Houses Great and Small: Reevaluating the 'House' in Chaco Canyon, New Mexico

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11. Houses Great and Small: Reevaluating the “House” in Chaco Canyon, New Mexico

Carrie C. Heitman

Abstract: In recent years, a growing number of archaeologists have explored the potential of expanding Lévi-Strauss’s concept of house societies to better understand specific archaeological contexts. Looking specifically at the classificatory distinction between “great houses” and “small houses” within Chaco Canyon (A.D. 850–1180), I suggest this theoretical model might yield new insights with regard to four symbolic dimensions of house construction: the use of wood, directional offerings, resurfacing practices, and the bones of ancestors. Using Puebloan ethnographic literature and cross-cultural comparisons, I suggest a house model analysis may serve to integrate anomalous “ceremonial” dimensions of house construction in an effort to better understand how these structures shaped and wholly reflected changing patterns of social organization through directional associations, differential access to origins, and cyclical processes of ritual renewal.

If we are to fulfill one of our basic obligations—the reconstruction of prehistoric developments and their ultimate development into historic groups—investigators must make use of all available material, as well as investigating the historical material for leads back into prehistoric times.

—Schroeder (1954:597)

In recent years, a growing number of archaeologists have explored the potential of expanding Lévi-Strauss’s (1982) concept of house societies to better understand specific archaeological contexts. In this chapter, I use ethnographic/theoretical analyses by cultural anthropologists Carsten and Hugh-Jones (1995), The Durable House: House Society Models in Archaeology, edited by Robin A. Beck, Jr. Center for Archaeological Investigations, Occasional Paper No. 35. © 2007 by the Board of Trustees, Southern Illinois University. All rights reserved. ISBN 978-0-88104-092-4.
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Fox (ed. 1993), and McKinnon (1991) to discuss the applicability of such a model in Southwestern prehistory. Looking specifically at the classificatory distinction between “great houses” and “small houses” within Chaco Canyon (A.D. 850–1180), I suggest this theoretical model might yield new insights with regard to four symbolic dimensions of house construction: the use of wood, directional offerings, resurfacing practices, and the bones of ancestors.

With the use of Puebloan ethnographic literature and cross-cultural comparisons, the house model begins to draw out the symbolic logic inscribed within Chaco era architecture. In what follows, I hope to build upon and move beyond the more restricted interpretive domains such as kinship classifications, ritual, and polity that have characterized much of the work on the Chacoan florescence. To better understand what the florescence meant and how it organized people, I propose to explore the Chacoans’ vision of the cosmos and their place within it. Thus shifting the theoretical lens will serve to reorient interpretations away from the boundless exploitation of quantitative empirical estimates (labor, environment, room size) to more qualitative empirical estimates of what anchored their worldview. The house model may serve to integrate anomalous “ceremonial” dimensions of house construction in an effort to better understand how these structures shaped and wholly reflected changing patterns of social organization through directional associations, differential access to origins, and cyclical processes of ritual renewal.

Over the past decade, Chacoan scholarship has focused less on the canyon core and more on the vast network of roughly 200 outlier communities in the San Juan Basin (Mills 2002:81; see Kantner 2005). These outlying great houses demonstrate degrees of architectural similarities and differences with those great houses in the canyon (Van Dyke 1998). Identification of road network segments and elucidation of a shared suite of architectural characteristics have yielded new perspectives on the scale of this cultural florescence in the San Juan Basin and raised new questions about the significance of parallel developments (Cameron 2002; Kantner 1999; Kantner and Mahoney 2000; Van Dyke 1997, 1998, 1999a, 1999b, 1999c, 2002, 2003, 2004). These studies have propelled researchers to ask synthetic questions about the nature and function of the Chaco world—a view privileged by a modern cartographic perspective. Given that the Chacoan phenomenon would not have been lived, experienced, or perhaps even understood in such a way, I offer the house model as a complementary program of research.

Chaco Canyon in Context

Chaco Canyon, perhaps more than any other single location in the American Southwest, has received attention from archaeologists in the long-standing pursuit of Puebloan historiography. As Barbara Mills (2002) and others have noted, over a century of archaeological research at Chaco Canyon now requires its own historical narratives (Elliot 1995; Gabriel 1992; Snead 1999, 2001). Located within the San Juan Basin of northwestern New Mexico, Chaco Canyon is both a location and a touchstone within studies of Southwestern prehistory. The canyon itself is approximately 30 km long, 90 to 180 m deep, and varies from 500 m to a
kilometer in width (Sebastian 1992:10). In the confines of what is now the Chaco Culture National Historical Park, 12 great houses and numerous Great Kivas (circular communal structures) were built during the tenth through twelfth centuries A.D. Research in recent decades has connected this apparent core to an expansive network of roads and outlying great house communities over a 90,000-square-mile area within the southern portion of the Colorado Plateau (Figure 11-1).

As any summer visitor can attest and scholars have long noted, the scale of construction within Chaco Canyon is difficult to reconcile in this seemingly hostile desert environment, as the monumentality and extent of the Chacoan phenomenon (Irwin-Williams 1972) are unparalleled in Southwestern prehistory. For roughly 350 years, a suite of archaeologically diagnostic characteristics linked the canyon to over 200 great houses across the San Juan Basin (Kantner 2005). Defined in large part by surface-visible traits (Kintigh 2003:94), these structures (those in the canyon and outside) share various elements. Most artifact assemblages include trachyte-temper ceramics from the Chuska Mountains on the western edge of the basin. The most diagnostic features of Chacoan great houses, however, are their scale (multistory, over 15 rooms) and method of construction (core-and-veneer architecture). Though variability persists across space and time, Chacoan structures stand in contrast to contemporaneous structures in surrounding regions by virtue of their construction technique, planned layout, elevated topographic location, and associated artifact assemblages. Unlike the broader Chacoan landscape of outliers, the canyon core contains 12 great houses densely packed within a small section (Figure 11-2) surrounded by roughly 200 small house structures. Though great houses across the San Juan Basin share a pattern of architectural traits, it should be noted that the largest structures within the canyon are orders of magnitude larger than those outside, consisting of 60 to 650 rooms and ranging from one to five stories in height.

History of Research

Before proceeding to the theoretical ramifications of the great house/small house dichotomy, it is necessary to briefly describe the history of research in the canyon. A tremendous amount is known about the largest great house, Pueblo Bonito, from the American Museum of Natural History excavations of the 1890s and the National Geographic Society excavations of the 1920s. Early excavators were drawn to the monumentality of that structure and their efforts (and patron museums) were rewarded with effigy figures, whole vessels, copper bells and macaws from Mexico, elaborate bone tool assemblages, and vast quantities of turquoise, shell, and jet. During that era, George Pepper and Neil Judd excavated over 95 percent of Pueblo Bonito. Of all the great houses, it is the most well known for that reason and serves as the primary data set for this and many other analyses.

Most Chaco scholars would be quick to point out, however, that Bonito is the exception and not the rule in terms of house variability. Nevertheless, this particular structure looms large in interpretive models (see Neitzel, ed. 2003). To help alleviate this bias, the Chaco Center, jointly sponsored by the University of New Mexico and the National Park Service, conducted excavations and analy-
sis in the canyon from 1971 to 1982. This project vastly expanded the available data from both great house and small house sites, as well as from the road networks. The project’s limited excavations at four small house structures (29SJ627, 29SJ629, 29SJ633, and 29SJ1360) and large-scale excavation at the Pueblo Alto great house provide the only available modern data sets to compare with Pueblo Bonito. Though the sample of small house data is limited, it suggests greater than expected structural variability (Toll et al. 2005). Ongoing research has furthered tremendously our knowledge of Chacoan prehistory through new methodologies and interest from outside disciplines. For the purpose of this discussion, I would like to highlight a few such studies for later reference. Ongoing tree-ring studies have dated roughly 5,600 samples, giving scholars a robust picture of the building sequences within the canyon. In addition, recent trace-element analyses of beams have identified the probable sources of the nearly 200,000 timbers transported over 50 km for great house and kiva construction (English et al. 2001). A similar recent strontium study of corn demonstrates the same pattern whereby corn was brought into the canyon from the Chuska Mountains 70 km to the west (Benson et al. 2003). Like the timber data, the ceramic (Toll 2001) and lithic (Cameron 2001) data show evidence that gray ware ceramics and Narbona Pass chert were also imported into the canyon from the Chuska Mountains in large quantities.

Returning now to the classification of houses, within the canyon small houses are defined in opposition to great houses. Unfortunately, the scholarly attention paid to defining a great house has not extended to small houses, leaving them loosely defined as “other” (Toll et al. 2005). The small houses were constructed on the canyon bottom from the previous Basketmaker III period (A.D. 500–700)

Figure 11-1. Map of San Juan Basin.
through the Pueblo I (A.D. 700–900) and Pueblo II (A.D. 900–1150) periods of Chacoan development (see Figure 11-3). Their distribution is predominantly on the south side of the canyon. Structurally, most small houses lack core-and-veneer walls and are typically smaller than 30 rooms. And unlike great houses, small houses usually are not formally planned constructions.

The ubiquitous use of the great house/small house classification serves as shorthand for referring to the stark differences between a five-story, 650-room structure (Pueblo Bonito) on the one hand and a single-story, 10-room structure on the other. But as Toll and colleagues (2005) argue, this economy of phrase has long masked the continuum of house variability that existed between those extremes. For instance, nearly 50 small houses in the canyon did have core-and-veneer architecture (Truill 1986:291–295, 499–502, C and V Figures). And, significantly, if one were to relocate some canyon “small houses” elsewhere in the San Juan Basin, they would be readily classified as great houses (Toll et al. 2005). With the exception of the concentration of exotic goods discovered at Pueblo Bonito, the largest great house, there are small house exceptions to every defining rule of the great house classification.

Architecture with a Capital A

In recent critical analyses of the state of Chacoan research, Mills (2002:77) and Sebastian (2006) have cited the need to “decouple” intellectual domains of analysis. In her critique of models of political organization, Mills (2002:77) observes that the “decoupling of scale, centralization and hierarchy, and the varying emphasis placed on the role of human agency” are “critical to
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Figure 11-3. Chronology for Chaco Canyon.
understanding how sociopolitical complexity arises.” According to Mills, the presumed connections between these facets of social change have led researchers to construct models in which a bundled suite of changes suffices for explanation. Alternatively, she encourages researchers to investigate these dimensions (scale, centralization, hierarchy, and agency) independently instead of assuming all four changed in lockstep. In her assessment of ritual and ceremonialism in current scholarship, she makes a similar observation about the current state of Chacoan scholarship: “Although a majority of reconstructions of Chacoan political organization have at their basis ritual leadership, very few actually describe how ritual was structured” (Mills 2002:92). Mills’s observations point us toward an analysis of everyday practices that leave trace signatures as to the meaningful contexts of embodied structures. The materiality of architecture makes it a primary medium for the expression of everyday life (Upton 2002:707). To rephrase Mills, decoupling scale, centralization, hierarchy, and agency necessitates revisiting the predominant top-down model for understanding social stratification and moving toward a bottom-up analysis of a dynamic social landscape. In his assessment of the current theoretical issues separating capital Architecture from lowercase architecture within the context of modern architectural theory, Dell Upton addresses the same need for processual analyses to bridge the gap between the specificity of everyday life and the overtheorization of monumental structures/spaces:

[I]f we understand what the everyday is, we can also understand how it works: through bodily memory instilled by repeated action in organized time and space. This definition gives the everyday specificity . . . and it suggests as well why small “a” architecture is critical to understanding everyday life [Upton 2002:720].

The classificatory dichotomy between great houses and small houses, I argue, is tied to a theoretical dichotomy of social dynamics cited by Mills: the opposition of rituality (Drennan 1999; Yoffee 1999) and polity (Sebastian 1992). The opposition of these two domains (Sebastian 2006) demands that one or the other must be the real foundation and that the other sits on top as derivative: a layer-cake model for social dynamics. Entailed in this theoretical layering is the implicit understanding that great houses were the sole locus for those higher-order politico-religious expressions and that small houses were domestic habitations—habitations that existed outside of those higher-order expressions. What are conventionally referred to as capital G Great houses and lowercase s small houses echo the implicit theoretical distinction between Architecture and architecture described by Upton (2002). The conceptual separation of the “great” from the vernacular or mundane eliminates the possibility of understanding the two types in relation to one another and, as Upton argues, ignores the specificity or agency of everyday practices. What is more, I argue that this separation inhibits investigation of the hierarchical continuum that must have existed within the canyon. For example, Stein and Lekson (1992:93) suggest that great houses were “scaled-up” versions of small houses but that “the two architectural forms are not functionally equivalent: one is the locus of daily life and domestic activity, the other is the threshold
to the existential realm.” In this analysis, great houses are classified as symbolic *expression* (either ritual or political) and the small houses are classified as domestic *function* (Sebastian 1992:135). This interpretive dichotomy sets up a separation between those who are actively involved in the creation of a new ideology and those who are not and ignores the processual “everyday” traces of cultural practice that may have been broadly shared and enacted during the Chacoan era. Stein and Lekson’s interpretation may be correct; great houses might very well have served a different purpose than smaller structures. But in assuming that distinction we lose the ability to parse out the complex ways dimensions of house construction created those differences.

The research of Wendy Bustard (1996), however, suggests the distinction between the two Chacoan house types is false. Using space syntax analysis to compare a sample of three great houses and 20 small houses, Bustard (1996:253) concluded that “the two had more similarities than differences.” Both groups are characterized by a diversity of “ground plans, room size, architectural units, syntactic units, symmetry, and space use” (Bustard 1996:253). Contrary to Stein and Lekson, Bustard (1996:253) argues that “[f]or these variables, differences between great and small houses in Chaco Canyon are clearly not dichotomous, not even in size.” Building on the work of Toll and colleagues (2005) and Bustard (1996), I argue that if great houses are the fullest “scaled-up” expression of what Chaco was about, they can best be understood in terms of the cultural logic that informed house construction more broadly. And to the extent that the social landscape of houses might have been more complex than “great” and “small,” exploring the specific dimensions of house construction might allow us to understand the terms in which hierarchical relations were negotiated.

**House Theory**

So what does house theory have to offer to the theoretical and classificatory issues within studies of Chacoan prehistory? In recent critical kinship analyses, many scholars have drawn upon Lévi-Strauss’s concept of house societies (Lévi-Strauss 1982, 1987, 1991) to reorient kinship discussions away from classificatory schemes toward understanding house structures as sites of symbolic investment and as the contexts of social relationships (Carsten and Hugh-Jones 1995; Fox, ed. 1993; Joyce and Gillespie 2000; McKinnon 1991, 1995, 2000, 2002; Waterson 1993). Though this model has emerged from a largely Austronesian context (Fox, ed. 1993), there is much to be gleaned for other parts of the world from its original application and more recent archaeological adaptations (Joyce and Gillespie 2000). The house model recasts Lévi-Strauss’s formulation to create a new conceptual field that entails the social relationships constructed through house affiliation. The components of a house model vary with ethnographic context, but within some Austronesian studies anthropologists such as James Fox (1993a) and Roxana Waterson (1993) have focused on five major themes. These are (1) the indivisibility of ritual and political social dimensions enacted and created through houses, (2) the linguistic reflexes of indigenous house terminology,
the symbolic investment in house construction and structure, (4) access to origins, and (5) the kinship dynamics of house affiliation.

Changing the frame of kinship analysis in this way entails the symbolic investment evident within house contexts. According to Fox (1993a, 1993b) and his study on the island of Roti, the symbolic and ritual efficacy of houses combines domestic, social, and ritual practice into a physical entity, a microcosm of a cosmological order (Fox 1993b). As such, houses are sites of multiple forms of social action. In his discussion of houses within the region, Fox further argues that the domestic design of particular houses builds on a cultural category and social values encoded within the structural layout. Otherwise stated, to varying degrees houses physically recapitulate shared social values for both the inhabitants and the community at large. What is more, material culture serves to demonstrate both access to and sanction from those cosmological referents.

Using dimensions of house society analyses, my goal in the remainder of this chapter is to highlight aspects of house theory that seem particularly relevant in the context of Chaco Canyon. These dimensions, I suggest, might provide another interpretive framework that moves beyond the presence/absence indicators for polity and rituality and instead seeks to explore, if not explain, the cultural logic embedded in houses to better understand what these structures were before we a priori assume we know what they meant—or assume we have grasped the social dynamics of which they were a part.

**Puebloan Cosmology and Chacoan Houses**

The house model creates a fertile intersection of archaeological time depth and ethnographic detail. Indeed, such an approach demands rich ethnographic sources to guide research and interpretation; of this there is a long-standing tradition in the Southwest (e.g., Bandelier 1890; Boas 1928; Bunzel 1932:467–544; Dumarest 1919; Fewkes 1893, 1903; Goldfrank 1927; Parsons 1917a, 1917b, 1918a, 1918b, 1919, 1920a, 1920b, 1923a, 1923b, 1923c, 1923d, 1924a, 1924b, 1926, 1929, 1933, 1936, 1939; Stephen 1898, 1930; Voth 1912; White 1928, 1932). Most Pueblo origin stories begin with emergence from Shipap—the process by which people ascended into this world through a series of underworlds. At the risk of conflating Puebloan cosmology into a generalized narrative, it is possible to say that numerous Pueblo origin myths delineate the creation of a complex cosmological map in which predator animals, birds, colors/pigments, mountains, plants, deities, and humans are interrelated. Directional associations orient identities and cultural practice, and they ensconce pueblo communities as a center place within a landscape of geographical/cosmological referents (Ortiz 1969:18; see also Fowles 2008). These directional associations are often inscribed within Pueblo architecture at all levels, from mountaintop shrines, to directional pueblo shrines, to house offerings embedded in roofs or walls (Pepper 1920:253).

In his discussion of the Keresan-speaking Pueblo of San Felipe (Figure 11-4), Leslie White (1932:38) describes how in certain contexts houses themselves may become a representation of a cosmological landscape. In preparation for the
Masked Dance conducted by the Turquoise moiety for the ancestral rain-giving kachinas (spirits), the western room where the masks are kept is structurally correlated with we’nimًا—the land to the west that is home to the kachinas. This correlation is further emphasized in song (White 1932:38) and in the gradual transition by which the masks are fed, smoked, and eventually brought “east” to the pueblo of San Felipe for the dance. This practice highlights how pueblo houses, especially houses in which ritual paraphernalia are stored, can be equated structurally with a cosmological landscape and points of origin. In this description the western room is not just the westernmost room—it is we’nimًا—the home of the kachinas. And when the dancers exit the house toward the east and enter the Pueblo, they are the kachinas coming to visit the pueblo.

Further emphasizing this connection, Elsie Clews Parsons makes the following comment about Zuni ritual practice in a footnote to a draft of her Pueblo Indian Religion (1939) volumes:

Analogously it is a house principle rather than a clan principle that figures, I incline to think, in certain koko [masked gods] impersonations. Certain permanent masks are kept in certain houses, much like ettowe [fetishes], and are used by the men of or “out of” the house. Hence certain koko roles are said to be filled by a certain clan or by the children of the clan i.e. men whose fathers belonged to the clan. Masks and ettowe are transmitted through house and only incidentally through clan [Parsons ca. 1930:12–13; underlines in original, italics mine].
This comment, embedded within a footnote, highlights complementary forms of affiliation that are not identical to descent and identifies the importance of the continuity of place. Storing ritual paraphernalia, according to Parsons, is tied to those continuous structures and, as White describes, these structures can become microcosms of the cosmological landscape at particular times (Fox 1993a:1). If this illustration can open the possibility for the time depth of such practices, I would like to suggest that houses within Chaco Canyon may express similar patterns. If nothing else, the observations by Parsons and White demonstrate the salience of the house as a nexus for cosmological mapping and a socially complex unit of Pueblo organization.

Wood As Emergence

You will find the seeds of four kinds of pine trees, là’khok, gē’etsu (dyai’its), wanūka, and là’nye, in your baskets. You are to plant these seeds and will use the trees to get up into the light [Stirling 1942:1].

The quantity of wood used to build, roof, and sustain life in Chaco Canyon is absolutely staggering (Figure 11-5). By some estimates, construction of 10 great houses would have required as many as 200,000 trees (Mathien 2003:133–134). Other recent estimates (Windes and Ford 1996:297) suggest that 50,000 beams would have been required for the construction of Pueblo Bonito alone. Each great house floor consisted of two or more primary beams, which were then overlain perpendicularly with smaller-diameter secondary beams. Primary beams averaged 5 m in length, 22 cm in diameter, and 275 kg in weight and were transported into the canyon from an estimated distance of 50 km to the west (English et al. 2001:11891). Isotope analyses have shown that both the Chuska Mountains (to the west) and the San Mateo Mountains (to the south) were contemporaneous resource locations dating back to at least A.D. 974 at Pueblo Bonito (English et al. 2001:11894). Specialists have suggested that the practice of procuring timbers from mountaintop locations may have been necessary to obtain desirable tree sizes (English et al. 2001:11895). Might it also have been because these mountains were sacred cosmological markers that served as physical and symbolic referents?

As noted previously from his synthesis of Austronesian house society literature, Fox (1993a:1) suggests that the symbolic and ritual efficacy of houses combines domestic, social, and ritual practice into a physical entity that represents a microcosm of a cosmological order. Fox (1993b) also discusses the role and construction of ritual attractors within houses. These ritual attractors are sites within the house of intensified ritual focus and offer a useful analytical category for archaeologists. Using Fox’s analysis of the house as microcosm, there are particular elements of the house that connect more directly to the cosmos—these are ritual attractors. It follows, then, that houses may have differential access to the power and sanction of the cosmos.

If the process of procuring specific tree species from specific locations was bound up in the ideology Fox describes, archaeologically we would expect to see beams or posts as sites of ritual investment. One need not look far for such examples. A
hallmark of Chacoan architecture is the kiva with radial log pilasters. Kivas are round, subterranean structures with a standardized set of floor features: a shipap or sipapu (a small hole, the symbolic place of origin), a bench, a fire box, a deflector shield, and a ventilator shaft for the intake of fresh air (Figure 11-6). There is some variation in these features, but a standard variation utilized by the Chacoans was the kiva with radial log pilasters. These pilasters were small masonry boxes that enclosed a beam shallowly anchored in the outer wall of the kiva. They were equally spaced around the perimeter of the bench, usually numbering six in a kiva. This form of pilaster appears to be as much about the repetition of the number six and about the fetishization of wood as it was a roofing strategy.

The interment and treatment of these radial log pilasters is consistent with the lengths the Chacoans went to procure these trees. Both Judd (1954) and Pepper (1920) observed turquoise and shell offerings embedded in radial beams (Mathien 2001; Figure 11-7). Pepper (1920:84) went so far as to say “they were no doubt ceremonial offerings to the house-god.” The quote at the beginning of this section, taken from a transcription of a Keresan origin story, suggests that the symbolic importance of trees also has great time depth. In cultural practice, at a Keresan corn dance, a special person carries a pole of either spruce or Douglas fir to represent how the ancestors came into the world (Richard Ford, personal communication 2004). Given the standard suite of features associated with kivas, including the sipapu, these structures have both a physical and a symbolic connection to emergence. Using ethnographic data, we may be able to better understand the prominent display
Figure 11-6. Chaco style kiva with radial beam pilasters (adapted from Vivian 1990:Figure 6.5).

Figure 11-7. Ceremonial offering of shells, beads, and turquoise. Pilaster #1, Kiva L, Pueblo Bonito. Reprinted courtesy of the National Anthropological Archives, Smithsonian Institution.
of certain species of wood in connection with the process of emergence. In addition to their presence at great house sites, this architectural element is also found at small house sites Bc 50 and Bc 51 (Toll et al. 2005). The emergent formalization of this architectural feature by the A.D. 1100s clearly had symbolic meaning. According to Geertz (1984), the number six at Hopi represents the recapitulation of the cosmos. Invoking these axes is connected to the six-point cloud people (the ancestors who dwell in the six directions) who “can send or withhold rain, health, good crops, long life, drought and famine” (Geertz 1984:228–229). Given the formalization of these elements, the function of the pilasters clearly did not preclude their definition as a symbolically resonant component of kiva construction.

Further evidence of the importance of wood is found in the methods of anchoring posts. Vivian and Reiter (1960) discovered that two of the posts in the Great Kiva at Chetro Ketl were anchored in the following way. Below each post were up to four 500-lb shaped sandstone disks. Below the disks were four layers of cultural fill: a layer of adobe, a layer of lignite (a form of coal), another layer of adobe, and another layer of lignite. Finally, below the lowest layer of lignite, excavators found a sueded bag containing an ounce of turquoise dust. The anchoring of a primary support post in a ceremonial structure associated with houses seems to be the strongest evidence to suggest that posts were ritual attractors in precisely the way Fox (1993a:1) describes. Similarly, recent kiva stabilization efforts within the Chaco Culture National Historical Park have revealed that radial beam pilasters were packed with lignite (Dabney Ford, personal communication 2006). Posts anchored in lignite are found not only in great house kivas but also in small houses (e.g., site 29SJ1360, House 1, Room 11; site 29SJ1360, House 2, Room 2; and site 29SJ629). Perhaps like the use of ash in the construction of modern pueblos to make houses “safe” (Peter Pino, Zia Pueblo, personal communication 2004), the use of lignite/lignite shims to anchor posts may have ensured the structural stability and served as a conduit of connection to the underworld.

**Directional Offerings**

The patterned occurrence of shell (white), turquoise, and lignite (black) has long been noted in studies of Chacoan material culture (Judd 1954; Mathien 2001; Neitzel 2003; Pepper 1920) and at Pueblo Bonito since Pepper’s excavations there in the 1890s. The patterned coincidence of these materials was recently quantified by Neitzel (2003) in her distribution analysis of artifacts within Pueblo Bonito. Turquoise, shell, and jet were the most frequently occurring artifact types of those analyzed in Neitzel’s study, numbering 61,650, 8,309, and 4,032, respectively (Neitzel 2003:108). These counts, taken from only the rectangular rooms and not from kiva contexts, demonstrate the vast distribution and apparent importance of these materials. Turquoise was found in 85 rooms, shell in 110, and jet in 11 (Neitzel 2003:108).

In her analysis, Neitzel (2003:125) points out that the greatest frequencies of artifacts are within the oldest portion of Pueblo Bonito and seem to mark a “sacred precinct.” The contexts of these materials are varied: they are sealed in wall niches, embedded in posts, buried in postholes, and placed as directional offerings
within rooms, as well as inlaid in objects found in rooms. Interestingly, turquoise was used in a variety of forms—unmodified nodules, finely crafted pieces of inlay, pendants, earrings, beads, and chips as by-products of manufacture. The ethnographic record also reveals the patterned association of these three materials in conjunction with cornmeal:

Cornmeal is a basic foodstuff and is shared to show a relationship with spirits who control the cosmos. At times corn pollen is added to the ground grain, and bits of shell or turquoise are mixed in. Shells relate to water, and turquoise is a sky-blue gem dug from the earth; so when these are combined with meal and pollen that fertilizes corn plants, all the essentials of life are brought together [Tyler 1979:5].

The co-occurrence of shell, turquoise, and jet has recently been explored in relation to black-on-white pottery decoration from Chaco Canyon (Plog 2003). Comparing the design layouts of painted wood/stone objects, Plog outlines ethnographic, ceramic, and color-association data to support a hypothesis that hachures on black-on-white Gallup-Dogoszhi style pottery may well have represented the color blue-green for Chacoans. The format of hachured designs interlocked with solid black design elements mirrors the interlocking of blue-green and black on other pigment-painted media. This observation indicates the far-reaching implications these two colors (black and blue-green) and materials (jet and turquoise) may have had within the Chaco world. Given the evidence for turquoise manufacture at small house sites (Mathien 2001) and the use of lignite in house construction, these materials are present in similar great and small house contexts but differ in frequencies. The difference is one of degree, not of kind.

Given differential preservation within the archaeological record, archaeologists have also drawn attention to components of directional offerings that were less likely to survive. In his report on the great house of Kin Kletso, Gordon Vivian (1973:18) drew attention to the great diversity of bird species represented in the form of bone and feather evidence. The importance of birds and bird feathers as envoyos to directions, deities, and ancestors is well established in ethnographic descriptions. In the introduction to his text on Zuni ethno-ornithology, Edmund Ladd (1963) describes this relationship in the following terms:

As observed by students of Zuni ethnology over the years, "All of Zuni life is oriented about religious observances and ritual has become a formal expression of Zuni Civilization." . . . These religious observances and patterns, although upon first glance they appear to be a confusion of details, are upon closer examination over-shadowed by the complexity of organization rather than content. The student who looks beyond this surface will find that worship of the ancestors is the foundation on which all Zuni ritual is based [Ladd 1963:4–5].

Ladd goes on to observe the ceremonial complexities surrounding the snares, species, processing, and feather used in prayer sticks—citing that a Zuni must "plant" prayer sticks from 4 to 20 times a year, using about 16 to 80 prayer sticks annually (Ladd 1963:23). If avifauna represent ceremonial connections to par-
ticular bird species (as Durand [2003] and Vivian [1973] have observed), then further analysis of bird and feather associations should help us understand the composition of these directional color associations and make predictions about their frequencies and patterns of use within houses.

Resurfacing and Rituals of Renewal

Taking into account the life history of a structure, Gillespie (2000:3) argues that “the continuity and changes experienced by social houses over generations, and the time depth inherent in the ideology of the house or its valued heirlooms [serve] to embody a collective memory about the past, a reference to origins that often forms a salient bond uniting house members.” If we look at the valued heirlooms contained in rooms adjacent to burials at Pueblo Bonito, there are some informative associations. Room 28, for example (just south of room 33; see Figure 11-8) contained the largest cache of cylinder vessels found in the Southwest. These vessels have been linked almost exclusively to great house contexts throughout this region. Room 28 contained 111 of the 192 cylinder vessels recovered from Pueblo Bonito. Room 33 in the northern mortuary crypt also contained cylinder vessels. Cylinder vessels were also found in room 33 of the northern burial crypt. Only 210 are known, and all but six of those come from Chaco Canyon (Crown and Wills 2002:5).

A recent study of cylinder vessels by Patricia Crown and W. H. Wills (2002) links the painting and repainting of the vessels to widespread evidence of practices of ritual renewal. Evidence within Chaco Canyon and ethnographic examples demonstrate how murals in kivas were cyclically replastered (Solometo 2001). Crown and Wills argue that the cylinder vessels exhibit similar signs of resurfacing through refiring. As mentioned in the previous section, the hatched ceramic decoration of these vessels may be linked to color and directional symbolism (Plog 2003). Most of the cylinder vessels recovered from Pueblo Bonito are white. Crown and Wills have argued, however, that the evidence for “shadow” designs on these vessels indicates that designs were applied and then burned or washed off. Organic color paints would have disappeared during the firing process, leaving a fugitive design. In connection to broader practices of renewal, Crown and Wills (2002:28) argue that cylinder vessels “became repositories of collective memory and historical continuity between past and present.”

The cylinder vessels are but one example of the complex caches of heirloom objects found in Pueblo Bonito. Their spatial contexts within the oldest portion of the structure as well as the evidence for large-scale storage suggest that these objects constitute property of the house. Some cylinder vessels are associated with individual burials within the mortuary crypts. This one example of refiring, when contextualized within broader ethnographic examples of mural renewal and color symbolism, complicates many of the extant interpretations of Pueblo Bonito burials. The orientations, offerings, and directional symbolism included with secondary burials must be understood as representing a process of transition constituted by stages of separation, liminality, and reburial (Metcalf and Huntington 1991:130).
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As Crown and Wills suggest, various other dimensions of house construction convey the same process of renewal. After reviewing some unpublished manuscripts from twentieth-century excavations at some of the small sites in the canyon, I found various descriptions of multiple floors separated by pristine sand and a layer of burned vegetal material (Amsden ca. 1925:62; Bullen 1941:10) and of sand used to deliberately close or seal pits and other holes in room floors. Conceptualizing posts as ritual attractors and the process of sealing holes into the earth (i.e., closing postholes once the post is removed for reuse elsewhere) seems highly patterned. Places where the earth is pierced for post placement, interment, storage bins, fire boxes, and so on are in many instances closed with sand. The use of sand between floors in house rooms has, historically, been interpreted as a method used to level the surface before reflooring. Viewed in isolation, such an interpretation seems parsimonious. Viewed in aggregate, these practices demonstrate the pattern identified by Crown and Wills.

**Bones Anchor Place: Access to Origins**

Interpretations of the two burial crypts (Figure 11-8) at Pueblo Bonito focus largely on whether characteristics of the individual burials—the large quantities of turquoise, the association of the unique assemblage of cylinder vessels,
the preparation of the subfloor burials—should be viewed as *indicators* of a social hierarchy. Was Chaco a chiefly, ranked society or was it egalitarian in nature? Looking closely at Pueblo Bonito, for example, the burial contexts are dependent upon other dimensions of social relations. Their discrete placement within the oldest section of Pueblo Bonito and the absence of such burial chambers in other known great houses marks the importance of the particular spatial context and suggests the practice of ancestor veneration. Clearly, not everyone could be buried within these two room clusters. Those who were had some meaningful connection to the original core of Pueblo Bonito or, in the case of disarticulated remains that were later brought into these crypts, the ancestral origins symbolized by the architectural core (Akins 1986, 2003).

So how might we make a bridge between an interpretation of the house as an indicator of social structure on the one hand and the processual aspects of hierarchy created through houses on the other? In her research on house societies in Tanimbar, Indonesia, Susan McKinnon discusses the seeming paradox within theoretical articulations of the house model:

> On the one hand, Lévi-Strauss and others have oriented us to the ways in which houses represent the “objectification of relations.” . . . This objectification is often expressed in the qualities of permanence, hardness, and immobility that characterize the wooden, metal, stone and bone objects that constitute the material elaborations of the house. On the other hand, the house is often seen as a living, moving, growing body. Not only is it sometimes structured as a body and thought to breathe or possess a soul . . . but, of course, it also encompasses and contains a proliferation of living occupants [McKinnon 2002:162].

McKinnon goes on to describe how the linguistic metaphors of houses in Tanimbar mediate this seeming paradox between the “real” and the “imagined.” This tension between houses as fixed sites of origin anchored in bones and wood and houses as living bodies that are related, named, and ranked through kinship terminology seems an insightful model for application to the Chacoan context. Housed in the oldest portion of Pueblo Bonito, the burial crypts demonstrate a similar kind of anchoring in the bones, posts, and physical objects of ritual practice. At the same time, such objects and contexts seem to be connected to a broader cosmological realm (Plog 2003). Preliminary research indicates that both great house and small house construction were anchored through similar physical and cosmological connections. Following the house model, this tension between the objectification of relations in the physical house construction and the house as a living body encompassing the dynamics of occupants reveals these complementary dimensions of archaeological interpretation. As viewed through this theoretical model, the primary and secondary burials housed in the two mortuary crypts of Pueblo Bonito demonstrate how typological definitions of hierarchy obscure the range of strategies and symbolic investment entailed in such mortuary practices.
Conclusions

The house model offers archaeology a new theoretical framework capable of addressing the crucial symbolic dimensions of lived experience in the past. Moving beyond models based on opposing domains allows for the reinterpretation of the house as a structure embedded with meaning and as an active representation of embodied practice. Further investigation into the variability and elaboration of small houses and great houses will serve to evaluate the long-standing dichotomy of the two site types within the canyon core. Reintegrating these houses through the house model enables a deeper and broader analysis of what these houses meant in a cosmological sense. Such an approach allows us to contextualize value and person–object relationships to reveal the substance and symbolic language through which social relations were enacted. Directional associations are embedded in structures in ways that range from distant places of power to the socket of a post in the ground. In order to begin to understand how the complexity of Chaco evolved, it is incumbent upon archaeologists to take these details seriously. This requires adopting new models and new strategies to better interpret the processes by which hierarchy was created. Future work is necessary to assess the applicability and utility of a house model analysis to Chacoan structures. Such an analysis will, I suggest, dramatically increase our understanding of prehistoric social dynamics in the Chaco world.

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