Peoples around the world regularly materialize conceptions of the cosmos. The issue for archaeologists is not whether this is so but determining what evidence is needed to recognize and interpret such expressions, and with what reliability we can do so. Certainly, a culture-specific worldview may be perceived in an existing landscape by its inhabitants, acknowledged in narratives of ancestral mapping, and in customary reverence for or avoidance of specific places (e.g., Colwell-Chanthaphonh and Ferguson 2006; Morphy 1995; Richards 1999; Taçon 1999; see also Bradley, this volume). Cosmological ideas might also be inscribed materially in varied media, prominently (but not exhaustively) including rock art, isolated monuments, and such other material categories as architecture—from individual buildings through bounded cityscapes and beyond. This chapter focuses on archaeological study of cosmology and worldview in ceremonial landscapes, and especially in civic plans (that is, public works) as a frequent category within the range of such landscapes. Although analysts sometimes consider the two highlighted domains separately, they are considered jointly here, principally but not solely with reference to considering societies for which the archaeological record is a fundamental interpretive resource.

Nature of Inquiry

Ceremonial landscapes are defined here as settings in which arrangements of specific features situate the cosmos on earth, and where ritualized movements to and among these features are means to evoke and reinforce understandings of cosmic order. The features in question may or may not be easily recognizable to outsiders and can be quite subtle in material manifestation (e.g., van de Guchte 1999). Such landscapes are often expressions of sacred geographies or spiritscapes (e.g., Crumley 1999; also David and Thomas; McNiven, this volume), but their components need not always be designated as “sacred” (e.g., Ashmore and Blackmore 2008; Knapp and Ashmore 1999; Smith 1987). Nor are they always readily distinct from “mundane” landscapes of everyday activities (e.g., Bender 2002; Ingold 1993; Mack 2004; Moore 2005; Tuan 1977). Although most would agree that all these landscapes exist through people’s interaction with them, the term ceremonial landscape shifts emphases squarely onto the practices of interaction. Civic plans are arrangements of public buildings, open spaces, and monuments in villages, towns, or cities—landscapes that are arenas for public interaction, ceremonial and otherwise, in sedentary societies.
Inquiry in these domains finds greatest, though not exclusive, receptivity among postpositivist analysts. To clarify (if not resolve) issues of interpretive disagreement, archaeologists with diverse epistemic perspectives come into conflict about the legitimate and appropriate ways of knowing the past, especially when the aim is to infer ancient meaning. Those grounded in positivist theoretical traditions generally stipulate hypothesis testing, with rigorously defined standards for proof, expressed in material measures of archaeological data (e.g., Moore 2005; M. Smith 2003). From broadly postpositivist vantages, however, acceptance of multiple ways of knowing make possible alternative understandings of past phenomena, within limits of evidential constraint (e.g., Colwell-Chanthaphonh and Ferguson 2006; McGuire 2004; Preucel 1991; Wylie 2002). Among such approaches prominent within studies examined here, structuralism and phenomenology have been especially subject to exploration and critique, and with productive response (e.g., Ashmore 2004a; Barrett 1988; Bender 2002, 2006; Bender, Hamilton, and Tilley 1997; Blake 2004; Brück 2006; Hamilakis, Pluciennik, and Tarlow 2002; Thomas 1991; Tilley 1994, 2004). As Anschuetz and his colleagues note: “Some of the most highly productive landscape research draws from complementary theoretical perspectives” (2001: 159), and the paragraphs that follow here select critically among contributions from sometimes seemingly disparate approaches in the literature.

**Ceremonial Landscapes**

As foundation, concepts about the human body often inform spatial understandings, at multiple scales (e.g., Brown 2004; Whithridge 2004; see also Gamble, this volume). Mapping of worldview may be grounded explicitly in the form of the human body (e.g., Gillespie 1991, 2000; Low 2003; Whithridge 2004). The body is also, of course, the starting point for phenomenological understandings of the world (e.g., Brück 2005; Tilley 1994; see Tilley, this volume). Cosmic referents may be inscribed physically on the body, as tattoos or other corporeal tangible modification (e.g., Meskell and Joyce 2004; Rainbird 2002). Spatial order at larger (and sometimes smaller) scales reiterates cosmological conceptions and inscriptions, commonly—and significantly—merging notions of time with beliefs about the structure of space (e.g., Hirsch 2006; Mathews and Garber 2004; Parker Pearson et al. 2006; Rice 2004; Thomas 1991, 1995; Zaro and Lohse 2005). Such mergers can usefully be described concisely for Mesoamerica: “Borrowed from the common Spanish and German usage, [cosmovision] denotes the structured view in which the ancient Mesoamericans combined their notions of cosmology relating time and space into a systematic whole. This term is thus somewhat more specific than the English terms 'cosmology' and 'worldview’” (Broda 1987: 108, emphasis added).

Ceremonial landscapes acknowledge concepts of cosmovision through repeated human practices in space and time. The literature on such landscapes is immense, its scope global, and its time range encompassing deep antiquity through the present day (e.g., Ashmore and Knapp 1999; Aveni 2001; Bender 1998; Bradley 1993, 1997; Carrasco 1991; Thomas 1991, 1995; Ucko and Layton 1999). Whether with reference to past times or present, inquiries about ceremonial landscapes focus on the places documented or inferred to be landmarks of cosmic mapping and ritual practices, and on the practices by which inhabitants enact cosmovision. Taçon (1999: 36–37) notes the following as features most likely to “invoke . . . feelings of awe, power, majestic beauty, respect, [or] enrichment”: (1) places “where the results of great acts of natural transformation can best be seen, such as mountain ranges, volcanoes, deep valleys or gorges;” (2) points of relatively abrupt transition in geology, hydrology, vegetation, or some combination of these; (3) unusual elements that “one comes upon suddenly;” and (4) vantage points with dramatic views. These same kinds of points can suggest junctions between mundane and supernatural realms, often identified further as axis mundi, or the center of the world (Elia 1959; Taçon 1999; Tuan 1977). Caves, mountaintops, and bodies of water appear with particular frequency in such a role (e.g., Brady and Ashmore 1999; Hall 1976; Parker Pearson 2004). Some materialize the bodies of mythic or legendary beings, or the results of their actions (e.g., Layton 1999). Sometimes natural places are modified to mimic or reestablish appropriate features, arguably to assert the axis mundi more emphatically (e.g., Brady and Ashmore 1999; Richards 1996b, 2003; Stein and Lekson 1992). Sounds, odors, and other senses accentuate the visual experience of these features in ways whose potentials archaeologists are still just beginning to explore (e.g., Houston, Stuart, and Taube 2006; Moore 2005; Rainbird 2002; Stein, Friedman, and Blackhorse 2007; Stoddart 2002).

Once established, these same places readily become destinations for visitation or, alternatively, places of danger, taboo, and avoidance. Movement among the stations can take the form of pilgrimage,
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and Stanish 2001; Bradley 1993; Cole 2004; Moore 2005; Sned and Preucel 1999; Sofae r, Marshall, and Sinclair 1989; Zedeño 2000). Songlines of Aboriginal Australia are well known in this regard. In a very different context, Central Mexico of imperial Aztec times, ritual movements among designated mountaintops, springs, and other stations across the ceremonial landscape were scheduled in accordance with annual feasts and sacrifices of important deities, or significant events of mythohistorical time (e.g., Carrasco 1991). The practice of ritual, through movement and other sensory experiences, activates the places visited, both reiterating and reinforcing the cosmovision that structures the whole. In Neolithic Britain, Stonehenge and the ceremonial landscape of which it is a part have attracted extraordinary scrutiny (e.g., Bender 1993, 1998; Bradley 1993, 1998a; Parker Pearson et al. 2006; Parker Pearson and Ramilisonina 1998). For example, from the cumulative record and their own new research program, Parker Pearson and his colleagues contend that Stonehenge and the great earthen henge at Durrington Walls are end points for mutually complementary circuits of the encompassing ceremonial landscape, perpetually embodying balance of transitions between life and death in an orderly cosmos.

Mortuary practices and their material traces yield what are often among the most significant landmarks in ceremonial landscape. Barrows in the greater Stonehenge landscape, for example, cluster at a major visual transition along the formal avenue, a topographic threshold at which Stonehenge comes into view.¹ In other contexts, such as the North American mid-continent, burial tumuli and their locations become signposts for mapping social, economic, and political history and its transformations, as well as enduring cosmovision (e.g., Buikstra and Charles 1999; Charles and Buikstra 2002; Charles, Van Nest, and Buikstra 2004; see also Hall 1976). The placement of Egyptian royal tombs at Abydos both reflected and affirmed the Old Kingdom cosmovision mapped in the valley around (Richards 1999).

Celestial phenomena commonly define rhythms for experiencing sacred landscapes, just as they often structure more mundane aspects of daily life (e.g., Urton 1981). The annual rounds of ritual in Aztec Central Mexico were mentioned earlier; timing of specific events was determined by the calendar, as confirmed by predictable astronomical phenomena (e.g., Aveni 1991, 2001, 2003; Broda 1991). Deeper in the past, solstice sunsets informally choreographed the processions along prescribed routes anchored at Durrington Walls in mid-summer and lunar transitions relative to lived space likewise confirmed cosmovision in ceremonial landscapes as disparate as pharaonic Egypt and ancestral Puebloan southwest (e.g., Richards 1999; Sofae r 1997; Stein, Suiter, and Ford, 1997).

Archaeologists increasingly recognize the meaning-laden roles of physical elements—what analysts know prosaically as stone, soil, timber, fire, and water—in experience of ceremonial landscapes (e.g., Boivin and Owoc 2004; Tilley 2004). For example, water is commonly seen as portal to what we as analysts usually consider a supernatural otherworld, often linked more generally to (among other notions) an array of mutually overlapping concepts such as boundary, barrier, conduit, transition, and transformation (e.g., Brady and Ashmore 1999; Hall 1976; Parker Pearson et al. 2006; Richards 1996a; Urton 1981). Properties of stone, including color, texture, or origin, potentially punctuate the cosmovision perceived and enacted in ceremonial landscapes (e.g., Jones and Bradley 1999; Scarre 2002, 2004; Spence 1999; Taçon 1991, 2004; Tilley 2004; Whittle et al. 1999). Similarly, soil takes on elemental meaning in construction contexts, as when careful selection and deposition of discrete bits of turf are used in precise complement to other sediment types to recreate an ordered cosmos within individual mortuary mounds, in settings as culturally divergent as Hopewellian sites and barrows at Stonehenge (e.g., Charles, Van Nest, and Buikstra 2004; Parker Pearson et al. 2006). In all the works cited parenthetically, inference of specific meaning is contingent on marshaling converging lines of evidence consistent with that interpretation, although it is not necessarily reliant on close ethnographic analogy.

Cosmovision in Civic Plans

Turning now to the specific case of civic plans, many have inferred cosmovision as structuring the layout of town and city spaces and architecture, in culturally diverse instances of antiquity as well as in more recent times (e.g., Urton 1981). Such expressions are broadly congruent with those of ceremonial landscapes, with the added impacts of politics and local or regional history. Wheatley’s (1971) masterful analysis of ancient Chinese city planning remains widely influential, as does Rykwert’s (1988) discussion of Roman town planning; both authors make stimulating cross-cultural comparisons. Not all civic plans have cosmovision underpinnings, however. An assemblage of articles in the Cambridge Archaeological Journal illustrates the diversity of possibilities (e.g., Carl
contention involves analytic scale. In a treatise on the Mesoamerican city, Marcus (1983) draws on Constantinos Doxiadis (1913–1975) to remind us that cities and towns everywhere have multiple components and that these components can be organized spatially by quite different principles. Although the civic center may be tightly ordered by deliberate planning, adjacent, largely residential precincts may reflect more organic growth, something Carl (2000: 329) refers to as the “messiness” of undirected practices in daily life. Still, even if one focuses on the civic center alone, variation in civic plan—in arrangements of buildings, outdoor spaces, and their orientations—makes some doubt that something as putatively internally unified as a culture-specific cosmovision can be responsible (e.g., Kemp 2000; Nalda 1998; M. Smith 2003).

Some individual cases of cosmovision in civic plans are widely accepted, as for the central Mexican metropolis of Teotihuacan (e.g., Cowgill 2000; Heyden 2000; Sugiyama 1993). But even where cosmovision might be cited as a factor, variation among civic plans within a single culture can ensue from differing political histories. The structuralist regularity supported by the analyses of Wheatley and others is modified by history and practice. Often civic plans combine expressions of cosmovision with state propaganda, extolling a particular dynasty or ruling house materially, using grand public works to situate temporal leaders in primordially sanctioned positions of authority. Such shaping is evident in civic plans for capital cities of ancient China, as it is for those of the Classic Maya and other state civilizations of Mesoamerica, as well as for Caesar’s Rome (e.g., Ashmore 1991, 2005; Ashmore and Sabloff 2002, 2003; Aveni and Hartung 1986; Carl 2000: 330; Joyce 2004; Keller 2006; Rice 2004; Steinhardt 1986). Sounds, colors, smells, dramatic performance, and other sensory perceptions would have augmented lived experience of the place, in the moment, and in social memory (e.g., Inomata and Coben 2006; Jones and Bradley 1999; Moore 2005; A. Smith 2003; see also Rainbird, this volume; Van Dyke, this volume).

Civic plans may also incorporate natural features strategically, so as to “demonstrate” the sovereign’s control over natural forces in the cosmos. The Classic Maya city of Dos Pilas is an apt example, where the principal palace was placed atop an important cave; each year, after the onset of the rainy season, a thunderous rush of water out of the cave proclaimed the royal resident’s ability to call forth the rains and with them, agricultural prosperity and social well-being (Brady 1997). His place in the cosmos was thus secured, renewed each landscape. Natural features could also be modified to link worldly authority with cosmically sanctioned control of water and other resources (e.g., Fash 2005; Scarborough 1998). Returning to propaganda in overt construction, multiple architectural assemblages common in Maya civic centers have been proposed specifically as stages for regular royal performance in ritual time. These assemblages, labeled technically by analysts as ballcourts, “E-Groups,” and twin-pyramid complexes, were relatively standardized arenas for marking solar, agricultural, or longer cycles, often punctuating observances with human sacrifice or other potent offerings and always implicating the sovereign as he who maintains cosmovision within and among polities (e.g., Aimers and Rice 2006; Aveni 2001; Gillespie 1991; Rice 2004).

Like the rushing water at Dos Pilas, other hierarchies, or manifestations of the sacred (Eliade 1959) used architecture to manipulate light and shadow, as well as sound, as a seemingly natural affirmation of cosmically sanctioned authority (e.g., Brady and Ashmore 1999; Stein, Friedman, and Blackhorse 2007; Stein, Suiter, and Ford 1997). Or materials acquired at great distance could ratify royal or imperial authority, as in the sands imported to surface the main plaza in Inca Cuzco (Protzen and Rowe 1994). Arenas beyond the civic centers could be linked in political and cosmic celebration, as well, as in the ritual circuits and processions at Vijayanagara, joining the worldly ruler of that South Asian empire with the ruling beings and forces of the cosmic realm (Fritz 1986; cf. Keller 2006; Mack 2004; Rice 2004). Ceremonial landscapes incorporate civic centers in expressions of cosmovision, if in these cases with a powerful political edge (cf. Bender 2002).

In long-enduring civic centers, however, the effects of history can blur the structure behind the practices, as well as the distinctions between civic and wider frames. Sometimes this involves revisionist moves, materially rewriting history by replacing public works of earlier regimes. Sometimes it involves what Barrett (1999) calls inhabitation, social practices that acknowledge extant monuments (or buildings) and their meanings, and sometimes it involves as well the process of ruin formation and the ambiguous place of ruins in social memory (e.g., Ashmore 2004b; Bradley 1993; Bradley and Williams 1998; Scarre 2002; Stanton and Magnoni 2008; Van Dyke and Alcock 2003).

Conclusions

As the preceding discussion indicates, consideration of cosmovision in civic plans merges with discussions of how something as putatively internally unified as a culture-specific cosmovision can be responsible (e.g., Kemp 2000; Nalda 1998; M. Smith 2003).

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that of ceremonial landscapes more broadly. That is, both ceremonial landscapes and civic plans constitute arenas in which cosmovision can be expressed, in ways that archaeologists are coming to detect and at a scale we treat as landscape. In both sets of cases, meaning is materialized in the land, by perception and by intervention of practice. Many have noted that landscapes are “quasi-artifacts” (e.g. Tilley 2006), and the boundary between built and “natural” features in even an urban landscape can become blurred over the long term (e.g., Barrett 1999; Bradley 1987, 1993, 1998b; Tilley et al. 2000; but see Stone 1992 and Taube 2003).²

In all cases, positivist calls for falsifiable hypotheses stand in counterpoint to postpositivist interpretations. From either epistemic perspective, the most compelling works tend to be data-rich, with much empirical information brought to bear on inferences made. As noted earlier, however, the disparities need not become (or remain) polarized oppositions; when allowed to complement each other, the diversity can be mutually stimulating and quite productive (Anschuetz, Wilshusen, and Scheick, 2001; Ashmore 2005; Bender 1999; Fisher and Thurston 1999).

Studying ceremonial landscapes and civic plans is integral to landscape archaeology as practiced in the 21st century. Although not all practitioners choose such topics as primary focus of inquiry, comprehensive archaeological research into people’s relations with the land around them requires understanding how cosmology and political history shaped lived experience in that land.

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Note

1. See, for example, Parker Pearson et al. (2006), as well as compare inferences of visual choreography elsewhere: Bender, Hamilton, and Tilley 1997; Bradley 1993, 1998a; Richards 1996a; Scarre 2002; Sofer, Marshall, and Sinclair, 1989; Thomas 1993a, 1993b.

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