Chapter 10

POST-PUEBLOAN OCCUPATION (A.D. 1300-1840)

Richard H. Wilshusen and Ronald H. Towner

INTRODUCTION TO POST-PUEBLOAN RESEARCH

Though the indigenous occupation of southwestern Colorado did not end with the last Pueblo migration from the area in approximately A.D. 1300, post-Pueblo research has been an underappreciated archaeological topic. If pressed, most archaeologists would currently name four major areas of post-Puebloan (A.D. 1300-1840) research that deserve attention: 1) the timing and effects of the Ute entry into southwestern Colorado, 2) the timing and effects of the Athapaskan entry and an eighteenth century exit from southwestern Colorado, 3) the Fremont abandonment or transformation in eastern Utah and northwestern Colorado, and 4) the differentiation of Athapaskan groups such as the Navajo, Jicarilla Apache, and San Carlos Apache. The majority of past and recent research has focused on the Athapaskan occupation and accordingly, it is better represented in this discussion. There has also been increasing interest in the Ute occupation, but evidence still is lacking to detail a chronology and changes in this occupation. For various reasons, the last two topics are not covered in any detail. In the case of the Fremont, this occupation is primarily a topic for northwestern Colorado. Given that Fremont culture may have contributed to Ute culture, it must be mentioned here, but there is little evidence of this in southwestern Colorado. The final topic, the differentiation of the Southern Athapaskan groups, is probably not yet ripe for summation. The Apache are mentioned, but not in depth as they are too far afield from the Four Corners.

Post-Puebloan research is characterized by poorly dated beginnings, by difficulties of separating lifeways from ethnic identities in the archaeological record, and by an underresearched archaeological record in Colorado. Of these three issues, the central focus for research in this area remains that of chronology-building. The exit of the Fremont and entry of Numic (Ute) and Athapaskan (Navajo and Apache) speakers are all relatively poorly dated. Though the number of tree-ring dated Navajo sites has recently increased with the significant energy development in northwestern New Mexico, a balance of dating techniques—including radiocarbon, obsidian hydration, and thermal luminescence—is needed to understand the changes of A.D. 1300-1840.

At times, it is still difficult on surveys to separate Ute from Navajo sites. Similar adaptations, similar landscapes, and possibly shared Ute and Navajo uses of parts of the study area may contribute to this confusion. The problem of untangling cultural affiliation using only the material archaeological record is difficult. The kinds of differences in language, dress, and behavior that are used to establish cultural identities by ethnologists leave only a limited "imprint" in the archaeological record. It is rare that material culture behavior "captures" ethnic/cultural differences that allow investigators to separate different groups with similar adaptations. Though it is known from historic records that several different groups occupied southwestern Colorado between A.D. 1300 and 1840, they presently appear to have a very similar archaeological record. This appears to be a result of the inability as archaeologists to untangle generally common practices in subsistence, settlement, and mobility that may actually encode different cultural uses of the landscape. Clearly needed is a much better understanding of how individual Ute and Navajo sites fit into regional and interregional landscapes.

The relative lack of archaeological research on post-Puebloan sites can be explained in part by the poor preservation of some of these sites and the relatively limited material culture on the modern ground surface. However, it is clear from recent research that there is tremendous promise both from methodological and theoretical grounds in this area of research (e.g., Sanfilippo 1998; Towner 1997). With processual archaeologists increasingly confronting post-processual problems such as ethnogenesis, style, and cultural landscapes, it is likely that great progress can be made in our understanding of the post-Pueblo world.

CHRONOLOGY

The most fundamental task for understanding the A.D. 1300-1840 period is chronologybuilding. It is not yet clear when the ancestors of the Ute and the Navajo entered Colorado; sites that predate A.D. 1650 are typically poorly placed in time. Though neither Ute nor Navajo material culture shows direct links to the prehistoric Anasazi of the area, it is difficult to estimate by how many years the entry of these peoples postdates the A.D. 1300 migration from the area by Puebloan peoples. By 1775, it appears that only the Ute remained in southwestern Colorado, with the Navajo occupying nearby portions of New Mexico, Utah, and Arizona during parts of the 1800s. To attack the problem of how to track the movements of these different peoples requires use of various data. Archaeological, linguistic, historical, physical anthropological, and oral historical data all can be used to build a basic chronology of the Ute and Navajo occupations of this area.

Ute Chronology

The Fremont may have been replaced by or merged with Numic peoples who were evident in northwestern Colorado by A.D. 1100 or so (Reed 1994) and in the larger eastern Great Basin by A.D. 1300-1400 (Janetski 1994). These Numic peoples are possible candidates for ancestral Ute groups that are well documented in both the southwestern and northwestern parts of the state in historic times. Given that there is only one possible Fremont site in the study area, the topic is more suited for discussion in the northern Colorado River study area, where Fremont sites are well represented (Metcalf 1995). However, summaries of the Fremont (Marwitt 1986; Aikens 1994) make clear that the Numic expansion and the Fremont "collapse" are too close for comfort and necessitate a unified explanation, no matter whether one has the Fremont moving south with the Anasazi (Lipe 1978) or east to the plains (Aikens 1967), or being absorbed into a new cultural group (Gunnerson 1969). It is also clear that the ancestral Utes must be considered among the earliest possible replacements for the Anasazi (Madsen 1994).

The origins of the Ute tribes need much more research. A recent summary of the geographic and chronological dimensions of the Numic expansion by Madsen (1994) argues persuasively for a post-A.D. 1000 migration of ancestors of the Ute into the Mesa Verde region. The exact timing of the proto-Ute arrival in this area is poorly understood. Reed (1995) has assembled an array of site data for the northern and central parts of western Colorado that supports an approximate A.D. 1100 entry date for Numic peoples into this area. For two hundred years it appears that these Numic groups, who primarily were hunters and gatherers, shared this area with Fremont cultural groups that were more sedentary and tied to agriculture. It is probable that the expansion of Numic people into the southwestern part of the state postdates the migration of the Pueblo cultural groups from this area by A.D. 1300, but the alternative of a pre-A.D. 1300 Numic presence must remain an interesting and provocative alternative hypothesis in all research in this area.

A glottochronological analysis of the divergence of Numic languages is at the core of Lamb's (1958) proposal that there was a Numic population expansion about 1,000 years ago from the southwestern corner of the Great Basin to the north and east. Though this analysis remains influential among archaeologists, as Grayson (1994) points out, there are many problems with the glottochronological methods causing historical linguists to reject it as a reliable method of accurately dating linguistic divergence (see Rea 1958 or Bynon 1977). Though this does nothing to discount archaeologically based tests of a Numic expansion across the Great Basin and northern Colorado Plateau, unfortunately archaeologists have not yet "mounted a structured campaign to discover whether the event [the Numic expansion] is real" (Grayson 1994:22). It should be noted that Grayson would argue for a much earlier Numic move into the Great Basin than is proposed in Lamb's hypothesis.

The earliest dated, suspected Ute component in the study area is at Talus Village, a Basketmaker site north of Durango excavated by Earl Morris. A series of five tree-ring samples produced outer noncutting dates from "1447vv" to "1559vv" (Rayne 1997) and may represent an early Ute occupation of this site (Dean 1969b). It is likely that the site dates to the seventeenth or eighteenth century. Early probable Ute sites with artifacts such as brown ware pottery and sidenotched points are most common in the archaeological record in the area of the Uncompahgre Plateau in radiocarbon-dated contexts between A.D. 1100 and 1900 (Reed 1994). It is not until almost Historic times that there is other evidence of Ute occupation in the study area. The archaeological sites with potentially prehistoric Ute materials in southwestern Colorado are primarily documented as surface artifact scatters (Hill and Kane 1988). When Ute brown ware pottery is found at prehistoric Puebloan sites, it appears to postdate the Puebloan components of these sites and likely dates to A.D. 1500-1800 (Errickson and Wilson 1988).

Historical data place the Ute generally in southwestern Colorado and northwestern New Mexico by 1626 (Schroeder 1965). The Ute clearly are a dominant force in the Four Corners area by the early 1700s, with Ute raiding of Navajo settlements one of the primary reasons for the construction of Navajo pueblitos in Dinétah between 1715 and 1750 (Carlson 1965; Hogan 1991; Towner 1997). Navajo oral history (Van Valkenburgh 1941) supports that there were battles between the Navajo and Ute at this time and that the chief of the eastern Navajo abandoned Cañon Largo and moved to Canyon de Chelly because of Ute attacks. An almost exclusive Ute occupation of southwestern Colorado is assumed between A.D. 1750 and 1850, but few available historic records confirm this other than those of travelers through the area, such as the Dominguez and Escalante expedition. By the beginning of the historic American and European influx into this area, the Ute were the primary occupants.

Athapaskan Chronology

Linguistic, historical, archaeological, and oral history data all provide different information about the timing of the original Athapaskan entry into the Southwest and the exit from Dinétah by approximately A.D. 1750. It appears that the Navajo and Apache moved sometime in the last thousand years from south-central Canada or the Black Hills area of the High Plains to the Southwest (Gunnerson 1960; Wilcox 1981). Although alternatives to a High Plains route to the Southwest have been proposed (Aikens 1966; Hall 1944b; Huscher and Huscher 1942; Reed 1941; Steward 1938), most have been discarded for lack of sufficient archaeological and historical evidence. Brugge (1981) and others have proposed that there may have been a very early Athapaskan entry into the Southwest via the mountains and valleys of Colorado (Hall 1944b; Reed 1941), and it is possible that a mountain route in combination with a High Plains route may account for the present variation in Southwestern Athapaskans. Most models of Athapaskan entry into the Southwest are cladistic (Moore 1994), with the Athapaskans entering the Southwest as a single entity and differentiating into Navajo and Apache groups after their arrival, but there is little present evidence to confirm or deny this.

The Navajo and Apache are the only Athapaskan-speaking groups in the Southwest. Based on historical linguistic studies, Sapir (1916, 1936) suggested that the Athapaskan speakers differentiated from their linguistic relatives in Canada approximately 1,000 years ago. He and others postulated that the Athapaskans entered the Southwest as a single group approximately 500 years ago, and then differentiated into distinct Navajo and Apache linguistic groups (Hoijer 1971). As with the Ute linguistic evidence, it should be emphasized that archaeologists presently trust estimates of linguistic divergence more than most historical linguists trust them.

The earliest well-dated, prehistoric, early Navajo site is site LA 55979, just to the south of the study area in the Navajo Reservoir area. This site contains two forked-stick hogans, one of which has a cluster of tree-ring dates that places its construction to the spring of 1541 (Hancock 1997). It is doubtless that there are other early sites, but well-dated early Navajo sites remain at a premium, given that there are currently only six, well-dated, forked-stick hogan sites—all in northwestern New Mexico—with construction dates ranging from A.D. 1541 to 1679 (Towner 1997). These sites all have Dinétah Gray sherds, small microcore lithic artifacts, and other items indicative of early Navajo sites. It is possible that some of the earliest Navajo sites may be in southwestern Colorado, given Navajo oral history.

Navajo ethnohistorical data include oral traditions that describe the origin and growth of the tribe from its place of origin in the San Juan Mountains through times of wandering and finally settlement along the San Juan River. The origin stories were examined by Hodge (1895), who suggested they provided a relatively good time line for the Navajo entry into the area. By tracing events in the stories, Hodge suggested that the Navajo entered the area by A.D. 1485. Although the creation stories are long and complex (Matthews 1994; Zolbrod 1984), several aspects are relevant to this discussion.

The Navajo place of origin is said to be a lake in the San Juan Mountains of southwestern Colorado (Figure 10-1). After the destruction of the monsters of antiquity by the Hero Twins, Changing Woman decided to return to the west. Her sister, White Shell Woman, decided "More than anything else, I want to go back to *Dibé nitsaa* (one of the peaks in the La Platas) in the San Juan Mountains. I want to dwell in the place where our people came from" (Zolbrod 1984:281). It was there that the Holy People created the *Nihookáá' dine'é*, or five-fingered Earth Surface People. The timing of this creation was said to be seven generations of men "living to a ripe old age" since the first printed record was made, and another long generation of long-lived Earth Surface People had come and gone since the recording by Matthews (1994).

Navajo oral traditions clearly indicate Navajo occupation of and derivation from the study area. One of the most sacred of all Navajo sacred places, *Dibé nitsaa*, is located in the San Juan Mountains. Other Navajo oral traditions discuss various places in southwestern Colorado, including Mesa Verde, Chimney Rock, and Blanca Peak (Kelley and Francis 1994; Van Valkenburgh 1941).

Early Spanish documents provide glimpses of Navajo culture and history but direct references to the Navajo are sporadic and often ambiguous. The earliest documents relate to the



Figure 10-1. Navajo Place of Origin. (Reprinted with permission of La Plata Archaeological Consultants.)

period when Coronado's Entrada was encamped near the Rio Grande in 1541 (Hammond and Rey 1940). They indicate that seminomadic bison hunters were living on the eastern plains of New Mexico. Historians suggest that one of these groups, the "Querechos," were Athapaskan speakers, possibly ancestral to the Navajo. The Querechos lived in skin tents, used dogs to carry gear, hunted bison, and traded the meat and hides to various pueblos (Hammond and Rey 1940). The data used to support a post-1500 entry consist of Pecos Indian indications that the Querechos had arrived only 16 years prior to the Spaniards, that is, in about A.D. 1525 (Gunnerson 1987; Gunnerson and Gunnerson 1988). Forty-two years later, in 1583, Antonio de Espejo met a group of Querechos near Mt. Taylor and received a gift of tortillas from them (Hammond and Rey 1966). Juan de Oñate assigned a priest to the Jemez, and all the nearby "Apaches and Cocoyes," when he led the colonization of New Mexico in 1598 (Forbes 1960). These slender references suggest that early Athapaskans, but not necessarily Navajos, lived in the vicinity of various pueblos both east and west of the Rio Grande. The first specific reference to the Navajo was made in 1626 by the priest at Jemez, Father Zarate Salmeron, who said that the "Apaches del Nabaxu" lived up the Rio Chama but east of the San Juan River (Lummis 1900; Milich 1966).

The key to interpreting these references is to understand that a) in the 42-year gap between the Coronado and Espejo expeditions, numerous changes could have occurred in Athapaskan settlement, b) the Spaniards were unable to differentiate between various Athapaskan speakers until well into the seventeenth century, and c) the Spaniards did not venture into the Dinétah area until the early part of the eighteenth century. Thus, the historical documents, though undoubtedly useful for those areas of direct, sustained contacts between Spaniards and Native Americans such as the Rio Grande valley, are less useful when discussing areas and people beyond the Spaniards' domain.

Between approximately A.D. 1640 and 1710, a much clearer picture of the Navajo emerges from archaeological, historic, and oral history sources. They clearly were growing as a population, had small flood water farms along the tributaries of the upper San Juan River, and were interacting with the Spaniards and other native groups. The Navajo occupation extended north to south from the upper reaches of the Piedra and San Juan rivers in Colorado (Eddy 1966) to the Piedra Lumbre area near Abiquiu, New Mexico (Schaafsma 1975, 1976, 1996). East to west, the occupation may have extended from the Chama to almost the New Mexico state line, but these boundaries are less well-documented archaeologically.

The second half of the seventeenth century was a time of emerging Navajo identity with the production of a distinctive painted ceramic style, Gobernador Polychrome, by 1650 A.D. and a range of religious iconography (Copeland and Rogers 1996; Reed and Reed 1996). Pueblo interaction with the Navajo had an important influence on the emerging culture, but much of this interaction predates the Pueblo Revolt of 1680. Present evidence suggests that the number of Pueblo refugees resulting from the Spanish Reconquest (1692-1696) was relatively small and their influence on the Navajo more limited than originally proposed for the Gobernador phase (A.D. 1650-1750 [Hogan 1991; Towner 1997]). For many years scholars had proposed that a large influx of Pueblo refugees brought Gobernador ceramic technology, masonry pueblitos, weaving, and matrilineal clans with them after the Spanish Reconquest (Bailey and Bailey 1986; Forbes 1960; Hester 1962; Keur 1944; Kidder 1920; McNitt 1972). Navajo oral history emphasizes that this period prior to the Pueblo Revolt was one of intense interaction with many groups—Pueblo, Ute, Apache, and other groups—as the clans of the Navajo Nation came together into a unified whole (Zolbrod 1984).

By the eighteenth century, it appears that Ute raiding and Spanish depredations forced the concentration of Navajo in Dinétah and ultimately the abandonment of Dinétah by A.D. 1750 to 1760. With an increasing intensification of the pastoral subsistence regime, the Navajo moved to the south (Big Bead Mesa and Chacra Mesa) and west (Chuska Mountains and Chinle Valley) (Bailey and Bailey 1986; Hester 1962; Marshall 1995; Reeve 1958). Between 1775 and 1860, the continued Navajo population expansion and need for more grazing lands propelled them into areas of northern Arizona and southern Utah, including the Black Mesa and Navajo Mountain areas (Kemrer 1974). A cultural "revitalization movement" that emphasized "Athapaskan" values and the rejection of painted pottery and pueblito architecture began during or shortly after the abandonment of Dinétah (Brugge 1963). It appears that most prehistoric Navajo sites in southwestern Colorado will predate the early A.D. 1700s.

INTERREGIONAL RELATIONSHIPS

As noted in the chronological discussion above, any present understanding of post-Puebloan sites requires a wide interregional view of the Ute, Navajo, and Apache. Until the cultural differences between early Navajo, early Ute, and early Apache are better understood, most analyses for sites dating between A.D. 1400 and 1650 are probably best understood within the context of all known sites for southwestern Colorado and northwestern New Mexico.

From only the ceramic assemblages associated with early Navajo and Ute sites, it is clear that there is considerable interaction or exchange with the Pueblos. Dinétah phase (A.D. 1500-1650) sites commonly have Pueblo sherds in their assemblages, such as Jemez Black-on-white, Jeddito yellow wares, and early glaze-painted types. Site assemblages post-dating A.D. 1650-1700 contain Tewa Polychrome, western glaze wares, Jemez Black-on-white, and Jeddito yellow ware sherds. There is also a limited amount of Majolica sherds, steel tools, and wool at Gobernador phase Navajo sites suggesting that interaction, if only indirectly, extended as far as the Spanish settlements in the center of colonial New Mexico.

Navajo oral history mentions interactions between the Navajo and Zuni, Jemez, Hopi, Ute, various Apache bands, Spanish, and other unspecified foreign groups (Zolbrod 1984). Though Spanish accounts offer only limited evidence of interregional interaction, it is clear from actions such as Roque Madrid's foray into the Dinétah in A.D. 1705 (Hendricks and Wilson 1996) that the Navajo, and possibly the Ute, are regarded as a threat to New Mexico's northern border. Roque Madrid's entrada traveled into the heart of Dinétah and up the La Jara drainage just south of the San Juan River. With approximately 50 militiamen from Spanish settlements and almost 400 Pueblo allies, he burned Navajo residences and cornfields.

Until approximately A.D. 1680-1700, it is not clear that there are any differences between Navajo site distribution north and south of the San Juan River. After A.D. 1680-1700, it is increasingly unlikely to find a Navajo site north of the river. The actual name of the river changes over time from *Tooh* (The River) or *Tooh Bika'i* (Male River) or *Sa' Bitooh* (Old Age River) to *Nooda'i Bitooh* (River of the Utes). Given the available limited chronological control, it appears much more likely that Navajo sites in Colorado will date to either the early Dinétah phase or the historic occupations of the last century rather than to the Gobernador or Cabezon phases between approximately A.D. 1650 and 1850. However, this proposal remains to be tested archaeologically.

Ute interregional relationships may be even more complex than those of the Navajo, for they were more mobile and used both the upland river valleys of southwestern Colorado and the mountains and plains. It is quite possible that Ute bands traveled up to 644 km (400 mi) between seasonal habitations in a year, so the kinds of ties that bound them to other people and other regions may have been complex. Little has been done with Ute archaeology to untangle this problem.

Apache groups probably existed at times in the study area, but too little is known about prehistoric Apache sites to detail interregional ties. Only three possibly Apache sites are recorded of the 330 post-Pueblo sites in the study area, and little is known about Apache chronology for this area.

SITE TYPES AND DISTRIBUTION

Three hundred thirty sites date to the post-Pueblo period (Table 10-1), the majority of which are nonhabitations (236). However, a larger than expected number (94) of post-Pueblo habitations are recorded, when one considers how little is still known about this period. After a summary of the general patterns in these data, site types are discussed for both the Ute and the Navajo.

The vast majority of the post-Pueblo sites (84 percent) are Numic (i.e., likely early Ute) or Navajo in cultural affiliation. A considerable difference was noted in the percentages of nonhabitation and habitation sites assigned to early Navajo and early Ute (Numic in the SHPO files) cultural affiliation. Whereas 44 percent of the 162 Navajo sites are classified as having been habitations, only 16 percent of the 116 Numic sites are recognized as habitation sites. These differences are discussed in detail under separate headings for Navajo and Ute sites. As noted earlier, just three possibly Apache sites are recorded in the study area.

The remaining 49 sites are classified by their temporal placement—Late Prehistoric, Protohistoric, and Historic—and are not tied to any particular cultural affiliation. These sites may also be associated with the Ute or Navajo occupations but lack culturally diagnostic artifacts. It is also possible that some of these temporally placed, but not culturally classified, sites represent the ephemeral camps of other travelers from other nearby cultural groups such as Pueblo or plains peoples visiting or passing through the area. All but four of the 49 Late Prehistoric, Protohistoric, or Historic sites are nonhabitations.

The distribution of post-Pueblo sites is striking in the concentration of these later sites in the eastern half of the study area. At least 73 percent of all post-Pueblo sites are in the Upper San Juan-Piedra, Animas, or La Plata drainage units. Though there is clear evidence of Numic and Navajo use of the other drainage units, these occupations are much less dense, much more isolated, and possibly even more ephemeral than the Numic and Navajo sites in the eastern half of the study area. The differences appear not to correspond with any particular survey bias in the samples, but are more reflective of Navajo and Numic preferences for the more upland, riverine, and wooded settings of the eastern half of the study area.

Ute Sites

Though three Ute bands have been historically associated with southwestern Colorado, there are relatively few Ute archaeological remains. This appears to be due to at least three different reasons: 1) prehistoric and early historic Ute use of the landscape resulted in only short-term residential sites and minimal debris, 2) population levels were low and impacts

	USJ- Piedra	Animas	La Plata ¹	Mesa Verde- Mancos	Ute ²	Monument- McElmo	Dolores
Habitations	36	15	6	7	13	15	2
Historic	0	0	0	0	0	2	0
Protohistoric	1	1	0	0	0	0	0
Late Prehistoric	0	0	0	0	0	0	0
Apache	0	0	1	0	0	0	0
Navajo	34	11	5	4	7	10	0
Numic (Ute)	1	3	0	3	6	3	2
Nonhabitations	91	53	40	6	16	13	17
Historic	9	0	0	0	2	0	0
Protohistoric	3	4	1	0	0	2	2
Late Prehistoric	13	1	4	1	1	1	1
Apache	2	0	0	0	0	0	0
Navajo	23	33	25	1	6	3	0
Numic (Ute)	41	15	10	4	7	7	14
Total post-Pueblo							
site components	127	68	46	13	29	28	19
Historic	9	0	0	0	2	2	0
Protohistoric	4	5	1	0	0	2	2
Late Prehistoric	13	1	4	1	1	1	1
Apache	2	0	1	0	0	0	0
Navajo	57	44	30	5	13	13	0
Numic (Ute)	42	18	10	7	13	10	16

Table 10-1. Distribution of Post-pueblo Prehistoric Sites Across the Context Areaby Drainage Unit and Cultural Type.

¹ The La Plata drainage unit has 9 sites with Tewa sherds. These are incorporated into the Navajo category, as these sherds appear to be trade wares on Navajo sites.

² One Fremont habitation is not included in these totals because its cultural affiliation is unclear.

minimal, and 3) there has been only limited archaeological interest in Ute sites. At this point there has been more ethnographic work among the Ute bands (e.g., see Callaway et al. 1986 for a short summary) than archaeological (e.g., Buckles's still unpublished 1971 dissertation) work in southwestern Colorado. Though at least 30 excavated Colorado sites with radiocarbon dates and pottery suggest Ute affiliation (Reed 1994:Table 1; Reed 1988), none of these sites is within the study area. Consequently, much preliminary work is still to be done on understanding Ute prehistory and protohistory in this area.

Essentially three basic types of Ute sites are present in those drainage units having a significant number of recorded Ute sites: residential sites, small camps represented by artifact scatters with features or simple artifact scatters, and sites with peeled ponderosa pines that are associated with Ute bark (i.e., cambium) procurement. Residential sites, as noted earlier, are in a clear minority, with there being many more special-use or bark procurement sites. A fourth site type, sweat lodges, is a distinct possibility, but there simply has not been archaeological

investigation of possibly Ute sweat lodges. This is needed to distinguish them from the much better-documented Navajo sweat lodges.

Residential sites are typically recognized either by the presence of the remains of wickiups or other evidence of structures or by the presence of sufficient domestic trash to suggest long-term use of the locale. Certain artifacts such as Desert Side-notched or Cottonwood Triangular projectile points and brown ware pottery sherds are often cited as diagnostic of Ute occupations (Holmer 1986; Reed 1994, 1995).

Ethnographic accounts note that a high premium was placed on mobility (Callaway et al. 1986), so that Ute residences until historic times rarely served as such for more than a few weeks to months at a time. Sanfilippo (1998: Appendix F) compared the records of 132 wickiup sites in Colorado and offers an excellent summary of what a "typical" Ute residential site might look like. These sites typically contained one to six wickiups. Wickiups usually consisted of three to 22 poles in a conical arrangement and served as the interior support for a perishable (e.g., bark) or portable (e.g., animal skins) exterior covering. Living conifer trees, or even boulders, were commonly incorporated into the structures. Features are not common at wickiup sites, but those found are usually hearths or charcoal concentrations. Limited areas of scattered domestic trash occur, with the most common artifacts being flaked lithic debris, milling stone fragments, and faunal remains. There are very few sherds. Projectile point types are most commonly Desert Side-Notched or Cottonwood Triangular. Food storage features and evidence of extended use of the site are not expected based on present models, but there are possible Ute sites just outside the study area with considerable amounts of prehistoric trash (Wilshusen et al. 1995:161). Given the dependence on a mobile lifestyle, it is reasonable to expect that lithic and organic debris will be much more common than sherds. It is not common to find sweat lodges at prehistoric Ute residential sites.

In many areas, the most common evidence of Ute occupation consists of a very limited artifact scatter with telltale evidence of possibly Ute use in the form of a small scatter of brown ware sherds or a Ute-style projectile point. These sites oftentimes consist of fewer than 25-50 artifacts total, but they still probably represent camps or special activity areas for small Ute bands. At times, materials may be evident only as a small secondary and later occupation of an Anasaziera site, but even in these cases the patterning is striking, with sites typically along canyon edges or at vantage points and close to a water source (Errickson and Wilson 1988). Because mobility demands the use of lightweight, often organic, tools and utensils, the only evidence that will mark the site as representing Ute occupation is the errant breaking of a brown ware pot or the loss of a Ute-style projectile point (such as Desert Side-notched and Cottonwood Triangular points). In short, much more work is needed to identify and distinguish Ute special-use sites from those of other cultural groups. Given that only 13 Ute sites had been recorded in the study area in 1983 (Eddy et al. 1984:103), the 116 Ute sites identified and recorded by 1998 represent some progress in this area.

Finally, there is a distinctive site type associated primarily with Ute use of this area that has been consistently identified only in the last dozen years. Marilyn Martorano (1988) has sufficiently characterized these sites so that archaeologists now regularly record occurrences of possible cambium harvesting. The recorded as use of cambium for food or medicine by Utes and the relatively late tree-ring dates for these uses (primarily in the nineteenth century) both contribute to an interpretation of these sites as Ute. Sixty-one sites have evidence of peeled ponderosa pines, and in most cases, likely represent historic Ute occupations in these areas.

Early Navajo/Athapaskan Sites

Although 162 Navajo sites are recorded in the study area, for this sample of precisely dated, undisputedly Navajo sites, the authors draw upon investigations in the Dinétah area of northwestern New Mexico. Navajo sites were first consistently recognized in that area and although, based on Navajo oral history, Colorado may contain some of the earliest remains of Navajo sites, the primary source of knowledge about what early Navajo sites should look like and how settlement patterns may change is from the Dinétah area of New Mexico.

At least six, well-dated, forked-stick hogan sites in the Dinétah area should predate the Pueblo Revolt (Towner 1997), and these excavated sites offer some idea of what an early Navajo site should look like. These sites all contain typically Navajo forked-pole hogans, Dinétah Gray ceramics, small microcores, and other items of material culture characteristic of Navajo cultural affiliation (Brown 1996; Kearns 1996). In addition, all of these sites contain strong clusters of tree-ring dates, mostly cutting dates, that range from A.D. 1541 to 1679. Perhaps the most significant of the sites is LA 55979, a multiple-hogan site located south of the San Juan River. It has a hogan and a storage cist, both with cutting-date clusters indicative of construction in the spring of 1541 (Hancock 1997). The ceramic assemblage is dominated by Dinétah Gray sherds and, although a few sherds of Gobernador Polychrome are present, they apparently are associated with a later occupation of the area. This site is clearly Navajo, not a generalized Athapaskan camp, and indicates that the Navajo were in the upper San Juan area at the same time Coronado was encamped on the Rio Grande.

The relevance of these sites to the post-Puebloan occupation of southwestern Colorado lies in two areas: 1) the early tree-ring dates that indicate occupation in northwestern New Mexico by at least the early A.D. 1500s, and 2) their typically Navajo, not generalized Athapaskan, characteristics. These sites indicate that the Navajo developed as a distinct cultural entity well before the Pueblo Revolt. The Late Prehistoric New Mexican sites may represent the "end point" of a migration from the north and, by implication, similarly early sites should be located in Colorado just north of the Navajo sites at the La Plata Mine (Brown 1991).

Based on research in the La Plata Mine area, Brown (1996:66) suggests four criteria by which early Navajo sites can be distinguished from Ute sites.

- Dinétah Gray pottery composes the ceramic assemblage. The ceramic technology clearly involved coil-and-scrape vessel construction, a variety of clays and tempers, and a low temperature firing regime, and was used to produce relatively large conical cooking/storage jars.
- Carefully shaped and polished, grooved shaft abraders are often found at early Navajo sites.
- Forked-pole hogans are the typical residence and represent a very distinctive Navajo architectural style. They differ from Ute wickiups in being much larger (3-5 m diameter), in having an earth covering, and in sometimes having a log-covered tunnel entryway. They have a polygonal floor area excavated into a shallow, dish-shaped basin before the superstructure is built.
- Navajo site layout is quite formalized. Both intramural and extramural use of space resembles that documented at historic Navajo sites. Similarities with historic sites include refuse areas or ash dumps south or east of the hogan and hearth-centered activity areas within the hogan. Interior hearths are usually southeast of center and toward the entryway on the east or southeast side.

Kearns (1996) has identified several attributes of early Navajo lithic technology that he believes are diagnostic of the Navajo during this period. These attributes include Desert Sidenotched and Cottonwood Triangular projectile points, small multidirectional, multiplatform microcores, paired sandstone shaft abraders, and abundant end and side scrapers. These identifications obviously overlap those mentioned by other analysts for Ute lithic technology, so it is difficult to use only projectile point styles to differentiate Ute and Navajo sites in those locales where they overlap. John Torres (personal communication), an archaeologist with the Navajo Nation, would add abundant Cerro del Medio obsidian from the Jemez area, and crushed striking platforms on many different raw materials (i.e., a result of almost exclusive use of hard hammer percussion) as distinctive Navajo lithic technology traits.

It is likely that many of the Navajo sites in Colorado predate A.D. 1750 and probably 1700. Archaeological and historical evidence suggests that the Navajo were forced south of the current state line, and possibly south of the San Juan River by 1750, if not earlier, by the Ute advance. One of the most critical results of the Pueblo Revolt in 1680 may have been the dispersal of horses and horse-breeding skills north to tribes such as the Ute. The Navajo apparently were more committed to agriculture than the Utes and Comanches; though the Navajo used horses, the animals did not become the focus of their settlement and subsistence patterns. With increased Ute dependence on horses, Ute raiding on the Navajo settlements probably became much more frequent and dramatic. This may have affected settlement patterns by moving Navajo settlements well to the south and resulted in the construction of defensible Navajo pueblitos by the A.D. 1710s, primarily south of the San Juan River. It is possible equally dramatic changes occurred in Ute settlement after A.D. 1700, but as noted earlier, investigators simply do not have the archaeological data to confirm or deny this.

Navajo site types in the study area consist of four basic types: residential sites, sweat lodges, artifact scatters with associated features, and simple artifact scatters. Residential sites have been described above. They typically have the remains of one to seven forked-stick hogans, extramural features such as midden areas, hearths, and storage pits, and a general surface scatter of domestic debris. Though there may be only 25-50 artifacts recorded in a surface reconnaissance of these sites, excavation data suggest that these sites may represent repeated seasonal use of the locale for several years, if not for five years to a decade.

There are typically as many or more nonresidential sites than habitation sites recorded in intensive surveys of Navajo site concentrations in the heart of Dinétah (e.g., Sesler et al. 1999). Nonresidential sites range from long-lived and centrally placed sweat lodges, which are at the heart of early Navajo residential site clusters, to very isolated and difficult-to-interpret artifact scatters. Excavations at Navajo sweat lodges in northwestern New Mexico suggest that these sites may last for many decades, being rebuilt and reused by long-lived Navajo communities. Sweat lodges were bark covered and much smaller in diameter than forked-stick hogans. They are often obvious on archaeological surveys by the piles of burned or cracked rock just outside the structure. Artifact scatters with features may represent poorly preserved habitation sites or may represent special-use areas associated with particular hunting, gathering, or agricultural activities. Artifact scatters may consist of only 10 to 20 artifacts that represent even less intensive uses of a landscape.

SUBSISTENCE, MOBILITY, AND SETTLEMENT PATTERNS

It is not clear if investigators can differentiate between Ute and Navajo settlement or subsistence patterns that might date to the early sixteenth century. Both groups appear to have been committed to a hunting and gathering lifeway that may have led to considerable overlap in their territories, their subsistence methods, and their perception of the landscapes available to them. This does not mean one cannot separate these early sites from one another, just that it may be challenging if the primary focus is subsistence or settlement patterns. More information on possible differences should emerge as the remains of extremely early sites come to light (Hancock 1997).

For Ute sites, relatively few subsistence data for well-dated sites are known (Reed 1994:191). Based on present excavation reports from just outside the study area, it appears that exploited fauna included large game such as deer, elk, and bison and all sorts of medium-sized and smaller game. Plants that may have been used include goosefoot, various grasses, pinyon, juniper, serviceberry, and other fruit-, nut-, and seed-bearing plants of the area. The presence of ground stone on some sites reinforces the fact that seeds and nuts were a likely resource base. It is possible that some corn was a part of the diet, but again, investigators lack the kinds of intensive excavations of Ute sites in the area that are required to confirm or deny this.

All the ethnographic accounts of the early historic Ute bands emphasize their mobility and shifting settlement patterns (Callaway et al. 1986). A single band may have moved hundreds of kilometers over a year's time, so a major research issue is to tie potentially contemporary Ute sites from within and outside the study area into a single, integrated settlement and subsistence pattern (e.g., Petersen 1977). Based on previous synthetic research on nearby Numic sites (Reed 1994), it appears that more than 50 percent of all Ute sites are found above 2134 m (7,000 ft) in elevation. This pattern contrasts with Ancestral Puebloan (i.e., Anasazi) sites, which are typically located at 2134 m or lower, because of the warmer temperature requirements of a subsistence economy tied to horticulture. It also appears that some Ute sites represent seasonal aggregations of many residences (Roberts 1925:41), whereas many other sites represent the activities of only a small number of people. Again, more extensive excavation and reconnaissance data are needed to build a reasonable model of Ute settlement.

For Navajo sites, there is an increasing body of evidence about changing subsistence and settlement patterns in the region just south of the study area (Brown 1991; Towner 1997). Hopefully these data can serve to inform us about what might be expected in southwestern Colorado. If most Navajo sites in the study area predate A.D. 1700 or so, then there are recent investigations in New Mexico that might suggest a basic subsistence pattern potentially applicable to the La Plata, Animas, and Upper San Juan-Piedra drainage units.

Archaeobotanical and faunal data from nearby excavations suggest that the Navajo economy in the seventeenth century was a mix of hunting, upland gathering, and seasonal corn farming (Sesler et al. 1999). It appears that the Navajo settlement strategy was designed to take advantage of upland (i.e., above 2134 m) wild plant and animal resources as well as nearby lowland horticultural settings. By moving between these elevational settings, it might have been possible to utilize the more well-watered upland wild resources while being able to engage in flood water farming of corn and other crops in sandy washes of lower elevation that were not so subject to the cold air drainage of the upland stream areas. Though archaeological evidence of corn is commonly found at early Navajo sites, there is no evidence of significant, long-term storage of corn. Historic accounts in the early eighteenth century describe numerous Navajo cornfields in La Jara Canyon, just south of Navajo Reservoir (Hendricks and Wilson 1996:93). These fields were in the sandy bends of intermittent drainages and were of sufficient number and size that it took a Spanish-led militia several days to destroy them.

Though pastoralism has been typically associated with Navajo subsistence over the last two centuries, archaeological evidence suggests only very limited use of sheep, cattle, or horses prior to the mid-1700s. Remains of sheep and goat were recovered during Morris's excavation of pueblitos in New Mexico (Carlson 1965), but the limited nature of the archaeological evidence and the historic accounts about the lack of substantial numbers of domesticated animals within the Navajo area reinforce an interpretation that pastoralism only became important after the 1750s.

At least three documented shifts are known in Navajo settlement strategy. Between A.D. 1500 and 1700 the settlement pattern appears to be one of mixed upland and lowland sites, with residential sites rarely consisting of more than two to three hogans. It may be that many of the sites in the study area date to this temporal period. Between A.D. 1700 and 1750, a significant number of people appears to have moved south of the San Juan River and into the heartland of Dinétah. This move coincides with the construction of almost all known pueblitos and the rise of Ute-Navajo-Spanish conflicts. It also may have been a time in which the Navajo farming economy was intensified and experiments with pastoralism began. By A.D. 1750, a significant shift of Navajo population is apparent, either west toward the Chuska Mountains and Chinle Valley or south toward the Chacra and Big Bead mesa areas. As noted above, there may have been an increasing focus on pastoralism after A.D. 1750.

Given that there is little evidence of Navajo populations in southwestern Colorado between A.D. 1750 and 1850, subsistence and settlement changes for this later period are not discussed here.

PROCESS OF CULTURAL CHANGE

Four areas of cultural change can be studied with the post-Pueblo archaeological evidence. First, how does an "empty" landscape fill with human occupation and what are the changes that occur with an influx of immigrants? It appears that southwestern Colorado is largely bereft of human occupation between A.D. 1300 and 1500 and that significant population does not exist in the area until after A.D. 1500. What does a "frontier" area look like and how are human groups drawn into the area? Second, sometime between A.D. 1500 and 1700, a cultural group that meets anthropological definitions of the Navajo tribe emerges as a distinct entity. The whole topic of ethnogenesis has only recently returned as a topic of legitimate research, and it would seem that the post-Pueblo era is made for this kind of research. It is possible that Ute tribal identity emerges earlier than A.D. 1500, but based on the very limited understanding of the Ute archaeological record, this probably occurs outside southwestern Colorado. A third area of cultural change is the emergence of full-blown conflict in the early Protohistoric period. Between A.D. 1650 and 1750, there is considerable conflict between the Ute and Navajo, as well as between all Native Americans and the Spanish colonists. This period represents one of expansion and competition between a number of different groups in the northern Southwest. Finally, political and social changes occur within many groups between A.D. 1500 and 1850. This whole 350-year period is one of both ascendency and tremendous cultural challenges for Ute, Navajo, and Spanish at different times. What determines the success or failure of different groups through this period of time?

Ethnogenesis and the filling of this area with people may overlap as topics of investigation. Although the area may not be totally depopulated between A.D. 1300 and 1500, few dispute that there is a virtual collapse in the numbers of humans on the southwestern Colorado landscape after A.D. 1300 or so. What cultural materials date to this period and what do they suggest in the way of the identities of the people passing through? Are materials primarily associated with former inhabitants or more likely associated with people whose descendants may be the future occupants of the area? As the area does begin to fill with humans, how do differing identities emerge? It appears that this area is the likely area for the "emergence" of the historic Navajo tribe, based both on Navajo oral history and recent archaeology. Ethnogenesis can occur when people from multiple cultural backgrounds settle a new area. The need to establish a new pattern of social and political organization associated with this new locale may result in a new "history" distinctly tied to this locale.

By the early 1600s or mid-1600s it appears that both Ute and Navajo populations expanded substantially, based on the increasing notice given them in historic accounts as well as the increasing visibility of especially Navajo sites dating to A.D. 1625-1650 and thereafter in the Dinétah region. Navajo oral history offers accounts of early encounters between Ute and Navajo that argue for some Ute bands being absorbed into the Navajo tribe during a time after the Spanish had arrived (Zolbrod 1984:305, 309), but apparently before the Pueblo Revolt. This period, or "the gathering of the clans" in Navajo oral history and the appearance of Gobernador Polychrome in the archaeological record (ca. 1650), appears to be one in which Navajo identity is strengthened.

The period of the Pueblo Revolt (A.D. 1680), the Spanish Reconquest (ca. A.D. 1692-1696), and the concentration of Navajo populations in Dinétah in the early A.D. 1700s is clearly a period of great competition and conflict between groups. It illustrates how complicated it will be to understand the process of change even in this Protohistoric period. To understand the ultimate conflict between Ute and Navajo at this time requires recognition of the increased pressure by New Mexicans on the people of the Dinétah, the potential increase in Navajo population density, and the upheaval potentially caused by the introduction of Spanish animals—such as the horse, goats, and sheep—which accelerated with the Pueblo Revolt of 1680. Research must be focused on this period if archaeologists are ever to understand the ascendency of the Ute and the ultimate migration from Dinétah by the Navajo in A.D. 1750.

To address the process of change for Ute and Navajo groups in the study area requires that shifts in settlement and subsistence patterns be connected to social and evolutionary models of change (Bettinger 1991). It is clear that bands such as these are more resilient and adaptive than once thought.

RESEARCH PROBLEMS: THEN AND NOW

Ute Research

In 1984, Eddy et al. primarily focused on two problems in Ute archaeology for future research: the identification of Ute sites on a survey and the use of the archaeological record to better understand early Ute group size, subsistence practices, seasonal movements, and changes in material culture. A grand total of 13 Ute sites was recorded in the study area in 1983, or a sample of about 0.2 percent of all recorded sites. In 1998, at least 116 sites with Numic affiliation are listed, and this amounts to about 0.9 percent of the current total of prehistoric sites. Although this

is still a very small number of sites relative to the abundance of prehistoric sites in this area, it represents a real improvement in the recording of Ute sites. The proposal to learn more about Ute prehistory through excavation has remained as current as it was in 1984, given that little or no progress has been made in this area.

The questions that one might address in the excavation of a Numic, or potentially Ute, site are potentially much better elucidated in the research literature than in 1984. A central question remains in understanding how and when the earliest Numic peoples arrived in Colorado and how they spread to the southwest part of the state. Considerable progress has been made since Lamb's (1958) original linguistic proposal and Bettinger and Baumhoff's (1982) archaeological proposal about the Numic spread across the Great Basin but as recent summaries by Madsen (1994) and Reed (1994) make clear, the entry of the Ute into southwest Colorado is still an open question.

Clearly, the central focus for coming years is to continue with increasing archaeological recognition of the surface signatures that may betray Ute affiliation and to begin to build an understanding of what excavated Ute sites might look like. Given the scanty Spanish history and Ute oral history for this region, questions such as the effect of increasing Navajo populations in the 1600s, the changes with the introduction of the horse into Ute culture, and the ascendency of the Ute as a political force in the northern Southwest in the 1700s must be primarily addressed through archaeological research.

Navajo Research

All of the research problems defined by Eddy et al. (1984:101) have been addressed at least somewhat over the last decade. The proposed gap between A.D. 1550 and 1640 has been closed in the Dinétah region with more than a handful of well-dated sites and a number of other sites that likely date to this period or slightly earlier. The desire to better understand Navajo biology through the study of human burials was typical of archaeological research in 1984, but is clearly inappropriate in the 1990s, given the Navajo regard for their dead and the passage of NAGPRA. Finally, questions about the conflicts in the 1700s have been significantly addressed by a variety of research on the pueblitos and their surrounding communities (Hogan 1991; Sesler et al. 1999; Towner 1997). Though the causes and consequences of the conflicts between A.D. 1700 and 1775 deserve much more attention, the basic outline of this period is much better known than it was in 1984.

Current research into the Navajo has increasingly moved beyond the simple issues of site recognition, chronology-building, and basic understanding of settlement patterns. The basic questions of isolating a reasonably confident date for the Navajo (Athapaskan) entry into the Southwest and the ready identification of Dinétah sites remain, but they certainly are not as intractable as they seemed a decade ago. Most of the questions about the early Navajo have truly moved to examining the process of change and explaining this change. The issues raised earlier in the section Process of Cultural Change are increasingly the kinds of questions raised by excavation and survey research. It is possible that over the next decade, sufficient data will address questions related to the entry of Athapaskans into the Southwest and the genesis of the historic Navajo tribe. The key question for Colorado research is to establish an understanding of Navajo chronology and settlement shifts that fit into the more fully investigated New Mexican record.

Some of the earliest Athapaskan sites in the northern Southwest may indeed be in Colorado, if Navajo oral history is correct, and this should be recognized in any research in the

study area. Additionally, investigators need to understand whether the Navajo sites in Colorado are primarily tied to upland resource exploitation and form part of a larger pattern of potentially contemporary sites in both the Colorado uplands and the lower areas of nearby New Mexico, or whether the Colorado Navajo sites represent distinct Navajo communities. The apparent shift of Navajo population into Dinétah after A.D. 1700 suggests that there was an emigration of Navajo populations to the south, but this has yet to be confirmed in Navajo archaeology in Colorado. Clearly there is much to be done.

Research into the post-Puebloan occupation of the study area has changed dramatically in the last decade. Models that were thought to have explained much of the archaeological and historical data a few years ago are now being brought into question by abundant new data and new approaches to their interpretation. More sophisticated interpretations of these new archaeological data, in combination with historical data and Native American oral traditions, can help illuminate the population dynamics across the study area from the end of the Anasazi occupation until the first permanent Anglo settlement in the 1800s.