the small pueblos previously attributed to the Mangas phase, a culture historical unit that had been used to denote a long transitional period, were actually contemporaneous with the larger pueblos in the Mimbres Valley and part of the same settlement system (though see Lekson 1988, 1990; Nelson and Anyon 1996). Recent excavations at the NAN Ruin, however, have indicated that the change may not have been so sudden. Shafer (1995) has conducted careful excavations at this site that have revealed several stages of architecture transitional between Three Circle phase pithouses and Classic Mimbres

phase surface rooms. These evolving architectural forms occur in stratigraphic succession and are bracketed by tree-ring, archaeomagnetic and obsidian hydration dates of A.D. 900-925 to 1008. Thus, whether or not this period of architectural transition should be considered to be a distinct “phase”, there is evidence that it did last about 100 years (Shafer 1995).

The end of the Classic Mimbres phase has also been the subject of much recent study (e.g., Creel 1997a, 1999a; Nelson 1999; Shafer 1999), which is summarized by Hegmon *et al.* (1999). These authors propose the term Terminal Classic Mimbres to apply to the period from A.D. 1130 to the late 1100s in the lower Mimbres Valley. This period begins with the onset of several severe drought years in the A.D. 1130s, and it appears that only sites in the southern half of the valley continue to be occupied after this time, perhaps due to favorable hydrological conditions here (Creel 1996; see also Creel 1999a; Hanson *et al.* 1994). Terminal Classic deposits are identified by the co-occurrence of the Mimbres Black-on-white ceramics that define the Classic phase with various pottery types that are widespread after the early 1100s throughout southern New Mexico, southeastern Arizona, trans-Pecos Texas and northern Chihuahua.

The Late Pueblo period is divided into the Black Mountain (A.D. 1200-1300) and Cliff (A.D. 1300-1450) phases (Creel 1997a, 1999a; Hegmon *et al.* 1999; Nelson and Anyon 1996; Nelson and LeBlanc 1986; Ravesloot 1979). This period witnesses the disappearance of Mimbres Black-on-white ceramics and a change from the mostly cobble masonry architecture of the Classic phase to mostly coursed adobe architecture. During the Black Mountain phase, ceramic types that first appear in the Terminal

Classic come to dominate assemblages in the Mimbres Valley, and Ramos Polychrome, the distribution of which is centered around the site of Paquimé in Chihuahua, is present as well. These types are also common in the more or less contemporary El Paso and Animas phases in regions to the east and west of the Mimbres Valley, respectively. Pottery types found at Cliff phase sites in the Mimbres Valley are those of the loosely defined but widespread Salado phase of the borderlands region. Like Terminal Classic occupations, Black Mountain phase settlements are restricted to the southern portion of the Mimbres Valley. The three known Cliff phase settlements in the valley, on the other hand, are all located in the upper valley, close to the Gila River drainage where sites of this phase are abundant (e.g., Lekson 1992).

From the Early Pithouse period through the Classic Mimbres phase, changes in material remains such as architecture and ceramics are gradual and cumulative, and all researchers currently working in the area consider these developments to have occurred within a single cultural lineage (e.g., Anyon *et al.* 1981; Anyon and LeBlanc 1984; though see Haury 1986:452-456). This is not the case, however, for the Late Pueblo period. The Black Mountain phase has often been interpreted as the result of an influx of new people, perhaps with ties to populations in Chihuahua centered around Paquimé, following the “collapse” of Classic Mimbres society in the valley and a possible hiatus in occupation (e.g., Anyon *et al.* 1981; Minnis 1985; Nelson and LeBlanc 1986; Ravesloot 1979). Creel (1997a, 1999a) has recently argued that there is evidence for continuity in occupation between the Early and Late Pueblo periods (see also Hegmon *et al.* 1998; Nelson and Anyon 1996), but this is the subject of much debate (e.g., Shafer

1999) that is not directly relevant to this dissertation. The close of the Cliff phase marks the end of the occupation of the Mimbres Valley by puebloan peoples.

Human Population Estimates

The Mimbres Valley has provided some of the best information about long-term trends in human demographics that is available from anywhere in the southwestern U.S. or northwestern Mexico (Nelson *et al.* 1994). Using data collected in an extensive archaeological survey, Blake *et al.* (1986; see also Lekson 1992) have estimated the numbers of people who occupied the valley during the Early Pithouse through Late Pueblo periods (Table 2.2). These numbers are based on estimates of the total floor area of pithouses and pueblo rooms within the valley per time period, taking into account the different lengths of time represented by each period.

This approach is problematic, of course, because converting floor area into numbers of people requires making several assumptions that cannot be tested independently with archaeological data (e.g., Ramenofsky 1987; see also Cameron 1990; Nelson *et al.* 1994). A more conservative approach would be simply to treat the floor area estimates themselves as a proxy measure of population size, which should be accurate on an ordinal scale as long as the differences between time periods are sufficiently large (Ramenofsky 1987).

Table 2.2 shows the general trend in human population that can be reconstructed in this manner. Floor area estimates start low in the Early Pithouse period, rise to a peak in the Classic Mimbres phase, and then decline again through the Cliff phase.

Table 2.2. Floor area and human population estimates for the Mimbres Valley (from Blake *et al.* 1986:tables 10 and 12).

Time Period	Time-Standardized Floor Area Estimate^a	Mean Absolute Human Population Estimate^b
Cliff Phase	2,280 m²	216
Black Mountain Phase	9,851 m²	961
Classic Mimbres Phase	40,203 m²	4168
Late Pithouse Period	3,936 m²	1887
Early Pithouse Period	2,718 m²	537

a. This is the estimated total room floor area within the valley per time period, standardized for the number of calendar years represented by each period. Blake *et al.* (1986) use time spans of 125 and 75 years, respectively, for the Black Mountain and Cliff phases, but substituting time spans of 100 and 150 years (see Table 2.1) does not alter the rank order of the time periods.

b. These values were calculated by averaging the "initial", "mid-period" and "final" population estimates presented by Blake *et al.* (1986:table 12) for each time period.

There are rather large differences in estimated floor area between consecutive time periods, and the Classic Mimbres phase estimate is more than four times greater than the next largest estimate. Much of the difference between the Late Pithouse period and Classic Mimbres phase is likely due to the fact that pithouses are more difficult to find on survey than are pueblos, but the Classic Mimbres phase floor area estimate is over ten times that of the Late Pithouse period, and the differential visibility of pithouses and pueblos probably cannot account for all of this difference. There thus seems to be a clear pattern of population growth followed by decline here, with the largest human population present during the Classic Mimbres phase.

Previous Research on Increases in the Importance of Agriculture

As I noted above, domesticated crops were grown in at least parts of what is today the southwestern U.S. and northwestern Mexico for well over a thousand years prior to the pithouse and pueblo time periods that I am studying in the Mimbres Valley. It appears, though, that significant increases in the importance of these crops occurred in the valley during the span of time on which I focus. Several lines of evidence have been used to document this trend of increasing agricultural importance (e.g., Diehl 1996; Hard 1986, 1990; Herrington 1979, 1982; Lancaster 1986; Minnis 1978, 1985, 1986; Nelson 1986; Nelson and LeBlanc 1986), the most compelling of which involve settlement patterns, the grinding surface area of plant processing tools, and specialized agricultural features such as irrigation canals, check dams and terraced fields. I consider this evidence in detail in Chapter 6, but I summarize it briefly now.

There may be two major changes in the distribution of settlements within the Mimbres Valley that indicate an increase in the importance of agriculture. One occurs around A.D. 1000 at the start of the Classic Mimbres phase when the Mimbres Valley and many of its tributary drainages become "filled in" with settlements of various sizes. This likely indicates that all irrigable land was put into agricultural production during this time, including land of limited productivity (e.g., LeBlanc 1989; Minnis 1985). The appearance of specialized agricultural features also suggests a substantial increase in the amount of labor invested in agricultural production after A.D. 1000 (Herrington 1979, 1982; Minnis 1985). Features like irrigation canals and reservoirs, check dams, and terraced fields may have greatly improved the yields obtained from farming, but

they also certainly required considerable effort to construct and maintain. As best as the age of these features can be determined, they appear to date solely to the Classic Mimbres phase.

In addition, as I noted above, many researchers have argued that there was a shift in the locations of residential sites from hilltops down to settings closer to the floodplain between the Early and Late Pithouse periods. LeBlanc (1980, 1983, 1989, 1999) has suggested that Early Pithouse sites were built in hard to reach places due to a need for defense, but there is little evidence independent of site location to support the hypothesis that conflict was common in the region during this time (Linse 1999). If such a shift in site location did happen, it is equally possible that it reflects a growing reliance on agriculture that led people to build their houses closer to their fields. I consider the data relating to this potential early increase in the importance of agriculture in Chapter 6.

Finally, based on engineering analyses and ethnographic studies, many researchers have argued that, among farming groups, the size of the grinding surface area of plant processing implements (manos and metates) should correlate positively with the amount of time spent grinding crops (e.g., Hard 1986, 1990; Hard *et al.* 1996; Lancaster 1986; Mauldin 1993). In the Mimbres region, a more or less continuously increasing trend in the size of grinding stones has been documented from the Early Pithouse through Late Pueblo periods (e.g., Diehl 1996; Hard 1990; Lancaster 1986).

Macrobotanical and palynological data demonstrate that domesticates were present in the Mimbres Valley throughout this span of time, but these data do not

indicate such a dramatic increase in the use of these resources as is suggested by other types of evidence (Diehl 1996; Minnis 1985, 1986; Nelson and LeBlanc 1986). This is perhaps not surprising, given the difficulties inherent in quantifying past subsistence practices through botanical remains (e.g., Diehl 1996; Hard *et al.* 1996; Minnis 1985). Only limited analysis of stable carbon isotopes in human bone has been performed in the Mimbres Valley, and this has provided no information on temporal changes in diet due to poor bone collagen preservation (Holliday 1996; see also Hard *et al.* 1996).

It is unclear whether new varieties of domesticates that might have increased the yields obtained from farming appeared in the Mimbres Valley during the time period I am studying. Diehl (1996; see also Adams 1999) has suggested that *Maíz de Ocho*, a flour variety of maize that likely provided a higher caloric return rate than earlier varieties (e.g., Adams 1999; see also Barlow 1997), was introduced to the Mogollon region during the Late Pithouse period. As I discuss in Chapter 7, however, variety-level identifications of maize are not available for the Mimbres Valley (Paul Minnis, personal communication 1999), and it is possible that *Maíz de Ocho* was present in the region well before the span of time that I am considering (e.g., Upham *et al.* 1987).

Previous Research on Human Impacts on Large Mammal Populations

A few researchers working in the Mimbres region have addressed the issue of human impacts on large mammal populations, and they have done so based on analyses of temporal changes in the relative abundance of large mammal taxa in archaeofaunal assemblages (see summaries in Cannon 2000; Sanchez 1996). The first to do this were

authors associated with the Mimbres Foundation research group (e.g., Anyon and LeBlanc 1984; LeBlanc 1989; Nelson and LeBlanc 1986; Powell 1977; Powell and Langenwalter 1977).

Nelson and LeBlanc (1986:table 13.4), for example, provided large mammal relative abundance values for faunal samples attributed to the Late Pithouse, Classic Mimbres, and Cliff phase time periods. Recognizing that there is substantial biotic variability within the valley, they considered sites in the more mesic upper valley and sites in the more xeric middle valley separately (they presented no data from sites in the driest lower part of the valley). They found that large mammal relative abundance declined between the Late Pithouse and Classic Mimbres time periods in both the middle and the upper parts of the valley, and that it then rebounded in both areas during the Cliff phase to levels even higher than those of the Late Pithouse period. Noting a negative correlation through time between large mammal relative abundance and human population size (see Table 2.2), they argued that larger human communities reduced the size of large mammal populations in the valley during the Classic Mimbres phase.

Sanchez (1996) has also examined temporal trends in large mammal relative abundance at sites in the Mimbres Valley. She considered only the Late Pithouse period and the Classic Mimbres phase, but she included faunal assemblages from a greater number of sites in her analysis than did Nelson and LeBlanc (1986). Among individual sites, Sanchez found statistically significant differences between the Late Pithouse period and Classic Mimbres phase only at the NAN Ruin and at Old Town. However, while she found that large mammal relative abundance declined in the Classic

phase at the middle valley NAN Ruin site, she found that it *increased* at the lower valley site of Old Town. In an analysis of “site clusters” from the upper and middle parts of the valley that is similar to the analysis presented by Nelson and LeBlanc (1986), she found that artiodactyl relative abundance declined in the Classic phase in both areas, though not significantly. Sanchez thus concluded, contrary to the Mimbres Foundation researchers, that there is no evidence of a valley-wide decline in large mammal relative abundance between the Late Pithouse period and the Classic Mimbres phase (see also Shaffer 1991).

I have suggested elsewhere, however, that the differences between the conclusions reached by Sanchez (1996) and those of earlier authors likely stem from a failure to completely separate spatial variability from temporal variability, as well as from an incomplete theoretical consideration of the relation between resource depression and archaeofaunal relative abundance (Cannon 2000). I argued that when these and other factors are taken into account, previously published faunal data support the hypothesis that depression of large mammal resources occurred in the Mimbres region, though I also noted that additional research was necessary in order to make a more compelling case. This dissertation represents an attempt to carry out that additional research, and the results presented here generally support my earlier conclusions, though some of the details of those conclusions must now be modified.

Chapter 3. Theoretical Models and Archaeological Predictions

In this chapter I discuss the theoretical models that I use to guide the analyses that follow in this study. I first consider the models employed in earlier archaeofaunal resource depression analyses, and I then present a model of central place forager prey selection and field processing that incorporates several factors previously treated using separate models. This model, which is designed primarily with archaeological applications in mind, is used to develop expectations about the patterns that should be observed in faunal assemblages from the Mimbres Valley if depression of large mammal resources occurred here.

In the second part of this chapter I discuss the model that I use to derive predictions about the amount of time that should be allocated to farming as opposed to foraging for wild resources depending on the net caloric returns provided by each of these activities. This model clarifies the reasons why people might begin to spend more time farming, and it provides a framework for evaluating whether increases in the importance of agriculture such as those we see in the Mimbres Valley are truly instances of intensification resulting from declines in wild resource foraging efficiency.

The models discussed in this chapter are based on well-known models from foraging theory (e.g., Stephens and Krebs 1986), which is part of the larger field of study known as evolutionary ecology or behavioral ecology (e.g., Krebs and Davies 1997; Smith and Winterhalder 1992; Winterhalder and Smith 2000). The fundamentals of this approach, as well as the advantages that it provides and its potential

shortcomings, have been addressed in detail by many authors (e.g., Bettinger and Richerson 1996; Boone and Smith 1998; Broughton and O'Connell 1999; Grayson and Cannon 1999; Gremillion 1996; Haccou and van der Steen 1992; Krebs and Davies 1997; O'Connell 1995; O'Connell *et al.* 1982; E. Smith 1991; Smith and Winterhalder 1992; Stephens and Krebs 1986; Winterhalder and Goland 1997; Winterhalder and Smith 2000). Because so much has already been written about these issues I do not discuss them here, but I do deal with specific problems that arise in the application of the models that I am using when it is necessary to do so.

Resource Depression and Central Place Foraging

Many archaeologists have attempted to document cases of exploitation resource depression, or reductions in the prey capture rates of human foragers due to their own harvesting of those prey, through analyses of vertebrate archaeofaunal assemblages, and some have also explored the effects of the resulting declines in foraging efficiency upon the people who experienced them (e.g., Anyon and LeBlanc 1984; Bayham 1982; Broughton 1994a, 1994b, 1997, 1999; Cannon 2000; Grayson 1991; Hildebrandt and Jones 1992; Janetski 1997; Nagaoka 2000; Szuter and Bayham 1989; also see Grayson and Cannon 1999). The main line of evidence that has been used in each of these studies to infer that resource depression occurred is a reduction over time in the abundance of larger-bodied taxa relative to smaller-bodied ones. This approach was pioneered by Bayham (1979, 1982; Szuter and Bayham 1989) and has been further developed by Broughton (1994a, 1994b, 1997, 1999).

Most of these studies draw explicitly on the prey model – also known as the prey choice or diet breadth model – from foraging theory (e.g., Stephens and Krebs 1986; Kaplan and Hill 1992). The prey model shows that, given certain assumptions (see Broughton 1994a, 1997; E. Smith 1991; Stephens and Krebs 1986), the most energy-efficient foraging strategy is to pursue resources with higher post-encounter caloric return rates whenever they are encountered, and to pursue lower return resources only when higher return resources are encountered relatively infrequently.

Since post-encounter return rate is positively correlated with body size for most vertebrate prey, it is argued that, if energetic returns were important as a decision-making currency among a group of foragers, larger-bodied taxa should have been pursued by those foragers whenever they were encountered (Bayham 1979; Broughton 1994a, 1994b, 1997, 1999; Szuter and Bayham 1989). From this it follows that declines over time in the relative abundances of larger taxa in archaeological assemblages would indicate decreased rates of encounter with them (Broughton and Grayson 1993).

Assuming that other causes of reduced encounter rates such as climate change can be ruled out (see Grayson and Cannon 1999), these declines in archaeological relative abundance would indicate that people experienced resource depression. In addition, because the resources whose availability was reduced provided high return rates, these declines in relative abundance would also indicate reductions in foraging efficiency.

Foraging theory models, however, make very specific assumptions about the real-world cases to which they are applicable, and using them in situations in which their assumptions are not met does not necessarily provide a test of any hypotheses

derived from them (e.g., Haccou and van der Steen 1992; Stephens and Krebs 1986).

There are several assumptions of the prey model that are probably not met in most archaeological situations, thus the use of this model alone will usually be inappropriate.

One assumption of the prey model that is not likely to be met in many archaeological cases is that the probability of encountering any prey type is independent of previous encounters with it or with any other prey type. This “fine-grained search assumption” will be violated when individuals of a given prey type have a better than random chance of being found close to one another within certain areas of a habitat: that is, when prey exhibit “patchy”, or heterogeneous, distributions (e.g., Broughton 1994a; E. Smith 1991:206-207, 228). In such instances the prey model applies to a forager while foraging in a homogeneous resource patch, but an additional model is required to address the issue of which patches to exploit in the first place (e.g., E. Smith 1991).

Another assumption of the prey model that will be violated in many cases involving human foragers stems from the fact that people often hunt from a central place to which they return with their prey. The prey model assumes that a forager travels through a habitat consuming prey as it goes, so that the cost of transporting resources can be assumed to be zero (Orians and Pearson 1979). In cases of central place foraging, however, substantial costs may be incurred in traveling between the central place and the point of capture, and these must be taken into account.

Faunal assemblages from most archaeological sites are likely to have been deposited over long periods of time by multiple individuals who hunted in a variety of resource patches (e.g., Broughton 1994a; Broughton and Grayson 1993). Because of

this, the fine-grained search assumption of the prey model will be violated unless the model is applied only to sets of taxa that could have been collected within a single patch (E. Smith 1991:206-207, 228). Some archaeologists have recognized this and have dealt with the nested decisions of patch choice and prey choice by using models designed to address each decision independently (e.g., Broughton 1999; Nagaoka 2000).

Specifically, these researchers have first divided their study areas into patches: for example, a coastal setting might be divided into a marine resource patch and a terrestrial resource patch¹. They have then used the prey model to address the question of which prey to pursue within a patch, the answer to which depends on the abundances of high-return prey within that patch, and a patch choice model (based on the marginal value theorem; see Charnov 1976) to address the question of how much time to spend foraging in each patch, the answer to which depends on the rate of energetic gain obtained from each patch per unit of time spent foraging within it and the amount of time that it takes to travel between patches.

This is entirely appropriate, but because separate models are used to address what are conceptualized as separate decisions, it is difficult with this approach to determine what the combined effects of prey choice and patch choice will be on overall foraging efficiency. For central place foragers, patch choice will affect overall foraging

¹ In archaeology, of course, it is possible to do this only in situations in which each prey type can be found exclusively in a single kind of patch (Broughton 1994a; Nagaoka 2000). In an island setting, for example, pelagic fishes will not be found in the forest and large flightless birds will not be found out at sea. In other settings, however, a single prey type might be present in several patches. In western North America, for example, jackrabbits and deer can be found in both woodland and grassland habitats, though they will occur in different frequencies in each type of habitat, and it will not usually be possible to determine from which patch any individual archaeological specimen was obtained.

efficiency because different patches will be located at varying distances from the central place and will thus entail varying costs in terms of travel and transport time. When separate models are used to address the issues of prey choice and patch choice, however, it is not easy to integrate transport costs, prey encounter rates, and prey post-encounter return rates into a single theoretical measure of foraging efficiency.

As a potential solution to this problem, I have argued (Cannon 2000) that a more appropriate foraging theory model for use in most archaeological situations is Orians and Pearson's (1979) model of patch choice for central place foragers (Figure 3.1). This model assumes a habitat that consists of some number of internally homogeneous resource patches located at varying distances from a central place, and it asks which of the available patches will maximize the rate of energy delivery to the central place. The decision variable in this model is which patch to exploit, but the solution to this decision depends on the time that it takes to travel to each patch and the energetic gain function provided by each patch, which depends in turn on the abundances and post-encounter return rates of the various prey types found within each patch. Thus, this model allows direct analysis of the combined effects on foraging efficiency of both transport costs and the availability of different prey types within patches.

I do not go into the details of the central place forager patch choice model here because I have done so elsewhere (Cannon 2000). I do briefly mention, however, that this model has one implication for archaeological resource depression analyses that is difficult to derive using the models employed previously in such studies. Like the standard prey model, the central place forager model can be used to show that declines

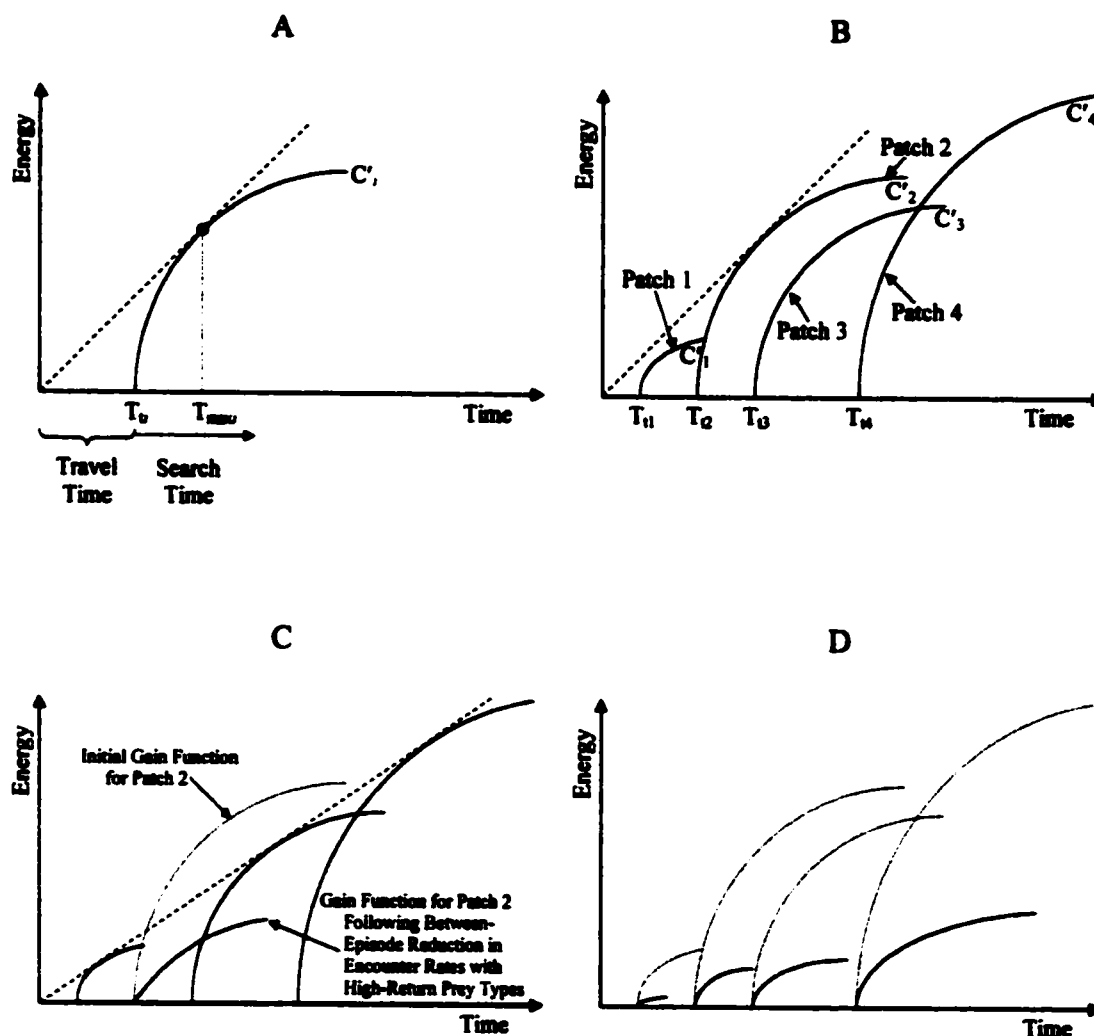


Figure 3.1. The patch choice model for central place foragers, after Orians and Pearson (1979).

A. For any patch i , T_u is the round-trip travel time to the patch and C'_i is the gain function of the patch, which describes the expected energetic return from that patch per unit search time. Search time begins once the patch is entered. Gain functions are assumed to be negatively accelerated, which is to say that marginal energetic return diminishes as search time increases. Energetic return per total time (travel time plus search time) is maximized for any patch by foraging in that patch until time T_{max} , which is given by a line tangential to the gain function beginning at the origin of the graph. Patches with higher densities of high-return resources will, as a generalization, have "taller" gain functions, or higher maximum profitabilities.

Figure 3.1 captions, continued.

B. The patch that provides the highest overall rate of energy delivery to the central place is the one that produces the steepest line between the origin and a point tangential to its gain function. Patch 2 is the delivery rate-maximizing patch for this hypothetical set of four patches.

C. As the maximum profitability of the patch that initially provides the highest delivery rate declines due to long-term harvest within it, the delivery rate that it provides may fall below the delivery rates provided by other patches. Switching to a patch that is located further away but which has a higher density of high-return prey types (patch 4 in this hypothetical case) will result in an increased archaeological relative abundance of high-return prey types, though overall foraging efficiency will be lower due to increased travel costs.

D. Sustained harvest in all of the patches within the foraging radius of a settlement may lead to long-term depression within all of those patches. Such a situation will result in declining archaeological relative abundances of high-return prey types.

over time in the proportions of high-return prey types in archaeological assemblages should always indicate that resource depression occurred (provided that potential confounding factors are controlled for). The central place forager model also shows, however, that in some cases resource depression may lead to *increases* over time in the proportion of high-return resources taken. This is because resource depression in nearby patches might lead a delivery rate-maximizing forager to make greater use of more distant patches in which high-return prey are encountered more frequently. Overall foraging efficiency will decline in such cases due to increased travel costs, but this could easily be mistaken for an increase in foraging efficiency resulting from increased rates of encounter with high-return prey items unless additional analyses are conducted to evaluate whether changes in transport distance occurred (e.g., Broughton 1999; Nagaoka 2000; Rogers and Broughton 2001).

Some archaeologists have recognized, of course, that resource depression in close patches might lead to greater use of distant patches in which high-return resources are more abundant (e.g., Broughton 1999; Speth and Scott 1989; Szuter and Bayham 1989). The central place forager model makes it easy to see what effects this will have on overall foraging efficiency because this model incorporates transport costs into its measure of efficiency. The approach taken in previous studies, however, in which foraging efficiency is measured using only prey selectivity, does not facilitate an appraisal of the effects on overall efficiency of an increase in the use of distant patches.

Despite the advantages that the central place forager patch choice model provides, there is one factor that is likely to be extremely important in cases of central

place foraging that it does not explicitly take into account. Foragers may often be able to increase their rate of energy delivery to a central place by processing resources at their location of acquisition in such a way that parts of low caloric “utility” are left behind (e.g., Binford 1978; Perkins and Daly 1968; Thomas and Mayer 1983; White 1954). Metcalfe and Barlow (1992; see also Bettinger *et al.* 1997) have developed a theoretical model of the tradeoff between transport costs and field processing costs that is central to this issue, and the implications of this model have been explored using both ethnographic and archaeological data (e.g., Barlow and Metcalfe 1996; Bettinger *et al.* 1997; Bird and Bliege Bird 1997; see also O’Connell *et al.* 1988, 1990).

One of the main points to be drawn from this work is that an efficiency-minded forager should spend more time processing resources in the field as the transport distance back to the central place increases. In turn, this relation between transport distance and optimal field processing time has been used by archaeologists to draw inferences about changes in transport distance and patch use based on the abundances of different parts of vertebrate prey carcasses recovered at residential sites (e.g., Broughton 1999; Nagaoka 2000; Rogers and Broughton 2001; also see Rogers 2000). The logic behind doing so is simple. If a hunter spends more time processing a carcass in the field, then more parts of low food value should be removed from the load that is taken home so that the total utility of the load, measured in calories per unit of weight, is increased. If more time is spent processing a carcass in the field at greater transport distances, then the proportion of high food value parts taken home should also increase at greater transport distances.

It is possible to combine a model of field processing like the one developed by Metcalfe and Barlow (1992) with a model of central place forager prey choice similar to the patch choice model presented by Orians and Pearson (1979), and I do so next. The model that I present here enables exploration of the combined effects of prey selection, transport distance and field processing on overall foraging efficiency. This model can also be used to develop predictions about the patterns that should be observed in archaeofaunal assemblages deposited over spans of time during which resource depression was occurring, and I do this for the Mimbres Valley case below.

The Central Place Forager Prey Choice Model

Like the Orians and Pearson (1979) patch choice model, the model presented here assumes that the goal of a central place forager is to maximize his or her “delivery rate”, or the amount of energy taken back to the central place per unit of foraging time. The decision that is modeled here is slightly different, however: rather than “what patch should I forage in on my next foraging trip?”, the decision is, “what prey type should I bring back on my next foraging trip?”

The delivery rate in this model is essentially a measure of foraging efficiency, or the amount of energy obtained per unit of time spent foraging. As I illustrate below, this rate is determined by the abundances of prey, by travel time, by the post-encounter return rates of prey, and by the amount of time spent processing prey in the field. As a result, all of these variables are incorporated into the measure of foraging efficiency that the model provides.

I first present the basic elements of the model and then discuss them in more detail. My presentation is geared towards the mammal resources that I consider in my analysis of Mimbres Valley faunal assemblages: large-bodied artiodactyls like deer (*Odocoileus* spp.) and pronghorn (*Antilocapra americana*) and small-bodied leporids like jackrabbits (*Lepus* spp.) and cottontails (*Sylvilagus* spp.). It should require little modification, however, for the model to be applicable to other kinds of resources.

There are four characteristics of resources that are important in the model: (1) the amount of calories provided by a prey item, (2) the weight of a prey item, (3) the time that it takes to encounter a prey item, “handle” it, and transport it back home, and (4) the manner in which the utility of a load of a given prey type can be increased through field processing². Central to this model is the assumption that there is a maximum load size, measured in terms of weight, that a forager will transport back home (e.g., Zeanah 2000). The variables in the model and the relations between them are depicted graphically in Figure 3.2, and these variables are defined as follows:

R_i = the delivery rate provided by a unit of the i th prey type, or the amount of nutritional energy taken home per unit of foraging time when an item of this prey type is harvested.

E_i = the energy of a load, or the average amount of energy contained in a load of prey type i that is transported home from the place where it is acquired and processed; I use this term interchangeably with the term utility³.

e_i = the average amount of energy contained in one complete unit of prey type i .

² I use the terms “prey type” and “prey item” as they are used in E. Smith (1991:205), though the model presented here requires slight modification of the definition of a prey type: a prey item is a single unit of harvest, and a prey type is defined by the variables e , m , and c , and by the processing function $E(p)$.

³ As used here, “energy” is similar to the concept of “utility” employed in previous field processing models (e.g., Bettinger *et al.* 1997; Metcalfe and Barlow 1992), but it is expressed in units of energy (e.g., kilocalories) rather than in units of energy per unit of weight or volume (e.g., kcal/kg or kcal/l).

m_i = the average weight of one complete unit of prey type i .

s_i = search and transport time, or the average amount of time that it takes to find a unit of prey type i once search has begun plus the average amount of time that it takes to transport a load of that prey type home.

h_i = handling time, or the average amount of time that it takes to pursue and obtain a unit of prey type i following encounter plus any additional time that is required to initially prepare the prey item for transport.

c_i = capture time, which equals $s_i + h_i$.

p_i = processing time, or the amount of time spent processing a load of prey type i in order to increase its utility *after any initial processing necessary to prepare it for transport (i.e., "handling") has been completed*.

T_i = total foraging time, which equals $c_i + p_i$.

L_{\max} = the weight of the heaviest load of food that a forager or group of foragers will transport home.

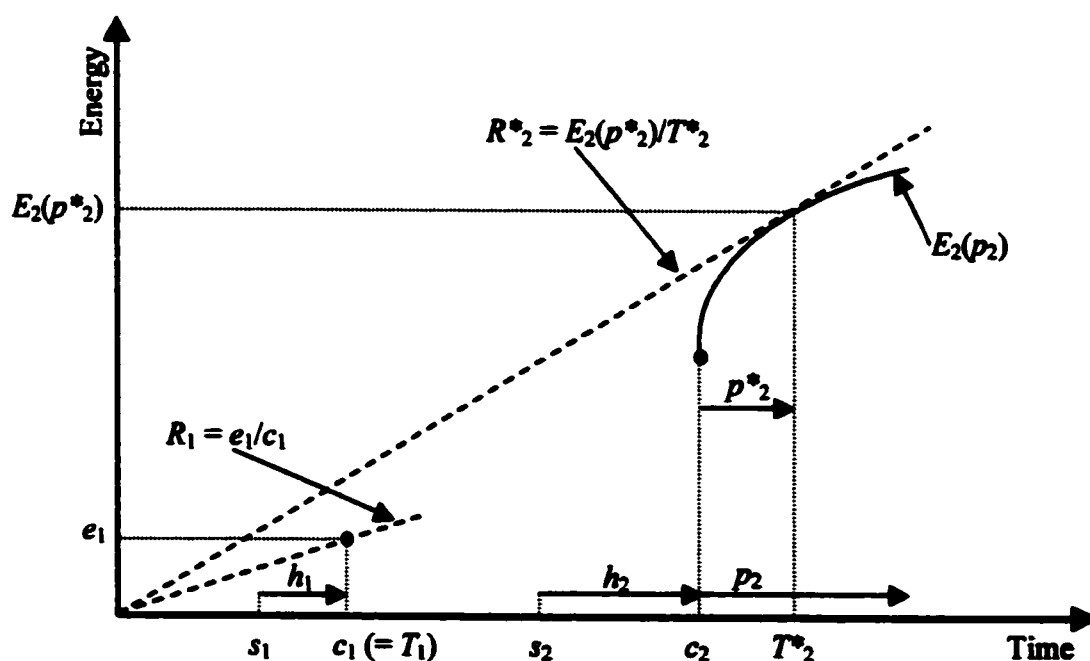


Figure 3.2. The central place forager prey choice model. Prey type 1 is a "small" prey type ($m_i \leq L_{\max}$), and prey type 2 is a "large" prey type ($m_i > L_{\max}$). See text for details.

Regarding the assumption of a maximum load size (L_{max}), it is obvious that some resources – large mammals, for example – come in packages that are too heavy to be carried by a single person or perhaps even by several people. Foragers who harvest such prey items will thus have to make decisions about which parts of them to take home and which to leave behind. The model presented here is an attempt to integrate this kind of decision into a more general model of prey selection⁴.

The maximum load size in this model should not be thought of as the heaviest load that a forager is physically capable of carrying, but rather as the heaviest load that a forager typically carries. It is not necessary to know the exact value of the maximum load size in order to make use of the model. Archaeological predictions derived from the model can be tested qualitatively – that is, based simply on directional tendencies in resource choice (see Kaplan and Hill 1992) – if it can be assumed that L_{max} remained relatively constant over time⁵, and if assumptions can be made about whether the package sizes of important resources fell above or below L_{max} ⁶.

⁴ In Appendix A, I also discuss the issue of field processing prey items that are smaller than the maximum load size when several of these items are encountered sequentially during a foraging trip.

⁵ More exactly, since different individual foragers may well have had different L_{max} values, and since different numbers of people may have been involved in different foraging trips, it must be assumed that the distribution of L_{max} values across foraging trips did not change substantially over time.

⁶ In his model of optimal site location for central place foragers, Zeanah (2000) assumes a maximum load weight of 30 kg. O'Connell *et al.* (1988; see also O'Connell *et al.* 1990) found that Hadza foragers in East Africa usually carry loads of meat that average 10 to 20 kg per person, though when they kill or scavenge the carcasses of giraffes (which weigh more than twice as much as the next largest prey species regularly taken), loads might weigh as much as 45 kg per person. For plant resources, Bettinger *et al.* (1997) have analyzed ethnographically collected baskets from California, and they suggest that the average load size transported on daily "residential" foraging trips was approximately 15 kg, while the average load size carried on longer distance "logistical" foraging trips was approximately 36 kg (see also Berlow *et al.* 1993). Even if the largest value of 45 kg were used as an estimate of maximum load size for Mimbres Valley hunters, most individuals of the artiodactyl species that are the subject of this study would fall above this value (see weights in Chapman and Feldhamer 1982, for example).

This model does not assume that there is a minimum load size that a forager will transport home. As I show in Appendix A, in some situations involving prey types that come in package sizes smaller than L_{\max} , the most efficient strategy may be to return home before a load of size L_{\max} is obtained. I assume here that L_{\max} remains constant regardless of the distance over which resources must be transported.

Because this model assumes that there is a maximum load size that a forager will transport home, prey types can be divided into two classes that I will call “small” and “large”. Small prey types are those for which the weight of a complete prey item is less than or equal to the maximum load size (i.e., $m_i \leq L_{\max}$), and large prey types are those for which the weight of a complete prey item is greater than the maximum load size (i.e., $m_i > L_{\max}$).

I discuss small prey types first, and in order to develop the model I make the unrealistic assumption that only one unit of a small prey type will be harvested per foraging trip. In other words, I assume that a forager will return home as soon as the first prey item is captured and “handled”, even if that item is small enough that additional items might easily be collected and transported home on the same trip. In Appendix A, I explore the implications of relaxing this assumption, and I show that the predictions derived from the central place forager model remain intact for realistic cases involving multiple small prey items harvested sequentially during a foraging trip.

Prey type 1 in Figure 3.2 is an example of a small prey type that is harvested singly. When a central place forager leaves home to forage, a certain amount of time will pass before a unit of prey type 1 is encountered. The average amount of this

“search” time is included in the variable s_1 , and I envision this to be search time averaged over a relatively short period, perhaps on the order of days or weeks. The average amount of time that it takes to encounter a unit of a given prey type might vary for many reasons, but the abundance of that prey type on the landscape, or at least its abundance in areas close to a forager’s central place, should be especially important.

This model makes no specific assumptions about such issues as whether search time consists of time spent traveling to a distant location to harvest prey or whether it consists of time spent searching or waiting for prey close to home. However, in addition to search time, the average amount of return trip “transport” time for a prey type is also included in the variable s_i . Thus, if a forager does travel a long distance to harvest prey type i , s_i will be greater than it would be if the resource were obtained closer to the central place.

This model also makes no specific assumptions about the distribution of prey on the landscape. It does not assume that all prey types are searched for simultaneously, as the standard prey model does, so it entails no “fine-grained search assumption”. Search time is treated as a distinctive characteristic of each individual prey type and is not distributed equally among all prey types. Likewise, the model does not necessarily assume the existence of discrete resource patches, although it is compatible with them.

If a forager decides to pursue a prey item once it is encountered, “handling” time (h_i) begins. For now, I use the term handling time in a manner similar to its usual usage in foraging theory (e.g., Stephens and Krebs 1986:13-24), and I consider it to include time spent pursuing, capturing, and preparing a prey item for transport. If a prey item is

smaller than the maximum load size, and if only one such prey item is acquired per foraging trip, then it is relatively straightforward to calculate the delivery rate because processing time, as defined in this model, can be disregarded. It makes no sense for a delivery rate-maximizing forager to “process” such a prey item after “handling” it because any time spent doing so cannot increase the amount of energy taken home; it can only lower the delivery rate by increasing the amount of time spent in the field. As I discuss below, however, this is not the case for large prey types⁷.

For a small prey item that is acquired singly, the delivery rate is simply the amount of energy provided by that prey item (e_i) per total amount of time spent foraging. In this case total foraging time is just “capture” time (c_i , which equals $s_i + h_i$), and the delivery rate for a unit of prey type i is given by the equation:

$$R_i = e_i/c_i. \quad (\text{eq. 1})$$

This rate can also be represented by a line that begins at the origin and then passes through the point defined by c_i on the time axis and e_i on the energy axis; the steeper the slope of this line, the higher the delivery rate.

I now turn to large prey types, an example of which is provided by prey type 2 in Figure 3.2. The concepts of search and transport time and handling time apply to these prey types just as they do to small prey types. With large prey types, however, the issue of processing time becomes important.

⁷ As I discuss in Appendix A, in-field processing may also increase the delivery rates provided by small prey types when a forager can harvest more than one of them per trip.

If the weight of a single unit of a prey type is greater than the heaviest load that a forager will transport (i.e., if $m_i > L_{max}$), then some processing must be done in the field in order to reduce the weight of the prey item to the maximum load size. Adult male mule deer, for example, can weigh over 150 kg, which is far too heavy for a single person to carry. Thus, when one of these animals is killed, some preparation of the carcass will have to be done before any of it can be taken home, and even if several people are available to transport the carcass, some butchery is required to divide up the load⁸. In terms of the model presented here, the time that it takes to carry out such processing is considered to be “handling” time, rather than “processing” time.

However, it may be possible to increase the utility of a load by spending additional time processing the prey item beyond the minimum amount of time required initially to prepare it for transport. Consider, for example, two loads of equal weight: one consists of two complete deer hind limbs and the other consists of a section of ribs plus two hind limbs with the phalanges and metatarsals removed. Because phalanges and metatarsals are lower in caloric value than ribs (see Metcalfe and Jones 1988:table 3), less of the weight in the second load will be taken up by parts of low caloric value, and the utility of this load will be higher than that of the first load. On the other hand, it will also take longer to prepare the second load because time must be spent removing the section of ribs from the carcass and disarticulating the metatarsals from the tibiae.

⁸ Large-bodied vertebrates, of course, are not the only kinds of resources that might fall into this class of prey types. For example, if individuals of a smaller-bodied vertebrate taxon are encountered and harvested simultaneously, then the entire group of harvested individuals becomes the relevant prey item (e.g., Madsen and Schmitt 1998), and such aggregate prey items might also exceed L_{max} . In cases like this foragers will have to do one or both of two things: leave some of the individuals that are collected behind, or process at least some of them so that a load of the maximum size is obtained (also see Appendix A).

In the model presented here, any such “extra” time spent processing a load in order to increase its utility is considered to be “processing” time rather than “handling” time.

More generally, for any prey type for which a prey item consists of parts that vary in caloric content per unit of weight, the way in which the utility of a load of that prey type changes with processing time can be described by a “processing function”⁹. I denote this function as $E_i(p_i)$ because a processing function will be specific to the i th prey type. In Figure 3.2 the processing function for prey type 2 is represented by the curve labeled $E_2(p_2)$, and Figure 3.3 is a more detailed depiction of such a function.

If a prey item weighs more than the maximum load size, then that item will provide no transportable utility to a forager until handling is complete because it is only at this point – when a load of size L_{\max} is produced – that any of the item can be carried home. In Figure 3.3, the utility of a prey item after handling is denoted as E_0 . If the utility of a load can be increased further through processing, then this can be described by a processing function, $E_i(p_i)$. Eventually, however, a point should be reached at which processing no longer increases the utility of a load (utility may even decline with further processing), and the utility of the load at this point is designated $E_{\max i}$.

Many prey types should possess processing functions that take the shape of a diminishing returns curve, as shown in Figure 3.3 (see Metcalfe and Barlow 1992).

Barlow and Metcalfe (1996) and Bettinger *et al.* (1997) have shown that the processing functions for at least some plant resources approximate diminishing returns curves, but

⁹ This is similar to the “utility function” of Metcalfe and Barlow (1992), but I have changed the name to distinguish this function, which describes field processing, from the overall energy delivery rate in the model that I present here (R_i), which could also be considered to be a “utility function”.

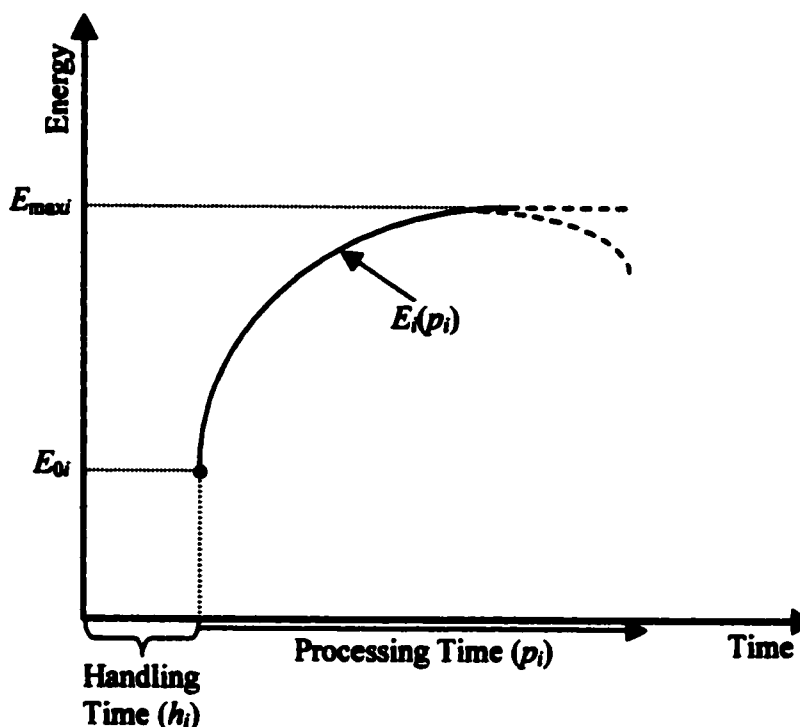


Figure 3.3. Hypothetical processing function for vertebrate prey for which $m_i > L_{max}$. Handling time is the time it takes to reduce load size to the maximum load size (L_{max}); a prey item provides no practical utility until this point is reached, and the utility of a load at this point is designated as E_{0i} . Processing time is any additional time spent increasing the utility of the load, and the way that utility changes with processing time is described by the function $E(p_i)$. A point should eventually be reached at which the utility of a load can no longer be increased; the utility of a load at this point is designated as E_{max} .

data are not currently available to determine empirically whether this is the case for vertebrate resources¹⁰. However, Metcalfe and Barlow (1992:350-351) present a logical argument as to why the processing functions for certain resources will resemble diminishing returns curves, and their argument probably applies to vertebrate prey.

¹⁰ Presently available measures of vertebrate body part "utility" (e.g., Binford 1978; Lyman *et al.* 1992; Metcalfe and Jones 1988) include no information about the time required to remove various parts, or various combinations of parts, from a carcass. Thus, though useful for some purposes, these measures cannot be used to determine processing functions for vertebrate resources (cf. Metcalfe and Jones 1988).

These authors first characterize some kinds of resources as “structured” and others as “unstructured”. A structured resource is one for which the morphology of the prey item determines the order in which processing steps must be undertaken; for example, a pinyon nut must first be removed from the cone before the hull can be removed from the nut (e.g., Barlow and Metcalfe 1996). For an unstructured resource, on the other hand, a forager can choose the order in which to undertake processing steps. When processing a resource of this sort, Metcalfe and Barlow argue, a forager should first take whatever processing step results in the greatest increase in load utility per unit of processing time, then take the step that results in the next greatest increase in load utility per unit of processing time, and so on. This will be the strategy that produces the load of the highest utility for any given amount of processing time, and the processing function that results from such a strategy will take the shape of a diminishing returns curve.

Vertebrate resources are partially structured – for example, the scapula and fore limbs of a mammal must be removed before all of the ribs can easily be removed from the vertebrae – but they are also partially unstructured – a fore limb can be removed before a hind limb, for example, and vice versa. In fact, there is probably a nearly infinite number of combinations of body parts that a forager could remove from a vertebrate carcass and transport home (Rogers [2000] calls such combinations “configurations”), and there is certainly a large number of different ways in which the removal of various body parts might be ordered. Thus, there should be sufficient

flexibility in the way in which a vertebrate carcass can be processed to allow processing functions for this kind of resource to approximate diminishing returns curves.

I assume here that this is the case. Regarding the handling time/processing time distinction that the central place forager model makes, I assume that the initial handling stages of vertebrate carcass preparation (h_i) will be carried out in such a way that a load of size L_{max} will be produced in the most efficient manner possible, meaning that whichever processing steps produce a load of the highest utility per unit of processing time will be carried out first during these initial stages. For many vertebrate resources, however, it should be possible to further increase the utility of a load with additional processing time (p_i). I assume that this additional processing will be performed in the manner in which Metcalfe and Barlow (1992) argue that it should be carried out when an unstructured resource is being processed. This will result in processing functions for vertebrate prey that take the shape of diminishing returns curves.

If the processing function of a large prey item does approximate a diminishing returns curve, then the highest delivery rate obtainable from that prey item can be calculated as shown in Figure 3.2. In solving for this highest delivery rate, the optimal amount of time to spend processing the item after handling is also necessarily determined. It can be seen graphically that the highest delivery rate that can be obtained for prey type 2 in Figure 3.2 is defined by a line beginning at the origin that is tangential to the processing function, and I demonstrate this mathematically in Appendix A. This line also gives the optimal amount of processing time, which I denote as p^*_2 in Figure 3.2 or more generally as p^*_i . For any amount of processing time greater than or less

than p^*_i , the delivery rate will be lower than the delivery rate obtained when p^*_i units of time are spent processing. The maximum delivery rate provided by a large resource can be described by the equation:

$$R^*_i = E_i(p^*_i)/T^*_i \quad (\text{eq. 2})$$

$$\text{where } T^*_i = c_i + p^*_i. \quad (\text{eq. 3})$$

To explore the effects that transport distance will have on the optimal processing time and the overall delivery rate, consider Figure 3.4. Two prey types with identical handling times and processing functions are depicted here, and the only way in which these two prey types differ is in search and transport time: s_1 is considerably lower than s_2 . This would be the case, for example, if prey type 2 could only be found in areas more distant from the central place, so that more time were required to transport a unit of this prey type home. It is apparent that the highest delivery rate that prey type 1 can provide is much greater than the highest delivery rate that could be obtained from prey type 2. In addition, however, note that the optimal amount of time to spend processing prey type 1 – that is, the amount of processing time that results in the highest delivery rate – is much lower than the optimal amount of processing time for prey type 2.

This result is consistent with the prediction that can be drawn from the model presented by Metcalfe and Barlow (1992; see also Bettinger *et al.* 1997) that more time should be spent processing a resource in the field the greater the distance over which that resource must be transported. What the model presented here makes easier to see, however, is that, all else being equal, spending less time processing a resource acquired close to home will always result in higher overall foraging efficiency than can be

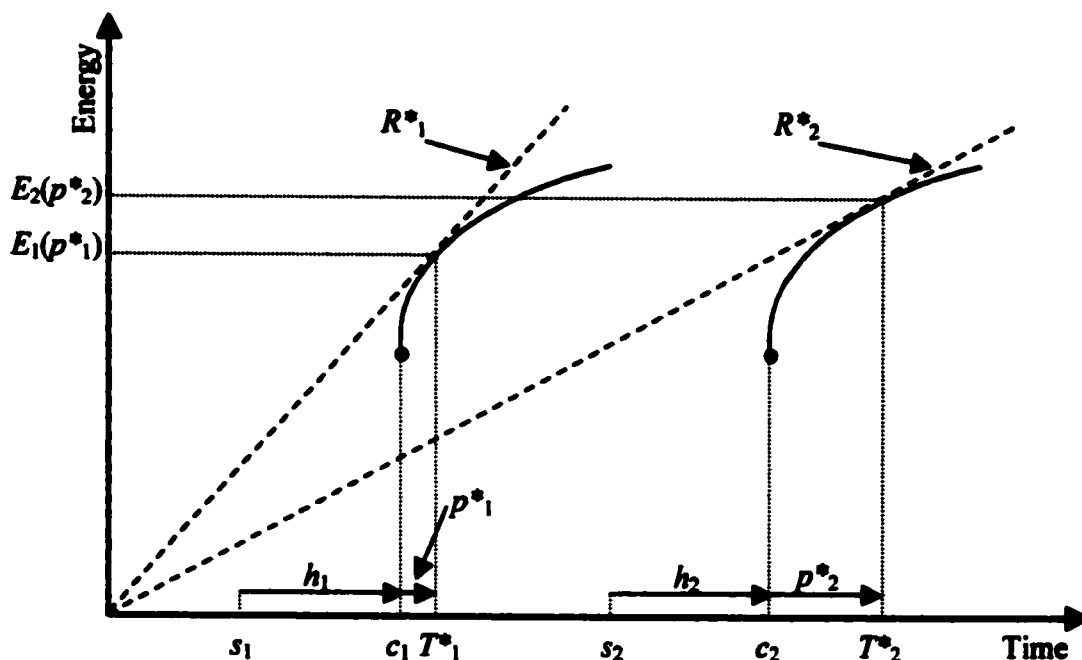


Figure 3.4. Two prey types that illustrate the effects of search and transport time on delivery rate and optimal processing time.

obtained by spending more time processing that resource far from home, even if additional processing increases the utility of the load that is carried back.

In addition, since the variable s_i is the sum of transport time plus search time, this model can also be used to predict that more time should be spent processing a resource in the field when the average time that it takes to encounter a unit of that resource is higher. This prediction cannot be derived from the Metcalfe and Barlow model because that model does not take search time into account. This prediction can be understood intuitively by considering that, when search time is high, a little extra processing time will increase total foraging time by an amount that is small relative to the amount by which it will increase the utility of a load. When search time is low,

however, that same amount of extra processing time will increase total foraging time by a proportionately higher amount, and the increases in load utility that could be obtained through additional processing may not be large enough to make up for this.

It is now possible to address the issue of prey choice. Figure 3.5 depicts three prey types that each provide a different average delivery rate. If the goal of a forager is to maximize the rate of energy delivery to the central place, then that forager should necessarily choose to harvest the prey type that provides the highest delivery rate; in Figure 3.5 this is prey type 1.

A forager can only choose to harvest the prey type that provides the highest delivery rate, however, if that forager knows which prey type does so. In essence, then, this model assumes that a forager sets out on a foraging trip with a particular prey type in mind¹¹, and that he or she does so based on reasonably accurate knowledge of such factors as the average search and transport times for different prey types and the amount of energy provided by different prey types both with and without field processing. In the second part of this assumption, this model is no different from any other foraging theory model because all such models assume that foragers possess accurate information about the environment in which they live (e.g. Stephens and Krebs 1986). For human foragers, this assumption is justifiable since it has been well documented that people in small-scale societies usually possess a remarkable degree of ecological knowledge (e.g., Felger and Moser 1985; Hill *et al.* 1997; Nelson 1983; Rea 1998).

¹¹ As I discuss shortly, the model does not assume that a forager will take only the resource that he or she has in mind at the outset of a foraging trip.

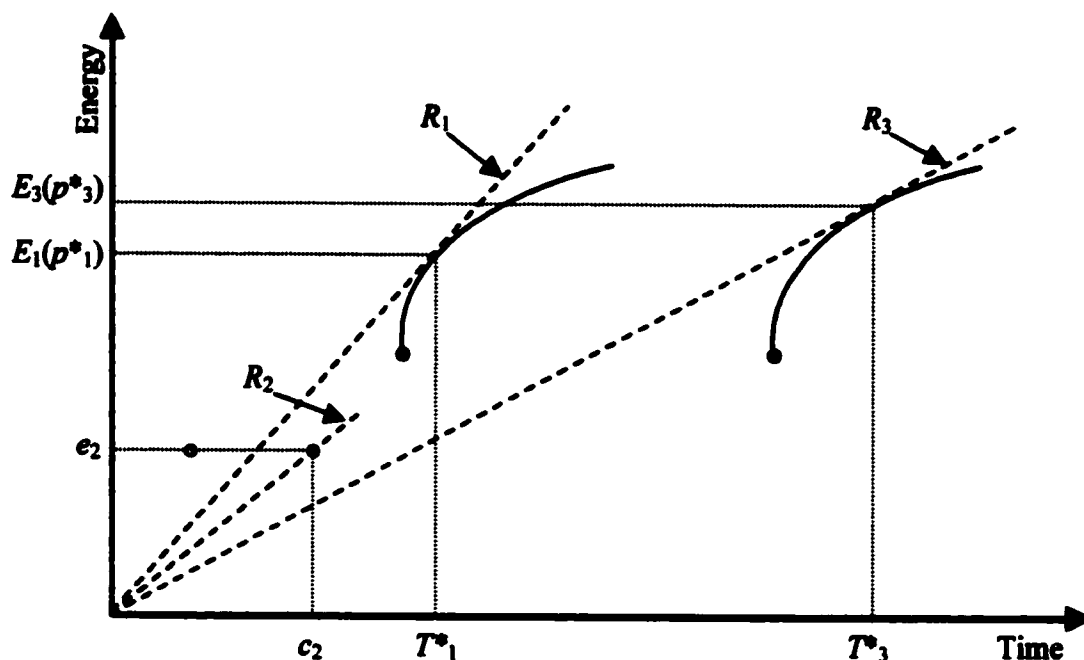


Figure 3.5. Three prey types that provide different average delivery rates.

The first part of this assumption – that a forager sets out with a specific prey type in mind – likely fits some cases of human foraging better than others. As Kaplan and Hill (1992:184-185) discuss, members of some ethnographically observed hunter-gatherer groups do set out on foraging trips with specific resources in mind, others search for all potential resources simultaneously, and many fall somewhere between the two extremes. Thus, just as the standard prey model requires care in application due to the fact that it assumes that multiple prey types are searched for simultaneously (E. Smith 1991: 206-207, 228), the model presented here must also be used carefully since it makes the contrasting assumption that foragers search primarily for one kind of resource on any given foraging trip.

The Mimbres Valley case that I am studying likely fits the assumptions made by the central place forager model better than it fits those made by the standard prey model. The faunal assemblages that I use all come from large residential sites (i.e., central places), and these sites were occupied by people who were probably relatively sedentary and who foraged logistically for wild resources (Diehl 1997; Gilman 1987). Logistical foragers should often have a specific resource in mind when they set out on harvesting expeditions. In addition, in these assemblages nearly all of the specimens of taxa that were likely used as food come from only four or five species of artiodactyls and leporids, and these are the only vertebrate taxa with reasonably high post-encounter return rates that would have been common in the region. In settings such as this where there are few potential prey types available, it should be more likely that people will have a specific type of prey in mind when they set out hunting than would be the case in environments where a wider variety of prey types might be encountered.

Kaplan and Hill (1992:184-185) also note that central place foragers who have a specific resource in mind when they leave on foraging trips sometimes end up harvesting a resource other than the one that they had initially targeted. In this regard, I point out that the model presented here does not assume that a forager will actually harvest only the resource that is targeted at the outset of the trip; on the contrary, this model can be used to understand why such "target switching" might occur.

The variable s_i in this model includes *average* search time. On some foraging trips a unit of prey type i will be found in less than the average amount of search time, and on other trips it will take longer than average to encounter a unit of prey type i . In

terms of Figure 3.5, a forager may set out to harvest a unit of prey type 1, which provides the highest delivery rate on average, but on the way a unit of prey type 2 might be encountered soon enough that it could provide a delivery rate higher than the average delivery rate provided by prey type 1; such an instance is represented by the open dot to the left of the solid dot for prey type 2. In this case the forager should, of course, take the unit of prey type 2. Because the average time-to-encounter for prey type 2 is much longer than this, though, occurrences of this sort will necessarily be rare.

On the other hand, a forager may set out to harvest prey type 1, but it might take longer than usual to encounter a unit of this prey type, or one might not be found at all. In a case like this the forager's best option may be to change the target of that trip to a resource with a lower average delivery rate but a higher probability of encounter, so that at least something is taken home. It would be interesting to explore in detail the effects on this model of variability around mean time-to-encounter, but I do not do so here.

In Figure 3.5, prey type 1, which provides the highest average delivery rate, is a "large" prey type ($m_i > L_{\max}$), while prey type 2, which provides a lower average delivery rate, is a "small" prey type ($m_i \leq L_{\max}$). As I mentioned earlier, previous archaeological resource depression studies that have employed the standard prey model have used vertebrate prey body size as a proxy measure of post-encounter return rate because there is a strong correlation between the two variables (e.g., Bayham 1979; Broughton 1994a, 1994b, 1997, 1999; Szuter and Bayham 1989). This correlation is understandable because the amount of energy provided by a resource necessarily

increases with body size, while handling costs generally increase proportionately less as body size increases¹².

Of course, the post-encounter return rate of a resource as defined in the prey model is simply the amount of energy that it provides per unit of post-search handling time (i.e., e/h_i). In the central place forager model, this definition holds for “small” prey types harvested singly, but for “large” prey types this model partitions some of the time that the prey model considers to be “handling” time out into “processing” time¹³. Thus, if a large prey type is processed for the amount of time that results in the highest delivery rate, the post-encounter return rate of this prey type in the central place forager model is $E_i(p^*_i)/(h_i + p^*_i)$. The correlation between vertebrate prey body size and post-encounter return rate remains, however, provided that certain assumptions are met, such as that processing functions for these resources approximate diminishing returns curves.

This is illustrated in Figure 3.6. Prey type 1 in this figure is a large prey type and prey type 2 is a small one; both resources have identical average search and transport times. The post-encounter return rate for prey type 2 is e_2/h_2 , which can be represented by a line beginning at s_2 , where handling time begins, and passing through the point (c_2, e_2) . The amount of energy provided by prey type 1 at the end of handling

¹² The correlation between body size and post-encounter return rate breaks down for very large prey like elephants or whales, however, due to very high costs of handling such resources (e.g., Broughton 1999).

¹³ Strictly speaking, it is difficult to apply the standard prey model to resources for which processing time varies with transport distance. If a resource is processed for different lengths of time at different distances from a central place, then the prey model requires that the resource be treated as a distinct prey type for each distinct amount of processing time due to the different post-encounter return rates that will result. This is in addition to the problem, noted earlier, that the prey model does not take into account the changing transport costs associated with resources acquired at varying distances from a central place.

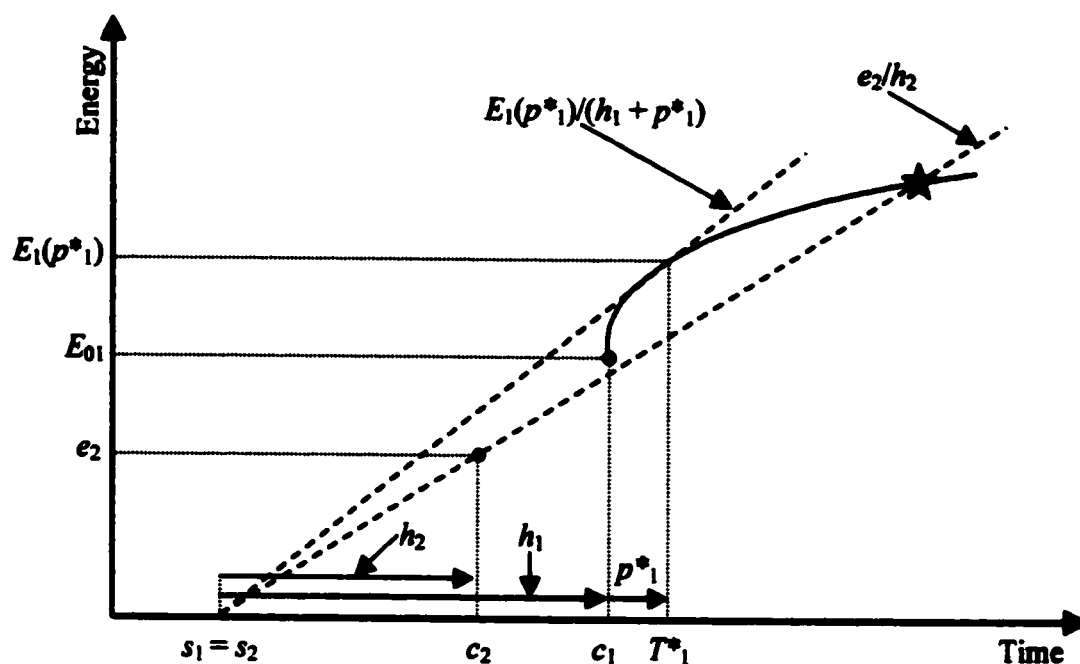


Figure 3.6. Two prey types, one “large” (prey type 1) and one “small” (prey type 2), with identical average search and transport times ($s_1 = s_2$), illustrating that large prey types will provide higher post-encounter return rates unless they are processed for much longer than the optimal amount of processing time (p^*_1).

time is E_{01} , and – making the assumption that the correlation between body size and post-encounter return rate holds before post-handling processing begins – the ratio E_{01}/h_1 is depicted in Figure 3.6 as being greater than e_2/h_2 (though not by much)¹⁴.

It can be seen in this figure that prey type 1 provides the higher post-encounter return rate even with p^*_1 additional units of processing time. In fact, prey type 1 would have to be processed for much longer than the optimal amount of time before it would begin to provide a lower post-encounter return rate than prey type 2; this would occur at

¹⁴ Prey type 1 might still provide the higher post-encounter return rate even if E_{01}/h_1 were less than e_2/h_2 , provided that post-handling processing increased the utility of a load of prey type 1 sufficiently.

the point marked by the star. Thus, it remains appropriate to use vertebrate prey body size as a proxy for post-encounter return rate when using the central place forager model, at least when dealing with one “large” and one “small” prey type¹⁵.

Returning to Figure 3.5 and the issue of prey choice, if a small prey type and a large prey type do have equivalent average search and transport times, then the large prey type will generally provide the higher delivery rate, and this should be the resource targeted by a forager. In fact, the large prey type would provide the higher delivery rate even if it took somewhat longer to encounter and/or transport this prey type. Only when the average search and transport time of the large prey item is sufficiently higher than that of the small prey item will the small prey item provide the higher delivery rate¹⁶.

This brings us finally to the issue of long-term change over time. As discussed above, the variable s_i is the average amount of search and transport time for a resource as calculated over some relatively short period of time. Over longer periods, however, the average search and transport time for a resource might change. If this were to happen, then the resource would, in effect, become a new prey type from the point of view of the central place forager model.

¹⁵ It is possible that the correlation between vertebrate prey body size and post-encounter return rate could break down when dealing with two “large” prey types. This would occur if the utility of a load of the smaller-bodied prey type could be increased by a greater amount per unit of processing time – that is, if the smaller-bodied prey type had a “taller” processing function. This seems unlikely, however, because the degree to which the utility of a load of prey type i can be increased with processing time should be greater the larger the difference between m_i and L_{max} : when a larger portion of a prey item must be left behind, it is possible to leave a higher proportion of low utility parts behind.

¹⁶ Specifically, if prey type 1 is a “large” resource and prey type 2 is a “small” resource, this will occur when $R_2 > R_1$, which will occur when $s_1 > [(c_2/e_2)E_1(p^*_1)] - (h_1 + p^*_1)$; see equations 1 and 2.

If the average amount of time that it took to find a unit of a particular resource increased over the long term (as would be the case if the resource became less abundant on the landscape) and/or if foragers had to travel further to harvest the resource (perhaps due to declines in abundance in areas close to home), then the delivery rate provided by that resource would decline. This is illustrated by prey type 3 in Figure 3.5. This prey type has a processing function identical to that of prey type 1, and the difference between these two prey types can be accounted for entirely by an increase in average search and transport time. Search and transport time for prey type 3 is so much greater, in fact, that the delivery rate that it provides is lower than the delivery rate provided by prey type 2, a small prey type. In a case like this a delivery rate-maximizing forager should target the small prey type (prey type 2) rather than the large one (prey type 3).

Thus, the same key predictions about the effects of resource depression can be derived from the central place forager model as can be derived from the separate models used previously in archaeofaunal resource depression studies. The first set of these predictions involves the kinds of prey that foragers harvest and the second involves the parts of prey that foragers transport home. For each of these issues, predictions can be made both about the changes in foraging behavior that should occur due to long-term resource depression and about the patterns that should be observed in archaeological assemblages as a result of such changes in behavior. I outline these predictions here, and I discuss the details of making them archaeologically operational in Chapter 5.

Regarding the kinds of prey harvested, larger-bodied vertebrates will generally provide higher post-encounter return rates than will smaller-bodied vertebrates. As a

result, if a large-bodied prey type initially has a relatively low average search and transport time, it will likely provide a higher delivery rate than would any smaller-bodied prey type, and it should be the resource that foragers target. If the average search and transport time for the larger prey type increases, however, there will come a point at which some smaller prey type begins to provide the highest delivery rate, and at this point foragers should begin to target the smaller prey type instead of the large one. Since the average search and transport time of a resource will be highly dependent on the abundance of that resource on the landscape, or at least in areas close to a central place, such a change in prey selection will often reflect a decline in the abundance of the large-bodied prey type. It will also reflect a decline in foraging efficiency.

The central place forager model does not necessarily predict that foragers will harvest only a single resource during a given period of time. As discussed above, variability around mean search and transport times should lead foragers occasionally to take resources other than those targeted at the outset of foraging trips. In addition, for any given resource, one or more of the key factors e_i , m_i , s_i , h_i , and $E(p^*_i)$ may well have changed in a non-directional manner during the span of time represented in an archaeological deposit. These factors could have varied seasonally, for example, or yearly if climate fluctuated from year to year, and such variation would likely have led foragers to target different resources in different seasons or in different years.

However, if a long-term directional trend occurred in any factor like the average search and transport time of a resource, then a long-term directional trend should also have occurred in the proportions of different resources that were harvested. In

archaeological assemblages, we would see directional trends in the relative abundances of various taxa in such cases (see Broughton and Grayson 1993 for a similar point in the context of diet breadth analysis). In the specific case of depression of a large-bodied vertebrate resource, we would see a decline over time in the archaeological abundance of the large-bodied taxon relative to smaller-bodied taxa.

As for the kinds of vertebrate prey body parts that hunters transport home, the central place forager model predicts that foragers should spend more time processing a resource in the field when the average search and transport time for that resource is greater. Archaeologically, this leads to the expectation that increases in search time and transport distance, such as might occur due to resource depression, should result in the deposition of higher proportions of high utility elements at residential sites. As noted above, the prediction that processing time should increase with transport distance can also be derived from the model presented by Metcalfe and Barlow (1992; see also Bettinger *et al.* 1997). However, by integrating field processing into a unified theoretical measure of the rate of energy delivery to a central place, the model presented here makes it easy to see that such increases in transport distance and field processing time will always reflect declines in overall foraging efficiency.

Finally, as I discussed earlier, one implication of the Orians and Pearson (1979) patch choice model is that resource depression may lead in some instances to increases over time in the proportions of high-return resources that are harvested (Cannon 2000). As I noted, this might occur if patches containing high abundances of high-return resources existed at locations distant from a central place. In such a case, long-term

declines in the returns obtained from nearby patches might make it worthwhile for a forager to harvest resources in the distant patches more frequently, even though overall foraging efficiency would be lower due to higher travel costs.

The assumptions of the model that I have presented here, however, are more appropriate for resources like artiodactyls and leporids in a setting like that of the Mimbres Valley. The Orians and Pearson model assumes the existence of discrete resource patches, but all of the artiodactyl and leporid taxa that are abundant at any single Mimbres Valley archaeological site could have been encountered throughout the entire area that hunters from that site were likely to have frequented, and they would probably have been available during most or all of the year (though encounter rates certainly would have varied from place to place and time to time).

In the prey choice model that I present, the equivalent situation to the one that I outlined above would occur if a small-bodied prey type were initially the resource most often targeted by foragers because it provided the highest average delivery rate, and if the average search and transport time for this small-bodied resource then increased such that its delivery rate fell below the delivery rate provided by a large-bodied prey type. This would result both in an increase in the proportion of large-bodied prey harvested and in a reduction in overall foraging efficiency due to higher search and transport costs. It would be caused, however, by a decline in the abundance of the smaller-bodied prey type – not the larger-bodied prey type – in areas around the central place¹⁷.

¹⁷ It is unlikely that human predation could cause such a long-term decline in the abundance of fast-reproducing leporid taxa. Indeed, historic period efforts to reduce jackrabbit populations in order to protect agricultural crops have often had limited success (e.g., Johnson and Peek 1984:11; see also Dunn *et al.* 1982:138). The only other relevant factor that has been suggested as a cause of non-cyclical trends

In some cases, depression of resources with high post-encounter return rates in nearby patches could very well lead to increased harvests of those resources in more distant patches, as I have suggested (Cannon 2000). This will probably only occur, however, in settings in which resources are distributed very patchily, and it does not seem possible in situations involving the kinds of resources that I consider here. Thus, if an increase over time were observed in the archaeofaunal abundance of an artiodactyl taxon relative to a leporid taxon, it would probably indicate that the average search and transport time for the artiodactyl prey type declined. It would not result from a reduction in the abundance of artiodactyls in areas close to a central place unless leporid abundance were reduced to at least the same degree, which is unlikely to happen. In places where depression of artiodactyl resources occurred, we should only expect to see declines in the archaeological abundance of artiodactyls relative to leporids.

Prey Age Profiles as an Indicator of Resource Depression

Age profiles of prey taxa in archaeological assemblages provide an additional measure of resource depression that can be used in conjunction with the measures based on prey selection and body part representation that I just discussed. Empirical studies have documented declines in the mean and maximum ages of individuals within

in leporid abundance is agricultural landscape alteration: the abundance of both jackrabbits and cottontails appears to have increased in North America during the period of non-industrial pioneer agriculture due to an increased availability of food for them (e.g., Chapman *et al.* 1982:99; Dunn *et al.* 1982:138). In the Mimbres Valley case, the archaeological record suggests that the amount of land used for agriculture increased over time, at least through the Classic Mimbres phase, which should have caused jackrabbits and cottontails to have become more abundant on the landscape, rather than less abundant.

artiodactyl populations when those populations are subjected to increased rates of harvest (e.g., Hesselton and Hesselton 1982; Mohler and Toweill 1982; see also Broughton 1997, 1999; Koike and Ohtaishi 1985, 1987; Robinson and Redford 1994). These changes in population age structure are the result of the reduced probability of surviving to older ages that follows from increased harvest rates.

Because this relation between prey population age structure and harvest rates exists, changes in the distribution of artiodactyl specimens across age classes in archaeofaunal assemblages can be used as a measure of changes in harvest pressure over time (e.g., Broughton 1999; Koike and Ohtaishi 1985, 1987). Increases in rates of harvest should be reflected by declines in the proportions of specimens that come from older animals.

In addition, as Broughton (1999) has pointed out, because smaller individuals within a prey taxon generally provide lower post-encounter caloric return rates than do larger ones, individuals of different size classes within a taxon should be treated as different prey types when employing foraging theory models. Thus, the predictions developed above concerning resource depression-related changes in the kinds of prey types harvested apply to individuals belonging to different size classes within a prey species just as they apply to individuals of different prey species that have different average body sizes. This provides a further basis for using declines over time in the proportions of archaeofaunal specimens from older, larger individuals of a prey taxon as an indicator of resource depression.

Allocating Time to Foraging and Farming

The framework presented above provides a means of testing hypotheses about declines in wild resource foraging efficiency, but an additional theoretical model is required to link such declines to increases in the importance of agriculture. To do this I employ an opportunity cost model of time allocation (e.g., Gremillion 1996; Hames 1992; Hawkes *et al.* 1985; E. Smith 1987, 1991; Winterhalder 1983).

Barlow (1997) has recently provided an excellent discussion of how three different models from foraging theory might be applied to the problem that I am addressing: the standard prey model, a risk-minimization model, and a model of patch residence time based on the marginal value theorem. Of these, she concludes that the most appropriate is a modified version of the patch model. The decision variable in this model concerns the amount of time that should be spent in different patches, and in this case the “patches” involved are equated with the activities of farming and foraging for wild resources. This is essentially a model of how time should be divided between foraging and farming, and the solution to this model depends in part on the opportunity costs that are incurred when time is devoted to one activity rather than the other.

Here, I discuss an alternative formulation of the tradeoff between the benefits of allocating time to an activity and the opportunity costs that arise from doing so. This is a model of time allocation that Gremillion (1996) has previously applied to the issue of increases in the importance of agriculture (see also Hames 1992; Winterhalder 1983). This model is similar in principle to the one discussed by Barlow (see Winterhalder 1983), but the graphical presentation of the model that I use is better suited to the points

that I want to make. Because Barlow has already provided a detailed and insightful treatment of the issues involved in the application of this kind of model to foraging and farming, I simply outline the points that are most relevant for my study and refer the reader to Barlow (1997) for additional details (see also Gremillion 1996).

The opportunity cost model of time allocation that I use is presented in Figure 3.7. This model addresses the decision of how much time to devote towards one activity that provides some benefit, given that there are alternative activities that might be pursued at the same time that also provide some benefit. The model assumes, reasonably, that the benefits obtained from an activity exhibit diminishing marginal returns per unit time. Allocating time to one activity, however, necessarily entails opportunity costs in that other activities cannot be pursued during this same period of time. These opportunity costs are incorporated into the model and are assumed, again reasonably, to be positively accelerated when plotted against allocated time; in other words, the cost of putting off alternative activities is assumed to rise exponentially the longer those activities are postponed.

The optimal amount of time to allocate to an activity is the amount that maximizes the difference between the benefits and the opportunity costs. This amount of time produces the highest achievable ratio of the returns provided by the activity relative to the opportunity costs that are incurred by neglecting other activities, and its value will vary depending on the shapes of the benefit and cost curves involved.

In my application of this model I take farming to be the activity that provides the benefits, and I define the term “farming” broadly to include all of the tasks that are

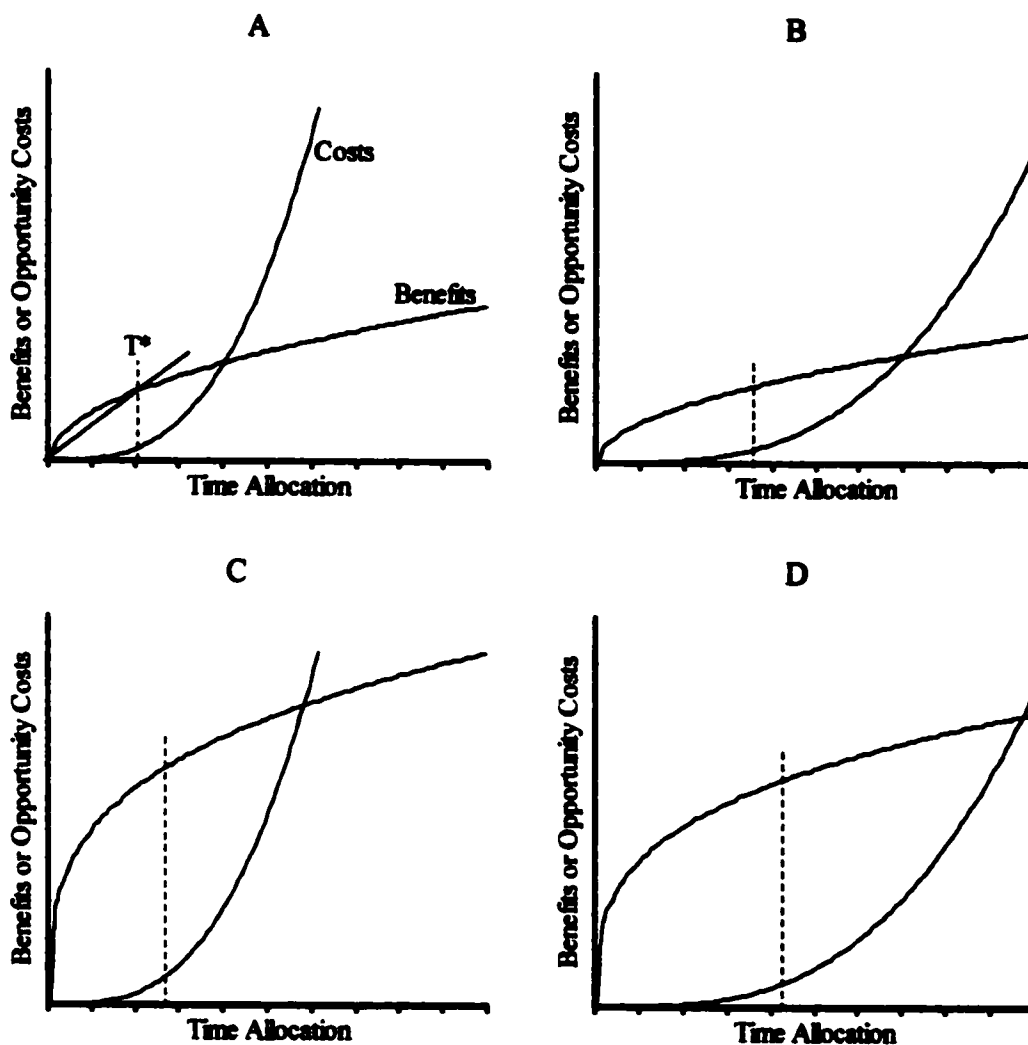


Figure 3.7. The opportunity cost model of time allocation, after Gremillion (1996).

A. The optimal amount of time to allocate to farming (T^*) is that which maximizes the difference between the returns per unit time provided by farming ("Benefits") and the opportunity costs incurred per unit time by forgoing hunting ("Costs"). The efficiency of farming is given by a line beginning at the origin and passing through the point at which the benefit curve intersects with T^* .

B. Effect of reduced opportunity costs due to a decline in expected hunting returns.

C. Effect of increased returns from farming.

D. Effect of a simultaneous decline in opportunity costs and increase in returns.

required to obtain food through the cultivation of domesticated crops, including tasks related to post-harvest storage and processing (see also Barlow 1997). The opportunity costs that are relevant for my purposes are those that arise from being unable to spend time foraging for vertebrate prey, which are the subset of wild resources on which I focus in this study. I measure the benefits and opportunity costs of farming in terms of net caloric returns, and I assume that net caloric returns were an important decision-making currency for people in the Mimbres Valley. Time allocation should be thought of on the scale of the number of hours or days spent farming per year, and, as Barlow (1997) discusses, it is important to keep in mind that farming involves delayed benefits in the sense that time spent on farming-related tasks during the agricultural cycle will not be rewarded until after the harvest is in.

With these preliminaries in place, it is possible to use the time allocation model to examine how changes in vertebrate resource foraging efficiency should affect the amount of time devoted to farming. Any reduction in hunting efficiency will lower the opportunity costs of farming because less is forfeited by not hunting as the expected net returns from hunting decline. Thus, if the returns provided by farming remain constant, any decline in hunting efficiency will favor an increased allocation of time to farming, as illustrated in panel B of Figure 3.7. Of course, as the amount of time allocated to farming increases, the proportion of the total amount of time spent on subsistence-related tasks that is allocated to hunting should decline by a complementary amount.

In a situation of this sort, the allocation of more time to farming will result in higher overall agricultural yields (*sensu* Winterhalder and Goland 1997). As this

happens, though, net productive efficiency will decline: hunting efficiency will be lower, and if the benefit curve for farming shows diminishing marginal returns, as the model assumes and as is reasonable to expect, then the efficiency of farming will necessarily decline with any increase in time allocation. Thus, a case like this can be considered to be an instance of resource intensification involving an increase in yields at the expense of a proportionally greater increase in labor costs.

However, it is also possible that the returns obtained per unit time from farming might increase while the opportunity costs remain the same, as illustrated in panel C of Figure 3.7. A situation like this might result, for example, from the introduction or evolution of more profitable varieties of domesticated crops that provide higher caloric returns per amount of time spent farming (e.g., Diehl 1996; Rindos 1984). As in the scenario presented in panel B, occurrences of this sort would also favor an increased allocation of time to farming, and the amount of time spent hunting should decline because the profitability of hunting relative to that of farming is now lower. In this case, however, net productive efficiency will increase because higher yields can now be obtained from the same amount of time spent farming.

Many cases of increases in the importance of agriculture may be situations like this, in which the amount of time spent farming increases without any decline in net productive efficiency, and such cases should not be considered to be instances of “agricultural intensification”. For this reason, I use the term “increase in the importance of agriculture” to apply generally to any increase in the amount of time spent farming relative to the amount of time spent foraging for wild resources: only a subset of all

“increases in the importance of agriculture” will also be cases of “agricultural intensification”¹⁸.

Finally, as illustrated in panel D of Figure 3.7, it is possible that the net returns obtained from farming might increase at the same time that opportunity costs decline. This, of course, will also favor an increase in the amount of time allocated to farming, and such cases may or may not result in declines in net productive efficiency depending on whether it is the cost curve or the benefit curve that changes by the greater amount.

I use this theoretical framework in Chapter 7 to test the hypothesis that the increases in the importance of agriculture that occurred in the Mimbres Valley constitute a case of resource intensification that resulted from reductions in hunting efficiency; I discuss the empirical measures of agricultural importance that I employ to carry out this test in Chapter 6. I do not attempt to conduct a quantitative test of this hypothesis because it is not possible to estimate the costs and benefits involved in numerical terms without having to make many assumptions that cannot be evaluated independently (e.g., Grayson and Cannon 1999). However, it is possible to perform a qualitative test (see Kaplan and Hill 1992) by determining the directions in which the benefit and opportunity cost curves for farming in the Mimbres Valley changed over time based on ordinal scale changes in features of the archaeological record that reflect these costs and benefits.

¹⁸ Minnis (1992; see also Barlow 1997) has pointed out that explanations for the origin and spread of agriculture in arid western North America can be placed into one of two classes: “models of necessity”, which focus on inadequacies in the food base provided by wild resources, and “models of opportunity”, which focus on the advantages offered by domesticated crops. The scenarios presented in panels B and C of Figure 3.7 can be thought of as corresponding to these two classes of explanations, respectively.

One way to conduct such a test might be to explore whether resource depression and a decline in hunting efficiency began prior to a period during which people allocated increasing amounts of time to tasks associated with agriculture: an increase in the importance of agriculture could not have been a response to a decline in hunting efficiency if hunting efficiency did not begin to decline until after the increase in agricultural importance had already taken place. Finding evidence of such a decline in hunting efficiency following an increase in the importance of agriculture would suggest that depression of large mammal resources was simply the result of human population growth caused by higher agricultural yields (see Winterhalder and Goland 1997), rather than the reason why people began to spend more time farming. On the other hand, if it were found that hunting efficiency began to decline before agriculture became more important, this would support the hypothesis that the increase in agricultural importance was a response to the decline in hunting efficiency.

However, given the generally coarse chronological resolution provided by the archaeological record, and given the daily or yearly time scales that are likely to have been relevant to the decisions that people made about the subsistence activities that are reflected in that record (see Winterhalder and Goland 1997), such an attempt at testing is unlikely to prove very productive. An individual's decisions about how much time to spend farming on any given day or in any given year may have been based on the returns obtained from alternative subsistence activities on the previous day or during the previous year, and archaeologists will never have access to changes in those returns that might have occurred on time scales this short.

Thus, in archaeology, it may be best to take a slightly different approach to testing the hypothesis that a given increase in the importance of agriculture was a case of intensification that resulted from a decline in wild resource foraging efficiency. The first step in such an approach would be to determine as precisely as possible how the timing of any apparent decline in foraging efficiency related to the timing of the increase in the importance of agriculture: even if the best that could be done were simply to show that the decline in hunting efficiency occurred during the same span of time as did the increase in agricultural importance, such a result would still be useful.

If no decline in hunting efficiency were evident during a period in which the importance of agriculture increased, then this would be sufficient to falsify the hypothesis that the increase in agricultural importance was the result of reduced hunting efficiency. However, if it appeared that hunting efficiency did decline during a period in which people began to allocate more time to farming, then this would be consistent with the hypothesis that the increase in the importance of agriculture was a response to a reduction in hunting efficiency. The question of whether the increase in the importance of agriculture was truly caused by the decline in hunting efficiency could then be addressed further by considering evidence pertaining to the efficiency of agricultural production.

If it appeared that the efficiency of agriculture declined as people devoted more time to it, then it is likely that the increase in agricultural importance was a response to reduced foraging efficiency because efficiency-minded farmers would not otherwise have begun to allocate more time to farming (e.g., Boserup 1965:117-118). If there is

instead evidence that agriculture became more efficient, perhaps due to an increase in gross yields, during the period in which people began to spend more time farming, then a case could be made that the increase in the importance of agriculture was a response to the increase in the efficiency of agriculture. In such a situation it would also be likely that the depression of resources that was observed during the period in question was simply the result of population growth caused by increased agricultural yields, rather than the cause of the increase in the importance of agriculture.

Garden Hunting

For the time allocation model that I have described to be applicable to the activities of farming and foraging for vertebrate resources, it must be the case that these two activities cannot be done at the same time. Hunting and farming can be assumed to be mutually exclusive activities as long as the definition of farming is broadened to include "garden hunting", or the capture of animals found in agricultural fields (e.g., Linares 1976). Conversely, I define hunting as any foraging for vertebrate resources that is conducted away from fields.

By considering garden hunting to be a component of "farming" rather than of "hunting", an additional reason becomes apparent for why people might have begun to allocate more time to farming. If the efficiency of hunting declined due to reduced rates of encounter with large mammals across the landscape as a whole, but if animals either large or small became increasingly abundant in expanding agricultural microhabitats, then the profitability of farming would have increased relative to that of hunting, which

may have led people to spend less time hunting away from their fields and more time farming. I address this possibility in Chapter 7.

In addition, if the amount of time that people spent farming increased, and if garden hunting became more important as a result, this might have produced changes in archaeofaunal assemblages that could be mistaken for depression of large mammal resources. Regarding the taxa that I consider in this study, small scale agricultural fields provide excellent habitat for both jackrabbits and cottontails (e.g., Chapman *et al.* 1982:99; Dunn *et al.* 1982:138), and if the amount of time that people spent working in fields increased, then they likely would have had more frequent opportunities to capture leporids encountered in those fields. In addition, leporids attracted to fields may have been hunted for reasons other than immediate caloric returns because these animals can be quite damaging to crops (e.g., Vorhies and Taylor 1933). Thus, increases in the importance of agriculture might have resulted in increases in the rate at which leporids were captured relative to the rate at which artiodactyls were captured, which would appear archaeologically as a decline over time in the abundance of artiodactyls relative to leporids in faunal assemblages. I control for this possibility in Chapter 5 through an analysis of stable carbon isotopes in jackrabbit bones.

On the other hand, garden hunting need not be limited to small mammals like leporids. Modern agricultural fields often attract large mammals like deer, which can themselves be quite destructive to crops (e.g., Hesselton and Hesselton 1982:885;

Mackie *et al.* 1982:874; W. Smith 1991:5-6)¹⁹. Therefore, although the frequency of garden hunting may have increased as people began to spend more time farming, there is no reason to think that this would have necessarily favored the capture of leporids over artiodactyls in a way that might be mistaken for depression of large mammal resources. It could have actually resulted in the opposite situation in which the rate of artiodactyl capture increased relative to the rate of leporid capture due to the attraction of artiodactyls to agricultural fields. If this occurred, however, we should observe increases over time in the archaeofaunal abundance of artiodactyls relative to leporids, and, as I discuss in Chapter 5, such increases do not occur in the Mimbres Valley during the span of time on which I focus.

Hunting, Farming, and the Division of Labor

For the time allocation model as I have described it to be applicable to foraging and farming, it must also be the case that both of these activities were performed by the same individuals. In other words, if a division of labor were present along age or gender lines such that some people hunted while others farmed, it would make no sense to talk about individuals dividing their time between hunting and farming.

In this regard, it is reasonable to assume that men did most of the large mammal hunting in the Mimbres Valley, as they do in human societies in general (e.g. Hawkes

¹⁹ There is also reason to think that large mammals were attracted to agricultural fields in the past because studies of stable carbon isotopes in archaeological deer remains suggest that these animals consumed maize, at least in parts of Mesoamerica where such studies have been carried out (e.g., White *et al.* 1993).

1996). In historic period pueblo societies in the southwestern U.S., men also did most of the agricultural field labor (e.g., Driver 1969:81, 265). It remains unknown, however, whether men undertook most of this labor in southwestern societies in the distant past, and some anthropologists have suggested that women formerly did a greater share of this work (e.g., Driver 1969:265, 281). Moreover, in the historic period, women performed most of the post-harvest processing tasks such as grinding corn for consumption, and there is archaeological evidence to indicate that they may have always done so (e.g., Spielmann 1995). It is thus probably most reasonable to assume that farming-related tasks were conducted by both men and women in the Mimbres Valley during the period of time that I am studying.

If this was the case, and if large mammal hunting was done primarily by men, then it would not be appropriate to think about the time allocation model in the way in which I have described it when applying the model to the decisions made by women. Instead of thinking about the model in terms of the activities performed by individuals in such a case, it would be more appropriate to think in terms of the activities carried out in households or communities comprised of individuals who were economically interdependent.

If some individuals within a household or community received a substantial portion of the food that they ate through the labor of other members of that household or community, and if that contribution of food declined for some reason, then those individuals might find themselves in a position in which they would best be served by reorganizing their own allocation of time to various activities. For example, if meat

obtained by male hunters were an important part of the diets of women and their children, then any sustained decline in the amount of meat acquired – such as may occur due to reduced rates of encounter with large mammals – might lead women to spend more time getting food from alternative sources such as domesticated crops²⁰.

In a case like this, the decision faced by a woman would not be one of whether to farm or to hunt; rather, it should be thought of as whether to farm or to spend time performing other beneficial activities. To capture such a situation, the activities associated with the cost and benefit curves in Figure 3.7 must be altered so that the benefits are those obtained by women from activities that are not related to farming and so that the opportunity costs are those incurred by spending time on tasks unrelated to farming. Then, if the nutritional returns provided by vertebrate food sources declined, the opportunity costs of activities unrelated to farming would increase because it would be less likely that any time not spent on farming-related activities could be made up for by obtaining food from other sources. As a result, less time should be allocated to tasks unrelated to agriculture, and more time should be spent on farming-related activities.

Summary of Predictions for the Mimbres Valley Study

To conclude this chapter, I summarize the predictions derived from the theoretical framework outlined here that I will test in the remaining chapters of this

²⁰ Of course, the complementary situation might also often occur: if men depended on the agricultural labor of women for a significant part of their food intake, and if the returns provided by agriculture declined (perhaps due to adverse climatic conditions, for example), this may have led men to begin spending more time on their own subsistence-related pursuits such as hunting.

dissertation. Chapters 4 and 5 present the data that I have collected in order to test the predictions about large mammal resource depression, and Chapters 6 and 7 present my tests of the predictions concerning increases in the importance of agriculture.

Resource depression is likely to occur as a human population grows because rates of prey harvest will be higher the larger the predator population (e.g., Wilson and Bossert 1971; Winterhalder and Lu 1997). It should also be likely to occur when individual hunters become less mobile and/or when group residential locations become more permanent because harvests in local areas will become more sustained in such cases (e.g., Binford 1983). We can thus expect that hunters in the Mimbres Valley would have experienced declining rates of encounter with large mammals – and declining hunting efficiency – as the human population grew and as people became more sedentary between the Early Pithouse period and the Classic Mimbres phase.

If large mammals were encountered less frequently as time progressed, this should be reflected by declines over time in the archaeofaunal abundance of artiodactyls relative to smaller mammals such as leporids at Mimbres Valley residential sites, as well as by increases in the abundance of high utility artiodactyl body parts relative to body parts of low food value at these sites. Increases in artiodactyl harvest rates should also be reflected by declines in the proportions of specimens from older animals.

As I described in my discussion of the time allocation model, depression of large mammal resources and the resulting declines in hunting efficiency may have led people to spend more time farming and less time hunting. In order to be able to conclude that this actually occurred in the Mimbres Valley, there must be evidence that resource

depression occurred during a period in which agriculture became more important. If no such evidence exists, then the increase in the importance of agriculture cannot be attributed to a decline in hunting efficiency. If such evidence does exist, however, then the hypothesis that people began to allocate more time to farming in response to a decline in hunting efficiency can be further tested by considering evidence relating to the efficiency of agriculture: to be able to conclude that the increase in agricultural importance was the result of reduced wild resource foraging efficiency, there must be no evidence to support the hypothesis that agricultural production became more efficient during the period in question.

Chapter 4. Context and Dating of Archaeofaunal Samples

My test of the hypothesis that Mimbres Valley hunters experienced depression of large mammal resources involves determining whether changes occurred over time in the kinds of prey that they harvested, in the ages of those prey, and in the kinds of prey body parts that they transported back to residential sites. This can only be done, of course, if archaeofaunal samples can be ordered accurately in time. Moreover, evaluating whether any observed declines in hunting efficiency occurred during a period in which agriculture became more important requires that archaeofaunal samples be dated relatively precisely.

This chapter discusses the methods that I use to date the faunal samples that I analyze in the following chapter. In selecting these samples, my main goal was to ensure that I only included specimens from deposits that could be dated both accurately and precisely. I thus present data from only a portion of the entire faunal assemblage that is available from each of the sites that I include in my analysis, but the subsets of these assemblages that I use provide the most accurate, finest-grained chronological resolution that is possible. I also present information in this chapter about the depositional contexts of these samples because it is possible that different deposits may have been produced by different kinds of processes, which might have resulted in systematic variation in the kinds of faunal remains recovered from them.

My analysis includes materials collected from four sites (see Figure 4.1): Old Town, which is located in the southern Mimbres Valley and which has been excavated

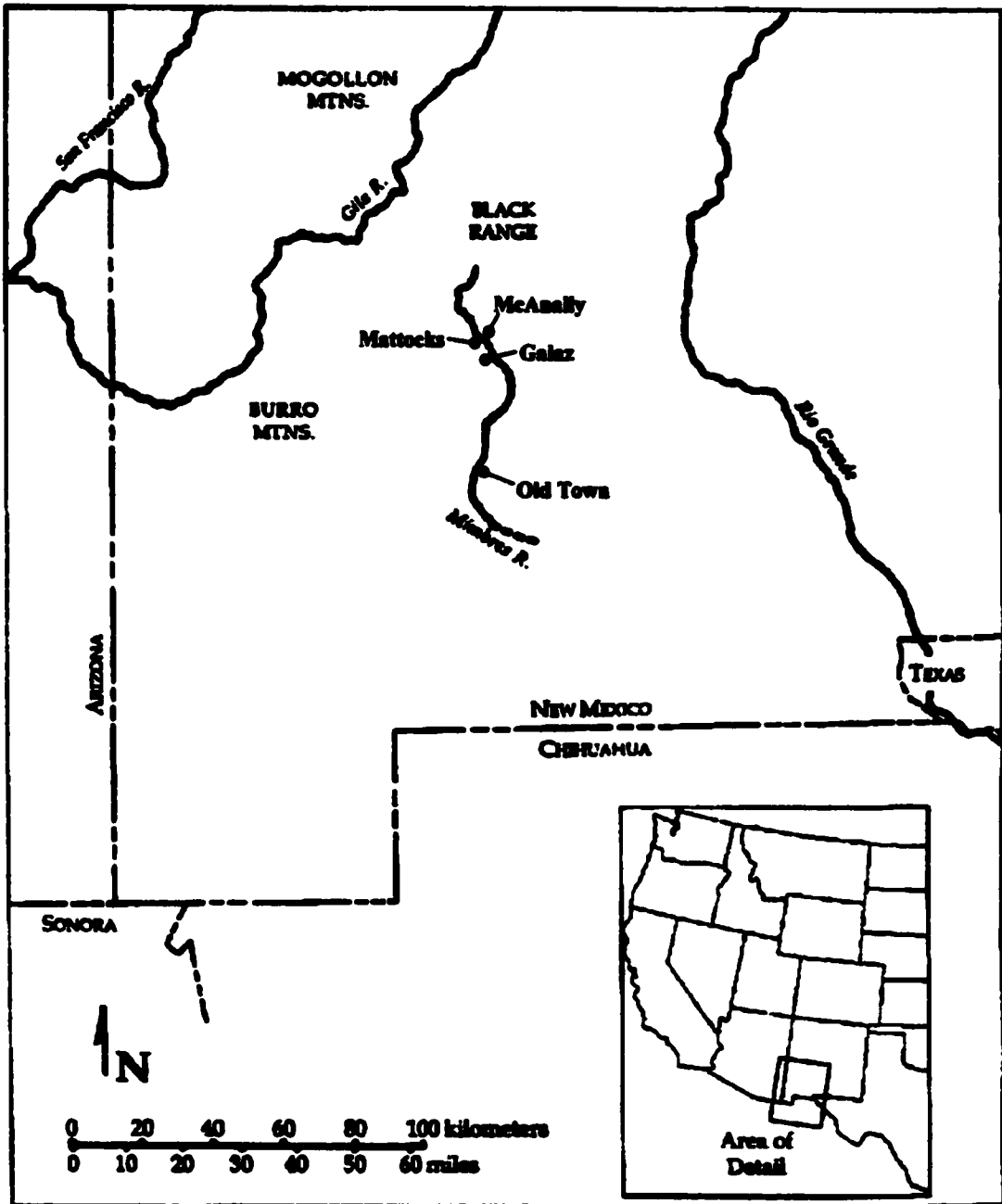


Figure 4.1. Map showing the locations of the sites included in this analysis.

since 1989 by Darrell Creel of the Texas Archaeological Research Laboratory at the University of Texas at Austin, and Galaz, Mattocks and McAnally, all of which are located in the central part of the valley and which were excavated during the 1970s by the Mimbres Foundation research group. Below, I discuss in detail the context of the faunal samples that I use from each of these sites, focusing primarily on the dating of these samples. I do not attempt to present a complete report on each of these sites because such reports are available elsewhere, and more detailed information about the features present at these sites can be found in the references that I provide. First, however, I summarize the general criteria that I used to select samples for analysis.

Criteria for Inclusion of Faunal Samples in this Analysis

Tables that list all of the field specimen bags that contain faunal remains from these sites are provided in Appendix B, and the bags that I include in my analyses are identified in those tables. Samples were chosen for inclusion only if they met certain criteria. First, only samples collected in 1/4" mesh screens are used. It is well known that the use of different-sized screens in excavation can drastically affect the relative abundances of different-sized taxa observed in archaeofaunal samples (e.g., Cannon 1999; James, 1997; Nagaoka, 1994; Shaffer and Sanchez, 1994), so I do not include any sample in my analysis unless it is recorded as having been collected in 1/4" screen¹.

¹ During the Mimbres Foundation excavations, the sediments from some contexts were only partially screened, and the percentages of the deposits from these contexts that were screened are noted in the tables in Appendix B. I am forced to assume that all of the faunal specimens in the bags from these contexts were recovered from screens, rather than from the unscreened portion of these deposits.

I have also excluded all samples from contexts that are identified by the excavators of these sites as being disturbed or for which there is other reason to think that they may be disturbed. Most archaeological sites in the Mimbres Valley, including those whose faunal assemblages I analyze here, have been heavily damaged by looting, which can, of course, result in the mixture of materials of greatly different ages. It is tragic that as much as half of the faunal material from some of these sites is not useful for my purposes because of this, but there are deposits at these sites that have not been affected by pothunting, and it is the material from these deposits that I use in this study.

I do not use samples that come from construction fill contexts because it is possible that items originally deposited much earlier than the date of construction may have been incorporated into construction materials. These contexts include the wall, roof and floor material of pithouses and pueblo rooms as well as the apparently re-deposited fill that was used to construct certain extramural features that are present at Old Town (e.g., Creel 1999b). For reasons that I discuss below, however, I am forced to make an exception to this criterion in the case of the McAnally site. Finally, there are a few apparently undisturbed contexts at some of these sites that contain material deposited over a very long span of time, and I exclude the samples from these contexts because they cannot be used to document fine-scale temporal changes.

Old Town

Old Town (LA 1113) is located in the open and arid southern portion of the Mimbres Valley at an elevation of about 1500 meters above sea level (Figure 4.1). The

main part of this site sits on a small bluff above the floodplain on the east side of the Mimbres River. Apart from the riparian zone adjacent to the river, vegetation in the area surrounding Old Town is characterized as a semidesert grassland community, and desertscrub communities are located within a few kilometers (Brown 1994; Brown and Lowe 1980). The archaeological research that has been conducted here is summarized in a series of yearly reports (Creel 1989, 1990, 1991, 1992, 1993, 1995, 1997b, 1998, 1999b), and parts of the site are also discussed by Creel (1999a) and Lucas (1996).

There are three main areas of architectural remains at Old Town. Area A, which sits on top of the steepest and highest part of the bluff, consists of Classic Mimbres phase surface rooms that overlie earlier pit structures, most of which appear to have been built during the Three Circle phase. Several Three Circle phase pit structures are also present in Area B, which is located approximately 75 meters to the northeast of Area A. Area C is located about 150 meters to the south of Area A. There is a Black Mountain phase pueblo here, below which are pit structures that date to the Late Pithouse period, and there is also evidence of an Early Pithouse period occupation in this part of the site. In addition, some testing of midden deposits has been conducted at the base of the bluff below Area A in a part of the site designated as Area D.

The faunal samples from Old Town that meet the criteria outlined above come from the proveniences ("analytic units") listed in Table 4.1, which are distributed across all four areas of the site. Most of these samples come from inside pit structures or surface rooms (both of which I call "rooms"), though one sample comes from the fill of an extramural pit, and a few come from outdoor midden deposits. Large midden areas

Table 4.1. Proveniences at Old Town with faunal samples used in this analysis. (See Table 2.1 for the phase name abbreviations used in this table and in all tables and figures that follow.)

Analytic Unit	Context	Chronometric Dates	Ceramic Age	Phase
Room A2 fill	room fill			TCM
Room A2 floor	room floor	A.D. 980-1150*		TCM
Room A7 fill	room fill	post-A.D. 1074**; post-A.D. 1107**		TCM
Room A7 floor feature	room floor feature	A.D. 990-1160*		TCM
Room A5 W: levels 2-5	room fill	A.D. 790-1000*	TC	TC
Room A5 W: levels 6-9	room fill		early TC	TC
Room A5 W: level 10	room floor		early TC	TC
Room A5 fill	room fill	A.D. 790-990*; A.D. 870-1010*		TC
Room A5 fill & floor	room fill & floor			TC
Room A47 fill	room fill			TC
Room A49 fill	room fill			TC
Room A59 fill	room fill			TC
Room A85 fill	room fill			TC
Room B2 fill	room fill	A.D. 790-1000*; A.D. 900-950***	early TC	TC
Room B2 floor	room floor		early TC	TC
Room B4 fill	room fill	A.D. 875-925****; A.D. 900-925****	early TC	TC
Room B4 floor feature	room floor feature		early TC	TC
Room B6 fill	room fill		early TC	TC
Room B8 fill	room fill	A.D. 897*****; A.D. 940-970****	TC	TC
Room B10 fill	room fill		TC	TC
Room B9 fill	room fill		TC	TC
Room B9 floor	room floor		early TC	TC
Room B11 fill	room fill	post-A.D. 881**; A.D. 900-950***	TC	TC
Room B11 floor feature	room floor feature		TC	TC
Room C2 floor feature	room floor feature	A.D. 1030-1250*; A.D. 1200-1225****		BM
Room C17 fill	room fill			EP/GT
Feature A81 fill	extramural pit fill			SF/TC
Area D zones 1-3	extramural midden		CM	TCM
Area D zone 4	extramural midden		TC & CM	TC/CM
Area D zone 5	extramural midden		SF & early TC	SF/TC

*AMS radiocarbon date on bone collagen (2-sigma calibration range); **tree ring non-cutting date; ***archaeomagnetic date range (dates taken on burned wall or floor plaster or on hearth adobe); ****tree ring cutting date. Tree ring and archaeomagnetic dates for rooms A7 and C2 come from Creel (1989a); those for structures in Area B come from Lucas (1998).

are rarely found at Mimbres Valley sites, and it appears that much of the trash at these sites was simply dumped into abandoned rooms (e.g., Anyon and LeBlanc 1984:31).

Within rooms, samples recovered from floor contexts and from floor features such as hearths and pits are distinguished from those that come from upper room “fill”. As I use the term, room fill consists of all of the deposits from the interiors of rooms that are not identified as being from floor or floor feature contexts, excluding any layers of collapsed construction material (i.e., roof fall or wall fall) that might be present. This room fill is likely the product of a combination of human and non-human depositional and transformational agents, and it cannot be assumed that the processes that produced this fill would have left the same kinds of faunal remains as the processes responsible for the material found on floors or in floor features. In other words, it is reasonable to expect that people may not have left large pieces of dead animals on the floors of their houses while they lived in them, but they might well have thrown all sorts of trash into abandoned houses. I explore this issue further in Chapter 5².

I have assigned the analytic units in Table 4.1 to phases, which are the primary units that I use to order faunal samples in time. I have used a variety of criteria to place analytic units into these phases, and I discuss these in detail next. I first briefly describe each of the proveniences listed here, noting the information about the ages of these proveniences that was available before I began this study. I then present the results of

² I make no distinctions in my analyses among rooms that may have served different functions because defensible determinations of function are not available for many of the rooms at the sites that I use.

analyses that I conducted in order to obtain additional information about the ages of selected contexts.

Rooms A2 and A7 are adjacent surface rooms located within a room block in Area A that has architecture and ceramics characteristic of the Classic Mimbres phase (Creel 1999a). Surface rooms at this site have been much more heavily affected by looting than have pit structures, and these are the only two excavated Classic phase rooms at Old Town that provide faunal samples from undisturbed contexts. Two tree ring samples that produced non-cutting dates of A.D. 1074 and A.D. 1107 were obtained from room A7; these samples came from disturbed fill, but it is thought that they relate to the construction or remodeling of this room (Creel 1992, 1999a).

Room A5 is a pithouse that underlies a Classic phase surface room (room A1) located just to the east of rooms A2 and A7. The ceramics in the fill of room A5 date primarily to the Three Circle phase, and the architecture of the structure also suggests that it was built during this time (Lucas 1996). The fill in this room was approximately one meter deep, and the structure was completely excavated; for these two reasons, A5 provides by far the largest faunal sample of any single room at Old Town. In addition, a portion of the undisturbed fill within this structure (designated as "subunit W") was excavated in 10 cm arbitrary levels, which may make it possible to observe short-term changes that occurred across the span of time represented by the fill of this room.

Rooms A47, A49, A59, and A86 are pit structures in Area A that have each been only partially excavated. These four rooms are all thought to date to the Three Circle phase based on stratigraphy, architecture and/or ceramics in post-abandonment fill

(Creel 1999b; Darrell Creel, personal communication, 2001). Several pit structures have also been excavated in Area B, including rooms B2, B4, B6, B8, B9, B10, and B11. The chronometric dates that are available for these structures (Table 4.1), as well as their architecture and the ceramics recovered within them, all indicate that these rooms were built and abandoned during the Three Circle phase (Lucas 1996).

Two rooms from Area C provide useful faunal samples. Room C2 is a surface room in a room block that dates to the Black Mountain phase (see Creel 1999a), and it is the only room from this phase at Old Town that provides a faunal sample from an undisturbed context. A hearth in this room produced an archaeomagnetic date with a range of A.D. 1200-1250 (Creel 1999a). Room C17 is a partially excavated pithouse that was found below a Black Mountain phase room (room C11) located to the north of C2. No chronometric dates are available for this room, but it is thought to date to either the Early Pithouse period or the Georgetown phase based on its round shape, which is characteristic of pit structures early in the Mimbres sequence (Creel 1995:19).

Finally, there are a few useful faunal samples from Old Town that do not come from room contexts. Feature A81 is an extramural pit that was probably used for storage. The upper portion of Feature A81 was truncated by the construction of a later pit structure (room A71), and the ceramics in the fill of this pit suggest that it dates either to the San Francisco phase or to the early part of the Three Circle phase (Creel 1999b:17). Two adjacent one-by-two meter test pits were dug into the stratified midden below the bluff in Area D, and these provide samples from the Three Circle and Classic Mimbres phases.

Previous dating efforts both at Old Town and at the other sites that I use have been directed primarily towards determining the dates at which structures were built and abandoned. This is, indeed, essential information, but for my purposes it is more important to know the ages of the animal bones that were found inside and around these structures than it is to know the ages of the structures themselves. To obtain tighter chronological control over these faunal samples, I use additional dating methods that I discuss next. These include obtaining radiocarbon dates directly from faunal specimens, attempting to obtain fluoride dates for faunal specimens, and performing quantitative analyses of the ceramics associated with selected faunal samples in order to date them more precisely than is otherwise possible.

Radiocarbon Dates from Faunal Specimens

Ten faunal specimens from Old Town were submitted for AMS radiocarbon dating of bone collagen (Table 4.2). For reasons discussed below, nine of these samples were portions of jackrabbit (*Lepus* sp.) tibiae, and one was a partial jackrabbit femur. To reduce the possibility of contamination, all but two of these specimens, which are noted below, were dated using only cortical bone. The collagen extraction and the AMS analyses were performed by Beta Analytic, Inc. Measurements of $^{13}\text{C}/^{12}\text{C}$ ratios relative to the PDB standard were taken on these specimens, and the conventional radiocarbon age values given in Table 4.2 are corrected for these measurements. Calibration of the radiocarbon ages into calendar years was performed by Beta Analytic using the INTCAL98 Radiocarbon Age Calibration program (Stuiver *et al.* 1998).

Table 4.2. AMS radiocarbon dates obtained from jackrabbit bone collagen samples from Old Town.

Specimen Number	Provenience	Laboratory Number	Conventional Radiocarbon Age (BP \pm 1 s.d.)	$^{13}\text{C}/^{12}\text{C}$ Ratio (‰)	Calibration Intercept (A.D.)	2 s.d. Calibration (A.D.)	Phase Designation
1919-60	Room C2 floor context	Beta-150886	890 \pm 40	-12.5	1180	1030-1250	CM
1902-4	Room A7 floor material	Beta-150887	890 \pm 40	-17.0	1090	890-1190	CM
343-2	Room A2 floor material	Beta-150884	1000 \pm 40	-16.6	1020	890-1080, 1080-1190	CM
87-305	Room A5 fill	Beta-150883	1110 \pm 40	-14.5	890	670-1010	TC
87-386	Room A6 fill	Beta-150882	1140 \pm 40	-13.8	900	790-990	TC
378-25	Room A6 W: level 6	Beta-150885	1130 \pm 40	-14.4	900	790-1000	TC
785-3	Room B2 fill	Beta-150888	1130 \pm 40	-16.4	900	790-1000	TC
3688-17	N. 991, W. 1027: level 3	Beta-155846	1080 \pm 40	-13.8	890	900-1030	TCM
3678-27	N. 991, W. 1027: level 17	Beta-155847	1480 \pm 40	-20.5	600	530-650	TC
4294-10	N. 992, W. 1029: level SE	Beta-150890	1280 \pm 40	-14.9	770	670-890	CM

These dates were obtained for two reasons. First, I wanted to ensure that the faunal specimens from key contexts were truly of the ages indicated by other criteria. Second, as I discuss below, I attempted to obtain fluoride dates from a larger number of faunal specimens, and I hoped to use radiocarbon dates taken on a subset of these to “calibrate” the fluoride dates into approximate calendar year values. The sampling strategy used to select bones for radiocarbon dating was thus a compromise between the goal of obtaining radiocarbon dates for specimens from the most useful contexts and the goal of obtaining radiocarbon dates that would allow me to calibrate the fluoride dates.

In order to reduce potential errors in the fluoride dating that might result from differential rates of fluoride absorption between the bones of different taxa or between different elements from the same taxon, only samples from a single element of a single taxon were used for radiocarbon dating, with one exception that I discuss below. Numbers of specimens of any individual element from artiodactyl taxa were far too small to allow this to be done, so all samples submitted were from jackrabbits, which

are the most abundant taxon present at Old Town. The tibia was used because this is the only jackrabbit element for which specimens large enough to be used for both radiocarbon and fluoride dating are abundant³. I was somewhat limited in the contexts for which I could obtain dates because large jackrabbit tibia specimens are not present in all proveniences, but I judged that this limitation was worthwhile given the increased precision of the fluoride dates that should have resulted from the use of a single element. I also attempted to select specimens for radiocarbon dating that would provide coverage of a range of time periods in order to facilitate calibration of the fluoride dates.

Listed in Table 4.2 is the provenience of each specimen that was radiocarbon dated, as well as the phase to which each provenience appears to date based on architectural and ceramic criteria and previously obtained chronometric dates. It can be seen that seven of the bone radiocarbon dates are consistent with these phase assignments, while three of them are not (see the phase age ranges in Table 2.1).

Four dates were obtained on specimens found in the fill of Three Circle phase rooms – three from room A5 and one from room B2 – and the 2-sigma ranges for all of these dates fall more or less entirely within the date range of the Three Circle phase. It is reasonable to conclude from these dates that the fill of these rooms dates mostly to the Three Circle phase, and the ceramic data that I discuss shortly strengthen this

³ AMS dating of bone collagen requires a sample that weighs at least 2 grams, and fluoride dating requires a sample that weighs at least 0.1 grams. A complete jackrabbit tibia weighs on the order of 6 or 7 grams, so approximately one-third of a complete tibia is necessary to obtain both a radiocarbon date and a fluoride date from a single specimen. Specimens that are unfragmented enough to be this large are rare in the Old Town assemblage.

conclusion. Also important is that the dates from room A5 are all similar, suggesting that the fill of this room contains material that dates to a relatively short time span.

Likewise, there are two dates taken on specimens that come from the floor construction material of the two Classic phase rooms whose samples I use, and the 2-sigma calibration ranges for these dates correspond more or less to the date range for the Classic phase⁴. As I discussed above, I do not include samples from floor construction material in my faunal analysis; rather, these samples were chosen for radiocarbon dating so that I would have samples that were likely to date to the Classic phase for use in calibrating the fluoride dates that I wished to obtain. These dates do not apply directly to the fill of these rooms, which should, of course, post-date the floors by some amount of time. As noted earlier, tree ring samples from the fill of room A7 suggest that this room was built or remodeled in the early A.D. 1100s.

One date was obtained on a specimen from either floor surface or roof fall context⁵ in room C2, which is part of the Black Mountain phase pueblo at Old Town. Due to its small size, this tibia specimen was dated using collagen from both the proximal epiphysis and the proximal portion of the shaft, whereas most of the radiocarbon samples discussed here were dated using only collagen from the cortical bone of the shaft. The cancellous material that is present in the ends of bones is more likely to be contaminated by the presence of such things as rootlets than is cortical bone, but no such contaminants were visible in this specimen, and the fact that the date from

⁴ The specimen from A2 was recovered from the third of five successive floors in this room, and the specimen from A7 was recovered from the uppermost floor in this room.

⁵ The roof fall in this room laid directly on top of the floor.

this specimen is consistent with a Black Mountain phase age suggests that contamination is not a problem here.

Three radiocarbon dates were obtained on faunal specimens recovered from extramural midden deposits located to the east of rooms A1 and A5. I had hoped that these deposits would provide useful faunal samples for my analysis, but the bone dates from them are inconsistent with the rest of the available information about their ages, indicating that they are unsuitable for inclusion in my analysis.

Two of these dates come from a test pit that is designated by its grid coordinates of N. 991, W. 1027. This unit was dug in 23 arbitrary levels to a depth of over one meter from the surface; the ceramics recovered from the upper levels suggest that they date to the Terminal Classic, while those from the lowest levels indicate a Three Circle phase age (Creel 1999b). The two jackrabbit bone dates that I obtained from this unit, however, are both considerably older than the ages suggested by the ceramics in the levels from which they come: the date from level 3 (near the top) is more consistent with a Three Circle phase age than a Terminal Classic age, and the date from level 17 (near the bottom) is more consistent with a Georgetown phase age than a Three Circle phase age. Because of these inconsistencies, which are most likely due to the complex stratigraphy of this area (e.g., Creel 1999b:figure 6), I do not include the faunal material from this excavation unit in the analyses that I discuss in the next chapter.

The date from level 3 of the N. 991, W. 1027 test pit comes from the shaft of a jackrabbit femur, and this is the only radiocarbon date that I obtained from an element other than the tibia. This sample was submitted because it was the largest jackrabbit

specimen recovered from the upper levels of this test unit and because neither of the radiocarbon samples from this unit were included in the fluorine analysis, thereby eliminating the need to use only tibiae.

Like the specimen from room C2, the specimen from level 17 of this test unit was dated using both cancellous and cortical bone, thereby increasing the chances of contamination. In addition, following the collagen extraction procedure, the material that remained from this partially burned specimen could not be positively identified as bone collagen, but only as burned organic material. If the burning of this specimen occurred much later than the date at which the animal from which it came died, then it is possible that younger organic material could have become incorporated into the material that was dated (Ron Hatfield, Beta Analytic, personal communication, 2001). However, the fact that the date obtained on this sample is older than expected, rather than younger, suggests that it has not been contaminated.

The final bone radiocarbon date comes from a test pit designated by its coordinates of N. 992, W. 1029. This unit, which is located very near the N. 991, W. 1027 test pit, was dug in 12 arbitrary levels. After four such levels had been excavated, it was recognized that the western half of the unit had been placed in a looter's pit, so, beginning with level 5, the disturbed material in the western portion of the pit was kept separate from the apparently undisturbed material in the eastern portion. I selected a specimen for radiocarbon dating from the eastern portion of level 5, which contained ceramics that suggested a Classic Mimbres phase age (Darrell Creel, personal communication, 2000).

Like the two dates from the N. 991, W. 1027 test pit, however, the date from this test pit is considerably earlier than the age that is indicated by the ceramic content of the level from which it came. This suggests that disturbance has affected the eastern portion of this unit in addition to the western portion, or at least that some of the bones from the disturbed part of the unit somehow became mixed with those from the undisturbed part. Because of this, I do not include the faunal samples from this test pit in my analysis.

Bone Fluoride Analysis

It is obvious from the radiocarbon data presented here that the 2-sigma ranges for these dates are so broad that they encompass basically the entire spans of time represented by the culture historical phases used in the Mimbres region. It would be easier for me to answer the research questions that I am addressing if a method were available that allowed deposits to be dated more precisely.

One method that has the potential to do this is fluoride dating, which is based on the fact that buried bones incorporate fluoride from surrounding sediments into their molecular structure over time (e.g., Oakley 1969; Schurr 1989). Because the amount of fluoride present in a bone is a function of the length of time that it has been buried, the fluoride content of bones can be used to date them. Researchers using this method to date leporid bones from an Early Agricultural period site in southern Arizona have reported obtaining precision on the order of 20 years or so (Gregory and Schurr 2000).

In addition, fluoride analysis is very inexpensive, allowing large numbers of faunal specimens to be directly dated at little cost.

To determine whether fluoride dating would work at Old Town, 20 specimens were submitted for analysis (Table 4.3). As discussed above, portions of eight of these specimens were also submitted for radiocarbon dating so that radiocarbon dates taken directly on the some of the same specimens that were fluoride dated could be used to calibrate the fluoride dates. Unfortunately, however, the fluoride content of these specimens does not correlate significantly with the radiocarbon dates, nor can fluoride content be used to differentiate bones deposited during different phases. It is possible that this failure is due to variability in the depositional contexts of the specimens that were dated, but it is also probably due in large part to low fluoride content in most of the bones that were analyzed.

The fluoride analysis of the Old Town specimens was performed by the Fluoride Dating Service Center at the University of Notre Dame. Twenty jackrabbit tibia samples were submitted, each of which weighed between 0.1 and 0.2 grams. To minimize potential error that might result from differential rates of fluoride absorption between different parts of the tibia, each sample was taken from cortical bone on the lateral side of the shaft between the proximal epiphysis and the point at which the fibula joins the tibia. Fluoride content (% fluoride by weight) was measured by ion selective electrode (Schurr 1989). For each specimen, one measurement of fluoride content was taken on each of three independent samples of bone powder, and the mean and the standard deviation of the three measurements for each specimen are given in Table 4.3.

Table 4.3. Results of the fluoride analysis of jackrabbit bones from Old Town. "Mean % Fluoride" is the mean of three independent measurements of fluoride content taken on each specimen, and "Standard Deviation" is the standard deviation of these three measurements.

Specimen Number	Provenience	Mean % Fluoride	Standard Deviation	Radiocarbon Calibration Intercept (A.D.)	Phase
1919-50	Room C2 floor context	0.082	0.0103	1180	BM
1919-51	Room C2 floor context	0.197	0.0292		BM
46-2	Room A2 floor material	0.072	0.0066		CM
343-2	Room A2 floor material	0.015	0.0004	1020	CM
1602-4	Room A7 floor material	0.032	0.0012	1030	CM
1598-39	Room A7 floor material	0.095	0.0168		CM
87-286	Room A5 fill	0.028	0.0026	900	TC
87-305	Room A5 fill	0.030	0.0029	960	TC
87-320	Room A5 fill	0.032	0.0024		TC
372-72	Room A5 fill W: level 4	0.036	0.0028		TC
378-24	Room A5 fill W: level 6	0.061	0.0011		TC
378-25	Room A5 fill W: level 6	0.029	0.0025	900	TC
785-3	Room B2 fill	0.055	0.0015	900	TC
1269-22	Room B4 fill	0.125	0.0062		TC
2593-1	Room B9 floor context	0.757	0.0270		TC
2636-1	Room B11 floor context	0.320	0.0078		TC
4284-10	N. 992, W. 1029: level 5	0.034	0.0044	770	SF
4284-11	N. 992, W. 1029: level 5	0.048	0.0054		unknown
1003-68	Room A6 subfloor	0.050	0.0023		unknown
1624-102	Room A7 subfloor	0.090	0.0061		unknown

Also provided in this table are the provenience of each specimen and the radiocarbon calibration intercepts for the subset of these specimens that were radiocarbon dated.

If the fluoride content of these specimens provides a useful measure of their age, then, among those specimens that were also radiocarbon dated, specimens with older radiocarbon dates should have higher fluoride contents. This does not appear to be the case. Figure 4.2 is a scatterplot of fluoride content against radiocarbon calibration intercept for these specimens. The correlation between these two variables is not statistically significant ($r = 0.49$, 2-tailed $p = 0.215$), but to the extent that a correlation does exist here, the direction that it takes is the opposite of what one would expect. The main reason for this appears to be that the youngest of these specimens, from the Black Mountain phase room C2, has the highest fluoride content.

Because this analysis includes specimens from three very different areas of the site, however, it is possible that these results might be affected by differences in the availability of fluoride in the sediments of each area. The modern vegetation growing in Area C, for example, is distinctly different from that in Area A, which may be due to differences in edaphic conditions between the two areas. To control for this potential source of error, I consider only the radiocarbon dated specimens from Area A, which has the most such specimens (Figure 4.3). The correlation between fluoride content and radiocarbon date takes the expected direction among these specimens, but this correlation is neither strong nor significant ($r = -0.53$, 1-tailed $p = 0.142$).

Notice, though, that there is a large difference in fluoride content between the two samples from the floors of Classic Mimbres phase rooms (A2 and A7), and that the

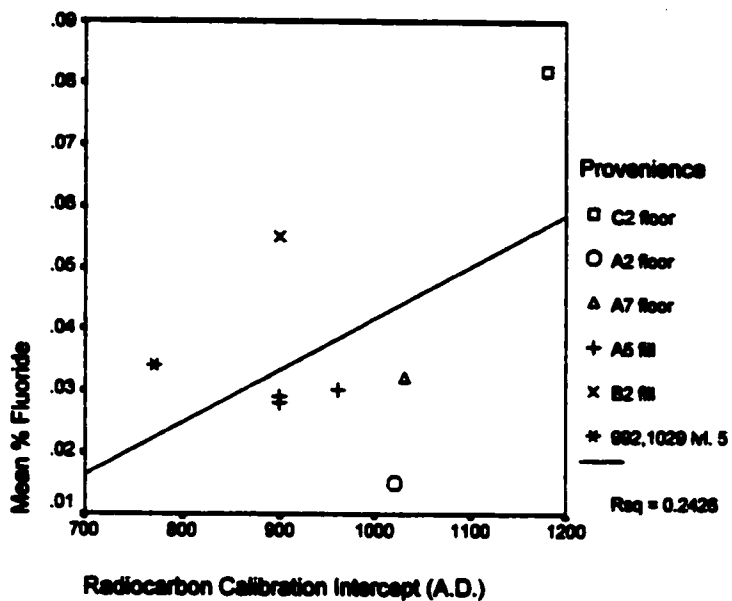


Figure 4.2. Relation between fluoride content and calibrated radiocarbon date for all jackrabbit specimens from Old Town submitted for both kinds of analysis ($r = 0.49$, 2-tailed $p = 0.215$).

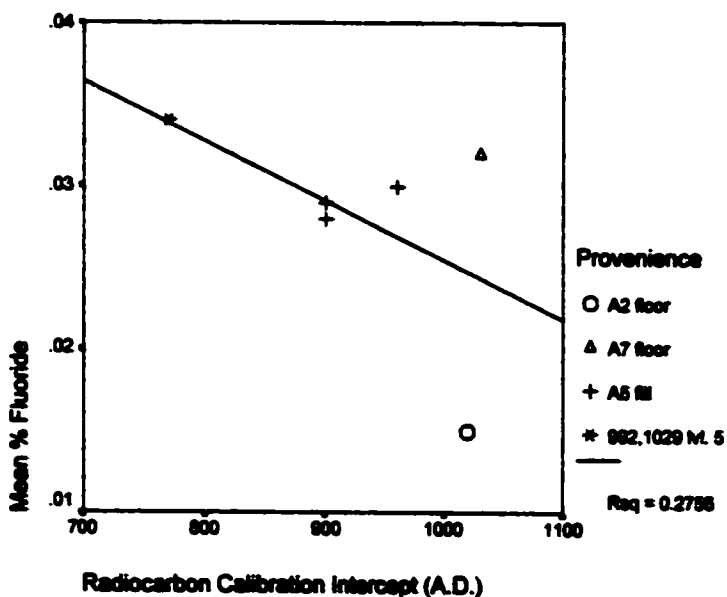


Figure 4.3. Relation between fluoride content and calibrated radiocarbon date for all jackrabbit specimens submitted for both kinds of analysis from Area A at Old Town ($r = -0.53$, 1-tailed $p = 0.142$).

fluoride content values of the three samples from the Three Circle phase fill of room A5 all fall between the values for the two Classic phase samples. This suggests that the range of variation in fluoride content among the samples from any single phase may be fairly large relative to whatever differences might exist between the combined mean values for any phase. If this were the case, then fluoride content would not be very useful for distinguishing between bones deposited during different phases at this site, and Figures 4.4 and 4.5 suggest that this is indeed the case.

Figure 4.4 is a boxplot of all fluoride samples grouped by phase, using the phase attribution for each sample that is shown in Table 4.3. These phase attributions are based on the radiocarbon dates discussed in the previous section and the ceramic analyses that I discuss below. The radiocarbon dated specimen from the N. 992, W. 1029 test pit is assigned to the San Francisco phase based on the radiocarbon date obtained from it. The specimen from the same level of this test pit that was not radiocarbon dated is treated as being from an unknown phase since it is possible that materials of greatly different ages are mixed in these deposits. Also treated as being from an unknown phase are two specimens recovered from below the floors of rooms A6 and A7, both of which date to the Classic phase. Large faunal samples are available from these two subfloor contexts, but the ceramics in these deposits indicate that they contain material that spans a very long period of time (Darrell Creel, personal communication, 2001). I had hoped that fluoride dating might provide more precise dates for bones from these contexts, but since this method not seem to work at Old Town, I do not include the samples from these contexts in my faunal analysis.

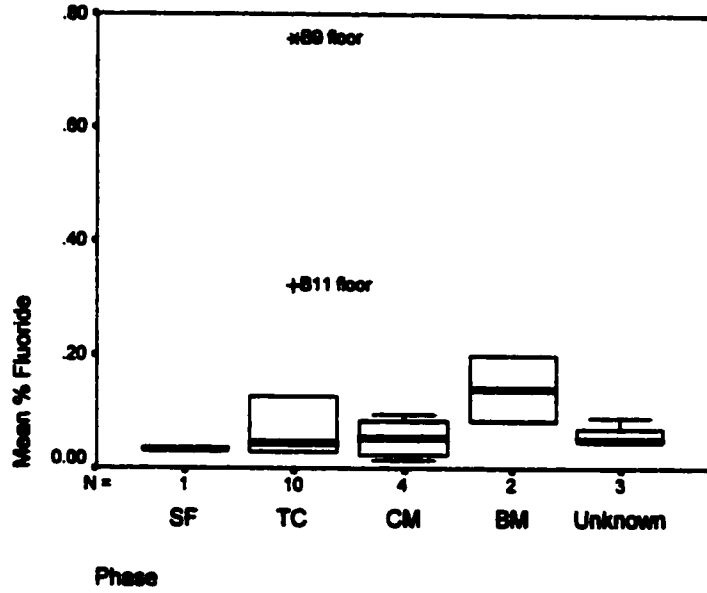


Figure 4.4. Boxplot showing the distribution of fluoride content values across all fluoride samples from each phase at Old Town ($F = 0.29, p = 0.832$).

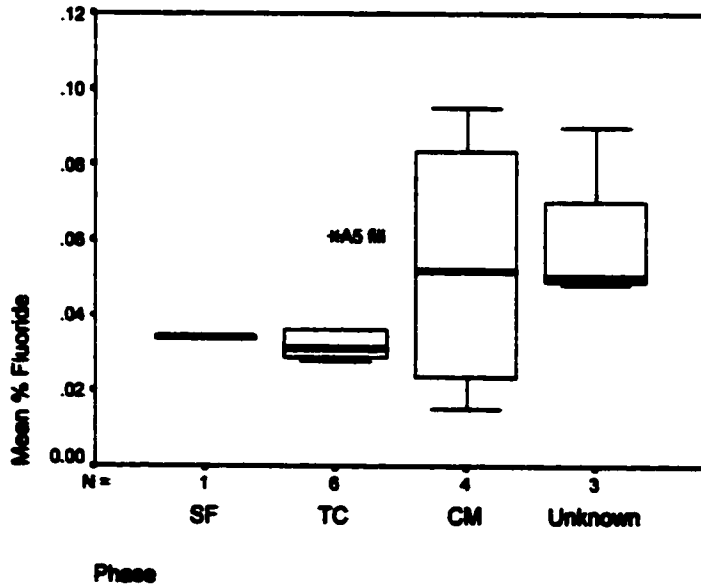


Figure 4.5. Boxplot showing the distribution of fluoride content values across samples dating to each phase from Area A at Old Town ($F = 0.67, p = 0.536$).

It is apparent from Figure 4.4 that there is a great deal of overlap in fluoride content among phases, and an analysis of variance conducted to test whether any significant differences exist here indicates that there is little basis for using fluoride content to distinguish between specimens from different phases ($F = 0.29$, $p = 0.832$; the “unknown” phase samples are not included in this analysis). As with the analysis presented in Figure 4.2, however, this analysis includes samples from three areas of the site, so it may be subject to error resulting from differences in sedimentological conditions among areas. To control for this, again I consider the data from Area A only, which are shown in Figure 4.5. There is still almost complete overlap among phases, and an analysis of variance still gives an insignificant result ($F = 0.67$, $p = 0.536$; as with the previous analysis, the “unknown” samples are not included here).

These results provide no basis for using fluoride content to date bones at Old Town, but it can be seen in Figure 4.4 that there are two samples from the Three Circle phase that contain much more fluoride than the rest of the samples from this site, and it is worthwhile to ask why this might be the case. Interestingly, both of these samples are from the floors of structures located in Area B, and these are the only two Three Circle phase samples that come from floor contexts. This raises the possibility that variability in depositional context might be an important factor in the fluoride content of bone specimens from Old Town.

To explore this possibility further, consider Figure 4.6, which is a boxplot of fluoride samples grouped by area, phase and context (samples of “unknown” phase are not included here). It can be seen again that the specimens from the floors of the Area

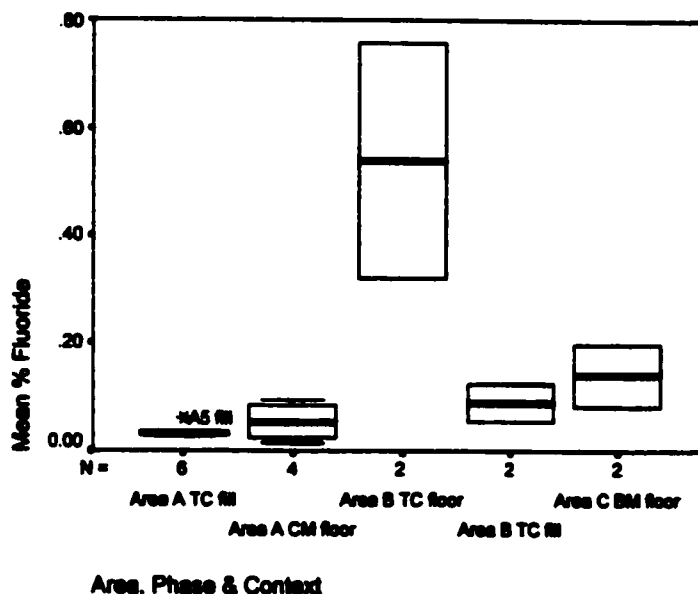


Figure 4.6. Boxplot showing the distributions of fluoride content values in Old Town samples grouped by area, phase and depositional context ($F = 10.38$, $p = 0.001$).

B structures are much higher in fluoride content than are any of the other specimens. An analysis of variance indicates that there are significant differences between groups when samples are grouped in this way ($F = 10.38$, $p = 0.001$), and this result is surely due primarily to the high fluoride content of the Area B floor specimens.

Specimens from floor contexts in Area B should be older than those from overlying room fill contexts, and it can be seen in Figure 4.6 that the fluoride content of the two floor context specimens from Area B is higher than that of the two specimens from fill context, as should be the case if fluoride content provided a measure of age. Other lines of evidence, however, including the chronometric dates discussed above and the ceramic data discussed below, indicate that the material in the fill of these rooms is at most 100 years or so older than the material on their floors. The difference in

fluoride content between specimens from these two contexts appears to be quite large for an age difference this small, considering that specimens from Area A that are known to vary in age by at least the same amount do not vary greatly in fluoride content.

It is possible that this large difference between the Area B floor and fill specimens is due to differences in sediment permeability between contexts. Buried bones absorb fluoride from groundwater percolating through sediments (Oakley 1969). Since floors constructed of materials such as adobe or stone are likely to be fairly impermeable, it seems reasonable to think that subsurface pooling of groundwater on room floors might have caused specimens recovered from floor contexts to have been exposed to fluoride for a longer percentage of the time that they were buried than would have been the case for specimens recovered from other kinds of contexts.

If this were the case, not only could this account for the large difference in fluoride content observed between the floor and fill samples from Area B, but it might also account for the apparent lack of difference between the Three Circle and Classic Mimbres phase samples from Area A. Since the Classic phase samples in this area are all from floor contexts, they may have absorbed fluoride at a faster rate than the Three Circle phase samples from this area, none of which are from floor contexts. This would make the Classic phase samples appear older than they really were. Note also that the Black Mountain phase specimens, which have the second highest combined mean fluoride content of any of the groups in Figure 4.6, are also both from floor context.

Regardless of whether this explanation for the apparent differences in fluoride content at Old Town is correct, however, almost all of the samples from this site contain

very little fluoride: the mean of the fluoride content values for all specimens excluding the two from floor context in Area B is only 0.06%. In contrast, in studies in which fluoride dating has been used with success, fluoride content is typically an order of magnitude higher than this (e.g., Gregory and Schurr 2000; Schurr 1989). It thus seems that, given the degree of variability among specimens of the same age and context, overall fluoride content in these samples is too low to distinguish between specimens of different ages, perhaps due to a low availability of fluoride in the sediments at Old Town. This would mean that fluoride dating would not be useful at this site even if the potential problem of variability among contexts were not an issue here.

Ceramic Dating of Selected Contexts

It is unfortunate that fluoride dating of bone does not appear to work at Old Town, but another dating method is available that can also provide much higher precision than radiocarbon. Mimbres painted pottery has been studied by dozens of researchers, and the ways in which design styles on this pottery changed over relatively short periods of time have been well-documented (e.g., Anyon and LeBlanc 1984; Haury 1936; Hegmon *et al.* 1999; Shafer and Brewington 1995; Shafer and Taylor 1986; Stokes 2000). The ceramics from the deposits whose faunal samples I analyze can thus be used to determine the ages of those faunal samples, if it can be assumed that the bones within a deposit were placed there during the same span of time in which the ceramics were deposited.

Table 4.4. Pottery types used in the ceramic analyses in this study (after Hegmon *et al.* 1999; Shafer and Brewington 1995)^a.

Pottery Type	Abbr.	Date Range (A.D.)	Phase(s)
El Paso painted + Chupadero Black-on-white	EP	post-1130	TCM
Mimbres Black-on-white Style III	S3	1010-1150 ^b	CM & TCM
Mimbres Black-on-white Style II	S2	880-1020	TC & CM
Mimbres Black-on-white Style I	S1	750-900	SF & TC
Three Circle Red-on-white	RW	730-770	SF
Mogollon Red-on-brown	RB	650-750	GT & SF

a. Because sherds from the sites that I use have not been identified to “microstyles” (e.g., “early Style II”, “late Style II”, etc.), I have combined the “microstyle” date ranges presented in Shafer and Brewington (1995) into broader ranges for the “macrostyles”. No sherds from the proveniences that I use have been identified to Shafer and Brewington’s “Style II/III” type (though many are identified as “indeterminate Style II or III”). I combine the few sherds from these proveniences that are identified as Mimbres Polychrome with the counts of Style III sherds.

b. Shafer and Brewington (1995) give an ending date of A.D. 1130 for Style III, but Hegmon *et al.* (1999) note that this type has been found in contexts dating to the late 1100s at sites to the east of the Mimbres Valley, and they suggest that it may have continued to have been produced in the valley until after 1150.

The pottery types that I use in my ceramic analysis and the date ranges for them are listed in Table 4.4; also shown here are the phases to which the types date. I include only painted pottery types in my analysis because these types are the most temporally sensitive and because proportions of painted wares relative to plain, textured and slipped wares might vary between proveniences for functional reasons, rather than for purely temporal reasons. For painted pottery types that belong to the traditional Mimbres-Mogollon sequence (i.e., those from Mogollon Red-on-brown through Mimbres Black-on-white Style III), I use the date ranges presented by Shafer and Brewington (1995). I only include sherds that are identifiable to a single one of these types in my analyses; that is, I do not include counts of sherds identified as “Style I or II” or “Style II or III”.

The painted pottery types that are used to identify Terminal Classic deposits post-dating A.D. 1130 are El Paso painted wares, which include both El Paso Black-on-red and El Paso Polychrome, and Chupadero Black-on-white (Hegmon *et al.* 1999; see also Creel 1999a). I combine counts of sherds of all of these types in my analyses because these types appear to have been used contemporaneously in the Mimbres Valley, and I do not include counts of unpainted sherds identified as El Paso based on their temper. Since I include only painted types in my analyses, it is possible that I could fail to identify deposits containing material dating to the Terminal Classic that would otherwise be identified as such based on significant abundances of unpainted wares such as Playas Red, but I discuss specific cases of this sort when they occur.

The goal of the ceramic analyses that I conduct is to assign deposits to time periods so that changes in faunal samples can be observed across those time periods. I call the time periods that I create “ceramic ages”, and the ceramic ages to which I assign selected proveniences at Old Town are shown in Table 4.1. For ease of presentation I name these ceramic ages after the culture historical phases used in the Mimbres region. It should be kept in mind, however, that in some cases the ceramic age groups that I create represent a span of time that is shorter than that of an entire phase, while in other cases these ceramic age groups may span parts or all of two or more consecutive phases.

The length of the time periods to which I am able to assign deposits is a function of two things: the number of pottery types found within them and the date ranges of those pottery types. Any deposit, of course, contains materials that date to some range of time, and deposits that span broader ranges of time should contain wider varieties of

pottery types. Most of the proveniences that I consider in this study contain at least two different pottery types in abundance, indicating that the material contained within them may have been deposited over a fair amount of time⁶. Even if only a single pottery type were present in a deposit, however, it would not be possible to assign that deposit to a time range any shorter than the period during which that pottery type was in use, and the date ranges of the pottery types that I employ all span at least a few decades.

Deposits could be assigned to time periods like the ones that I use based simply on visual inspection of the kinds of ceramics found within them. More useful results can be obtained, however, by performing quantitative analyses to evaluate the probability that any observed differences in ceramic content between deposits are simply the result of chance sampling factors. I thus employ chi-square tests, as well as the adjusted residuals from these tests, to aid in assigning proveniences to time periods. At all of the sites where I use this method to date deposits, the results of my ceramic analyses are consistent both with any stratigraphic relationships that exist among proveniences and with any chronometric dates that are available for them. There is thus good reason to think that these analyses order deposits in time accurately.

Sherd counts from Old Town were available to me for selected parts of the site, and I next discuss the data from each of these parts of the site individually.

⁶ Most of the proveniences that I include in my analysis contain small percentages of types that are either earlier than or later than the most abundant types. Because ceramic vessels might be "curated" for some length of time after they are produced, the presence of small amounts of an earlier pottery type in a deposit is not necessarily problematic. However, the presence of later types in a deposit that otherwise appears to be earlier has to mean that at least some later material is present in it.

Ceramic data from the midden at the base of the cliff in Area D are provided in Table 4.5. Two adjacent test units were excavated into these deposits, and natural strata, designated as zones 1 through 6, were identified within them⁷. Counts of the numbers of sherds of each pottery type found in each stratum are given in Table 4.5, and these counts are also displayed as percentages of the total sherd sample from each stratum. The table also lists the most common pottery type within each stratum and the range of types that occur at frequencies of 10% or higher within each stratum.

A chi-square test on the sherd counts in Table 4.5 shows that there are highly significant differences among strata in the abundances of the different pottery types ($\chi^2 = 221.86, p < 0.001$). The "significant residuals" column of this table lists the types in each zone that have adjusted standardized residuals with absolute values of 2.00 or higher, meaning that they fall two standard deviations or more away from the mean value of all residuals in the chi-square analysis. Types with significant positive residuals can be interpreted as being more abundant in a stratum than is expected given the size of the sample from that level and the overall distribution of sherds across pottery types for the entire midden, and types with significant negative residuals can be interpreted as being less abundant than expected within a stratum. It is apparent from the mode, range and residuals columns in this table that earlier pottery types are more common in the lower strata, while later types are more common in the upper zones.

Specifically, the upper three zones in this midden are dominated almost entirely by Mimbres B/W Style III, while Three Circle R/W and Mimbres B/W Style I are the

⁷ Zone 5 is not listed in Table 4.1 because no identifiable leporid or artiodactyl bones were found in it.

Table 4.5. Counts and percentages of sherds of each pottery type in each stratum of the Area D midden at Old Town. "Mode" refers to the most abundant type within each level, and "Range" refers to the range of types that occur at frequencies of 10% or higher. A chi-square test on the sherd counts in this table gives a result of $\chi^2 = 221.86$ ($p < 0.001$), and the pottery types within each level that produce adjusted standardized residuals with absolute values greater than or equal to 2.00 are listed as "Significant Residuals" ("+" = positive residual; "-" = negative residual). See Table 4.4 for the pottery type name abbreviations that are used in this table and in those that follow.

Zone	RW	S1	S2	S3	EP	Total	RW%	S1%	S2%	S3%	EP%	Mode	Range	Significant Residuals
1	0	0	0	21	0	21	0.0	0.0	0.0	100.0	0.0	S3	S3	S2 (-), S3 (+)
2	1	0	1	81	0	83	1.2	0.0	1.2	97.8	0.0	S3	S3	S1 (-), S2* (-), S3 (+)
3	1	2	0	60	0	63	1.6	3.2	0.0	95.2	0.0	S3	S3	S2 (-), S3 (+)
4	0	11	47	19	3	80	0.0	13.8	58.8	23.8	3.8	S2	S1-S3	S1 (+), S2* (+), S3 (-), EP (+)
5	0	1	0	0	0	1	0.0	100.0	0.0	0.0	0.0	S1	S1	S1 (+)
6	1	1	0	0	0	2	50.0	50.0	0.0	0.0	0.0	RW,S1	RW-S1	RW* (+), S1 (+), S3 (-)
Total	3	15	48	101	3	250	1.2	6.0	18.2	72.4	1.2			*Significant positive or largest negative residual

Table 4.6. Ceramic data for the Area D midden at Old Town aggregated into three groups of levels ($\chi^2 = 199.15$, $p < 0.001$).

Zone	RW	S1	S2	S3	EP	Total	RW%	S1%	S2%	S3%	EP%	Mode	Range	Significant Residuals
1 through 3	2	2	1	102	0	107	1.2	1.2	0.6	97.0	0.0	S3	S3	S1* (-), S2* (-), S3 (+), EP (-)
4	0	11	47	19	3	80	0.0	13.8	58.8	23.8	3.8	S2	S1-S3	S1 (+), S2* (+), S3 (-), EP (+)
5 and 6	1	2	0	0	0	3	33.3	66.7	0.0	0.0	0.0	S1	RW-S1	RW* (+), S1 (+), S3 (-)
Total	3	15	48	101	3	250	1.2	6.0	18.2	72.4	1.2			*Significant positive or largest negative residual

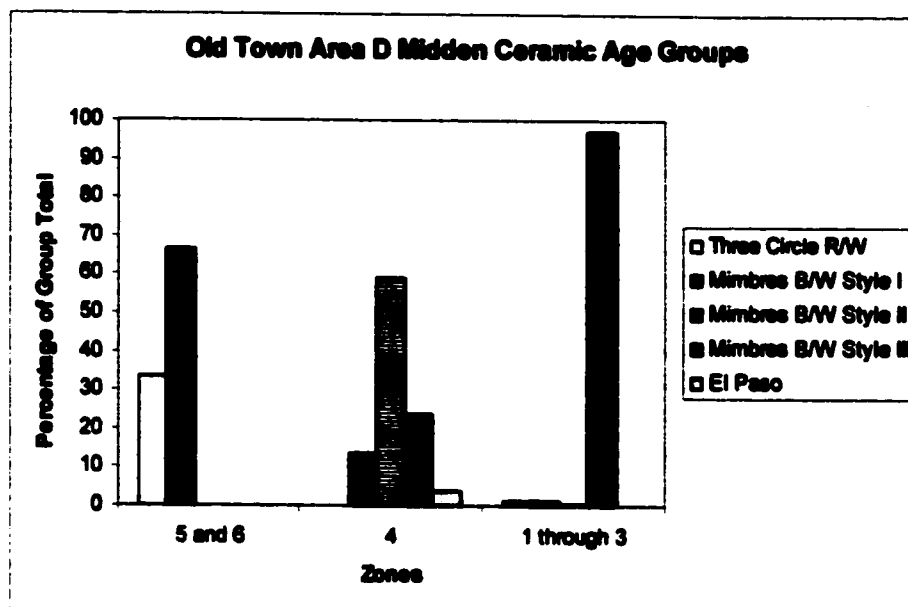


Figure 4.7. Frequency distributions of pottery types within the three groups of levels from the Area D midden at Old Town.

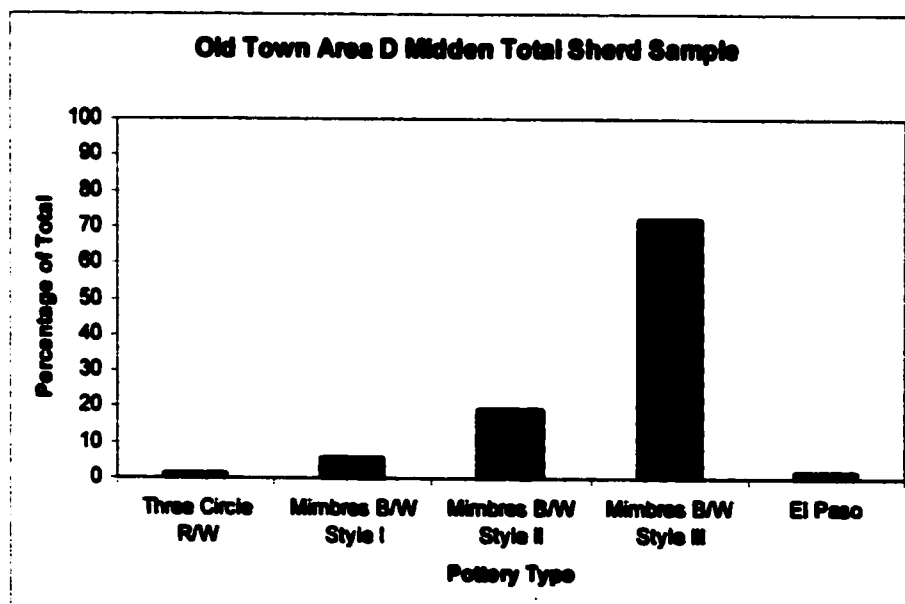


Figure 4.8. Frequency distribution of pottery types for the entire sherd sample from the Area D midden at Old Town.

only types that occur in the small samples of painted sherds from the two lowest zones. In order to assign zones to time periods, I thus present a second analysis in which the strata are aggregated into three groups: zones 1 through 3 are combined into one group, zone 4 constitutes the second group, and zones 5 and 6 make up the third group. The combined ceramic data for these groups of strata are found in Table 4.6. Figure 4.7 displays the ceramic frequencies for these groups graphically, and Figure 4.8 illustrates the distribution of sherds across pottery types for the entire sample from Area D.

A chi-square test on the sherd counts for these groups of zones again gives a highly significant result ($\chi^2 = 204.12, p < 0.001$), indicating that the differences in ceramic content among these groups are much more substantial than would likely result from chance. Moreover, the residuals from this test indicate that Style III is significantly over-represented in the upper group, whereas earlier pottery types are significantly over-represented in the two lower groups.

These results strongly suggest that real temporal differences exist among these groups of strata. In addition, these results can be used to assign the groups of strata to time periods. Because the sherd samples from zones 1 through 3 consist almost entirely of Style III, which dates to the Classic phase, I assign these strata to the ceramic age "Classic Mimbres". Since few sherds of earlier types are present here, it is unlikely that many of the bones in these deposits pre-date the Classic phase. Zone 4 is dominated by sherds of Style II, which dates mainly to the Three Circle phase, though substantial quantities of Styles I and III are also present, as are three sherds of El Paso painted ware. I thus assign this zone, which likely consists primarily of material dating to the

Three Circle and Classic phases, to the ceramic age “Three Circle and Classic Mimbres”. I assign the samples from zones 5 and 6 to the ceramic age “San Francisco and early Three Circle”. These strata contain only Three Circle R/W, which dates to the San Francisco phase, and Style I, which dates to the San Francisco phase and the early part of the Three Circle phase.

Table 4.7 presents ceramic data, which come from Lucas (1996), for the pit structures excavated in Area B. Mimbres B/W Styles I and II are the most abundant pottery types in this area, indicating that most of the material in these deposits likely dates to the Three Circle phase. This, of course, is consistent with all of the chronometric dates that are available for Area B. A chi-square test on the sherd counts, however, gives a significant result ($\chi^2 = 70.62, p = 0.002$), which suggests that there are important differences in ceramic content among the deposits in this part of the site.

It can be seen in Table 4.7 that Style I is the most abundant pottery type in some of these proveniences, while Style II is most abundant in others. Combining the analytic units that are dominated by Style I into one group and those dominated by Style II into another results in the sherd counts that are presented in Table 4.8 and illustrated in Figure 4.9; Figure 4.10 displays the distribution of sherds across types for the entire Area B ceramic sample. A chi-square test shows that the groups created by aggregating proveniences in this manner do differ significantly in ceramic content ($\chi^2 = 29.47, p < 0.001$), and the residuals from this test show that this result is due primarily to varying proportions of Style I and Style II between the two groups.

Table 4.7. Ceramic data for the structures excavated in Area B at Old Town ($\chi^2 = 70.62, p = 0.002$). Data are from Lucas (1996).

Archaeo Unit	RB	RW	S1	S2	S3	Total	RB %	RW %	S1 %	S2 %	S3 %	Mode	Range	Significant Features
Room B2 fill	2	0	23	8	5	38	5.8	0.0	63.9	18.7	13.6	S1	S1-S3	RB (+), S1* (+), S2 (-)
Room B2 floor	0	0	2	1	0	3	0.0	0.0	66.7	33.3	0.0	S1	S1-S2	none
Room B4 fill	0	7	23	16	5	51	0.0	13.7	45.1	31.4	9.8	S1	RW-S3	RW (+)
Room B4 floor	0	1	16	9	0	26	0.0	3.8	61.5	34.6	0.0	S1	S1-S2	S1 (+)
Room B6 fill	0	0	3	0	0	3	0.0	0.0	100.0	0.0	0.0	S1	S1	S1 (+)
Room B8 fill	1	1	16	28	4	49	2.0	2.0	30.8	57.1	8.2	S2	S1-S2	S2 (+)
Room B10 fill	0	0	2	3	0	5	0.0	0.0	40.0	60.0	0.0	S2	S1-S2	none
Room B9 fill	0	4	2	14	1	21	0.0	19.0	9.5	66.7	4.8	S2	RW-S2	RW* (+), S1 (-), S2 (+)
Room B9 floor	0	0	2	1	0	3	0.0	0.0	66.7	33.3	0.0	S1	S1-S2	none
Room B11 fill	0	1	2	10	3	16	0.0	6.3	12.5	62.5	18.8	S2	S1-S3	S1 (-)
Room B11 floor	0	0	6	11	0	17	0.0	0.0	35.3	64.7	0.0	S2	S1-S2	none
Total	3	14	96	99	18	230	1.3	6.1	41.7	43.0	7.8			*based on the method

Table 4.8. Ceramic data for the Area B structures at Old Town aggregated into two ceramic age groups ($\chi^2 = 29.47, p < 0.001$).

Mode	RB	RW	S1	S2	S3	Total	RB %	RW %	S1 %	S2 %	S3 %	Mode	Range	Significant Features
Style II	1	6	27	66	8	108	0.9	5.6	25.0	61.1	7.4	S2	S1-S2	S1 (-), S2 (+)
Style I	2	8	69	33	10	122	1.6	6.6	56.6	27.0	8.2	S1	S1-S2	S1 (+), S2 (-)
Total	3	14	96	99	18	230	1.3	6.1	41.7	43.0	7.8			

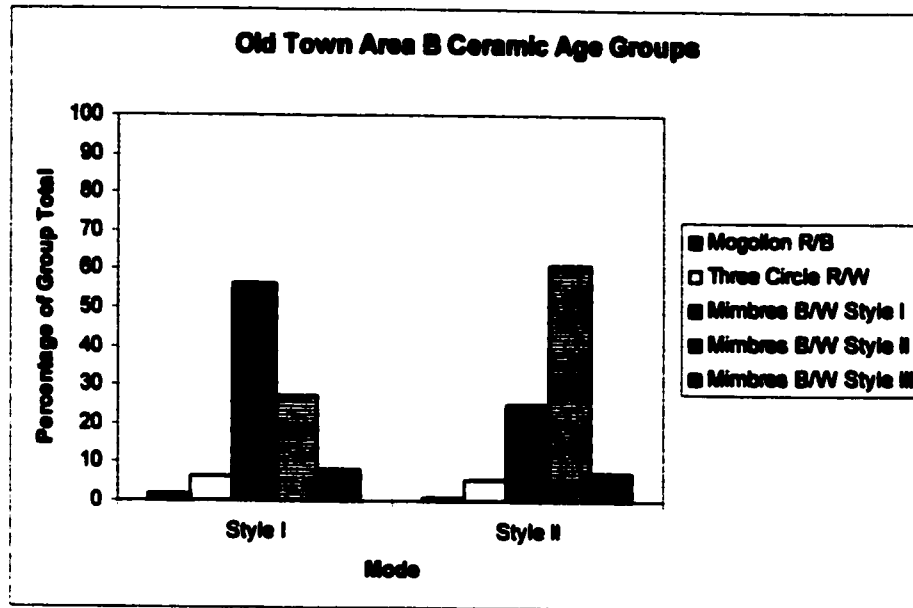


Figure 4.9. Frequency distributions of pottery types within the two ceramic age groups created for the Area B structures at Old Town.

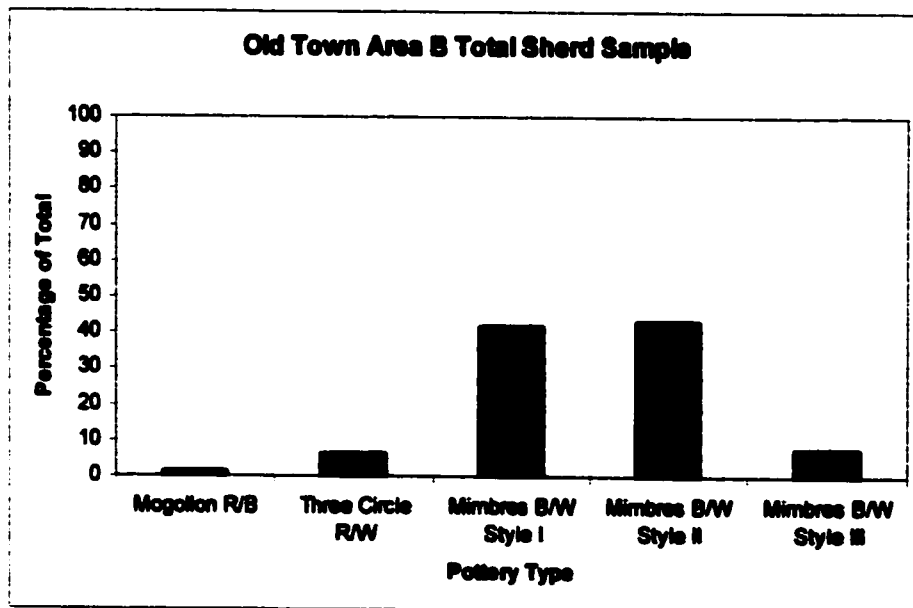


Figure 4.10. Frequency distribution of pottery types for the entire sherd sample from the Area B structures at Old Town.

I assign all of the deposits in Area B to the Three Circle phase because the material contained in these deposits appears to date mostly to this phase. However, because there are significant differences in ceramic content among these deposits, I assign them to two separate ceramic age groups. Proveniences dominated by the earlier Style I are assigned to the age group “early Three Circle”; some of the material in these analytic units may also date to the San Francisco phase. Proveniences dominated by the later Style II are assigned to the age group “Three Circle”. In Chapter 5, I use these two ceramic age groups to determine whether any changes in faunal samples are apparent within the span of time represented by the Three Circle phase.

To support the idea that the difference in ceramic content between these two groups does represent a real temporal difference, I note that the results of my ceramic analysis are consistent with all of the stratigraphic relationships that exist among the analytic units in this area (see Table 4.1). Wherever there is both a fill deposit and a floor or floor feature deposit from the same room, the ceramic analysis assigns the fill deposit either to the same age group as the floor deposit (rooms B2, B4 and B11), or it assigns the fill deposit to the later age group (room B9). In addition, there are direct stratigraphic relationships among two pairs of rooms – B6 was built above B4 and B11 was built above B9 – and the ceramic results agree with these relationships.

As with the deposits in Area B, the fill inside room A5 may also provide faunal samples that can be used to explore whether any changes occurred across the period of time spanned by the Three Circle phase. As I discussed earlier, three radiocarbon dates were obtained on bones recovered from the fill of A5, and the 2-sigma ranges for these

dates all fall squarely within the Three Circle phase. In addition, the architecture of this pithouse and the ceramics recovered from it both suggest that the structure and the fill within it date to this phase. The important issue thus becomes whether the material at the bottom of this unit is substantially older than the material at the top, thus providing a glimpse at changes during the Three Circle phase, or whether objects at the top and the bottom of this unit are all essentially of the same age.

The deposits between the floor of this pit structure and the overlying surface room A1, which dates to the Classic phase, were approximately one meter deep. A portion of the undisturbed deposits within this room were designated as excavation subunit W, and this unit was dug in 10 cm arbitrary levels. Sherd counts for these levels are presented in Table 4.9⁸.

A chi-square test on these sherd counts does not indicate that there are any significant differences in ceramic content among the levels in this unit ($\chi^2 = 26.43, p = 0.549$). The sherd sample from each level is very small, however, and this insignificant result may be due to small sample sizes rather than to a true absence of chronological differences. To explore this possibility, I aggregate the levels into two groups, placing the division midway down the column between levels 5 and 6. The sherd counts for these groups are given in Table 4.10, these counts are illustrated in Figure 4.11, and the frequency distribution for the entire subunit W sherd sample is shown in Figure 4.12.

⁸ Level 1 in this unit contained some material that originated from room A1, so I do not include this level in my either my ceramic or my faunal analyses. Level 8 is not included in my ceramic analysis because no painted sherds were recovered from this level, but there is a faunal sample from this level. Level 10 includes material recovered from the floor of room A5.

Table 4.9. Ceramic data for the levels of excavation subunit W in room A5 at Old Town ($\chi^2 = 26.43, p = 0.549$).

Level	RB	RW	S1	S2	S3	Total	RB %	RW %	S1 %	S2 %	S3 %	Mode	Range	Significant Residuals
2	0	0	2	1	0	3	0.0	0.0	66.7	33.3	0.0	S1	S1-S2	none
3	0	0	1	6	2	9	0.0	0.0	11.1	66.7	22.2	S2	S1-S3	none
4	0	0	2	4	0	6	0.0	0.0	33.3	66.7	0.0	S2	S1-S2	none
5	1	0	2	2	1	6	16.7	0.0	33.3	33.3	16.7	S1,S2	RB-S3	RB (+)
6	0	1	2	3	0	6	0.0	16.7	33.3	50.0	0.0	S2	RW-S2	none
7	0	2	1	3	2	8	0.0	25.0	12.5	37.5	25.0	S2	RW-S3	none
9	0	1	1	0	0	2	0.0	50.0	50.0	0.0	0.0	RW,S1	RW-S1	RW (+)
10	0	0	1	0	0	1	0.0	0.0	100.0	0.0	0.0	S1	S1	none
Total	1	4	12	19	5	41	2.4	9.8	29.3	46.3	12.2			

Table 4.10. Ceramic data for subunit W in room A5 at Old Town aggregated into two groups of levels ($\chi^2 = 7.12, p = 0.130$).

Levels	RB	RW	S1	S2	S3	Total	RB %	RW %	S1 %	S2 %	S3 %	Mode	Range	Significant Residuals
2 through 5	1	0	7	13	3	24	4.2	0.0	29.2	54.2	12.5	S2	S1-S3	RW (-)
6 through 10	0	4	5	6	2	17	0.0	23.5	29.4	35.3	11.8	S2	RW-S3	RW (+)
Total	1	4	12	19	5	41	2.4	9.8	29.3	46.3	12.2			

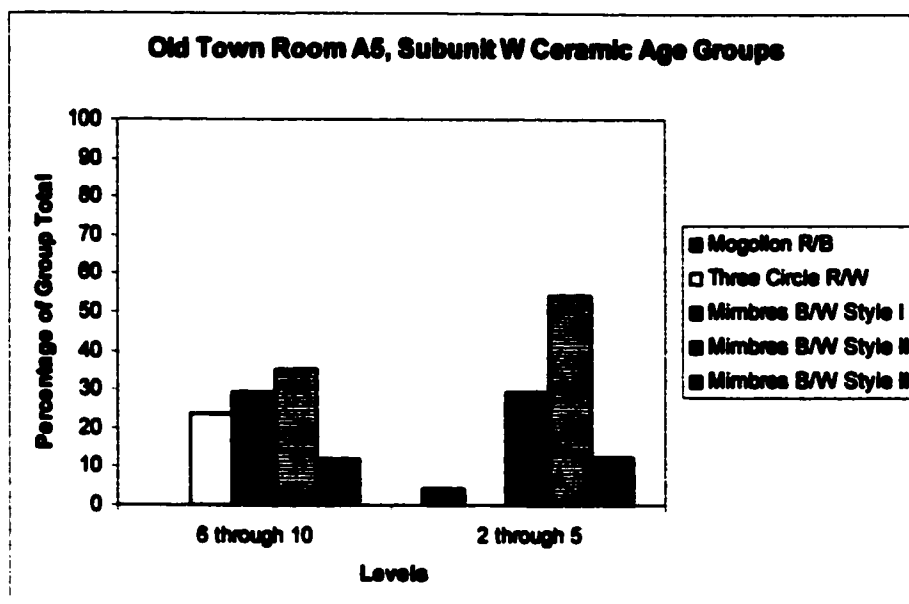


Figure 4.11. Frequency distributions of pottery types within the two groups of levels from subunit W in room A5 at Old Town.

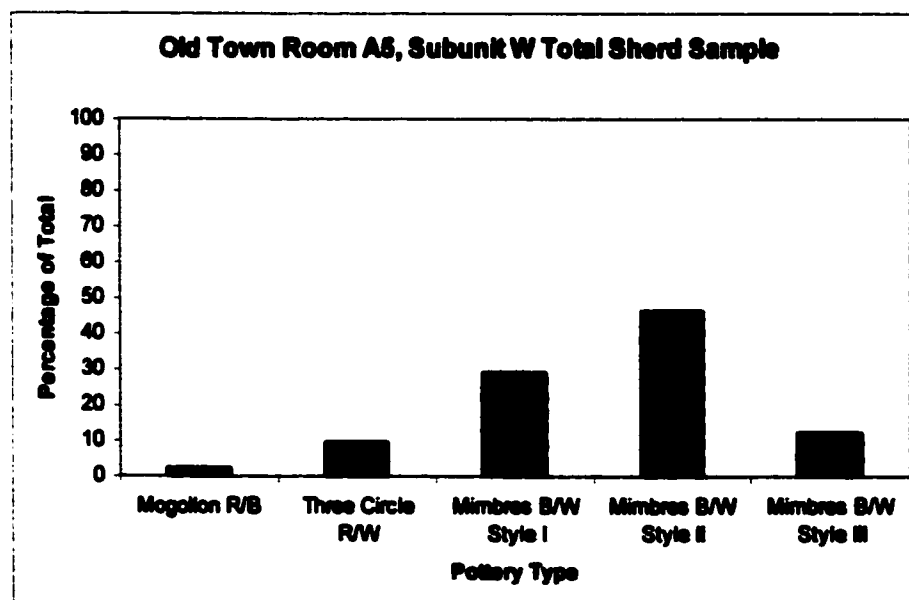


Figure 4.12. Frequency distribution of pottery types for the entire sherd sample from subunit W in room A5 at Old Town.

A chi-square test still does not yield a significant result when the levels are grouped in this way ($\chi^2 = 7.12, p = 0.130$). However, the Three Circle R/W pottery type does produce significant residuals: this type is over-represented in the lower levels and under-represented in the upper levels. In addition, although the residuals for Style II are not significant, this type is more abundant in the sample from the upper levels than it is in the sample from the lower levels. Thus, despite the fact that there is no statistically significant overall difference in ceramic content between these groups, the differences that do appear here are consistent with the lower levels being older, and these differences might become statistically significant were larger samples available. Because Three Circle R/W is over-represented in the lower levels, I assign these levels to the ceramic age group "early Three Circle". The upper levels I assign to the age group "Three Circle"; note that sherd frequencies in this group of levels closely resemble those in the group of proveniences from Area B that are dominated by Style II.

Finally, to evaluate whether the ceramic age groups that I have created for all of these proveniences do truly differ in ways that likely reflect differences in age, I present an analysis of the combined sherd samples for each group. Sherd counts for each of the analytic units assigned to a given ceramic age group (see Table 4.1) were added together, and these data are shown in Table 4.11. Sherd frequency distributions for each age group are displayed graphically in Figure 4.13, and Figure 4.14 presents the frequency distribution for the total sample from all of the Old Town analytic units that are included in this analysis. A chi-square test on the aggregated counts gives a highly significant result ($\chi^2 = 450.96, p < 0.001$), and the residuals exhibit a perfect progression

Table 4.11. Combined sherd counts for the ceramic age groups created for Old Town ($\chi^2 = 486.56, p < 0.001$).

Age Group	SP	RP	PI	IS	IP	TP	TP%	RP%	PI%	IS%	IP%	SP%	Phase	Provenience	
CM	0	2	2	1	162	0	167	0.0	1.2	1.2	0.0	67.0	0.0	S3	S3
TC & CM	0	0	11	47	18	3	69	0.0	0.0	13.8	66.8	23.8	3.8	S2	RW (-), S1 (+), S2* (-), S3 (+)
TC	2	6	34	76	11	0	132	1.8	4.8	26.8	66.8	8.3	0.0	S2	S1-S2
early TC	2	12	74	38	12	0	138	1.4	8.6	63.2	26.1	8.6	0.0	S1	S1-S2
SF & early TC	0	1	2	0	0	0	3	0.0	33.3	66.7	0.0	0.0	0.0	S1	RW (+), S1* (+), S3 (-)
Total	2	21	123	168	204	3	377	0.0	4.9	23.6	31.9	38.2	0.0		

from youngest to oldest in the type that is most over-represented within each group.

These groups thus do seem to capture differences in age quite well.

Summary of the Dating of Old Town Proveniences

I conclude my discussion of the Old Town site by summarizing the dating of the analytic units that I include in my study (see Table 4.1). As I noted earlier, chronometric dates are available for some of these proveniences, and I was able to assign selected proveniences to ceramic age groups based on the sherd counts for them. However, not all analytic units were included in my ceramic analysis, nor do chronometric dates exist for all of them. I thus assign all proveniences to phases, shown in Table 4.1, taking into account all of the available information about the ages of these proveniences. In the next chapter I first use these broad phase age groups to examine whether any changes over time are apparent in faunal samples from Old Town, keeping in mind that some of the proveniences that I use are more securely dated than are others. I then explore whether any changes are evident across the subset of these faunal samples that can be dated more precisely using the results of my ceramic analyses.

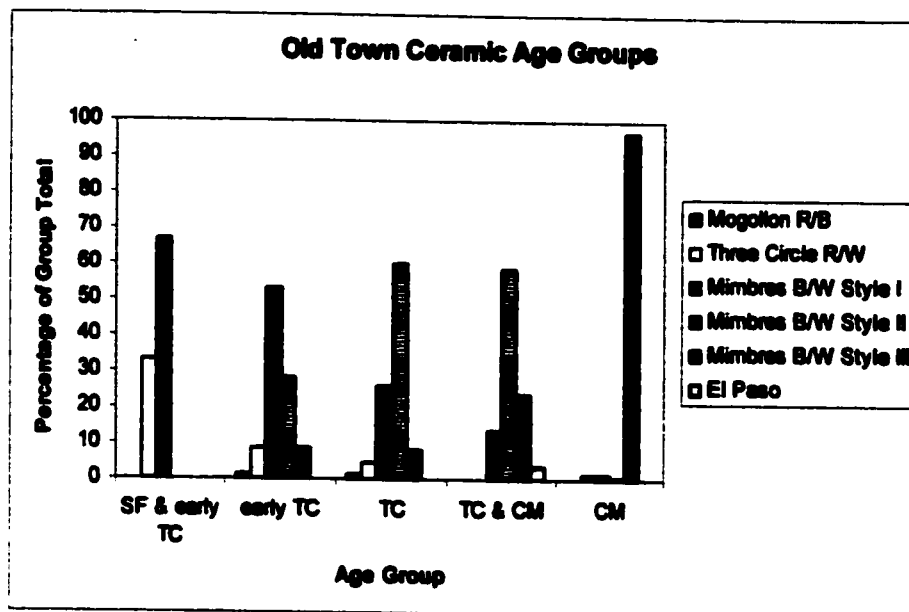


Figure 4.13. Frequency distributions of pottery types within the ceramic age groups created at Old Town.

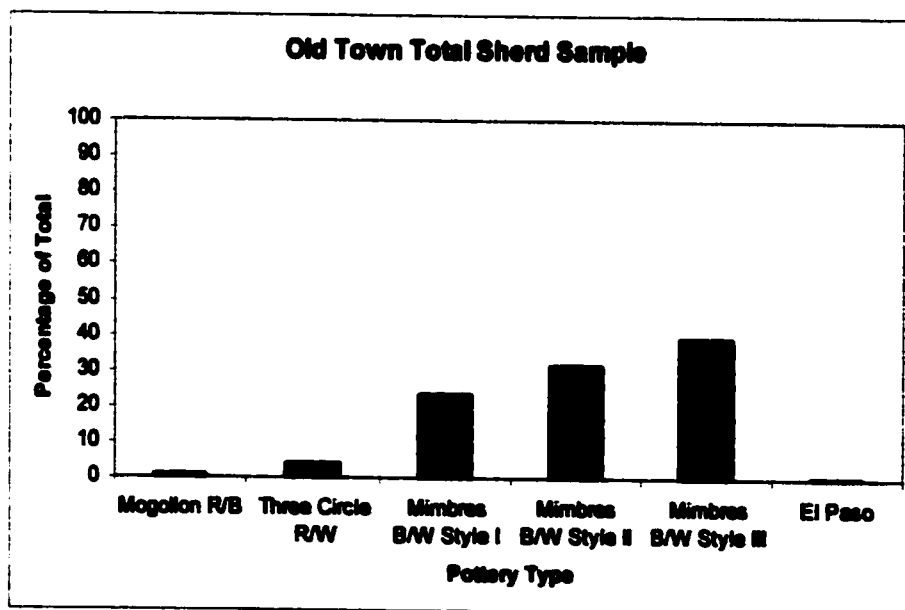


Figure 4.14. Frequency distribution of pottery types for the combined sherd sample from all proveniences assigned to ceramic age groups at Old Town.

Room C17, a pit structure that was only partially excavated, appears to provide the earliest faunal sample from Old Town. As I noted earlier, this structure is thought to have been built during the Early Pithouse period or the Georgetown phase based on its shape (Creel 1995:19). No chronometric dates are available for this room, much less for fill contained within it, but ceramics observed on the surface of Area C suggest that there was an Early Pithouse period occupation somewhere in this part of the site (Creel 1993:8). I thus treat the faunal sample from the fill of this room as being "Early Pithouse or Georgetown" in age; this phase attribution is not nearly as secure as it could be, but there is a good chance that this material pre-dates the San Francisco phase.

The next oldest samples apparently come from zone 6 of the Area D midden and from Feature A81. As I discussed above, the ceramics from the lowest zones in Area D suggest that these strata contain material that dates to the San Francisco phase and possibly also to the early Three Circle phase. Feature A81 is an extramural pit that was likely used for storage, and large outdoor pits like this seem for the most part to pre-date the Classic phase in the Mimbres region (e.g., Creel 1995:17-18; Anyon and LeBlanc 1984). The meager ceramic sample recovered from the fill of this feature suggests that it is of roughly the same age as the lowest strata of the Area D midden (Creel 1999b:17): along with several unpainted sherds, one Three Circle R/W sherd and one Mimbres B/W sherd of indeterminate style were found inside it.

Most of the proveniences with useful faunal samples at Old Town date to the Three Circle phase. Chronometric dates and ceramic content place the deposits from room A5, as well as those from all of the Area B structures, firmly within the date range

of this phase. The remaining analytic units that I assign to this phase are the fill deposits from rooms A47, A49, A59, and A86, all of which are thought to be Three Circle in age based on stratigraphic, architectural and artifactual criteria (Creel 1999b; Darrell Creel, personal communication, 2001). Because no chronometric dates or quantitative ceramic data are available for the fill of these rooms, however, my attribution of this material to the Three Circle phase is obviously not entirely secure. Zone 4 in the Area D midden contains high percentages of ceramics dating to both the Three Circle and the Classic phases, so I consider this stratum to be "Three Circle and Classic Mimbres" in age.

It is safe to think that rooms A2 and A7 are Classic Mimbres in age based on both architectural criteria and chronometric dates. Since the faunal samples that I use from these rooms come from deposits that do not appear to have been disturbed, there is good reason to think that these samples also date to this period. It is possible, however, to narrow the age of these deposits down more precisely. Creel (1999a) notes that sherds of Playas Red and El Paso brown ware, pottery types that are both thought to date to the Terminal Classic, were found in the floor adobe of these rooms. Together with the non-cutting date of A.D. 1107 produced by the tree ring sample from the fill of room A7, the presence of these sherds suggests that these rooms were occupied during the Terminal Classic, and the 2-sigma ranges for the radiocarbon dates on bones from the floors of these rooms are consistent with this. I thus assign the faunal samples from these rooms to the Terminal Classic because this material should post-date the last

occupation of these rooms, and because there is no evidence of any Black Mountain phase occupation in this part of the site (Creel 1999a).

The ceramics in zones 1 through 3 of the midden in Area D consist almost entirely of Style III, indicating that little of the material in these deposits pre-dates the Classic phase. There are no sherds of painted Terminal Classic pottery types in these strata, but one Playas sherd is present in them, and El Paso painted sherds are present in zone 4. Moreover, Creel (1999a) notes that Terminal Classic ceramics are abundant throughout Area A, which is located on top of the bluff directly above the midden deposits in Area D, suggesting that much of the activity in Area A took place fairly late. Because there is little basis for considering the material in the upper deposits of Area D to be substantially earlier than the material from the rooms in Area A, I treat these deposits as also being Terminal Classic in age.

Finally, the faunal sample from floor features in room C2 is well-dated to the Black Mountain phase. There is both a radiocarbon date obtained on a jackrabbit bone from this room and an archaeomagnetic date on a hearth in this room that are consistent with this phase assignment, and the room has not been badly disturbed by pothunting (Creel 1999a).

Mimbres Foundation Sites

In addition to the faunal assemblage from Old Town, I also include the assemblages from Galaz, Mattocks and McAnally in my study. The material that I use

from these sites comes from excavations conducted during the 1970s by the Mimbres Foundation research group.

These three sites are all located much further up the valley than is Old Town (see Figure 4.1) in a natural setting that is somewhat different. Like Old Town, Galaz and Mattocks are located in a semidesert grassland biotic community (Brown 1994; Brown and Lowe 1980), but these sites sit at elevations that are respectively about 200 and 300 meters higher than that of Old Town. Foothills covered by pinyon-juniper woodland are quite close by, and McAnally itself is located on top of a small hill near Mattocks within this woodland community. Ponderosa pine-dominated forests also occur at higher elevations within 15 kilometers of all of these sites. As I note in Chapter 5, the differences in environmental setting between Old Town and the Mimbres Foundation sites are reflected in the faunal samples from them.

I next discuss the depositional context and the dating of the faunal samples that I use from each of these three sites individually. Several chronometric dates are available for the proveniences from Galaz and Mattocks that I include in my study, and ceramic dating is particularly useful at these two sites. The assemblage from McAnally is unique both because this site provides the earliest material that I include in my analysis and because only limited excavation was conducted here.

Galaz

Galaz (LA 635) was located on the west side of the Mimbres River on the first terrace above the river's floodplain. The site effectively no longer exists, having been

completely bulldozed by pothunters, but Mimbres Foundation researchers were able to work here while the site was in the process of being dismantled. The archaeological research that has been conducted at this site is reported by Anyon and LeBlanc (1984).

Present at Galaz were pit structures dating to the Late Pithouse period, a Classic Mimbres phase pueblo that was also occupied during the Terminal Classic, and a later pueblo that appears to date to the Black Mountain phase (Anyon and LeBlanc 1984; Hegmon *et al.* 1999). Two research projects carried out at Galaz in the late 1920s and early 1930s excavated both surface rooms and pithouses, but the Mimbres Foundation project, which recovered the faunal assemblage that I study here, was able to excavate only pit structures and storage pits. As I discuss below, however, not all of the material recovered from inside these features dates to the Late Pithouse period: some also appears to date to the Classic Mimbres phase and some to the Terminal Classic.

The Galaz faunal samples that meet the criteria outlined at the beginning of this chapter come from the proveniences listed in Table 4.12. The Mimbres Foundation defined analytic units, designated by capital letters, that correspond to depositional units within the features that they excavated (see Anyon and LeBlanc 1984). I use these analytic units here, though I note that I do not always include all of the material from an analytic unit in my study: I exclude faunal samples from portions of deposits that were not screened and samples from layers of construction fill that are combined with other material to form an analytic unit (see Appendix B). The context of each analytic unit is presented in Table 4.12, and the context categories that I use here are the same as those that I use for Old Town. Unlike the way in which I treated room fill at Old Town,

Table 4.12. Proveniences at Galaz with faunal samples included in this analysis. The analytic units that I use are those defined by Anyon and LeBlanc (1984).

Analytic Unit	Abbr.	Context	Chronometric Dates	Ceramic Age	Phase
Communal Structure 8 A	8A	room floor feature	A.D. 650 +/- 60*	GT & SF	GT/SF
Communal Structure 8 C	8C	room fill		GT & SF	GT/SF
Communal Structure 8 D	8D	room fill		GT & SF	GT/SF
Pithouse 1 A	1A	room floor feature	A.D. 856**		TC
Pithouse 1 B	1B	room floor		TC (& CM)	TC
Pithouse 1 E	1E	room fill		TC (& CM)	TC
Pithouse 18 D	18D	room fill	post-A.D. 866***	TC (& CM)	TC
Pithouse 18 E	18E	room fill		CM (& TC)	CM
Pithouse 27b D	27D	room fill		TC (& CM)	TC
Pithouse 29 A	29A	room floor feature	A.D. 870**	TC (& CM)	TC
Unit 28 B	28B	extramural pit fill		CM (& TC)	CM
Unit 28 C	28C	extramural pit fill		CM (& TC)	CM

*Radiocarbon date on roof beam (calibrated intercept +/- 1-sigma?); **tree ring cutting date; ***tree ring non-cutting date. All chronometric dates are from Anyon and LeBlanc (1984).

though, the Mimbres Foundation often defined more than one analytic unit for such deposits: for example, 8C is the lower fill in room 8, while 8D is the upper fill⁹.

Chronometric dates are available for some of the proveniences at Galaz that I include in my faunal study, and I supplement these dates with a quantitative analysis of the ceramics recovered from all of the proveniences that I use. I employ this information to assign the analytic units in Table 4.12 to phases, which I use to arrange faunal samples in time in the following chapter. I next briefly describe these analytic units and the chronometric dates that exist for them, and I then discuss my ceramic dating analysis.

Excavation unit 8 at Galaz is a round pit structure that was identified as a communal or ceremonial structure based on its large size and its apparently lobed entry

⁹ The letters for the analytic units within a feature are arranged from bottom to top: A is below B, etc.

way¹⁰. Anyon and LeBlanc (1984:121) suggest that the ceramics recovered from this room indicate that it was built during the Georgetown phase, and they also note that a radiocarbon date of A.D. 650 +/- 50 was obtained on a roof beam from the structure. As I discuss below, however, the ceramics from room 8 are consistent with a date in either the Georgetown or the San Francisco phase. In addition, taking the radiocarbon date from this room at face value¹¹, I note that the 2-sigma range for this date is also consistent with construction during either of these two phases.

Pithouses 1, 18, 27b¹², and 29 all appear to have been built during the Three Circle phase. Tree ring dates that indicate construction during this phase are available for three of these structures, and all four of them are rectangular in shape, as most Three Circle phase pithouses are. The ceramics recovered from the fill of these rooms are also consistent with construction during the Three Circle phase, though, as I note shortly, some material dating to the Classic phase is present in this fill as well.

Finally, unit 28 consists of three adjacent small, roofed pits that appear to have been used for storage. No chronometric dates are available for the construction or use of these features, but, as I noted in my discussion of feature A81 at Old Town, it is thought that pits such as these pre-date the Classic phase in the Mimbres region (e.g.,

¹⁰ One of the attributes used in the Mogollon region to identify pit structures as communal structures (or "kivas") is the presence of interior earthen lobes on each side of the entryway.

¹¹ Since this date was obtained from a wood sample, and since no mention is made of whether only outer rings were used, this structure may have been built later than the date suggests. In addition, the uncalibrated radiocarbon age for this date and the means by which it was calibrated into calendar years are not provided by any published source.

¹² Two pithouses were found in unit 27. Pithouse 27a is an earlier round structure, which Anyon and LeBlanc (1984) suggest was built during the Georgetown phase. Pithouse 27b was smaller and was built inside the pit created for 27a. No screened faunal samples are available for Pithouse 27a.

Anyon and LeBlanc 1984; Creel 1995). Ceramics indicate that the fill of the unit 28 pits contains material dating to both the Three Circle and Classic Mimbres phases.

Sherd counts for the analytic units that I include in my faunal analysis are presented in Table 4.13; I obtained these data from Anyon and LeBlanc (1984:table 9.3)¹³. Also included in this table are sherd counts for three analytic units that I initially thought would provide useful faunal samples, but which, as I discuss shortly, appear to include material dating to a very broad range of time. One of these analytic units is 27E, which is the upper fill of pithouse 27b and which overlies analytic unit 27D. The other two, 10B and 11D, are also pithouse fill deposits: little is known about pithouse 10 because it was almost completely destroyed by bulldozing, while pithouse 11 is thought to have been built during the Three Circle phase.

A chi-square test on the sherd counts in Table 4.13 produces a highly significant result ($\chi^2 = 1109.16, p < 0.001$), indicating that there are substantial differences in ceramic content among these proveniences. Consideration of the most abundant pottery types within each analytic unit together with examination of the residuals from the chi-square test suggests that these analytic units can be arranged into age groups, and I have done so in Table 4.13.

Mimbres B/W Style III is the most abundant pottery type in 18E, 28B, and 28C, and this type produces significant positive residuals in two of these analytic units. Style

¹³ Anyon and LeBlanc (1984) provide percentage values for pottery type abundances but not the sherd counts on which these percentages are based. I calculated the counts that I use here by multiplying the percentages by analytic unit sample size and then rounding the result to the nearest whole number; any rounding errors that result from this procedure should be inconsequential. I combined the bowl and jar percentages that Anyon and LeBlanc present for Styles I, II, and III. No painted sherds were recovered in analytic unit 1A.

Table 4.13. Ceramic data for Galaz analytic units ($\chi^2 = 1109.16, p < 0.001$). Data are from Anyon and LeBlanc (1984:table 9.3).

Age Group	SB	1000	S1	S2	S3	EP	Total	SB%	1000%	S1%	S2%	S3%	EP%	Units	Range	Statistical Results
18E	2	0	19	12	130	4	179	1.1	0.0	10.0	6.0	73.0	2.3	53	S1-S3	RB (-), RW (-), S1* (-), S2 (-), S3 (+), EP (-)
20B	0	0	0	2	7	0	78	0.0	0.0	40.0	13.3	46.7	0.0	53	S1-S3	none
25C	0	0	15	10	36	1	64	0.0	0.0	23.4	15.6	60.4	1.0	53	S1-S3	RB (-), S3 (+)
1B	0	1	19	2	4	0	26	0.0	3.0	73.1	7.7	16.4	0.0	51	S1-S3	S1 (+), S3 (-)
1E	0	0	32	27	14	1	74	0.0	0.0	43.2	36.5	18.0	1.4	51	S1-S3	RB* (-), S1 (+), S2* (+), S3 (-), EP (-)
18D	1	0	36	21	20	1	88	1.2	0.0	40.7	24.4	32.6	1.2	51	S1-S3	RB* (-), S1* (+), S2 (+), EP (-)
27D	1	0	32	16	7	1	57	1.8	0.0	56.1	28.1	12.3	1.0	51	S1-S3	RB (-), S1* (+), S2 (+), S3* (-)
28A	0	0	24	14	9	0	47	0.0	0.0	51.1	29.8	19.1	0.0	51	S1-S3	RB* (-), S1* (+), S2 (+), S3 (-)
8A	2	0	2	0	0	0	4	50.0	0.0	50.0	0.0	0.0	0.0	RB-S1	RB (-)	
8C	19	4	1	0	0	0	24	79.2	16.7	4.2	0.0	0.0	0.0	RB	RB-RW	RB* (+), RW (+), S1 (-), S2 (-), S3* (-)
8D	63	24	6	2	3	3	123	67.8	19.6	6.5	1.0	2.4	2.4	RB	RB-RW	RB* (+), RW (+), S1 (-), S2 (-), S3* (-), EP (-)
10B	0	0	2	1	2	1	6	0.0	0.0	33.3	16.7	33.3	16.7	S1-S3	S1-EP	none
11D	2	0	21	19	24	21	67	2.3	0.0	24.1	21.8	27.6	24.1	53	S1-EP	RB (-), EP (+)
27E	3	0	43	18	66	36	164	1.8	0.0	28.2	11.0	38.6	21.3	53	S1-EP	RB* (-), RW (-), EP (+)
Total	172	29	289	144	340	68	693	11.0	3.0	27.2	16.1	36.7	7.7			*total number of faunal samples counted

Table 4.14. Ceramic data for Galaz analytic units with useful faunal samples aggregated into three age groups ($\chi^2 = 746.93, p < 0.001$).

Age Group	SB	1000	S1	S2	S3	EP	Total	SB%	1000%	S1%	S2%	S3%	EP%	Units	Range	Statistical Results
CM (B TC)	2	0	40	24	184	5	255	0.8	0.0	16.7	9.4	72.2	2.9	53	S1-S3	RB* (-), RW (-), S1 (-), S2 (-), S3 (+)
TC (B CM)	2	1	142	80	82	3	290	0.7	0.3	49.0	27.6	21.4	1.0	51	S1-S3	RB* (-), RW (-), S1* (+), S2 (+), S3 (-)
GT & EP	104	28	11	2	3	3	151	69.0	18.5	7.3	1.3	2.0	2.0	RB	RB-RW	RB* (+), RW (+), S1 (-), S2 (-), S3* (-)
Total	108	29	193	108	269	11	628	16.6	4.2	27.7	16.2	36.8	1.6			*total number of faunal samples counted

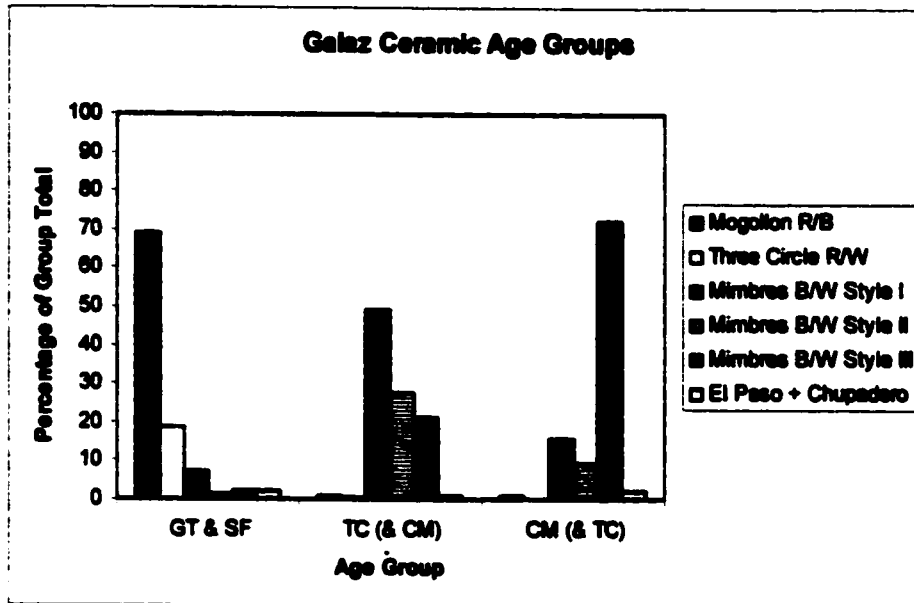


Figure 4.15. Frequency distributions of pottery types within the three ceramic age groups created for the Galaz analytic units.

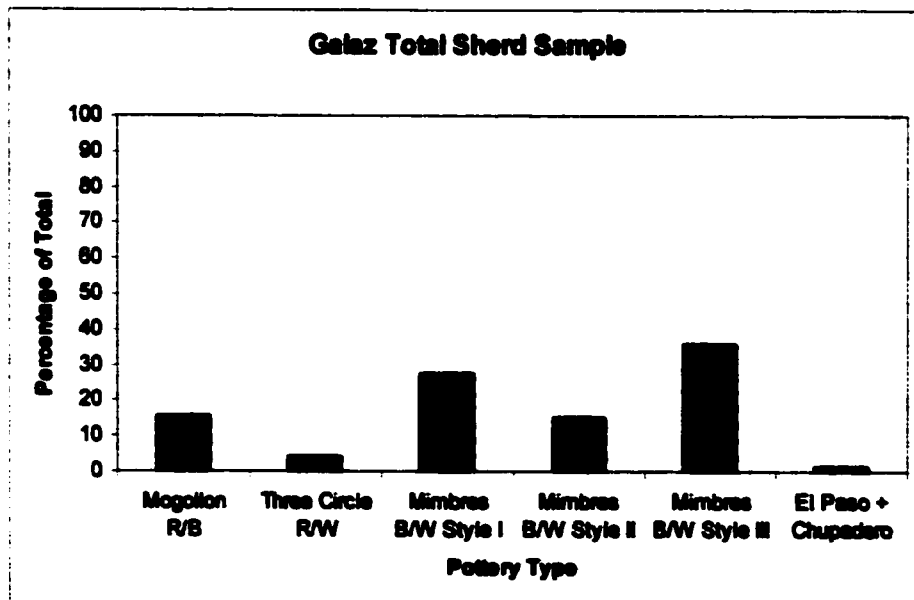


Figure 4.16. Frequency distribution of pottery types for the entire sherd sample from the Galaz analytic units with useful faunal samples.

I is the most common type in 1B, 1E, 18D, 27D, and 29A, and residuals indicate that this type is much more abundant than expected in all of these analytic units. The three analytic units from room 8 each contain significantly large percentages of Mogollon R/B. Combining the sherd counts from all of the analytic units within each of these three groups results in the data presented in Table 4.14. Sherd frequencies for these groups are illustrated graphically in Figure 4.15, while Figure 4.16 displays the frequency distribution for the combined sherd sample from all of these analytic units.

Not included in Table 4.14 are the sherd counts for analytic units 10B, 11D, and 27E. These proveniences contain high frequencies of all pottery types from Style I, which dates to the San Francisco and Three Circle phases, through El Paso and Chupadero, which date to the Terminal Classic. It thus appears that the material in these analytic units spans a very broad period of time. Since this is the case, these proveniences are not useful for exploring changes over time at the resolution that is required for the research questions that I am addressing, and I do not include the faunal samples from these proveniences in my analysis in Chapter 5.

For the three groups of analytic units that appear to contain material from shorter spans of time (i.e., those included in Table 4.14), a chi-square test indicates that they do differ significantly in ceramic content ($\chi^2 = 746.93, p < 0.001$). In addition, the residuals from this test show that the pottery types that are over- and under-represented in each group conform to the pattern that would be observed if these groups captured differences in age. Since this is the case, I use these ceramic groups to assign analytic units to time periods (see Table 4.12), which I employ in my analyses in Chapter 5.

The three analytic units from room 8 comprise the group that is dominated by Mogollon R/B. In addition to this pottery type, however, a substantial quantity of Three Circle R/W is also present in these proveniences. Since Three Circle R/W dates only to the period of time encompassed by the San Francisco phase, it is likely that at least some of the faunal material in these deposits dates to this span of time. The presence of Mogollon R/B, on the other hand, might indicate either an early San Francisco phase or a late Georgetown phase age. In addition, as discussed above, the 2-sigma range on the radiocarbon date from this structure is consistent with construction during either of these two time periods. I thus consider these analytic units to be "San Francisco and Georgetown" in age: the material in these deposits dates at least to the A.D. 700s, and some may date to the late 600s as well.

Style I accounts for nearly half of the total sherd sample for the middle age group, but many sherds of Styles II and III are also present in these analytic units. This suggests that most of the material in these deposits dates to the Three Circle time period, though some also dates to the Classic phase, while some may be San Francisco phase in age. Conversely, the proveniences in the third age group are dominated by Style III, but they also contain some sherds of Styles I and II. Most of the material in these deposits thus likely dates to the Classic phase, but some appears to date to the Three Circle phase, and some perhaps dates to the San Francisco phase.

I call the group dominated by Style I "Three Circle (and Classic Mimbres)", and I call the group dominated by Style III "Classic Mimbres (and Three Circle)". Most of the material in each of these groups of deposits probably dates to the Three Circle and

Classic Mimbres phases, respectively, and I treat this material accordingly in my faunal analysis. It should be kept in mind, however, that there appears to be some overlap in age between the two sets of analytic units. No painted sherds were recovered from analytic unit 1A, which consists of floor pits within pithouse 1, but I assign this provenience to the Three Circle phase based on the tree ring date obtained from this structure and the ceramics present in the overlying analytic units 1B and 1E.

Finally, I note that the results of my ceramic analysis are consistent both with the chronometric dates that are available for these deposits and with the stratigraphic relationships among them. For pithouse 18, the ceramic analysis places the upper fill in the Classic phase group and the lower fill in the Three Circle phase group, while the all of the deposits within each of the other features are assigned to single age groups.

Mattocks

Mattocks (LA 676) is located approximately 6 kilometers north of Galaz, and, like Galaz, it sits on the first terrace above the floodplain on the west side of the Mimbres River. The Mimbres Foundation conducted excavations in and around four Classic Mimbres room blocks at this site, portions of which show evidence of occupation during the Terminal Classic in addition to the Classic phase proper. These researchers also excavated several pit structures, some of which date to the Late Pithouse period and some of which are Classic Mimbres in age. The archaeological research that has been conducted at this site is described in a forthcoming monograph (Gilman and LeBlanc n.d.; see also LeBlanc 1975, 1976a, 1976b).

The proveniences from Mattocks that provide the faunal samples included in my analysis are listed in Table 4.15. As with Galaz, the analytic units that I use for this site were defined by the Mimbres Foundation, though I again exclude some of the material in some of these analytic units from my analysis (see Appendix B).

Also shown in Table 4.15 are the chronometric dates that are available for these proveniences (from Gilman and LeBlanc n.d.). Some of the rooms at this site have produced many tree ring dates, and I present only the latest of the cutting and non-cutting dates for these rooms¹⁴. It is evident from the dates in this table that most of these proveniences are Classic Mimbres in age, and the results of the ceramic analysis that I present shortly are consistent with this. However, some of the structures at Mattocks were built before the Classic phase, and my ceramic analysis shows that there are detectable age differences among the deposits that I use¹⁵. I present this ceramic analysis after I describe the excavation units included in Table 4.15.

Unit 80 consists of an outdoor area that is characterized by Gilman and LeBlanc (n.d.) as a Classic phase work area (80a), below which was found a round pit structure (80b). Gilman and LeBlanc suggest that the pit structure was built in the Georgetown phase, but, as I discuss below, the ceramics recovered from the fill inside this structure indicate that much of this fill dates to the Three Circle and Classic phases. I treat the material found above the 80a surface as being from an extramural midden context.

¹⁴ Some of the non-cutting dates were obtained from samples recovered from disturbed room fill, and they may not necessarily come from timbers used in the construction of these rooms.

¹⁵ Except for floor features, I exclude analytic units from my analysis if sherd counts are not available for them. I do this because, without sherd data, it is not possible to date such proveniences precisely enough to determine how their ages relate to the ages of the rest of the proveniences that I use.

Table 4.15. Proveniences at Mattocks with faunal samples included in this analysis (see Gilman and LeBlanc n.d.).

Analytic Unit	Context	Chronometric Dates	Ceramic Age	Phase
80a fill	extramural midden	post-A.D. 1110*	Style III	CM
80b fill	room fill		Style I	TC/CM
106 fill	room fill	post-A.D. 1105*	Style III	CM
111 fill	room fill	post-A.D. 991*	Style II	TC/CM
111 floor feature	room floor feature			TC/CM
112 fill	room fill	post-A.D. 1091*	Style III	CM
113 fill	room fill		Style III	CM
114a fill	room fill	post-A.D. 1088*	Style III	CM
114b fill	room fill		Style II	TC/CM
115a fill	room fill	A.D. 1107**	Style III	CM
115b fill	room fill		Style III	CM
116 fill	room fill	post-A.D. 1095*	Style II	TC/CM
119 fill	room fill		Style III	CM
121/130 fill	room fill		Style III	CM
121/131 upper fill	room fill		Style III	CM
121/131 lower fill	room fill		Style III	CM
141 fill	extramural pit fill		Style III	CM
225 fill	room fill		TCM	CM/TCM
233 fill	room fill	post-A.D. 1051*	Style III	CM
237 fill	room fill	A.D. 1095**	TCM	CM/TCM
289a fill	room fill		Style III	CM
289b fill (west)	room fill		Style I	TC/CM
289b fill (east)	room fill	post-A.D. 936*	Style I	TC/CM
290 upper	extramural midden		Style III	CM
290 lower	extramural midden		Style II	TC/CM
325 upper fill	room fill		TCM	CM/TCM
325 lower fill	room fill		Style III	CM
410 fill	room fill	A.D. 1132-1212***; post-A.D. 1020*	Style III	CM
423a fill	room fill		Style III	CM
423a floor	room floor		Style II	TC/CM
425 fill	room fill	post-A.D. 1095*	Style III	CM
425 floor feature	room floor feature		Style III	CM
426 fill	room fill	A.D. 1095**; post-A.D. 1109*	Style III	CM
426 floor feature	room floor feature			CM
431 upper fill	room fill		Style I	TC/CM
431 lower fill	room fill	post-A.D. 1041*	Style I	TC/CM
433 upper fill	room fill		Style III	CM
433 lower fill	room fill	A.D. 1079**; post-A.D. 1100*	Style III	CM
435a upper fill	room fill		Style III	CM
435a lower fill	room fill	post-A.D. 1092*	Style III	CM
435a floor feature	room floor feature			CM
438a fill	room fill	A.D. 1117**	Style III	CM
438b floor feature	room floor feature			CM
441 fill	room fill		Style III	CM

*Latest tree ring non-cutting date from this unit (not necessarily from construction material); **latest tree ring cutting date; ***archaeomagnetic date range (from hearth adobe). All dates are from Gilman and LeBlanc (n.d.).

Unit 80 is located just south of a Classic phase room block (the "100s block") in which the Mimbres Foundation excavated several rooms, including those in units 106, 111, 112, 113, 114, 115a, 116, 119, and 121. Two superimposed floors were found in room 114; the later of these is designated as 114a and the earlier as 114b. Unit 121 is either a fully enclosed room or an activity area that was walled on three sides, and units 130 and 131 were considered to be part of this same area. Since this area was enclosed on at least three sides, I treat the material from it as room fill. Unit 115b is a pithouse encountered below room 115a. Gilman and LeBlanc (n.d.) note that this rectangular structure was apparently built during the Three Circle phase, but my ceramic analysis suggests that most of the fill within this structure dates to the Classic phase. Unit 141 is an extramural pit found to the south of this room block.

Units 237 and 286a are rooms in another Classic phase room block (the "200s block"), and unit 225 is a surface room that is, if not part of this room block, located very near to it. Unit 233 is either a room in this block or it is part of a plaza area adjacent to it that was enclosed by two or three walls. As with unit 121, since this area was at least partially walled, I consider the fill from it to be room fill. Unit 286b is a rectangular pit structure below 286a that appears, based on architectural and ceramic criteria, to have been built during the Three Circle phase. The tree ring sample listed in Table 4.15 that produced the non-cutting date of A.D. 936 was found in the fill of the entry ramp of the pithouse, and there is a chance that it comes from structure 286a rather than 286b. Unit 290 is located just to the north of the 200s room block, and the

deposits in this unit appear to be the result of trash dumped on an extramural surface.

Unit 325 is a small isolated surface room located near the "300s" room block.

Units 423, 425, 431, 433, 435, and 438 are all rooms in a fourth Classic phase pueblo room block, the "400s block". Two floors were found in three of these rooms (423, 435 and 438), and in each case the later occupation is designated by the letter "a", while the earlier one is noted by the letter "b". Found in unit 426 are what appear to be the remains of a ramada adjacent to the 400s room block. This area was roofed and it was walled on one and a half sides, so I consider the fill from this unit to be room fill.

Units 410 and 441 are pithouses located in the vicinity of the 400s room block, both of which are thought to have been built during the Classic phase. In the case of room 410 this phase attribution is based on ceramic evidence, while for room 441 it is based on stratigraphic relationships with structures of known age. The archaeomagnetic date reported by Gilman and LeBlanc (n.d.) for the hearth in room 410 falls in Terminal Classic times. However, the roof of this structure burned, perhaps after it had collapsed, so this date may apply to the burning of the roof rather than to the last use of the room.

Sherd counts for the Mattocks analytic units that I include in my analysis are presented in Table 4.16. It can be seen that Mimbres B/W Style III, which dates primarily to the Classic Mimbres phase, is by far the most abundant pottery type in all of these proveniences, but there are some differences in ceramic content among them. A chi-square test on these data produces a highly significant result ($\chi^2 = 873.39, p < 0.001$), and inspection of the residuals from this test indicates that pottery types that are

Table 4.16. Ceramic data for Mattocks analytic units ($\chi^2 = 873.39, p < 0.001$). Data are from Gilman and LeBlanc (n.d).

Analytic Unit	80	80W	81	82	83	83P	Total	80%	80W%	81%	82%	83%	83P%	Range	Group	Diagnostic Features	
225 #	0	0	0	3	16	2	21	0.0	0.0	0.0	14.3	76.2	0.0	S3	S3-EP	EP (+)	
227 #	0	0	3	26	230	36	297	0.0	0.0	1.0	8.4	77.4	12.1	S3	S3-EP	S1 (-), S2* (-), EP (+)	
228 upper #	0	0	2	7	65	11	113	0.0	0.0	1.8	8.2	82.3	6.7	S3	S3-EP	EP (+)	
626 #	0	0	2	3	50	0	55	0.0	0.0	3.6	6.5	86.9	0.0	S3	S3	none	
108 #	0	0	3	4	33	1	41	0.0	0.0	7.3	8.8	86.6	2.4	S3	S3-S3	none	
112 #	0	0	0	0	16	0	16	0.0	0.0	0.0	0.0	100.0	0.0	S3	S3	none	
113 #	0	0	2	5	32	1	40	0.0	0.0	0.0	12.5	83.0	2.6	S3	S3-S3	none	
114a #	0	0	0	8	61	2	71	0.0	0.0	0.0	8.8	86.0	2.2	S3	S3	S1 (-)	
114b #	0	2	16	8	661	3	692	0.0	0.3	3.0	1.4	84.8	0.5	S3	S3	S1 (-), S2* (-), S3 (+), EP (-)	
115b #	0	0	14	8	307	0	329	0.0	0.0	4.3	2.4	83.3	0.0	S3	S3	S2* (-), S3 (+), EP (-)	
116 #	0	0	0	0	6	0	6	0.0	0.0	0.0	0.0	100.0	0.0	S3	S3	none	
121/130 #	0	0	0	3	24	1	28	0.0	0.0	0.0	16.7	86.7	3.6	S3	S3-S3	none	
121/131 upper #	0	0	0	7	80	0	87	0.0	0.0	0.0	12.3	87.7	0.0	S3	S3-S3	none	
121/131 lower #	0	0	3	8	71	0	82	0.0	0.0	3.7	8.8	86.6	0.0	S3	S3-S3	none	
141 #	0	0	0	3	26	0	29	0.0	0.0	0.0	10.3	86.7	0.0	S3	S3-S3	none	
223 #	1	4	8	16	274	6	312	0.3	1.3	2.6	5.1	87.8	2.8	S3	S3	RW (+), S1 (-)	
266a #	0	0	8	11	107	1	127	0.0	0.0	8.3	8.7	84.3	0.0	S3	S3	none	
266 upper #	1	0	1	6	61	3	72	1.1	0.0	1.1	6.6	86.0	3.3	S3	S3	RW (+)	
266 lower #	0	1	4	0	46	0	51	0.0	2.0	6.0	0.0	86.0	0.0	S3	S3	RW (+), S2 (-)	
410 #	0	0	1	0	31	0	32	0.0	0.0	3.1	0.0	86.9	0.0	S3	S3	none	
422a #	0	0	0	1	19	0	20	0.0	0.0	0.0	6.0	86.0	0.0	S3	S3	none	
425 #	0	0	2	1	16	0	19	0.0	0.0	10.5	6.3	84.2	0.0	S3	S1-S3	none	
425 floor feature	0	0	0	0	9	0	9	0.0	0.0	0.0	0.0	100.0	0.0	S3	S3	none	
426 #	0	0	0	2	36	0	38	0.0	0.0	0.0	6.3	84.7	0.0	S3	S3	none	
433 upper #	1	0	2	3	75	2	83	1.2	0.0	2.4	3.6	86.4	2.4	S3	S3	RW (+)	
433 lower #	0	0	3	7	180	0	190	0.0	0.0	1.8	4.4	83.8	0.0	S3	S3	S1 (+)	
436a upper #	0	0	0	7	44	2	53	0.0	0.0	0.0	13.2	83.0	3.8	S3	S3-S3	none	
436a lower #	0	0	1	3	44	0	48	0.0	0.0	0.0	2.1	83	81.7	0.0	S3	S3	none
436b #	0	0	0	0	10	0	10	0.0	0.0	0.0	0.0	100.0	0.0	S3	S3	none	
441 #	0	0	1	3	44	0	48	0.0	0.0	2.1	6.3	81.7	0.0	S3	S3	none	
111 #	0	0	6	18	126	1	152	0.0	0.0	3.9	11.8	83.7	0.7	S3	S3-S3	S2 (+)	
114b #	0	0	0	6	26	0	32	0.0	0.0	0.0	16.8	81.3	0.0	S3	S3-S3	S2 (+)	
116 #	0	0	3	22	136	0	163	0.0	0.0	1.8	13.5	84.7	0.0	S3	S3-S3	S2 (+)	
266 lower	0	0	3	10	33	0	46	0.0	0.0	6.5	21.7	71.7	0.0	S3	S3-S3	S2 (+), S3 (-)	
422a floor	0	0	0	9	31	0	37	0.0	0.0	0.0	16.2	83.8	0.0	S3	S3-S3	S2 (+)	
626 #	0	0	13	5	76	0	94	0.0	0.0	13.8	6.3	80.9	0.0	S3	S1-S3	S1 (+)	
266b # (none)	1	0	22	6	59	1	81	1.1	0.0	24.2	8.8	64.8	1.1	S3	S1-S3	RW (+), S1* (+), S3 (-)	
266b # (none)	0	0	48	23	63	1	133	0.0	0.0	34.8	17.3	47.4	0.0	S3	S1-S3	S1* (+), S2 (+), S3 (-)	
431 upper #	0	1	13	15	62	0	81	0.0	1.1	14.3	16.6	66.1	0.0	S3	S1-S3	S1* (+), S2 (+), S3 (-)	
431 lower #	0	0	8	6	56	0	74	0.0	0.0	10.6	10.6	78.4	0.0	S3	S1-S3	S1 (+)	
Total	4	8	192	278	3296	77	3812	0.1	0.2	6.9	7.2	86.4	2.0			Total number of items counted	

Table 4.17. Ceramic data for Mattocks analytic units aggregated into four age groups ($\chi^2 = 604.74, p < 0.001$).

Age Group	80	80W	81	82	83	83P	Total	80%	80W%	81%	82%	83%	83P%	Range	Group	Diagnostic Features
11CM	0	0	5	36	326	46	437	0.0	0.0	1.2	8.6	78.7	11.4	S3	S3-EP	S1 (-), S2* (-), EP (+)
Style III	3	7	73	117	2242	28	2467	0.1	0.3	3.9	4.7	86.9	1.0	S3	S3	S1 (-), S2* (-), S3 (+), EP (-)
Style II	0	0	12	62	366	1	431	0.0	0.0	2.8	14.4	82.6	0.2	S3	S3-S3	S1 (-), S2 (+), EP (-)
Style I	1	1	162	58	318	2	483	0.2	0.2	21.1	12.2	66.6	0.4	S3	S1-S3	S1* (+), S2 (+), S2* (-), EP (-)
Total	4	8	192	278	3296	77	3812	0.1	0.2	6.9	7.2	86.4	2.0			Total number of items counted

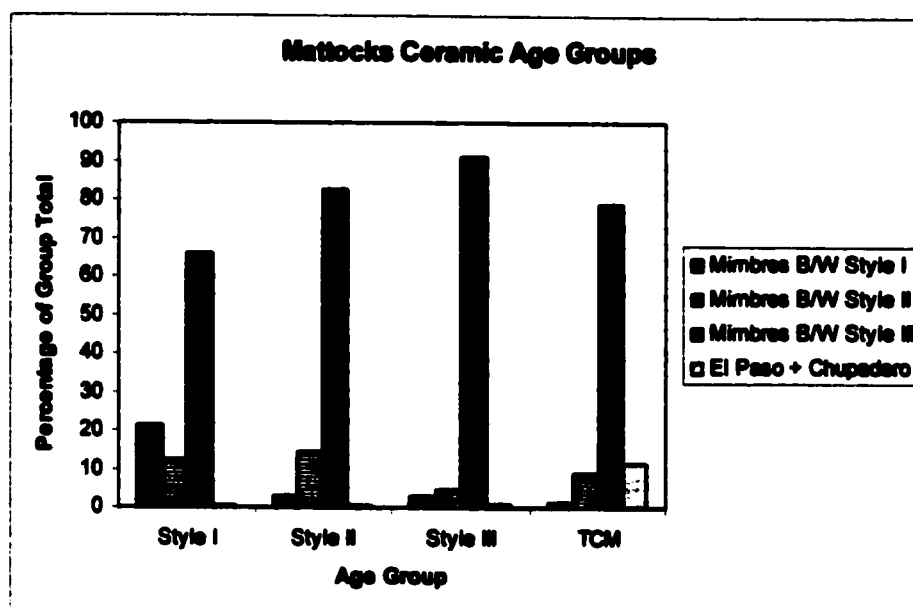


Figure 4.17. Frequency distributions of pottery types within the four ceramic age groups created for the Mattocks analytic units.

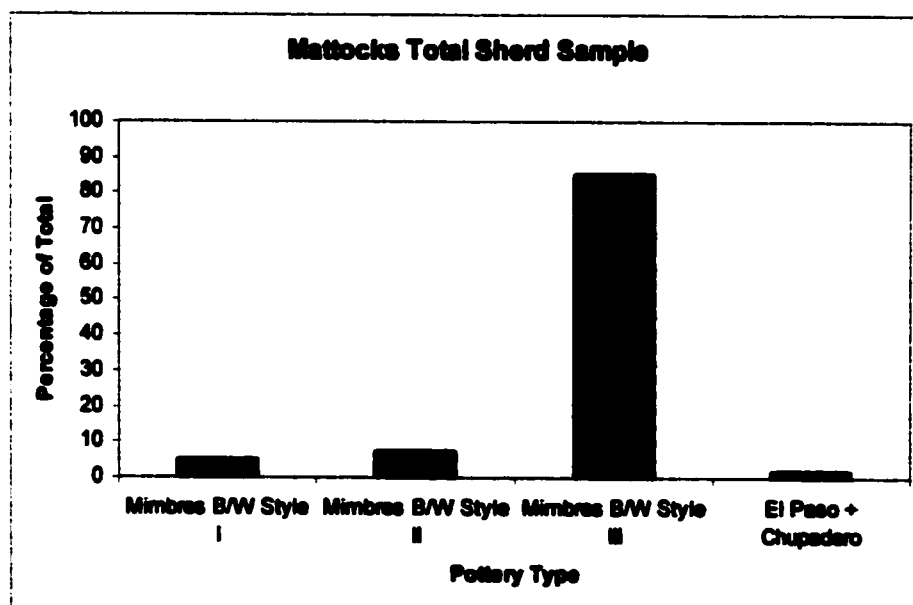


Figure 4.18. Frequency distribution of pottery types for the entire sherd sample from the Mattocks analytic units assigned to ceramic age groups.

either earlier than or later than Style III are over-represented in certain analytic units. I have arranged the analytic units in Table 4.16 into four groups based on these residuals.

One group consists of the fill from rooms 225 and 237 and the upper fill from room 325. El Paso painted and Chupadero B/W sherds make up 10% or more of the samples from these proveniences, and residuals show that these types are significantly more abundant than expected in all of them. Another group consists of the fill from rooms 111 and 116, the fill above the lower floor of room 114 (114b), the lower fill from unit 290, and the material from the upper floor of room 423 (432a). There are significant positive residuals for Style II in these analytic units, and more than 10% of these samples consists of this pottery type. A third group includes the fill of pithouses 80b and 286b and of surface room 431. The residuals for Style I are significant in all of these deposits, and this type occurs at frequencies higher than 10% in them. The final group includes the remainder of the analytic units in Table 4.16; Style I, Style II and the Terminal Classic pottery types are not significantly over-represented in these deposits¹⁶.

The aggregated sherd data for these groups are shown in Table 4.17. Frequency distributions for each group are displayed in Figure 4.17 and the frequency distribution for the entire sherd sample from the Mattocks analytic units that I use is illustrated in

¹⁶ Style I makes up slightly more than 10% of the sample from the fill of room 425, but the residual for this type in this analytic unit is not significant, most likely due to the small size of the sample from this deposit (only two sherds of Style I are present here). For this reason I do not place this analytic unit in the Style I age group. The residuals for Style II are positive and significant in both the eastern fill of room 286b and in the upper fill of room 431, but I place these analytic units in the Style I group because the residuals for Style I are larger. I do not create a separate group for analytic units in which Mogollon R/B or Three Circle R/W produce significant positive residuals. These pottery types are so rare in the overall assemblage from this site that the presence of even one sherd of either of these types in a deposit is enough to result in a large residual.

Figure 4.18; Mogollon R/B and Three Circle R/W are not included in these figures because these types occur at extremely low percentages. I call the group of deposits with significant amounts of El Paso and Chupadero the "Terminal Classic" group, I call the two groups of deposits in which Style I and Style II are over-represented the "Style I" and the "Style II" groups, respectively, and I call the remaining group "Style III".

A chi-square test on the data in Table 4.17 provides a very significant result ($\chi^2 = 604.74, p < 0.001$), and the residuals from this test show that El Paso and Chupadero sherds are more abundant than expected in the first group, while Styles I, II and III are each more abundant than expected in the group that is named after them. It thus appears that these groups do reflect age differences among analytic units. Most of the material in all of these deposits likely dates to the Classic Mimbres phase, but a portion of the material in the first group of deposits probably dates to the Terminal Classic, a portion of the material in the Style II group probably dates to the Three Circle phase, and much of the material in the Style I group likely dates to the Three Circle phase and perhaps even to the San Francisco phase.

The ceramic age groups to which I assign the Mattocks analytic units are consistent with all of the stratigraphic relationships that exist among them (see Table 4.15). In addition, the tree ring dates from this site can be used to verify further that my ceramic groups truly reflect differences in age. Using the latest tree ring date that is available for each of the analytic units in Table 4.15 (regardless of whether it is a cutting date or a non-cutting date), the average latest tree ring date for the analytic units assigned to each age group is as follows (all values are in years A.D.): Style I = 998.5 (n

= 2), Style II = 1043.0 (n = 2), Style III = 1092.4 (n = 12), and Terminal Classic = 1095.0 (n = 1). The latest tree ring dates become progressively later across these groups, and an analysis of variance indicates that the differences in average latest tree ring date among these groups are significant ($F = 6.58, p = 0.006$).

I use these ceramic age groups in the following chapter to determine whether changes over time are apparent in archaeofaunal samples from Mattocks. I also, however, aggregate the proveniences that I use from this site into coarser-scale phase-based age groups, which are shown in Table 4.15. A few of the floor feature deposits from this site were not included in my ceramic analysis, and I assign these to phases based on the ceramic ages of the room fill deposits that overlie them.

I treat the analytic units in the Style III ceramic group as “Classic Mimbres” in age because these deposits appear to consist almost entirely of material deposited during this time. The analytic units in the Style I and Style II age groups probably contain a fair amount of material material from the Three Circle phase in addition to the Classic phase, so I treat these as “Three Circle and Classic Mimbres” in age. I treat the remaining analytic units as “Classic Mimbres and Terminal Classic” in age because they likely contain material dating to both of these periods.

Finally, I note that the upper fill of room 325, in addition to containing a significantly high abundance of Terminal Classic painted pottery, contained three sherds of Ramos Polychrome and three sherds of Gila Polychrome¹⁷. The presence of

¹⁷ Three sherds of White Mountain red ware and three sherds of Cibola white ware were also present in this analytic unit, while three sherds of White Mountain red ware were found in 121/131 upper fill, and one sherd of Cibola white ware was found in each of the 141 fill, 426 fill, and 431 upper fill deposits. It is thought that these pottery types also date relatively late in the Mimbres Valley, but the date ranges for

these pottery types likely indicates that at least some of the material in this deposit dates to as late as the A.D. 1300s or 1400s. As I discuss in Chapter 5, the faunal sample from this analytic unit is very different from the rest of the Mattocks faunal samples that are included in my study.

McAnally

McAnally (LA 12110), which is located on top of a small hill directly across the Mimbres River from Mattocks, is one of the few sites attributed to the Early Pithouse period that have been excavated in the Mimbres region. Twelve pithouse depressions are visible at this site, two of which were investigated by the Mimbres Foundation. The excavation of these structures, as well as some minor testing that was conducted at this site, is described by Arthur (1994) and by LeBlanc (1975, 1976b).

Approximately 60% of a round pit structure designated as unit 8 was excavated, and a radiocarbon date of A.D. 180 +/- 60 has been reported for this room. Unit 11, another round pit structure, was completely excavated, and radiocarbon dates of A.D. 545 +/- 60 and A.D. 580 +/- 60 have been reported for it. All of these dates were obtained from roof beams (LeBlanc and Whalen 1980), and, as Wills (1996) points out, it is possible that any of them might overestimate the true antiquity of these structures due to the "old wood effect", or the bias that results when radiocarbon dates are taken from the interior rings of wood samples.

these types in the valley do not appear to be firmly established, and the frequencies of these types in these analytic units are so small that they would not likely be meaningful had I included them in my analysis.

Because of this, and because no other chronometric dates are available for McAnally, it is uncertain whether this site was actually occupied as early as A.D. 200. It is likely, however, that the two structures that were excavated at this site were occupied earlier than were any of the structures at the other three sites that I include in my faunal analysis, with the possible exception of room C17 at Old Town, which may also date to the Early Pithouse period. This seems clear because the ceramics recovered from these structures indicate a very early age. Most of the pottery recovered at McAnally was of the Alma Plain type, which is the earliest named type in the Mimbres region; only a few sherds with fugitive red washes were present, and no sherds were found of San Francisco Red, a true slipped pottery type that becomes common during the Georgetown phase (LeBlanc 1976b). Thus, regardless of whether the material from this site is well-dated in absolute terms, it seems certain that it is early relative to most of the other material that I include in my analysis.

As can be seen in the next chapter, the faunal assemblage from McAnally is extremely small. Because of this, I include all of the bones from rooms 8 and 11 in my analysis, including those recovered from layers of roof fall that I would otherwise leave out. However, the differences between the sample from this site and the later samples from the nearby Mattocks site are so striking that they would surely still hold if a sample were available from McAnally that was large enough to allow samples to be selected using the same criteria employed for the other sites in my study. I treat all of the material from both rooms 8 and 11 as a single analytic unit in my faunal analysis.

Further detail about the depositional context of the samples from these structures is provided in Appendix B.

Chapter 5. Archaeofaunal Evidence of Large Mammal Resource Depression

In Chapter 3, I argued that if Mimbres Valley hunters experienced depression of large mammal resources, we should observe a decline over time in the abundance of large mammal bones relative to small mammal bones in archaeofaunal assemblages, an increase over time in the proportion of large mammal bones from high utility body parts, and an increase over time in the proportion of bone specimens from young individuals of large mammal taxa. In this chapter, I examine whether such changes are evident in the faunal samples from the archaeological deposits that I described in Chapter 4. I also present the results of analyses that I conducted in order to control for factors that might interfere with these archaeological measures of resource depression.

I find that there is evidence from the sites included in my analysis to support the hypothesis that abundances of large mammals declined over time on the landscape of the Mimbres Valley as a result of human predation. This evidence also indicates, however, that this occurred much earlier than previous researchers working in the region have argued. I present this evidence after I briefly discuss the analytic procedures that I followed in my analysis of Mimbres archaeofaunal samples.

Analytical Methods

As I discussed in the last chapter, I only present data from undisturbed, screened, well-dated deposits at the sites that I include in this analysis in order to ensure that the most accurate and precise information possible is obtained concerning changes

in faunal samples over time. Likewise, I include in the analyses that I discuss in this chapter only the remains of those taxa that are most useful for answering the research questions that I am addressing. These taxa are artiodactyls, particularly deer (*Odocoileus* spp.) and pronghorn (*Antilocapra americana*), and leporids, which include jackrabbits (*Lepus* spp.) and cottontails (*Sylvilagus* spp.).

Deer and pronghorn antelope are among the largest-bodied vertebrates that occur in the Mimbres Valley today, and the extreme rarity of such larger-bodied taxa as elk (*Cervus elaphus*) and bison (*Bison bison*) in archaeological assemblages from the valley suggests that people encountered these larger animals very infrequently during the span of time that I consider here. Deer and pronghorn thus certainly provided the highest post-encounter return rates of any of the wild resources that were common in the area, and for this reason any decline in the abundances of these taxa on the landscape would likely have caused a substantial reduction in overall wild resource foraging efficiency.

To determine how search and transport times for artiodactyls changed over time in the Mimbres Valley, I examine their abundance in faunal samples relative to the abundance of smaller-bodied leporids. Bones of jackrabbits and cottontails dominate most faunal assemblages from the valley, and these two taxa are the only small-bodied vertebrates that are common in the assemblages included in this study that are also likely to have been deposited by people after having been captured and eaten by them.

Detailed information about each faunal specimen that is included in this analysis can be found in Appendix C; see Appendix D for notes on how these specimens were

prepared for curation. I identified these bones to element and taxon based primarily on comparison with a large collection of reference skeletons, though I also consulted published identification guides (e.g., Balkwill and Cumbaa 1992; Ford 1990; Lawrence 1951). Specimens were identified only to the lowest taxonomic level for which they possessed distinguishing osteological characteristics.

No specimens from genera that include two or more species were identified to the specific level. Among artiodactyls, both mule deer (*Odocoileus hemionus*) and white-tailed deer (*O. virginianus*) occur in the Mimbres Valley today. Reliable identification of deer bones to the level of species, however, can be accomplished only through such methods as the multivariate analysis of measurements taken on relatively complete mandibles (e.g., Livingston 1987), and no specimens that are whole enough to allow this to be done are present in the assemblages that I use.

The black-tailed jackrabbit (*Lepus californicus*) is the jackrabbit that currently occupies the Mimbres Valley, and most or all of the jackrabbit specimens present in the assemblages that I use probably come from individuals of this species. I identified these specimens simply as *Lepus* sp., however, because the range of the white-sided jackrabbit (*L. callotis*), which can be found today in far southwestern New Mexico, may have been more extensive in the past before the grassland habitats that it prefers began to shrink due to historic period landscape modification (e.g., Humphrey 1987; Van Devender 1995; see also Findley *et al.* 1975:96-97; Findley 1987:56-57). These two jackrabbit species are osteologically indistinguishable. Among cottontail species, both the eastern cottontail (*Sylvilagus floridanus*) and the desert cottontail (*S. audubonii*)

presently occur in the Mimbres Valley. It is possible to distinguish these two species using osteological characteristics (e.g., Dalquest *et al.* 1989; Findley *et al.* 1975; Hoffmeister 1986), but such analyses have not been completed for all of the assemblages that I include in this study.

The primary criterion by which the bones of jackrabbits can be distinguished from those of cottontails is size: among the leporids that occur in the Mimbres Valley, individuals of species that belong to the genus *Lepus* tend to be substantially larger than individuals of species that belong to the genus *Sylvilagus*. Some leporid elements, however, are difficult to identify to genus using body size as a criterion. These include ribs and vertebrae, which must often be identified to position along the vertebral column before they can be identified to genus, and small cranial fragments. I thus exclude from my analysis all leporid ribs, all vertebrae other than the sacrum, and all cranial elements other than the maxilla and premaxilla. I also exclude leporid sternbrae, second and third phalanges, phalangeal sesamoids, and metapodials with incomplete or missing proximal ends that cannot be placed to position within the carpus or tarsus.

Specimens identified simply to the family Leporidae are those that are too fragmented to allow determination of the size of the animal from which they came. Among artiodactyl specimens, I made no attempt to identify ribs, vertebrae or sternbrae to the genus level, but these elements are included in my analysis under the taxon Artiodactyla. The remaining specimens identified to the taxon Artiodactyla are those that exhibit no osteological features that allow them to be identified to genus. All specimens identified as Artiodactyla are from deer- or pronghorn-sized animals.

For reasons outlined by Grayson (1984), the measures of taxonomic relative abundance that I use are based on numbers of identified specimens (NISP). Of course, NISP values can be greatly affected by the degree to which bones have been fragmented (e.g., Grayson 1984; Marshall and Pilgram 1993; see also Cannon 1999), which might interfere with their utility as indicators of prey capture rates. Later in this chapter I present analyses that are designed to evaluate how extensively the bones in my samples have been fragmented, but I have also taken steps at the outset of my study in order to reduce the potential effects of fragmentation upon it. Specifically, I have excluded from my analyses counts of certain elements that remain identifiable to taxon after extensive fragmentation; because even minute pieces of these elements can be identified, they have the potential to inflate NISP values significantly. These elements include all loose teeth and tooth fragments, small artiodactyl rib fragments¹, and all antler fragments.

Finally, in addition to element and taxon, a number of other variables were recorded for each specimen included in this analysis (see Appendix C). The most important of these variables for the purposes of this study are degree of epiphyseal fusion, which I use to assign specimens to age classes, and the bone density scan sites that are present on each specimen (Lyman 1984; Pavao and Stahl 1999), which I use to control for certain taphonomic factors. I discuss the procedures that I followed in recording these variables later in this chapter.

¹ Artiodactyl rib fragments were considered to be too small for inclusion in this analysis if it was not possible to determine from which side of the body they came.

Artiodactyl Relative Abundance

The first and most informative resource depression measure that I consider is taxonomic relative abundance. Numbers of identified artiodactyl and leporid specimens from the proveniences that I use at Old Town, Galaz, and Mattocks and McNally are presented in Tables 5.1, 5.2, and 5.3, respectively. Also provided in these tables are “Artiodactyl Index” values (e.g., Broughton 1994a, 1994b; Janetski 1997; Szuter and Bayham 1989), which are calculated as the ratio of all artiodactyl specimens relative to all artiodactyl specimens plus all leporid specimens. As I discussed in Chapter 3, if Mimbres Valley hunters experienced long-term depression of artiodactyl resources, this measure of taxonomic relative abundance should display a decline over time.

Before I explore how this measure changes with time, however, I first point out some important differences among the faunal assemblages from these sites that likely reflect differences in the biotic communities within which they are situated.

Spatial Variability in Taxonomic Relative Abundance

Table 5.4 presents numbers of identified artiodactyl and leporid specimens for the entire assemblages that I use from each of the four sites included in this analysis. Artiodactyls are fairly rare at Old Town, comprising less than 8% of the total sample from this site. In contrast, artiodactyls make up nearly one-fourth of the samples from Galaz and Mattocks, and almost all of the small sample from McNally consists of artiodactyl specimens. A chi-square test on the NISP values in this table gives a highly significant result ($\chi^2 = 255.51, p < 0.001$), and all of the cells in this table produce

Table 5.1. Numbers of identified specimens of artiodactyl and leporid taxa from Old Town proveniences included in this analysis.

Analytic Unit	Artiodactyla	Odocoileus sp.	Antilocapra americana	Artiodactyl Total	Leporidae	Sylvilagus sp.	Lepus sp.	Leporid Total	Grand Total	Artiodactyl Index
Room A2 8th				0			2	2	2	0.000
Room A2 floor				0		1	7	8	8	0.000
Room A7 8th	5		1	6	20	16	43	79	84	0.071
Room A7 floor feature				0	3	2	6	11	11	0.000
Room A5 W: levels 2-5	7		8	15	52	25	188	263	278	0.064
Room A5 W: levels 6-9	10		4	14	35	24	111	170	184	0.078
Room A5 W: level 10				0	2	3	14	19	19	0.000
Room A5 8th	38	1	37	74	157	59	450	666	740	0.109
Room A5 8th & floor	24		5	29	99	25	204	328	367	0.081
Room A47 8th	2			2	1		3	4	6	0.333
Room A48 8th	7		1	8	19	11	80	110	118	0.088
Room A58 8th	1			1	4	2	19	25	26	0.038
Room A58 8th	1			1	3	3	12	18	19	0.063
Room B2 8th				0	1		2	3	3	0.000
Room B2 floor		1		1			1	1	2	0.500
Room B4 8th	1			1	29	12	80	121	122	0.008
Room B4 floor feature				0	1	3	1	5	5	0.000
Room B6 8th				0	1		2	3	3	0.000
Room B6 8th	3			3	8	3	30	41	44	0.088
Room B10 8th				0	5	1	8	14	14	0.000
Room B9 8th				0	1	1	2	4	4	0.000
Room B9 floor				0		1	2	3	3	0.000
Room B11 8th				0			2	2	2	0.000
Room B11 floor feature				0	4	2	12	18	18	0.000
Room C2 floor feature				0	2	7	8	17	17	0.000
Room C17 8th	2			2	3		13	16	18	0.111
Feature A81 8th	2			2	3		5	8	10	0.200
Area D zones 1-3	6			6	2		11	13	19	0.316
Area D zone 4	1			1				0	1	1.000
Area D zone 6				0	2			2	2	0.000
Total	108	2	50	160	457	200	1318	1875	2139	0.078

Table 5.2. Numbers of identified specimens of artiodactyl and leporid taxa from Galaz proveniences included in this analysis.

Analytic Unit	Artiodactyla	Odocoileus sp.	Antilocapra americana	Artiodactyl Total	Leporidae	Sylvilagus sp.	Lepus sp.	Leporid Total	Grand Total	Artiodactyl Index
8A	1			1				0	1	1.000
8C				0	1	1		2	2	0.000
8D	3	2		5	1	2		3	8	0.625
1A				0			4	4	4	0.000
1B		1		1			1	1	2	0.500
1E	4	3		7	1	8	9	18	25	0.280
18D		2		2	2	2	11	15	17	0.118
18E	5	1	1	7	7	7	32	46	53	0.132
27D	2			2		1	5	6	8	0.250
29A				0		1	5	6	6	0.000
28B	3	1		4	5	7	4	16	20	0.200
28C	8	2		10	4	4	15	23	33	0.303
Total	26	12	1	39	21	33	86	140	179	0.218

Table 5.3. Numbers of identified specimens of artiodactyl and leporid taxa from Mattocks and McAnally proveniences included in this analysis^a.

Analysis Unit	Artiodactyls	Odocoileus sp.	Antilocapra americana	Bison and Large Artiodactyl	Artiodactyl Total	Leporidae	Sylvilagus sp.	Lepus sp.	Leporidae Total	Grand Total	Artiodactyl Index	
82a fill	8		1	1	8	1		7	3	11	0.421	
82b fill	9		5	1	11	1		13	12	26	0.297	
106 fill				1	1	1		1	2	4	0.200	
111 fill	3		1	1	5	4		12	8	24	0.172	
111 floor feature					0			1		1	0.000	
112 fill	5		1		6	1		3	3	7	0.482	
113 fill					0			3	1	4	0.000	
114a fill					0	1			1	2	0.000	
114b fill					0				1	1	0.000	
116a fill					0			1	4	5	0.000	
116b fill	4		1		5	1		37	23	61	0.076	
116 fill	3		1		4	5		7	14	28	0.133	
118 fill	1				1				0	1	1.000	
121/120 fill	1				1				3	4	0.250	
121/131 upper fill	1				1				0	1	1.000	
121/131 lower fill	1		3		4			4	8	10	0.288	
141 fill	4				4	1		9	14	24	0.143	
225 fill	3		2		5	2		13	14	29	0.147	
233 fill	24		8		30	5		45	20	70	0.300	
237 fill	8		2	1	11	3		10	10	23	0.324	
286a fill	3			1	3	7		2	13	18	0.304	
286a fill (young)	3		2		5	1		7	2	10	0.555	
286a fill (adult)	8		1	2	8	1		5	6	12	0.429	
290 upper	4		8		12	8		10	31	49	0.187	
290 lower	4		5		9	7		4	28	38	0.200	
325 upper fill	10		5		15			8	2	8	0.692	
325 lower fill	1				1			2	1	3	0.288	
410 fill	1				1			1	1	2	0.333	
423a fill					0	2			1	3	0.000	
423a floor					0				1	1	0.000	
425 fill	1		1		2			2	3	5	0.288	
425 floor feature			1		1			1	1	2	0.333	
426 fill	1		2		3			3	3	6	0.900	
426 floor feature	2				2	1		1	3	5	0.288	
431 upper fill					0	1		5	10	16	0.000	
431 lower fill					0			2	5	7	0.000	
433 upper fill					0	1		2	6	9	0.000	
433 lower fill					0			2	4	6	0.000	
436a upper fill	4			1	5			4	4	9	0.566	
436a lower fill	1		1		2			1	1	2	0.800	
436a floor feature			1	1	2	1				1	0.887	
436a fill					0				1	1	0.000	
436b floor feature	1				1	1				1	2	0.800
441 fill	2				2			2	2	4	0.600	
669a/b/d	10		6	1	17			1	1	18	0.944	
Total	123		58	10	4	183		87	285	536	0.285	

a. The specimens listed as "Bison and Large Artiodactyl" include a juvenile bison (*Bison bison*) second phalanx and two lumbar vertebra fragments from a bison- or elk-sized artiodactyl in the fill of unit 286a, and a first phalanx fragment from a large bovid (probably bison, but not osteologically distinguishable from domestic cow [*Bos taurus*]) in the upper fill of unit 435a.

Table 5.4. Total numbers of identified artiodactyl and leporid specimens from the four sites included in this analysis ($\chi^2 = 255.51, p < 0.001$; $\chi^2_{trend} = 196.44, p < 0.001$). In this table and in those that follow, asterisks indicate rows for which the adjusted standardized residuals from a chi-square test have absolute values of 2.00 or greater.

Site	Artiodactyls	Leporids	Total	Artiodactyl Index
Old Town*	166	1973	2139	0.078
Galaz*	39	140	179	0.218
Mattocks*	176	535	711	0.248
McAnally*	17	1	18	0.944
<i>Total</i>	<i>398</i>	<i>2649</i>	<i>3047</i>	<i>0.131</i>

Table 5.5. Numbers of identified artiodactyl and leporid specimens in samples dating to the Classic Mimbres phase from Galaz and Mattocks ($\chi^2 = 1.02, p = 0.314$).

Site	Artiodactyls	Leporids	Total	Artiodactyl Index
Galaz	21	85	106	0.198
Mattocks	102	315	417	0.245
<i>Total</i>	<i>123</i>	<i>400</i>	<i>523</i>	<i>0.235</i>

Table 5.6. Numbers of identified artiodactyl and leporid specimens in samples dating to the Three Circle phase from Old Town and Galaz ($\chi^2 = 11.42, p = 0.001$).

Site	Artiodactyls	Leporids	Total	Artiodactyl Index
Old Town	149	1818	1967	0.076
Galaz	12	50	62	0.194
<i>Total</i>	<i>161</i>	<i>1868</i>	<i>2029</i>	<i>0.079</i>

adjusted standardized residuals with absolute values of 2.00 or higher. This indicates that the differences in artiodactyl relative abundance that are apparent among these samples are much greater than would likely occur due to chance sampling factors.

In addition, the sites in this table are arranged in order of increasing elevation and increasing proximity to woodland habitats (McAnally, in fact, sits within the pinyon-juniper zone), and Cochran's test of linear trend among proportions (see Cannon 2000, 2001; Zar 1999:565-568) indicates that the relation between environmental setting and artiodactyl relative abundance that is apparent in this table is highly significant ($\chi^2_{\text{trend}} = 196.44, p < 0.001$). This result is consistent with earlier analyses that have found a strong tendency for artiodactyls to be more abundant in faunal assemblages from sites located closer to woodlands within the Mimbres-Mogollon region (e.g., Cannon 2000; Shaffer and Schick 1995).

Because the complete assemblages from these sites span different periods of time, however, it is possible that the artiodactyl relative abundance values given in Table 5.4 are reflecting temporal differences as much as spatial differences. The sample from McAnally, for example, dates to an earlier period than do most of the bones from the other three sites, and since this site is located only a few hundred meters from Mattocks, it is likely that the high relative abundance of artiodactyls at McAnally is due primarily to its early age rather than to its location. To control for such potential age effects on an analysis of differences between sites, I next present data from sets of samples that are approximately contemporaneous, drawing on my discussion of the ages of the deposits at these sites from the previous chapter (see Tables 4.1, 4.12, and 4.15).

Two sites, Galaz and Mattocks, have sets of deposits that date primarily to the Classic Mimbres phase, and numbers of identified artiodactyl and leporid specimens in the samples from these sites that date to this phase are listed in Table 5.5. In addition, Old Town and Galaz both have sets of deposits that date primarily to the Three Circle phase, and artiodactyl and leporid NISP values for the samples from this phase at these sites are shown in Table 5.6.

The Classic Mimbres phase sample from Mattocks has only a slightly higher relative abundance of artiodactyls than does the sample from this phase at Galaz, and a chi-square test on these samples fails to produce a significant result ($\chi^2 = 1.02, p = 0.314$). This is perhaps not surprising, given that these sites are located only a few kilometers apart and that the biotic communities that surround them are quite similar (see Cannon 2000:table 3). Old Town, on the other hand, is located much further from Galaz than is Mattocks, and it is also located considerably further from the nearest large expanses of woodland than are either of these two sites. The difference in artiodactyl relative abundance between the Three Circle phase sample from Old Town and the sample from this phase at Galaz is highly significant ($\chi^2 = 11.42, p = 0.001$). Thus, to the extent that age differences can be controlled for, it appears that Galaz and Mattocks do not differ significantly in the abundance of artiodactyls relative to leporids, while artiodactyls are significantly less abundant at Old Town than they are at the other sites.

A likely explanation for this difference in artiodactyl relative abundance between Old Town and the other sites can be found in Table 5.7. This table presents numbers of artiodactyl specimens from each site that were identifiable as either

Table 5.7. Total numbers of identified specimens of pronghorn (*Antilocapra americana*) and deer (*Odocoileus* sp.) from the four sites included in this analysis ($\chi^2 = 91.62, p < 0.001$).

Site	<i>Antilocapra</i>	<i>Odocoileus</i>	Total	Pronghorn Index
Old Town*	56	2	58	0.966
Galaz*	1	12	13	0.077
Mattocks*	9	50	59	0.153
McAnally	1	6	7	0.143
Total	67	70	137	0.489

pronghorn or deer. Also provided is a "Pronghorn Index", which is calculated as the abundance of pronghorn specimens relative to pronghorn specimens plus deer specimens. It can be seen that almost all of the artiodactyl specimens from Old Town that are identifiable to genus are from pronghorn, while most such specimens from the other three sites are from deer. A chi-square test indicates that the differences in deer and pronghorn abundance among these sites are highly significant ($\chi^2 = 91.62, p < 0.001$), and all of the residuals from this test are significant with the exception of those for the small sample from McAnally.

Examining this data more closely, however, it can be seen that pronghorn relative abundance does not vary by a great deal among the three Mimbres Foundation sites, and a chi-square test on the data from these three sites alone gives an insignificant result ($\chi^2 = 0.51, p = 0.775$). There is thus little basis for considering these sites to differ among themselves in pronghorn relative abundance. On the other hand, there is good reason to think that these three sites differ substantially from Old Town in the abundance of pronghorn relative to deer, and this difference can be easily understood in terms of environmental differences that exist between the lower Mimbres Valley, where

Old Town is located, and the central part of the valley, in which the Mimbres Foundation sites are located.

The open and arid lower valley is well-suited to pronghorn, and it probably provided even better antelope habitat in the past when grasses were more abundant relative to shrubs than they are in the area today (e.g., Humphrey 1987; Van Devender 1995; see also Kitchen and O'Gara 1982). Both mule deer and white-tailed deer, on the other hand, are much more likely to be found in the hillier and more wooded habitats that characterize the central Mimbres Valley (e.g., Mackie *et al.* 1982; W. Smith 1991). The lower relative abundance of artiodactyl bones at Old Town thus likely reflects not only a difference in the overall availability of large mammals on the surrounding landscape, but also a major difference in the kinds of large mammals that were available in different areas².

There are also significant differences among sites in the relative abundances of leporid genera. Table 5.7 lists the numbers of specimens from each site that have been identified as either jackrabbits or cottontails, as well as a "Jackrabbit Index", calculated as the abundance of jackrabbit specimens relative to the abundance of jackrabbit specimens plus cottontail specimens. A chi-square test on the bone counts in this table gives a highly significant result ($\chi^2 = 231.12, p < 0.001$), and the residuals for the

² In addition to the taxa listed in Tables 5.1, 5.2, and 5.3, very small numbers of specimens from other artiodactyl taxa have been recovered at these sites from proveniences that I do not include in my analysis. At Old Town, one such specimen is from an elk (*Cervus elaphus*), and two are from bighorn sheep (*Ovis canadensis*). There is one bison (*Bison bison*) specimen present at Galaz (a humerus shaft with a cut mark on it), as well as one rib shaft fragment from a large, bison- or elk-sized artiodactyl. The assemblage from McAnally includes one specimen that is not identifiable to element that must be from a bison- or elk-sized artiodactyl.

Table 5.8. Total numbers of identified specimens of jackrabbits (*Lepus* sp.) and cottontails (*Sylvilagus* sp.) from the four sites included in this analysis ($\chi^2 = 231.12, p < 0.001$; $\chi^2_{\text{trend}} = 230.08, p < 0.001$).

Site	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
Old Town*	1316	200	1516	0.868
Galaz	86	33	119	0.723
Mattocks*	265	219	484	0.548
McAnally	0	1	1	0.000
Total	1667	453	2120	0.786

Table 5.9. Numbers of identified jackrabbit and cottontail specimens in samples dating to the Classic Mimbres phase from Galaz and Mattocks ($\chi^2 = 9.38, p = 0.002$).

Site	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
Galaz	51	18	69	0.739
Mattocks	155	134	289	0.536
Total	206	152	358	0.575

Table 5.10. Numbers of identified jackrabbit and cottontail specimens in samples dating to the Three Circle phase from Old Town and Galaz ($\chi^2 = 6.81, p = 0.009$).

Site	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
Old Town	1221	175	1396	0.875
Galaz	35	12	47	0.745
Total	1256	187	1443	0.870

samples from both Old Town and Mattocks are also significant. In addition, jackrabbits become less abundant relative to cottontails as site elevation increases, and not only is this trend highly significant, but it also accounts for nearly all of the variability in jackrabbit relative abundance that is present among these samples ($\chi^2_{trend} = 230.08, p < 0.001$).

Just as with my analysis of variability in artiodactyl relative abundance among sites, however, this analysis may be conflating temporal variability with spatial variability. To control for this possibility, I again compare sets of contemporaneous samples. Table 5.9 presents numbers of identified jackrabbit and cottontail specimens in the samples dating to the Classic Mimbres phase from Galaz and Mattocks, and Table 5.10 presents such data for the samples from the Three Circle phase at Old Town and Galaz. The differences among both pairs of samples are highly significant (Classic Mimbres phase: $\chi^2 = 9.38, p = 0.002$; Three Circle phase: $\chi^2 = 6.81, p = 0.009$), and in each case the site that is located further down the valley contains a higher proportion of jackrabbits. These differences likely reflect the habitat preferences of the black-tailed jackrabbit, which is much more abundant in desertscrub communities than it is in any other type of biotic community within the arid west (e.g., Dunn *et al.* 1982).

Temporal Variability in Artiodactyl Relative Abundance

Because there are significant differences in the relative abundances of important taxa among the sites that I include in this study, I initially consider each site individually in my analysis of temporal changes in artiodactyl relative abundance.

Later in this chapter I examine combined samples from the three central valley sites, among which differences in artiodactyl relative abundance related to environmental variability do not appear to be great. I begin with Old Town, and I first explore how artiodactyl relative abundance changes across samples when they are grouped by phase (see Table 4.1 for the phases to which the analytic units from this site are assigned); I consider finer-grained changes across samples assigned to ceramic age groups shortly.

Numbers of identified artiodactyl and leporid specimens per phase at Old Town are shown in Table 5.11, as are Artiodactyl Index values for each phase. Artiodactyls make up between 11% and 17% of the two early samples, while they make up less than 10% of each of the later samples with the exception of the one assigned to the phase “Three Circle and Classic Mimbres”. This sample, which comes from zone 4 of the midden in Area D at this site, contains only one identifiable artiodactyl or leporid specimen. A chi-square test on the bone counts in Table 5.11 gives a significant result ($\chi^2 = 15.66, p = 0.008$). However, the only significant residuals from this test are those for the Three Circle/Classic Mimbres sample, and because this sample consists of just one specimen, it is reasonable to question whether it should be included in this analysis³. If this sample is excluded, the result of a chi-square test becomes insignificant ($\chi^2 = 3.79, p = 0.436$), as do all of the residuals from the test.

In addition, Cochran’s test fails to produce a significant result for a test of the hypothesis that artiodactyl relative abundance declines across these samples, both when all of them are included in the analysis ($\chi^2_{\text{trend}} = 0.01, p = 0.937$), and when the TC/CM

³ I discuss an additional reason below why this sample should be excluded from this analysis.

Table 5.11. Numbers of identified artiodactyl and leporid specimens in Old Town samples dating to each phase ($\chi^2 = 15.66, p = 0.008$; $\chi^2_{trend} = 0.01, p = 0.937$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
BM	0	17	17	0.000
TCM	12	112	124	0.097
TC/CM*	1	0	1	1.000
TC	149	1818	1967	0.076
SF/TC	2	10	12	0.167
EP/GT	2	16	18	0.111
Total	166	1973	2139	0.078

sample is excluded from it ($\chi^2_{trend} = 0.32, p = 0.571$). Combined with the insignificant result of the chi-square test with the TC/CM sample excluded, this indicates that there is no statistical basis for concluding that artiodactyl relative abundance declines across these samples. In fact, considering only the two largest samples from this site, those from the Three Circle and the Terminal Classic phases, it appears that the abundance of artiodactyls on the landscape might even have increased slightly during this span of time. A chi-square test on the samples from these two phases alone, however, gives an insignificant result for the difference between them ($\chi^2 = 0.73, p = 0.394$).

I thus cannot confidently rule out the possibility that the differences in artiodactyl relative abundance observed among these samples are simply the result of chance sampling factors. However, while the higher relative abundances of artiodactyl bones in the two early samples from this site are not statistically significant, they are consistent with the patterns that occur in the assemblages from the Mimbres Foundation sites, and the patterns observed at these sites are statistically significant.

Table 5.12. Numbers of identified artiodactyl and leporid specimens in Galaz samples dating to each phase ($\chi^2 = 7.39, p = 0.025$; $\chi^2_{\text{trend}} = 2.86, p = 0.091$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
CM	21	85	106	0.198
TC	12	50	62	0.194
GT/SF*	6	5	11	0.546
<i>Total</i>	<i>39</i>	<i>140</i>	<i>179</i>	<i>0.218</i>

Table 5.13. Numbers of identified artiodactyl and leporid specimens in Mattocks and McAnally samples dating to each phase ($\chi^2 = 49.20, p < 0.001$; $\chi^2_{\text{trend}} = 0.71, p = 0.399$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
CM/TCM	31	60	91	0.341
CM	102	315	417	0.245
TC/CM*	43	160	203	0.212
EP*	17	1	18	0.944
<i>Total</i>	<i>193</i>	<i>536</i>	<i>729</i>	<i>0.265</i>

Numbers of identified artiodactyl and leporid specimens per phase are provided in Table 5.12 for Galaz and in Table 5.13 for Mattocks and McAnally (see Tables 4.12 and 4.15 for the phases to which the analytic units from these sites are assigned).

Because Mattocks and McAnally are located so close together, I compare the Early Pithouse period sample from McAnally with the later samples from Mattocks; for the time being, I treat Galaz separately.

At Galaz, the Artiodactyl Index value for the Georgetown/San Francisco sample is nearly three times as high as those for the Three Circle and the Classic Mimbres phase samples. A chi-square test on the bone counts in Table 5.12 gives a result that is significant at the 0.05 level ($\chi^2 = 7.39, p = 0.025$), and the residuals for the early sample are significant. Cochran's test of linear trend fails to give a result that is significant at

the 0.05 level ($\chi^2_{\text{trend}} = 2.86, p = 0.091$), but this failure is probably the result of the decline across these three samples not being linear, rather than the result of any absence of a declining trend. There is thus good reason to conclude that artiodactyl relative abundance does decline over time at this site.

Likewise, the Early Pithouse period sample from McAnally contains a substantially higher relative abundance of artiodactyls than do any of the later samples from Mattocks, and a chi-square test on the bone counts in Table 5.13 produces a highly significant result ($\chi^2 = 49.20, p < 0.001$). The residuals from this test indicate that artiodactyls are significantly over-represented relative to leporids in the Early Pithouse sample, while they are significantly under-represented in the Three Circle/Classic Mimbres sample. Cochran's test of linear trend does not give a significant result for these samples ($\chi^2 = 0.71, p = 0.399$), and it is clear that the reason for this is that there is no unidirectional trend among them: artiodactyl relative abundance drops between the Early Pithouse and the Three Circle/Classic Mimbres sample, and it then increases through the Classic Mimbres/Terminal Classic sample. I consider this late increase in artiodactyl relative abundance in greater detail below when I examine finer-grained changes across samples assigned to ceramic age groups.

Thus, each site (or pair of sites in the case of Mattocks and McAnally) displays a decline in artiodactyl relative abundance between samples that pre-date the Three Circle phase and samples that date to the Three Circle phase or later. The declines that occur at Galaz and at Mattocks and McAnally are large and statistically significant. The decline at Old Town is not as large, nor is it statistically significant, but at least the

direction of change here is consistent with the changes observed at the Mimbres Foundation sites. As I argued in Chapter 3, such declines in the archaeological abundances of high-return resources relative to low-return resources should be observed in cases where depression of the high-return resources occurred.

Finer-resolution analyses of artiodactyl relative abundance in samples assigned to ceramic age groups can clarify the changes that occurred at these sites from the Three Circle phase on. Before I present such analyses, however, it is necessary first to consider the effects of variability in depositional context on my analyses of change over time. If one type of context systematically contains a higher or lower relative abundance of artiodactyl bones, and if different context types are distributed unequally among the samples from different time periods at any given site, then “noise” will be introduced into an analysis of temporal change unless such effects are controlled for. Fortunately, it is easy to control for these effects.

Tables 5.14 through 5.19 list numbers of identified artiodactyl and leporid specimens from each kind of context at each site. To minimize the effects of potential changes in artiodactyl relative abundance over time, I consider samples from each phase separately. These tables thus present data for every phase at each site for which there are appreciable faunal samples from two or more context categories⁴.

The samples from Old Town that date to the Terminal Classic phase are shown in Table 5.14. The extramural midden sample from this phase, which comes from

⁴ The category “room floor” in these tables includes materials from both floor and floor feature contexts. Some of the field specimen bags from room A5 at Old Town include material from both room fill and floor contexts (see Table 4.1), and I exclude this material from this analysis.

Table 5.14. Numbers of identified artiodactyl and leporid specimens in Old Town Terminal Classic samples from each context category ($\chi^2 = 13.18, p = 0.001$).

Context	Artiodactyls	Leporids	Total	Artiodactyl Index
Room fill	6	80	86	0.070
Room floor	0	19	19	0.000
Extramural midden*	6	13	19	0.316
<i>Total</i>	<i>12</i>	<i>112</i>	<i>124</i>	<i>0.097</i>

Table 5.15. Numbers of identified artiodactyl and leporid specimens in Old Town Three Circle phase samples from each context category ($\chi^2 = 2.15, p = 0.342$).

Context	Artiodactyls	Leporids	Total	Artiodactyl Index
Room fill	119	1444	1563	0.076
Room fill & floor	29	328	357	0.081
Room floor	1	46	47	0.021
<i>Total</i>	<i>149</i>	<i>1818</i>	<i>1967</i>	<i>0.076</i>

Table 5.16. Numbers of identified artiodactyl and leporid specimens in Galaz Classic Mimbres phase samples from each context category ($\chi^2 = 2.91, p = 0.088$).

Context	Artiodactyls	Leporids	Total	Artiodactyl Index
Room fill	7	46	53	0.132
Extramural pit	14	39	53	0.264
<i>Total</i>	<i>21</i>	<i>85</i>	<i>106</i>	<i>0.198</i>

Table 5.17. Numbers of identified artiodactyl and leporid specimens in Galaz Three Circle phase samples from each context category ($\chi^2 = 1.16, p = 0.282$).

Context	Artiodactyls	Leporids	Total	Artiodactyl Index
Room fill	11	39	50	0.220
Room floor	1	11	12	0.083
<i>Total</i>	<i>12</i>	<i>50</i>	<i>62</i>	<i>0.193</i>

Table 5.18. Numbers of identified artiodactyl and leporid specimens in Mattocks Classic Mimbres phase samples from each context category ($\chi^2 = 3.54, p = 0.315$).

Context	Artiodactyls	Leporids	Total	Artiodactyl Index
Room fill	72	222	294	0.245
Room floor	6	9	15	0.400
Extramural pit	4	24	28	0.143
Extramural midden	20	60	80	0.250
<i>Total</i>	<i>102</i>	<i>315</i>	<i>417</i>	<i>0.245</i>

Table 5.19. Numbers of identified artiodactyl and leporid specimens in Mattocks Three Circle/Classic Mimbres phase samples from each context category ($\chi^2 = 0.61, p = 0.737$).

Context	Artiodactyls	Leporids	Total	Artiodactyl Index
Room fill	34	122	156	0.218
Room floor	0	2	2	0.000
Extramural midden	9	36	45	0.200
<i>Total</i>	<i>43</i>	<i>160</i>	<i>203</i>	<i>0.212</i>

zones 1 through 3 of the Area D midden, contains a much higher relative abundance of artiodactyls than do the samples from room fill and room floor contexts. A chi-square test on the bone counts in this table gives a highly significant result ($\chi^2 = 13.18, p = 0.001$), and the residuals for the extramural midden sample are significant. In addition, recall that the sample from zone 4 of this midden, which was assigned to the phase "Three Circle and Classic Mimbres", also produced a significantly high artiodactyl relative abundance value (see Table 5.11). It thus seems that this midden deposit may be systematically biased towards a higher relative abundance of artiodactyls than occurs in deposits from room contexts at this site.

It is not clear why this might be the case. At Mattocks, artiodactyl relative abundance is not any higher in extramural midden deposits than it is in room fill deposits, which is understandable given that much of the fill within rooms at Mimbres Valley sites consists simply of trash. Nevertheless, there does appear to be some sort of bias affecting the Area D midden at Old Town.

None of the other sets of samples exhibit differences among context types that are significant at the 0.05 level. However, note that room floor deposits contain substantially lower relative abundances of artiodactyls than do room fill deposits in all but one instance. Artiodactyl Index values are very low for room floor contexts dating to the Terminal Classic and the Three Circle phases at Old Town (Tables 5.14 and 5.15), the Three Circle phase at Galaz (Table 5.17), and the Three Circle/Classic Mimbres phase at Mattocks (Table 5.19). Only among the Classic Mimbres phase samples from Mattocks is the Artiodactyl Index value for the room floor sample higher than that of any other sample (Table 5.18). Thus, despite the lack of statistically significant differences among context types, the presence of extremely low artiodactyl relative abundances in four out of five possible cases suggests that there may be a systematic bias towards low relative abundances of artiodactyls in room floor deposits⁵.

To the extent that this observed difference between floor deposits and other types of contexts is not simply an artifact of sampling, it may be understandable in terms of trash disposal behavior. It is possible that bigger items were more likely than

⁵ The Classic Mimbres phase samples from Galaz (Table 5.16) and from Mattocks (Table 5.18) both include extramural pit deposits. There is no evidence of a systematic bias in these deposits: in one case, the extramural pit sample contains a lower relative abundance of artiodactyls than do contemporaneous samples, and in the other case it contains a higher relative abundance of artiodactyls.

smaller items to have been removed from living surfaces and thrown into trash piles. If this were the case, then room floor deposits would contain lower abundances of large items relative to small items than would trash deposits, and this should be reflected by lower abundances of larger artiodactyl bones relative to smaller leporid bones in those floor deposits.

Because it is possible that such a bias between room floor and room fill deposits might be present, and because the Area D extramural midden at Old Town contains a significantly higher relative abundance of artiodactyls than do contemporary samples at this site, I limit the remainder of my analysis of artiodactyl relative abundance to a single type of deposit, to the extent that this is possible. I use room fill deposits because these provide by far the largest samples of any context type.

Table 5.20 shows numbers of identified artiodactyl and leporid specimens per phase from Old Town room fill contexts. When compared with the data in Table 5.11, which includes specimens from all contexts, the decline in artiodactyl relative abundance between the Early Pithouse/Georgetown sample and the Three Circle phase sample is still present, while the Terminal Classic sample now displays a slightly lower relative abundance of artiodactyls than does the Three Circle phase sample. Despite the appearance of a declining trend, however, the differences among these samples remain statistically insignificant ($\chi^2 = 0.36, p = 0.834$; $\chi^2_{\text{trend}} = 0.20, p = 0.658$).

As I noted in the previous chapter, the fill deposits from rooms A47, A49, A59, and A86 at Old Town, which I assigned to the Three Circle phase, are not very securely dated. Excluding the material from these deposits results in the data shown in Table

Table 5.20. Numbers of identified artiodactyl and leporid specimens in Old Town room fill samples dating to each phase ($\chi^2 = 0.36, p = 0.834$; $\chi^2_{\text{trend}} = 0.20, p = 0.658$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
TCM	6	80	86	0.070
TC	119	1444	1563	0.076
EP/GT	2	16	18	0.111
<i>Total</i>	<i>127</i>	<i>1540</i>	<i>1667</i>	<i>0.076</i>

Table 5.21. Numbers of identified artiodactyl and leporid specimens in Old Town well-dated room fill samples from each phase ($\chi^2 = 0.36, p = 0.836$; $\chi^2_{\text{trend}} = 0.21, p = 0.648$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
TCM	6	80	86	0.070
TC	107	1287	1394	0.077
EP/GT	2	16	18	0.111
<i>Total</i>	<i>115</i>	<i>1383</i>	<i>1498</i>	<i>0.077</i>

Table 5.22. Numbers of identified artiodactyl and leporid specimens in Galaz room fill samples dating to each phase ($\chi^2 = 7.17, p = 0.028$; $\chi^2_{\text{trend}} = 6.03, p = 0.014$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
CM	7	46	53	0.132
TC	11	39	50	0.220
GT/SF*	5	5	10	0.500
<i>Total</i>	<i>23</i>	<i>90</i>	<i>113</i>	<i>0.204</i>

Table 5.23. Numbers of identified artiodactyl and leporid specimens in the sample from McAnally and in Mattocks room fill samples dating to each phase ($\chi^2 = 46.26, p < 0.001$; $\chi^2_{\text{trend}} = 1.40, p = 0.236$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
CM/TCM	31	60	91	0.341
CM	72	222	294	0.245
TC/CM	34	122	156	0.218
EP*	17	1	18	0.994
<i>Total</i>	<i>154</i>	<i>405</i>	<i>559</i>	<i>0.275</i>

5.21. The absence of this material changes the Artiodactyl Index value for the Three Circle phase by only a small amount, and it has very little effect on the results of the chi-square tests ($\chi^2 = 0.36, p = 0.836$; $\chi^2_{\text{trend}} = 0.21, p = 0.648$).

Table 5.22 provides data for Galaz room fill contexts. Excluding samples from other kinds of deposits at this site reduces the Artiodactyl Index value for the Classic Mimbres phase slightly, while it raises the Artiodactyl Index value for the Three Circle phase by an even smaller amount. As was the case with the analysis that included material from all context types, a chi-square test indicates that the differences in artiodactyl relative abundance among phases are significant ($\chi^2 = 7.17, p = 0.028$), and significant residuals occur for the “Georgetown and San Francisco” phase sample. Unlike the original analysis, however, the declining trend across these samples is also now significant ($\chi^2_{\text{trend}} = 6.03, p = 0.014$).

Finally, data for room fill contexts from Mattocks and for the entire sample from McAnally are presented in Table 5.23. Excluding material from non-room fill contexts has little effect on the artiodactyl relative abundance values for each phase at Mattocks. Excluding this material also has little effect on the results of the statistical tests for these samples ($\chi^2 = 46.26, p < 0.001$; $\chi^2_{\text{trend}} = 1.40, p = 0.236$), except that artiodactyls are no longer significantly under-represented in the Three Circle/Classic Mimbres sample.

The results of these analyses, in which depositional context is controlled for, are consistent with the results of my original analyses in that samples from phases that pre-date the Three Circle phase contain more artiodactyl bones relative to leporid bones than do samples that date to the Three Circle phase or later. To explore in greater detail

how artiodactyl relative abundance changes at these sites during the Three Circle phase and into the Classic Mimbres and Terminal Classic phases, I turn to an analysis of samples aggregated by ceramic age group (see Tables 4.1, 4.12 and 4.15).

At Old Town, ceramic data allowed me to assign fill deposits from room A5 and from the rooms in Area B to ceramic age groups. All of this material dates to the Three Circle phase, but I was able to assign some of it to the ceramic age group “early Three Circle” and some to the ceramic age group “Three Circle”. Numbers of identified artiodactyl and leporid specimens for these samples are presented in Table 5.24. Artiodactyl relative abundance is quite similar in these two samples, and the chi-square value for them is very small ($\chi^2 = 0.07$, $p = 0.790$). There is thus no evidence of any change in the abundance of artiodactyls in the area around Old Town during the span of time represented by the Three Circle phase.

Data from Mattocks room fill deposits aggregated by ceramic age group are presented in Table 5.25⁶. A chi-square test gives a nearly significant result for a test of the hypothesis that these ceramic age groups differ in the abundance of artiodactyls relative to leporids ($\chi^2 = 7.19$, $p = 0.066$), and the residuals from this test indicate that artiodactyls are significantly over-represented in the TCM age group. The results of a test for a linear trend among these samples are not significant ($\chi^2_{\text{trend}} = 1.77$, $p = 0.183$).

As I noted in Chapter 4, however, one of the analytic units assigned to the TCM ceramic age group, the upper fill of unit 325, contained sherds of Ramos Polychrome

⁶ The ceramic age groups that I created for Galaz are equivalent to the phase groups that I created for this site, so there is no need for an additional analysis of Galaz samples aggregated by ceramic age group.

Table 5.24. Numbers of identified artiodactyl and leporid specimens in Old Town room fill samples dating to each ceramic age ($\chi^2 = 0.07, p = 0.790$).

Ceramic Age	Artiodactyls	Leporids	Total	Artiodactyl Index
TC	18	324	342	0.053
early TC	15	297	312	0.048
<i>Total</i>	<i>33</i>	<i>621</i>	<i>654</i>	<i>0.050</i>

Table 5.25. Numbers of identified artiodactyl and leporid specimens in Mattocks room fill samples dating to each ceramic age ($\chi^2 = 7.19, p = 0.066$; $\chi^2_{trend} = 1.77, p = 0.183$).

Ceramic Age	Artiodactyls	Leporids	Total	Artiodactyl Index
TCM*	31	60	91	0.341
Style III	72	222	294	0.245
Style II	9	51	60	0.150
Style I	25	71	96	0.260
<i>Total</i>	<i>137</i>	<i>404</i>	<i>541</i>	<i>0.253</i>

Table 5.26. Numbers of identified artiodactyl and leporid specimens in Mattocks room fill samples dating to each ceramic age, with the sample from the upper fill of unit 325 separated from the rest of the Terminal Classic samples ($\chi^2 = 22.99, p < 0.001$; $\chi^2_{trend} = 4.48, p = 0.034$).

Ceramic Age	Artiodactyls	Leporids	Total	Artiodactyl Index
325 upper fill*	15	8	23	0.652
TCM	16	52	68	0.235
Style III	72	222	294	0.245
Style II	9	51	60	0.150
Style I	25	71	96	0.260
<i>Total</i>	<i>137</i>	<i>404</i>	<i>541</i>	<i>0.253</i>

and Gila Polychrome, which date substantially later than the Terminal Classic. It is thus likely that at least some the bones from this provenience are younger than those in the other TCM samples. Pulling the bones from this deposit out of the TCM sample and placing them into their own later age group results in the data presented in Table 5.26.

This table shows that the upper fill of unit 325 contains a much higher relative abundance of artiodactyl bones than do the samples from any of the other age groups⁷, while the Artiodactyl Index value for the TCM sample is now not greatly different from those of the earlier samples. A chi-square test on the bone counts in Table 5.26 gives a highly significant result ($\chi^2 = 22.99, p < 0.001$), but only the residuals for the 325 upper fill sample are significant at two standard deviations. In addition, Cochran's test now indicates that there is a significant increasing trend in artiodactyl relative abundance across these samples ($\chi^2_{trend} = 4.48, p = 0.034$).

The results of my analyses of changes in artiodactyl relative abundance among samples assigned to ceramic age groups suggest that there were no major changes in search and transport times for artiodactyl prey types at Old Town during the Three Circle phase, nor at Mattocks between the Three Circle phase and the Terminal Classic. This result from Mattocks is consistent with the result of my analysis of samples aggregated by phase at Old Town, where artiodactyl relative abundance is very similar in samples dating to the Three Circle phase and the Terminal Classic (Table 5.21). At Galaz it appears that there may be a decline in artiodactyl relative abundance between

⁷ In fact, the upper fill of unit 325 contains a higher relative abundance of artiodactyls than does any other analytic unit at Mattocks with a sample of more than just a few specimens (see Table 5.3).

the Three Circle phase and the Classic Mimbres phase (Table 5.22), but a chi-square test gives an insignificant result for the difference between these two samples alone ($\chi^2 = 1.38, p = 0.240$).

There is thus no clear evidence from any of these sites to support the hypothesis that the abundances of artiodactyls on the Mimbres Valley landscape declined during the period between about A.D. 800 and 1200: artiodactyl relative abundance does not change by any appreciable amount across samples dating to this span of time from any individual site. On the other hand, there is evidence that the average amount of search and transport time for artiodactyl prey increased during the span of time leading up to the Three Circle phase at least at Galaz and Mattocks if not also at Old Town.

Finally, to conclude my analysis of changes in artiodactyl relative abundance, I present combined data from all three of the Mimbres Foundation sites (Table 5.27). Because Galaz is located a few kilometers away from Mattocks and McAnally, it is possible that this analysis is subject to some degree of “noise” related to spatial differences, but, as I showed above, such spatial differences in artiodactyl relative abundance between Galaz and Mattocks appear to be minimal. Samples in this analysis are aggregated by phase: the Early Pithouse period sample comes from McAnally, the Georgetown/San Francisco sample comes from Galaz, the Three Circle/Classic Mimbres and Classic Mimbres samples include material from both Galaz and Mattocks⁸, and the Classic Mimbres/Terminal Classic and unit 325 upper fill samples

⁸ The TC/CM sample includes the Three Circle phase sample from Galaz plus the TC/CM sample from Mattocks.

Table 5.27. Numbers of identified artiodactyl and leporid specimens in combined samples from the three Mimbres Foundation sites included in this analysis. All samples consist only of material from room fill contexts except for the Early Pithouse period sample, which comes from McAnally. Samples are aggregated by phase, though the sample from the upper fill of Mattocks unit 325 is separated from the rest of the Classic Mimbres/Terminal Classic samples ($\chi^2 = 68.54, p < 0.001$).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
325 upper fill*	15	8	23	0.652
CM/TCM	16	52	68	0.235
CM*	79	268	347	0.228
TC/CM	45	161	206	0.218
GT/SF	5	5	10	0.500
EP*	17	1	18	0.944
Total	177	495	672	0.263

come from Mattocks. All of this material is from room fill deposits, except in the case of the Early Pithouse period sample from McAnally.

A chi-square test indicates that the differences in artiodactyl relative abundance among these samples are highly significant ($\chi^2 = 68.54, p < 0.001$). Residuals show that artiodactyls are significantly over-represented in the Early Pithouse period sample and in the sample from the upper fill of Mattocks unit 325, while they are significantly under-represented in the Classic Mimbres phase sample; because artiodactyl relative abundance values for the TC/CM and the CM/TCM samples are very similar to that of the Classic Mimbres phase sample, the lack of significant residuals for these samples is probably due simply to the smaller sizes of these samples. The combined samples from these sites thus seem to show a clear decline in the abundance of artiodactyls between the Early Pithouse period and the Three Circle phase. As I discuss later in this chapter,

the high relative abundance of artiodactyls in the unit 325 upper fill sample from Mattocks may be primarily the result of taphonomic factors.

Comparisons with Previous Research

As I noted in Chapter 2, researchers associated with the Mimbres Foundation have argued that Mimbres Valley hunters experienced depression of large mammal resources, and they based this argument on an apparent decline between the Late Pithouse period and the Classic Mimbres phase in the archaeofaunal abundance of artiodactyls relative to leporids (e.g., Anyon and LeBlanc 1984; LeBlanc 1989; Nelson and LeBlanc 1986). My analysis indicates, however, that there is little difference in artiodactyl relative abundance among samples on either side of the “transition” between the Three Circle phase, which is the last phase within the Late Pithouse period, and the Classic Mimbres phase. It is worthwhile exploring why this apparent discrepancy exists between my results and the results of these previous authors.

In their examination of changes in Mimbres Valley hunting practices over time, Mimbres Foundation researchers attributed the complete faunal samples from individual sites to single time periods. Thus, in their consideration of changes in the central portion of the valley, the entire sample from Galaz is used to represent the Late Pithouse period, while the entire sample from Mattocks is used to represent the Classic Mimbres phase (e.g., Nelson and LeBlanc 1986:233). They found that the assemblage from Mattocks had a lower abundance of artiodactyl bones relative to leporid bones than did the one from Galaz, and they used this difference between sites to support their

argument that artiodactyls were captured less frequently during the Classic Mimbres phase than during the Late Pithouse period.

My analysis of the ceramics recovered from the deposits at these two sites, however, indicates that much of the material in the fill of the rooms and features excavated at Galaz likely dates to the Classic Mimbres phase, while some of the material in the deposits excavated at Mattocks likely dates to the Three Circle phase and some likely dates to the Terminal Classic. It is thus inappropriate to treat the entire sample from each site as representing only one time period or the other. When consideration is given to the dating of individual deposits at these sites, there is no evidence of a decline in artiodactyl relative abundance between the Three Circle phase and the Classic Mimbres phase either at each site individually (e.g., Tables 5.22 and 5.26), or when samples from the two sites are combined (Table 5.27)⁹.

The Mimbres Foundation's consideration of changes across coarse-grained periods of time has likely also contributed to the apparent discrepancy between their results and mine in another way. Because these researchers only considered changes between the Classic Mimbres phase and the Late Pithouse period as a whole, changes that actually occurred early in the Late Pithouse period could easily appear in their

⁹ Moreover, even if the entire sample from each of these two sites did date only to one time period or the other, my analysis indicates that the assemblage from Galaz contains a lower abundance of artiodactyls relative to leporids than does the assemblage from Mattocks (e.g., Tables 5.4 and 5.5). This, of course, runs counter to the results presented by the Mimbres Foundation researchers. It is difficult to evaluate why this discrepancy exists between my results and theirs because the procedures that were followed in the analyses on which they rely have not been published in sufficient detail to do so. I point out, however, that in my analysis I have attempted to control for such factors as the depositional context of specimens, whether or not deposits were screened through 1/4" mesh, and the presence of elements that remain identifiable after extreme fragmentation.

analysis to have taken place much later. For instance, if I combined my Georgetown/San Francisco room fill sample from Galaz with the Three Circle phase sample from this site into an aggregate Late Pithouse period sample (see Table 5.22), the decline in artiodactyl relative abundance between this sample and the Classic Mimbres phase sample would be nearly significant at the 0.05 level ($\chi^2 = 3.14, p = 0.076$). Such an analysis, however, would obscure the fact that the important change at this site evidently took place prior to the Three Circle phase, while making it appear as though it occurred between the Three Circle and the Classic Mimbres phases.

In addition to the sites that I include in my analysis, there are two other sites in the region that have large, published faunal assemblages dating to the span of time that I consider. Shaffer (1991) has analyzed faunal materials from the NAN Ranch site, which is located in the Mimbres Valley approximately midway between Old Town and Galaz¹⁰. Wind Mountain is located in the Burro Mountains to the west of the Mimbres Valley, and faunal data from this site are available in Woosley and McIntyre (1996); the attribution of faunal specimens to phases that I use for this site is my own, however, and the data on which this is based can be found in Appendix E (see also Cannon 2000). Numbers of identified artiodactyl and leporid specimens per time period from NAN and Wind Mountain are presented in Tables 5.28 and 5.29, respectively. Data are not available from these sites that allow me to control for such factors as depositional context or taphonomic history, as I do elsewhere in this chapter for the materials that I

¹⁰ Sanchez (1992) also analyzed faunal materials from NAN, but I only consider the portion of the fauna from this site that Shaffer (1991:table 5.9) has assigned to fine-grained chronological periods.

have analyzed, but the patterns in the data that are available from these sites are mostly consistent with my results regarding temporal changes in artiodactyl relative abundance.

The samples from NAN span the period from the beginning of the Three Circle phase through the Classic Mimbres phase. A chi-square test indicates that there are highly significant differences in artiodactyl relative abundance among the samples from this site ($\chi^2 = 23.11, p < 0.001$). An examination of the residuals from this test, however, shows that this result is due primarily to only two of the six samples: the “transitional late Three Circle/Classic Mimbres” sample, in which artiodactyls are under-represented, and the “late Three Circle” sample, in which artiodactyls are over-represented. Artiodactyl relative abundance fluctuates across these samples, and there is no significant trend here ($\chi^2_{\text{trend}} = 2.00, p = 0.157$). It thus seems that Shaffer (1991:108) was correct in arguing that “artiodactyl exploitation was fairly stable through time” at this site¹¹.

At Wind Mountain, on the other hand, faunal samples are available from much earlier periods, and there is a highly significant declining trend in artiodactyl relative abundance here ($\chi^2 = 510.86, p < 0.001, \chi^2_{\text{trend}} = 297.76, p < 0.001$). Artiodactyl bones make up most of the sample from the Early Pithouse period at this site, and the residuals for this sample are significant. Artiodactyl relative abundance is then moderately high

¹¹ Due to typographical errors, the numbers of identified specimens published in Cannon (2000:table 6) for the “transitional San Francisco/early Three Circle” sample from NAN and for the San Francisco phase sample from Wind Mountain are incorrect. The correct NISP values, and the correct chi-square results for these sites, are provided here. All other tables in Cannon (2000) that include material from these two sites are correct.

Table 5.28. Numbers of identified artiodactyl and leporid specimens per time period at the NAN Ranch site ($\chi^2 = 23.11, p < 0.001$; $\chi^2_{\text{trend}} = 2.00, p = 0.157$). Data are from Shaffer (1991:table 5.9). Asterisks in this table and the next indicate time periods for which adjusted standardized residuals have absolute values greater than 2.00.

Time Period	Artiodactyls	Leporids	Total	Artiodactyl Index
Classic Mimbres	42	627	669	0.063
Transitional Late Three Circle/Classic Mimbres*	13	328	341	0.038
Late Three Circle*	76	634	710	0.107
Three Circle	39	594	633	0.062
Early Three Circle	5	32	37	0.135
Transitional San Francisco/Early Three Circle	0	6	6	0.000
<i>Total</i>	<i>175</i>	<i>2221</i>	<i>2396</i>	<i>0.073</i>

Table 5.29. Numbers of identified artiodactyl and leporid specimens per phase at Wind Mountain ($\chi^2 = 510.86, p < 0.001$, $\chi^2_{\text{trend}} = 297.76, p < 0.001$). Data are from Woosley and McIntyre (1996).

Phase	Artiodactyls	Leporids	Total	Artiodactyl Index
Classic Mimbres	6	19	25	0.240
Mangas**	161	861	1022	0.158
Three Circle*	869	619	1488	0.584
San Francisco	117	125	242	0.483
Georgetown	22	22	44	0.500
Early Pithouse*	68	16	84	0.810
<i>Total</i>	<i>1243</i>	<i>1662</i>	<i>2905</i>	<i>0.428</i>

a. As I discussed in Chapter 2, the term Mangas phase is used by some researchers working in the Mimbres region to denote a transitional period between the Three Circle phase and the Classic Mimbres phase. Woosley and McIntyre (1996) use a date range of A.D. 950-1050 for this phase.

in the succeeding samples from the Georgetown through Three Circle phases, and it finally drops to lower values in the Mangas and Classic Mimbres phase samples.

Because it is not clear whether screens were used in the excavation of Wind Mountain, the artiodactyl relative abundance values from this site should not be compared to those from the Mimbres Valley sites that I discuss¹²: the higher relative abundances of artiodactyls at Wind Mountain may simply be the result of a difference in collection methods. If collection methods remained constant throughout the excavation of Wind Mountain, however, then, regardless of whether or not screens were used, any temporal trends in relative abundance observed across samples from this site would be accurate, provided that differences in fragmentation among samples were not too great (Cannon 1999).

If it can be assumed that such differences in fragmentation are not a problem in the assemblage from Wind Mountain, then the decline in artiodactyl relative abundance that is evident between the Early Pithouse period sample from this site and those from the Late Pithouse period is consistent with the decline that occurs between the Early Pithouse sample from McAnally and the later samples from Mattocks. The manner in which artiodactyl relative abundance changes during the Late Pithouse period, though, appears to be somewhat different at Wind Mountain than at sites in the Mimbres Valley.

At Wind Mountain, artiodactyl relative abundance remains high through the Three Circle phase and then declines in the Mangas and Classic Mimbres phases, while

¹² Woosley and McIntyre (1996) make no mention of the use of screens at Wind Mountain, and it is quite possible that none were used. All of the material that I discuss from sites in the Mimbres Valley, however, including the material from NAN (see Shaffer 1991), was collected in 1/4" screens.

at the Mimbres Valley sites it declines by the early Three Circle phase and then remains fairly steady through the Terminal Classic. However, because Woosley and McIntyre (1996) consider the Three Circle phase to end at A.D. 950, rather than at A.D. 1000 as do most researchers who work in the Mimbres Valley, the lag between the decline in the Mimbres Valley and the decline at Wind Mountain is not as great as it might seem. If my attribution of faunal specimens to phases at Wind Mountain is correct (see Appendix E), the decline probably took place between 100 and 150 years later at Wind Mountain than it did at sites in the Mimbres Valley.

Thus, at Wind Mountain and at Mattocks and McAnally, there is good evidence to support the hypothesis that abundances of artiodactyls on the landscape fell dramatically following the Early Pithouse period. At Wind Mountain it appears that artiodactyl abundances reached their lowest point by A.D. 950 or so, but at every site within the Mimbres Valley proper for which data are available, this appears to have occurred earlier, at around A.D. 800 or 850. There is no compelling indication of any major change in artiodactyl abundances in the Mimbres Valley during the span of time represented by the Three Circle, Classic Mimbres and Terminal Classic phases.

Estimates of changes in the size of the human population of the Mimbres Valley indicate that more people lived here during the Late Pithouse period than during the Early Pithouse period (e.g., Blake *et al.* 1986; also see Table 2.2). It is not possible to determine precisely when this increase in human population size began¹³, but it is surely

¹³ The "initial", "mid-period" and "final" estimates presented by Blake *et al.* (1986) for the Late Pithouse period are not direct estimates of human population size at various points during this period, but rather are inferred values based on assumed rates of population growth.

reasonable to assume that population growth during this time was not limited to the Three Circle phase. The results of my analysis of changes in artiodactyl relative abundance at Mimbres Valley archaeological sites are consistent with the occurrence of large mammal resource depression during the Georgetown and San Francisco phases, coincident with growth of the human population during this span of time.

Finally, as I noted in Chapter 2, Mimbres Foundation researchers found that sites within the valley that were occupied only during the Cliff phase, which began around A.D. 1300 and which ended around A.D. 1450, contain much higher abundances of artiodactyl bones relative to leporid bones than do sites that were occupied during earlier periods (e.g., Nelson and LeBlanc 1986). The high relative abundance of artiodactyls in the upper fill of unit 325 at Mattocks, which contains sherds of ceramic types that date to as late as the A.D. 1300s and 1400s, is consistent with this finding. This may indicate that artiodactyl populations had rebounded by this period, but, as I discuss later in this chapter, it is not possible to rule out a taphonomic explanation for the high abundance of artiodactyls relative to leporids in this sample.

Artiodactyl Body Part Representation

I next explore how the kinds of artiodactyl body parts transported to residential sites changed over time in order to further test the hypothesis that Mimbres Valley hunters experienced depression of large mammal resources. As I argued in Chapter 3, if the average amount of search time required before an artiodactyl was encountered increased, and/or if the average distance over which such prey had to be transported

increased, then people should have begun to spend more time processing these prey in the field, and this should be reflected by an increase in the proportion of high utility artiodactyl body parts that they carried home.

To determine whether this occurred at the sites that I include in this study, I examine whether there are differences between time periods in the mean utility of the artiodactyl elements that are present at these sites. I employ Metcalfe and Jones's (1988) standardized, whole-bone Food Utility Index (FUI), derived for caribou (*Rangifer tarandus*), which provides a measure of the amount of calories provided by each part within the body of an artiodactyl. An increase in the proportion of high utility body parts transported to a residential site, such as might occur due to resource depression, would result in an increase in mean FUI.

To evaluate whether mean FUI values change over time at a given site, I first assigned to each faunal specimen the FUI value of the element from which it comes. I then calculated the mean and the standard deviation of the distribution of FUI values for the sample of specimens from each phase, which allows the mean body part utility values for these samples to be compared statistically using analysis of variance. I present the results of such analyses below.

These analyses can show whether there are significant differences in mean utility among some set of samples, but they do not show whether the mean utility of any individual sample is particularly high or low in comparison to a value that might occur if people were transporting large mammal body parts without any consideration for their utility. In other words, before it can be concluded that people were being especially

“selective” about the kinds of body parts that they carried home, it must be shown that the mean utility of those body parts is significantly higher than the mean utility that would result if people simply brought home a random sample of body parts.

To determine whether this is the case, I also present the results of a second type of analysis in which I compare the distribution of FUI values within each archaeofaunal sample to a null distribution composed of all of the elements within the body of a single artiodactyl. There are 117 bones in the body of an artiodactyl to which FUI values can be assigned: the mean FUI value for these bones is 38.5, and the standard deviation of their FUI values is 20.2. If a t-test shows that the mean FUI of an archaeological sample is significantly higher than the mean FUI of such a null sample, there is reason to conclude that people were selective about the body parts that they transported¹⁴.

Of course, analyses of changes in body part transport of the sort that I present here are of little value unless it can be shown that any observed patterns are not simply the result of density-mediated taphonomic processes (e.g., Grayson 1989; Lyman 1985; Rogers 2000). As Lyman (1985; see also Grayson 1989) has shown, there is a weak negative correlation between the caloric utility of artiodactyl body parts and the volume density of the bones within those body parts as measured by photon densitometry. It is thus possible that a pattern in mean utility among some set of faunal samples might not

¹⁴ An objection might be raised to my application of utility values derived for caribou to the remains of deer and pronghorn. However, because I do not use the absolute caloric content of caribou body parts, but instead use Metcalfe and Jones's (1988) standardized FUI values, in which the caloric content of a body part is expressed as a percentage of the caloric content of the highest utility body part, all that must be assumed is that the utility of various body parts is proportionately the same for all of the taxa involved. Such an assumption would be unwarranted if these taxa varied greatly in anatomical structure, as do deer and bison, for example (e.g., Krutetz 1992), but given the overall similarity in body form among caribou, deer and pronghorn, this assumption is not likely to be problematic for my analysis.

be the result of differences in the kinds of body parts that people transported, but might instead be due to variability in the intensity of taphonomic processes that differentially affect bones of different densities. Specifically, because elements associated with higher utility parts tend to be lower in density, intense density-mediated attrition of bones within a sample might reduce the mean utility value observed for that sample.

To control for such effects, I recorded all of Lyman's (1984) densitometer "scan sites" that are present on each artiodactyl specimen in the assemblages that I use, which allows calculation of the mean of the density values for the scan sites present on the specimens within a given sample¹⁵. The standard deviation of the distribution of density values within a sample can also be calculated, allowing the mean density values of samples to be compared using analysis of variance. If mean density is found to differ significantly among a set of samples, then there is cause for concern that any pattern in mean utility values observed among those samples might be the result of taphonomic factors rather than of variability in body part transport practices.

¹⁵ I include in my analyses all of the scan sites that are present on each individual specimen within the samples that I use, rather than simply a "typical" scan site for each portion of each element as has been done in previous studies (e.g., Lyman 1985, Grayson 1989), because this should provide a more accurate representation of the degree to which density-mediated taphonomic processes have affected these samples. For example, if both high- and low-density scan sites are present on specimens, and if only the highest-density scan sites on those specimens are included in a density analysis, then the effects of density-mediated attrition will be exaggerated. I recorded a scan site as being "present" on a specimen if any portion of the cross-section of the bone is present at the location of that scan site. The density value that I use for each scan site is the mean of all of the volume density measurements for that scan site published in Lyman (1984) for both deer and pronghorn. I exclude from my analyses those scan sites that intersect others (i.e., NC1, AS1, AT2). Finally, because the morphology of ribs varies considerably with position along the vertebral column, I only include ribs in these analyses that are similar in morphology to the rib pictured in Lyman (1984:figure 2): i.e., ribs 3 through 7.

Just as with my analyses of differences in mean utility values among sets of samples, however, such an analysis of differences in mean density does not show whether the mean density value observed in any individual sample is particularly high or low. In other words, before it can be concluded that density-mediated attrition has appreciably affected the bones within a given sample, it must be shown that the mean density of the scan sites present in that sample is significantly higher than might be observed in a sample of bones that was selected randomly. To determine whether this is the case, I use t-tests to compare the distribution of density values present in each of my archaeological samples to a null distribution composed of all of the scan sites present in the body of a single artiodactyl. Such a null distribution consists of 316 scan sites, the mean volume density of which is 0.35 and the standard deviation of which is 0.15.

Numbers of identified artiodactyl specimens are very low for many time periods at the sites that I use. Since this is the case, I only consider changes in mean utility across phases; I do not consider changes across finer-grained ceramic age groups because most of the resulting samples would be quite small, although I do separate the very late sample from the upper fill of unit 325 at Mattocks from the rest of the late samples from this site. For reasons of sample size I also include specimens from all depositional contexts in this analysis, rather than just those from room fill contexts. This should not be problematic because, while it is easy to see how human trash disposal behavior might cause different types of contexts to vary in the abundance of large items relative to small items, it is not easy to see how variability in context type might affect the abundances of bones of different caloric utilities. Finally, I am forced

to combine specimens of all artiodactyl taxa in order to obtain useful sample sizes for these analyses. I do, however, exclude the few bison and large artiodactyl specimens from Mattocks, as well as newborn artiodactyl specimens from all sites, because these larger and smaller animals may have been processed and transported quite differently than animals the size of adult deer and pronghorn.

Mean utility data for Old Town are provided in Table 5.30. An analysis of variance indicates that the samples from each phase at this site do not differ significantly in mean FUI ($F = 0.23, p = 0.920$). Three of these samples include only one specimen, however, and it is reasonable to question whether these samples provide much useful information about artiodactyl body part transport practices. If these samples are excluded from the analysis, a t-test between the remaining Three Circle and Terminal Classic samples still gives an insignificant result ($F = 0.16, p = 0.689$). These data thus provide no basis for concluding that the mean utility of the artiodactyl body parts that people carried back to Old Town changed across the span of time represented by these samples. In addition, none of these samples differs significantly from a null distribution composed of all of the elements in the body of a single artiodactyl, suggesting that there is no reason to think that people at Old Town were particularly selective about the body parts that they transported.

Density data for the Three Circle and Terminal Classic phase samples from Old Town are shown in Table 5.31; no scan sites occur on the specimens in the Early Pithouse/Georgetown, San Francisco/Three Circle or Three Circle/Classic Mimbres samples from this site. The difference in mean density between the Three Circle and

Table 5.30. Old Town artiodactyl mean utility (FUI) by phase; all artiodactyl taxa combined ($F = 0.23, p = 0.920$).

	EP/GT	SF/TC	TC	TC/CM	TCM
Mean FUI	47.3	51.6	38.7	51.6	35.9
NISP	1	1	141	1	12
Standard Deviation	0.0	0.0	23.8	0.0	14.5

Table 5.31. Mean scan site density for Old Town artiodactyl specimens; all artiodactyl taxa combined ($F = 0.48, p = 0.490$). In this table and in those that follow, daggers (“†”) indicate phases for which mean scan site density differs significantly from the mean density value (0.35) of a null distribution composed of all of the scan sites in the body of a single artiodactyl.

	TC†	TCM
Mean Density	0.39	0.36
Number of Scan Sites	120	10
Standard Deviation	0.13	0.15

Table 5.32. Galaz artiodactyl mean utility by phase; all artiodactyl taxa combined ($F = 1.90, p = 0.167$). In this table and in those that follow, double daggers (“‡”) indicate phases for which mean FUI differs significantly from the mean FUI value (38.5) of a null distribution composed of all of the elements in the body of a single artiodactyl.

	GT/SF	TC‡	CM
Mean FUI	38.2	24.6	39.6
NISP	5	11	18
Standard Deviation	17.9	12.4	24.7

Table 5.33. Mean scan site density for Galaz artiodactyl specimens; all artiodactyl taxa combined ($F = 0.90, p = 0.414$).

	GT/SF	TC†	CM†
Mean Density	0.48	0.49	0.43
Number of Scan Sites	5	12	22
Standard Deviation	0.17	0.12	0.13

Table 5.34. Mattocks and McAnally artiodactyl mean utility by phase; all artiodactyl taxa combined, unit 325 upper fill sample separated from other CM/TCM samples ($F = 2.16, p = 0.077$).

	EP†	TC/CM	CM	CM/TCM†	325 Upper†
Mean FUI	53.7	44.5	40.5	56.5	52.1
NISP	15	33	79	13	12
Standard Deviation	21.5	22.2	25.1	29.5	20.2

Table 5.35. Mean scan site density for Mattocks and McAnally artiodactyl specimens; all artiodactyl taxa combined, unit 325 upper fill sample separated from other CM/TCM samples ($F = 1.73, p = 0.146$).

	EP†	TC/CM†	CM†	CM/TCM	325 Upper
Mean Density	0.46	0.45	0.43	0.42	0.34
Number of Scan Sites	21	38	66	14	15
Standard Deviation	0.17	0.14	0.15	0.16	0.14

Terminal Classic samples is not significant ($F = 0.48, p = 0.490$), indicating that there is no basis for concluding that density-mediated taphonomic processes have affected these samples in different ways.

Individually, though, the mean density of the Three Circle phase sample is significantly higher than the mean density of a null distribution composed of all of the scan sites in the body of a single artiodactyl ($F = 6.64, p = 0.010$). This suggests that density-mediated attrition has had some effect on the bones in this sample. However, because the lack of a significant result for the Terminal Classic sample may simply be due to its fairly small size, it cannot necessarily be concluded that density-mediated attrition has had a greater effect on the Three Circle phase sample than on the Terminal Classic sample. There is thus no compelling reason to think that either mean utility or

mean density varies between these two samples from Old Town nor, as I noted above, is there any reason to think that either of these samples reflects a particularly selective choice of body parts carried home by hunters from this site.

Galaz utility data are shown in Table 5.32. As at Old Town, the samples from Galaz do not vary significantly in mean FUI ($F = 1.90, p = 0.167$), so there is little basis for concluding that the mean utility of the artiodactyl body parts that were brought back to this site changed over time. However, while the mean utility of the elements in the Georgetown/San Francisco and the Classic Mimbres phase samples do not suggest that people were especially selective about the body parts that they carried home, the mean utility of the Three Circle phase sample is very low, and it is significantly lower than the mean utility of a null distribution composed of all of the elements in the body of a single artiodactyl ($F = 5.01, p = 0.027$). It is difficult to come up with a behavioral explanation for this low mean utility value because that would seem to require arguing that people preferentially transported a high proportion of body parts that provided relatively low caloric utility. However, a possible taphonomic explanation can be seen in Table 5.33, which presents artiodactyl scan site density data for Galaz.

The mean density values of the Three Circle and the Classic Mimbres phase samples from this site are both significantly higher than what might be expected in a random sample of scan sites (Three Circle: $F = 10.19, p = 0.002$; Classic Mimbres: $F = 5.94, p = 0.015$). In addition, the difference between the mean density of the sample from the Georgetown/San Francisco phase and the mean density of the null distribution

that I use is nearly significant at the 0.05 level ($F = 3.68, p = 0.056$). It thus appears that all of these samples have experienced considerable density-mediated attrition.

Moreover, although an analysis of variance gives an insignificant result for the differences in mean density among the samples from this site ($F = 0.90, p = 0.414$), the Three Circle phase sample from Galaz has the highest observed mean density value of any sample from all of the sites that I use. This sample also has the lowest mean utility value of any sample in my analysis, and, despite the fact that there is no statistical basis for concluding that either mean utility or mean density varies among the samples from Galaz, it would be odd if this were merely a coincidence. In other words, the possibility should not be ruled out that the low mean utility value seen in the sample from the Three Circle phase at Galaz is due primarily to a high degree of density-mediated attrition in this sample.

Regardless of whether this is the case, though, the data from Galaz provide no basis for concluding that people transported high proportions of high utility artiodactyl body parts back to this site during any of the time periods represented here. Likewise, the data from this site provide little basis for concluding that the degree of selectivity changed across these time periods.

Utility data for Mattocks and McAnally are given in Table 5.34. Unlike Old Town and Galaz, this pair of sites provides reasonably-sized samples from several time periods, and an analysis of variance indicates that the observed differences in mean utility among these samples are almost significant at the 0.05 level ($F = 2.16, p = 0.077$). T-tests between pairs of adjacent samples can help to show which samples

contribute the most to the result of this analysis of variance, and among such pairs, only the difference between the Classic Mimbres sample and the Classic Mimbres/Terminal Classic sample is significant ($F = 4.32, p = 0.041$). There is thus reason to believe that the proportion of high utility artiodactyl body parts relative to low utility body parts that was carried back to Mattocks increased either sometime late in the Classic Mimbres phase or during the Terminal Classic.

In addition, the Early Pithouse period sample, the Classic Mimbres/Terminal Classic sample, and the sample from the upper fill of unit 325 all have mean utility values that are significantly higher than that of a null distribution composed of all of the elements in the body of a single artiodactyl (EP: $F = 7.42, p = 0.007$; CM/TCM: $F = 8.40, p = 0.004$; 325 upper: $F = 4.93, p = 0.028$). This suggests that people at these sites were selective in their choice of body parts to transport during these periods. The mean utility values of the larger Three Circle/Classic Mimbres and Classic Mimbres phase samples, on the other hand, are not significantly higher than the mean utility of the null distribution. This provides additional reason to think that the proportion of high utility body parts brought to Mattocks increased late in the Classic Mimbres phase or in the Terminal Classic, and it also suggests that a lower proportion of high utility body parts was transported to Mattocks during the Three Circle and Classic Mimbres phases than had been transported to McAnally during the Early Pithouse period.

It does not appear that these results are merely reflecting differences among samples in the degree to which they have been affected by density-mediated taphonomic processes (Table 5.35). An analysis of variance gives an insignificant

result for the observed differences in mean scan site density among these samples ($F = 1.73, p = 0.146$). In addition, the Early Pithouse sample, the TC/CM sample, and the Classic Mimbres phase sample all have mean density values that are significantly higher than that of the null distribution that I use (EP: $F = 10.41, p = 0.001$; TC/CM: $F = 15.28, p < 0.001$; CM: $F = 15.53, p < 0.001$), and the difference between the mean density value of the smaller CM/TCM sample and that of the null distribution is almost significant ($F = 2.90, p = 0.089$). These results suggest, of course, that each of these samples has been affected to some degree by density-mediated attrition, but they are also consistent with the results of the analysis of variance that indicate that the effects of this attrition have not varied greatly among these samples.

The one potentially problematic sample from these sites comes from the upper fill of unit 325. Although there are no statistically significant differences in mean density among the Mattocks and McAnally samples, the mean density value of this sample is lower than the rest, and it is approximately equal to the mean density of the null distribution of scan sites that I use (0.35). The high mean utility value observed for this sample may thus be due in part to a very low degree of density-mediated attrition within it. The analysis that I present next can help to clarify whether this is the case.

I have suggested that some of the samples in my analysis do not indicate selective body part transport practices, and it might be objected that the effects of density-mediated attrition are responsible for my failure to find evidence of such practices in these samples. As I discussed above, given the weak negative correlation between body part utility and bone density that Lyman (1985) has pointed out (see also

Grayson 1989), it is reasonable to expect that samples that have been subjected to high degrees of density-mediated attrition might have lower mean utility values than they would otherwise exhibit. For most of the samples that I include in this analysis, though, it appears that density-mediated attrition has not had such an effect.

Figure 5.1 presents the mean utility value for each of the samples included in my analysis plotted against its mean density value. If higher degrees of density-mediated attrition have systematically produced lower mean utility values among these samples, then there should be a negative correlation between the mean utility of the body parts represented in these samples and the mean density of the scan sites that are present in them. Among these samples, however, the correlation between these two variables is weak and insignificant ($r = -0.31$, 1-tailed $p = 0.194$). It thus appears that density-mediated taphonomic processes have not had a systematic impact on the mean utility values observed in these samples.

One possible exception to this may be the Three Circle phase sample from Galaz (in the lower right corner of Figure 5.1), which seems to be the single data point driving the weak relationship that is present here. As I discussed above, this sample has both the lowest mean utility value and the highest mean density value of all of the samples that are included in my analysis, and it is possible that the low mean utility value of this sample is effectively the result of its high mean density value. If this sample were not present in my analysis, the scatter of points in Figure 5.1 would be entirely random, and there would be no evidence that density-mediated attrition had reduced the mean utility values of any of the remaining samples. Another possible exception may be the sample

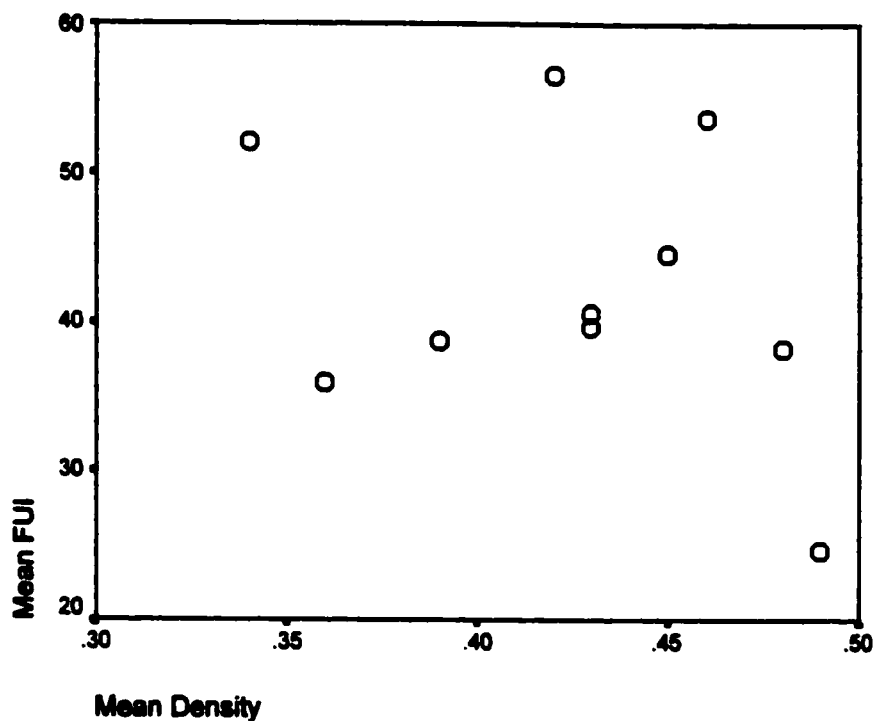


Figure 5.1. Relation between mean FUJ and mean density among samples from each phase at all of the sites included in this analysis ($r = -0.31$, 1-tailed $p = 0.194$).

from the upper fill of Mattocks unit 325 (upper left corner of Figure 5.1), which, as I noted above, has both a very low mean density value and a high mean utility value; I discuss additional potential taphonomic problems with this sample later in this chapter.

To summarize the results of my analysis of artiodactyl body part representation, when potential taphonomic effects are taken into account, there is no evidence from Old Town or Galaz to support the hypothesis that the proportion of high utility body parts relative to low utility body parts that were carried home changed over time. Likewise, there no evidence to suggest that people at either of these sites were particularly selective about the kinds of body parts that they transported.

It appears that people did selectively transport high proportions of high utility body parts to McAnally during the Early Pithouse period, but mean utility is then lower at Mattocks during the Three Circle phase and most of the Classic Mimbres phase, only to increase again late in the Classic Mimbres phase or during the Terminal Classic. Most of the differences in mean utility observed at these two sites cannot be explained by differences among samples in the degree to which they have been affected by density-mediated attrition, though such taphonomic factors may be responsible for the high mean utility value of the sample from the upper fill of unit 325 at Mattocks.

The increase in mean utility that occurs between the Classic Mimbres and the CM/TCM samples from Mattocks suggests that average search and transport times for artiodactyl prey types increased during this period. Although the taxonomic relative abundance data from this site do not indicate that artiodactyl capture rates declined over this period relative to leporid capture rates (e.g., Table 5.26), the body part data suggest that people had to spend more time searching for artiodactyls locally and/or that they had to travel further from home to find them in order to maintain these capture rates. The model that I presented in Chapter 3 shows that the increases in both search and transport time and in processing time that are likely reflected here would have resulted in a decline in overall hunting efficiency (e.g. Figure 3.4).

Artiodactyl relative abundance rebounds at Mattocks in the upper fill of unit 325, the bones from which may date to the A.D. 1300s or 1400s, and the high mean body part utility value observed for this sample might seem to contradict the decline in artiodactyl search and transport times that is suggested by the high taxonomic relative

abundance value for this sample. When the low mean density value for this sample is considered, however, it appears that its high mean utility value may have more to do with taphonomic effects than with body part transport practices. In addition, as I discuss below, it appears that the increase in artiodactyl relative abundance that is observed in this sample is also merely the result of taphonomic factors.

Unlike the increase in mean utility between the Classic Mimbres and that CM/TCM samples from Mattocks, the decline in mean utility between the Early Pithouse sample from McAnally and the TC/CM sample from Mattocks does not lend itself to straightforward interpretation in terms of the model I presented in Chapter 3, nor can it be explained by taphonomic factors as is possible with the unit 325 upper fill sample. This decline in mean utility would seem to indicate that search and transport times for artiodactyl prey declined in the area around these sites over this span of time, but the taxonomic relative abundance data from these sites suggest that artiodactyls actually became much less abundant in this area over this period. A possible reason for this discrepancy between the results of my taxonomic relative abundance analysis and the results of my body part analysis may be that this case violates a key assumption that must be made in order to apply my model of prey selection and field processing.

Specifically, as I noted in Chapter 3, in order for the model that I presented to be useful archaeologically, it must be assumed that distribution of maximum transport load sizes across foraging trips remained constant over time. However, because the sizes of settlements in the Mimbres Valley grew substantially between the Early Pithouse period and the Three Circle and Classic Mimbres phases, it is possible that the size of hunting

parties also increased over this span of time. If this occurred, then the size of the total load of meat that could have been carried home by any individual hunting party would have increased, and if the number of animals captured per party increased by a lesser percentage, then the benefits obtained from spending additional time removing low utility body parts prior to transport would have been reduced. We should thus expect to see declines over time in the mean utility of the body parts that are carried home in cases where the average size of hunting parties increases.

At Old Town, the absence of a significant difference in mean artiodactyl body part utility between samples from the Three Circle phase and the Terminal Classic is consistent with the lack of a significant change in artiodactyl relative abundance between these two time periods at this site. Together, both of these lines of evidence suggest that average search and transport times for artiodactyl prey did not change appreciably in the area surrounding Old Town between about A.D. 800 and 1200. Due to the very small samples from earlier periods at this site, consideration of body part representation does nothing to help resolve the question of how artiodactyl search and transport times might have changed here prior to the Three Circle phase.

Because artiodactyl relative abundance is significantly higher in the Georgetown/San Francisco sample from Galaz than it is in the later samples from this site, it should be expected that a contemporaneous increase in mean utility would also be observed here, but this does not occur. The absence of such an increase may be due in part to the effects of taphonomic processes on the Three Circle phase sample from Galaz, but the Classic Mimbres phase sample from this site does not appear to have

experienced such severe taphonomic effects, and the mean utility value of this sample is not appreciably greater than that of the GT/SF sample. Thus, as I suggested occurred between the Early Pithouse period sample from McAnally and the Three Circle and Classic Mimbres phase samples from Mattocks, this pattern at Galaz might also reflect an increase in the size of hunting parties: any increase in mean utility that might otherwise have occurred here as the result of resource depression may have been offset by an increase in the number of people available to carry food home.

The patterns in artiodactyl body part representation that are observed at the sites that I use are consistent with the patterns in artiodactyl relative abundance at these sites, provided that my argument about changes in hunting party size between the Three Circle phase and earlier periods is correct. The body part data from Mattocks may also provide evidence, which is not reflected in the taxonomic relative abundance data, of an increase in the average search and transport times for artiodactyl prey types in the area surrounding this site during the late Classic Mimbres phase or the Terminal Classic.

Artiodactyl Age Profiles

The final line of evidence that I employ to test the hypothesis that Mimbres Valley hunters experienced depression of large mammal resources is the distribution of artiodactyl bone specimens across age classes in faunal samples from different phases. As I argued in Chapter 3, if rates of harvest of artiodactyl prey types increased sufficiently over time, then the proportion of older individuals relative to younger individuals in living populations of these taxa would likely have declined, and this

decline should be apparent in archaeological assemblages. In addition, because smaller juvenile individuals and larger adult individuals should be considered to constitute distinct prey types that provide different post-encounter return rates, declining abundances of older animals might have led to more frequent pursuit of younger ones.

Unfortunately, due to small samples, artiodactyl age profiles are less useful than the other measures of resource depression that I use. To the extent that the demographic data are informative, however, they are consistent with these other measures.

I placed artiodactyl bone specimens into three age classes: newborn, subadult and adult. Specimens were assigned to the newborn class based on such criteria as small size and porous cortical bone; comparison with juvenile and fetal artiodactyl reference skeletons suggests that all of these specimens come from neonatal individuals that were approximately two months old or less at time of death. Specimens were assigned to the subadult and adult age classes based on epiphyseal fusion: non-neonatal specimens with unfused epiphyses were placed in the subadult class, and specimens with fused epiphyses were placed in the adult class¹⁶. It is likely that most of the subadult specimens come from individuals that were less than about one year old at time of death, while most of the adult specimens were more than one year old at death.

Since epiphyses are not present on the majority of the identified artiodactyl specimens from these sites (because many of these specimens, for example, are from the mid-shafts of elements), the distribution of specimens across age classes in the

¹⁶ I treat partially fused specimen with visible lines of fusion as being fused. Unfused epiphyses themselves are excluded from this analysis in order to avoid counting the same specimen twice: once as a shaft and once as an epiphysis.

archaeofaunal samples that I discuss does not accurately reflect the age structure of the living populations of the taxa from which these specimens come. Newborns are systematically over-represented in these samples because neonatal specimens are easily recognized as such, while only a small portion of the total number of specimens from subadult and adult animals can be identified to age class using epiphyseal fusion. Nevertheless, because this bias towards over-representation of newborns should be uniform across all of the samples included in this analysis, these samples can be used to identify any trends that may have occurred over time in the proportions of individuals from each age class that were harvested.

As was the case with my analysis of body part representation, small samples force me to combine specimens from all artiodactyl taxa in my analysis of age profiles¹⁷, to include specimens from all contexts rather than only room fill contexts, and to consider changes across phases instead of across finer-resolution ceramic age groups. Despite these measures, however, samples of specimens that can be assigned to age classes are very small for all phases at Galaz and for all but one phase at Old Town.

Artiodactyl age class data for Old Town are presented in Table 5.36. The two early samples here consist only of specimens from younger individuals, while such specimens make up much less of the three later samples. A chi-square test on these data gives a significant result ($\chi^2 = 19.84, p = 0.011$), and many of the cells in this table produce adjusted standardized residuals with absolute values greater than 2.00. This suggests that there are important differences among phases in the proportions of

¹⁷ The bison and large artiodactyl specimens from Mattocks are not included in this analysis.

specimens in different age classes. However, given the small sizes of the samples from most of these phases, these differences should perhaps not be considered to be truly “significant”. It is well known that chi-square tests can overestimate the significance of differences in cases where samples are small (e.g., Zar 1999:470), and Zar (1999:504-505) suggests that chi-square tests should not be used when the mean expected frequency for all of the cells in a contingency table is less than six. The mean expected frequency of the cells in Table 5.36 is 3.4.

Table 5.37 provides artiodactyl age data for Galaz. Very few specimens from any of the three phases here could be assigned to age classes, and the differences in age class representation among these phases are not significant ($\chi^2 = 0.74, p = 0.690$). The mean expected frequency for the cells in this table is 1.7, which is even smaller than the mean expected frequency for the data from Old Town. Thus, as was the case with Old Town, the age data from Galaz are not very useful for testing a hypothesis about changes in artiodactyl harvest rates.

Artiodactyl age data for Mattocks and McAnally are given in Table 5.38. These two sites provide somewhat bigger samples for a larger number of time periods than do Old Town or Galaz, and for this reason I illustrate the distribution of specimens across age classes in the sample from each phase at Mattocks and McAnally graphically in Figure 5.2. There appear to be no major changes over time in the proportions of specimens from different age classes, especially when it is considered that the Early Pithouse period sample includes only three specimens, and a chi-square test gives an insignificant result for the differences among these samples ($\chi^2 = 4.90, p = 0.868$).

Table 5.36. Distribution of artiodactyl specimens across age classes in samples from Old Town aggregated by phase; all artiodactyl taxa combined ($\chi^2 = 19.84, p = 0.011$). Asterisks indicate cells for which the adjusted standardized residuals from a chi-square test have absolute values of 2.00 or greater.

Age Class	EP/GT	SF/TC	TC	TC/CM	TCM
Newborn	1	1*	4	0	0
Subadult	1*	0	3*	0	1*
Adult	0*	0	38*	1	1
<i>Total</i>	2	1	45	1	2

Table 5.37. Distribution of artiodactyl specimens across age classes in samples from Galaz aggregated by phase; all artiodactyl taxa combined ($\chi^2 = 0.74, p = 0.690$).

	GT/SF	TC	CM
Newborn	0	0	1
Subadult	0	0	0
Adult	1	3	5
<i>Total</i>	1	3	6

Table 5.38. Distribution of artiodactyl specimens across age classes in samples from Mattocks and McAnally aggregated by phase; all artiodactyl taxa combined, unit 325 upper fill sample separated from other CM/TCM samples ($\chi^2 = 4.90, p = 0.768$).

Age Class	EP	TC/CM	CM	CM/TCM	325 Upper
Newborn	0	4	15	3	2
Subadult	1	2	4	1	1
Adult	2	9	12	4	4
<i>Total</i>	3	15	31	8	7

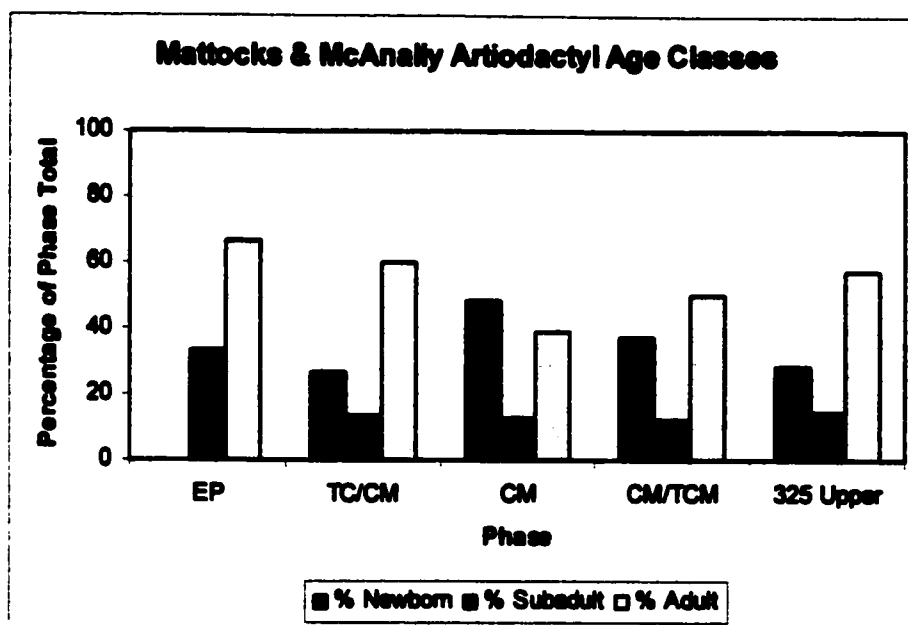


Figure 5.2. Distribution of artiodactyl specimens across age classes in samples from Mattocks and McAnally ($\chi^2 = 4.90$, $p = 0.768$; see Table 5.38).

However, the mean expected frequency for the cells in Table 5.38 is 4.3, which, although larger than the values for Old Town or Galaz, is still much less than 6.

On close inspection of Figure 5.2, it appears that the proportion of adult individuals relative to newborn individuals may be higher in the Three Circle/Classic Mimbres sample from Mattocks than in the Classic Mimbres phase sample from this site. This suggests that artiodactyl harvest rates may have increased over the period of time represented by these samples, and, because these two samples are also the largest from Mattocks, it is worthwhile to explore this possible change further. A chi-square test, however, gives an insignificant result for the difference between these two samples ($\chi^2 = 2.16$, $p = 0.340$, mean expected frequency = 7.7). There is thus little basis for

concluding that the proportions of artiodactyls of different ages that were harvested by people from Mattocks and McAnally changed over the span of time represented here.

To summarize the results of my age profile analyses, samples of artiodactyl specimens from Old Town and Galaz that can be assigned to age classes are too small to add anything to my analyses of taxonomic relative abundance and body part representation for these sites. The results of my artiodactyl age profile analysis for Mattocks and McAnally, on the other hand, appear to agree with the other lines of evidence that I have considered for these sites, to the extent that the samples from these sites are large enough to provide useful information. My analysis of artiodactyl relative abundance suggested that no significant changes in the abundances of these prey types occurred around Mattocks between the Three Circle phase and the Terminal Classic, and the stable artiodactyl age profiles that are evident at this site over this span of time are consistent with this. The sample of ageable specimens from McAnally is probably too small to be informative about artiodactyl population age structure during the Early Pithouse period.

Summary of Archaeological Indicators of Resource Depression

Of the three lines of evidence that I use to test the hypothesis that Mimbres Valley hunters experienced depression of large mammal resources, the most informative is the abundance of artiodactyl bones relative to leporid bones in archaeofaunal samples. Artiodactyl relative abundance declines dramatically between the Early Pithouse period sample from McAnally and the earliest sample from

Mattocks, which contains material dating to the Three Circle and Classic Mimbres phases. Consistent with this are a significant decline that occurs between the Georgetown/San Francisco and Three Circle phase samples from Galaz and a statistically insignificant decline that occurs between the Early Pithouse/Georgetown and Three Circle phase samples from Old Town.

Taken together, these declines in artiodactyl relative abundance, as well as the early decline that is evident at the Wind Mountain site, strongly suggest that average search and transport times for artiodactyl prey types increased substantially between the initial occupation of the Mimbres region by agriculturalists and the early Three Circle phase. In other words, there is good reason to believe that deer and pronghorn were much more abundant on the landscape of the Mimbres Valley during the few centuries before A.D. 800 or 850 than they were during the few centuries after this.

From the beginning of the Three Circle phase through the end of the Terminal Classic, however, there are no appreciable changes in artiodactyl relative abundance at any site within the Mimbres Valley. The absence of a continued decline during this span of time suggests that artiodactyl abundances in the valley remained constant, perhaps because these animals were now so rare that people set out to hunt them only at occasional times of the year when search and transport times for them were likely to be low. The absence of significant changes in artiodactyl age profiles from Mattocks during this period is consistent with the absence of significant changes in artiodactyl relative abundance. On the other hand, the increase in mean artiodactyl body part utility that occurs between the Classic Mimbres and CM/TCM samples from Mattocks

suggests that people began to travel further from this site in order to hunt artiodactyls either late in the Classic Mimbres phase or during the Terminal Classic.

Finally, the increase in artiodactyl relative abundance observed in the late sample from Mattocks, which is consistent with high relative abundances of artiodactyls at Cliff phase sites in the valley that are likely contemporary with this sample (e.g., Nelson and LeBlanc 1986), suggests that abundances of artiodactyls on the landscape rebounded following the Terminal Classic. As I discuss below, however, this increase in artiodactyl relative abundance may have more to do with taphonomic factors than with an increase in prey densities.

The changes in artiodactyl relative abundance that occur at the sites in this analysis, together with the data on artiodactyl body part representation and on artiodactyl age profiles from these sites, are largely consistent with the hypothesis that Mimbres Valley hunters experienced depression of large mammal resources during the early part of the Late Pithouse period. These lines of evidence also indicate that hunting efficiency was at its lowest over a period of several hundred years from the early Three Circle phase through the Terminal Classic. However, there are factors other than human predation that might have produced the patterns observed at these sites, and these alternative causes must be ruled out before it can be concluded with confidence that resource depression and reduced hunting efficiency occurred here. I spend the remainder of this chapter addressing these alternative potential causes.

Potential Confounding Factors

The primary factors that might result in spurious conclusions about the occurrence of vertebrate resource depression and reduced hunting efficiency can be divided into three kinds: variability in the taphonomic processes to which faunal samples have been subjected, changes over time in the means by which people harvested prey, and changes in climate or in vegetation that might have affected the abundances of prey on the landscape independently of human predation. I consider each of these issues as they relate to my study of hunting in the Mimbres Valley in turn.

Taphonomic Factors

I addressed a particular taphonomic issue earlier in this chapter when I explored how density-mediated attrition might have affected the mean artiodactyl body part utility values observed in samples from Old Town, Galaz, Mattocks and McAnally. There is another taphonomic issue that must also be addressed, however, which is relevant to my analysis of artiodactyl relative abundance. Because numbers of identified specimens, and measures of taxonomic relative abundance based on them, can vary greatly depending on the extent to which bones are fragmented (e.g., Grayson 1984; Marshall and Pilgram 1993), it is crucial to control for the degree to which fragmentation has affected the faunal samples included in any relative abundance analysis (cf. Cannon 1999).

As I noted above, I attempted at the outset of my study to minimize the effects of fragmentation by excluding elements that remain identifiable after they have been

heavily fragmented. Here, I show that fragmentation rates for the elements from any given taxon that are included in my analyses do not differ significantly among phases at each site. I also present an analysis designed to identify samples in which differential rates of fragmentation between taxa might have substantially affected the relative abundance values observed in them. Finally, I complete my consideration of the density-mediated attrition issue that I began in my analysis of artiodactyl body part representation by exploring whether mean scan site density values for jackrabbit and cottontail specimens differ significantly among the samples from each site. This examination of leporid bone density aids in interpretation of the fragmentation data.

As a measure of the degree to which specimens have been fragmented, I employ the percentage of bone density scan sites that are present on them. As I described earlier, I recorded which of Lyman's (1984) bone density scan sites are present on each of the artiodactyl bone specimens in the assemblages that I use, and I did the same thing for leporid specimens using the densitometer scan sites of Pavao and Stahl (1999). Of course, recording the scan sites that are present on faunal specimens provides a means of determining the degree to which samples have been affected by density mediated attrition, but the number of scan sites present on a specimen also provides a measure of how complete that specimen is: as a bone is broken into more and more pieces, fewer scan sites will be present on any individual piece of that bone.

Because different elements possess different numbers of scan sites, I do not use the raw number of scan sites present on a specimen as a measure of fragmentation. Instead, I employ the proportion of the total number of possible scan sites that is present

on each specimen. For example, there are six scan sites on a complete leporid femur: if two scan sites are present on an archaeological jackrabbit femur specimen, then this constitutes a proportion of 0.33 of the number of scan sites that could possibly occur on this specimen. To compare rates of fragmentation between samples, I recorded the proportion of scan sites present on all specimens in each sample¹⁸, and I then calculated the mean and the standard deviation of the distribution of scan site proportions within each sample. This allows the mean scan site proportions for different samples to be compared using analysis of variance.

As with my analyses of artiodactyl body part representation and artiodactyl age profiles, I limit my fragmentation analyses to samples aggregated by phase; for reasons of sample size, I do not consider samples aggregated by ceramic age group. Unlike those analyses, however, sample sizes allow me to restrict my fragmentation analyses to samples from room fill depositional contexts, which I do for all sites except McAnally. The data I discuss in this section thus come from the same samples as are used in Table 5.21 for Old Town, in Table 5.22 for Galaz, and in Table 5.23 for Mattocks and McAnally, although I separate the unit 325 upper fill sample from the rest of the Mattocks CM/TCM samples in my consideration of the material from this site.

Mean scan site proportion data for each phase at Old Town are provided in Tables 5.39 through 5.42; Tables 5.43 through 5.46 present mean scan site proportion data for Galaz, and Tables 5.47 through 5.50 present such data for Mattocks and

¹⁸ Obviously, this cannot be done for elements that have not been included in a densitometer analysis (e.g., cranial elements), so I do not include such elements here.

Table 5.39. Mean proportion of scan sites present on Old Town artiodactyl specimens from well-dated room fill contexts; all artiodactyl taxa combined ($F = 0.49, p = 0.616$).

	EP/GT	TC	TCM
Mean Proportion Present	0.00	0.40	0.37
NISP	1	89	5
Standard Deviation	0.00	0.41	0.34

Table 5.40. Mean proportion of scan sites present on Old Town jackrabbit specimens from well-dated room fill contexts ($F = 1.48, p = 0.228$).

	EP/GT	TC	TCM
Mean Proportion Present	0.28	0.39	0.44
NISP	9	630	37
Standard Deviation	0.14	0.26	0.28

Table 5.41. Mean proportion of scan sites present on Old Town cottontail specimens from well-dated room fill contexts ($F = 0.11, p = 0.736$).

	TC	TCM
Mean Proportion Present	0.52	0.55
NISP	113	11
Standard Deviation	0.28	0.29

Table 5.42. Mean proportion of scan sites present on Old Town unidentified leporid specimens from well-dated room fill contexts ($F = 1.66, p = 0.193$).

	EP/GT	TC	TCM
Mean Proportion Present	0.00	0.16	0.11
NISP	2	250	19
Standard Deviation	0.00	0.17	0.13

Table 5.43. Mean proportion of scan sites present on Galaz artiodactyl specimens from room fill contexts; all artiodactyl taxa combined ($F = 0.64, p = 0.542$).

	GT/SF	TC	CM
Mean Proportion Present	0.25	0.26	0.38
NISP	3	8	6
Standard Deviation	0.11	0.20	0.26

Table 5.44. Mean proportion of scan sites present on Galaz jackrabbit specimens from room fill contexts ($F = 0.76, p = 0.389$).

	TC	CM
Mean Proportion Present	0.27	0.32
NISP	21	29
Standard Deviation	0.17	0.22

Table 5.45. Mean proportion of scan sites present on Galaz cottontail specimens from room fill contexts ($F = 1.05, p = 0.376$).

	GT/SF	TC	CM
Mean Proportion Present	0.31	0.30	0.45
NISP	3	8	7
Standard Deviation	0.08	0.21	0.24

Table 5.46. Mean proportion of scan sites present on Galaz unidentified leporid specimens from room fill contexts ($F = 0.66, p = 0.542$).

	GT/SF	TC	CM
Mean Proportion Present	0.10	0.13	0.06
NISP	2	3	7
Standard Deviation	0.10	0.09	0.09

Table 5.47. Mean proportion of scan sites present on Mattocks artiodactyl specimens from room fill contexts and on all McAnally artiodactyl specimens; all artiodactyl taxa combined ($F = 1.31, p = 0.271$).

	EP	TC/CM	CM	CM/TCM	325 Upper
Mean Proportion Present	0.34	0.30	0.31	0.45	0.58
NISP	15	22	40	11	9
Standard Deviation	0.47	0.26	0.37	0.36	0.39

Table 5.48. Mean proportion of scan sites present on Mattocks jackrabbit specimens from room fill contexts ($F = 1.65, p = 0.181$).

	TC/CM	CM	CM/TCM	325 Upper
Mean Proportion Present	0.45	0.35	0.40	0.30
NISP	46	82	22	2
Standard Deviation	0.29	0.23	0.25	0.10

Table 5.49. Mean proportion of scan sites present on Mattocks cottontail specimens from room fill samples and on all McAnally cottontail specimens ($F = 1.26, p = 0.289$).

	EP	TC/CM	CM	CM/TCM	325 Upper
Mean Proportion Present	0.17	0.55	0.53	0.46	0.40
NISP	1	49	84	20	6
Standard Deviation	0.00	0.27	0.25	0.23	0.34

Table 5.50. Mean proportion of scan sites present on Mattocks unidentified leporid specimens from room fill contexts ($F = 0.11, p = 0.893$).

	TC/CM	CM	CM/TCM
Mean Proportion Present	0.20	0.18	0.14
NISP	12	14	4
Standard Deviation	0.28	0.15	0.16

McAnally¹⁹. I combine specimens of all artiodactyl taxa in these analyses in order to obtain useful sample sizes, but I present data separately for each leporid taxon because specimens of these taxa appear to vary substantially in the degree to which they are fragmented²⁰. Cottontail (*Sylvilagus* sp.) specimens tend to be much more complete on average than jackrabbit (*Lepus* sp.) specimens, most likely because many fewer extensively broken cottontail specimens were recovered in 1/4" mesh screens. Unidentified leporid (Leporidae) specimens, on the other hand, are much more fragmented than either jackrabbit or cottontail specimens, which is understandable since these are the specimens that are too incomplete to be identified to genus.

There is no basis for concluding that the mean proportion of scan sites present on specimens varies over time for any taxon at any of the sites included in this analysis: none of the differences observed among phases are significant (see table captions for ANOVA results). This suggests that variability among samples in rates of fragmentation is not a problem in my analysis as far as individual taxa are concerned.

However, an absence of statistically significant differences in fragmentation for taxa considered individually does not necessarily imply that measures of the abundance of one taxon relative to another are immune to the effects of variability in fragmentation. If the specimens of one taxon within a faunal sample have been fragmented to a greater degree than have the specimens of another taxon within that

¹⁹ If no identifiable specimens of a given taxon are present in the sample from a given phase at a given site, then that phase is not included in the table for that site. The bison and large artiodactyl specimens from Mattocks are not included in this analysis.

²⁰ I include in this analysis only leporid specimens from elements that are reported by Shaffer and Sanchez (1994) to be regularly recovered in 1/4" screens when unbroken.

sample, then the relative abundances of the specimens of those two taxa in that sample will be biased in relation to the relative abundances that would be observed had the bones of those taxa not been broken at all. This would not be a problem for an analysis of temporal change in relative abundance if it could be assumed that the bias affected all samples equally, but it cannot be assumed that this is the case.

To illustrate this, I present Table 5.51 and Figure 5.3. Table 5.51 gives mean scan site proportions for samples from each phase at each site that contain appreciable numbers of identified specimens of both artiodactyls and leporids²¹. The values in the leporid column are the means of the proportion of scan sites present on specimens from all leporid taxa; I use the means for specimens of all leporid taxa combined because I included all leporid taxa in my analysis of artiodactyl relative abundance.

If both leporid specimens and artiodactyl specimens have been fragmented to the same degree within any individual sample, then, regardless of the degree to which the specimens in that sample have been fragmented, that sample will provide an unbiased measure of relative abundance. On the other hand, if the specimens of one taxon are more fragmented than are the specimens of the other taxon in a sample, then the measure of relative abundance provided by that sample will be biased. If relative abundance were biased in all samples in the same direction and by the same amount, then the information provided by those samples about trends in relative abundance would be accurate. However, if the bias in relative abundance were inconsistent among

²¹ I exclude the Early Pithouse/Georgetown sample from Old Town because there are only two identified artiodactyl specimens in this sample, and I exclude the Early Pithouse sample from McAnally because it contains only one identified leporid specimen.

Table 5.51. Mean scan site proportion data for all samples included in this analysis that have appreciable numbers of identified specimens. Values for leporids are the mean proportions of scan sites present on specimens from all leporid taxa combined. Asterisks indicate values that fall outside the interquartile range for each variable.

Site-Phase	Artiodactyl Mean Proportion of Scan Sites Present	Leporid Mean Proportion of Scan Sites Present	Artiodactyl Mean Proportion/Leporid Mean Proportion
Old Town-TC	0.40	0.35	1.14
Old Town-TCM	0.37	0.36	1.03
Galaz-GT/SF	0.25	0.23	1.09
Galaz-TC	0.26	0.26	1.00
Galaz-CM	0.38	0.30	1.27
Mattocks-TC/CM	0.30	0.47	0.64*
Mattocks-CM	0.31	0.42	0.74*
Mattocks-CM/TCM	0.45	0.40	1.13
Mattocks-325 Upper	0.58*	0.38	1.53*
<i>Median</i>	<i>0.37</i>	<i>0.36</i>	<i>1.09</i>
<i>Interquartile Range</i>	<i>0.15</i>	<i>0.13</i>	<i>0.34</i>

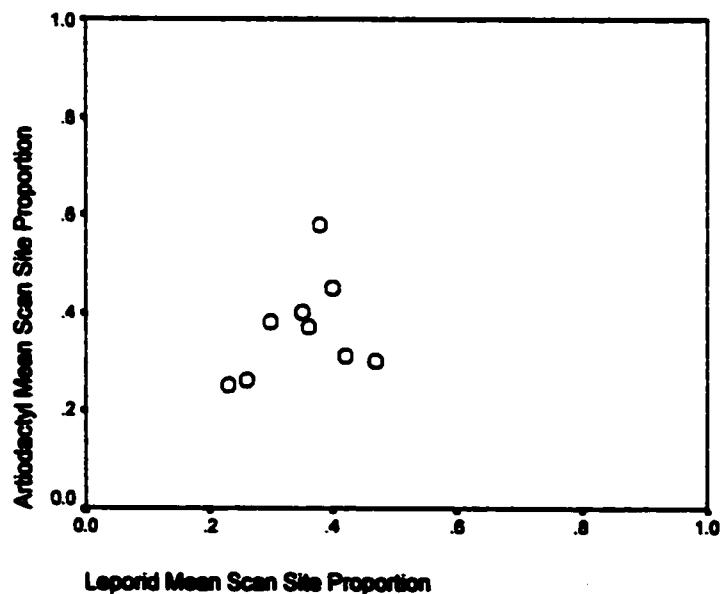


Figure 5.3. Relation between the mean proportion of scan sites present on artiodactyl specimens and the mean proportion of scan sites present on leporid specimens in samples used in this analysis ($r = 0.34$, 1-tailed $p = 0.189$).

samples, then it is quite possible that those samples would provide inaccurate information about trends in relative abundance (cf. Cannon 1999).

The purpose of Figure 5.3 is to assist in evaluating whether the samples included in my analyses of artiodactyl relative abundance are biased inconsistently as a result of differences in the degree to which the specimens of each taxon within them have been fragmented. This figure plots the mean proportion of scan sites present on the artiodactyl specimens in those samples against the mean proportion of scan sites present on the leporid specimens in them. If specimens of both taxa were fragmented to approximately the same degree within each sample, then the relation between the two variables in this graph would be positive and linear with a slope of one; any outliers that might occur, however, would indicate samples in which one taxon was much more fragmented than the other. It can be seen that the correlation between the two variables in Figure 5.3 is not particularly tight, nor is it significant ($r = 0.34$, 1-tailed $p = 0.189$).

Another way of looking at the data in Figure 5.3 is to calculate a ratio such as the one presented in the right-hand column of Table 5.51. Here, I have divided the artiodactyl mean scan site proportion for each sample by its leporid mean scan site proportion: high values of this ratio indicate that the artiodactyl specimens in a sample are less fragmented than are the leporid specimens within it, while low values indicate samples in which artiodactyl specimens are more fragmented than leporid specimens. To determine whether the value of this ratio is unusually high or low for any sample, I have calculated the median and the interquartile range of the values for all of the samples in this table; I have also calculated these statistics for the artiodactyl and

leporid mean scan site proportions from which the ratio is derived. Asterisks indicate values that fall outside the interquartile range for each variable. These data are illustrated graphically in Figure 5.4.

It seems that there are three samples here that are potentially problematic. In the unit 325 upper fill sample from Mattocks, artiodactyl specimens are extraordinarily complete, while leporid specimens display an average level of fragmentation. In the Three Circle/Classic Mimbres and the Classic Mimbres phase samples from this site, on the other hand, artiodactyl specimens are much more fragmented than are leporid specimens. I discuss the implications of these high and low ratio values for my analysis of artiodactyl relative abundance shortly, but first I note that if these three samples are removed from the correlation analysis presented in Figure 5.3, as I have done in Figure 5.5, the relation among the remaining samples becomes very tight and linear, and it is highly significant ($r = 0.93$, 1-tailed $p = 0.003$). This suggests that the relative abundance values observed in these remaining samples are not appreciably biased due to the differential fragmentation of specimens between taxa.

Bone density data for jackrabbit and cottontail specimens in all of the samples included in Table 5.51 are presented in Tables 5.52 through 5.57. The procedures that I followed in collecting these data are similar to the procedures that I followed in my analysis of artiodactyl bone density, though I use the scan sites and associated volume density measurements for leporids published by Pavao and Stahl (1999)²². It can be

²² For each leporid scan site, I use the average of the "shape-adjusted" volume density measurements taken on specimens of all taxa by Pavao and Stahl (1999). I do this because these authors found that there is more variation in bone density within leporid taxa than between them.

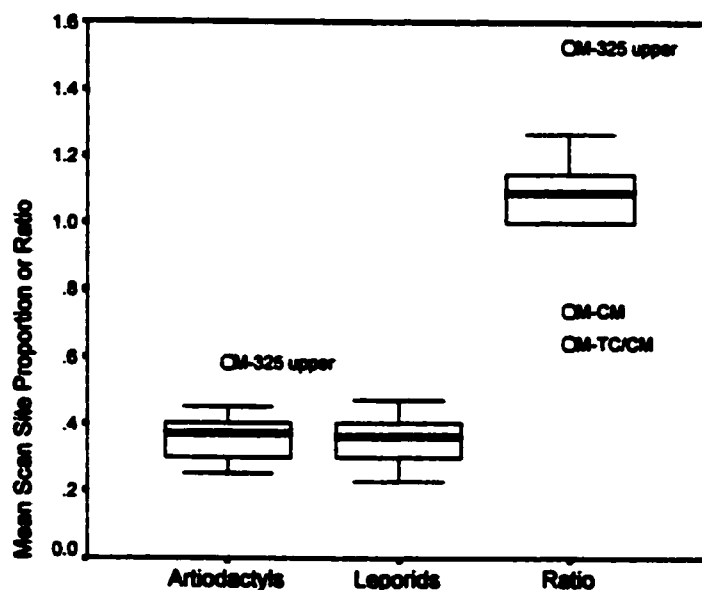


Figure 5.4. Boxplot showing the distribution of artiodactyl and leporid mean scan site proportion values across samples, as well as the distribution of artiodactyl mean proportion/leporid mean proportion ratio values across samples.

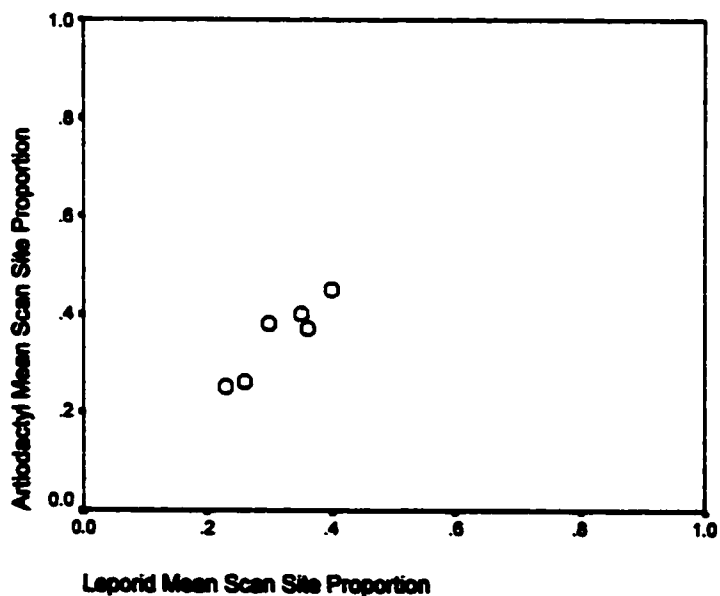


Figure 5.5. Relation between the mean proportion of scan sites present on artiodactyl specimens and the mean proportion of scan sites present on leporid specimens in samples used in this analysis, with outliers removed ($r = 0.93$, 1-tailed $p = 0.003$).

Table 5.52. Mean scan site density for Old Town jackrabbit specimens from well-dated room fill contexts ($F = 0.38, p = 0.540$).

	TC	TCM
Mean Density	0.29	0.30
Number of Scan Sites	1064	67
Standard Deviation	0.13	0.12

Table 5.53. Mean scan site density for Old Town cottontail specimens from well-dated room fill contexts ($F = 0.62, p = 0.433$).

	TC	TCM
Mean Density	0.31	0.33
Number of Scan Sites	254	29
Standard Deviation	0.13	0.13

Table 5.54. Mean scan site density for Galaz jackrabbit specimens from room fill contexts ($F = 0.00, p = 1.000$).

	TC	CM
Mean Density	0.30	0.30
Number of Scan Sites	26	47
Standard Deviation	0.14	0.12

Table 5.55. Mean scan site density for Galaz cottontail specimens from room fill contexts ($F = 4.84, p = 0.016$).

	GT/SF	TC	CM
Mean Density	0.33	0.32	0.19
Number of Scan Sites	4	13	12
Standard Deviation	0.08	0.09	0.14

Table 5.56. Mean scan site density for Mattocks jackrabbit specimens from room fill contexts ($F = 3.78, p = 0.011$).

	TC/CM	CM	CM/TCM	325 Upper
Mean Density	0.28	0.28	0.27	0.53
Number of Scan Sites	86	131	40	3
Standard Deviation	0.13	0.13	0.13	0.10

Table 5.57. Mean scan site density for Mattocks cottontail specimens from room fill contexts and for all McAnally cottontail specimens ($F = 1.82, p = 0.142$).

	TC/CM	CM	CM/TCM	325 Upper
Mean Density	0.28	0.31	0.31	0.37
Number of Scan Sites	117	208	43	8
Standard Deviation	0.14	0.14	0.15	0.16

seen that in most cases, mean scan site density does not vary significantly among phases at a given site (see table captions for ANOVA results).

There are two exceptions to this, however. The first occurs among the samples of cottontail specimens from Galaz (Table 5.55): mean scan site density is much lower for the Classic Mimbres phase sample than it is for either the Georgetown/San Francisco or Three Circle phases samples from this site, and this difference is significant ($F = 4.84, p = 0.016$). In addition, although the differences among these samples in mean scan site proportion are not significant, Galaz cottontail specimens appear to be much less fragmented in the sample from the Classic Mimbres phase than they are in the two earlier samples (Table 5.45).

Taken together, the measures of bone density and fragmentation seem to indicate that there has been less destruction of cottontail specimens in the Classic

Mimbres phase sample from this site than there has been in the other two samples. However, because identified cottontail specimens make up only a relatively small percentage of the total number of leporid specimens from Galaz (e.g., Table 5.2), the unfragmented nature of the cottontail specimens in the Classic Mimbres phase sample should have only a minor effect on the abundance of artiodactyl specimens relative to specimens from all leporid taxa. In fact, when specimens of all leporid taxa are combined, the difference in rates of fragmentation between artiodactyl specimens and leporid specimens in this sample is not unduly large (Table 5.51).

The other set of leporid samples that exhibits a significant difference in mean density are the jackrabbit samples from Mattocks (Table 5.56; $F = 3.78$, $p = 0.011$). Because jackrabbit mean scan site density is nearly identical among the three earliest samples from this site, this significant result is certainly due to the very high mean density value observed in the sample from the upper fill of unit 325. In addition, although the differences in cottontail density among these samples are not statistically significant, the mean density of cottontail scan sites is much higher in the unit 325 upper fill sample than it is in the three earlier samples.

This sample, of course, is one of those indicated as problematic by my fragmentation analysis: the leporid specimens in it are much more fragmented than are the artiodactyl specimens. The high mean density values for the jackrabbit and cottontail specimens in this sample are consistent with a high degree of destruction of leporid specimens. Moreover, the very low mean density value for the artiodactyl specimens in this sample (Table 5.35) is consistent with a low degree of destruction of

these specimens. Thus, it is quite likely that the high abundance of artiodactyl specimens relative to leporid specimens observed in this sample (e.g., Table 5.26) is due in large part to a difference in the extent to which the specimens of each taxon have been affected by taphonomic processes: the artiodactyl specimens in this sample are unusually well-preserved, while the leporid specimens are unusually poorly-preserved.

The other two samples that my fragmentation analysis suggests are problematic are those from the Three Circle/Classic Mimbres and Classic Mimbres phases at Mattocks. In both of these samples, artiodactyl specimens are much more fragmented than are leporid specimens. However, neither the leporid specimens in these samples (Tables 5.56 and 5.57) nor the artiodactyl specimens in them (Table 5.35) have inordinately high mean scan site density values, which implies that the amount of identifiable bone material that has been lost from these samples is not any higher than the amount that has been lost from either the McAnally Early Pithouse period sample or the Mattocks Classic Mimbres/Terminal Classic sample.

These samples may therefore provide examples of fragmentation increasing numbers of identified specimens, rather than reducing them as appears to have occurred with the leporid bones in the Mattocks unit 325 upper fill sample. As bones become more fragmented, numbers of identified specimens should first increase before they begin to decrease (Marshall and Pilgram 1993). At low levels of fragmentation, specimens will remain identifiable, but there will be a larger number of specimens than would be the case if bones were complete. At high levels of fragmentation, however, a decline in the percentage of specimens that are identifiable should offset the increase in

the total number of specimens that exist, and numbers of identified specimens will thus be lower than they would be at intermediate levels of fragmentation.

Because the artiodactyl specimens in the TC/CM and Three Circle phase samples from Mattocks are somewhat heavily fragmented, and because loss of bone due to density-mediated processes appears to be low in these samples, it is likely that numbers of identified artiodactyl specimens are higher than they would be had these specimens been slightly less fragmented. On the other hand, because the leporid specimens in these samples are not as fragmented as the leporid specimens in the other samples, it is likely that numbers of identified leporid specimens in these samples are lower than they would be had they been fragmented to the same degree as the specimens in other samples. Thus, the abundance of identifiable artiodactyl specimens relative to the abundance of identifiable leporid specimens in these samples may be somewhat inflated relative to the values that would have been observed if fragmentation had affected all samples more equally.

In terms of my analysis of artiodactyl relative abundance at Mattocks, the samples for these two phases correspond to the samples for the Style I, Style II and Style III ceramic age groups, while the CM/TCM phase sample corresponds to the Terminal Classic ceramic age group (e.g., Table 5.26). If artiodactyl relative abundance is, in fact, inflated in the TC/CM and Classic Mimbres phase samples from this site, then the number of artiodactyls that people captured relative to the number of leporids that they captured would actually have been lower during these periods than during the Terminal Classic period. This, of course, would suggest that the abundances of

artiodactyls on the landscape may have rebounded to some degree late in the Classic Mimbres phase or during the Terminal Classic. Because there is no method available for estimating to precisely what extent artiodactyl relative abundance might be inflated in these samples, however, it is not possible to determine whether a substantial increase in artiodactyl abundances truly occurred at this time.

To summarize the results of my fragmentation and density analyses, there is no reason to think that taphonomic processes have led to spurious conclusions in my analyses of changes over time in artiodactyl relative abundance at either Old Town or Galaz. At Mattocks and McAnally, though, it is quite possible that the high relative abundance of artiodactyls observed in the sample from the upper fill of unit 325 is due mainly to differences in the effects of taphonomic processes between this sample and the others from these sites. It is also possible that artiodactyl relative abundance is somewhat inflated in the Three Circle/Classic Mimbres and Classic Mimbres phase samples from these sites relative to the Early Pithouse and Classic Mimbres/Terminal Classic samples from them, but it is not possible to determine how severe this bias is.

On the whole, however, none of the available taphonomic evidence invalidates my conclusion that artiodactyl relative abundance declines dramatically between samples from the Early Pithouse period and the Three Circle phase, only then to remain low in samples dating to the Three Circle phase through the Terminal Classic.

Changes in Methods of Procurement

I have shown that, to the extent that it is possible to control for the effects of taphonomic factors on the faunal samples that are currently available from the Mimbres Valley, such factors apparently cannot account for the significant declines in artiodactyl relative abundance that occur both at Galaz and at Mattocks and McAnally between the earliest samples from these sites and the samples from them that contain material dating to the Three Circle phase, nor can they account for the statistically insignificant decline that is observed at Old Town across this same span of time. It thus seems that there was a real decline over this period in the number of artiodactyls that were harvested by Mimbres Valley hunters relative to the number of leporids that they harvested. As I argued in Chapter 3, such a decline in the proportion of high-return resources that are captured is to be expected in cases where depression of those resources has occurred.

However, there are reasons other than resource depression that might have caused the number of large mammals that people harvested to have declined relative to the number of small mammals that they harvested, and these alternative explanations must be ruled out before it can be concluded that resource depression and reduced foraging efficiency occurred in the Mimbres Valley (Grayson and Cannon 1999). In the next section, I address environmental factors that could have caused abundances of prey species within the valley to have changed over time independently of the effects of humans. In this section, I consider potential changes in the ways in which prey were harvested that might have changed either the post-encounter return rates provided by these prey or the average amounts of search and transport time for them.

A decline in the number of artiodactyls captured relative to the number of leporids captured, such as those that I have shown occurred in the Mimbres Valley over the period of time leading up to the Three Circle phase, could have resulted from an increase in the average energy delivery rates provided by leporids rather than from a decline in the average delivery rates provided by artiodactyls. The delivery rates obtained from leporids might have increased for either of two reasons: an increase in the post-encounter return rates that they provided, or a reduction in the average amount of search and transport time for them. Any substantial change in either of these two variables could have caused leporid prey to have begun to provide higher delivery rates than artiodactyl prey, at least more often than had been the case previously, and this should have lead hunters to target leporids more frequently. The possibility that either of these variables might have changed over time in the Mimbres Valley is very real.

Regarding leporid post-encounter return rates, changes in either the technologies or the tactics used to capture prey may have led to an increase in the profitability with which leporids could be harvested (e.g., Grayson and Cannon 1999; E. Smith 1991). On the technological side, there are no apparent changes in the projectile technologies used in the Mimbres Valley during the period of time that I consider that might have altered the post-encounter return rates of any vertebrate prey type, leporid or artiodactyl (e.g., Nelson 1986). Moreover, snares, nets and "rabbit sticks" that may have been employed to capture leporids were also likely in use in the Mogollon region throughout this entire period (e.g., Cosgrove 1947; Haury 1950; Martin *et al.* 1952). It quite possible, however, that major changes occurred on the tactical side, specifically in the

frequency with which mass capture of leporids was practiced (e.g., Grayson and Cannon 1999; Madsen and Schmitt 1998). As for the average search and transport times of leporid prey, these may have declined if leporids became much more abundant in areas close to residential settlements due to the attraction of these animals to expanding agricultural fields²³. I consider each of these issues in turn.

I noted in Chapter 3 that when smaller-bodied leporid prey are captured singly, they are likely to provide post-encounter caloric return rates that are much lower than those provided by larger-bodied artiodactyl prey (e.g., Simms 1987). This may not be the case, however, when leporids are captured *en masse* in “rabbit drives”. As Madsen and Schmitt (1998) have pointed out, in cases of mass harvest it is not the individual animal but the entire group of captured individuals that is the relevant prey unit, and such aggregate prey units of a small-bodied taxon might provide higher return rates than units of a larger-bodied taxon that is harvested individually. Thus, if rabbit drives became more common over time relative to the capture of individual leporids, foraging efficiency may have actually *increased*, but the ratio of artiodactyls taken relative to leporids taken might show a decline that could easily be mistaken for artiodactyl resource depression and reduced foraging efficiency (Grayson and Cannon 1999).

It is likely that rabbit drives did occur in the Mimbres Valley during the span of time that I consider, given that an apparent depiction of such an event is painted on at least one Mimbres Classic bowl (Shaffer and Gardner 1995, 1997). However, what

²³ In addition, as I discussed in Chapter 3, such “garden hunting” poses a potential problem for my consideration of increases in the importance of agriculture because garden hunting must be treated as part of “farming” rather than part of “hunting” in order for the opportunity cost model of time allocation to be applicable. I control for this potential problem here.

might pose a problem for my analysis it not simply whether rabbit drives occurred, but whether they increased in frequency through time, thereby causing a temporal decline in the number of artiodactyls captured relative to the number of leporids captured. As I discussed above, the average size of hunting parties in the Mimbres Valley may have grown over time as settlements grew, and the artiodactyl body part utility data from Galaz and from Mattocks and McAnally are consistent with an increase in hunting party size between the Early Pithouse period and the Three Circle phase. Since the success of a rabbit drive might depend on the number of people who take part in it, any such increase in the size of hunting parties could have made rabbit drives much more productive, which may have led people to conduct them more often.

To evaluate the possibility that rabbit drives became more common in the Mimbres Valley during the period of time on which I focus, I explore whether changes are apparent in three characteristics of the faunal assemblages that I have analyzed: the abundance of jackrabbit specimens relative to cottontail specimens, the relative abundance of certain jackrabbit skeletal elements, and the abundance of specimens from juvenile jackrabbits relative to those from adult jackrabbits.

The archaeofaunal abundance of jackrabbits relative to cottontails should be sensitive to changes in the importance of rabbit drives because it is primarily jackrabbits that are captured in such drives (e.g., Shaffer and Gardner 1995; Szuter 1991). Whereas cottontails tend to hide when pursued by predators, the response of jackrabbits is to run for long distances (e.g., Chapman and Willner 1978:3; Dunn *et al.* 1982:134). This makes it possible to flush large numbers of jackrabbits from an area in order to drive

them into enclosures or nets, but this is not true of cottontails to the same degree. Thus, if the frequency of rabbit drives increased over time, the number of jackrabbits captured relative to the number of cottontails captured should also have increased.

Numbers of identified specimens of jackrabbits and cottontails in samples dating to each phase from Old Town are presented in Table 5.58; also provided in this table is the Jackrabbit Index value for each sample, which is calculated as the number of jackrabbit specimens divided by the number of specimens from both jackrabbits and cottontails. These data come from the same well-dated room fill samples that are included in Table 5.21. Jackrabbit specimens decline in abundance relative to cottontail specimens in these samples, and both the differences among these samples and the declining trend across them are highly significant ($\chi^2 = 9.73, p = 0.008$; $\chi^2_{\text{trend}} = 9.73, p = 0.002$). In addition, the adjusted standardized residuals from the chi-square test on these samples indicate that jackrabbits are significantly under-represented in the Terminal Classic sample from this site.

Data from Old Town room fill samples assigned to the ceramic age groups “early Three Circle” and “Three Circle” are given in Table 5.59; these data come from the same samples that are included in Table 5.24. The difference in jackrabbit relative abundance between these two samples is not significant ($\chi^2 = 1.63, p = 0.201$), which suggests that the number of jackrabbits harvested by people from this site relative to the number of cottontails that they harvested did not change appreciably during the Three Circle phase.

Table 5.58. Numbers of identified jackrabbit (*Lepus* sp.) and cottontail (*Sylvilagus* sp.) specimens in Old Town well-dated room fill samples from each phase ($\chi^2 = 9.73$, $p = 0.008$; $\chi^2_{\text{trend}} = 9.73$, $p = 0.002$). In this table and those that follow, asterisks indicate phases for which the adjusted standardized residuals from a chi-square test have absolute values of 2.00 or greater.

Phase	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
TCM*	45	15	60	0.750
TC	873	125	998	0.875
EP/GT	13	0	13	1.000
<i>Total</i>	<i>931</i>	<i>140</i>	<i>1071</i>	<i>0.869</i>

Table 5.59. Numbers of identified jackrabbit and cottontail specimens in Old Town room fill samples dating to each ceramic age ($\chi^2 = 1.63$, $p = 0.201$).

Ceramic Age	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
TC	228	30	258	0.884
early TC	195	36	231	0.844
<i>Total</i>	<i>423</i>	<i>66</i>	<i>489</i>	<i>0.865</i>

Table 5.60. Numbers of identified jackrabbit and cottontail specimens in Galaz room fill samples dating to each phase ($\chi^2 = 9.98$, $p = 0.007$; $\chi^2_{\text{trend}} = 6.49$, $p = 0.011$).

Phase	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
CM	32	7	39	0.821
TC	25	11	36	0.694
GT/SF*	0	3	3	0.000
<i>Total</i>	<i>57</i>	<i>21</i>	<i>78</i>	<i>0.731</i>

Table 5.61. Numbers of identified jackrabbit and cottontail specimens in Mattocks room fill samples and in the sample from McAnally aggregated by phase ($\chi^2 = 1.66, p = 0.647$; $\chi^2_{\text{trend}} = 0.40, p = 0.527$).

Phase	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
CM/TCM	26	29	55	0.473
CM	103	106	209	0.493
TC/CM	58	51	109	0.532
EP	0	1	1	0.000
Total	187	187	374	0.500

Table 5.62. Numbers of identified jackrabbit and cottontail specimens in Mattocks room fill samples dating to each ceramic age, unit 325 upper fill sample separated from other TCM samples ($\chi^2 = 2.58, p = 0.631$; $\chi^2_{\text{trend}} = 0.79, p = 0.375$).

Ceramic Age	<i>Lepus</i>	<i>Sylvilagus</i>	Total	Jackrabbit Index
325 upper fill	2	6	8	0.250
TCM	24	23	47	0.511
Style III	103	106	209	0.493
Style II	23	19	42	0.548
Style I	35	32	67	0.522
Total	187	186	373	0.501

Numbers of identified jackrabbit and cottontail specimens per phase at Galaz are shown in Table 5.60; these data come from the same room fill samples that are included in Table 5.22. In contrast to Old Town, jackrabbit specimens appear to become more abundant relative to cottontail specimens over time at Galaz. A chi-square test indicates that there are significant differences among these samples ($\chi^2 = 9.98, p = 0.007$), and the residuals from this test suggest that jackrabbits are significantly under-represented in the Georgetown/San Francisco phase sample. The increasing trend in jackrabbit relative abundance across these samples is also significant ($\chi^2_{\text{trend}} = 6.49, p = 0.011$).

However, these significant results from Galaz are driven primarily by the very small early sample, which contains only three leporid specimens that are identifiable to genus. If this sample is removed from consideration, the difference in jackrabbit relative abundance between the remaining samples from the Three Circle and Classic Mimbres phases becomes insignificant ($\chi^2 = 1.63, p = 0.202$).

In addition, the results of my taphonomic analyses from the previous section suggest that the difference between these two later samples is even less “significant” than it appears to be. I showed above that the cottontail specimens in the Classic Mimbres phase sample from Galaz are much less fragmented than are those in the Three Circle phase sample from this site (Table 5.45), and the Classic Mimbres specimens also appear to have been less affected by density-mediated attrition (Table 5.55). Thus, if the Galaz Classic Mimbres phase cottontail specimens had been fragmented to the same degree as had the Three Circle phase specimens, then it is likely that the number of identified cottontail specimens in this sample would be higher, which would make the Jackrabbit Index value for this sample lower.

Table 5.61 presents numbers of identified jackrabbit and cottontail specimens from Mattocks and McAnally aggregated by phase; these data are from the same samples that are included in Table 5.23. The differences among these samples are not significant ($\chi^2 = 1.66, p = 0.647$), nor is there any significant trend here ($\chi^2_{\text{trend}} = 0.40, p = 0.527$). It is also possible to aggregate the samples from Mattocks by ceramic age, and the numbers of identified jackrabbit and cottontail specimens that result from doing this are shown in Table 5.62; in this table I have separated the sample from the upper

fill of unit 325 from the rest of the late samples from this site, which makes the samples used here identical to those included in Table 5.26. There are again no significant differences in jackrabbit relative abundance among the samples from Mattocks when they are aggregated in this way ($\chi^2 = 2.58, p = 0.631$; $\chi^2_{\text{trend}} = 0.79, p = 0.375$).

As I have shown earlier in this chapter, the biggest declines in artiodactyl relative abundance that are apparent at sites in the Mimbres Valley occur between the Early Pithouse period and the Three Circle phase. If these declines indicate increases in the frequency with which leporids were captured in rabbit drives rather than declines in the average delivery rates provided by artiodactyls, then the archaeofaunal abundance of jackrabbits relative to cottontails should increase over this same period of time.

This does not occur at Old Town: jackrabbit relative abundance appears to decline between the Early Pithouse/Georgetown and Three Circle phase samples from this site, and it continues to decline into the Terminal Classic sample. At Galaz, on the other hand, there is a significant increase in jackrabbit relative abundance between the Georgetown/San Francisco and Three Circle phases samples, but, since the early sample from this site includes only three specimens, it is reasonable to question how “significant” this result really is. Likewise, because the Early Pithouse sample from Mattocks and McAnally includes only one specimen, it is impossible to evaluate how the number of jackrabbits captured relative to cottontails captured changed over this period of time at these sites.

Thus, it is difficult to determine whether the importance of rabbit drives changed between the Early Pithouse period and the Three Circle phase based on the available

jackrabbit relative abundance data. The early samples from Galaz and McAnally are too small to be of much use, although the assemblage from Old Town, which includes a slightly larger early sample, seems to indicate that if the frequency of rabbit drives changed at all over this period, they became less common rather than more common.

As for the period of time from the Three Circle phase through the Terminal Classic, the jackrabbit relative abundance data provide no reason to think that the importance of rabbit drives changed at any of the sites included in my study in a way that might cause a problem for my artiodactyl resource depression analysis. The abundance of jackrabbits relative to cottontails shows no significant changes at Galaz or Mattocks over this span of time, just as artiodactyl relative abundance changes little at these sites during this period. Artiodactyl relative abundance declines slightly but insignificantly between the samples from the Three Circle phase and the Terminal Classic at Old Town (e.g., Table 5.21), but jackrabbit relative abundance also declines between these same samples. This indicates that, if the decline in artiodactyl relative abundance observed between these two samples is real, it is unlikely that it is the result of an increase in the frequency of rabbit drives.

As an aside, I note that some researchers have used increases in the archaeofaunal abundance of jackrabbits relative to cottontails as an indicator of increases in the amount of land that was cleared for agricultural fields (e.g., Powell 1977; Szuter 1991). This is based on the assumption that these fields create conditions that are better suited to jackrabbits than to cottontails. I simply point out here that jackrabbit relative abundance does not change significantly at either Galaz or Mattocks

between the Three Circle and Classic Mimbres phases, while it declines at Old Town between the Three Circle phase and the Terminal Classic. Thus, if jackrabbit relative abundance provides a measure of agricultural field clearing, then these results are inconsistent with other, more direct measures of vegetational change that suggest that the extent of agricultural fields in the Mimbres Valley increased between the Three Circle and Classic Mimbres phases (e.g., Minnis 1985; see also Sanchez 1996).

This inconsistency is probably due to the fact that, as I pointed out in Chapter 3, small-scale agricultural fields provide good habitat for both jackrabbits and cottontails (e.g., Chapman *et al.* 1982:99; Dunn *et al.* 1982:138). In other words, the use of jackrabbit relative abundance as an indicator of agricultural field clearing assumes that these fields will increase local abundances of jackrabbits more than they will increase local abundances of cottontails, but there is no good basis for this assumption.

The jackrabbit relative abundance data that I have presented here can be supplemented with two additional measures of potential changes in the importance of rabbit drives. The first of these involves the relative abundance of certain jackrabbit skeletal elements. In an analysis of faunal remains from a site in the San Simon Valley of southeastern Arizona that is contemporaneous with the Classic Mimbres phase in the Mimbres Valley, Schmidt (1999) found an extremely high relative abundance of jackrabbit distal hind limb elements, and she argues that this, along with other features of the assemblage, provides evidence for the occurrence of a rabbit drive. Specifically, she argues that this site was a logistic location where jackrabbits were processed after a rabbit drive, and she suggests that processing included breaking off the hind feet a short

distance up the shaft of the tibia prior to transporting the remainder of the carcasses back to residential sites.

The jackrabbit assemblages that would occur at residential sites as the result of such a processing strategy would be impoverished in distal hind limb elements. Thus, if the frequency of rabbit drives increased over time relative to the harvest of individual jackrabbits, and if carcasses were always processed in this way following rabbit drives, then the abundance of distal hind limb elements relative to all other elements would decline over time at those residential sites. Such declines are not apparent at the sites included in my study, although, as was the case with my analysis of jackrabbit relative abundance, this analysis of jackrabbit relative skeletal abundance is of no use in determining whether an increase in the importance of rabbit drives occurred early on at Galaz or at Mattocks and McAnally.

Tables 5.63, 5.64, and 5.65 show the proportion of the jackrabbit specimens from each phase at Old Town, Galaz and Mattocks, respectively, that come from distal hind limb elements. Because there are no identified jackrabbit specimens in the Georgetown/San Francisco sample from Galaz or in the Early Pithouse sample from McAnally, these samples are not included in these tables. The distal hind limb elements that I use here are the distal tibia, the astragalus and the calcaneus; experiments conducted by Shaffer and Sanchez (1994) suggest that other jackrabbit distal hind limb elements are not regularly recovered in 1/4" mesh screens when unbroken, so I exclude those elements from this analysis. I calculate the proportion of the distal hind limb elements that I do use relative to all of the other jackrabbit elements that are reported by

Table 5.63. Proportion of jackrabbit hind foot elements at Old Town by phase ($\chi^2 = 3.65, p = 0.456$).

	EP/GT	SF/TC	TC	TCM	BM
Proportion Hind Feet	0.00	0.00	0.10	0.15	0.00
Hind Foot Elements	0	0	101	9	0
Other Elements	10	5	867	52	6
Total	10	5	968	61	6

Table 5.64. Proportion of jackrabbit hind foot elements at Galaz by phase ($\chi^2 = 0.49, p = 0.486$).

	TC	CM
Proportion Hind Feet	0.00	0.02
Hind Foot Elements	0	1
Other Elements	23	47
Total	23	48

Table 5.65. Proportion of jackrabbit hind foot elements at Mattocks by phase, unit 325 upper fill sample separated from other CM/TCM samples ($\chi^2 = 2.65, p = 0.449$).

	TC/CM	CM	CM/TCM	325 Upper
Proportion Hind Feet	0.10	0.10	0.00	0.00
Hind Foot Elements	7	13	0	0
Other Elements	61	119	22	2
Total	68	132	22	2

Shaffer and Sanchez (1994) to be regularly recovered in 1/4" screen when complete.

Sample size considerations force me to include specimens from all depositional contexts in this analysis, rather than only those specimens from room fill contexts.

At no site are the differences between phases in the proportion of hind foot elements significant (Old Town: $\chi^2 = 3.65$, $p = 0.456$; Galaz: $\chi^2 = 0.49$, $p = 0.486$; Mattocks: $\chi^2 = 2.65$, $p = 0.449$). Three of the samples from Old Town are quite small, but when only the larger samples from the Three Circle phase and the Terminal Classic at this site are considered, the result of a chi-square test remains insignificant ($\chi^2 = 1.12$, $p = 0.290$). These results are consistent with the results of my analysis of the abundance of jackrabbit specimens relative to cottontail specimens in that neither measure of the frequency of rabbit drives shows a significant change during the period between the Three Circle phase and the Terminal Classic at any of the sites that I use.

Because there are no jackrabbit specimens in the early samples from Galaz and McAnally, it is not possible to address the mass capture issue at these sites during the crucial span of time between the Early Pithouse period and the Three Circle phase. However, I note that the two early samples from Old Town contain no hind foot elements, while between 10% and 15% of the Three Circle and Terminal Classic samples from this site consists of these elements. Thus, as was the case with my analysis of jackrabbits taxonomic relative abundance at this site, the Old Town jackrabbit skeletal element representation data suggest that if the frequency of rabbit drives changed at all over this period, it declined rather than increased.

The final method that I use to control for a potential increase in the importance of rabbit drives involves analysis of jackrabbit age profiles. Jackrabbits of breeding age are more active during the day than are younger individuals, and they also have larger home ranges than juveniles do (e.g., Lechleitner 1959; Tiemeier 1965). The harvest of individual jackrabbits should therefore result in a bias in favor of more frequently-encountered breeding-age animals. In a rabbit drive, however, individuals of all ages are likely to be flushed from their hiding places, which should lead to the harvest of a larger proportion of young animals than would be obtained through individual capture. An increase over time in the frequency of rabbit drives should thus result in an increase in the archaeological abundance of juvenile jackrabbits relative to adult jackrabbits.

Table 5.66 presents the number of jackrabbit specimens per phase at Old Town that have either fused or unfused epiphyses; this table includes all specimens on which epiphyses are present²⁴. If the proportion of juvenile jackrabbits that was harvested changed over time, then a change should be evident in the proportion of unfused bone specimens in these samples. However, the observed differences among these samples in the proportion of unfused specimens are not statistically significant ($\chi^2 = 5.07, p = 0.167$), nor is the difference between only the largest two samples from the Three Circle phase and the Terminal Classic ($\chi^2 = 1.92, p = 0.166$).

²⁴ Epiphyses are not present on any of the jackrabbit specimens in the San Francisco/Three Circle sample from Old Town, so this sample is not included in this table. As with my analysis of artiodactyl age profiles, I treat partially fused specimens with visible lines of fusion as being "fused" in this analysis, and I exclude unfused epiphyses in order to eliminate the possibility that the same specimen might be counted twice: once as a shaft and once as an epiphysis.

Table 5.66. Proportion of unfused jackrabbit specimens at Old Town: all elements ($\chi^2 = 5.07, p = 0.167$).

	EP/GT	TC	TCM	BM
Proportion Unfused	0.40	0.14	0.06	0.25
Unfused	2	73	2	1
Fused	3	436	32	3
Total	5	509	34	4

Table 5.67. Proportion of unfused jackrabbit specimens at Old Town: proximal humerus only ($\chi^2 = 0.19, p = 0.910$).

	EP/GT	TC	TCM
Proportion Unfused	0.00	0.16	0.14
Unfused	0	5	1
Fused	1	27	6
Total	1	32	7

Table 5.68. Proportion of unfused jackrabbit specimens at Mattocks: all elements ($\chi^2 = 0.64, p = 0.727$).

	TC/CM	CM	CM/TCM
Proportion Unfused	0.05	0.06	0.00
Unfused	2	5	0
Fused	40	73	8
Total	42	78	8

Because this analysis includes specimens from many different elements, it is subject to some degree of “noise” due to the fact that different elements fuse at different ages. To control for this, I present a second analysis for Old Town that includes only proximal humerus specimens (Table 5.67). The proximal humerus is the element most commonly used by wildlife biologists to age leporids, and the age at which it fuses has been well studied: in jackrabbits, the proximal humerus begins to fuse between 5 and 9 months, and it is completely fused by 12 to 14 months (e.g., Lechleitner 1959; Tiemeier 1965). Since very few jackrabbits breed before the age at which fusion begins (e.g., Dunn *et al.* 1982:129), the proportion of fused proximal humerus specimens relative to unfused specimens in an archaeological sample should provide a good measure of the proportion of breeding age individuals relative to non-breeding age individuals that is represented in that sample.

Among the three samples from Old Town that include specimens from proximal humeri, the differences in the proportion of unfused specimens are not significant ($\chi^2 = 0.19$, $p = 0.910$). Likewise, the difference between only the two largest samples, those from the Three Circle phase and the Terminal Classic, is also insignificant ($\chi^2 = 0.01$, $p = 0.929$). Jackrabbit age profiles thus provide no evidence to support the hypothesis that the importance of rabbit drives at Old Town changed over time.

Because there are no unfused jackrabbit specimens in the samples that I use from Galaz, I cannot explore changes in jackrabbit age profiles at this site. It is possible, however, to do this to a limited extent at Mattocks (Table 5.68). There are no unfused proximal humerus specimens present in the samples that I use from this site, so

I can only conduct an analysis that includes specimens from all jackrabbit elements. In addition, because there are no jackrabbit specimens with epiphyses in the unit 325 upper fill sample, this sample is not included here. The differences in the proportion of unfused specimens among the samples that are included here are not significant ($\chi^2 = 0.64, p = 0.727$). Thus, just as is the case at Old Town, jackrabbit age profiles provide no indication that the frequency of rabbit drives changed over time at Mattocks.

To summarize the available data that relate to potential changes in the importance of leporid mass capture, none of the three lines of evidence that I consider indicates that the frequency of rabbit drives changed appreciably over time at any of the sites included in my analysis. This suggests, in turn, that changes in the importance of leporid mass capture do not pose a problem for my artiodactyl resource depression analysis during the span of time for which adequate leporid samples are available. In other words, there is no reason to think that the post-encounter return rate provided by leporid resources changed between the Three Circle phase and the Terminal Classic due to a change in the scale of the relevant prey unit.

However, because the early samples from the Mimbres Foundation sites are very small, I cannot rule out the possibility that increases in the frequency of rabbit drives are responsible for the declines in artiodactyl relative abundance that are apparent at these sites prior to the Three Circle phase. I do note, though, that at Old Town, which provides a slightly larger early sample, there is no indication of an increase in the frequency with which rabbit drives were carried out over this period. Thus, while the available early samples may be inadequate for completely ruling out the possibility that

rabbit drives became more common over time, what evidence they do provide does not support the hypothesis that this occurred.

I now turn to the other way in which the energy delivery rates provided by leporids might have increased over time: through a decline in the average search and transport time for these prey that could have resulted from the attraction of leporids to agricultural fields. As an indicator of the degree to which leporids may have been captured in agricultural fields, I examine the stable carbon isotope ratios that are available for the jackrabbit specimens from Old Town that I submitted for radiocarbon dating (Table 5.69; also see Table 4.2).

Ratios of ^{13}C to ^{12}C in bone collagen, of course, are a key archaeological measure of the importance of maize to past human societies (e.g., Pate 1994; Schwarcz and Schoeninger 1991; though see Hard *et al.* 1996). They have also been used by both archaeologists and ecologists to determine the contribution of maize to the diets of non-human taxa such as deer and dogs (e.g., Cormie and Schwarcz 1994; Emery *et al.* 2000; Land *et al.* 1980; White *et al.* 2001). I use stable carbon isotope ratios here to explore whether jackrabbits in the area around Old Town consumed increasing amounts of maize during the period of time on which I focus. Although the interpretation of these ratios in the arid west is hampered somewhat by the presence of wild plants that can elevate them (e.g., Hard *et al.* 1996), if maize became a significantly larger part of the diets of jackrabbits over time, then an increase in the $^{13}\text{C}/^{12}\text{C}$ ratios in the bones of these animals should be observed. Such an increase would not specifically indicate that “garden hunting” became more common, but it should at least indicate whether

opportunities to capture leporids in agricultural fields presented themselves more often than had previously been the case.

As I discussed in Chapter 4, ratios of ^{13}C to ^{12}C relative to the PDB standard were measured directly for the ten jackrabbit specimens from Old Town that I submitted for radiocarbon dating of bone collagen. These ratios are presented in Table 5.69, along with the radiocarbon calibration intercept for each specimen. If jackrabbits consumed increasing amounts of maize, then the $^{13}\text{C}/^{12}\text{C}$ ratios in the bones of these animals should exhibit an increase over time. As Figure 5.6 shows, this does indeed appear to occur among these specimens, and the correlation between age and stable carbon isotope ratio that is evident here is significant ($r = 0.66$, 1-tailed $p = 0.020$).

Figure 5.7 is a boxplot of these same samples aggregated by the culture historical phase to which they date. An analysis of variance indicates that there are significant differences among phases in mean $^{13}\text{C}/^{12}\text{C}$ ratio ($F = 10.59$, $p = 0.012$). On closer inspection, however, it can be seen that the earliest specimen, which dates to the Georgetown phase, has a very low $^{13}\text{C}/^{12}\text{C}$ ratio of -20.5‰ , while all of the later specimens have higher $^{13}\text{C}/^{12}\text{C}$ ratios (ranging between -17.0‰ and -12.5‰) that do not appear to vary greatly among themselves. An analysis of variance conducted on only those specimens that date to the San Francisco through Black Mountain phases gives a result that is insignificant at the 0.05 level ($F = 4.54$, $p = 0.068$), which confirms that $^{13}\text{C}/^{12}\text{C}$ ratios do not vary to such a large degree among these later specimens.

As Figure 5.8 shows, aggregating the San Francisco through Black Mountain phase specimens into a single sample produces a distribution of $^{13}\text{C}/^{12}\text{C}$ ratios that

Table 5.69. $^{13}\text{C}/^{12}\text{C}$ ratios and calibration intercepts for radiocarbon-dated jackrabbit specimens from Old Town (also see Table 4.2).

Specimen Number	$^{13}\text{C}/^{12}\text{C}$ Ratio (‰)	Calibration Intercept (A.D.)	Phase ^a
1919-50	-12.5	1180	BM
1602-4	-17.0	1030	CM
343-2	-16.6	1020	CM
87-305	-14.5	960	TC
87-286	-13.6	900	TC
378-25	-14.4	900	TC
785-3	-16.4	900	TC
3598-17	-13.8	990	TC
4294-10	-14.9	770	SF
3878-27	-20.5	600	GT

a. The phase designations in this table are slightly different from those in Table 4.2 because that table presents the phase to which each specimen was thought to date based on ceramic and other criteria, while this table presents the phase to which each specimen truly dates as indicated by the radiocarbon data.

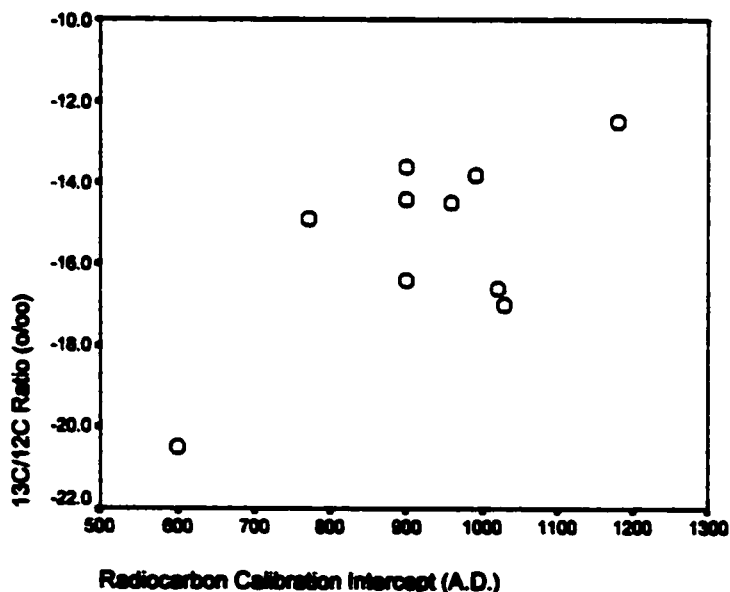


Figure 5.6. Relation between $^{13}\text{C}/^{12}\text{C}$ ratio and calibration intercept for radiocarbon-dated jackrabbit specimens from Old Town ($r = 0.66$, 1-tailed $p = 0.020$).

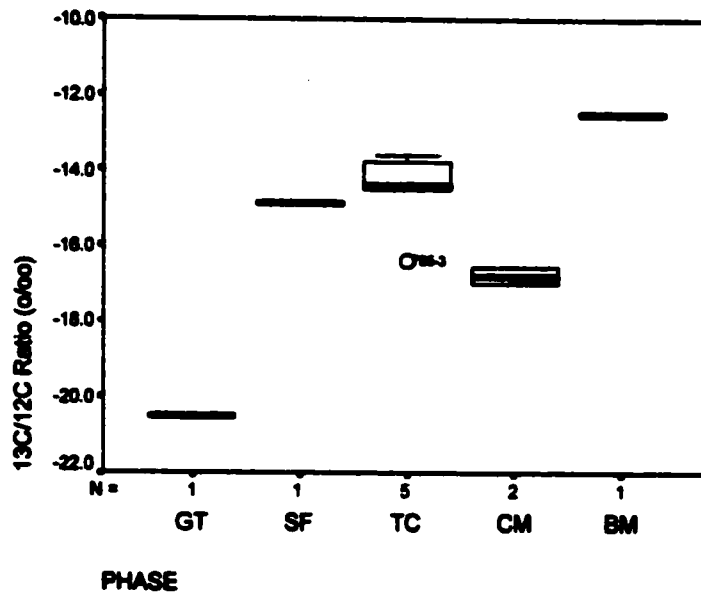


Figure 5.7. Boxplot showing the distribution of $^{13}\text{C}/^{12}\text{C}$ ratios across radiocarbon-dated jackrabbit specimens from Old Town grouped by phase ($F = 10.59$, $p = 0.012$).

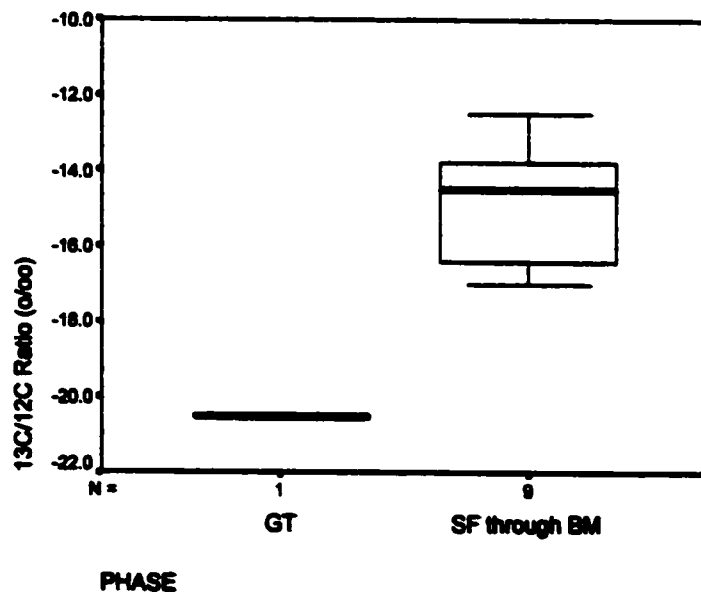


Figure 5.8. Boxplot comparing the $^{13}\text{C}/^{12}\text{C}$ ratio for the Old Town jackrabbit specimen dating to the Georgetown phase with the distribution of $^{13}\text{C}/^{12}\text{C}$ ratios across all other specimens ($F = 12.33$, $p = 0.008$).

approximates normality, while the Georgetown phase specimen falls substantially outside of this distribution. A t-test indicates that the difference between the $^{13}\text{C}/^{12}\text{C}$ ratio of the Georgetown phase specimen and the mean of the rest of the specimens is highly significant ($F = 12.33, p = 0.008$). It thus appears that the biggest change in jackrabbit stable carbon isotope ratios at Old Town occurs between the samples from the Georgetown and San Francisco phases.

I am aware of no studies that have explored variation in stable carbon isotope ratios in relation to dietary variability for any leporid taxon, but such studies have been conducted for other North American herbivores. Cormie and Schwarcz (1994) have explored the effects of variability in maize consumption on $^{13}\text{C}/^{12}\text{C}$ ratios in the bones of modern deer (primarily white-tailed deer, *Odocoileus virginianus*), and Emery *et al.* (2000) have corrected the results of Cormie and Schwarcz for pre-industrial atmospheric carbon isotope values: they report typical values of -16.3‰ for deer that consume significant quantities of maize and -21.8‰ for deer that feed entirely on plants that photosynthesize through the C3 pathway.

Assuming that stable carbon isotope ratios in the bones of leporids and deer, both herbivores, respond to dietary variability in a similar fashion, the results of my analysis of jackrabbit $^{13}\text{C}/^{12}\text{C}$ ratios are consistent with an absence of maize from the diet of these animals during the Georgetown phase, followed by a sizeable contribution of maize to their diet during later phases. The degree of consistency becomes even greater when it is recognized that the $^{13}\text{C}/^{12}\text{C}$ ratios observed in the Old Town jackrabbit specimens may be elevated slightly relative to the typical values reported by Emery *et*

al. (2000) due to the abundance of wild plants in the arid west that use the C4 and CAM photosynthetic pathways (e.g., Hard *et al.* 1996).

Of course, it would be desirable to have a larger number of samples, and particularly samples that date to the Georgetown phase or earlier, with which to explore this issue further, but the data that are available suggest that maize became a more important part of the diet of jackrabbits in the Mimbres Valley sometime during the period between about A.D. 600 and 770. This suggests, in turn, that jackrabbits began to spend more time in agricultural fields during this period, which would have made them more available to be captured in these fields. In other words, it is quite possible that “garden hunting” became more important during precisely the same period when my artiodactyl resource depression analysis suggests that the number of artiodactyls that people harvested declined relative to the number of leporids that they harvested.

I thus cannot rule out the possibility that the decline in artiodactyl relative abundance observed at Mimbres Valley sites between the Early Pithouse period and the Three Circle phase reflects an increase in the average delivery rates provided by leporid prey rather than a decline in the average delivery rates provided by artiodactyl prey. However, before it can be concluded that this is truly what occurred here, further work is necessary to explore whether artiodactyl prey were also attracted to agricultural fields, thereby raising the average delivery rates that they provided.

As I noted in Chapter 4, it is well known that artiodactyls, especially deer, obtain a substantial portion of the food that they eat from agricultural crops in areas where such crops are available. Because it is reasonable to think that this would have

been the case in the Mimbres Valley, it is also reasonable to think that the average amount of time that it took to find artiodactyl prey and transport them home declined as agricultural fields expanded. In other words, it is possible that garden hunting increased the average delivery rates provided by artiodactyl prey to the same degree as it did those provided by leporid prey. Determining whether this actually occurred in the Mimbres Valley might be accomplished through an analysis of stable carbon isotopes in artiodactyl bones similar to the one that I have conducted using jackrabbit bones.

To summarize my analysis of potential changes in the delivery rates provided by leporid prey due to changes in the manner in which they were captured, there is no evidence to support the hypothesis that the importance of rabbit drives changed during the span of time on which I focus. It is true that the earliest samples from some of the sites that I use are too small to rule out the possibility that this occurred during the crucial period between the Early Pithouse period and the Three Circle phase, but the data that are available likewise provide no good indication that this did occur. On the other hand, there is some evidence to support the hypothesis that the delivery rates provided by leporids increased during this important early period as a result of the attraction of these prey to agricultural fields. This does not necessarily pose a problem for my artiodactyl resource depression analysis, however, because it is quite possible that the delivery rates provided by artiodactyl prey increased during this same period for the same reason.

Environmental Change

Environmental change is the final factor that I consider that might confound my artiodactyl resource depression analysis. It is possible that changes in climate or in vegetation may have affected the abundances of prey on the landscape independently of the effects of humans, and such changes could produce patterns in archaeofaunal assemblages that are identical to those that would be expected to occur as the result of resource depression. In other words, I have shown that the abundances of artiodactyl prey on the Mimbres Valley landscape likely changed over time, particularly between the Early Pithouse period and the Three Circle phase, but before it can be concluded that these changes were caused by human predation, it must be shown that they cannot be explained by environmental factors.

There are two primary climatic factors that have the potential to reduce the population densities of artiodactyls such as pronghorn and deer: drought and winter severity (e.g., Bradybaugh and Howard 1982; Kitchen and O'Gara 1982; Mackie *et al.* 1982). It has been shown that drought can dramatically lower fawn recruitment due to reduced forage availability. Likewise, severe winters with heavy snowfall can cause substantial mortality as the result of starvation and impeded travel. Of course, artiodactyl population sizes typically fluctuate on a year-to-year basis, but longer-term trends in population density can occur due to long-term trends in these environmental variables (e.g., Mackie *et al.* 1982). Such long-term population trends have the potential to reduce archaeofaunal relative abundances of artiodactyls in a manner that might be mistaken for resource depression.

Shaw (1993) has used tree ring samples obtained from archaeological sites in the Mimbres Valley to produce a measure of summer drought severity for the period between A.D. 535 and 1106. Based on transfer functions derived from 20th century tree ring sequences and climate records, he estimated July Palmer Drought Severity Index (PDSI) values for each year in his archaeological series (Shaw 1993:table A.8). These July PDSI values provide a measure of the amount of moisture available in the soil from late spring through mid-summer (Shaw 1993:70); values between -0.50 and -0.99 are considered to reflect “incipient drought”, values between -1.00 and -1.99 are taken to indicate “mild drought” and values between -2.00 and -2.99 reflect “moderate drought” (e.g., Shaw 1993:table 4.2). Figure 5.9 presents Shaw’s yearly Mimbres Valley PDSI values, and these same data are smoothed in Figure 5.10 using a centered moving average with a span of 10 years. The average PDSI value for the entire series is -0.22.

Given the chronological resolution with which I was able to date the faunal samples that I use, the most relevant way to determine whether there were any trends in available moisture in the Mimbres Valley that might be interfering with my resource depression analysis is to compare conditions among the culture historical phases that are covered by Shaw’s tree ring series (see Table 2.1). Figure 5.11 is a boxplot of the distribution of yearly PDSI values within the span of time represented by each phase²⁵: it can be seen that median PDSI values are quite similar for all of these phases, and an analysis of variance gives an insignificant result for a test of the hypothesis that mean PDSI varies among them ($F = 0.42, p = 0.793$).

²⁵ I use the date of A.D. 850 for the “boundary” between the San Francisco and Three Circle phases here.

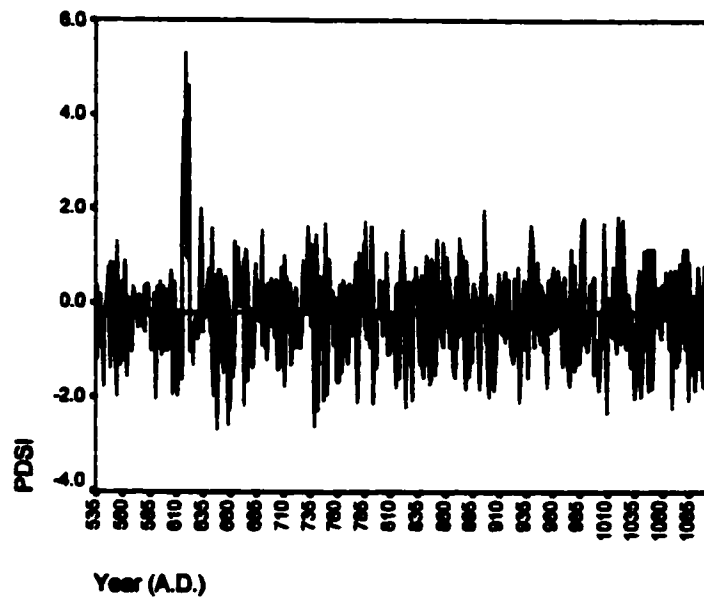


Figure 5.9. Yearly July Palmer Drought Severity Index (PDSI) values for the Mimbres Valley, as reconstructed by Shaw (1993:table A.8).

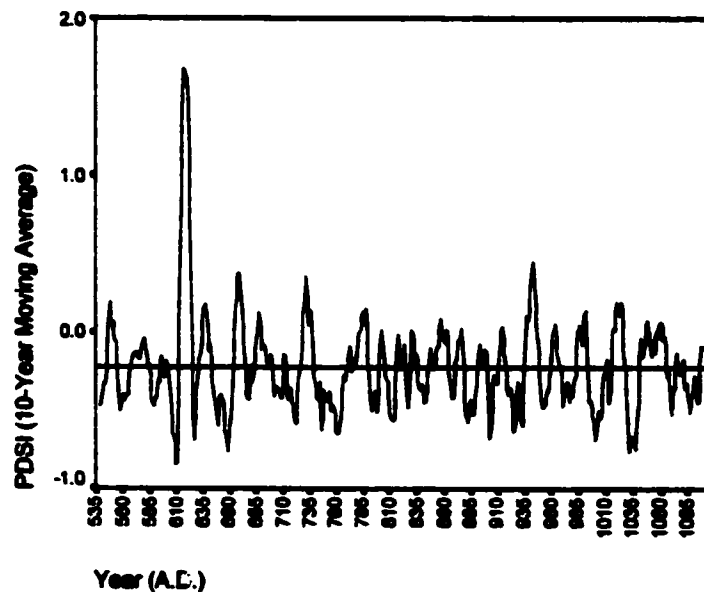


Figure 5.10. Mimbres Valley yearly July PDSI values smoothed using a 10-year centered moving average. Data are from Shaw (1993:table A.8).

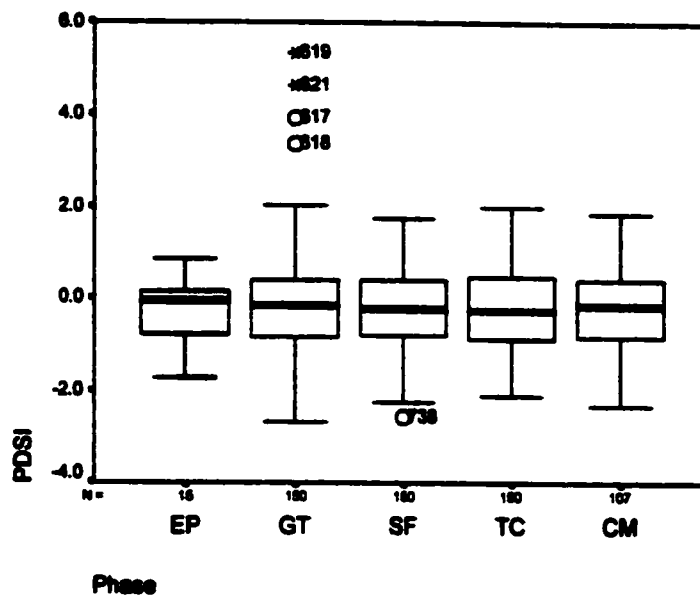


Figure 5.11. Boxplot illustrating the distribution of yearly July PDSI values within the span of time represented by each Mimbres culture historical phase ($F = 0.42$, $p = 0.793$). Data are from Shaw (1993:table A.8).

Table 5.70. Percentage of years within each phase with July PDSI values of -1.00 or lower ($\chi^2 = 0.20$, $p = 0.995$). Data are from Shaw (1993:table A.8).

Phase	Number of Drought Years	Number of Non-Drought Years	Total Number of Years	Percentage of Years with Drought
CM	21	86	107	19.6
TC	28	122	150	18.7
SF	31	119	150	20.7
GT	30	120	150	20.0
EP	3	12	15	20.0

Another way to compare conditions among phases is to consider the proportion of years within each phase during which summer droughts occurred. Table 5.70 presents the percentage of years within each phase that have July PDSI values of -1.00 or greater; in other words, these are years in which moisture conditions can be characterized as “mild drought” or worse. The percentage of drought years is nearly identical for each phase, and a chi-square test on the numbers of drought and non-drought years gives a very insignificant result ($\chi^2 = 0.20, p = 0.995$)²⁶.

Finally, because the effects of drought might be more severe when several dry years occur in a row, I consider the data presented by Shaw concerning periods of extended drought (1993:table 4.3), which he defines as three or more consecutive years with July PDSI values of -0.50 or lower. There are no such periods during the fifteen years of the Early Pithouse period that are represented in his series, while there are three during the Georgetown phase, five during the San Francisco phase, six during the Three Circle phase, and two during the Classic Mimbres phase. When the different lengths of time spanned by these phases are taken into account (e.g., Table 5.70), the differences among phases in the number of periods of extended drought do not appear very great. In addition, although the most such periods occurred during the Three Circle phase, this phase witnessed the lowest overall percentage of drought years (Table 5.70).

There thus appear to have been no trends in drought conditions across the span of time represented by this tree ring sequence that might have caused long-term changes

²⁶ Shaw suggests that the percentage of years per century with PDSI values of -0.50 or lower increased slightly in the A.D. 900s and 1000s (e.g., Shaw 1993:figure 4.4); however, I was unable to duplicate this result using the data presented in Shaw (1993:table A.8).

in the abundances of artiodactyls in the Mimbres Valley²⁷. The most dramatic declines in artiodactyl relative abundance that are observed at archaeological sites in the valley occur between the Early Pithouse period and the Three Circle phase, and there is no evidence to support the hypothesis that the abundances of artiodactyls on the landscape declined over this period due to more frequent or more severe droughts.

Of course, some of the faunal samples that I have analyzed contain substantial quantities of material that date later than A.D. 1106, when Shaw's tree ring sequence ends. For this period of time, the climatic reconstruction presented by Minnis (1985) can be used. Working prior to the availability of any long tree ring sequence for the Mimbres area, Minnis employed dendroclimatological data from the Reserve area, which is located to the northwest of the Mimbres Valley. He showed that tree ring widths in historic period sequences from the Reserve area correlated with tree ring widths from the Mimbres Valley and with Mimbres River streamflow, and he then proceeded to use the Reserve tree ring record as an indicator of drought conditions in the Mimbres Valley. The most notable feature of this tree ring sequence is a period of several consecutive severe drought years in the A.D. 1130s (see also Chapter 2).

If this period of drought caused any substantial decline in artiodactyl populations in the Mimbres Valley, this is not reflected in the taxonomic relative abundance data that I discussed earlier in this chapter: there are no major changes in the archaeofaunal abundance of artiodactyls relative to leporids between the Three Circle

²⁷ To the extent that leporid populations may also be affected by summer moisture conditions (e.g., Chapman *et al.* 1982; Dunn *et al.* 1982), there is likewise no reason to think that any long-term trends in the population densities of these taxa occurred over this period of time in the Mimbres Valley.

phase and the Terminal Classic at any of the sites that I use. The reason for this may be that leporid populations were affected by this drought to the approximately the same degree as were artiodactyls. However, recall that the artiodactyl body part data from Mattocks suggest that people from this site may have begun to travel further to capture artiodactyls during the Terminal Classic. It is possible that this was a response to declining abundances of artiodactyls caused by drier conditions during this time.

Besides drought, the other climatic factor that might affect artiodactyl populations is winter severity. There is currently no direct indicator of winter snowfall available for the Mimbres Valley that is comparable to the measure of drought severity provided by tree ring data. However, I note that, on a global scale, the Medieval Warm Period began around A.D. 800 (e.g., Hughes and Diaz 1994), and this warming trend apparently began to have effects throughout the southwestern U.S. by at least as early as A.D. 900 (e.g., Ely *et al.* 1993; Davis 1994; Dean 1994; Pederson 2000; Petersen 1994). Thus, if any appreciable long-term changes in winter severity occurred during the span of time on which I focus, it is likely that winters became less severe around A.D. 800 or 900 and then remained so until the onset of the Little Ice Age at about A.D. 1300.

In other words, winter conditions were probably more favorable for artiodactyls in the Mimbres Valley after the beginning of the Three Circle phase than had been the case prior to this time. This makes it all the more likely the decline in artiodactyl relative abundance observed at Mimbres Valley archaeological sites between the Early Pithouse period and the Three Circle phase reflects human-induced declines in the abundances of these taxa on the landscape.

Summary

My analysis of the archaeofaunal abundance of artiodactyls relative to leporids suggests that numbers of deer and pronghorn on the Mimbres Valley landscape declined between some point in the Early Pithouse period and the early part of the Three Circle phase, only then to remain low through the Terminal Classic. The stable artiodactyl age profiles observed at Mattocks between the Three Circle phase and the Terminal Classic are consistent with this, as are the artiodactyl body part data from this span of time at Old Town and Galaz. Artiodactyl body part representation at Mattocks, however, suggests that the average amount of time that it took to locate these prey and transport them home increased either late in the Classic Mimbres phase or during the Terminal Classic. The early declines in mean body part utility that occur at Galaz and at McAnally and Mattocks are not consistent with the early declines in artiodactyl relative abundance observed at these sites, but it is possible that the body part data are reflecting an increase in the average size of hunting parties resulting from the growth of villages.

It appears that these patterns cannot be explained either by variability in the effects of taphonomic processes or by changes in the average energy delivery rates provided by leporids resulting from changes in the frequency with which rabbit drives were carried out. However, the earliest faunal samples that are currently available from Mimbres Valley sites are too small to allow these factors to be controlled for as well as they might be during the crucial initial period. My analysis of stable carbon isotope ratios in jackrabbit bones suggests that opportunities for capturing these animals in agricultural fields began to present themselves more often during the San Francisco

phase, but this does not necessarily pose a problem for my resource depression analysis because it is likely that opportunities to capture artiodactyl prey in fields would have increased during this same span of time. This issue could be explored further through analysis of stable carbon isotopes in artiodactyl bones as well as through analysis of such isotopes in a larger number of jackrabbit bones from early time periods.

There is no evidence of any long-term trend in summer drought conditions that might have affected the abundances of prey on the landscape of the valley between the Early Pithouse period and the Classic Mimbres phase. However, an extended drought at the beginning of the Terminal Classic may have reduced prey abundances at this time, thereby causing the late increase in artiodactyl average search and transport times that is reflected in the body part data from Mattocks. On the other hand, it is likely that winters became less severe during the Three Circle phase and that they remained so through the Terminal Classic, and if this had any effect on artiodactyl populations, it should have been a favorable one. This suggests that the low relative abundances of artiodactyls observed in Mimbres Valley archaeofaunal samples dating to this span of time truly reflect predation-induced declines in the abundances of these prey in the valley.

The balance of the evidence that I have presented supports the hypothesis that Mimbres Valley hunters experienced depression of artiodactyl resources and reduced hunting efficiency during the span of time between the Early Pithouse period and the beginning of the Three Circle phase. I explore the implications of this decline in wild resource foraging efficiency for our understanding of the development of agriculture in

the valley in Chapter 7, but I first consider the evidence pertaining to this development in Chapter 6.

Chapter 6. Archaeological Evidence of Increases in the Importance of Agriculture

Before any hypothesis about the causes of increases in the importance of agriculture can be tested, it is necessary to determine when those increases occurred. In this chapter I examine the archaeological evidence from the Mimbres Valley that indicates that people began to spend more time on tasks related to farming. In the next chapter I compare the timing of these increases in the importance of agriculture to the timing of the declines in hunting efficiency that are evident in the faunal assemblages that I analyzed in the previous chapter. This allows empirical evaluation of the hypothesis that reduced wild resource foraging efficiency led to the intensification of agricultural production in the Mimbres Valley.

As I discussed in Chapter 3, I define an “increase in the importance of agriculture” as an increase in the amount of time that is allocated to tasks associated with farming, including tasks related to post-harvest storage and processing (see also Barlow 1997). I operate from the premise that the amount of time that people might devote to farming is a continuous variable, which facilitates a more productive consideration of the issues at hand than can be achieved by simply debating whether or not people were “dependent” on agriculture at any given point in time. As Barlow points out in her analysis of the practices of contemporary small-scale farmers:

corn farming is never clearly “in” or “out” of the daily or annual range of subsistence activities, but activities like hauling and spreading rotting vegetation, turning the soil, weeding fields, watering plants and guarding maturing corn sometimes clearly are (Barlow 1997:168).

In addition, I restrict the term “agricultural intensification” to increases in the importance of agriculture that involve an increase in gross per-capita yields at the expense of a decline in net productive efficiency. This is not simply a semantic point because agricultural intensification implies a specific kind of cause for an increase in the importance of agriculture: the presence of some factor, such as reduced wild resource foraging efficiency due to population growth, that prevented earlier higher levels of efficiency from being maintained. Of course, this is only one of two potential general causes of an increase in agricultural importance: it is also possible that some factor, such as evolution within crop populations, improved both the yields provided by domesticates and the efficiency with which those yields could be obtained (see Winterhalder and Goland 1997 on the distinction between yields and efficiency).

In this chapter I focus on three kinds of archaeological data from the Mimbres Valley: settlement patterns, the presence of water- and soil-control features designed to increase the productivity of agricultural fields, and the size and morphology of the tools that were used to process the crops grown in those fields. As I discuss below, each of these three features of the archaeological record should reflect the amount of time that individuals spent pursuing various tasks associated with agriculture; that is, they should be sensitive to increases in the importance of agriculture. In addition, because there are, in general, two possible causes for such increases, one involving reduced efficiency and one involving improved efficiency, I consider what these empirical measures of agricultural importance indicate about the efficiency of agricultural production, or the amount of food obtained per unit of time spent on farming-related tasks.

A more direct indicator of the importance of maize in the Mimbres Valley could perhaps be provided by carbon isotope ratios from human bone (though see Hard *et al.* 1996), but adequate data of this sort are not currently available. Holliday (1996) has analyzed stable carbon isotopes in human remains from the NAN Ranch site, but she was only able to obtain sufficient collagen for this analysis from seven individuals. While her results suggest that people at this site consumed substantial quantities of maize during the Classic Mimbres phase, they do not illustrate how the amount of maize that people ate might have changed leading up to this period. Likewise, as I noted in Chapter 2, macrobotanical remains from Mimbres Valley sites document the presence of domesticates from the Early Pithouse period on, but they do not add much to our understanding of how the importance of these resources changed over time.

Diehl (1997) has shown that the amount of labor invested in house construction increased throughout the Late Pithouse period in the Mogollon region, and he argues that this indicates that people were becoming more sedentary during this time (see also Gilman 1987). I do not use this as a direct measure of increasing agricultural importance, however, because an increase in sedentariness may not necessarily indicate an increase in the amount of time spent farming. On the other hand, the volume of the storage facilities that were in use during any given period might provide a good indication of the importance of agriculture during that period, but I do not consider such data here. Diehl (1994) has previously attempted an analysis of this sort for the Mogollon pithouse period, and he met with little success due to the availability of few reconstructable ceramic vessels and a paucity of data on extramural pits.

Finally, I noted in Chapter 2 that Diehl (1996; see also Adams 1999) has proposed that new varieties of maize, which may have provided higher caloric returns, appeared in the Mimbres region during the period of time that I am studying. I consider this issue in the next chapter, where I explore in detail whether the increases in the importance of agriculture that occurred in the Mimbres Valley might have been the result of increases in the efficiency of agricultural production, rather than the result of declines in the efficiency with which wild resources could be obtained.

Empirical Measures of the Importance of Agriculture

I next consider, in turn, the three archaeological indicators of the importance of agriculture that I use. My first goal is to determine how settlement patterns, specialized agricultural features, and seed grinding tools changed over time and to explore what these changes indicate about both the importance and the efficiency of agriculture. I then consider what these three lines of evidence, taken together, indicate about the timing of increases in the importance of agriculture.

Settlement Patterns

I noted in Chapter 2 that there were two major changes in settlement patterns in the Mimbres Valley during the span of time on which I focus that may reflect increases in the importance of agriculture. One of these occurs around the beginning of the Classic Mimbres phase. Many more settlements appear to have been occupied during

this phase than during earlier periods, both in the main valley and in its tributary drainages. It has been argued that this “filling in” of the region indicates that all irrigable land began to be farmed during the Classic phase, including land that may not have been very productive (e.g., LeBlanc 1989; Minnis 1985).

This may be true, but because this settlement pattern change surely also reflects an increase in the human population of the valley (e.g., Blake *et al.* 1986), it is not clear whether it indicates an increase in the importance of agriculture, defined as the amount of time that individuals spent farming. If more land was put into cultivation, and if the number of people who worked that land also increased, then the amount of time that any single person spent farming may have remained constant. Because neither the total amount of land that was farmed nor the number of people who farmed it can be estimated in quantitative terms with any degree of confidence, this settlement pattern change does not provide a very useful indicator of increasing agricultural importance.

As I discuss below, however, there is another reason to think that agriculture did become more important during the Classic Mimbres phase. In addition, if Minnis's arguments about the increasing cultivation of less productive land are correct (Minnis 1985:114-119), then it is likely that this change in settlement pattern indicates that the efficiency of agricultural production, measured in terms of output per amount of time invested, declined in the Classic phase, at least for some people.

The other relevant settlement pattern shift occurred much earlier, and it is easier to see how this change likely indicates an increase in the importance of agriculture. As I noted in Chapter 2, the received wisdom among Mimbres archaeologists has long been

that residential sites were placed on the tops of high isolated knolls above valley floors during the Early Pithouse period, and that settlements were moved down to locations adjacent to floodplains at the beginning of the Late Pithouse period. The most common explanation given for this settlement pattern shift is that Early Pithouse period residences were built in inaccessible locations due to a need for defense from competing groups, which presumably was no longer necessary during later times (e.g., LeBlanc 1999:129-131, 186-189; see also LeBlanc 1980, 1983, 1989).

Linse (1999), however, has recently analyzed settlement pattern data from throughout southwestern New Mexico, and she concludes that there is no evidence to support the hypothesis that a dramatic change in site location took place around A.D. 550. Instead, she suggests that a far more gradual shift from inaccessible to accessible locations occurred, lasting well into the Late Pithouse period. She also points out that at no time was one type of landform used exclusively. Because this settlement pattern change is potentially very important for the issues that I address, I first examine in some detail the data that relates to it, and I then consider its possible causes.

The area that Linse studied is quite large, and it is possible that the patterns that she observed for this entire region may not hold for the portion of it on which my analysis focuses. I therefore present the subset of her data that comes from the Mimbres Valley in order to determine how settlement locations changed over time in this more limited area; I obtained this data from Linse (1999:appendix C).

Linse classified sites as either "inaccessible" or "accessible" based on the landforms on which they sit (see Linse 1999 for details). In the Mimbres Valley, these

two landform categories generally correspond to hilltops and locations adjacent to the floodplain, respectively. The Mimbres Valley sites that Linse was able to place into either of these two classes are listed in Table 6.1; also shown here are the number of excavated rooms at each site that she assigned to each phase¹. It is important to note that for those sites that are included in my faunal analysis, Linse's attributions of rooms to phases do not always agree with mine, and I address the cases in which these discrepancies might be problematic below.

Table 6.2 shows the number of sites located in each type of setting that were occupied during each phase according to Linse (1999)². Three of the five sites in this sample that were inhabited during the Early Pithouse period are located in places classified as inaccessible, and half of the sites that were occupied in the Georgetown phase occur in such settings. On the other hand, much smaller percentages of the sites that were occupied during later phases are inaccessible. A chi-square test indicates that the differences among phases in the numbers of accessible and inaccessible sites are nearly significant, and the trend over time towards fewer occupations in inaccessible locations is significant ($\chi^2 = 8.11, p = 0.088$; $\chi^2_{\text{trend}} = 6.39, p = 0.011$).

¹ I do not include rooms occupied during the Black Mountain and Cliff phases in this table because these time periods are not directly relevant to my study; I do note, however, that most of the sites that were occupied during these phases are located in accessible places. I exclude rooms from Table 6.1 that Linse was not able to assign to a single phase. The Classic Mimbres phase rooms in this table include those assigned to the Mangas phase at Swarts and those assigned to the "Transitional" period at NAN, but placing these rooms in the Three Circle phase would have no effect on the analyses that I present here.

² Linse focuses on the number of excavated rooms that date to each phase at sites located in each type of setting. I use the number of sites occupied per phase, however, rather than the number of rooms occupied per phase, in order to control for the fact that the percentage of rooms that have been excavated varies substantially among phases.

Table 6.1. Number of excavated rooms occupied during each phase at each Mimbres Valley site that Linse (1999) was able to classify to landform category.

Site No.	Site Name	Landform	EP	GT	SF	TC	CM
LA 53	Three Circle	inaccessible	1	13	3	4	
LA 835	Galaz	accessible	2	4	8	25	140
LA 878	Matlocks	accessible				8	93
LA 1113	Old Town	accessible	1	1	3	8	16
LA 1118	Rockhouse Ruin	accessible				3	4
LA 1691	Swarts	accessible				5	154
LA 1867	Harris Village	accessible		6	9	15	
LA 2465	NAN	accessible		1	4	11	97
LA 4051	Baca Ruin	accessible				3	1
LA 12076	Mitchell	accessible			1		8
LA 12110	McAnally	inaccessible	1	1			
LA 14976	Thompson	inaccessible		2			
LA 14998	Z:5:57	inaccessible					9
LA 18888	Beauregard	inaccessible				2	
LA 18890	Montezuma	accessible			1	7	
LA 18903	Wheaton-Smith	accessible				1	1
LA 19074	Y:4:5	inaccessible		1			
LA 19075	Y:4:6	inaccessible	1				
LA 75956	Y:4:7	accessible			1		

Table 6.2. Number of Mimbres Valley sites located in both inaccessible and accessible settings that were occupied during each phase according to Linse (1999) ($\chi^2 = 8.11, p = 0.088$; $\chi^2_{\text{trend}} = 6.39, p = 0.011$).

Location	EP	GT	SF	TC	CM
Inaccessible	3	4	1	2	1
Accessible	2	4	7	10	9
<i>% Inaccessible</i>	60%	50%	13%	17%	10%

Table 6.3. Number of Mimbres Valley sites located in both inaccessible and accessible settings that were occupied during each phase, assuming that the McAnally and Thompson sites were occupied only during the Early Pithouse period and excluding the features from Galaz that Linse assigns to the Early Pithouse period ($\chi^2 = 10.77, p = 0.029$; $\chi^2_{\text{trend}} = 7.41, p = 0.006$; adjusted standardized residuals for the Early Pithouse period are significant). Data are from Linse (1999).

Location	EP*	GT	SF	TC	CM
Inaccessible	4	2	1	2	1
Accessible	1	4	7	10	9
<i>% Inaccessible</i>	80%	33%	13%	17%	10%

There is a potential problem with these data, however, which arises from Linse's attribution of rooms to phases. She assigns one of the excavated rooms from McAnally and both of the excavated rooms from the Thompson site to the Georgetown phase, although the excavators of these sites consider all of these structures to date to the Early Pithouse period (e.g. Arthur 1994; LeBlanc 1975, 1976b). As I discussed in Chapter 4, the radiocarbon dates from McAnally are consistent with occupation during either the Early Pithouse period or the Georgetown phase, but the ceramics from this site appear to be inconsistent with a Georgetown phase occupation. In addition, Linse attributes two features in unit 28 at Galaz to the Early Pithouse period, though, as I discussed in

Chapter 4, the excavators of this site consider these features to be Late Pithouse in age, and the ceramics in them date to the Three Circle and Classic Mimbres phases.

I therefore provide Table 6.3, which assumes that McAnally and Thompson were both occupied only during the Early Pithouse period and which excludes any Early Pithouse period occupation from Galaz. When the data are aggregated in this way, the results of a chi-square test of difference become significant, as do the residuals for the Early Pithouse period, and the results of a test of linear trend remain significant ($\chi^2 = 10.77, p = 0.029$; $\chi^2_{\text{trend}} = 7.41, p = 0.006$). Perhaps more important, however, given the small sample sizes involved, is that the rank order of phases along the “percent inaccessible” scale is the same no matter how the structures from McAnally, Thompson and Galaz are treated. It therefore seems safe to conclude that the percentage of residential sites located in inaccessible places was highest in the Early Pithouse period, lower but not inconsequential during the Georgetown phase, and fairly low in the remaining phases.

Linse’s argument about the gradual nature of the settlement pattern shift from inaccessible to accessible locations thus appears to be correct for the Mimbres Valley. All hilltop sites are not abandoned at the beginning of the Georgetown phase, and it is not until the San Francisco phase that relatively few hilltop settings are occupied. The question now becomes, “why did this settlement shift occur?”

I noted above that the usual explanation for the construction of residential sites on hilltops during the Early Pithouse period is that doing so was necessary for defense from rival groups. As Linse (1999) points out, though, there is little evidence

independent of site location to support the hypothesis that conflict was common in the Mogollon region during this time. On the other hand, considering that irrigable alluvial settings provide the best land for farming in the Mimbres area, an equally plausible explanation for the move from hilltops to locations adjacent to the floodplain is that agriculture was becoming more important.

Residences may initially have been built at higher elevations simply to facilitate the harvest of wild resources, such as deer and juniper seeds (e.g., Minnis 1985:tables 5 and 8), that would have been more abundant in those locations. However, if people began to devote increasing amounts of time to working in fields in the floodplain, then it is likely that they would have begun to move their residences closer to these places where they were now spending more of their time. This settlement pattern change may thus indicate that agriculture was more important during the Georgetown phase than during the Early Pithouse period, and that it became even more important during the San Francisco phase.

Not only is this explanation plausible, but additional evidence to support it is available. Recall that my analysis of stable carbon isotopes in the bones of jackrabbits, which I presented in the last chapter (e.g., Table 5.69), suggested that the amount of maize consumed by these animals increased substantially between the Georgetown and San Francisco phases. This implies that maize became more accessible to jackrabbits over this period of time, which implies in turn that increasing amounts of land were placed into cultivation. This would require, of course, that people spent more time cultivating that land.

If people did begin to move their residences closer to the floodplain because they began to spend more time working in fields located there, then this change in settlement pattern probably also reflects a decline in the efficiency of farming³. In her analysis of ethnographic data collected among traditional farmers from throughout Latin America, Barlow (1997) found that two factors have the greatest influence on the efficiency of agriculture: time spent working in fields, which is the variable of interest here, and post-harvest processing time, which I discuss below. Barlow suggests that which of these two factors affects return rates the most depends on the yields obtained from farming, but in all cases, she argues, variability in the amount of time devoted to farming-related tasks has a much greater effect on efficiency than does variability in yields. In other words, it would take a large increase in crop yields to offset the effects on the efficiency of farming of only a small increase in labor costs. I consider issues of this sort in greater detail in Chapter 7.

Specialized Agricultural Features

The second aspect of the Mimbres Valley archaeological record that likely indicates an increase in the amount of time that people allocated to activities associated with farming is the presence of specialized agricultural features (Creel and Adams

³ It is possible that a shift in the locations of houses to settings closer to fields raised the efficiency of farming by reducing the amount of time required to travel between home and field. For such an increase in efficiency to have occurred, however, the reduction in travel time would have to have been greater than any increase in the amount of time spent on other agricultural tasks, such as working in fields or grinding crops. Because the travel distances involved in the Mimbres Valley would probably have been on the order of a few hundred meters at most, it is unlikely that the reduction in travel time was very large in comparison to the increase in the amount of time spent on other activities that appears to have occurred.

1985; Herrington 1979, 1982; Sandor *et al.* 1990). These features include irrigation systems, which consist of such components as canals and bordered fields, and water conservation systems consisting of check dams and terraces, the latter of which also facilitate soil conservation and development (Herrington 1979; Sandor *et al.* 1990).

Such systems have not been found within the Mimbres Valley proper, but this is not surprising given the degree to which the landscape of the valley has been altered by historic period farming and grazing practices (e.g., Ackerly 1997). In less disturbed areas around the main valley, however, specialized agricultural features appear to be fairly common. To the west, Herrington (1979) has reported extensive water control systems in the valley of the Arenas River, which is a tributary of the Mimbres, and she has also found such systems along two other Mimbres tributaries, Cameron Creek and Lampbright Draw (Herrington 1982). Sandor *et al.* (1990) have recorded terraced field systems in the Sapillo Valley to the north, and Creel and Adams (1985) describe an irrigation system along a tributary of the Mimbres River a short distance to the east.

It appears that these systems were built during the Classic Mimbres phase, although not all of them are well-dated. Herrington (1979:117-118) recovered ceramics from the fill behind check dams in the northern Arenas Valley, including sherds that would today be considered to belong to the Mimbres B/W Style III type. These sherds were recovered from all depths, and on this basis Herrington argues that the check dams were built during the Classic phase. Ceramics also seem to indicate that the features that Herrington found in Lampbright Draw date to the Classic Mimbres phase (Herrington 1982:80), though she cannot rule out the possibility that those she

discovered along Cameron Creek were built during the historic period (Herrington 1982:83-84). It is possible as well that the irrigation features reported by Creel and Adams (1985) are historic in age, though these authors argue that they probably date to the Classic Mimbres phase based on ceramic samples, degree of soil development, a problematic radiocarbon date on soil humates, and comparison with the features reported by Herrington. Sandor *et al.* (1990:73) state that only sherds dating to the Classic phase were recovered from the agricultural terraces that they describe.

Minnis (1985) argues that dry farming would have been possible in the Mimbres Valley only during years of above average summer rainfall. It is thus likely that irrigated fields in alluvial settings were farmed to some degree from the Early Pithouse period on, although, as I noted above, direct evidence of such practices has not been found, most likely due to disturbance of the floodplain by later agricultural practices.

The nature of water control systems appears to have changed considerably during the Classic Mimbres phase, however, because it is only from this period that substantial irrigation and conservation features have been discovered. In other words, whatever agricultural features might have been used prior to the Classic Mimbres phase, they must have been much less substantial than those used during the Classic phase because no traces of them have been found. The apparent absence of such features from earlier time periods cannot simply be explained by an absence of people during these periods in areas outside of the Mimbres Valley proper: there are sites in the Arenas Valley that were occupied during the Late Pithouse period (Herrington 1979), but all of the datable agricultural features here are Classic Mimbres in age.

The presence of these features would seem to indicate a considerable increase in the amount of time that people devoted to agricultural tasks during the Classic Mimbres phase, at least when measured on an annual basis. These features may have increased the yields provided by agriculture, but they also certainly required significant periods of time devoted to construction and maintenance. In addition, as Barlow's (1997) analysis of variability in agricultural return rates suggests, unless these features increased the yields obtained from agriculture by a very large amount, it is likely that their use entailed a decline in the efficiency of agriculture due to the increased labor costs that they would require.

Grinding Stone Size and Morphology

The final measure of agricultural importance that I consider involves the tools used to grind maize. Both the size and the morphology of manos and metates are commonly employed by archaeologists as indicators of agricultural "dependence" (e.g., Hard *et al.* 1996; though see Adams 1999), and these variables have been used as such particularly often in the Mimbres region (e.g., Diehl 1996; Hard 1986, 1990; Lancaster 1984; see also Mauldin 1993). This use of grinding stones as a measure of the importance of agriculture can be justified on both theoretical and empirical grounds (e.g., Diehl 1996; Hard *et al.* 1996; Lancaster 1984; Mauldin 1993).

Engineering studies show that the "capacity" of a grinding implement, or its output per unit of time, is a function of grinding surface area: larger tools can be used to grind more material to a given consistency in a given amount of time than can smaller

tools. The use of larger grinding tools entails a tradeoff, however, because they also require more physical effort on the part of the person doing the grinding. Based on this tradeoff between tool efficiency and the degree of effort required, it can be predicted that the size of grinding tools should increase as more time is spent using them: when little time is spent grinding, the higher grinding efficiency of larger tools will likely not be worth the additional physical effort that they require, but when several hours per day are spent grinding (e.g., Hard *et al.* 1996:256-257), time constraints may make the increased efficiency of larger tools worth the added effort that they entail.

This theoretical justification for the use of grinding stone size as a measure of the importance of agriculture has considerable empirical support. Analyses of ethnographic data have documented correlations between mano size and “grinding intensity”, or the amount of time per day that people spend grinding plant foods, as well as between mano size and Murdock’s (1967) index of “agricultural dependence”, which is meant to reflect the percentage of the diet comprised of domesticates (e.g., Hard 1990; Hard *et al.* 1996; Mauldin 1993; see also Murdock *et al.* 1962:115).

If grinding tools from the Mimbres Valley changed over time in a manner that indicates that people spent increasing amounts of time grinding maize, then it is likely that these changes also reflect substantial declines in the efficiency of farming. As I noted earlier, and as I discuss in further detail in the next chapter, Barlow’s (1997) ethnographic and experimental studies of the return rates for maize agriculture suggest that the efficiency of farming will be highly dependent on the amount of time allocated to post-harvest processing tasks and much less dependent on gross agricultural yields.

Adams (1999) has recently questioned the use of grinding stone size and morphology as a measure of “agricultural dependence”. Specifically, she argues that changes of the sort identified by the researchers whose work I discuss here likely indicate changes in the varieties of maize that people processed. She proposes that these changes in grinding tools were a response to the appearance of flour varieties of maize, such as *Maíz de Ocho*, and she considers these changes to reflect simply a change in “processing strategy”, though what she means by this term is not entirely clear. Because these changes in grinding tools reflect changes in “processing strategies”, she argues, they do not provide a measure of “agricultural dependence”, her definition of which is likewise unclear.

Adams presents an important discussion of how grinding stone size and morphology might be influenced by the kinds of foods that people processed with them. What she does not address, however, is the issue of why people would have put the extra effort into using larger manos and metates, which is odd given that her own experiments suggest to her that trough metates, despite being more efficient for grinding dried foods, are “more fatiguing” to use than other metate types (Adams 1999:487). Since she thus essentially begs the fundamental question of whether grinding tool size and morphology are likely to vary with the amount of time that people spent using them, her work cannot be used to conclude that manos and metates provide no information about the amount of time that people spent grinding corn.

Because of this, and because Adams presents no alternative explanation for the empirical correlations that have been observed ethnographically between mano size and

both the amount of time spent grinding crops and the percentage of the diet comprised of such foods, I use grinding stone size and morphology as measures of agricultural importance here⁴. I rely on the results of studies that have previously been conducted in the Mimbres region in which ground stone was analyzed specifically for this purpose.

The earliest such study was carried out by Lancaster (e.g., Lancaster 1984), who used artifacts from the same Mimbres Foundation sites whose faunal assemblages I have analyzed: his Early Pithouse sample comes from McAnally, his Late Pithouse sample comes from Galaz, and his Classic Mimbres phase sample comes from several sites including Mattocks. He found that the abundances of larger through-trough metates and “two-hand” manos, both of which are thought to have been used for grinding maize, increased over time relative to the abundances of “one-hand” manos and other types of metates, which are thought to have been used for grinding a wider variety of materials. Lancaster supports his argument that these two different grinding tool complexes were used for different purposes through an analysis of use-wear on the artifacts that he studied.

The increase in the relative abundances of through-trough metates and “two-hand” manos that Lancaster observed appears to have taken place in a fairly continuous fashion from the Early Pithouse period through the Cliff phase (e.g., Lancaster 1986:figure 9.7), which suggests that the importance of agriculture increased throughout this span of time. However, because he combines all of the specimens from Galaz into

⁴ In addition, as I discuss in the next chapter, it is by no means clear that *Maíz de Ocho* appeared in the Mogollon region at the time when Adams (1999) suggests that it did.

a single Late Pithouse period sample, it is not possible to use his data to determine how the importance of agriculture might have changed during the 450 years or so that are represented by this period. In addition, Lancaster found that the average size of through-trough metates increased slightly over time, but he found no appreciable increase in the average size of “two-hand” manos. I return to these issues below.

More recently, Hard (1986, 1990) used Lancaster’s data in his own consideration of changes over time in the degree of dependence on agriculture in the Mimbres area. Since then, Diehl (1994, 1996) has examined a larger sample of ground stone from throughout the Mogollon region. Diehl includes only artifacts from the Early and Late Pithouse periods in his study, but the chronological resolution of his analysis is finer-grained than that of Lancaster because he assigns specimens to phases within the Late Pithouse period. However, in addition to ground stone from the Mimbres Valley, Diehl includes assemblages in his study from sites along the Gila and San Francisco Rivers as well as from sites in southeastern Arizona (e.g., Diehl 1996:table 2). After summarizing his results for the Mogollon region as a whole, I consider the subset of his data that comes from the Mimbres Valley in order to determine whether similar changes are evident in this more limited area.

Diehl first presents the results of an analysis of manos in which he considers only larger specimens that are comparable to Lancaster’s “two-hand” type; like Lancaster, he supports his argument that these manos were used for grinding maize with a use-wear study. He finds that the mean surface area of these tools increased continuously from the Early Pithouse period through the Three Circle phase (e.g., Diehl

1996:figure 4), and, although he finds no statistically significant differences in mean mano area between consecutive phases, the differences between his Three Circle phase sample and his samples from both the Early Pithouse period and the Georgetown phase are highly significant. Diehl also presents an analysis of metate fragments, and he shows that the abundance of trough metates, which he argues are better suited to grinding large quantities of maize, increased significantly relative to the abundance of basin metates between the Early Pithouse period and the Three Circle phase. Based on these analyses, Diehl concludes that the amount of time that people spent grinding maize increased continuously across this span of time.

Because Diehl's study includes samples from a very large area, the patterns that he observed may not hold for the Mimbres Valley when it is considered on its own. On the other hand, Lancaster studied only ground stone from the Mimbres Valley, but because he combined all Late Pithouse period specimens into a single sample, it is not possible to tell from his analysis how grinding tools might have changed during the span of time represented by this period. To solve both of these problems, I present an analysis of mano size that is restricted to data from the Mimbres Valley that can be aggregated by phase (Table 6.4).

I consider only mano length here because this is the sole variable for which data are available from all of the phases between the Early Pithouse period and the Classic Mimbres phase. The measurements that I use come from Diehl (1994:table 60), who provides data for the Late Pithouse period from Galaz and Harris Village (e.g., Haury 1936), and from Lancaster (1983, as cited in Hard 1986:table 13), who provides data for

Table 6.4. Mano length data from Mimbres Valley sites aggregated by phase. Data are from Lancaster (1983, cited in Hard 1986:table 13) for the Early Pithouse period and the Classic Mimbres phase and from Diehl (1994:table 60) for the phases of the Late Pithouse period ($F = 0.51, p = 0.732$).

Phase	Mean Mano Length (cm)	Number of Specimens	Standard Deviation
CM	20.6	146	5.3
TC	20.3	27	4.9
SF	20.6	9	4.9
GT	17.8	1	0.0
EP	18.7	14	4.0

Table 6.5. Comparison of mean grinding surface area between Diehl's entire Late Pithouse period sample of manos from the Mogollon region and the sub-sample of these manos that come from sites in the Mimbres Valley. Data are from Diehl (1996:table 3) and Diehl (1994:table 60).

Phase	Mimbres Valley Mean Mano Area (cm ²)	Mogollon Region Mean Mano Area (cm ²)	Percentage Difference
TC	249.3	224.1	+ 11.2%
SF	248.2	211.6	+ 17.3%
GT	203.0	194.2	+ 4.5%

the Early Pithouse period from McAnally and for the Classic Mimbres phase from various sites including Mattocks. Only those manos that are identified by these authors as likely to have been used for grinding maize are included in this analysis: i.e., Lancaster's "two-hand" manos (e.g., Lancaster 1986:189) and manos studied by Diehl that have grinding surface areas of 128 cm² or larger (Diehl 1996:109).

An analysis of variance indicates that the differences in mean mano length among these samples are not significant ($F = 0.51, p = 0.732$). However, to the extent that these data are informative, they suggest that the size of manos remained practically constant from the San Francisco phase through the Classic Mimbres phase, while they

were slightly smaller on average prior to this. Given the lack of statistical significance, the conservative conclusion to draw from these data would be that it is not possible to determine whether the trend of continuously increasing mano sizes that Diehl found for the Mogollon region as a whole applies specifically to the Mimbres Valley. An alternative conclusion would be that manos became larger more quickly in the Mimbres Valley than they did in other parts of the Mogollon region.

To further explore this possibility I present Table 6.5, which compares the mean grinding surface area of the manos in Diehl's entire sample (e.g., Diehl 1996:table 3) to the mean surface area of only those manos recovered from sites located in the Mimbres Valley (data from Diehl 1994:table 60); the Mimbres Valley specimens used in this table are the same as those used in Table 6.4 for the Georgetown through Three Circle phases. Mimbres Valley manos are larger than the regional average during each of the three phases in the Late Pithouse period, which suggests that people in the Mimbres Valley spent more time grinding maize than did people in other parts of the Mogollon region throughout this period. In addition, note that the difference between the Mimbres Valley mean and the mean for the Mogollon region, expressed as a percentage of the region-wide mean, is greatest during the San Francisco phase.

Because agriculture appears to have been more important in the Mimbres Valley than it was elsewhere in the Mogollon region throughout the entire Late Pithouse period, it is reasonable to think that it also became important here earlier than was the case elsewhere. In other words, although the increase in mean mano length observed in the Mimbres Valley between the Early Pithouse period and the San Francisco phase is

not statistically significant, there is some additional evidence available to support the hypothesis that it truly reflects an early increase in the importance of agriculture.

This analysis of the size of the large manos that were likely used to grind maize suggests that the amount of time allocated to this activity increased between the Early Pithouse period and the San Francisco phase, only to then remain relatively constant through the Classic Mimbres phase. When the morphology of grinding tools is considered in addition to their size, however, the possibility arises that the amount of time that people spent grinding maize continued to increase into the Classic phase.

Lancaster (e.g., 1986:189) suggests that his failure to find an appreciable increase in mano size over time is due to the existence of a size limit above which grinding tools are no longer practical to use. If this is correct, then a more useful indicator of changes in the importance of agriculture beyond this point might be provided by the relative abundances of tools classified into different functional types. To this end, recall that I noted above that Lancaster found a continuous increase from the Early Pithouse period through the Cliff phase in the abundances of "two-hand" manos and through-trough metates relative to the abundances of "one-hand" manos and other types of metates. The largest increase in the relative abundance of through-trough metates that he found between any two consecutive time periods occurred between the Late Pithouse period and the Classic Mimbres phase (e.g., Lancaster 1986:table 9.7), which suggests that agriculture became more important during the Classic phase than it had been during earlier times.

I also noted above that Diehl found an increase over time in the abundance of trough metates relative to basin metates in his analysis of pithouse period ground stone assemblages from throughout the Mogollon region. As was the case with the mano data that I discussed, however, Diehl's metate data are not specific to the Mimbres Valley. I therefore present an analysis of the subset of his metate data that comes from the Mimbres Valley; because these data are aggregated by phase, they also solve the problem posed by the coarse chronological resolution of Lancaster's data. The counts that I use here come from Diehl (1994:table 61), and they were calculated using specimens from both Galaz and Harris Village. The metate specimens from these sites date only to the San Francisco and Three Circle phases, but it is possible to a limited extent to compare the relative abundance values for these phases to those that Lancaster presents for other time periods.

Before this can be done, however, it is necessary to address some differences in the ways in which Diehl and Lancaster treated their data. Lancaster assigned trough metate specimens to three classes (e.g., Lancaster 1986:182-187): a "trough" type, in which the grinding trough of the metate is closed on one end, a "through-trough" type, in which both ends of the trough are open, and an "indeterminate trough" class, which he used for fragments of trough metates that could not be assigned to one of the other two classes and which he apparently excluded from his analysis of changes over time in the relative abundances of metate types (e.g., Lancaster 1986:figure 9.7). Diehl, on the other hand, seems to have combined all specimens from trough-type metates in his analyses, even though he identifies some specimens in his database as "through-trough"

metates and others as “trough” metates. In order to facilitate comparison with Lancaster’s data, I exclude all of the broken specimens that Diehl classified simply as “trough” metates on the assumption that these may be artifacts that Lancaster would have classified as “indeterminate trough”.

In addition, Diehl considers the abundance of both trough and through-trough metates relative only to basin metates, excluding slab metates from his analysis (see Diehl 1994:194-195), whereas Lancaster focuses on the abundance of through-trough metates relative to all other metates that he was able to identify to type. I follow the approach taken by Lancaster for two reasons. First, because the grinding surfaces of through-trough metates are far larger than those of any other metate type, including closed-end trough metates (e.g., Lancaster 1986:table 9.6), the relative abundance of this type is likely to be the most sensitive to changes in the amount of time spent grinding corn. Second, if I were to exclude slab metates from my analysis, as Diehl does, the resulting percentages of through-trough metates would not be comparable to those presented by Lancaster for other time periods.

To show that the grinding surfaces of the through-trough metates that Diehl analyzed from sites in the Mimbres Valley are indeed larger than those of other types, I present Table 6.6. This table gives the mean grinding surface area for all of the specimens of each metate type from Galaz and Harris Village for which Diehl was able to obtain measurements. The grinding surfaces of through-trough metates are much larger on average than are those of trough or slab metates, and the differences in mean area among types are highly significant ($F = 25.03, p < 0.001$).

Table 6.6. Mean grinding surface area of each metate type in samples from the Mimbres Valley ($F = 25.03, p < 0.001$). Data are from Diehl (1994:table 61).

Type	Mean Grinding Surface Area (cm ²)	Number of Specimens	Standard Deviation
Slab	166.9	7	122.2
Trough	699.0	1	0.0
Through-trough	1288.3	6	400.8

Table 6.7. Numbers of metate specimens identified to the “through-trough” type and numbers of specimens identified to all other types ($\chi^2 = 2.15, p = 0.143$). Data are from Diehl (1994:table 61); broken specimens identified to the “trough” type are excluded.

Phase	Number of Through-trough Metate Specimens	Number of Metate Specimens of Other Types	Total	Percentage of Through-trough Metate Specimens
TC	5	14	19	26.3%
SF	4	3	7	57.1%

The abundances of through-trough metate specimens relative to specimens of all other types are shown in Table 6.7. It appears that through-trough metates decline in relative abundance between the samples from the San Francisco and Three Circle phases, but a chi-square test on the counts in this table gives an insignificant result ($\chi^2 = 2.15, p = 0.143$). There is thus little basis for concluding that the popularity of through-trough metates changed between the San Francisco phase and the Three Circle phase in the Mimbres Valley.

Lancaster (1986:figure 9.7) presents relative abundances of through-trough metates per time period in the form of a graph. I cannot treat his data statistically because the counts on which this graph is based are not available to me, but I can qualitatively compare the percentages of through-trough metates in Lancaster's samples

from the Early Pithouse period and the Classic Mimbres phase with the percentages of these metates in Diehl's samples from the San Francisco and Three Circle phases.

Lancaster identified no through-trough metates in his Early Pithouse sample, while slightly more than 40% of his Classic Mimbres phase sample is comprised of this type of metate. It thus appears that through-trough metates were used rarely, if at all, during the Early Pithouse period, but they seem to have become fairly common by the San Francisco phase. On the other hand, given the lack of a significant difference between Diehl's samples for the San Francisco and Three Circle phases, and given that the size of Lancaster's Classic Mimbres phase sample is unknown, it is perhaps safest to conclude that there is no evidence of any major change in the frequency of through-trough metates between the San Francisco and Classic Mimbres phases.

In other words, the trend in agricultural importance that can be inferred from the relative abundance of metates types is similar to the trend that can be reconstructed from mano sizes: both lines of evidence suggest that agriculture became more important between the Early Pithouse period and the San Francisco phase, while neither provides a compelling reason to think that agriculture became more important between the San Francisco and Classic Mimbres phases.

Timing of Increases in the Importance of Agriculture

Two of the lines of evidence that I consider in this chapter suggest that people in the Mimbres Valley allocated increasing amounts of time to activities associated with agriculture between the Early Pithouse period and the San Francisco phase. The

increase in the residential use of settings close to the floodplain over this span of time may reflect an increase in the amount of time that people spent working in irrigated fields, and my analysis of stable carbon isotope ratios in jackrabbit bones supports this possibility by suggesting that more land was indeed put into cultivation as this period progressed. Changes in grinding tool size and morphology seem to indicate that the amount of time that people spent grinding maize also increased over this interval. Large through-trough metates are absent in the Early Pithouse period ground stone sample from the valley, but they are abundant in the sample from the San Francisco phase, and the average size of large manos also increases between these two time periods, although samples are too small for this increase to be statistically significant.

Available settlement pattern and grinding stone data do not suggest that any major changes in the importance of agriculture occurred between the San Francisco phase and the Classic Mimbres phase. However, the appearance of specialized agricultural features during the Classic phase likely reflects a further increase in the amount of time per year that people spent working in fields.

It thus appears that there were two main periods during which the allocation of time to agricultural activities increased in the Mimbres Valley: one between some point in the Early Pithouse period and some point in the San Francisco phase, and another during the Classic Mimbres phase. In addition, unless the yields provided by agriculture increased greatly during either of these two periods, it is likely that the efficiency of farming declined substantially over these intervals as a result of higher labor inputs.

Chapter 7. Large Mammal Resource Depression: Cause or Consequence?

It is now possible to address the question of whether depression of large mammal resources and the resulting declines in wild resource foraging efficiency led people in the Mimbres Valley to spend more time farming. As I described in Chapter 3, a qualitative test of the hypothesis that this occurred can be conducted by evaluating whether hunting efficiency declined during a period of time in which agriculture became more important. If there is no evidence of a decline in hunting efficiency during such a period, then the hypothesis that people began to spend more time farming in response to reduced hunting returns during that period can be rejected, and an alternative explanation for the increase in the importance of agriculture must be sought.

On the other hand, if there is evidence that large mammal resource depression occurred during a period in which an increasing amount of time was allocated to agriculture, then this would be consistent with the hypothesis that people began to spend more time farming in response to reduced hunting efficiency. This hypothesis can be further evaluated in such a situation by determining how the efficiency of agriculture changed as people began to devote more time to it. If there were no evidence for an increase in the yields provided by farming, then it is possible that the increase in the importance of agriculture was a case of intensification that resulted from a decline in the efficiency of foraging for wild resources. If there were evidence for a substantial increase in agricultural yields, however, then the resulting increase in the efficiency of farming could very well account for the increased importance of agriculture, and it

would be likely that the observed depression of large mammal resources was simply the result of human population growth caused by higher agricultural yields.

I showed in Chapter 5 that it appears that deer and pronghorn became less abundant on the Mimbres Valley landscape during the period of time between the beginning of the Early Pithouse period and the beginning of the Three Circle phase. The combined assemblages from the Mimbres Foundation sites located in the central part of the valley show a dramatic and significant decline in artiodactyl relative abundance between the Early Pithouse period sample from McAnally and the sample from Galaz that dates to either the Georgetown phase or the San Francisco phase (Table 5.27). A further decline is evident in the samples from Galaz and Mattocks that contain material dating to both the Three Circle and the Classic Mimbres phases. At Old Town, a statistically insignificant decline occurs between the sample that contains material from either the Early Pithouse period or the Georgetown phase and the sample that dates to the Three Circle phase (Table 5.21). However, people from this site apparently encountered artiodactyls just as infrequently during the early part of the Three Circle phase as they did during the latter part of this phase (Table 5.24).

In fact, there are no major changes in artiodactyl relative abundance after the beginning of the Three Circle phase at any of the sites included in my analysis¹ (e.g., Tables 5.21, 5.22, and 5.26). This suggests that the abundance of artiodactyls on the landscape remained relatively constant throughout the Three Circle phase, the Classic

¹ I exclude the sample from the upper fill of unit 325 at Mattocks from consideration here because the high relative abundance of artiodactyls in this sample may simply be the result of taphonomic factors.

Mimbres phase and the Terminal Classic. Available data from Wind Mountain and the NAN Ranch site conform to the pattern of an early decline in artiodactyl abundance followed by a period of little change that occurs at the sites that I have studied (Tables 5.28 and 5.29), and artiodactyl age profiles from Mattocks are also consistent with the hypothesis that harvest rates for these prey changed little from the Three Circle phase on (Figure 5.2). The artiodactyl body part data from Mattocks, however, show a significant increase in mean utility in the sample that contains material from the Classic Mimbres phase and the Terminal Classic (Table 5.34), which may indicate that average search and transport times for artiodactyl prey types increased during this time.

To the extent that it is possible to control for the effects of taphonomic factors on the faunal samples that are currently available from the Mimbres Valley, none of the patterns that I have just described can be explained by variability in taphonomic processes. It is thus likely that these patterns truly reflect changes in the rates at which people in the valley captured artiodactyl and leporid prey.

If it can be assumed that human prey choice is influenced by considerations of energetic efficiency, then, following the logic of the central place forager model that I presented in Chapter 3, these changes in capture rates are likely to reflect changes in the abundances of artiodactyls in the areas around the sites whose faunal assemblages I have analyzed. There is no evidence to support the hypotheses that these changes were caused either by changes in hunting technology or by changes in the frequency of rabbit drives. In addition, although my analysis of stable carbon isotopes from jackrabbit bones suggests that garden hunting may have become more important during this

period, it cannot be assumed that such garden hunting would necessarily favor the capture of leporids over the capture of artiodactyls in a way that might confound my use of artiodactyl relative abundance as an indicator of resource depression.

Because changes in climate cannot explain the decline in the abundance of artiodactyls on the landscape that is apparent between the Early Pithouse period and the beginning of the Three Circle phase², the best explanation for it is that it was the result of increased rates of harvest by human hunters. The question now becomes, "can the decline in hunting efficiency that resulted from the depression of large mammal resources during this period account for an increase in the importance of agriculture?"

As I argued in the previous chapter, it appears that there were two periods during which agriculture became more important in the Mimbres Valley. The first of these is an interval that began at some point in the Early Pithouse period and that ended at some point in the San Francisco phase. A larger percentage of residential sites were located adjacent to the floodplain in the Georgetown phase than was the case in the Early Pithouse period, and an even larger percentage were located in such settings during the San Francisco phase. This suggests that people spent ever-increasing amounts of time working in fields during these phases, and the results of my analysis of carbon isotope ratios in jackrabbit bones are consistent with an expansion of fields between the Georgetown and San Francisco phases. Changes in both the size of grinding tools and in the relative abundances of different types of grinding tools

² As I discussed in Chapter 5, it is possible that the late increase in the mean utility of artiodactyl body parts at Matlocks reflects a decline in artiodactyl abundances caused by the severe drought that occurred at the beginning of the Terminal Classic.

indicate that people probably also spent more time grinding maize during the San Francisco phase than had been the case during the Early Pithouse period.

The second increase in the importance of agriculture for which evidence exists occurred during the Classic Mimbres phase. Substantial water control features were built in this phase, which suggests that the amount of time that people spent working in fields increased at some point between A.D. 1000 and 1130.

A decline in hunting efficiency can be ruled out as a cause of this later increase in agricultural importance because there is no indication that such a decline occurred during the Classic Mimbres phase, nor is there evidence that such a decline occurred within any reasonable amount of time leading up to this phase. It appears that hunting efficiency had reached its lowest point at least 150 years or so prior to the increased investment in field labor that is evidenced by the Classic phase agricultural features, which is far too long a delay for the decline in hunting efficiency to have been relevant on the daily or yearly time scales at which people in the Classic phase were likely to have made decisions about subsistence activities (see Winterhalder and Goland 1997).

Because a decline in hunting efficiency cannot account for this increase in the allocation of time to farming, the cause of this increase in the importance of agriculture must be sought elsewhere. It is possible that it was the result of a decline in the efficiency with which wild plant resources could be harvested, but I cannot test this hypothesis in the present study because the methods to do so have yet to be developed. It is also possible that people took the time to build and maintain specialized agricultural features during the Classic Mimbres phase because these features increased

the efficiency of farming by substantially raising the yields that could be obtained from it. As I discussed in Chapter 6, however, if Minnis's (1985) arguments about the cultivation of land of lesser productivity during the Classic phase are correct, then it may be unlikely that overall agricultural efficiency increased during this period.

On the other hand, a decline in hunting efficiency cannot be ruled out as a cause of the earlier increase in the importance of agriculture that occurred in the Mimbres Valley between perhaps A.D. 400 and A.D. 800 or 850. In fact, this is exactly the period during which hunting efficiency appears to have declined dramatically. The increase in agricultural importance that is apparent during this span of time could thus very well have been a response to large mammal resource depression and a decline in hunting efficiency that began soon after the valley was first occupied by farmers.

Events during this span of time cannot be dated with sufficient resolution to show whether the decline in hunting efficiency began before or after agriculture started to become more important. Because of this, other lines of evidence must be brought into consideration in order to more fully test the hypothesis that people devoted increasing amounts of time to farming in response to resource depression and reduced hunting efficiency. As I described in Chapter 3, evidence pertaining to the efficiency of agricultural production is particularly important here: to be able to conclude that the increased allocation of time to farming was the result of a decline in wild resource foraging efficiency, there must be no indication that the amount of food obtained from farming per unit of time spent on agricultural tasks increased during this period (see also Boserup 1965:117-118).

Any increase in the amount of time that is allocated to farming will necessarily reduce the efficiency of farming unless agricultural yields are raised sufficiently to offset the now higher labor costs. Figure 7.1 illustrates this in terms of the opportunity cost model of time allocation that I presented in Figure 3.7 (the opportunity cost curve has been left off of this figure for the sake of clarity). If the amount of caloric output gained per unit of time allocated to agriculture displays diminishing marginal returns, as the time allocation model reasonably assumes, and if the time input-caloric output curve for agriculture remains unchanged, then any increase in the amount of time that is devoted to agricultural tasks will necessarily reduce the efficiency of agriculture. The efficiency of agriculture is given by the slope of a line that begins at the origin of the graph and then passes through the point on the “benefits” curve corresponding to the amount of time that is allocated to farming: if the benefits curve remains constant, an increase in the amount of time spent farming will lower the slope of such a line.

The only way that such a reduction in agricultural efficiency will not occur is if the benefits curve shifts upwards by an amount that is at least sufficient to maintain the degree of efficiency that was achieved at the previous level of time allocation; such a shift is represented by the higher of the two benefits curves in Figure 7.1. In other words, whenever there is evidence that the amount of time spent on tasks related to farming increased in some archaeological case, such an increase in the importance of agriculture will necessarily indicate that the efficiency of agriculture declined unless something happened at the same time that shifted the benefits curve for farming

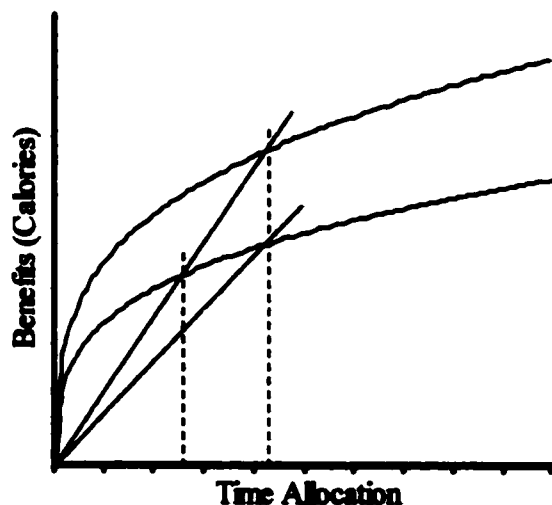


Figure 7.1. The effects on the efficiency of agriculture of an increase in the amount of time allocated to farming (also see Figure 3.7). If a caloric “benefits” curve for agriculture displays diminishing returns, then any increase in the amount of time spent farming will result in reduced agricultural efficiency unless an improvement in agricultural yields shifts the curve upwards by an amount that is sufficient to offset the higher labor costs.

upwards. Such a shift would require an increase in the gross caloric yields that could be obtained from agriculture for any given amount of time devoted to it.

In the absence of any such upwards shift in the benefits curve for farming, there is no reason why an efficiency-minded farmer should allocate an increased amount of time to farming unless the efficiency of alternative subsistence activities declined, perhaps due to resource depression caused ultimately by human population growth. Thus, it is possible further to test the hypothesis that depression of large mammal resources between the Early Pithouse period and the beginning of the Three Circle phase led to the increase in the importance of agriculture that is evident in the Mimbres Valley during this span of time by evaluating whether anything occurred here that might

have greatly improved agricultural yields, thereby shifting the benefits curve for farming upwards. If there is evidence that such a shift did occur, then it is possible that the increase in agricultural importance was the result of improved agricultural efficiency rather than reduced wild resource foraging efficiency. On the other hand, if there is no evidence for any substantial increase in agricultural yields, then a reduction in the efficiency with which wild resources were obtained could account for the increase in the importance of agriculture.

Unfortunately, it is not currently possible to determine whether agricultural yields improved sufficiently between the Early Pithouse period and the beginning of the Three Circle phase to offset the increase in the amount of time allocated to farming that evidently occurred during this period. There are many factors that might have increased the gross yields obtained by Mimbres Valley farmers, but at present only one of these factors can be addressed empirically: the possibility that a change in climate improved the productivity of farming. As I showed in Chapter 5, no long term changes in the amount of precipitation that fell during the growing season are apparent in the Mimbres Valley tree ring record between the Early Pithouse period and the San Francisco phase.

However, there are several additional factors that may have increased the yields obtained from farming during this period, and the data necessary to evaluate how these variables might have changed over time in the Mimbres Valley are simply not available. Despite the lack of data relating to these factors, though, there is a reason, which I discuss below, to think that even if they did improve agricultural yields, the improvement would not have been large enough to have made up for the increase in the

amount of time spent on farming that is evident in the Mimbres archaeological record. In other words, they may not have been sufficient to have made farming more efficient.

One of these factors is the potential development of technologies that increased the productivity of agriculture: for example, water-conserving terraced field systems that may have allowed more plants to have been grown in a given area of land. No such improvements in farming technologies are apparent in the Mimbres region prior to the Classic Mimbres phase, but because early agricultural features may have been relatively insubstantial to begin with, and because any traces of them may have been erased by later, more imposing agricultural activities, the lack of evidence for such features during earlier periods is probably not very meaningful. Changes in farming technologies might have occurred early on in the period during which the Mimbres Valley was occupied by farmers, but given the extent to which the landscape of the valley has been altered since that time, it is uncertain that we will ever know if or when such changes occurred.

A second factor that may have increased the gross caloric yields obtained from agriculture is “garden hunting”; as I described in Chapter 3, I consider this to be part of “farming” rather than part of “hunting” because time spent pursuing animals encountered in agricultural fields is likely to have been embedded within periods of time spent performing other tasks in those fields. I pointed out that garden hunting might have improved the benefits provided by agriculture relative to those provided by hunting if animals were encountered less frequently in areas away from fields at the same time that they were encountered more often within fields. My resource depression analysis suggests that overall abundances of large mammals in the Mimbres Valley did

decline between the Early Pithouse period and the San Francisco phase, and my analysis of stable carbon isotopes in jackrabbit bones suggests that opportunities to capture these smaller prey in agricultural fields became more common over this same period.

However, garden hunting would probably not have increased the absolute efficiency of farming, as opposed simply to the efficiency of farming relative to the efficiency of hunting, unless artiodactyls, which surely provided the highest post-encounter return rates of any vertebrate prey in the Mimbres Valley, were also encountered in agricultural fields with increasing frequency. The possibility that this occurred cannot currently be addressed empirically, but analysis of carbon isotope ratios in artiodactyl bones might allow this to be done in the future.

The final factor that may have improved agricultural yields is the appearance of new varieties of crops that provided more food per unit of land. As I have noted, Diehl (1996:105; see also Adams 1999) has proposed that the appearance of *Maíz de Ocho* in the Mogollon region sometime between A.D. 500 and 700 might have led to an increase in the importance of agriculture. This variety of maize has large, floury kernels that would likely have provided higher yields than could be obtained from flint varieties with smaller kernels, such as those that Diehl suggests were replaced by *Maíz de Ocho*. In addition, because this soft-kernelled flour variety may have been easier to grind than flint varieties (e.g., Adams 1999), its appearance might have partially offset the increase in the amount of time that people spent processing maize that is indicated by the changes in grinding tool assemblages from the Mimbres Valley. This, of course, would

have increased the efficiency of agriculture beyond the increase in efficiency that would have resulted simply from higher yields.

However, it is by no means certain that *Maíz de Ocho* actually appeared in the Mimbres area during the period between A.D. 500 and 700. To begin with, variety-level identifications are not currently available for maize specimens from the Mimbres Valley (Paul Minnis, personal communication, 1999). Thus, it remains unknown whether *Maíz de Ocho* was ever grown in the valley, much less when it appeared if, in fact, it did appear. In addition, uncertainties surround the appearance of this variety elsewhere in the Mogollon region.

The evidence to which Diehl (1996:105) refers concerning the earliest *Maíz de Ocho* in this region apparently comes from Tularosa Cave, which is located in the Mogollon Highlands approximately 100 miles to the north of the Mimbres Valley. Cutler (1952) analyzed the enormous assemblage of maize specimens from this site, and he found that, whereas samples from excavation levels assigned to earlier periods consisted mostly of 12-row cobs, 8-row cobs became common in levels assigned to the Georgetown phase, and such cobs dominated samples from levels assigned to the San Francisco phase (e.g., Cutler 1952:figure 173). Cutler does not explicitly identify the 8-row cobs from Tularosa Cave as *Maíz de Ocho*, however, and he does not even describe the kernels of these cobs in sufficient detail to determine whether they are particularly floury³. In addition, because Tularosa Cave was excavated in 20 cm-thick arbitrary

³ As Upham *et al.* (1988) point out, it cannot be assumed that traits of maize such as row number and kernel type evolve in concert: in other words, the presence of 8 rows does not necessarily imply the presence of floury kernels.

levels (Rinaldo 1952:40-42), the attribution of samples from this site to phases should probably be viewed with some caution. Thus, the maize remains from Tularosa Cave do not provide a compelling basis upon which to conclude that *Maíz de Ocho* appeared in the Mogollon region between A.D. 500 and 700.

On the other hand, there is some evidence to indicate that *Maíz de Ocho* may have been present in the region well before this period. First, there are several admittedly problematic radiocarbon dates available for this variety of maize from Bat Cave in the Mogollon Highlands as well as from sites near Albuquerque, and these dates suggest that *Maíz de Ocho* might have been present in New Mexico several hundred years prior to A.D. 500 (e.g., Upham *et al.* 1987:411). Second, maize specimens identified as “proto-*Maíz de Ocho*” have been recovered from Tornillo Shelter and Roller Skate Shelter near Las Cruces, and one of these has been directly radiocarbon dated to 1225 B.C. +/- 240 (Upham *et al.* 1987). Although the differences between this variety and *Maíz de Ocho* proper have not been made entirely clear (Adams 1994:293; see also Gallinat 1988; Upham *et al.* 1988), the presence of “proto-*Maíz de Ocho*” at Tornillo and Roller Skate Shelters, which are located no farther from the Mimbres Valley than is Tularosa Cave, suggests that even the earliest farmers in the Mimbres region may have grown a relatively productive variety of maize.

At the very least, because maize specimens from Mimbres Valley archaeological sites have yet to be analyzed in detail, it cannot presently be determined when any important changes in the varieties of maize that were grown in the valley occurred, if such changes occurred at all. In other words, until paleoethnobotanical analyses are

conducted that document when and how the return rates provided by maize might have changed over time, the question of whether agriculture became more important in the valley due to increases in the efficiency of farming cannot be fully resolved.

Although it is not currently possible empirically to evaluate whether agriculture became more efficient in the Mimbres Valley due to certain factors that may have improved farming yields, there is some reason to think that any increases in yields that might have occurred would not have been sufficient to have raised the efficiency of farming. It appears, of course, that increasing amounts of time were spent on activities such as working in fields and grinding maize between the Early Pithouse period and the San Francisco phase. As I discussed in Chapter 6, Barlow (1997) has shown in her ethnographic and experimental study of traditional maize farming techniques that variability in the amount of time spent on agricultural tasks is likely to have a much greater impact on the efficiency of farming than is variability in the yields that it provides. As she argues:

simply nominating factors that likely influenced expected harvest yields, including changes in climate, the development of new technology, or even higher-yielding varieties of corn, may be insufficient to explain transitions to corn farming (Barlow 1997:131).

Barlow's results suggest that increases in the amount of time devoted to agriculture will rarely raise its efficiency. In addition, she concludes that, because labor costs will generally have a much greater effect on the return rates provided by farming than will gross agricultural yields, the amount of time allocated to farming should, in general, depend on the abundances of high-return wild resources much more than it should depend on the gross yields obtained from agriculture (e.g., Barlow 1997:7).

Thus, the empirical evidence that is currently available from the Mimbres Valley is consistent with the hypothesis that depression of large mammal resources led to the intensification of agricultural production between the Early Pithouse period and the beginning of the Three Circle phase. Although more work is necessary to fully evaluate whether agricultural yields increased during this period, thereby raising the efficiency of farming, the balance of the existing evidence suggests that agricultural efficiency declined. If this is correct, then it is likely that the increased allocation of time to farming that is apparent during this span of time was a response to a decline in the efficiency with which individuals were able to harvest wild resources: if energetic efficiency were at all relevant to people in the Mimbres Valley as a decision-making currency, then they should not have devoted greater amounts of time to agriculture at the expense of a decline in farming efficiency unless wild resource foraging efficiency had declined to an even greater degree.

Conclusions

In this study, I have shown that the available archaeofaunal evidence from the Mimbres Valley supports the hypothesis that human predation reduced local abundances of deer and pronghorn between the Early Pithouse period and the beginning of the Three Circle phase. I have also shown that existing evidence from the valley suggests that people spent increasing amounts of time on activities associated with agriculture during this same period. Taken together, these results are consistent with the hypothesis that the increase in the importance of agriculture that occurred during

this span of time was a response to depression of large mammal resources and the resulting declines in hunting efficiency. A consideration of the likelihood that the efficiency of agricultural production declined over this period further supports this hypothesis.

To be sure, there are steps that could be taken in the future to evaluate these hypotheses more completely: they are eminently testable, and the degree to which I am able to test them at present is limited solely by the empirical data from the Mimbres Valley that are currently available. Regarding my resource depression analysis, the most problematic aspects of my results stem from the small faunal samples that are available for the early part of the Mimbres sequence. Few samples that date to the Early Pithouse period through the San Francisco phase exist, and those that are available are sufficiently small that it is not possible to control for such factors as variability in taphonomic processes or changes in the frequency of rabbit drives as well as this might be done. Larger faunal samples from this span of time and samples that could be dated more precisely within it would be immensely valuable. Moreover, the question of whether “garden hunting” of leporids and artiodactyls became more common during this period could be addressed further through additional analyses of stable carbon isotopes in the bones of both of these taxa.

Likewise, available data from the Mimbres Valley pertaining to increases in the importance of agriculture during the crucial early period are also less than ideal. For example, larger, more finely-dated samples of ground stone from the Early and Late Pithouse periods would be useful for determining more precisely when the amount of

time spent grinding corn increased. Measurements of carbon isotope ratios from a much larger sample of human remains that spanned the entire Mimbres sequence would also certainly be informative, or such measurements from the bones of non-human taxa like leporids, artiodactyls and dogs might work instead.

Finally, a complete understanding of the causes of increases in the importance of agriculture in the Mimbres Valley will never be possible until detailed morphological analyses of the remains of domesticates, especially maize, are completed. Such analyses should focus, in particular, on variability in attributes that are likely to affect the caloric return rates provided by these resources and on how those attributes changed over time. The development of methods that might allow determination of whether resource depression occurred in the realm of wild plant foods would also provide a critical counterpart to the analysis of vertebrate resource foraging efficiency that I have presented here.

More generally, while most recent archaeological research in the Mimbres Valley has been directed at understanding events that happened during the Classic Mimbres phase and the periods of time immediately before and after it, there is good reason to think that the important developments that eventually resulted in the phenomena that we observe in the Classic phase began considerably earlier. Diehl (1996, 1997), for example, has argued that increases in the importance of agriculture occurred well before A.D. 1000 throughout the Mogollon region, and my results show that this is very likely to have been the case in the Mimbres Valley specifically. I am certain that if more effort were devoted towards excavating archaeological deposits in

the valley that dated to the Early Pithouse period through the San Francisco phase, our understanding of long-term economic changes in this area would improve dramatically.

Taking into account the problems that may exist with the available data from the Mimbres Valley, however, these data are remarkably consistent in showing an increase in the importance of agriculture, as well as a dramatic decline in the efficiency with which wild vertebrate resources could be obtained, between perhaps A.D. 400 and A.D. 800 or 850. In turn, that both of these changes occurred during the same period of time strongly suggests that declines in hunting efficiency due to human predation on large mammals resulted in an increased allocation of time to agricultural food production.

The basic ideas that I have addressed in this study are by no means new; in fact, they have been around in some form for decades (e.g., Boserup 1965; Day 1953). Only recently, however, have archaeologists begun rigorously to test the idea that past peoples might have had significant impacts on local populations of large-bodied vertebrates (e.g., Broughton 1994a, 1994b, 1997, 1999; Hildebrandt and Jones 1992; Janetski 1997; Szuter and Bayham 1989). I hope that my analysis of faunal assemblages from the Mimbres Valley has made an important contribution to this line of research by providing an additional archaeological test for the occurrence of resource depression, as well as by offering improvements to the theoretical and methodological foundation of zooarchaeological resource depression studies.

The idea that declines in the returns provided by wild resources may have led to increases in the importance of agriculture has received a great deal more attention from archaeologists working in arid western North America (e.g., Barlow 1997; Diehl 1996;

papers in Fish and Fish 1984; Glassow 1980; Larson 1996), but direct empirical tests of this idea have not previously been performed. I hope that my analysis of the development of agriculture in the Mimbres Valley has advanced our understanding of this topic by providing such a test and by employing an explicit theoretical framework with which to conduct it. To the extent that this test has been successful, it offers a perhaps uniquely documented example of people structuring their own natural environment in a manner that led to major changes in the ways that they lived.

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Appendix A. Further Details of the Central Place Forager Prey Choice Model

On page 44 of the text, I pointed out that the highest delivery rate that is obtainable for a large prey type (R^*_i) can be illustrated graphically, as is done in Figure 3.2, by a line beginning at the origin of the energy-time graph that is tangential to the processing function of the prey type; I also noted that this line gives the optimal amount of processing time for the prey type (p^*_i). Here, I show mathematically that the highest obtainable delivery rate will occur when an item of large prey type i is processed for p^*_i units of time. I also show that, as search and transport time increases, the highest delivery rate that can be obtained from such a prey type will necessarily decrease, and the optimal amount of processing time for it will necessarily increase.

The delivery rate for a large prey type i can be expressed by the equation

$$R_i = E_i(p_i)/T_i \quad (\text{eq. A1})$$

(see pages 34-35 for variable definitions). R_i will be maximized in relation to p_i , of course, when the first derivative of R_i relative to p_i equals zero. R_i can be differentiated as

$$\frac{d}{dp_i} R_i = \frac{\left[T_i * \frac{d}{dp_i} E_i(p_i) \right] - E_i(p_i)}{T_i^2}. \quad (\text{eq. A2})$$

Because equation A2 transforms to

$$\frac{d}{dp_i} R_i = \frac{\frac{d}{dp_i} E_i(p_i)}{T_i} - \frac{E_i(p_i)}{T_i^2}, \quad (\text{eq. A3})$$

the first derivative of R_i will equal zero when

$$\frac{d}{dp_i} E_i(p_i) = \frac{E_i(p_i)}{T_i}. \quad (\text{eq. A4})$$

In other words, R_i will be maximized at the value of p_i for which the slope of the processing function ($\frac{d}{dp_i} E_i(p_i)$) is the same as the slope of the delivery rate ($\frac{E_i(p_i)}{T_i}$).

Assuming that the processing function takes the shape of a diminishing returns curve, this will only occur at the point at which the line representing the delivery rate is tangential to the processing function. I designate the amount of processing time at which this point occurs as p^*_i , and I designate the delivery rate that is obtained by processing for this amount of time as R^*_i , which equals $E_i(p^*_i)/T^*_i$, where $T^*_i = c_i + p^*_i$ (see equations 2 and 3 on page 45).

Because the variable c_i is the sum of search and transport time plus handling time, any increase in search and transport time will make T^*_i larger, which will reduce the value of R^*_i . In other words, all else being equal, an increase in search and handling time will reduce the highest delivery rate that can be obtained from a prey type. As the highest obtainable delivery rate declines due to such an increase in search and transport

time, the value of p^*_i will increase because the point at which the slope of $E_i(p_i)$ equals the delivery rate will now occur after a greater amount of processing time. Such an increase in p^*_i will raise the value of T^*_i beyond the amount by which the increase in search and transport time raises it, but there will nonetheless be a point at which the slope of the processing function equals the slope of the delivery rate.

In Chapter 3, to keep my presentation of the model simple, I made the unrealistic assumption that only one unit of a small prey type (i.e., a prey type for which $m_i \leq L_{max}$) would be harvested per foraging trip. It is quite possible, however, that a forager might harvest many units of a small prey type before returning home¹. Here, I explore the consequences of allowing for the harvest of multiple small prey items that are encountered sequentially, and I show that relaxing my assumption of single-item harvest has no effect on the substantive predictions that I derive from my model.

Figure A.1 depicts four different energetic gain functions that might be obtained from items of small prey types that are encountered and harvested sequentially. The simplest of these gain functions is the one designated as "A", which illustrates a situation in which prey items are encountered at a constant rate: it takes just as much time to encounter the second prey item after the first one is encountered as it does to encounter the first prey item after leaving home, and so on. The delivery rate that can be obtained from such a prey type remains the same no matter how many individual

¹ Of course, I am referring here to resources that come in small packages for which individual packages are encountered sequentially during a foraging trip. If multiple individuals of a small-package resource are encountered and harvested simultaneously, then the relevant prey item is the entire group of harvested individuals (e.g., Madsen and Schmitt 1998), and such aggregate prey items should be classified as either "small" or "large" prey types depending on whether their total weight is less than or greater than L_{max} (see also footnote 8 on page 40 of Chapter 3).

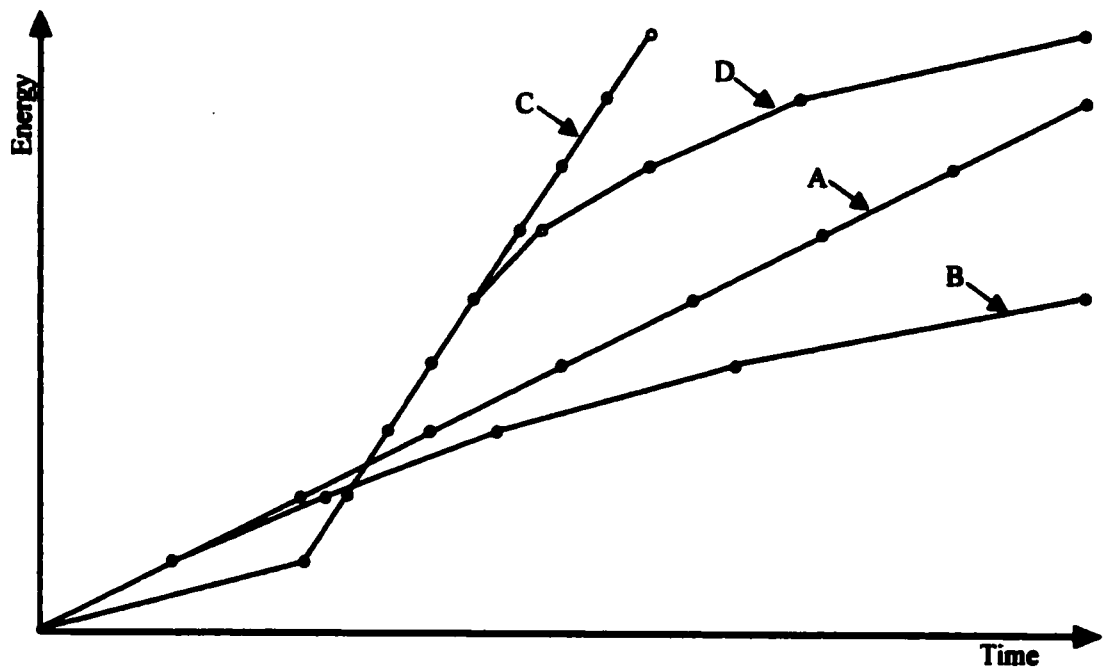


Figure A.1. Four different energetic gain functions that are possible for small prey types for which individual items are encountered sequentially.

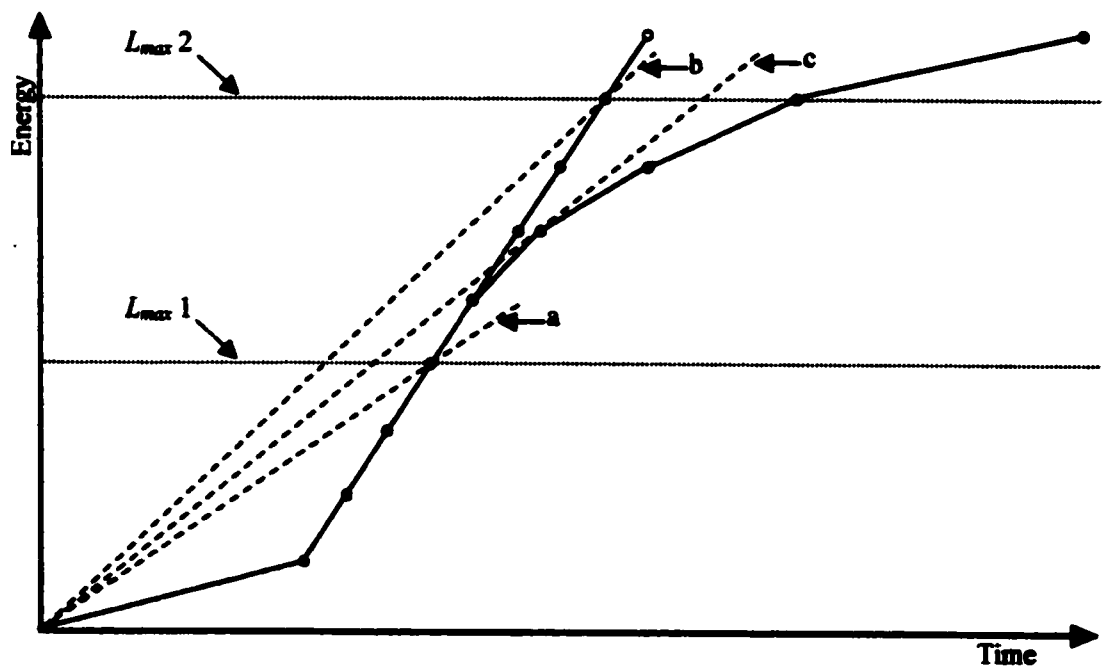


Figure A.2. Maximum delivery rates provided by "patches" of two sequentially-harvested small prey types for two different L_{max} values.

items are harvested, and in such a case an efficiency-minded forager should continue to harvest prey items until a load of size L_{max} is obtained².

Gain function "B" reflects a slightly more complex situation in which it takes longer to encounter the second prey item after harvesting the first one than it takes to encounter the first prey item after leaving home, and search time then continues to increase after each subsequent prey item is encountered. This might occur, for example, if a prey type exhibited depression during a foraging trip. The highest possible delivery rate that can be provided by a resource of this sort will be obtained when a forager returns home after harvesting the first prey item that is encountered: because time between encounters will increase with each consecutive item that is harvested, the rate of energy delivery to the central place will decline with each additional item³.

Gain function "C" illustrates a yet more complex situation. Here, the first prey item that is encountered would provide a relatively low delivery rate due to a relatively high amount of search and transport time. Once the first prey item is encountered, however, subsequent prey items are encountered very quickly, such that the rate of

² As I describe shortly, if processing such prey items in the field increases the utility of the load that is carried home, then the most efficient strategy would actually be to harvest a larger number of individual prey items than this and then to process them until a load of size L_{max} is obtained.

³ This scenario raises the issue of the "rate controversy" in foraging theory (e.g., Stephens and Krebs 1986): the first prey item encountered would provide the highest delivery rate, but it might also provide an insufficient amount of food to sustain a forager until his or her next foraging trip. I do not explore this matter in detail here because it has been addressed elsewhere, but I do note that it may not always be appropriate to assume that foragers will behave in a strictly "rate-maximizing" way if there is a minimum energetic requirement that cannot be met by individual units of a prey type that comes in very small packages. However, this issue may not be problematic for the Mimbres Valley case that I consider in this dissertation because the small-bodied vertebrate resources involved here are leporids, which are fairly sizable: if only a single individual of a leporid species were harvested on a foraging trip, this would probably be enough to feed a person for a day or so.

energy delivery to the central place will continue to increase as more items are harvested. This sort of situation might occur, for example, if items of a prey type were distributed “patchily”: if a resource patch were located far from the central place, then the delivery rate provided by the first item harvested within that patch would be fairly low, but if prey were very dense in the patch, the delivery rate might increase rapidly as additional items are harvested.

In a case like this, an efficiency-minded forager should harvest prey items until a load of size L_{max} is obtained, just as that forager should do with a prey type of the sort illustrated by gain function “A” in Figure A.1. Unlike the situation involving gain function “A”, however, the maximum delivery rate that can be provided by a prey type with a gain function like function “C” will vary depending on the size of L_{max} . This is shown in Figure A.2: if a load of size L_{max} is obtained after four units of this prey type are harvested (as is the case with “ $L_{max} 1$ ”), then the highest delivery rate that can be obtained (delivery rate “a”) will be lower than the delivery rate that could be obtained if a forager were able to transport eight units of this prey type (as is the case with “ $L_{max} 2$ ”, which results in delivery rate “b”).

Finally, gain function “D” in Figure A.1 reflects a prey type that is similar to the one illustrated by function “C”, except that time between encounters begins to increase following the initial reduction in between-encounter search time. This would occur if a distant resource patch began to display depression at some point after it was entered. In a case like this, as with a prey type of the sort illustrated by gain function “C”, both the number of prey items that should be harvested and the maximum energetic delivery rate

that can be obtained will depend on where the load size L_{max} falls along the gain function (see Figure A.2). If a load of size L_{max} were produced before the point at which depression began to occur (i.e., " $L_{max} 1$ "), then a delivery rate-maximizing forager should harvest the number of prey items that result in a load of this size (thereby obtaining delivery rate "a"). However, if a load of size L_{max} were not produced until after depression began (i.e., " $L_{max} 2$ "), then the highest possible delivery rate might be obtained by stopping at some point before a load of this size was reached: in Figure A.2, the delivery rate that would be obtained by harvesting six items of such a prey type (delivery rate "c") is higher than the delivery rate that would be obtained by harvesting eight items of it (the number at which a load of size " $L_{max} 2$ " is produced).

A rate-maximizing forager need not stop harvesting items of a small prey type once a load of size L_{max} is obtained. Consider a load of size L_{max} that consists of several items of a small vertebrate prey type. If body parts of low caloric utility are removed from each individual animal within that load, then the utility of that load per unit weight will increase, and because the weight of the load will now fall below L_{max} , a forager may be able to capture additional animals, process them, and add them to the load before returning home. Thus, it is possible that post-handling "processing" time might increase the utility of a load of multiple individuals of a small prey type similar to the manner in which it can increase the utility of a large prey type, which I described in Chapter 3. I do not attempt to model such a situation explicitly here; rather, I simply point out that for many small-bodied vertebrate prey, there should exist a unique

combination of number of individuals harvested and amount of processing time per individual that provides the highest possible rate of energy delivery to a central place.

Incorporating this consideration of the sequential harvest of items of a small prey type into the model that I presented in Chapter 3 makes this model more realistic. It does not, however, raise any problems in regard to the predictions that I derived from the model concerning the changes in prey selection that should result from depression of a large-bodied resource. For any small prey type that is characterized by an average weight in relation to the value of L_{max} , a processing function (for a group of prey items), and a given distribution on the landscape, there will be an average highest possible rate of energy delivery to a central place (R^*). If the average highest delivery rate that can be obtained from a larger bodied prey type is initially higher than the one that can be obtained from a small prey type, and if the average highest delivery rate provided by the large prey type then begins to decline, perhaps due to long-term resource depression, there will come a point at which the average highest delivery rate for the large prey type falls below the one for the small prey type, and at this point a delivery rate-maximizing forager should begin to target the smaller prey type.

Appendix B. Provenience Databases for Archaeofaunal Samples

This appendix presents provenience and recovery method data for each field specimen bag that contains faunal material from Old Town (Table B.1), Galaz (Table B.2), Mattocks (Table B.3), and McAnally (Table B.4). The first column in the table for each site contains a unique identifying number for each bag in the collection from that site. The bags in the Old Town collection were given unique lot numbers by the excavators of this site. For the Mimbres Foundation sites, each bag was labeled by the site excavators with the unit-level-locus designation of the provenience from which the material in that bag was recovered (see Anyon and LeBlanc 1984 or Nelson and LeBlanc 1986 for a discussion of the provenience recording system that was employed by the Mimbres Foundation). More than one faunal bag was recovered from many proveniences at the Mimbres Foundation sites, and I added a “bag number” to the bags from such proveniences so that each one could be uniquely identified.

The second column in each table, labeled “Use”, indicates whether a given lot was included in the analyses that I presented in Chapter 5. An “x” indicates that a lot is from a provenience that meets the criteria that I established for the inclusion of materials in my analyses, and which was thus included in these analyses. An asterisk (“*”) indicates that a bag met my criteria for inclusion but contained no identifiable artiodactyl or leporid specimens.

The remaining columns in these tables differ between Old Town and the Mimbres Foundation sites in accordance with the kind of information that was available

to me from each research project. The third column in the Old Town table (Table B.1) contains a "Provenience Code" that I assigned to lots in order to facilitate sorting them in a computer spreadsheet. The first letter in these codes indicates the area of the site from which a lot comes, and this is followed by characters indicating the excavation unit. The codes for some lots contain a third component, which indicates the numbered room or extramural feature from which a lot was recovered. The entries in Table B.1 are sorted first by area, then by excavation unit, then by year of excavation, then by feature number or room number (or lack thereof), and finally by lot number.

The fourth column in the Old Town table indicates the analytic units to which lots were assigned. Most of these analytic units are based on information supplied to me by Darrell Creel, though some of them are based on my own interpretations of provenience data. The analytic units for the rooms in Area B are presented as codes, the meaning of which can be found in Lucas (1996). The analytic units for the lots recovered from Area A, Unit 22 in 1996 are listed as codes that are similar to those given for the Area B rooms. The fifth column in this table indicates the date of excavation, and this is followed by columns for area, unit, room number and feature number, and then by a column that presents additional provenience data.

The column headed "Screen" gives the method by which the material in each lot was recovered, coded as follows: "no" = not screened, "4" = 1/4" screen, "8" = 1/8" screen, "sm" = 1/16" or window screen, "water" = water screened, "flot" = flotation, and "?" = recovery method unknown. The final column, headed "Dist.", indicates whether a lot comes from a context that is described either in this table or in a yearly

Old Town status report as being disturbed, most often as the result of pothunting. Lots that are not indicated as being from disturbed contexts should not be assumed necessarily to come from undisturbed contexts: they may simply be from contexts that have not been described in great detail.

Entries in the tables for the Mimbres Foundation sites are sorted first by excavation unit, then by locus, then by level, then by bag number. Two "Analytic Unit" columns are provided in the table for Galaz (Table B.2). The first of these ("Analytic Unit 1") contains the coded analytic unit designation that I obtained for each provenience at this site from records held in the collections of the Maxwell Museum of Anthropology at the University of New Mexico. Additional records in these collections correlate Galaz proveniences to the analytic unit designations used in Anyon and LeBlanc (1984), which are provided in the column headed "A. U. 2". The entries in the "Context" column are basically a translation of the codes presented in the "Analytic Unit 1" column¹, occasionally supplemented by additional information that I obtained from the Galaz field notes, which I examined at the Maxwell Museum.

I also obtained recovery method information for each provenience at Galaz from the field notes for this site, and this information is given in the "Screen" column using codes that are identical to those used for Old Town. For many of the proveniences at the Mimbres Foundation sites that I use, screening information is given only as a percentage of the deposits from a provenience that was screened (e.g., "100%"), and the

¹ The numbers in these codes refer to depositional context types, which are presented in the "Context" column. Lower-case letters refer to different structures or occupation surfaces found within an excavation unit. Upper-case letters provide an age estimate for a deposit: "L" = Late Pitohouse, "C" = Classic Mimbres, "A" = Animas (or Black Mountain), "U" = unknown.

mesh size of the screen that was used is not explicitly indicated. I am informed, however, that it is safe to assume that 1/4" screen was used in these cases (Patricia Gilman, personal communication, 2001). For some proveniences, both a screen size and a percentage of the deposits that was screened are given; I provide the percentage only if it is less than 100%.

The column headed "Collection" in the tables for the Mimbres Foundation sites indicates the institution that held a given field specimen bag immediately before I received these materials on loan. All of the materials from the Mimbres Foundation excavations were supposed to have been curated at the Maxwell Museum. However, approximately half of the faunal material from all Mimbres Foundation sites was still located at the Los Angeles County Museum of Natural History, where it was originally analyzed, when I first attempted to obtain it. Because the material that was still held by the L.A. County Museum has not yet been accessioned into the Maxwell Museum, I have kept the materials that I received from each institution physically separate. The entries in the "Collection" column thus indicate whether a bag can be found in the boxes of material that I obtained from the L.A. County Museum ("LACMNH") or whether it can be found in the boxes that came originally from the Maxwell.

The table for Mattocks (Table B.3) is similar to the table for Galaz. The "Analytic Unit 1" column contains coded analytic units that were provided to me by Patricia Gilman, and these codes are translated in the "Context" column. The "Analytic Unit 2" column contains the analytic units to which I assigned proveniences for purposes of the ceramic analyses that I presented in Chapter 4; these are the analytic

unit designations for which sherd counts are provided in Gilman and LeBlanc (n.d.).

The data presented in the "Context" column are occasionally supplemented by information that I obtained from the Mattocks field notes, copies of which are held at the Maxwell Museum. I also obtained recovery method information from these field notes, and this is given in the "Screen" column.

Finally, the table for McAnally (Table B.4) contains information on depositional context and recovery method that I obtained from Arthur (1994:tables 1, 2, 4 and 5).

Table B.1. Provenience data for Old Town lots that contain faunal material (page 1 of 24).

Lot	Use	Prop. Code	Asst. Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
3		A-01A	Rm A1A5 III	6/4/88	A	1			Sub-Unit A; Human Bone from disturbed hole	no	x
9		A-01A	Rm A1A5 III	6/4/88	A	1			Sub-Unit A; Disturbed fill along slope of 'water trench; Elev=100.48 - 99.25	no	x
14		A-01A	Rm A1A5 III	6/6/88	A	1	1		Sub-Unit A; Disturbed fill; Elev=100.48 - 99.25	4	x
27		A-01A	wall trench	6/7/88	A	1			Sub-Unit A; Disturbed fill North of Room 1	no	x
32		A-01A	wall trench	6/8/88	A	1			Sub-Unit A; Disturbed fill from wall trench East of Room 1	no	x
51		A-01A	Rm A1A5 III	6/13/88	A	1			Sub-Unit A; Undisturbed fill under floor remnant; sub-unit Y; Elev=99.73 - 99.88	4	
98		A-01A	Rm A1A5 III	6/18/88	A	1			Sub-Unit A; Fill below Room 1; disturbed; L2; Elev=99.25 - 99.05	4	x
98A		A-01A	Rm A1A5 III	7/4/88	A	1			Sub-Unit A; Fill south and west of sub-unit W; Elev=99.88 - 99.18	no	
97	x	A-01A-R05	Rm A5 III	6/18/88	A	1			Sub-Unit A; Undisturbed fill below lower floor remnant; sub-unit X; Elev=99.50 - 99.63	4	
116		A-01A-R05	Rm A5 III	6/21/88	A	1			Sub-Unit A; Fill under Room 1; South half; Disturbed; L2; Elev=99.05 - 99.85	4	x
124		A-01A-R05	Rm A5 III	6/21/88	A	1	5		Sub-Unit A; Fill from Room 5 Pit-house; L3; Elev=99.85 - 99.63 (some material from outside pit-house)	4	
128	x	A-01A-R05	Rm A5 III	6/21/88	A	1			Sub-Unit A; Fill beneath floor remnant; Undisturbed; sub-unit X; Elev=99.12 - 99.85	4	
164		A-01A-R05	Rm A5 III	6/22/88	A	1			Sub-Unit A; Fill beneath north half Room 1; Disturbed; L1; Elev=99.05 - 99.85	4	x
204		A-01A-R05	Rm A5 III	6/23/88	A	1	5		Sub-Unit A; sub-unit Z; Disturbed fill; L1; Elev=99.05 - 99.85	4	x
207		A-01A-R05	Rm A5 III	6/23/88	A	1	5		Sub-Unit A; sub-unit Z; Disturbed fill; L2; Elev=99.85 - 99.85	4	x
210		A-01A-R05	Rm A5 III	6/23/88	A	1	5		Sub-Unit A; sub-unit Z; Disturbed fill; L3; Elev=99.85 - 99.75	4	x
227		A-01A-R05	Rm A5 floor	6/23/88	A	1	5		Sub-Unit A; sub-unit Z; L4; Elev=99.75 - 99.81	4	x
282		A-01A-R05	Rm A5 III	6/25/88	A	1			Sub-Unit A; Fill beneath north half Room 1; Disturbed; L4; Elev=99.85 - 99.82	4	x
348		A-01A-R05	Rm A5 III	6/27/88	A	1			West trench into Unit 1A	no	
367		A-01A-R05	Rm A1A5 III	6/27/88	A	1			Sub-Unit A; sub-unit W; L1; Elev=99.88 - 99.48	4	
385	x	A-01A-R05	W-2-5	6/28/88	A	1			Sub-Unit A; sub-unit W; L2; Elev=99.48 - 99.38	4	
388	x	A-01A-R05	W-2-5	6/28/88	A	1			Sub-Unit A; sub-unit W; L3; Elev=99.38 - 99.28	4	
372	x	A-01A-R05	W-2-5	6/28/88	A	1			Sub-Unit A; sub-unit W; L4; Elev=99.28 - 99.18	4	
375	x	A-01A-R05	W-2-5	6/28/88	A	1			Sub-Unit A; sub-unit W; L5; Elev=99.18 - 99.08	4	
378	x	A-01A-R05	W-6-9	6/28/88	A	1			Sub-Unit A; sub-unit W; L6; Elev=99.08 - 99.98	4	
382	x	A-01A-R05	W-6-9	6/28/88	A	1			Sub-Unit A; sub-unit W; L7; Elev=99.98 - 99.88	4	
388	x	A-01A-R05	W-6-9	6/28/88	A	1			Sub-Unit A; sub-unit W; L8; Elev=99.88 - 99.78	4	
408	x	A-01A-R05	W-6-9	6/28/88	A	1			Sub-Unit A; sub-unit W; L9; Elev=99.78 - 99.68	4	
413	x	A-01A-R05	W-10	6/28/88	A	1			Sub-Unit A; sub-unit W; L10; Elev=99.68 - 99.62	4	
416	x	A-01A-R05	Rm A5 III	6/28/88	A	1			Sub-Unit A; West trench fill above Room 5; Elev=99.61 - 99.62	4	
530		A-01A-R05	Rm A5 III	7/3/88	A	1	5		Sub-Unit A; 30 cm extension north of west no trench	no	
563		A-01A-R05	Rm A5 III	7/3/88	A	1			Sub-Unit A; Fill west of sub-unit W; Elev=99.38 - 99.88	no	
588	x	A-01A-R05	Rm A5 III & floor	7/3/88	A	1	5		Sub-Unit A; Fill from Room 5 west of sub-unit W; Elev=99.98 - 99.82	4	
687	x	A-01A-R05	Rm A5 III	7/4/88	A	1	5		Sub-Unit A; SW Quad of Room 5; L2; Elev=99.18 - 99.98	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 2 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Obs.
672	x	A-01A-R05	Rm A5 fill & floor	7/4/88	A	1	5		Sub-Unit A; SW Quad of Room 5; L2; Elev= 88.88 - 88.76	4	
675	x	A-01A-R05	Rm A5 fill & floor	7/4/88	A	1	5		Sub-Unit A; SW Quad of Room 5; L3; Elev= 88.76 - 88.57	4	
800		A-01A-R05	Rm A5 floor	7/4/88	A	1	6	burial 3	Sub-Unit A; Fill from Room 5; Elev=88.57	no	
4		A-01C	1C general	6/4/88	A	1			Sub-Unit C; Disturbed fill along slope of 'floor cut	?	x
6		A-01C	1C general	6/4/88	A	1			Sub-Unit C; Disturbed fill along slope of 'floor trench	?	x
25		A-01C-R02	Rm A2 dist.	6/8/88	A	1	2		Sub-Unit C; Disturbed fill	?	x
33	x	A-01C-R02	Rm A2 fill	6/8/88	A	1			Sub-Unit C; Undisturbed fill from North wall of trench at top of adobe surface	4	
41		A-01C-R02	Rm A2 dist.	6/12/88	A	1	2		Sub-Unit C; N888 / W1042 (Grid coord not exactly correct); L1; Disturbed fill	4	x
42		A-01C-R02	Rm A2 dist.	6/12/88	A	1	2		Sub-Unit C; N888 / W1042 (Grid coord not exactly correct); L2	4	x
48		A-01C-R02	Rm A2 floor	6/12/88	A	1	2		Sub-Unit C; upper floor adobe	4	
74	x	A-01C-R02	Rm A2 floor	6/13/88	A	1	2		Sub-Unit C; Material under partial floor, 2nd floor (between 2nd & 3rd floors)	4	
78		A-01C-R02	Rm A2 dist.	6/14/88	A	1	2		Sub-Unit C; South extension of north wall trench; disturbed fill	no	x
79		A-01C-R02	Rm A2 dist.	6/15/88	A	1	2		Sub-Unit C; South extension of north wall trench; disturbed fill	4	x
82		A-01C-R02	Rm A2 dist.	6/14/88	A	1	2		Sub-Unit C; South extension of north wall trench; possible feature	4	x
83		A-01C-R02	Rm A2 dist.	6/13/88	A	1	2		Sub-Unit C; South extension of north wall trench, west end, surface	4	x
131		A-01C-R02	Rm A2 floor	6/21/88	A	1	2		Sub-Unit C; Middle floor #2, adobe	4	
343		A-01C-R02	Rm A2 floor	6/27/88	A	1	2		Sub-Unit C; Floor #3 (floor material)	4	
476		A-01C-R02	Rm A2 dist.	7/2/88	A	1			Sub-Unit C; Disturbed area SE of floor #4; Elev=88.43 - 88.20	4	x
483		A-01C-R02	Rm A2 floor	7/2/88	A	1			Sub-Unit C; Fill from floor #4 (Top of floor #6); Elev=88.47 - 88.32 (floor material)	4	
520		A-01C-R02	Rm A2 floor	7/3/88	A	1			Sub-Unit C; Fill from floor #6 and below; Elev=88.32 - 88.17 (floor material)	4	
38		A-01C-R03	Rm A3 fill	6/11/88	A	1	3		Sub-Unit C; South wall trench; Disturbed fill	no	x
54		A-01C-R03	Rm A3 fill	6/14/88	A	1			Sub-Unit C; North extension along bulldozer trench	no	x
39		A-01C-R04	Rm A4 fill	6/12/88	A	1	4		Sub-Unit C; Undisturbed adobe floor (not undisturbed)	4	x
867		A-01C-R02	Rm A2 dist.	6/28/88	A	1	2		Sub-Unit C; Loose Fill West of Room 3 (Room 2)	4	x
1088		A-01C-R02	Rm A2 dist.	7/4/88	A	1	3	13	Sub-Unit C; West Wall Room 3; Feature #13; Possible Pit Hole	?	x
743		A-01C-R03	Rm A3 fill	6/13/88	A	1	3		Sub-Unit C; Loose Fill	4	x
747		A-01C-R03	Rm A3 fill	6/14/88	A	1	3		Sub-Unit C; Top / Vertical Step Level	?	x
786		A-01C-R03	Rm A3 fill	6/18/88	A	1	3	7	Sub-Unit C; Bone Concentration Along East Wall; Elev=88.213 - 88.174	?	
807		A-01C-R03	Rm A3 fill	6/20/88	A	1	3		Sub-Unit C; Disturbed Fill	?	x
882		A-01C-R03	Rm A3 subfloor	6/28/88	A	1	3		Sub-Unit C; L2; Below Floor; Elev= 88.672 - 88.832 (mixed)	4	
884		A-01C-R03	Fee A3-8	7/4/88	A	1	3	9	Sub-Unit C; Feature #9 (Parrot Skeleton)	am?	
885		A-01C-R03	Fee A3-8	7/4/88	A	1	3	8	Sub-Unit C; Feature #8 (Parrot Skeleton)	am	
1088		A-01C-R03	Rm A3 subfloor	7/11/88	A	1	3		Sub-Unit C; Room 3, SW Corner; Fill Beneath Floor (mixed)	?	
758		A-01C-R04	Fee A4-1	6/18/88	A	1		A4-1	Sub-Unit C; Burial #4; Burial Pit ("no good room assignment")	4	
831		A-01C-R08	Rm A6 SW 1x1	6/20/88	A	1	6		SW Corner; 1x1 unit excavation; Beginning Elev=88.670 W	?	
885		A-01C-R08	Fee A6-2	7/2/88	A	1	6	2	Adobe Floor Post Hole, Feature #2	?	
886		A-01C-R08	Rm A6 fill	7/2/88	A	1	6		NW Corner, Disturbed Fill	?	x
886		A-01C-R08	Rm A6 floor	7/3/88	A	1	6		Sub-Unit C; Floor Remnant #2	4	
1003		A-01C-R08	Rm A6 subfloor	7/3/88	A	1	6		Sub-Unit C; Fill Beneath Floor (mixed)	4	
1023		A-01C-R08	Rm A6 fill	7/8/88	A	1	6		Sub-Unit C; Pass undisturbed along north wall, but floor remnant & vent; Elev = 88.38 - 88.23	?	x

Table B.1. Provenience data for Old Town lots that contain faunal material (page 3 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
1028		A-01C-R08	Rm A6 fill	7/8/80	A	1	6		Sub-Unit C; Foss undisturbed along north wall, but floor remnant & vent; Elev = 89.38 - 89.08	?	x
1034		A-01C-R08	Rm A6 fill	7/8/80	A	1	6		Sub-Unit C; Foss undisturbed along north wall, but floor remnant & vent; Elev = 89.08 - Bedrock	?	x
1041		A-01C-R08	Rm A6 fill	7/8/80	A	1	6	4	Sub-Unit C; Room 6, North Wall; Elev = 89.07 - (); Feature #4	?	
988		A-01C-R07	Rm A7 dist.	6/25/80	A	1	7		Sub-Unit C; North Wall	?	x
947		A-01C-R07	burial	6/27/80	A	1	7		Sub-Unit C; Burial #6; Elev = 89.631 - 89.731	am	
948		A-01C-R07	burial	6/28/80	A	1	7		Sub-Unit C; Burial #6; Elev = 89.631 - 89.731	4	
1006		A-01C-R07	Rm A7 floor	7/4/80	A	1	7		Sub-Unit C; Room 7 Floor - 10 cm Above (includes Roof Fall)	?	
1008		A-01C-R07	Rm A7 dist.	7/4/80	A	1	7		Sub-Unit C; Room 7; Disturbed Fill	?	x
1013		A-01C-R07	burial	7/5/80	A	1	7	7	Sub-Unit C; Room 7; NE Corner; Elev = 89.33; Feature #7	?	
1014		A-01C-R07	Rm A7 dist.	7/6/80	A	1	7		Sub-Unit C; Room 7; North Wall; Undisturbed Fill	?	x
1064		A-01C-R07	burial	7/11/80	A	1	7		Sub-Unit C; Room 7 NE Corner; Pit Beneath Floor; Burial No 6	?	
1088		A-01C-R07	burial	7/10/80	A	1	7	22	Sub-Unit C; Room 7, NE Corner; Feature #22; Disturbed Fill	?	x
1501		A-01C-R07	Rm A7 dist.	6/18/82	A	1	7		NW Quad Room 7; Disturbed Fill	4	x
1505		A-01C-R07	Rm A7 dist.	6/11/82	A	1	7		NW Quad Room 7	4	x
1515		A-01C-R07	Rm A7 dist.	6/15/82	A	1	7		NW Quad Room 7; Fill Above Roof Fall in NW Quad	8	x
1516		A-01C-R07	Rm A7 dist.	6/15/82	A	1	7		Rm 7 North Wall Trench; Disturbed Fill; All artifacts found west of horizontal slab in north wall	8	x
1517		A-01C-R07	Rm A7 roof	6/15/82	A	1	7		SW Corner of Room 7; elev=89.86; Burned Roof Fall (including several on above)	4	
1528		A-01C-R07	Rm A7 wall	6/17/82	A	1	7	10	Room 7; Feature #10; Adobe Wall	4	
1528		A-01C-R07	Rm A7 dist.	6/17/82	A	1	7		NW Quad Room 7; Disturbed Fill	4	x
1529		A-01C-R07	Rm A7 wall	6/17/82	A	1	7		Room 7; Adobe Wall Fall on NW Side	4	
1530		A-01C-R07	Rm A7 wall/roof	6/19/82	A	1	7		Room 7; Undisturbed Fill; Wall Wall and Roof Fall	4	
1531		A-01C-R07	Rm A7 dist.	6/18/82	A	1	7		NW Quad Room 7; Disturbed Fill; West Wall	4	x
1532		A-01C-R07	Rm A7 dist.	6/19/82	A	1	7		SW Quad Along South Wall in Room 7; Disturbed Fill	4	x
1535		A-01C-R07	Rm A7 dist.	6/22/82	A	1	7		NW Quad Room 7; Disturbed Fill; Beneath A7-13	4	x
1536	x	A-01C-R07	Rm A7 fill	6/22/82	A	1	7		Room 7; South Wall; Undisturbed	4	
1546		A-01C-R07	Rm A7 roof	6/23/82	A	1	7		Sub-Unit C; Room 7; Undisturbed Roof Fall Under A11, 7-11	4	
1556		A-01C-R07	Rm A7 dist.	6/25/82	A	1	7		Sub-Unit C; Room 7; West Wall Trench	no	x
1561		A-01C-R07	Rm A7 dist.	6/28/82	A	1	7		Sub-Unit C; Room 7; Disturbed Fill	4	x
1562		A-01C-R07	Rm A7 dist.	6/30/82	A	1	7		Sub-Unit C; Room 7; Disturbed Fill	no	x
1567		A-01C-R07	Rm A7 floor foss.	6/29/82	A	1	7	18	Sub-Unit C; Room 7; Feature #18; Fill (post hole)	am	
1568		A-01C-R07	Rm A7 floor foss.	6/29/82	A	1	7	19	Sub-Unit C; Room 7; Feature #19; Fill (post hole)	4	
1575		A-01C-R07	Rm A7 dist.	6/30/82	A	1	7		Room 7; East of West Wall	no	x
1586		A-01C-R07	Rm A7 floor foss.	7/1/82	A	1	7	23	Feature #23 Fill (post hole)	4	
1588		A-01C-R07	Rm A7 floor	7/2/82	A	1	7		Sub-Unit C; Room 7; Top of 2nd Floor to Top 3rd Floor; Undisturbed (floor material)	4	
1602		A-01C-R07	Rm A7 floor	7/3/82	A	1	7		Sub-Unit C; Room 7; Upper Floor Adobe	4	
1604	x	A-01C-R07	Rm A7 floor foss.	7/3/82	A	1	7	24	Feature #24 Fill (post hole)	4	
1605		A-01C-R07	Rm A7 dist.	7/3/82	A	1	7		Sub-Unit C; Room 7; West Wall Disturbed Fill	no	x
1608		A-01C-R07	Rm A7 dist.	7/8/82	A	1	7		Sub-Unit C; Bone Concentration; North Wall	4	x
1610		A-01C-R07	Rm A7 dist.	7/8/82	A	1	7		Sub-Unit C; Room 7; Area Around 1980 Adobe Step	4	x
1612		A-01C-R07	Rm A7 dist.	6/18/82	A	1	7	25	Sub-Unit C; Room 7; Feature #25; Crushed Biter Corium - Filled	no	x

Table B.1. Provenience data for Old Town lots that contain faunal material (page 4 of 24).

Lot	Use	Prev. Code	Archaeic Unit	Date	Area	Units	Room	Feature	Other Provenience Data	Screen	Dist.
1622		A-01C-R07	Rm A7 dist.	7/7/82	A	1	7		Room 7 ; North Wall Below 2nd Floor ; Disturbed Fill	no	x
1624		A-01C-R07	Rm A7 subfloor	7/7/82	A	1	7		Room 7 ; Undisturbed Fill Beneath Lower Floor ; L1 ; Elev = 98.08 (mixed)	4	
1625		A-01C-R07	Rm A7 floor feat.	7/7/82	A	1	7	18	Room 7 ; Feature 618 (post hole)	em	
1627		A-01C-R07	burial	7/8/82	A	1	7		Room 7 ; L2 ; Undisturbed Fill Beneath Lower Floor ; Burial No 8	no	
1628		A-01C-R07	burial	7/8/82	A	1	7		Sub-Unit C ; Sub-Floor ; Burial No 8	em	
1631		A-01C-R07	burial	7/8/82	A	1	7		Sub-Unit C ; Room 7 ; Burial No 10	em	
1632		A-01C-R07	burial	7/8/82	A	1	7		Sub-Unit C ; Room 7 ; Burial No 9	em	
1633		A-01C-R07	burial	7/8/82	A	1	7		Sub-Unit C ; Room 7 ; Burial No 9 ; Disturbed Burial ; Metal ; East of Doorway ; West Wall	4	x
1637		A-01C-R07	Fee A28	7/8/82	A	1	7	26	Room 7 ; Feature 626 ; L4 ; Undisturbed Fill ; Elev = 98.80 to Base (construction 887)	4	
1638		A-01C-R07	Rm A7 subfloor	7/8/82	A	1	7		Room 7 ; L3 ; Undisturbed Fill Beneath Lower Floor ; Elev = 98.90 - 98.60 (mixed)	4	
1641		A-01C-R07	Rm A7 dist.	7/10/82	A	1	7		Room 7 ; Disturbed Fill, North Wall, Near Burials No 8 & No 9	8	x
1642		A-01C-R07	Rm A7 dist.	7/10/82	A	1	7	25	Room 7 ; Fill from Feature 625 ; Burial Fill	8	x
1643		A-01C-R07	?	7/10/82	A	1	7	27	Room 7 ; Feature 627	8	
1644		A-01C-R07	burial	7/10/82	A	1	7		Room 7 ; North Wall Baby Burial ; Plotted ; Burial No 11	em	
1647		A-01C-R07	Rm A7 dist.	7/10/82	A	1	7		Room 7 ; Disturbed Fill Along North Wall	4	x
1648		A-01C-R07	burial	7/10/82	A	1	7		Sub-Unit C ; Room 7 ; Near Features # 30, 32, 33, 34 ; Disturbed Burial	4	x
1655		A-01C-R07	Fee A7-36	7/11/82	A	1	7	35	Sub-Unit C ; Room 7 ; Feature 635 ; All Fill (post hole)	em	
1658		A-01C-R07	Rm A7 subfloor	7/8/82	A	1	7		Sub-Unit C ; Room 7 ; Undisturbed Fill Below Lower Floor ; L2 (mixed)	4	
1614 or 1644 unknown		A-01C-R07		1982					log says 1614, bones labeled 1644		
		A-01C-R07		80 or 82					provenience info lost from bag; can't tell which lot it's supposed to be		
3878		A-01C		8/3/87	A	1			Unit 1C Disturbed Fill	4	x
4001		A-01C		8/11/87	A	1			UNIT 1C DISTURBED FILL SOUTH OF A2	4	x
4010		A-01C		7/28/87	A	1			UNIT 1C DISTURBED FILL	4	x
4015		A-01C		7/27/87	A	1			UNIT 1C DIST. FILL	no	x
4017		A-01C		8/1/87	A	1			UNIT 1C OUTSIDE W. WALL ROOM A2 DIST. FILL	no	x
3846		A-01C-R57		8/3/87	A	1	A57		Stratum above flagstone floor (in wall fall etche) 98.840 to 98.925	4	
3885		A-01C-R57		8/8/87	A	1	A57		UNIT 1C ROOM A57 FOOTING TRENCH FILL N. WALL	4	
3887		A-01C-R57		8/3/87	A	1	A57		UNIT 1C ROOM A57 DIST. FILL	4	x
4012		A-01C-R57		8/1/87	A	1	A57		UNIT 1C ROOM A57 WALL FALL	4	
4029		A-01C-R57		8/12/87	A	1	A57		ADOBE UNDER FLAGSTONE	4	
4185		A-01C-R57		8/18/87	A	1	A57		Room A57/80, disturbed fill	4	x
3887		A-01C-R80		8/11/87	A	1	A80		UNIT 1C A80/81 FLOORS	4	
4005		A-01C-R80		8/8/87	A	1	A80		UNIT 1C FLOOR ADOBE OR FLOOR SURFACE	4	
4027		A-01C-R80		8/12/87	A	1	A80	A80-1	UNIT 1-C FEATURE A80-1 HEARTH FILL	4	
4188		A-01C-R80		8/13/87	A	1	A80		Disturbed fill	4	x
4170		A-01C-R80		8/18/87	A	1	A80	A80-2	Feature fill	4	
3884		A-01C-R81		8/11/87	A	1	A81		UNIT 1C WALL FALL ON A81 FLOOR	4	
4172		A-01C-R81		8/13/87	A	1	A81		Disturbed fill	4	x
4174		A-01C-R81		8/13/87	A	1	A81		Lower floor etche	4	
3881		A-01C-R82		8/11/87	A	1	A82		UNIT 1C FEA A 82 FILL ABOVE WALL FALL S. OF ROOM A 87 WALL	4	
4030		A-01C-R82		7/28/87	A	1	A2		WEST OF WEST WALL OF ROOM A2 DISTURBED FILL (~Room A82)	no	x
17		A-01E		8/6/88	A	1			Sub-Unit E ; Disturbed fill along 'trench' cut	no	x
3855		A-02		7/22/87	A	2			N 984.00 W 1004.00	4	
3841		A-02		7/22/87	A	2			N 984.00 W 1008.00 Level 1	4	
3845		A-02		7/22/87	A	2			N 983.00 W 998.00 Level 1	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 5 of 24).

Lot	Use	Prev. Code	Asseptic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Obs.
1488		A-08		6/30/91	A	6	8		North Wall Trench of Room A8 ; Surface Elev =88.80	4	
1489		A-08		6/30/91	A	6	8		West Wall Trench of Room A8 ; Surface Elev =88.80	4	
1490		A-08		6/30/91	A	6	8		West Wall Trench of Room A8 ; Surface Elev =88.80	4	
1503		A-07	Rm A10 dist./assem.	6/9/92	A	7			N871 / W1046 ; L1	4	x
1505		A-07	Rm A10 dist.	6/11/92	A	7			N888 / W1043 ; L1	4	x
1507		A-07	Fee A10-1	6/11/92	A	7	10	1	N888 / W1043 ; L1 ; Feature # 1	4	
1508		A-07	Rm A10 dist.	6/11/92	A	7			N888 / W1043 ; L1 ; Rock Cluster Along South Wall	8	x
1509		A-07	Rm A10 dist.	6/11/92	A	7			N888 / W1043 ; L1 ; North Wall Trench In Bedrock	4	x
1511		A-07	Rm A10 dist./assem.	6/12/92	A	7			N871 / W1046 ; L2 ; SW Corner Around Burned Bone	8	x
1512		A-07	burial	6/12/92	A	7	10	3	N871 / W1046 ; L2 ; Feature # 3	4	
1514		A-07	Rm A10 dist./assem.	6/15/92	A	7			N871 / W1046 ; L3	4	x
1522		A-07	888/1034	6/16/92	A	7			N888 / W1034 ; L2	4	
1537		A-07	Rm A10 dist.	6/22/92	A	7			N871 / W1043 ; L1	4	x
1538		A-07	888/1034	6/22/92	A	7			N888 W1034 ; L3	4	
1539		A-07	?	6/22/92	A	7			N871 / W1041 ; West Half	4	
1541		A-07	Rm A10 dist./assem.	6/23/92	A	7			N888 / W1041 ; L1	4	x
1542		A-07	Rm A10 dist./assem.	6/23/92	A	7			N888 / W1041 ; L2	4	x
1543		A-07	?	6/23/92	A	7			N871 / W1046 ; L4	4	
1544		A-07	burial	6/23/92	A	7	10	4	N871 / W1046 ; Feature #4 ; SW Corner ; L3 & 4	8	
1549		A-07	burial	6/24/92	A	7	10	8	N871 / W1041 ; L2 ; Feature # 8 ; Baby Burial	8	
1550		A-07	Rm A10 dist./assem.	6/24/92	A	7			N871 / W1041 ; L2	4	x
1551		A-07	Rm A10 dist.	6/24/92	A	7			N871 / W1041 ; L2 ; SW Corner Disturbed Lintels, Ceramics and Bone	4	x
1554		A-07	Rm A10 dist./assem.	6/25/92	A	7			N871 / W1041 ; L3	4	x
1555		A-07	Fee A10-6	6/25/92	A	7	10	6	N871 / W1041 ; L2 & 3 ; Feature #6	4	
1557		A-07	Rm A10 dist.	6/25/92	A	7			N871 / W1043 ; L3	4	x
1569		A-07	Fee A10-12	6/28/92	A	7	10	12	Feature # 12 ; Cross-Section East Side ; Loose Fill	8	
1577		A-07	Rm A10 dist.	6/30/92	A	7			N888 / W1043 ; L2	4	x
1578		A-07	Fee A10-13	6/30/92	A	7	10	13	Feature 13 Fill	8	
1579		A-07	Fee A10-14	6/30/92	A	7	10	14	Feature 14 Fill	8	
1581		A-07	Fee A10-10	6/30/92	A	7	10	10	N872.8 / W1044 ; Feature #10	8	
1582		A-07	Fee A10-11	6/30/92	A	7	10	11	N872.8 / W1044.5 ; Feature #11	8	
1587		A-07	Fee A10-11	7/1/92	A	7	10	11	Feature #11 Disturbed Fill	4	x
1590		A-07	Fee A10-16	7/1/92	A	7	10	16	Feature #16	8	
1591		A-07	Rm A10 dist.	7/2/92	A	7			N871 / W1043 ; Bulk from SW Corner	4	x
1597		A-07	Rm A10 dist.	7/2/92	A	7			N888 / W1043 ; L3	4	x
1598		A-07	Rm A10 dist.	7/2/92	A	7			N888 / W1046 ; East Half of L 2	4	x
1607		A-07	Rm A10 dist./assem.	7/6/92	A	7			N871 / W1046 ; South Bulk	4	x
1619		A-07	burial	7/7/92	A	7	10	18	Feature #18	8m	
1630		A-07	burial	7/3/92	A	7	10	4	Room 10 ; Feature #4 ; Fill	8m	
1652		A-07	burial	7/10/92	A	7	10	4	Feature #4 ; Human Bone Concentration	no	
1653		A-07	test trench 1	7/6/92	A	7			Test Trench #1 ; Surface to Bedrock	no	
1687		A-10		6/6/93	A	10			N813 W1008 Level 2 (88.39-88.32)	4	
1722		A-10		6/6/93	A	10			N811 W1010 Level 1 (88.88-88.29)	4	
1724		A-10		6/6/93	A	10			N813 W1008 Level 1 (88.88-88.39)	4	
1719		A-10-F13		6/6/93	A	10		13	Feature A13	4	
2808		A-22		7/16/96	A	22			N878.888/W1010.007 (SE corner), surface to bedrock	4	
2813		A-22		7/16/96	A	22			N878.011/W1006.982 (SE corner), surface to bedrock	4	
2820		A-22		7/17/96	A	22			N880.016/W1011.978 (SE corner), surface to bedrock	4	
2846		A-22		7/18/96	A	22			N877.983/W1013.982 (2 sf), surface to bedrock	4	
2888		A-22		7/23/96	A	22			N877.978/W1008.023 (2sf) surface to bedrock	4	
3246		A-22		8/7/98	A	22			N878.781/W1012.093 88.90-88.467	4	
3271		A-22		8/8/98	A	22			External control unit (N881.988 W1024.08) level 2	4	
3285		A-22		8/8/98	A	22			External control unit; N881.988 W1024.08; Level 3	4	
2839		A-22-F14		7/18/96	A	22		A14	N883/W1008 (1sf), surface to top of feature	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 6 of 24).

Lot	Use	Prov. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
2878		A-22-F14	J	7/22/86	A	22		A14	N880.443W1008.184 bedrock to bottom of pit	no	
3210		A-22-F21	J	7/23/86	A	22		A21	N881.881 W1008.082	4	
3363		A-22-F23	J	8/8/86	A	22		A23	Room A16 north wall trench	4	
2881		A-22-F28	F	7/23/86	A	22		A28	Fill above possible burial N881.188W1018.422/EL100.107-88.607	4	
3018		A-22-F28	E	7/24/86	A	22		A28	N881.188 W1018.422 fill in bone area	4	
3021		A-22-F28	E	7/24/86	A	22		A28	N881.188 W1018.422 fill in bone area	4	
3022		A-22-F28	E	7/23/86	A	22		A28	N881.188 W1018.422 fill in possible burial	6m	
3038		A-22-F28	E/F	7/23/86	A	22		A28	Fill above feature N881.188W1018.422/EL100.107-88.607, Zone B/C interface	4	
3104		A-22-F28	E	7/30/86	A	22		A28	N881.118W1018.038/EL98.463	no	
3081		A-22-F31	C.04	7/23/86	A	22		A31	N878.888W1018.324 (elevation shot)	4	
3082		A-22-F33	C.04	7/30/86	A	22		A33	N882.018W1001.017 (88.432-88.128)	4	
3108		A-22-F33	C.04	7/30/86	A	22		A33	N880.888W1018.108/EL98.387	4	
3338		A-22-F37	J	8/7/86	A	22		A37	Feature A-37; Adobe Pit	4	
3015		A-22-R16	C.02	7/23/86	A	22		A16	N878.4 W1018.2 20cm to floor, roof fall & possibly lower wall fall (disturbed ?)	4	x
3031		A-22-R16	G	7/24/86	A	22		A16	N880.2W1018.863 A-16 control unit, Level 1, 10cm below surface (approx 100.2) to 88.7)	4	
3041		A-22-R16	E/F	7/24/86	A	22		A16	North wall trench west of Feature A28	4	
3045		A-22-R16	E/F	7/18/86	A	22		A16	North wall trench east of Feature A28	4	
3088		A-22-R16	F	7/28/86	A	22		A16	N878.884W1018.863/EL100.001; control unit Level 2	4	
3073		A-22-R16	F	7/28/86	A	22		A16	Control unit 2 for room A16, Level 2. (1st level unexcavated)	4	
3086		A-22-R16	F	7/28/86	A	22		A16	General fill, surface to approx. 50 cm below surface	no	
3087		A-22-R16	F	7/30/86	A	22		A16	Control unit, N878.880W1018.728 (88.801m to 88.801m), Level 3	4	
3118		A-22-R16	E	7/30/86	A	22		A16	Control units 1&2 (N878.880W1018.728), Level 4	4	
3128		A-22-R16	C/D	7/31/86	A	22		A16	Control units 1&2 (N878.880W1018.728), Level 5	4	
3133		A-22-R16	J	7/31/86	A	22		A16	N881.638W1018.133 88.477-88.215	no	
3137		A-22-R16	J	7/31/86	A	22		A16	N881.147W1014.219 88.488-88.200	no	
3146		A-22-R16	C.02/C.03	7/31/86	A	22		A16	Control units 1&2 (N878.880W1018.728), Level 6	4	
3151		A-22-R16	E/F	8/1/86	A	22		A16	Room fill from approx 50cm below surface to 88.4	no	
3155		A-22-R16	E/F	8/1/86	A	22		A16	Room fill from approx 50cm below surface to 88.4	no	
3168		A-22-R16	C.02	7/22/86	A	22		A16	N878.4 W1018.2 88.05-88.85, Roof fall (possibly disturbed)	4	x
3188		A-22-R16	C.03/E	8/1/86	A	22		A16	SE Quad, 50 cm below surface to roof fall	no	
3174		A-22-R16	C.03	7/30/86	A	22		A16	NW Quad fill (wall fall) from 88.403 to roof fall	4	
3178		A-22-R16	C.03	8/2/86	A	22		A16	NW Quad above roof fall	no	
3187		A-22-R16	D	8/2/86	A	22		A16	Entryway surface to fill (approx 20 cm)	no	
3188		A-22-R16	C.03	8/1/86	A	22		A16	NW Quad fill (wall fall) 88.373 to roof fall	4	
3203		A-22-R16	E	7/31/86	A	22		A16	North wall trench west of Feature A23 at approx 88.8-88.4	4	
3204		A-22-R16	E/F	7/28/86	A	22		A16	North wall trench west of Feature A23 and east of Feature A26	4	
3227		A-22-R16	C.02	8/8/86	A	22		A16	NE quad roof fall to floor	4	
3241		A-22-R16	D	8/5/86	A	22		A16	Entryway, level 2, 88.38m to ramp floor	4	
3258		A-22-R16	C.02	8/7/86	A	22		A16	Entryway step, roof fall to floor (West of step)	4	
3282		A-22-R16	C.02/C.03	8/2/86	A	22		A16	NE Quad, wall fall and roof fall	no	
3277		A-22-R16	C.02	8/7/86	A	22		A16	NW Quad, Roof Fall to Floor	4	
3287		A-22-R16	C.02	8/8/86	A	22		A16	SE Quad, Roof Fall to Floor	4	
3288		A-22-R16	H	8/8/86	A	22		A16	SE Quad extension: To uncover south wall drum; pick & shovel fill	4	
3301		A-22-R16	C.02	8/8/86	A	22		A16	NW Quad, Roof fall to floor	4	
3310		A-22-R16	B	8/8/86	A	22		A16-15	Feature A16-15 fill: N878.6 W1018.88, Elev:88.84 (East edge of feature)	4	
3318		A-22-R16	C.02	8/8/86	A	22		A16	SE Quad extension; Roof fall to floor	4	
3331		A-22-R16	B	8/8/86	A	22		A16-13	Center post hole, N878.727, W1018.412, elev 88.882 to 88.221	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 7 of 24).

Lot	Use	Prop. Code	Analysis Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
3360		A-22-R16	EF	7/31/86	A	22	A16		N675.87, W1021.74, SE corner of west wall exploratory trench	no	
3365		A-22-R16	B	8/8/86	A	22	A16	A16-9	North foot drum fill	4	
3369		A-22-R16	C.02	8/9/86	A	22	A16		SW Quad Extension, roof fall to floor	4	
3373		A-22-R16	B	8/12/86	A	22	A16	A16-6	posthole fill	4	
3379		A-22-R16	C.02	8/12/86	A	22	A16		West exploratory trench; roof fall to floor	4	
3384		A-22-R16	C.03	8/7/86	A	22	A16		SW quad, Level 1, (probably wall fill-D. Corel 425/87)	4	
3388		A-22-R16	C.01	8/13/86	A	22	A16	A16-10	top layer of adobe-central posthole east to hearth	4	
3403		A-22-R16	EF	8/14/86	A	22	A16		Posthole investigation along top or North wall, Room A16	4	
3406		A-22-R16	D	8/14/86	A	22	A16		Entryway, Floor to Bedrock (Elev = 88.13)	4	
3412		A-22-R16	EF	8/7/86	A	22	A16		fill above wall fall, south excavation extension	no	
3416		A-22-R16	EF	8/7/86	A	22	A16		fill above wall fall, south excavation extension	no	
4180		A-22		8/5/86	A	22			N888W1004; Level 2	4	
4202		A-22		8/5/86	A	22			N883W1008; Level 2	4	
4206		A-22		8/4/86	A	22			N888W1004; Level 1	4	
4208		A-22		8/5/86	A	22			N888W1004; Level 3	4	
4240		A-22		8/8/86	A	22			A16 NW corner trench, down to Zone C	no	
4244		A-22		8/8/86	A	22			A16 NW corner trench, Zone C	4	
4246		A-22		8/11/86	A	22			Posthole fill - inters. A16 NW & U32 S trenches	4	x
4423		A-22		8/16/86	A	22			Fill under large adobe lump in N profile of A16 NW corner trench	4	
4425		A-22		8/17/86	A	22			W end of A16 NW trench - loose fill in wall fall, Room A71 Wall fall	4	
4428		A-22		8/17/86	A	22			Art. from clearing of N profile in A16's NW corner trench, Room A71 Fill	4	
4440		A-22		8/22/86	A	22			N877W1034; Surface to bedrock - Fill in end W of W wall of A16	4	
4446		A-22		8/22/86	A	22			N878W1034; Surface to bedrock - Fill in end W of W wall of A16	4	
4486		A-22		8/24/86	A	22			N871.18W1018.83, Level 1 (100.00-88.80m)	4	x
4473		A-22		8/24/86	A	22			N871.18W1018.83, Level 2 (88.60-88.70m)	4	x
4485		A-22		8/26/86	A	22			N871.18W1018.83, Level 3 (88.70-88.80m)	4	x
4501		A-22		8/26/86	A	22			N871.18W1018.83, Level 4 (88.80-88.90m), with posthole	4	x
4504		A-22		8/23/86	A	22			N878W1026, level 1	4	
4506		A-22		8/24/86	A	22			N878W1026, level 2	4	
4515		A-22		7/1/86	A	22			N884.18W1024.803, level 1	4	
4522		A-22		7/1/86	A	22			N884.18W1024.803, level 2	4	
4528		A-22		8/27/86	A	22			N871.18W1018.83, Level 5 (88.80-88.40m), with posthole	4	x
4533		A-22		8/27/86	A	22			N871.18W1018.83, Level 6 (88.40-88.30m), with posthole	4	x
4538		A-22		8/27/86	A	22			N871.18W1018.83, Level 7 (88.30-88.20m), with posthole	4	x
4547		A-22		7/2/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L1(100.13-88.83)	4	
4562		A-22		7/2/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L2(88.93-88.83)	4	
4582		A-22		7/2/86	A	22			N884.184, W1024.803 Level 3 East/Wall	4	
4585		A-22		7/2/86	A	22			N884.184, W1024.803 Level 3 East/Wall	4	
4582		A-22		7/2/86	A	22			N884.184, W1024.803 Level 4	4	
4583		A-22		7/3/86	A	22			N884.184, W1024.803 Wall Fall Clearing	4	
4806		A-22		7/2/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L3(88.83-88.73)	4	
4810		A-22		7/3/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L4(88.73-88.63)	4	
4814		A-22		7/3/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L5(88.63-88.53)	4	
4819		A-22		7/4/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L6(88.53-88.43)	4	
4825		A-22		7/8/86	A	22			N871.18W1018.83 - Control Unit at S bank of A16 - L7(88.43-88.33)	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 8 of 24).

Lot	Use	Prev. Code	Asseptic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
4828		A-22		7/6/88	A	22			N871.18W1019.83 - Control Unit at S bank of A16 - L8(88.33-88.23)	4	
4834		A-22		7/1/88	A	22			N871.18W1019.83 - Mats. from cleaning unit profiles	4	
4872		A-22		7/5/88	A	22			N878 W1024 88.25 to bedrock	4	
4875		A-22		7/6/88	A	22			N878 W1025 Surface to Bedrock (Profile Cleaning)	4	
4879		A-22		7/2/88	A	22			N878 W1025 88.40 to Bedrock	4	
4881		A-22		7/7/88	A	22			N871.18W1019.83 - Control Unit at S bank of A16-Art. form p-holes in	4	
4816		A-22		7/24/88	A	22			N871.88W1024.47 - Wall cleaning, N profile	4	
4823		A-22		7/22/88	A	22			N871.88W1024.47 - General Fill	no	
5112		A-22		8/24/88	A	22			MIXED FILL ROOMS A16 AND A71 (MAINLY A71 FILL ABOVE ROOF FALL)	4	
4256		A-22-F75		6/9/88	A	22		75	A16 NW corner trench w/in Zone C	4	
4388	z	A-22-F81	Fee A81 in	6/19/88	A	22		81	Feature A81 in	4	
4542		A-22-F85		7/2/88	A	22		85	N878W1025, Adobe Walls & Floor of Feature 85	4	
4632		A-22-F88		7/3/88	A	22		88	N871.18W1019.83 - Control Unit at S bank of A16	4	
4633		A-22-F88		7/4/88	A	22		88	Screened adobe used in constr. of Fee. A88	4	
4814		A-22-F88		7/23/88	A	22		88	N871.88W1024.47 - SW Corner of Unit	4	
4818		A-22-F97		7/30/88	A	22		97-3	N883.18 W1023.43 Post Hole Fill	am	
4421		A-22-R16		6/16/88	A	22	16		N878W1023 - 'Exploratory' Unit; surface to bedrock	no	
4438		A-22-R16		6/16/88	A	22	16		N877W1023 and N878W1023, Fill above W A16 wall	4	
4646		A-22-R16		7/8/88	A	22	16		N878 W1021; Western side of Room A16; Level 1 (100.21-100.01cm)	4	
4662		A-22-R16		7/7/88	A	22	16		N878 W1021; Western side of Room A16; Level 2 (100.01-88.91cm)	4	
4688		A-22-R16		7/7/88	A	22	16		N878 W1021; Western side of Room A16; Level 3 (88.91-88.61cm)	4	
4681		A-22-R16		7/7/88	A	22	16		N878 W1021; Western side of Room A16; Level 4 (88.61-88.71cm)	4	
4687		A-22-R16		7/8/88	A	22	16		N878 W 1021; Western side of Room A16; Level 5 (88.71-88.61)	4	
4686		A-22-R16		7/7/88	A	22	16		N871.18W1019.83 - Control Unit at S bank of A16 - Wall Fall	4	
4715		A-22-R16		7/8/88	A	22	16		N878 W1021, West side of room 16, Level 6 E1/2 (88.61-88.51 cm)	4	
4719		A-22-R16		7/10/88	A	22	16		N878 W1021, West side of room 16, Level 6 W1/2 (88.61-88.51 cm)	4	
4723		A-22-R16		7/13/88	A	22	16		N878 W1021, Level 6-removal of pedimented area (88.63-88.51 cm)	4	
4726		A-22-R16		7/14/88	A	22	16	90	N878 W1021, West side of room 16, rock cluster where(88.43-88.21cm)	4	
4729		A-22-R16		7/13/88	A	22	16		N878W1021, West side of room 16, Level 7 (88.51-88.21cm)	4	
4763		A-22-R16		7/8/88	A	22	16		N878 W1021 west side of room A16, Level 6-W1/2: possible looter's pit	4	
4774		A-22-R16		6/16/88	A	22	16		A16 NW Corner trench - W wall base adobe	4	
4778		A-22-R16		7/14/88	A	22	16		N871.18W1019.83 - Roof Fall (entire unit)	8	
4784		A-22-R16		7/18/88	A	22	16		N878 W1021, west side of room 16, Roof fall (88.366-88.11 cm)	8	
4807		A-22-R16		7/18/88	A	22	16		N878 W1021, west side of Room A16, Level 9 (88.11-88.01cm)-roof fall	4	
4810		A-22-R16		7/24/88	A	22	16	16-33	N872.88W1020.19 (Center slot) - Feature in	am	
4819		A-22-R16		7/23/88	A	22	16	16-34	N872.88W1025.26 - at SW Corner of A16; @ 88.49m (from out)	am	
4827		A-22-R16		7/24/88	A	22	16		N871.88W1024.47 - SW Corner of A16, wall base in	4	
4848		A-22-R16		7/24/88	A	22	16		N878 W1021, West side of Rm A16, Level 11 (88.88-88.82), E 3/4; poss. prehistoric disturbance	4	
4862		A-22-R16		7/23/88	A	22	16		N878 W1021, West side of Rm A16, Level 10 (88.01-88.88), Roof fall	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 9 of 24).

Lot	Use	Prev. Code	Assemblage Unit	Date	Area	Unit	Region	Feature	Other Provenience Data	Screen	Dist.
4886		A-22-R16		7/17/88	A	22	16		N878 W1021, West side of Rm A16, Wall fall (88.51-88.365)	4	
4888		A-22-R16		7/24/88	A	22	16		N878 W1021, west side room A16, Level 11 (88.88-88.92cm)-Roof fall	4	
4883		A-22-R16		7/25/88	A	22	16		N878 W1021, west side of room A16, Level 12 (88.82-88.818cm) W/U6	4	
4888		A-22-R16		7/25/88	A	22	16		N878 W1021, west side of room A16, Level 12 (88.82-88.818cm) E34	4	
4810		A-22-R16		7/28/88	A	22	16		N878 W1021, west side of Room A16, Level 13 (88.818-88.788cm); roof fall to floor	am	
4813		A-22-R16		7/28/88	A	22	16		N878 W1021, west side of Room A16, Wall clearing (88.51-88.788cm)	4	
4842		A-22-R16		7/30/88	A	22	16		N878W1021, Level 13 - fill over features A16-28 & A16-37 (obscure)	4	
4888		A-22-R16		7/28/88	A	22	16		N871.18W1018.E3-Probable dist. fill along projected wall plane @ W side of unit, last 30cm above floor	8	x
4872		A-22-R16		7/28/88	A	22	16		N871.18W1018.E3-Mixed wall fall/roof fall directly N of standing wall remnant - E side of unit	8	
4888		A-22-R16		8/4/88	A	22	16		N878W1021 - Removal of upper floor - see 8/4/88 notes for horizontal extent	4	
4883		A-22-R16		8/4/88	A	22	16		N878W1023 - Last 7-8 cm of Roof Fall over floor in A16	4	
8001		A-22-R16		7/18/88	A	22	16		N878 W1021, west side of A16, Fill above roof fall (88.42-88.21 cm)	4	
8008		A-22-R16		7/14/88	A	22	16		N878 W1021, west side of A16, Level 8 (88.21-88.11cm)	4	
4248		A-22-R71		8/11/88	A	22	71		Fill below pit/ste W of A16's NW corner	4	
4411		A-22-R71		8/17/88	A	22	71		Room fill N of A16's N wall	4	
4416		A-22-R71		8/18/88	A	22	71		Room fill W of A16's NW corner	4	
4888		A-22-R71		7/3/88	A	22	71		N884.184.W1024.803 Level 5 East 3rd - Fill above roof fall	4	
4882		A-22-R71		7/3/88	A	22	71		N884.184.W1024.803 Level 5 Middle 3rd - Wall fall	4	
4882		A-22-R71		7/10/88	A	22	71		A16 NW Trench, West End, 88.18 to Floor	4	
4888		A-22-R71		7/10/88	A	22	71		N884.18 W1024.80 (NW Corner), 88.18 to Floor	8	
4788		A-22-R71	Rm A71 floor fill	7/23/88	A	22	71	71-1	A71 Hearth, Ash Deposit above floor level	am	
4801		A-22-R71		7/10/88	A	22	71		N884.18 W1024.80 (NW Corner), 88.18 to Floor	am	
4873		A-22-R71	Rm A71 floor fill	7/28/88	A	22	71	71-1	A71-1 Ash Fill @ N882.8W1023.8	am	
4877		A-22-R71		7/28/88	A	22	71		NW Corner-N884.2W1024.6, Wall Fall, 88.30-88.18	4	
4848		A-22-R71		7/31/88	A	22	71	71-12	N888.27W1024.03 - Feature A71-12 Fill	4	
4882		A-22-R71		7/31/88	A	22	71	71-13	N888.03W1024.38 - Feature A71-13 Fill	4	
4888		A-22-R71	Rm A71 floor fill	7/28/88	A	22	71	71-1	N882.8W1023.8 - Ash Deposit Surrounding Hearth	8	
4888		A-22-R71		8/2/88	A	22	71	71-15	In Square N884.15 W1023.71, Irregular Fill	4	
4875		A-22-R71		8/1/88	A	22	71		N884.15 W1023.71, Surface to Roof Fall	4	
4878		A-22-R71		8/4/88	A	22	71	87-6	N884.8W1023.1, A87-6 Post Hole Fill	4	
4881		A-22-R71		8/4/88	A	22	71	71-17	N885.6 W1023.6, A71-17 Post Hole Fill	8	
8013		A-22-R71		7/17/88	A	22	71		N885.38 W1020.83, East End Block	4	
8020		A-22-R71		7/17/88	A	22	71		N885.38 W1020.83, West Wall Material (wall fall-curved section of wall fall), Level 3	4	
8023		A-22-R71		7/18/88	A	22	71		N885.38 W1020.83, Post, post/runner fill	4	x
8025		A-22-R71		7/18/88	A	22	71		N885.38 W1020.83, Level 3	4	
8033		A-22-R71		7/18/88	A	22	71	71-5	Fill of feature	am	
8034		A-22-R71		7/28/88	A	22	71	71-6	Feature fill	4	
8038		A-22-R71		7/28/88	A	22	71		Roof fall and disturbed fill	4	x
8042		A-22-R71		7/28/88	A	22	71	71-2	Fill, probably roof fall and disturbed fill	4	x
8048		A-22-R71		7/13/88	A	22	71		N885.38 W1020.83, Level 1 100.10-88.85), DISTURBED FILL	4	x
8051		A-22-R71		7/13/88	A	22	71		N885.38 W1020.83, Level 2, WALL FALL Zone-messy disturbed fill	4	x
8116		A-22-R71		8/2/88	A	22	71		ROOF FALL & DISTURBED FILL, N	4	x
8120		A-22-R71		8/2/88	A	22	71	71-14	DISTURBED HEARTH REMAINS, FILL	8	x

Table B.1. Provenience data for Old Town lots that contain faunal material (page 10 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
6004		A-22		7/8/99	A	22			N983.26 W1019.61, 99.69-99.72, mixed fill	4	
6010		A-22		7/11/99	A	22			N983.26 W1019.61, E trench, S third, 99.62-99.52 (prob Zone B)	4	
6019		A-22		7/11/99	A	22			N983.26 W1019.61, 99.72-99.62, S 1/3, dark fill (Zone B)	4	
6023		A-22		7/12/99	A	22			N983.09 W1021.14, 99.62-99.72, SW corner	4	
6026		A-22		7/12/99	A	22			N983.09 W1021.14, 99.72-99.62, S 1/3, dark fill (prob Zone B)	4	
6062		A-22		7/8/99	A	22			N983.26 W1019.61, 100.07-99.99, undifferentiated fill above A104	4	
6065		A-22		7/13/99	A	22			N983.09 W1021.14, 99.62-99.49	4	
6130	x	A-22-F81	Fee A81 fill	7/20/99	A	22		A81	Fill	4	
6007		A-22-F103		7/11/99	A	22		A103	Fill, 99.61-99.42	4	
6013		A-22-F104		7/11/99	A	22		A104	N trench, 99.72-99.62, fill	4	
6016		A-22-F104		7/11/99	A	22			N983.26 W1019.61, 99.72-99.62, N 2/3, mainly A104 with some Zone B possibly mixed	4	
6029		A-22-F104		7/12/99	A	22		A104	N983.09 W1021.14, 99.72-99.62, N 2/3, Feature A104 fill	4	
6033		A-22-F104		7/12/99	A	22		A104?	Possibly disturbed fill just E of Burial 19	4	x
6049		A-22-F104		7/13/99	A	22		A104	N983.26 W1019.61, E trench, N 2/3, 99.62-99.52, A104 fill	4	
6056		A-22-F104		7/8/99	A	22			N983.26 W1019.61, 99.69-99.62, mixed A104 and Zone B	4	
6080		A-22-F104		7/8/99	A	22		A104?	Possibly Feature A104 fill, N983.26 W1019.61, 99.62-99.52, N 2/3	4	
6073		A-22-F104		7/10/99	A	22		A104	Burial 19, 99.42-99.09	4	
6089		A-22-F104		7/14/99	A	22		A104	N983.09 W1021.14, berm, 99.62-99.20	4	
6092		A-22-R71		7/18/99	A	22	A71		N983.09 W1021.14, 99.37-99.23, dark gray fill over wall & roof fall	4	
6095		A-22-R71		7/18/99	A	22	A71		N983.09 W1021.14, 99.49-99.36, upper portion of wall fall?	4	
6104		A-22-R71		7/18/99	A	22	A71		Wall fall, N983.09 W1021.14, 99.36-99.23	4	
6108		A-22-R71		7/18/99	A	22	A71		Roof fall-floor, N983.09 W1021.14, 99.23-99.15	4	
3459		A-31		7/14/97	A	31			N 999.93 W 1029.99 Level 1	4	
3480		A-31		7/15/97	A	31			N 999.93 W 1029.99 Level 1	4	
3486		A-31		7/15/97	A	31			N 999.93 W 1029.99 Level 1	4	
3470		A-31		7/14/97	A	31			N 999.93 W 1029.99 Level 2	4	
3471		A-31		7/15/97	A	31			N 999.93 W 1029.99 Level 3	4	
3473		A-31		7/15/97	A	31			N 999.93 W 1029.99 Level 3	4	
3482		A-31		7/16/97	A	31			N 999.93 W 1029.99 Level 3	4	
3484		A-31		7/16/97	A	31			N 999.93 W 1029.99 Level 4	4	
3487		A-31		7/16/97	A	31			N 999.93 W 1029.99 Level 4	4	
3481		A-31		7/17/97	A	31			N 999.93 W 1029.99 Level 5	4	
3485		A-31		7/17/97	A	31			N 999.93 W 1029.99 Level 5	4	
3487		A-31		7/17/97	A	31			N 999.93 W 1029.99 Level 4	4	
3505		A-31		7/17/97	A	31			N 999.93 W 1029.99 Level 5	4	
3519		A-31		7/18/97	A	31			N 999.93 W 1029.99 Level 99 (99.584-99.284)	4	
3622		A-31		7/18/97	A	31			N 999.93 W 1029.99 Level 99 (99.584-99.284)	4	
3617		A-31		7/23/97	A	31			N 970.91 W 1029.99 Level 1	4	
3687		A-31		7/27/97	A	31			N999.93 W1029.99 (c) Level 1	4	
3696		A-31		7/27/97	A	31			N999.93 W1029.99 (c) Level 1	4	
3702		A-31		7/27/97	A	31			N999.93 W1029.99 (c) Level 1	4	
3705		A-31		7/27/97	A	31			N999.93 W1029.99 (c) Level 1	4	
3707		A-31		7/27/97	A	31			N999.93 W1029.99 (c) Level 1	4	
3709		A-31		7/28/97	A	31			N999.93 W1029.99 (e) Level 1	4	
3716		A-31		7/28/97	A	31			N999.93 W1029.99 (e) Level 1	4	
3717		A-31		7/28/97	A	31			N999.93 W1029.99 (e) Level 1	4	
3720		A-31		7/28/97	A	31			N972.62 W1029.49 (d) 1 Level 1	4	
3721		A-31		7/28/97	A	31			N972.42 W1029.47 Level 1	4	
3725		A-31		7/28/97	A	31			N972.42 W1029.47 Level 2	4	
3735		A-31		7/28/97	A	31			N970.30 W1027.47 Level 1	4	
3737		A-31		7/28/97	A	31			N970.24 W1027.56; removal of adobe and rock concentration east of feature A85	4	
3743		A-31		7/28/97	A	31			US142: N971.4 N971.4 US141 Level 1	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 11 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
3746		A-31		7/24/87	A	31			U31 FA47/FA48: N872.42 W1028.47 Level 1	4	
3751		A-31		7/21/87	A	31			U31a&c: N870.24 W1028.98 Level 1	4	
3752		A-31		7/23/87	A	31			N888.93 W1028.98 Level 2 U31e	4	
3755		A-31		7/23/87	A	31			N888.93 W1028.98 Level 4 U31c	4	
3762		A-31		7/23/87	A	31			N870.93 W1028.98 Level 2 U31d	4	
3765		A-31		7/31/87	A	31			N870.93 W1028.98 Level 1 U31f	4	
3767		A-31		7/31/87	A	31			N870.93 W1028.98 Level 1 U31f	4	
3772		A-31		7/31/87	A	31			N870.93 W1028.98 Level 2 U31f	4	
3784		A-31		8/1/87	A	31			N870.93 W1028.98 Level 3 U31f	4	
3785		A-31		8/1/87	A	31			N870.93 W1028.98 Level 4 U31f	4	
3783		A-31		8/1/87	A	31			N870.93 W1028.98 Level 4 U31f	4	
4080		A-31		7/30/87	A	31			N 872.78 W 1028.98 Level 1 (88.957-88.987)	4	
3509		A-31-F41		7/16/87	A	31		A41	N 870.08 W 1030.13 Level 1 (elev. 88.986)	6m	
3516		A-31-F42		7/17/87	A	31		A42	N 888.906 W 1028.434 Level 1 (elev. 88.010)	6m	
3517		A-31-F42		7/17/87	A	31		A42	N 888.906 W 1028.434 Level 1 (elev. 88.010)	6m	
4042		A-31-F55		8/4/87	A	31		A55	N 888.98 W 1027.80 Level 1 (88.538-88.288)	4	
4043		A-31-F55		8/4/87	A	31		A55	N 888.98 W 1027.80 Level 1 (88.538-88.288)	4	
4046		A-31-F55		8/4/87	A	31		A55	N 888.98 W 1027.80 Level 2 (88.288-88.028)	4	
4088	x	A-31-R47	Rm A47 III	8/12/87	A	31		A47	N 870.82 W 1027.88 (88.002-88.977)	4	
4073		A-31-R47		8/12/87	A	31		A47	N 870.85 W 1028.83 (88.925-88.907) (includes floor adobe)	4	
3789	x	A-31-R48	Rm A48 III	7/31/87	A	31		A48	N871.93 W1027.91 Level 1	4	
3802	x	A-31-R48	Rm A48 III	7/31/87	A	31		A48	N871.93 W1027.91 Level 2	4	
3833	x	A-31-R48	Rm A48 III	8/3/87	A	31		A48	N871.93 W1027.91 Level 1 (excavation of feature 48 with U31f & U31c)	4	
4036		A-31-R48		8/13/87	A	31		A48-7	N 872.07 W 1028.18: Possible posthole	4	
4065	x	A-31-R48	Rm A48 III	8/3/87	A	31		A48	N 871.93 W 1027.80 Level 2 (88.208-88.117)	4	
4083	x	A-31-R48	Rm A48 III	8/10/87	A	31		A48	N 871.93 W 1027.80 Level 3 (88.117-88.080)	4	
4088		A-31-R48		8/8/87	A	31		A48-1	N 871.72 W 1028.36 Level 1 (88.112-88.971) (pit/post hole)	4	
4089		A-31-R48		8/12/87	A	31		A48-2	N 872.07 W 1027.12 Level 1 (88.188-88.971) (pit of unknown function)	4	
unknown				1987					"burial 15": no lot # on bag; Area A, Unit 31 crossed out		
3427		A-32		7/15/87	A	32			N 880 W 1014 Level 1	4	
3430		A-32		7/15/87	A	32			N 880 W 1014 Level 2	4	
3431		A-32		7/15/87	A	32			N 880 W 1020 Level 1	4	
3433		A-32		7/15/87	A	32			N 880 W 1020 Level 1	4	
3436		A-32		7/15/87	A	32			N 880 W 1014 Level 3	4	
3446		A-32		7/15/87	A	32			N 880.00 W 1014.00 Level 4	4	
3452		A-32		7/15/87	A	32			N 880.00 W 1014.00 Level 6	4	
3456		A-32		7/15/87	A	32			N 880.00 W 1014.00 Level 7	4	
3529		A-32		7/21/87	A	32			N 880.00 W 1014.00 Level 8	4	
3532		A-32		7/21/87	A	32			N 880.00 W 1014.00 Level 8 adobe	4	
3537		A-32		7/21/87	A	32			N 880.00 W 1014.00 Level 9	4	
3541		A-32		7/21/87	A	32			N 880.00 W 1014.00 Level 10	4	
3583		A-32		7/18/87	A	32			N 880.00 W 1008.00 Level 1	4	
3587		A-32		7/18/87	A	32			N 880.00 W 1008.00 Level 2	4	
3574		A-32		7/18/87	A	32			N 880.00 W 1008.00 Level 6	4	
3578		A-32		7/21/87	A	32			N 880.00 W 1020.00 Level 2	4	
3585		A-32		7/21/87	A	32			N 880.00 W 1020.00 Level 3	4	
3588		A-32		7/22/87	A	32			N 880.00 W 1020.00 Level 4	4	
3635		A-32		7/23/87	A	32			N 880.00 W 1020.00 Level 5	4	
3640		A-32		7/24/87	A	32			N 880.00 W 1020.00 Level 6	4	
3689		A-32		7/24/87	A	32			N880W1020 Level 7	4	
3615		A-32		7/23/87	A	32			N880W1020 Level 8	4	
3623		A-32		7/31/87	A	32			N880W1023 Level 2	4	
3626		A-32		8/1/87	A	32			N880W1024 Level 1	4	
3629		A-32		8/1/87	A	32			N880W1024 Level 2	4	
3680		A-32		8/3/87	A	32			N880 W1024, Level 3	4	
3681		A-32		8/3/87	A	32			N880 W1024, Level 3	4	
3667		A-32		8/5/87	A	32			N880 W1024, Level 4	4	
3680		A-32		8/5/87	A	32			N880 W1023, Level 3	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 12 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
3884		A-32		7/28/87	A	32			N880 W1023, Level 1	4	
3888		A-32		7/28/87	A	32			N888 W1023, Level 1	4	
3882		A-32		7/28/87	A	32			N888 W1023, Level 3	4	
3815		A-32		8/5/87	A	32			N888 W1024 Level 5	4	
3819		A-32		8/5/87	A	32			N888 W1024 Level 6	4	
3824		A-32		8/7/87	A	32			N888 W1024 Level 7	4	
3831		A-32		8/7/87	A	32			N888 W1024 Level 8	4	
3841		A-32		8/10/87	A	32			N888 W1023 Level 4	4	
3858		A-32		8/4/87	A	32			N880 W1023	4	
3882		A-32		8/11/87	A	32			N888 .45 W1022.05	4	
3883		A-32		8/11/87	A	32			N888W1024 level 9	4	
4077		A-32		8/12/87	A	32			N882.363 W1024.153 Level 1	4	
4080		A-32		8/12/87	A	32			N888 W1024 Level 1	4	
4083		A-32		8/12/87	A	32			N882.363 W1024.153 Level 2	4	
4082		A-32		8/11/87	A	32			N888.45 W 1022.05 Level 2 (88.85-88.80)	4	
4100		A-32		8/13/87	A	32			N 882 W 1022 Level 1	4	
4108		A-32		8/18/87	A	32			N 882 W 1022 Level 2	4	
4109		A-32		8/18/87	A	32			N 880 W 1024 Level 1	4	
4112		A-32		8/18/87	A	32			N 882 W 1023 Level 3	4	
4115		A-32		8/13/87	A	32			N 882 W 1023 Level 2	4	
4118		A-32		8/18/87	A	32			N 882.363 W 1024.153 Level 3	4	
4122		A-32		8/18/87	A	32			N 882.363 W 1024.153 (Wall Cleaning)	4	
4123		A-32		8/20/87	A	32			N 882.43 W 1023.57 (Wall Cleaning)	4	
4125		A-32		8/25/87	A	32			N888.63 W1023.51, Elevation 88.825	4	
4128		A-32		8/28/87	A	32			N882.36 W1024.15	4	
4138		A-32		8/27/87	A	32			South Trench Grab Sample	no	
4142		A-32		8/28/87	A	32			South Trench, S 1.05 m, Level 1 (88.54-88.43)	4	
4146		A-32		8/28/87	A	32			South Trench, S 1.05 m, Level 2 (88.43-88.31)	4	
4152		A-32		8/28/87	A	32			Area West of Feature A44; grab sample	no	
3861		A-32*		7/23/87	A	32			N 881.00 W 1027.00 Level 1	4	
3865		A-32*		7/23/87	A	32			N 881 W 1027 Level 2	4	
3868		A-32*		7/23/87	A	32			N 881 W 1027 Level3	4	
3866		A-32*		7/23/87	A	32			N 881.00 W 1027.00 Level 5	4	
3869		A-32*		7/23/87	A	32			N 881.00 W 1027.00 Level 4	4	
3882		A-32*		7/23/87	A	32			N 881.00 W 1027.00 Level 6	4	
3886		A-32*		7/24/87	A	32			N 881.00 W 1027.00 Level 7a	4	
3889		A-32*		7/24/87	A	32			N 881.00 W 1027.00 Level 7b	4	
3873		A-32*		7/24/87	A	32			N 881.00 W 1027.00 Level 8a	4	
3877		A-32*		7/24/87	A	32			N 881.00 W 1027.00 Level 8b	4	
3880		A-32*		7/24/87	A	32			N 881.00 W 1027.00 Level 8a	4	
no #		A-32*		7/24/87	A	32			N. 881. W. 1027 Level 10a (no lot # on bag)	4	
3885		A-32*		7/24/87	A	32			N 881.00 W 1027.00 Level 11	4	
3889		A-32*		7/27/87	A	32			N 881.00 W 1027.00 Level 12	4	
3884		A-32*		7/27/87	A	32			N881 W1027, Level 13	4	
3886		A-32*		7/27/87	A	32			N881 W1027, Level 14	4	
3888		A-32*		7/28/87	A	32			N881 W1027, Level 15	4	
3873		A-32*		7/28/87	A	32			N881 W1027, Level 16	4	
3878		A-32*		8/5/87	A	32			N881 W1027, Level 17	4	
3880		A-32*		8/5/87	A	32			N881 W1027, Level 18	4	
3887		A-32*		8/8/87	A	32			N881 W1027, Level 19	4	
3887		A-32*		8/7/87	A	32			N881 W1027, Level 20	4	
3887		A-32*		8/7/87	A	32			N881W1027 level 21	4	
3872		A-32*		8/11/87	A	32			N881W1027 level 22	4	
3875		A-32*		8/11/87	A	32			N881W1027 level 23	4	
3846		A-32-F46		7/21/87	A	32		A44	N 880.80 W 1014.88	4	
3448		A-32-F45		7/19/87	A	32		A45	N 880.00 W 1014.00 Level 5	4	
3808		A-32-F51		7/23/87	A	32		A51	N 880.38 W 1020.77	4	
3818		A-32-F52		7/27/87	A	32		A52	N880.882W1020.341	4	
3820		A-32-F58		7/28/87	A	32		A58	N	4	
3858		A-32-F58		8/8/87	A	32	A58		East wall, in well adobe (apparently), location shot by TDS	4	
3832		A-32-F58		8/7/87	A	32	A 58-1		N882.88 W1023.48E88.88	4	
4022		A-32-F58		8/10/87	A	32	A 58		N 882.430 W 1023.577	4	
4121		A-32-F58		8/5/87	A	32			N 880 W 1023 Level 5 (feature A 58)	4	
4132		A-32-F58		8/18/87	A	32	A58-2		Elev. 100.08 - 88.83	4	
3855		A-32-F63		8/11/87	A	32	63		N 881 W 1027	4	
3848	x	A-32-R89	Rem A58 m	8/11/87	A	32	A 58		N 881 W 1027	4	
3852		A-32-R89		8/11/87	A	32	A 58-1		N 881 W 1027 (west hole?)	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 13 of 24).

Lot	Map	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
unknown		A-32		1997					log says lot # 3448, but coordinates are wrong (says W. 1008 - should be W. 1014)		
4183		A-32		6/4/98	A	32			N888.001 W1008.988, LEVEL 1	4	
4187		A-32		6/4/98	A	32			N888.001 W1008.988, LEVEL 2	4	
4221		A-32		6/5/98	A	32			N887.97W1011.0 Level 1	4	
4228		A-32		6/5/98	A	32			N887.97W1011.0 Level 2	4	
4233		A-32		6/8/98	A	32			N887.97W1011.0, N 1/2, Level 3	4	
4273		A-32		6/12/98	A	32			N 887.97 W 1011, Level 4, N 95 cm	4	
4277		A-32		6/12/98	A	32			N 887.97 W1011, Level 3 S 105 cm to adobe surface	4	
4284		A-32		6/12/98	A	32			Fill under large rock in S trench	4	
4357		A-32		6/15/98	A	32			N888W1011 Level 4 (88.47 to 88.23 South 105 cm)	4	
4388		A-32		6/15/98	A	32			Backfill probably from N880 W1024	4	x
4389		A-32		6/15/98	A	32			N882 W1029 PotHunter trench fill	no	x
4401		A-32		6/15/98	A	32			N882 W1029 pothunter trench fill under Room A1 adobe lip	4	x
4433		A-32		6/22/98	A	32			N888W1007 clearing of bedrock	4	
4480		A-32		6/24/98	A	32			N887W1022	4	
4568		A-32		7/5/98	A	32			N888.348 W1023.63 Level 5	4	
4571		A-32		7/5/98	A	32			N888.348 W1023.63 Level 6 North Half	4	
4574		A-32		7/5/98	A	32			N888.348 W1023.63 Level 6 South Half	4	
4577		A-32		7/5/98	A	32			N888.348 W1023.63 Level 7 North Half	4	
4580		A-32		7/5/98	A	32			N888.348 W1023.63 Level 7 South Half	4	
4688		A-32		7/8/98	A	32			N888.4 W1022, Level 3 East	4	
4701		A-32		7/10/98	A	32			N888.4 W1022, Level 4, East	4	
4704		A-32		7/10/98	A	32			N888.4 W1022, Level 5, East	4	
4707		A-32		7/10/98	A	32			N888.4 W1022, Level 5, West	4	
4736		A-32		6/22/98	A	32			N882.036 W1020.516, Level 1	4	
4743		A-32		6/23/98	A	32			N888.45 W1022.06, Level 3 East	4	
4745		A-32		6/23/98	A	32			N888.45 W1022.06, Level 3 west	4	
4750		A-32		6/25/98	A	32			Clearing of fill from east side of east wall room A-1	4	
4752		A-32		6/24/98	A	32			N881.036 W1020.516, Level 1	4	
4757		A-32		6/23/98	A	32			N888.45 W1022.06, Level 4 east	4	
4833		A-32		7/24/98	A	32			N881.01 W1018.68, Level 1, elev:100.11 to 98.89	4	
4838		A-32		7/24/98	A	32			N881.01 W1018.68, Level 2, elev:98.89 to 98.80	4	
4843		A-32		7/27/98	A	32			N881.01 W1018.68, Level 3, elev:98.60 to 98.45	4	
4882		A-32		7/10/98	A	32			N888.4 W1022, Level 6	4	
4886		A-32		7/13/98	A	32			N888.4 W1022, Level 7	4	
4900		A-32		7/13/98	A	32			N888.4 W1022, Level 8	4	
4924		A-32		7/22/98	A	32			N881.017 W1018.672, Level 3	4	
4928		A-32		7/23/98	A	32			N881.017 W1018.672, Level 4	4	
4932		A-32		7/27/98	A	32			N881.01W1018.68, Level 4	4	
5080		A-32		7/1/98	A	32			N881.017 W1018.672, Level 2	4	
5088		A-32			A	32			N888.076 W1020.408, LEVEL 1	4	
5070		A-32		6/27/98	A	32			N881.017 W1018.672, LEVEL 1	4	
5074		A-32		7/2/98	A	32			N887.9 W1024.15, LEVEL 6	4	
5095		A-32		7/3/98	A	32			N888.3 W1023.6, LEVEL 1	4	
5104		A-32		7/3/98	A	32			N888.3 W1023.19, LEVEL 8	4	
5110		A-32		7/28/98	A	32			N880.02 W1018.67, LEVEL 1, DISTURBED FILL	4	x
5128		A-32		7/30/98	A	32			N880.02 W1018.67, LEVEL 2	4	
5148		A-32		7/28/98	A	32			N881.01 W1018.68, LEVEL 6	4	
5154		A-32		7/23/98	A	32			N881.017 W1018.672, LEVEL 5	4	
5158		A-32			A	32			N881.01W1018.68, Level 5	4	
5188		A-32		7/30/98	A	32			South half N881.07 W1018.672 (outside A-63), 88.34-bedrock	4	
4214		A-32*		6/8/98	A	32			N 882 W 1028, Level 1	4	
4280		A-32*		6/12/98	A	32			N 882 W 1028, Level 2	4	
4284		A-32*		6/12/98	A	32			N 882 W 1028, Level 3	4	
4288		A-32*		6/12/98	A	32			N 882 W 1028, Level 4	4	
4284		A-32*		6/15/98	A	32			N882W1028, Level 5 East	4	
4297		A-32*		6/15/98	A	32			N882W1028, Level 6 East	4	
4303		A-32*		6/15/98	A	32			N882W1028, Level 7 East	4	
4308		A-32*		6/16/98	A	32			N882W1028, Level 10 East	4	
4307		A-32*		6/16/98	A	32			N882W1028, Level 9 East	4	
4312		A-32*		6/16/98	A	32			N882W1028, Level 8 East	4	
4384		A-32*		6/16/98	A	32			N882 W1028 Level 11	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 14 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
4398		A-32		6/18/88	A	32			N882 W1029 Level 12	4	
4399		A-32-F51		6/8/88	A	32		51	N880W1023.5	4	
4397		A-32-F51		6/18/88	A	32		51	N880 W1023.5, Level 3	4	
4391		A-32-F51		6/18/88	A	32		51.4	Feature A51-4 Fill	4	
4373		A-32-F51		6/18/88	A	32		51	Feature A51, Level 4	4	
4376		A-32-F51		6/18/88	A	32		51	Feature A51, Level 5	4	
4379		A-32-F51		6/18/88	A	32		51	Feature A51, Level 6	4	
4382		A-32-F51		6/18/88	A	32		51	Feature A51-3	4	
4387		A-32-F51		6/17/88	A	32		51	N880 W1024 Levels 4 & 5, Wall cleaning	4	
4480		A-32-F51		6/23/88	A	32			Feature A51 SW Fill Level 1	4	
4483		A-32-F51		6/23/88	A	32			Feature A51 SW Fill Level 2	4	
4458		A-32-F51		6/24/88	A	32			Feature A51 SW Fill Level 3	4	
4481		A-32-F51		6/25/88	A	32		51.7	Feature A51-7, SW Fill, Post Hole	4	sm
4484		A-32-F51		6/22/88	A	32		51	North half fill, SE portion, possibly disturbed	4	x
4477		A-32-F51		6/23/88	A	32		51	N880W1024, Feature A52-1	4	sm
4480		A-32-F51		6/25/88	A	32		51	N880W1024, Feature A52-4	4	
4612		A-32-F51		6/30/88	A	32			Feature A51 SW Fill, N 887.8, W1024.15 Level 4	4	
4666		A-32-F51		7/6/88	A	32			N887.8, W1024.15 SW Fill Feature A51 Level 5	4	
4669		A-32-F51		7/6/88	A	32			N887.8, W1024.15 SW Fill Feature A51 Level 6	4	
4683		A-32-F51		7/6/88	A	32			N887.8, W1024.15 SW Fill Feature A51 Level 7	4	
4665		A-32-F51		7/6/88	A	32			N887.8, W1024.15 SW Fill Feature A51 Level 7	4	
4741		A-32-F51		6/28/88	A	32		82-7	N880 W1024; A51 N half fill	4	
5098		A-32-F51		6/27/88	A	32		51	N880 W1024, WALL CLEANING	4	
5079		A-32-F51		7/3/88	A	32		51	N887.8 W1024.15, LEVEL 10, FEATURE A51 SW FILL	4	
5082		A-32-F51		7/3/88	A	32		51	N887.8 W1024.15, LEVEL 9, FEATURE A51 SW FILL	4	
5086		A-32-F51		7/3/88	A	32		51	N887.8 W1024.15, LEVEL 11, FEATURE A51 SW FILL	4	
5088		A-32-F51		6/28/88	A	32		51	N880 W1024, LEVEL 7, NW HALF	4	
5150		A-32-F52		6/7/88	A	32		52, 98	N888.802 W1018.882, LEVEL 1, FILL	4	
5164		A-32-F52		7/31/88	A	32			N880.02 W1018.67, Level 4, Fill to bedrock A52 and A58, Burial 18	4	
5131		A-32-F88		7/31/88	A	32		88	N880.02 W1018.67, LEVEL 3A	4	
5135		A-32-F88		7/31/88	A	32		88	N880.02 W1018.67, LEVEL 3B	4	
4361		A-32-F73		6/8/88	A	32			Feature A73B (Fill)	4	
4236		A-32-F74		6/8/88	A	32		74	N887.87W1011.0, Level 2, (88.54-88.27) Pit-hole Fill	4	x
4320		A-32-F76		6/18/88	A	32			Feature A76 Fill	4	
4363		A-32-F77		6/18/88	A	32			Feature A77 (Fill)	4	
4366		A-32-F80		6/18/88	A	32		80	Feature A80 (Fill)	4	
5088		A-32-F88		7/11/88	A	32		88	FEATURE FILL, TRENCH W OF S END OF FEATURE A88	4	
5138		A-32-F88		7/31/88	A	32		88	N880.02 W1018.67, LEVEL 3B	4	
4487	x	A-32-R88	Rm A88 fill	6/28/88	A	32		88	N882W1023.5, Feature A88	4	
4283		A-32-R71		6/11/88	A	32	71		Fill from U32 South trench	4	
5107		A-32-R83		7/30/88	A	32	83	83-1	FEATURE FILL	4	
5142		A-32-R83		7/29/88	A	32	83		N881.017 W1018.672, ROOF FALL TO FLOOR (88.28-88.15) (roof fall is directly on floor)	4	
5082		A-32-R84		6/27/88	A	32		84-1	FEATURE FILL	4	
5108	x	A-32-R86	Rm A86 fill	6/27/88	A	32		86	N880 W1024, FEATURE FILL	4	
unknown		A-32		1888					no lot # on bag; N. 881.01, W. 1018.88, level 4 (goes with lot # 45327)		
unknown		A-32		1888					no lot # on bag; N. 883, W. 1028, level 6W.		
unknown		A-32-F51		1888					no lot # on bag; N. 888.88, W. 1023.88, level 1 (Fill, A51-6)		
8036		A-32		7/12/88	A	32			N883.15 W1018.74, 100.17-100.04 (everything above Rm A83 is probably secondary deposit)	4	
8040		A-32		7/12/88	A	32			N883.15 W1018.74, 100.04-88.84	4	
8044		A-32		7/13/88	A	32			N883.15 W1018.74, 88.84-88.84	4	
8088		A-32		7/15/88	A	32			N883.15 W1018.74, 88.84-88.74	4	
8086		A-32		7/16/88	A	32			N883.15 W1018.74, 88.84-88.74, ashite concentrations, W side	4	
8118		A-32-887		7/21/88	A	32	A67		Wall fill & mixed ashite fill, 88.84-	4	x

Table B.1. Provenience data for Old Town lots that contain faunal material (page 15 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Surface	Dist.
6081		A-32-R83		7/15/89	A	32	A83		N883.15 W1019.74, 98.74-top of wall fall	4	
6088		A-32-R83		7/16/89	A	32	A83		Wall fall, N883.15 W1019.74, 98.70-98.38	4	
6140		A-32-R83		7/23/89	A	32	A83	A83-4	Posthole #1	4	
6145		A-32-R83		7/20/89	A	32	A83		Roof fall, N883.2 W1019.79	4	
4788		A-34		7/15/89	A	34			N1003W1048, Level 1	4	
4771		A-34		7/15/89		34			N1003W1048, Level 2	4	
4788		A-34		7/15/89	A	34			N1003W1048, Level 3 (Unit 34A)	4	
185		A-BT1		6/22/89	A				Backhoe Trench #1; Fill / Backfill	no	x
184		B-04		6/22/89	B	4			N1047 / W836; L1; Surface Elev=102.48 - 102.28	4	
188		B-04		6/22/89	B	4			N1047 / W837; L1; Surface Elev=102.52 - 102.28	4	
234		B-04	E	6/26/89	B	4			NE corner coord = N1047 / W836; L2; Elev=102.48 - 102.13	4	
237		B-04		6/26/89	B	4			N1047 / W837; L2; Elev=102.28 - 102.13	4	
288		B-04		6/26/89	B	4			N1047 / W841; L2; Elev=102.26 - 102.13	4	
331		B-04		6/26/89	B	4			N1047 / W836; L2; Elev=102.28 - 102.13	4	
332		B-04	F	6/26/89	B	4			N1047 / W837; L1; Elev=102.48 - 102.28	4	
335		B-04		6/26/89	B	4			N1047 / W841; L3; Elev=102.13 - 102.03	4	
337		B-04	F	6/26/89	B	4			N1047 / W836; L1; Elev=102.33 - 102.28	4	
382		B-04		6/26/89	B	4			N1046 / W836; L1; Ground surface elev=102.48 - 102.29; 2x2 m	4	
483		B-04		6/26/89	B	4			N1046 / W837; L1; Elev=102.52 - 102.28; 4 m	4	
471		B-04		7/2/89	B	4			N1046 / W836; L2; Elev=102.28 - 102.14; 2x2 m	4	
489		B-04		7/2/89	B	4			N1046 / W836; East of wall; L2; Elev=102.28 - 102.13	4	
491		B-04		7/2/89	B	4			N1047 / W836; L3; Elev=102.13 - 102.03	4	
498		B-04		7/2/89	B	4			N1046 / W836; L3; Elev=102.13 - 102.03	4	
587		B-04		7/4/89	B	4			N1046 / W836; L4; Elev=102.03 - 101.93	4	
608		B-04		7/4/89	B	4			N1046 / W837; West 3/4; L3; Elev=102.13 - 102.03	4	
647	x	B-04-R02	A	7/8/89	B	4	2		Fill in step of entryway Room 2	4	
661		B-04		6/5/89	B	4			N1066 / W841; L1; Elev=102.28 - 102.18	?	
686		B-04		6/5/89	B	4			N1066 / W841; L2; Elev=102.18 - 102.08	?	
703		B-04	F	6/12/89	B	4			N1044 / W841; West Wall Trench, south of known wall of Room 2; Elev=102.42 - 102.32	?	
688		B-04	F	7/3/89	B	4			Test Pit South of Room 2; Elev = 102.40 - 102.05	?	
659		B-04-R02		6/4/89	B	4			N1046 / W836; L2; Elev=102.40 - 102.30	?	
681		B-04-R02		6/7/89	B	4			N1046 / W836; L4; Elev=102.30 - 102.10	?	
684		B-04-R02	E	6/7/89	B	4			N1046 / W836; L5; Elev=102.10 - Floor (-?)	?	
686		B-04-R02	D	6/12/89	B	4	2		N1046 / W837.5 - W842; Profile Wall along N1046; Elev=102.42 - 101.76	?	
707		B-04-R02	A/C	6/13/89	B	4	2		N1046 / W837 (W836?); L2; Elev=101.74 (Roof Fall) - 101.53 (Roof)	?	
713		B-04-R02	A/C	6/13/89	B	4	2		N1046 / W841; L2; Elev=101.79 - 101.48	?	
717	x	B-04-R02	D	6/13/89	B	4	2		N1046 / W837; Fill above roof fall; Elev=102.42 - 101.79	4	
718	*	B-04-R02	D	6/13/89	B	4	2		N1046 / W837; Fill above roof fall; Elev=102.42 - 101.79	?	
720		B-04-R02	C	6/13/89	B	4	2		N1046 / W841; West 1/2 of Room 2; L1; Surface Elev=102.42 - 101.79 (Roof Fall)	?	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 16 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
728		B-04-R02	A/C	6/13/80	B	4	2		N1046 / W841; L2; Elev=101.79 (Roof Fall) - 101.46 (Floor)	?	
728		B-04-R02	A/C	6/13/80	B	4	2		N1046 / W837; L2; Elev=101.93 (Roof Fall) - 101.53 (Floor)	?	
778		B-04-R02	A	6/16/80	B	4	2		N1046 / W841; Above Floor; Elev=101.46	water	
783		B-04-R02	A	6/16/80	B	4	2		N1046 / W838; Above Floor; Elev=101.53	water	
784		B-04-R02		6/15/80	B	4	2		N1046 / W839; Profile Well Along N1046; Elev=102.42 - 101.78	?	
785		B-04-R02	D	6/12/80	B	4	2		N1046 / W841; Elev=101.987 - 101.79; Fill from Rock Concentration	?	
787		B-04-R02	C	6/15/80	B	4	2		N1046 / W837; Undifferentiated Fill Above Floor	?	
871		B-04-R02	C	6/28/80	B	4	2		SE Quad; L2; Elev=101.96 - 101.70; Well Fall - Roof Fall	?	
916		B-04-R02	C	6/27/80	B	4	2		SE Quad; L1; Surface Elev=102.42 - Well Fall	?	
918		B-04-R02	C	6/27/80	B	4	2		SW Quad; L1; Surface Elev=102.42 - Well Fall	?	
926		B-04-R02	C	6/27/80	B	4	2		SW Quad; L2; Well Fall - Roof Fall	?	
932		B-04-R02	A/C	6/27/80	B	4	2		SE Quad; L3; Roof Fall = 101.70 - 101.49 = Floor	?	
975		B-04-R02	A/C	7/3/80	B	4	2		SW Quad; L3; Roof Fall Elev = 101.64 - 101.60 (Floor)	?	
981		B-04-R02	C	7/3/80	B	4	2		Room 2 Well Brushings	?	
985		B-04-R02	C	7/3/80	B	4	2		Room 2 Well Fall Fill (B2-9); Elev = 102.21 - 101.49	?	
788		B-05		6/19/80	B	5			N1058 / W855; Disturbed Fill, Ground Surface	?	x
790		B-05		6/19/80	B	5			N1058 / W855; Disturbed Fill, Ground Surface	?	x
821		B-05		6/20/80	B	5			N1058 / W855; Well Fall; L2; Elev=101.836 - 101.700	?	
836		B-05		6/25/80	B	5			N1058 / W855; L2; Elev=101.88 - 101.71	4	
840		B-05	C	6/25/80	B	5			N1058 / W855; L3; Elev=101.70 - 101.55	4	
880		B-05		6/25/80	B	5			N1058 / W855; L4; Elev=101.55 - 101.45; Well Fall	4	
885		B-05		6/26/80	B	5			N1058 / W855; L5; Elev=101.45 - 101.35; Well Fall	4	
881		B-05		6/28/80	B	5			N1058 / W855; L3; Elev = 101.71 - 101.55	4	
887		B-05		6/28/80	B	5			N1058 / W855; L4; Elev = 101.55 - 101.45	4	
805		B-05		6/27/80	B	5	4		N1058 / W856; L1; West of Room 4 Well	4	
912		B-05		6/27/80	B	5			N1057 / W856; Outside Room 4; Surface Elev=102.24 - 102.20	4	
1022		B-05		7/8/80	B	5			N1058 / W856; Elev = 102.19 - 101.89	?	
1043		B-05		7/8/80	B	5			N1058 / W856; East 1/2; Elev = 102.21 - 101.67	?	
1047		B-05		7/8/80	B	5			N1058 / W856; East 1/2; Elev = 102.07 - 101.71	?	
1058		B-05		6/28/80	B	5			N1058 / W855; L6; Elev = 101.35 - 101.25	4	
1188		B-05	F	6/14/91	B	5			Fill Under West Well; Elev = 102.12 - 101.72	4	
1388		B-05	F	7/1/91	B	5			Well Trench, South of Room 4 South Wall; L1; Elev = 102.28 - 101.72	4	
1391		B-05	F	7/1/91	B	5			Well Trench, South of Room 4 South Wall; L2; Elev = 101.72 - 101.60	4	
1397		B-05	ES	7/2/91	B	5			Extremal South of Room 4; Section A3; L2; Elev = 102.07 - 101.75	4	
1389		B-05	F	7/3/91	B	5			Extremal South of Room 4; Section A4; L2; Elev = 102.07 - 101.75	4	
1400		B-05	F	7/3/91	B	5			Extremal South of Room 4; Section B1; L1; Elev = 102.33 - 101.07	4	
1403		B-05	F	7/3/91	B	5			Extremal South of Room 4; Section B2; L1; Elev = 102.33 - 102.11	4	
1405		B-05	F	7/3/91	B	5			Extremal South of Room 4; Section B3; L1; Elev = 102.20 - 102.14	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 17 of 24).

Lot	Use	Prov. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
1409		B-05	F	7/3/01	B	5			Extremural South of Room 4 ; Section B3 ; 4 L2 ; Elev =102.14 - 102.03		
1417		B-05	F	7/7/01	B	5			Extremural Area South of Room 4 ; Section 4 A5 ; L2		
1420		B-05	F	7/7/01	B	5			Extremural Area South of Room 4 ; Section 4 B3 ; L3 ; Elev = 102.03 - 101.87		
1421		B-05	F	7/7/01	B	5			Extremural Area South of Room 4 ; Section 4 B3 ; L3 ; Elev = 102.03 - 101.87		
1423		B-05	F	7/7/01	B	5			Extremural Area South of Room 4 ; Section 4 B4 ; L3 ; Elev = 102.01 - 101.87		
1425		B-05	F	7/7/01	B	5			Extremural Area South of Room 4 ; Section 4 B4 ; L2 ; Elev = 102.14 - 102.01		
1429		B-05	F	7/7/01	B	5			Extremural Area South of Room 4 ; Section 4 B2 ; L3 ; Elev = 102.03 - 101.81		
1433		B-05	C	7/7/01	B	5			East Wall, North of Room 4 ; Wall - Wall Adobe	4	
1441		B-05	F	7/7/01	B	5			Extremural South of Room 4 ; Section A5 ; L3 ; Elev =101.86 - 101.88	4	
1446		B-05	F	7/8/01	B	5			Extremural South of Room 4 ; Section B1 / B2 ; L4 ; Elev =101.86 - 101.74	4	
1483		B-05	F	7/10/01	B	5			Extremural South of Room 4 ; Section B1 / B2 ; L5 ; Elev = 101.74 - ()	4	
1487		B-05	F	7/10/01	B	5			Extremural South of Room 4 ; Section B6 ; L2 ; Elev = 101.90 - 101.86	4	
1484		B-05	C	6/24/01	B	5			Fill Between North Wall of Room 6 and South Wall of Room 4	4	
1484	*	B-05-F07	FA	7/10/01	B	5		7	Feature #7 ; Artifacts off Upper Adobe Floor	4	
1472		B-05-F07	FA	7/10/01	B	5		7	Feature #7 ; 2nd Floor Adobe and Top of 3rd Floor Adobe	4	
1476		B-05-F07	FA	7/11/01	B	5		7	Feature #7 ; Sample of 3rd Floor Adobe	4	
1477		B-05-F07	FA	7/11/01	B	5		7	Feature #7 ; Sample of 4th Floor Adobe	4	
1091	x	B-05-R04	D	6/6/01	B	5			N1086 / W864 ; L1 ; Elev=102.34 - 102.20	4	
1088	x	B-05-R04	D	6/6/01	B	5			N1080 / W864 ; L1 ; Elev=102.30 - 102.00	4	
1100	x	B-05-R04	D	6/6/01	B	5			N1080 / W864 ; L2 ; Elev=102.00 - 101.90	4	
1116		B-05-R04	C?	6/6/01	B	5			N1086 / W864 ; L3 ; Elev=102.10 - 102.00	4	
1117	x	B-05-R04	D	6/6/01	B	5			N1086 / W863 ; L1 ; Elev=102.365 - 102.20	4	
1120		B-05-R04	D or C	6/6/01	B	5			N1086 / W863 ; L2 ; Elev=102.20 - 102.10	4	
1122	x	B-05-R04	D	6/6/01	B	5			N1080 / W862 ; L1 ; Surface Elev=102.32 - 102.00	4	
1126		B-05-R04	C	6/7/01	B	5			N1086 / W863 ; L3 ; Elev=102.10 - 102.00	4	
1127	x	B-05-R04	D	6/6/01	B	5			N1086 / W862 ; L1 ; Surface Elev=102.36 - 102.20	4	
1130		B-05-R04	C	6/7/01	B	5			N1086 / W863 ; L4 ; Elev=102.00 - 101.96	4	
1131	x	B-05-R04	D	6/7/01	B	5			N1086 / W862 ; L2 ; Elev=102.20 - 102.10	4	
1136		B-05-R04	C	6/7/01	B	5		4	N1080 / W862 ; L3 ; Elev=101.90 - 101.80	4	
1137		B-05-R04	C	6/7/01	B	5		4	N1080 / W862 ; L4 ; Elev=101.80 - 101.70	4	
1141		B-05-R04	D or C	6/7/01	B	5		4	N1086 / W862 ; L3 ; Elev=102.10 - 102.00	4	
1142		B-05-R04	C?	6/7/01	B	5			N1086 / W864 ; L4 ; Elev=102.10 - 101.90	4	
1144	x	B-05-R04	D	6/10/01	B	5			N1086 / W866 ; L1 ; Elev=102.22 - 102.00	4	
1148	x	B-05-R04	D	6/10/01	B	5			N1086 / W862 ; L1 ; Elev=102.40 - 102.00	4	
1148		B-05-R04	C	6/10/01	B	5			N1086 / W866 ; L5 ; Elev=101.46 - 101.364	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 18 of 24).

Lot	Use	Prop. Code	Analytic Unit	Date	Area	Units	Room	Features	Other Provenience Data	Screen	Dist.
1151		B-05-R04	D or C	6/10/91	B	5			N1056 / W862 ; L2 ; Elev=102.00 - 108.10	4	
1154		B-05-R04	C	6/11/91	B	5			N1056 / W865 ; L2 ; Elev=102.00 - 101.80	4	
1157		B-05-R04	C	6/11/91	B	5	4		N1056 / W862 ; L4 ; Elev=102.00 - 101.80	4	
1158		B-05-R04	C?	6/11/91	B	5			N1056 / W865 ; L3 ; Elev=101.80 - 101.77	4	
1161		B-05-R04	C	6/11/91	B	5	4		N1056 / W862 ; L5 ; Elev=101.80 - 101.80	4	
1163		B-05-R04	AC	6/11/91	B	5	4		N1056 / W865 ; L6 ; Elev=101.36 (Top of Roof Fall) - To Floor	4	
1165		B-05-R04	C	6/12/91	B	5	4		N1056 / W862 ; L3 ; Elev=101.80 - 101.70	4	
1170	x	B-05-R04	D	6/12/91	B	5			SW Quad ; Surface to Wall Fall	4	
1174	x	B-05-R04	D	6/13/91	B	5			NW Quad ; Surface to Wall Fall	4	
1182	x	B-05-R04	C	6/14/91	B	5	4		NW Quad, Room 4 ; L2 ; Elev =101.80 - 101.55	4	
1182		B-05-R04	C	6/14/91	B	5	4		NE Quad, Room 4 ; L2 ; Wall Fall - 101.75	4	
1186		B-05-R04	C	6/14/91	B	5	4		SW Quad, Room 4 ; Wall Fall - 101.75	4	
1201		B-05-R04	C	6/14/91	B	5	4		SE Quad, Room 4 ; Wall Fall - 101.75	4	
1206	x	B-05-R04	D	6/11/91	B	5	4		SE Quad, Room 4 ; L1 ; Elev =102.32 - Wall Fall	4	
1206	*	B-05-R04	D	6/11/91	B	5	4		SE Quad, Room 4 ; L1 ; Elev =102.32 - Wall Fall	4	
1216		B-05-R04	C	6/14/91	B	5	4		NW Quad Room 4 ; Elev =101.75 - 101.55	4	
1223		B-05-R04	C	6/17/91	B	5	4		SW Quad Room 4 ; Elev =101.75 - 101.55	4	
1228		B-05-R04	C	6/18/91	B	5	4		NW Quad Room 4 ; L4 ; Elev =101.55 - Roof Fall	4	
1234	x	B-05-R04	D	6/19/91	B	5	4		N1056 / W861 ; Surface Elev =102.25 - 101.88 (Wall Fall)	4	
1237	x	B-05-R04	D	6/19/91	B	5	4		N1056 / W862 ; Surface Elev =102.40 - 102.15 (Wall Fall)	4	
1238		B-05-R04	D	6/19/91	B	5	4		N1056 / W862 ; Elev =102.15 (Wall Fall) - 101.55 (Roof Fall) (should be C)	4	
1240		B-05-R04	C	6/19/91	B	5	4		SW Quad Room 4 ; Elev =101.55 - 101.36 (Roof Fall)	4	
1245		B-05-R04	C	6/19/91	B	5	4		NE Quad Room 4 ; Elev =101.55 - 101.48	4	
1247		B-05-R04	C	6/19/91	B	5	4		SE Quad Room 4 ; Elev =101.55 - 101.45	4	
1248		B-05-R04	C	6/19/91	B	5	4		SE Quad Room 4 ; Elev =101.55 - 101.45	4	
1250		B-05-R04	EE	6/20/91	B	5	4		Room 4 Entryway Cleaning ; Undifferentiated Fill	4	
1255		B-05-R04	C	6/20/91	B	5	4		N1056 / W869 ; Wall Fall - Roof Fall	4	
1257		B-05-R04	C	6/20/91	B	5	4		N1056 / W861 ; Room Fill Only ; Elev =101.88 - 101.45 (Roof Fall)	4	
1260	x	B-05-R04	B	6/20/91	B	5	4	1	Feature #1 in Room 4 ; Elev =101.75 - 101.50	4	
1263	x	B-05-R04	D	6/20/91	B	5	4		Entryway of Room 4 ; Surface Elev = () 101.97 (L1)	4	
1268		B-05-R04	C	6/21/91	B	5	4		SE Quad of Room 4 ; L3 ; Elev =101.75 - 101.55	4	
1269	x	B-05-R04	D	6/21/91	B	5	4	2	Feature #2 Fill, Room 4 ; Elev =101.85 - Roof Fall	4	
1271		B-05-R04	C	6/21/91	B	5	4		N1056 / W863 ; 1x2 m (E - W) ; L5 ; Elev =101.55 - Roof Fall	4	
1285		B-05-R04	AC	6/21/91	B	5	4		SW Quad, Room 4 ; Roof Fall - Floor	4	
1283		B-05-R04	AC	6/21/91	B	5	4		NW Quad, Room 4 ; Roof Fall - Floor	4	
1308		B-05-R04	AC	6/24/91	B	5	4		NE Quad, Room 4 ; Roof Fall - Floor	?	
1312		B-05-R04	AC	6/24/91	B	5	4		SE Quad, Room 4 ; Roof Fall - Floor	?	
1329		B-05-R04	AC	6/25/91	B	5	4		SE Quad Room 4 ; Roof Fall to Floor	4	
1332	*	B-05-R04	D	6/25/91	B	5	4		SW Quad Room 4 ; Surface - Roof Fall ; Material found against South Wall	4	
1334		B-05-R04	AC	6/25/91	B	5	4		SW Quad Room 4 ; Roof Fall - Floor ; Material found against South Wall	4	
1344		B-05-R04	C	6/26/91	B	5	4		Room 4 East Entryway ; L2 ; Elev =101.97 101.57	4	
1347	x	B-05-R04	D	6/26/91	B	5	4		Room 4 East Entryway ; L1 & L2 Mix	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 19 of 24).

Lot	Upp	Prev. Code	Analytic Unit	Date	App	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
1351		B-05-R04	C	6/26/01	B	5	4		SW Quad Room 4; Material Against West Wall; To Roof Fall	4	
1353		B-05-R04	A/C	6/26/01	B	5	4		SW Quad Room 4; Material Against West Wall; Roof Fall - Floor	4	
1386		B-05-R04	A/C	6/27/01	B	5	4		NE Quad Room 4; Material From East Wall; Roof Fall - Floor	4	
1388		B-05-R04	F	6/27/01	B	5	4		South of Room 4; Top of South Wall; Surface - Wall Top	4	
1375		B-05-R04	A	6/27/01	B	5	4		Room 4 Floor Sweepings	4	
1376		B-05-R04	C	6/27/01	B	5	4		N1066 / W862; LB; Elev =101.80 - 101.83	4	
1384		B-05-R04	A	6/30/01	B	5	4		SW Quad Room 4; Sweepings	4	
1385		B-05-R04	A	6/30/01	B	5	4	0	Room 4; NW of Feature 08; In Adobe Floor	4	
1385		B-05-R04	ES	7/2/01	B	5	4		Room 4 South Entry, Fill	4	
1414		B-05-R04	C	7/4/01	B	5	4		SW Quad Room 4; Buttress Against North Wall of Room 6; Roof Fall - Floor	4	
1448		B-05-R04	A	7/8/01	B	5	4		South Entryway of Room 4; Fill Between Upper and Lower Adobe	4	
1452		B-05-R04	C	7/8/01	B	5	4		SW Quad Room 4; Under North Wall of Room 6; Roof Fall =101.67 - Floor	4	
1454		B-05-R04	C	7/8/01	B	5	4		South Wall Room 4 (South Entry), Artifacts	4	
1478		B-05-R04	C	7/11/01	B	5	4		Artifacts from South Wall of Room 4, East of South Entry	4	
1179	x	B-05-R06	D	6/13/01	B	5	6		Wall Trench East and South Room 66; Surface Elev =102.20 - 101.75	4	
1190	x	B-05-R06	D	6/14/01	B	5	6		North Wall Trench, Room 6; Surface Elev() - 102.20	4	
1191	*	B-05-R06	D	6/14/01	B	5	6		North Wall Trench, Room 6; Surface Elev() - 102.20	4	
1208		B-05-R06	F	6/14/01	B	5	6		Room 6; Fill Under West Wall	4	
1209		B-05-R06	A	6/13/01	B	5	6		Room 6; Sweepings from Floor	4	
1211		B-05-R06	C	6/14/01	B	5	6		Room 6; Floor Elev =101.80 - 101.72	4	
1386		B-05-R06	C	6/30/01	B	5	6		NE Corner of Room 6; Elev =101.70 - 101.90	4	
1479		B-05-R06	C	7/11/01	B	5	6		Room 6; North Wall	4	
unknown		B-05		1981					tag says lot # 143 - must be missing a digit		
1677		B-08		6/8/03	B	8			N1033 W820, Level 1 (102.26-102.12)	4	
1686		B-08		6/8/03	B	8			N1035 W820, Level 2 (102.19-102.12)	4	
1688		B-08		6/8/03	B	8			N1035 W820, Level 2 (102.19-102.12)	4	
1692		B-08		6/7/03	B	8			N1035 W820, Level 2 (102.19-102.12)	4	
1714		B-08		6/8/03	B	8			N1037 W821, Level 2 (102.23-102.05)	4	
1688		B-08-R08		6/8/03	B	9	8		N1070 W837, Level 2 (102.44-102.02)	4	
1685		B-08-R08		6/8/03	B	9	8		N1070 W837, Level 3 (102.44-102.02), roof fall	4	
1710		B-08-R08		6/8/03	B	9	8		N1070 W837, Level 4	4	
2070		B-09		5/28/04	B	9			N1067 W835, surface to 20 cm	4	
2073		B-09		5/28/04	B	9			N1067 W835, 20 to 40 cm	4	
2076		B-09		5/28/04	B	9			N1078.5 W830, 0 to 20 cm	4	
2088	x	B-09-R08	D	5/27/04	B	9	8		NE-SE portion, Level 1	4	
2086	x	B-09-R08	D	5/27/04	B	9	8		SW quad, Level 1	4	
2107	x	B-09-R08	D	5/30/04	B	9	8		SE corner, Level 2	4	
2113		B-09-R08	E	6/1/04	B	9	8		Fill from 1993 excavations along South wall and entryway	4	
2120		B-09-R08	C	6/1/04	B	9	8		N1063 W860 Level 3, SE corner	4	
2161		B-09-R08	C	6/2/04	B	9	8		SE quad, Level 4	4	
2188		B-09-R08	C	6/1/04	B	9	8	BB-1	Feature 08, SE quad (not really C)	cm	
2213		B-09-R08	C?	6/6/04	B	9	8		SE quad, Level 3, from cleaning E wall of unit above Level 4	4	
2257	x	B-09-R08	D	6/7/04	B	9	8		SW quad, Level 2	4	
2284		B-09-R08	C	6/7/04	B	9	8		SW quad, Level 3	4	
2180		B-19-R10	C	6/2/04	B	19	10		N1031 W865, Level 2	4	
2156		B-19-R10	C	6/2/04	B	19	10		N1031 W865, Level 3	4	
2164	x	B-19-R10	D	6/3/04	B	19	10		N1031 W865, Level 1	4	
2165	*	B-19-R10	D	6/3/04	B	19	10		N1031 W865, Level 1	4	
2172		B-19-R10	C	6/3/04	B	19	10		N1031 W865, Level 2	4	
2212		B-19-R10	C	6/6/04	B	19	10		N1031 W865, Level 3	4	
2218		B-19-R10	A	6/6/04	B	19	10		N1031 W865, Level 4 (in floor material?)	4	
2246		B-19-R10	C	6/7/04	B	19	10		N1031 W865, Level 4	no	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 20 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
2288		B-19-R10	A	6/7/84	B	19	10		N1031 WB66, Level 5 (in floor material?)	4	
2831		B-19	H	7/17/86	B	19			Exploratory trench for Rm B10, south entry, surface to bedrock (101.66 -101.33)	4	
2816		B-19-R10	D	7/17/86	B	19	B10		N1028.706WB66.011/Elevation 101.408	no	
2862		B-19-R10	D	7/19/86	B	19	B10		Fill, ground surface to rock surface (101.77-101.3)	no	
2863		B-19-R10	C.02	7/17/86	B	19	B10		Trench inside south wall, roof fall to floor (101.23-101.13)	4	
2868	x	B-19-R10	E	7/18/86	B	19	B10		Trench inside south wall, ground surface to roof fall (101.77-101.23)	4	
2888		B-19-R10	C.03	7/19/86	B	19	B10		Fill, rock surface to roof fall (101.3-101.24)	4	
2886		B-19-R10	B	7/23/86	B	19	B10	B10-2	Post hole fill	4	
3001		B-19-R10	C.02	7/18/86	B	19	B10		Roof fall to floor	4	
3008		B-19-R10	F	7/23/86	B	19	B10		Entryway fill	4	
2077	x	B-21-R09	D	5/28/84	B	21			N1063.5 WB41 Level 1	4	
2089		B-21-R09	C	5/27/84	B	21	9		N1063 WB46 Level 2	4	
2101		B-21-R09	C	5/30/84	B	21	9		N1063 WB60 Level 2	4	
2127		B-21-R09	C	6/1/84	B	21	9		N1064 WB46 Level 2	4	
2132	x	B-21-R09	D	6/1/84	B	21	9		N1063 WB47 Level 1	4	
2146		B-21-R09	C	6/2/84	B	21	9		N1063 WB47, Level 2	4	
2167		B-21-R09	B	6/3/84	B	21	9	BB-2	Feature BB-2, post and posthole	4	
2176		B-21-R09	C	6/3/84	B	21	9		N1063 WB47, Level 3	4	
2181	x	B-21-R09	D	6/8/84	B	21	9		N1063 WB46, Level 1	4	
2187	x	B-21-R09	D	6/8/84	B	21	9		N1063 WB46, Level 1	4	
2200	o	B-21-R09	D	6/8/84	B	21	9		N1065 WB46, Level 1	4	
2363		B-21-R09		6/8/84	B	21	9		not in original database: N. 1063, W. 946, west of wall (B11), Rm BB	4	
2362		B-21-R09	C	6/10/84	B	21	9		N1063 WB46, W of wall, Level 3	4	
2372		B-21-R09	C	6/12/84	B	21	9		N1062 WB46, Level 2	4	
2380		B-21-R09	C	6/13/84	B	21	9		N1062 WB46, Level 3	4	
2387		B-21-R09	C	6/13/84	B	21	9		NE corner, top of wall fall to base of wall fall	no	
2405		B-21-R09	C	6/13/84	B	21	9		NE quad, roof fall, ext. of N wall	4	
2446		B-21-R09	C	6/14/84	B	21	12		Outside S wall of B11, Level 2	4	
2504		B-21-R09	C	6/16/84	B	21	12		SW quad, Level 3	no	
2515		B-21-R09	C	6/16/84	B	21	12		SE quad, wall fall zone	4	
2546		B-21-R09	B	6/16/84	B	21	12B	B12-689-11	Feature B12-689-11 (post hole)	4	
2577		B-21-R09	C	6/20/84	B	21	12		in wall adobe (fill)	4	
2593	x	B-21-R09	A	6/21/84	B	21	B12		SW quad, level just above floor	4	
2596		B-21-R09	B	6/21/84	B	21	B12	BB-14	Feature fill (floor cache)	gm	
2602		B-21-R09	A	6/22/84	B	21	12B		Floor outcropping	4	
2657		B-21-R09	A	6/26/84	B	21	9		Removal of floor near intrusive SE B11 corner	4	
2682		B-21-R09	B	6/28/84	B	21	9	BB-27	Feature fill (rodent burrow)	4	
2274	x	B-21-R11	D	6/7/84	B	21	11		N1063 WB46, Level 1	4	
2284		B-21-R11	C	6/8/84	B	21	11		N1063 WB46, Level 2	4	
2304		B-21-R11		6/8/84	B	21	11		not in original database: 1x1 test pit level 2, removal of wall fall, room B11	4	
2325		B-21-R11		6/8/84	B	21	11		not in original database: Rm B11 SW corner, level 3	4	
2384		B-21-R11	C	6/10/84	B	21	11		N1064.544 W 944.843, Elevation: 101.983	no	
2376		B-21-R11	C	6/13/84	B	21	11		Control unit along E wall, fill above wall fall	4	
2381		B-21-R11	C	6/13/84	B	21	11		Control unit along E wall, in wall fall	4	
2402		B-21-R11	C	6/13/84	B	21	11		Wall fall	no	
2403		B-21-R11	C	6/13/84	B	21	11		SW quad, Level below wall fall to roof fall	4	
2408		B-21-R11	C	6/9/84	B	21	11		Fill above wall fall	no	
2420		B-21-R11	C	6/13/84	B	21	11		SE quad, fill below wall fall to roof fall	4	
2425		B-21-R11	C	6/13/84	B	21	11		NW quad, fill below wall fall to roof fall	4	
2448		B-21-R11	C	6/15/84	B	21	11		NE quad, wall fall to roof fall	4	
2464		B-21-R11	A	6/16/84	B	21	11		NW quad, roof fall to floor	4	
2480		B-21-R11	A	6/16/84	B	21	11		SW quad, roof fall to floor	4	
2470		B-21-R11	A	6/16/84	B	21	11		SW quad	no	
2510		B-21-R11	C	6/16/84	B	21	11		SE quad, roof fall to 6 cm above floor	no	
2513		B-21-R11	C	6/16/84	B	21	11		NE quad, roof fall	4	
2622		B-21-R11	A	6/16/84	B	21	11		SE quad, 80 cm to floor	4	
2663	x	B-21-R11	B	6/20/84	B	21	11		Niche in S wall	4	
2681		B-21-R11	C	6/20/84	B	21	11		NE quad, 5 cm to floor	4	
2679	x	B-21-R11	B	6/20/84	B	21	11	B11-17	Feature fill	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 21 of 24).

Lot	Use	Prov. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
2803		B-21-R11	A	6/24/84	B	21	11		Floor sweeping	4	
2812		B-21-R11	A2	6/24/84	B	21	11		NE quad, floor to bedrock	4	
2815	x	B-21-R11	B	6/24/84	B	21	11		Fill from beneath Feature B11-1	4	
2817		B-21-R11	A2	6/24/84	B	21	11		NW quad, floor to bedrock	4	
2824	x	B-21-R11	B	6/24/84	B	21	11	B11-3	Fill above ash deposit, Feature B11-3	4	
2826	x	B-21-R11	B	6/24/84	B	21	11	B11-3	Ash deposit, Feature B11-3	4	
2830		B-21-R11	A3	6/24/84	B	21	11		In lower floor, NW quad	no	
2832		B-21-R11	A2	6/24/84	B	21	11		SE quad, floor to bedrock	4	
2836		B-21-R11	A3	6/24/84	B	21	11		SW quad, on lower floor (includes material from lot # 2838)	4	
2836*		B-21-R11	A2	6/24/84	B	21	11		SW quad, floor to bedrock. (*field bag was labeled 2836, so this lot was combined w/ 2836 in lab)	4	
2840		B-21-R11	A3	6/27/84	B	21	11		SW quad, floor A	4	
2841		B-21-R11	A3	6/27/84	B	21	11		SW quad, floor A	4	
2849	x	B-21-R11	B	6/27/84	B	21	11	B11-2	E half of B11-2, upper portion	4	
2853	x	B-21-R11	B	6/27/84	B	21	11	B11-2	E half of B11-2, lower portion	4	
2873		B-21-R11	C	6/9/84	B	21	11		Level 2, in N wall, adobe	no	
2874		B-21-R11	C	6/9/84	B	21	11		Level 3, under wall fall	no	
2883	x	B-21-R11	B	6/24/84	B	21	11	B11-15	Feature B11-15	4	
2886		B-21-R13	C	6/21/84	B	21	13		NW quad, fill above bedrock behind B13 (mostly destroyed plowhouse below B9)	4	
2897		B-21-R13	C	6/18/84	B	21	13		Room B13 fill, NW corner	no	
1882		C-14		6/28/83	C	14			Exterior excavation E of E wall of Room C2, S half, Level 2	4	
1884		C-14		6/30/83	C	14			Exterior excavation E of E wall of Room C2, S half, Level 2	4	
2082		C-14		7/2/83	C	14			Trench fill, outside W wall of Room C2	4	
1786		C-14-R01		6/22/83	C	14	1		N700 W1122, disturbed fill	no	x
1811		C-14-R01		6/23/83	C	14	1		N700 W1122, wall fall	4	
1812		C-14-R01		6/23/83	C	14	1		N700 W1122, wall fall	4	
1885		C-14-R01		6/24/83	C	14	1		N700 W1122, E wall fall	4	
1886		C-14-R01		6/24/83	C	14	1		N700 W1122, S wall fall	4	
1887		C-14-R01		6/24/83	C	14	1		N700 W1122, S wall fall	4	
1888		C-14-R01		6/24/83	C	14	1		N700 W1122, S wall fall	4	
1882		C-14-R01		6/25/83	C	14	1		N700 W1122, general fill	4	
1884		C-14-R01		6/28/83	C	14	1		Wall fall and/or roof fall (originally designated as "fill between wall fall and upper floor")	4	
1886		C-14-R01		6/28/83	C	14	1		Wall fall and/or roof fall (originally designated as "fill between wall fall and upper floor")	4	
1888		C-14-R01		6/30/83	C	14	1		Wall fall (originally designated as "fill between upper floor and floor 2 (next to upper)", E half)	4	
1900		C-14-R01		6/30/83	C	14	1		Wall fall (originally designated as "fill between floors 1 and 2")	4	
1902		C-14-R01		6/30/83	C	14	1		Disturbed fill from W half	4	x
1904		C-14-R01		6/30/83	C	14	1		Disturbed fill from W half	4	x
1908		C-14-R01		6/28/83	C	14	1		Wall fall (originally designated as "fill above Floor 1"), SW corner	4	
1925		C-14-R01		7/8/83	C	14	1	C1-3	Fill fill, SE corner	4	
1929		C-14-R01		7/2/83	C	14	1	C1-1	Feature fill	sm	
1931		C-14-R01		7/5/83	C	14	1	C1-4	Feature fill	sm	
1934		C-14-R01		7/2/83	C	14	1		Fill along wall between rooms C1 and C2	4	
1936		C-14-R01		7/5/83	C	14	1		Fill under Feature C1-2 and N of Feature C1-1	4	
1944		C-14-R01		6/30/83	C	14	1		Probably roof fall (originally designated as "fill between 1st (upper) and 2nd floors")	4	
1946		C-14-R01		6/30/83	C	14	1		Probably roof fall (originally designated as "fill between 1st (upper) and 2nd floors")	4	
1949		C-14-R01		7/2/83	C	14	1		Upper floor adobe (originally designated as 2nd floor)	4	
1951		C-14-R01		7/8/83	C	14	1	C1-5	Fill fill	4	
1984		C-14-R01		7/8/83	C	14	1		Disturbed fill inside N wall	4	x
1987		C-14-R01		7/8/83	C	14	1		W wall adobe	4	
1991		C-14-R01		7/2/83	C	14	1		Floor adobe, lower floor	4	
1999		C-14-R01		7/5/83	C	14	1		S wall adobe	4	
2002		C-14-R01		7/2/83	C	14	1	C1-2	Fill near feature, NE corner of room	sm	
2007		C-14-R01		7/2/83	C	14	1		E wall adobe	4	
2015		C-14-R01		7/8/83	C	14	1	C1-2	Fill	no	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 22 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
2021		C-14-R01		7/8/93	C	14	1		W wall adobe	4	
2086		C-14-R01		7/2/93	C	14	1	C1-1	Fill in pottery vessel (lot #2086)	sm	
1741		C-14-R02		6/16/93	C	14	2		Level 1, Section A	4	
1773		C-14-R02		6/17/93	C	14	2		Level 2, Section A (original surface to wall fall)	4	
1787		C-14-R02		6/22/93	C	14	2		Wall fall, Section C	no	
1786		C-14-R02		6/23/93	C	14	2		Section B, original surface to wall fall	4	
1800		C-14-R02		6/23/93	C	14	2		Wall fall, Section C	4	
1836		C-14-R02		6/24/93	C	14	2		Section B, wall fall	in situ	
1852		C-14-R02		6/23/93	C	14	2		Section C, wall fall--bag labeled section B	4	
1886		C-14-R02		6/24/93	C	14	2		Exterior excavation E of E wall, Level 1	4	
1869		C-14-R02		6/28/93	C	14	2		Exterior excavation E of E wall, wall fall	4	
1888		C-14-R02		6/30/93	C	14	2		Exterior excavation E of E wall of Room C2, Level 3	4	
1919		C-14-R02		6/30/93	C	14	2		S half of Room C2, floor context (roof fall probably right on floor in this room)	4	
1923		C-14-R02		7/2/93	C	14	2		N half of Room C2, floor context	4	
1824		C-14-R02		7/2/93	C	14	2		N half of Room C2, floor context	4	
1967		C-14-R02		7/8/93	C	14	2	C2-6	Posthole fill	4	
1869		C-14-R02		7/8/93	C	14	2		E wall balk, NE corner of S 1/2 of room, on floor	4	
1877		C-14-R02		7/8/93	C	14	2		N half, upper floor adobe and fill between upper and lower floor	4	
1879		C-14-R02		7/8/93	C	14	2	C2-12	Fill	sm	
1982		C-14-R02		7/8/93	C	14	2	C2-11	Adobe patch ("plug") capping C2-11	4	
1884		C-14-R02		7/7/93	C	14	2	C2-10	Fill	sm	x
1982	x	C-14-R02	Rm C2 floor fa.	7/8/93	C	14	2	C2-4B	Fill	4	
1884	x	C-14-R02	Rm C2 floor fa.	7/8/93	C	14	2	C2-4B	Fill	4	
1886	x	C-14-R02	Rm C2 floor fa.	7/8/93	C	14	2	C2-11	Fill	4	
2009		C-14-R02		7/8/93	C	14	2	C2-13	Fill (subfloor pit - dating uncertain)	4	
2024		C-14-R02		7/8/93	C	14	2	C2-3	Fill (post hole)	4	
2027		C-14-R02		7/8/93	C	14	2	C2-6	Fill (subfloor pit - dating uncertain)	4	
2030		C-14-R02		7/8/93	C	14	2		Fill below lower floor, N half of room (mixed)	4	
2033		C-14-R02		7/8/93	C	14	2		Balk at N700 W1122: probably wall fall, roof fall, and disturbed fill combined	4	x
2036		C-14-R02		7/8/93	C	14	2		Fill below lower floor, SE corner of room (mixed)	4	
2041		C-14-R02		7/8/93	C	14	2		Fill below lower floor, S half of room (mixed)	4	
2046		C-14-R02		7/8/93	C	14	2		Lower floor adobe	4	
2060		C-14-R02		7/10/93	C	14	2		Fill below floor	4	
1737		C-15		6/16/93	C	15			N886 W1131 Level 1	4	
1746		C-15		6/16/93	C	15			N882 W1131 Level 1	4	
1747		C-15		6/16/93	C	15			N882 W1131 Level 1	4	
1748		C-15		6/16/93	C	15			N886 W1131 Level 2	4	
1754		C-15		6/16/93	C	15			N882 W1131 Level 2	4	
1757		C-15		6/17/93	C	15			N884 W1131 Level 1	4	
1758		C-15		6/17/93	C	15			N884 W1131 Level 2	4	
1764		C-15		6/17/93	C	15			N884 W1131 Level 3	4	
1766		C-15		6/17/93	C	15			N882 W1131 Level 3	4	
1780		C-16		6/18/93	C	16			N875 W1125, disturbed fill	8	x
1797		C-16		6/23/93	C	16			Level 1 of 1x1m pit (01.05-01.04)	4	
1798		C-16		6/23/93	C	16			Level 1 of 1x1m pit (01.05-01.04)	4	
1804		C-16		6/23/93	C	16			NW quadrant, fill	4	
1814		C-16		6/23/93	C	16			Level 2 of test unit (01.04-01.02)	4	
1820		C-16		6/23/93	C	16			NW quad fill	4	
1822		C-16		6/24/93	C	16			NW quad fill	4	
1832		C-16		6/24/93	C	16			Level 3 of test unit (01.02-00.82)	4	
1833		C-16		6/24/93	C	16			N875 W1125, fill over rock layer above exposed base	sm	
1838		C-16		6/25/93	C	16			Fill below rock layer in NE quad (00.98-)	4	
1848		C-16		6/26/93	C	16			Disturbed fill	no	x
1870		C-16		6/30/93	C	16			10-15 cm below shard concentration N of adobe wall, NW quad of unit: 1 bucket of window screen fill	sm	
1873		C-16		6/30/93	C	16	4		NW quad of p-house fill, Level 1 (01.02-bedrock)	4	
1876		C-16		6/30/93	C	16			Fill from pit, NW corner (need to determine what this pit is--a feature?)	4	
1880		C-16		6/30/93	C	16	3		Adobe wall blocks	4	
1814		C-16		7/2/93	C	16		C2-1	Feature C2-1, below adobe wall	4	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 23 of 24).

Lot	Use	Prov. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
2784		C-25-F20		7/5/84	C	25		C20-1	Feature C20-1, to bedrock (subfloor storage pit - dating uncertain)	4	
2826		C-25-F21		7/8/84	C	25		C21-6	Feature fill	4	
2884		C-25-F21		7/7/84	C	25		C21-12	Feature fill	4	
2888		C-25-F21		7/8/84	C	25		C21-12	Bones from the screening of fill from Feature C21-12	6m	
2709		C-25-R10		6/30/84	C	25	10	C10-4	Feature fill	4	
2717		C-25-R10		6/30/84	C	25	10		SW quad, on floor	4	
2720		C-25-R10		6/29/84	C	25	10		SW quad, surface to floor	4	
2725		C-25-R10		6/27/84	C	25	10		NW quad, surface to floor	4	
2729		C-25-R10		6/29/84	C	25	10		NW quad, on floor	4	
2733		C-25-R10		6/29/84	C	25	10		NW quad, floor and below to bedrock	4	
2752		C-25-R10		7/1/84	C	25	10		W half of C10, floor to bedrock	4	
2753		C-25-R10		7/1/84	C	25	10	C10-1	Bone fragment in 4 pieces from Feature C10-1	no	
2702		C-26		6/30/84	C	26			N784.013 W1118.298 (2X1.5) SE corner, Level 1, Elevation: 84.433-84.369	4	
2748		C-26		7/1/84	C	26			Test area just N of C11/C13	4	
2789		C-26		7/5/84	C	26			N784.013 W1118.298, SE corner, Level 3	4	
2887		C-26-F12		6/29/84	C	26		C12	Feature C12, North half, Level 1	4	
2895		C-26-F12		6/29/84	C	26		C12	Feature C12, S half, Level 1	4	
2898		C-26-F12		6/30/84	C	26		C12	Feature C12, S half, Level 2	4	
2877		C-26-F14		6/30/84	C	26		C14	SE corner, Feature 14, N784.013 W1118.298, Level 2	4	
2778		C-26-F16		7/2/84	C	26		C15	Feature 15, Level 1	4	
2785		C-26-F18		7/5/84	C	26		C18	Feature fill, Level 1	4	
2802		C-26-F18		7/5/84	C	26		C18	Feature fill, Level 2	4	
2871		C-26-R11		6/29/84	C	26	11		Loose fill from wall searches	4	
2876		C-26-R11		6/29/84	C	26	11		2X2 control unit, at 10 to 15 cm above floor, Level 1	4	
2883		C-26-R11		6/29/84	C	26	11		2X2, Level 2, thin layer immediately above floor	4	
2889		C-26-R11		6/29/84	C	26	11		Test area (approx. 1 m squared) S of wall that joins W wall C11 surface	4	
2885		C-26-R11		6/30/84	C	26	11		Small test unit E of C11 2X2	4	
2741		C-26-R11		7/1/84	C	26	11	C11-14	N784.013 W1118.298, Level 2	4	
2745		C-26-R11		7/1/84	C	26	11		Cleaning loose fill for photos (on and around floor)	4	
2705		C-26-R13		6/30/84	C	26	13		N755.771 W1118.011, Level 2 (wall fill)	4	
2708		C-26-R13		6/30/84	C	26	13		N755.771 W1118.011, Level 3 (roof fill)	4	
2771		C-26-R13		7/2/84	C	26	13		N755.771 W1118.011, Level 4, floor (in floor material?)	4	
2781		C-26-R13		7/5/84	C	26	13		N775.771 W1118.001, below Room C13, Level 5	4	
2782		C-26-R13		7/5/84	C	26	13		N755.771 W1118.001, below Room C13, Level 6	4	
2774	x	C-26-R17	Rm C17 fill	7/2/84	C	26	17		N755.820 W1118.833, Level 4, Feature fill	4	
2788		C-27		7/2/84	C	27			N889 W1127, surface to bedrock	4	
2868		C-27		7/7/84	C	27			N889 W1125, Level 1	4	
2884		C-27		7/1/84	C	27			N889 W1124, Level, surface to bedrock	4	
88	x	D-TP1	Area D:1-3	6/14/88	D				Test Pit #1, below cHR, L1 (zones 1 & 2)	4	
81	x	D-TP1	Area D:1-3	6/14/88	D				Test Pit #1, below cHR, L2 (zone 2)	4	
85	x	D-TP1	Area D:1-3	6/14/88	D				Test Pit #1, below cHR, L3 (zone 3, w/ some zone 2)	4	
83	x	D-TP1	Area D:1-3	6/15/88	D				Test Pit #1, below cHR, L4; Elev=75.10 - 75.85 (zone 3, w/ some zone 4)	4	
104	x	D-TP1	Area D:4	6/20/88	D				Test Pit #1, below cHR, L5; Elev=75.85 - 75.80 (zone 4)	4	
183	x	D-TP1	Area D:6	6/22/88	D				Test Pit #1, below cHR; L9; Elev=75.35 - 75.20 (zone 6, w/ some zone 5)	4	
229		D-TP1	Area D:6	6/24/88	D				Test Pit #1, below cHR; L9; Elev=75.35 - 75.20 (zone 6, w/ some zone 5)	water	
281		D-TP1	Area D:6	6/25/88	D				Test Pit #1, below cHR; L10; Elev=75.20 - 75.05 (zone 6)	no	
23		D-BT3		6/5/88	D				Backhoe Trench #3, fill	?	x
578		D-BT3		7/4/88	D				Backhoe Trench #3 Fill	no	x
889		D-BT4		6/7/88	D				Backhoe Trench #4 Backfill	?	x
4323	x	D-33	Area D:1-3	6/18/88	D	33			Zone 1, Natural Level	4	
4328		D-33	Area D:1-3	6/18/88	D	33			Zone 2A, Natural Level	6	
4332		D-33	Area D:1-3	6/18/88	D	33			Zone 2B, Natural Level	8	

Table B.1. Provenience data for Old Town lots that contain faunal material (page 24 of 24).

Lot	Use	Prev. Code	Analytic Unit	Date	Area	Unit	Room	Feature	Other Provenience Data	Screen	Dist.
4336		D-33	Area D:1-3	6/18/88	D	33			Zone 2C, Natural Level	8	
4338		D-33	Area D:1-3	6/18/88	D	33			Zone 3A, Natural Level	8	
4340		D-33	Area D:1-3	6/18/88	D	33			Zone 3B, Natural Level	8	
4346		D-33	Area D:4	6/18/88	D	33			Zone 4A, Natural Level	8	
4350		D-33	Area D:4	6/18/88	D	33			Zone 4B, Natural Level	8	
4354		D-33	Area D:4	6/18/88	D	33			Zone 4C, Natural Level	8	
Platation Samples:											
4009		A-01C-R80		8/7/87	A	1		A80-1	UNIT 1C FILL IN FIRE PIT BELOW A57 FLOOR	flat	
4032		A-01C-R80		8/12/87	A	1		A80-2	ASH DEPOSIT IN A80-2 (ON S. SIDE OF A57 WALL)	flat	
4087		A-01C-R81		8/13/87	A	1		A81-1		flat	
4429		A-22-F75		6/12/88	A	22		75	Upper 5cm (ash/charcoal layer)	flat	
4430		A-22-F75		6/12/88	A	22		75	Lower 10 cm (charcoal/ash layer)	flat	
4430		A-22-F75	Fee A81 fill	6/18/88	A	22		81	Feature A81 fill	flat	
4570		A-22-F81		6/18/88	A	22		71	N883.179 W1024.508, El 99.536	flat	
4689		A-22-R71	Rm A71 floor fill	7/10/88	A	22	71	71-1	A71 Hearth, Ash Deposit above floor level	flat	
4785		A-22-R71		7/23/88	A	22	71	71-1		flat	
4829		A-22-R71		7/27/88	A	22			N883.71W1023.98, Post Hole under A71 Floors	flat	
4874		A-22-R71	Rm A71 floor fill	7/28/88	A	22	71	71-1	A71-1 Ash Fill @ N882.9W1023.6	flat	
5180		A-31-R49		8/6/87	A	31		48-2	N871.80 W1028.20, Elev. 98.944; Feature fill	flat	
5810		A-32*	981.1027:17-23	8/7/87	A	32			N881 W1027, Level 20	flat	
5177		A-32*	981.1027:7A-16	7/24/87	A	32		54	N881 W1027, Level 11, Feature fill (ash & charcoal)	flat	
5178		A-32*	981.1027:7A-16	7/27/87	A	32		54	N881 W1027, Level 13, Feature fill (ash & charcoal)	flat	
5179		A-32*		6/18/88	A	32		79	N882.79 W1028.225, Level 11 east, Feature A79 fill	flat	
4513		A-32-F51		6/30/88	A	32			Feature A51 SW Fill, N 987.9, W1024.15 Level 5	flat	
Lots Containing Worked Bone Only:											
1002		A-01C-R05	Rm A6 fill	7/3/80	A	1	6		Sub-Unit C; Loose Fill Along West Wall	?	x
1583		A-01C-R07	Rm A7 dist.	6/30/82	A	1	7		Sub-Unit C; Room 7; Disturbed Fill; From Bone Only Screening	no	x
3103		A-22-R16	F	7/30/88	A	22	A16		Control unit, N878.680W1019.725 (98.801m to 98.801m), Level 3	4	
3280		A-22-R16	H	8/8/88	A	22	A16		SE Quad extension; To uncover south foot drum; pick & shovel fill	4	
4876		A-22-R71		6/1/88	A	22	71		N884.15 W1023.71, Surface to Roof Fall	4	
3803		A-31-R49	Rm A48 fill	7/31/87	A	31		A48	N871.83 W1027.91 Level 2	4	
3837		A-31-R49	Rm A48 fill	8/4/87	A	31		A48	N871.12 W1027.80 Level 2:TD8: 98.042cm (excavation of pithouse fill to floor)	no	
4084		A-31-R49	Rm A48 fill	8/10/87	A	31	A48		N 971.93 W 1027.80 Level 3 (98.117-98.080)	4	
3682		A-32		7/21/87	A	32			N 980.00 W 1020.00 Level 2	4	
3817		A-32		8/8/87	A	32			N889 W1024 Level 6	4	
3881		A-32*	981.1027:7A-16	7/27/87	A	32			N 981.80 W 1027.00 Level 12	4	
4134		A-32-F58		8/20/87	A	32		A88-2	Elev. 100.08 - 98.93	4	
1676		B-09-R08	D	6/8/83	B	9	8		N1070 W857, Level 2 (102.44-102.02)	4	
2124		B-09-R08	C	6/1/84	B	9	8		N1083 W850 Level 3, SE corner	4	
2182		B-09-R08	C	6/2/84	B	9	8		SE quad, Level 4	4	
2582		B-21-R09	C	6/21/84	B	21	12/9		SE quad near W excavation edge	no	
2654		B-21-R11	A	6/20/84	B	21	11		N1086.482 W845.941, NW quad, Elevation: no 101.630, on floor	no	
2886		C-25-F21		7/7/84	C	25		C21-12	Human bone, bead, pigment from Feature C21-12	no	
2883		C-25		6/28/84	C	25			Loose fill from wall scraping	no	
2679		C-26-R11		6/28/84	C	26	11		21C2 control unit, at 10 to 15 cm above floor, Level 1	4	

Table B.2. Provenience data for Galaz lots that contain faunal material (page 1 of 6).

Provenience	Use	Analytic Unit 1	A. U. 2	Context	Screen	Collection
1-1-1	x	1L,C	E	fill	4	Maxwell
1-2-1	x	1L,C	E	fill	4	Maxwell
1-3-1	x	1L,C	E	fill	4	Maxwell
1-4-1 bag #1		21L	D	sterile on roof	4	Maxwell
1-4-1 bag #2		21L	D	sterile on roof	4	Maxwell
1-5-1 bag #1		21L	D	sterile on roof	4	Maxwell
1-5-1 bag #2		21L	D	sterile on roof	4	LACMNH
1-5-1/4		21L	D	sterile on roof	flot	Maxwell
1-1-2 bag #1		n/a				Maxwell
1-1-2 bag #2		n/a				Maxwell
1-1-3 bag #1		unscreened		fill	no	Maxwell
1-1-3 bag #2		unscreened		fill	no	Maxwell
1-6-4 bag #1		3,21L	C/D	roof fall/sterile on roof	100%	Maxwell
1-6-4 bag #2		3,21L	C/D	roof fall/sterile on roof	100%	Maxwell
1-6-4 bag #3		3,21L	C/D	roof fall/sterile on roof	100%	LACMNH
1-7-4 bag #1		3,6,7L	B	roof fall/above floor/floor	4	Maxwell
1-7-4 bag #2		3,6,7L	B	roof fall/above floor/floor	4	Maxwell
1-7-4 bag #3		3,6,7L	B	roof fall/above floor/floor	4	Maxwell
1-7-4 bag #4		3,6,7L	B	roof fall/above floor/floor	4	LACMNH
1-7-4 bag #5		3,6,7L	B	roof fall/above floor/floor	4	LACMNH
1-7-4/1		3,6,7L	B	roof fall/above floor/floor	flot	Maxwell
1-7-4/14		3,6,7L	B	roof fall/above floor/floor	flot	LACMNH
1-7-4 pollen bank		n/a				Maxwell
1-7-5 bag #1	x	1,5L	B	fill/above floor	100%	LACMNH
1-7-5 bag #2	x	1,5L	B	fill/above floor	100%	LACMNH
1-7-5 bag #3	*	1,5L	B	fill/above floor	100%	LACMNH
1-8-7		8L	A?	pit	4	LACMNH
1-8-8	x	8L	A	pit	4	Maxwell
1-8-9		8L	A	post hole	4	LACMNH
2-1-1		unscreened			no	Maxwell
3-1-1 bag #1		unscreened		fill	no	Maxwell
3-1-1 bag #2		unscreened		fill	no	Maxwell
3-1-3 bag #1		1,2L,C		fill/trash	4	Maxwell
3-1-3 bag #2		1,2L,C		fill/trash	4	LACMNH
3-2-3		1,2L,C		fill/trash	4	Maxwell
3-3-3		1,2L,C		fill/trash	100%	Maxwell
3-4-3 bag #1		1,2L,C		fill/trash	100%	Maxwell
3-4-3 bag #2		1,2L,C		fill/trash	100%	Maxwell
4-3-3 bag #1		1,3,7L?,C?	A/B	fill/roof fall/floor	4	LACMNH
4-3-3 bag #2		1,3,7L?,C?	A/B	fill/roof fall/floor	4	LACMNH
5-1-3		1,20C	B	fill/disturbed	4	Maxwell
5-2-3 bag #1		1,20C	B	fill/disturbed	4	Maxwell
5-2-3 bag #2		1,20C	B	fill/disturbed	4	LACMNH
5-2-3 bag #3		1,20C	B	fill/disturbed	4	LACMNH
5-1-4 bag #1		unscreened			no	Maxwell
5-1-4 bag #2		unscreened			no	Maxwell
5-1-4 bag #3		unscreened			no	LACMNH
5-2-5 bag #1		1,2,3,6,7L	A/B	fill/trash/roof/floor	4	Maxwell
5-2-5 bag #2		1,2,3,6,7L	A/B	fill/trash/roof/floor	4	Maxwell
5-2-5 bag #3		1,2,3,6,7L	A/B	fill/trash/roof/floor	4	Maxwell
5-2-5 bag #4		1,2,3,6,7L	A/B	fill/trash/roof/floor	4	LACMNH
5-3-7		20L,C		disturbed	no	LACMNH
5-3-7/1		20L,C		disturbed	flot	Maxwell
5-3-8		20L,C		disturbed	4	LACMNH
6-1-1 bag #1		unscreened			no	Maxwell

Table B.2. Provenience data for Galaz lots that contain faunal material (page 2 of 6).

Provenience	Use	Analytic Unit 1	A. U. 2	Context	Screen	Collection
6-1-1 bag #2		unscreened			no	Maxwell
6-2-1 bag #1		unscreened			no	Maxwell
6-2-1 bag #2		unscreened			no	Maxwell
6-2-1 bag #3		unscreened			no	Maxwell
6-1-3 bag #1		unscreened			no	Maxwell
6-1-3 bag #2		unscreened			no	LACMNH
6-1-3 bag #3		unscreened			no	LACMNH
6-1-3/15		unscreened			?	Maxwell
6-1-4/2	x	1L	D	fill	4	LACMNH
6-2-4	x	1L	D	fill	4	Maxwell
6-3-4 bag #1	x	1L	D	fill	4	Maxwell
6-3-4 bag #2	x	1L	D	fill	4	LACMNH
6-3-4/2		1L	D	fill	?	Maxwell
6-4-4	x	1L	D	fill	4	LACMNH
6-5-4	x	1L	C	fill	4	Maxwell
6-4-5		n/a				Maxwell
6-7-5 bag #1		3,7L	A	roof fall/floor	4	Maxwell
6-7-5 bag #2		3,7L	A	roof fall/floor	4	LACMNH
6-7-5 bag #3		3,7L	A	roof fall/floor	4	LACMNH
6-7-6		3L	B	roof fall	4	LACMNH
6-5-7		n/a				LACMNH
6-7-7 bag #1		3L	B	roof fall	4	Maxwell
6-7-7 bag #2		3L	B	roof fall	4	Maxwell
6-8-7		3,7L	A	roof fall/floor	4	Maxwell
6-7-8 bag #1		3L	B	roof fall	4	Maxwell
6-7-8 bag #2		3L	B	roof fall	4	LACMNH
6-8-8 bag #1		3,7L	A	roof fall/floor	4	Maxwell
6-8-8 bag #2		3,7L	A	roof fall/floor	4	Maxwell
6-8-9		3,7L	A	roof fall/floor	4	Maxwell
6-1-12/5		unscreened			4	LACMNH
6-7-12		3,7L	A	roof fall/floor	4	LACMNH
6-9-19P	x	8L	A	pit	4	Maxwell
10-3-2		1L,C	B	fill	4	LACMNH
10-3-3		1,20L,C	B	fill/disturbed	4	Maxwell
10-4-3		1,20L,C	B	fill/disturbed	4	Maxwell
10-5-4		1,3,20L	A	fill/roof fall/disturbed	4	Maxwell
10-6-4		20L		disturbed	4	LACMNH
11-1-1		unscreened			no	Maxwell
11-1-2		1,2L,C,A	D	fill/trash	4	Maxwell
11-4-2		1,2L,C,A	D	fill/trash	4 (75%)	Maxwell
11-5-2		1,2L,C,A	D	fill/trash	4 (75%)	LACMNH
11-6-2	*	1L,C	C	fill	4 (75%)	LACMNH
11-7-2	*	1L,C	C	fill	4 (85%)	Maxwell
11-2-4		unscreened			no	Maxwell
11-2-5		16L	C?	burial	100%	Maxwell
11-3-6 bag #1		1,4,5,7L,C	B	fill/roof/above floor/floor	4	Maxwell
11-3-6 bag #2		1,4,5,7L,C	B	fill/roof/above floor/floor	4	Maxwell
11-3-6 bag #3		1,4,5,7L,C	B	fill/roof/above floor/floor	4	LACMNH
11-4-11		13L	A	burial	?	Maxwell
11-4-12		8L	A	post hole	4	Maxwell
11-4-13		8L	A	post hole	4	LACMNH
11-4-14P		8L	A	post hole	100%	Maxwell
11-4-16		8L	A	post hole	4	Maxwell
12-1-2	*	1L	B	fill	4	Maxwell
12-2-2 bag #1	*	1L	B	fill	4	Maxwell

Table B.2. Provenience data for Galaz lots that contain faunal material (page 3 of 6).

Provenience	Use	Analytic Unit 1	A. U. 2	Context	Screen	Collection
12-2-2 bag #2	*	1L	B	fill	4	Maxwell
12-3-2		3,7L	A	roof fall/floor	4	Maxwell
12-3-2/3		3,7L	A	roof fall/floor	flot	Maxwell
12-3-2/4		3,7L	A	roof fall/floor	flot	Maxwell
12-3-2/5		3,7L	A	roof fall/floor	flot	LACMNH
12-3-2/6		3,7L	A	roof fall/floor	flot	Maxwell
12-4-3		unscreened			?	Maxwell
12-4-3/2		unscreened			flot	Maxwell
12-4-4		unscreened			?	Maxwell
13-1-1/1		20		disturbed	flot	Maxwell
13-1-2		20		disturbed	no	Maxwell
13-1-3 bag #1		20U		disturbed	4	Maxwell
13-1-3 bag #2		20U		disturbed	4	LACMNH
13-2-3 bag #1		20U		disturbed	4	Maxwell
13-2-3 bag #2		20U		disturbed	4	LACMNH
13-3-3		20U		disturbed	4	Maxwell
13-4-3		20U		disturbed	4	Maxwell
13-5-3		20U		disturbed	4	Maxwell
13-5-4 bag #1		n/a				Maxwell
13-5-4 bag #2		n/a				LACMNH
13-6-4P		12,20U		disturbed pit	4	Maxwell
13-6-5		2,12,20U		trash/disturbed pit	4	LACMNH
13-7-5P		2,12,20U		trash/disturbed pit	4	Maxwell
14-3-2		26L,C		outside fill	4	LACMNH
14-4-2		26L,C		outside fill	4	LACMNH
15-1-2 bag #1		unscreened			no	LACMNH
15-1-2 bag #2		unscreened			no	LACMNH
15-2-2		1,3L,C	C	fill/roof fall	4	LACMNH
15-3-2		3,7L	B	roof fall/floor	4	LACMNH
15-4-3		8L	B	post hole	4	LACMNH
15-4S-5		8L	B	post hole	4	LACMNH
15-1-6		unscreened			no	LACMNH
15-2-6 bag #1		3,7L	B	roof fall/floor	4	LACMNH
15-2-6 bag #2		3,7L	B	roof fall/floor	4	LACMNH
15-2F-6/3		3,7L	B	roof fall/floor	in situ	LACMNH
15-3S-6		18L	A	subfloor	4	LACMNH
15 bulldozer dirt bag #1		n/a				LACMNH
15 bulldozer dirt bag #2		n/a				LACMNH
16-1-1 bag #1		unscreened			no	LACMNH
16-1-1 bag #2		unscreened			no	LACMNH
16-1-1 bag #3		unscreened			no	LACMNH
16-2-2		1L,C		fill	4	LACMNH
16-3-2		1L,C		fill	4	LACMNH
16-4-2		1L,C		fill	4	LACMNH
16-5-2		1L,C		fill	4	LACMNH
16-6-2		1L,C		fill	4	LACMNH
16-1-3		unscreened			no	LACMNH
16-1-1 bag #1		unscreened			no	LACMNH
16-1-1 bag #2		unscreened			no	LACMNH
16-1-1 bag #3		unscreened			no	LACMNH
16-1-1 bag #4		unscreened			no	LACMNH
16-1-2 bag #1		unscreened			no	LACMNH
16-1-2 bag #2		unscreened			no	LACMNH
16-3-2		n/a				LACMNH
16-1-3 bag #1		unscreened			4	LACMNH

Table B.2. Provenience data for Galaz lots that contain faunal material (page 4 of 6).

Provenience	Use	Analytic Unit 1	A. U. 2	Context	Screen	Collection
18-1-3 bag #2		unscreened			4	LACMNH
18-2-3	x	1,2L,C	E	fill/trash	4	LACMNH
18-3-3 bag #1	x	1,2L,C	E	fill/trash	4	LACMNH
18-3-3 bag #2	x	1,2L,C	E	fill/trash	4	LACMNH
18-3-3 bag #3	*	1,2L,C	E	fill/trash	4	LACMNH
18-3-3 bag #4	*	1,2L,C	E	fill/trash	4	LACMNH
18-4-3 bag #1	x	1,2L,C	E	fill/trash	4	LACMNH
18-4-3 bag #2	*	1,2L,C	E	fill/trash	4	LACMNH
18-5-3	x	1L,C	D	fill	4	LACMNH
18-6-3		n/a				LACMNH
18-1-4 bag #1		unscreened			no	LACMNH
18-1-4 bag #2		unscreened			no	LACMNH
18-1-4 bag #3		unscreened			no	LACMNH
18-1-4 bag #4		unscreened			no	LACMNH
18-1-4 bag #5		unscreened			no	LACMNH
18-2-6R		3L	B	roof fall	4	LACMNH
18-6-6	x	1L,C	D	fill	4	LACMNH
18-7-9 bag #1		1,3L,C	C/D	fill/roof fall	4	LACMNH
18-7-9 bag #2		1,3L,C	C/D	fill/roof fall	4	LACMNH
18-8-9		1,3L,C	C/D	fill/roof fall	4	LACMNH
18-9-9	x	1L,C	D	fill	4	LACMNH
18-10-9 bag #1		3L	C	roof fall	4	LACMNH
18-10-9 bag #2		3L	C	roof fall	4	LACMNH
18-7-10	x	1L,C	D	fill	4	LACMNH
18-8-10	x	1L,C	D	fill	4	LACMNH
18-9-10 bag #1		3L	C	roof fall	4	LACMNH
18-9-10 bag #2		3L	C	roof fall	4	LACMNH
18-9-11		3L	C	roof fall	4	LACMNH
20-1-1 bag #1		a,b unscreened			no	LACMNH
20-1-1 bag #2		a,b unscreened			no	LACMNH
20-1-4 bag #1		a,b unscreened			no	LACMNH
20-1-4 bag #2		a,b unscreened			no	LACMNH
20-1-5		a,b1L,C,A	H	fill	4	LACMNH
20-2-5		a,b1L,C,A	H	fill	4	LACMNH
20-3-5		a,b1L,C,A	H	fill	4	LACMNH
20-4-6 bag #1		a1,2,20L,C	G	c.r. fill/trash/disturbed	4	LACMNH
20-4-6 bag #2		a1,2,20L,C	G	c.r. fill/trash/disturbed	4	LACMNH
20-5-6		a1,2,3,5,20L	F/G	c.r. fill/trash/roof fall/floor/dist.	?	LACMNH
20-6-6F		a1,2,3,5,20L	F/G	c.r. fill/trash/roof fall/floor/dist.	4	LACMNH
20-1-7		a unscreened			no	LACMNH
20-2-8		a1,2,20L,C	G	c.r. fill/trash/disturbed	4	LACMNH
20-3-8 bag #1		a1,2,20L,C	G	c.r. fill/trash/disturbed	4	LACMNH
20-3-8 bag #2		a1,2,20L,C	G	c.r. fill/trash/disturbed	4	LACMNH
22-1-1 bag #1		unscreened			no	LACMNH
22-1-1 bag #2		unscreened			no	LACMNH
22-1-1 bag #3		unscreened			no	LACMNH
24-1-1 bag #1		unscreened			no	LACMNH
24-1-1 bag #2		unscreened			no	LACMNH
25-1-1		unscreened			no	LACMNH
26-2-3	*	1L,C	D	fill	4	LACMNH
26-3-3	*	1L,C	D	fill	100%	LACMNH
26-4-3	*	1L,C	C	fill	4	LACMNH
26-5-3	*	1L,C	C	fill	4	LACMNH
26-1-4	*	1L,C	D	fill	4	LACMNH
26-2-4	*	1L,C	D	fill	4	LACMNH

Table B.2. Provenience data for Galaz lots that contain faunal material (page 5 of 6).

Provenience	Use	Analytic Unit 1	A. U. 2	Context	Screen	Collection
26-5-4	*	1L,C	C	fill	4	LACMNH
26-1-7		unscreened			no	LACMNH
27-1-1		a unscreened			no	LACMNH
27-3-2		a unscreened			no	LACMNH
27-1-3 bag #1		a unscreened			no	LACMNH
27-1-3 bag #2		a unscreened			no	LACMNH
27-1-4 bag #1		a unscreened			no	LACMNH
27-1-4 bag #2		a unscreened			no	LACMNH
27-1-4 bag #3		a unscreened			no	LACMNH
27-1-4/9		a unscreened			flot	LACMNH
27-1-5		a unscreened			no	LACMNH
27-1-6 bag #1		a unscreened			no	LACMNH
27-1-6 bag #2		a unscreened			no	LACMNH
27-1-7		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-2-7		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-3-7 bag #1		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-3-7 bag #2		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-4-7 bag #1	x	a1,2L,C	D	inner pithouse fill/trash	4	LACMNH
27-4-7 bag #2	*	a1,2L,C	D	inner pithouse fill/trash	4	LACMNH
27-1-8		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-2-8		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-3-8		a1,2L,C,A	E	inner pithouse fill/trash	4	LACMNH
27-4-8	x	a1,2L,C	D	inner pithouse fill/trash	4	LACMNH
27-5-11	*	a1,2L,C	D	inner pithouse fill/trash	4	LACMNH
27-1-18		b unscreened			no	LACMNH
28-1-2	x	b1,2L,C	C	fill/trash	4	LACMNH
28-2-2	x	b1,2L,C	C	fill/trash	4	LACMNH
28-3-2	x	b1,2L,C	C	fill/trash	4	LACMNH
28-4-2	x	b1L,C	B	fill	4	LACMNH
28-5-2	x	b1L,C	B	fill	4	LACMNH
28-1-4	x	b1,2L,C	C	fill/trash	4	LACMNH
28-2-4	x	b1,2L,C	C	fill/trash	4	LACMNH
28-3-4	x	b1,2L,C	C	fill/trash	4	LACMNH
28-4-4	x	b1,2L,C	C	fill/trash	4	LACMNH
28-4-4/5		n/a				LACMNH
28-5-4	x	b1L,C	B	fill	4	LACMNH
28-6-4	x	b1L,C	B	fill	4	LACMNH
28-1-7	x	b1,2L,C	C	fill/trash	4	LACMNH
28-2-7	x	b1,2L,C	C	fill/trash	4	LACMNH
28-3-7	x	b1,2L,C	C	fill/trash	4	LACMNH
28-4-7	x	b1L,C	B	fill	4	LACMNH
28-5-7 bag #1	x	b1L,C	B	fill	4	LACMNH
28-5-7 bag #2	x	b1L,C	B	fill	4	LACMNH
28-6-7 bag #1	x	b1L,C	B	fill	4	LACMNH
28-6-7 bag #2	x	b1L,C	B	fill	4	LACMNH
28-1-8		b unscreened			no	LACMNH
28-7-9		a4,L	B	activity area roof fall	4	LACMNH
28-8-9F		a4,6,7L	B	activity area roof fall/floor	4	LACMNH
28-2-11	*	b5L	B	above floor	4	LACMNH
29-3-14/8		1,2L,C	C	fill/trash	flot	LACMNH
29-6S-16H	x	8L	A	hearth (second use)	100%	LACMNH
29-6S-16H/2		8L	A	hearth (second use)	flot	LACMNH
29-6S-23B/7		13L	A	burial (first use)	flot	LACMNH
29-6S-32P		8L	A	post hole (second use)	4	LACMNH
40-6RF-6		2,3,6L,C	A/B	trash/roof fall/above floor	4	LACMNH

Table B.2. Provenience data for Galaz lots that contain faunal material (page 6 of 6).

Provenience	Use	Analytic Unit 1	A. U. 2	Context	Screen	Collection
41-1-1		unscreened			no	LACMNH
surface		n/a				Maxwell
unknown		n/a				Maxwell
unknown		n/a				LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 1 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
3-1-1				n/a		Maxwell
17-6-4				n/a		Maxwell
31-1-1		1C or 28C		inside or outside fill	none	Maxwell
31-2-2		1C or 28C		inside or outside fill	50%	Maxwell
31-3-2 bag #1		5C or 32C		above floor	100%	Maxwell
31-3-2 bag #2		5C or 32C		above floor	100%	Maxwell
31-4-2 bag #1		7C		floor	100%	Maxwell
31-4-2 bag #2		7C		floor	100%	Maxwell
41-1-1		a1,3 or 7C		a fill/roof fall/floor	4 (50%)	Maxwell
41-1-2		a20C		a disturbed	100%	Maxwell
41-1-3		a1,3 or 7C		a fill/roof fall/floor	100%	Maxwell
41-1-4 bag #1		a1C		a fill	4 (50%)	LACMNH
41-1-4 bag #2		a1C		a fill	4 (50%)	LACMNH
41-1-4 bag #3		a1C		a fill	4 (50%)	LACMNH
41-2RF-4 bag #1		a3 or 7C		a roof fall or floor	4 (50%)	LACMNH
41-2RF-4 bag #2		a3 or 7C		a roof fall or floor	4 (50%)	LACMNH
41-1-6 bag #1		n/a		surface fill	none	LACMNH
41-1-6 bag #2		n/a		surface fill	none	LACMNH
41-1-6		n/a		surface fill w/ roof fall	none	LACMNH
41-3S-7		n/a		subfloor	none	LACMNH
41-6S-7		a9C		a post-occ. pit	4	LACMNH
41-4S-10		a,b1,2C		a,b fill/trash	4 & 16	LACMNH
41-6S-10		a,b1,2C		a,b fill/trash	4	LACMNH
41-4S-11 bag #1		b5,8C		b above floor/pit fill	4 (50%)	LACMNH
41-4S-11 bag #2		b5,8C		b above floor/pit fill	4 (50%)	LACMNH
41-4S-11P		b5,8C		b above floor/pit fill	4 (50%)	LACMNH
41-4S-12P		b5C		b above floor	4 (50%)	LACMNH
41-4S-14		b5,8C		b above floor/pit fill	4	LACMNH
41-4S-14P		b5,8C		b above floor/pit fill	4	LACMNH
41-4S-15		b5C		b above floor	4	LACMNH
41-4S-16		b5C		b above floor	4	LACMNH
41-5S-16 bag #1		b5C		b above floor	4	LACMNH
41-5S-16 bag #2		b5C		b above floor	4	LACMNH
41-5S-16 bag #3		b5C		b above floor	4	LACMNH
41-4S-19 bag #1		20C		disturbed	4	LACMNH
41-4S-19 bag #2		20C		disturbed	4	LACMNH
41-5S-20 bag #1		b2,5C		b trash/above floor	4	LACMNH
41-5S-20 bag #2		b2,5C		b trash/above floor	4	LACMNH
41-5S-20 bag #3		b2,5C		b trash/above floor	4	LACMNH
41-5S-20 bag #4		b2,5C		b trash/above floor	4	LACMNH
41-5S-20 bag #5		b2,5C		b trash/above floor	4	LACMNH
41-5S-20P		b2,5C		b trash/above floor	4	LACMNH
41-4S-21		20C		disturbed	4	LACMNH
41-5S-21 bag #1		20C		disturbed	4	LACMNH
41-5S-21 bag #2		20C		disturbed	4	LACMNH
41-5S-21 bag #3		20C		disturbed	4	LACMNH
41-5S-21 bag #4		20C		disturbed	4	LACMNH
41-5S-21 bag #5		20C		disturbed	4	LACMNH
41-5S-21 bag #6		20C		disturbed	4	LACMNH
41-5S-21 bag #7		20C		disturbed	4	LACMNH
41-5S-21/5		20C		disturbed	flot	LACMNH
41-5S-21/15		20C		disturbed	?	Maxwell
41-5S-21/18		20C		disturbed	flot	LACMNH
41-5S-22		20C		disturbed	4	LACMNH
41-5S-22P		20C		disturbed	4	LACMNH
41-5S-23		b8C		b post hole	4	LACMNH
41-5S-23/2		b8C		b adobe	flot	LACMNH
41-5S-24P		b12C		b pit	4	LACMNH
41-5S-25P		20C		disturbed	4	LACMNH
41-5S-26 bag #1		b2,5,20C		b trash/above floor/dst.	4	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 2 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
41-6S-26 bag #2		b2.5.20C		b trash/above floor/dst.	4	LACMNH
41-6S-26SF		b2.5.20C		b trash/above floor/dst.	4	LACMNH
41-7S-26SF		n/a		subfloor	none	LACMNH
unknown (unit 41)						LACMNH
42-1-1				fill	none	LACMNH
51-1-1 bag #1		28C		outside fill	none	LACMNH
51-1-1 bag #2		28C		outside fill	none	LACMNH
51-2-2B		28L		extramural burial	16	LACMNH
52-1-1B		28U		extramural burial	16	LACMNH
54-2-2B		28C		extramural burial	16	LACMNH
54-2-3		28U		extramural burial	16	LACMNH
54-2-3/3		28U		extramural burial	flot	LACMNH
54-2-3B/2		28U		extramural burial	16	LACMNH
66-1-1 bag #1		20C		disturbed	50%	Maxwell
66-1-1 bag #2		20C		disturbed	50%	Maxwell
66-1-1 bag #3		20C		disturbed	50%	LACMNH
66-1-1H/5		8C?		hearth	flot	Maxwell
66-1-3		20C		disturbed	4 (50%)	Maxwell
71-1-1		28U		outside fill	none	LACMNH
80-1-1		a18C		burial	4	LACMNH
80-2-3	*	b5.6L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-2-4 bag #1	x	a6C	a80C 6	ramada above floor	4	LACMNH
80-2-4 bag #2	x	a6C	a80C 6	ramada above floor	4	LACMNH
80-2-4 bag #3	x	a6C	a80C 6	ramada above floor	4	LACMNH
80-2-4/21		a6C	a80C 6	ramada above floor	flot	LACMNH
80-2-4/42		a6C	a80C 6	ramada above floor	flot	LACMNH
80-3-7	*	b5L,C	b80L,C 5,6,8	pitthouse above floor	100%	LACMNH
80-3-8 bag #1	x	b6L,C	b80L,C 5,6,8	pitthouse above floor	4 (50%)	LACMNH
80-3-8 bag #2	*	b5L,C	b80L,C 5,6,8	pitthouse above floor	4 (50%)	LACMNH
80-3-8 bag #3	x	b6L,C	b80L,C 5,6,8	pitthouse above floor	4 (50%)	LACMNH
80-3-8/7		b5L,C	b80L,C 5,6,8	pitthouse above floor	flot	LACMNH
80-4-8 bag #1	x	b6L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-4-8 bag #2	x	b5L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-4-8 bag #3	*	b5L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-4-8 bag #4	x	b5L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-3-8 or 4-8	x	b5L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-5F-8 bag #1	x	b6L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-5F-8 bag #2	x	b6L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-5F-8 bag #3	*	b6L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-5F-8 bag #4	x	b6L,C	b80L,C 5,6,8	pitthouse above floor	4	LACMNH
80-2-10/3		a18C		burial	?	LACMNH
80-2-10B bag #1		a18C		burial	100%	LACMNH
80-2-10B bag #2		a18C		burial	100%	LACMNH
80-3-15		a11r18C or 8L,C		pit	flot	LACMNH
80-6S-16P		20L,C		disturbed	100%	LACMNH
80-5F-17P bag #1		a18C		burial	100%	LACMNH
80-5F-17P bag #2		a18C		burial	100%	LACMNH
80-5F-18H/1		b18L	b80L,C 5,6,8 ?	pitthouse subfloor	flot	LACMNH
100-1-1		20C		disturbed	4	Maxwell
100-2-1		20C		disturbed	4	Maxwell
100-3-2		20C		disturbed	4	LACMNH
100-4-2		20C		disturbed	4	LACMNH
100-1-3		20C		disturbed	4	LACMNH
100-2-3		20C		disturbed	4	LACMNH
100-3-3		20C		disturbed	4	LACMNH
100-2-4		20C		disturbed	4	Maxwell
100-4-5 bag #1		20C		disturbed	4	Maxwell
100-4-5 bag #2		20C		disturbed	4	Maxwell
101-1-1		20C		disturbed	none	Maxwell
105-1-1 bag #1		28C		outside fill	4 (50%)	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 3 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
105-1-1 bag #2		26C		outside fill	4 (50%)	Maxwell
105-1-2 bag #1		26C		outside fill	none	Maxwell
105-1-2 bag #2		26C		outside fill	none	Maxwell
105-2-2		26C		outside fill	4 (50%)	Maxwell
105-1-2	x	a1C	a108C 1	fill	50%	Maxwell
105-1-3 bag #1	x	a1C	a108C 1	fill	4	Maxwell
105-1-3 bag #2	x	a1C	a108C 1	fill	4	Maxwell
105-2-4 bag #1		a3C		roof fall	4	Maxwell
105-2-4 bag #2		a3C		roof fall	4	Maxwell
105-3-4		a3C		roof fall	4	Maxwell
105-6-4						Maxwell
105-3-5 bag #1		a3C		roof fall	4	Maxwell
105-3-5 bag #2		a3C		roof fall	4	Maxwell
105-(1-3)-7		a1,3C		fill/roof fall	4	Maxwell
105-4-8		b2,5C		trash/above floor	4	Maxwell
110-1-1		26C		outside fill	4	Maxwell
110-2-1		26C		outside fill	4	Maxwell
110-3-1 bag #1		26C		outside fill	4	Maxwell
110-3-1 bag #2		26C		outside fill	4	Maxwell
110-3-1 bag #3		26C		outside fill	4	Maxwell
110-4-1		26,32C		outside fill	4	Maxwell
110-4-3 bag #1		32C		outside fill	4	Maxwell
110-4-3 bag #2		32C		outside fill	4	Maxwell
110-5-4		32C		outside fill	4	LACMNH
110-1-5 bag #1		26,32C		outside fill	4	Maxwell
110-1-5 bag #2		26,32C		outside fill	4	Maxwell
110-1-5 bag #3		26,32C		outside fill	4	Maxwell
110-1-5 bag #4		26,32C		outside fill	4	Maxwell
110-1-5 bag #5		26,32C		outside fill	4	LACMNH
110-1-7 bag #1		26C		outside fill	4	Maxwell
110-1-7 bag #2		26C		outside fill	4	Maxwell
110-2-7 bag #1		26,32C		outside fill	4	Maxwell
110-2-7 bag #2		26,32C		outside fill	4	Maxwell
110-2-7 bag #3		26,32C		outside fill	4	Maxwell
110-2-7 bag #4		26,32C		outside fill	4	LACMNH
110-2-7 bag #5		26,32C		outside fill	4	LACMNH
110-2-7 bag #6		26,32C		outside fill	4	LACMNH
110-3-7 bag #1		32C		outside fill	4	Maxwell
110-3-7 bag #2		32C		outside fill	4	LACMNH
110-4-7/2		30C		outside pit	?	Maxwell
110-5-8		16C		subfloor	none	LACMNH
111-1-1 bag #1		1C		fill	none	Maxwell
111-1-1 bag #2		1C		fill	none	Maxwell
111-2-1		1,4C		fill/roof fall	none	Maxwell
111-1-3	x	1C	111C 1	fill	100%	LACMNH
111-2-3	x	1C	111C 1	fill	4	Maxwell
111-3-3 bag #1		1,4C		fill/roof fall	4	Maxwell
111-3-3 bag #2		1,4C		fill/roof fall	4	LACMNH
111-1-4 bag # 1	x	1C	111C 1	fill	4 (50%)	Maxwell
111-1-4 bag # 2	*	1C	111C 1	fill	4 (50%)	Maxwell
111-2-4						Maxwell
111-2-5	x	1C	111C 1	fill	4	Maxwell
111-2-6	x	1C	111C 1	fill	4	Maxwell
111-3-7 bag #1		1,4C		fill/roof fall	4	Maxwell
111-3-7 bag #2		1,4C		fill/roof fall	4	Maxwell
111-3-7 bag #3		1,4C		fill/roof fall	4	Maxwell
111-3-7 bag #4		1,4C		fill/roof fall	4	Maxwell
111-4-7		4,5C		roof fall/above floor	4 (50%)	Maxwell
111-3-8 bag #1		4C		roof fall	4	Maxwell
111-3-8 bag #2		4C		roof fall	4	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 4 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
111-3-8 bag #3		4C		roof fall	4	LACMNH
111-4-9	x	8C	n/a (hearth)	hearth	4	Maxwell
111-4-11 bag #1		18C		subfloor	none	Maxwell
111-4-11 bag #2		18C		subfloor	none	Maxwell
111-5-14		8C		post hole	4	Maxwell
112-1-1		1C		fill	none	Maxwell
112-1-3		1,3C		fill/roof fall	none	LACMNH
112-1-4	x	1C	112C 1	fill	100%	Maxwell
112-2-4	x	1C	112C 1	fill	100%	LACMNH
112-3-4		1,3C		fill/roof fall	100%	LACMNH
112-4-4 bag #1		3C		roof fall	100%	Maxwell
112-4-4 bag #2		3C		roof fall	100%	Maxwell
112-1-5						Maxwell
112-5-5		20C		disturbed	100%	Maxwell
113-1-1	x	1C	113C 1,4	fill	4	Maxwell
113-2-1		1,4C		fill/roof fall	4	Maxwell
113-3-1		4C		roof fall	4	Maxwell
113-4-1 bag #1		4C		roof fall	4	Maxwell
113-4-1 bag #2		4C		roof fall	4	Maxwell
113-5-9		8C	n/a (hearth)	hearth	flot	Maxwell
114-1-2	x	a1C	a114C 1,4	a fill	4	Maxwell
114-2-2		a1,4C		a fill/roof fall	4	Maxwell
114-3-2 bag #1		a4C		a roof fall	4	LACMNH
114-3-2 bag #2		a4C		a roof fall	4	LACMNH
114-3-2/8		a4C		a roof fall	4	LACMNH
114-4-2 bag #1	x	b5C	b114C 5,14	b above floor	4	Maxwell
114-4-2 bag #2	*	b5C	b114C 5,14	b above floor	4	Maxwell
114-4-2/13		b5C	b114C 5,14	b above floor	flot	Maxwell
114-3-3 bag #1		a4C,b5C,20C		a roof fall/above floor/dist.	4	LACMNH
114-3-3 bag #2		a4C,b5C,20C		a roof fall/above floor/dist.	4	LACMNH
114-4-4	*	a8C	n/a (hearth)	a hearth	4	LACMNH
115-1-4 bag #1	*	a1C	a115C 1,2,4	a fill	4	Maxwell
115-1-4 bag #2	x	a1C	a115C 1,2,4	a fill	4	Maxwell
115-2-5	x	a1,2C	a115C 1,2,4	a fill/trash	4	Maxwell
115-3-5 bag #1		a2,4C		a trash/roof fall	4	Maxwell
115-3-5 bag #2		a2,4C		a trash/roof fall	4	Maxwell
115-3-5 bag #3		a2,4C		a trash/roof fall	4	Maxwell
115-4-5 bag #1		a4C		a roof fall	4	Maxwell
115-4-5 bag #2		a4C		a roof fall	4	Maxwell
115-4-5 bag #3		a4C		a roof fall	4	Maxwell
115-4-5 bag #4		a4C		a roof fall	4	LACMNH
115-5-6 bag #1		a14C or 20C		burial	4	LACMNH
115-5-6 bag #2		a14C or 20C		burial	4	LACMNH
115-5-7		a8C		a post hole	4	Maxwell
115-4-8						Maxwell
115-5-9		a8C		a pit?	4	LACMNH
115-2-10 bag #1		a1,2,4C		a fill/trash/roof fall	4	Maxwell
115-2-10 bag #2		a1,2,4C		a fill/trash/roof fall	4	LACMNH
115-3-10		a4C		a roof fall	4	LACMNH
115-4-10 bag #1		a4C		a roof fall	4	Maxwell
115-4-10 bag #2		a4C		a roof fall	4	LACMNH
115-4-10 bag #3		a4C		a roof fall	4	LACMNH
115-6-13		a14C		burial	4	LACMNH
115-6-15		20C		disturbed	4 (50%)	LACMNH
115-6-16 bag #1		a8C		post hole	4	LACMNH
115-6-16 bag #2		a8C		post hole	4	LACMNH
115-6-17 bag #1	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH
115-6-17 bag #2	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH
115-6-17 bag #3	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH
115-6-17 bag #4	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 5 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
115-7-17 bag #1	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH
115-7-17 bag #2	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH
115-7-17/2		b2,5C	b115C 2,5	b trash/above floor	?	LACMNH
115-8-17	x	b2,5C	b115C 2,5	b trash/above floor	4	LACMNH
115-8-17		b3,5C		b roof fall/above floor	4	LACMNH
115-8-18		a9C,b2,5C		a post hole/b trash/roof	4	LACMNH
115-8-19		a18C		subfloor	4	LACMNH
116-3-2	x	1C	116C 1	fill	4 (25%)	Maxwell
116-3-3	*	1C	116C 1	fill	4	Maxwell
116-3-3	x	1C	116C 1	fill	4	Maxwell
116-1-4	x	1C	116C 1	fill	4	Maxwell
116-3-4 bag #1	x	1C	116C 1	fill	4	Maxwell
116-3-4 bag #2	*	1C	116C 1	fill	4	Maxwell
116-4-5		3C		roof fall	4	Maxwell
116-4-6/1		20C		disturbed	not?	Maxwell
116-1-7 bag #1	x	1C	116C 1	fill	4	Maxwell
116-1-7 bag #2	*	1C	116C 1	fill	4	Maxwell
116-1-7 bag #3	x	1C	116C 1	fill	4	Maxwell
116-2-7 bag #1	x	1C	116C 1	fill	4	Maxwell
116-2-7 bag #2	x	1C	116C 1	fill	4	Maxwell
116-2-7 bag #3	*	1C	116C 1	fill	4	Maxwell
116-2-7 bag #4	x	1C	116C 1	fill	4	Maxwell
116-2-7 bag #5	*	1C	116C 1	fill	4	LACMNH
116-2-7/8		1C	116C 1	fill	not	Maxwell
116-3-7 bag #1	x	1C	116C 1	fill	100%	Maxwell
116-3-7 bag #2	x	1C	116C 1	fill	100%	LACMNH
116-4-8 bag #1		3C		roof fall	4	Maxwell
116-4-8 bag #2		3C		roof fall	4	Maxwell
116-5-8 bag #1		18C		subfloor	4	Maxwell
116-5-8 bag #2		18C		subfloor	4	Maxwell
116-5-9	*	8C	n/a (hearth)	hearth	4	Maxwell
116-5-9/1H		8C	n/a (hearth)	hearth	not	LACMNH
116-5-10 bag #1		20C		disturbed	4	Maxwell
116-5-10 bag #2		20C		disturbed	4	Maxwell
116-5-12		8C		post hole	4	Maxwell
116-5-18		8C		post hole	4	Maxwell
116-5-19 bag #1		20C		disturbed	4	Maxwell
116-5-19 bag #2		20C		disturbed	4	Maxwell
119-1-1 bag #1		1,5,20C		fill/above floor/dist.	none	Maxwell
119-1-1 bag #2		1,5,20C		fill/above floor/dist.	none	Maxwell
119-2-2	*	1C	118C 1	fill	4 (50%)	Maxwell
119-3-2/3	x	5C	118C 5,8	above floor	4 (50%)	Maxwell
120-1-1		20C		disturbed	4 (50%)	Maxwell
120-1-2 bag #1		20C		disturbed	4 (50-100%)	Maxwell
120-1-2 bag #2		20C		disturbed	4 (50-100%)	Maxwell
120-2-3		20C		disturbed	4	Maxwell
120-3-3		20C		disturbed	4	Maxwell
120-1-4		20C		disturbed	4	Maxwell
120-4-5 bag #1		20C		disturbed	4	Maxwell
120-4-5 bag #2		20C		disturbed	4	Maxwell
120-4-5 bag #3		20C		disturbed	4	Maxwell
120-5-6/1		8,20C		p/disturbed	not	Maxwell
120-5-7		8,20C		p/disturbed	100%	Maxwell
121-2-1 bag #1	x	1,6C	a121/130C 1,8	fill/above floor	50%	Maxwell
121-2-1 bag #2	x	1,6C	a121/130C 1,8	fill/above floor	50%	Maxwell
121-2-1 bag #3	x	1,6C	a121/130C 1,8	fill/above floor	50%	Maxwell
121-1-3 bag #1	*	1C	a121/131C 1	fill	4	Maxwell
121-1-3 bag #2	*	1C	a121/131C 1	fill	4	Maxwell
121-1-3 bag #3	x	1C	a121/131C 1	fill	4	Maxwell
121-2-3 bag #1	x	6C	a121/131C 5,6,7,8	above floor	4	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 6 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
121-2-3 bag #2	°	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
121-2-3 bag #3	x	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
121-2-3 bag #4	°	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
121-2-3 bag #5	x	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
121-2-3 bag #6	°	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
121-2-3 bag #7	x	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
121-3-3 bag #1	x	7C	a121/131C 5,6,7,8	floor	4	Maxwell
121-3-3 bag #2	x	7C	a121/131C 5,6,7,8	floor	4	Maxwell
121-4-3 bag #1		7,18C		floor/subfloor	4 (10%)	Maxwell
121-4-3 bag #2		7,18C		floor/subfloor	4 (10%)	Maxwell
121-3-4	x	7C	a121/131C 5,6,7,8	floor	4 (25%)	Maxwell
121-3-7 bag #1		20C		disturbed	4	Maxwell
121-3-7 bag #2		20C		disturbed	4	Maxwell
121-3-7 bag #3		20C		disturbed	4	Maxwell
121-4-7 bag #1		20C		disturbed	4	Maxwell
121-4-7 bag #2		20C		disturbed	4	Maxwell
121-3-8/1		8C	n/a (hearth)	hearth	lot	Maxwell
121-3-8/3		8C	n/a (hearth)	hearth	lot	Maxwell
121-4-8/2		8C		post-hole	lot	Maxwell
122-1-1		20C		disturbed	none	Maxwell
122-1-1/3		20C		disturbed	?	Maxwell
122-1-2		20C		disturbed	50%	Maxwell
122-2-2 bag #1		20C		disturbed	4 (50%)	Maxwell
122-2-2 bag #2		20C		disturbed	4 (50%)	Maxwell
122-3-2		20C		disturbed	4 (50%)	Maxwell
122-2-3		20C		disturbed	4 (50%)	LACMNH
122-3-3 bag #1		20C		disturbed	50%	Maxwell
122-3-3 bag #2		20C		disturbed	50%	Maxwell
122-4-3		20C		disturbed	4	Maxwell
123-1-1 bag #1		20C		disturbed	4	Maxwell
123-1-1 bag #2		20C		disturbed	4	Maxwell
123-1-1 bag #3		20C		disturbed	4	Maxwell
123-1-3 bag #1		20C		disturbed	4	Maxwell
123-1-3 bag #2		20C		disturbed	4	Maxwell
123-2-3 bag #1		20C		disturbed	4	Maxwell
123-2-3 bag #2		20C		disturbed	4	Maxwell
123-3-3		20C		disturbed	4	Maxwell
123-4-3 bag #1		20C		disturbed	4	Maxwell
123-4-3 bag #2		20C		disturbed	4	Maxwell
123-4-3 bag #3		20C		disturbed	lot	Maxwell
123-4-3 bag #4		20C		disturbed	4	Maxwell
123-4-3/2		20C		disturbed	?	Maxwell
123-5-3 bag #1		20C		disturbed	4	Maxwell
123-5-3 bag #2		20C		disturbed	4	Maxwell
123-5-3 bag #3		20C		disturbed	4	LACMNH
125-1-2 bag #1		20C		disturbed	50%	Maxwell
125-1-2 bag #2		20C		disturbed	50%	Maxwell
125-1-2 bag #3		20C		disturbed	50%	Maxwell
125-3-3 bag #1		20C		disturbed	100%	Maxwell
125-3-3 bag #2		20C		disturbed	100%	Maxwell
125-4-3		20C		disturbed	50%	Maxwell
125-1-4		20C		disturbed	50%	Maxwell
125-2-4		20C		disturbed	100%	Maxwell
125-3-5		20C		disturbed	50%	Maxwell
126-1-2		20C		disturbed	4 (50%)	Maxwell
126-1-3		20C		disturbed	4 (25%)	Maxwell
126-2-3		20C		disturbed	4 (50%)	Maxwell
126-3-3 bag #1		20C		disturbed	4	Maxwell
126-3-3 bag #2		20C		disturbed	4	Maxwell
126-3-3/4		20C		disturbed	lot	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 7 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Contact	Screen	Collection
128-4-3 bag #1		20C		disturbed	4	Maxwell
128-4-3 bag #2		20C		disturbed	4	Maxwell
128-1-4 bag #1		20C		disturbed	4 (50%)	Maxwell
128-1-4 bag #2		20C		disturbed	4 (50%)	Maxwell
128-2-4 bag #1		20C		disturbed	4 (50%)	Maxwell
128-2-4 bag #2		20C		disturbed	4 (50%)	Maxwell
128-3-4		20C		disturbed	4	Maxwell
128-4-6 bag #1		20C		disturbed	4	Maxwell
128-4-6 bag #2		20C		disturbed	4	Maxwell
128-4-6 bag #3		20C		disturbed	4	LACMNH
128-2-7		20C		disturbed	100%	Maxwell
128-5-8		20C		disturbed	100%	Maxwell
128-5-8F bag #1		20C		disturbed	100%	Maxwell
128-5-8F bag #2		20C		disturbed	100%	LACMNH
128-5-9		20C		disturbed	100%	Maxwell
127-2-2		20C		disturbed	100%	Maxwell
127-2-3 bag #1		20C		disturbed	100%	Maxwell
127-2-3 bag #2		20C		disturbed	100%	Maxwell
127-2-3 bag #3		20C		disturbed	100%	Maxwell
127-4-3		20C		disturbed	100%	Maxwell
127-5-3		n/a		floor to sterile	100%	Maxwell
127-5-4/1B		13C		plain ware bowl in burial	?	Maxwell
128-1-1		28C		outside fill	50%	Maxwell
128-1-2		28C		outside fill	none	Maxwell
128-1-5		28C		outside fill	none	Maxwell
129-1-1				extramural fill?	none	Maxwell
130-1-1	x	1,6C	a121/130C 1,6	fill/above floor	4 (25%)	Maxwell
131-1-1		1C		fill	none	Maxwell
131-2-1	°	15C	a121/131C 5,6,7,8	above floor	4 (75%)	Maxwell
131-1-2	°	1,5C	a131C 1,5	fill/above floor	4 (50%)	Maxwell
131-1-3	°	1C	a121/131C 1	fill	4	Maxwell
131-2-4 bag #1	°	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
131-2-4 bag #2	°	6C	a121/131C 5,6,7,8	above floor	4	Maxwell
134-1-1/2		1,20C		ash deposit under 134?	flot	Maxwell
137-1-2 bag #1		20C		disturbed	4 (partial)	Maxwell
137-1-2 bag #2		20C		disturbed	4 (partial)	Maxwell
137-1-3 bag #1		20C		disturbed	4	Maxwell
137-1-3 bag #2		20C		disturbed	4	Maxwell
137-1-4		20C		disturbed	4 (50%)	Maxwell
137-2-4		20C		disturbed	4 (50%)	Maxwell
137-3-5 bag #1		20C		disturbed	50%	Maxwell
137-3-5 bag #2		20C		disturbed	50%	Maxwell
141-1-1 bag #1		28C		outside fill	none	LACMNH
141-1-1 bag #2		28C		outside fill	none	LACMNH
141-2-2	x	30C	141C 30	outside pit	4	LACMNH
141-3-2 bag #1	x	30C	141C 30	outside pit	4	LACMNH
141-3-2 bag #2	°	30C	141C 30	outside pit	4	LACMNH
141-4-2	x	30C	141C 30	outside pit	4	LACMNH
150-1-3 bag #1		28C		outside fill	none	LACMNH
150-1-3 bag #2		28C		outside fill	none	LACMNH
151-1-1		28C		outside fill	none	LACMNH
200-1-1		20C		disturbed	4	Maxwell
200-2-1 bag #1		20C		disturbed	4	Maxwell
200-2-1 bag #2		20C		disturbed	4	LACMNH
200-2-1 bag #3		20C		disturbed	4	LACMNH
200-3-1		20C		disturbed	4	Maxwell
201-1-1 bag #1		20C		disturbed	4	Maxwell
201-1-1 bag #2		20C		disturbed	4	Maxwell
208-4-6				n/a		LACMNH
210-1-1 bag #1		28C		outside fill	4	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 8 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Contact	Screen	Collection
210-1-1 bag #2		28C		outside fill	4	LACMNH
210-1-1 bag #3		28C		outside fill	4	LACMNH
210-2-1		18C		subfloor	4	Maxwell
210-3-1		18C		subfloor	4	Maxwell
210-1-3		1C or 2C		fill or trash	4	LACMNH
210-2-3 bag #1		28C		outside fill	4 (50%)	Maxwell
210-2-3 bag #2		28C		outside fill	4 (50%)	Maxwell
210-2-3 bag #3		28C		outside fill	4 (50%)	Maxwell
210-3-3		28C		outside fill	none	Maxwell
213-1-1 bag #1		1L or C & H		fill	none	Maxwell
213-1-1 bag #2		1L or C & H		fill	none	Maxwell
213-2-1 bag #1		1L or C & H		fill	none	Maxwell
213-2-1 bag #2		1L or C & H		fill	none	Maxwell
213-1-2		1L or C & H		fill	none	Maxwell
213-3-2		1L or C		fill	none	Maxwell
213-4-3		1L or C		fill	partial	Maxwell
213-7-3				n/a		Maxwell
213-2-5		1L or C		fill	100%	Maxwell
213-3-5		1L or C		fill	100%	Maxwell
213-4-5 bag #1		1L or C		fill	100%	Maxwell
213-4-5 bag #2		1L or C		fill	100%	Maxwell
213-5-5		1L or C		fill	100%	Maxwell
213-5-5/1		1L or C		fill	?	Maxwell
213-6-5		1L or C		fill	100%	Maxwell
213-6-5		1,3L		fill/roof fall	100%	Maxwell
220-1-1 bag #1		20C		disturbed	4	Maxwell
220-1-1 bag #2		20C		disturbed	4	Maxwell
220-2-1 bag #1		20C		disturbed	4	Maxwell
220-2-1 bag #2		20C		disturbed	4	LACMNH
220-3-1		20C		disturbed	4	LACMNH
220-1-2 bag #1		20C		disturbed	4	Maxwell
220-1-2 bag #2		20C		disturbed	4	LACMNH
220-2-2		20C		disturbed	4	LACMNH
220-3-2		20C		disturbed	4	Maxwell
220-1-3 bag #1		20C		disturbed	4	Maxwell
220-1-3 bag #2		20C		disturbed	4	Maxwell
220-1-3 bag #3		20C		disturbed	4	Maxwell
220-2-3 bag #1		20C		disturbed	4	Maxwell
220-2-3 bag #2		20C		disturbed	4	Maxwell
220-2-3 bag #3		20C		disturbed	4	Maxwell
220-2-3 bag #4		20C		disturbed	4	Maxwell
220-2-3 bag #5		20C		disturbed	4	LACMNH
220-3-3 bag #1		20C		disturbed	4	Maxwell
220-3-3 bag #2		20C		disturbed	4	Maxwell
220-3-3 bag #3		20C		disturbed	4	LACMNH
220-1-4		n/a		surface	none	LACMNH
220-5-5		20C		disturbed	4	Maxwell
220-2-6 bag #1		20C		disturbed	4	Maxwell
220-2-6 bag #2		20C		disturbed	4	Maxwell
220-2-6/2		20C		disturbed	4	LACMNH
220-3-6 bag #1		20C		disturbed	4	Maxwell
220-3-6 bag #2		20C		disturbed	4	Maxwell
220-5-6		20C		disturbed	4	Maxwell
220-7-6 bag #1		20C		disturbed	4	Maxwell
220-7-6 bag #2		20C		disturbed	4	Maxwell
220-8-6 bag #1		20C		disturbed	4	Maxwell
220-8-6 bag #2		20C		disturbed	4	Maxwell
220-8-6 bag #3		20C		disturbed	4	LACMNH
220-9-6		20C		disturbed	4	LACMNH
220-10-10		8C		feature in bedrock	4	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 9 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Contact	Screen	Collection
220-1-12		n/a		surface	none	Maxwell
225-1-1		1,5C		fill/above floor	none	Maxwell
225-1-2 bag #1	x	1C	225C 1,5	fill	4	Maxwell
225-1-2 bag #2	x	1C	225C 1,5	fill	4	Maxwell
225-1-2 bag #3	*	1C	225C 1,5	fill	4	LACMNH
225-1-2/1	*	1C	225C 1,5	fill	4	LACMNH
225-2-2 bag #1	x	5C	225C 1,5	above floor	4	Maxwell
225-2-2 bag #2	x	5C	225C 1,5	above floor	4	Maxwell
225-2-2 bag #3	x	5C	225C 1,5	above floor	4	Maxwell
225-2-2 bag #4	*	5C	225C 1,5	above floor	4	Maxwell
225-2-2/7	*	5C	225C 1,5	above floor	4	LACMNH
225 Floor 9.35				n/a		Maxwell
226-1-1 bag #1		n/a		room?	none	Maxwell
226-1-1 bag #2		n/a		room?	none	Maxwell
226-1-1 bag #3		n/a		room?	none	Maxwell
226-1-2 bag #1		1,20C		fill/disturbed	4	Maxwell
226-1-2 bag #2		1,20C		fill/disturbed	4	Maxwell
226-1-2 bag #3		1,20C		fill/disturbed	4	Maxwell
226-1-2 bag #4		1,20C		fill/disturbed	4	Maxwell
226-1-2 bag #5		1,20C		fill/disturbed	4	LACMNH
226-1-2/2		1,20C		fill/disturbed	4	Maxwell
226-1-2/12		1,20C		fill/disturbed	?	Maxwell
226-2-2				n/a		Maxwell
226-1-3		n/a		fill or trash	none	LACMNH
226-3-3		5C		above floor	4	LACMNH
226-3-3/1		5C		above floor	?	LACMNH
231-1-1 bag #1				roof fall or pot hole?	none	Maxwell
231-1-1 bag #2				roof fall or pot hole?	none	Maxwell
231-1-1 bag #3				roof fall or pot hole?	none	LACMNH
231-1-1 bag #4				roof fall or pot hole?	none	LACMNH
231-1-2 bag #1				room fill or pot hole	none	Maxwell
231-1-2 bag #2				room fill or pot hole	none	Maxwell
231-1-3 bag #1				room fill	4 (50%)	Maxwell
231-1-3 bag #2				room fill	4 (50%)	Maxwell
231-2-3 bag #1				room fill	4 (50%)	Maxwell
231-2-3 bag #2				room fill	4 (50%)	Maxwell
231-3-3 bag #1				room fill	4	Maxwell
231-3-3 bag #2				room fill	4	Maxwell
231-3-3 bag #3				room fill	4	LACMNH
231-4-3				subfloor fill	4	Maxwell
232-1-1		20C		disturbed	4 (50%)	Maxwell
232-3-1		20C		disturbed	none	Maxwell
232-3-1/4		20C		disturbed	flot	Maxwell
232-3-1/6		20C		disturbed	flot	LACMNH
232-3-1/13		20C		disturbed	?	Maxwell
232-2-3				n/a		Maxwell
232-4-4		8C		ash pit	none	Maxwell
232-4-5/1		8C		subfloor ash pit	flot	LACMNH
233-1-1		1,2C		fill/trash	none	LACMNH
233-2-1				n/a		LACMNH
233-1-2		3,6C		roof fall/pit in adobe floor	4	Maxwell
233-1-3		1,2C		fill/trash	none	LACMNH
233-1-6 bag #1		20C?		disturbed	4	Maxwell
233-1-6 bag #2		20C?		disturbed	4	LACMNH
233-1-6 bag #3		20C?		disturbed	4	LACMNH
233-2-6 bag #1	*	1,2C	233C 1,2	fill/trash	4	Maxwell
233-2-6 bag #2	x	1,2C	233C 1,2	fill/trash	4	Maxwell
233-2-6 bag #3	*	1,2C	233C 1,2	fill/trash	4	Maxwell
233-2-6 bag #4	x	1,2C	233C 1,2	fill/trash	4	LACMNH
233-2-6/2		1,2C		fill/trash	?	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 10 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
233-3-6 bag #1	x	1,2C	233C 1,2	fill/trash	4	Maxwell
233-3-6 bag #2	x	1,2C	233C 1,2	fill/trash	4	Maxwell
233-3-6 bag #3	x	1,2C	233C 1,2	fill/trash	4	LACMNH
233-4-6 bag #1		3C		roof fall	4	Maxwell
233-4-6 bag #2		3C		roof fall	4	Maxwell
233-4-6 bag #3		3C		roof fall	4	Maxwell
233-4-6 bag #4		3C		roof fall	4	Maxwell
233-4-6/16		3C		roof fall	lot	Maxwell
233-5-6 bag #1		18C		subfloor	none	Maxwell
233-5-6 bag #2		18C		subfloor	none	Maxwell
235-1-1 bag #1		20C		disturbed	none	Maxwell
235-1-1 bag #2		20C		disturbed	none	Maxwell
235-1-1 bag #3		20C		disturbed	none	LACMNH
235-2-1 bag #1		20C		disturbed	none	Maxwell
235-2-1 bag #2		20C		disturbed	none	Maxwell
235-3-3 bag #1		20C		disturbed	75%	Maxwell
235-3-3 bag #2		20C		disturbed	75%	Maxwell
235-1-4		20C		disturbed	none	Maxwell
236-1-1		20C		disturbed	none	Maxwell
236-2-1 bag #1		20C		disturbed	16	Maxwell
236-2-1 bag #2		20C		disturbed	16	Maxwell
236-2-1 bag #3		20C		disturbed	16	Maxwell
236-4-2/1				n/a	lot	Maxwell
236-1-3		20C		disturbed	none	Maxwell
236-2-3		5C	236C 5,18,20	above floor	4 & 16	Maxwell
236-1-4 bag #1		20C		disturbed	none	Maxwell
236-1-4 bag #2		20C		disturbed	none	Maxwell
236-1-4 bag #3		20C		disturbed	none	Maxwell
236-1-4/1		20C		disturbed	lot	Maxwell
236-1-5		20C		disturbed	4	Maxwell
236-2-5	*	5C	236C 5,18,20	above floor	4	Maxwell
236-2-5/2		5C	236C 5,18,20	above floor	lot	Maxwell
236-3-5		18C		subfloor	4	LACMNH
237-1-1 bag #1	x	1C	237C 1,3,18,20	fill	100%	Maxwell
237-1-1 bag #2	x	1C	237C 1,3,18,20	fill	100%	Maxwell
237-1-1 bag #3	x	1C	237C 1,3,18,20	fill	100%	Maxwell
237-1-1 bag #4	*	1C	237C 1,3,18,20	fill	100%	Maxwell
237-1-1 bag #5	x	1C	237C 1,3,18,20	fill	100%	Maxwell
237-1-1 bag #6	x	1C	237C 1,3,18,20	fill	100%	Maxwell
237-2-1 bag #1		1,3C		fill/roof fall	100%	Maxwell
237-2-1 bag #2		1,3C		fill/roof fall	100%	Maxwell
237-2-1 bag #3		1,3C		fill/roof fall	100%	Maxwell
237-2-1 bag #4		1,3C		fill/roof fall	100%	LACMNH
237-2-1/18		1,3C		fill/roof fall	?	Maxwell
237-2-2 bag #1		1,3C		fill/roof fall	none	Maxwell
237-2-2 bag #2		1,3C		fill/roof fall	none	Maxwell
237-2-2 bag #3		1,3C		fill/roof fall	none	Maxwell
237-2-2 bag #4		1,3C		fill/roof fall	none	Maxwell
237-2-2 bag #5		1,3C		fill/roof fall	none	Maxwell
237-2-2 bag #6		1,3C		fill/roof fall	none	LACMNH
237-1-3 bag #1		20C		disturbed	100%	Maxwell
237-1-3 bag #2		20C		disturbed	100%	Maxwell
237-3-3 bag #1		20C		disturbed	100%	Maxwell
237-3-3 bag #2		20C		disturbed	100%	Maxwell
237-4-3 bag #1		20C		disturbed	100%	LACMNH
237-4-3 bag #2		20C		disturbed	100%	LACMNH
237-4-3/2		20C		disturbed	?	LACMNH
237-5-4		1,3,20C		fill/roof fall/disturbed	100%	Maxwell
237-6-4 bag #1		3,20C		roof fall/disturbed	100%	Maxwell
237-6-4 bag #2		3,20C		roof fall/disturbed	100%	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 11 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Contact	Screen	Collection
237-6-4 bag #3		3,20C		roof fall/disturbed	100%	Maxwell
237-6-4 bag #4		3,20C		roof fall/disturbed	100%	Maxwell
237-7-4 bag #1		18C		subfloor	100%	Maxwell
237-7-4 bag #2		18C		subfloor	100%	Maxwell
237-7-4 bag #3		18C		subfloor	100%	Maxwell
237-7-4 bag #4		18C		subfloor	100%	Maxwell
237-7-4 bag #5		18C		subfloor	100%	Maxwell
237-7-4 bag #6		18C		subfloor	100%	Maxwell
237-7-4 bag #7		18C		subfloor	100%	LACMNH
237-7-7		20C		disturbed	none	Maxwell
237-1-8		1,3C		fill/roof fall	none	Maxwell
237-1-9 bag #1		1,3C		fill/roof fall	none	Maxwell
237-1-9 bag #2		1,3C		fill/roof fall	none	Maxwell
237-8-10		18C		subfloor	none	Maxwell
276-1-1 bag #1				fill	none	LACMNH
276-1-1 bag #2				fill	none	LACMNH
280-1-2				unknown	none	LACMNH
281-1-1				fill	none	LACMNH
282-1-1		20C		disturbed	none	LACMNH
286-2-1 bag #1	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-2-1 bag #2	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-1-3 bag #1		a1,2,b1,2,3C,L		a fill/trash/b fill/trash/roof	50%	LACMNH
286-1-3 bag #2		a1,2,b1,2,3C,L		a fill/trash/b fill/trash/roof	50%	LACMNH
286-1-3 bag #3		a1,2,b1,2,3C,L		a fill/trash/b fill/trash/roof	50%	LACMNH
286-1-3 bag #4		a1,2,b1,2,3C,L		a fill/trash/b fill/trash/roof	50%	LACMNH
286-1-4 bag #1	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-1-4 bag #2	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-1-4 bag #3	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-2-4 bag #1	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-2-4 bag #2	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-2-4 bag #3	x	b1C,L	b286C,L 1	b fill	100%	LACMNH
286-3RF-4 bag #1		b3C,L		b roof fall	100%	LACMNH
286-3RF-4 bag #2		b3C,L		b roof fall	100%	LACMNH
286-3RF-4 bag #3		b3C,L		b roof fall	100%	LACMNH
286-3RF-4 bag #4		b3C,L		b roof fall	100%	LACMNH
286-3RF-4 bag #5		b3C,L		b roof fall	100%	LACMNH
286-4F-4		b3,7C,L		b roof fall/floor	100%	LACMNH
286-1-6 bag #1	x	a1,2C,L	a286C,L 1,2	a fill/trash	4	LACMNH
286-1-6 bag #2	*	a1,2C,L	a286C,L 1,2	a fill/trash	4	LACMNH
286-1-6 bag #3	*	a1,2C,L	a286C,L 1,2	a fill/trash	4	LACMNH
286-1-6 bag #4	x	a1,2C,L	a286C,L 1,2	a fill/trash	4	LACMNH
286-1-6 bag #5	x	a1,2C,L	a286C,L 1,2	a fill/trash	4	LACMNH
286-1-6 bag #6	*	a1,2C,L	a286C,L 1,2	a fill/trash	4	LACMNH
286-2RF-6 bag #1		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6 bag #2		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6 bag #3		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6 bag #4		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6 bag #5		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6 bag #6		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6 bag #7		a2,3C,L		a trash/roof fall	4	LACMNH
286-2RF-6/5		a2,3C,L		a trash/roof fall	flot	LACMNH
286-4-6 bag #1		a7C,L		a floor	4	LACMNH
286-4-6 bag #2	x	a7C,L		a floor	4	LACMNH
286-4-6 bag #3		a7C,L		a floor	4	LACMNH
286-4-6 bag #4		a7C,L		a floor	4	LACMNH
286-4-6 bag #5		a7C,L		a floor	4	LACMNH
286-4-6 bag #6		a7C,L		a floor	4	LACMNH
286-4-6 bag #7		a7C,L		a floor	4	LACMNH
286-4-6 bag #8		a7C,L		a floor	4	LACMNH
286-4-6 bag #9		a7C,L		a floor	4	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 12 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Contact	Screen	Collection
286-4-6 bag #10		a7C,L		a floor	4	LACMNH
286-5-6 bag #1	x	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #2	°	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #3	x	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #4	°	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #5	x	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #6	°	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #7	°	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-5-6 bag #8	°	b2C,L	b286C,L 2,3,7,8	b trash	100%	LACMNH
286-6RF-6 bag #1		b1,3C,L		b fill/roof fall	100%	LACMNH
286-6RF-6 bag #2		b1,3C,L		b fill/roof fall	100%	LACMNH
286-4S-7B bag #1		a14C,L		burial	100%	LACMNH
286-4S-7B bag #2		a14C,L		burial	100%	LACMNH
286-7F-10H/2		b8C,L	n/a (hearth)	b hearth in floor	not	LACMNH
286-7F-11PH		b8C,L		b post hole	100%	LACMNH
286-7F-12PH		b8C,L		b post hole	4	LACMNH
286-7F-13PH bag #1		b8C,L		b post hole	4	LACMNH
286-7F-13PH bag #2		b8C,L		b post hole	4	LACMNH
286-7F-13PH bag #3		b8C,L		b post hole	4	LACMNH
290-1-1		n/a		possible trash area	none	Maxwell
290-1-2	x	28C	290C 28	outside fill	4	Maxwell
290-2-2	x	28C	290C 28	outside fill	4	Maxwell
290-3-2	x	27C	290C 18,27	outside trash	4	Maxwell
290-4-2 bag #1		27C	290C 18,27	outside trash	8	Maxwell
290-4-2 bag #2		27C	290C 18,27	outside trash	8	Maxwell
290-4-2 bag #3		27C	290C 18,27	outside trash	8	Maxwell
290-4-2 bag #4		27C	290C 18,27	outside trash	8	LACMNH
290-5-2		18C		subfloor	4 (50%)	Maxwell
290-5-3/2		27C	290C 18,27	outside trash	not	Maxwell
290-2-4	x	28C	290C 28	outside fill	4 (50%)	Maxwell
290-3-4 bag #1	x	28C	290C 28	outside fill	4 (50%)	Maxwell
290-3-4 bag #2	x	28C	290C 28	outside fill	4 (50%)	Maxwell
290-3-4 bag #3	x	28C	290C 28	outside fill	4 (50%)	Maxwell
290-4-4	x	28C	290C 28	outside fill	4 (50%)	Maxwell
290-5-4	x	27 or 32C	290C 18,27	outside trash	4 (50%)	LACMNH
290-1-5		n/a		trash area?	none	Maxwell
290-5-5		n/a		fill to sterile	none	Maxwell
290-2-6		20C		disturbed	4 (50%)	Maxwell
290-3-6		20C		disturbed	4 (50%)	Maxwell
290-5-6		20C		disturbed	4 (50%)	Maxwell
290-1-7 bag #1		n/a		trash?	none	Maxwell
290-1-7 bag #2		n/a		trash?	none	Maxwell
290-5-7		n/a		fill	none	Maxwell
300-1-1		20C		disturbed	4	Maxwell
300-2-1		20C		disturbed	4	Maxwell
300-3-1		20C		disturbed	4	Maxwell
300-4-1 bag #1		20C		disturbed	4	Maxwell
300-4-1 bag #2		20C		disturbed	4	Maxwell
300-5-1		20C		disturbed	4	Maxwell
300-6-1		20C		disturbed	4	Maxwell
300-7-1 bag #1		20C		disturbed	4	Maxwell
300-7-1 bag #2		20C		disturbed	4	LACMNH
300-1-2 bag #1		20C		disturbed	4	Maxwell
300-1-2 bag #2		20C		disturbed	4	Maxwell
300-1-2 bag #3		20C		disturbed	4	Maxwell
300-1-2 bag #4		20C		disturbed	4	Maxwell
301-1-1 bag #1		1 or 20C		fill or disturbed	none	Maxwell
301-1-1 bag #2		1 or 20C		fill or disturbed	none	Maxwell
302-1-1		20C		disturbed	none	LACMNH
325-1-1	x	1C	325C 1	fill	4 (50%)	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 13 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
325-1-2 bag #1	x	1C	325C 1	fill	4	Maxwell
325-1-2 bag #2	x	1C	325C 1	fill	4	LACMNH
325-2-2 bag #1	x	1C	325C 1	fill	4	Maxwell
325-2-2 bag #2	x	1C	325C 1	fill	4	Maxwell
325-3-2 bag #1		3,5C		roof fall/above floor	4	Maxwell
325-3-2 bag #2		3,5C		roof fall/above floor	4	LACMNH
325-4-2	x	9C	325C 3,5,9	above floor	4 (78%)	Maxwell
325-3-3		9 or 20C		post-occ. pit or dist.	4	LACMNH
325-6-4		9C		post hole	none	LACMNH
325-6-5		9C		post hole	none	LACMNH
325-6-6						Maxwell
325-5-7		14C		burial	100%	Maxwell
325-6-10		9C		post hole	none	LACMNH
326-1-1		26C		outside fill	none	Maxwell
330-1-2		26C		outside fill	none	Maxwell
400-1-1 bag #1		26C		outside fill	4	Maxwell
400-1-1 bag #2		26C		outside fill	4	Maxwell
400-1-4		26C		outside fill	4	Maxwell
410-1-2		1C		fill	none	LACMNH
410-2-4 bag #1	x	2C	410C 2	trash	25%	LACMNH
410-2-4 bag #2	x	2C	410C 2	trash	25%	LACMNH
410-3RF-5 bag #1		3,5C		roof fall/above floor	4	LACMNH
410-3RF-5 bag #2		3,5C		roof fall/above floor	4	LACMNH
410-3RF-5 bag #3		3,5C		roof fall/above floor	4	LACMNH
410-3RF-5 bag #4		3,5C		roof fall/above floor	4	LACMNH
410-3RF-5 bag #5		3,5C		roof fall/above floor	4	LACMNH
410-3RF-5 bag #6		3,5C		roof fall/above floor	4	LACMNH
410-3RF-5 bag #7		3,5C		roof fall/above floor	4	LACMNH
410-4F-5 bag #1		3,5C		roof fall/above floor	4	LACMNH
410-4F-5 bag #2		3,5C		roof fall/above floor	4	LACMNH
410-4F-5 bag #3		3,5C		roof fall/above floor	4	LACMNH
410-6F-5						LACMNH
410-4F-6/		9C		pit?	not	LACMNH
410-4F-7						LACMNH
410-5S-7PH bag #1				post hole?		LACMNH
410-5S-7PH bag #2				post hole?		LACMNH
410-5S-8PH		9C		post hole	100%	LACMNH
410-5S-10P		14C		burial	100%	LACMNH
410-5S-13B bag #1		14C		burial	100%	LACMNH
410-5S-13B bag #2		14C		burial	100%	LACMNH
410-5S-14P	*	9C	n/a (pit)	pit	4	LACMNH
410-5S-15PH		9C		post hole	4	LACMNH
410-5S-16B bag #1		14C		burial	100%	LACMNH
410-5S-16B bag #2		14C		burial	100%	LACMNH
410-2-16PH		9C		post hole	75%	LACMNH
423-1-1		n/a			none	LACMNH
423-2-3	x	a1C	a423C 1	a fill	4	LACMNH
423-3F-3		a3C		a roof fall	4	LACMNH
423-3RF-3 bag #1		a3C		a roof fall	4	LACMNH
423-3RF-3 bag #2		a3C		a roof fall	4	LACMNH
423-3RF-3 bag #3		a3C		a roof fall	4	LACMNH
423-4F-4 bag #1	*	a7C	a423C 3,7,8	a floor	4	LACMNH
423-4F-4 bag #2	x	a7C	a423C 3,7,8	a floor	4	LACMNH
423-6S-4		b18C		b subfloor	none	LACMNH
423-4F-5PH		a6C		a post hole	4	LACMNH
423-6S-7P		b6C		b pit	4	LACMNH
423-6S-8PH		b6C		b post hole	4	LACMNH
423-6S-9P bag #1		20C		disturbed	100%	LACMNH
423-6S-9P bag #2		20C		disturbed	100%	LACMNH
423-6S-9P bag #3		20C		disturbed	100%	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 14 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
423-5S-6P bag #4		20C		disturbed	100%	LACMNH
425-1-1		1,5C		fill/above floor	none	Maxwell
425-1-2 bag #1	x	1C	425C 1	fill	67%	Maxwell
425-1-2 bag #2	*	1C	425C 1	fill	67%	LACMNH
425-2-3	x	1C	425C 1	fill	4	Maxwell
425-3-3	x	5,8C	425C 5,8	above floor/feature	4	Maxwell
425-3-3/5		5,8C	425C 5,8	above floor/feature	flat	Maxwell
426-1-1	x	1C	426C 1	fill	50%	Maxwell
426-2-2		1,3,6C		fill/roof fall/floor	100%	Maxwell
426-2-3	x	1C	426C 1	fill	50%	LACMNH
426-1-4 bag #1		1,3,6C		fill/roof fall/floor	33%	LACMNH
426-1-4 bag #2		1,3,6C		fill/roof fall/floor	33%	LACMNH
426-2-6 bag #1	*	1C	426C 1	fill	100%	LACMNH
426-2-6 bag #2	x	1C	426C 1	fill	100%	LACMNH
426-2-6 bag #3	x	1C	426C 1	fill	100%	LACMNH
426-2-6 bag #4	*	1C	426C 1	fill	100%	LACMNH
426-2-6 bag #5	*	1C	426C 1	fill	100%	LACMNH
426-3F-6 bag #1		3,6C		roof fall/floor	100%	LACMNH
426-3F-6 bag #2		3,6C		roof fall/floor	100%	LACMNH
426-3F-6 bag #3		3,6C		roof fall/floor	100%	LACMNH
426-3F-6 bag #4		3,6C		roof fall/floor	100%	LACMNH
426-3F-6 bag #5		3,6C		roof fall/floor	100%	LACMNH
426-3F-6 bag #6		3,6C		roof fall/floor	100%	LACMNH
426-3F-7		3,6C		roof fall/floor	100%	LACMNH
426-3F-7/45		3,6C?		"check notes"	flat	LACMNH
426-3F-7/47		3,6C?		"check notes"	flat	LACMNH
426-3F-7/49		3,6C?		"check notes"	flat	LACMNH
426-3F-10P		8C		post hole	100%	LACMNH
426-3F-11PH		8C		post hole	100%	LACMNH
426-3F-12PH		8C		post hole	100%	LACMNH
426-3F-13PH		8C		post hole	100%	LACMNH
426-3F-14P		14C		burial	100%	LACMNH
426-3F-15PH		8C		post hole	100%	LACMNH
426-3F-16P bag #1	x	8C	n/a (pit)	pit	100%	LACMNH
426-3F-16P bag #2	*	8C	n/a (pit)	pit	100%	LACMNH
426-3F-16P bag #3	x	8C	n/a (pit)	pit	100%	LACMNH
426-3F-16P/2		8C	n/a (pit)	pit	flat	LACMNH
426-3F-19PH		8C		post hole	100%	LACMNH
426-4S-22PH		8C		post hole	100%	LACMNH
427-2-2				fill	50%	Maxwell
427-3-3 bag #1				fill - very muddy	50%	Maxwell
427-3-3 bag #2				fill - very muddy	50%	Maxwell
427-4-3 bag #1				fill above floor	50%	Maxwell
427-4-3 bag #2				fill above floor	50%	Maxwell
427-4-3 bag #3				fill above floor	50%	Maxwell
427-5-3 bag #1				fill above floor	100%	Maxwell
427-5-3 bag #2				fill above floor	100%	Maxwell
427-5-3 bag #3				fill above floor	100%	Maxwell
427-5-3/5				fill above floor	flat	Maxwell
427-6-3 bag #1				fill to sterile on surface	100%-50%	Maxwell
427-6-3 bag #2				fill to sterile on surface	100%-50%	Maxwell
428-1-1 bag #1		28C		outside fill	none	Maxwell
428-1-1 bag #2		28C		outside fill	none	Maxwell
431-1-1		n/a			none	Maxwell
431-1-2	x	1C	431C 1	fill	4 (50%)	Maxwell
431-2-2 bag #1	x	1C	431C 1	fill	4	Maxwell
431-2-2 bag #2	x	1C	431C 1	fill	4	Maxwell
431-2-2 bag #3	*	1C	431C 1	fill	4	LACMNH
431-3-3 bag #1	x	1C	431C 1	fill	4	Maxwell
431-3-3 bag #2	x	1C	431C 1	fill	4	Maxwell

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 15 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
431-3-3 bag #3	x	1C	431C 1	fill	4	Maxwell
431-4-3 bag #1	x	5C	431C 5.8,13,14,17	above floor	4	Maxwell
431-4-3 bag #2	x	5C	431C 5.8,13,14,17	above floor	4	Maxwell
431-4-3/11		5C	431C 5.8,13,14,17	above floor	flot	Maxwell
431-5-4 bag #1		8C		post hole	4	Maxwell
431-5-4 bag #2		8C		post hole	4	Maxwell
431-5-4/2		8C		post hole	flot	Maxwell
431-5-5/1		8C	n/a (pit)	pit	flot	Maxwell
431-5-6		14C		burial	4	LACMNH
431-5-7 bag #1		8C		pit (burial?)	4	Maxwell
431-5-7 bag #2		8C		pit (burial?)	4	Maxwell
431-5-8		17C		burial	4	Maxwell
431-5-11		8C		post hole	4	Maxwell
431-5-12		8C		post hole	100%	Maxwell
431-5-14		17C		burial	4 & 16	LACMNH
431-5-14/5		17C		burial	4 & 16	Maxwell
431-5-15 bag #1		14C		burial	4	Maxwell
431-5-15 bag #2		14C		burial	4	Maxwell
431-5-16		8C		post hole	100%	Maxwell
431-5-17		8C		post hole?	100%	Maxwell
431-5-20		8C		pit?		Maxwell
433-2-2	x	1C	433C 1	fill	80%	LACMNH
433-3-2 bag #1	x	1C	433C 1	fill	80-100%	LACMNH
433-3-2 bag #2	x	1C	433C 1	fill	80-100%	LACMNH
433-3-2/22		1C	433C 1	fill	?	LACMNH
433-4R-2		4C		roof fall	100%	LACMNH
433-4R-2/43		4C		roof fall	?	LACMNH
433-3-3 bag #1	x	1C	433C 1	fill	100%	LACMNH
433-3-3 bag #2	x	1C	433C 1	fill	100%	LACMNH
433-4R-3		4C		roof fall	100%	LACMNH
433-4R-3/12		4C		roof fall	?	LACMNH
433-5F-4 bag #1	x	6C	433C 3,6,8,13,14	above floor	100%	LACMNH
433-5F-4 bag #2	x	6C	433C 3,6,8,13,14	above floor	100%	LACMNH
433-5F-4/11		6C?		"check notes"	?	LACMNH
433-6S-4		18C		subfloor	none	LACMNH
433-6S-6P		9C		post-occ. pit	100%	LACMNH
433-6S-7P bag #1		9C		post-occ. pit	100%	LACMNH
433-6S-7P bag #2		9C		post-occ. pit	100%	LACMNH
433-6S-10P		14C		burial	100%	LACMNH
433-6S-11P		8C		pit	100%	LACMNH
433-6S-13PH		6C		post hole	100%	LACMNH
433-6S-14PH		8C		post hole	100%	LACMNH
433-6S-18B bag #1		13C		burial	100%	LACMNH
433-6S-18B bag #2		13C		burial	100%	LACMNH
433-6S-18P		13C		burial	100%	LACMNH
433-6S-72PH				post hole?		LACMNH
433-6S-121P				pit?		LACMNH
436-1-1		n/a			none	LACMNH
436-1-2 bag #1	x	a1C	a436C 1	a fill	33%	LACMNH
436-1-2 bag #2	x	a1C	a436C 1	a fill	33%	LACMNH
436-2-2	x	a1C	a436C 1	a fill	33%	LACMNH
436-1-3	x	a1C	a436C 1	a fill	100%	LACMNH
436-3-4						LACMNH
436-4F-4	x	a9C	a436C 3,6,7,8,13,14	a above floor	100%	LACMNH
436-4F-5	x	a9C	a436C 3,6,7,8,13,14	a above floor	100%	LACMNH
436-4F-5/4		a9C		a pit/burial?	100%	LACMNH
436-4F-6 bag #1	x	a9C	a436C 3,6,7,8,13,14	a above floor	100%	LACMNH
436-4F-6 bag #2	x	a9C	a436C 3,6,7,8,13,14	a above floor	100%	LACMNH
436-4F-7 bag #1	*	a9C	a436C 3,6,7,8,13,14	a above floor	100%	LACMNH
436-4F-7 bag #2	x	a9C	a436C 3,6,7,8,13,14	a above floor	100%	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 16 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Contact	Screen	Collection
435-3R-8		a3C		a roof fill	100%	LACMNH
435-6S-8	*	b2,5C	b436C 2,5,8,13,15	b trash/above floor	10%	LACMNH
435-6S-8/4PH		b8C		b post hole	?	LACMNH
435-4F-8H/2 bag #1		a8C	n/a (hearth)	a hearth	flot	LACMNH
435-4F-8H/2 bag #2		a8C	n/a (hearth)	a hearth	flot	LACMNH
435-6S-12B		b13C		burial	100%	LACMNH
435-4F-13P	x	a8C	n/a (pit)	a pit	100%	LACMNH
435-4F-13P/2		a8C	n/a (pit)	a pit	flot	LACMNH
435-1-15		a1,3,8C		a fill/roof fall/floor	100%	LACMNH
435-6S-16B bag #1		a17C		burial	100%	LACMNH
435-6S-16B bag #2		a17C		burial	100%	LACMNH
435-6S-20H/3		b8C	n/a (hearth)	b hearth	flot	LACMNH
438-1-1		a1,3,7C		a fill/roof fall/floor	none	LACMNH
438-2-1 bag #1		a3,8C		a roof fall/above floor	4	LACMNH
438-2-1 bag #2		a3,8C		a roof fall/above floor	4	LACMNH
438-2-2	x	a1C	a438C 1	a fill	4	LACMNH
438-2RF-4 bag #1		a3,8C		a roof fall/above floor	4	LACMNH
438-2RF-4 bag #2		a3,8C		a roof fall/above floor	4	LACMNH
438-2RF-4 bag #3		a3,8C		a roof fall/above floor	4	LACMNH
438-2RF-4 bag #4		a3,8C		a roof fall/above floor	4	LACMNH
438-2RF-4 bag #5		a3,8C		a roof fall/above floor	4	LACMNH
438-3F-4 bag #1		b2,8C		b trash/above floor	4	LACMNH
438-3F-4 bag #2		b2,8C		b trash/above floor	4	LACMNH
438-3F-4 bag #3		b2,8C		b trash/above floor	4	LACMNH
438-3F-4 bag #4		b2,8C		b trash/above floor	4	LACMNH
438-3F-4 bag #5		b2,8C		b trash/above floor	4	LACMNH
438-3S-7P bag #1		a8C		a post hole	4	LACMNH
438-3S-7P bag #2		a8C		a post hole	4	LACMNH
438-3S-8PH		a,b8C		a,b post hole	100%	LACMNH
438-3S-11P		b2,8C		b trash/above floor	4	LACMNH
438-3S-12P	x	b8C	n/a (hearth)	b hearth	4	LACMNH
438-3S-12H/3	x	b8C	n/a (hearth)	b hearth	flot	LACMNH
438-3F-13H	x	b8C	n/a (hearth)	b hearth	4	LACMNH
438-4S-19B		b17C		burial	4 & 8	LACMNH
438-4S-20B		b17C		burial	100%	LACMNH
438-4S-22B/4		b17C		burial	flot	LACMNH
unknown (unit 438)						LACMNH
439-1-1		20C		disturbed	none	LACMNH
440-1-1		a1,2,6,7,b2,8C		a/b fill/trash/above fl./fl.	none	LACMNH
441-2RF-2 bag #1		428 3,8C		roof fall/above floor	4	LACMNH
441-2RF-2 bag #2		428 3,8C		roof fall/above floor	4	LACMNH
441-3S-3P		428 17C		burial	4	LACMNH
441-3S-4P		n/a			none	LACMNH
441-1-5	*	2C	441C 2	trash	4	LACMNH
441-2-5	x	2C	441C 2	trash	4	LACMNH
441-3-5	x	2C	441C 2	trash	4	LACMNH
441-1-6 bag #1		n/a			none	LACMNH
441-1-6 bag #2		n/a			none	LACMNH
441-3-7	x	2C	441C 2	trash	4	LACMNH
441-4-8	*	2,5C	441C 2,5	trash/above floor	4	LACMNH
441-4F-8	*	2,5C	441C 2,5	trash/above floor	4	LACMNH
unknown (unit 441)						LACMNH
450-3-1 bag #1		28C		outside fill	100%	LACMNH
450-3-1 bag #2		28C		outside fill	100%	LACMNH
451-1-1		28C		outside fill	none	LACMNH
477-1-1						LACMNH
TT 1				backhoe trench fill	none	Maxwell
TT 4		28C		outside fill	none	Maxwell
TT 4 (B)		28C		outside fill	none	Maxwell
TT 4/3		28C		outside fill	?	LACMNH

Table B.3. Provenience data for Mattocks lots that contain faunal material (page 17 of 17).

Provenience	Use	Analytic Unit 1	Analytic Unit 2	Context	Screen	Collection
TT 44		26C		outside fill	?	Maxwell
unknown						Maxwell
unknown						Maxwell
unknown						Maxwell
unknown						LACMNH
unknown						LACMNH
unknown site						Maxwell

Table B.4. Provenience data for McAnally lots that contain faunal material.

Provenience	Use	Context	Screen	Collection
1-3-1				LACMNH
1-4-1				LACMNH
1-5-1				LACMNH
3-1-1				Maxwell
3-2-2				LACMNH
3-4-2				LACMNH
3-5-3				LACMNH
3-6-3				LACMNH
8-4-2	*	roof fall & fill	100%	Maxwell
8-4-4	*	floor	100%	Maxwell
8-4-5	*	roof fall & fill	100%	Maxwell
8-5-5	*	floor	100%	Maxwell
8-2-7	x	compacted fill	50%	Maxwell
8-3-7	x	roof fall & fill	100%	Maxwell
8-4-7 bag #1	x	floor	100%	Maxwell
8-4-7 bag #2	x	floor	100%	Maxwell
8-2-8	x	compacted fill	100%	Maxwell
11-4-5	*	roof fall & fill	100%	LACMNH
11-5-5	x	roof fall & floor	100%	LACMNH
11-5-5/7	*	roof fall & floor	in situ	LACMNH
11-2-6 bag #1	x	roof fall & fill	66%	LACMNH
11-2-6 bag #2	x	roof fall & fill	66%	LACMNH
11-3F-8/3	x	roof fall & floor	in situ	LACMNH
11-3F-8/21	x	roof fall & floor	in situ	LACMNH
11-3F-7 bag #1	x	roof fall & floor	100%	LACMNH
11-3F-7 bag #2	*	roof fall & floor	100%	LACMNH
11-3F-7/7	x	roof fall & floor	in situ	LACMNH
11-3F-8 bag #1	*	roof fall & floor	100%	LACMNH
11-3F-8 bag #2	*	roof fall & floor	100%	LACMNH
11-3F-8 bag #3	x	roof fall & floor	100%	LACMNH
11-3F-8/9	x	roof fall & floor	in situ	LACMNH
11-4S-9	x	subfloor	50%	LACMNH
pithouse #27				Maxwell

Appendix C. Faunal Specimen Databases

This appendix presents detailed information about each faunal specimen from the proveniences that I included in the analyses in Chapter 5 from Old Town (Table C.1), Galaz (Table C.2), and Mattocks and McAnally (Table C.3). Each identifiable specimen in each lot bag in the Old Town collection was labeled with a sequential specimen number; thus, the bones in this collection can be easily linked to entries in the database using the combination of lot numbers and specimen numbers. My loan agreement with the Maxwell Museum precluded me from labeling bones in the Mimbres Foundation collection, so the specimens from the Mimbres Foundation sites do not possess unique identifying numbers. However, most field specimen bags from these sites contain relatively few specimens of any single taxon, so it should not be difficult to determine which bone in a bag corresponds to a given entry in the database using criteria such as element and side.

Following the “Lot Number” and “Specimen Number” columns in the Old Town table, or the “Provenience” columns in the tables for the Mimbres Foundation sites, are columns that link each specimen to an analytic unit. For Mattocks and McAnally, this information is given in the form of a numerical code, and Table C.4 presents the analytic units to which these codes correspond. The Old Town database also includes a column headed “Level/Fea.”, which lists feature numbers or level or stratum numbers for excavation units that were dug either in arbitrary levels (e.g., subunit W in room A5) or according to natural strata (e.g., the Area D midden).

The column headed "Identification" provides the taxonomic identification assigned to each specimen (see Tables 5.1, 5.2 and 5.3). This is followed by columns listing element, side, and element portion. The meanings of the abbreviations used for element and portion are provided in Tables C.5 and C.6, respectively; for side, "r" stands for right, "l" stands for left, and "rl" indicates that the right and left sides are fused or joined together (as when the right and left mandible are fused at the mental symphysis, for example). For artiodactyl phalanges, side refers to the side of the foot from which a specimen comes rather than to the side of the body, and for vertebrae, side refers to the side of the vertebra.

The "Scan Sites" column lists each bone density scan site that is present on a specimen, using the scan site designations of Lyman (1984) for artiodactyls or of Pavao and Stahl (1999) for leporids. If the complete cross-section of a bone is not present at a given scan site, this is indicated either by a ".1" (e.g., "dn3.1"), which indicates that less than half of the cross-section is present, or by a ".2" (e.g., "dn2.2"), which indicates that more than half is present. For ribs, an "x" in the scan site column indicates that a specimen is from a rib other than the third through seventh ribs and that it is thus not included in the density and scan site proportion analyses that I present in Chapter 5 (see footnote 15 on page 184).

The "Fus." column indicates the degree of epiphyseal fusion that is exhibited by a specimen¹. A specimen that is fully fused is noted by an "f", a specimen that is fully

¹ For the innominate, this column indicates whether the bones that comprise this element are fused at the acetabulum. For the scapula, this column indicates only whether the head (glenoid fossa) is fused. For vertebrae, "fusion" refers to the epiphyses of the centrum, and for ribs it refers to the epiphysis of the head of the rib.

unfused is indicated by a “u”, and a specimen that is partially fused (a line of fusion is visible) is indicated by a “p”. A few specimens in these assemblages are fully unfused, but both the diaphysis and the epiphysis, which refit, are present; these are indicated by “u1”. For complete specimens, if only one of the proximal or distal ends is fused, then only the unfused end is noted; this is indicated by “u(p)” for an unfused proximal end, or “u(d)” for an unfused distal end.

The next two columns provide taphonomic information. The “Burn.” column indicates whether a specimen is burned; a “b” indicates that a specimen is merely blackened, while a “c” indicates that a specimen is calcined. The “Mod.” column lists other forms of surface modification that are present on specimens. The meanings of the abbreviations used in this column are provided in Table C.7; a question mark indicates that a specimen is possibly modified in a certain way.

Attempts were made to refit broken specimens in these assemblages, and any set of pieces that could be successfully refitted was treated as a single specimen. The “# Pcs.” column indicates the number of refitting pieces that comprise a specimen; an “o” (e.g., “2o”) indicates that specimens refit on an “old” break, or one that appears to have occurred prior to excavation. For the Old Town assemblage, pieces were occasionally assigned different specimen numbers before it was discovered that they refit. In instances where this occurred, the specimen numbers of the pieces that refit to the largest piece are listed in the “Comments” column: if the refitting pieces all come from the same lot bag, then they are listed as “incl. #x”, whereas if the refitting pieces come from different lot bags, they are listed as “incl. lot y #x”. Refits between specimens

from different lot bags are also indicated in the “Comments” columns of the tables for the Mimbres Foundation sites. In all cases where refits between pieces from different lot bags occur, the specimen was counted with the lot that contained the biggest piece, and the entry for the specimen in the other lot bag was left blank so that the specimen would not be counted twice.

Also recorded in the “Comments” columns are any teeth that are present in mandibles or maxillae (see Table C.6 for abbreviations; if both right and left teeth are present, they are listed as “r. x, l. x”) and whether artiodactyl specimens are from newborn animals (e.g., “ca. 6 wks.”).

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 1 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Pop.	Identification	Elem.	Stage	Portion	Scan Stage	Pop.	Elem.	Stage	#	Pop.	Comments
33	1	Rm A2 III		lagus	cat	r	c	ca1,ca2	f					
33	3	Rm A2 III		lagus	man	i	b	dn2.2,dn3.1				3		incl. #24
33	5	Rm A2 III		leporidae	den		ik							
33	6	Rm A2 III		leporidae	den		ik							
33	7	Rm A2 III		leporidae	den		f							
33	8	Rm A2 III		leporidae	den		f							
33	9	Rm A2 III		leporidae	den		f							
33	10	Rm A2 III		leporidae	den		f							
33	11	Rm A2 III		leporidae	den		f							
33	12	Rm A2 III		leporidae	den		f							
33	13	Rm A2 III		leporidae	den		f							
33	14	Rm A2 III		leporidae	den		f							
33	15	Rm A2 III		leporidae	den		f							
33	16	Rm A2 III		leporidae	den		f							
33	17	Rm A2 III		leporidae	den		f							
33	18	Rm A2 III		leporidae	den		f							
33	19	Rm A2 III		leporidae	den		f							
33	20	Rm A2 III		leporidae	den		f							
33	21	Rm A2 III		leporidae	den		f							
33	22	Rm A2 III		leporidae	den		f							
33	23	Rm A2 III		leporidae	den		f							
74	1	Rm A2 floor		lagus	man	r	b	dn1,dn2.2						p3
74	2	Rm A2 floor		leporidae	den		ik							
74	4	Rm A2 floor		lagus	ph1		c	ph1,ph2	f					
74	7	Rm A2 floor		syllagus	cat	i	c	ca1,ca2	f					
74	10	Rm A2 floor		lagus	ib		d	ts1,t4,t5	f					
74	11	Rm A2 floor		lagus	fm	i	d	ts4,ts5,ts6	f			2		incl. #9
74	12	Rm A2 floor		lagus	oca	r	h,n	sp1,sp2.2	f			3		incl. #8
74	13	Rm A2 floor		lagus	fm	r	d	ts5.2,ts6	f					dg
74	14	Rm A2 floor		lagus	inn	r	ts,pu	ts1.2,pu1	f					dg?
1536	1	Rm A7 III		artiocephale	den	i	M3							8
1536	2	Rm A7 III		artiocephale	den	i	M2							6
1536	3	Rm A7 III		artiocephale	stu	i	max							M1
1536	4	Rm A7 III		artiodactyle	stv									
1536	6	Rm A7 III		artiodactyle	voe		bo,ar	ca1.1,ca2.1	f			2		incl. #7
1536	8	Rm A7 III		artiodactyle	vu	r	oxy	tu2.1						b
1536	9	Rm A7 III		artiodactyle	rad	i	da	ra4.2						c
1536	11	Rm A7 III		artiodactyle	uhn		s							b
1536	14	Rm A7 III		artiodactyle	ph1		mid	p12.1						c
1536	15	Rm A7 III		lagus	man	i	da	dn1.2						
1536	16	Rm A7 III		leporidae	man		b							
1536	17	Rm A7 III		leporidae	man		ib							
1536	18	Rm A7 III		lagus	man	r	pb	dn4.1,dn5.1						
1536	19	Rm A7 III		syllagus	man	r	c	dn1,dn2,dn3,dn4.2,dn5						p4
1536	20	Rm A7 III		leporidae	oca	r	n							e
1536	21	Rm A7 III		lagus	oca	r	b	sp2.2,sp3.1				2		
1536	22	Rm A7 III		leporidae	oca		sp							
1536	23	Rm A7 III		lagus	hum	r	p	hu1.2,hu2	f					rod
1536	24	Rm A7 III		lagus	hum	r	p	hu1.2,hu2	p			2		
1536	25	Rm A7 III		lagus	hum	r	p	hu1.2,hu2.2	f					
1536	26	Rm A7 III		lagus	hum	r	p	hu1.2,hu2.1	f			2		
1536	27	Rm A7 III		lagus	hum	r	d	hu4,hu5	f					
1536	28	Rm A7 III		lagus	hum	r	d	hu5.2	f					
1536	29	Rm A7 III		lagus	hum	i	p	hu1,hu2,hu3	f					
1536	30	Rm A7 III		lagus	hum	i	s	hu3						b
1536	31	Rm A7 III		lagus	hum	i	da	hu3.2						
1536	32	Rm A7 III		leporidae	hum	i	da	hu3.2						
1536	33	Rm A7 III		lagus	hum	i	d	hu4.2,hu5	f					b
1536	34	Rm A7 III		lagus	hum	i	p	hu1,hu2.1	u					
1536	35	Rm A7 III		leporidae	hum		s							
1536	36	Rm A7 III		syllagus	hum	i	sp	hu1.1	u					
1536	37	Rm A7 III		lagus	rad	r	p	ra1,ra2	f					
1536	38	Rm A7 III		lagus	rad	r	d	ra5	f					
1536	39	Rm A7 III		lagus	rad	i	p	ra1,ra2	f					rod
1536	40	Rm A7 III		lagus	rad	i	d	ra4.1,ra5	f					
1536	41	Rm A7 III		lagus	uhn	i	p	u2.2						
1536	42	Rm A7 III		syllagus	uhn	r	p	u1.1,u2	f					
1536	43	Rm A7 III		leporidae	uhn	r	s							
1536	44	Rm A7 III		leporidae	inn	r	a							
1536	45	Rm A7 III		leporidae	inn	r	ia	ia2.1						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 2 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Scan Steps	Fsp.	Surv.	Mod.	# Pgs.	Comments
1536	46	Rm A7 00		lapus	inn	l	ac,i,ls	ac1,i1.1,i2,i2.1	f				
1536	47	Rm A7 00		lapus	inn	l	ac,i,ls,pu	ac1,i1.1,i2,i2.1,2,i2,pu1	f				
1536	48	Rm A7 00		lapus	inn	l	ac	ac1.2	f				
1536	49	Rm A7 00		leporidae	inn	r	il						
1536	50	Rm A7 00		cyrtolagus	inn	l	c	ac1,i1,i2,i1,i2,pu1	f				
1536	51	Rm A7 00		cyrtolagus	inn	l	ac,i	ac1,i1.1,i2	f				
1536	52	Rm A7 00		lapus	inn	r	p	ls1.2,ls2.1	f				
1536	53	Rm A7 00		lapus	inn	l	ps	ls1.1					
1536	54	Rm A7 00		leporidae	inn	l	p	ls1.1,ls2.1,ls3.1	u	c			
1536	55	Rm A7 00		leporidae	inn	l	lt	ls3.1					
1536	56	Rm A7 00		lapus	inn	l	ps						
1536	57	Rm A7 00		lapus	inn	l	d	ls5,ls6	f				
1536	58	Rm A7 00		lapus	inn	l	d	ls5,ls6	f				
1536	59	Rm A7 00		cyrtolagus	inn	r	ps	ls3.1,ls4.1		b		rod	
1536	60	Rm A7 00		cyrtolagus	inn	l	p	ls1.1,ls2.2,ls3	u				
1536	61	Rm A7 00		leporidae	inn	l	ps			b			
1536	62	Rm A7 00		leporidae	inn	r	ps	ls2.2		c			
1536	63	Rm A7 00		leporidae	inn	r	p	ls2.1		u			
1536	64	Rm A7 00		leporidae	inn	r	s						
1536	65	Rm A7 00		lapus	inn	r	s	ls3.1					
1536	66	Rm A7 00		lapus	inn	r	ds	ls5		u			
1536	67	Rm A7 00		leporidae	inn	l	p	ls1.1		f			
1536	68	Rm A7 00		leporidae	inn	l	ps	ls2.1					
1536	69	Rm A7 00		cyrtolagus	inn	l	c	ms1,ms2		u			
1536	69	Rm A7 00		leporidae	inn	l	ps	ls2.1			b		
1536	70	Rm A7 00		lapus	inn	l	ds	ls4.1			b		
1536	71	Rm A7 00		lapus	inn	l	ds	ls3.1					
1536	74	Rm A7 00		cyrtolagus	inn	r	p	ls1,ls2.1		f			
1536	75	Rm A7 00		cyrtolagus	inn	r	p	ls1.1,ls2		u			
1536	76	Rm A7 00		cyrtolagus	inn	r	p	ls1.1		f			
1536	77	Rm A7 00		lapus	inn	r	c	ms1,ms2		f			
1536	78	Rm A7 00		lapus	inn	r	c	ms1,ms2		f		rod	
1536	79	Rm A7 00		lapus	inn	r	c	ms1,ms2		f			
1536	80	Rm A7 00		lapus	inn	l	mid	ms1.1,ms2.2				2	
1536	81	Rm A7 00		cyrtolagus	inn	r	c	ms1,ms2		f			
1536	82	Rm A7 00		lapus	inn	r	msv						
1536	83	Rm A7 00		lapus	inn	r	p	ms1.2					
1536	84	Rm A7 00		lapus	inn	l	p	ms1					
1536	86	Rm A7 00		lapus	inn	r	c	msc1,msc2		f			
1536	86	Rm A7 00		cyrtolagus	inn	l	p	ms1,ms2					
1536	87	Rm A7 00		cyrtolagus	inn	l	c	ms1,ms2,ms3		p			
1536	89	Rm A7 00		leporidae	inn	l	d			f	c		2
1536	90	Rm A7 00		lapus	inn	r	c						P3,P4
1536	91	Rm A7 00		leporidae	inn	r	pal						
1536	92	Rm A7 00		leporidae	inn	r	pal						
1536	93	Rm A7 00		lapus	inn	r	sp,br						
1536	94	Rm A7 00		lapus	inn	l	msl						
1536	95	Rm A7 00		lapus	inn	r	ant						
1536	96	Rm A7 00		leporidae	inn	l	tan						
1536	98	Rm A7 00		cyrtolagus	inn	r	sp						
1536	99	Rm A7 00		leporidae	inn	r	sp						
1536	100	Rm A7 00		leporidae	inn	l	occ						
1536	101	Rm A7 00		leporidae	inn	l	l2					2	
1536	102	Rm A7 00		leporidae	inn	l	l2						
1536	103	Rm A7 00		leporidae	inn	l	l					2	
1536	104	Rm A7 00		leporidae	inn	l	l						
1536	106	Rm A7 00		leporidae	inn	l	uk						
1536	106	Rm A7 00		leporidae	inn	l	uk						
1536	107	Rm A7 00		leporidae	inn	l	uk						
1536	108	Rm A7 00		leporidae	inn	l	uk						
1536	108	Rm A7 00		leporidae	inn	l	M3						
1536	110	Rm A7 00		leporidae	inn	l	l3						
1536	111	Rm A7 00		leporidae	inn	l	l3						
1536	112	Rm A7 00		leporidae	inn	l	m3						
1536	113	Rm A7 00		leporidae	inn	l	f						
1536	114	Rm A7 00		leporidae	inn	l	f						
1536	116	Rm A7 00		leporidae	inn	l	f						
1536	116	Rm A7 00		leporidae	inn	l	f						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 3 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Spec. Sites	Pop.	Sex.	Age	# Pop.	Comments
1535	117	Rm A7 III		leporidae	den		f						
1535	118	Rm A7 III		leporidae	den		f						
1604	1	Rm A7 floor feature	A7-24	leporidae	man	r	ang	dn3.1					
1604	2	Rm A7 floor feature	A7-24	leporidae	sku	r	bul						
1604	3	Rm A7 floor feature	A7-24	lepus	scs	r	h,n	sp1.2	f				
1604	4	Rm A7 floor feature	A7-24	lepus	hum	l	p	hu1,hu2	f				
1604	5	Rm A7 floor feature	A7-24	lepus	hum	r	d	hu4.2,hu5	f				
1604	6	Rm A7 floor feature	A7-24	syvlagus	hum	r	d	hu4,hu5	f				
1604	7	Rm A7 floor feature	A7-24	lepus	rad	r	p	rs1,rs2	f				
1604	8	Rm A7 floor feature	A7-24	syvlagus	tb	r	d	ss	p				
1604	9	Rm A7 floor feature	A7-24	lepus	ms	l	c	mt1.2,mt2	u				
1604	10	Rm A7 floor feature	A7-24	lepus	gh1	l	c	gh1,gh2	f				
1604	11	Rm A7 floor feature	A7-24	leporidae	gh1	l	c	gh1,gh2	f				
1604	12	Rm A7 floor feature	A7-24	leporidae	gh1	l	p	gh2.1	f				
365	3	Rm A5 W: levels 2-5	W2	artiodactyla	mp		den						
365	4	Rm A5 W: levels 2-5	W2	lepus	man	r	b	dn2.2,dn3.2,dn4.1			car?		mt
365	5	Rm A5 W: levels 2-5	W2	lepus	scs	l	h,n,b	sp1,sp2.1	f				
365	6	Rm A5 W: levels 2-5	W2	lepus	scs	l	h,n,b	sp1,sp2.1	f				
365	7	Rm A5 W: levels 2-5	W2	lepus	scs	r	h,n	sp1	f				
365	8	Rm A5 W: levels 2-5	W2	lepus	fm	r	p	ts2.1,ts3.1	f				
365	9	Rm A5 W: levels 2-5	W2	lepus	cal	l	c	ca1.2,ca2.2	f	b			
365	10	Rm A5 W: levels 2-5	W2	lepus	cal	r	ant	ca2.2					
365	11	Rm A5 W: levels 2-5	W2	syvlagus	max	r	c						P2-M1
365	12	Rm A5 W: levels 2-5	W2	artiodactyla	cal	l	c	ca1,ca2,ca3,ca4				2	
365	13	Rm A5 W: levels 2-5	W2	lepus	fm	l	de	ts6.2	u				
365	14	Rm A5 W: levels 2-5	W2	lepus	tb	r	p	ts1.2,ts2.1	f			2	incl. 648
365	15	Rm A5 W: levels 2-5	W2	lepus	hum	l	d	hu4,hu5	f				
365	16	Rm A5 W: levels 2-5	W2	lepus	hum	l	d	hu4,hu5	f				
365	17	Rm A5 W: levels 2-5	W2	lepus	rad	l	p	rs1.2,rs2	f		car?		
365	18	Rm A5 W: levels 2-5	W2	lepus	rad	l	p	rs1,rs2	f				
365	19	Rm A5 W: levels 2-5	W2	lepus	inn	l	sc,d	ac1.1,ts2.1					
365	20	Rm A5 W: levels 2-5	W2	syvlagus	fm	r	p	ts1.1,ts2.2,ts3	u				
365	21	Rm A5 W: levels 2-5	W2	syvlagus	inn	l	sc,d	ac1.1,ts1.1,ts2					
365	22	Rm A5 W: levels 2-5	W2	lepus	un	r	p	u2					
365	23	Rm A5 W: levels 2-5	W2	leporidae	inn	r	ts	ts1.2,ts2.1					
365	24	Rm A5 W: levels 2-5	W2	lepus	scs	r	n,b	sp2					
365	25	Rm A5 W: levels 2-5	W2	syvlagus	un	l	p	u1,u2	f				
365	26	Rm A5 W: levels 2-5	W2	lepus	hum	l	p	hu1.1,hu2.1	f	b			
365	27	Rm A5 W: levels 2-5	W2	syvlagus	tb	r	p	ts1.2	f				
365	28	Rm A5 W: levels 2-5	W2	lepus	hum	l	p	hu1.1	f				
365	29	Rm A5 W: levels 2-5	W2	lepus	scs	l	h	sp1.1	f				
365	30	Rm A5 W: levels 2-5	W2	lepus	fm	l	ps	ts2.1,ts3.1					
365	31	Rm A5 W: levels 2-5	W2	leporidae	sku	r	sup						
365	32	Rm A5 W: levels 2-5	W2	lepus	fm	r	d	ts6.1					
365	33	Rm A5 W: levels 2-5	W2	leporidae	tb	l	ps	ts2.1					
365	34	Rm A5 W: levels 2-5	W2	syvlagus	inn	r	ts	ts1.1					
365	35	Rm A5 W: levels 2-5	W2	leporidae	mp		d						
365	36	Rm A5 W: levels 2-5	W2	lepus	rad	l	p	rs1.1,rs2	u				
365	37	Rm A5 W: levels 2-5	W2	leporidae	fm		a						
365	38	Rm A5 W: levels 2-5	W2	leporidae	tb	l	ps						
365	39	Rm A5 W: levels 2-5	W2	leporidae	tb	l	ps						
365	40	Rm A5 W: levels 2-5	W2	leporidae	tb	r	a						
365	41	Rm A5 W: levels 2-5	W2	syvlagus	rad	l	a						
365	42	Rm A5 W: levels 2-5	W2	syvlagus	rad	r	d	rs4,rs5	f	b			
365	43	Rm A5 W: levels 2-5	W2	leporidae	mp		ts			c			
365	44	Rm A5 W: levels 2-5	W2	leporidae	scs	l	sp	sp2.1					
365	45	Rm A5 W: levels 2-5	W2	leporidae	den		ts						
365	46	Rm A5 W: levels 2-5	W2	leporidae	scs	r	b			b			
365	47	Rm A5 W: levels 2-5	W2	leporidae	scs		ts						
365	50	Rm A5 W: levels 2-5	W2	leporidae	fm		ts						
365	51	Rm A5 W: levels 2-5	W2	leporidae	rad		ts						
365	52	Rm A5 W: levels 2-5	W2	lepus	ms	r	c	mc1.2,mc2	f		rad		
365	53	Rm A5 W: levels 2-5	W2	leporidae	mp		d						
365	54	Rm A5 W: levels 2-5	W2	lepus	gh1		c	gh1,gh2	f				
365	55	Rm A5 W: levels 2-5	W2	leporidae	gh1		c	gh1,gh2	f				
369	1	Rm A5 W: levels 2-5	W3	artiodactyla	ms	r	ps	mc2.1		b			
369	1	Rm A5 W: levels 2-5	W3	artiodactyla	ms	l	a			b	cut		
369	2	Rm A5 W: levels 2-5	W3	artiodactyla	car	r	un			c			
369	3	Rm A5 W: levels 2-5	W3	artiodactyla	vu	r	any	ts2.1					
369	5	Rm A5 W: levels 2-5	W3	artiodactyla	tb	l	h			u			

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 4 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Side	Portion	Scan Site	Fog. Burn.	Med.	# Pos.	Comments
300	8	Rm A5 W: levels 2-5	W3	lagus	man	r	b	dn1,dn2,dn3.1				p4
300	10	Rm A5 W: levels 2-5	W3	cythaeus	man	r	b	dn2				p4,m1
300	11	Rm A5 W: levels 2-5	W3	lagus	man	l	b	dn1,dn2.1		b		
300	12	Rm A5 W: levels 2-5	W3	cythaeus	man	l	b	dn2.1,dn3.1		b		
300	13	Rm A5 W: levels 2-5	W3	leporidae	man	r	lb	dn3.1			dig?	
300	14	Rm A5 W: levels 2-5	W3	leporidae	man	r	lb	dn3.1				
300	15	Rm A5 W: levels 2-5	W3	lagus	man	r	zgg			b		
300	16	Rm A5 W: levels 2-5	W3	leporidae	man	r	ent					
300	17	Rm A5 W: levels 2-5	W3	leporidae	scs	l	ab	sp3.1				
300	18	Rm A5 W: levels 2-5	W3	leporidae	scs	l	ab				2	
300	19	Rm A5 W: levels 2-5	W3	leporidae	scs	l	ab					
300	20	Rm A5 W: levels 2-5	W3	lagus	hum	r	p	hu1.2,hu2		f		
300	21	Rm A5 W: levels 2-5	W3	lagus	hum	r	p	hu1.2,hu2		p		
300	22	Rm A5 W: levels 2-5	W3	cythaeus	hum	r	p	hu1,hu2.1		p		
300	23	Rm A5 W: levels 2-5	W3	lagus	hum	r	p	hu1.1		f	dig?	
300	24	Rm A5 W: levels 2-5	W3	leporidae	hum	r	s	hu3.1				
300	25	Rm A5 W: levels 2-5	W3	lagus	hum	l	d	hu4.2,hu5.2		f		
300	26	Rm A5 W: levels 2-5	W3	lagus	hum	l	d	hu4.1,hu5		f	b	
300	27	Rm A5 W: levels 2-5	W3	lagus	hum	r	d	hu5		f		
300	28	Rm A5 W: levels 2-5	W3	lagus	hum	r	de	hu5.2		u		
300	29	Rm A5 W: levels 2-5	W3	lagus	hum	l	de	hu5.2		u		
300	30	Rm A5 W: levels 2-5	W3	lagus	un	r	p	u1,u2		f		
300	31	Rm A5 W: levels 2-5	W3	lagus	rad	l	p	m1,m2		f		
300	32	Rm A5 W: levels 2-5	W3	lagus	rad	l	s					
300	33	Rm A5 W: levels 2-5	W3	lagus	rad	l	d	rs5		f	c	
300	35	Rm A5 W: levels 2-5	W3	lagus	inn	l	ac,la	ac1.2,ac2.1		f	b	
300	36	Rm A5 W: levels 2-5	W3	lagus	inn	r	l	l2.2			dig	
300	37	Rm A5 W: levels 2-5	W3	cythaeus	inn	r	ac,la	ac1.1,ac2		f		
300	38	Rm A5 W: levels 2-5	W3	cythaeus	inn	r	ac,la	ac1.1,ac2.1		f		
300	39	Rm A5 W: levels 2-5	W3	leporidae	inn	l	la	ac1.1,ac2.1		f		
300	41	Rm A5 W: levels 2-5	W3	lagus	inn	l	la					
300	42	Rm A5 W: levels 2-5	W3	lagus	inn	r	la					
300	43	Rm A5 W: levels 2-5	W3	leporidae	inn	l	la	la1.1				
300	44	Rm A5 W: levels 2-5	W3	lagus	fm	r	p	fa2.1,fa3.1		f	b	
300	45	Rm A5 W: levels 2-5	W3	lagus	fm	r	p	fa1,fa2.1		f		
300	46	Rm A5 W: levels 2-5	W3	lagus	fm	l	pa	fa2.1		u		
300	47	Rm A5 W: levels 2-5	W3	lagus	fm	r	pa	fa3.1			b	
300	48	Rm A5 W: levels 2-5	W3	leporidae	fm	l	pa	fa3.1				
300	49	Rm A5 W: levels 2-5	W3	lagus	fm	r	pa					
300	50	Rm A5 W: levels 2-5	W3	lagus	fm	r	pa	fa3.1				
300	51	Rm A5 W: levels 2-5	W3	leporidae	fm	r	pa					
300	52	Rm A5 W: levels 2-5	W3	lagus	fm	l	d	fa5.1		f	b	
300	53	Rm A5 W: levels 2-5	W3	cythaeus	fm	l	d	fa5.1		f		
300	54	Rm A5 W: levels 2-5	W3	lagus	fm	l	pa					
300	55	Rm A5 W: levels 2-5	W3	leporidae	fm	l	pa					
300	56	Rm A5 W: levels 2-5	W3	leporidae	fm	l	s					
300	57	Rm A5 W: levels 2-5	W3	leporidae	fm	l	s					
300	58	Rm A5 W: levels 2-5	W3	leporidae	fm	l	s					
300	59	Rm A5 W: levels 2-5	W3	leporidae	fb	l	p	fb1.1		u	2	
300	60	Rm A5 W: levels 2-5	W3	leporidae	fb	r	s					
300	62	Rm A5 W: levels 2-5	W3	lagus	fb	r	s			c		
300	63	Rm A5 W: levels 2-5	W3	lagus	fb	r	d	fb1.1,fb5		p	dig?	
300	64	Rm A5 W: levels 2-5	W3	leporidae	ent	r	psp	ent1.2				
300	65	Rm A5 W: levels 2-5	W3	lagus	ent	l	nav					
300	66	Rm A5 W: levels 2-5	W3	lagus	ent	r	nav				dig?	
300	67	Rm A5 W: levels 2-5	W3	lagus	ent	r	nav					
300	68	Rm A5 W: levels 2-5	W3	lagus	mt3	r	p	mt1,mt2				
300	69	Rm A5 W: levels 2-5	W3	lagus	mt3	l	p	mt1.2				
300	70	Rm A5 W: levels 2-5	W3	lagus	mt3	l	p	mt1			cut?	
300	71	Rm A5 W: levels 2-5	W3	lagus	mt4	r	p	mt1				
300	72	Rm A5 W: levels 2-5	W3	leporidae	mp	r	d			f	b	
300	73	Rm A5 W: levels 2-5	W3	lagus	mp4	l	p	mt1			b	
300	74	Rm A5 W: levels 2-5	W3	lagus	ph1	c		ph1,ph2		f		
300	75	Rm A5 W: levels 2-5	W3	leporidae	shu	ri	ccc,bul					
300	76	Rm A5 W: levels 2-5	W3	leporidae	shu	r	ccc					
300	77	Rm A5 W: levels 2-5	W3	leporidae	shu	r	sp					
300	78	Rm A5 W: levels 2-5	W3	leporidae	shu	l	fo					
300	79	Rm A5 W: levels 2-5	W3	leporidae	shu	r	zgg					
300	80	Rm A5 W: levels 2-5	W3	leporidae	shu	l	zgg					
300	81	Rm A5 W: levels 2-5	W3	leporidae	shu	r	zgg			b	2	
300	82	Rm A5 W: levels 2-5	W3	lagus	dan	r	ps				2	
300	83	Rm A5 W: levels 2-5	W3	lagus	dan	l	ps					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 5 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Pcp.	Identification	Spec.	Site	Portion	Spec Sites	Pcp. Num.	Mat.	# Pcp.	Comments
369	84	Rm AS Wt. levels 2-5	W3	leporidae	den						3	
369	85	Rm AS Wt. levels 2-5	W3	leporidae	den						3	
369	86	Rm AS Wt. levels 2-5	W3	leporidae	den						2	
369	87	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	88	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	89	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	90	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	91	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	92	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	93	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	94	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	95	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	96	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	97	Rm AS Wt. levels 2-5	W3	leporidae	den					b		
369	103	Rm AS Wt. levels 2-5	W3	lepus	fm		R	fa3.1				
372	3	Rm AS Wt. levels 2-5	W4	artiodactyla	car					b		
372	4	Rm AS Wt. levels 2-5	W4	artiodactyla	ph1			ip13.2			dg	
372	5	Rm AS Wt. levels 2-5	W4	artiodactyla	ste			st1.1				
372	9	Rm AS Wt. levels 2-5	W4	artiodactyla	tb					c		
372	14	Rm AS Wt. levels 2-5	W4	lepus	man			dn1, dn2, dn3.2				p4
372	15	Rm AS Wt. levels 2-5	W4	lepus	man			dn2				m1
372	16	Rm AS Wt. levels 2-5	W4	lepus	man							p4 or m1
372	17	Rm AS Wt. levels 2-5	W4	lepus	man			dn1				
372	18	Rm AS Wt. levels 2-5	W4	leporidae	man			dn1.1				
372	19	Rm AS Wt. levels 2-5	W4	lepus	man			dn1.1, dn6.1				
372	20	Rm AS Wt. levels 2-5	W4	leporidae	man			dn3.1		c		
372	21	Rm AS Wt. levels 2-5	W4	leporidae	man			dn3.1				
372	22	Rm AS Wt. levels 2-5	W4	leporidae	man			dn3.1		c		
372	23	Rm AS Wt. levels 2-5	W4	lepus	max							P3
372	24	Rm AS Wt. levels 2-5	W4	lepus	max							
372	25	Rm AS Wt. levels 2-5	W4	lepus	scs			sp2, sp3.1			2	
372	26	Rm AS Wt. levels 2-5	W4	lepus	scs			sp1, sp2.1		f		
372	28	Rm AS Wt. levels 2-5	W4	lepus	scs							
372	29	Rm AS Wt. levels 2-5	W4	leporidae	scs			sp2.1				
372	30	Rm AS Wt. levels 2-5	W4	lepus	scs			sp2.2		f		dg?
372	31	Rm AS Wt. levels 2-5	W4	lepus	scs			sp1.1		f	b	
372	32	Rm AS Wt. levels 2-5	W4	leporidae	scs			sp3.1				
372	33	Rm AS Wt. levels 2-5	W4	leporidae	scs							
372	34	Rm AS Wt. levels 2-5	W4	leporidae	scs							
372	35	Rm AS Wt. levels 2-5	W4	lepus	scs					c		
372	36	Rm AS Wt. levels 2-5	W4	lepus	hum			hu1.2, hu2, hu3.1				
372	37	Rm AS Wt. levels 2-5	W4	lepus	hum			hu1.1		u		
372	38	Rm AS Wt. levels 2-5	W4	lepus	hum			hu4, hu5		f		
372	39	Rm AS Wt. levels 2-5	W4	lepus	uin			ui1, ui2		f		
372	40	Rm AS Wt. levels 2-5	W4	lepus	uin			ui1, ui2.1		f		
372	41	Rm AS Wt. levels 2-5	W4	lepus	rad			ra1, ra2, ra3.1		f		
372	42	Rm AS Wt. levels 2-5	W4	lepus	rad			ra1, ra2		f		
372	43	Rm AS Wt. levels 2-5	W4	lepus	rad			ra1.2		f		
372	44	Rm AS Wt. levels 2-5	W4	lepus	rad			ra1.2, ra2.1		f		
372	45	Rm AS Wt. levels 2-5	W4	lepus	rad			ra4, ra5.2		f		
372	46	Rm AS Wt. levels 2-5	W4	lepus	rad			ra4.1, ra5.1		u		
372	47	Rm AS Wt. levels 2-5	W4	lepus	rad			ra6.2		f		
372	48	Rm AS Wt. levels 2-5	W4	leporidae	rad							
372	49	Rm AS Wt. levels 2-5	W4	lepus	rad							
372	50	Rm AS Wt. levels 2-5	W4	lepus	scs			sc1.1				
372	51	Rm AS Wt. levels 2-5	W4	lepus	inn			sc1.1, sc2				
372	52	Rm AS Wt. levels 2-5	W4	lepus	inn			sc1.2, sc2.2, sc2.1		f		
372	53	Rm AS Wt. levels 2-5	W4	lepus	inn			1, ui1.2				
372	54	Rm AS Wt. levels 2-5	W4	lepus	inn			is1.1, is2.1				
372	56	Rm AS Wt. levels 2-5	W4	lepus	fm			fa1.1, fa2.2, fa3.1		u		
372	57	Rm AS Wt. levels 2-5	W4	leporidae	fm			fa2.1, fa3.1				
372	58	Rm AS Wt. levels 2-5	W4	lepus	fm			fa3.1				
372	59	Rm AS Wt. levels 2-5	W4	lepus	fm			fa3.1				
372	60	Rm AS Wt. levels 2-5	W4	lepus	fm			fa3.1				
372	61	Rm AS Wt. levels 2-5	W4	lepus	fm			fa4.1				
372	62	Rm AS Wt. levels 2-5	W4	lepus	fm			fa4.1				
372	63	Rm AS Wt. levels 2-5	W4	lepus	fm			fa4.1				
372	64	Rm AS Wt. levels 2-5	W4	leporidae	fm			fa4.1				
372	65	Rm AS Wt. levels 2-5	W4	lepus	fm			fa4.1				

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 6 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Scan Sites	Pop.	Burr.	Mod.	# Pos.	Comments
372	65	Rm A5 W: levels 2-5	W4	leporidae	fem		de	ts.1					
372	67	Rm A5 W: levels 2-5	W4	lepus	fem	r	d	ts.2,ts.6	f				
372	68	Rm A5 W: levels 2-5	W4	lepus	fem	r	d	ts.2	f	b			
372	69	Rm A5 W: levels 2-5	W4	lepus	fem	l	de	ts.2	u	c			
372	70	Rm A5 W: levels 2-5	W4	lepus	fem	l	d	ts.1,ts.1	u	b			
372	71	Rm A5 W: levels 2-5	W4	syllagus	fem	l	d	ts.1,ts.6	f				
372	72	Rm A5 W: levels 2-5	W4	lepus	tb	l	p	ts.1,ts.2	f				
372	73	Rm A5 W: levels 2-5	W4	lepus	tb	r	p	ts.1	f				
372	74	Rm A5 W: levels 2-5	W4	leporidae	tb	l	p	ts.1,ts.1	u				
372	75	Rm A5 W: levels 2-5	W4	lepus	tb	l	ps	ts.1		b			
372	76	Rm A5 W: levels 2-5	W4	leporidae	tb	l	s						b
372	79	Rm A5 W: levels 2-5	W4	lepus	tb	l	d	ts.1,ts.2	f				
372	80	Rm A5 W: levels 2-5	W4	lepus	tb		d	ts.1,ts.1	u				
372	81	Rm A5 W: levels 2-5	W4	lepus	tb	r	d	ts.1	p				
372	82	Rm A5 W: levels 2-5	W4	syllagus	tb	l	d	ts.1,ts.5	f				
372	83	Rm A5 W: levels 2-5	W4	lepus	tb	r	de	ts.1	u				
372	84	Rm A5 W: levels 2-5	W4	lepus	tb	r	p		f				
372	85	Rm A5 W: levels 2-5	W4	leporidae	tb		s						
372	86	Rm A5 W: levels 2-5	W4	lepus	cal	l	c	ca1,ca2	u1			2	
372	87	Rm A5 W: levels 2-5	W4	lepus	cal	l	pos	ca1	f	b			
372	88	Rm A5 W: levels 2-5	W4	lepus	cal	r	pos	ca1	f	b			
372	89	Rm A5 W: levels 2-5	W4	lepus	cal		pos	ca1.2	f	c			
372	90	Rm A5 W: levels 2-5	W4	lepus	cal	l	c	ca1					
372	91	Rm A5 W: levels 2-5	W4	lepus	cal	r	c	ca1					
372	92	Rm A5 W: levels 2-5	W4	lepus	tar	r	npv						
372	93	Rm A5 W: levels 2-5	W4	lepus	ms	r	c	mt1,mt2,mt3	f			2	
372	94	Rm A5 W: levels 2-5	W4	lepus	ms	l	p	mt1					
372	95	Rm A5 W: levels 2-5	W4	lepus	ms	l	c	mt1.2,mt2,mt3	f				
372	96	Rm A5 W: levels 2-5	W4	lepus	ms	r	p	mt1		b			
372	97	Rm A5 W: levels 2-5	W4	lepus	ms	l	p	mt1		c			
372	98	Rm A5 W: levels 2-5	W4	leporidae	mp		d		f	c			
372	99	Rm A5 W: levels 2-5	W4	leporidae	mp		d		f				
372	100	Rm A5 W: levels 2-5	W4	leporidae	mp		d		f				
372	101	Rm A5 W: levels 2-5	W4	lepus	ms	r	c	mc1,mc2	f				
372	102	Rm A5 W: levels 2-5	W4	lepus	ms	l	c	mc1,mc2	f				
372	103	Rm A5 W: levels 2-5	W4	lepus	ms	r	c	mc1,mc2.1	u				
372	104	Rm A5 W: levels 2-5	W4	leporidae	stu	r	ro						
372	105	Rm A5 W: levels 2-5	W4	leporidae	stu	r	ro			c			
372	106	Rm A5 W: levels 2-5	W4	leporidae	stu	r	par						
372	107	Rm A5 W: levels 2-5	W4	leporidae	stu	r	par						
372	108	Rm A5 W: levels 2-5	W4	leporidae	stu	r	lam						
372	109	Rm A5 W: levels 2-5	W4	leporidae	stu		par						
372	110	Rm A5 W: levels 2-5	W4	leporidae	stu	l	aph						
372	112	Rm A5 W: levels 2-5	W4	leporidae	stu	l	aph						
372	113	Rm A5 W: levels 2-5	W4	leporidae	stu		aph						
372	114	Rm A5 W: levels 2-5	W4	lepus	den	l	ps						
372	115	Rm A5 W: levels 2-5	W4	leporidae	den		l1					3	
372	116	Rm A5 W: levels 2-5	W4	leporidae	den		l1						
372	117	Rm A5 W: levels 2-5	W4	leporidae	den		P2						
372	118	Rm A5 W: levels 2-5	W4	leporidae	den		uk						
372	119	Rm A5 W: levels 2-5	W4	leporidae	den		uk						
372	120	Rm A5 W: levels 2-5	W4	leporidae	den		uk						
372	121	Rm A5 W: levels 2-5	W4	leporidae	den		uk						
372	122	Rm A5 W: levels 2-5	W4	leporidae	den		l					2	
372	123	Rm A5 W: levels 2-5	W4	leporidae	den		l					2	
372	124	Rm A5 W: levels 2-5	W4	leporidae	den		lk						
375	1	Rm A5 W: levels 2-5	W5	artiodactyla	hrr	l	ac,l	ca1.1,ca1	f				
375	2	Rm A5 W: levels 2-5	W5	artiodactyla	rib	r	s	ri3					
375	3	Rm A5 W: levels 2-5	W5	artiodactyla	mt		de	ms.1		b	out		
375	4	Rm A5 W: levels 2-5	W5	artiodactyla	ms	l	ps			b			
375	6	Rm A5 W: levels 2-5	W5	lepus	man	l	b	dn1,dn2,dn3.1					
375	7	Rm A5 W: levels 2-5	W5	lepus	man	l	b	dn1,dn2,dn3.1					Le3,m1
375	8	Rm A5 W: levels 2-5	W5	lepus	man	r	b	dn1					
375	9	Rm A5 W: levels 2-5	W5	lepus	max	r	max,ho						
375	10	Rm A5 W: levels 2-5	W5	lepus	max	l	c						
375	11	Rm A5 W: levels 2-5	W5	lepus	man	r	b	dn2		c			
375	12	Rm A5 W: levels 2-5	W5	lepus	man		shv						
375	13	Rm A5 W: levels 2-5	W5	lepus	hum	l	p	hu1.2,hu2.1	f				
375	14	Rm A5 W: levels 2-5	W5	lepus	hum	r	p	hu1.2,hu2	f				
375	14	Rm A5 W: levels 2-5	W5	lepus	hum	l	s	hu2.1,hu3.2					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 7 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Side	Portion	Spec Sites	Fos.	Elem. Mod.	#	Pos.	Comments
375	15	Rm A5 W: levels 2-5	V6	lapus	hum	r	p	hu1,hu2,hu3,1	f				
375	16	Rm A5 W: levels 2-5	V6	lapus	hum	r	p	hu1,1,hu2,2,hu3,u					
								hu4,1					
375	17	Rm A5 W: levels 2-5	V6	lapus	hum	l	de	hu2					u
375	18	Rm A5 W: levels 2-5	V6	lapus	hum	l	d	hu1,hu2,1	f				
375	19	Rm A5 W: levels 2-5	V6	lapus	hb	l	d	h3,h4,h5	f				
375	20	Rm A5 W: levels 2-5	V6	lapus	hum	l	d	hu4,1,hu5	f				
375	21	Rm A5 W: levels 2-5	V6	lapus	cal	r	c	ca1,ca2	f				
375	22	Rm A5 W: levels 2-5	V6	lapus	cal	l	ant	ca2,2					c
375	23	Rm A5 W: levels 2-5	V6	lapus	rad	l	d	ra4,1,ra5,2	p				
375	24	Rm A5 W: levels 2-5	V6	artiodactyla	rib		s						rod
375	25	Rm A5 W: levels 2-5	V6	lapus	inn	l	ec,i,le	ec1,2,i2,le2,1	f				
375	26	Rm A5 W: levels 2-5	V6	lapus	inn	l	ec,i	ec1,2,i2	f				
375	27	Rm A5 W: levels 2-5	V6	lapus	inn	r	ec,i,le	ec1,2,i2,1,le2,1	f				
375	28	Rm A5 W: levels 2-5	V6	oviliagus	inn	r	ec,i,le	ec1,i1,i2,le1,le2	f				
375	29	Rm A5 W: levels 2-5	V6	oviliagus	inn	l	ec,i,le,pu	ec1,i1,1,i2,le2,1,pu1,1	f				
375	30	Rm A5 W: levels 2-5	V6	oviliagus	inn	r	ec,i,le,pu	ec1,i1,2,i2,le1,2,le2,pu1	f				rod
375	31	Rm A5 W: levels 2-5	V6	lapus	inn	r	le	le1,le2,2					
375	32	Rm A5 W: levels 2-5	V6	lapus	inn	l	c	ec1,i1,2,i2,2,1,le2,pu1	f				2
375	33	Rm A5 W: levels 2-5	V6	lapus	hum	r	pa	hu3,1					
375	34	Rm A5 W: levels 2-5	V6	lapus	inn	l	le	le1,2,le2,2	f				
375	35	Rm A5 W: levels 2-5	V6	lapus	scu	l	h,n,b	sp1,2,sp2,1	f				
375	36	Rm A5 W: levels 2-5	V6	oviliagus	scu	l	h,n,b	sp1,2,sp2,1	f				
375	37	Rm A5 W: levels 2-5	V6	lapus	hum	l	pa						
375	38	Rm A5 W: levels 2-5	V6	oviliagus	hb	l	c	h1,1,h2,h3,h4	u				
375	39	Rm A5 W: levels 2-5	V6	lapus	hb	l	pa	h2,1					
375	40	Rm A5 W: levels 2-5	V6	lapus	hb	l	de	h4,1					
375	41	Rm A5 W: levels 2-5	V6	lapus	hb	l	pa						
375	42	Rm A5 W: levels 2-5	V6	lapus	hum	l	de	hu4,1,hu5,1					
375	43	Rm A5 W: levels 2-5	V6	laportidae	hb	l	pa						
375	46	Rm A5 W: levels 2-5	V6	lapus	rad	r	p	ra1,ra2	f				
375	47	Rm A5 W: levels 2-5	V6	lapus	hum	r	p	hu1,2,hu2,1,hu3,1	f				
375	48	Rm A5 W: levels 2-5	V6	lapus	uhn	l	p	u1,u2	f				cut?
375	49	Rm A5 W: levels 2-5	V6	lapus	inn	r	le	le1,2					b
375	50	Rm A5 W: levels 2-5	V6	lapus	hb	r	p	h1,2	f				b
375	51	Rm A5 W: levels 2-5	V6	lapus	scu	l	le	sp3,1					
375	52	Rm A5 W: levels 2-5	V6	laportidae	man	r	hb	dn3,1					b
375	53	Rm A5 W: levels 2-5	V6	lapus	uhn	r	p	u2,1					
375	54	Rm A5 W: levels 2-5	V6	lapus	scu	l	n						c
375	55	Rm A5 W: levels 2-5	V6	oviliagus	hum	r	p	hu1,1,hu2,2	f				rod
375	56	Rm A5 W: levels 2-5	V6	oviliagus	hum	r	p	hu1,2,hu2	f				
375	57	Rm A5 W: levels 2-5	V6	lapus	rad	r	pa						
375	59	Rm A5 W: levels 2-5	V6	lapus	lar	r	rev						
375	60	Rm A5 W: levels 2-5	V6	lapus	hb	l	d	h3,1	f				c
375	62	Rm A5 W: levels 2-5	V6	laportidae	man	r	hb	dn3,1					
375	63	Rm A5 W: levels 2-5	V6	lapus	pat		c	pa1					
375	64	Rm A5 W: levels 2-5	V6	laportidae	man	r	hb						
375	65	Rm A5 W: levels 2-5	V6	laportidae	shu	r	ho						
375	66	Rm A5 W: levels 2-5	V6	oviliagus	inn	l	il	h1,1					
375	67	Rm A5 W: levels 2-5	V6	laportidae	shu	r	sho						c
375	68	Rm A5 W: levels 2-5	V6	laportidae	hum	l	pa	hu3,1					b
375	69	Rm A5 W: levels 2-5	V6	lapus	ms	r	p	mt1					
375	70	Rm A5 W: levels 2-5	V6	lapus	ms	l	c	mt1,mt2,mt3	f				
375	71	Rm A5 W: levels 2-5	V6	lapus	ms	l	c	mt1,mt2,mt3	f				
375	72	Rm A5 W: levels 2-5	V6	lapus	ms	r	c	mt1,mt2	f				
375	73	Rm A5 W: levels 2-5	V6	lapus	uhn	r	d	u4	f				
375	74	Rm A5 W: levels 2-5	V6	laportidae	dan		lt						2
375	75	Rm A5 W: levels 2-5	V6	lapus	dan	l	ps						
375	76	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						2
375	77	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						
375	78	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						2
375	79	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						
375	80	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						
375	81	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						
375	82	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						
375	83	Rm A5 W: levels 2-5	V6	laportidae	dan		uk						2

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 8 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Side	Portion	Seen Sites	Fus.	Surv.	Mag.	#	Comments
375	84	Rm A5 W: levels 2-5	W5	Isopridae	den		lk						
375	85	Rm A5 W: levels 2-5	W5	Isopridae	den		lk						
375	86	Rm A5 W: levels 2-5	W5	Isopridae	den		lk					2	
375	87	Rm A5 W: levels 2-5	W5	Isopridae	den		lk						
375	88	Rm A5 W: levels 2-5	W5	Isopus	max	r	pal						
375	89	Rm A5 W: levels 2-5	W5	Artiodactyla	rib		s						
375	95	Rm A5 W: levels 2-5	W5	Isopus	max	r	mal						
375	96	Rm A5 W: levels 2-5	W5	Isopus	inn	l	d	81.1					
375	97	Rm A5 W: levels 2-5	W5	Isopus	ferm	r	ps						
375	98	Rm A5 W: levels 2-5	W5	Isopridae	ferm	r	ps	fa3.1					
375	99	Rm A5 W: levels 2-5	W5	Syrtalgus	ferm	l	ps	fa3.1					
375	100	Rm A5 W: levels 2-5	W5	Isopridae	tb	r	ps	82.1					
375	101	Rm A5 W: levels 2-5	W5	Isopus	tb	l	d	85.1	f				
375	102	Rm A5 W: levels 2-5	W5	Isopridae	mp		d						
375	103	Rm A5 W: levels 2-5	W5	Isopridae	mp		d					u	
375	104	Rm A5 W: levels 2-5	W5	Isopus	ph1		c	ph1,ph2	f				
375	105	Rm A5 W: levels 2-5	W5	Isopus	ph1		c	ph1,ph2	f				
375	106	Rm A5 W: levels 2-5	W5	Isopus	ph1		c	ph1,ph2	f				
378	1	Rm A5 W: levels 6-9	W6	Artiodactyla	hum	l	ms	hu3.1				2	guard
378	2	Rm A5 W: levels 6-9	W6	Artiocapsa	mt	l	p	nr1.1,nr2.1	f				
378	4	Rm A5 W: levels 6-9	W6	Artiocapsa	mt		s						
378	5	Rm A5 W: levels 6-9	W6	Artiodactyla	rib	r	s	r3.1			car?		
378	7	Rm A5 W: levels 6-9	W6	Artiodactyla	hum	l	d	hu4.1	f			2	incl. #3
378	10	Rm A5 W: levels 6-9	W6	Syrtalgus	man	l	c	dn1,dn2,dn3,d n4.2,dn5					
378	11	Rm A5 W: levels 6-9	W6	Isopus	man	r	b	dn1,dn2,dn3.2					m1
378	12	Rm A5 W: levels 6-9	W6	Isopus	man	r	b	dn2,dn3.1		b			m2
378	13	Rm A5 W: levels 6-9	W6	Syrtalgus	man	r	c	dn1,dn2,dn3,d n4.2,dn5					
378	14	Rm A5 W: levels 6-9	W6	Isopus	man	l	b	dn1,dn2.2					i
378	15	Rm A5 W: levels 6-9	W6	Isopus	man	l	r	dn4.1,dn5					
378	16	Rm A5 W: levels 6-9	W6	Isopus	max	r	sp						
378	17	Rm A5 W: levels 6-9	W6	Isopus	max	r	5yg						
378	18	Rm A5 W: levels 6-9	W6	Isopus	aca	r	h,n,b	sp1.2,sp2.2	f	b		2	incl. #124
378	19	Rm A5 W: levels 6-9	W6	Isopus	max	r	c						
378	20	Rm A5 W: levels 6-9	W6	Isopus	ferm	l	p	fa1,fa2,fa3.2,fa 4	f				
378	21	Rm A5 W: levels 6-9	W6	Isopus	ferm	l	d	fa5,fa6	f		car,rod		
378	22	Rm A5 W: levels 6-9	W6	Syrtalgus	ferm	l	d	fa5,fa6	f				
378	23	Rm A5 W: levels 6-9	W6	Isopus	ferm	r	ds	fa4.1,fa5.1					
378	24	Rm A5 W: levels 6-9	W6	Isopus	tb	r	p	81.2	f				
378	25	Rm A5 W: levels 6-9	W6	Isopus	tb	r	sa	82.1,83.1					C14 dated
378	26	Rm A5 W: levels 6-9	W6	Isopus	uth	r	p	ut1,ut2	f		rod?		
378	27	Rm A5 W: levels 6-9	W6	Isopus	tb	r	ps	81.1,82.1	u				
378	28	Rm A5 W: levels 6-9	W6	Syrtalgus	tb	l	d	83,84,85	f				
378	29	Rm A5 W: levels 6-9	W6	Isopus	rad	l	p	ra1,ra2	f				
378	30	Rm A5 W: levels 6-9	W6	Syrtalgus	hum	r	p	hu1,hu2	f				
378	31	Rm A5 W: levels 6-9	W6	Isopridae	tb	l	ps	82.1					
378	32	Rm A5 W: levels 6-9	W6	Isopus	inn	r	ac,i,ia,pu	ac1,81.2,82,81 ,82,pu1.1	f				
378	33	Rm A5 W: levels 6-9	W6	Isopus	inn	r	ac,i,ia,pu	ac1,81.2,82,81 ,2,82,pu1	f				out
378	34	Rm A5 W: levels 6-9	W6	Isopus	rad	l	d	ra4,ra5	f				
378	35	Rm A5 W: levels 6-9	W6	Isopus	rad	r	ps	ra3.1					
378	36	Rm A5 W: levels 6-9	W6	Isopridae	tb	l	ps	82.1					
378	37	Rm A5 W: levels 6-9	W6	Isopus	mt4	r	p	mt1,mt2					
378	38	Rm A5 W: levels 6-9	W6	Isopus	mt2	l	c	mt1.1,mt2,mt3	f				
378	39	Rm A5 W: levels 6-9	W6	Isopridae	mp		d						
378	40	Rm A5 W: levels 6-9	W6	Isopus	mt3	r	c	mt1,mt2,mt3	f				
378	41	Rm A5 W: levels 6-9	W6	Isopridae	mp		d						
378	42	Rm A5 W: levels 6-9	W6	Isopus	mt5	r	c	mt1,mt2,mt3	p		rod		
378	43	Rm A5 W: levels 6-9	W6	Isopus	mt5	l	p	mt1,mt2					
378	44	Rm A5 W: levels 6-9	W6	Isopus	mt2	r	p	mt1,mt2.1					
378	45	Rm A5 W: levels 6-9	W6	Syrtalgus	mt2	r	c	mt1,mt2,mt3	f				
378	46	Rm A5 W: levels 6-9	W6	Isopus	mt3	r	p	mt1,mt2					
378	47	Rm A5 W: levels 6-9	W6	Isopus	mt4	r	c	mt1,mt2	p		rod		
378	48	Rm A5 W: levels 6-9	W6	Syrtalgus	mt3	l	c	mt1,mt2,mt3.1	f				
378	49	Rm A5 W: levels 6-9	W6	Isopus	cal	l	c	car1.2,car2	u		rod		
378	50	Rm A5 W: levels 6-9	W6	Isopus	man	r	ds	dn1					i
378	51	Rm A5 W: levels 6-9	W6	Isopus	hum	r	ms	hu2.2,hu3.1					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 9 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Pop.	Identification	Elem.	Side	Portion	Spec Sites	Fus.	Burn.	Mod.	# Pop.	Comments
378	52	Rm AS Wt. levels 6-9	WS	ipus	hum	r	d	hu4,hu5	f				
378	53	Rm AS Wt. levels 6-9	WS	ipus	acc		c	ac1	f				
378	54	Rm AS Wt. levels 6-9	WS	cyrtogus	cal	l	c	ca1,ca2	f				
378	55	Rm AS Wt. levels 6-9	WS	cyrtogus	cal	r	c	ca1,ca2	f				
378	56	Rm AS Wt. levels 6-9	WS	ipus	acc	l	n,b	sp2.2		c			
378	57	Rm AS Wt. levels 6-9	WS	ipus	hum	l	d	hu4,1,hu5	f				
378	58	Rm AS Wt. levels 6-9	WS	ipus	acc	l	b	sp3.1					
378	59	Rm AS Wt. levels 6-9	WS	ipus	sem	l	ps						
378	60	Rm AS Wt. levels 6-9	WS	ipus	ib	r	de						
378	61	Rm AS Wt. levels 6-9	WS	ipus	acc	l	eb	sp3.1					
378	63	Rm AS Wt. levels 6-9	WS	iporidae	stu	r	mas						
378	64	Rm AS Wt. levels 6-9	WS	ipus	uin	r	p	u2.1					
378	65	Rm AS Wt. levels 6-9	WS	ipus	acc		t	ac1.1	f		dg?		
378	66	Rm AS Wt. levels 6-9	WS	ipus	ib	l	ps	u2.1					
378	67	Rm AS Wt. levels 6-9	WS	ipus	ib	l	p	u1.2,u2.1	u1			2	incl. #62
378	68	Rm AS Wt. levels 6-9	WS	ipus	hum		s	hu3.2					
378	69	Rm AS Wt. levels 6-9	WS	cyrtogus	ib	l	p	u1.2,u2	f	c			
378	70	Rm AS Wt. levels 6-9	WS	ipus	inn	l	ac.#	ac1.1,u2.1					
378	71	Rm AS Wt. levels 6-9	WS	ipus	m2	r	p	m1					
378	72	Rm AS Wt. levels 6-9	WS	iporidae	max	l	br						
378	73	Rm AS Wt. levels 6-9	WS	ipus	uin	r	ps	u3.1					
378	74	Rm AS Wt. levels 6-9	WS	iporidae	mp		s						
378	75	Rm AS Wt. levels 6-9	WS	iporidae	pmx	l	ro						
378	76	Rm AS Wt. levels 6-9	WS	iporidae	stu	r	bul						
378	77	Rm AS Wt. levels 6-9	WS	ipus	acc	l	n,n	sp1.2	f				
378	78	Rm AS Wt. levels 6-9	WS	cyrtogus	ib	l	ps	u2.1					
378	80	Rm AS Wt. levels 6-9	WS	ipus	ib	l	s			b			
378	81	Rm AS Wt. levels 6-9	WS	cyrtogus	sem	l	p	u1,hu2.2,hu3.2	f	c		2	incl. #115
378	82	Rm AS Wt. levels 6-9	WS	ipus	m5	r	p	m1					
378	83	Rm AS Wt. levels 6-9	WS	iporidae	stu	r	par						
378	84	Rm AS Wt. levels 6-9	WS	iporidae	stu	l	occ						
378	85	Rm AS Wt. levels 6-9	WS	cyrtogus	acc		r	ac1.2	f				
378	86	Rm AS Wt. levels 6-9	WS	iporidae	max	r	orb						
378	87	Rm AS Wt. levels 6-9	WS	iporidae	stu		bul						
378	88	Rm AS Wt. levels 6-9	WS	ipus	hum	l	de	hu4.1		b			
378	89	Rm AS Wt. levels 6-9	WS	ipus	hum	l	de						
378	90	Rm AS Wt. levels 6-9	WS	ipus	uin	l	p	u1.2	f	b			
378	91	Rm AS Wt. levels 6-9	WS	ipus	max	r	br			b			
378	92	Rm AS Wt. levels 6-9	WS	ipus	rad	r	p	m1.2,m2.1	f	c			
378	93	Rm AS Wt. levels 6-9	WS	cyrtogus	acc	r	eb	sp3.1					
378	94	Rm AS Wt. levels 6-9	WS	iporidae	ib	r	de						
378	95	Rm AS Wt. levels 6-9	WS	ipus	acc	l	aa						
378	96	Rm AS Wt. levels 6-9	WS	iporidae	acc	l	b	sp3.1					
378	97	Rm AS Wt. levels 6-9	WS	ipus	hum	l	de	hu4.1					
378	98	Rm AS Wt. levels 6-9	WS	iporidae	acc	l	eb	sp2.1					
378	99	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	100	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	101	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	102	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	103	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	104	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	106	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	108	Rm AS Wt. levels 6-9	WS	iporidae	den		uk						
378	107	Rm AS Wt. levels 6-9	WS	iporidae	den		ik						
378	108	Rm AS Wt. levels 6-9	WS	iporidae	den		ik					2	
378	109	Rm AS Wt. levels 6-9	WS	cyrtogus	den	r	ps						
378	110	Rm AS Wt. levels 6-9	WS	iporidae	den		h1					2	
378	111	Rm AS Wt. levels 6-9	WS	iporidae	den		h1						
378	112	Rm AS Wt. levels 6-9	WS	iporidae	den		m3						
378	113	Rm AS Wt. levels 6-9	WS	iporidae	den		ik			b		3	
378	114	Rm AS Wt. levels 6-9	WS	ipus	m5	l	p	m1.2		b		2	
378	116	Rm AS Wt. levels 6-9	WS	ipus	br	r	sub						
378	117	Rm AS Wt. levels 6-9	WS	ipus	br	r	sub				rod		
378	118	Rm AS Wt. levels 6-9	WS	ipus	pat		c	pa1					
378	119	Rm AS Wt. levels 6-9	WS	iporidae	stu	r	ro						
378	120	Rm AS Wt. levels 6-9	WS	iporidae	stu	r	mas			b		2	incl. #127
378	121	Rm AS Wt. levels 6-9	WS	iporidae	stu		bul			b			
378	122	Rm AS Wt. levels 6-9	WS	iporidae	man	r	b			c			
378	123	Rm AS Wt. levels 6-9	WS	cyrtogus	sem	l	p	u1.1,hu2.2,hu3.2	u		dg		
378	125	Rm AS Wt. levels 6-9	WS	iporidae	stu	r	mas						
378	126	Rm AS Wt. levels 6-9	WS	iporidae	stu	l	mas						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 10 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Pop.	Identification	Elem.	Side	Partion	Segn. Stage	Pop.	Surv.	Mod.	# Pop.	Comments
378	129	Rm AS Wt. levels 6-9	W6	Isopidae	den		ps						
378	129	Rm AS Wt. levels 6-9	W6	Isopidae	den		uk			b			
378	130	Rm AS Wt. levels 6-9	W6	Isopidae	den		tk			b			2
378	131	Rm AS Wt. levels 6-9	W6	Isopidae	den		f			b			
378	132	Rm AS Wt. levels 6-9	W6	Isopidae	den		f			b			
378	133	Rm AS Wt. levels 6-9	W6	Isopidae	den		f						
378	134	Rm AS Wt. levels 6-9	W6	Isopidae	den		f						
378	135	Rm AS Wt. levels 6-9	W6	Isopidae	den		f						
378	136	Rm AS Wt. levels 6-9	W6	Isopidae	den		f						
378	160	Rm AS Wt. levels 6-9	W6	Isopidae	den		f						
382	1	Rm AS Wt. levels 6-9	W7	artiodactyla	hum	r	ps					c	
382	3	Rm AS Wt. levels 6-9	W7	Isopus	eca	r	R,n,b	sp1,sp2,sp3,2	f				
382	4	Rm AS Wt. levels 6-9	W7	Isopus	fem		ps	ts3.1					
382	5	Rm AS Wt. levels 6-9	W7	Isopus	cal		c	ca1,ca2	f				
382	6	Rm AS Wt. levels 6-9	W7	Isopus	fem	r	ps	ts2.1,ts3.1				c	
382	9	Rm AS Wt. levels 6-9	W7	Isopus	hum	r	d	hu4.2,hu5	f			b	
382	10	Rm AS Wt. levels 6-9	W7	Isopus	hum	r	d	hu4.1,hu5	f				
382	11	Rm AS Wt. levels 6-9	W7	Isopus	hum	r	d	hu5	f				
382	12	Rm AS Wt. levels 6-9	W7	Isopidae	etu		bul						
382	13	Rm AS Wt. levels 6-9	W7	Isopus	ant		c	ca1.2					
382	14	Rm AS Wt. levels 6-9	W7	Isopus	un		p	u1.2,u2.1					
382	15	Rm AS Wt. levels 6-9	W7	Isopus	eca		R,n	sp1	f				
382	16	Rm AS Wt. levels 6-9	W7	Isopus	eca	r		ca1.1					
382	18	Rm AS Wt. levels 6-9	W7	Isopidae	man	r	eng	ca3.1					
382	19	Rm AS Wt. levels 6-9	W7	artiodactyla	tb		ps					c	
382	23	Rm AS Wt. levels 6-9	W7	Isopidae	eca		b					c	
382	24	Rm AS Wt. levels 6-9	W7	Isopidae	man		shv						
382	26	Rm AS Wt. levels 6-9	W7	Isopidae	fem		s					c	
382	27	Rm AS Wt. levels 6-9	W7	Isopidae	tb		ps	ts2.1				b	
382	29	Rm AS Wt. levels 6-9	W7	Isopidae	inn		ls	ts1.1					
382	30	Rm AS Wt. levels 6-9	W7	Isopidae	etu	r	tro						
382	32	Rm AS Wt. levels 6-9	W7	Isopus	un	r	ps	u1.3					
382	33	Rm AS Wt. levels 6-9	W7	Isopidae	max		tr					c	
382	34	Rm AS Wt. levels 6-9	W7	Isopidae	inn	r	ls						
382	35	Rm AS Wt. levels 6-9	W7	Isopus	cal		c	ca1,ca2	f			b	out?
382	36	Rm AS Wt. levels 6-9	W7	Isopus	rad	r		ra1,ra2	f			c	
382	37	Rm AS Wt. levels 6-9	W7	Isopus	inn		ec,l,ls,pu	ca1.2,ts2.1,ts2.1,pu.1	f			b	incl. #20,28,64
382	38	Rm AS Wt. levels 6-9	W7	Isopidae	eca		b	sp3.1					
382	40	Rm AS Wt. levels 6-9	W7	Isopidae	fem	r	ds	ts5.1					
382	41	Rm AS Wt. levels 6-9	W7	eythagus	un		p	u1,u2	f				
382	42	Rm AS Wt. levels 6-9	W7	Isopus	un		ps						
382	43	Rm AS Wt. levels 6-9	W7	Isopus	tb		s						
382	44	Rm AS Wt. levels 6-9	W7	Isopus	rad		ps	ra2.1,ra3.2					
382	45	Rm AS Wt. levels 6-9	W7	Isopus	fem		ps						
382	46	Rm AS Wt. levels 6-9	W7	Isopus	mc4	r	c	mc1,mc2	f				
382	47	Rm AS Wt. levels 6-9	W7	Isopus	mc2	r	p	mc1					
382	48	Rm AS Wt. levels 6-9	W7	eythagus	un	r	p	u1,u2	f				
382	49	Rm AS Wt. levels 6-9	W7	Isopidae	eca	r	n						
382	50	Rm AS Wt. levels 6-9	W7	Isopidae	tb	r	s						
382	52	Rm AS Wt. levels 6-9	W7	Isopus	ms		p	ms1.1					
382	53	Rm AS Wt. levels 6-9	W7	Isopidae	etu	r	nea						
382	57	Rm AS Wt. levels 6-9	W7	Isopidae	eca		ls						
382	58	Rm AS Wt. levels 6-9	W7	Isopus	fem		ps					c	
382	60	Rm AS Wt. levels 6-9	W7	Isopidae	etu		nea						
388	1	Rm AS Wt. levels 6-9	W6	artiodactyla	ps2	r	c	ps2.1,ps2.2,ps2.3	u			out	< 6 wks.
388	2	Rm AS Wt. levels 6-9	W6	Isopus	fem	r	ms	ts4.1					
388	3	Rm AS Wt. levels 6-9	W6	Isopus	fem		ps						
388	4	Rm AS Wt. levels 6-9	W6	Isopus	fem		ps						
388	5	Rm AS Wt. levels 6-9	W6	Isopidae	fem		s	ts4.1				c	
388	6	Rm AS Wt. levels 6-9	W6	Isopus	hum	r	p	hu1,hu2.2	p				
388	7	Rm AS Wt. levels 6-9	W6	Isopus	rad	r	p	hu1,hu2	f				
388	8	Rm AS Wt. levels 6-9	W6	Isopus	ms		p	ms1					
388	9	Rm AS Wt. levels 6-9	W6	Isopus	mc2	r	p	ms1					
388	10	Rm AS Wt. levels 6-9	W6	eythagus	cal	r	c	ca1.2,ca2	f			c	
388	11	Rm AS Wt. levels 6-9	W6	Isopus	ant		c	ca1					
388	12	Rm AS Wt. levels 6-9	W6	Isopus	ant	r	c	ca1					
388	13	Rm AS Wt. levels 6-9	W6	Isopus	mc2		p	ms1.1					
388	14	Rm AS Wt. levels 6-9	W6	Isopus	rad		p	ms1					
388	15	Rm AS Wt. levels 6-9	W6	Isopus	ph1		d	ph1					
388	16	Rm AS Wt. levels 6-9	W6	Isopus	hum		d	hu4.2,hu5	f			b	

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 11 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Stg.	Portion	Spec Sites	Fog.	Bym.	Mod.	# Pgs.	Comments
399	17	Rm AS W: levels 6-9	WB	lapus	cal	i	c	ca1.2,ca2.2	u				
399	18	Rm AS W: levels 6-9	WB	lapus	fam	i	d	fa5.1,fa6.1	u			2	
399	19	Rm AS W: levels 6-9	WB	lapus	aca	r	b	ap2.1	u				
399	20	Rm AS W: levels 6-9	WB	artiodactyla	vtu	i	ar			b			
399	21	Rm AS W: levels 6-9	WB	sylvilagus	inn	i	ac,i	ac1,i2.1	f		dg		
399	22	Rm AS W: levels 6-9	WB	lapus	inn	r	ac,i	ac1.2,i2.2	f			2	incl. 636
399	23	Rm AS W: levels 6-9	WB	leporidae	aca	r	ib			c			
399	24	Rm AS W: levels 6-9	WB	lapus	aca	i	h	ap1.1	f				
399	25	Rm AS W: levels 6-9	WB	leporidae	man	r	b	dn2.1,dn3.1					
399	26	Rm AS W: levels 6-9	WB	lapus	pmx	i	ant						
399	27	Rm AS W: levels 6-9	WB	leporidae	stu		tul						
399	28	Rm AS W: levels 6-9	WB	leporidae	hum	r	p	hu2.1	u	c			
399	29	Rm AS W: levels 6-9	WB	leporidae	stu	r	pal						
399	30	Rm AS W: levels 6-9	WB	lapus	fam	r	z	fa3.1					
399	32	Rm AS W: levels 6-9	WB	artiodactyla	stu	r	tam						< 6 wks.
399	33	Rm AS W: levels 6-9	WB	leporidae	den	r	it					3	
406	1	Rm AS W: levels 6-9	WB	artiodactyla	den	r	bl						
406	2	Rm AS W: levels 6-9	WB	artiodactyla	ph2	r	c	p21,p22,p23	f				
406	3	Rm AS W: levels 6-9	WB	artiodactyla	ph3	r	c	p31	f				
406	4	Rm AS W: levels 6-9	WB	artiodactyla	hum	i	ds						
406	6	Rm AS W: levels 6-9	WB	artiodactyla	nav	i	lat	na3.1					
406	8	Rm AS W: levels 6-9	WB	lapus	max	r	mal						
406	9	Rm AS W: levels 6-9	WB	leporidae	max	i	mal						
406	10	Rm AS W: levels 6-9	WB	leporidae	pmx	i	ant						
406	11	Rm AS W: levels 6-9	WB	sylvilagus	aca	r	n,b	ap1,ap2,ap3.2	f			2	
406	12	Rm AS W: levels 6-9	WB	leporidae	aca	i	n,b	ap2.1					
406	13	Rm AS W: levels 6-9	WB	leporidae	aca	r	b						
406	14	Rm AS W: levels 6-9	WB	leporidae	aca	r	sb	ap3.1					
406	15	Rm AS W: levels 6-9	WB	lapus	hum	i	d	hu4,hu5.2	f		dg		
406	16	Rm AS W: levels 6-9	WB	leporidae	hum		s						
406	17	Rm AS W: levels 6-9	WB	lapus	inn	i	il	i1.1,i2.1		b			
406	18	Rm AS W: levels 6-9	WB	sylvilagus	inn	r	is	ia1.2,ia2.2					
406	19	Rm AS W: levels 6-9	WB	lapus	fam	i	p	fa1.1,fa2.2,fa3.1	u	b		3	incl. 67
406	20	Rm AS W: levels 6-9	WB										file with 413-4
406	21	Rm AS W: levels 6-9	WB	sylvilagus	fam	i	p	fa1,fa2.1,fa3.1	f				
406	22	Rm AS W: levels 6-9	WB	sylvilagus	fam	i	d	fa5.2,fa6.2	f		car?		
406	23	Rm AS W: levels 6-9	WB	leporidae	fam	i	ps			c			
406	24	Rm AS W: levels 6-9	WB	lapus	fam	r	ds	fa4.1					
406	25	Rm AS W: levels 6-9	WB	leporidae	fam		s						
406	26	Rm AS W: levels 6-9	WB	lapus	ib	r	ps	i2.1					
406	27	Rm AS W: levels 6-9	WB	lapus	lar	r	nav				dg?		
406	28	Rm AS W: levels 6-9	WB	sylvilagus	mt3	r	c	mt1,mt2,mt3	f		cu?		
406	29	Rm AS W: levels 6-9	WB	leporidae	stu		occ						
406	30	Rm AS W: levels 6-9	WB	leporidae	stu		occ						
413	1	Rm AS W: level 10	W10	lapus	man	r	b	dn1,dn2					
413	3	Rm AS W: level 10	W10	sylvilagus	man	i	b,r	dn2.1,dn3,dn4.2,dn6					p4-m2
413	5	Rm AS W: level 10	W10	leporidae	den		f						
413	6	Rm AS W: level 10	W10	lapus	pmx	r	fo						
413	7	Rm AS W: level 10	W10	lapus	aca	i	acr						
413	8	Rm AS W: level 10	W10	lapus	pmx	i	ant						
413	9	Rm AS W: level 10	W10	lapus	uin	i	p	u2.2					
413	10	Rm AS W: level 10	W10	lapus	inn	i	il	i1					
413	11	Rm AS W: level 10	W10	leporidae	stu		tam						
413	12	Rm AS W: level 10	W10	lapus	inn	r	il						
413	13	Rm AS W: level 10	W10	leporidae	den		f						
413	14	Rm AS W: level 10	W10	sylvilagus	fam	i	p	fa1,fa2.2,fa3.2	f			2	incl. lot 406 620
413	15	Rm AS W: level 10	W10	leporidae	fam	i	ps	fa2.1,fa3.1					
413	16	Rm AS W: level 10	W10	lapus	fam	r	d	fa5.1,fa6.2	p		dg,car		
413	17	Rm AS W: level 10	W10	lapus	fam	r	p	fa1,fa2.2,fa3.2	f	b			
413	18	Rm AS W: level 10	W10	sylvilagus	cal	r	c	ca1.2,ca2.2	f				
413	19	Rm AS W: level 10	W10	lapus	ib	i	ps	i2.1					
413	20	Rm AS W: level 10	W10	lapus	mt3	r	p	mt1,mt2.1					
413	21	Rm AS W: level 10	W10	lapus	rad	i	d	ra3.1,ra4,ra5	f				
413	22	Rm AS W: level 10	W10	lapus	fam	r	s	fa4.1					
413	24	Rm AS W: level 10	W10	lapus	aca	r	b	ap2.2,ap3.1				2	incl. 623
413	25	Rm AS W: level 10	W10	leporidae	inn	r	il	i1.1				3	
67	1	Rm AS III		ostococcus	stu								
67	2	Rm AS III		artiodactyla	inn	r	ac,ls,pu	ac1.1,pu1.1	f			3	glued; incl. 68
67	3	Rm AS III		artiodactyla	rb	r	s	x					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 12 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Segn Sites	Fac.	Surv.	Mat.	# Spec. Comments
67	4	Rm A5 III		artiodactyla	rib	r	a	n3.2				3
67	5	Rm A5 III		lepus	inn	r	ii	n1.1				
67	6	Rm A5 III		lepus	inn	l	ii	n1.1				
67	7	Rm A5 III		odocoileus	gan		7m					
67	9	Rm A5 III		artiodactyla	fem	r	pa			b		
67	10	Rm A5 III		artiodactyla	fem	r	ma	n4.1				
67	11	Rm A5 III		artiodactyla	mt		d	m4,m5		u		
67	12	Rm A5 III		artiodactyla	tb	r	ma	n3			b	
67	13	Rm A5 III		artiodactyla	rad	r	da	n4.1			b	
67	14	Rm A5 III		artiodactyla	tb	r	pa	n2.1			b	
67	15	Rm A5 III		artiodactyla	fem		a					
67	16	Rm A5 III		artiodactyla	fem	l	pa					
67	19	Rm A5 III		artiodactyla	scs		b			b		
67	21	Rm A5 III		artiodactyla	tb	r	pa				c	
67	23	Rm A5 III		artiodactyla	vth		bo	n1.2		f	c	
67	24	Rm A5 III		artiodactyla	rib	r	aa	n5				
67	25	Rm A5 III		artiodactyla	rib		a			b		
67	26	Rm A5 III		artiodactyla	rib		a			b		
67	27	Rm A5 III		artiodactyla	rib		a			c		
67	28	Rm A5 III		artiodactyla	rib		a			c		
67	29	Rm A5 III		artiodactyla	ph1	r	c	p11,p12,p13		f		
67	30	Rm A5 III		artiodactyla	ph1	l	c	p11,p12,p13		f		
67	31	Rm A5 III		artiodactyla	ph1	l	c	p11,p12,p13		f		
67	32	Rm A5 III		artiodactyla	ph1	r	c	p11,p12,p13		f	c	
67	33	Rm A5 III		artiodactyla	ph1	l	c	p11,p12,p13		f		
67	34	Rm A5 III		artiodactyla	ph1	l	c	p11,p12,p13		f		
67	35	Rm A5 III		artiodactyla	ph1	r	p	p11,p12		f	c	
67	36	Rm A5 III		artiodactyla	ph1	l	d	p12,p13		b		
67	37	Rm A5 III		artiodactyla	ph2	r	c	p21,p22,p23		f		
67	38	Rm A5 III		artiodactyla	ph2	l	c	p21,p22,p23		f	c	
67	39	Rm A5 III		artiodactyla	ph2	r	c	p21,p22,p23		f	c	2
67	40	Rm A5 III		artiodactyla	ph2	l	p	p21,p22,1		f	c	
67	41	Rm A5 III		artiodactyla	ph2	l	d	p23		c		
67	42	Rm A5 III		artiodactyla	ph3	l	c	p31		f		
67	43	Rm A5 III		artiodactyla	ph3	l	c	p31		f	c	
67	44	Rm A5 III		artiodactyla	ph3	l	c	p31		f		
67	45	Rm A5 III		artiodactyla	ph3	l	c	p31		f		
67	46	Rm A5 III		artiodactyla	ph3	r	c	p31		f	c	
67	47	Rm A5 III		artiodactyla	ph3	l	p	p31,2		f	c	
67	48	Rm A5 III		artiodactyla	ph3	l	d	p31,1		c		
67	49	Rm A5 III		artiodactyla	ph3		d	p31,1				
67	50	Rm A5 III		artiodactyla	pa		c					
67	51	Rm A5 III		artiodactyla	pa		c					
67	52	Rm A5 III		artiodactyla	pa		c					
67	53	Rm A5 III		artiodactyla	pa		c					
67	54	Rm A5 III		artiodactyla	pa		c			b		
67	56	Rm A5 III		lepus	man	r	b,r	n3.1,n4.1		c	ado	m2,m3
67	57	Rm A5 III		lepus	man	r	c	n1.1,n2,n3, n4.2,n5				
67	58	Rm A5 III		lepus	man	r	b	n2,n3,1				
67	59	Rm A5 III		syllagus	man	r	b,r	n2.1,n3.2,n 4.2				2
67	60	Rm A5 III		leporidae	man	r	b	n3.1				
67	61	Rm A5 III		lepus	man	r	b,r	n3.1,n4.1				
67	62	Rm A5 III		leporidae	man	r	da	n1.2,n2.1		b		
67	63	Rm A5 III		lepus	man	r	b	n1,n2,1		b		
67	64	Rm A5 III		lepus	man	r	b	n1.2,n2.1		b		
67	65	Rm A5 III		lepus	man	r	da	n1.2				
67	66	Rm A5 III		lepus	man	r	r	n4.1,n5.2				
67	67	Rm A5 III		lepus	man	r	r	n4.1,n5.2				
67	68	Rm A5 III		lepus	man	r	r	n4.1,n5.1				
67	69	Rm A5 III		leporidae	man	r	pb	n4.1,n5.1				
67	70	Rm A5 III		leporidae	man	r	lb	n2.1,n3.1				
67	71	Rm A5 III		leporidae	man	r	lb	n3.1				
67	72	Rm A5 III		lepus	man	r	ang	n3.1,n4.1				
67	73	Rm A5 III		leporidae	man	r	ang	n4.1				
67	74	Rm A5 III		lepus	man	l	c	n1,n2,n3,d n4.1,n5.2				1
67	75	Rm A5 III		lepus	man	l	b	n2				m1
67	76	Rm A5 III		lepus	man	l	b,r	n2.1,n3,n4 2,n5.1				
67	77	Rm A5 III		lepus	man	l	b	n1,n2,n3,2				

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 13 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Fsp.	Identification	Sex.	Site	Portion	Spec. Stps	Fsp. Num.	Mod.	# Pos.	Comments
67	79	Rm A5 III		lepus	nan	i	b	dn2, dn3.1			b	
67	80	Rm A5 III		lepus	nan	i	b	dn1, dn2.1, dn3.1			c	3 incl. #79, 83
67	81	Rm A5 III		lepus	nan	i	dia	dn1.1			b	
67	82	Rm A5 III		lepus	nan	i	dia	dn1.1				
67	83	Rm A5 III		lepus	nan	i	con	dn5.2				
67	84	Rm A5 III		leporidae	nan	i	con	dn5				
67	85	Rm A5 III		lepus	nan	r	c	dn1, dn2, dn3.2, dn4.2, dn5.1				m1, m2
67	86	Rm A5 III		leporidae	nan	i	pb	dn4.1, dn5.1				
67	87	Rm A5 III		lepus	nan	i	pb	dn4.1, dn5.1				
67	87	Rm A5 III		leporidae	nan	i	pb	dn4.1				
67	88	Rm A5 III		leporidae	nan	i	pb	dn4.1				
67	89	Rm A5 III		leporidae	nan	i	pb	dn4.1				
67	90	Rm A5 III		leporidae	nan	i	lb	dn3.1				
67	91	Rm A5 III		leporidae	nan	i	shv					
67	92	Rm A5 III		cythaeus	nan	i	b	dn1, dn2.1				
67	94	Rm A5 III		lepus	scs	r	h, n, b	ep1.2, ep2, ep3.2				2
67	95	Rm A5 III		lepus	scs	r	h, n, b	ep1, ep2, ep3.1				4 incl. #102
67	96	Rm A5 III		lepus	scs	r	h, n, b	ep1, ep2.2, ep3.1				
67	97	Rm A5 III		lepus	scs	r	h, n	ep1.2, ep2.1				
67	98	Rm A5 III		lepus	scs	r	h, n	ep1.2			c	
67	99	Rm A5 III		lepus	scs	r	h, n	ep1			f	
67	100	Rm A5 III		lepus	scs	r	h, n	ep1.2, ep2.1			f	
67	101	Rm A5 III		lepus	scs	r	sb	ep3.1				
67	103	Rm A5 III		leporidae	scs	r	sb	ep3.1				
67	104	Rm A5 III		leporidae	scs	r	b	ep2.1, ep3.1				2
67	105	Rm A5 III		leporidae	scs	r	ie					
67	106	Rm A5 III		lepus	scs	i	h, n, b	ep1, ep2.1			f	
67	107	Rm A5 III		lepus	scs	i	h, n, b	ep1, ep2.1, ep3.2				4 incl. #119, 121
67	108	Rm A5 III		lepus	scs	i	h, n, b	ep1, ep2.2			f	
67	109	Rm A5 III		lepus	scs	i	h, n	ep1			f c	sto
67	110	Rm A5 III		lepus	scs	i	h, n	ep1.2			f b	
67	111	Rm A5 III		lepus	scs	i	h, n	ep1			f	
67	112	Rm A5 III		lepus	scs	i	h, n	ep1.2			f	
67	113	Rm A5 III		lepus	scs	i	h, n	ep1.2			f b	
67	114	Rm A5 III		leporidae	scs	i	h	ep1.1			f c	
67	115	Rm A5 III		lepus	scs	i	h, n	ep1.1, ep2.1			f	
67	116	Rm A5 III		leporidae	scs	i	n, b	ep2.2				
67	117	Rm A5 III		leporidae	scs	i	sb	ep2.1, ep3.1				2 incl. #118
67	120	Rm A5 III		leporidae	scs	i	b	ep3.1			b	2
67	122	Rm A5 III		leporidae	scs	i	lb	ep3.1				
67	123	Rm A5 III		leporidae	scs	i	lb	ep2.1				
67	124	Rm A5 III		leporidae	scs	i	lb	ep3.1				
67	125	Rm A5 III		leporidae	scs	i	b				b	sto
67	126	Rm A5 III		leporidae	scs	i	b					
67	127	Rm A5 III		leporidae	scs	i	b					
67	128	Rm A5 III		lepus	scs	i	lb				b	sto
67	129	Rm A5 III		cythaeus	scs	r	h, n, b	ep1, ep2.1			f	
67	130	Rm A5 III		cythaeus	scs	i	h, n, b	ep1, ep2, ep3.1			f	
67	131	Rm A5 III		lepus	hum	r	p	hu1, hu2			f	
67	132	Rm A5 III		lepus	hum	r	p	hu1.1, hu2			u	
67	133	Rm A5 III		lepus	hum	r	p	hu1.2			f c	
67	134	Rm A5 III		lepus	hum	r	pe	hu1.2			u	
67	135	Rm A5 III		lepus	hum	r	pe	hu1.2			u	
67	136	Rm A5 III		lepus	hum	r	pe	hu2.1, hu3.1			u	
67	137	Rm A5 III		lepus	hum	r	s	hu3				
67	138	Rm A5 III		lepus	hum	r	s	hu3				
67	139	Rm A5 III		lepus	hum	r	d	hu3.1, hu4, hu5			f	
67	140	Rm A5 III		lepus	hum	r	d	hu4, hu5			f	
67	141	Rm A5 III		lepus	hum	r	d	hu4.2, hu5.2			f	
67	142	Rm A5 III		lepus	hum	r	d	hu4.1, hu5.2			f	
67	143	Rm A5 III		lepus	hum	i	p	hu1, hu2			f	
67	144	Rm A5 III		lepus	hum	i	p	hu1.1, hu2, hu3.1			u	
67	145	Rm A5 III		lepus	hum	i	p	hu1.1, hu2			u	
67	146	Rm A5 III		lepus	hum	i	p	hu1.2, hu2.1			f b	
67	147	Rm A5 III		lepus	hum	i	pe	hu1.2			u	
67	148	Rm A5 III		lepus	hum	i	pe	hu1.2			u	dn?

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 14 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Scan Sites	Pop.	Burr.	Mod.	#	Pop. Comments
87	148	Rm A5 III		lepus	hum	l	de						
87	150	Rm A5 III		lepus	hum	l	a	hu3.2					
87	151	Rm A5 III		lepus	hum	l	s	hu2.1					
87	152	Rm A5 III		leporidae	hum	l	pe						
87	153	Rm A5 III		leporidae	hum	l	de						
87	154	Rm A5 III		leporidae	hum	l	de	hu4.1					
87	155	Rm A5 III		lepus	hum	l	d	hu4,hu5	f				
87	156	Rm A5 III		lepus	hum	l	d	hu3.2,hu4,hu5	f				
87	157	Rm A5 III		lepus	hum	l	d	hu4,hu5	f				
87	158	Rm A5 III		lepus	hum	l	d	hu4.2,hu5	f	b			
87	159	Rm A5 III		lepus	hum	l	d	hu4,hu5	f	b			
87	160	Rm A5 III		lepus	hum	l	d	hu5.2	f				
87	161	Rm A5 III		syvilegus	hum	r	p	hu1,hu2	f				
87	162	Rm A5 III		syvilegus	hum	r	a	hu2.1		b			
87	163	Rm A5 III		syvilegus	hum	r	d	hu4,hu5	f	b			
87	164	Rm A5 III		syvilegus	hum	r	d	hu4.1,hu5	f				
87	165	Rm A5 III		syvilegus	hum	l	p	hu1.1,hu2.2	u			2	
87	166	Rm A5 III		syvilegus	hum	l	a	hu3.1					
87	167	Rm A5 III		syvilegus	hum	l	d	hu4.2,hu5	f				
87	168	Rm A5 III		lepus	uin	r	p	u1,u2	f	b			
87	169	Rm A5 III		lepus	uin	r	p	u1,u2	f				
87	170	Rm A5 III		lepus	uin	r	p						
87	171	Rm A5 III		leporidae	uin	r	a						
87	172	Rm A5 III		leporidae	uin	r	a						
87	173	Rm A5 III		lepus	uin	r	d	u4	f				
87	174	Rm A5 III		lepus	uin	l	p	u1,u2	f				
87	175	Rm A5 III		lepus	uin	l	p	u1,u2	f				
87	176	Rm A5 III		lepus	uin	l	p	u1,u2	u				
87	177	Rm A5 III		lepus	uin	r	p	u1,u2	f				
87	178	Rm A5 III		lepus	uin	l	p	u1.2,u2.1	f				
87	179	Rm A5 III		lepus	uin	l	pe						
87	180	Rm A5 III		leporidae	uin	l	a						
87	181	Rm A5 III		lepus	uin	l	de		u				
87	182	Rm A5 III		syvilegus	uin	r	p	u1,u2	f				
87	183	Rm A5 III		syvilegus	uin	l	p	u1.1,u2	f				
87	184	Rm A5 III		lepus	rad	r	p	ra1,ra2,ra3.1	f				
87	185	Rm A5 III		lepus	rad	r	p	ra1,ra2	f	b			
87	186	Rm A5 III		lepus	rad	r	p	ra1,ra2.1	f				
87	187	Rm A5 III		lepus	rad	l	a			b			
87	188	Rm A5 III		lepus	rad	l	p	ra1,ra2	f				
87	189	Rm A5 III		lepus	rad	l	pe						
87	190	Rm A5 III		lepus	rad	l	d	ra3.2,ra4,ra5	f				
87	191	Rm A5 III		lepus	rad	l	d	ra4,ra5	f				
87	192	Rm A5 III		lepus	rad	l	d	ra4.2,ra5.2	f				
87	193	Rm A5 III		lepus	rad	l	d	ra4.1,ra5.2	f				
87	194	Rm A5 III		leporidae	rad	l	a						
87	195	Rm A5 III		leporidae	rad	l	a						
87	196	Rm A5 III		syvilegus	rad	r	c	ra1,ra2,ra3,ra4,f,ra5					
87	197	Rm A5 III		syvilegus	rad	r	p	ra1.1,ra2,ra3,ra4,f,2					
87	198	Rm A5 III		lepus	inn	r	c	ic1,i1,i2,i1.2,f,i2,pu1					
87	199	Rm A5 III		lepus	inn	r	c	ic1,i1,i2,i1,i1.2,pu1					
87	200	Rm A5 III		lepus	inn	r	u	i1.2			car?		
87	201	Rm A5 III		lepus	inn	r	a	i1.1		c			
87	202	Rm A5 III		leporidae	inn	r	ac,ie	ac1.1				dg?	
87	203	Rm A5 III		leporidae	inn	r	ac,ie	ac1.1,i2.1					
87	204	Rm A5 III		lepus	inn	r	ie	ie1.2,i2.1					
87	205	Rm A5 III		lepus	inn	r	ie	ie1.2		c			
87	206	Rm A5 III		leporidae	inn	l	ie	ie1.1		b			
87	207	Rm A5 III		lepus	inn	r	ie	ac1.2,i1.1,i2	u	b			
87	208	Rm A5 III		leporidae	inn	r	ac,ie	ac1.1,i2.2		b			
87	209	Rm A5 III		leporidae	inn	r	ac,pu	ac1.1,pu1		f	b		
87	210	Rm A5 III		lepus	inn	r	ie						
87	211	Rm A5 III		lepus	inn	l	c	ac1,i1,i2,i1.2,f,i2,pu1					
87	212	Rm A5 III		lepus	inn	l	ac,ie,ie	ac1,i1.2,i2,i2.2,f,2					
87	213	Rm A5 III		lepus	inn	l	ac,ie	ac1.1,i1.2,i2	u				

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 15 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Fsp.	Identification	Elem.	Side	Portion	Spec Sites	Fsp. Num.	Mat.	# Fsp.	Comments
87	214	Rm A5 III		Igoridae	inn	l	il	ac1.1,i2.1				
87	215	Rm A5 III		Igoridae	inn	l	il					
87	216	Rm A5 III		Igoridae	inn	l	il	il.1				
87	217	Rm A5 III		Igoridae	inn	l	il	il.1				
87	218	Rm A5 III		Igoridae	inn	r	il	il.1		b		
87	219	Rm A5 III		Igoridae	inn	l	il			b		
87	220	Rm A5 III		Igoridae	inn	l	ac,i,ia,pu	ac1.2,i2.2,ia2.1,pu1	f		car	
87	221	Rm A5 III		Igoridae	inn	l	ac,i,ia	ac1,i2.1,ia2.1	f	b		
87	222	Rm A5 III		Igoridae	inn	l	ac,i,ia	ac1.1				
87	223	Rm A5 III		Igoridae	inn	l	ac,i,ia	ac1.1				
87	224	Rm A5 III		Igoridae	inn	l	ac,i,ia	ac1.1,ia1.2,ia2.1				
87	225	Rm A5 III		Igoridae	inn	l	ia	ia1.1,ia2.1				
87	226	Rm A5 III		Igoridae	inn	l	ia	ia2.1				
87	227	Rm A5 III		Igoridae	inn	l	ia	ia1.1				
87	228	Rm A5 III		Igoridae	inn	l	il	il.1			2	
87	229	Rm A5 III		eythiaegus	inn	r	ac,i,ia	ac1,i2,ia2.1	f			
87	230	Rm A5 III		eythiaegus	inn	l	ac,i,ia	ac1.2,i1,i2,ia1.2,ia2.1	f			
87	231	Rm A5 III		eythiaegus	inn	l	ac,i,ia	ac1.2,i1.2,i2.1	f			
87	232	Rm A5 III		Igoridae	inn	r	p	ia1,ia2.2,ia3	u1		2	
87	233	Rm A5 III		Igoridae	inn	r	p	ia1,ia2,ia3.1	f			
87	234	Rm A5 III		Igoridae	inn	r	p	ia1,ia2,ia3.2	f	b		
87	235	Rm A5 III		Igoridae	inn	r	p	ia1.1,ia2.2,ia3	u			
87	236	Rm A5 III		Igoridae	inn	r	p	ia1,ia2.1	f			
87	237	Rm A5 III		Igoridae	inn	r	pa	ia2.1	u			
87	238	Rm A5 III		Igoridae	inn	r	p	ia2.1,ia3.1	u			
87	239	Rm A5 III		Igoridae	inn	r	pa	ia3.1				
87	240	Rm A5 III		Igoridae	inn	r	pa	ia3.1				
87	241	Rm A5 III		Igoridae	inn	r	pa					
87	242	Rm A5 III		Igoridae	inn	r	p	ia2.1,ia3.1	u			
87	243	Rm A5 III		Igoridae	inn	r	pa	ia2.1,ia3.1				
87	244	Rm A5 III		Igoridae	inn	r	pa	ia3.1				
87	245	Rm A5 III		Igoridae	inn	r	s	ia4.1		b	2	
87	246	Rm A5 III		Igoridae	inn	r	pa	ia3.1		b		
87	247	Rm A5 III		Igoridae	inn	r	d	ia5.2,ia6	f			
87	248	Rm A5 III		Igoridae	inn	r	d	ia4.1,ia5.2,ia6.2	f		3	incl. #251
87	249	Rm A5 III		Igoridae	inn	r	d	ia5.1,ia6.1	u			
87	250	Rm A5 III		Igoridae	inn	r	da	ia6.1		b		
87	252	Rm A5 III		Igoridae	inn	r	da	ia6.1				
87	253	Rm A5 III		Igoridae	inn	r	s	ia4,ia5.1				
87	254	Rm A5 III		Igoridae	inn	r	s	ia4.2				
87	256	Rm A5 III		Igoridae	inn	r	s	ia4.1				
87	256	Rm A5 III		Igoridae	inn	r	s	ia4.1				
87	257	Rm A5 III		Igoridae	inn	r	s	ia4.1				
87	258	Rm A5 III		Igoridae	inn	r	s					
87	259	Rm A5 III		Igoridae	inn	l	p	ia1,ia2,ia3.2	f			
87	260	Rm A5 III		Igoridae	inn	l	p	ia1,ia2,ia3	f			
87	261	Rm A5 III		Igoridae	inn	l	p	ia1,ia2,ia3	p			
87	262	Rm A5 III		Igoridae	inn	l	p	ia1.1,ia2.1,ia3.1	u			
87	263	Rm A5 III		Igoridae	inn	l	pa	ia3.1		b		
87	264	Rm A5 III		Igoridae	inn	r	pa					
87	265	Rm A5 III		Igoridae	inn	l	pa					
87	266	Rm A5 III		Igoridae	inn	l	da	ia4.1				
87	267	Rm A5 III		Igoridae	inn	l	s					
87	268	Rm A5 III		Igoridae	inn	l	s	ia4.1				
87	269	Rm A5 III		Igoridae	inn	l	s	ia4.1				
87	270	Rm A5 III		Igoridae	inn	l	s	ia4.1				
87	271	Rm A5 III		Igoridae	inn	l	d	ia5.2,ia6.2	f	red		
87	272	Rm A5 III		Igoridae	inn	l	d	ia5,ia6	f			
87	273	Rm A5 III		Igoridae	inn	l	d	ia5.2	f			
87	274	Rm A5 III		Igoridae	inn	l	d	ia5,ia6.1	u			
87	275	Rm A5 III		Igoridae	inn	l	d	ia5.1	f			
87	276	Rm A5 III		Igoridae	inn	l	s	ia4.1				
87	277	Rm A5 III		Igoridae	inn	l	s					
87	278	Rm A5 III		Igoridae	inn	l	s					
87	279	Rm A5 III		Igoridae	inn	l	s			c		
87	280	Rm A5 III		Igoridae	inn	l	s			b		

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 16 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fos.	Identification	Stem.	Stab.	Portion	Seen Sites	Fos.	Surv.	Mat.	#	Pop.	Comments
07	281	Rm A5 III		oviliagus	tm	r	p	#1, #2.2, #3.1, #4.1						
07	282	Rm A5 III		oviliagus	tm	r	d	#5.1, #6.2						
07	283	Rm A5 III		oviliagus	tm	r	d	#6.2, #6.1						car?
07	284	Rm A5 III		oviliagus	tm	l	p	#1, #2.2, #3						
07	285	Rm A5 III		oviliagus	tm	l	p	#1, #2.2, #3.2						
07	286	Rm A5 III		lapus	tb	r	p	#1, #2						C14 dated
07	287	Rm A5 III		lapus	tb	r	p	#1.1, #2						
07	288	Rm A5 III		leporidae	tb	r	p	#1.1, #2						
07	289	Rm A5 III		lapus	tb	r	p	#1, #2.1						2
07	290	Rm A5 III		lapus	tb	r	p	#1.2, #2.1						2
07	291	Rm A5 III		lapus	tb	r	p	#1.2						2
07	292	Rm A5 III		lapus	tb	r	p	#1.1						
07	293	Rm A5 III		lapus	tb	r	s	#2.1						b
07	294	Rm A5 III		lapus	tb	r	s	#2.1						e
07	295	Rm A5 III		lapus	tb	r	ps	#2.2						b
07	297	Rm A5 III		leporidae	tb	r	ps	#2.1						
07	298	Rm A5 III		leporidae	tb	r	p							u c
07	299	Rm A5 III		leporidae	tb	r	ps	#2.1						
07	300	Rm A5 III		leporidae	tb	r	ps							
07	301	Rm A5 III		leporidae	tb	r	ps							
07	302	Rm A5 III		lapus	tb	r	d	#3.1, #4, #5						f c
07	303	Rm A5 III		lapus	tb	r	d	#5.1						f
07	304	Rm A5 III		lapus	tb	r	d	#4.1, #5						f c
07	305	Rm A5 III		lapus	tb	l	p	#1, #2, #3						f
07	306	Rm A5 III		lapus	tb	l	p	#1, #2, #3						f b
07	307	Rm A5 III		lapus	tb	l	p	#1.1						f c
07	308	Rm A5 III		lapus	tb	l	p	#1.1, #2.2, #3.1						u b
07	309	Rm A5 III		lapus	tb	l	s	#2.1						b
07	310	Rm A5 III		leporidae	tb	l	p	#2.1						u
07	312	Rm A5 III		leporidae	tb	l	ps	#2.1						
07	313	Rm A5 III		lapus	tb	r	ms							b
07	314	Rm A5 III		leporidae	tb	l	s							b
07	315	Rm A5 III		lapus	tb	l	d	#3, #4, #5						f
07	316	Rm A5 III		lapus	tb	l	d	#3.1, #4						u
07	317	Rm A5 III		lapus	tb	l	d	#4.1, #5.1						f
07	318	Rm A5 III		lapus	tb	l	ds	#3.2						
07	319	Rm A5 III		lapus	tb	l	ds	#3.1						
07	320	Rm A5 III		lapus	tb	l	s	#2.1						
07	321	Rm A5 III		leporidae	tb	l	ps	#2.1						
07	322	Rm A5 III		leporidae	tb	r	ps	#2.1						
07	324	Rm A5 III		lapus	tb	l	ds	#3.1						
07	325	Rm A5 III		lapus	tb	r	ds	#3.1						
07	328	Rm A5 III		oviliagus	tb	r	d	#4, #5						f b
07	330	Rm A5 III		lapus	tb	l	p							f
07	331	Rm A5 III		lapus	ant	l	c	#1						
07	332	Rm A5 III		lapus	ant	r	c	#1						
07	333	Rm A5 III		lapus	ant	r	c	#1						
07	334	Rm A5 III		lapus	ant	l	c	#1						
07	335	Rm A5 III		lapus	ant	r	c	#1.2						
07	336	Rm A5 III		lapus	ant	l	c	#1.2						
07	337	Rm A5 III		lapus	ant	l	c	#1.2						
07	338	Rm A5 III		lapus	ant	r	c	#1.2						dg
07	339	Rm A5 III		lapus	ant	r	c	#1						
07	340	Rm A5 III		lapus	ant	r	c	#1, #2						f
07	341	Rm A5 III		lapus	ant	r	c	#1, #2						f
07	342	Rm A5 III		lapus	ant	r	c	#1, #2						f c
07	343	Rm A5 III		lapus	ant	r	c	#1, #2						u1
07	344	Rm A5 III		lapus	ant	r	c	#1, #2.2						f
07	345	Rm A5 III		lapus	ant	r	ps	#1						f
07	346	Rm A5 III		lapus	ant	l	c	#1, #2						u1
07	347	Rm A5 III		lapus	ant	l	c	#1, #2						u1
07	348	Rm A5 III		lapus	ant	l	c	#1, #2.2						f
07	349	Rm A5 III		lapus	ant	l	ant	#2.2						
07	350	Rm A5 III		lapus	ant	l	c	#1.1, #2.2						dg
07	351	Rm A5 III		lapus	ant	l	c	#1.1, #2.1						dg
07	353	Rm A5 III		oviliagus	ant	r	c	#1, #2						f
07	354	Rm A5 III		oviliagus	ant	r	c	#1.2, #2						u
07	355	Rm A5 III		oviliagus	ant	l	c	#1.2, #2						f
07	356	Rm A5 III		oviliagus	ant	l	c	#1, #2						f
07	357	Rm A5 III		oviliagus	ant	l	c	#1.2, #2						f

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 17 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Scan Sites	Pop. Surv. Mod.	#	Page	Comments
67	359	Rm A5 III		Lepus	lar	r	nav					
67	360	Rm A5 III		Lepus	lar	r	nav					
67	361	Rm A5 III		Lepus	lar	r	nav					
67	362	Rm A5 III		Lepus	lar	r	nav					
67	363	Rm A5 III		Lepus	lar	r	sub					
67	364	Rm A5 III		Lepus	lar	r	sub					
67	365	Rm A5 III		Lepus	lar	r	sub					
67	366	Rm A5 III		Lepus	lar	r	sub					
67	367	Rm A5 III		Lepus	car	r	pis					
67	368	Rm A5 III		Lepus	car	r	tri					
67	369	Rm A5 III		Lepus	lar	r	3rd					
67	370	Rm A5 III		Lepus	car	r	ham					
67	371	Rm A5 III		Lepus	car	r	lum					
67	372	Rm A5 III		Lepus	pat		e	ps1				
67	373	Rm A5 III		Lepus	mc2	r	e	mt1,mt2,mc3	f			
67	374	Rm A5 III		Lepus	mc2	r	e	mt1,mt2,mc3	f	b		
67	375	Rm A5 III		Lepus	mc2	r	e	mt1,mt2	u			
67	376	Rm A5 III		Lepus	mc2	r	p	mt1		e		
67	377	Rm A5 III		Lepus	mc2	r	p	mt1		e		
67	378	Rm A5 III		Lepus	mc2	r	e	mt1,mt2,mc3	f			
67	379	Rm A5 III		Lepus	mc2	r	e	mt1,mt2	u			
67	380	Rm A5 III		Lepus	mc2	r	e	mt1,mt2,mc3	u1		2	incl. 0433
67	381	Rm A5 III		Lepus	mc2	r	p	mt1,mt2				
67	382	Rm A5 III		Lepus	mc3	r	e	mt1,mt2,mc3	f			
67	383	Rm A5 III		Lepus	mc3	r	e	mt1,mt2,mc3	f			
67	384	Rm A5 III		Lepus	mc3	r	e	mt1,mt2,mc3	f	b		
67	385	Rm A5 III		Lepus	mc3	r	e	mt1,mt2,mc3	f			
67	386	Rm A5 III		Lepus	mc3	r	e	mt1,mt2	u			
67	387	Rm A5 III		Lepus	mc3	r	p	mt1,mt2,1				
67	388	Rm A5 III		Lepus	mc3	r	p	mt1,mt2,1				
67	389	Rm A5 III		Lepus	mc3	r	e	mt1,mt2,mc3	f			
67	390	Rm A5 III		Lepus	mc3	r	e	mt1,mt2,mc3	f			
67	391	Rm A5 III		Lepus	mc3	r	e	mt1,mt2	u			
67	392	Rm A5 III		Lepus	mc3	r	e	mt1,mt2	u			
67	393	Rm A5 III		Lepus	mc3	r	p	mt1				
67	394	Rm A5 III		Lepus	mc4	r	e	mt1,mt2,mc3	f			
67	395	Rm A5 III		Lepus	mc4	r	p	mt1,mt2		b		
67	396	Rm A5 III		Lepus	mc4	r	e	mt1,mt2,mc3	f			
67	397	Rm A5 III		Lepus	mc4	r	e	mt1,mt2,mc3	f			
67	398	Rm A5 III		Lepus	mc4	r	e	mt1,mt2	u			
67	399	Rm A5 III		Lepus	mc4	r	e	mt1,mt2	u			
67	400	Rm A5 III		Lepus	mc4	r	p	mt1				
67	401	Rm A5 III		Lepus	mc5	r	e	mt1,2,mt2,mc3	f			
67	402	Rm A5 III		Lepus	mc5	r	e	mt1,2,mt2,mc3	f			
67	403	Rm A5 III		Lepus	mc5	r	e	mt1,mt2	u			
67	404	Rm A5 III		Lepus	mc5	r	p	mt1,mt2				
67	405	Rm A5 III		Lepus	mc5	r	e	mt1,mt2,mc3	f			
67	406	Rm A5 III		Lepus	mc5	r	e	mt1,mt2,mc3	f			
67	407	Rm A5 III		Lepus	mc5	r	e	mt1,2,mt2,mc3	f			
67	408	Rm A5 III		Lepus	mc5	r	p	mt1,2,mt2				pathological
67	409	Rm A5 III		Lepus	mc5	r	e	mt1,mt2	u			
67	410	Rm A5 III		Lepus	mc5	r	e	mt1,mt2	u			
67	411	Rm A5 III		Lepus	mc5	r	p	mt1,mt2,1				
67	412	Rm A5 III		Sylvilagus	mc2	r	p	mt1				
67	413	Rm A5 III		Lepus	mc2	r	e	mc1,mc2	f			
67	414	Rm A5 III		Lepus	mc2	r	e	mc1,mc2	f			
67	415	Rm A5 III		Lepus	mc2	r	e	mc1,mc2	f			
67	416	Rm A5 III		Lepus	mc3	r	e	mc1,mc2	f			
67	417	Rm A5 III		Lepus	mc3	r	e	mc1,mc2	f	b		
67	418	Rm A5 III		Lepus	mc3	r	e	mc1,mc2	f			
67	419	Rm A5 III		Lepus	mc3	r	e	mc1,mc2	f			
67	420	Rm A5 III		Lepus	mc3	r	e	mc1,mc2	f			
67	421	Rm A5 III		Lepus	mc4	r	e	mc1,mc2	f	b		
67	422	Rm A5 III		Lepus	mc4	r	e	mc1,mc2	f			
67	423	Rm A5 III		Lepus	mc4	r	e	mc1,mc2	f			
67	424	Rm A5 III		Lepus	mc4	r	e	mc1,mc2	f			
67	425	Rm A5 III		Lepus	mc5	r	e	mc1,mc2	f			
67	426	Rm A5 III		Lepus	mc5	r	e	mc1,mc2	f			

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 18 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Foa.	Identification	Elem.	Side	Portion	Scan Sites	Fps.	Burn.	Mod.	# Fps.	Comments
67	427	Rm A5 III		lapus	mc2	l	c	mc1,mc2	f				
67	428	Rm A5 III		laporidae	mp		d		f				
67	429	Rm A5 III		laporidae	mp		d		f				
67	430	Rm A5 III		laporidae	mp		d		f				
67	431	Rm A5 III		laporidae	mp		d		u	b			
67	432	Rm A5 III		laporidae	mp		d		f				
67	434	Rm A5 III		laporidae	mp		de		u				
67	435	Rm A5 III		laporidae	mp		de		u				
67	436	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	437	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	438	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	439	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	440	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	441	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	442	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	443	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	444	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	445	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	446	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	447	Rm A5 III		lapus	ph1		c	ph1,ph2	f				
67	448	Rm A5 III		lapus	ph1		p	ph2	f				
67	449	Rm A5 III		lapus	ph1		p	ph2	f	c			
67	450	Rm A5 III		lapus	ph1		p	ph2	f				
67	451	Rm A5 III		lapus	ph1		p	ph2	f				
67	452	Rm A5 III		lapus	ph1		c	ph1,ph2.1	u				
67	453	Rm A5 III		lapus	ph1		c	ph1,ph2.1	u				
67	454	Rm A5 III		lapus	ph1		c	ph1,ph2.1	u				
67	455	Rm A5 III		laporidae	ph1		c	ph1,ph2	f				
67	456	Rm A5 III		laporidae	ph1		c	ph1,ph2	f				
67	457	Rm A5 III		laporidae	ph1		c	ph1,ph2	f				
67	458	Rm A5 III		lapus	sec		c	ec1.2	f		car?		
67	459	Rm A5 III		lapus	sec		bo,r	ec1.2	f				
67	460	Rm A5 III		lapus	sec		bo	ec1.1	f	b			
67	461	Rm A5 III		lapus	sec		r	ec1.1					
67	462	Rm A5 III		laporidae	sec		r	ec1.1					
67	463	Rm A5 III		laporidae	sec		l	ec1.1	f				
67	464	Rm A5 III		laporidae	sec		l	ec1.1	f	c			
67	465	Rm A5 III		laporidae	stu	ri	tro,par					3	
67	466	Rm A5 III		lapus	max	ri	max-occ					6	
67	467	Rm A5 III		lapus	max	l	c						
67	468	Rm A5 III		laporidae	max	r	zpg			b			
67	469	Rm A5 III		laporidae	max	r	zpg			c			
67	470	Rm A5 III		laporidae	max	r	pal						
67	471	Rm A5 III		laporidae	max	l	br						
67	472	Rm A5 III		lapus	max	l	pal						
67	473	Rm A5 III		laporidae	max	l	pos						
67	474	Rm A5 III		laporidae	max	l	mal						
67	475	Rm A5 III		lapus	max	l	mal						
67	476	Rm A5 III		cyrtolagus	max	l	mal						
67	477	Rm A5 III		laporidae	stu	l	pal						
67	478	Rm A5 III		lapus	prax	ri	ent						
67	479	Rm A5 III		lapus	prax	ri	ent			c			
67	480	Rm A5 III		lapus	prax	ri	ent						
67	481	Rm A5 III		laporidae	prax	ri	ent					2	
67	482	Rm A5 III		lapus	prax	r	c						
67	483	Rm A5 III		lapus	prax	r	ent						
67	484	Rm A5 III		lapus	prax	r	ent						
67	485	Rm A5 III		laporidae	prax	r	ent						
67	486	Rm A5 III		laporidae	prax	l	bo			b			
67	487	Rm A5 III		lapus	prax	l	ent						
67	488	Rm A5 III		lapus	prax	l	ent						
67	489	Rm A5 III		laporidae	prax	l	ent			b			
67	490	Rm A5 III		lapus	prax	l	tro						
67	491	Rm A5 III		laporidae	prax	l	tro						
67	492	Rm A5 III		laporidae	stu	r	tro						
67	493	Rm A5 III		laporidae	stu	r	tro						
67	494	Rm A5 III		laporidae	stu	r	tro						
67	495	Rm A5 III		laporidae	stu	r	tro						
67	496	Rm A5 III		laporidae	stu	ri	par					2	
67	497	Rm A5 III		laporidae	stu	ri	par					2	
67	498	Rm A5 III		laporidae	stu	r	par						
67	499	Rm A5 III		laporidae	stu	l	par						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 19 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Pop.	Identification	Spec.	Site	Portion	Scan Stage	Fog.	Burn.	Mod.	# Pop.	Comments
87	900	Rm A5 III		Isopidae	stu	I	nr						
87	901	Rm A5 III		Isopidae	stu	r	tm						
87	902	Rm A5 III		Isopidae	stu	r	tm						
87	903	Rm A5 III		Isopidae	stu	r	tm						
87	904	Rm A5 III		Isopidae	stu	r	tm						
87	905	Rm A5 III		Isopidae	stu	I	tm						
87	906	Rm A5 III		Isopidae	stu	I	25						
87	907	Rm A5 III		Isopidae	stu	r	agh						
87	908	Rm A5 III		Isopidae	stu	r	agh						
87	909	Rm A5 III		Isopidae	stu	I	agh						
87	910	Rm A5 III		Isopidae	stu		agh						
87	911	Rm A5 III		Isopidae	stu	r	oc						
87	912	Rm A5 III		Isopidae	stu	r	oc						
87	913	Rm A5 III		Isopidae	stu	I	oc						
87	914	Rm A5 III		Isopidae	stu	I	na						
87	915	Rm A5 III		Isopidae	stu	r	par						
87	916	Rm A5 III		Isopidae	stu	r	par						
87	917	Rm A5 III		Isopidae	stu		par						
87	918	Rm A5 III		Isopidae	stu	I	par						
87	921	Rm A5 III		Isopidae	stu	I	bul						
87	922	Rm A5 III		Isopidae	stu	r	bul						
87	923	Rm A5 III		Isopidae	stu	I	bul						
87	924	Rm A5 III		Isopidae	stu		bul						
87	925	Rm A5 III		Gyphidae	den	I	p3						
87	926	Rm A5 III		Isop.	den	r	p3			b			
87	927	Rm A5 III		Isop.	den	r	p3						
87	928	Rm A5 III		Isop.	den	I	p3						
87	929	Rm A5 III		Isop.	den	I	p3						
87	930	Rm A5 III		Isopidae	den		I1					2	
87	931	Rm A5 III		Isopidae	den		I1						
87	932	Rm A5 III		Isopidae	den		I1						
87	933	Rm A5 III		Isopidae	den		I1						
87	934	Rm A5 III		Isopidae	den		I1						
87	936	Rm A5 III		Isopidae	den		I2					2	
87	936	Rm A5 III		Isopidae	den		uk					2	
87	937	Rm A5 III		Isopidae	den		uk						
87	938	Rm A5 III		Isopidae	den		uk						
87	939	Rm A5 III		Isopidae	den		uk						
87	940	Rm A5 III		Isopidae	den		uk						
87	941	Rm A5 III		Isopidae	den		I			b			
87	942	Rm A5 III		Isopidae	den		I					2	
87	943	Rm A5 III		Isopidae	den		I					2	
87	944	Rm A5 III		Isopidae	den		lk			b			
87	945	Rm A5 III		Isopidae	den		lk			b			
87	946	Rm A5 III		Isopidae	den		lk					2	
87	947	Rm A5 III		Isopidae	den		lk						
87	948	Rm A5 III		Isopidae	den		lk						
87	949	Rm A5 III		Isopidae	den		lk						
87	950	Rm A5 III		Isopidae	den		lk						
87	951	Rm A5 III		Isopidae	den		lk						
87	952	Rm A5 III		Isopidae	den		lk						
87	953	Rm A5 III		Isopidae	den		lk						
87	954	Rm A5 III		Isopidae	den		lk						
87	955	Rm A5 III		Isopidae	den		lk						
87	956	Rm A5 III		Isopidae	den		lk						
87	957	Rm A5 III		Isopidae	den		lk						
87	958	Rm A5 III		Isopidae	den		lk						
87	959	Rm A5 III		Isopidae	den		lk						
87	960	Rm A5 III		Isopidae	den		lk						
87	961	Rm A5 III		Isopidae	den		lk						
87	962	Rm A5 III		Isopidae	den		f						
87	963	Rm A5 III		Isopidae	den		f						
87	964	Rm A5 III		Isopidae	den		f						
87	965	Rm A5 III		Isopidae	den		f						
87	966	Rm A5 III		Isopidae	den		f						
87	967	Rm A5 III		Isopidae	den		f						
87	968	Rm A5 III		Isopidae	den		f						
87	969	Rm A5 III		Isopidae	den		f						
87	970	Rm A5 III		Isopidae	den		f						
87	971	Rm A5 III		Isopidae	den		f						
87	972	Rm A5 III		Isopidae	den		f						
87	973	Rm A5 III		Isopidae	den		f						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 20 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Fsp.	Identification	Elem.	Site	Portion	Scan Stage	Fsp.	Burn.	Mat.	# Fsp.	Comments
87	874	Rm A5 III		leporidae	den		f						
87	875	Rm A5 III		leporidae	den		f						
87	876	Rm A5 III		leporidae	den		i						
87	881	Rm A5 III		leporidae	hum	i	de	hu4.1			b		
87	882	Rm A5 III		lepus	tb	r	pe	82.1			b		sdg?
87	883	Rm A5 III		artiodactyla	rib		s						rod
87	884	Rm A5 III		lepus	hum	i	de	hu4.1					
128	2	Rm A5 III		lepus	tb	r	pe	81.1			u		
128	3	Rm A5 III		artiodactyla	rib		e	x					rod, out?
128	4	Rm A5 III		lepus	fem	i	d	86.2, 86			f		
128	5	Rm A5 III		lepus	mt3	i	c	mt1, mt2, mt3			f		
128	6	Rm A5 III		lepus	mt3	r	c	mt1, mt2, mt3			f		
128	7	Rm A5 III		lepus	hum	i	d	hu4, hu5			f		
128	8	Rm A5 III		lepus	ph1		c	ph1, ph2			f	c	
128	9	Rm A5 III		leporidae	rip		d				f		
128	10	Rm A5 III		lepus	scs	r	n, b	sp2.1			f	c	
128	11	Rm A5 III		syllagus	uh		p	u1, u2			f		
128	12	Rm A5 III		leporidae	rad		s						
128	13	Rm A5 III		lepus	inn		ec, i	ec1.1, i2.1					out?
128	14	Rm A5 III		lepus	scs	r	h, n	sp1			f		
128	15	Rm A5 III		lepus	max	r	c						
128	16	Rm A5 III		leporidae	tb		de				c		
128	17	Rm A5 III		leporidae	den		P2						
128	18	Rm A5 III		leporidae	den		uk						
128	19	Rm A5 III		leporidae	den		uk						
128	20	Rm A5 III		leporidae	den		uk						
128	21	Rm A5 III		leporidae	den		uk						
128	22	Rm A5 III		leporidae	hum		pe	hu1.1			u		
128	23	Rm A5 III		leporidae	sku		sp						
416	4	Rm A5 III		artiodactyla	scs		n	sp1.1					
416	5	Rm A5 III		artiodactyla	inn		ie	is1.1					
416	7	Rm A5 III		artiodactyla	tb		d	85.1			f		
416	16	Rm A5 III		lepus	hum	r	p	hu1.2, hu2			f		rod
416	17	Rm A5 III		syllagus	hum	r	d	hu4, hu5			f		
416	18	Rm A5 III		syllagus	hum	r	d	hu4.1, hu5.2			f		
416	19	Rm A5 III		syllagus	hum	r	d	hu4, hu5			f		
416	20	Rm A5 III		lepus	hum		de	hu4.2					
416	21	Rm A5 III		syllagus	hum		p	hu1.2, hu2.1			f		dg?
416	22	Rm A5 III		lepus	tb	r	p	81.2, 82			f		rod
416	23	Rm A5 III		lepus	tb		p	81.1, 82.1			f		
416	24	Rm A5 III		artiodactyla	rad		de	rad.1					
416	25	Rm A5 III		lepus	tb		pe	81.1			u		
416	26	Rm A5 III		lepus	tb	r	p	81.1			f		
416	27	Rm A5 III		lepus	tb	r	pe	81.1			u		
416	28	Rm A5 III		lepus	tb		d	84, 85			f	b	
416	29	Rm A5 III		lepus	tb		de	85			u		
416	29	Rm A5 III		syllagus	tb		p	81.2, 82.1			p		
416	30	Rm A5 III		lepus	fem		p	81.1, 82.1, 83.1			f		
416	31	Rm A5 III		syllagus	fem	r	d	86.1, 86.2			f		
416	32	Rm A5 III		syllagus	fem		de	88.2			u		
416	34	Rm A5 III		leporidae	fem	r	d	86.1					
416	35	Rm A5 III		lepus	inn		ec, i, ie, pu	ec1.1, i2, is1.1, is2.1, pu1.1			f		
416	36	Rm A5 III		lepus	inn		ec	ec1.1, 81.1			f		dg?
416	37	Rm A5 III		lepus	inn		ec, i	ec1.1, i2			u		
416	38	Rm A5 III		syllagus	inn		ec, ie, pu	ec1.2, is1.2, is2.2, 2, pu1.1			f		
416	40	Rm A5 III		leporidae	man		b	dn3.1					
416	41	Rm A5 III		lepus	scs	r	h, n	sp1.2			f		
416	42	Rm A5 III		lepus	scs		h, n	sp1.2			f		
416	43	Rm A5 III		lepus	scs	r	h, n, b	sp1.2, sp2.1			f		3 incl. 884, 108
416	46	Rm A5 III		lepus	scs		b	sp3.1					2 incl. 8101
416	47	Rm A5 III		lepus	cal		c	ca1.2, ca2			u		car?
416	48	Rm A5 III		lepus	cal		c	ca1.2, ca2			f		rod
416	49	Rm A5 III		lepus	cal		c	ca1.2, ca2			f		
416	50	Rm A5 III		lepus	cal		c	ca1, ca2			p		
416	51	Rm A5 III		lepus	ph1		c	ph1, ph2			u		
416	52	Rm A5 III		lepus	ph1		c	ph1, ph2			f		
416	53	Rm A5 III		lepus	ph1		c	ph1, ph2			f		
416	54	Rm A5 III		lepus	ph1		c	ph1, ph2			f		
416	55	Rm A5 III		lepus	ph1		c	ph1, ph2			f		
416	58	Rm A5 III		leporidae	ph1		c	ph1.2, ph2.1			u		

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 21 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Side	Portion	Scan Sites	Fog.	Surv.	Mod.	# Pos.	Comments
416	57	Rm A5 III		lepus	rad	r	p	ra1,ra2	f				
416	58	Rm A5 III		lepus	rad	r	p	ra1,ra2.2	f				
416	59	Rm A5 III		lepus	rad	l	p	ra1.2,ra2.1	f				
416	60	Rm A5 III		syllagus	ib	l	d	sa	u				
416	61	Rm A5 III		lepus	inn	r	a	ia2.1				dig?	
416	62	Rm A5 III		lepus	hum	l	d	ha4.2	u				
416	63	Rm A5 III		artiodactyla	ph3	r	p	pa3.1	f			b	
416	64	Rm A5 III		leporidae	inn	r	a	ia2.1				b	
416	65	Rm A5 III		artiodactyla	vu	r	any						
416	66	Rm A5 III		leporidae	ib	r	pa	ia2.1				b	
416	67	Rm A5 III		lepus	mt2	r	p	mt1				b	
416	68	Rm A5 III		lepus	mt2	l	c	mt1,mt2	u			2	incl. #80
416	69	Rm A5 III		lepus	mt3	r	p	mt1,mt2					
416	70	Rm A5 III		lepus	ant	l	c	aa1.2				dig?	
416	71	Rm A5 III		lepus	un	l	p	ua1	f			dig	
416	72	Rm A5 III		artiodactyla	rib	r	a					3	incl. #8
416	73	Rm A5 III		leporidae	fm		da						
416	74	Rm A5 III		artiodactyla	rib	r	a	x				cut?	2
416	75	Rm A5 III		lepus	fm	l	pa						
416	76	Rm A5 III		lepus	hum	r	p	ha1.1,ha2.1	u				
416	77	Rm A5 III		lepus	hum	l	da	ha3.1,ha4.1				b	
416	79	Rm A5 III		syllagus	rad	l	p	ra1,ra2	f				
416	80	Rm A5 III		syllagus	fm	l	pa	sa.1					
416	81	Rm A5 III		artiodactyla	rib		a					2	incl. #88
416	82	Rm A5 III		leporidae	un	r	d	ua4	u				
416	83	Rm A5 III		leporidae	ib	l	a						
416	84	Rm A5 III		leporidae	oca		ib						
416	85	Rm A5 III		lepus	ib	l	pa	ia2.1					
416	86	Rm A5 III		leporidae	max	r	zyp						
416	87	Rm A5 III		lepus	ib	r	pa					b	
416	88	Rm A5 III		leporidae	hum		na						
416	89	Rm A5 III		leporidae	rad		a					c	
416	92	Rm A5 III		leporidae	oca		ib						
416	93	Rm A5 III		syllagus	fm	l	pa					b	
416	94	Rm A5 III		lepus	max	l	na						
416	96	Rm A5 III		syllagus	ib	l	da	sa.1					
416	97	Rm A5 III		leporidae	hum		da						
416	98	Rm A5 III		leporidae	inn	l	ia	ia1.1,ia2.1					
416	99	Rm A5 III		artiodactyla	rib		a					c	
416	100	Rm A5 III		artiodactyla	rad		a					b	
416	102	Rm A5 III		syllagus	ib	l	d	sa2,sa3.2	f				
416	103	Rm A5 III		leporidae	mp		d					f	
416	104	Rm A5 III		leporidae	un	r	d	ua4	f				
416	105	Rm A5 III		lepus	max	r	pa						
416	106	Rm A5 III		leporidae	ib	l	p	ia1.1	u				
416	107	Rm A5 III		syllagus	inn	r	ia	ia1.1					
416	108	Rm A5 III		leporidae	inn	l	ac,ia	ia1.1					
416	111	Rm A5 III		lepus	un	r	p	ua1.2	f			dig?	
416	112	Rm A5 III		lepus	man	l	con	da6.1					
416	113	Rm A5 III		leporidae	inn	r	ia	ia2.1				dig?	
416	114	Rm A5 III		lepus	inn	l	ia						
416	115	Rm A5 III		lepus	max	r	zyp						
416	116	Rm A5 III		artiodactyla	rib		a					c	
416	117	Rm A5 III		leporidae	inn	l	ac,pu	ia1.1,pu1.1					
416	119	Rm A5 III		lepus	max	r	ap						
416	120	Rm A5 III		lepus	max	l	ant					b	
416	121	Rm A5 III		leporidae	stu	r	fo						
416	122	Rm A5 III		leporidae	stu	r	par						
416	123	Rm A5 III		leporidae	fm	r	p	ia2.1	f			2	
416	124	Rm A5 III		lepus	max	l	br						
416	125	Rm A5 III		lepus	inn	r	pu						
416	126	Rm A5 III		leporidae	max	l	br						
416	127	Rm A5 III		leporidae	stu	r	fo						
416	128	Rm A5 III		syllagus	max	r	zyp						
416	129	Rm A5 III		leporidae	stu	r	bul					2	incl. #130
416	132	Rm A5 III		lepus	fm	r	st	ia3.1					
416	133	Rm A5 III		lepus	fm	r	pa	ia2.1,ia3.1					
416	134	Rm A5 III		leporidae	stu	r	zyp						
416	135	Rm A5 III		leporidae	max	r	zyp						
416	136	Rm A5 III		leporidae	stu	r	bul						
416	137	Rm A5 III		leporidae	stu	l	bul						
416	138	Rm A5 III		leporidae	fm		uk					2	

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 22 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Pcp.	Identification	Elem.	Style	Parties	Spec Sites	Fos.	Surv.	Ident.	# Pcp.	Comments	
416	139	Rm A5 III		Isopridae	den		uk					2		
416	140	Rm A5 III		Isopridae	den		uk							
416	141	Rm A5 III		Isopridae	den		uk							
416	142	Rm A5 III		Isopridae	den		uk							
416	143	Rm A5 III		Isopridae	den		uk							
416	144	Rm A5 III		Isopridae	den		uk							
416	151	Rm A5 III		Isopridae	fem	i	pa							
416	152	Rm A5 III		Isopridae	fem	i	ds	ts4.1						
416	158	Rm A5 III		Isopridae	col	r	ant	cs2.1				dig?		
416	157	Rm A5 III		Isopridae	fem	i	pa					b		
416	158	Rm A5 III		Isopridae	fem	i	pa					c		
416	159	Rm A5 III		Isopridae	fem	r	ms	ts4.1						
416	160	Rm A5 III		Isopridae	fem	i	pa					c		
416	161	Rm A5 III		Isopridae	fem	i	pa					b		
416	162	Rm A5 III		Isopridae	tb	r	pa	ts2.1						
416	163	Rm A5 III		Isopridae	tb	i	p	ts1.1				f	b	
416	164	Rm A5 III		Isopridae	tb	r	pa							
416	165	Rm A5 III		Isopridae	max	i	ms							
416	166	Rm A5 III		Isopridae	stu	i	fo							
416	167	Rm A5 III		Isopridae	stu	i	par							
416	168	Rm A5 III		Isopridae	stu	r	sp							
416	170	Rm A5 III		Isopridae	hum	i	d	ts4.1,ts5.1				f	dig?	
416	171	Rm A5 III		Artiodactyla	rib	r	s						cur?	2
567	1	Rm A5 III		Artiodactyla	den		fm							
567	2	Rm A5 III		Artiodactyla	rad	i	d	ts4.1,ts5.2,ts3				p	b	incl. distal ulna
567	3	Rm A5 III		Artiodactyla	ph1	i	c	p11,p12,p13				f		
567	4	Rm A5 III		Artiodactyla	ph1	r	c	p11,p12,p13				f	b	3o
567	5	Rm A5 III		Artiodactyla	ph1	r	p	p11.2				f	c	
567	6	Rm A5 III		Artiodactyla	ph2	r	c	p21,p22,p23				f	c	
567	7	Rm A5 III		Artiodactyla	ph2	r	p	p21.2,p22.1				f	c	
567	8	Rm A5 III		Artiodactyla	ph3	i	p	p31.2				f	c	
567	9	Rm A5 III		Artiodactyla	ph1	i	d	p13.2						
567	10	Rm A5 III		Artiodactyla	pas		c							
567	11	Rm A5 III		Artiodactyla	den		7k							
567	12	Rm A5 III		Artiodactyla	rib	r	ss	x				b		2
567	16	Rm A5 III		Artiodactyla	irn	r	pu	ts1.2				c		
567	17	Rm A5 III		Artiodactyla	hum	r	ds	ts4.1						
567	19	Rm A5 III		Artiodactyla	car	r	int					b		
567	21	Rm A5 III		Artiodactyla	fem	i	ds							2
567	22	Rm A5 III		Artiodactyla	rad		ds	ts4.1						
567	23	Rm A5 III		Artiodactyla	fem	r	ms	ts4.1				b		
567	24	Rm A5 III		Artiodactyla	tb		ms							
567	26	Rm A5 III		Artiodactyla	tb	i	pa					b		
567	27	Rm A5 III		Artiodactyla	fem		s					c		
567	29	Rm A5 III		Artiodactyla	int		s					c		
567	31	Rm A5 III		Artiodactyla	vu	r	tp							
567	32	Rm A5 III		Isopridae	man	i	c	dn1,dn2,dn3,dn4,2,dn6						ip4-m2
567	33	Rm A5 III		Isopridae	man	r	b	dn1,dn2,dn3						ip3-m2
567	34	Rm A5 III		Syllagmus	man	r	b	dn1,dn2,2						
567	35	Rm A5 III		Isopridae	man	i	ds	dn1.2						
567	36	Rm A5 III		Isopridae	man	i	ds	dn1				b		
567	37	Rm A5 III		Syllagmus	man	i	ds	dn1,dn2.1				c		
567	38	Rm A5 III		Isopridae	man	i	ds	dn1						
567	39	Rm A5 III		Isopridae	man	i	b							
567	40	Rm A5 III		Isopridae	man	r	arg	dn4.2						2
567	41	Rm A5 III		Isopridae	man	r	pb	dn4.1,dn5.1						
567	42	Rm A5 III		Isopridae	man	r	ds					c		2
567	43	Rm A5 III		Isopridae	man	r	ds	dn1.1						
567	44	Rm A5 III		Isopridae	man	r	arg	dn3.1						
567	45	Rm A5 III		Isopridae	man		sh					c		
567	46	Rm A5 III		Isopridae	man		sb							
567	47	Rm A5 III		Isopridae	max	r	sp					b		
567	48	Rm A5 III		Isopridae	cca	i	h,n,b	sp1,sp2.2,sp3.1				f		2
567	49	Rm A5 III		Isopridae	cca	r	h,n,b	sp1,sp2,sp3.2				f		2
567	50	Rm A5 III		Isopridae	cca	r	h,n	sp1,sp2.2				f		
567	51	Rm A5 III		Isopridae	cca	r	h,n	sp1,sp2.2				f		
567	52	Rm A5 III		Isopridae	cca	r	sb	sp2.1,sp3.1						
567	53	Rm A5 III		Isopridae	cca	r	sb	sp3.1						
567	54	Rm A5 III		Isopridae	cca	r	h,n	sp1,sp2.2				f		sp

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 23 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Site	Portion	Scan Sites	Pop.	Burn.	Mod.	# Pgs.	Comments
967	56	Rm A5 III		capitatus	cap	r	h,n	sp1,sp2	f				
967	56	Rm A5 III		lagus	hum	l	p	hu1,hu2	f				
967	57	Rm A5 III		lagus	hum	r	p	hu1,2,hu2.1	f				
967	58	Rm A5 III		lagus	hum	l	p	hu1.1,hu2.1	f				
967	59	Rm A5 III		lagus	hum	l	p	hu1.1,hu2.1	f				
967	60	Rm A5 III		lagus	hum	l	d	hu4,hu5	f				
967	61	Rm A5 III		lagus	hum	l	d	hu4,hu5	f				
967	62	Rm A5 III		lagus	hum	l	d	hu5.2	f	b			
967	63	Rm A5 III		syllagus	hum	r	d	hu4,hu5	f	b			
967	64	Rm A5 III		lagus	uhn	r	p	u1.2,u2.2	f	b			2
967	65	Rm A5 III		lagus	uhn	l	p	u1,u2	f				
967	66	Rm A5 III		lagus	uhn	r	p	u1,u2	f				
967	67	Rm A5 III		lagus	uhn	l	p	u1.2,u2	u				
967	68	Rm A5 III		lagus	uhn	r	p	u1.2,u2,u3	u				
967	69	Rm A5 III		laporidae	uhn	r	me	u3					
967	70	Rm A5 III		laporidae	uhn	l	me	u3.1					
967	71	Rm A5 III		laporidae	uhn	r	pe			c	edo		
967	72	Rm A5 III		lagus	uhn	r	d	u4	f				
967	73	Rm A5 III		lagus	rad	r	p	ra1,ra2	f				
967	74	Rm A5 III		lagus	rad	l	p	ra1,ra2	f				
967	75	Rm A5 III		lagus	rad	l	p	ra1,ra2	f				
967	76	Rm A5 III		lagus	rad	r	p	ra1,ra2	f				
967	77	Rm A5 III		lagus	rad	l	p	ra1,ra2	f	b			
967	78	Rm A5 III		lagus	rad	l	p	ra1,ra2	f				
967	79	Rm A5 III		lagus	rad	r	p	ra1	f				
967	80	Rm A5 III		lagus	rad	l	me			c			
967	81	Rm A5 III		laporidae	rad	l	me						
967	82	Rm A5 III		laporidae	rad	r	pe	ra2.1					
967	83	Rm A5 III		syllagus	sec	c		ac1	f				
967	84	Rm A5 III		lagus	inn	r	ac,i,la	ac1,i1.2,i2,i3,i1.1,i2	f		car?		
967	85	Rm A5 III		lagus	inn	l	ac,i,pu	ac1.2,i2,pu1	f				
967	86	Rm A5 III		lagus	inn	r	c	ac1,i1,i2,i1.2,i2,pu1	f				
967	87	Rm A5 III		lagus	inn	l	ac,i,la	ac1.1,i2.1,i2.1	f		car		
967	88	Rm A5 III		lagus	inn	r	la	la1					
967	89	Rm A5 III		lagus	inn	l	pu	pu1			b		
967	90	Rm A5 III		laporidae	inn	l	pu	pu1.2					2
967	91	Rm A5 III		lagus	inn	r	pu	pu1.2					2
967	92	Rm A5 III		lagus	inn	r	p	ra1,ra2.2,ra3	u1				
967	93	Rm A5 III		lagus	inn	l	p	ra1,ra2,ra3	f				
967	94	Rm A5 III		syllagus	inn	r	p	ra1.1,ra2.2,ra3	u		rad		
967	95	Rm A5 III		lagus	inn	l	p	ra1,ra2.2,ra3.2	f	b			3 incl. 996
967	97	Rm A5 III		lagus	inn	l	3t	ra3.1					
967	98	Rm A5 III		lagus	inn	l	p	ra1	f	c			
967	99	Rm A5 III		lagus	inn	r	pe	ra1.1	u				
967	100	Rm A5 III		lagus	inn	r	p	ra1.2	f	b			
967	101	Rm A5 III		lagus	inn	r	d	ra5.2,ra6	f				
967	102	Rm A5 III		syllagus	inn	l	de	ra5.2	u	b			
967	103	Rm A5 III		lagus	inn	r	me	ra3.1					
967	104	Rm A5 III		laporidae	inn	l	me	ra4.1		c			
967	105	Rm A5 III		laporidae	inn	r	pe			c			
967	106	Rm A5 III		laporidae	inn	l	me	ra4.1			b		
967	107	Rm A5 III		laporidae	inn	l	me						
967	108	Rm A5 III		laporidae	inn	l	de	ra5.1					
967	109	Rm A5 III		laporidae	inn	l	me						
967	110	Rm A5 III		laporidae	inn	l	pe						
967	112	Rm A5 III		laporidae	inn	l	de	ra5.1					
967	113	Rm A5 III		laporidae	inn	r	me	ra4.1					
967	114	Rm A5 III		lagus	ib	l	p	ri1.1,ri2,ri3.1	u				
967	115	Rm A5 III		lagus	ib	r	p	ri1,ri2	f				
967	116	Rm A5 III		lagus	ib	r	p	ri1.1,ri2.1	f	b			
967	117	Rm A5 III		lagus	ib	r	p	ri1.1,ri2.2	u				
967	118	Rm A5 III		syllagus	ib	l	p	ri1.1,ri2.2	u				
967	120	Rm A5 III		lagus	ib	l	pe	ri1.2	u				
967	121	Rm A5 III		laporidae	ib	l	p	ri1.2	f				
967	122	Rm A5 III		laporidae	ib	l	pe	ri1.1	u				
967	123	Rm A5 III		lagus	ib	l	me	ri2.1					
967	125	Rm A5 III		laporidae	ib	r	me	ri2.1					
967	126	Rm A5 III		lagus	ib	r	pe	ri2.1					
967	127	Rm A5 III		lagus	ib	l	pe	ri2.1					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 24 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fsp.	Identification	Elem.	Site	Portion	Scan Sites	Fsp.	Byrn.	Med.	# Pcs.	Comments
887	128	Rm A5 III		leporidae	lb	r	ma						
887	129	Rm A5 III		leporidae	lb	l	ma	82.1					
887	130	Rm A5 III		lepus	lb	l	ma				c		
887	131	Rm A5 III		leporidae	lb	r	ma	82.1					
887	132	Rm A5 III		leporidae	lb	l	ma						
887	133	Rm A5 III		lepus	lb	l	d	84.1,85.2	f	c			
887	134	Rm A5 III		lepus	lb	l	d	85	f				
887	135	Rm A5 III		lepus	lb	l	de	85.2	u				
887	136	Rm A5 III		lepus	cal	r	c	ca1,ca2.2	f		rod		
887	137	Rm A5 III		lepus	cal	r	c	ca1,ca2	f	c			
887	138	Rm A5 III		lepus	cal	r	psa	ca1.1,ca2.2	f				
887	139	Rm A5 III		lepus	cal	r	mid	ca1.1,ca2.1	f				
887	140	Rm A5 III		syllagus	cal	r	c	ca1,ca2	f				
887	141	Rm A5 III		syllagus	cal	l	c	ca1,ca2	f				
887	142	Rm A5 III		lepus	lar	r	nav						
887	143	Rm A5 III		lepus	lar	l	nav						
887	144	Rm A5 III		leporidae	ant	r	c	ca1					
887	145	Rm A5 III		lepus	mc4	l	c	mt1,mt2,mt3	f				
887	146	Rm A5 III		lepus	mc3	l	c	mt1,mt2,mt3	p				
887	147	Rm A5 III		lepus	mc5	r	c	mt1,mt2,mt3	f				
887	148	Rm A5 III		lepus	mc4	l	c	mt1,mt2,mt3	f				
887	149	Rm A5 III		lepus	mc4	r	p	mt1,mt2					
887	150	Rm A5 III		lepus	mc5	l	p	mt1,mt2			c		
887	151	Rm A5 III		lepus	mc2	r	p	mt1.1					
887	152	Rm A5 III		lepus	mc3	r	c	mt1,mt2	f				
887	153	Rm A5 III		syllagus	mc3	l	c	mt1,mt2,mt3	p				
887	154	Rm A5 III		lepus	mc2	r	c	mt1.1,mt2	f				
887	155	Rm A5 III		lepus	mc4	r	c	mt1,mt2	f				
887	156	Rm A5 III		lepus	mc4	r	p	mt1			c		
887	157	Rm A5 III		leporidae	mp		s				c		
887	158	Rm A5 III		lepus	ph1		c	ph1,ph2	f	c			
887	159	Rm A5 III		lepus	ph1		c	ph1,ph2	p				
887	160	Rm A5 III		lepus	pmx	r	ant						
887	161	Rm A5 III		lepus	pmx	l	ant						
887	162	Rm A5 III		leporidae	pmx	r	ant				c		
887	163	Rm A5 III		leporidae	pmx	l	max						
887	164	Rm A5 III		leporidae	sku	l	ro						
887	165	Rm A5 III		leporidae	sku	r	ro						
887	166	Rm A5 III		leporidae	sku	r	ro						
887	167	Rm A5 III		leporidae	sku	l	sph						
887	168	Rm A5 III		leporidae	sku	l	nas						
887	169	Rm A5 III		leporidae	sku	r	con						
887	170	Rm A5 III		leporidae	sku	l	bul						
887	171	Rm A5 III		leporidae	sku	l	bul						
887	172	Rm A5 III		lepus	den	l	p3						
887	173	Rm A5 III		leporidae	den		l1						
887	174	Rm A5 III		leporidae	den		l1						
887	175	Rm A5 III		leporidae	den		l2						
887	176	Rm A5 III		leporidae	den		l				c		
887	177	Rm A5 III		leporidae	den		l						
887	178	Rm A5 III		leporidae	den		l						
887	179	Rm A5 III		leporidae	den		l						
887	180	Rm A5 III		leporidae	den		lk						
887	181	Rm A5 III		leporidae	den		lk						
887	188	Rm A5 III		leporidae	fem	r	ps	8a2.1,8a3.1			b		
887	189	Rm A5 III		lepus	rad	l	d	8a4,8a5	f				
888	1	Rm A5 III & floor		lepus	lb	l	de	84.1					
888	2	Rm A5 III & floor		artiodactyla	mt		s				cut		
888	3	Rm A5 III & floor		artiodactyla	mp		s					2	
888	5	Rm A5 III & floor		artiodactyla	vc2		bp	8a1.1			c		
888	6	Rm A5 III & floor		artiodactyla	rad		ps				c		
888	11	Rm A5 III & floor		leporidae	man	r	b	8n1,8n2,8n3.1					Led,m1
888	12	Rm A5 III & floor		lepus	man	r	b	8n1,8n2,8n3.2					
888	13	Rm A5 III & floor		lepus	man	l	de	8n1.1					
888	14	Rm A5 III & floor		leporidae	man	r	de	8n1.2			c		
888	15	Rm A5 III & floor		lepus	man	r	con	8n5					
888	16	Rm A5 III & floor		lepus	man	l	con	8n5					
888	17	Rm A5 III & floor		leporidae	man	r	ang	8n3.1					
888	18	Rm A5 III & floor		lepus	max	r	r. G. L. br						l P3,P4,M2
888	19	Rm A5 III & floor		lepus	max	l	sp						
888	20	Rm A5 III & floor		leporidae	max	l	mal						
888	21	Rm A5 III & floor		leporidae	max	l	ant						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 25 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Site	Portion	Spec. Stage	Pop.	Surv.	Mod.	# Pop.	Comments
668	22	Rm A5 III & floor		legus	arm	r	bro						
668	23	Rm A5 III & floor		legus	oca	r	c	sp1,sp2,sp3	f			4	incl. 631,32
668	24	Rm A5 III & floor		legus	oca	r	h,n	sp1,sp2.1	f				
668	25	Rm A5 III & floor		legus	oca	r	h,n	sp1,sp2.2	f				
668	26	Rm A5 III & floor		legus	oca	r	h,n	sp2,sp2.2	f			2	
668	27	Rm A5 III & floor		leporidae	oca	r	lb	sp2.1		b			
668	28	Rm A5 III & floor		synthlegus	oca	r	h,n	sp1,sp2	f				
668	29	Rm A5 III & floor		synthlegus	oca	r	h,n	sp1,sp2.2	f				
668	30	Rm A5 III & floor		legus	oca	r	la						
668	33	Rm A5 III & floor		legus	hum	r	p	hu1,hu2	f				
668	34	Rm A5 III & floor		legus	hum	r	d	hu6	f				
668	35	Rm A5 III & floor		legus	hum	r	ma	hu3.2					
668	36	Rm A5 III & floor		legus	hum	r	da	hu4.1					
668	37	Rm A5 III & floor		legus	uhn	r	ma	u3					
668	38	Rm A5 III & floor		legus	rad	r	da	ra3,ra4				2	
668	39	Rm A5 III & floor		legus	rad	r	pa	ra2.2					
668	40	Rm A5 III & floor		legus	inn	r	ac,i,la	ac1,i2,la1.1,la2	f			2	
668	41	Rm A5 III & floor		legus	inn	r	ac,i	ac1,i2	f				
668	42	Rm A5 III & floor		legus	inn	r	ac,i,la	ac1	f	b			
668	43	Rm A5 III & floor		legus	tem	r	pa	te2.1,te3.2					
668	44	Rm A5 III & floor		legus	tem	r	pa	te4.1					
668	45	Rm A5 III & floor		legus	tem	r	pa	te4.1					
668	46	Rm A5 III & floor		leporidae	tem	r	da	te5.1		b			
668	48	Rm A5 III & floor		legus	tem	r	pa						
668	49	Rm A5 III & floor		leporidae	tem	r	da	te5.1		b			
668	50	Rm A5 III & floor		legus	tb	r	da	te4.2					
668	51	Rm A5 III & floor		legus	tb	r	ma	te3.1					
668	52	Rm A5 III & floor		legus	tb	r	ma	te3.1					
668	53	Rm A5 III & floor		leporidae	tb	r	pa	te2.1					
668	54	Rm A5 III & floor		legus	tb	r	ma						
668	55	Rm A5 III & floor		leporidae	tb	r	pa	te2.1		b			
668	57	Rm A5 III & floor		legus	tb	r	pa	te2.1					
668	58	Rm A5 III & floor		leporidae	tb	r	pa						
668	59	Rm A5 III & floor		leporidae	tb	r	pa	te2.1					
668	60	Rm A5 III & floor		legus	ca1	r	c	ca1,ca2	f				
668	61	Rm A5 III & floor		legus	ca1	r	c	ca1,ca2	f				
668	62	Rm A5 III & floor		legus	ca1	r	c	ca1					
668	63	Rm A5 III & floor		legus	mc3	r	c	mc1,mc2,mc3	f				
668	64	Rm A5 III & floor		legus	mc3	r	c	mc1,mc2,mc3	f	b			
668	65	Rm A5 III & floor		legus	mc3	r	p	mc1,mc2					
668	66	Rm A5 III & floor		legus	mc3	r	p	mc1,mc2.2					
668	67	Rm A5 III & floor		legus	mc3	r	p	mc1					
668	68	Rm A5 III & floor		legus	mc3	r	c	mc1,mc2	f				
668	69	Rm A5 III & floor		legus	mc3	r	c	mc1,mc2	f				
668	70	Rm A5 III & floor		legus	ph1	r	c	ph1,ph2	f				
668	71	Rm A5 III & floor		legus	ph1	r	c	ph1,ph2	f				
668	72	Rm A5 III & floor		leporidae	stu	r	zyl						
668	73	Rm A5 III & floor		leporidae	stu	r	occ,bul					2	incl. 674
668	75	Rm A5 III & floor		leporidae	stu	r	occ						
668	76	Rm A5 III & floor		synthlegus	dan	r	p3						
668	77	Rm A5 III & floor		legus	dan	r	p3						
668	78	Rm A5 III & floor		legus	dan	r	p3						
668	79	Rm A5 III & floor		legus	dan	r	p3						
668	80	Rm A5 III & floor		leporidae	dan	r	uk						
668	81	Rm A5 III & floor		leporidae	dan	r	uk						
668	82	Rm A5 III & floor		leporidae	dan	r	uk						
668	83	Rm A5 III & floor		leporidae	dan	r	uk						
668	84	Rm A5 III & floor		leporidae	dan	r	uk						
668	85	Rm A5 III & floor		leporidae	dan	r	it						
668	86	Rm A5 III & floor		leporidae	dan	r	it						
668	87	Rm A5 III & floor		leporidae	dan	r	it						
668	88	Rm A5 III & floor		leporidae	dan	r	f						
668	89	Rm A5 III & floor		leporidae	dan	r	f						
668	90	Rm A5 III & floor		leporidae	dan	r	f						
672	1	Rm A5 III & floor		artiodactyla	dan	r	7m						
672	2	Rm A5 III & floor		artiodactyla	hum	r	d	hu5.1	f				
672	4	Rm A5 III & floor		artiodactyla	ph1	r	p	ph1.1	f				
672	5	Rm A5 III & floor		artiodactyla	vth	r	sp	ph2.1		b			
672	6	Rm A5 III & floor		artiodactyla	vlu	r	sp						out?
672	7	Rm A5 III & floor		artiodactyla	vlu	r	sp						
672	8	Rm A5 III & floor		artiodactyla	vlu	r	sp					2	

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 26 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Fsp.	Identification	Elem.	Side	Portion	Scan Sites	Fsp.	Qum. Mod.	# Pcs.	Comments
572	9	Rm A5 00 & floor		artiodactyl	rib	l	h	n1,r2	u			
572	11	Rm A5 00 & floor		artiodactyl	uln	r	de			b		
572	12	Rm A5 00 & floor		artiodactyl	fem	l	pa			b		
572	13	Rm A5 00 & floor		artiodactyl	sb		ms					
572	14	Rm A5 00 & floor		artiodactyl	hum	r	ms	hu3.1				
572	15	Rm A5 00 & floor		artiodactyl	rad		s			c		
572	17	Rm A5 00 & floor		lapus	man	r	b	dn1,dn2,dn3				lp4-m2
572	18	Rm A5 00 & floor		lapus	man	r	b	dn1,dn2,dn3.2				m2
572	19	Rm A5 00 & floor		syllagus	man	l	b	dn1,dn2,dn3.1				lp3-m2
572	20	Rm A5 00 & floor		lapus	man	r	de	dn1				
572	21	Rm A5 00 & floor		laporidae	man	l	de	dn1				
572	22	Rm A5 00 & floor		lapus	man	l	de	dn1				
572	23	Rm A5 00 & floor		lapus	man	r	de	dn1.2				
572	24	Rm A5 00 & floor		syllagus	man	l	r	dn4.1,dn5				
572	25	Rm A5 00 & floor		laporidae	man	r	pb	dn4.1,dn5.1				
572	26	Rm A5 00 & floor		laporidae	man	l	ang	dn4.1				
572	28	Rm A5 00 & floor		laporidae	man	l	ang	dn3.1				
572	27	Rm A5 00 & floor		laporidae	man	r	lb	dn3.1				
572	28	Rm A5 00 & floor		laporidae	man	r	ang	dn3.1				
572	30	Rm A5 00 & floor		lapus	max	r	c					
572	31	Rm A5 00 & floor		lapus	max	l	sp					P4
572	32	Rm A5 00 & floor		lapus	max	r	ml					
572	33	Rm A5 00 & floor		laporidae	max	r	br					
572	34	Rm A5 00 & floor		laporidae	max	r	zyl			c		
572	36	Rm A5 00 & floor		laporidae	max	l	zyl					
572	38	Rm A5 00 & floor		laporidae	max	l	sh					
572	37	Rm A5 00 & floor		lapus	pmx	l	ant					
572	38	Rm A5 00 & floor		laporidae	pmx	r	ant					
572	38	Rm A5 00 & floor		lapus	oce	r	h,n,b	sp1,sp2,sp3.1	f			2
572	40	Rm A5 00 & floor		lapus	oce	r	h,n	sp1	f	b		
572	41	Rm A5 00 & floor		syllagus	oce	r	h,n	sp1,sp2.1	f			
572	42	Rm A5 00 & floor		syllagus	oce	l	h,n	sp1	f	b		
572	43	Rm A5 00 & floor		laporidae	oce	l	n	sp2.2				
572	44	Rm A5 00 & floor		lapus	oce	l	n	sp1.2	f			
572	45	Rm A5 00 & floor		lapus	oce	l	lb	sp3.1				
572	46	Rm A5 00 & floor		laporidae	oce	r	sb	sp2.1,sp3.1				
572	47	Rm A5 00 & floor		laporidae	oce	r	sb	sp2.1,sp3.1				
572	48	Rm A5 00 & floor		laporidae	oce		sb					
572	49	Rm A5 00 & floor		laporidae	oce	b		sp3.1				
572	50	Rm A5 00 & floor		laporidae	oce		sb					
572	51	Rm A5 00 & floor		laporidae	oce		b					
572	52	Rm A5 00 & floor		lapus	hum	r	p	hu1,hu2	p			
572	53	Rm A5 00 & floor		syllagus	hum	r	p	hu1,hu2	p			
572	54	Rm A5 00 & floor		lapus	hum	r	d	hu1,hu5.2	f			
572	56	Rm A5 00 & floor		lapus	hum	l	d	hu4,hu6	f			
572	56	Rm A5 00 & floor		lapus	hum	r	d	hu4,hu6	f			
572	57	Rm A5 00 & floor		lapus	hum	l	d	hu5.2	f			
572	58	Rm A5 00 & floor		lapus	hum	l	de	hu4				
572	58	Rm A5 00 & floor		lapus	hum	l	de	hu4.1				
572	59	Rm A5 00 & floor		lapus	rad	l	p	ra1,ra2.2	f			
572	62	Rm A5 00 & floor		lapus	rad	r	p	ra1,ra2	f	b		
572	63	Rm A5 00 & floor		lapus	rad	l	p	ra1,ra2.1	f			
572	64	Rm A5 00 & floor		lapus	rad	l	d	ra4.1,ra5	f	b		
572	65	Rm A5 00 & floor		lapus	rad	r	pa	ra2				2
572	66	Rm A5 00 & floor		laporidae	rad		s					
572	67	Rm A5 00 & floor		lapus	uln	l	p	u1.2,u2	u			
572	68	Rm A5 00 & floor		lapus	uln	r	p	u2.2				
572	69	Rm A5 00 & floor		laporidae	uln	l	s					
572	70	Rm A5 00 & floor		lapus	inn	r	ec,i,ls,pu	ec1,i1.2,i2,i1.2,i2,pu1.2	f			
572	71	Rm A5 00 & floor		lapus	inn	l	ec,i,ls,pu	ec1,i2,i2.1,pu1.1	f			car?
572	72	Rm A5 00 & floor		lapus	inn	l	ec,i,ls,pu	ec1,i2,i1.1,ls.2,pu1.2	f			2
572	73	Rm A5 00 & floor		lapus	inn	l	ec,i	ec1.1,i2.2				
572	74	Rm A5 00 & floor		lapus	inn	l	ec,ls,pu	ec1,ls1.2,i2,p.1	f			
572	75	Rm A5 00 & floor		lapus	inn	r	ec,ls	ec1.1,ls1.1,i2		b		
572	76	Rm A5 00 & floor		lapus	inn	r	ec,i	ec1.1,i2.1		b		
572	77	Rm A5 00 & floor		syllagus	inn	r	ec,ls	ec1.1,ls1.1,i2				

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 27 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/ Fsp.	Identification	Sex	Site	Partian	Scan Sites	Fsp. Num.	Mod.	# Pop.	Comments
572	78	Rm A5 III & floor		Igoridae	inn	r	II			rod		
572	79	Rm A5 III & floor		Igoridae	inn	r	ac,II	ac1.1,II.1	f	c	2	
572	80	Rm A5 III & floor		Igoridae	inn	r	II	II.1				
572	81	Rm A5 III & floor		Igoridae	inn	r	II	II.1		b		
572	82	Rm A5 III & floor		Igoridae	fem	r	p	II.2,II.2	f	b		
572	83	Rm A5 III & floor		Igoridae	fem	r	p	II.1,II.2,II.3	f			
572	84	Rm A5 III & floor		Igoridae	fem	r	p	II.1,II.2,II.3.1	p			
572	85	Rm A5 III & floor		Igoridae	fem	r	p	II.1,II.2,II.3	u			
572	86	Rm A5 III & floor		Igoridae	fem	r	ps	II.2,II.3		b		
572	87	Rm A5 III & floor		Igoridae	fem	r	ps	II.2,II.3.1				
572	88	Rm A5 III & floor		Igoridae	fem	r	ps	II.3.1		c		
572	89	Rm A5 III & floor		Igoridae	fem	r	p	II.1,II.2,II.3.1	u			
572	90	Rm A5 III & floor		Igoridae	fem	r	ps			b		
572	91	Rm A5 III & floor		Igoridae	fem	r	p	II.1.2	f			
572	92	Rm A5 III & floor		Igoridae	fem	r	ps	II.1	u			
572	93	Rm A5 III & floor		Igoridae	fem	r	ps	II.1	u			
572	94	Rm A5 III & floor		Igoridae	fem	r	d	II.5,II.6	f			
572	95	Rm A5 III & floor		Sylvius	fem	r	d	II.5,II.6	f			
572	96	Rm A5 III & floor		Igoridae	fem	r	d	II.5.1	u			
572	97	Rm A5 III & floor		Igoridae	fem	r	ds	II.5.1				
572	99	Rm A5 III & floor		Igoridae	fem	r	ms					
572	100	Rm A5 III & floor		Igoridae	fem	r	ps					
572	101	Rm A5 III & floor		Igoridae	fem	r	ms	II.4.1				
572	102	Rm A5 III & floor		Igoridae	fem	r	is					
572	103	Rm A5 III & floor		Igoridae	fem	r	s					
572	104	Rm A5 III & floor		Igoridae	fb	r	p	II.1,II.2	p		2	
572	106	Rm A5 III & floor		Sylvius	fb	r	p	II.1,II.1	f			
572	108	Rm A5 III & floor		Sylvius	fb	r	ps	II.2				
572	107	Rm A5 III & floor		Igoridae	fb	r	ms			c		
572	108	Rm A5 III & floor		Igoridae	fb	r	ps	II.1				
572	109	Rm A5 III & floor		Igoridae	fb	r	ps	II.1				
572	110	Rm A5 III & floor		Igoridae	fb	r	ps	II.1				
572	111	Rm A5 III & floor		Igoridae	fb	r	ms					
572	112	Rm A5 III & floor		Igoridae	fb	r	ps			b		
572	113	Rm A5 III & floor		Igoridae	fb	r	ds	II.3.2		b		
572	114	Rm A5 III & floor		Sylvius	fb	r	ds	II.3		b		
572	116	Rm A5 III & floor		Igoridae	fb	r	c			f		
572	117	Rm A5 III & floor		Igoridae	fb	r	c			u		
572	118	Rm A5 III & floor		Igoridae	cal	r	c	ca1,ca2	f	b		
572	119	Rm A5 III & floor		Igoridae	cal	r	c	ca1,ca2	f			
572	120	Rm A5 III & floor		Igoridae	cal	r	pos	ca1,ca2	f	dg		
572	121	Rm A5 III & floor		Igoridae	cal	r	ant	ca2.1		dg		
572	122	Rm A5 III & floor		Sylvius	cal	r	c	ca1,ca2	f			
572	123	Rm A5 III & floor		Igoridae	tar	r	sub					
572	124	Rm A5 III & floor		Igoridae	tar	r	nav					
572	125	Rm A5 III & floor		Igoridae	mc2	r	c	mc1,mc2,mc3	f			
572	128	Rm A5 III & floor		Igoridae	mc2	r	p	mc1,mc2		c		
572	127	Rm A5 III & floor		Igoridae	mc3	r	p	mc1,mc2.2				
572	128	Rm A5 III & floor		Igoridae	mc3	r	p	mc1.2				
572	129	Rm A5 III & floor		Igoridae	mc3	r	p	mc1				
572	130	Rm A5 III & floor		Igoridae	mc5	r	p	mc1				
572	131	Rm A5 III & floor		Igoridae	mc5	r	p	mc1				
572	133	Rm A5 III & floor		Igoridae	mc4	r	p	mc1.2,mc2				
572	134	Rm A5 III & floor		Igoridae	mp	r	s			c		
572	136	Rm A5 III & floor		Igoridae	mp	r	d			f	c	
572	136	Rm A5 III & floor		Igoridae	mp	r	d			f	c	
572	137	Rm A5 III & floor		Igoridae	mc2	r	c	mc1,mc2	f			
572	137	Rm A5 III & floor		Igoridae	mp	r	d			f		
572	138	Rm A5 III & floor		Igoridae	mp	r	d			f	b	
572	140	Rm A5 III & floor		Igoridae	mc4	r	c	mc1,mc2	f			
572	141	Rm A5 III & floor		Igoridae	mc3	r	c	mc1,mc2.2	u			
572	142	Rm A5 III & floor		Igoridae	mc4	r	c	mc1,mc2	f			
572	143	Rm A5 III & floor		Igoridae	mp4	r	c	mc1.2,mc2	f			
572	144	Rm A5 III & floor		Igoridae	gh1	r	c	gh1,gh2	f			
572	145	Rm A5 III & floor		Igoridae	gh1	r	c	gh1,gh2	f			
572	146	Rm A5 III & floor		Igoridae	stu	r	fo					
572	147	Rm A5 III & floor		Igoridae	stu	r	fo					
572	148	Rm A5 III & floor		Igoridae	stu	r	occ					
572	149	Rm A5 III & floor		Igoridae	stu	r	occ					
572	150	Rm A5 III & floor		Igoridae	stu	r	occ					
572	151	Rm A5 III & floor		Igoridae	stu	r	occ					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 28 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Spec Sites	Fos.	Burn.	Mod.	# Fos.	Comments
572	152	Rm A5 III & floor		Iporidae	sku	r	occ						
572	153	Rm A5 III & floor		Iporidae	sku	l	tan						
572	154	Rm A5 III & floor		Iporidae	sku	r	zyl						
572	155	Rm A5 III & floor		Iporidae	sku		sup						
572	156	Rm A5 III & floor		Iporidae	sku	rl	par						
572	157	Rm A5 III & floor		Iporidae	sku	r	occ						
572	158	Rm A5 III & floor		Iporidae	sku	r	tro						
572	159	Rm A5 III & floor		Iporidae	sku		aph			b			
572	160	Rm A5 III & floor		Iporidae	sku	r	mas						
572	161	Rm A5 III & floor		Iporidae	sku	r	bul						
572	162	Rm A5 III & floor		Iporidae	dan		tl					2	
572	163	Rm A5 III & floor		Iporidae	dan		l					4	
572	164	Rm A5 III & floor		Iporidae	dan		l						
572	165	Rm A5 III & floor		Iporidae	dan		l						
572	166	Rm A5 III & floor		Iporidae	dan		uk					2	
572	167	Rm A5 III & floor		Iporidae	dan	r	p3						
572	168	Rm A5 III & floor		Iporidae	dan		lt						
572	169	Rm A5 III & floor		Iporidae	dan		lt						
572	170	Rm A5 III & floor		Iporidae	dan		m3						
572	171	Rm A5 III & floor		Iporidae	dan		f						
572	172	Rm A5 III & floor		Iporidae	dan		f						
572	173	Rm A5 III & floor		Iporidae	dan		f						
572	174	Rm A5 III & floor		Iporidae	dan		f						
572	175	Rm A5 III & floor		Iporidae	dan		f						
572	176	Rm A5 III & floor		Iporidae	dan		f						
572	177	Rm A5 III & floor		Iporidae	dan		f						
572	178	Rm A5 III & floor		Iporidae	dan		f						
572	188	Rm A5 III & floor		Iporidae	sku	r	tro						
572	190	Rm A5 III & floor		Iporidae	inn	r	ac,l	ac1.1,ac2.1					
572	191	Rm A5 III & floor		Artiodactyla	mc	r	p	mc1.1,mc2.1	f	b			
575	2	Rm A5 III & floor		Artiodactyla	rib		s						
575	3	Rm A5 III & floor		Artiodactyla	mp	l	de		u				
575	3	Rm A5 III & floor		Artiodactyla	ste		ste						
575	4	Rm A5 III & floor		Artiodactyla	rib		s						
575	5	Rm A5 III & floor		Igus	inn	l	ll	#1.1					
575	6	Rm A5 III & floor		Iporidae	inn	rl	pu	pu1.2					
575	7	Rm A5 III & floor		Artiodactyla	mp	r	de		u	c	dg?		
575	8	Rm A5 III & floor		Artiodactyla	sku	l	bul						
575	10	Rm A5 III & floor		Artiodactyla	fem	l	p	ac2.1	f	c		2	
575	10	Rm A5 III & floor		Artiodactyla	rib		s						
575	11	Rm A5 III & floor		Artiodactyla	fem	r	pe	#1.1	u	b			
575	12	Rm A5 III & floor		Artiodactyla	ph1	r	d	p13		c			
575	13	Rm A5 III & floor		Artiodactyla	pee		c						
575	14	Rm A5 III & floor		Artiodactyla	pee		c						
575	15	Rm A5 III & floor		Artiodactyla	uhn	r	pe			b			
575	18	Rm A5 III & floor		Artiodactyla	rib	r	s	#4					
575	19	Rm A5 III & floor		Artiodactyla	rib	r	s	x				2	
575	23	Rm A5 III & floor		Artiodactyla	rib		s						
575	26	Rm A5 III & floor		Igus	man	r	b	dn1.1,dn2,dn3.1					
575	27	Rm A5 III & floor		Igus	man	l	b	dn2.1,dn3.2					
575	28	Rm A5 III & floor		Igus	man	r	b	dn2.2,dn3.2		b			
575	29	Rm A5 III & floor		Igus	man	l	b	dn1.1,dn2		b			
575	30	Rm A5 III & floor		Iporidae	man	l	b	dn1,dn2.2					
575	31	Rm A5 III & floor		Igus	man	r	de	dn1					p4
575	32	Rm A5 III & floor		Synsphyllid	man	l	b	dn2.2,dn3.2		b		2	
575	33	Rm A5 III & floor		Igus	man	l	b	dn2.1,dn3.1		c		2	
575	34	Rm A5 III & floor		Igus	man	r	b	dn2.1					
575	36	Rm A5 III & floor		Iporidae	man	r	de	dn1.1					
575	36	Rm A5 III & floor		Igus	man	l	r	dn4.1,dn6.2					
575	37	Rm A5 III & floor		Iporidae	man	r	pb	dn4.1					
575	38	Rm A5 III & floor		Iporidae	man	r	ang	dn3.1					
575	39	Rm A5 III & floor		Iporidae	man	l	pb			c			
575	41	Rm A5 III & floor		Igus	max	l	c						
575	43	Rm A5 III & floor		Iporidae	max	l	zyl						
575	44	Rm A5 III & floor		Iporidae	max	rl	br						
575	45	Rm A5 III & floor		Iporidae	max	r	mal						
575	46	Rm A5 III & floor		Iporidae	max	l	ant						
575	47	Rm A5 III & floor		Iporidae	max	l	pal						
575	47	Rm A5 III & floor		Igus	max	l	tro						
575	48	Rm A5 III & floor		Iporidae	max	l	tro						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 29 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Site	Portion	Spec Sites	Fus.	Burn.	Mod.	#	Pop.	Comments
575	48	Rm A5 III & floor		lapus	man	I	r	dn3.1, dn4.1, dn5						
575	50	Rm A5 III & floor		lapus	scn	I	n	ap2.2						
575	51	Rm A5 III & floor		lapus	scn	r	h,n	ap1.2	f					
575	52	Rm A5 III & floor		laportidae	scn	r	ie							
575	53	Rm A5 III & floor		lapus	scn	I	ie							
575	54	Rm A5 III & floor		laportidae	scn	I	ab	ap2.1, ap3.1						
575	55	Rm A5 III & floor		laportidae	scn	I	ab	ap2.1, ap3.1						
575	56	Rm A5 III & floor		laportidae	scn	r	vb							
575	57	Rm A5 III & floor		laportidae	scn	r	ab	ap2.1						
575	58	Rm A5 III & floor		laportidae	scn	I	ie			b				
575	59	Rm A5 III & floor		laportidae	scn	I	ab	ap3.1						
575	60	Rm A5 III & floor		laportidae	scn	I	ab	ap3.1						
575	61	Rm A5 III & floor		laportidae	scn	I	ab							
575	62	Rm A5 III & floor		lapus	hum	I	p	hu1, hu2	f					
575	63	Rm A5 III & floor		lapus	hum	r	p	hu1, hu2.2	f					
575	64	Rm A5 III & floor		lapus	hum	I	p	hu1, hu2	p					
575	65	Rm A5 III & floor		lapus	hum	r	p	hu1.2, hu2	f					
575	66	Rm A5 III & floor		laportidae	hum	I	ps	hu2.2						
575	67	Rm A5 III & floor		lapus	hum	r	ms	hu3						
575	68	Rm A5 III & floor		lapus	hum	r	ms	hu3.2						
575	69	Rm A5 III & floor		syllagus	hum	I	s	hu3						
575	70	Rm A5 III & floor		lapus	hum	r	d	hu4, hu5	f					
575	71	Rm A5 III & floor		lapus	hum	r	d	hu3, hu4, hu5	f					
575	72	Rm A5 III & floor		lapus	hum	I	d	hu4, hu5	f					rod
575	73	Rm A5 III & floor		lapus	hum	I	d	hu4.2, hu5.2	f					
575	74	Rm A5 III & floor		lapus	hum	r	d	hu4.1, hu5	f					
575	75	Rm A5 III & floor		lapus	hum	I	d	hu5.2	f					rod
575	76	Rm A5 III & floor		lapus	hum	r	d	hu4.2, hu5	f					
575	77	Rm A5 III & floor		lapus	hum	r	de	hu4.2						
575	78	Rm A5 III & floor		syllagus	hum	I	d	hu3.1, hu4, hu5	f					
575	79	Rm A5 III & floor		syllagus	hum	r	d	hu4, hu5	f					
575	80	Rm A5 III & floor		syllagus	hum	r	d	hu4.2, hu5	f					
575	81	Rm A5 III & floor		lapus	uhn	I	p	u1, u2	f					
575	82	Rm A5 III & floor		lapus	uhn	I	p	u1, u2	f					pathological
575	83	Rm A5 III & floor		lapus	uhn	r	p	u1, u2.1	f					b
575	84	Rm A5 III & floor		lapus	uhn	r	p	u1, u2.2	p					
575	85	Rm A5 III & floor		syllagus	uhn	I	p	u1, u2	f					
575	86	Rm A5 III & floor		lapus	uhn	I	de			u				
575	87	Rm A5 III & floor		laportidae	uhn	I	ps						2	incl. #88
575	88	Rm A5 III & floor		lapus	uhn	I	p	u2.2		c				
575	89	Rm A5 III & floor		lapus	rad	I	p	ra1, ra2	f					
575	91	Rm A5 III & floor		lapus	rad	I	p	ra1, ra2.2	f					
575	92	Rm A5 III & floor		lapus	rad	r	d	ra3.1, ra4, ra5	f					
575	93	Rm A5 III & floor		lapus	rad	I	ms	ra3.2						
575	94	Rm A5 III & floor		laportidae	rad	I	s							
575	95	Rm A5 III & floor		laportidae	rad	I	s							
575	96	Rm A5 III & floor		laportidae	rad	I	s							
575	97	Rm A5 III & floor		laportidae	rad	I	s							
575	98	Rm A5 III & floor		laportidae	rad	I	s							
575	99	Rm A5 III & floor		lapus	rad	r	ps			c			2	
575	100	Rm A5 III & floor		lapus	inn	r	ac, i, ie	ac1, i2.1, i2	f	c			2	
575	101	Rm A5 III & floor		laportidae	inn	r	ie	ie1.1, ie2.1		b				
575	102	Rm A5 III & floor		lapus	inn	r	ie	ie1.2, ie2.1						
575	103	Rm A5 III & floor		lapus	inn	I	i	i1.1						
575	104	Rm A5 III & floor		laportidae	inn	r	ii	ii1.1, ii2.1						
575	105	Rm A5 III & floor		lapus	inn	I	ac, i	ac1.1, i2.2		b			2	incl. #112
575	106	Rm A5 III & floor		lapus	inn	I	pu							
575	107	Rm A5 III & floor		laportidae	inn	I	ac, i	ie2.1						
575	108	Rm A5 III & floor		laportidae	inn	I	ii	ii1.1						
575	109	Rm A5 III & floor		syllagus	inn	r	c	ac1, i1.1, i2, ie1.1, i2, ie2.1, ie3.1	f				2	
575	110	Rm A5 III & floor		syllagus	inn	I	ie	ie1.2, ie2.1						
575	113	Rm A5 III & floor		lapus	inn	r	p	ie1, ie2.1, ie3.1	f					
575	114	Rm A5 III & floor		lapus	inn	r	p	ie1, ie2.2	f					dog?
575	115	Rm A5 III & floor		lapus	inn	I	p	ie1.1, ie2.2, ie3.1	u					
575	116	Rm A5 III & floor		laportidae	inn	r	st	ie3.1						
575	117	Rm A5 III & floor		lapus	inn	I	s	ie4.2						
575	118	Rm A5 III & floor		lapus	inn	I	ps	ie3.1						
575	119	Rm A5 III & floor		lapus	inn	r	d	ie5, ie5	f					
575	120	Rm A5 III & floor		lapus	inn	I	d	ie5.2, ie5	f					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 30 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Site	Position	Scan Sites	Fog.	Surv.	Stat.	#	Comments
575	121	Rm A5 III & floor		lepus	fem	l	d	fa5.1	f				dir?
575	122	Rm A5 III & floor		eythagus	fem	l	d	fa5, fa6	f				
575	123	Rm A5 III & floor		leporidae	fem		ds	fa5.1					
575	124	Rm A5 III & floor		leporidae	fem	r	d	fa5	u				
575	125	Rm A5 III & floor		leporidae	fem		s			c			
575	126	Rm A5 III & floor		leporidae	fem		s			b			
575	127	Rm A5 III & floor		leporidae	fem	r	ds	fa5.1		b			
575	128	Rm A5 III & floor		lepus	fem	l	ms						
575	129	Rm A5 III & floor		leporidae	fem		s						
575	130	Rm A5 III & floor		leporidae	fem	r	s	fa3.1					
575	131	Rm A5 III & floor		leporidae	fem	l	ms	fa4.1					
575	132	Rm A5 III & floor		lepus	fem	l	ds						
575	133	Rm A5 III & floor		leporidae	fem	r	s						
575	134	Rm A5 III & floor		lepus	fem	l	ps						
575	135	Rm A5 III & floor		lepus	tb	r	p	B1, B2	p				
575	136	Rm A5 III & floor		lepus	tb	r	p	B1	f	b			
575	137	Rm A5 III & floor		lepus	tb	r	p	B1	f				
575	138	Rm A5 III & floor		leporidae	tb	r	p	B1.1, B2.1	u				
575	139	Rm A5 III & floor		leporidae	tb	l	p	B1.1	f				
575	140	Rm A5 III & floor		lepus	tb	r	ps	B1.1	u				
575	141	Rm A5 III & floor		eythagus	tb	l	s	B2.2					
575	142	Rm A5 III & floor		lepus	tb	l	ms	B3.1					
575	143	Rm A5 III & floor		lepus	tb	l	ps	B2.1					
575	144	Rm A5 III & floor		leporidae	tb	r	ps	B2.1		b			
575	145	Rm A5 III & floor		lepus	tb	l	ps	B2.1					
575	146	Rm A5 III & floor		leporidae	tb	l	ps	B2.1					
575	149	Rm A5 III & floor		leporidae	tb	r	ps	B2.1					
575	151	Rm A5 III & floor		leporidae	tb	l	s						
575	152	Rm A5 III & floor		lepus	tb	l	d	B4.2, B5	f	c			d
575	153	Rm A5 III & floor		leporidae	tb	r	s						
575	154	Rm A5 III & floor		lepus	cal	l	c	ca1, ca2	f				
575	155	Rm A5 III & floor		lepus	cal	r	c	ca1, ca2	f				
575	156	Rm A5 III & floor		lepus	cal	r	c	ca1, ca2	f	b			
575	157	Rm A5 III & floor		lepus	cal	l	c	ca1, ca2	f				dir
575	158	Rm A5 III & floor		lepus	cal	r	c	ca1, ca2	u				
575	159	Rm A5 III & floor		lepus	cal	l	c	ca1, ca2.2	f	c		rod	2
575	160	Rm A5 III & floor		lepus	cal	r	ant	ca2		c			
575	161	Rm A5 III & floor		eythagus	cal	l	c	ca1, ca2	f				
575	162	Rm A5 III & floor		lepus	ant	r	c	ca1					
575	163	Rm A5 III & floor		lepus	tar	l	ca/b						
575	164	Rm A5 III & floor		lepus	m2	r	c	m1, m2, m3	f				
575	165	Rm A5 III & floor		lepus	m2	r	c	m1.1, m2, m3	f				
575	166	Rm A5 III & floor		lepus	m4	r	c	m1, m2, m3	f				
575	167	Rm A5 III & floor		lepus	m3	r	c	m1, m2	u	b			
575	168	Rm A5 III & floor		lepus	m2	l	p	m1					
575	169	Rm A5 III & floor		lepus	m2	l	p	m1					
575	170	Rm A5 III & floor		leporidae	m5	r	p	m1.2					
575	171	Rm A5 III & floor		lepus	m6	r	p	m1					
575	172	Rm A5 III & floor		leporidae	mp		d		f				
575	173	Rm A5 III & floor		leporidae	mp		d		f				
575	174	Rm A5 III & floor		leporidae	mp		d		f				
575	175	Rm A5 III & floor		eythagus	m8	r	c	m1, m2, m3	p				
575	176	Rm A5 III & floor		lepus	mc2	l	c	mc1, mc2	f				
575	177	Rm A5 III & floor		lepus	mc2	r	c	mc1, mc2.1	u				
575	178	Rm A5 III & floor		lepus	mc2	l	c	mc1, mc2	f				2
575	179	Rm A5 III & floor		lepus	ph1		c	ph1, ph2	f				
575	180	Rm A5 III & floor		lepus	ph1		c	ph1, ph2	f				
575	181	Rm A5 III & floor		lepus	ph1		c	ph1, ph2	f	b			
575	182	Rm A5 III & floor		leporidae	ph1		c	ph1, ph2	f				
575	183	Rm A5 III & floor		leporidae	stu	r	fo						
575	184	Rm A5 III & floor		leporidae	stu	l	fo						
575	185	Rm A5 III & floor		leporidae	stu	r	zyl						
575	186	Rm A5 III & floor		leporidae	stu	r	zyl						
575	187	Rm A5 III & floor		leporidae	stu	l	occ					rod	
575	188	Rm A5 III & floor		leporidae	stu	l	occ						
575	189	Rm A5 III & floor		leporidae	stu	r	occ						
575	190	Rm A5 III & floor		leporidae	stu	l	ocn						
575	191	Rm A5 III & floor		leporidae	stu	r	spn						
575	192	Rm A5 III & floor		leporidae	stu	r	nas						2
575	193	Rm A5 III & floor		leporidae	stu	l	nas						
575	194	Rm A5 III & floor		leporidae	stu	l	vom						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 31 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Pop.	Identification	Elem.	Style	Part(s)	Spec. Sites	Fug.	Surv.	Med.	# Pop.	Comments
575	195	Rm A5 III & floor		leporidae	sku	r	bu4						
575	196	Rm A5 III & floor		leporidae	sku	i	bu1						
575	197	Rm A5 III & floor		leporidae	den		i1						
575	198	Rm A5 III & floor		leporidae	den		i2					2	
575	199	Rm A5 III & floor		leporidae	den		i						
575	200	Rm A5 III & floor		leporidae	den		p3					2	
575	201	Rm A5 III & floor		leporidae	den		uk						
575	202	Rm A5 III & floor		leporidae	den		uk						
575	203	Rm A5 III & floor		leporidae	den		uk						
575	204	Rm A5 III & floor		leporidae	den		uk						
575	205	Rm A5 III & floor		leporidae	den		ik						
575	206	Rm A5 III & floor		leporidae	den		ik					2	
575	207	Rm A5 III & floor		leporidae	den		f			c		2	
575	208	Rm A5 III & floor		leporidae	den		f						
575	209	Rm A5 III & floor		leporidae	den		f						
575	210	Rm A5 III & floor		leporidae	den		f						
575	211	Rm A5 III & floor		leporidae	den		f						
575	212	Rm A5 III & floor		leporidae	den		f						
575	213	Rm A5 III & floor		leporidae	den		f						
575	214	Rm A5 III & floor		leporidae	den		f						
575	215	Rm A5 III & floor		leporidae	den		f						
575	216	Rm A5 III & floor		leporidae	den		f						
575	217	Rm A5 III & floor		leporidae	den		f						
575	218	Rm A5 III & floor		leporidae	den		f						
575	219	Rm A5 III & floor		leporidae	den		f						
575	220	Rm A5 III & floor		leporidae	den		f						
575	232	Rm A5 III & floor		artiodactyla	rib		a				b		
4099	1	Rm A47 III		artiodactyla	ves	i	ony	ca2.1			b		
4099	2	Rm A47 III		artiodactyla	rib	r	a				c		
4099	4	Rm A47 III		lepus	oca	i	b	sp2.1					
4099	5	Rm A47 III		leporidae	rad		pa						
4099	6	Rm A47 III		lepus	fem	r	d	fa6.2				2	
4099	7	Rm A47 III		lepus	cal	r	oca	ca1.2	f	c			
3799	1	Rm A49 III		artiodactyla	den		k				b		
3799	2	Rm A49 III		artiodactyla	mt		a						
3799	3	Rm A49 III		lepus	hum	i	da	hu4					
3799	4	Rm A49 III		lepus	hum	i	d	hu4,hu5	f				
3799	5	Rm A49 III		lepus	hum	i	d	hu6.2	f	b			
3799	6	Rm A49 III		syllagus	hum	i	d	hu4,hu5	f				
3799	7	Rm A49 III		lepus	uh	i	p	u2.1			dig?		
3799	8	Rm A49 III		lepus	rad	i	d	ra4,ra5	f				
3799	9	Rm A49 III		lepus	inn	r	ac,i,ia,pu	ca1.2,ca2.2,ca2.2	f		out		
3799	10	Rm A49 III		lepus	fem	r	d	fa5.1,fa6.2	f		dig		
3799	11	Rm A49 III		lepus	fem	r	da	fa5.1					
3799	12	Rm A49 III		leporidae	fem		na						
3799	13	Rm A49 III		syllagus	tb	r	d	ca3.1,ca4,ca5	f				
3799	14	Rm A49 III		lepus	mt2	r	c	mt1,mt2.2,mt3	f			2	
3799	15	Rm A49 III		lepus	man	r	b	dn1.2,dn2.2					p3,p4
3799	16	Rm A49 III		leporidae	sku	i	zyp						
3799	17	Rm A49 III		leporidae	den		i					5	
3799	18	Rm A49 III		leporidae	den		f						
3799	19	Rm A49 III		leporidae	den		f						
3799	20	Rm A49 III		leporidae	den		f						
3799	21	Rm A49 III		leporidae	den		f						
3802	2	Rm A49 III		artiodactyla	sku	r	bu1						
3802	3	Rm A49 III		lepus	hum	r	p	hu1.1,hu2.2,hu3.2					
3802	4	Rm A49 III		lepus	uh	i	p	u1.2,u2.1	f				
3802	5	Rm A49 III		lepus	rad	i	d	ra6.2	f				
3802	6	Rm A49 III		lepus	rad	i	da	ra4.2				2	
3802	7	Rm A49 III		lepus	cal	r	c	ca1,ca2	f	b			
3802	8	Rm A49 III		lepus	cal	r	mid	ca1.1,ca2.2			dig		
3802	9	Rm A49 III		lepus	mt		c	pa1			rad?		
3802	10	Rm A49 III		lepus	man	i	b	dn2.1		b			
3833	1	Rm A49 III		artiodactyla	sku	i	agh						< 6 wks.
3833	5	Rm A49 III		leporidae	oca	r	ib	sp3.1					
3833	6	Rm A49 III		leporidae	oca	r	ia						
3833	7	Rm A49 III		lepus	oca	i	h,n,b	sp1,sp2.1	f				
3833	8	Rm A49 III		lepus	oca	i	h,n	sp1.2	f				
3833	10	Rm A49 III		leporidae	oca	i	ib	sp2.1					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 32 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fog.	Identification	Elem.	Side	Portion	Seen Sites	Fog. Burn. Mod.	# Pos.	Comments
3833	11	Rm A49 III		syllagus	scs	l	h,n,b	sp1,sp2	f		
3833	12	Rm A49 III		lapus	hum	l	d	hu4,hu5	f		
3833	13	Rm A49 III		lapus	rad	r	p	ra1,ra2	f		
3833	14	Rm A49 III		lapus	rad	r	p	ra1,ra2	f		
3833	15	Rm A49 III		lapus	rad	r	p	ra1,ra2	f		
3833	16	Rm A49 III		lapus	rad	r	p	ra1,ra2.2	f		
3833	17	Rm A49 III		lapus	rad	r	s				
3833	18	Rm A49 III		leporidae	inn	l	u	l2.1			pathological?
3833	19	Rm A49 III		lapus	rad	r	d	ra4	u		2
3833	20	Rm A49 III		leporidae	tb	l	p	l1.2	f		dig?
3833	21	Rm A49 III		leporidae	tb	l	ps	l2.1			
3833	22	Rm A49 III		lapus	cal	r	c	ca1,ca2	f		
3833	23	Rm A49 III		lapus	cal	r	c	ca1.1,ca2.2			
3833	24	Rm A49 III		lapus	ter	l	sub				
3833	25	Rm A49 III		lapus	ter	l	sub				
3833	26	Rm A49 III		leporidae	sku	l	bul				
4055	1	Rm A49 III		artiodactyle	hum	l	ds	hu4.2			< 6 wks.
4055	2	Rm A49 III		artiodactyle	rad	r	p	ra1.1	f		
4055	4	Rm A49 III		artiocepra	ph1	l	d	p13.1		c	
4055	5	Rm A49 III		artiodactyle	hem	r	ps				
4055	7	Rm A49 III		artiodactyle	hum	r	ms			b	
4055	8	Rm A49 III		artiodactyle	rb		s			c	
4055	11	Rm A49 III		lapus	scs	r	n,b	sp2.2,sp3.1			
4055	12	Rm A49 III		leporidae	scs		b				
4055	13	Rm A49 III		lapus	scs	l	ls	sp3.1			
4055	14	Rm A49 III		leporidae	scs	l	sp	sp3.1			
4055	15	Rm A49 III		leporidae	scs		ab				
4055	16	Rm A49 III		leporidae	scs		b	sp2.1			
4055	17	Rm A49 III		syllagus	scs	l	lb	sp3.1			
4055	18	Rm A49 III		lapus	hum	r	ms	hu3.2			
4055	19	Rm A49 III		lapus	hum	r	ds	hu4.1			
4055	20	Rm A49 III		lapus	hum	l	ds				
4055	21	Rm A49 III		lapus	hum	l	ds				
4055	22	Rm A49 III		lapus	hum	l	d	hu4,hu5	f		
4055	23	Rm A49 III		syllagus	hum	l	d	hu4.2,hu5.2	f		
4055	24	Rm A49 III		lapus	uhn	l	p	u1,u2.1	f		
4055	25	Rm A49 III		leporidae	uhn		s				
4055	26	Rm A49 III		lapus	uhn	l	d	u4	u		
4055	27	Rm A49 III		lapus	rad	r	d	ra4,ra5	p		
4055	28	Rm A49 III		lapus	rad	l	p	ra1,ra2	f		
4055	29	Rm A49 III		lapus	rad	l	d	ra4,ra5	p		
4055	30	Rm A49 III		lapus	sec		c	ec1.2	f		
4055	31	Rm A49 III		lapus	inn	r	ec,l,ls,pu	ec1.2,l1.1,l2.1, l1.1,ls2	f		
4055	32	Rm A49 III		lapus	inn	r	ec,l,ls,pu	ec1,l2	f		
4055	33	Rm A49 III		lapus	inn	r	ec,l	ec1.1,l2		b	
4055	34	Rm A49 III		lapus	inn	l	ec,l,pu	ec1.1,l1.1	f	b	
4055	35	Rm A49 III		lapus	inn	r	l				
4055	36	Rm A49 III		lapus	inn	r	pu	pu1.1			
4055	37	Rm A49 III		lapus	inn	r	ls				
4055	38	Rm A49 III		syllagus	inn	r	l	l2.2			dig
4055	39	Rm A49 III		lapus	hem	r	ps	ls3.1			
4055	40	Rm A49 III		leporidae	hem	r	ms	ls4.1		c	
4055	41	Rm A49 III		lapus	hem	r	ds				
4055	42	Rm A49 III		lapus	hem	r	d	ls4,ls5,ls6	f		
4055	43	Rm A49 III		lapus	hem	r	ds	ls6.1	u		
4055	44	Rm A49 III		leporidae	hem	r	d	ls6.1			
4055	45	Rm A49 III		lapus	hem	l	d	ls5.1,ls6.2	f		2
4055	46	Rm A49 III		leporidae	hem		ds	ls5.1	c		
4055	47	Rm A49 III		syllagus	hem	l	d	ls5.1,ls6.2	f		
4055	48	Rm A49 III		syllagus	hem		d	ls5.2,ls6.1	f		dig
4055	49	Rm A49 III		lapus	tb	r	ps	l1.1	u		
4055	50	Rm A49 III		lapus	tb	r	d	l3.2,ls4,ls5	f		
4055	51	Rm A49 III		lapus	tb	l	ps	l2.1			
4055	52	Rm A49 III		leporidae	tb	l	ps	l2.1			
4055	53	Rm A49 III		leporidae	tb	l	ps	l2.1			
4055	54	Rm A49 III		leporidae	tb	l	ps	l2.1			dig?
4055	56	Rm A49 III		syllagus	cal	r	c	ca1,ca2	f		
4055	58	Rm A49 III		syllagus	cal	r	c	ca1,ca2	f	c	
4055	57	Rm A49 III		lapus	ter	r	nav				
4055	58	Rm A49 III		lapus	ter	r	sub				
4055	59	Rm A49 III		lapus	ter	l	c	ra1.1,ra2	u		

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 33 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Pop.	Identification	Elem.	Side	Portion	Segm Sites	Fus.	Surv.	Mod.	# Pys.	Comments
4065	60	Rm A49 III		lapus	mc3	l	c	mc1,mc2,mc3	f				
4065	61	Rm A49 III		lapus	mc3	l	c	mc1,mc2,mc3	f				
4065	62	Rm A49 III		lapus	mc2	r	c	mc1,mc2	f				
4065	63	Rm A49 III		lapus	mc2	l	c	mc1,mc2	f				
4065	64	Rm A49 III		lapus	mc4	r	c	mc1,mc2	f				
4065	65	Rm A49 III		lapus	mc4	l	c	mc1,mc2	f	b			
4065	66	Rm A49 III		leporidae	mp		d		f				
4065	67	Rm A49 III		lapus	ph1		c	ph1,ph2	f				
4065	68	Rm A49 III		lapus	ph1		c	ph1,ph2	f				
4065	69	Rm A49 III		lapus	ph1		c	ph1,ph2	f				
4065	70	Rm A49 III		lapus	man	r	con	dn5,2					
4065	71	Rm A49 III		leporidae	mxk	r	tro						
4065	72	Rm A49 III		leporidae	stu	l	tro						
4065	73	Rm A49 III		leporidae	stu	l	par,tam						
4065	74	Rm A49 III		leporidae	stu	l	zsg						
4065	75	Rm A49 III		leporidae	stu	l	sph						
4065	76	Rm A49 III		leporidae	stu	fl	sph						
4065	78	Rm A49 III		leporidae	stu	l	bul						
4065	79	Rm A49 III		leporidae	dan		uk						
4065	80	Rm A49 III		leporidae	dan		lt						
4063	1	Rm A49 III		lapus	uhn	l	p	u1,2,u2	u				
4063	2	Rm A49 III		lapus	tam	l	d	tu5,1,tu5,1	f				
4063	3	Rm A49 III		syllagus	fam	l	p	tu1,tu2,1,tu3,1	f				
4063	4	Rm A49 III		lapus	man	r	dis	dn1,2					
4063	5	Rm A49 III		lapus	man	r	b	dn2,1					
4063	6	Rm A49 III		lapus	man	l	b	dn2,dn3,1					pt-m2
4063	7	Rm A49 III		lapus	max	l	pal						m2
4063	8	Rm A49 III		lapus	max	l	ant						
4063	9	Rm A49 III		lapus	max	l	zsg						
4063	10	Rm A49 III		leporidae	stu	l	tro,par,tam						2b
4063	11	Rm A49 III		leporidae	stu	r	tro						
4063	12	Rm A49 III		leporidae	stu	fl	sph						
4063	13	Rm A49 III		lapus	dan	l	ps						2
4063	14	Rm A49 III		leporidae	dan		l						
4063	15	Rm A49 III		leporidae	dan		mc3						
4063	16	Rm A49 III		leporidae	dan		uk						
3649	1	Rm A59 III		lapus	ace	l	h,n	sp1,2	f				
3649	2	Rm A59 III		lapus	hum	r	de	tu4,2		b			
3649	3	Rm A59 III		lapus	hum	l	ma	tu3,1					
3649	4	Rm A59 III		lapus	hum	l	d	tu5	f				
3649	5	Rm A59 III		lapus	uhn	r	p	u1,2,u2	u				
3649	6	Rm A59 III		syllagus	uhn	l	p	u2,2					
3649	7	Rm A59 III		lapus	acc	l		ec1,1	f				
3649	8	Rm A59 III		leporidae	inn	l	is	tu1,1					dg?
3649	10	Rm A59 III		leporidae	fam	l	d	tu5,1,tu5,1	f	b			
3649	11	Rm A59 III		syllagus	fam	r	p	tu1,1,tu2,2,tu3,1	u				dg
3649	12	Rm A59 III		lapus	sb	l	de	tu1,1					
3649	13	Rm A59 III		lapus	cal	r	c	ca1,2,ca2,2	f				
3649	14	Rm A59 III		lapus	cal	l	c	ca1,2,ca2	f				red
3649	15	Rm A59 III		lapus	mc3	l	p	mc1,mc2,1					
3649	16	Rm A59 III		lapus	mxk	r	ant						
3649	17	Rm A59 III		lapus	max	r	met						
3649	18	Rm A59 III		lapus	ace	r	occ,bul						3
4487	1	Rm A59 III		artiodactyle	sb		de			c			
4487	4	Rm A59 III		lapus	hum	l	p	tu1,2,tu2,tu3,1	f				car?
4487	5	Rm A59 III		lapus	ace	r	h,n,b	sp1	f				
4487	6	Rm A59 III		lapus	hum	r	d	tu5,2	f				
4487	7	Rm A59 III		lapus	mc4	r	c	mc1,mc2	f				
4487	8	Rm A59 III		leporidae	mp		d		f				
4487	9	Rm A59 III		lapus	sb	l	ma						2 Incl. #15
4487	10	Rm A59 III		leporidae	acc	lb		sp2,1,sp3,1					
4487	11	Rm A59 III		leporidae	stu	l	par						
4487	13	Rm A59 III		lapus	fam	l	ma	tu4,1					
4487	14	Rm A59 III		leporidae	fam	l	de	tu5,1					
5108	1	Rm A59 III		artiodactyle	sb	l	de						
5108	3	Rm A59 III		lapus	fam	r	ma	tu4,1					
5108	4	Rm A59 III		syllagus	mc2	l	p	mc1,mc2,2					
5108	5	Rm A59 III		lapus	ph1		c	ph1,ph2	f				
5108	6	Rm A59 III		leporidae	mp		d		f				

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 34 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Spec Sites	Pres.	Therm.	Mod.	# Pos.	Comments
5106	7	Rm A85 8H		lepus	mc2	r	c	mt1.2,mt2,mt3	f				
5106	8	Rm A85 8H		leporidae	sb	r	p	s1.1,s2.1	u				
5106	9	Rm A85 8H		lepus	man	r	b	dn1.2					i
5106	10	Rm A85 8H		lepus	mc2	l	p	mt1		b			
5106	11	Rm A85 8H		lepus	uhn	r	p	u1.1,u2.1	f	c			
5106	12	Rm A85 8H		lepus	inn	r	ec,il,ls,pu	ec1.1,ec2.2,ls1.1,ls2.2,pu1	f		car?		
5106	13	Rm A85 8H		lepus	oca	l	n,b	ec2.2					
5106	16	Rm A85 8H		lepus	inn	l	ec,pu	ec1.1,pu1					
5106	17	Rm A85 8H		lepus	oca	r	h,n	ep1	f		car?		
5106	18	Rm A85 8H		lepus	tar	r	nav						
5106	19	Rm A85 8H		syllagus	inn	r	ec,il	ec1.1,ec2		c			
5106	20	Rm A85 8H		leporidae	ferm	r	ma	fs4.1					
5106	21	Rm A85 8H		lepus	sb	l	p	s1.2	f		dg?		
5106	22	Rm A85 8H		leporidae	oku	l	nae	ca1.2,ca2.2			rod		
5106	23	Rm A85 8H		leporidae	man	l	dia	dn1.1					
717	1	Rm B2 8H		lepus	sb	l	d	s4,s5.2	f	c			
717	2	Rm B2 8H		lepus	inn	r	is	ec1.1,ec2.1		c			
717	3	Rm B2 8H		leporidae	uhn	l	pa				b		
717	4	Rm B2 8H		lepus	den	r	p3						
647	1	Rm B2 floor		odocoileus	ph1	l	c	p11.2,p12,p13	f				
647	3	Rm B2 floor		leporidae	mp	l	d			p			
647	4	Rm B2 floor		lepus	ph1	l	c	ph1,ph2	f				
1081	1	Rm B4 8H		syllagus	cal	r	c	ca1.2,ca2	f				
1081	2	Rm B4 8H		leporidae	sb	r	pa	u2.1			rod?		
1081	3	Rm B4 8H		leporidae	oku	r	bul						
1081	4	Rm B4 8H		leporidae	oku	r	mae						
1086	1	Rm B4 8H		lepus	inn	l	is	ec1.1,ec2.2				3	
1100	1	Rm B4 8H		leporidae	inn	l	ec,il	ec1.1,ec2.1	f			2	incl. #2
1117	1	Rm B4 8H		lepus	ferm	l	da	fs6.1					
1122	1	Rm B4 8H		lepus	ph1	l	c	ph1,ph2.2	f				
1122	2	Rm B4 8H		leporidae	max	r	3yg						
1122	4	Rm B4 8H		leporidae	ferm	r	pa	fs2.1,fs3.1					
1127	1	Rm B4 8H		lepus	max	r	br						
1127	2	Rm B4 8H		lepus	pmx	l	fo						
1127	3	Rm B4 8H		lepus	hum	r	da	hu3.1,hu4.2					
1127	4	Rm B4 8H		lepus	rad	l	d	ra4,ra5.2	f				
1127	6	Rm B4 8H		lepus	ferm	l	p	fs1.2,fs2.1,fs3.1	f			3	incl. #6
1127	7	Rm B4 8H		lepus	mc3	r	p	mt1,mt2					
1127	8	Rm B4 8H		lepus	ph1	l	c	ph1,ph2	f				
1131	1	Rm B4 8H		lepus	ferm	l	s						
1131	2	Rm B4 8H		lepus	ferm	r	da	fs4.1				2	
1144	1	Rm B4 8H		leporidae	inn	r	il	ec1.1,ec2.1					
1144	2	Rm B4 8H		leporidae	ferm	l	s						
1144	3	Rm B4 8H		lepus	uhn	r	p	u1.1,u2.2					
1144	4	Rm B4 8H		lepus	ferm	r	pa					2	incl. #5
1148	1	Rm B4 8H		artiodactyla	den	l	k						
1148	2	Rm B4 8H		syllagus	hum	r	d	hu4,hu5	f				
1170	1	Rm B4 8H		lepus	man	r	b	dn2.2					
1170	2	Rm B4 8H		lepus	man	l	b	dn2.1					
1170	3	Rm B4 8H		lepus	oca	r	h,r,b	ep1.2,ep2.2	f				
1170	4	Rm B4 8H		lepus	hum	r	pa	hu2.1,hu3.1					
1170	5	Rm B4 8H		leporidae	uhn	l	pa	u2.1					
1170	6	Rm B4 8H		leporidae	ferm	l	pa	fs3.1				2	
1170	7	Rm B4 8H		leporidae	sb	l	pa			b			
1170	8	Rm B4 8H		lepus	max	r	3yg						
1170	9	Rm B4 8H		leporidae	den	l	uk						
1174	1	Rm B4 8H		lepus	inn	r	ec,il,ls,pu	ec1.1,ec2.2,ls1.2,ls2.2,pu1.1	f				
1174	2	Rm B4 8H		lepus	inn	l	is			c			
1205	1	Rm B4 8H		lepus	man	l	br	dn1.2,dn2.2,dn3.2				6	i
1205	2	Rm B4 8H		syllagus	oca	l	h,n,b	ep1.2,ep2.1	f				
1205	3	Rm B4 8H		leporidae	oca	l	ib	ec2.1					
1205	4	Rm B4 8H		lepus	rad	l	d	ra3.1,ra4,ra5	f				
1205	5	Rm B4 8H		lepus	ferm	r	da	fs4.1,fs5.1					
1205	6	Rm B4 8H		leporidae	sb	r	pa	u2.1					
1205	7	Rm B4 8H		leporidae	oku	l	bul						
1205	8	Rm B4 8H		leporidae	oku	l	bul						

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 35 of 39).

Lot Number	Spec. Number	Analysis Unit	Level/ Foa.	Identification	Elem.	Sex	Portion	Spec Sites	Fus.	Byrn.	Mod.	#	Pop. Comments
1205	9	Rm B4 III		Isoporidae	stru		bul						
1205	10	Rm B4 III		Isoporidae	stru		bul						
1205	11	Rm B4 III		Isoporidae	stru		mas						
1205	12	Rm B4 III		Isopus	den		l p3						
1205	13	Rm B4 III		Isoporidae	den		lk						
1205	14	Rm B4 III		Isoporidae	den		lk						
1205	15	Rm B4 III		Isoporidae	den		lk						
1205	16	Rm B4 III		Isoporidae	den		m3						
1234	1	Rm B4 III		Isopus	hum		l d	hu3.1,hu4.2,hu/5.2					
1237	1	Rm B4 III		Isopus	fem		l ma	bu4.1					
1237	2	Rm B4 III		Isopus	uhn		l p	u1.2,u2					
1237	3	Rm B4 III		Syllitopus	man		r b	dn1.1,dn2.2					
1237	4	Rm B4 III		Syllitopus	den		r p3						
1263	1	Rm B4 III		Isopus	m3		l c	m1.1,m2,m3					
1263	2	Rm B4 III		Isopus	scb		r h,n	ap1.1,ap2.1					
1263	3	Rm B4 III		Isopus	scb		r h,n,b	ap1.2,ap2.2					
1263	4	Rm B4 III		Isopus	irn		r ec,l,pu	ec1.2,ec2.2,pu1.2					
1263	5	Rm B4 III		Isoporidae	tb		l ps						
1263	6	Rm B4 III		Isoporidae	irn		r il	il1.1					2
1263	7	Rm B4 III		Isopus	man		l r	dn3.1,dn4.1,dn5.1					
1269	1	Rm B4 III	B4-2	Isopus	man		r b	dn1.2,dn2,dn3.1					l,m1,m2
1269	2	Rm B4 III	B4-2	Isopus	man		r b,r	dn1.2,dn2,dn3,dn4.1,dn5.1					3 l,p4-m2; incl. #63,69
1269	3	Rm B4 III	B4-2	Isopus	man		r b,r	dn1.2,dn2,dn3,dn4.1,dn5					2 l,p4-m2; incl. #30
1269	4	Rm B4 III	B4-2	Isopus	man		r b	dn1.2,dn2.2					p4
1269	5	Rm B4 III	B4-2	Isopus	man		l b,r	dn3.2,dn4.1					
1269	6	Rm B4 III	B4-2	Isopus	max		rl r, sp, l, br						
1269	7	Rm B4 III	B4-2	Isopus	man		r br	dn3.1,dn4.1					
1269	8	Rm B4 III	B4-2	Isopus	irn		l ec,l,pu	ec1.1,il1.1,il2,il1.1,2,il2,pu1.1					
1269	9	Rm B4 III	B4-2	Isopus	scb		l h,n,b	ap1.2,ap2,ap3.1					
1269	10	Rm B4 III	B4-2	Isopus	hum		r ps	hu2.1,hu3					
1269	11	Rm B4 III	B4-2	Isopus	fem		l p	bu1,hu2.1,hu3.2					
1269	12	Rm B4 III	B4-2	Isopus	tb		l p	il1.1,il2					u
1269	13	Rm B4 III	B4-2	Isopus	hum		l p	hu1.2,hu2					p
1269	14	Rm B4 III	B4-2	Isopus	tb		r p	il1.1,il2.2					u
1269	15	Rm B4 III	B4-2	Isopus	scb		r h,n	ap1.2					f c
1269	16	Rm B4 III	B4-2	Isopus	uhn		r p	u1,u2					f
1269	17	Rm B4 III	B4-2	Isoporidae	fem		r ps						
1269	18	Rm B4 III	B4-2	Isopus	fem		r ds	bu4.1					
1269	19	Rm B4 III	B4-2	Isopus	fem		r ps	bu4.1					
1269	20	Rm B4 III	B4-2	Isopus	rad		l d	rs3.1,rs4,rs5					f
1269	22	Rm B4 III	B4-2	Isopus	tb		r ps	il2.1					
1269	23	Rm B4 III	B4-2	Artiodactyla	rib		s	x					
1269	24	Rm B4 III	B4-2	Isopus	hum		r ds	hu4.1					
1269	25	Rm B4 III	B4-2	Isopus	m3		r c	m1.1,m2,m3					f
1269	26	Rm B4 III	B4-2	Isopus	fem		l ds	bu6.1					
1269	27	Rm B4 III	B4-2	Isopus	hum		l ds	hu4.1					
1269	28	Rm B4 III	B4-2	Isoporidae	tb		r ps	il2.1					
1269	29	Rm B4 III	B4-2	Isopus	man		r r	dn3.1,dn4.1,dn5					
1269	31	Rm B4 III	B4-2	Isopus	irn		l ec,l,pu	ec1.2,il1,il2					
1269	32	Rm B4 III	B4-2	Isopus	max		l mal						
1269	33	Rm B4 III	B4-2	Isopus	fem		r ds	bu5.1					
1269	34	Rm B4 III	B4-2	Isopus	lar		r nav						
1269	36	Rm B4 III	B4-2	Isopus	pmx		r to						
1269	36	Rm B4 III	B4-2	Isopus	col		l c	cn1.2,cn2					f dg?
1269	37	Rm B4 III	B4-2	Isopus	col		l c	cn1.2,cn2.2					u
1269	38	Rm B4 III	B4-2	Isoporidae	man		r r	dn4.1,dn5.1					
1269	39	Rm B4 III	B4-2	Isopus	man		r ds	dn1.2					b
1269	40	Rm B4 III	B4-2	Isopus	fem		r ps	il1.1					u
1269	41	Rm B4 III	B4-2	Isoporidae	tb		r p	il1.1,il2.1					u
1269	42	Rm B4 III	B4-2	Isopus	rad		l p	rs1,rs2					f
1269	43	Rm B4 III	B4-2	Isopus	uhn		r ps						
1269	44	Rm B4 III	B4-2	Isopus	rad		r ds	rs4.1					2 incl. #90
1269	45	Rm B4 III	B4-2	Isopus	m3		l c	m1,nc2					f

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 36 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Spec Sites	Fys.	Surv.	Mod.	# Pgs.	Comments
1289	46	Rm B4 III	B4-2	lagus	ph1		c	ph1,ph2	p				
1289	47	Rm B4 III	B4-2	lagus	mod		e	mc1,mc2	f				
1289	48	Rm B4 III	B4-2	leporidae	ph1		c	ph1,ph2	f				
1289	51	Rm B4 III	B4-2	leporidae	stus	r	tro						
1289	52	Rm B4 III	B4-2	syllagus	man	r	r	dn5.2					
1289	53	Rm B4 III	B4-2	leporidae	aca		lb	sp3.1					
1289	54	Rm B4 III	B4-2	leporidae	max	r	pal						
1289	55	Rm B4 III	B4-2	leporidae	stus		tro						
1289	56	Rm B4 III	B4-2	leporidae	stus	r	tro						
1289	57	Rm B4 III	B4-2	leporidae	stus		tro						
1289	58	Rm B4 III	B4-2	leporidae	stus	r	tro						
1289	59	Rm B4 III	B4-2	leporidae	pmx	r	ant						
1289	60	Rm B4 III	B4-2	leporidae	man	r	ang	dn3.1					
1289	61	Rm B4 III	B4-2	lagus	man	r	con	dn5.1					
1289	62	Rm B4 III	B4-2	lagus	man	r	dis	dn1.1					
1289	64	Rm B4 III	B4-2	leporidae	stus	r	bul					2	incl. #88
1289	65	Rm B4 III	B4-2	lagus	hum	r	d	hu5.1					
1289	66	Rm B4 III	B4-2	leporidae	max		orb						
1289	67	Rm B4 III	B4-2	leporidae	stus	r	acc						
1289	68	Rm B4 III	B4-2	leporidae	stus		bul						
1289	70	Rm B4 III	B4-2	lagus	dan	r	p3						
1289	71	Rm B4 III	B4-2	lagus	dan	r	p3						
1289	72	Rm B4 III	B4-2	leporidae	dan		i1						
1289	73	Rm B4 III	B4-2	leporidae	dan		i2						
1289	74	Rm B4 III	B4-2	leporidae	dan		P2						
1289	75	Rm B4 III	B4-2	leporidae	dan		P2						
1289	76	Rm B4 III	B4-2	leporidae	dan		uk						
1289	77	Rm B4 III	B4-2	leporidae	dan		uk						
1289	78	Rm B4 III	B4-2	leporidae	dan		uk						
1289	79	Rm B4 III	B4-2	leporidae	dan		uk						
1289	80	Rm B4 III	B4-2	leporidae	dan		uk						
1289	81	Rm B4 III	B4-2	leporidae	dan		i			c		2	
1289	82	Rm B4 III	B4-2	leporidae	dan		i						
1289	83	Rm B4 III	B4-2	leporidae	dan		i						
1289	84	Rm B4 III	B4-2	syllagus	fam	r	p	fb1,fb2.2,fb3.2	f				
1289	85	Rm B4 III	B4-2	lagus	man	r	r	dn3.1,dn4.1,dn5.1					
1289	86	Rm B4 III	B4-2	syllagus	aca	r	h,n,b	sp1,sp2	f				
1289	87	Rm B4 III	B4-2	syllagus	uh	r	p	uf1,u2,u3,u4.1	f				
1289	88	Rm B4 III	B4-2	syllagus	uh	r	p	u2					
1289	91	Rm B4 III	B4-2	syllagus	mc3	r	c	mt1,mt2,mt3	f				
1289	93	Rm B4 III	B4-2	syllagus	mc5	r	c	mt1,mt2,mt3	f				
1289	94	Rm B4 III	B4-2	syllagus	mc6	r	c	mt1,mt2,mt3	f				
1289	96	Rm B4 III	B4-2	leporidae	dan		m3						
1289	98	Rm B4 III	B4-2	lagus	fam	r	da	fb5.1					
1289	97	Rm B4 III	B4-2	lagus	fam	r	me	fb4.1					
1289	101	Rm B4 III	B4-2	lagus	rad		pa	ra2.1		b			
1289	104	Rm B4 III	B4-2	leporidae	aca		sb	sp3.1					
1289	105	Rm B4 III	B4-2	leporidae	man	r	pb						
1289	106	Rm B4 III	B4-2	leporidae	max	r	pal						
1289	107	Rm B4 III	B4-2	leporidae	stus		zpp						
1289	108	Rm B4 III	B4-2	leporidae	stus		spb						
1289	109	Rm B4 III	B4-2	leporidae	fb		p		f			2	incl. #103
1289	110	Rm B4 III	B4-2	leporidae	hum		pa	hu2.1					
1347	1	Rm B4 III		leporidae	irn		ls	ac1.1,ac2.1					
1347	2	Rm B4 III		lagus	fam		p	fb1.2,fb2.2,fb3.2	f				
1280	1	Rm B4 floor feature	B4-1	syllagus	man	r	c	dn1,dn2,dn3,dm4.2					p4,m1
1280	2	Rm B4 floor feature	B4-1	syllagus	max	r	zyl						
1280	3	Rm B4 floor feature	B4-1	syllagus	hum	r	d	hu4,hu5.2	p				
1280	4	Rm B4 floor feature	B4-1	leporidae	sb	r	c	fb1.1,fb2,fb3,fb4	u				
1280	5	Rm B4 floor feature	B4-1	lagus	fam	r	me	fb4.1					
1179	1	Rm B6 III		leporidae	irn		ac,il	ac1.1,ac2.1					
1180	1	Rm B6 III		lagus	fam	r	me	fb4.1					
1180	2	Rm B6 III		lagus	ph1		c	ph1.2,ph2	f				
2088	1	Rm B6 III		artiodactyl	mt		pa						
2088	2	Rm B6 III		artiodactyl	hum		d	hu5.1		c			
2088	4	Rm B6 III		lagus	hum	r	da	hu4.1		c			
2088	5	Rm B6 III		lagus	sb		me						
2088	6	Rm B6 III		leporidae	man	r	lb	dn3.1					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 37 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fos.	Identification	Elem.	Site	Partition	Spec. Sites	Fos.	Surv.	Med.	# Pgs.	Comments
2086	1	Rm 88 88		artiodactyla	mt		a					2	
2086	2	Rm 88 88		lagus	man		b	dn1.2, dn2				3	p4-m2; incl. 88
2086	3	Rm 88 88		lagus	fem	r	pa						
2086	4	Rm 88 88		lagus	sb	l	p	81.1, 82.1	f	b			
2086	6	Rm 88 88		lagus	mo4	l	p	mc1		c			
2086	7	Rm 88 88		laporidae	inn	r	ac	ac1.1					
2086	8	Rm 88 88		laporidae	dan		f						
2086	9	Rm 88 88		laporidae	dan		f						
2086	10	Rm 88 88		laporidae	dan		f						
2086	11	Rm 88 88		laporidae	dan		f						
2086	12	Rm 88 88		laporidae	dan		f						
2086	13	Rm 88 88		laporidae	dan		f						
2086	14	Rm 88 88		laporidae	dan		f						
2107	1	Rm 88 88		lagus	max	l	b	dn1, dn2.2					Lp4
2107	2	Rm 88 88		laporidae	man	r	da	dn1.2					
2107	3	Rm 88 88		lagus	max	l	br						
2107	4	Rm 88 88		lagus	cal	r	c	ca2.2			dg		
2107	5	Rm 88 88		lagus	cal	l	c	ca1.2, ca2	f		dg?		
2107	6	Rm 88 88		lagus	cal	l	c	ca1.2, ca2	f				
2107	7	Rm 88 88		lagus	cal	r	c	ca1.1, ca2.1			dg		
2107	8	Rm 88 88		lagus	cal	l	c	ca1.1, ca2.2			dg		
2107	9	Rm 88 88		lagus	sb	l	p	81.2	f	b			
2107	10	Rm 88 88		syllagus	sb	l	p	81, 82.2	f				
2107	11	Rm 88 88		lagus	hum	l	d	hu4, hu5	f				
2107	12	Rm 88 88		lagus	sb	l	da	84.1		c			
2107	14	Rm 88 88		lagus	hum	l	da	hu4.1					
2107	15	Rm 88 88		laporidae	mp		a						
2107	16	Rm 88 88		laporidae	mp		a			c			
2107	17	Rm 88 88		lagus	fem		da	86.1		c			
2107	18	Rm 88 88		syllagus	hum	r	d	hu4, hu5	f				
2107	19	Rm 88 88		lagus	fem	l	pa	86.1					
2107	20	Rm 88 88		laporidae	sb	l	p	81.1	f	c			
2107	21	Rm 88 88		laporidae	fem	r	pa			c			
2107	22	Rm 88 88		lagus	oca	r	n, b	ap2.2, ap3.1		c		2	incl. 823
2107	24	Rm 88 88		lagus	oca	l	h, n	ap1	f				
2107	25	Rm 88 88		lagus	man	l	r	dn6.2					
2107	26	Rm 88 88		laporidae	sb	r	pa	82.1		c			
2107	27	Rm 88 88		lagus	inn	l	ac, la, pu	ac1.2	f				
2107	28	Rm 88 88		lagus	uhn	r	p	u1.1, u2.2			dg		
2107	29	Rm 88 88		lagus	man	r	b	dn1.1					
2107	30	Rm 88 88		lagus	mo5	l	p	mt1		c			
2107	31	Rm 88 88		lagus	ph1		c	ph1, ph2	f	c			
2107	32	Rm 88 88		lagus	mc3	r	c	mc1, mc2	f		ou?		
2107	33	Rm 88 88		syllagus	mc3	l	c	mc1, mc2, mc3	p				
2107	34	Rm 88 88		lagus	ac		ba, br	ac1.2	f				
2107	37	Rm 88 88		laporidae	fem	l	d	86.1	f		dg?		
2107	38	Rm 88 88		laporidae	stn	l	occ						
2107	39	Rm 88 88		laporidae	fem		a			c			
2107	41	Rm 88 88		laporidae	dan		li						
2107	42	Rm 88 88		laporidae	dan		uk						
2107	43	Rm 88 88		laporidae	dan		i						
2107	44	Rm 88 88		laporidae	dan		f						
2107	45	Rm 88 88		laporidae	dan		f						
2107	46	Rm 88 88		laporidae	dan		f						
2107	47	Rm 88 88		laporidae	dan		f						
2107	48	Rm 88 88		laporidae	dan		f						
2107	49	Rm 88 88		laporidae	dan		f						
2107	50	Rm 88 88		laporidae	dan		f						
2107	51	Rm 88 88		laporidae	dan		f						
2107	52	Rm 88 88		laporidae	dan		f						
2257	1	Rm 88 88		lagus	ost	r	c	ac1.2					
2164	1	Rm 810 88		laporidae	inn	r	la	81.1					
2164	2	Rm 810 88		lagus	fem	r	pa						
2164	4	Rm 810 88		syllagus	inn	r	ac, la, pu	ac1, 82.1, 82.1	f				
2164	5	Rm 810 88		laporidae	inn	r	la	82.1					
2164	6	Rm 810 88		lagus	uhn	r	p	u1	f				
2164	7	Rm 810 88		laporidae	sb	l	ma				2		
2868	1	Rm 810 88		lagus	hum	r	d	hu4, hu5	f	b			
2868	2	Rm 810 88		lagus	hum	r	d	hu5	f				
2868	3	Rm 810 88		lagus	sb	l	ma	83.1		b		4	incl. 88, 14
2868	4	Rm 810 88		lagus	hum	l	da	hu4.1		c			

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 38 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Scan Steps	Fsp.	Bar.	Med.	# Pcs.	Comments
2058	5	Rm B10 #8		laporidae	rad	r	d	ra4.2					
2058	7	Rm B10 #8		artiodactyle	rib		a				c		
2058	8	Rm B10 #8		lapus	hum	l	ds	hu4.1					
2058	9	Rm B10 #8		lapus	mc5	l	p	mt1			c		
2058	10	Rm B10 #8		laporidae	man		shv						
2058	11	Rm B10 #8		laporidae	stu	r	tan						
2058	12	Rm B10 #8		laporidae	stu	r	bul						
2077	1	Rm B9 #8		lapus	tib	r	d	ts3,ts4,ts5					
2132	1	Rm B9 #8		laporidae	tan		a						
2191	2	Rm B9 #8		syvilegus	inn	r	ac,rl,ls,pu	ac1.2,rl1.2,rl2.1 sl1.2,ls2,pu1.2					
2197	1	Rm B9 #8		lapus	tan	l	ds	ts5.1					
2593	1	Rm B9 floor		lapus	tb	r	p	B1.1,B1.2					
2593	2	Rm B9 floor		lapus	scb	l	h,n,b	sp1.2,sp2.1					
2593	3	Rm B9 floor		syvilegus	rad	r	ds	ra3.1,ra4.1					
2274	1	Rm B11 #8		lapus	man	l	b	dn1.1,dn2.2					p3,p4
2274	2	Rm B11 #8		lapus	man	l	b	dn2.1					
2515	1	Rm B11 floor feature	B11-1	lapus	scb	l	h,n,b	sp1.2,sp2.2				4	
2563	1	Rm B11 floor feature	B11-2	lapus	scb	l	h,n,b	sp1.2,sp2.1					
2563	2	Rm B11 floor feature	B11-2	lapus	tan	l	ds	ts5.1					u
2549	1	Rm B11 floor feature	B11-2	lapus	tan	r	d	ts6.2					
2563	1	Rm B11 floor feature	B11-2	lapus	rad	l	ds	ra4.2					
2524	1	Rm B11 floor feature	B11-3	laporidae	pmx	rl	ant				c		
2524	2	Rm B11 floor feature	B11-3	syvilegus	cal	l	c	ca1.2,ca2					
2524	3	Rm B11 floor feature	B11-3	lapus	tan	l	ds	ts4.1				2	incl. #5
2525	1	Rm B11 floor feature	B11-3	syvilegus	scb	l	n,b	sp2.1				2	
2525	2	Rm B11 floor feature	B11-3	laporidae	mp		a						e
2525	3	Rm B11 floor feature	B11-3	lapus	mc5	r	c	mc1,mc2					
2525	4	Rm B11 floor feature	B11-3	laporidae	tan		a						c
2563	1	Rm B11 floor feature	B11-15	lapus	uin	r	ds	u3.2					
2576	1	Rm B11 floor feature	B11-17	lapus	scb	r	h,n,b	sp1,sp2,sp3.2				2	
2576	2	Rm B11 floor feature	B11-17	laporidae	scb		ss						
2576	3	Rm B11 floor feature	B11-17	laporidae	mxx	r	mtl						
2576	4	Rm B11 floor feature	B11-17	lapus	ph1		c	ph1,ph2					
2576	5	Rm B11 floor feature	B11-17	lapus	mt2	l	c	mt1,mt2,mt3					
2576	6	Rm B11 floor feature	B11-17	lapus	mc5	l	p	mt1					
1992	1	Rm C2 floor feature	C2-4B	lapus	scb	r	h,n,b	sp1,sp2,sp3.1				2	
1992	2	Rm C2 floor feature	C2-4B	lapus	hum	l	p	hu1.1,hu2.1				2	
1992	3	Rm C2 floor feature	C2-4B	lapus	rad	r	p	ra1,ra2,ra3.1					pa7?
1992	4	Rm C2 floor feature	C2-4B	lapus	rad	l	ds						c
1992	5	Rm C2 floor feature	C2-4B	laporidae	inn	l	ls	ls1.1					
1992	6	Rm C2 floor feature	C2-4B	syvilegus	inn	r	ls	ls1.2					
1992	7	Rm C2 floor feature	C2-4B	lapus	tan	r	p	ts1.2,ts2.2,ts3					
1992	8	Rm C2 floor feature	C2-4B	laporidae	tb	l	p	B1.1,ts2.1					u
1992	9	Rm C2 floor feature	C2-4B	lapus	mt3	r	p	mt1.2,mt2					
1992	10	Rm C2 floor feature	C2-4B	lapus	mt4	r	p	mt1,mt2.2					
1992	11	Rm C2 floor feature	C2-4B	laporidae	tan		f						
1994	1	Rm C2 floor feature	C2-4B	lapus	tan	r	d	ts5.1,ts6.1					b
1996	1	Rm C2 floor feature	C2-11	syvilegus	scb	r	h,n	sp1.2					
1996	2	Rm C2 floor feature	C2-11	syvilegus	rad	l	c	ra1,ra2,ra3,ra4 ra5					
1996	3	Rm C2 floor feature	C2-11	syvilegus	uin	l	c	u1.2,u2,u3,u4 4				2	incl. #4
1996	5	Rm C2 floor feature	C2-11	syvilegus	tan	l	p	ts1.1,ts2.2,ts3 2					
1996	6	Rm C2 floor feature	C2-11	syvilegus	hum	l	d	hu4,hu5					
1996	7	Rm C2 floor feature	C2-11	syvilegus	tan	l	d	ts5.1,ts6.2				2	
2774	1	Rm C17 #8		artiodactyle	hum	l	p	hu1.1,hu2,hu3 2					< 6 wts.
2774	2	Rm C17 #8		artiodactyle	vth		ss						u
2774	3	Rm C17 #8		lapus	man	l	pb	dn4.1,dn5.1					
2774	4	Rm C17 #8		lapus	mxx	r	br						b
2774	5	Rm C17 #8		laporidae	stu	r	nan						
2774	6	Rm C17 #8		lapus	hum	r	d	hu3,hu4,hu5					
2774	7	Rm C17 #8		lapus	hum	r	d	hu4					u
2774	8	Rm C17 #8		lapus	hum	r	p	hu1.1					
2774	9	Rm C17 #8		lapus	hum	r	p	hu1.1					
2774	10	Rm C17 #8		laporidae	rad	l	b						c
2774	11	Rm C17 #8		lapus	rad	l	p	ra1.1					u
2774	13	Rm C17 #8		lapus	tan	l	ps	ts3.1					
2774	14	Rm C17 #8		lapus	tan	l	ds	ts5.1					

Table C.1. Faunal specimens from Old Town proveniences included in this analysis (page 39 of 39).

Lot Number	Spec. Number	Analytic Unit	Level/Fac.	Identification	Elem.	Side	Portion	Scan Sites	Fus.	Surv.	Mod.	# Fac.	Comments
2774	15	Rm C17 III		lepus	lb	l	ds	83.1,84.1					
2774	16	Rm C17 III		leporidae	lb	l	ps						
2774	17	Rm C17 III		lepus	lar	r	nav						
2774	18	Rm C17 III		lepus	mc3	l	p	mt1.2,mt2.2					
2774	19	Rm C17 III		leporidae	mc4	l	c	mc1.2	u				
2774	20	Rm C17 III		lepus	ph1		c	ph1,ph2	f				
4368	2	Fas A81 III		lepus	rad		ds						
4368	3	Fas A81 III		lepus	inn	r	ac,ls	ac1.2,ac2.1	f	b		5	
4368	4	Fas A81 III		lepus	inn	l	ll						
4368	5	Fas A81 III		lepus	lb	r	ma	83.1					2
4368	6	Fas A81 III		lepus	dan	l	ps						3
6130	1	Fas A81 III		leporidae	rad		s						
6130	2	Fas A81 III		leporidae	inn	r	ll	81.1					
6130	3	Fas A81 III		leporidae	inn	r	ac,ls						
6130	4	Fas A81 III		lepus	fm	l	ma	fa1.1		b			
6130	6	Fas A81 III		artiodactyla	rib	r	s	x					
6130	7	Fas A81 III		artiodactyla	rib	l	s	x					< 6 wks.
68	1	Area D zones 1-3	zone 1	artiodactyla	vlu	r	bp	lu1.1,lu2.1	u				
58	5	Area D zones 1-3	zone 1	leporidae	lb	r	p	81.1,82.1	f				
4323	2	Area D zones 1-3	zone 1	artiodactyla	rib	r	ee	x					
4323	3	Area D zones 1-3	zone 1	lepus	aca	l	ie	sp3.1				2	
4323	4	Area D zones 1-3	zone 1	lepus	acc	r	b	ac1.1	f				
4323	5	Area D zones 1-3	zone 1	lepus	inn	r	ls	ls1.1					
4323	6	Area D zones 1-3	zone 1	leporidae	inn	l	ls	ls1.1					
4323	7	Area D zones 1-3	zone 1	lepus	fm	r	ps						
4323	8	Area D zones 1-3	zone 1	lepus	fm		ds	fa5.1			ado		
4323	9	Area D zones 1-3	zone 1	lepus	lb	l	ds	84.1					
4323	10	Area D zones 1-3	zone 1	lepus	ca1	r	c	ca1,ca2	f				
4323	11	Area D zones 1-3	zone 1	lepus	ca1	l	c	ca1.2,ca2	f				
4323	12	Area D zones 1-3	zone 1	lepus	mc2	r	p	mt1.2			dg		
4323	13	Area D zones 1-3	zone 1	lepus	mcx	l	sg						
61	1	Area D zones 1-3	zone 2	lepus	fm	l	d	fa5.1,fa5.2	f		cut?		
61	2	Area D zones 1-3	zone 2	artiodactyla	ast	r	d	sa2.1,sa3.2		c			
61	3	Area D zones 1-3	zone 2	artiodactyla	mt		s						
65	1	Area D zones 1-3	zone 3	artiodactyla	aca	l	n	sp2.1		c			
93	1	Area D zones 1-3	zone 3	artiodactyla	rib	l	s	x					
104	1	Area D zone 4	zone 4	artiodactyla	rib	l	h,t	x	f				
183	2	Area D zone 6	zone 6	leporidae	lb	l	d	83,84.1	u	b			incl. #8, 228-22
183	3	Area D zone 6	zone 6	leporidae	fm	l	s						

Table C.2. Faunal specimens from Galaz proveniences included in this analysis (page 1 of 4).

Provenience	A. U.	Identification	Elem.	Side	Portion	Seen Sites	Pos.	Strat.	Med.	Pos.	Comments
1-0-0	1A	Isopidae	mp	r	d		f				
1-0-0	1A	Isopidae	sku	r	bul						
1-0-0	1A	Isopidae	sku	l	bul						
1-0-0	1A	Isopus	man	l	b						
1-0-0	1A	Isopus	mt3	r	p	mt1					
1-0-0	1A	Isopus	mt5	r	c	mt1,mt2,mt3	f				
1-0-0	1A	Isopus	tar	r	nav						
1-7-6 bag #1	1B	Odocoileus	ph1	r	c	p11.2,p12,p13.2	f				
1-7-6 bag #2	1B	Isopus	man	l	b	dn1					i
1-1-1	1E	Artiodactyla	hum	r	ds	hu4.1					
1-1-1	1E	Artiodactyla	hum	r	ds	hu4.1					
1-1-1	1E	Artiodactyla	rad	l	s						
1-1-1	1E	Artiodactyla	rb	l	p	x	f				car?
1-1-1	1E	Isopidae	sku	l	tro						
1-1-1	1E	Isopus	fem	l	ds						
1-1-1	1E	Isopus	hum	l	d	hu5.2	f				c
1-1-1	1E	Isopus	mt2	l	p	mt1,mt2					
1-1-1	1E	Isopus	ph1	l	c	ph1,ph2	f				
1-1-1	1E	Isopus	rad	l	s						
1-1-1	1E	Isopus	aca	l	lb	sp2.1,sp3.1					
1-1-1	1E	Isopus	tb	r	ds	u3.1					
1-1-1	1E	Odocoileus	car	l	int						
1-1-1	1E	Odocoileus	uh	l	d	u3.2	f				
1-1-1	1E	Sylvilagus	fem	r	p	fb1,fb2,fb3	f				
1-1-1	1E	Sylvilagus	mt4	l	p	mt1,mt2.1					
1-1-1	1E	Sylvilagus	tb	l	p	u1.2,fb2.2	f				
1-1-1	1E	Sylvilagus	tb	l	ms						c
1-2-1	1E	Isopidae	tb	l	p	u1.2	f				rod
1-2-1	1E	Isopus	fem	l	ps	fb4.1					
1-2-1	1E	Odocoileus	ph2	l	d	p22.1,p23.1					
1-3-1	1E	Isopus	rad	l	ps						c
1-3-1	1E	Sylvilagus	cal	l	c	ca1.2,ca2	p				
1-3-1	1E	Sylvilagus	fem	l	s	fb4					b
1-3-1	1E	Sylvilagus	tb	l	d	u3.2,fb4,fb5	p				
1-3-1	1E	Sylvilagus	tb	l	d	u3.2,fb4	u				
0-0-10P	0A	Artiodactyla	vu	l	asy	hu1.1					
0-0-4	0C	Isopidae	tb	r	ps	u2.1					
0-0-4	0C	Sylvilagus	tb	r	p	u2.1	u				
0-1-4/2	0D	Odocoileus	hum	r	d	hu4.1,hu5.2	f				
0-2-4	0D	Artiodactyla	inn	r	la	la1.1					4
0-2-4	0D	Odocoileus	den	r	p						
0-2-4	0D	Odocoileus	sku	r	max						
0-3-4 bag #1	0D	Sylvilagus	aca	r	h,n	sp1.2	f				
0-3-4 bag #2	0D	Sylvilagus	hum	r	p	hu1.1,hu2	u				
0-4-4	0D	Artiodactyla	mp	l	s						b
0-4-4	0D	Artiodactyla	tb	l	ms	u3.1					
0-4-4	0D	Isopidae	tb	l	ms						b
10-0-3	10D	Isopidae	tb	r	ps	u2.1					
10-0-3	10D	Isopus	fem	r	d	fb5,fb6	f				2
10-0-3	10D	Isopus	hum	l	d	hu4.1,hu5.2	f				
10-0-3	10D	Isopus	mt3	l	p	mt1,mt2.1					
10-0-3	10D	Isopus	aca	r	h,n	sp1.2	f				
10-0-3	10D	Isopus	aca	r	b	sp3.1					
10-0-3	10D	Isopus	tb	l	ps	u2.1					
10-0-3	10D	Odocoileus	man	r	b	dn1.1,sn2,sn3.2					
10-0-3	10D	Sylvilagus	fem	r	ps						
10-0-6	10D	Isopidae	tb	l	ps						c
10-0-6	10D	Isopus	fem	l	ps						
10-0-6	10D	Isopus	hum	r	p	hu1.2,hu2.2	f				rod? 5
10-0-6	10D	Isopus	fem	r	d	fb5,fb6.2	f				rod
10-0-6	10D	Isopus	rad	r	d	mt4,mt5	f				
10-0-9	10D	Odocoileus	ph1	r	d	p13.2					c
10-7-10	10D	Isopus	hum	l	d	hu4.2,hu5.2	f				
10-0-10	10D	Sylvilagus	inn	r	la	la1.1,fb2.2					
10-2-3	10E	Artiodactyla	cal	r	ant	ca2.2,ca3.2,ca4.2					rod
10-2-3	10E	Artiodactyla	hum	r	ps	hu2.1					
10-2-3	10E	Isopidae	fem	r	ds						
10-2-3	10E	Isopidae	tb	r	ps	u2.1					

Table C.2. Faunal specimens from Galaz proveniences included in this analysis (page 2 of 4).

Provenience	A. U.	Identification	Sex	Side	Portion	Spec Sites	Fus.	Burn.	Med.	Pos.	Comments
18-2-3	18E	Isopidae	sb	l	pe						
18-2-3	18E	Isopidae	sb	l	ds	ts3.1					
18-2-3	18E	Isopus	fem	r	pe						
18-2-3	18E	Isopus	fem	l	p	ts1,ts2,ts3.2	f				
18-2-3	18E	Isopus	hum	r	pe	hu3.1					
18-2-3	18E	Isopus	uhn	l	p	u1,u2	f				
18-2-3	18E	Odoscoelus	sku	l	fem						
18-2-3	18E	Oxytelus	eca	l	sb	sp3.1					
18-2-3	18E	Oxytelus	uhn	l	p	u1,u2	f	b			
18-3-3 bag #1	18E	Artiodactyla	man	l	b,r	dn6.1,dn6.1,dn7.1,dn8.2					< 6 wks.
18-3-3 bag #1	18E	Artiodactyla	rb	l	s			c			
18-3-3 bag #1	18E	Isopus	hum	r	p	hu1.2,hu2	f				
18-3-3 bag #1	18E	Isopus	inn	r	ac,l	ts2.1					
18-3-3 bag #1	18E	Isopus	inn	l	ac,l	ts1.1,ts2.2	f			2	
18-3-3 bag #1	18E	Isopus	man	r	b,r	dn1.2,dn2,dn3,dn4.2,dn6					p3-m3
18-3-3 bag #1	18E	Isopus	max	r	zyg						
18-3-3 bag #1	18E	Isopus	rad	l	p	ra1,ra2	f	b			
18-3-3 bag #1	18E	Isopus	sb	r	d	ts3,ts4,ts5.2	f			2	
18-3-3 bag #1	18E	Oxytelus	fem	r	d	ts5,ts6.1	u				
18-3-3 bag #2	18E	Artiodactyla	hum	l	pe	hu2.1					
18-3-3 bag #2	18E	Isopidae	dan	l				b			ts w/ 18-2-6R
18-3-3 bag #2	18E	Isopidae	dan	l	lt						
18-3-3 bag #2	18E	Isopidae	fem	r	pe						
18-3-3 bag #2	18E	Isopidae	sku	l	bui						
18-3-3 bag #2	18E	Isopus	fem	r	p	ts1,ts2.2,ts3.2	f				
18-3-3 bag #2	18E	Isopus	hum	r	p	hu1.2,hu2	f				
18-3-3 bag #2	18E	Isopus	hum	r	d	hu3.2,hu4,hu5.2	f			2	
18-3-3 bag #2	18E	Isopus	inn	l	ll	ts1.2,ts2.1					
18-3-3 bag #2	18E	Isopus	man	r	b	dn1.2		b			
18-3-3 bag #2	18E	Isopus	man	r	b	dn2,dn3.1		b			m2
18-3-3 bag #2	18E	Isopus	pmx	r	ant						l1
18-3-3 bag #2	18E	Isopus	eca	l	b	sp2.2,sp3.1					
18-3-3 bag #2	18E	Oxytelus	rad	l	p	ra1,ra2	f	b			
18-3-3 bag #2	18E	Oxytelus	eca	r	h,n	sp1.1	f	b			
18-4-3 bag #1	18E	Artiocepra	rad	r	d	ra3.1,ra4,ra5	f				
18-4-3 bag #1	18E	Isopidae	fem	r	pe			c			
18-4-3 bag #1	18E	Isopidae	fem	l	s						
18-4-3 bag #1	18E	Isopidae	sku	l	zyg						
18-4-3 bag #1	18E	Isopus	fem	l	pe	ts3.1					
18-4-3 bag #1	18E	Isopus	fem	l	pe	ts4.1		b			
18-4-3 bag #1	18E	Isopus	fem	l	ds						
18-4-3 bag #1	18E	Isopus	fem	l	s						
18-4-3 bag #1	18E	Isopus	hum	r	ds	hu4.1					
18-4-3 bag #1	18E	Isopus	hum	r	d	hu4,hu5	f				
18-4-3 bag #1	18E	Isopus	hum	l	pe	hu2.2					
18-4-3 bag #1	18E	Isopus	hum	l	ds	hu4.2		b			
18-4-3 bag #1	18E	Isopus	inn	l	ls						
18-4-3 bag #1	18E	Isopus	man	l	b	dn1.2		c		2	
18-4-3 bag #1	18E	Isopus	ph1	l	c	ph1,ph2	f				
18-4-3 bag #1	18E	Isopus	sb	r	p	ts1.1,ts2.1	f	b			
18-4-3 bag #1	18E	Isopus	uhn	l	p	u2.2					
18-4-3 bag #1	18E	Oxytelus	eca	l	h,n,b	sp1,sp2.2,sp3.1	f				
18-4-3 bag #1	18E	Oxytelus	uhn	l	pe	u3.1		b			
27-4-7 bag #1	27D	Isopus	hum	r	d	hu4,hu5	f				
27-4-7 bag #1	27D	Isopus	sb	r	pe	ts2.1					
27-4-7 bag #1	27D	Isopus	sb	l	pe	ts1.1,ts2.2		b			
27-4-7 bag #1	27D	Oxytelus	max	r	zyg						
27-4-8	27D	Artiodactyla	mp	l	d						
27-4-8	27D	Artiodactyla	ph3	l	d						
27-4-8	27D	Isopus	ms	l	p	mt1.2,mt2.1					
27-4-8	27D	Isopus	eca	r	sb	sp3.1					
28-4-2	28B	Isopidae	rad	l	s						
28-4-2	28B	Isopus	fem	l	ds	ts5.1					
28-4-2	28B	Oxytelus	hum	l	d	hu4,hu5	f				
28-5-2	28B	Oxytelus	fem	l	p	ts1,ts2.2,ts3	p				
28-5-2	28B	Oxytelus	man	r	b	dn1.2,dn2,dn3.1					
28-5-4	28B	Isopidae	hum	l	p	hu1.1	f	b			
28-5-4	28B	Isopus	man	l	b	dn1.2					

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 1 of 13).

Provenience	Code	Identification	Elem.	Side	Portion	Spec Sites	Fos.	Surv.	Mod.	#	Comments
60-2-4 bag 01	1	artiodactyla	car	l	int						
60-2-4 bag 01	1	artiodactyla	hum	l	d	hu4.2,hu5.1	f			car?	
60-2-4 bag 01	1	artiodactyla	abu	r	tro						ca. 6 uba.
60-2-4 bag 02	1	artiodactyla	tb	r	ms			c			
60-2-4 bag 02	1	leporidae	tb	r	ms						
60-2-4 bag 02	1	lepus	fam	l	ps						
60-2-4 bag 02	1	lepus	ph1		c	ph1,ph2	f				
60-2-4 bag 02	1	syllagus	fam	r	ps			c			
60-2-4 bag 02	1	syllagus	fam	r	de	de2	u				
60-2-4 bag 02	1	syllagus	tb	r	p	st1.2,st2.2	u			2	
60-2-4 bag 02	1	syllagus	tb	l	ps						
60-2-4 bag 03	1	artiodactyla	fam	r	s	st4					< 6 uba.
60-2-4 bag 03	1	artiodactyla	man	r	b,r	dn5.1,dn6.2,dn7.1					< 6 uba.
60-2-4 bag 03	1	artiodactyla	tb	l	ps						
60-2-4 bag 03	1	lepus	cal	l	c	ca1.2,ca2	f				
60-2-4 bag 03	1	otocolonus	ph1	r	d	p12.1,p13.1					
60-2-4 bag 03	1	syllagus	hum	l	p	hu1.1,hu2,hu3.2	u				
60-2-4 bag 03	1	syllagus	inn	r	ac,i,ls,pu	ac1,ac2,ls1.2,ls2,pu1	f				
60-2-4 bag 03	1	syllagus	aca	l	h,n,b	sp1.2,sp2	f				
60-3-8 bag 01	2	lepus	inn	l	ac,i,ls,pu	ac1,ac1.2,ac2,ls1.2,ls2,pu1	f			car?	
60-3-8 bag 01	2	otocolonus	tb	r	d	st4.1,ss	f				
60-3-8 bag 01	2	syllagus	rad	r	p	ra1,ra2,ra3.2	f			2	
60-3-8 bag 01	2	syllagus	rad	l	p	ra1.2,ra2	f				
60-3-8 bag 01	2	syllagus	rad	l	d	ra3,ra4,ra5	f				
60-3-8 bag 03	2	otocolonus	mt	l	p	mr1.1,mr2.1	f			rod	
60-4-8 bag 01	2	artiodactyla	mp		p		u				< 6 uba.
60-4-8 bag 01	2	caridae	ant							2	
60-4-8 bag 01	2	caridae	ant								
60-4-8 bag 01	2	caridae	ant								
60-4-8 bag 01	2	leporidae	inn	l	ac,i	ac1.1,ac1.2,ac2	u				
60-4-8 bag 01	2	lepus	mt2	r	c	mt1,mt2,mt3	f				
60-4-8 bag 02	2	lepus	mt2	r	c	mt1,mt2,mt3	f				
60-4-8 bag 02	2	lepus	sp	r	h,n,b	sp1,sp2.2	f				
60-4-8 bag 04	2	artiodactyla	rad	r	de	ra5.1	u			b	
60-4-8 bag 04	2	leporidae	mp		de		f				
60-4-8 bag 04	2	syllagus	fam	r	p	st1,st2.2,st3.2	p				
60-3-8 or 4-8	2	artiodactyla	mp		s						
60-3-8 or 4-8	2	artiodactyla	tb	r	ms	st3.1				2	
60-3-8 or 4-8	2	lepus	fam	r	d	st5,ss	f				
60-3-8 or 4-8	2	lepus	inn	l	ac,i,ls	ac1.1,ac2.1	f				
60-3-8 or 4-8	2	lepus	man	r	r	dn4.1,dn5.1					
60-3-8 or 4-8	2	otocolonus	mc	r	p	mc1.1,mc2.1	f				
60-3-8 or 4-8	2	otocolonus	rad	r	de	ra5.2	u				
60-3-8 or 4-8	2	syllagus	cal	l	pos	ca1,ca2.2	f			c	
60-3-8 or 4-8	2	syllagus	fam	r	de	st5.2					
60-3-8 or 4-8	2	syllagus	max	r	sp						P2-P4
60-3-8 or 4-8	2	syllagus	mt2	r	p	mt1					
60-3-8 or 4-8	2	syllagus	tb	r	ps	st2.1					
60-6F-8 bag 01	2	artiodactyla	cal	l	c	ca1.2,ca2,ca3,ca4	u				
60-6F-8 bag 01	2	artiodactyla	tb	r	s	x					
60-6F-8 bag 01	2	lepus	hum	r	de	hu4.2				c	
60-6F-8 bag 01	2	lepus	mt2	l	c	mt1,mt2,mt3	f				
60-6F-8 bag 01	2	lepus	un	r	p	un1,un2	f				
60-6F-8 bag 01	2	syllagus	rad	r	p	ra1,ra2,ra3.2	f				
60-6F-8 bag 01	2	syllagus	aca	r	h,n,b	sp1,sp2	f				
60-6F-8 bag 02	2	lepus	mt3	r	p	mt1.2				c	
60-6F-8 bag 02	2	lepus	acc		ho,gr	ac1.2	u				
60-6F-8 bag 02	2	otocolonus	dn	r	m3						
60-6F-8 bag 02	2	otocolonus	ph1	r	p	p11.2	f			b	
60-6F-8 bag 02	2	syllagus	inn	l	ac,i,ls,pu	ac1.2,ls2,pu1	f				
60-6F-8 bag 02	2	syllagus	man	l	b,r	dn1,dn2,dn3					lg3-m2
60-6F-8 bag 04	2	artiodactyla	tb		s					b	
108-1-2	3	leporidae	dn		uk						
108-1-2	3	lepus	max	l	sp						P3-M1
108-1-3 bag 01	3	artiodactyla	nav	l	ant	nc2.2,nc3					
108-1-3 bag 02	3	leporidae	man	r	b,r	dn3.1					
108-1-3 bag 02	3	lepus	fam	l	d	st4.1,st5.2,st6.2	f			2	
108-1-3 bag 02	3	syllagus	cal	l	c	ca1.2,ca2	f				
111-1-3	4	artiodactyla	fam	r	ps	st3.1					
111-1-3	4	artiodactyla	ms	r	dn						

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 2 of 13).

Provenience	Count	Identification	Elem.	Side	Portion	Scan Sites	Pop.	Surv.	Mod.	#	Comments
111-1-3	4	artiodactyla	ph2		c	pc1.1,pc2.1,pc3.1	f			2	
111-1-3	4	leporidae	fem	l	ms	fa.1					
111-1-3	4	leporidae	inn	r	l						
111-1-3	4	leporidae	asc	l	bo	ac.1					
111-1-3	4	leporidae	sku	r	sp						
111-1-3	4	lepus	fem	r	ds	fa.1		b			
111-1-3	4	lepus	mc3	l	c	mc1,mc2	f				
111-1-3	4	lepus	uh	l	p	u1.2,u2.1	f				
111-1-3	4	odocoileus	den	r	p3						
111-1-3	4	syntagus	cal	r	c	ca1.2,ca2					
111-1-3	4	syntagus	fem	l	ds	fa.1	u				
111-1-3	4	syntagus	man	r	b	dn1.2,dn2,dn3.1					lg3-m1
111-1-3	4	syntagus	man	r	b	dn1.2,dn2.2					p3,p4
111-2-3	4	artiodactyla	tb	l	pa						
111-2-3	4	lepus	rad	l	p	ra1,ra2	f				
111-2-3	4	syntagus	cal	r	c	ca1,ca2.2	f				
111-2-3	4	syntagus	fem	r	p	fa1.1,fa2.2,fa3,fa4.1	u				
111-2-3	4	syntagus	fem	l	p	fa1,fa2,fa3	f				
111-2-3	4	syntagus	fem	l	d	fa4.1,fa5,fa6.1	u				
111-2-3	4	syntagus	uh	l	p	u1.2,u2	f				
111-1-4 bag #1	4	leporidae	den	l				b		3	
111-1-4 bag #1	4	lepus	fem	r	p	fa2.2,fa3.2	f				
111-1-4 bag #1	4	syntagus	man	l	b	dn1.2					
111-2-6	4	lepus	aca	r	h,n,b	ap1.2,ap2.1	f				
111-2-6	4	odocoileus	inn	r	ac,pu	ac.1,pu1.1		c			
111-2-6	4	leporidae	tb	r	ma			c		4	
111-2-6	4	lepus	mc5	r	c	mc1,mc2	f				
111-2-6	4	lepus	tb	l	d	fa,fa5	f		ado7		
111-2-6	4	syntagus	rad	r	d	ra3.1,ra4,ra5	f			3	
111-2-6	4	syntagus	tb	r	p	st1.2,st2	f				
111-4-8	5	syntagus	mt4	l	p	mt1,mt2					
112-1-4	6	artiodactyla	fem	l	ds	fa.1					
112-1-4	6	artiodactyla	uop	l	er						
112-1-4	6	leporidae	sku	r	par						
112-1-4	6	lepus	hum	r	d	hu4,hu5	f				
112-1-4	6	lepus	rad	r	ds	ra4.2					
112-1-4	6	syntagus	man	r	b,r	dn2,dn3.2					p3-m3
112-1-4	6	syntagus	uh	l	p	u2,u3					
112-2-4	6	artiodactyla	fem	r	s	fa4.2					< 6 vils.
112-2-4	6	artiodactyla	mc	r	ds	mc4.1,mc5.1					
112-2-4	6	artiodactyla	rb	r	s	ra3.1		b			
112-2-4	6	leporidae	man	r	b,r	dn3.2					m2
112-2-4	6	leporidae	sku	r	ba						
112-2-4	6	lepus	fem	r	d	fa.1	f	b			
112-2-4	6	odocoileus	den	l	l					3	
112-2-4	6	odocoileus	den	l	k						
112-2-4	6	odocoileus	ph3	l	c	p31	f				
112-2-4	6	syntagus	mt5	l	c	mt1,mt2,mt3	f				
113-1-1	7	lepus	mt2	l	c	mt1,mt2,mt3	f				
113-1-1	7	syntagus	fem	l	p	fa1,fa2,fa3	f				
113-1-1	7	syntagus	hum	l	ds						
113-1-1	7	syntagus	inn	l	ac,l,ls,pu	ac1.2,ac2.1,ac2.2	f				
114-1-2	8	leporidae	inn	r	ac,l	ac2.1					
114-1-2	8	lepus	aca	l	h,n,b	ap1,ap2.1	f				
114-4-2 bag #1	8	lepus	hum	l	ds	hu4.2					
115-1-4 bag #2	10	lepus	hum	l	p	hu1.2,hu2.2	f				
115-1-4 bag #2	10	syntagus	aca	r	h,n,b	ap1	f				
115-2-6	10	lepus	fem	r	ds	fa.1			rad		
115-2-6	10	lepus	mt5	r	c	mt1.2,mt2,mt3.2	f		rad		
115-2-6	10	lepus	ph1	l	c	ph1.2,ph2	f				
115-6-17 bag #1	11	artiodactyla	tb	r	ma	fa.1			ado7	4	
115-6-17 bag #1	11	artiodactyla	tb	l	ds	fa.1					
115-6-17 bag #1	11	leporidae	den	l	P2						
115-6-17 bag #1	11	leporidae	mp	l	s			c			
115-6-17 bag #1	11	leporidae	sku	r	ba						
115-6-17 bag #1	11	lepus	cal	l	c	ca1.2,ca2	f				
115-6-17 bag #1	11	lepus	max	r	max,fo,ham,sp					3	r. & l. P2-40
115-6-17 bag #1	11	lepus	fem	r	d	fa5,fa6	f				
115-6-17 bag #1	11	lepus	hum	r	p	hu1.2,hu2.1	f				

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 3 of 13).

Provenience	Code	Identification	Elem.	Side	Parton	Spec. #/pts	Fem.	Burn.	Med.	Pop.	#	Comments
115-6-17 bag 01	11	lapus	hum	l	p	hu1.2,hu2						
115-6-17 bag 01	11	lapus	inn	l	ac,l	h2.1		b				
115-6-17 bag 01	11	lapus	max	rl	r.br,l.sp							L P2-M3
115-6-17 bag 01	11	lapus	mc4	r	c	mc1,mc2	f					
115-6-17 bag 01	11	lapus	mc5	r	c	mc1.2,mc2.2	f		red			
115-6-17 bag 01	11	lapus	mc3	l	c	mt1,mt2,mt3	f					
115-6-17 bag 01	11	lapus	ph1	l	c	ph1,ph2	f					
115-6-17 bag 01	11	lapus	ph1	l	c	ph1.2,ph2.2	f					
115-6-17 bag 01	11	lapus	rad	l	p	ra1,ra2	f					
115-6-17 bag 01	11	lapus	aca	r	b	ap2.1,ap3.2					3	
115-6-17 bag 01	11	lapus	tb	r	ms	tb3.1						
115-6-17 bag 01	11	lapus	tb	l	ms	tb3.1						
115-6-17 bag 01	11	lapus	uh	r	p	u1,u2,u3.1	f					
115-6-17 bag 01	11	lapus	uh	l	p	u1,u2	f					
115-6-17 bag 01	11	odocoleus	ph1	l	c	p11,p12,p13	f					
115-6-17 bag 01	11	syllagus	fam	r	ps	fa3.1,fa4.1						
115-6-17 bag 01	11	syllagus	fam	r	d	fa5,fa6	f					
115-6-17 bag 01	11	syllagus	fam	r	d	fa5,fa6	f					
115-6-17 bag 01	11	syllagus	fam	l	p	fa2.2,fa3.2	f		red?			
115-6-17 bag 01	11	syllagus	fam	l	p	fa1.1,fa2.2,fa3,fa4.1	u					
115-6-17 bag 01	11	syllagus	hum	r	p	hu1.2,hu2,hu3	p					
115-6-17 bag 01	11	syllagus	hum	r	p	hu1.1,hu2.2,hu3.1	u					
115-6-17 bag 01	11	syllagus	hum	l	p	hu1,hu2	f					
115-6-17 bag 01	11	syllagus	hum	l	p	hu1.2,hu2.2	f		red			
115-6-17 bag 01	11	syllagus	inn	r	ac,l,ls,pu	ac1.2,h2.1,ls1.2,ls2.2,pu1.1	f					
115-6-17 bag 01	11	syllagus	inn	l	ac,l,ls,pu	ac1,h1.2,h2.2,ls1.2,ls2,pu1.2	f					
115-6-17 bag 01	11	syllagus	inn	l	ac,l,ls,pu	ac1,h1.2,h2,ls1.2,ls2,pu1.2	f					
115-6-17 bag 01	11	syllagus	inn	l	ac,l,ls,pu	ac1,h1.2,h2,ls1.1,ls2	f					
115-6-17 bag 01	11	syllagus	man	r	b	dn2.2						pt
115-6-17 bag 01	11	syllagus	max	rl	ap							r. & L P3-M2
115-6-17 bag 01	11	syllagus	mc3	r	p	mt1,mt2	f					
115-6-17 bag 01	11	syllagus	mc5	r	c	mt1,mt2,mt3	f					
115-6-17 bag 01	11	syllagus	mc6	l	c	mt1,mt2,mt3	f					
115-6-17 bag 01	11	syllagus	rad	l	c	ra1,ra2,ra3,ra4,ra6	f					
115-6-17 bag 01	11	syllagus	aca	r	h,n,b	ap1,ap2,ap3.1	f					
115-6-17 bag 01	11	syllagus	aca	r	h,n,b	ap1,ap2	f					
115-6-17 bag 01	11	syllagus	aca	l	h,n,b	ap1,ap2,ap3	f					
115-6-17 bag 01	11	syllagus	tb	r	p	tb1.2,tb2	f					
115-6-17 bag 01	11	syllagus	tb	r	p	tb1.2,tb2	p					
115-6-17 bag 01	11	syllagus	uh	l	p	u1,u2,u3,u4.1	f					
115-6-17 bag 02	11	artiodactyla	aca	l	h,n	ap1.2	f					
115-6-17 bag 03	11	leporidae	uh	r	ps							
115-6-17 bag 03	11	lapus	aca	l	tb	ap3.1					2	
115-6-17 bag 03	11	lapus	lar	l	nav							cut?
115-6-17 bag 03	11	syllagus	hum	r	d	hu3.1,hu4,hu5.2	f					
115-6-17 bag 03	11	syllagus	mc2	r	c	mt1,mt2,mt3	f					
115-6-17 bag 03	11	syllagus	mc2	l	c	mt1,mt2,mt3	p					
115-6-17 bag 03	11	syllagus	tb	r	p	tb1.2,tb2	f					
115-6-17 bag 04	11	syllagus	fam	r	ps	fa4.1						
115-7-17 bag 01	11	lapus	inn	r	ac,ls,pu	ac1.2,ls2.2,pu1.2	f					
115-7-17 bag 01	11	lapus	man	l	br	dn1.2,dn2,dn3.2						pt-m2
115-7-17 bag 01	11	syllagus	aca	r	h,n,b	ap1,ap2	f					
115-7-17 bag 02	11	syllagus	aca	l	h,n,b	ap1.2,ap2	f					
115-8-17	11	artiodactyla	ca1	l	c	ca1.1,ca2.2,ca3.2,ca4.1	u		red			
115-8-17	11	leporidae	mp	l	d		f					
115-8-17	11	lapus	inn	r	ls							
115-8-17	11	odocoleus	dn	l	k							
115-8-17	11	syllagus	mc2	l	c	mt1,mt2,mt3	f					pathological?
115-8-17	11	syllagus	mc2	l	c	mt1,mt2,mt3	f					
115-8-17	11	syllagus	tb	r	p	tb1.1,tb2	u					
115-8-17	11	syllagus	tb	l	ms							
116-3-2	12	syllagus	tb	r	d	tb4	u					
116-3-3	12	syllagus	inn	r	ac,l,ls,pu	ac1,h2,ls1.2,ls2,pu1.2	f					
116-1-6	12	leporidae	fam	l	ms							
116-3-4 bag 01	12	odocoleus	stu	l	acc							
116-1-7 bag 01	12	syllagus	fam	l	d	fa5.2,fa6.2	f		red			
116-1-7 bag 03	12	leporidae	uh	r	ls							
116-2-7 bag 01	12	lapus	ph1	l	c	ph1,ph2.2	f		red			
116-2-7 bag 01	12	lapus	tb	l	dn	tb4.1						

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 4 of 13).

Provenience	Code	Identification	Elem.	Side	Portion	Spec Sites	Fos.	Surv.	Mod.	6	Comments
116-3-7 bag 02	12	lapus	cal	r	pos	ca1.2,ca2	f	c			
116-3-7 bag 02	12	lapus	fem	r	ms	fa.1		b			
116-3-7 bag 02	12	lapus	hum	l	p	hu1.2,hu2	f				
116-3-7 bag 02	12	lapus	asc		bo.ar	ac1.2	p				
116-3-7 bag 02	12	lapus	uhn	l	p	u11,u2	f			2	
116-3-7 bag 02	12	syllagus	man	r	b	dn2.1		c			p4,m1
116-3-7 bag 04	12	artiodactyla	rib		s	x			rad		
116-3-7 bag 04	12	lapidae	fem	l	ms	fa.1					
116-3-7 bag 04	12	lapidae	ph1		c	ph1.2,ph2.2	f				
116-3-7 bag 01	12	artiodactyla	sku	r	tro						< 6 wks.
116-3-7 bag 01	12	lapus	ph1		c	ph1.2,ph2.2	f				
116-3-7 bag 01	12	lapus	rad	r	ps			b			
116-3-7 bag 01	12	syllagus	uhn	r	p	u11,u2	p				
116-3-7 bag 02	12	artiodactyla	rib	l	ps	fa.1			car?		
116-3-7 bag 02	12	lapidae	hum	r	p	hu2.1	u				
116-3-7 bag 02	12	lapidae	sku	r	sp						
116-3-7 bag 02	12	lapus	fem	r	ps	fa.1					
116-3-7 bag 02	12	lapus	fem	r	ds						
116-3-7 bag 02	12	lapus	fem	l	p	fa1.2,fa2.2,fa3.2	f			2	
116-3-7 bag 02	12	lapus	rib	l	p	fa1.2,fa2	f				
116-3-7 bag 02	12	lapus	rib	l	p	fa1.2,fa2.1	f				
116-3-7 bag 02	12	syllagus	fem	l	p	fa2.1,fa3.1	f			2	
116-3-7 bag 02	12	syllagus	inn	l	ac,ls	ac1.1,fa2.1	f				
116-3-2/3	13	artiodactyla	mt		s						
121-2-1 bag 01	14	lapus	fem	l	ps						
121-2-1 bag 01	14	lapus	fem		ds	fa5.1					
121-2-1 bag 02	14	lapus	inn	l	ll	fa1.2					
121-2-1 bag 03	14	artiodactyla	rad		s			b			
130-1-1	14	artiodactyla	rib		s					3	
121-1-3 bag 03	15	artiodactyla	mt		s			c			
121-2-3 bag 01	16	lapus	uhn	l	p	u11.1,u2.1					
121-2-3 bag 01	16	syllagus	inn	l	ll	fa.1			car?		
121-2-3 bag 03	16	lapus	inn	r	ac,ls	ac1.1,fa2.1				2	
121-2-3 bag 05	16	artiodactyla	hum	r	ps						
121-2-3 bag 07	16	lapus	rib	r	ps						
121-2-3 bag 07	16	odocoleus	sku	l	bul						
121-2-3 bag 01	16	lapus	hum	l	p	hu1.2,hu2	f				
121-2-3 bag 01	16	odocoleus	ph2	l	c	pa21.2,pa22.2,pa23.2	f				
121-2-3 bag 01	16	syllagus	uhn	r	p	u11,u2	f				
121-2-3 bag 02	16	lapus	fem	r	ps						
121-2-3 bag 02	16	lapus	uhn	r	p	u11,u2	f				
121-2-3 bag 02	16	syllagus	mc3	r	c	mc1,mc2,mc3	f				
121-3-4	16	syllagus	fem	l	d	fa5,fa6.1	u				
141-2-2	17	artiodactyla	rib	l	s	fa3					ca. 6 wks.
141-2-2	17	lapidae	dan		ut						
141-2-2	17	lapus	max	r	max,ro,aph					3	P4,M1
141-2-2	17	lapus	fem	r	ms	fa.1		c			
141-2-2	17	syllagus	oca	r	h,n,b	sp1.2,sp2.2	f				
141-2-2 bag 01	17	lapidae	dan		ut						
141-2-2 bag 01	17	lapus	cal	r	c	ca1,ca2	f	c			
141-2-2 bag 01	17	lapus	cal	l	c	ca1	f	c			
141-2-2 bag 01	17	lapus	hum	l	ps			c			
141-2-2 bag 01	17	lapus	max	l	sp						P3
141-2-2 bag 01	17	lapus	mc2	l	c	mc1,mc2	f				
141-2-2 bag 01	17	lapus	rib	l	ms						
141-2-2 bag 01	17	syllagus	mc5	r	c	mc1,mc2	u				
141-2-2 bag 01	17	syllagus	oca	l	h,n,b	sp1,sp2.1	f				
141-4-2	17	artiodactyla	fem		s						
141-4-2	17	artiodactyla	rib		s	x					
141-4-2	17	artiodactyla	rib		ds						
141-4-2	17	lapidae	dan		P2						
141-4-2	17	lapidae	dan		ut						
141-4-2	17	lapidae	dan		ut						
141-4-2	17	lapidae	dan		ut						
141-4-2	17	lapidae	fem	l	ds	fa.1					
141-4-2	17	lapus	cal	l	c	ca1,ca2	f	b			
141-4-2	17	lapus	fem	l	d	fa4,fa5,fa6	f				
141-4-2	17	lapus	fem	l	d	fa5.1		c			
141-4-2	17	lapus	inn	r	ll	fa1.2,fa2					

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 5 of 13).

Provenience	Code	Identification	Elem.	Side	Portion	Spec #/type	Pres.	Surv.	Ident.	Pos.	Comments
141-4-2	17	lepus	ph1		c	ph1,ph2	f				
141-4-2	17	lepus	uh	l	p	u2.2		c			
141-4-2	17	syllagus	lum	r	p	lu1,lu2.2,lu3,lu4.1	f				
141-4-2	17	syllagus	lum	r	p	lu1.1,lu2.1	f				
141-4-2	17	syllagus	lum	r	d	lu4,lu5	f				
141-4-2	17	syllagus	lum	l	p	lu1.2,lu2.1	f				
141-4-2	17	syllagus	mar	r	sp						P3
141-4-2	17	syllagus	aca	l	h,n,b	sp1.2	f				
225-1-2 bag #1	18	artiodactyla	ph1	r	p	pt1.1,pt2.1	u	c			
225-1-2 bag #1	18	leporidae	den		m3						
225-1-2 bag #1	18	leporidae	den	l	bul						
225-1-2 bag #1	18	lepus	lum	r	ps	lu4.1					
225-1-2 bag #1	18	lepus	lum	r	ll	ll2.1		b			
225-1-2 bag #1	18	lepus	lum	l	ac,l,lu,pu	ac1,ll1.1	f				
225-1-2 bag #1	18	lepus	rad	l	d	ra4,ra5	f				
225-1-2 bag #1	18	lepus	tb	r	p	tl1.2,tl2.1	f				2
225-1-2 bag #1	18	lepus	tb	l	ds	tl3.2					
225-1-2 bag #1	18	odocoileum	ph3	r	p	ps1	f	c			
225-1-2 bag #1	18	syllagus	ca1	l	c	ca1,ca2	f				
225-1-2 bag #1	18	syllagus	lum	l	p	lu1.2,lu2.2,lu3.2	f				
225-1-2 bag #1	18	syllagus	lum	r	p	lu1.2,lu2	f	b			
225-1-2 bag #1	18	syllagus	lum	r	ac,l,lu,pu	ac1.2,lu2.2,pu1.1	f				
225-1-2 bag #1	18	syllagus	man	r	b,r	dn1,dn2,dn3.2,dn4.1					lp3-m3
225-1-2 bag #1	18	syllagus	man	r	b,r	dn1,dn2,dn3.2					lp3-m2
225-1-2 bag #1	18	syllagus	man	r	r	dn5.2					
225-1-2 bag #1	18	syllagus	uh	r	p	u1.2,u2	u				
225-1-2 bag #2	18	artiodactyla	sku	l	bul						
225-1-2 bag #2	18	lepus	rad	r	p	ra1,ra2	f				
225-2-2 bag #1	18	odocoileum	ca1	l	c	ca2.2,ca3.2					
225-2-2 bag #1	18	syllagus	man	l	b,r	dn1.2,dn2,dn3.2,dn4.1					2 lp3-m3
225-2-2 bag #1	18	syllagus	mar	r	sp						
225-2-2 bag #2	18	artiodactyla	rb	l	s	x		b			
225-2-2 bag #2	18	cervidae	ant								
225-2-2 bag #2	18	leporidae	den		f						
225-2-2 bag #2	18	leporidae	den		f						
225-2-2 bag #2	18	leporidae	den		f						
225-2-2 bag #2	18	leporidae	den		f						
225-2-2 bag #2	18	leporidae	den		f						
225-2-2 bag #2	18	leporidae	den		f						
225-2-2 bag #2	18	leporidae	man	r	r						
225-2-2 bag #2	18	leporidae	mp		d		f				
225-2-2 bag #2	18	leporidae	mp		d		f		sp7		
225-2-2 bag #2	18	leporidae	ph1		c	ph1.2,ph2.1	f				
225-2-2 bag #2	18	leporidae	sku	l	bul						
225-2-2 bag #2	18	leporidae	sku	l	bul						
225-2-2 bag #2	18	lepus	lum	l	s			c			
225-2-2 bag #2	18	lepus	lum	r	d	lu3.2,lu4,lu5	f	b			
225-2-2 bag #2	18	lepus	man	l	b,r	dn2.1,dn3.2					
225-2-2 bag #2	18	lepus	m2	l	p	mt1.2,mt2			sp7		
225-2-2 bag #2	18	lepus	aca	r	h,n,b	sp1,sp2.2	f				
225-2-2 bag #2	18	syllagus	aca	l	b	sp3.1					
225-2-2 bag #3	18	artiodactyla	rb		s						
225-2-2 bag #3	18	lepus	lum	r	ac,l,b	ac1.1,lu1.2,lu2					
225-2-2 bag #3	18	lepus	aca	r	h,n,b	sp1,sp2,sp3.2	f				2
225-2-2 bag #3	18	syllagus	lum	l	d	lu4,lu5	f				
225-2-2 bag #3	18	syllagus	man	r	b,r	dn1.2,dn2,dn3.2					lp3-m3
225-2-6 bag #2	19	syllagus	man	l	b,r	dn2.2,dn3,dn4.1					sp4-m2
225-2-6 bag #4	19	artiodactyla	den	l	p						
225-2-6 bag #4	19	artiodactyla	ca1	r	mid	ca2.2,ca3.2,ca4.2					ca. 6 wks.
225-2-6 bag #4	19	artiodactyla	lum		ps						
225-2-6 bag #4	19	artiodactyla	lum	l	ps						ca. 6 wks.
225-2-6 bag #4	19	artiodactyla	mp		s						
225-2-6 bag #4	19	artiodactyla	rb	l	s	x		b			
225-2-6 bag #4	19	artiodactyla	rb	l	s						
225-2-6 bag #4	19	artiodactyla	rb	r	s	x					3
225-2-6 bag #4	19	artiodactyla	rb	l	s	ra4,ra5					2 ca. 6 wks.
225-2-6 bag #4	19	artiodactyla	tb	l	ms	tl3.1					
225-2-6 bag #4	19	artiodactyla	tb	r	ps						2
225-2-6 bag #4	19	artiodactyla	tb	r	ms	tl3.1					
225-2-6 bag #4	19	artiodactyla	vop	l	tp						

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 7 of 13).

Provenience	Code	Identification	Elem.	Side	Portion	Segs Sites	Pop.	Surv.	Mod.	Pop.	Comments
233-3-6 bag #1	19	Isopidae	atu	l	par						
233-3-6 bag #1	19	Isopidae	atu	r	bul						
233-3-6 bag #1	19	Isopidae	atu	l	bul						
233-3-6 bag #1	19	Isopidae	atu	l	bul						
233-3-6 bag #1	19	Isopus	fem	r	p	fo1.1,fo2.2,fo3.2,fo4.1	u				
233-3-6 bag #1	19	Isopus	hum	l	p	hu1.2,hu2.2	f	c			
233-3-6 bag #1	19	Odocoileus	den	r	m3					5	
233-3-6 bag #1	19	Odocoileus	pat	l	c	pa1.2		b			
233-3-6 bag #1	19	Odocoileus	ph1	r	c	ph1.1,ph2,ph3	u				
233-3-6 bag #1	19	Sylvilagus	max	ri	max,pmx,fo.s					2	l. P4-M2
233-3-6 bag #1	19	Sylvilagus	fem	l	p	fo1.1,fo2.2,fo3	u				
233-3-6 bag #1	19	Sylvilagus	inn	l	ac.1,ls,pu	ac1.2,fo2.1,fo2.1,pu1.2	f				
233-3-6 bag #1	19	Sylvilagus	man	r	r	dn3.2,dn4.1,dn6.2					
233-3-6 bag #1	19	Sylvilagus	man	l	br	dn1.2,dn2,dn3.2					lm1
233-3-6 bag #1	19	Sylvilagus	aca	l	h,n,b	sp1,sp2,sp3.2	f			3	
233-3-6 bag #1	19	Sylvilagus	tb	r	p	tl1,tl2,tl3	f	b		3	
233-3-6 bag #1	19	Sylvilagus	tb	r	p	tl1.1,tl2,tl3	u				
233-3-6 bag #1	19	Sylvilagus	tb	l	p	tl1,tl2	f			2	
233-3-6 bag #1	19										Site w/ spec. in 2-6 bag #6
233-3-6 bag #2	19	Artibeus	fem	l	e			b			
233-3-6 bag #2	19	Artibeus	mc	r	e	mc3.1					
233-3-6 bag #2	19	Artibeus	rib	l	e	x					
233-3-6 bag #2	19	Artibeus	rib	l	ae	x				2	
233-3-6 bag #2	19	Artibeus	rib	r	e	x		b			
233-3-6 bag #2	19	Artibeus	atu	r	occ						
233-3-6 bag #2	19	Isopidae	den		tl						
233-3-6 bag #2	19	Isopidae	den		tl						
233-3-6 bag #2	19	Isopidae	fem	r	ps	fo4.1					
233-3-6 bag #2	19	Isopidae	man	l	br	dn1.2,dn2,dn3.2					pa
233-3-6 bag #2	19	Isopidae	atu	l	tan						
233-3-6 bag #2	19	Isopidae	atu	r	bul						
233-3-6 bag #2	19	Isopus	cal	r	pos	ca1,ca2.2	f	b			
233-3-6 bag #2	19	Isopus	fem	r	ps						
233-3-6 bag #2	19	Isopus	fem	r	ps	fo4.1					
233-3-6 bag #2	19	Isopus	fem	r	ms	fo4.2					
233-3-6 bag #2	19	Isopus	hum	r	p	hu1.2,hu2	f				
233-3-6 bag #2	19	Isopus	hum	l	ds	hu3.1					
233-3-6 bag #2	19	Isopus	pmx	l	ant						
233-3-6 bag #2	19	Odocoileus	man	r	b	dn4.1					ca. 6 wts.
233-3-6 bag #2	19	Sylvilagus	fem	r	ps						
233-3-6 bag #2	19	Sylvilagus	fem	l	d	fo5.1,fo6	f				
233-3-6 bag #2	19	Sylvilagus	inn	l	ac.1,ls,pu	ac1,tl1.2,tl2,tl1.2,tl2,pu1.2	f				
233-3-6 bag #2	19	Sylvilagus	man	r	br	dn1.2,dn2,dn3.2					lp3-m2
233-3-6 bag #2	19	Sylvilagus	man	l	b	dn1.2		c			
233-3-6 bag #2	19	Sylvilagus	max	r	ap						P2-M3
233-3-6 bag #2	19	Sylvilagus	m2	r	c	m1,m2	u				
233-3-6 bag #2	19	Sylvilagus	m3	l	p	m1,m2					
233-3-6 bag #2	19	Sylvilagus	pmx	ri	ant						
233-3-6 bag #2	19	Sylvilagus	rad	l	p	ra1,ra2,ra3.1	f				
233-3-6 bag #2	19	Sylvilagus	aca	l	h,n,b	sp1,sp2	f				
233-3-6 bag #2	19	Sylvilagus	aca	l	h,n,b	sp1.2,sp2.2	f				
233-3-6 bag #2	19										Site w/ spec. in bag #1
233-3-6 bag #3	19	Isopus	ph1	e		ph1.2,ph2.1	u				
237-1-1 bag #1	20	Artibeus	tb	l	ps	tl1.1					
237-1-1 bag #1	20	Artibeus	rib	l	e						
237-1-1 bag #1	20	Artibeus	tb	l	ms	tl3.1				20	
237-1-1 bag #1	20	Artibeus	tb	l	ds	tl3.1					
237-1-1 bag #1	20	Artibeus	tb	l	bo,ar	tl1.1,tl2.2	f				
237-1-1 bag #1	20	Odocoileus	hum	r	d	hu5.2	f				
237-1-1 bag #2	20	Isopus	aca	r	h,n,b	sp1.2,sp2.1	f			rod	
237-1-1 bag #2	20	Isopus	uh	l	p	ul1,ul2	f				
237-1-1 bag #2	20	Sylvilagus	fem	l	d	fo4.1,fo5,fo6.2	f				
237-1-1 bag #2	20	Sylvilagus	m2	r	c	m1,m2	f				
237-1-1 bag #3	20	Artibeus	fem	r	d	fo5.1					
237-1-1 bag #3	20	Artibeus	mp	l	e					rod	ca. 6 wts.
237-1-1 bag #3	20	Isopidae	fem	l	ps						
237-1-1 bag #3	20	Isopidae	fem	l	ps	fo4.1					

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 8 of 13).

Provenience	Code	Identification	Elem.	Side	Portion	Scan Sites	Pop.	Surv.	Mod.	# Pop.	Comments
237-1-1 bag 03	20	leporidae	man	l	b,r	dn2.1,dn3.1					
237-1-1 bag 03	20	lepus	tb	l	ma			c			
237-1-1 bag 03	20	otocoleus	fem	l	de	tu6.1					
237-1-1 bag 03	20	syrtagus	hum	r	ps	tu2.1					
237-1-1 bag 03	20	syrtagus	hum	r	ps	tu2.1,tu3.1					
237-1-1 bag 03	20	syrtagus	inn	l	ls	tu2.2		c			
237-1-1 bag 03	20	syrtagus	oca	r	lb						
237-1-1 bag 03	20	syrtagus	oca	l	lb	sp3.1					
237-1-1 bag 05	20	artiodactyla	fem	l	d	tu6.1		f			
237-1-1 bag 05	20	artiodactyla	mp		s						< 6 vts.
237-1-1 bag 05	20	artiodactyla	mp		s						ca. 6 vts.
237-1-1 bag 05	20	leporidae	den		P2						
237-1-1 bag 05	20	leporidae	den		ut						
237-1-1 bag 05	20	lepus	fem	l	ms	tu4.2					
237-1-1 bag 05	20	lepus	hum	l	d	tu4,tu6		f			
237-1-1 bag 05	20	lepus	inn	r	ac,l,ls,pu	ac1.2,tu2.1,tu1.1,tu2.2,pu1.2				rod	
237-1-1 bag 05	20	lepus	ph1		c	ph1,ph2		f			
237-1-1 bag 05	20	lepus	tb	l	ps	tu2.1					
237-1-1 bag 05	20	syrtagus	man	l	b,r	dn3,dn4.1,dn5.1					m2,m3
237-1-1 bag 05	20	syrtagus	max	r	ap						P3-tu1
237-1-1 bag 05	20	syrtagus	tb	r	p	tu1.2,tu2.2		f		rod	
237-1-1 bag 05	20	lepus	oca	r	h,n,b	sp1,sp2.2		f			
237-1-1 bag 05	20	lepus	tb	r	p	tu1.1		f			
206-1-6 bag 01	21	artiodactyla	den		k						
206-1-6 bag 01	21	artiodactyla	tb	l	de	tu5.1		u			
206-1-6 bag 01	21	artiodactyla	man	l	con	dn7.1		c			
206-1-6 bag 01	21	artiodactyla	rb		s			b			
206-1-6 bag 01	21	bison	ph2	r	c	tu21.1,pu22,pu23.2		u			ca. 6 vts.?
206-1-6 bag 01	21	large artiodactyla	vu	l	bo,ar	tu1.1,tu2.1		u		4	same?
206-1-6 bag 01	21	large artiodactyla	vu	l	any	tu1.1					
206-1-6 bag 01	21	leporidae	stu	l	tu1						
206-1-6 bag 01	21	leporidae	tb	r	p	tu2.1		u			
206-1-6 bag 01	21	lepus	fem	l	ps	tu3.1					
206-1-6 bag 01	21	lepus	hum	r	d	tu4.2,tu5		f			
206-1-6 bag 01	21	lepus	inn	r	ac,ls	ac1.2,tu2.2		f			
206-1-6 bag 01	21	lepus	man	l	b	dn1.2					
206-1-6 bag 01	21	lepus	m3	r	p	tu1,tu2.2				rod	
206-1-6 bag 01	21	lepus	m4	r	c	tu1,tu2,tu3		f			
206-1-6 bag 01	21	lepus	ph1		c	ph1,ph2		f			
206-1-6 bag 01	21	lepus	m4	r	d	tu1,tu5		f			
206-1-6 bag 01	21	lepus	m4	l	p	tu1,tu2		f			
206-1-6 bag 01	21	lepus	oca	r	h,b						
206-1-6 bag 01	21	syrtagus	cat	l	c	ca1.2,ca2		p			
206-1-6 bag 01	21	syrtagus	fem	l	p	tu2.1,tu3.1		f			
206-1-6 bag 04	21	lepus	cat	l	c	ca1			b		
206-1-6 bag 05	21	artiodactyla	rb	l	s	tu4.1,tu5.2					
206-1-6 bag 05	21	lepus	fem	r	ma	tu4.2					
206-1-6 bag 05	21	lepus	m2	l	p	tu1,tu2					
206-2-1 bag 01	22	leporidae	tb	l	ps	tu2.1					
206-2-1 bag 01	22	lepus	inn	l	ls	tu1.1,tu2.1					
206-2-1 bag 01	22	lepus	m4	l	p	tu1,tu2.1		f			
206-2-1 bag 01	22	syrtagus	fem	r	de	tu6.2		u			
206-2-1 bag 02	22	syrtagus	fem	r	p	tu1,tu2,tu3.2		f			
206-1-4 bag 01	22	syrtagus	hum	r	d	tu2.1,tu3.2,tu4.2,tu5.1		f			
206-1-4 bag 01	22	syrtagus	man	r	b,r	dn1.2,dn2,dn3.1					p3-m1
206-1-4 bag 02	22	syrtagus	oca	r	b	sp2.2					
206-1-4 bag 03	22	artiodactyla	tb	r	ps	tu1.1		u	c		
206-2-4 bag 01	22	otocoleus	stu	l	tu1						
206-2-4 bag 01	22	syrtagus	oca	r	h,n	sp1.2		f			
206-2-4 bag 02	22	artiodactyla	oca		c			u			
206-2-4 bag 02	22	otocoleus	mpa		d			u			
206-2-4 bag 02	22	syrtagus	inn	l	c	ac1,tu1,tu2,pu1		f			
206-2-4 bag 03	22	artiodactyla	tb	l	ms	tu3.1					
206-5-6 bag 01	23	artiodactyla	mp		s			c			
206-5-6 bag 01	23	artiodactyla	tb	r	ps	tu2.1		c			
206-5-6 bag 01	23	artiodactyla	tb	r	ps			c			
206-5-6 bag 01	23	leporidae	fem	l	de	tu6.1					
206-5-6 bag 01	23	leporidae	mp		d			f			
206-5-6 bag 01	23	lepus	fem	r	p	tu1.2,tu2.2,tu3		f		rod	
206-5-6 bag 01	23	lepus	fem	r	ps	tu4.1				2	

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 9 of 13).

Provenience	Code	Identification	Elem.	Side	Parton	Spec Sites	Fem.	Surv.	Med.	Sex	Comments
200-5-0 bag #1	23	Ispus	fem	l	gs	fo4.1		b			
200-5-0 bag #1	23	Ispus	eca	r	n.b	sp2.2			rod		
200-5-0 bag #1	23	Orthoptera	eca	r	h.n.b	sp1,sp2.2,sp3.1	f				
200-5-0 bag #3	23	Orthoptera	mt	r	gs	mr1.1,mr2.1					
200-5-0 bag #3	23	Orthoptera	fb	r	gs						
200-5-0 bag #3	23	Artiodactyla	hu	r	bo	hu2.1		c			
200-5-0 bag #3	23	Orthoptera	hum	l	c	hu1.1,hu2.2,hu3,hu4,hu5.1	f				
200-5-0 bag #3	23	Orthoptera	eca	r	fb	sp2.1,sp3.1					
200-5-0 bag #3	23	Orthoptera	eca	l	h.n.b	sp1,sp2,sp3.1	f				
200-5-0 bag #3	23	Orthoptera	eca	l	h.n.b	sp1,sp2	f				
200-5-0 bag #5	23	Artiodactyla	rb	l	La	rt2.1		b			
200-5-0 bag #5	23	Artiodactyla	vca		c			p			
200-5-0 bag #5	23	Isporidae	mp		d		f				
200-5-0 bag #5	23	Ispus	fem	r	d	fo5,fo6.2	f				
200-5-0 bag #5	23	Ispus	eca	r	n.b	sp2,sp3.1					
200-5-0 bag #5	23	Odocoileus	ph1	r	p	p11.2,p12.1	f	b			
200-1-2	24	Isporidae	fb	l	ms			b			
200-1-2	24	Ispus	ca1	l	c	ca1,ca2	f				
200-1-2	24	Ispus	mc3	l	c	mc1.2,mc2	f		rod		
200-1-2	24	Ispus	mc3	r	p	mt1.2					
200-1-2	24	Ispus	uh	r	gs			b			
200-2-2	24	Artiodactyla	rb	r	s	rt3					
200-2-2	24	Artiodactyla	rb		s						
200-2-2	24	Isporidae	mp		d		f	b			
200-2-2	24	Isporidae	eca	l	fb			b			
200-2-2	24	Ispus	fem	r	p	fo1,fo2,fo3	f				
200-2-2	24	Ispus	fem	r	p	fo1,fo2.2,fo3.2	f				
200-2-2	24	Ispus	fem		s			c			
200-2-2	24	Ispus	mc5	r	c	mc1,mc2	f	b			
200-2-2	24	Ispus	fb	l	gs			b			
200-2-2	24	Ispus	uh	l	p	u1.2,u2.2	f				
200-2-2	24	Odocoileus	mt	l	s	mr2.1,mr3.2					ca. 6 whs.
200-2-2	24	Odocoileus	mt		ds	mr4.1					
200-2-2	24	Odocoileus	ph1	l	c	p11.2,p12.2,p13.2	f				
200-2-2	24	Odocoileus	uh	r	p	u2.2					
200-2-2	24	Orthoptera	ca1	l	c	ca1,ca2	f	b			
200-2-2	24	Orthoptera	hum	r	d	hu5	f				
200-2-4	24	Artiodactyla	mp		s			c			
200-2-4	24	Isporidae	mp		d		f				
200-2-4	24	Isporidae	fb	l	gs	fo2.1		c			
200-2-4	24	Ispus	fem	r	gs			b			
200-2-4	24	Ispus	fem	r	d	fo5.1		b			
200-2-4	24	Ispus	man	r	b	dn1.2		c			l
200-2-4	24	Orthoptera	ca1	l	c	ca1,ca2	f	c			
200-2-4	24	Orthoptera	inn	l	ls	fo1.2,fo2.2			car?		
200-3-4 bag #1	24	Artiodactyla	hum	l	ms	hu3.1					
200-3-4 bag #1	24	Artiodactyla	rb	l	s	rt3					
200-3-4 bag #1	24	Isporidae	fb	r	p		f				
200-3-4 bag #1	24	Ispus	fem	r	d	fo5.2,fo6.2	f	b			
200-3-4 bag #1	24	Ispus	fem	l	gs			b			
200-3-4 bag #1	24	Ispus	fb	l	gs			b			
200-3-4 bag #1	24	Odocoileus	ph2	r	c	p21,p22,p23.2	f	b			
200-3-4 bag #2	24	Artiodactyla	rb		s						
200-3-4 bag #2	24	Isporidae	fem		s			b			
200-3-4 bag #2	24	Isporidae	man	r	b,r	dn3.1,dn4.1		b			
200-3-4 bag #2	24	Ispus	fem	r	gs			b			
200-3-4 bag #2	24	Ispus	fem	r	d	fo5.2,fo6	f				
200-3-4 bag #2	24	Ispus	fem	l	p	fo1,fo2,fo3.2,fo4.1	f				
200-3-4 bag #2	24	Ispus	hum	r	d	hu3.1,hu4,hu5	f				
200-3-4 bag #2	24	Odocoileus	man	l	r	dn6.1,dn7,dn8					
200-3-4 bag #2	24	Odocoileus	stu	l	con						
200-3-4 bag #2	24	Orthoptera	hum	r	d	hu4,hu5	f				
200-3-4 bag #3	24	Odocoileus	ph1		d	p13.1		b			
200-4-4	24	Isporidae	inn	r	ll	fo2.1		b		2	
200-4-4	24	Isporidae	fb	r	gs			ca			
200-4-4	24	Ispus	ca1	l	gs	ca1.2	f	c			
200-4-4	24	Ispus	fem		ms	fo4.1					
200-4-4	24	Ispus	inn	r	ls	fo2.1		c			
200-4-4	24	Ispus	inn	l	ll	fo2.1					

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 10 of 13).

Provenience	Code	Identification	Elem.	Side	Partes	Spec. #/type	Pop.	Surv.	Med.	#	Comments
280-4-4	24	lapus	man	r	br	dn3.2		b			
280-4-4	24	lapus	me2	l	c	me1,me2	f				
280-4-4	24	lapus	me4	l	p	me1		c			
280-4-4	24	lapus	rad	r	p	ra1,ra2	f	b			
280-4-4	24	lapus	lb	l	p	lb1.2,lb2.2	f	c			
280-4-4	24	lapus	lb	l	ps	lb1.1		c			
280-4-4	24	lapus	uhn	r	p	uh1,uh2	f	b			
280-4-4	24	cyrtolagus	inn	l	ac,l,ls,pu	ac1.2,lb2,ls2.1	f	b			
280-4-4	24	cyrtolagus	inn	l	ac,l,pu	ac1.2,lb2.1,pu1.1	f	c			
280-4-4	24	cyrtolagus	max	r	zyp						
280-4-4	24	cyrtolagus	lb	r	d	lb4,lb5	f				
280-4-4	24	cyrtolagus	uhn	r	p	uh1,uh2	f				
280-3-2	25	artiodactyla	hum	l	ps	hu3.1					
280-3-2	25	artiodactyla	mp	s		ms3.2					< 6 wts.
280-3-2	25	artiodactyla	lb	ps				b			
280-3-2	25	artiodactyla	vh	ar		vh1.1,ah2.1					ca. 6 wts.
280-3-2	25	isopridae	den	l				c		2	
280-3-2	25	isopridae	den	m3				c			
280-3-2	25	isopridae	mp	is							
280-3-2	25	isopridae	me2	l	c	me1,me2		u			
280-3-2	25	isopridae	rad	da				b			
280-3-2	25	isopridae	shu	r	tro						
280-3-2	25	isopridae	lb	r	ps	lb2.1		b			
280-3-2	25	isopridae	lb	r	ms			b			
280-3-2	25	isopridae	lb	l	ps	lb2.1		b			
280-3-2	25	isopridae	lb	l	ps						
280-3-2	25	lapus	cat	r	c	ca1					
280-3-2	25	lapus	cat	l	c	ca1,ca2.2	f	c			
280-3-2	25	lapus	hum	r	d	hu4,hu5	f	b			
280-3-2	25	lapus	hum	l	ds	hu4.1					
280-3-2	25	lapus	inn	r	ac	ac1.1		c			
280-3-2	25	lapus	man	r	b	ma1.2,ma2.2					Lp3-p4
280-3-2	25	lapus	man	r	ds	ma1.2		b			
280-3-2	25	lapus	man	l	br	ma1,ma2,ma3,ma4					Lp3-m3
280-3-2	25	lapus	man	l	b	ma1.2,ma2.2,ma3.1		b		2	Lp3-m2
280-3-2	25	lapus	man	l	r	ma4.1,ma5.2					
280-3-2	25	lapus	me2	r	p	me1.1		c			
280-3-2	25	lapus	me3	r	c	me1,me2,me3	f				
280-3-2	25	lapus	ph1	c		ph1,ph2	f				
280-3-2	25	lapus	rad	r	p	ra1,ra2,ra3,ra4	f		rod	3	incl. spec. in 280-4-2 bag #3
280-3-2	25	lapus	rad	l	d	ra4.1,ra5.2	f				
280-3-2	25	lapus	rad	l	ds	ra4		b			
280-3-2	25	lapus	rad	s				c			
280-3-2	25	lapus	aca	l	h,n	ap1,ap2.1	f				
280-3-2	25	lapus	lb	r	d	lb4.1,lb5	f	b			
280-3-2	25	lapus	lb	r	d	lb5.1	f		dig?		
280-3-2	25	odocoileus	shu	l	bul						
280-3-2	25	odocoileus	lb	l	ps	lb2.1		b			
280-3-2	25	odocoileus	uhn	l	ms					2	
280-3-2	25	cyrtolagus	me2	r	p	me1,me2		b			
280-3-2	25	cyrtolagus	uhn	r	p	uh1.2,uh2		u			
280-3-2	25	cyrtolagus	uhn	r	p	uh1.2,uh2	f				
280-5-4	25	isopridae	inn	r	lb	lb2.1		c			
280-5-4	25	isopridae	shu	l	par						
280-5-4	25	lapus	hum	r	p	hu1,hu2.2,hu3.2	f			2	
280-5-4	25	lapus	hum	l	ds	hu5.1		b			
280-5-4	25	lapus	me2	r	c	me1,me2,me3	f			2	
280-5-4	25	lapus	aca	l	n,b	ap2.2		b			
280-5-4	25	lapus	lb	l	ps			c			
280-5-4	25	odocoileus	cat	r	c	ca1,ca2.2,ca3.2,ca4.2	f		cat		
280-5-4	25	odocoileus	hum	r	d	hu4.2,hu5	f				
280-5-4	25	cyrtolagus	inn	l	ac,l,ls,pu	ac1,ls2	f	b			
325-1-1	26	artiodactyla	rb	r	n,ls	rb2					
325-1-1	26	artiodactyla	rb	r	s	x		b			
325-1-1	26	artiodactyla	rb	s				b			
325-1-1	26	artiodactyla	acc	c		ac1.2,ac2.2	f				
325-1-1	26	artiodactyla	acc	l	ho			u			
325-1-1	26	isopridae	den	r							

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 11 of 13).

Provenience	Code	Identification	Elem.	Side	Portion	Segn Sites	Fos.	Surv.	Med.	# Fos.	Comments
325-1-1	26	leporidae	den		f						
325-1-1	26	leporidae	den		f						
325-1-1	26	leporidae	den		f						
325-1-1	26	leporidae	den		f						
325-1-1	26	lepus	man	r	b	dn1.2, dn2.1					1p3
325-1-1	26	odocoileus	aca	l	h,n,b	ep1.2, ep2.1	f				
325-1-1	26	syllagus	cal	r	c	ca1.2, ca2	f	c		2	
325-1-1	26	syllagus	fam	l	d	fa6.2	f	c			
325-1-1	26	syllagus	inn	r	ll	il2.1					
325-1-1	26	syllagus	man	r	b	dn1.2, dn2.2				2	1p3
325-1-1	26	syllagus	aca	l	h,n,b	ep1.2, ep2.2	f				
325-1-2 bag #1	26	artiodactyla	rib		ae	ri6.1				2	
325-1-2 bag #1	26	artiodactyla	aca	l	b	ep3.1					ca. 6 wts.
325-1-2 bag #1	26	syllagus	lb	r	ims						
325-1-2 bag #2	26	artiodactyla	ata		ate	at1.1					
325-1-2 bag #2	26	artiodactyla	ata		ate						
325-1-2 bag #2	26	lepus	man	l	b	dn2.1					
325-2-2 bag #1	26	artiodactyla	hum	l	d	hu3.2, hu4.2		u			< 6 wts.
325-2-2 bag #1	26	odocoileus	fam	l	d	fa6, fa8		f			
325-2-2 bag #1	26	odocoileus	inn	l	ac, ll, la	ac1.2, il2, la1.2		f			3
325-2-2 bag #1	26	odocoileus	ml	l	p	mr1.2, mr2.1		f			4
325-2-2 bag #2	26	artiodactyla	vh		c	vi1, vi2		f			
325-2-2 bag #2	26	odocoileus	sku	rl	occ, bul, lam						5
325-4-2	27	artiodactyla	rib	r	e	ri3					ca. 6 wts.
325-4-2	27	lepus	rad	r	d	ra4, ra5		f			
325-4-2	27	syllagus	man	l	b	dn2, dn3.1					p3-m1
325-4-2	27	syllagus	lb	l	da	la4.2					
410-2-4 bag #1	26	artiodactyla	sku	l	bul						
410-2-4 bag #1	26	lepus	cal	l	c	ca1.2, ca2		f			
410-2-4 bag #2	26	syllagus	hum	r	p	hu1.2, hu2.2		f			
423-2-3	26	leporidae	fam	l	ps	fa2.1, fa3.1					
423-2-3	26	leporidae	lb	l	ps	il2.1					
423-2-3	29	lepus	fam	l	ps				c		
423-4F-4 bag #2	30	lepus	lb	l	d	la4, la5		f			
425-1-2 bag #1	31	syllagus	fam	l	p	fa1.2, fa2.2, fa3.2		f			
425-2-3	31	artiodactyla	rib		e						
425-2-3	31	artiodactyla	rib	r	s						
425-2-3	31	lepus	mt3	l	c	mt1, mt2, mt3		f			
425-2-3	31	lepus	rad	l	p	ra1, ra2		f			
425-2-3	31	lepus	uh	l	p	u1, u2		f			
425-2-3	31	odocoileus	pa1	l	c			f			
425-2-3	31	syllagus	mt4	r	c	mt1, mt2, mt3		f			
425-3-3	32	cervidae	ant						b		
425-3-3	32	leporidae	sku	r	nas						
425-3-3	32	lepus	fam	l	d	fa4.1, fa5, fa6		f			
425-3-3	32	odocoileus	gh1	r	d	p13			b		
425-3-3	32	syllagus	cal	l	c	ca1.2, ca2.2		u			
426-1-1	33	artiolepra	den		lt						
426-1-1	33	lepus	fam	r	d	fa5, fa6.2		f			
426-1-1	33	lepus	aca	l	h,n,b	ep1.2, ep2.2		f			
426-1-1	33	odocoileus	sku	l	lam					2	
426-2-3	33	lepus	rad	r	da	ra3.1					
426-2-4 bag #2	33	odocoileus	rad	r	p	ra1.1		f	c		
426-2-4 bag #3	33	artiodactyla	uh	l	p	u1.1, u2.1			b		
426-3F-16P bag #1	34	artiodactyla	man		shv					c	
426-3F-16P bag #1	34	artiodactyla	ph2	r	p	pa2.2		f	c		
426-3F-16P bag #1	34	leporidae	man	l	lb	dn3.1			c		
426-3F-16P bag #1	34	lepus	fam	l	p	fa1.2, fa2.1, fa3.1		f			
426-3F-16P bag #1	34	lepus	hum	r	p	hu1.1, hu2.1		f	c		
426-3F-16P bag #1	34	syllagus	lb	l	ps	il1.1		u	b		
426-3F-16P bag #3	34	lepus	hum	r	d	hu6.2		f	c		
431-1-2	35	leporidae	fam	l	ps				b		
431-2-2 bag #1	35	leporidae	sku	l	tro, par, lam						
431-2-2 bag #1	35	leporidae	den		lt					2	
431-2-2 bag #1	35	leporidae	den		lt					2	
431-2-2 bag #1	35	lepus	den	l	ps						
431-2-2 bag #1	35	lepus	inn	l	ac, ll, la, pu	ac1.2, il2.1, la1.1, la2.2, pu1	u1		red	2	incl. spec. in bag #2
431-2-2 bag #1	35	lepus	man	l	h,r	dn1, dn2, dn3, dn4.1, dn5.1					mt1
431-2-2 bag #1	35	lepus	uh	l	ps						

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 12 of 13).

Provenience	Coils	Identification	Elem.	Side	Portion	Spec Sites	Pop.	Surv.	Stud.	#	Comments
431-2-2 bag 02	36	lepus	lb	r	p	01.2,02.2	f				
431-2-2 bag 02	36	lepus	lb	r	pa						
431-2-2 bag 02	36										No. of spec. in bag 01
431-3-3 bag 01	36	lepus	onc		c	0c1	f				
431-3-3 bag 01	36	cythaeus	rad	l	s	ra3,ra4			rad		
431-3-3 bag 02	36	leporidae	dm		m3						
431-3-3 bag 02	36	leporidae	abu		0cc					2	
431-3-3 bag 02	36	lepus	dm	r	g3						
431-3-3 bag 02	36	lepus	man	r	b,r	dn1,dn2,dn3.2,dn4.1,dn6.2				2	p4-m2
431-3-3 bag 02	36	lepus	mas	r	mal						
431-3-3 bag 02	36	lepus	mt4	r	c	mt1,mt2,mt3	f				
431-3-3 bag 02	36	lepus	rad	r	d	ra4,ra5.2			rad		
431-3-3 bag 02	36	cythaeus	lam	l	p	la1,la2,la3.2	f				
431-3-3 bag 02	36	cythaeus	oca	l	h,n,b	op1.2,op2	f				
431-3-3 bag 03	36	leporidae	abu		aph						
431-3-3 bag 03	36	cythaeus	oca	r	h,n,b	op1,op2,op3.1	f				
431-3-3 bag 03	36	cythaeus	lb	l	d	04,05	f	b			
431-4-3 bag 01	36	leporidae	abu	r	fo,ham						
431-4-3 bag 01	36	lepus	oca	r	lb	op3.1					
431-4-3 bag 01	36	cythaeus	oca	r	h,n,b	op1,op2	f				
431-4-3 bag 02	36	lepus	ham	l	d	ha4,ha5	f				
431-4-3 bag 02	36	lepus	mt4	l	c	mt1,mt2	f				
431-4-3 bag 02	36	lepus	mt2	r	p	mt1,mt2.2				b	
431-4-3 bag 02	36	lepus	mt3	r	c	mt1,mt2	u				
431-4-3 bag 02	36	cythaeus	lb	r	ma			b		2	
433-2-2	37	lepus	lam	l	pa						
433-2-2	37	lepus	lb	r	d	04.2	u				
433-2-2 bag 01	37	leporidae	mp		d		f	b			
433-2-2 bag 01	37	lepus	rad	l	pa	ra3.2					
433-2-2 bag 01	37	cythaeus	lam	r	d	la5,la6	f				
433-2-2 bag 02	37	leporidae	lb	l	pa	02.1					
433-2-2 bag 02	37	cythaeus	ca1	r	mid	ca2					
433-3-3 bag 01	37	lepus	lam	r	pa	la2.2,la3.2					
433-3-3 bag 02	37	lepus	man	r	con	dn6.2					
433-3-3 bag 02	37	lepus	lb	l	d	04,05	f				
433-3F-4 bag 01	38	lepus	ham	r	d	ha4.2,ha5.2	f				
433-3F-4 bag 01	38	cythaeus	lam	l	ma	la4.1					
433-3F-4 bag 01	38	cythaeus	man	r	b,r	dn1.1,dn2.2,dn3.1		b			p3-m1
433-3F-4 bag 02	38	artibeus	rb		s			b			
433-3F-4 bag 02	38	lepus	lm	l	ll	01.2					
433-3F-4 bag 02	38	lepus	man	r	b	dn2.1					
433-3F-4 bag 02	38	lepus	rad	l	p	ra1.2,ra2.1	f				
435-1-2 bag 01	38	artibeus	dm	l	M						
435-1-2 bag 02	38	leporidae	ph1	r	d	012.1,013.2					
435-2-2	38	artibeus	dm	l	s						
435-2-2	38	artibeus	mc		s			c			ca. 6 wks.
435-2-2	38	artibeus	rb	l	se	ra4,ra5.2					
435-2-2	38	lepus	lam	r	d	la4.1,la5	f				
435-2-2	38	lepus	rad	l	p	ra1,ra2.2	f				
435-2-2	38	lepus	oca	r	h,n	op1.2	f				
435-1-3	38	artibeus	ham	r	d	ra4.2			ca?	5	
435-1-3	38	lepus	oca	l	n,b	op2.1				2	
435-4F-4	40	artibeus	mc		s			c			ca. 6 wks.
435-4F-5	40	artibeus	dm		l						
435-4F-6 bag 01	40	lepus	lam	r	p	la2.2,la3.1	p			4	
435-4F-6 bag 02	40	odocoius	man	r	b	dn4.1				2	p3
435-4F-7 bag 02	40	cythaeus	lam	r	p	la1.1,la2.2,la3.2	u				
435-4F-13P	41	artibeus	ph2	l	p	021	f	c			
435-4F-13P	41	leporidae	dm	l	s						
435-4F-13P	41	odocoius	mt	r	p	mt1.1,mt2.1	f	c			
435-2-2	42	lepus	lam	l	da						
435-3F-12P	43	leporidae	man	l	lb	dn3.1			b		
435-3F-13H	43	artibeus	oca		c				f		
441-3-5	44	lepus	ham	r	d	ha4.1	f				
441-3-5	44	lepus	lb	l	pa	01.1,02.1					
441-3-7	44	artibeus	lam	l	s				c		
441-3-7	44	artibeus	mp	r	da				u	b	
McA. 8-2-7	45	artibeus	lb	l	ma						

Table C.3. Faunal specimens from Mattocks and McAnally proveniences included in this analysis (page 13 of 13).

Provenience	Code	Identification	Elem.	Side	Partion	Spec Sites	Frag.	Surv.	Mod.	# Frag.	Comments
McA. 8-3-7	45	artiodactyla	sb	r	d	84.1,85.2				4	
McA. 8-4-7 bag 01	45	artiodactyla	hum	r	da	hu4.1					
McA. 8-4-7 bag 01	45	odocoleus	mp	s					cut?		
McA. 8-4-7 bag 01	45	odocoleus	mt	r	p	mr1.1,mr2.1	f			2	
McA. 8-4-7 bag 02	45	artiodactyla	mt		da	mt4.1					
McA. 8-3-8	45	artiodactyla	hum	l	pa	hu2.1,hu3.1					
McA. 11-5-5	45	artiodactyla	mt		s			c			
McA. 11-5-5	45	odocoleus	inn	l	la	la2.1		c		2	
McA. 11-2-6 bag 01	45	odocoleus	mt	l	p	mr1.1,m2.1,m3.1	f			7	
McA. 11-2-6 bag 02	45	syntagus	fam	l	pa	fa6.1		b		2	
McA. 11-3F-03	45	caridea	ant					b		many	
McA. 11-3F-021	45	artiodactyla	fam	l	da						
McA. 11-3F-7 bag 01	45	artiodactyla	mp		s			b			
McA. 11-3F-77	45	odocoleus	fam	l	d	fa6.2,fa6.1	u1	c		7	
McA. 11-3F-8 bag 03	45	artiodactyla	sb	l	ms	83.1				2	
McA. 11-3F-08	45	odocoleus	cab	r	h,n,b	sp1.2,sp2.2,sp4.2,sp5.2	f			8	
McA. 11-45-0	45	artiodactyla	inn		l	81.1				2	
McA. 11-45-0	45	artiodactyla	sb	r	ms	83.1					

Table C.4. Key to analytic unit codes used for Mattocks and McAnally in Table C.4.

Code	Analytic Unit
1	80a fill
2	80b fill
3	106 fill
4	111 fill
5	111 floor feature
6	112 fill
7	113 fill
8	114a fill
9	114b fill
10	115a fill
11	115b fill
12	116 fill
13	119 fill
14	121/130 fill
15	121/131 upper fill
16	121/131 lower fill
17	141 fill
18	225 fill
19	233 fill
20	237 fill
21	286a fill
22	286b fill (west)
23	286b fill (east)
24	290 upper
25	290 lower
26	325 upper fill
27	325 lower fill
28	410 fill
29	423a fill
30	423a floor
31	425 fill
32	425 floor feature
33	426 fill
34	426 floor feature
35	431 upper fill
36	431 lower fill
37	433 upper fill
38	433 lower fill
39	435a upper fill
40	435a lower fill
41	435a floor feature
42	438a fill
43	438b floor feature
44	441 fill
45	McAnally

Table C.5. Element abbreviations used in faunal specimen databases. Bold letters in this table and in the two tables that follow represent the abbreviations.

den = tooth	radius
mandible	ulna
maxilla (used for leporids only)	innominate
pmx = premaxilla (used for leporids only)	femur
alv = indeterminate alveolus/alveoli	tibia
sku = all other skull elements for leporids; all skull elements for artiodactyls	fibula
cra = complete or partially complete cranium (component elements listed under "Portion")	carpal
sacrum (1 st sacral vertebra)	astragalus
vc1 = 1 st cervical vertebra (atlas)	calcaneus
vc2 = 2 nd cervical vertebra (axis)	naviculocuboid
vce = other cervical vertebra	tar = all other tarsals
vth = thoracic vertebra	mp = indeterminate metapodial
vlu = lumbar vertebra	mc# = metacarpal (mc for artiodactyls)
vsa = sacral vertebra (other than 1 st)	mt# = metatarsal (mt for artiodactyls)
vca = caudal vertebra	mpa = artiodactyl accessory metapodial
ver = indeterminate vertebrae	ph# = phalanx
sternbra	pa# = artiodactyl accessory phalanx
rib	patella
clavicle	fses = sesamoids above the distal condyles of the femur
scapula	pse = proximal phalangeal sesamoid
humerus	dse = distal phalangeal sesamoid
	antler

Table C.6. Element portion abbreviations used in faunal specimen databases.

<p>General: complete, proximal, distal, shaft ps/ms/ds = proximal/middle/distal shaft pe/de = proximal/distal epiphysis (unfused) anterior, posterior, lateral, medial, middle ve/se = vertebral/sternal end</p> <p>Teeth: incisor, canine, premolar, molar capitals = upper, lower case = lower (e.g., P4 = upper fourth premolar, m1 = lower first molar, etc.) ?m = indeterminate upper or lower molar k = indeterminate cheek tooth (uk = upper, lk = lower) f = fragment</p> <p>Mandible: body (mostly complete), ramus (mostly complete), diastema, angle, condylar process, ab/ib/pb = alveolar/inferior/ posterior border, alv = alveolus/alveoli</p> <p>Maxilla: ap = alveolar process, malar, zygomatic process, orbital process, br = palatine bridge, lof = infraorbital foramen, anterior portion with partial premaxilla, pal = posterior portion with partial palatine, alv = alveolus/alveoli</p> <p>Premaxilla: anterior portion only, frontal process only, max = posterior portion with partial maxilla</p> <p>Skull Elements: frontal, supraorbital process of frontal, parietal, interparietal, temporal, zygomatic process of temporal, bulla, mastoid, occipital, oem = occipital</p>	<p>condyle, jugal process of occipital, sphenoid, palatine, nasal, lacrimal, malar, vomer, hyoid, ethmoturbinal</p> <p>Vertebrae: body, arch, sp = spinous process, tp = transverse process, mp = mammillary process, ezy = prezygopophysis, ozy = postzygopophysis, ae/pe = anterior/posterior epiphysis</p> <p>Ribs: head, neck, tubercle, shaft</p> <p>Scapula: head, neck, body, sb/ib/vb = superior/ inferior/vertebral border, acromion, spine, ia = inferior angle, sa = superior angle</p> <p>Sternebrae: manubrium, xyphoid, ste = other sternebra</p> <p>Innominate: acetabulum, ilium, ischium, pubis</p> <p>Femur: gt/lr/3t = greater/lesser/third trochanter</p> <p>Carpals: navicular, lunate, triquetral, pisiform, gma/lma = greater/lesser multiangular, central, capitate, hamate, radial, intermediate, ulnar, 2/3 = second/third, 4th, accessory</p> <p>Tarsals: navicular, 2nd cuneiform, 3rd cuneiform, cuboid, 2/3 = second/third</p> <p>Metapodials: den = distal condyle (artiodactyls only)</p>
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Table C.7. Surface modification abbreviations used in faunal specimen databases.

adobe encrusted
carnivore gnawing
cutmark
digested
pigmented
polished
rodent gnawing
toothmark (indeterminate agent)

Appendix D. Curation Notes

The Old Town collection will be returned to Darrell Creel of the Texas Archaeological Research Laboratory at the University of Texas at Austin, and the Mimbres Foundation collections will be returned to Maxwell Museum of Anthropology at the University of New Mexico. As I analyzed these collections, I also prepared them for long term curation at these facilities by re-bagging each lot in a new polypropylene zip-closure bag and by re-labeling each lot with a new tag, made from acid-free paper, on which site and provenience information are printed. All written material that was present in or on the original bags was retained and placed in the new bags.

Within each lot bag, identifiable specimens were bagged further according to taxon; unidentifiable specimens, worked bone specimens, and non-bone materials are also bagged separately within lot bags. Although the analyses that I present in this dissertation include only artiodactyl and leporid specimens, all identifiable bone specimens in the collections that I used were sorted into taxonomic categories. Each sub-bag within a lot bag is labeled with an acid free tag on which the site number, the provenience designation, and the taxonomic identification is printed. A catalog will be available with each collection at the institution where it is curated that lists the taxa present in each lot bag and that also indicates whether each bag contains unidentifiable specimens, worked bone, or non-bone materials.

For all of the sites that I used, I identified many artiodactyl and leporid specimens from proveniences that I did not include in the analyses that are presented in

this dissertation. I will make complete databases available with each collection that are similar to those provided in Appendix C, but which include every identified specimen from these assemblages, rather than only those specimens that are included in the analyses discussed here.

In addition, I obtained on loan from the Maxwell Museum materials from all of the sites that the Mimbres Foundation excavated, not just those whose assemblages I used for this dissertation. I have re-bagged the material from the sites that I did not use, though I have not sorted this material into taxonomic categories. I will provide catalogs listing the bags from each of these sites when I return this material to the Maxwell.

Finally, both for Old Town and for each of the Mimbres Foundation sites, lot bags were boxed in the same order in which they are listed in Appendix B, which should make it easy to locate any individual bag in these collections. As I noted in Appendix B, the Mimbres Foundation materials that I received from the L.A. County Museum of Natural History are boxed separately from those that I obtained from the Maxwell Museum, but bags are boxed sequentially within each sub-collection from each site.

Appendix E. Faunal Data from the Wind Mountain Site

Table E.1 presents numbers of identified artiodactyl and leporid specimens recovered from each structure that was excavated at the Wind Mountain site; structures from both the Wind Mountain locus ("WM") and the Ridout locus ("RO") are included here. These data come from Woosley and McIntyre (1996); see Cannon (2000) for further details. To aggregate faunal samples into time periods, I simply assigned all of the specimens from a given structure to the phase to which Woosley and McIntyre (1996:table 3.5) suggest that the structure dates. For most of these specimens, information about stratigraphic context is not available, nor are such data as element, portion, etc.

Table E.1. Numbers of identified artiodactyl and leporid specimens recovered from each excavated structure at Wind Mountain.

Locus	Structure	Phase	Artiodactyla	Cervus obsoletus sp.	Antilocapra americana	Ovis montanus	Bos/Bovis	Bosaurus	Artiodactyl Total	Leporidae sp.	Sylvilagus sp.	Lepus sp.	Leporid Total	Grand Total	Artiodactyl Index
WM	Room 15	CM	2						2	1	2	3	6	8	0.200
WM	Room 16	CM	1		1				2		2	1	3	5	0.400
WM	Room 7	CM	1		1				2		5	6	10	12	0.167
WM	Room 7	CM Total	4		2				6	1	9	18	26	32	0.249
WM	House D	Merges									3	2	5	6	0.167
WM	House M	Merges									2	2	4	5	0.300
WM	House V	Merges	40		29				69	116	244	411	771	840	0.832
WM	House AD	Merges	7		1				8		4	3	7	15	0.533
WM	House NN	Merges			4	1			11		19	35	54	123	0.981
WM	House NN	Merges	21	1	44	3			69		19	35	54	123	0.981
WM	House OO	Merges Total	78	1	99	3			181	116	269	486	891	1022	0.189
WM	House E	TC	3		1				4		1	1	2	6	0.667
WM	House H	TC	1		5				6		3	6	12	18	0.333
WM	House J	TC	4		1				5		4	4	9	9	0.999
WM	House N	TC	5		22	1			28		5	13	18	46	0.600
WM	House X	TC	248		297	36	2	1	484	2	229	181	362	688	0.568
WM	House AA	TC	6		22				28		10	9	19	47	0.966
WM	House AF	TC	82		90				172		27	21	48	220	0.782
WM	House AG	TC	11		11				22		18	11	27	49	0.449
WM	House DD	TC	13		6	1			20	1	15	14	30	50	0.400
WM	House FF	TC	5		4				9	1	34	25	60	69	0.130
WM	House SS	TC			80	1			81		1	6	7	88	0.620
WM	House SS	TC Total	378		448	36	2	1	869	4	346	278	619	1488	0.684
RO	House A	SF			9				10		4	1	5	15	0.667
RO	House B	SF	1		11				12		5	3	8	20	0.600
RO	House C	SF	1		26				30		40	28	68	99	0.303
RO	House D	SF			14				15		5	2	7	22	0.682
RO	House F	SF			6	1			9		4	4	13	19	0.682
RO	House J	SF			6				9		3	1	4	13	0.682
RO	House K	SF			17				18		1	1	1	19	0.847
WM	House W	SF			10				10		7	15	22	32	0.513
WM	House A	SF	2		2				4		3	2	5	9	0.444
WM	House R	GT	4		189	4			197		68	87	189	243	0.483
WM	House R	GT	5		3				8		15	6	21	29	0.276
WM	House EE	GT			14				14		1	1	1	15	0.933
WM	House EE	GT Total	6		17				23		16	6	22	44	0.889
RO	House I	EP	2		24				27		1	3	4	31	0.871
RO	House I	EP			6				6		1	1	1	15	0.833
WM	House HH	EP	10		17				27		4	7	11	38	0.711
WM	House HH	EP Total	12		33				33		5	8	16	54	0.516
	Grand Total		477	1	787	83	3	1	1243	111	724	617	1488	2898	0.638

VITA

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