

CHAPTER 2.

A Sketch of the Cultural-Historical Environment—Part 1: The Pre-Columbian Past

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Introduction

This chapter examines the scope and structure of current archaeological interpretations of the pre-Columbian Native American occupation and use of the Valles Caldera National Preserve (VCNP). The discussion provides useful cultural-historical background for the presentation and evaluation of the structure and organization of Native American land use history, as it is known through documentary sources, in subsequent chapters of this volume. It demonstrates that aboriginal communities have sustained important relationships with the Valles Caldera over millennia even though none ever established year-round residential settlements in this locality. Instead, the Valles Caldera represents an edge for residential centers located elsewhere (see chapter 9 for discussion of the essential relationship between edge and center in Native American understandings and occupations of their aboriginal landscapes.)

The primary emphasis of this study is cultural-historical, not archaeological. Consequently, the comprehensive description and assessment of the VCNP's archaeological site and artifact assemblages is outside the scope of the present research. Other investigators (e.g., Steffen 2003; Steffen and Skinner 2002) have reported the archaeology of the VCNP. Nevertheless, this chapter provides background useful to the subsequent identification, interpretation, and evaluation of potentially significant cultural resources in the Preserve.

We rely upon a variety of archaeological reports. We recognize that the descendants of the Indian peoples who occupied the VCNP have often carefully recorded the histories of their forebears in oral accounts. Although some parts of these verbal texts exist in published form (see chapter 9), most of these narratives are not generally available to outsiders today. For this reason, we use the term *pre-Columbian history* to denote the part of our discussion of the human history of the VCNP that depends solely upon the description, assessment, and interpretation of the material traces composing the archaeological record that survives today.

Paleoindian Occupation (10000/9500–5500 B.C.)

Paleoindian culture represents the earliest documented evidence of human occupation in the North American Southwest. Archaeologists typically characterize Paleoindian cultural adaptations as emphasizing the hunting of now extinct species of mammoth (*Mammuthus jeffersonii*), bison (*Bison antiquus*), and several other large-bodied late Pleistocene animals, such as horses, tapirs, and camels. Assuming that Paleoindians relied principally on big game hunting for their livelihood, researchers commonly infer that these people were nomadic. Although many investigators believe that native plants and small game animals were important supplemental resources for the Paleoindians, few of these resources survive in the archaeological record (see Anschuetz 1996; Anschuetz et al. 1997).

Difficulties resulting from small sample sizes and poor archaeological preservation notwithstanding, archaeologists have proposed three major developmental phases for the Paleoindian period in the Southwest on the basis of patterned changes in projectile point form over time. The earliest is the Clovis phase, which researchers have variously dated between 10000/9500 and 9000 B.C. (cf. Agogino 1968; Irwin-Williams and Haynes 1970). Researchers consider large lanceolate spear points with short flute scars and concave bases as characteristic markers of this period.

The distribution of sites across diverse topographic settings and the occurrence of moist environmental conditions suggest that Clovis peoples sought access to a variety of plant resources, game animals, and sources of surface water. Although available archaeological data are not conclusive, it is tempting to characterize Clovis populations as generalized hunters and gatherers rather than as specialized big game hunters (Cordell 1984:145, 148).

The succeeding stage of Paleoindian cultural development is the Folsom phase. Researchers date the Folsom phase from approximately 9000 to 8000 B.C. (Agogino 1968; Judge

1973). Some investigators regard the Folsom phase as an evolutionary refinement of the preceding Clovis phase with the onset of a long-term trend of increasingly dry conditions (e.g., Irwin-Williams 1979:31). This generalized climatic change, known to investigators as the Anathermal (ca. 8600 to 5500 B.C.) (Antevs 1955), persisted through the end of Paleoindian times and saw parkland and boreal forest species dominate across the southern Great Plains (Wendorf 1970, 1975). Under such ecological conditions, it is unlikely that Paleoindian hunters in the northern Southwest had access to great herds of large-bodied game animals (Anschuetz 1996; Anschuetz et al. 1997).

Folsom spear points, which are smaller than their Clovis predecessors, are another kind of distinctively flaked lanceolate implements. Even though they are shorter than their Clovis predecessors, they have proportionately longer flutes. These tools are most commonly associated with *Bison antiquus* remains; mammoth and most other large-bodied Pleistocene mammals were already extinct by this time. Excavated sites have yielded remains of antelopes, deer, elk, wolves, rabbits, other small mammals, birds, and reptiles (Cordell 1979a:21). Some researchers suggest that Folsom populations relied heavily on specialized hunting practices and a highly nomadic lifestyle for their living (Broilo 1971; Judge 1973). These investigators base their argument on the presence of *Bison antiquus*, which likely were solitary or small-herd animals, and the development of a stone tool technology dependent on the careful use and conservation of high quality raw material, including the obsidian that occurs abundantly in and around the VCNP. Cordell (1984:148) urges caution in applying this interpretation, however. Although available archaeological data by no means discount interpretations of specialized hunting practices and high mobility, excavated site assemblages indicate that Folsom phase peoples relied on a variety of plant and animal resources. Not all of the stone tools found at Folsom sites are as highly specialized as the unique spear point.

The Plano phase (ca. 8300 to 6000 B.C.) marks the end of the Paleoindian period of human occupation across North America. This time encompasses a number of distinct material culture complexes, including the Agate Basin (8300 to 8000 B.C.) and Cody (6600 to 6000 B.C.) complexes (Irwin-Williams and Haynes 1970). Late Plano phase hunter-gatherers apparently enjoyed a brief return to greater effective moisture, and the spatial distribution of Cody complex materials is wider than that of the earlier Agate Basin complex (Irwin-Williams 1979). Given kill sites with an average of nearly 130 smaller-bodied late Pleistocene bison (*Bison occidentalis*) per location (Cordell 1979a:21), many researchers continue to describe Plano phase Paleoindian populations as highly specialized big game hunters. Nonetheless, the sustained development of increasingly generalized projectile points from mid to late Paleoindian times implies that these human populations adopted increasingly diverse subsistence strategies, including a reliance on a wide range of plant and animal foods (Anschuetz 1996; Anschuetz et al. 1997).

At the present time, no known archaeological properties in either the VCNP or the upper Río Jémez Valley clearly date to the Paleoindian period. A small number of obsidian artifacts collected during archaeological study in the Redondo Peak Area have hydration rinds sufficiently thick to indicate raw material breakage during Paleoindian times (Russell 1981). In addition, archaeologists have recovered several spear points associated with soils dated at 11,000 ybp during studies now ongoing at the VCNP (Dr. Bob Parmeter, personal communication, VCNP, Los Alamos, 2005).

Recovery of artifacts diagnostic of Paleoindian manufacture elsewhere in the northern Río Grande region shows that these early hunter and gatherers visited the Jémez Mountains. Archaeologists documented a Clovis phase camp (LA66891)^{2,1} at an elevation of 8,200 ft (2,240 m) on Cañones Mesa northeast of the VCNP (Acklen 1993; Acklen et al. 1991; Evaskovich et al. 1997a). These researchers also located a second lithic scatter with Paleoindian artifacts but were unable to confirm the presence of an intact early occupation. Steen (1977, 1982) found a small number of isolated Paleoindian projectile points on mesatops in the nearby Pajarito Plateau district.

Archaeologists working at Paleoindian sites in central New Mexico and west Texas have recovered artifacts made of obsidian that outcrops in the Jémez Mountains (**Winter 1983:105**; see also Glascock et al. 1999:861). Because Jémez obsidian nodules occur in the alluvial gravel deposits along the northern Río Grande Valley and the tributary streams that originate in the Jémez Mountains, the central New Mexico and west Texas obsidian finds do not necessarily represent the products of Paleoindian expeditions to the Valles Caldera or its environ.

Archaic Occupation (5500 B.C.– A.D. 600)

Researchers date the Archaic period in the northern Southwest between ca. 5500 B.C. and A.D. 600. Hunting appears to have persisted as a primary economic concern under essentially modern faunal and vegetative conditions during the early Archaic (Judge 1982:49). The ubiquity of grinding implements and roasting ovens at late Archaic base camps sites suggests that over time the people became increasingly dependent on hard-shelled grass seeds (e.g., Irwin-Williams 1973; Reher and Witter 1977; see also Cleland 1966:42–45).

Irwin-Williams (1979:35) argues that the five-century-long break between clearly dated Paleoindian and Archaic period cultural assemblages in the region indicates the withdrawal of Plains-based big game hunters from the northern Southwest in response to the onset of the Altithermal (ca. 5000 to 3000 B.C.) (Antevs 1955), a time of decreased moisture and greater environmental desiccation. She suggests that the appearance of Archaic period hunter and gatherer cultural assemblages in the northern Southwest represents the influx of new populations and that there is no evident connection between populations representing these two adaptations

(Irwin-Williams 1973, 1979). Other researchers (Cordell 1979a; Honea 1969; Judge 1982; Stuart and Gauthier 1981) disagree with this interpretation, however. They reason that the occupation hiatus is more apparent than real. Moreover, as summarized by Judge (1982:48–49), these investigators view Archaic period cultural traditions as an indigenous outgrowth from the preceding Paleoindian cultural historical sequence.

Abel E. B. Renaud (1942) was the first researcher working in the northern Río Grande to provide a discussion of Archaic period cultural materials, which he designated as a distinctive Río Grande Culture complex. The diagnostic projectile point forms, which Renaud describes, resemble those of the Oshara Tradition sequence subsequently defined for the Arroyo Cuervo locality southwest of the VCNP (Irwin-Williams 1973). Because Irwin-Williams' cultural historical framework has received wide acceptance, researchers working in the northern Río Grande over the past two decades have classified projectile point forms encountered during their surveys and excavations within the Oshara Tradition typological sequence. Nonetheless, the Cochise Tradition (Sayles and Antevs 1941), which is traditionally conceptualized as occurring south and west of the Oshara Tradition area, seems to truncate the Oshara Tradition in the Galisteo Basin to the east of the Valles Caldera (Lang 1977). The Cochise Tradition also appears to merge in the Redondo Valley area of the VCNP (Baker and Winter 1981:v).

Irwin-Williams (1973, 1979) divides the Archaic period into developmental phases in her definition of the Oshara Tradition: Jay (5500–4800 B.C.), Bajada (4800–3200 B.C.), San Jose (3200–1800 B.C.), Armijo (1800–800 B.C.), En Medio (800 B.C.–A.D. 400), and Trujillo (A.D. 400–600). Because Cochise Tradition cultural materials “intrude” into the Jémez Mountains as well as the Galisteo Basin, many of these narrow temporal definitions of Irwin-Williams' cultural historical construct might not be appropriate. Moreover, the archaeological record of the VCNP might eventually offer information useful to settling this important question about Archaic cultural affinities in the northern Río Grande.

Archaic population levels apparently were relatively stable during the Jay and Bajada phases (Irwin-Williams 1973, 1979). Researchers suggest that these peoples lived in nuclear or extended groups at a series of short-term camps in the lower elevations, such as those of the San Juan Basin west of the Jémez Mountains, throughout most of the year. Hunting camps and obsidian quarry sites, however, occur in the Jémez Mountains. Yet early Archaic period hunter and gatherer use of this locality was likely brief and sporadic, and there exists little direct evidence for the significant seasonal occupation of the Valles Caldera area before 2000 B.C. (Elliott 1991a:13).

The subsequent San Jose phase saw increased regional population levels. This development apparently coincided with a period of increased effective moisture. Corn horticulture and a residential pattern of seasonal ingathering and dispersal of family groups followed during the drier Armijo phase (Irwin-Williams 1973, 1979).

A direct radiocarbon date for maize kernels recovered from the Jémez Cave demonstrates that Archaic people occupied

camps in the upper Río Jémez Valley by the late Armijo phase (Ford 1981; also, see Alexander and Reiter 1935; Ford 1975). In addition, Baker and Winter (1981), during their study of the proposed Baca Geothermal Project area, documented several sites that are roughly contemporaneous with the Armijo phase along Redondo Creek in the VCNP. Artifacts indicate that obsidian quarrying and the manufacture of bifaces were predominant activities. Overall, the investigators describe site use as light. Although direct evidence is lacking, it seems probable that hunting and plant collecting also occurred.

Paleoclimatic data indicate that cool, dry conditions and long winters characterized the late Archaic (Gillispie 1985; Irwin-Williams 1973; Schoenwetter and Dittert 1968). Significantly higher regional population densities also contributed to the adoption of a more sedentary lifestyle in which corn horticulture became increasingly important, even while the economy continued to be based on hunting and gathering.

By far the most intensive uses of the Jémez Mountains, judging from the findings of archaeological studies in the Redondo Creek Valley (Baker 1981; Baker and Winter 1981; **Winter 1983:94**) and along Public Service Company of New Mexico's proposed Ojo Line Extension (OLE) powerline rights-of-way (Acklen 1993), occurred between about 600 B.C. and A.D. 400. Still, these high-altitude sites represent hunting camps, as indicated by high frequencies of bifacially flaked obsidian knives and spear and dart points. In addition, the abundance of waste flakes indicating the manufacture of these tools suggests that the late Archaic hunters made knives and projectile points for export to other places in the region (Anschuetz et al. 1997:92; see also Glascock et al. 1999).

Jémez Cave in the nearby upper Río Jémez Valley offers additional insights. The abundant evidence of obsidian and wood tool manufacture at the cave's margin contrasts markedly with the recovery of diverse plant remains, along with the evidence of plant processing, such as corn grinding, other food preparation, sandal making and textile production, in the grotto's center. While the stone and wood tool manufacturing area likely represents the focus of men's activities, the cave's central zone probably saw use primarily by women (Ford 1975:21). Based on his preliminary analysis of collections and the available excavation notes, Ford concludes, “Jemez Cave was seasonally occupied, probably in the spring and fall for the planting and harvesting of corn and pumpkins” (1975:21). Recovery of broad leaf yucca fruit fragments and seeds, acorns and piñon nuts, all of which ripen in the fall, supports Ford's interpretations of the cave's use during the fall (Anschuetz 1996).

Pueblo Occupation (A.D. 600–1600)

Emergence of adaptations that are qualitatively more Pueblo Indian than Archaic in the northern Río Grande occurred at approximately A.D. 600 (Wendorf 1954; Wendorf and Reed 1955). This date marks the culmination of the sometimes gradual, sometimes punctuated, transition from a

subsistence economy based on the gathering and hunting of a broad spectrum of plant and animal resources to one increasingly focused on agriculture (Anschuetz 1996; Anschuetz et al. 1997). Although a wide variety of native plants and animals continued to be critically important in Pueblo Indian economies, over time they were more limited to use as supplements to agricultural staples. As this shift occurred, group mobility was reduced further and residences increasingly were occupied on a semiannual, if not on a year-round, basis. The introduction of pottery and arrow points are diagnostic markers of the beginning of Pueblo adaptations.

Wendorf (1954) divides the Pueblo Indian cultural sequence during prehistory into three periods: Developmental, Coalition, and Classic (see also Wendorf and Reed 1955). He defines each period by notable shifts in architectural and/or pottery assemblages.

Archaeological evidence of the Pueblo occupation of the northern Jémez Mountains and their neighboring locales does not follow the regional trend of Pueblo adaptations, being characterized by a greater dependence on agriculture and pottery. The discovery of arrow points on aceramic sites in the Jémez Mountains and in neighboring parts of the northern Río Grande Valley show that Pueblo people made short-term forays into areas of higher elevation for hunting and, presumably, gathering (Bertram et al. 1989; Earls et al. 1989; Lord and Cella 1986; see also Schaafsma 1976). Even where early Pueblo period (ca. A.D. 800) pitstructures exist, such as the Abiquiú Reservoir area northeast of the VCNP, ceramics seldom occur in association (Anschuetz et al. 1997:94). Such observations indicate that Archaic-like hunting and gathering adaptations persisted later in north-central New Mexico than commonly recognized by archaeologists.

Developmental Period (A.D. 600–1200)

The early part of the Developmental period in the northern Río Grande dates between A.D. 600 and 900. Archaeological sites dating to the seventh century are rare throughout the region, and known properties tend to be small. Sites dating to the eighth and ninth centuries are more numerous, although they are mainly remnants of limited activity work sites and small settlements (Wendorf and Reed 1955).

Most known early Developmental period sites are in the Albuquerque and Santa Fe districts (Cordell 1979a), although a few notable archaeological properties are reported to the north and northwest of the present-day community of Santa Fe along the Río Tesuque and Río Nambe drainages (McNutt 1969; Peckham 1984:276).

Excavation data indicate that early Developmental period residential sites may be characterized as small villages of shallow, circular pitstructures. Sites commonly feature between one and three dwellings, which generally appear to be more similar to structures used by contemporaneous San Juan populations than to those of Mogollon peoples of west-central New Mexico. Rectangular surface storage rooms also are found commonly in association (Cordell 1979a; Stuart and Gauthier 1981).

Seventh-century Developmental period ceramics include Lino Gray, San Marcial Black-on-white, and a variety of plain brown and red-slipped wares. The eighth- and ninth-century ceramic assemblage is essentially a continuation of its predecessor but includes the addition of neck-banded gray and brown wares (Kana-a Gray and Alma Neck-Banded, respectively) as well as Kiatuthlana Black-on-white, La Plata Black-on-red, and Abajo Black-on-orange (Wendorf and Reed 1955:138). These wares indicate that the early Developmental populations maintained close cultural ties with groups living to the northwest and west. The presence of small amounts of redware and brownware pottery indicates that the people also traded with Mogollon populations living to the south and southeast (Cordell 1979a).

Early Developmental period peoples tended to locate their residential sites in lower elevations near intermittent tributaries of the Río Grande, presumably for access to water (Cordell 1979a). Their preference for higher-altitude settings close to gathering and hunting resources is also visible.

The appearance of Red Mesa Black-on-white, another ceramic ware that occurs throughout much of the western Pueblo Indian culture area during prehistory (Lang 1982; McNutt 1969; Mera 1935; Peckham 1984), marks the beginning of the late Developmental period (A.D. 900 to 1200). The continued close affiliation between the peoples of the northern Río Grande and the Four Corners regions is illustrated by the appearance of Kwahe'e Black-on-white in north-central New Mexico at approximately A.D. 1100 (Warren 1980). This ware is a locally manufactured copy of ceramics produced in the northern San Juan region (Gladwin 1945; Kidder and Shepard 1936).

The late Developmental period is characterized further by a general change in regional settlement patterns and more localized changes in architecture and site size. The changes in settlement pattern include an increase in the number of residential sites in the Albuquerque, southern Santa Fe, and Taos districts (Frisbie 1967; Mera 1940; Oakes 1979; Wetherington 1968; Wiseman 1980; Woosley 1986). Not only did the density of habitation increase, the range of environmental settings exploited by Developmental period Pueblo Indian populations also expanded. Nonetheless, archaeologists suggest that Pueblo populations dependent upon agricultural produce favored locations near permanent water sources in middle (6,000–7,000 feet [1,830–2,135 m]) elevation settings. This archaeological observation further suggests that settlement above 7,000 feet (2,135 m) was unlikely except under conditions of prolonged drought (**Winter 1983:33**).

Even though pitstructures persisted in the Albuquerque district through the eleventh and twelfth centuries, the transition from semi-subterranean, circular dwellings to aboveground, rectilinear pueblos occurred in the Santa Fe district (Wendorf and Reed 1955:140). This architectural shift was not complete, however. McNutt (1969) reports the presence of pithouses in the Red Mesa phase component of the Tesuque By-Pass site.

In locales where Pueblo Indian peoples began to build above ground, site size increased and habitation rooms were

paired with storage facilities. Whereas most pueblos averaged between 10 and 12 rooms, settlements with multiple house-mounds and totaling more than 100 rooms occurred in some locales (Wendorf and Reed 1955). Often, these villages have one to four pitstructures, which archaeologists have usually interpreted as kivas (ceremonial chambers that commonly are circular in plan and subterranean in construction).

In general, the upper Río Jémez Valley conforms to the archaeological observation elsewhere in the northern Río Grande that Developmental village sites display a riverine focus (Anschuetz 1996; Anschuetz et al. 1997). Several pithouse sites with Kwahe'e Black-on-white pottery are known in the lower reaches of Cañon de San Diego near the present-day communities of Walatowa (Pueblo of Jémez) and Cañon.

Meager available information indicates that Developmental period Pueblo use of the Jémez district was not necessarily parochial. Although only 1 site yielded arrow points diagnostic of this time period, 7 of 21 quarries and camps that archaeologists excavated along Redondo Creek for the Baca Geothermal project yielded obsidian hydration dates indicating that the sites were used between about A.D. 600 and 900 (**Winter 1983:94**). Further use of this locale by Developmental period Pueblo people is not known until the latter part of the twelfth century. Archaeologists conducting studies along the proposed OLE powerline rights-of-way similarly found a small number of artifact scatters, which they interpreted as remnants of briefly occupied hunting and gathering work areas or camps (Acklen et al. 1991).

Joseph C. Winter has argued that there was a link between the regional Pueblo economy centered in Chaco Canyon and the quarrying, processing, and distribution of obsidian in Redondo Creek and the neighboring Jémez Mountains vicinity (**Winter 1981:181–182, 1983:106**). He suggests further that Chaco Canyon and its outliers might have been important nodes in a formal system of trade and exchange involving the “redistribution, social stratification, craft specialization, information exchange, and use of obsidian as a valuable commodity” (**Winter 1983:106**). He then interprets the low-frequency use of Redondo Creek obsidian as evidence of its controlled distribution in the Chaco Canyon economy, and proposes that its acquisition was a privilege among a small number of high-status persons. He reasons that if Jémez Mountains obsidian was a highly controlled commodity during this time, then hunting and gathering in the locality similarly were restricted (**Winter 1981**).

Archaeological evidence from the VCNP and its environs indicate that Pueblos quarried obsidian and made tools from this resource during the Developmental period (Acklen et al. 1991; **Winter 1981:183**). Available information, however, does not support Winter's interpretation that Chaco Canyon exercised exclusive control over Jémez Mountain resources. Redondo Creek obsidian artifact scatters, although sometimes extensive, do not fulfill the archaeological expectations of formal craft workshops where specialists quarried this resource and manufactured standardized tools for regional trade.

Coalition Period (A.D. 1200–1300)

The adoption of organic-based paints for decorating pottery throughout all but the extreme north and east portions of the northern Río Grande marks the beginning of the Coalition period (Wendorf 1954; Wendorf and Reed 1955). The diagnostic ceramic type for the early Coalition period is Santa Fe Black-on-white (Breternitz 1966). This pottery type has design elements similar to Kwahe'e Black-on-white, the ware it replaced (Dickson 1979). The change in decorative pigment coincides with the shift in the Four Corners region from mineral-based paints used by populations living in Chaco Canyon and Mesa Verde to the organic based paints of Pueblo populations living in western New Mexico and eastern Arizona (Wendorf and Reed 1955:143–144). Many Coalition ceramics, most notably Santa Fe Black-on-white, technologically and stylistically resemble wares manufactured in the northern San Juan drainage and found in Chaco Canyon (e.g., see Douglass 1985; Lang 1982:176; Mera 1935; Warren 1980:156). Wiyo Black-on-white, a common ware at the end of the Coalition period, has less certain cultural affiliations with the Four Corners region. Researchers variously trace connections between these northern Río Grande wares and those of the northern San Juan, Chaco, and Pajarito Plateau districts (cf. Mera 1935; Lang 1982; Wendorf and Reed 1955). Wingate Black-on-red and St. Johns Polychrome, both of which originated in the Upper Little Colorado drainage of east-central Arizona (Carlson 1970), occur as trade wares on early and middle Coalition sites in the Santa Fe and Albuquerque districts (Peckham 1981:131, 133).

A notable characteristic of the Coalition period is the diversity of many locally manufactured wares rather than the predominance of any single ceramic type (Cordell 1979a; Lang 1982; Stuart and Gauthier 1981). Habicht-Mauche (1995) notes that this ceramic diversity includes high variability in vessel form, size, design motifs, complexity of stylistic composition, and quality of artisanship.

The trend toward increasing heterogeneity is also represented in other classes of material culture, including architectural form and construction (Wendorf and Reed 1955). In the Santa Fe district, for example, large quadrangular pueblos were built mainly of adobe, although some rooms had stone slab floors. Pitstructures (kivas) often occur as aboveground features at the corners of roomblocks and commonly are oval or D-shaped. Circular pitstructures (kivas) also are known in the Santa Fe and Tesuque valleys (McNutt 1969; Stubbs and Stallings 1953). In contrast, early Coalition dwellings in a crescent-shaped area encompassing the Pajarito Plateau, Galisteo Basin, and Pecos locales are small linear structures constructed of stone masonry with slab floors (Wendorf and Reed 1955). By the end of the thirteenth century, village size increased markedly and stone masonry became more common in some local settings (e.g., the upper Río Pecos Valley) (Kidder 1958). Peckham (1984:279) reports that habitation sites on the Pajarito Plateau continue the Developmental architectural tradition of one or two aboveground rooms with

kiva-like features and as many as a dozen contiguous storage rooms.

Despite increased diversity in material culture, three population and settlement trends distinguish the Coalition period throughout the region. The first is substantial population growth, as indicated by great increases in the number and size of habitation sites during the thirteenth century. Undoubtedly, this regional change in settlement pattern is a product of the massive immigration of Pueblo people from the central Colorado Plateau throughout the twelfth and thirteenth centuries (Cordell 1979a; Hewett 1953; Mera 1940; Peckham 1984; Stuart and Gauthier 1981; Wendorf and Reed 1955). The second, the concentration of population into larger settlements, implies that population growth led to changes in social organization (Cordell (1979b). The third is the expansion of year-round Pueblo settlement into areas of higher elevation. Pueblo groups settled narrow drainage systems in the upper piedmont of the Albuquerque and Santa Fe districts by the early A.D. 1300s. The appearance of multiroom pueblo villages also occurs in the Taos, Chama, Pajarito Plateau, and Galisteo Basin districts.

Lang (1977) observes that most village sites occur along small drainages with easy access to seeps, springs, and potentially good agricultural lands. Peckham (1984: 279) characterizes Coalition Pueblo populations as being highly mobile and apparently not “reluctant to experiment with new areas of settlement, expanding their development of some localities while abandoning others.” Archaeological evidence of intensified agricultural practices, including cobble-grids and terraces, checkdams, and reservoirs, accompanies these changes in population and settlement (**Anschuetz 1998b**).

Although there is scant direct evidence for the Pueblo use of the VCNP during the Coalition period, settlement in the upper Río Jémez Valley was substantial (Anschuetz 1996; Anschuetz et al. 1997:106–107). Ten significant villages first established during the Coalition period occur within an 8-mile (13-km) radius of the present-day community of Jémez Springs. These settlements include Patokwa (LA 96), Pejunkwa (LA 130), Boletswakwa (LA136), Wabakwa (LA478), Totaskwinu (LA479), Setoqua (LA499), Nanishagi (LA541), and Wahajamka (LA573), which the people of Jémez Pueblo remember as some of their ancestral homes (Elliott 1982; 1991b). A number of archaeological sites recorded in San Juan Canyon for the Pueblito Timber sale apparently have Coalition components (Elliott 1991b:18–19). Elliott reports further that other unrecorded sites, including fieldhouses, agricultural terraces, and a probable reservoir also occur in this locale. Habitation sites also cluster at Vallecitos near the present-day settlement of Ponderosa (Dodge 1982; Elliott 1991b:19; Holmes 1905:200–201). This grouping consists of small to medium pueblos, 1- or 2-room fieldhouses, 50- to 100-room villages, and a reservoir (Elliott 1991b:19, 44). Pottery types include common Coalition period wares, such as Santa Fe Black-on-white and St. Johns Polychrome, as well as Vallecitos Black-on-white, which dates from the late thirteenth century into the fourteenth century.

Archaeological studies of the Pajarito Plateau district have also found significant evidence of Pueblo settlement on the east flanks of the Jémez Mountains during the Coalition period (see Anschuetz 1996; Anschuetz et al. 1997). In addition to numerous artifact scatters, which likely represent hunting camps and obsidian quarries, known residential sites include 1 rockshelter, 3 cavate complexes, and 19 pueblos (Hill and Trierweiler 1986).

Given the proximity of these settlements, it seems unlikely that the scarcity of documented Coalition period occupation of the Valles Caldera relates to the sudden avoidance of this locality by Pueblo people. Instead, the relative lack of identified thirteenth-century sites is probably a product of the low archaeological visibility of their land use activities during this period of major population relocation and reorganization (see Anschuetz 1996; Anschuetz et al. 1997).

Citing patterns of site abandonment and population movement, Elliott (1991b:18–19) attributes the increased Pueblo settlement of the Jémez district to the arrival of immigrants from the central San Juan Basin (i.e., Chaco Canyon) and the northern San Juan drainage (i.e., the Four Corners area, including Mesa Verde). He observes that archaeologists working in the upper Jémez Valley long have speculated that certain aspects of Jémez area material culture are products of migrations from the nearby Gallina district northwest of the VCNP. Mera (1935:23) provides the first published reference to this supposed cultural-historical event when he uses ceramic traits to suggest that Gallina populations joined “Río Grande” Pueblo people already living in the locale. **Reiter (1938:69; Reiter et al. 1940:8)** compared Hibben’s (1938) Gallina phase excavation findings from the Gallina district with his study at the Classic period Jémez Pueblo of Unshagi. He considered the similarities between the bins, deflectors, vents, and firepits found in settlements in both areas as evidence supporting Mera’s (1935) migration interpretation.

Wendorf (1954:213) reserves judgment on the merits of Mera’s and Reiter’s arguments about the supposed Gallina migration into the upper Jémez Valley, given the lack of reported excavation data at the time of his study (see also Wendorf and Reed 1954). Barnett (1973) and Mackey (1982), however, subsequently conducted excavations in the San Ysidro and Vallecitos areas that addressed this gap. Mackey (1982:95) concludes that the resulting tree-ring, chronometric, ceramic, and architectural data represent “a good intermediate evolutionary stage between the Gallina and Jemez Phases.”

Elliott (1991b:19) maintains that ancestral Jémez (Towa) culture is not distinguishable archaeologically with certainty until about A.D. 1350. Nonetheless, **Ford and others (1972:25)** maintain that Towa culture history in the upper Río Jémez Valley extends back in time to about A.D. 1 in the Navajo Reservoir area and that it is possible to trace their movement into the Jémez district during the thirteenth century. Many other investigators accept the archaeological interpretation that the people of Jémez Pueblo descended from Gallina populations (e.g., Cordell 1979b:143; Dick 1976; Stuart and Gauthier 1981:97). Elliott concedes that the supposed Gallina

to Jémez migration is plausible; however, he notes that the archaeological evidence needed to support this interpretation is circumstantial. He concludes, “The key point concerning the Gallina to Jémez migration hypothesis is that there are [other] substantial differences between the architecture, ceramics, and settlement patterns found in the two areas” (Elliott 1991b:20) that require explanation.

Classic Period (A.D. 1300–1600)

This time span encompasses the late pre-Columbian history of the region. Wendorf and Reed (1955:153) characterize the Classic period, which postdates the central Colorado Plateau abandonment by Pueblo agriculturalists, as a “time of general cultural florescence.” Northern Río Grande Pueblo populations reached their highest levels, even though the area of settlement continued to shrink. Construction of large villages with multiple plazas and roomblocks occurred, and elaboration of material culture reached its pinnacle. Habicht-Mauche (1988:75) describes the Classic period as a time of substantive changes in settlement patterning, subsistence structure, social organization, and economic integration.

The beginning of the northern Río Grande Classic period coincides with the appearance of locally manufactured red-slipped and glaze-decorated ceramics—the Glaze A wares—in the Santa Fe, Albuquerque, Galisteo, and Salinas districts after about A.D. 1315 (Mera 1935; Warren 1979, 1980). Biscuitwares (Harlow 1973; Mera 1934), including Biscuit A (a.k.a. Abiquiu Black-on-gray, A.D. 1375–1425) and Biscuit B (a.k.a. Bandelier Black-on-gray, A.D. 1425–1475), predominate in the lower Río Chama Valley and on the Pajarito Plateau. These ceramics, made of soft, thick, and porous volcanic pastes, show great continuity with the earlier Wiyo Black-on-white.

Shrinking of inhabited areas, aggregation of populations into fewer but larger villages, and increased residential instability greatly affected Classic period settlement patterns in the Albuquerque, Chama, Galisteo Basin, Jemez, Pajarito Plateau, Santa Fe, and Taos districts (Anschuetz 1984). With the abandonment of locales with average elevations in excess of 6,000 feet (1,830 m) in favor of the better-watered broad valleys of the Río Grande and its major tributaries during the fifteenth century, the range of year-round settlement declined significantly. Some investigators argue that falling water tables and fluctuating climatic conditions across the region as a whole would have favored the intensification of settlement along middle sections of permanent watercourses where stream irrigation presumably was possible (Dickson 1979; Rose et al. 1981; Stanislawski 1981).

Although agriculture clearly had become a focal part of the subsistence base several centuries earlier, the presence of a wide variety of faunal and native plant remains in the archaeological record indicates the continued importance of hunting and gathering in Pueblo economies (Lang 1995; Lang and Scheick 1989). Classic period populations continued to use the surrounding mountains, hills, and plains for raw materials, native plants, and game animals.

Identifiable Classic period archaeological remains in the VCNP and its vicinity are rare (Anschuetz et al. 1997:116; **Winter 1983**:94). This pattern almost certainly is a product of the low archaeological visibility of Classic period Pueblo hunting, plant gathering, and lithic resource collection and tool manufacture in this mountainous setting (Acklen 1993). This statement rests on the fact that the upper Río Jémez Valley experienced its greatest occupation during the Classic period (Anschuetz 1996:211).

Three-quarters of the more than 1,000 Río Jémez Valley Pueblo architectural settlements are 1- to 4-room fieldhouses. Small pueblos are common (ca. 10% of reported sites), and 31 villages have between 50 and 600 rooms (Anschuetz 1996:218). Nine settlements (Pejunkwa [LA130], Boletswakwa [LA136], Kiatsukwa [LA132–LA133], Seshukwa [LA303, LA5927], Wabakwa [LA478], Amoxiumqua [LA481], Kwastiyukwa [LA482], Tovakwa [LA483–LA484], and Wahajhamka [LA573, LA5913–LA5914]), have between 650 and 1,850 rooms, 2 or 3 story roomblocks, multiple plazas, and 1 great kiva (Elliott 1991b). Most fieldhouses occur on low rises on high mesas with elevations greater than 7,000 feet (2,134 m), with some reaching altitudes of 8,400 feet (2,561 m). The big villages occur at elevations between 5,560 and 8,000 feet (1,695 and 2,439 m) (Anschuetz 1996).

Flidner (1975:371) describes small agricultural terraces as other Jémez district phenomena. His Hot Springs Pueblo site map shows terrace clusters covering broad expanses around the village (Flidner 1975:Figure 3). Survey of a geophysical corridor immediately east of Jémez Pueblo identified two large, structurally complex, gridded agricultural terraces dating to the late Classic period (Whatley 1995). Flidner reports identifying still other agricultural features in the upper Jémez Valley, including “stone rows in flat areas where rocks are arranged in a line, or small dams and heaps of gathered stones, [occur but] are much less important” (1975:372).

Lastly, traces of numerous old trails, which might be parts of a road system that centers on the large Jémez villages, are visible (Flidner 1975:374–375, Figures 1 and 3). These ruts measure 1.6 feet (.5 m) wide and 8 inches (20 cm) deep and run parallel or oblique to physiographic contours. Some engraved trails cross bedrock slopes and cut hand-and-toe holds occur in rocky ravines (Flidner 1975:375).

The Classic period Jémez district settlement pattern exhibits three essential characteristics (Elliott 1991b:21). First, population increased greatly from the mid-fourteenth century to the late sixteenth century. Second, habitation settlement locations shifted from permanent streams to higher elevations. Third, Pueblo populations consolidated into fewer but larger villages. Two secondary settlement shifts accompany these major changes (Elliott 1991b:21). Over time, more and more fieldhouses, whose substantial stone construction implies sustained use, were built at greater distances from the major villages. The geographic focus of the Jémez Valley population shifted from the Vallecitos and Paliza Canyon locales northwest to Jémez Canyon and the Virgin, Holiday, and Stable mesas closer to the Valles Grande.

No evidence of permanent Pueblo habitations exists in the VCNP (Kulisheck 2003). LA24553, which dates between A.D. 1325 and 1425, is a 50-room village a short distance south of the VCNP. Smearred indented corrugated pottery and sherds representing early varieties of Jemez Black-on-white occur in rockshelters in Sulfur Canyon, which is west of the Valles Caldera.

Although not a place of year-round occupation, the Valles Caldera was important to the Pueblos. **Martin** provides a brief but evocative summary of archaeological evidence and interpretations regarding the Pueblos' use of the southwestern margin of the locality for farming:

On Banco Bonito, the site of the most recent volcanic flow in the range, the farmers built one-room field houses. Situated adjacent to the stands of corn and squash, the simple structures were built of rocks collected in the immediate area. The hard rhyolite was not suitable for shaping into building blocks, so the field houses are made of dry-stacked, irregularly shaped stones. Up to the summer of 2002, the remains of about 100 field houses had been discovered on Banco Bonito, indicating the importance of the lava flow-derived soils to the farmers. Most of the field houses date from after 1350. (Martin 2003:13)

While acknowledging the importance of local exposure, physiography, climate, and cold air drainage in defining the limits to agricultural intensification along the valley bottoms, Elliott (1991b:45) cites the great fourteenth-century population increase in the Jemez district as the driving force behind the settlement changes observed archaeologically. Drawing from Ellis's (1978:59) ethnohistorical study of Río Grande Pueblo land and water use, Elliott suggests further that during the Classic period Jemez populations adopted a land use strategy of moving out of the large pueblos to live in fieldhouses during the warm season. From their scattered farming settlements, the people presumably would make forays into more distant settings, including the heart of the Valles Caldera country, to

hunt game, gather native plant materials, and collect obsidian, minerals, and other products. With the fall harvest, the people returned to their large villages for the winter (Elliott 1991b).

Postscript

As evidenced in the archaeological record, the Pueblos' history of association with the Valles Caldera dates far back into the past. Today, many Río Grande Pueblo communities, including Jemez, Zia, Santa Ana, San Felipe, Cochiti, Santo Domingo, Tesuque, San Ildefonso, Santa Clara, and San Juan, maintain associations with the area now contained within the VCNP. In addition, the Pueblo of Zuni of west-central New Mexico, the Hopi Tribe of northeastern Arizona, the Diné of the Navajo Nation of the greater Four Corners Region, the Jicarilla Apache Tribe of northwestern New Mexico, and the Ute peoples now living in Colorado all have associations with this same landscape that are variously important to their respective histories.

Many aspects of such traditional relationships, however, are rendered largely invisible both in the surviving traces that make up the archaeological record and the documentary accounts written by Hispanic and Anglo observers. Yet, scholarly accounts either written by individuals from these associated communities or compiled by anthropologists and others who worked closely with these communities offer insights into significant land use traditions and landscape relationships that often date to time immemorial.

In recognition of the existence of traditional community histories relevant to establishing a fuller dialogue about the land use history of the VCNP, chapter 9 reviews some of the available lines of this often overlooked evidence. This chapter also provides cultural frameworks for building understandings of key aspects of the communities' continuing associations with the VCNP through which the people remember and celebrate the culture and history of their communities as an enduring, living process.^{2,1}

2.1: See Endnote 1.1 for explanation of the "LA" number designation.

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