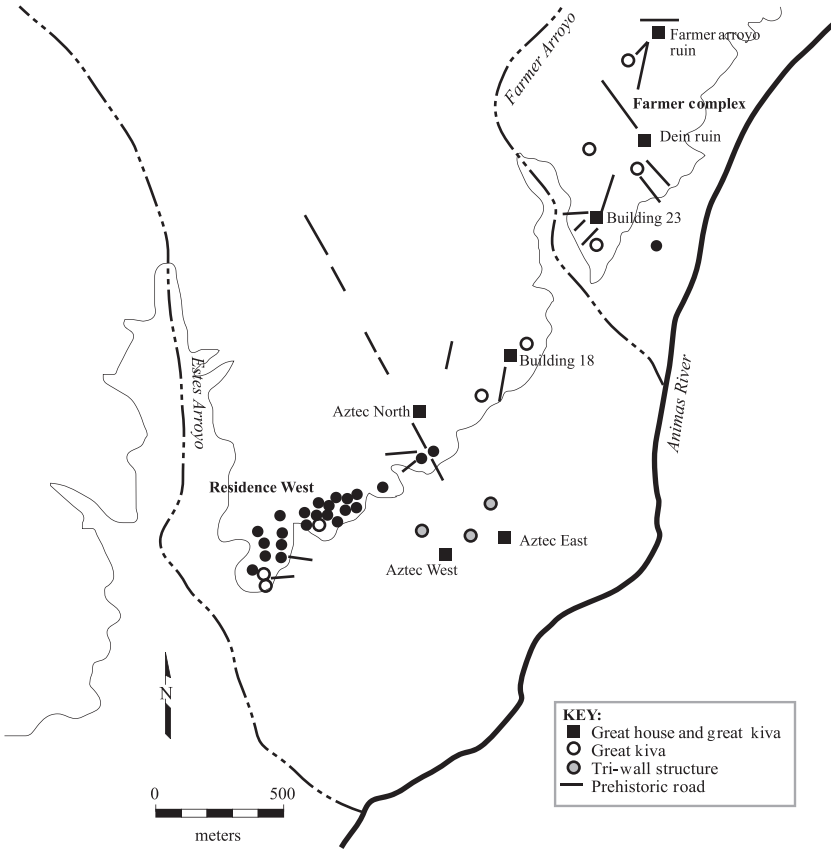


During the journey of the clans in search of the Middle Place, the ancestral Zuni came upon the *Kianakwe* people who lived in large towns in the highlands and cliffs. As related in oral traditions, the inhabitants of these places were successful farmers who could command the waters to their fields without the need for rain, and they had many possessions. And so the ancients, the *Ashivi*, hungry from long wandering, attacked. But aided by *Kúyapalitsa* the deathless Ancient Warrior Woman, the enemy could not be defeated. Rain fell, stretching the sinew of the *Ashivi* bows, and many were captured. By evening of the third day, the *Kianakwe* had captured four *Ashivi* gods, and prospects for success were dim. Then it was learned that *Kúyapalitsa* carried her heart in her rattle, and the *Ashivi* devised new bows of yucca fibers that were impervious to rain. So on the fourth day, *Kúyapalitsa* was slain, the town taken, and the *Ashivi* captives freed. The surviving *Kianakwe* were spared owing to the knowledge they could provide. “Thereby our fathers gained much knowledge, even of their own powers and possessions . . . Growing wiser in the ways of living, they learned to cherish their corn more, discovering they might have life and abundance rather than cause death and hunger” (Wright 1988:90–1).

### **The Great Pueblos of the north**

As the AD 1200s began, the Puebloan Southwest was experiencing a remarkable transition as the reverberations of Chaco’s and Mimbres’s disintegration continued to be felt and people moved toward new forms of organization. Interestingly, while large concentrations of households faded in the Mimbres and Chaco areas, large communities emerged in other areas. In the Cibola area south of the San Juan Basin, in the Kayenta region to the west, and even in the Chihuahuan Desert, new aggregations formed as people clustered more and more closely together. Although this phenomenon occurred in many populations – and not in others – our understanding of these new aggregations is best known from the



6.1 The well-known Aztec West great house is only one of possibly seven great houses found in the greater Aztec community. While recent agricultural activity and pothunting make it difficult to reconstruct the layout and use of the community, Aztec was clearly important during the twelfth and thirteenth centuries.

Mesa Verde area located north of the San Juan River and south of the precipitous and snow-covered San Juan Mountains.

*Will it ever go away? Aztec clings to the Chaco tradition*

Aztec was the last bastion of the Chaco tradition, gaining prominence as Chaco Canyon faded in importance (Figure 6.1). Its great houses rival the size of places such as Pueblo Bonito, and most of Aztec's Chacoan features continued to be used well into the AD 1200s, including its great

kivas and roadways. The surrounding community was quite large, and elaborate burials from the one excavated great house indicate inequities in wealth and status comparable to that seen in Chaco. Aztec, however, did not have the same impact as Chaco did during its height. Areas distant from Aztec appear to have given up on the Chaco tradition, and most great houses built in the late eleventh century fell into disuse or were remodeled to serve other purposes. This is illustrated in Woods Canyon, some 100 km north of Aztec. Here, the Albert Porter great house was an important community center through the AD 1100s, but by the early thirteenth century, the focus of the community shifted away from the great house – even though Aztec was still going strong (Lipe and Varien 1999:300).

Other evidence also points to the limited scope of Aztec's influence. During the era of Chaco Canyon's preeminence, a small but steady flow of imported pottery came into the Mesa Verde region, no doubt a benefit of the increased interaction afforded by Chaco's far-reaching and unifying religion. As Chaco Canyon was deserted, however, villagers in the Mesa Verde region were apparently unable to sustain these long-distance connections, and the proportion of imported pottery in most communities dropped from 20 percent in AD 1100 to 2–7 percent by AD 1200 (Blinman and Wilson 1993:80–3). Aztec was unable to inspire the same level of interaction seen late in the eleventh century.

The last tree-ring dates from Aztec are in the AD 1230s to 1250s. What happened to Aztec remains a mystery (Box 6.1), but people probably lost interest in the center, perhaps because the extravagance of its leaders did not match the benefits that local populations received. As at Woods Canyon, attention simply shifted away from Aztec as they found more beneficial social and political arrangements. Aztec, like many great houses, was eventually reoccupied in the late 1200s by people who remodeled the buildings for their own uses. But by then the great houses were purely residential and the power of Chacoan architecture just a memory.

### *People, people, everywhere*

Several archaeologists are dedicating considerable effort to reconstructing the complex population dynamics of the Mesa Verde region. They are finding that until AD 1150 annual population growth, including through immigration, was extremely high, in some instances nearly 1 percent a year (Adler 1994:90–3; Duff and Wilshusen 2000; Mahoney *et al.* 2000). The result is that Mesa Verde was densely populated by the AD 1100s. The late twelfth century, however, experienced no evident

**Box 6.1 The Chaco Meridian and the fate of Aztec**

Stephen Lekson (1999a) suggests that the establishment of Aztec and the fate of its residents were ultimately tied to Chaco Canyon. He argues that residents of the canyon's great houses were powerful elites who sought to reestablish themselves elsewhere as drought impacted Chaco Canyon's success. Eyeing the San Juan River region, these elites established a presence to the north, first building the North Road out of Chaco Canyon and then the Salmon great house along the river. Finally, according to Lekson, they left the canyon and constructed the Aztec great houses along the Animas River. In Lekson's model, these elites attempted to draw upon the influence of Chaco Canyon as a sacred location by establishing Aztec along the same north-south meridian. Lekson refers to this as "positional legitimation."

Lekson (1999a) argues that Aztec became the new center for Chacoan elites through the thirteenth century and that they established control over much of the Mesa Verde area. As the climate continued to change, however, and the "Great Drought" of the late AD 1200s approached, these elites decided to move once more. With the inhospitable San Juan Mountains to the north, their only choice was to head south. According to Lekson, they traveled along the same north-south meridian, passing through Chaco Canyon, through the Cibola region, and through the highlands surrounding the Mimbres homeland, ultimately settling along the Rio Casas Grandes, 720 km south of Aztec. Lekson proposes that this was the only inhabitable location at that time, assuming that they constrained themselves to the same meridian as Chaco Canyon and Aztec. Here they called upon the same "positional legitimation" to establish their third major center, Casas Grandes.

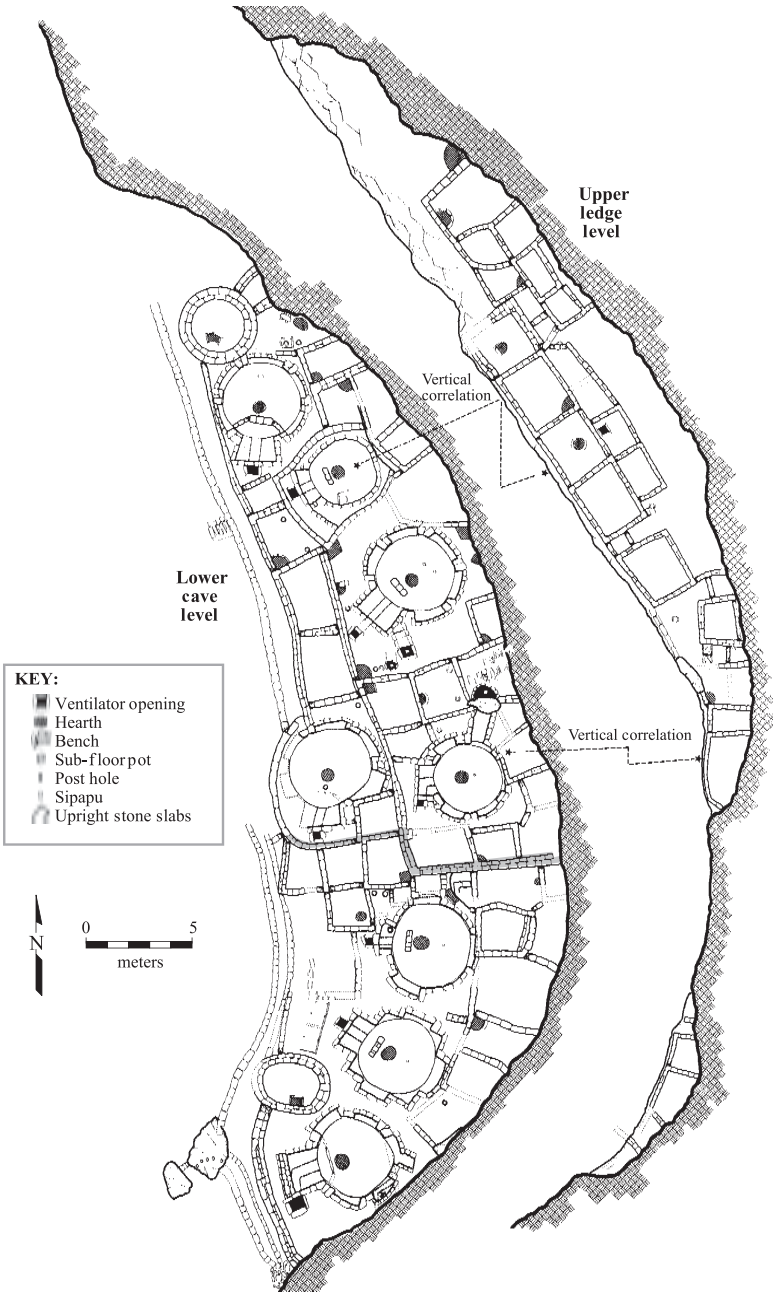
Lekson's model (1999a) is controversial among Southwestern archaeologists, who tend not to look at patterning at such a large scale. Lekson marshals a variety of supporting evidence, including shared cultural features between Chaco Canyon and Casas Grandes and the fact that all three locations lie close to the same meridian line. He also notes that Pueblo oral histories relate how their ancestors divided into two groups, one traveling south to the "Land of Everlasting Sunshine." Many archaeologists, however, dispute details of Lekson's model, challenging specific interpretations of evidence or questioning aspects of the model (Phillips 2000). At the very least, Lekson encourages us to look at larger scales than we are accustomed to, and it has already inspired the identification of other episodes of long-distance migration in the pre-Contact Southwest.

growth – almost no new construction can be seen anywhere in Mesa Verde villages – and some scholars suspect that declining precipitation made life more difficult (Varien 1999:132–6, 190). Several lines of evidence also suggest that people already were leaving the region by the late AD 1100s (Duff and Wilshusen 2000; Varien 1999:148; Varien *et al.* 1996).

By AD 1200, the trend reversed, and populations again grew and bunched ever more closely together (Mahoney *et al.* 2000). Three major changes mark this transition: first, people moved their homes closer to one another, forming increasingly dense clusters of residences; second, people moved away from older mesa-top villages to the more limited spaces along the edges of canyons; and, third, typical residential structures became larger, perhaps accommodating a few related families as opposed to just one or two (Adler 1996; Varien 1999). This all happened very quickly, perhaps even over a single generation, and by AD 1225 the character of settlement in the Mesa Verde area was completely different.

This remarkable transition is epitomized by cliff dwellings, the best known of which are found in the steep-walled canyons draining Mesa Verde. Early occupation of the mesa included communities such as Mummy Lake, where thirty-six mesa-top residences surrounding an artificial reservoir housed between 200 and 400 people during the tenth century. By the mid-1100s, some Mesa Verdeans were already taking advantage of the protection afforded by cliff overhangs and alcoves in the sandstone canyons. In Johnson Canyon, for example, construction started at Hoy House and Lion House, small cliff dwellings that grew to sixty and forty-six rooms, respectively. But the population shifts of the early thirteenth century led to the most intensive occupation of the canyon walls. The best-known cliff dwellings of the AD 1200s are places like Cliff Palace, which eventually included 220 rooms and twenty-three kivas. Most are like Mug House, where ninety-four rooms and eight kivas accommodated as many as 100 people (Figure 6.2). To get all of those people into a small alcove, Mug House's builders maximized space in every way they could. Archaeologists identified several living "suites," each consisting of a few rooms for daily activities, sleeping, and storage arrayed around a small kiva, the roof of which served as a tiny courtyard (Rohn 1971:37–9).

Not all people living in the Mesa Verde region during the early AD 1200s lived in cliff dwellings, for natural alcoves do not form in the Dakota sandstone walls that line most of the region's canyons. The majority therefore aggregated into large multi-family structures rambling along canyon rims and slopes. In these less constrictive spaces, buildings grew to unprecedented sizes as more and more people moved in, inspiring archaeologists to label the thirteenth century "The Great Pueblo Period."





6.3 SandCanyon Pueblo was established around AD 1250 with the construction of the community's enclosing wall. Over the next few decades, over 400 rooms and 90 kivas were built, including a D-shaped ceremonial structure, a great kiva, and at least one possible block of rooms used by a sodality.

Perhaps the most intensively studied aggregation of this type is found in Sand Canyon, a shallow drainage not far from the modern Four Corners (Varien 1999). Since the AD 900s, people had lived in small households scattered both within and outside of the canyon – Michael Adler (1996:359–60) estimates a local population of no more than 250 people by the mid-eleventh century. By AD 1200, people were clustering more closely together, culminating with the establishment of Sand Canyon Pueblo around AD 1250 (Figure 6.3). One of the first construction

← 6.2 Mug House was built in an open rockshelter around AD 1250 from materials left behind from earlier use of the shelter and other nearby sites. Situated above a reservoir that provided water, the village was large enough to accommodate as many as twenty households. Archaeologists suggest that a moiety organization was present at Mug House, owing to the lack of access between two halves of the structure indicated by the gray wall.

projects at this site was a low wall enclosing the head of the canyon and the permanent spring found there – a task that took thirty to forty people about two months to complete, demonstrating both the planning dedicated to this new community center as well as the builder's concern with defense (Kenzle 1997). Over the next thirty years, twenty separate roomblocks containing a total of 420 rooms, fourteen towers, and ninety kivas were built on either side of the spring and the creek it fed. The western half of the town was probably its ceremonial heart, for it is here that an open plaza area, a great kiva, an unusual D-shaped building, and a number of featureless roomblocks were built (Bradley 1993; Lipe and Varien 1999:335; Ortman and Bradley 2002). Perhaps 500 people lived in Sand Canyon Pueblo, and even more lived outside of the town's walls, continuing to reside in small houses scattered around the pueblo (Mahoney *et al.* 2000:82–3).

By the late AD 1200s, the landscape extending from Mesa Verde to southeastern Utah was dominated by over seventy aggregated pueblo towns, each consisting of more than fifty rooms and many having at least 250 rooms (Adler 1996:361; Varien 1999:163). Some scholars estimate that around half of the population continued to live outside of the aggregated pueblos (Lipe and Varien 1999:326–7), but even for these people, their social, political, and economic lives were tied to the large pueblo towns. Mark Varien's research (1999) suggests that each aggregated town – and the dispersed households orbiting around it – was spaced 2–7 km from its neighbors, providing each with its own landscape for fulfilling its subsistence needs. Living in these seemingly autonomous communities were around 13,000 people (Duff and Wilshusen 2000; Wilshusen 2002).

*Why put up with nosy (and possibly infected) neighbors?*

For Mesa Verde people of the thirteenth century, abandoning small extended-family households to move into large pueblos with dozens if not hundreds of other people was probably traumatic. Few of the cultural traditions and rules that today allow us to deal with dense populations existed for Puebloan people accustomed to household autonomy and the ability to move around the landscape almost at will. And, besides the awkwardness of having to share walls with neighbors, living in aggregated pueblos introduced other problems. For people in cliff dwellings, hauling water, wood, and food to their homes was a major chore. The stress on local resources, especially the firewood needed daily for cooking and warmth, was particularly intense (Kohler and Matthews 1988). Conditions in aggregated pueblos also were not very sanitary. Constant contact with other people and their waste provided ideal conditions for

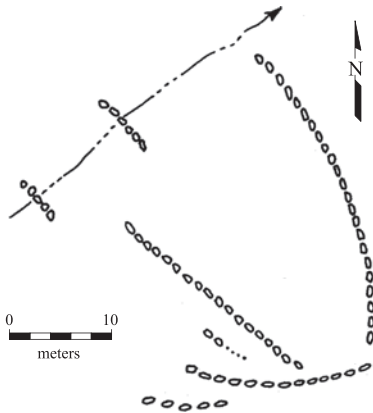


parasites and contagious diseases. An examination of coprolites – preserved fecal matter – from Hoy House and Lion House found pinworm remains in every sample analyzed (Cummings 1994). More a nuisance than a danger, the pinworm is the most common parasite in the world today owing to the ease with which it spreads among people living in close quarters.

Given all the disadvantages of living in aggregated towns, why did people in the thirteenth century move into these closely packed roomblocks? For transitions of such suddenness, archaeologists consider two general explanations: either people were “pulled” toward aggregated towns, or they were “pushed” into them. So-called “pull models” propose that living together provided benefits that drew families together, while “push models” argue that some external threat or crisis forced people to aggregate. While not mutually exclusive, the two kinds of models do advocate different perspectives on why change takes place in human societies. In the case of the Mesa Verde aggregations of the AD 1200s, most archaeologists agree that it must have been some “push” – or a combination of “pushes” – that forced people to live together.

Population growth is considered to be a particularly influential “push.” After several generations of population growth, people packed the landscape in densities so high that aggregated pueblos may have been a necessary outcome. Around Sand Canyon, for example, populations grew from 5–12 people/km<sup>2</sup> in the tenth century to as many as 30–50/km<sup>2</sup> by the AD 1200s (Adler 1996:354; Adler *et al.* 1996:395–6; Wilshusen 2002:114). As densities increased, domestic architecture became larger, culminating in aggregated roomblocks (Adler 1994:94–5). Some scholars expand on this idea by emphasizing a corresponding need for arable land to feed growing numbers of people; construction of small check dams, reservoirs, terraces, and fieldhouses indicates that farmers were intensifying their efforts during the AD 1200s (Figure 6.4). Competition for good farmland also may have prompted people to bond together to assert rights over the best fields, as illustrated by the case of Sand Canyon, where people still living in small residences outside of the growing pueblo were increasingly relegated to poorer-quality lands (Adler 1996:354–5). Living in aggregated pueblos probably also helped to pass land rights along kinship lines from generation to generation, something especially important if people were investing in agricultural infrastructure to squeeze out every bit of food possible – you would not want to build all those check dams and terraces if passing that land on to your children was not assured (Adler 1994:95, 1996:358).

Another important “push” was the onset of the Little Ice Age, a climatic phenomenon that led to cooler temperatures in the northern hemisphere. Although the height of the Little Ice Age was still around the corner, some



6.4 Site 1398, located on Mesa Verde, consists of a series of check dams that captured up to a meter of soil and contour terraces that spread water on to fields. Such basic strategies were effective ways to increase farming productivity.

evidence suggests that temperatures were falling during the thirteenth century. The environmental changes associated with this transition are not fully understood, but people living closest to the San Juan Mountains were affected first. Growing food at these elevations was always difficult, not because of the lack of water, but because of the short growing season. As the Little Ice Age progressed, farmers probably moved their fields to lower elevations, but that infringed on lands of other farmers. As stores of maize were depleted, farmers faced few choices: either form alliances with neighbors in an attempt to free up good lands and work them together, or try to drive people off their land or steal their food. Whatever particular solution people chose in the thirteenth century, dropping temperatures probably contributed to the aggregations, and archaeologists identify a corresponding shift in populations toward the south and west, away from higher elevations (Lipe and Varien 1999:322).

In the face of all of these “pushes,” people in the Mesa Verde area had yet another reason to move into aggregated villages: the need for greater cooperation. Sharing and cooperation were almost certainly part of early Puebloan life, even for people living in largely independent single-household residences scattered across the landscape. Archaeologists find that even the most isolated residences during the eleventh and twelfth centuries still obtained some pottery, and probably food, from some distance away, while major ceremonial events at Chaco-era great kivas and great houses were opportunities for sharing food and crafts. Scholars

believe that this cooperation allowed people to contend with a patchy environment in which precipitation and other resources varied across the landscape. Such “spatiotemporal heterogeneity” is thought to promote sharing. If you produce a lot of extra food one year, you might trade it for pottery made by a distant ally who is having difficulty with crops – and the next year, the flow of goods might go in the opposite direction. In the challenging environment of the northern Southwest, such flexible interactions were advantageous to everyone.

All of this appears to have changed in the thirteenth century, when the climate became more spatially homogeneous at the same time that temporal heterogeneity continued. In other words, the climate was unpredictable and could be good or bad for farming, but in any given year, everyone across the Colorado Plateau was equally affected (Adler *et al.* 1996:387, 390–3). No longer was it helpful to share widely. Instead, the most sensible thing would be to combine your efforts with those living near you to produce as much food as possible. Pooling labor and surpluses with neighbors was easier to do if everyone lived together rather than in scattered households, and thus aggregated towns were a sensible arrangement. In an analysis that draws on “rational choice” models popular in microeconomics, Timothy Kohler and Carla Van West (1996) found that in the mid-1200s, the self-interested thing to do was to cooperate – pooling labor and surpluses together ensured that everyone did just fine, and aggregated pueblos helped to make that possible. Kohler and Van West also point out that living in close quarters near stored surpluses deterred “cheaters,” people who might try to get out of their responsibilities to help farm the fields but then still benefit from the harvest. Various sources of evidence support these arguments. For example, analyses of the clays in thirteenth-century pottery show that some vessels were traded up to 45 km from their source (Glowacki *et al.* 1998, 2002), but this whiteware exchange was minimal compared with earlier periods (Wilson and Blinman 1995:77), reflecting the increasing focus on local cooperation rather than widespread sharing.

One final “push” explanation for the Mesa Verde aggregations deserves consideration: violence. As described in chapter 5, while the end of Chaco Canyon was associated with a few exceptionally violent episodes (Kantner 1999b), in general, little conflict is seen in either the demise of Chaco or the fading of Mimbres towns (Martin 1997:47; Nelson 2000:327). This all changes in the AD 1200s (Box 6.2). Evidence for conflict is nearly ubiquitous across the northern Southwest, but it is especially common in the Mesa Verde area. At Salmon, an old Chaco-era great house reoccupied in the thirteenth century, 45–55 individuals, mostly children, were burned in the central tower kiva around AD 1263 (Irwin-Williams

### Box 6.2 Violence in the thirteenth century

John Kantner (1999b), Steven LeBlanc (1999), and Stephen Lekson (2002) suggest that the nature of violence was different in the AD 1200s than during the preceding century. Kantner (1999b), for example, conducted a statistical analysis of skeletal data from the Chaco era through the early 1200s and found that violence during the early AD 1100s was characterized by exceptional levels of mutilation – it is this era that has the strongest evidence for cannibalism (e.g., Billman *et al.* 2000; Marlar *et al.* 2000; White 1992). Violence during the following decades, however, was of a different nature. While mutilation still occurred, it was nowhere near the level seen earlier. And the nature of traumatic injuries, the manner with which the dead were treated, and the overall context in which violence occurred suggested to Kantner (1999b) that raiding for resources and warfare to displace populations was common during the thirteenth century.

Sand Canyon Pueblo provides an example of this new trend in violence (Kuckelman 2000; Kuckelman *et al.* 2002; Lightfoot and Kuckelman 2001). Archaeologists recovered human remains with head wounds in the fill of the town's kivas, and weathering of the bones and evidence of animal gnawing showed that the bodies were left exposed after death. Many of these kivas had been burned, while the recovery of intact artifacts suggests that residents left in a hurry, presumably under duress. Other scholars, however, propose that the burning was a formal way to “close down” structures (Walker 2002), and they note that the use of abandoned pitstructures for burials has a long history in the region (e.g., Martin and Akins 2001:228). Nevertheless, the combination of evidence indicates that Sand Canyon Pueblo was abandoned after a round of attacks – as were many others during the AD 1200s.

A different view of thirteenth-century violence is provided by Debra Martin's and Nancy Akins's study (2001) of skeletal material from the La Plata region bordering the San Juan River. Collections analyzed from this area date from AD 1100 to AD 1300, and their sample included twenty-nine individuals. None of the skeletons exhibited clear evidence of violent death, but many had healed traumas, and several of them – almost all from the thirteenth century – were not buried in prepared graves. Young females were especially prone to this treatment, and many had healed “depression fractures” on their skulls – the kinds of wounds caused by being struck with blunt objects. These females also exhibited poor health. Although Martin and Akins

are cautious in their interpretations, one possible explanation is that these young females were captured or displaced by raids, and they suffered domestic violence and other inequities in their new homes. Neither males nor children exhibited this kind of treatment among the La Plata skeletal samples.

and Shelley 1980). Castle Rock Pueblo, built against a small, precipitous butte, was burned down on top of forty-one people, many of whom had suffered violent blows (Kuckelman *et al.* 2002). Although archaeologists debate whether the increasingly common masonry towers and enclosing walls were defensive or served some other purpose, many scholars believe that violence encouraged people to group together into defensive towns (Adler *et al.* 1996:388–90; Kenzle 1997).

Why did Puebloan people living in the thirteenth century experience so much violence? Desperate times lead to desperate actions, and perhaps as cooler temperatures drove people away from the San Juan Mountains, they allied with one another to drive farmers from lands that were still arable or seize their surpluses. Many of the violent episodes do appear to result in the survivors leaving, for the attacked and burned structures are rarely reoccupied. Such violence would have promoted even larger aggregations in defensible locations. It is probably no coincidence that the most defensive thirteenth-century towns in the Mesa Verde region grew around springs, providing inhabitants with a protected water source. Increasingly regular spacing between communities also indicates the establishment of “no man’s lands,” buffers created as people left vulnerable farming hamlets and retreated to defensive towns (Wilcox and Haas 1994). Although conflict was not a daily occurrence, the evidence indicates that violence shaped occupation of the Mesa Verde region in the AD 1200s. And a concern with conflict is reflected in artwork – a petroglyph panel at Castle Rock Pueblo shows individuals facing off with bows-and-arrows (Figure 6.5).

#### *Life in an aggregated town*

For people who once lived in small, extended-family residences, moving into the close quarters of aggregated pueblos undoubtedly led to many changes. One of the most important consequences was the loss of mobility as an important option for adapting to changes in the social or physical environment. In earlier times, the ability periodically to abandon one’s home and simply move elsewhere, even if it was just a few hundred meters away, was a powerful form of independence. And many



6.5 A rock art panel on the butte above Castle Rock Pueblo seems to show three figures with shields firing bows and arrows.

people had maintained long-distance relationships, inspired by long journeys for raw materials or ceremonial events, that allowed people to move longer distances if they felt it was needed. Conditions in the thirteenth century changed all that, and people living in Puebloan towns lost some of this flexibility.

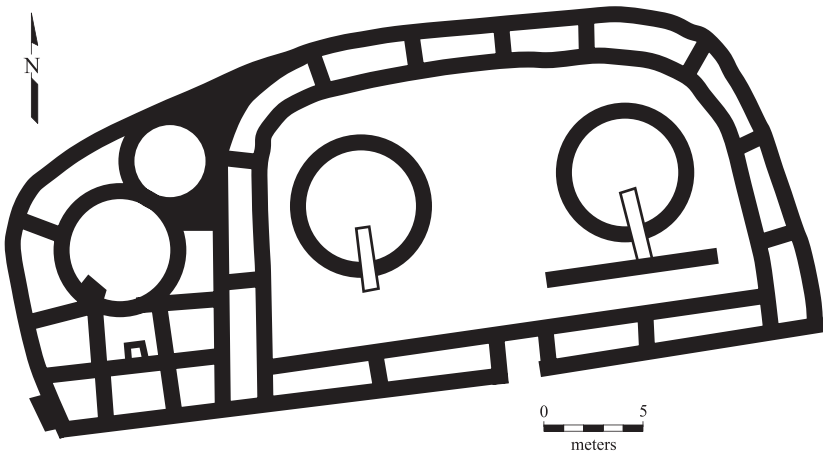
Archaeologists contend that these new circumstances prompted momentous changes to Mesa Verde sociocultural systems. A shift from a focus on women as the core kinship unit to a social life increasingly dominated by men is one possible change. In the face of increasing violence and agricultural intensification, core groups of related men could more readily join together to protect key resources. This would have been difficult to do if related males married outside of their kin group and ended up scattered across the landscape. Some evidence supports this shift to patrifocal organization. For example, Michael Schillaci and Christopher Stojanowski (2002) analyzed skeletal material associated with the thirteenth-century reuse of Aztec and found that males shared more osteological features while females were more diverse. The pattern was not strong, but it also was not what would be expected if post-marital residence was matrilineal, leading the researchers to conclude that a new couple either moved in with the husband's family or chose which family they wished to reside with. Martin and Akins (2001) came to a similar conclusion in their assessment of gender-biased violence in the La Plata drainage north of the San Juan River. In this study, the high incidence of violence against females is suspected to indicate that women were strangers in their marital homes, perhaps even immigrants or captives. In general, skeletal analyses show that women's health deteriorated more rapidly than that of men, and they suffered more work-related pathologies (Martin and Akins 2001:241–3), indicating an overall decrease in women's status during the AD 1200s.

Another suspected change to the social structure of Mesa Verde towns is the introduction of moiety organization, in which society was divided into two parts, with every individual assigned to the moiety of one of his or her parents. Some scholars argue that moiety organization was already developing at Chaco Canyon at the turn of the twelfth century, and they point to dual divisions in the architecture of buildings such as Pueblo Bonito (Vivian 1990:298–9). It is not until the AD 1200s in the Mesa Verde area, however, that this kind of architectural duality became more widespread. An architectural study of Mug House (Figure 6.2), for example, suggested that the structure was divided into two distinct sections (Rohn 1971:39–40), and recent investigations have identified walls at other cliff dwellings that divide them in half (Lipe and Varien 1999:320). In aggregated towns in less precipitous contexts, such as at Sand Canyon Pueblo, community architecture is typically bisected by a creek, providing at least the impression of duality.

What was the advantage of moiety organization? Anthropologists point to several possible reasons for dual divisions to emerge. In confusing social settings, such as might be expected in the thirteenth century, moieties provide some cohesion – it is easier to track social membership when two divisions are predominant than it is to track kinship among a bunch of families that are thrown together into aggregated towns. Perhaps more importantly, moiety divisions create large groups of people that can be mobilized for large-scale activities such as warfare or intensive farming. Instead of having to negotiate with lots of unrelated or weakly allied families to harvest crops or build terraces, moieties create an instant social identity that makes cooperative endeavors easier. Similarly, moieties encourage a more centralized decision-making structure, with senior moiety members providing efficient political leadership. All of these features were beneficial for aggregated Mesa Verde towns, and moiety organization probably grew out of existing alliances and kinship relationships as people moved in together.

#### *Making the whole greater than the sum of the parts*

While the thirteenth-century aggregations impacted many aspects of Puebloan life, some things were slow to change. Small pitstructures remained the most common form of ceremonial architecture, and in the Mesa Verde region these kivas actually became more standardized, with a consistent southerly orientation and a regular set of features including a southern recess and six pilaster roof supports (Lipe and Varien 1999:319). As people clustered together, the kiva's function and the social unit it served apparently did not change. For example, at Sand Canyon



6.6 Sun Temple is an example of one of the unusual D-shaped structures that appeared in the Mesa Verde area during the thirteenth century. Construction at Sun Temple started in AD 1275 and the walls were built up to 4 meters high. The next year, however, construction stopped, and the building was never roofed.

Pueblo, the ratio of rooms to kivas is 5:1, the same ratio seen in dispersed residences during earlier centuries (Bernardini 1996:391–2). Ceremonial activity still revolved around small kivas and the households that used them.

No one who had directly experienced Chaco Canyon's power was still living by the thirteenth century, and therefore the Chaco tradition was remembered only in oral histories. However, Aztec, the last bastion of Chacoan ideology, did persevere until the early AD 1200s, and everywhere people were still surrounded by great house ruins. Such lingering influences apparently promoted the retention of some Chacoan features in new religious infrastructure. Great kivas continued to be built, for example, even though they were larger and unroofed. D-shaped buildings reminiscent of earlier tri-wall structures also were established in many towns, including one at Sand Canyon Pueblo and Sun Temple on Mesa Verde (Figure 6.6). Bruce Bradley (1996) proposes that these forms represent a resurgence of interest in Chaco-era religious traditions.

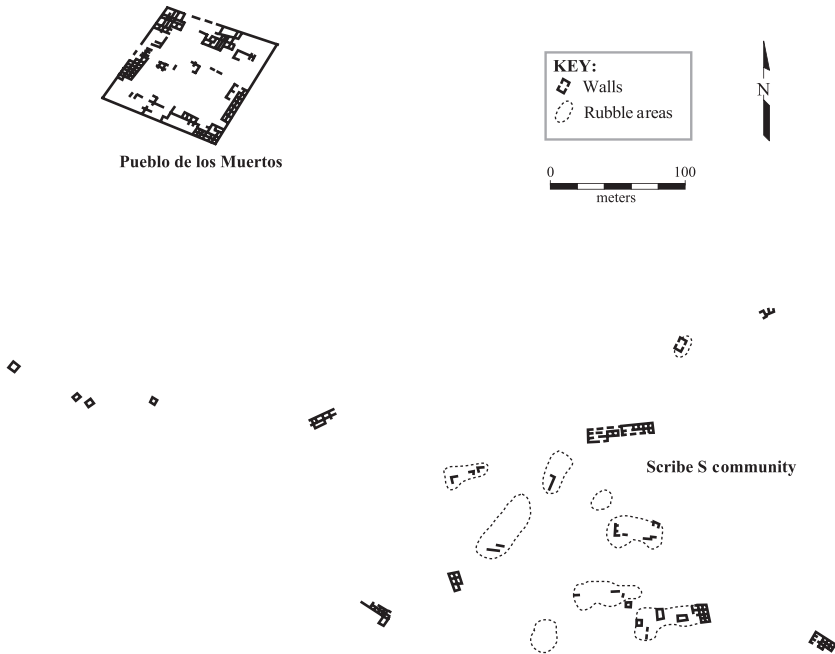
But this "Chaco revival cult," as Bradley calls it, was short-lived, and the religious landscape across the northern Southwest slowly changed as people aggregated in dense town settings. A diversity of new religious features appeared in northern communities. Tall masonry towers, often argued to be defensive but also occasionally exhibiting domestic use,



were curiously connected to kivas with tunnels. Small plazas surrounded by roomblocks and often partially covered by roofs also appeared. Each Mesa Verde town exhibited its own unique combination of old and new ceremonial features, suggesting that people were experimenting with a variety of religious forms as they searched for ways to establish bonds above the level of the simple household kiva (Lipe and Varien 1999:319).

The continuing use of small kivas and the experimentation with more integrative religious forms reveal an apparent paradox in the organization of Mesa Verde aggregated towns – people were clustering together to gain the advantages of living in large groups, but they apparently had trouble developing unifying sociopolitical institutions. The diversity of ceremonial architecture may in fact represent attempts to establish town theocracies. At Sand Canyon Pueblo (Figure 6.3), one unique roomblock consisting of three kivas and a handful of rooms is suspected to have been a complex used by an emerging association of religious authorities – what anthropologists call a “sodality” (Lipe 2002). The building and nearby great kiva featured unusually large bowls, high bowl-to-jar ratios, and large quantities of deer remains, suggesting that large groups of people gathered at these locations (Lipe and Varien 1999:336–8, Potter 2000:478–9). However, the appearance of several different forms of public architecture in Sand Canyon Pueblo and the presence of over eighty small kivas suggest that any emerging religious sodalities or moiety divisions were weak.

In general, Mesa Verde households enjoyed considerable autonomy that they were reluctant to give up, and this is further reflected in the absence of identifiable inequities in the aggregated towns. At Sand Canyon Pueblo, three pieces of turquoise and eighteen of shell are virtually the only exotic trade items recovered, and any unusual concentrations of food remains were associated with religious structures rather than particular households (Lipe 2002). If any social differences existed in the thirteenth century, it was between the aggregated towns and the small dispersed residences found outside the towns’ walls (Adler *et al.* 1996:424–5; Lipe and Varien 1999:336–7). But within the towns, strict “leveling mechanisms” designed to ensure that no single individual or family got ahead in life may have been commonly employed to ensure the equitable distribution of resources. A similar degree of independence characterized interactions *between* many of the towns as well, as indicated by their fairly regular spacing and the lack of a regional hierarchy (Lipe 2002:218–19; Varien 1999:168–9). Perhaps memories of the excesses of Chaco Canyon and Aztec were still fresh, and people were hesitant to become involved in any political system that could possibly compromise their autonomy. As several scholars have suggested (e.g., Bernardini

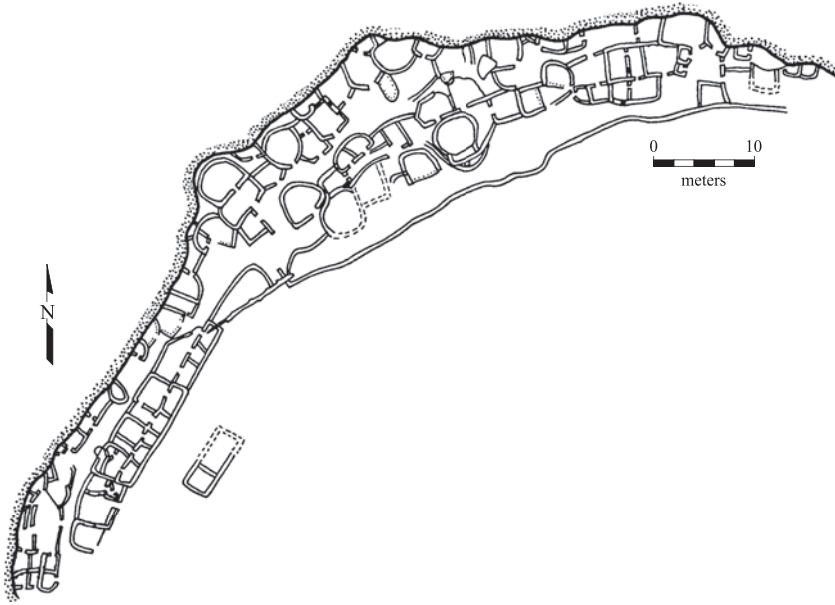


6.7 The Scribe S community, consisting of several separate roomblocks containing hundreds of rooms, was established in the middle of the thirteenth century. Later, between AD 1279 and 1284, the residents quickly built Pueblo de los Muertos, a more defensible aggregated town.

1996), this stubborn independence probably contributed to the troubles of the late thirteenth century, a topic considered in the next chapter.

### Great Pueblos elsewhere in the Puebloan Southwest

The trend toward aggregation was not confined to the Mesa Verde region – large towns began popping up all over the Puebloan Southwest. In the Cibola region, for example, people established new communities and gravitated toward large residential buildings (Kintigh 1985, 1996). The formation of these aggregations is similar to how Mesa Verde towns grew: at the turn of the thirteenth century, once dispersed households moved into modest-sized roomblocks of fewer than sixty rooms clustered around public architecture similar to Chaco-era great houses and great kivas. As time passed, these aggregations grew denser and the public architecture was abandoned, resulting in communities such as at Scribe S (Figure 6.7), where several roomblocks totaling almost 500 rooms were



6.8 Established in the late AD 1240s, Kiet Siel grew to include twelve room suites by AD 1271. One generation later, the villages had swelled to include over 150 rooms as small groups of immigrants took up residence in the alcove. By the AD 1290s, Kiet Siel was largely abandoned.

established in the mid-1200s (Cordell *et al.* 1994:129; Kintigh 1994:132, 1996:136). Unlike the Mesa Verde area, however, Cibola towns included few kivas of any size. The reasons for aggregation are also unknown, for perfectly good sections of the landscape were still unoccupied, suggesting that if people had wanted to retain the old ways of dispersed living, they could have (Kintigh 1996:139). Immigrants probably contributed to these new towns, but despite tensions expected when disparate groups come together, thirteenth-century Cibola towns were largely peaceful – Keith Kintigh (1996:140) sees little evidence of violence.

#### *Kayenta consolidation*

Farther to the west, in what is now Arizona, the Kayenta region was undergoing similar transitions. As the AD 1100s ended, people abandoned dispersed, largely autonomous residences and joined large roomblocks built near dependable water sources and decent farmland (Dean 1996a:34–5). By the mid-1200s, these dense towns were the focus of habitation. One such place is Kiet Siel (Figure 6.8). Situated in a large

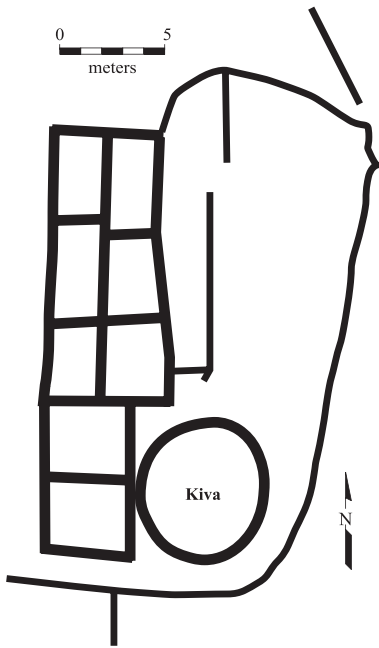
sandstone alcove with its own spring, this small town was established by a few households in the late AD 1240s. By AD 1271, twelve room suites had been built, each with its own living, storage, and mealing rooms arranged around a courtyard. More people moved in over the next few years, and a retaining wall was built to expand the alcove's floor area, new room suites were added, and new kivas were built. Perhaps 150 people lived in Kiet Siel at its height. Like at Scribe S far to the east, Kiet Siel was probably abandoned in the late AD 1280s – the last remodeling took place in AD 1286 (Dean 1970:161).

Kayenta towns apparently had concerns similar to those in the Mesa Verde region. Jonathan Haas's and Winifred Creamer's work (1993, 1996) in Long House Valley found that as people left small residences scattered along the valley floor around AD 1250, they chose elevated and defensible locations for their new towns. What is especially interesting about the sites they selected is that many of them are intervisible – the new towns were situated so they could see one another. That this was intentional is revealed by the fact that they actually cut a notch out of the ridge of a mesa to ensure line-of-sight between two towns. Haas and Creamer argue that this allowed communication among Long House Valley communities, especially warnings about impending raids or other threats (also see LeBlanc 1999:226–7).

And who is the enemy that inspired such drastic defensive measures? The most likely candidates were other Kayenta people living in more marginal parts of this arid landscape who were seeking better farmlands, although raiders coming from even longer distances in search of food or valuables may have represented another danger. A trickle of immigrants coming from the north and west was also beginning, a flow that increased as the Little Ice Age progressed and families began to flee from cooler elevations and drier lands. Perhaps Kayenta towns feared this influx of foreigners and responded by aggregating in defensive locations. Their fear apparently exceeded the actual dangers, however, as little evidence of violence is found at Kayenta sites (LeBlanc 1999:311).

#### *Northern Rio Grande growth*

Until the AD 1000s, not many people lived in the northern Rio Grande drainage. With much of the area situated at fairly high elevations and surrounded by mountains that funnel cold air into the arable basins, this part of the Colorado Plateau suffers from a perilously short growing season. People dwelling here tended to favor pithouse habitations



6.9 LA 3852 is a small residential structure dating to the late twelfth century on the Pajarito Plateau.

and a fairly mobile and flexible lifestyle. Even the height of Chaco Canyon's influence failed to have much impact on the settlement of this landscape.

As Chaco and its most closely allied communities were abandoned in the AD 1100s, some refugees fled toward the east, an area they knew because it had been a source of obsidian and turquoise. Their journey may not have been without peril – residents of the Gallina Highlands, situated between the San Juan Basin and the Rio Grande, built towers and strongholds, perhaps in reaction to these movements. As these migrants entered the Rio Grande drainage, they contributed to modest population growth, first in the Galisteo Basin southeast of the city of Santa Fe during the AD 1100s, and later in the early AD 1200s on the Pajarito Plateau to the north of Santa Fe (Crown *et al.* 1996:195–9). Once there, household residences and great kivas with vaults not unlike those seen in Chaco were built (Figure 6.9).

The trend toward aggregation seen everywhere occurred in the thirteenth century in the northern Rio Grande. Many households moved

into buildings consisting of twenty to thirty rooms, and a few of these roomblocks occasionally were arrayed around open plazas. By the latter half of the AD 1200s, some of these roomblocks were growing together into a single mass of architecture, resulting in large villages of up to 250 rooms (Cordell *et al.* 1994:115). And, just as in the Mesa Verde area, the growth of these communities occurred alongside other changes, including the dedication of a considerable amount of energy to building agricultural infrastructure such as terraces, dams, and fieldhouses.

Communities also became more insular – Michael Walsh (1998) analyzed the distribution of raw lithic material and finished tools in the region and found that access to good stone was becoming more difficult, suggesting increasing territoriality and circumscription as the towns grew larger and more powerful.

*But not here . . .*

Not everyone was aggregating in the AD 1250s. In the San Juan Basin, for example, people continued to live in dispersed households and even in remodeled great houses. Some areas that had been largely abandoned experienced a minor rebound in population, and many dispersed communities grew larger as more small residences were built (Roney 1996:165). Even Chaco Canyon saw continuing use – Hillside Ruin probably was built between the ruins of Pueblo Bonito and Chetro Kettle at this time (Stein and Fowler 1996:120). Most new growth occurred on the edges of the former Chaco world, especially to the east and southeast. At Guadalupe, a great house community during the tenth and eleventh centuries, the old Chaco structure was remodeled for domestic use and eighty-two different sites, including scattered residences, continued to be used during the thirteenth century (Stein and Fowler 1996:149).

Farther to the south, the former Mimbres area continued to be occupied by people who built adobe-walled structures of twenty-five to forty rooms that were loosely arrayed around plazas (Lekson 1996:173). Meanwhile, the lower Rio Grande drainage experienced increasing use by a variety of groups. The diversity of thirteenth-century architecture found there, including pithouses, jacal buildings, and masonry and adobe pueblos, represents locals who were moving toward year-round sedentism as well as immigrants from surrounding areas (Spielmann 1996:182–3). While archaeologists regard the AD 1200s as the “Great Pueblo Period” owing to the large towns that appeared in so many areas, these aggregations were unique responses to particular contexts and were not a

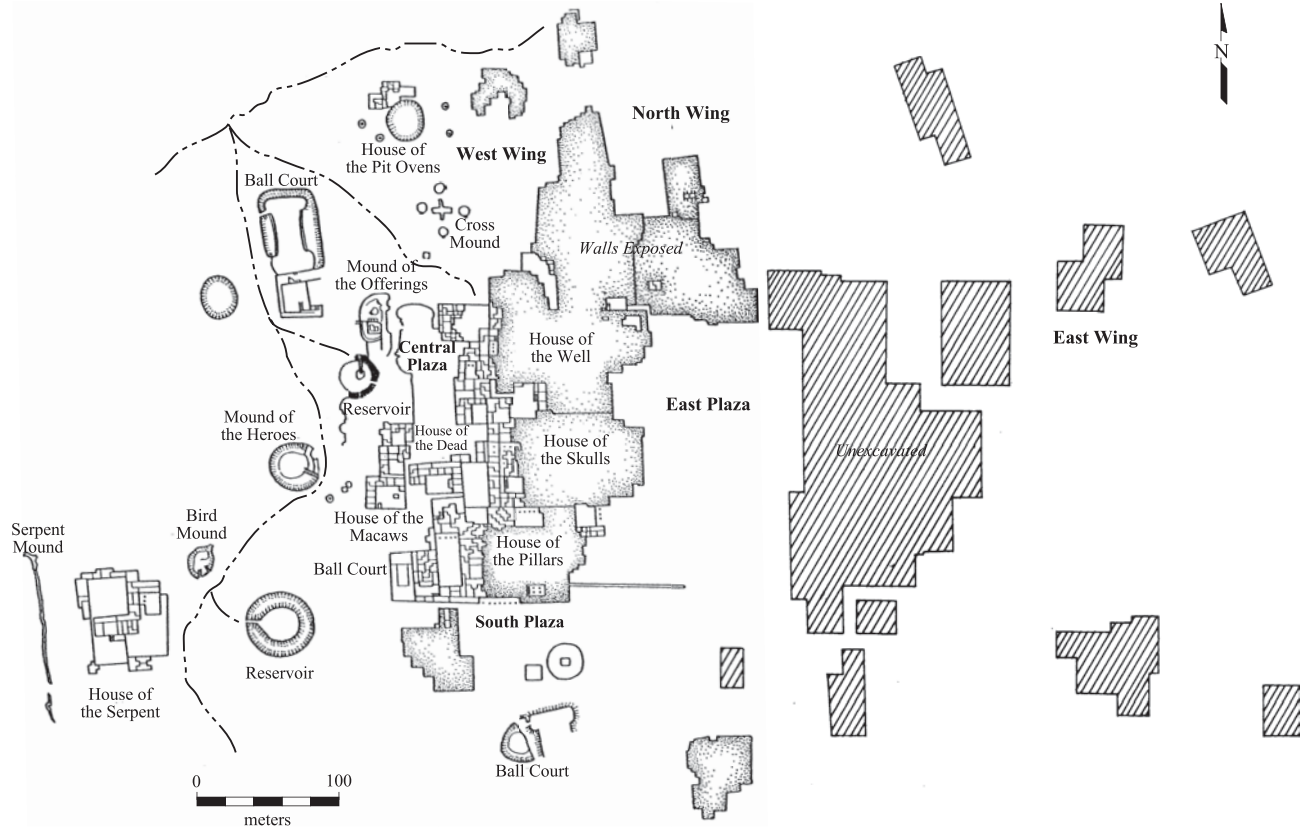


6.10 The Chihuahuan Desert around Casas Grandes includes grassland and desert scrub plant communities that in the modern era have been impacted by grazing, as seen here. The Sierra Madre range, in contrast, includes various woodland communities.

universal phenomenon in the Puebloan Southwest. And no better example of the diversity of cultural behavior exists than the emergence of a new influential center far to the south: Casas Grandes.

### **Casas Grandes: the Puebloan tradition in the Chihuahuan Desert?**

The name “Chihuahuan Desert” evokes an image of a vast and arid plain devoid of much in the way of plant and animal life – and a few corners of this physiographic zone live up to this reputation (Figure 6.10). This generalization, however, glosses over environmental diversity of the so-called “International Four Corners,” where two Mexican and two US states meet. Driving west along Mexico’s Route 2 from Juarez reveals this variability – you pass through the low desert and its dried playas, but the road gradually climbs out of the scrub and into patchy grasslands. Soon the Sierra Madre looms ahead. This mountain range runs roughly north-south along the entire western edge of Mexico, and its high elevations capture precipitation coming from the Pacific Ocean, watering forests of fir, spruce, and pine, and feeding several drainages. Much of the runoff



6.11 The West Wing of Casas Grandes was excavated by Di Peso in the late 1960s, although relatively few of the rooms were fully exposed. The configuration of the East Wing is not well understood, but both wings may have contained as many as 2,000 rooms. Dates from Casas Grandes suggest that construction began around AD 1200.



works its way west, back to the Pacific, but some also drains toward the east, ultimately evaporating in the low deserts.

At the point where the mountain creeks settle on to the Chihuahuan grasslands, surprisingly rich environments have developed. The largest of these drainages is the Rio Casas Grandes. Flowing out of the Sierra Madre and heading north into the Chihuahuan Desert, this “river” is little more than a seasonal trickle of water today. But it was once an important waterway lined with marshes and river woodlands, and a rich archaeological record surrounds it. It is here that tourists can visit the ruins whose Spanish name is “Casas Grandes” and whose Náhuatl name is “Paquimé” – meaning “big houses” in both languages.

*What is so unique about Casas Grandes?*

As its name suggests, Casas Grandes features huge pueblo buildings surrounded by a multitude of unusual features, including several Mesoamerican-style ballcourts and platform mounds (Figure 6.11). Although the ruins have been described by explorers and archaeologists for over a century, only recently was it determined that construction of Casas Grandes was initiated around AD 1200 (Dean and Raveston 1993). The total size and configuration of the major structures are still debated (e.g., Lekson 1999a; Wilcox 1999b). Most reports describe Casas Grandes as a massive terraced building arrayed around three sides of a plaza, and excavations in the west wing conducted by Charles Di Peso between 1958 and 1961 exposed 950 rooms arranged in a complex floorplan. Di Peso (1974) also identified numerous T-shaped doorways, alcoves containing elevated platforms, and thick adobe walls that still stand 10 m high in some places. Casas Grandes may have included 2,000 rooms, but the rest of the ruin has not been excavated, and some archaeologists question the existence of the alleged eastern wing, which is not readily visible today owing to modern habitation.

Whether or not the controversial wing exists, Casas Grandes is impressive. It was built using a coursed-adobe technique that has antecedents dating to the tenth century in the Mimbres area (Creel 1999:116), and Di Peso estimated that the entire structure was built in a single generation. The variation in design and construction, on the other hand, suggests that many different people were involved in Casas Grandes’s creation (Whalen and Minnis 2000:171). With large-scale facilities for preparing food grouped on the north edge of the site, including vast ovens, it is easy to imagine a steady flow of workers coming from considerable distances away to help construct the adobe buildings and engage in grand feasts and ceremonies. Perhaps an additional attraction was the presence of several

large ballcourts that could accommodate large numbers of spectators (Box 6.3).

More spectacular than the ruins themselves are the remains from extensive trading activities centered at Casas Grandes. Over 4 million pieces of shell have been recovered from the excavated areas, with most from huge caches found in a handful of rooms (Bradley 2000:180). Unmodified shell apparently entered the town, and initially archaeologists thought that centralized shell-production workshops were busily crafting beads, pendants, rings, bracelets, and other ornaments that were then traded over much of the Southwest. Further investigation, however, has revealed that craft activity was distributed over the entire Casas Grandes region, suggesting a more dispersed production in which different kin groups maintained their own small-scale workshops (Whalen and Minnis 2000:175). This conclusion does not lessen Casas Grandes's primacy in the shell trade – Ronna Bradley's research (1999:224–5) demonstrates that the diversity of shell artifacts found in Puebloan sites to the north increased with the emergence of Casas Grandes, replacing the Hohokam as the major provider of these valuables.

Shell was not the only commodity driving Casas Grandes's trade. Over 300 macaw skeletons and numerous eggshells have been recovered from the ruins, as have adobe "cages" for keeping these birds (Figure 6.12). The uniquely shaped stones used for cage doors are found not only in Casas Grandes, but also in smaller sites surrounding the major ruins, suggesting that they too participated in the macaw trade. Most archaeologists believe that any live macaws and macaw feathers that made their way north into other Puebloan areas must have passed through Casas Grandes.

Less well understood is the pottery style associated with Casas Grandes. Ramos Polychrome is found over a large area of the Chihuahuan Desert, and it also appears in the Sonoran Desert to the west and in trace amounts in the Mogollon Highlands to the north. At first, scholars argued that this pottery was produced in Casas Grandes and then traded over considerable distances. Recent compositional analyses of Ramos pottery, however, suggest that vessels produced at Casas Grandes are found no farther than 80 km away – vessels exhibiting the Ramos style beyond this range were apparently copies of the style replicated on locally made vessels (Wosley and Olinger 1993). Why would people living far from Casas Grandes copy their styles? Many scholars believe that one of the most influential "exports" from Casas Grandes was its religious tradition, or at least some aspects of it, and people living far away represented these beliefs by copying some of the styles and iconography from Ramos Polychrome vessels (Whalen and Minnis 2001b:54–5).

### **Box 6.3 How were ballcourts used?**

Archaeologists have known for some time about the elliptical earthen ballcourts of the Hohokam people of southern Arizona, which suggest influence from Mesoamerican societies far to the south. Archaeologists are also familiar with the I-shaped ballcourts constructed at Casas Grandes, inspiring interpretations that it was a Mesoamerican trading outpost. Within the past decade, however, large-scale surveys have identified even more ballcourts in the Chihuahuan Desert around Casas Grandes. They are providing us with a more complete picture of the significance of these unique features.

Michael Whalen and Paul Minnis (1996) examined twenty-one of the ballcourts in northern Mexico, including the three at Casas Grandes and eleven more from the lowland Chihuahuan Desert. Their research identified three styles of ballcourts. The classic I-shaped ballcourt, like those found at Casas Grandes itself, is completely ringed by earthen embankments, with the enclosed area wider at both ends. Like all ballcourts, this style tends to be oriented north–south. T-shaped ballcourts are similar, but they are open on the southern end. The third style is perhaps more appropriately called a “playing field” than a ballcourt, for it has the simplest construction – a row of stones that delineate the court area. Whalen and Minnis note that the more elaborate ballcourts appear later in the Chihuahuan sequence, which mirrors the pattern identified farther south in northwest Mesoamerica.

How were ballcourts used? As with their Mesoamerican counterparts, the Chihuahuan ballcourts probably served a number of functions. The ballgame was not merely a sport, but a ritual event full of symbolism relating to calendrical and agricultural events. Many scholars point to ballcourt events as providing opportunities for regional participants to exchange goods and information, while other archaeologists emphasize the role of the ballgame in negotiating social and political relationships both within and among communities. In the case of the Chihuahuan ballcourts, little direct evidence regarding their function is available, but Whalen and Minnis (1996, 2001a) do identify relevant patterns. Noting the low frequency of Chihuahuan ballcourts and their clustering around Casas Grandes, they propose that ballcourt activities were driven by factional rivalries. The games themselves, as well as the construction and augmentation of the ballcourts, were probably driven by competition among peer groups – not unlike today’s sports competitions, in which both the team’s success and the magnificence of the venue reflect on the community they represent.

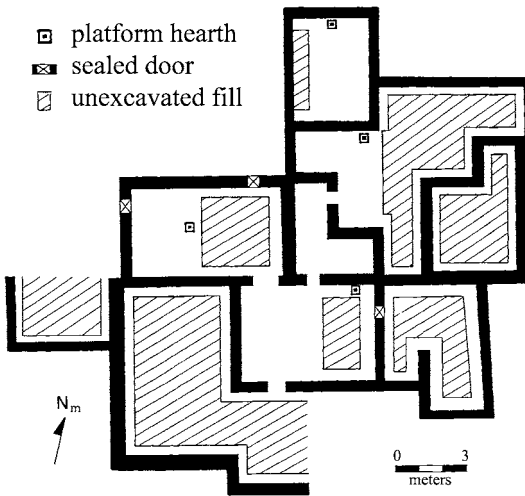


6.12 Adobe “cages” were used for keeping macaws at Casas Grandes. Their distinctive stone doors remain even after the cages themselves have eroded away, making it easy for archaeologists to identify which sites were involved in the macaw trade.

While many items were exported from Casas Grandes, some goods were imported as well. Copper craft items, especially bells, are found in the ruins, and it was once believed they were crafted there. The evidence, however, shows that the town was a consumer of copper goods manufactured farther south (Vargas 1995). And since few of these items were traded to the north, Casas Grandes apparently did not serve as a “middleman” in the exchange of copper goods. An assessment of turquoise artifacts from the ruins reveals a similar pattern – Casas Grandes was the consumer of a small amount (a mere 2.6 pounds total, although a large cache could still be in unexcavated rooms) of poor-quality turquoise that was primarily used as offerings in domestic contexts. Coming from the north, small quantities of obsidian as well as pottery from the Mimbres region made their way into Casas Grandes, perhaps as trade items given in exchange for shell (Schaafsma and Riley 1999:247).

### *Beyond Casas Grandes*

Surrounding Casas Grandes is a landscape packed with hundreds of adobe mounds, the majority of which are the remains of one-story residences. These settlements fill the valleys and extend up on to the



6.13 Site 242 is located about 26 km from Casas Grandes, within the “inner zone” where the center enjoyed its greatest influence. Site 242 is unique for the number of Casas Grandes features found there, including thick adobe walls, a complex floor plan, T-shaped doors, an I-shaped ballcourt, and macaw cage doors.

pedmont zone and into the Sierra Madre. The sizes of the mounds vary considerably, and archaeologists have found it nearly impossible to reconstruct what these roomblocks looked like without excavating them. What they do know is that most were built alone, while occasionally two or three residences clustered together. Closer to Casas Grandes, however, up to eleven roomblocks were often placed next to one another, forming sizeable settlements. In fact, Whalen and Minnis (2001b:173, 194) believe that the area within 30 km of Casas Grandes – what they call the “inner zone” – exhibits a hierarchical pattern of settlement, with the larger roomblock clusters evenly spaced from one another and readily accessible from smaller sites with less elaborate architecture.

Settlements in the inner zone exhibit more than just regular spacing – the features and artifacts found at the most substantial clusters are surprisingly similar to those seen at Casas Grandes itself. Ballcourts and large ovens have been recorded in this zone, as have various imported items (Whalen and Minnis 2001b:173). One of these settlements is Site 242 (Figure 6.13), an unusually elaborate roomblock found about 26 km from Casas Grandes and excavated by Whalen and Minnis (2001b:661–3). Built of especially thick adobe walls, the floorplan of Site 242 is modestly sized but complex in design, with T-shaped doors and alcoves housing platforms with hearths and vents, all features reminiscent of Casas

Grandes architecture. An enormous ballcourt in the distinctive “I” shape and the only platform mound outside of Casas Grandes are also associated with Site 242, and unusual artifacts such as macaw cage doors and a stone ground into a phallus were found there. Site 242 is seemingly a miniature version of Casas Grandes.

Most ballcourts and other unusual features are located no farther than 30 km from Casas Grandes, but they are also not found any closer than 15 km – only residential mounds occupy this core area. If ballcourts were indeed expressions of factional competition (Box 6.3), their absence in settlements closest to Casas Grandes suggests that those people were sociopolitically tied to the center, while populations living farther away participated in a multitude of small political systems that arose in the shadow of Casas Grandes (Minnis *et al.* 1993; Whalen and Minnis 1996, 1999:61, 2000:175–7). Those living even farther away, outside of the 30 km “inner zone,” arguably are the most autonomous, for they built only a handful of ballcourts and diminutive ovens, and they apparently did not keep macaws. Even the shell crafts they produced were crudely worked from readily available species (Whalen and Minnis 2001b:191).

Like Chaco Canyon before it, the fidelity of Casas Grandes features – and the direct control and influence they represent – fades the farther from the center one goes. This makes it difficult for archaeologists to draw boundaries that define a discrete political system. Scholars once thought that Casas Grandes lorded over a huge area extending well into what is now the USA (Di Peso 1974). Some now argue that direct control did not extend any farther than the 15 km core area, and certainly no more distant than the 30 km inner zone (Whalen and Minnis 2001b). Beyond that, the influence of Casas Grandes was not strong, but it was extensive and included Black Mountain sites in the Mogollon areas and Animas sites of the northwestern Chihuahuan Desert (Box 6.4), reflecting likely corridors of trade into the northern Southwest (Fish and Fish 1999:38–40; Schaafsma and Riley 1999:241–2). In other areas, in contrast, the impact of Casas Grandes was much weaker (Whalen and Minnis 1999:60–61). Research at Villa Ahumada, for example, some 40 km to the northeast of the center, suggests that people there were more closely tied to the Jornada Mogollon tradition than to the Casas Grandes system (Cruz Antillón and Maxwell 1999).

#### *Where did Casas Grandes come from?*

One reason that Casas Grandes has fascinated visitors for so long is because it is an enormous site that seems to have suddenly popped up in the middle of nowhere. Adding to its mystique is the combination of

### Box 6.4 The Animas tradition

The Animas area, centered in what is now southwestern New Mexico, has played an important role in defining the scale of Casas Grandes's influence and authority. Because Animas archaeological sites share material culture with Casas Grandes, early interpretations considered this the northern frontier of Casas Grandes territory (e.g., Di Peso 1974). The identification of small "ballcourts" in the Animas area has encouraged this view, although these courts are simple rows of stones delineating a playing field rather than the Casas Grandes-style I-shaped ballcourts (Whalen and Minnis 1996).

A number of archaeologists suggest that this interpretation of the Animas area as subservient to the Casas Grandes political system is inaccurate. John Douglas (1995), for example, reviews the evidence for Casas Grandes dominance at Animas sites and finds little empirical support. He suggests that the distance and resulting interaction costs were too great for the center to have exerted much control, and he instead proposes a more dynamic model in which Animas people consumed some of the goods from Casas Grandes, but in small quantities that were procured indirectly. A similar conclusion is reached by Paul Fish and Suzanne Fish (1999:38–9). They note that while some polychrome pottery *styles* are shared between Casas Grandes and Animas sites, the two areas are separated by a region in which different pottery was produced, confirming that Casas Grandes was not a monolithic political entity controlling vast regions. And many of the Animas polychromes exhibiting Casas Grandes styles were locally made – they are copies of the Ramos style, not the result of direct exchange (Woosley and Olinger 1993).

An illustration of Animas archaeology is provided by the Joyce Well Site, located 130 km northwest of Casas Grandes (Skibo *et al.* 2002). The site consists of a 200-room pueblo built of coursed adobe mud around a plaza. Occupied from the thirteenth through fifteenth centuries, the Joyce Well Site was contemporaneous with Casas Grandes, and it features a simple ballcourt defined by two rows of rocks, locally produced pottery decorated with Casas Grandes styles, and shell ornaments and jewelry. Based on the configuration of architecture and artifacts, William Walker and James Skibo (2002) conclude that residents of the Joyce Well Site participated in a common religious system focused on Casas Grandes, and although they may have gone there on pilgrimages, they were not ruled by the influential center.

Puebloan features similar to those seen to the north with Mesoamerican traits commonly found to the south. These characteristics have inspired a variety of explanations for the emergence of Casas Grandes, few of which can be easily dismissed owing to the relatively unexplored and poorly understood archaeology of the ruins and surrounding area.

Di Peso (1974) originally proposed that Casas Grandes was a Mesoamerican outpost established to facilitate trade with Puebloan societies to the north. On the basis of an inaccurate chronology that put the ruins over 150 years too early, Di Peso argued that the outpost was established by Toltecs who subjugated Chihuahuan locals and traded with Hohokam and Chacoan people. A new chronology, however, reveals that Casas Grandes was not built until the turn of the thirteenth century, after both the Toltec and Chaco traditions had faded from prominence. Although some scholars still contend that the center was part of a Mesoamerican mercantile system, perhaps established by the Aztlán ancestors of the later Aztecs (e.g., Kelley 1993), the evidence indicates a more limited exchange economy at Casas Grandes and a smaller sphere of regular interaction.

An alternative view agrees that Casas Grandes was founded by immigrants who established control over local inhabitants but argues that these newcomers were Chacoan elites fleeing from the north. This model is proposed by Lekson (1999a), who points out that Chaco Canyon, Aztec, and Casas Grandes not only are on virtually the same north–south alignment – what Lekson calls the “Chaco Meridian” – but also appeared sequentially (Box 6.1). Architectural similarities, such as T-shaped doors and elevated platforms, are offered as evidence of this connection (Figure 6.14). Lekson (1999a) constructs a comprehensive argument for why and how the leading families of Chaco Canyon were compelled to flee first to Aztec and then more than 600 km south to Casas Grandes. According to the model, the Casas Grandes area was only sparsely inhabited, allowing the Chacoan refugees to establish a center that reflected both their own traditions and those of the Mesoamerican frontier.

While most archaeologists welcome Lekson’s consideration of large-scale spatial and temporal patterns, a few scholars have challenged the details of his Chaco Meridian model (e.g., Phillips 2000; Whalen and Minnis 2003; Wilcox 1999b:98). Perhaps most problematic for any explanation that sees Casas Grandes as an imported phenomenon is the growing body of evidence suggesting that it was an indigenous development. This evidence is emerging from new research on the “Viejo Period,” which lasted from AD 700 until Casas Grandes itself emerged around AD 1200. Viejo sites are not well known, owing to a lack of extensive research as well as the likelihood that many lie beneath sites of the later





6.14 Several features found at Casas Grandes, such as the T-shaped door illustrated here, also characterize the great house architecture of Chaco Canyon and Aztec. Some scholars therefore suggest a direct link – perhaps even a migration – between the two areas.

“Medio Period,” the era of Casas Grandes. What is known about the Viejo Period is that the earliest sites formed pithouse villages not unlike the Mogollon villages to the north – they even clustered around larger semi-subterranean “community houses.” As time passed, Viejo people began building above-ground buildings made of jacal, just like other Puebloan people (Whalen and Minnis 2001b:136–7, 197).

What makes the Viejo Period so important is that many of these early cultural patterns foreshadow features most commonly associated with the Medio Period. Viejo pottery, for example, includes brown- and redwares whose styles and vessel forms exhibit continuity with Casas Grandes polychromes (Schaafsma and Riley 1999:245–6). Furthermore, after about AD 1000, Viejo sites grew into large farming communities that expanded into the same piedmont areas where later Medio sites are found. Viejo people even started importing exotic pottery, marine shell, and pieces of copper (Whalen and Minnis 2001b:197), a trade that fueled increasing differences in wealth and perhaps decision-making authority among Viejo people.

This evidence of continuity between the Viejo and Medio Periods has led a number of scholars to conclude that Casas Grandes was an indigenous development. Whalen and Minnis (1996, 1999, 2001b, 2003) believe that the center emerged largely for the same reasons proposed for the development of Chaco Canyon several generations earlier. They argue that the comparatively rich riverine waterways draining the Sierra Madre fueled competition among kin-based social groups in different communities. This competition was rarely overt, instead occurring within the acceptable domain of ballcourt games, religious rituals, and feasting events. The more grandiose the events sponsored by your social group, the more impressive the venue, and the greater the apparent successes of the ceremonies, the more that people would acquiesce to the authority of your group and its leaders and the more willing they would be to help you arrange the next feast or ceremony. And your success would be measured not just by how much food you could muster, but also by the number of exotic items that you displayed. Archaeologists recognize that such “peer-polity competition” can rapidly drive communities toward more complex social, political, and economic relationships.

Whalen and Minnis (2001b) believe that Casas Grandes had advantages afforded by its unusually abundant arable land. Over time, this allowed its inhabitants to develop a political system whose control was concentrated within a 15 km radius of the center. Beyond this area, competition continued between peripheral communities, leading to the persistent density of ballcourts found up to 30 km from Casas Grandes. At various points in time, the leading groups of Casas Grandes probably maintained alliances with communities beyond the core zone. These alliances provided the necessary conduits for a modest “prestige goods” economy in which exotic craft items were traded both into and out of Casas Grandes, fueling development not only of the center but also of peripheral communities (Bradley 2000:181). Whalen and Minnis (2001b:185) further argue that Casas Grandes probably used

these alliances to provision the center with basic commodities, such as food.

If Casas Grandes was as successful as Whalen and Minnis propose, why was it unable to unify a larger area? One suggestion is that Casas Grandes was not yet centralized enough, for a number of competing social groups apparently lived at the center, even at its height. This explains the decentralized production of shell crafts, with the major residential kin groups producing their own goods, perhaps guided but not directly controlled by leading kin members (Whalen and Minnis 2001b:184–5). Each group striving to outdo the others drove the vibrant prestige goods economy responsible for Casas Grandes's growth. Such competition also probably inspired awe-inspiring ceremonial displays that no doubt attracted visitors from long distances away, perhaps making Casas Grandes a pilgrimage destination not unlike Chaco Canyon had been over a century earlier (e.g., Fish and Fish 1999). But the lack of a single cohesive political entity at Casas Grandes made territorial consolidation difficult to sustain beyond fleeting alliances with neighboring communities.

This model explains the curious mortuary patterns identified at Casas Grandes. Di Peso recovered almost 500 interments, of which 42.5 percent had burial goods – half of those consisted of simple offerings of locally produced pottery, while another 42 percent included small quantities of shell, copper, and other jewelry items. John Ravesloot's (1988) statistical analysis of the mortuary data identified about a dozen people, including adults and adolescents, who had been afforded elaborate "secondary" burials in which their decomposed bodies were reinterred in either the Mound of Offerings or the House of the Dead. These burials included rare accompaniments like ceramic hand drums and bone flutes. Ravesloot concluded that this was evidence for ascriptive ranking at Casas Grandes, through which the most elite families retained their wealth and authority from generation to generation. The fact that the rarest burial goods were musical instruments probably used in ceremonies further suggests that the highest status was held by religious leaders, positions that may have been retained from generation to generation, as revealed by the layered interments in subfloor tombs in the House of the Dead (Whalen and Minnis 2001b:187).

Ravesloot's analysis identified a mere thirteen people who fit the highest category of mortuary treatment, suggesting they held positions at the pinnacle of Casas Grandes society. However, he could only associate fourteen people with his next lower category – primary interments in which a modest variety of mortuary goods were included. And only forty burials fit in his third category of minimal mortuary treatment. So, while fewer than 3 percent of all 447 identified interments at Casas Grandes fit in the

elite level of mortuary treatment, this is misleading since only sixty-seven burials positively fit in *any* of Ravesloot's statistically derived categories. This means that, in fact, a surprising 19 percent of his positively identified sample received the highest level of treatment. The mortuary patterns therefore suggest that the highest status at Casas Grandes was achieved by a fairly sizeable portion of the population. And certainly, from a cross-cultural perspective, the amount of wealth invested in the highest-tier burials was modest (Whalen and Minnis 2000:173). All of this is consistent with an interpretation of Casas Grandes as a weakly centralized political system that was driven by social and ceremonial competition.

Assuming that Whalen and Minnis are correct and Casas Grandes was an indigenous development, one might wonder why the center exhibits so many cultural features typically associated with Mesoamerican and Puebloan societies. Answering this requires a consideration of the kind of prestige-oriented ceremonial competition proposed for Casas Grandes. As different social groups try to outdo one another, enhance their prestige, and attract new followers, one effective method is to appropriate symbols from more powerful traditions, particularly those that are distant in space and even time. At Casas Grandes, aspiring religious authorities may have looked toward Mesoamerica and Chaco Canyon for such symbols. People living in the Chihuahuan desert knew about the powerful religious traditions of both areas, a mystique that leaders could use to their advantage (Whalen and Minnis 2001b:187–8). To the north, the fact that Chaco was so distant in space and already fading in time made it a perfect source of powerful symbols, and immigrants from the Mimbres area and even from the Chaco region could have introduced ideas such as T-shaped doors and coursed adobe architecture. Meanwhile, Mesoamerican influences introduced ballcourt competitions, platform mound ceremonies, and symbols such as the plumed water serpent. All of this fed into Casas Grandes competition, producing a unique mix of cultural features. By the end of the thirteenth century, this suite of symbols and rituals had coalesced and began to reverberate across the desert and back into the northern Puebloan world at a time when the Southwest was undergoing substantial changes.