HISTORY AND PROCESS IN VILLAGE FORMATION: CONTEXT AND CONTRASTS FROM THE NORTHERN SOUTHWEST

Catherine M. Cameron and Andrew I. Duff

Two processes characterize the later precontact history (twelfth–fourteenth centuries) of the northern part of the American Southwest: aggregation of people into large towns and depopulation of large regions. These processes have been explained as the result of environmental, economic, and social factors, including drought and warfare. Using a theoretical perspective based on Pauketat’s “historical processualism,” we argue that aggregation and depopulation are partly the result of historical developments surrounding the expansion and collapse of the Chaco regional system. We present our understanding of the Chaco regional system from the perspective of historical processualism; then, historical developments in the northern San Juan and Cibola regions—northern and southern frontiers of the Chaco world—are compared. The northern San Juan’s historically close ties with Chaco Canyon, the post-Chaco regional center at Aztec, and other factors ultimately resulted in the region’s depopulation. In the Cibola region, ties with Chaco were more tenuous and use of Chacoan ideology appears to have been strongest in the post-Chaco era, though no post-Chaco regional center emerged. Instead, large towns developed. Built on novel combinations of independent histories, ritual, and experience with Chaco, large towns enhanced stability. They were encountered by early Spanish explorers and some persist to the present day.

Dos procesos caracterizan la historia del precontacto tardío (siglos 12–14) de la región norte del Suroeste Americano: la congregación de personas en grandes pueblos y la despoblación de grandes regiones. Estos procesos han sido explicados como el resultado de una gama de factores ambientales, económicos, y sociales, incluidos secuías y guerras. Utilizando una perspectiva teórica basada en el “procesualismo histórico” de Pauketat, nosotros argumentamos que la congregación y despoblación son parcialmente el resultado de desarrollos históricos alrededor de la expansión y colapso del sistema regional Chaco. Presentamos nuestro entendimiento de la naturaleza y operación del sistema regional Chaco dentro de una perspectiva procesualista histórica. Luego son comparados los desarrollos históricos de las regiones norte de San Juan y Cibola, que representan las fronteras norte y sur del mundo Chaco. Las estrechas relaciones históricas entre la región norteña de San Juan y la Barranca del Chaco, el establecimiento del centro regional Azteca post-Chaco, y otros factores resultaron en el abandono de esta región. En la región de Cibola, las relaciones con Chaco fueron menos cercanas, y el uso de la ideología Chaco parece tener su apogeo en la era post-Chaco. Sin embargo no surgieron centros regionales post-Chaco. En cambio se habilitó un escenario para la creación de grandes pueblos, que incluía novedosos desarrollos basados en una combinación de historia y rituales independientes, y experiencia con Chaco. Los grandes pueblos promovieron la estabilidad, y fueron los tipos de asentamientos encontrados por los primeros exploradores españoles; algunas de estos pueblos persisten hoy en día.

Two processes have long intrigued scholars who study the ancient American Southwest. The first is population aggregation, the social and settlement transition that saw households move from dispersed residential locations to consolidated towns beginning in the thirteenth century. The second is the depopulation of the northern San Juan region and adjacent areas late in the same century, a diaspora that resulted in the relocation of thousands of people to adjacent areas, most notably the northern Rio Grande. In regions with post-A.D. 1280 occupations, large towns thrived as active and dynamic settlements—remaining the dominant settlement type through the contact period and into recent times. Our objective here is to explore in greater detail historical factors that lie behind these processes.

Pauketat (2000, 2001a, 2001b, 2003), among others, has sought to reemphasize the importance of history in archaeological interpretation through

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29
an emphasis on practice and tradition. Here, we combine threads of Pauketat’s approach with our own, and that of others, into a conceptual framework to examine and better understand aggregation and depopulation as historical processes that affected developments in two history-rich and well-studied regions of the American Southwest—the northern San Juan and Cibola. During the period from about A.D. 1000–1150, these regions formed the northern and southern portions of the “Chacoan regional system” which represented the apex of social and political complexity in the northern Southwest (Figure 1). As scholars who work in these areas (northern San Juan, Cameron; Cibola, Duff), we argue that beginning at least by the late ninth century, broad historical patterns of development in these regions differed significantly, resulting in distinct historical outcomes for populations residing in each area. Key among these historical experiences were the strength of group connections to Chaco Canyon and their involvement in the Chacoan regional system, something we argue resonated in regional histories long after Chaco Canyon’s time as a regional capital had passed.

We begin by examining established explanations for depopulation and aggregation in the northern Southwest. We then outline the theoretical
framework that used in this analysis, drawing on the approach Pauketat (2001a, 2003) terms “historical processualism.” We describe the Chacoan regional system, current arguments for how it operated, and the nature of the post-Chaco world. We present our own arguments for developments in the Chaco and post-Chaco eras within the framework of practice theory. We provide overviews of historic developments in both the northern San Juan and Cibola regions beginning before the Chaco era and continuing well into the post-Chaco era. Finally, we compare these two developmental trajectories focusing especially on connections between these two regions and Chaco Canyon.

We show that the northern San Juan had a long tradition of the household as a key social and symbolic element that had especially close ties to the founding of Chaco Canyon in the late A.D. 800s (Judge 1989; Lekson 1999; Lipe 2006; Wilshusen and Ortman 1999; Wilshusen and Van Dyke 2006; Windes 2004; Windes and Ford 1992). The massive Aztec Ruins complex immediately north of Chaco Canyon was a significant historical factor in the trajectory of social systems in the northern San Juan region (Lekson 1999) and in the ultimate depopulation of the area. In contrast, Cibola regional ties to Chaco Canyon were less well developed as the Chaco regional pattern emerged and strengthened; but Chacoan ideas or symbols increased in prominence in the post-Chaco era where these concepts were used to consolidate power locally (Duff and Lekson 2006; Duff and Schachner 2007; Kintigh 1994, 1996; Kintigh et al. 1996). The lack of a singular Chaco and post-Chaco regional center in Cibola permitted local communities greater autonomy and facilitated social experimentation that resulted in effective strategies for large group cohesion. One result, we argue, was the continued occupation of large, well-integrated, collectively built towns that the early Spanish explorers encountered.

Explaining Depopulation and Aggregation

For over a century, archaeologists have been aware of the vast scale of population movements that characterized the northern Southwest prior to the Spanish entrada, although interest in this topic waxed and waned during the twentieth century. Adler and colleagues (1996) provide an excellent summary of archaeological investigation of aggregation and depopulation, emphasizing interplay of environmental and social causes that have characterized various explanations. While the search for “causes” of depopulation and aggregation has been at the forefront of such investigations, recent trends have focused on recovering how changes occurred, incorporating history as an important variable in understanding ancient patterns. Here, we briefly consider studies of depopulation and aggregation, including these more recent approaches to which this paper attempts to contribute.

The depopulation of the northern San Juan region caught the interest of early archaeologists (Kidder 1924:340; Nordenskiöld 1979[1893]:170) who found what seemed to be hastily abandoned cliff-dwellings. Explanations for this apparent depopulation—proposed over the past century—have included drought, changing rainfall patterns, the arrival of aggressive nomads, inter-Pueblo warfare, and the attraction of novel religious movements in other parts of the Southwest (Adler et al. 1996; Ahlstrom et al. 1995; Cameron 1995; Cordell 1997:365–398; Lipe 1995; see also Cordell et al. 2007; Hill et al. 2004; Nelson 2000 for abandonment as social theory). Although drought has been a leading contender, Van West (1994, 1996) and Varien and colleagues (2007) argue that even during the “Great Drought” of 1276–1299, the northern San Juan could have still supported a considerable population. Dean and Van West (2002) contend, however, that depopulation was caused by a combination of factors, including poor environmental conditions, a landscape degraded by centuries of human use, and high population levels. (These ideas are echoed and elaborated by Varien and colleagues [2007].)

The aggregation into large towns during the late thirteenth and fourteenth centuries has been the subject of considerable research interest for the past quarter century. Explanations have included responses to environmental stress (Longacre 1966), alliances created to offset variable environmental conditions (Plog 1989; Upham 1982), and decreases in residential mobility that resulted in competition over agricultural land. In an intriguing effort to model prehistoric behavior at the household level, Kohler and Van West (1996) develop a model of self-interested behavior on the part of households that predicts when populations
should aggregate and share resources and when these cooperative behaviors would not be in the best interests of the household. They find that in situations of high spatial and temporal variability, cooperative behaviors are most valuable when production is high and least valuable when production is low. They show that their rational-choice model generally corresponds with changes in settlement patterns in the Northern San Juan from A.D. 900–1300, and Kohler (personal communication, 2007) believes the model may be even more promising if applied to the A.D. 800s aggregations.

Inter-pueblo warfare is currently a much-cited explanation for both the depopulation of the Northern San Juan region and the aggregation of populations into large towns throughout the Southwest. LeBlanc’s (1999) comprehensive study of Southwestern warfare argues that conflict became pronounced in the Southwest after A.D. 1250, and that it resulted in the massive depopulation and aggregation that is evident in the Pueblo IV period (1999:283; see also Haas and Creamer 1993; Kuckelman et al. 2000; Lekson 2002). He links warfare partly to environmental deterioration (LeBlanc 1999:198) and argues that the most compelling evidence for conflict is the large, inward-facing settlements placed in defensible locations. Lipe and Varien (1999b:341) note, however, that while warfare might have resulted in some displacement of population in the Northern San Juan, they do not feel that it would have resulted in the complete depopulation of the entire region in the absence of other factors.

While environmental and social explanations for depopulation and aggregation continue to be developed, in the past few years Southwestern archaeologists have also begun to construct meaningful historical accounts of the pre columbian past. One such account is Lekson’s (1999) historical study of shifting political powers in the ancient Southwest. Other examples involve studies of the aggregated villages of the Pueblo IV period (Bernardini 2005; Duff 2002, 2004). In the remainder of the paper we present a theoretical framework for such historical approaches and then look broadly at the history of the Chacoan regional system and its influence on developments along its northern and southern territories. The Chacoan regional system had widespread influence during the decades of its operation and there is little doubt the existence of this system continued to constrain future developments in the northern Southwest even after it ended. In the following sections, we describe the Chacoan regional system and developments related to Chaco, and the periods after Chaco, and show how the historical trajectories in each area differed in both the northern San Juan and Cibola areas. The result of these different trajectories was depopulation in the north and aggregation in the south.

History Matters

Theoretical frameworks of the twenty-first century have moved away from broad generalizing explanations of culture process; instead, they are working to encompass the role of individuals operating imperfectly within historically derived social contexts. Timothy Pauketat has been a prominent voice in these discussions, terming his approach to archaeological reconstruction “historical processualism” (2001a, 2003). We find his approach consistent with our aims and interests, and, in this section, we summarize some of his ideas that we apply later in the paper.

“History is the process of cultural construction through practice” (Pauketat 2001a:87). Individuals, in the course of their daily lives, make decisions, choose among alternatives, and ultimately act—the behavioral embodiment of daily life. The regular actions of human agents both perpetuate and alter the way things are done and how they are perceived within a social whole. Of particular importance to Pauketat is that individual actions are generative; they are both the medium of tradition and the medium of social change. Tradition combines what might well be more familiarly termed “structure”—created and re-created through human actions and reactions—with history. Structure exists only if individuals perceive it to constrain action and is, in essence, illusory (Pauketat 2003:44). Actions are shaped by what came before, and the future is shaped by action in the present in a process that is never complete, but is always in a state of “becoming.” This process, Giddens’s (1979, 1984) structuration, encompasses “the continuous creation of the conditions that govern practice” while acknowledging that “all people enact, embody, or re-present traditions in many ways that continuously alter those traditions” (Pauketat 2001a:79). To different degrees, Bourdieu (1977,
1990) and Giddens (1979, 1984) stress this recursive interaction between human agents and structure, and they view this interplay as an appropriate domain for study and analysis. This interplay can result in either ever-changing or more stable social worlds and it is this interplay that is Pauketat’s “practice,” something that we as archaeologists are well positioned to reconstruct.

Practice is both the routinized activity of individuals and the “continuous and historically contingent enactments or embodiments of people’s ethos, attitudes, agendas, and dispositions” (Pauketat 2000:115). Dispositions guide people’s choices: some purposeful, conscious, and conspicuously agenda-driven, others unreflective or enacted without understanding of ultimate consequences (Pauketat 2001a:79–80, 87). Practice has spatial, temporal, and material consequences, which, “if practiced enough,” results in archaeological visibility (Lightfoot 2001; Shennan 1993). Though we cannot always find material correlates of structure, we can find the “materiality and spatiality” of practice and use this to make inferences about the historical process that produced them. This is perhaps best evidenced in tradition—practices from the past brought to the present, subject to politicization and actively negotiated, simultaneously dynamic and contingent (Pauketat 2001b:2–3).

All action is thus a form of negotiation. However, not all actions are equivalent. Scale is critical. Negotiations between the few have limited impact; but individual actions in historical context that affect, or have the potential to affect, large numbers of people can become archaeologically detectable and are the realm of interest (Pauketat 2000:116–117). “So, the real concern of practice theory is not an individual’s actions but the practice of many people in social negotiations” (Pauketat 2000:117, emphasis in original). Material constructions literally embody practice in the making of tradition through the act of participation—the built embodiment of tradition (Pauketat 2001b:11). This is especially important for understanding Chaco Canyon and related communal constructions, both during the Chacoan era and after. Acts of construction—at various scales, locations, and with groups of varied composition and purpose—are “moments of interaction” or negotiations of action that united individuals in practice; they created built constraints, “facts on the ground” in modern diplomatic parlance, that could not later be undone, though their meanings remain the subject of perception, politicization, and contestation (Pauketat 2000; Pauketat and Alt 2003). For Pauketat, short-term actions can have long-term, unintended consequences, such as the participation of the many in episodic mound constructions that ultimately served to replicate a system of division between commoners and privileged at Cahokia (Pauketat 2000; Pauketat and Alt 2003; see also Clark and Blake 1994). We argue that a similar process developed among the many who participated in actions and rituals at Chaco Canyon, or who emulated Chacoan patterning. Over time, these practices resulted in the elevation of the Canyon’s importance, and its leaders used this to local and regional advantage. This fact was not lost on members of many communities, many of whom encountered actions in the Canyon through visits and participation themselves. We concentrate specifically on the actions of “the many” and attendant “social negotiations” of Pauketat’s application of practice in what follows.

The Chaco Regional System and the Nature of the Post-Chaco Era

More than a century of research in Chaco Canyon, located in northwest New Mexico, has documented monumental great houses and abundant utilitarian and high-value trade items—some from as far away as Mesoamerica—in this remote and arid place (for a recent summary see Lekson 2006, ed.). During the tenth through twelfth centuries, Chaco Canyon became the center of a complex social system that somehow controlled or significantly impacted populations throughout the Colorado Plateau, an inference predicated on the fact that numerous buildings that reproduce some of the features of Canyon great houses in reduced form appear within communities throughout the northern Southwest (Figure 1). A system of prehistoric roads centered on the Canyon (Roney 1992; Till 2001; Vivian 1983, 1997a, 1997b) also constitute monumental constructions, although the function and meaning of these roads remains uncertain. The Chacoan regional system ended about A.D. 1150, but oddly, great houses continued to be built or remodeled and reused for at least another century in many parts of the old Chacoan world.
The Chaco world is bounded on the north by the Northern San Juan region and on the south by the Cibola region (Figure 1). The Northern San Juan region includes the area north of the San Juan River, east of the Colorado River, and west of the Piedra River (Lipe 1995). The Cibola region is bounded on the north by the Rio Puerco of the West and Lobo Mesa, and extends south to approximately the Mogollon Rim or transition to the mountain areas (Duff and Lekson 2006:317; Duff and Schachner 2007: Figure 11.1). Because it was an early focus of archaeological interest, the Northern San Juan region has seen considerable investigation of Chacoan great houses. Of 44 identified in this region (Kantner 2005), 12 have been subject to excavation, while others have been briefly investigated or mapped. For the Cibola area, between 40–45 Chaco era great house sites are reported (Mahoney and Kantner 2000: Figure 1.2), a total that can vary depending on how the northern boundary of region is defined. Ten of these have been excavated, though the extent varies from minor tests to large-scale excavation.

There has been much debate about the connection of great houses outside Chaco Canyon to the Canyon itself. Were great houses outside Chaco Canyon economic or political outposts or simply local leaders using a distant but powerful ideology to consolidate their own social and political positions? Divergent views abound, but poles of the debate are expressed in recent papers by Kantner and Kintigh (2006) and Lekson (2006). Both papers summarize an enormous literature, but come to different conclusions. Based on a comprehensive review of the nature of sociopolitical and symbolic unity across the “Chaco World,” Kantner and Kintigh (2006) conclude that Chaco Canyon was an important religious center but did not have strong political or economic connections with great houses in the larger region, except possibly those within the area immediately surrounding Chaco Canyon (the San Juan Basin and adjacent highlands; see also Kantner [ed., 2003]; Kantner and Mahoney [2000]; Mills [2002:65]).

Alternatively, Lekson (2006; see also 1999, 2000) emphasizes that Chaco Canyon was a central place in a large, well-defined region; while great houses outside the canyon are architecturally variable, they provide a strong, obvious, and meaningful pattern indicative of strong integration. Rather than a diffuse ritual system, Lekson concludes that “Chaco was the center of a complex polity, suffused with ritual and ceremony, but fundamentally political and hierarchical: a chiefdom, a petty kingdom, a cacicazgo” (2006:37).

The nature of the Chaco regional system is important to the present argument and Southwestern precontact history, and we offer our perspective on these questions. Following Pauketat (2000), we see local leaders at outlying great houses and the families in their communities as imperfectly adhering to a set of architectural and ideological canons based in a widely shared cosmology most strongly elaborated at the center at Chaco Canyon. Chaco’s “Big Idea,” first proposed by Stein and Lekson (1992), was a cosmology that represented social, political, and ideational relationships within Chacoan society and was expressed through architecture and landscape modification. This widely shared conception, similar to and connected with Lipe’s (2006) “San Juan Pattern” (see below), was almost certainly differentially seized upon and used by local groups, with political and economic implications that varied for different parts of the northern Southwest. The result was that the Chaco regional system was a constantly shifting and dynamic “structure” within which individuals built on historical events and traditions to further their own goals and, in the aggregate, transform society.

In terms of practice and action, Chaco Canyon appears to have an early history as an important regional locus linked to above-average resources—characteristics that only increased over time. By the A.D. 500s, periodic aggregations occurred at sites with some of the earliest evidence for communal ceremonial architecture in the form of a great kiva (Wills and Windes 1989). By the late A.D. 800s and early 900s, larger masonry settlements within Chaco Canyon began to be constructed. Three of the earliest major buildings—Pueblo Bonito, Peñasco Blanco, and Una Vida—are large, arc-shaped buildings built adjacent to the most favorable agricultural lands (Judge et al. 1981) whose locations ensured residents a greater ability to generate surplus. Sebastian (1992a:115) links construction events at these great houses with environmental downturns, arguing that prosperous families used surpluses to enlist the labor of their neighbors. These acts of construction created a distinctive architectural signature within the Canyon,
one that was perpetuated for another two centuries. What may have begun as a local process increased substantially in scale with the early-to-mid 1000s expansion of Pueblo Bonito and major constructions of Pueblo Alto and Chetro Ketl (Lekson 1991:Figure 3.2).

The scale of these building episodes required the concentrated efforts of the many to gather and transport materials such as timbers, to shape the stone, and to assemble the structures. It also required the actions of the few to conceive the plans, to coordinate the labor, and to consecrate these actions in the eyes of the supernatural and the many attendees. These constructions involved labor from a much larger region, providing people from diverse locations direct participatory experience in Chacoan construction, ritual, and ideology. Chacoan organization utilized ritual as a key arena for the negotiation of structures of power (see Mills 2002 for a summary; see also Lekson 2005, 2006 for critique), emphasizing cooperative avenues of achieving social control, such as feasting, trade, and/or pilgrimage. While these may well have been attractions to what was developing as an important source of power with a clearly regional reputation and reach, they also served to differentiate and elevate the actions of Canyon leaders and the Canyon as central place (sensu Pauketat 2000, 2001b). The ability of Canyon-based leaders to mobilize significant social action was a demonstrated fact to any who visited the Canyon. It was also variously a source of concern, gossip, curiosity, plans, and strategy. It is no coincidence that the majority of the great houses outside of the Canyon were constructed in this era (A.D. 1050–1130)—a fact we link to practices largely directed by leaders within the Canyon.

We envision Canyon leaders employing both cooperative and coercive strategies. As LeBlanc (1999) and Lekson (2002) note, there is contemporaneous evidence of isolated incidents of extreme violence at great distances from Chaco (see also Kuckelman et al. 2000; Turner and Turner 1999). Lekson (2002:618) suggests events represented by heavily mutilated human remains are evidence of the use of coercive force emanating first from Chaco Canyon and later, when more extreme warfare is evident, from Aztec Ruins. Furthermore, Kohler and Turner (2006) use the skewed sex ratios of human remains as additional support for the use of coercive force during the Chaco and (as discussed below) especially post-Chaco eras, but show that this view is not at odds with models that suggest Chacoan power was based in ritual. Thus, directly for some, and indirectly for others, the reach and power of Chaco was something that demanded attention and simply could not be ignored.

The geographic scale of the Chacoan region ensures that great house communities had variable levels of interaction with Chaco Canyon that must have decreased with distance from the center. Leaders at great houses closest to Chaco—within the Chaco “halo” (Doyel et al. 1984:Figure 7), an ellipse extending some 30 km east and west from the Canyon—almost certainly participated directly in Canyon ceremonies, brought tribute to Canyon elite (perhaps voluntarily, perhaps under duress), and organized their followers into labor parties for work on great houses, roads, and other projects. They may have been rewarded with food or prestige items. Although little direct evidence of this exists, excavations at the “scion” community of Bis sa’ani within Chaco’s halo produced several unusual artifacts including a copper bell (Breternitz and Marshall 1982:440–443). Halo communities may also have received protection—the ability to call on Chacoan enforcers when their power was questioned, and power through association or ancestry.

Beyond the halo, two areas had especially close relationships with Chaco Canyon: the Chuska Mountains and the Totah portion of the northern San Juan region (Figure 1; McKenna and Toll 1992). Enormous quantities of goods (pottery, stone tool-making material, timbers) that originated in the Chuska Mountains were later brought to Chaco Canyon (Toll 1991, 2001). The coordination of Canyon-directed timber harvesting (Windes and McKenna 2001), combined with ceramic production and lithic procurement (Toll 2006), implicates leaders within Chuskan communities as collaborators in the Chacoan enterprise and extends the range of practices linked to Canyon communal activities. In fact, it is likely that the Chuska Mountains and Chaco Canyon shared populations.

The strength of the Chaco Canyon/Totah relationship developed over time and by the late eleventh century, a power shift was developing: first with the construction of Salmon Ruins (begin-
ning about A.D. 1088; Reed 2006a) and Chimney Rock (A.D. 1090s, Eddy 1977), followed by Aztec West (about A.D. 1110, Brown et al. 2008). These power shifts signal either a colonizing attempt by Chaco leadership aimed at territorial conquest, a factional break-up within the Canyon with some seeking greater autonomy or authority, or enormous success by local northern San Juan leaders in capitalizing on their relationship with Chaco Canyon. As developed further below, constructions in the Totah at Aztec in the early A.D. 1100s rivaled in scale contemporaneous construction practices within the Canyon at Pueblo Bonito (Lekson 1991:Figure 2), clearly signaling a historical change in the locus of communal action.

Our respective research areas (for Cameron, the Bluff area in the northern San Juan; for Duff, the Cox Ranch Pueblo area in the southern Cibola region) are each more than 100 miles from Chaco Canyon and represent the frontiers of the Chacoan regional system (Figure 1). Here there is very little portable evidence (pots, chipped stone material, etc.) of close connections to Chaco, though architectural and landscape evidence (the “Big Idea”) remains strong. In terms of daily practice, little within the community would have reinforced Chacoan actions or presence, yet central to each were visually and architecturally prominent constructions—great houses. While these areas may not have been directly provisioning Chaco Canyon, residential great houses indicate that local leaders consciously drew on widely understood and meaningful canons to structure relationships within their communities and with their neighbors. Most distant great houses were probably built with the combined effort of residents’ kin and other community members, perhaps in a manner analogous to that noted by Sebastian (1992a). Great houses were loci for communal ritual, ceremony and feasts. Outlying great house construction may have been sanctified by Chacoan leaders through their presence or via tokens, such as the copper bell recovered from Edge of the Cedars, a great house in southeastern Utah (Hurst 2000). In southeastern Utah, a remarkably preserved macaw feather sash has been argued to be a badge of office bestowed on a northern San Juan great house headman by the Chaco Canyon leaders (Lekson 1999).

Depending on their distance from the Canyon, the ambition of their leaders, and the whims of the Chaco rulers, it is also likely that outlying communities occasionally contributed food, prestige goods, labor, women, and pledges of support to the Chaco enterprise. Evidence that the Chaco regime was episodically repressive (LeBlanc 1999; Lekson 2002) suggests that distant communities were not beyond the bounds of punitive raids by Chaco Canyon warriors. Trade networks might have been appropriated or co-opted by Chaco leaders with southern and western great house leaders forced to give up some large portion of their shell or cotton cloth or eastern leaders their turquoise and Jemez obsidian.

Building in Chaco Canyon ceased about A.D. 1130 and the end of the Chacoan regional system is generally set at A.D. 1150. Reasons for the collapse of the Chacoan regional system typically invoke the extensive drought from A.D. 1130–1180 (Dean 1992) and its resulting sociopolitical implications (Judge 1989:248–9; Lekson and Cameron 1995; Sebastian 1992a, 1992b, 2006; Tainter 1988; Van Dyke 2004). The end of the Chaco regional system initiated a period of population dislocation that eventually resulted in the depopulation of the San Juan Basin (where Chaco Canyon is located) and aggregation in the Northern San Juan and Cibola regions. While the center at Chaco Canyon seems to have ceased to function, throughout the old Chaco region, great houses continued to be used, remodeled, and new great houses were built (Fowler and Stein 1992; Kintigh 1994; Kintigh et al. 1996; Lipe and Varien 1999a). The key question for the post-Chaco era is: why did great houses continue to be built after the center at Chaco Canyon failed? An answer to this question can tell us much about how great houses were originally integrated into the Chacoan regional system.

One thing almost all scholars agree on is that the decline in power in Chaco Canyon was accompanied by the emergence of the Northern San Juan region, and especially Aztec Ruins, as a new center of power. Brown and colleagues (2008) found that the massive West Ruin at Aztec was built between about A.D. 1110 and 1120, and work began on the East Ruin at this same time (nearby Salmon Ruins had been constructed about a generation earlier; Reed 2006a). There are significant differences of opinion, however, on the role that Aztec played in the post-Chaco world. Some archaeologists argue post-Chaco great houses in the
Table 1. Comparing Population Dynamics and Settlement Patterns in the Northern San Juan and the Cibola Areas.

<table>
<thead>
<tr>
<th>Time Periods*</th>
<th>Northern San Juan</th>
<th>Cibola</th>
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<tbody>
<tr>
<td>Pueblo I (A.D. 700-920)</td>
<td>Large, short-lived villages. Development of &quot;San Juan Pattern;&quot; after A.D. 880, abrupt population decline in southwestern Colorado and population increase in southeastern Utah.</td>
<td>Low population density; mobile population. Few large sites. Some population movement within the area after A.D. 900.</td>
</tr>
<tr>
<td>Early and middle Pueblo II (A.D. 920-1050/75)</td>
<td>After A.D. 950, slow population increase in southwest Colorado; low population in southeast Utah;</td>
<td>Demonstrable population increases throughout region, with sites clustered into communities. Great houses in northern part of region.</td>
</tr>
<tr>
<td>Late Pueblo II (A.D. 1050/75 – 1150)</td>
<td>Marked population increase and construction of great houses</td>
<td>Stable population, widespread construction of great houses</td>
</tr>
<tr>
<td>Early Pueblo III (A.D. 1150-1225)</td>
<td>Population decline and disruption in both southwestern Colorado and southeastern Utah. Hiatus in great house use? After 1180, population increase to peak, likely in early 1200s; small sites cluster and great houses still used; new regional center at Aztec?</td>
<td>Marked population increase. After A.D. 1175, construction of post-Chaco great houses, more kivas, unroofed great kivas; greater variability in site layout after A.D. 1175.</td>
</tr>
<tr>
<td>Late Pueblo III (A.D. 1225/40 – 1280/1300)</td>
<td>Large, aggregated sites cluster at canyon heads; variety of associated architecture. Evidence of lack of social integration at large communities? After A.D. 1280, population begins rapid decline as entire region is abandoned.</td>
<td>Continuation of trends in previous period. Initial planned towns ca. 1225-1250, after A.D. 1275, all regional residents in large, planned towns</td>
</tr>
<tr>
<td>Pueblo IV (A.D. 1275/1300 – 1600)</td>
<td>Region abandoned.</td>
<td>Occupation of large towns. Throughout 1300s, subregions depopulated, with increasing concentration near modern Zuni, post 1400 towns large</td>
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* Note that Cibola area archaeologists avoid the use of the Pecos Classification (Kintigh 1996:133), so the appropriate range of calendar years approximately contemporary with northern San Juan Pecos Phase stages is used in the Cibola column.

northern San Juan looked to Aztec as the center of a new regional system (Lekson 1999). Others believe that while Aztec was important, it did not hold the same strong, central power position that Chaco Canyon had previously held (Lipe 2006). These matters are explored in more detail in the next section.

**Northern San Juan Cultural Developments: A.D. 800–1300**

The Northern San Juan region, especially southwestern Colorado, has been studied by archaeologists for over a century. Recent work (especially that by Crow Canyon Archaeological Center and affiliates; see Duff and Wilshusen 2000; Kohler et al. 2007; Lipe 2002, 2006; Lipe et al. 1999; Varien 1999; Varien et al. 1996, 2007; Wilshusen 2002; Wilshusen and Van Dyke 2006) provides us with a detailed understanding of population dynamics and social processes in this area. From the Pueblo I period on, there is evidence of a connection between the Northern San Juan region and the Chaco Canyon area, including population movements between these two areas (Wilshusen and Ortman 1999; Wilshusen and Van Dyke 2006; Windes 2004). In this section, we examine developments in the Northern San Juan region beginning in the late Pueblo I period, including the genesis of Lipe’s “San Juan Pattern” and trace connections between this region and Chaco Canyon (Table 1). We then describe post-Chaco patterns in population and settlement in the northern San Juan. In the following section, we explore the role of Aztec Ruins in the post-Chaco world.

The late Pueblo I period (the late eighth and
nineth centuries) perhaps saw the initiation of the social developments that resulted in the Chaco regional system (Table 1). During this period a number of very large villages have been identified in the northern San Juan region (Breternitz et al. 1986; Wilshusen 1995; Wilshusen and Bli

nighthouse based other San area groups and, like similar villages elsewhere in the world, were short-lived (lasting only 30–40 years). Residents apparently lacked mechanisms for social integration that would permit longer settlement spans. Wilshusen and Van Dyke (2006) demonstrate that during the Pueblo I period, population in the Northern San Juan increased significantly—both naturally and through immigration from the south—establishing an early connection between the Northern San Juan and the area surrounding Chaco Canyon.

Lipe’s (2002, 2006) “San Juan pattern,” first evident in Pueblo I, is a complex of architecture and settlement layout characteristics centered on the household. The San Juan pattern includes “unit pueblos” with a strong north-south orientation (Figure 2; first defined by Prudden 1903, 1914, 1918), the symbolic importance of kivas (which also use a north-south axis and bilateral symmetry), and great kivas as supra-household public architecture. Lipe sees the San Juan pattern as a set of powerful symbols related to emergence/creation beliefs and he is able to track this pattern to the end of the occupation of the Northern San Juan in A.D. 1300. This pattern is evident throughout the drainage of the San Juan River, including the Chaco Canyon area and the Northern San Juan region (Figure 1). In other words, the Chaco and northern San Juan regions exhibited strong cultural similarities as early as the Pueblo I period that were presumably based on the same dominant ideology (see Cameron 2005 for a discussion of Chaco and the northern San Juan as linked culture areas).

The close connections between the northern San Juan and Chaco regions are demonstrated by Wilshusen and Ortmann’s (1999:391) identification of divergent architectural patterns at Pueblo I period sites located on either side of the Dolores River in southwest Colorado. They believe that these patterns indicate the presence of two different social groups that are precursors of Chaco and Mesa Verde populations (see also Windes and Ford 1992). The “Chaco prototype” sites contained horseshoe-shaped roomblocks with abundant evidence for feasting (Blinman 1989; Potter 1997), ritual, and political authority suggesting parallels with the early Bonito phase great houses in Chaco Canyon. The “Mesa Verde prototype” sites had long, straight roomblocks without defined plaza space and great kivas, but lacked mid-level integrative structures. These sites seemed more similar to later Mesa Verde communities. Like Lipe (2006), Wilshusen and Ortmann (1999) implied that some patterns we later associate with Chaco Canyon (great houses, feasting, strong political authority) have antecedents in the northern San Juan. More to the point, Windes (2004:21) has stated that “the ancestral Pueblo people of the Four Corners region built their first great houses in the Dolores River area of southwestern Colorado and elsewhere in the 800s.” Schachner (2001), describing practice within Dolores area communities, argued that some groups exerted increasing control over communal ritual within these communities, but they failed to institutionalize their power, in part, due to resistance of those being disenfranchised.

The late Pueblo I and early Pueblo II period (A.D. 880–950) in the northern San Juan saw a dramatic drop in population (Table 1; Schlanger and Wilshusen 1993; Wilshusen 1999, 2002; Wilshusen and Ortmann 1999). Wilshusen and Van Dyke (2006) use data from the area around Chaco Canyon, as well as from the Navajo Reservoir area, to show that emigrants from the northern San Juan ultimately increased population in the Chaco area during the late ninth and tenth centuries. Immigrants from the northern San Juan almost certainly brought with them ideas about the importance of living in large social groups, and these ideas must have been a major influence in the ongoing development of the Chacoan regional system. Immigrants likely also brought the memory of the power achieved through control of communal ritual in Pueblo I villages, as well as ways community members might use these ideas and symbols to appropriate power or to resist its increase.

The tenth century was a time of low population levels in the northern San Juan region, but population increased after A.D. 1000 (Duff and Wilshusen 2000:180; Lipe and Varien 1999a:253–256; Varien 1999:Figure 7.17; Varien et al. 2007). The beginning of the Chaco era in the northern San Juan is
often placed at A.D. 1050, but Varien and colleagues recently highlighted immigration into the region between 1060 and 1100—something they link to the “construction of Bonito-style great houses in the central Mesa Verde region [that] began in earnest around A.D. 1080” (2007:289). Varien (1999:146–147) describes the settlement pattern for this period as small homesteads and hamlets clustered into communities (see also Lekson 1991 for the general Chacoan pattern). Great houses in the northern San Juan more than mimicked Chacoan architecture—some great houses used high-elevation timber (Ponderosa pine) in construction (Varien et al. 2007:287, Figure 6; see also Windes

Figure 2. San Juan pattern unit pueblo showing roomblock, pit structure and midden (redrawn and annotated, from Prudden 1903:Figure 6).
and Bacha 2006), mirroring the pattern of long-distance procurement of beams witnessed in Chaco Canyon constructions. Most (but not all) of these clusters were grouped around a much larger site, generally a great house (Varien 1999:147, 226). This pattern also applies to the Chaco period settlements throughout the northern Southwest (Lekson 1991). Lipe (2006:274–275) points to the construction of the massive Salmon and Aztec great houses between about A.D. 1090 and 1125 as a likely catalyst for the surge of great house building throughout the northern San Juan region. Varien (1999:173) found that during the Chaco era, community centers were relatively evenly spaced across the region, with exceptions including great house clusters.

Great house architecture allows archaeologists to see connections between the symbol systems developed during the Pueblo I period in the northern San Juan region and Chacoan architectural developments (Table 1). Lipe (2006) sees Pueblo II great house architecture as an elaboration of the basic San Juan pattern, similar to Lekson (1986) who saw Pueblo II great house architecture in Chaco Canyon as Pueblo I unit pueblos that had been massively increased in size (see also Morris 1939:115). In other words, the same north–south orientation, bilateral orientation of kivas, and use of great kivas continues to be found in Chaco-era great houses, but scale and formality are dramatically increased (Lekson 1986; Lipe 2006). Stein and Lekson (1992) first argued that these architectural patterns constituted a design canon, a shared ideational bond with the capacity to unite culturally diverse populations over a large area, representing the symbolic expression of an overarching cosmology. Although archaeologists see ideas expressed in architectural patterns, in this paper we argue that this extends to both leaders and community members throughout the Chacoan region who were drawing on these ideas in their negotiations of power and social place.

The power of Chacoan ideas extends beyond the time when Chaco Canyon’s central role ended. The post-Chaco or Pueblo III period is typically divided into early (A.D. 1150–1225) and late (1225–1300) phases (Table 1: Lipe and Varien 1999b; Varien 1999:148–9). During the early PIII period, population declined (Duff and Wilshusen 2000:181–2; Varien 1999:Figure 7–17) or grew modestly (Varien et al. 2007) in the northern San Juan region, coinciding with a 50-year extended drought from A.D. 1130–1180 (Dean and Van West 2002). In southwestern Colorado during the late A.D. 1100s, limited cutting dates suggest a cessation of construction, while ceramics indicate continuity of occupation (Lipe and Varien 1999b:292–299). Southeastern Utah and adjacent areas also show significant population disruptions (Hurst 1992:63–64; Lipe 1970:113–114; Mahoney et al. 2000:70–80). In the late A.D. 1100s and early 1200s, we have relatively widespread evidence for continued residential use of great houses. While some new great houses were built, others consisted of heavily remodeled Chaco-era buildings (Baker 2006; Bradley 1988, 1993, 1996; Cameron 2008; Martin 1936), usually with the larger Chacoan rooms subdivided. One thing that appears not to have been altered, even if the buildings were modified, is the prominent exterior appearance of great houses on the landscape. Population rebounded through the early A.D. 1200s (Lipe and Varien 1999b:292–299; Varien 1999:Figure 7–17; see also Duff and Wilshusen 2000:181–182). Clustering of small sites became more pronounced and great houses continued to be found at the center of some of these communities, often with additional unit pueblos constructed in close proximity to great houses.

During the Late Pueblo III period (A.D. 1225–1300), people constructed and lived in tightly aggregated villages located at canyon heads or in cliff dwellings, many of which are divided into halves by a natural drainage or a masonry wall (Lipe and Varien 1999b). A suite of new architectural forms are found, including towers; low walls that enclose the settlement; informally bounded plazas; and D-shaped, bi-wall, or tri-wall structures (Lipe and Ortman 2000; Lipe and Varien 1999b:319; Varien et al. 1996:99). By the early 1280s, population was declining dramatically and the area seems to have been depopulated soon thereafter (Varien et al. 2007:289).

Interestingly, in spite of the appearance of aggregated villages, the unit pueblo remains an important organizational element in the northern San Juan region throughout the Pueblo III period, both as hamlets surrounding a great house and as elements evident in aggregated pueblos. In other words, the foundational social element—the household—continued to be a powerful place for
social negotiation. Households can be discerned differently in different parts of the northern San Juan region. In southeastern Utah, the post-Chacoan Comb Wash great house (both early and late PII/III use) was surrounded by a dispersed community of small unit pueblos, a settlement pattern akin to that of the Chaco era, even though the great house itself had few features reminiscent of the Chaco era (Hurst et al. 2004). At the Bass site complex, an early PIII site in southwestern Colorado, a post-Chaco great house had residential room blocks that abutted it and also formed the center of a dispersed community of unit pueblos (Lipe and Varien 1999b:345–346). At the same time, the nearby Chacoan great house of Albert Porter Pueblo saw continued occupation and remodeling, and the construction and occupation of new unit pueblos in the immediate vicinity (Ryan 2004). Ortman and Bradley (2002) report that at Sand Canyon Pueblo—a very large, late PIII, aggregated, canyon-head settlement with as many as 400 rooms and 90 kivas—structures were clustered into discrete architectural blocks that duplicated the long-lived unit pueblo. As Lipe (2006:264) notes, San Juan style unit pueblos continue to be evident until the end of the occupation of the northern San Juan region.

The foregoing has identified a close connection between Chaco Canyon and the northern San Juan region beginning as early as the Pueblo I period. Building on the work of Lipe and others (Lekson 1986, 1999; Wilshusen and Ortman 1999; Wilshusen and Van Dyke 2006), we believe that traditions and practices developed during the Pueblo I period in the northern San Juan became a powerful framework for social negotiation during the Chaco era throughout the northern Southwest. Because they were “practiced enough,” the social and political ideas first evident as the San Juan Pattern became the Chaco “Big Idea” defined by Stein and Lekson (1992). As discussed above, the framework for social and political negotiation embedded in the Chaco “Big Idea” was powerful far beyond Chaco Canyon and extended in time into the era after Chaco Canyon ceased its central role (Fowler and Stein 1992). As we argue below for the northern San Juan, connections between this region and Chaco Canyon, as well as the prominence of the household in community organization, played a role in the ultimate depopulation of the northern San Juan region.

### The Role of Aztec Ruins in the Post-Chaco World

In the northern San Juan region, the late Pueblo II period saw the construction of Salmon Ruins (late eleventh century) and the Aztec Complex (early twelfth century). Both Salmon and Aztec are located in the “Totah,” along the San Juan and Animas Rivers, about 85 km north of Chaco Canyon (Figure 1) and are the largest great houses outside Chaco Canyon. Salmon Ruins, with between 275–325 rooms, was built within a period of about 25 years beginning about A.D. 1090 (Reed 2002, 2006b, 2006, ed., 2008, ed.). The Aztec Complex consists of perhaps as many as 7 great houses (most unexcavated), the largest of which is the enormous West Ruin with 476 rooms (Stein and McKenna 1988). Evidence of roads, earthen mounds, tri-wall structures, and careful alignment of the buildings characterize the Aztec complex (Figure 3; Stein 1987a; Stein and McKenna 1988).

Scholars have long recognized the importance of the Aztec Complex to developments during the later decades of the Chacoan regional system and the post-Chaco era (Judge 1989; Lekson 1999; McKenna and Toll 1992; see also Stein 1987a; Stein and McKenna 1988), but its role in the post-Chaco world is the subject of greater debate. In a broad-scale examination of the northern San Juan region, Lekson (1999) argues that as Chaco fell around the middle of the twelfth century, the leadership of the Chacoan regional system relocated to Aztec and established a new, but much smaller, regional center with Aztec as its capital. Aztec then became the center of a regional system that encompassed only the northern San Juan region, cut off from the rest of the old Chaco world. Lekson (1999) sees this regional system operating until the depopulation of the northern San Juan.

Lipe believes that the great complex at Aztec Ruins (and also Salmon Ruins) “represents a shift in the main seat of Chacoan ceremonial and political power from Chaco Canyon to the Totah” (2006:272). Lipe thinks that large-scale construction at Aztec ended by A.D. 1135 and does not see a newly developing regional system centered on Aztec. Lipe (2006) instead argues for a break in architectural and organizational continuity at Aztec after the Chacoan period, believing that Aztec was no longer influencing other construction in the
northern San Juan, and that this demonstrates that it was not serving as a regional center. He points out that many northern San Juan communities constructed types of community architecture other than great houses, suggesting that competing (or perhaps supplementary) modes of communal action were in play.

Architecture and ceramics provide evidence that Aztec did have a central role in the post-Chaco northern San Juan region and that the Chacoan tradition continued to have an important role in social negotiations there. Stein and McKenna (1988:68–69) showed that tri-wall structures were central to the urban design at Aztec Ruins, linking the West and East great houses and their great kivas into a symmetrical alignment (Figure 3). Lekson notes that tri-wall structures are found throughout the northern San Juan region (Lipe 2002:Table 10.2; Lipe and Ortman 2000; Lipe and Varien 1999b:Table 9-2) and suggests that “tri-walled and
multiwalled structures may be the architectural signature of the Aztec region, comparable to Chaco’s Great Houses” (1999:94). He argues that they are evidence of Aztec’s enduring influence over ritual and community architecture.

Additional support for Aztec as an important post-Chaco regional center includes ceramic evidence of communal ritual practice centered at the Aztec complex. In the thirteenth century, Mesa Verde Black-on-white bowls occur in two size modes (Mills 1999) and bowl exteriors are frequently decorated—trends associated with preparation of food for communal feasts by many researchers (e.g., Van Keuren 2004). Larger vessels with exterior designs were probably used in public settings, where exterior panels would have been especially visible, but the frequency of exterior designs varies across the northern San Juan. The Totah appears to have the greatest proportion of vessels with exterior decoration and as one moves north and west within the northern San Juan region, the proportion of bowls with exterior designs declines (Robinson 2005:Figure 5.7). Within the region, vessels with exterior designs are also more common at community centers (Robinson 2005:Figure 5.6).

Glowacki’s recent study of ceramic production and exchange indicates that Totah and Central Mesa Verde region residents regularly exchanged corrugated and decorated vessels (2006:114, Tables 5.2–5.3, Figures 5.2–5.4). Communal ritual involving bowls with exterior design seems to have been associated with the Totah region and the center at Aztec, and the demonstrable connections of residents in these regions through vessel exchange indicate persistent ties. The reach of leaders at Aztec appears to have been on the wane as the demographic center of the region increasingly shifted to the Central Mesa Verde region in the 1200s (Glowacki 2006:Figure 6.1), suggesting the continuing, if attenuated, role of the Totah.

The large complex at Aztec dwarfs all other northern San Juan settlements and the ability of local leaders at Aztec to complete an apparently ideal Chacoan construction several generations after the fall of Chaco argues for both the continued importance of a storied Chaco and continued power at Aztec. Such a power, even if diminished from Chacoan times, could not have been ignored by residents of the northern San Juan. Community leaders clearly emphasized historic ties to Chacoan power through the continued use of Chacoan architectural symbols and may have felt that it was to their advantage to respond to calls from Aztec to supply labor or tribute.

We believe that Aztec maintained enough people and sufficient strength to directly demonstrate their influence against those who resisted their overtures. Kohler and Turner’s (2006) study of human remains from Aztec and surrounding northern regions shows that thirteenth-century Aztec had a female-biased sex ratio at the same time that smaller communities further north had male-biased sex ratios. Acknowledging problems with sample size and alternative explanations for these skewed sex ratios, Kohler and Turner (2006) suggest that Aztec engaged in raiding for women from smaller and less-powerful communities elsewhere in the northern San Juan. As they note, their conclusions are supported by other evidence for violence during this time period (Kuckelman et al. 2000; LeBlanc 1999; Lekson 2002), including evidence for a “sub-class” of persistently mistreated women at settlements along the Animas River (Martin 1997). Although most recent models of Southwestern developmental history emphasize the role of ritual in the achievement of power and control, Kohler and Turner (2006) argue that these explanations are not at odds with the use of repression and violent coercion, and that the excess of women at Aztec is likely evidence that Aztec engaged in such activities (see also Plog and Solometo 1997). Not all ritual is benign; Aztec’s repressive power may have been as important as its role as a regional center, perhaps even more so as its influence waned over time. Most important for our arguments, however, is that Aztec maintained sufficient strength to prevent any other settlement from gaining equivalent regional power.

Cultural Developments in the Cibola Area A.D. 850–1500

The Cibola region has a long and storied research history, beginning with the oral-history inspired archaeological work of Cushing and the pioneering works of Kroeber (1916) and Spier (1917). Much of this work has been centered on the Zuni Reservation, though the Cibola area extends well outside of its bounds and is best considered equally

Especially important is the “Manuelito Model” proposed by Stein (1987b; Fowler and Stein 1992; Stein and Lekson 1992), a pioneering study that recognized the historical and symbolic connections among temporally sequent great houses and towns of the Cibola region. This insight has proved to be a productive source of research leading to the better understanding of community histories in the region. Recent key studies document both local (Kintigh 2007; Kintigh et al. 2004) and regional (Duff and Lekson 2006; Duff and Schachner 2007; Kintigh 1996) community settlement histories.

Differences between the northern San Juan and Cibola regions are evident from early in the Ancestral Pueblo sequence (Table 1). While large villages were forming in the northern San Juan during the A.D. 800s, including those that were eventually translated to Chaco Canyon, Cibola area populations were sparse and patchy. Few large sites are known, population density was low, and mobility was a larger part of the adaptation (Duff and Lekson 2006). Regionally, a few extensive pithouse occupations dating to the A.D. 800s or early 900s have been recorded—at least two of which have great kivas (Kintigh 2007; Mahoney et al. 1995). Both of these instances are located adjacent to later Chaco period great houses: one next to H-Spear (Kintigh 2007; Mahoney 2000), the other at Bosson Wash. More commonly, sites include relatively small groups of pithouses (e.g., Roberts 1931:19), occasionally with surface granaries and jerala rooms (e.g., Roberts 1939:Figures 1 and 25). However, assemblages frequently contain cached ground stone and other indications that seasonal residential mobility with intent to return (Schlanger and Wilshusen 1993; Stevenson 1982; Wilshusen 1986) remained a central component of the Pueblo I adaptive strategy.

Population density increased and residential mobility decreased throughout the Cibola region during the A.D. 900s and early 1000s, a marked contrast to the depopulation and low settlement densities evident in the northern San Juan. The environmental regime of the A.D. 900s and early 1000s was quite favorable for dry farming (Dean 1992) and settlements expanded into zones that were previously unoccupied. Residential sites consist of smaller roomblocks with kivas, though kivas are infrequently evident as surface depressions. Representative examples drawn from the White-water district of east-central Arizona (Roberts 1939), Mariana Mesa (McGimsey 1980), and southeast of the Zuni Reservation (Doyel and Debowski 1980) are presented in Figure 4. While these small sites are similar to the northern San Juan unit pueblos, they are much less standardized, especially in terms of kiva form (Duff and Lekson 2006:324). They lack the consistent north-south orientation that Lipe argues is a strong component of the “San Juan pattern” unit pueblos, and middle location and structure orientation is variable. This suggests to us that the household, the basis of Chaco’s “Big Idea,” as expressed in unit pueblo architecture, did not have the same history and was not as strong or consistent a symbolic element of Cibola society as Lipe suggests it was in the northern San Juan region. Phrased another way, houses in the Cibola area may have been just as potent as symbols, but ones set within a context of more disparate social groups with more diverse regional histories when contrasted with the seemingly homogeneous social groups of the northern San Juan.

The emergence of persistent communities occupying the same locale over time is an important pattern in the Cibola region (Stein 1987b). In areas with indications of sizable pre-A.D. 1000 occupations, there is usually spatial continuity of settlement. Vivian’s (2005) recent overview of the Chaco Phenomenon in the southern Cibola Region identified 44 sites with Chacoan characteristics. He reports that nine of these sites have been excavated or partly excavated. By the mid-1000s, the
Cibola area saw the construction of a number of great houses that formed a focus for surrounding communities (Duff and Lekson 2006; Kintigh et al. 2004).

While Chaco Canyon’s strong role in the northern San Juan has long been acknowledged (Judge 1989; Lekson 1999; Lipe 2006; Sebastian 2006), Cibola area archaeologists see a weaker role for Chaco Canyon during the Chaco era, although evidence is variable and ties with Chaco seem stronger in some parts of the region than others (Duff and Lekson 2006; Fowler et al. 1987; Fowler and Stein 1992; Kantner 2003; Kantner et al. 2000; Kantner and Kintigh 2006; Kintigh 1996:135, 2003; see also Kintigh et al. 2004; Van Dyke 2000, 2003). Great houses were constructed within existing communities, but several appear in areas with limited previous occupation. Examples of the former include H-Spear (Kintigh 2007; Mahoney et al. 1995), Bosson Wash, Sanders (Fletcher 1994:622), and several along the northern reaches of the region. Great houses and communities on the northern reaches of the region—that part closest to Chaco Canyon along the Puerco and San Jose Rivers—appear to have the strongest material ties with the Canyon, but these are nevertheless quite limited (Duff and Schachner 2007; Toll 2006:120, 121). Here, Kantner (1996) has suggested that prosperous and ambitious families within the densely settled region vied for prestige by sponsoring construction of great houses within their communities, using these as loci for periodic rituals and
feasts. In the same area, Kantner and colleagues (2000) found localized production and exchange of ceramics among great house communities and little evidence for any wider, regionally based economy. Thus, even among those great houses physically closest to the Canyon, material connections with Chaco were quite limited. Similarly, Van Dyke (2000) indicates that leaders within local communities elected to emulate construction styles characteristic of Canyon great houses, in part, as a strategy of local leadership legitimation.

In the southern Cibola region, along Carrizo Creek, several great house communities appear in the mid-to-late 1000s in areas lacking substantive previous occupation. Undoubtedly related to environmental amelioration, these communities are, however, quite interesting. Great houses employing Chacoan architectural canons are constructed by people with every indication of histories in the Mountain areas traditionally considered Mogollon (Duff 2005; Duff and Schachner 2007). Here, all communal residences, including great houses, contain undecorated ceramic assemblages dominated by Mogollon Browne Ware, suggesting that groups from around the Mogollon Rim were key constituents and the dominant occupants. Gray undecorated ceramics characteristic of Pueblo groups are a persistent presence, likely indicating heterogeneous populations. What is most apparent is that leaders within these communities were clearly aware of and drew upon Chacoan canons for the construction of great houses, though these often do not contain one key feature—the great kiva. Instead, unroofed or open great kiva-size structures appear to be common (Duff 2006) (something also known for Chaco-era communities located further west along the Rim in the Silver Creek area [Herr 2001]). Instead of the largely cardinal directionality and symmetry seen in Chacoan great kivas (Vivian and Reiter 1960), these unroofed structures often appear to be placed and oriented to facilitate observation of solsticial sunrise or sunset, something that has a strong history in mountain region communal architecture (Duff 2006).

What appears clear in the Cibola region is the appropriation of the powerful traditions that dominated social interaction in the northern San Juan and Chaco Canyon areas by local leaders. Several actions associated with Chaco also appear common within these communities, such as community gatherings featuring ritual and feasts linked to great houses and the public space they provided. They differ from their northern counterparts in their initial allegiance to the “Big Idea” and apparently lack strong, direct historical connections to Chaco. Yet, populations in the Cibola region clearly adopted central tenets of the “Big Idea” in great house architecture (Van Dyke 2003; Vivian 2005) and landscape modification as exemplified by Kin Hoch’oi in Manelito Canyon (Stein 1987b). Chaco-era great houses throughout the Cibola region more clearly adopted the pattern of constructing berms around great houses, cut by visibly distinct footpaths, and occasionally with additional features such as great kivas or possible shrines (Fowler and Stein 1992; Stein and Fowler 1996).

Following Chaco’s collapse, many of the Chacoan population centers along the region’s northern periphery declined, with concurrent population increases centered more strongly near and south of modern Zuni and along Cebolleta Mesa (Table 1). Believing that limited recent recording has resulted in misidentification of the temporal association of some great houses, Duff and Lekson (Duff and Lekson 2006:320–321) have suggested that the total number of great houses in the Cibola region dated to the Chaco period probably overestimates the true total. This suggests that post-Chacoan community and regional populations were substantially higher than during the Chaco era. In the Heshotula area, for example, the number of sites and average site size increased at least 50 percent (Kintigh et al. 2004:445), with evidence for new architectural forms developed to increase social integration. Duff and Schachner (2007:193) argue that post-Chacoan communities grew through the combination of formerly distinct communities and/or by incorporating residents from northern areas. Kintigh and colleagues associate these structures with “a scalar shift in social organization” (2004:444).

Working with sites in Manelito Canyon, John Stein and Andrew Fowler recognized two key patterns linked to this period as the basis for their “Manelito Model”: first, that there were great houses constructed using many Chacoan architectural canons in the period after the Canyon ceased to be densely occupied; and second, that these sequential constructions were linked to each other through landscape modification where roads or pathways clearly connected sequent great houses
to each other, acting as “bridges through time” (Fowler and Stein 1992; Stein 1987b; Stein and Fowler 1996). They argue that later constructions are “in actuality ritual landscapes, and contend that these buildings are the apogee of the same tradition of sacred technology of which Chaco Era great houses are an earlier manifestation” (Fowler and Stein 1992:101). Thus, we have localized historical legitimation where sequent leaders drew on the power and history of local tradition in an explicit, tangible, and visible way.

Perhaps our best illustration of post-Chacoan community pattern in the region comes from the archaeologically investigated post-Chaco great house at the Hinkson site (Figure 5) and its associated community described by Kintigh and colleagues (1996). Using Stein’s “Manuelito Model,” they argue that the Hinkson great house provides evidence that in the Cibola region, it was the post-Chaco era (not the Chaco era) that was a time of population aggregation. Located southwest of the Zuni Reservation, Hinkson consists of a great house surrounded by 32 residential roomblocks (Kintigh et al. 1996:Figure 2). The larger community includes an estimated total of 900 rooms in 70 roomblocks, encompassing an area within about 9 km of the great house (Kintigh et al. 1996:270). Kintigh and colleagues (1996; also Duff 1994; Kintigh 1994) show that the Hinkson site clearly dates between about A.D.1200–1275.

In setting and architecture, the Hinkson great house exhibits almost all of Stein and Fowler’s Chaco great house attributes (Figure 5). It consists of a 3-m-high rubble mound, with a blocked-in kiva, tall rooms (at least 1.8 m high), and the spine of the structure was of well-built, chinked core-and-veneer masonry. It is surrounded by an earthen berm that creates a depressed plaza-like area in front of the

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Figure 5. The Hinkson site, a post-Chaco era site showing the great house, great kiva, berm, and prehistoric roads (from Kintigh et al. 1996:Figure 3, Courtesy Altamira Press).
site (Kintigh et al. 1996:267). Breaks in the berm admit several roads or paths. Berms and prehistoric roads are both characteristics of Chaco-era great houses (Cameron 2002; Roney 1992; Fowler and Stein 1992; Vivian, 1997a, 1997b, 2005).

Especially interesting is the large, unroofed great kiva at the Hinkson site that is different than Chacoan great kivas (Kintigh et al. 1996:264–267, Figure 5). This structure was 34 m in diameter, far bigger than Chacoan great kivas that are typically less than 25 m, and far more shallow (only about 1 m deep; in contrast to Chaco era great kivas that are often 3 or more m deep). Kintigh and colleagues (1996:272) argue that this open and oversized feature was part of a growth in size of interacting communities and signals a shift in public integrative ritual and social organization. These may have been used to integrate larger numbers of people than the old, Chaco-style, roofed great kivas (Kintigh 1994:137), but Duff and Lekson (2006:323) argue that their openness may well have been a reaction to Chaco-era enclosed structures, where actions would only have been visible to those within the structure. Though not present at all post-Chacoan great house sites, large apparently unroofed great kivas occur in several locations within the region, such as near Mariana Mesa (McGimsey 1980) and at Los Gigantes (Schachner and Kintigh 2004). Similar, though smaller, open great kiva structures occur at Late Pueblo III sites in the Northern San Juan, such as Sand Canyon and Goodman Point Pueblos (Lipe and Ortman 2000:112).

During the post-Chacoan era, leaders within many communities continued to draw on the ideology and symbols of Chaco, but these were recast in a social setting that included larger co-residing groups. While Hinkson may be among the larger post-Chacoan communities, it appears that many post-Chacoan communities in the Cibola region developed successful mechanisms for integrating large numbers of community residents. For example, the Hinkson community included approximately 900 rooms, while contemporaneous northern San Juan communities, such as that centered on Sand Canyon Pueblo (Varien 1999), were demographically smaller. Socially, a moderately novel form of communal architecture was developed spatially linked to great houses, representing a combination of tradition—the great house, and innovation—the unroofed great kivas.

The relevance of Stein’s (1987b) Manuelito Model continues into the subsequent period, where the continuity in architectural symbolism and the shared societal values that it expressed existed prior to the Chaco era and can be traced into the era of large, aggregated towns. Between A.D. 1225 and 1250, a second dramatic increase in the level of social integration began in the Cibola region. Residents of clusters of pueblos that apparently formed integrated social groups began to construct extremely large towns (Duff and Lekson 2006; Kintigh et al. 2004). These highly planned towns took on different geometrical shapes (Potter 2002). They came to be organized around and focused on a central plaza, but the earliest had architecture within the plazas (Duff and Schachner 2007). Duff and Schachner (2007:193–195) argue that these earliest, nucleated, plaza-oriented forms were contemporaneous with post-Chacoan communities (organized along the lines described for Hinkson above), but that this occurred only within the El Morro Valley—east of the modern Zuni Reservation. One element of tradition carried forward to several of these early nucleated settlements is the unroofed great kiva, found associated with massive sites like Kluckhohn and Box S, with an estimated 1200 and 880 rooms respectively (Kintigh 1985). Although the form was clearly new, these new communities included residents from perhaps several previous site clusters, consolidated in a new settlement form, requiring social practice comparable in scale to previous communities. By the later A.D. 1200s, nucleated, plaza-oriented pueblos came to be the exclusive settlement form in the Cibola region. Great house-focused settlements cease to be occupied. Plaza pueblos are founded in their vicinity (occasionally connected to earlier centers via Stein’s “roads through time”).

Both Duff and Lekson (2006) and Kintigh and colleagues (2004:452) recognize a significant difference between these Cibola towns and the large aggregated settlements of the northern San Juan region. As Duff and Lekson put it, in the Cibola area “the signature of individual houses as visible entities is lost, submerged in the massive constructions emblematic of community” (2006:324). Duff (2002) argues that in communities of this scale, the submersion of households in architecture is an accurate reflection of the scale of social actions. Larger social groups become the entities
within which individuals strove for power; communities allocate resources, obligations, and responsibilities to the larger social entity. In other words, Cibolan communities of the late thirteenth and fourteenth centuries created an even “bigger idea” than that which Stein and Lekson (1992) argued was the basis for the Chacoan pattern. As Kintigh and his colleagues suggest, the residents of these large towns were able to “conceive of themselves and their neighbors as a single social unit” (2004:452), something that carried this settlement and organizational form into the protohistoric, historic, and contemporary periods.

Depopulation and Aggregation in the Northern San Juan and Cibola Regions

Our comparison of the northern San Juan and Cibola regions takes a dramatic turn in the late thirteenth century when the entire northern San Juan region was depopulated, a process that, although it may have begun as much as 50 years earlier (Duff and Wilshusen 2000), involved and impacted several thousand people (Varien et al. 2007). In the Cibola area, large towns continued to be the primary form of settlement until the historic period, although the fourteenth-century towns were often short-lived. After A.D. 1400, much of the region’s population established large towns in the vicinity of modern Zuni (Kintigh 1996:136) and Acoma (Adams and Duff 2004:13; Roney 1996). We argue that the different outcomes in these two regions are the result of their different historical trajectories. Key elements in these different histories are: (1) differential historical ties to, and embracing of, Chacoan ideological traditions in the two regions during the Chaco and post-Chaco eras; (2) the importance through time of the household as a social unit in the northern San Juan region; (3) the role of Aztec as a post-Chaco center of power and the lack of a similar powerful place in the Cibola region; and (4) the development of effective systems of integration capable of durably binding large co-residing groups together.

In the Cibola region, Kintigh (1994) argues that after the collapse of the Chacoan regional system, there was competition among coalitions of villages and that symbols of the old Chaco system—including the great house—were appropriated as an ideological format for these emerging groups (see Kantner 1996 for a similar argument applied to the Chaco era). A process of peer polity interaction resulted in an increase in complexity and in population aggregation throughout the area. Kintigh suggests that Chacoan ideas and symbols may have been more powerful in the post-Chaco era than they were in the Chaco era and resulted in development of the numerous tight-knit communities that we can follow archaeologically through to the fourteenth and fifteenth centuries. In other words, in the Cibola region, the Chacoan tradition seems to have been an overlay on existing practices that may have involved a diverse set of social groups and a long tradition of successful community formation, something that appears specifically tied to suprahousehold social groups.

A different history can be traced in the northern San Juan. Here, households had a long-standing role as important, identifiable social units. Lipe (2006) shows that the modular San Juan pattern habitation units were persistent ideological and symbolic elements between A.D. 700 and 1300. Although the Pueblo I villages of the northern San Juan display early evidence of the organization of large numbers of people within a single settlement, San Juan pattern unit pueblos were still evident after Pueblo I villages dissipated. The social and political developments in the northern San Juan formed the basis for the complex political developments in Chaco Canyon (Wilshusen and Van Dyke 2006), and these same San Juan pattern household dwellings became the building blocks of the Chacoan regional system, especially in the Chaco core areas. The northern San Juan area gave birth to the ideological system that animated the Chaco regional system. Northern San Juan residents helped populate the Chaco Canyon area and historical ties between the northern San Juan and Chaco Canyon areas were always close.

After Chaco Canyon failed, these historical patterns insured a different outcome for northern San Juan communities than that evident in the Cibola region. In the northern San Juan, the continuation (Lekson 1999; or revitalization, see Bradley 1996) of the powerful Chaco symbolism during the post-Chaco era seems to have animated at least some of the aggregation that characterizes Pueblo III period settlement. Great houses are the focus for settlement of aggregated communities, although some communities lack great houses and new settlement
types (including cliff dwellings and large aggregated villages at the head of canyons; Lipe and Varien 1999b:303–12) emerge.

To what extent the activities at great houses can be attributed to direction from Aztec remains an open question, but Aztec almost certainly formed an enormous ceremonial and political center during the post-Chaco era (Brown et al. 2008; Lekson 1999). Local leaders of aggregated communities likely had divided loyalties. Bow to leadership at Aztec or rally settlements along local lines? As discussed above, we argue that Aztec leaders were able to express sufficient cooperative and coercive political power to dampen the ambitions of leaders at other, potentially competing great houses. We do not suggest that Aztec necessarily formed as strong a regional center as Chaco Canyon, nor that this large complex necessarily structured economic relationships throughout the northern San Juan region. We do suggest, however, that the presence of Aztec, as well as the long tradition of semi-autonomy of individual households, likely muted the sort of peer polity interaction that Kintigh (1994) suggests for the Cibola area. The result was aggregated settlements that were much less well-integrated than those in the Cibola area. During the last quarter of the thirteenth century, climatic conditions became more challenging, evidence for warfare increases (e.g., Kuckleman et al. 2000; LeBlanc 1999), and Aztec leaders’ uncertain hold on power apparently unraveled, as did the bonds that held together other large communities throughout the northern San Juan region. The regional depopulation was influenced by each of these factors as community leaders and individual households were forced to reassess their place in both geographical and ideological worlds. The fact that social and political developments in other areas looked much more appealing than those in the northern San Juan must also have influenced decisions to immigrate. At this point, the loosely aggregated settlements of the northern San Juan disbanded for the final time and leaders and individuals buried old Chaco ideas and embraced new and more powerful social traditions.

Conclusions

Vast population movements, characterized by depopulation of some areas and aggregation of people into large settlements in others, define the latest centuries of the precolumbian history in the northern Southwest. A variety of environmental and social explanations have been proposed to account for these developments, including drought, environmental degradation, changing patterns of rainfall, household self-interest, and warfare (Adler et al. 1996; Cordell et al. 1994; Kohler and Van West 1996; Dean and Van West 2002). Previous studies have contributed enormously to our understanding of the parameters that conditioned the extensive population movements of the thirteenth to fifteenth centuries in the northern Southwest. New approaches that focus on the reconstruction of historical accounts of past human practices also hold promise for understanding the complex processes that resulted in the depopulation of some parts of the northern Southwest and aggregation in others (Bernardini 2005; Duff 2002, 2004; Lekson 1999).

The present study contributes to these new approaches but is framed within the historical processualism defined by Pauketat (2000, 2001a, 2003). Pauketat shows that the cumulative actions of individuals in social negotiations not only create, but transform, tradition. History matters because prior actions or negotiations shape and constrain later options, something we have tried to illustrate here. In the northern Southwest between about A.D. 1000–1300, individuals negotiated their place within the dynamic Chacoan tradition, using symbols and structures from the past, but transforming them for contemporary use. Like Pauketat (2001a) we see material culture—in the present case, great houses, great kivas, constructed landscapes, pottery designs, unique prestige items, and desired trade goods—as elements of the complex social negotiations engaged not only by Chaco Canyon elite and their immediate followers, but by leaders in outlier communities, competitors in the hinterlands, and most importantly, by commoners at all levels of the system. Chacoan buildings, and elaborately constructed landscapes especially, united individuals at all social levels in moments of practice. These historical moments defined and constrained future actions of individuals and the structure and symbols available to them.

Although individuals in the northern Southwest used a common set of ideas, traditions, and symbols during the Chaco era, they used and experienced them differently. Different parts of what
became the Chacoan regional system had unique environmental and social histories, and their engagement with Chacoan structure and symbols was unique. As a result, history unfolded differently in different parts of the Chacoan regional system, both during the height of Chaco Canyon’s power and after it had waned. We have charted a first exploration and comparison of the histories of the northern and southern parts of Chaco’s region. We argue that individuals in the northern San Juan were more intimately connected with the symbolic and ideological components of the Chacoan regional system and were more vested in their use. Because of this, the collapse of the Chaco system had a much more severe impact here, coupled with the long-term emphasis on the importance of the household (evident in the ubiquitous, symbol-laden “San Juan pattern” unit pueblos, even in aggregated settlements). These historical facts ultimately contributed to the abandonment of the entire region. In contrast, in the Cibola region, involvement in the Chacoan regional system seems to have been somewhat weaker. After the Chaco collapse, however, leaders in this region appropriated the powerful Chaco symbols and used them to create well-integrated, large, planned towns. The absence of an Aztec-like ceremonial center likely allowed leaders the opportunity to develop power locally and use that power to create tighter social ties among larger groups of people. As Lekson characteristically notes:

Pueblos did not develop from Chaco; rather they represent a reaction against Chaco. To compress Pueblo accounts, Chaco was a wonderful, awful place where “people got power over people” (according to Paul Pino, after Sofaer 1999). What happened in Chaco was not right for Pueblo people (today), and Chaco is remembered that way (today). The remarkable shifts in Pueblo architecture, settlement, iconography, and society around 1300, when sites begin to look like modern pueblos, represent Pueblo people’s conscious, deliberate reaction to and rejection of Chaco, distancing themselves from that bad experience. Pueblos developed new ways and means to avoid anything like Chaco, ever again [2006:29, emphasis in original].

To this, we would add both that this recognition took time—at least several generations—and that different histories of involvement in the Chacoan regional system and different use of its structure, tradition, and symbols produced different results in the northern and southern parts of the old Chaco World, results that were still evident when the Spanish conquistadors arrived several centuries later.

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