

Chapter 5

World View and the Dynamics of Change: The Beginning and the End of Scioto Hopewell Culture and Lifeways

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The origin and end of Scioto Hopewell culture and lifeways have puzzled archaeologists for decades. This uncertainty exists in part because, until very recently, the details of organization and operation of Scioto Hopewellian social and ceremonial life and the outlines of Scioto Hopewellian spiritual thought have not been known. *How* Scioto Hopewellian social and ceremonial life emerged and disappeared could not be adequately addressed when it was unclear *what* they were specifically and what factors might thus have caused them. Uncertainty also exists because, in this lacuna in knowledge about the inner workings of Hopewellian life, archaeologists have been forced to look for possible causes of it that were external rather than internal to it; and no reasonably convincing external causes have been found. Migrations of people from Illinois (Prufer 1964a:58–59); regional population growth and packing with consequent social competition (Ford 1974; see also Braun 1977, 1986; Dancey 1992; Fagan 1995; Tainter 1977); subsistence intensification (Bender 1978; Saitta 1982); subsis-

tence risk in response to population growth (Braun 1986; Ford 1974); climatic change (Griffin 1960); the invention of the bow and arrow (Ford 1974); and communicable diseases (Prufer 1964a:66) have each been suggested and challenged empirically. Finally, the puzzle of the origin and end of Scioto Hopewell social and ceremonial life remains because most archaeologists have misunderstood the pace with which they emerged and waned. The beginning and ending, it turns out, were very rapid events that occurred over a few decades rather than drawn out processes of the kinds to which popular ecological explanations are best suited and which ecologically and materially oriented archaeologists have sought.

This chapter summarizes the fine-scaled reconstructions made in Chapters 2 through 4 of the natural and symbolic environments, subsistence, settlement, and social and ritual organization of Scioto Hopewellian peoples, and integrates these reconstructions by placing them in a historical framework. Initially, this chapter was written only to summarize and

organize the reconstructions presented earlier. However, in the process of doing so, insights into the origins and ending of Scioto Hopewell social and ceremonial life were unexpectedly gained – in particular, causal factors that were *internal* to the culture and lifeways of Early and Middle Woodland peoples of the Scioto drainage. These causes are presented here.

The chapter begins by inventorying the many ways in which Scioto Hopewell culture, lifeways, and demography changed over the Middle Woodland period. It proceeds to present a model of how Scioto Hopewellian social and ceremonial life originated, tracing these to fundamental changes in world view, which are described in specific. Demographic growth and horticultural intensification, as well as new forms of social life, are shown to have been a response to these conceptual changes, rather than a cause of them. Many forms of empirical evidence supporting the model are given. Earlier explanations of the origins of Scioto Hopewell social and ceremonial life, which focus on external causes, are discussed for their inadequacies. The chapter next presents a history of how Scioto Hopewell social and ceremonial life came to close. A sociopolitical cause of this ending – the breakdown of an intercommunity alliance – and the likelihood that a perceived spiritual event or problem of fundamental proportion precipitated that breakdown, are described. Previously offered explanations of the decline of Scioto Hopewell social and ceremonial life are shown to not be well supported empirically. The chapter ends by emphasizing the necessity of richly describing the lives of past people in their local context, and of situating oneself to the extent possible in their personal and social worlds, in order to understand them in their own terms rather than ours.

HOPEWELLIAN SOCIETIES IN TRANSITION

Hopewellian societies in the Scioto-Paint Creek area were societies in transition. Over the course of the Middle Woodland period, Scioto Hopewell people transformed their lives in

many fundamental ways: in their subsistence base, localized population densities, social and ritual organization, political and spiritual relations through alliance, and also spiritual and philosophical thought. Specifically, the following changes over time have been documented in Chapters 2 through 4:

- (1) a significant increase in reliance on Eastern Agricultural Complex domesticated and encouraged plants;
- (2) increased aggregation of people into the area of confluence of the Scioto and Paint Creek valleys, with concomitant rises in local but not necessarily regional population densities;
- (3) an increase in the size of ritual gatherings within ceremonial centers until the late Middle Woodland period, when they declined;
- (4) an increase in the size and number of different kinds of ceremonial centers within a local symbolic community during the early Middle Woodland period;
- (5) an increase, for a sustainable community, in the number of its local symbolic communities in which ceremonial centers were built and participants from all of its multiple local symbolic communities assembled;
- (6) an increase in the material flamboyance of gift-giving rituals within ceremonial centers through the middle Middle Woodland period, followed by the material simplification of such rituals;
- (7) increased segregation of the roles of the classic shaman among more kinds of specialized, shaman-like practitioners and the disappearance of the classic, generalized shaman;
- (8) an increase in the commonality of nonshaman-like leaders relative to shaman-like leaders;
- (9) a change in one or two shaman-like leadership roles into incipient priests with domains of power that came to span multiple local symbolic communities (i.e., supralocal leadership);
- (10) an increase in sodalities in their number of kinds, their degrees of crosscutting

membership, and their total combined membership, with changes in their individual membership sizes and geographic expanses over time;

- (11) a likely increase in the number of clans of differing animal eponyms or totems, as a result of local processes of social differentiation, the immigration of people of new clans into the area, or both;
- (12) a change in the nature of ritual alliances from primarily economic and social ones negotiated among dyads of individuals outside of mortuary contexts to largely spiritual ones placed in the hands of leaders of local symbolic communities and enacted within mortuary contexts, at first bolstered considerably with large cooperative/competitive material displays and then less so; and
- (13) a decrease in the number of local symbolic communities that were ritually allied at the end of the Middle Woodland, which was coincident with the end of building of earthen enclosures.
- (14) In addition, a number of changes occurred in religious thought and practice, to be elaborated below.

Many of these changes directly express the active choices that Scioto Hopewell people made as they explored, played with, and worked out the implications of their culture – its social and ritual aspects and its spiritual and religious concepts and beliefs. The natural environment did provide a material and symbolic structure and foundation for social, ritual, and conceptual transformation in the Scioto-Paint Creek area, as laid out in detail in Chapter 2. However, current data suggest that developments in cultural complexity in the area can no longer be seen as simply passive adjustments to the inter-related triad of increasing residential sedentism, intensification of horticulture, and increases in regional population densities, which previous models have proposed (e.g., Ford 1974; Braun 1986; for a view similar to that taken here, see Wymer 1987).

Figure 5.1 schematizes many of the conditions that changed in the Scioto-Paint Creek area

during the Middle Woodland and the relationships of these conditions to one another. What follows is an explanation of the various factors and relations that are mapped.

In the Beginning: A Change in World View

The model in Figure 5.1 does not begin with the intensification of farming of Eastern Agricultural Complex crops or with regional increases in population density, for several strong empirical reasons. First, abrupt intensification in the farming of starchy and oily native seeds in the Scioto-Paint Creek area, and more broadly in the midwestern and midsouthern Eastern Woodlands, seems with current data to have begun coincident with the initial development of Scioto Hopewellian ritual life, around 50 B.C., rather than in the centuries immediately prior to that development (Tables 2.4, 2.5; figures 2.19, 2.20; Smith 1992:206, figure 9.3a; Wymer and Johannessen 2002).¹ Farming Eastern Agricultural Complex plant foods appears to have been chosen as a subsistence strategy that was viable in the soil-rich Scioto and Paint Creek valleys as people came to settle the valley flood plains and terraces and to aggregate there at the beginning of the Middle Woodland period for new ritual, social, and probably religious reasons, which are evidenced at the Carriage Factory/Miller Mound, Tremper earthwork, and Mound City (see below). Also, the Scioto and Paint Creek valleys do not appear to have been settled gradually (for horticultural purposes) in the centuries just prior to the development of Hopewellian ceremonial centers there. The flood plains and terraces lack evidence of Early Woodland settlement (Prufer 1975:315–316), and most Adena mounds in the area are located at higher elevations above the valleys, where they are framed by hills. Adena mound locations also do not correlate with catchments of highly productive agricultural lands within the valleys (Seeman and Branch 2006:117).

A second reason for removing agricultural intensification as a prime mover behind the development of Scioto Hopewellian social

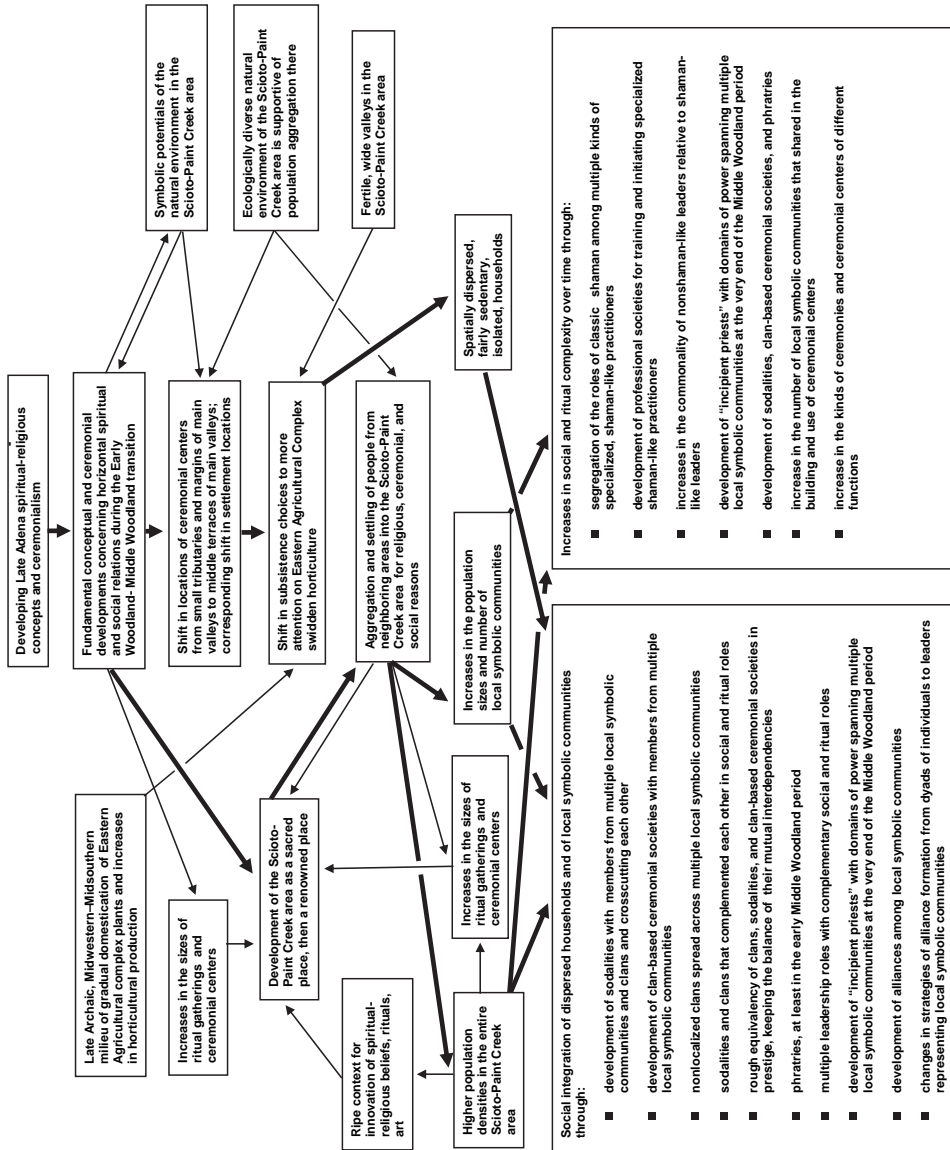


Figure 5.1. Religious, ritual, social, economic, and demographic conditions that changed in the Scioto-Paint Creek area during the Middle Woodland period and the relationships of these changes to one another and the natural and symbolic environment. Bold arrows indicate the most essential, historically causal pathways of change.

and ritual complexity is that hunted and gathered foods appear to have remained the mainstay of the diets of Scioto Hopewellian people throughout the Middle Woodland period (Chapter 2, Subsistence). Grown plant foods supplemented wild ones. This food spectrum is indicated by a variety of kinds of data from Hopewellian archaeological remains in the Scioto and Licking valleys: paleoethnobotanical and paleozoological data; the lack of efficient technologies for agricultural production and for processing seedy plant foods, which came into use after the Middle Woodland period; the paucity of facilities for storing seed harvests; representational art that focused almost completely on animals rather than plants; the important social roles and relatively high sociopolitical status of men compared to women; and a comparison of the diets of Scioto and Licking Hopewellian peoples to those of Mississippian peoples of the Woodlands (Chapter 2, Subsistence).

A significant increase in regional population density, as a concomitant of increasing residential sedentism and/or agricultural intensification, does not appear to have occurred and been critical to Hopewellian social and ritual development in the Scioto-Paint Creek area. Data on the numbers, spatial distributions, sizes, and labor expended on Hopewell mounds compared to Adena mounds in the Scioto drainage indicate that during the Middle Woodland period, regional population density did not increase measurably; however, local population densities in the Scioto-Paint Creek area did, through the concentration of people from the Scioto drainage at large into the Scioto-Paint Creek area, and through the relocation of people from upland settings, small tributary streams, and the edges of the Scioto and Paint Creek valley trenches into the terraces and bottoms of those valleys (Seeman and Branch 2006; Chapter 2, Ecological Setting). In addition, local population density within the valleys does not appear to have increased to a point where local symbolic communities were packed closely together, with concomitant changes in subsistence and political relationships. Three independent lines of evidence

indicate the more ecologically relaxed situation. First, geographic analysis of the locations and areal sizes of local symbolic communities in the Scioto drainage during the last third of the Middle Woodland period indicates that they were well separated from one another rather than packed together (Chapter 3, Note 18; Chapter 15, Note 31). Distances between pairs of neighboring communities (ca. 11–20.5 river kilometers) appear to have been as great as their individual expanses (ca. 12.6–19.2 river kilometers). Second, paleoethnobotanical data from the Brown's Bottom No.1 site in the Scioto-Paint Creek area and several sites in the neighboring Licking valley show that Hopewellian peoples in the area selected those plants that were most available and most easily collected, with different kinds and amounts of species used at different habitation sites (Chapter 2, Subsistence; Chapter 15, Social Competition, and Note 32; Steinhilper and Wymer 2006; Wymer 1987, 1996). Exploitation of a wide diversity of easily and hard to gather plant species – the expectable subsistence strategy when populations are packed closely together (Ford 1974) – is not found. Third, definitive evidence of violent deaths, which accompany competition among communities as they become packed closely together in tribal societies (Service 1962:104) is fully lacking in the area. Bashed in skulls, parry fractures, and lodged projectile points are virtually absent from the Scioto Hopewell bioarchaeological record (Johnston 2002:105–113; see also Milner 1995:234–235, 1999:222). Modern osteological analyses and sensitivity to the context of burial of supposed “trophy” skulls from the Hopewell site indicate that they represent the revering of ancestors and probably a variety of other cultural practices, but seldom if ever trophy taking (Johnston 2002). The paucity of fancy artifacts and art dedicated to the symbolism of human conflict in Scioto Hopewell sites (Table 15.3) is also telling. (See Chapter 15, Social Competition, for a detailed accounting of diverse archaeological evidence that intense social competition was lacking in the area.)

In place of agriculture and population density, the model of the rise of Hopewellian

social and ritual lifeways and their change through time in the Scioto-Paint Creek area begins with the foundation of spiritual-religious concepts and ceremonies laid down by Adena people there, and fundamental innovations in these arenas at the beginning of the Middle Woodland period. Specifically, much of Late Adena (Robbins Complex) spiritual-religious thought and ceremonialism was seminal to later Hopewellian thought and ritual, and continued during the Middle Woodland period, either intact or in a transformed Hopewellian guise. This continuity in concepts and practices is evidenced in the kinds of ceremonial artifacts, exotic raw materials, and mortuary practices that the Scioto Hopewell and broader Late Adena material records share: copper, mica, marine shell, galena, mica designs, hemispheres, boatstones, animal impersonator masks, platform pipes, conical mounds, rectangular log tombs, use of bark in graves, both cremation and inhumation, redeposited cremations, and supplemental skulls within graves. Markers of particular social statuses that may have had ceremonial significance also are common to the Late Adena and Hopewell archaeological records: reel-shaped gorgets, crescents of mica or copper, copper bracelets, stone earspool, cut animal jaws, worked teeth of small animals, and beads of copper, shell, and pearl (Dragoo 1963; Greber 1991; Pruffer 1964a:43; Webb and Snow 1974:153–156).

However, in the last half of the last century B.C., peoples in the Scioto-Paint Creek area transformed their spiritual-religious concepts and ceremonies in a number of substantial ways. Those that are evident at this writing can be summed up by an overarching theme that permeated many aspects of developing Hopewellian life: a strengthening of attention paid to horizontal spiritual and social relations on the earth-disk – the surface of the Below realms and the Center of the Scioto Hopewell multidimensional cosmos. This cultural innovation was expressed in a number of ways:

- (1) a shift in emphasis from shamanic trance in the form of vertical soul flight and ascent up the World Tree to shaman-like

- trance aimed at merging horizontally with personal animal spirits on the earth-disk;
- (2) an elaboration of the Late Adena reinterpretation of the axis mundi from a vertical conduit among layered realms of the cosmos to also a water barrier that horizontally separated souls of the dead in cemeteries from the living on the earth-disk;
- (3) a relaxing of the shape of some burial mounds from vertical, conical representations of the axis mundi to conical and loaf-shaped mounds;
- (4) a change in the location of burial mound ceremonial centers from upland-valley edge settings, where they were framed by and mimicked natural hills that symbolized the axis mundi and the transition between the Below and Above realms, to the middle terraces within the Scioto and Paint Creek valleys, where they appear to have been associated with spiritual and social connections on the earth-disk and the ties of the Center to the Above and Below realms;
- (5) changes in the design of earthen enclosures, including their plan view shape, from predominantly circular ones that represented the axis mundi in cross section to ones of commonly other shapes (squares, subsquares, parallelograms, octagons, ovals) that referenced the cardinal, semicardinal, solstice, equinox and/or moon maximum and minimum rise and set directions of the earth-disk; their wall profiles, which lessened emphasis on wall verticality; and the soil colors of their walls, from ones that were undifferentiated to ones that distinguished interior from exterior horizontal space on the earth-disk;
- (6) a shift in the features and internal organization of burial mound cemeteries, from log burial crypts that held one to a few persons and that were separated vertically and/or horizontally from one another to single large horizontal burial floors on which were interred many persons from multiple local symbolic communities spread horizontally over the Scioto-Paint Creek area;

- (7) a shift from the Adena practice of burying individuals largely separately from one another in their own burial facilities, with occasional mixing of the cremations of several individuals together, to initially, at Tremper, the mixing together of cremation remains of hundreds of individuals from multiple local symbolic communities distributed horizontally across the landscape; and
- (8) the appearance of large ceremonial deposits of decommissioned artifacts, some of which represent the collective ceremonies of professional societies and sodalities of persons from multiple local symbolic communities spread horizontally over the region.

In short, the formation of Hopewellian cultural life in the Scioto-Paint Creek area centered on a new world view – one that emphasized horizontal relationships on the earth-disk with spirits, the dead, and living human beings. Both relationships of power and relationships of peaceful cooperation among beings in this realm were seminal to this world view (Carr and Case 2005a:42–44; see also Chapter 15, Social Competition).

More detailed discussion of these eight points and evidence for them, and cross-references to key information present in other chapters, are as follows.

(1) *Shamanic Trance.* The decreased practice of vertical soul flight and increased practice of horizontal merging with power animals, as distinct forms of shamanic trance, are evident for the Early Woodland–Middle Woodland transition in art and ceremonial paraphernalia of the time (Chapter 4, Depictions, Costumery, and Symbols of Position of Leaders). Shamanic soul flight by human-raptor impersonators who have ascended or are ascending the World Tree is liberally depicted on the Adena tablets (e.g., Figure 4.7; Carr 1997, 1998/1999, 1999a,b, 2000a,b). In contrast, only one definite representation of soul flight is known from the entire Middle Woodland period in the Scioto-Paint Creek area, and it is early: the bird-man pipe from Mound City (Figure 4.6A). In addition, the

Wray figurine bear impersonator from the Newark site (Figure 4.6B) probably depict a man's soul leaving his body, although other interpretations are possible. The figurine's age is unknown.²

The commonality of the practice of people instead merging horizontally with their power animals, and the development of the practice very early in the Middle Woodland period and in the formation of Hopewellian thought, is indicated best by 137+ smoking platform pipes that were deposited in the Tremper mound and slightly later in Mound 8 at Mound City, and that were sculpted with animal effigies. Nearly all the animal figures face the smoker and thus interacted with the smoker. Historically in the Eastern Woodlands, analogous animal effigy pipes were used to call forth or travel to one's animal guardian-tutelary spirit and to communicate and merge with it (von Gernet and Timmins 1987:39–40; Harner 1980:73–88; Hultkrantz 1953:39–40; Grim 1983: 144; Mails 1979:50–51, 57). Animal effigy pipes are not known in the Scioto valley from archaeological sites predating the Tremper mound.

A shift from soul-flight to other forms of trance experience is a common cross-cultural pattern found where hunting and gathering is left behind for farming, societal size and complexity increase, and the roles of the classic shaman become segregated among multiple, specialized shaman-like practitioners (Winkelman 1989, 1990, 1992). In the Scioto Hopewell context, as well, the shift away from soul flight correlates with these general factors. Specific to the Scioto Hopewell case, the shift also signaled the increased attention that Scioto Hopewell people gave to their horizontal relationships on the earth-disk with various beings.

(2) *The Axis Mundi.* The reinterpretation of the concept of the axis mundi from a vertical conduit for traveling among layers of the cosmos to additionally a water barrier that horizontally separated ghosts of the dead from the living on the earth-disk was a creation of Adena peoples (Carr 1998/1999, 1999a, b, 2000a, b). They began building circular ditch-embankments around some ceremonial spaces,

chapel houses, and burial mounds early in the Early Woodland period (Figure 5.2A). The circles probably represented the axis mundi in cross-section and seen from above (Figure 5.2B), as the circle did historically (Mails 1978:98–100), and served to guide souls of the dead upward or downward along the axis in their journey to a Land of the Dead. For example, the circular plan of the Sun Dance grounds represents to the Lakota the axis mundi and a field of divine power that comes down it and transforms the Sun Dancer (Mails 1978:98–100). To the historic Wind River Shoshoni, the central pole of the Sun Dance lodge is the Milky Way, which is the road that the dead take to an afterlife (Hultkrantz 1987:70). Significantly, the Early or Middle Woodland ditch-embankment of the Fairground Circle of the Newark earthwork has at its center a mound that covered an altar used for cremation (Smucker 1881:226 cited in Lepper 1996:236) and that was shaped in the form of a bird's foot and/or a bird in flight with extended wings. The circle and bird symbolism could represent the flight of the deceased's soul up the axis mundi, or its flight with the help of a spiritual bird or a shaman transformed into a bird, similar to the flight of bird impersonators depicted in some Adena tablets (e.g., figure 4.7).

The concept of the axis mundi as a conduit for vertical soul travel goes back in the Ohio area at least to the terminal Late Archaic. Two independent kinds of evidence reveal this belief. First is the decorations on a possible shamanic sucking-blowing tube and on a tubular smoking pipe. A Glacial Kame slate tube from the Zimmerman site (Figure 5.2C; Carr 1999a, 1999b, 2000a, 2000b), possibly for sucking

and/or blowing during shamanic healing rituals, depicts the trunk of the World Tree with nine levels of branches by which shaman could have climbed to an Above realm or nine Above realms – a common practice and a common number of Above realms in shamanic cultures (Eliade 1964:274–279)³. An analogous Adena tubular smoking pipe from Ohio (Figure 5.2D) has ten trident bird foot tracks engraved up it, suggesting shamanic bird impersonation and flight to one or more Above realms (Carr 1999a, b, 2000a, b). A second line of evidence is the deep, vertical shaft tombs that are common in Glacial Kame sites in northwestern Ohio and neighboring Indiana, and that extend from six to twenty feet in depth (Converse 1979:23; Cunningham 1948:34). They also possibly represented the axis mundi and vertical travel of souls upon death. Significantly, the shaft tombs were typically dug in kame hillocks which, like later Adena conical mounds, probably referenced the axis mundi (see below, Shape of Burial Mounds) and reinforced the shafts' allusion to the axis and vertical soul travel. The extraordinary labor and risks of cave-ins involved in digging these deep shafts in glacial gravels point to the strong cultural meaning and motivation behind the Glacial Kame tombs.

Adena peoples gave an extra dimension of meaning to the axis mundi in the circular ditch-embankments that they built. To the idea of vertical soul travel was added the concept of horizontal separation of souls. The ditches naturally collected water and probably acted as water barriers that separated ghosts of the dead *horizontally* from the living on the earth-disk (Figure 5.2E; Hall 1976:362). In this way, the living would have thought themselves protected

Figure 5.2. (A) Circular ditch-embankment around a burial mound at the Biggs site (15Gp8), Kentucky. The ditch-embankment probably represented the axis mundi. View from north prior to excavation, 1939. (B) The axis mundi in cross-section and seen from above is a circle and was symbolized by the circle by historic Eastern Woodlands and Plains Native Americans. (C) Original and line drawing of a terminal Late Archaic, Glacial Kame slate tube from the Zimmerman site, Ohio, engraved with a rendition of the trunk of the World Tree, and possibly used for sucking or blowing in shamanic healing. Dots indicate nine levels of branches on the trunk. A pair of snakes zigzag their way up the two sides of the trunk. (D) Original and line drawing of an Early Woodland, Adena tubular smoking pipe from Ohio, engraved with ten trident bird foot tracks. (E) Circular ditch-embankment filled with water after a rain at the Early Woodland, Adena Wright Mound Group, Ohio. Adena water-filled ditches surrounding burial mounds probably served as a barrier against ghosts of the dead from the living. See credits.

(A)



(B)

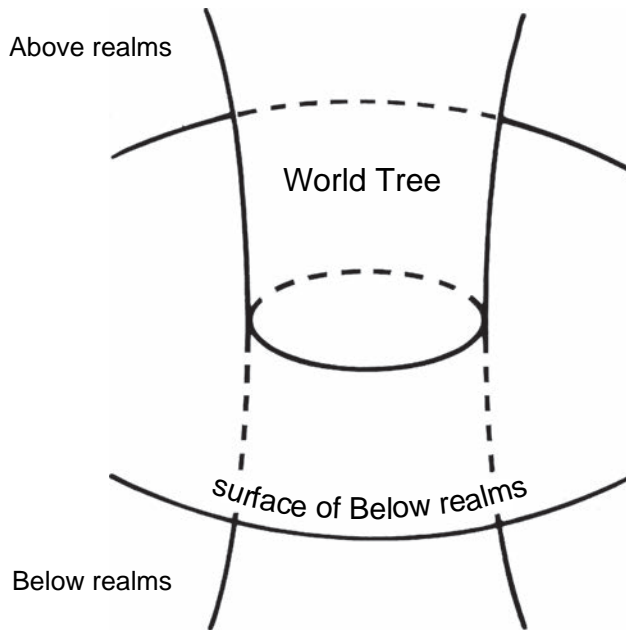


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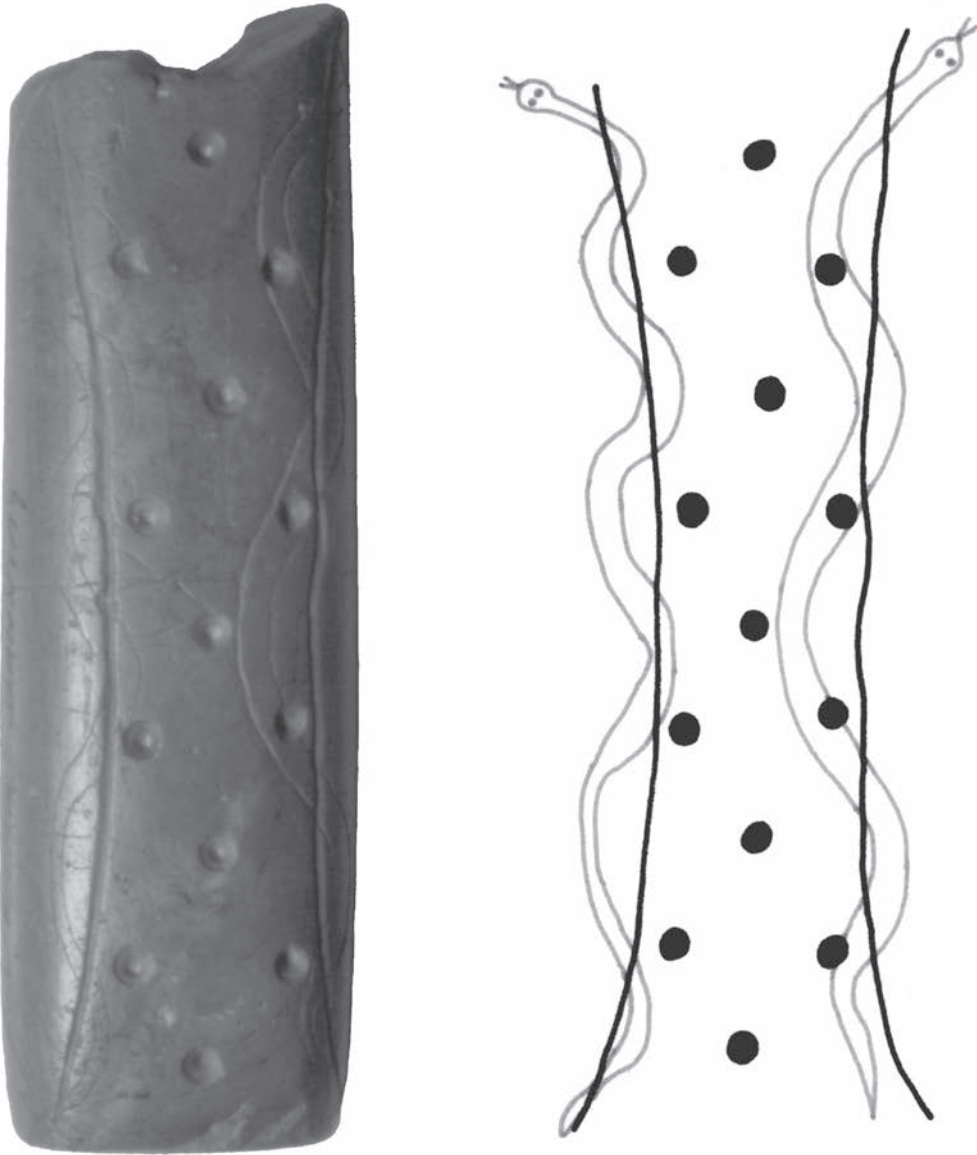


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(D)



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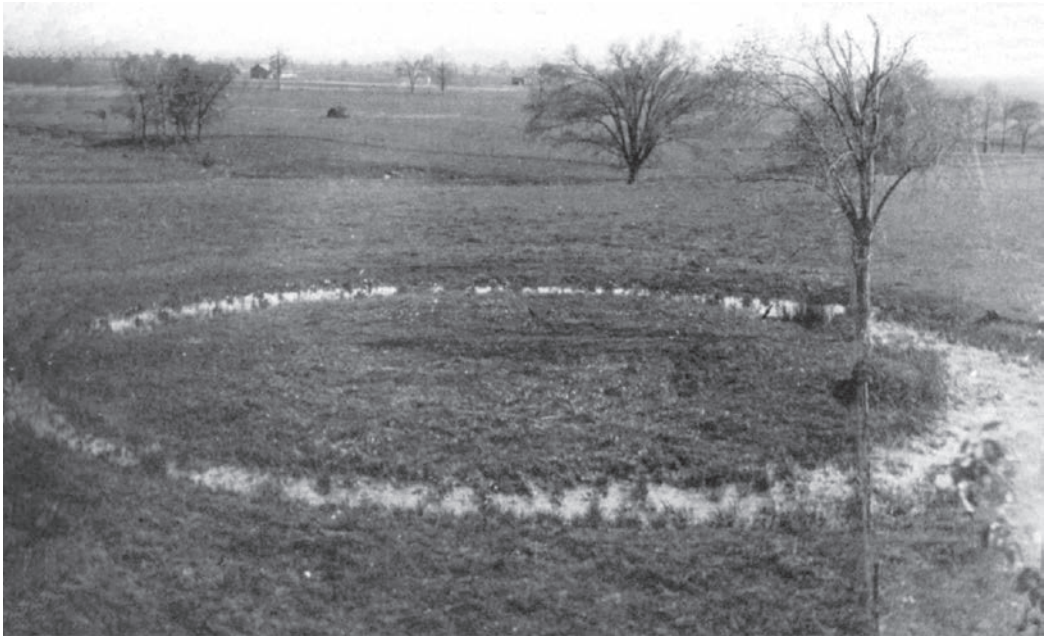


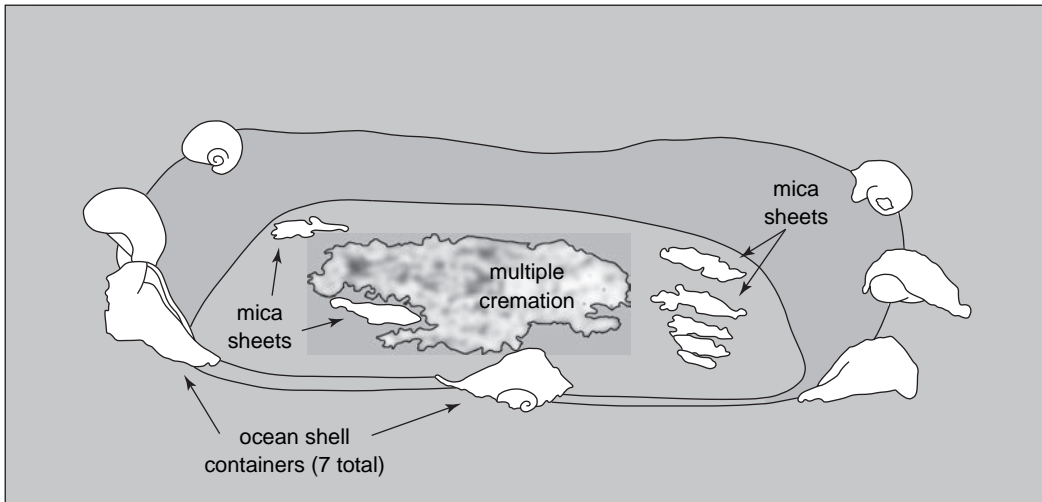
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from the illness, tricks, vengeance, or damage that ghosts of those buried in the mounds might cause. Historic Native Americans of the Eastern Woodland and Plains widely had a fear of ghosts, believed that water could repel a ghost, and used rivers and lakes to this advantage in locating their cemeteries (Hall 1976b:361; therein, Fletcher and La Flesche 1911:489–490, 591; Hewitt 1894:114–115; McClintock 1935).

Very early in the development of Hopewellian thought, the symbolism of the water barrier and soul guide, and its use, was elaborated considerably. Water was replaced by material symbols of water as barriers and guides, making the principle of soul repulsion and guidance easier to apply, and it was applied much more widely (Carr 1999a, b, 2000a, b). The materials that Scioto Hopewell peoples used to make the water barriers are all silvery or white in color, and reflective or transparent, like water, and some are derived from water. They include pearls, shells, mica, galena, and river-worn limestone or other light-colored cobbles. These materials were placed around graves of particularly powerful

deceased persons or decommissioned artifacts, and commonly again around mounds, making for double or triple-layered water barriers. Early in the Middle Woodland, at Mound City, conch shells were used to surround a multiple cremation burial (Figure 5.3A), galena was placed in a ridge of soil around four cremations, and mica was placed below and above them, sealing them in (Figure 4.16). Hundreds of pearls were used to surround each of four adjacent burials in the Seip earthwork, one with rare copper nostril inserts (Figure 5.3B) and two burials in the Hopewell site, one with copper nostril inserts (Shetrone 1926a:63–66, figure 24). At Hopewell, a cremation and a large accompanying cache of obsidian were surrounded by a ring of light-colored rocks (Figure 5.3C), as were other burials. Approximately 34 (5.5%) of the 613 Middle Woodland graves that have been excavated in the Scioto-Paint Creek area and that are in the data base in this book were surrounded by water barriers (Figures 5.3D, E). Construction of the Seip-Pricer, Seip-Conjoined, Edwin Harness, and other mounds was begun by stripping off the

(A)



(B)

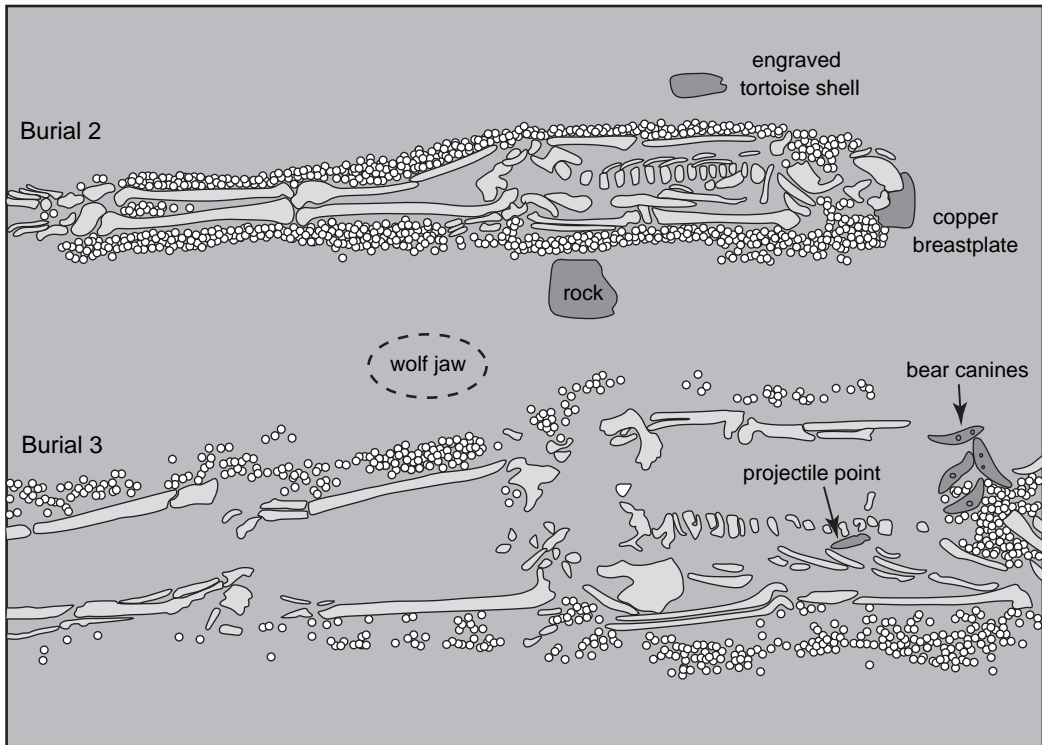
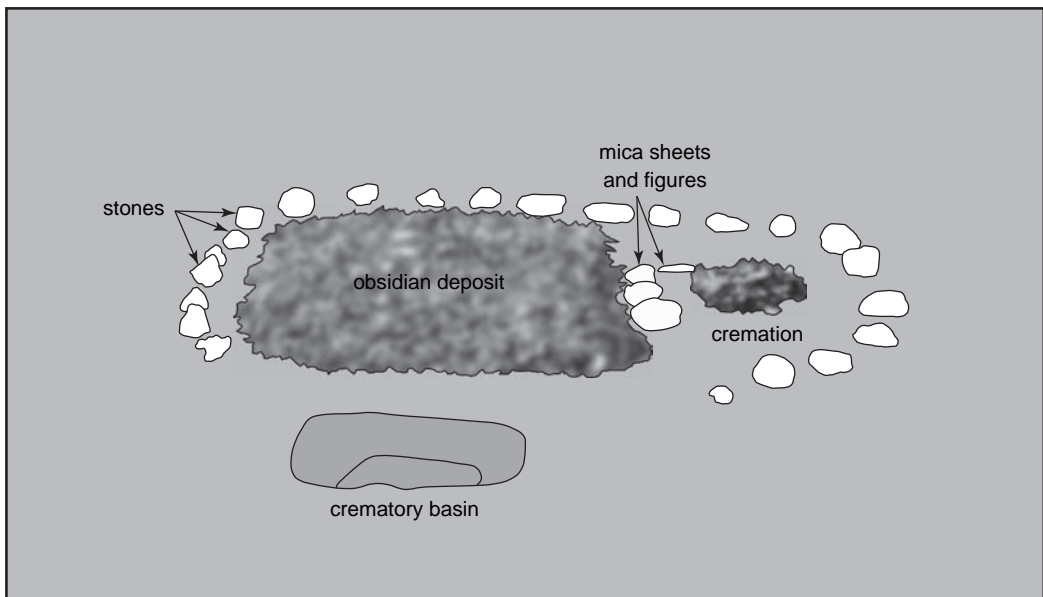


Figure 5.3. Symbolic water barriers surrounding the remains of deceased persons and decommissioned ceremonial artifacts. (A) Conch shells surrounded a multiple cremation burial at Mound City earthwork, Mound 7, Burial 13. (B) Hundreds of pearls surrounded each of four adjacent burials in the Seip earthwork, Pricer Mound, Burials 2, 3, 4, and 5. Shown here are Burial 2, which had a rare copper nostril insert, and Burial 3. (C) A cremation and a large accompanying cache of obsidian were surrounded by a ring of light-colored rocks at the Hopewell site, Mound 11, Crematory Basin, as were other burials. (D) A cremation surrounded by waterworn cobbles at the Seip earthwork, Pricer Mound, Burial 12. (E) Large mica plates placed over a cremation with a copper effigy mushroom wand, Mound City earthwork, Mound 7, Burial 9. For the original excavation photographs of these graves,

(C)



(D)

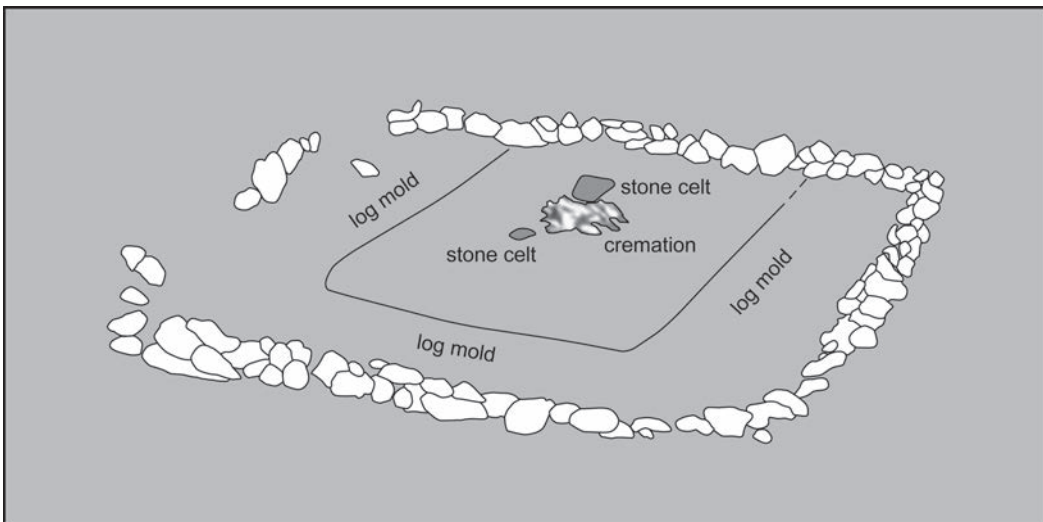


Figure 5.3. (continued) see: (A) Mills (1922:496, Figure 33); (B) Shetrone and Greenman (1931:375, Figure 12); (C) Shetrone (1926:41, Figure 101); (D) Shetrone and Greenman (1931:461, Figure 68); (E) Mills (1922:491, Figure 32). See credits.

sod and top soil in a circle or oval and then laying down one or more circular pavements of water-worn pebbles (Greber 1979a). Some Scioto Hopewell mounds were also covered partially or entirely by light colored stones.

If it is remembered that earthen enclosures after Tremper, especially Mound City and Hopewell, and Seip, were all places where shaman-like leaders and other persons of especial power were buried in very high relative

(E)

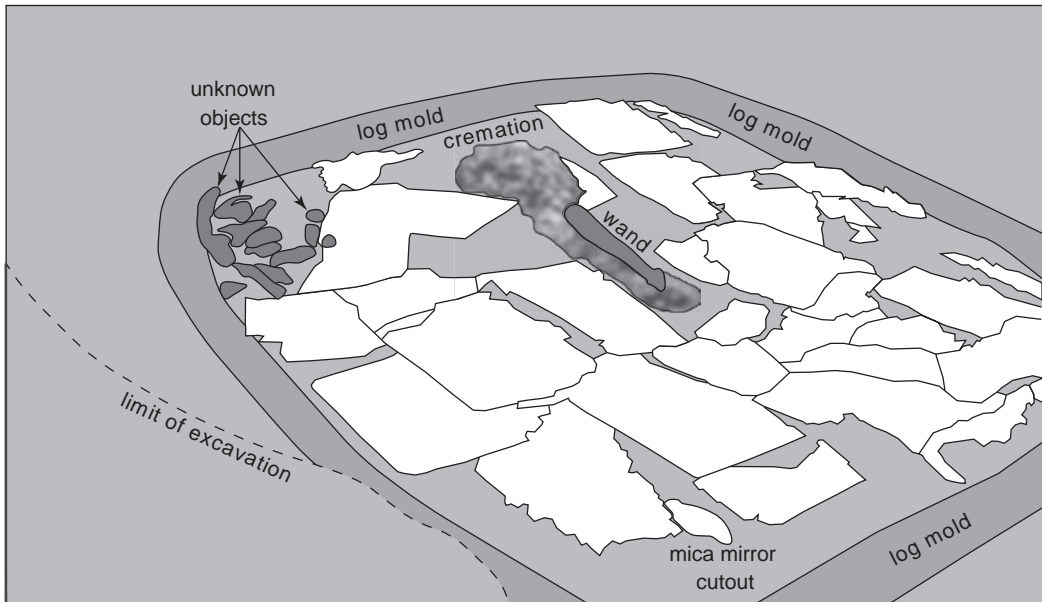


Figure 5.3. (continued)

frequencies (Chapter 3, An Example of a Local Symbolic Community; Carr 2005a:278–280; Prufer 1964a:74), then these ghost barriers and soul guides around graves and cemeteries make good sense. They would have been seen as protecting the living in fundamental ways from the ghosts of very powerful people and transporting the deceased to an afterlife away from the living. The multi-layered ghost barriers in Scioto Hopewell cemeteries show a strong concern for keeping ghosts from traveling horizontally across the earth-disk occupied by the living, and were an aspect of innovative Hopewellian ideas about horizontal relationships with beings on the earth-disk.

(3) *Shape of Burial Mounds.* The increased attention that Scioto Hopewell people paid to horizontal spiritual and social relations in the Middle World is also seen in a change in the shape of burial mounds at the Early-to-Middle Woodland transition. During the Early Woodland period, Adena people in the Scioto-Paint Creek area and more widely in the upper Ohio valley built mounds that almost uniformly were conical to subconical in shape (Webb and Snow 1974:33). It is likely that the cone shape

was identified with the axis mundi, and with a vertical passage that deceased persons buried in a mound took along the axis mundi to a Land of the Dead. Crossculturally, in shamanic and shamanic-derived world views, the axis mundi is very commonly symbolized by a mountain, and this in turn by a natural hillock or a pointed tent, building, or monument (Eliade 1964: 266–269). For the Cherokee, Iroquois, and Lenape, a mountain is a means for connecting with the sky world (Mann 2003:181; Mooney 1900a:478). The Choctaw tell that they emerged from underground through a hill that was raised from flat, marshy earth by a being who descended from above (Swanton 1946:777; see also Swanton 1931:5-6). When Adena people built a mound within an earthwork, the earthwork was consistently circular, and the mound was placed at the center of the circle. In these cases, the conical shape of the mound as a symbol of the axis mundi reiterated the circular earthwork as a cross-sectional representation of the axis (see above, point 2). The placement of the mound at the center of the circle reinforced the symbolism.

This emphasis on the axis mundi and vertical passage of the dead was augmented with new concepts and concerns about horizontal social relations during the Early-to-Middle Woodland transition. Conical to subconical-shaped burial mounds continued to be built throughout the Middle Woodland period, but long, loaf-shaped burial mounds were introduced and also constructed. Each loaf-shaped mound was built over an elongated charnel house where multiple local symbolic communities, which were spread horizontally across the region, gathered together and buried their dead together within the charnel structure, and then covered it. The Tremper mound, Mounds 23 and 25 in the Hopewell earthwork, the Pricer and Conjoined mounds in the Seip earthwork, the Edwin Harness mound in the Liberty earthwork, and the Ater mound follow the pattern, and possibly the three conjoined mounds on the Porter farm in the Old Town earthwork, as well. At all but the Ater site, the mounds were built within earthen enclosures that defined a large ceremonial space for participants from the multiple communities. The horizontal layout of the burials and the chambers of the charnel building under most of these mounds was used to symbolize the spiritual alliance of the multiple local symbolic communities that assembled for joint burial activities (Chapter 3, Sustainable Communities).⁴ Materially symbolizing these horizontal spiritual-social relations, which resulted in loaf-shaped mounds, took precedence over symbolizing the axis mundi and vertical journeying of the deceased, which had been expressed with conical mounds.⁵

The first known appearances of the new mound shape in the Scioto drainage were probably the Carriage Factory / Miller mound (Moorehead 1898–1899:126–132), and/or the Tremper mound (Chapter 3, A Second Example of a Sustainable Community). The horizontal charnel house under the Tremper mound is well documented (Mills 1916), and one or more charnel buildings under the Carriage Factory Mound are hinted at by minor excavation there (Moorehead 1898–1899:128, 130). Both mounds mark a radical and rapid departure, rather than a gradual shift, from the Adena tradition of conical

mounds. The Carriage Factory mound is one of a cluster of twelve late Early Woodland mounds that includes the Adena mound. It was about the same size as the late Middle Woodland, loaf-shaped Seip-Pricer mound, the second largest loaf-shaped mound in Ohio (Greber 1997:9). The Tremper mound shows the greatest break from the Adena conical mound tradition of all the loaf-shaped mounds in the Scioto-Paint Creek area. Although generally loaf-shaped, the mound had lobes that followed the shape of the charnel house below it, in the general form of a four-legged mammal (Mills 1916:267; see Figure 3.11).

(4) *Location of Burial Mounds.* The increased emphasis that Scioto Hopewellian world view placed on horizontal spiritual and social relationships on the earth-disk complemented by vertical ones was expressed not only in an elaboration of the water barrier symbolism of the axis mundi and the introduction of loaf-shaped mounds that marked multicomunity alliances. It also was expressed through a change in the location of burial mounds (Seeman and Branch 2006). During the Early Woodland period, conical burial mounds were built in upland valley-edge settings among natural, conical-shaped hills (Figure 5.4). The hills were natural symbols, in their elevation and shape, of the axis mundi (Eliade 1964:266–269; Mann 2003:181; Mooney 1900a:478). They marked the transition between the earth-disk surface of the Below realms and the Above realms. Adena mounds appear to have been built to mimic this natural symbolism, in their conical shape and their location among the hills.

Beginning with the Tremper mound, people in the Scioto and Paint Creek drainages constructed their burial mounds primarily on the middle terraces of the valleys, and occasionally on their flood plains. The shift was symbolic of changing concerns of the times, with new focus on spiritual and social relations of the earth-disk and perhaps on balancing ties with beings in multiple directions from the Center. Previous emphasis on the axis mundi as a link between the Below and Above realms was moderated within this broader world view. Mounds and earthen enclosures symbolized affairs at the Center, on the earth-disk, in their



Figure 5.4. Conical, mound-shaped, natural hillocks are frequent at the edges of the Scioto valley. They apparently were mimicked by Early Woodland peoples who built mounds of the same conical shape in the same valley-edge locations. See credits.

terrace locations; connections to the Below realms in their locations near to the waters of the Scioto or Paint Creek; and relations with the Above realms in their orientations to several celestial phenomena (Chapter 2, Symbolic Setting). Connections with the Below realms were also expressed explicitly by earthen parallel walls that led from earthworks down to the Scioto and by earthen enclosures that were built with an open side facing the terrace edge directly above the Scioto river. The responsibility of humans at the Center of the cosmos for balancing their reciprocal relationships with beings of the Above and Below realms and in the multiple horizontal directions, and in this way maintaining the cosmos, may also have been implied in the middling placement of Hopewellian mounds and earthworks. Kinship relations and reciprocity among humans and other-than-human persons of the cosmos were cornerstones of historic Algonkian world view (Hallowell 1960; Morrison 2000, 2002), and the active role of humans in keeping the cosmos

balanced may have been essential to the world view of Algonkian peoples (Morrison 2002: 55-56) and historic Cherokee and other southeastern Woodlands Native Americans (Hudson 1976:136, 148, 336, 346).

(5) *Changes in Earthen Enclosure Plan View Shape, Wall Profile, and Wall Color Design.* Reinforcing the changes in mound shape and location by which Scioto Hopewell peoples expressed their new world view, with its emphasis on horizontal relations, were innovations that the peoples made to the embankment walls of their earthen enclosures. Walls of new plan view shapes, profiles, and colors designs were created.

In the Scioto valley, the great majority if not all Adena earthworks were circular embankments, with accompanying internal ditches and sometimes an entrance (Webb and Snow 1974:16, 31-33; e.g., Figure 5.2A, E; see also Blazier et al. 2005:98; Clay 1987: 46-486).⁶ The circular form most likely symbolized the vertical axis mundi in cross section (see

above, point 2). Early in the development of Hopewellian beliefs and rituals in the Scioto valley, peoples there began to construct earthworks with linear sides or with major and minor axes: squares, subsquares, parallelograms, octagons, and ovals. Embankments at the relatively early sites of Tremper, Mound City, Dunlap, Hopeton, Anderson, Seal, High Bank, and Hopeton take these forms. The earliest shapes were an oval or subparallelogram, at the Tremper site, and a subsquare, at the Mound City site, which were natural transitions from the Adena circular earthworks. Later, true squares, a parallelogram, and an octagon were added. All of these shapes, unlike the circle, could be oriented to key horizontal directions of the cosmos of Scioto Hopewell peoples – the cardinal and semicardinal directions, solstice sun rise and set, the equinox, and moon rise and set points. In fact, all Scioto Hopewell geometric earthworks that have been surveyed rigorously for their directional placements have been found to be oriented to one or more of the named directions (Hively and Horn 1984; Romain 2004, 2005; see a summary in Carr 2005b:85–88). Further, some of the new shapes could be oriented to more than one key direction simultaneously, whereas a circle with one entrance could be oriented in only one direction.⁷

Significantly, by orienting their earthworks in which they held their rituals to these directions, Scioto Hopewell peoples were most probably trying to actively establish, express, and manifest social-spiritual relations to one or more specific spiritual beings or places that they associated with those directions and that they thought essential to their well being. In historic Woodlands and Plains Native American beliefs and ritual practices, the horizontal directions of the cosmos were places inhabited by sentient Persons of power who were responsible for various aspects of human well being (e.g., health, procreation, wisdom, success, purity, beauty, water, harvest), their messenger animals, extraordinary creatures of power (e.g., the Thunderbirds), beings essential to the Creation and other culture heros (e.g. Nanibozho), all of the

dead, the dead of particular categories, the pathway to an afterlife, and/or an afterlife, itself (e.g. Bailey 1995:32–33, 58–50; Howard 1981: 167–168; Hudson 1976:132, 172, 335; Mails 1978:101–103; 1991:48, 52–54, 56, 58–60, 104–106; Trigger 1969:103–104). Historically, rituals were structured relative to particular directions in order to establish relations with those persons, beings, or places and to secure necessities for a good existence. It is likely that horizontal relations of some of these kinds were what Scioto Hopewell peoples were focused on and expressing as they developed their new world view and began building earthworks of new shapes and orienting them directionally. The appropriateness of this interpretive analogy is supported by the widespread distribution and foundational nature of directional structuring in Woodlands and Plains cosmology and ceremony, and its great time depth implied.⁸

In the Scioto valley, the shift from Adena circular earthworks that marked the vertical axis mundi to Hopewell earthworks with linear features that could be oriented to horizontal directions in *This World* was followed somewhat later by reinforcing changes in the symbolic profile form and coloration of the embankment walls of earthworks. Adena earthen enclosures in the Scioto valley and more widely were constructed by digging a circular ditch and throwing that local soil to the ditch's exterior to form a circular embankment (Webb and Snow 1974:29–31). The dug ditch and piled earth emphasized their verticality and symbolic reference to the axis mundi. The embankments show no differentiation in the colors of their interior and exterior soils, i.e., horizontal diversification. This emphasis on the vertical lessened at the beginning of development of Hopewellian thought and ritual: the earthen walls of the early works of Tremper and Mound City were not accompanied by a ditch that augmented their vertical dimension. At the same time, the walls of Tremper and Mound City were not differentiated horizontally in the color of soils used to build them (Greber 2006:88). Horizontal differentiation by color was added later, in the middle Middle Woodland, from what is known from

the excavation of embankment walls. Specifically, at the sites of Hopeton and High Bank, earthwork walls continued to be built without ditches, but also with contrasting red and yellow soils, or grey and yellow soils, which distinguished their interior and exterior sides (Greber 2006:89–90).⁹ Thus, horizontal relationships came to be emphasized through wall color and form, coordinating with the many other Scioto Hopewell material-symbolic developments that expressed horizontal spiritual and social relations on the earth-disk.

(6) *Features and Internal Organization of Burial Mounds.* During the Early-to-Middle Woodland transition in the Scioto drainage, the construction of mounds in a new loaf shape that did not place primary emphasis on the axis mundi was prompted by changes that Scioto Hopewell peoples made to the features and internal organization of their mounds. The new layouts focused on horizontal relationships among large social groups (Prufer 1964a:73; see also Greber 1991:19).

Adena peoples placed their dead in graves that held one or a few persons. Both log-lined crypts, which could be reopened for access to the body and reused, and simpler sealed pits were built (Clay 1998:4–5). Commonly, one or a few of these graves were dug into a ceremonial floor, mounded over, and then more graves were constructed vertically at multiple levels as a conical mound was built up incrementally (Webb and Snow 1974:37, 43; for examples, see Dragoo 1963; Norris 1985; Webb 1940). In other instances, only one or a few graves were constructed in the mound floor and the mound was finalized to a conical shape with the addition of no more burials. A mound with a vertical distribution of graves may have represented individuals who were related through descent and were interred over time (Prufer 1964a:73). Depending on the number of persons buried in the mound, they might have comprised select representatives or all persons who had lived in one or a few kin-related, dispersed residential communities in the general vicinity of the mound. Alternatively, a vertically stratified mound might indicate the periodic meeting of a somewhat wider set of dispersed residential

communities to bury some of their deceased and to create and maintain alliances among them (Clay 1998). An Adena mound with a few burials in only its floor could represent ceremonies of short duration held by either one or a few kin-related residential communities to lay to rest their own dead or a broader suite of communities that combined burial and alliance making activities.

The building of the large charnel house and loaf-shaped mound at the Tremper site marked a radical and abrupt departure from Adena mortuary practices and initiated Hopewellian ones (Chapter 3, A Second Example of a Sustainable Community). At Tremper, the remains of about 375 persons were cremated in 12 crematories and then combined into four depositories, all situated horizontally on one large 200 × 100 foot floor of a charnel building. The deceased appear to have been processed together over a short duration of weeks to a few years as a part of a multiple-step mortuary rite, rather than over generations (see Chapter 3, Note 26). The number of deceased was about 10 times the number buried at the extraordinarily large Adena mound in the Scioto valley (n = 36). Those laid to rest at Tremper came from multiple local symbolic communities of a sustainable community spread over a broad geographic area, not just the one or few residential communities typically represented in Adena mounds. The ceremonial remains at Tremper indicate the gathering of a minimum of 191 gift givers and many hundreds of mourners. The site represents social and spiritual alliance making among horizontal social groups on a much grander scale than that represented by any Adena mound. This emphasis on alliance formation among large, horizontal social units continued throughout the Middle Woodland Period in the Scioto-Paint Creek area. Big charnel houses with large burial populations that came from multiple local symbolic communities and that were arranged on single ceremonial floors were constructed at the Hopewell, Seip, Liberty, Old Town, and Ater sites. In all of these sites, alliance formation symbolized in the horizontal layout of burials from multiple social groups and in the capping of the burials by

a single, large, loaf-shaped mound took precedence over the symbolizing of the axis mundi and vertical social-spiritual relationships.

Note, to be fully accurate, that the change from Adena to Hopewell mounds was not from simply vertical to horizontal internal organization, as Prufer (1964a:73) and Greber (1991:19) have summarized. Rather, it was from a mix of small vertically stratified and small horizontally laid-out conical mounds of the Adena kinds to a mix of small horizontally organized conical mounds and large horizontally laid-out loaf-shaped mounds of the Hopewell kinds.

(7) *Intermixing of Cremations.* The new, Hopewellian world view and concern for horizontal social and spiritual relationships was expressed in a great increase in the commonality with which the deceased from multiple local symbolic communities were intimately buried with each other. During the Early Woodland period, Adena peoples buried deceased individuals largely separate from one another in their own log crypts or sealed pits. Occasionally, inhumations and/or cremations of two or three persons were buried together in a grave, and in two cases, the cremations of several individuals were deposited together in a pile on a charnel house floor or scattered together over the floor (Webb and Snow 1974:66–68, 71–72, 154).

In contrast, at the Tremper site at the beginning of the Middle Woodland period, the cremated remains of about 375 individuals were intermixed within four communal depositories. The physical act of placing the cremated remains of multiple deceased persons from multiple local symbolic communities together in one depository probably had a spiritual and social meaning similar to the historic Algonkian and Huron practices of placing and stirring the bones of multiple deceased persons from multiple communities and neighboring tribes together in a single ossuary. The body souls of the deceased, which were thought to reside in their bones, were intermingled through the mixing of their bones, expressing the creation of alliances among communities and tribes through the souls of their dead ancestors and kin. This

spiritual medium of alliance formation emphasized the sacred and permanent quality of the alliances (Trigger 1969:111). In the Hopewell case, the horizontal ties of alliance of multiple local symbolic communities in this Middle World would have been firmly cemented spiritually and socially.

(8) *Ceremonial Deposits of Decommissioned Artifacts.* Scioto Hopewellian ceremonialism is distinct from Adena ceremonialism in having produced large deposits of decommissioned, fancy artifacts and raw materials that were placed on the floors of charnel houses along with the dead. Most large deposits contained primarily one kind of artifact. In all, 43 impressive deposits were created. Their artifacts and raw materials were of 24 kinds (Table 15.2). They include ritual paraphernalia used by persons in various shaman-like roles (e.g., mica mirrors for divination) and symbolic markers of other kinds of social roles of importance (e.g., copper earspools).

In most cases, a deposit was the remains of a collective ceremony of members of a corporate social group that must have spanned multiple local symbolic communities, given the numbers of persons implied by the artifact counts in the deposit. Five of the kinds of artifacts found in deposits specifically indicate professional sodalities or clan-based ceremonial societies (Chapter 4, Sodalities and Ceremonial Societies). These forms of horizontally cross-cutting social groups and their ceremonial remains are first evident archaeologically at the Tremper site, at the initiation of the Middle Woodland period, recur a few decades later at the Mound City site, and continue through the Middle Woodland period at the sites of Hopewell, Seip, and Liberty. Significantly, large ceremonial deposits were missing from the charnel house under the Ater mound, at the tail end of the Middle Woodland period, after the partial break up of an alliance among communities across the Scioto-Paint Creek area (Chapter 4, Changes in the Number of Allied, Local Symbolic Communities). Shaman-like symbology concerned with spiritual and/or cosmological matters characterize all of the artifact markers of these corporate groups (e.g.,

Ruhl 2005:704–705), suggesting that the new horizontal connections that arose among local symbolic communities at the beginning of the Middle Woodland and proliferated over its duration were spiritual in nature and tied to a new world view.

In sum, many independent lines of archaeological evidence point to a fundamental change in the world view of people who lived in the Scioto-Paint Creek area during the Early-to-Middle Woodland transition. The new world view emphasized horizontal relationships among spirits, the dead, and living persons on the earth-disk over vertical relationships among beings of the Above and Below realms, which had preoccupied earlier Adena thought, ceremony, and material culture. It appears that Scioto Hopewell world view developed largely in place from Adena thought. However, the degree to which it was enriched and encouraged by the beliefs and ceremonies of Illinois Hopewell peoples remains to be investigated.¹⁰

Consequences of the Changes in World View

The changes in concepts and ceremonies that crystallized quickly in the Scioto valley during the Early-to-Middle Woodland transition had profound ecological and social effects on Scioto Hopewell people in the decades and centuries thereafter (Figure 5.1). The new focus on horizontal relationships among spirits, the dead, and living human beings on the earth-disk socially allowed and symbolically encouraged people of the Scioto-Paint Creek area to move their settlements and ceremonial grounds from the small tributaries of the Scioto and Paint Creek, and from valley-edge locations along these two major streams, to their middle terraces and flood plains. Incipient sodalities and ceremonial societies with memberships that crosscut residence and thereby provided new means of social integration and regulation, as well as nonlocalized clans that may have already existed during the Early Woodland period, made it feasible for people to aggregate and live more closely together in the main river valleys. The hill country with its natural symbolic

references to the vertical axis mundi, which had been primary in Early Woodland thought, was depopulated over decades in favor of the broad, horizontal terraces and flood plains of the Scioto and Paint Creek valleys with their natural symbolic reference to the earth-disk and perhaps to balancing the Above and Below realms (Chapter 2, Symbolic Setting).

Supporting this conceptually, ceremonially, and socially stimulated change in residential settlement location was the relative richness and diversity of the natural environment of the Scioto and Paint Creek valleys in fish, mussels, turtles, flocks of migrating ducks and geese, acorns, deer, turkey, and maple syrup, with upland hickory nuts within close walking distances. Equally important, the friable and fertile silt-loam soils of the middle terraces of the valleys offered the potential to increase production of Eastern Agricultural Complex crops. This subsistence option was chosen and native horticulture increased exponentially in the early Middle Woodland Period between about 50 B.C. and A.D. 10 (Chapter 2, Subsistence Change over Time), without social packing as a driving force behind it. That social packing was not a key factor in subsistence change is made clear by the three independent lines of archaeological evidence presented above (see above, In the Beginning: A Change in World View).

As spiritual thought and ceremony developed in form in the Scioto-Paint Creek area, and as ceremonial gatherings increased in size with the settlement of local people in the valley trenches and with the formation of intercommunity sodalities and other corporate groups, the area likely gained the reputation in neighboring portions of the Scioto drainage as being an especially sacred place of power. The striking change in relief and in the play of light and darkness at the interface of the Till Plains and the Appalachian Plateau made for a dramatic theater for ceremonies there and would have encouraged this perception (Chapter 2, Natural and Experiential Setting).

The evolving reputation of the area had both immediate and long-term consequences. Early in the Middle Woodland, it led to

the concentration of people who lived up and down the Scioto drainage into the area immediately around the Scioto-Paint Creek confluence, for habitation and/or for participation in rituals there. The increase in local population numbers and densities that resulted from both new inhabitants and new ritual participants could have been substantial – up to a doubling – but is difficult to estimate even roughly (Chapter 2, Ecological Setting; Chapter 4, Changes over Time in the Sizes and Social Compositions of Gatherings; Seaman and Branch 2006).¹¹ Later in the Middle Woodland, after more ceremonial centers had been built in the area and as its reputation spread inter-regionally, people from distant places traveled on occasion to the centers, possibly in search of esoteric knowledge and power, to buy and learn ceremonial rites, to make pilgrimages, and/or to be healed (Carr 2005d: 585–586, 589–591, 609, table 16.2; see also Ruby and Shriner 2005).

Increases in local population numbers and densities in the Scioto-Paint Creek area early in the Middle Woodland had four effects (Figure 5.1). First, more persons and greater densities of persons provided a rich, interactive and creative context for further innovations and elaborations in spiritual-religious beliefs and rituals, which are evident archaeologically in the spectacular material culture of Scioto Hopewell peoples. These novelties and refinements over the decades and centuries continued to augment the reputation of the place and the draw of people to it.

Second, increasing local population numbers and densities supported the perpetuation of existing cultural means for integrating the small, spatially dispersed, and now fairly sedentary households in the area, and encouraged the development of new means of integration. These means included: nonlocalized clans, which grew in number over time and complemented one another in the social and ritual roles they filled; sodalities and other ceremonial societies, which increased in number of kinds, their degrees of crosscutting membership, and their total combined membership, and which also complemented one another in social and ritual

roles; phratries, at least in the early Middle Woodland period; and new strategies for building and securing alliances among local symbolic communities. The last involved a shift from the economic and social efforts of many dyads of individual commoners that bridged communities, to the efforts of leaders who represented whole communities or segments of them and orchestrated cooperative and/or competitive flamboyant material displays nested within mortuary rituals, to the perfection of spiritual means of alliance formation in which several local symbolic communities buried their dead together by community within one charnel house (Chapter 4, Clan Organization; Sodality and Ceremonial Societies; Changes in Alliance Strategies). Most of these developments resulted directly in changes in the social compositions and sizes of ceremonial gatherings through time, which are seen archaeologically in the kinds and numbers of artifacts that were placed in graves and ceremonial deposits during these gatherings, and in the arrangement of graves and deposits on charnel house floors (Chapter 4, Changes over Time in the Sizes and Social Compositions of Gatherings).

Third, the greater numbers and densities of people in the Scioto-Paint Creek area resulted in increases in ritual and social differentiation, regulation, and complexity over time. The many roles of the classic shaman became segregated among multiple, new kinds of specialized, shaman-like practitioners, which allowed more people to be effectively served. Some kinds of shaman-like practitioners formed professional societies that met for collective rites and probably to trained their initiates. The commonality of nonshaman-like leaders with institutionalized roles and predictable leadership styles increased relative to shaman-like leaders with more idiosyncratic leadership styles – a change that allowed larger gatherings of persons to be effectively orchestrated and controlled. More kinds of ceremonial centers that varied in their orientations and features were built, implying the performance of a greater diversity of kinds of ceremonies. Ceremonial centers that were used by multiple local symbolic communities came to be built within the lands of

not just one such community but several. Near the end of the Middle Woodland period, two leadership roles that had domains of power spanning multiple symbolic communities and that might be called incipient priests appear to have emerged. These were marked by plain copper headplates and by conch shell dippers with shell spoons. (See Chapter 4, *The Nature and Organization of Leadership Roles; The Question of Priest-Chiefs; Changes over Time in the Sizes and Social Compositions of Gatherings*; Chapter 3, *Local Symbolic Communities; Sustainable Communities*.)

Fourth, increases in local population numbers and densities in the Scioto-Paint Creek area, with concomitant increases in the maximum size of the ceremonial gatherings held within earthen enclosures and in available labor, led to steady increases in the sizes of the enclosures over the Middle Woodland period. Increases in the sizes and visibility of earpools, and in the proportion of nonshamanic leaders compared to shamanic leaders, also reflect the larger gathering sizes. This trend in gathering sizes reversed at the tail end of the Middle Woodland period, after the break-up of the tripartite alliance; at the Ater site, no enclosure was built (Chapter 4, *Changes over Time in the Sizes and Social Compositions of Gatherings*).

In contrast to the steady increases in ritual elaboration, in the sizes of ceremonial gatherings, in the expanse of the geographic catchments from which ceremonial participants were drawn, and in social complexity that occurred in the Scioto-Paint Creek area over the Middle Woodland period – each with their implications for local population density also having increased – one finds that intensification in the use of Eastern Agricultural Complex foods was restricted to a narrow window between about 50 B.C. and A.D. 10, early in the period. Thereafter, during the remainder of the Middle Woodland and into the early Late Woodland, the use of Eastern Agricultural Complex seeds leveled off (Table 2.5). There is no evidence that ceremonial intensification, and the larger feasts (Seaman 1979b) that they may have been entailed, led to agricultural intensification, which may have been the case in some

other small-scale societies around the world (Bender 1978, 1985; Spielmann 2002:197). Natural food resources in the Scioto-Paint Creek area appear to have been rich enough and diverse enough to have buffered Hopewell peoples there from their having to have increased their agricultural efforts and work loads as their population density increased. Archaeological evidence against social packing in the area throughout the Middle Woodland period supports this conclusion (see above, *In the Beginning: A Change in World View*).

The Responses in Relation to Anthropological Theory

A few of the above, specific responses to increases in the numbers and densities of people in the Scioto-Paint Creek area follow crosscultural patterns that have been modeled in anthropological theories. The segregation of the roles of the classic shaman among varied, specialized shaman-like practitioners as societal size and complexity increased, and the rise of professional sodalities that were not clan-based in this demographic and social context, occurred across the globe and are documented by Winkelman (1989, 1990, 1992). The formation of leadership positions that had domains of power across multiple communities and that were spiritual-religious in nature, as population numbers and densities rose, has been described for several societies and modeled by Netting (1972) and Peebles and Kus (1977). The dependence of artistic creativity and diversity upon societal size has been discussed by Roe (1995) and serves as a basis for understanding creativity in cultural thought and ritual generally. The individual-level decision making processes that lead to social differentiation as population increases have been modeled by Johnson (1982) and Blau (1970), but this framework is very generalized and does not address the specific cultural forms of responses enumerated here.

The Responses in Relation to the Interregional Hopewellian Record

The new world view that people in the Scioto drainage developed at the Early-to-Middle

Woodland transition, with greater emphasis on horizontal connections among spirits, the dead, and the living on the earth disk, probably had several effects at an interregional scale. First, it probably served as an impetus for the increased commonality with which people in the Scioto valley took power quests and pilgrimages to very distant places in nature and peoples, from which were brought back large quantities of exotic materials, artifacts, and ideas (Carr 2005d:582–585). The great surge of mica, galena, and quartz into the Scioto valley early in the Middle Woodland period, which were deposited at the site of Mound City (Carr, Goldstein, et al. 2005: 486–488, table 13.2), evidence these travels. Second, the travels that the new world view spawned probably led in part to its spread, more and less, to a number of societies across the Eastern Woodlands (e.g., Ruhl 2005; Turff and Carr 2005). The dissemination of these ideas encouraged the Pax Hopewelliana – a condition of peaceful ritual interaction and safe travel among members of some Woodland societies. Finally, the new opportunities for safe interaction and travel, along with the motivations that the new world view gave for connecting with other persons and places on the earth-disk, probably led to the many additional kinds and instances of horizontal, interregional interaction that, together with power quests and pilgrimages, define the Hopewell Interaction Sphere: travel to distant centers of learning, “buying and selling” of religious prerogatives from distant practitioners, the travels of medicine men, long-distance exchange among elites, intermarriage, and spirit adoption (Carr 2005d:581–604, 608, especially table 16.2).

In the End

Hopewellian social and ritual life in the Scioto-Paint Creek area – including the construction of noncircular earthen enclosures, burial of the dead in big charnel houses, the large ceremonial gatherings, the production of fancy ceremonial paraphernalia and markers of social roles, and the placement of these in graves and ceremonial deposits – ended as they had begun:

abruptly. However, rather than a crystallization of spiritual-religious concepts, which had led to the initiation of Hopewellian ways, a unique historical event precipitated the end of these.

The Middle Woodland-to-Early Late Woodland transition had three identifiable periods, with different aspects of the lifeways of people in the Scioto drainage having changed at different times. Over a short period of years to a few decades in length, somewhere in the range of approximately A.D. 320–350 radiocarbon time, the three-way alliance among local symbolic communities in the main Paint Creek valley, the North Fork of Paint Creek valley, and adjacent portions of the Scioto valley partially broke up (Chapter 4, Changes in the Number of Allied, Local Symbolic Communities). The building of charnel houses waned, with only the charnel house at Ater having been constructed in this period. The construction of earthen enclosures ceased entirely. Mortuary-related ceremonies within the Ater charnel house involved a partial return to personal, dyadic means of forming alliances and some decrease in reliance on community leaders for orchestrating alliances, as indicated by gift-giving patterns (Chapter 4, Changes over Time in the Sizes and Social Compositions of Gatherings). From about A.D. 350 until A.D. 500, some small mound building in the vicinity of at least the Liberty earthen enclosure continued (Seeman and Soday 1980), and crafting and/or other small-scale ceremonial activities occurred within the Seip earthen enclosure (Baby and Langois 1977, 1979). Earthen layers may have occasionally been added to some burial mounds during this time range and for the next few centuries (Greber 2003:108–109, Figure 6.8). During this period of very reduced ceremonial activity, people in the Scioto valley continued to live in small, dispersed residential communities and to practice horticulture, hunting, and gathering as they had before (e.g., Prufer et al. 1965). More emphasis on dyadic relationships among members of different, and sometimes distant residential communities may be indicated by the stylistic diversity and distant sources of ceramics recovered from the McGraw site (Carr and Komorowski 1995; Prufer et al. 1965). Beginning around A.D. 500, people in the

Scioto valley aggregated into a small number of villages (Zencor-Scioto Trails, Waterplant, Harness-28, Ety) of 1 to 3 hectare size, which were built on bluffs above the Scioto valley and surrounded by ditch-embankments (Dancey 1988, 1992; Seeman and Dancey 2000:595–597, figures 22.8, 22.9) that may have been built as water barriers. Radiocarbon estimates of these three time periods are summarized by Carr and Haas (1996:30–31; see also Greber 1983:89–92).

Previous attempts to explain the “end of Hopewell” have focused on: (1) subsistence intensification, which might have led to either local self-sufficiency and reduced needs for supralocal interaction (Bender 1978; Saitta 1982) or to greater local subsistence risk and further institutionalizing of supralocal ties (Braun 1986; Ford 1974); (2) climatic cooling and a shorter growing season (Griffin 1960); and (3) demographic growth and social competition (Dancey 1992; Tainter 1977). All of these explanations, save Dancey’s, have been very broadly aimed – at Hopewell over the Eastern Woodlands at large or at northern Hopewellian traditions modeled specifically with Illinois Hopewell data. The explanations are not built on empirical evidence from Hopewell archaeological records specifically in the Scioto and neighboring drainages, and are not supported for the Scioto area by that evidence.

Horticulture and wild plant collecting appear to have changed little in the greater Scioto area from around A.D. 200–A.D. 700 radiocarbon time. In this time range in the greater Scioto area, Middle Woodland paleoethnobotanical records are very similar to Early Late Woodland ones in their seeds per liter of archaeological deposits analyzed and in their percentages of starchy Eastern Agricultural Complex seeds to wild fruits (Wymer 1987, 1992, 1996, 1997). The continuity of dispersed, small residential community life from before the waning of Hopewellian social and ritual practices in the Scioto valley through their waning until A.D. 500 supports the paleoethnobotanical picture of subsistence continuity. Significant changes in plant utilization are not evident until Scioto peoples aggregated into villages, and these changes were largely in

increases in the quantity of nuts and diversity of nut species used, and secondarily in the range of taxa of wild seeds, fruits, and berries used (Wymer 1992:65, 67). The changes reflect the impact of nucleated, high human density habitation on immediately local environments (Wymer 1996:42). The record of subsistence continuity during the Middle Woodland to Early Late Woodland transition does not support the idea of subsistence change as a cause of the end of Hopewellian social and ceremonial life.

A possible cool period in the climatic history of the northern Mississippi drainage and Great Lakes areas between A.D. 200 and A.D. 700 has four difficulties as a cause of the end of Hopewellian social and ritual life. The regime began more than a century earlier than the end of construction of large charnel houses and earthen enclosures in the Scioto-Paint Creek area. Also, the regime was drawn out, whereas social and ritual change in the area were abrupt, over the course of a few years or decades. Further, food producing and gathering practices in midwestern-riverine environments were buffered from the effects of changes in climate by topographic variation (Asch et al. 1972:22). Differences in elevation and landform provided alternative yet close locations that could be exploited to an advantage with changes in climate and weather, including frost and its affect on growing season length. Finally, what climatic cooling that might have occurred in the area, beginning around A.D. 200, is not evident in changes in subsistence practices during the Middle Woodland to Early Late Woodland transition – its claimed effect (Griffin 1960; see also Dancey 1992:26–27).

Demographic explanations of the demise of Hopewellian ceremonialism have posed that increases in population density and packing together of communities caused social competition and conflict over unevenly accessible natural resources, which led to raiding and/or predation on stored resources as social solutions (Dancey 1992:27; Tainter 1977; see also more general arguments by Prufer 1964a: 66–70; 1964b:100, 102). Greater competition over mates (Brown 1981) might be seen as having played a role, as well. It is clear that increases

in local population density did occur over the course of the Middle Woodland period in the Scioto-Paint Creek area. They are evident from progressive increases over time in the sizes of earthen enclosures and the numbers of people that they were capable of holding during ceremonies; from continuous increases in the size and visibility of earpools, which allowed them to be seen at greater wearer-to-viewer distances, implying ceremonies with increasingly larger audiences; and from progressive increases in the degree of institutionalized, nonshaman-like community leadership roles in order to orchestrate more people more effectively at ceremonial gatherings (Chapter 4, *Changes over Time in the Sizes and Social Compositions of Gatherings*). At the same time, the population increases in the area did not reach a significant level where local symbolic communities were packed closely together, where the accessibility of necessary and unevenly located subsistence resources was critically reduced, and where raiding and predation on the stored food of others occurred. Local symbolic communities even in the last third of the Middle Woodland period (Seip-Baum, Old Town-Hopewell, Liberty-Works East) were widely spaced from each other. Local residential communities had sufficient space that they were able to use a narrow and select range of food resources from their immediate surroundings. Also, there is no evidence for violent deaths throughout the Middle Woodland period (see above, *In the Beginning: A Change in World View*; and Chapter 15, *Social Competition*). Finally, competition over mates would be expected to have decreased rather than increased as local population density increased and a wider selection of potential mates became available at close distances.

The possibility that communicable diseases led to an end of Scioto Hopewellian social and ceremonial ways has only been mentioned previously (Prufer 1964a:66). It is possible that communicable diseases were encouraged by the larger aggregations of people in the Scioto-Paint Creek area at the end of the Middle Woodland period, and caused decreases in population to levels that no longer

allowed grand assemblies and ceremonies. This proposal has not been borne out by osteological analyses of late Middle Woodland burial populations (Konigsberg 1985; Johnston 2002; Ohio Historical Society n.d.). However, many communicable diseases leave no osteological traces.

Archaeological evidence from the Scioto-Paint Creek area suggests, instead, that the end of Hopewellian ceremonial and social life there resulted from a unique event, which probably was social-spiritual in nature and not tied to gradual changes in subsistence, climate, or population levels over the last half of the Middle Woodland period. Specifically, at the end of the Middle Woodland period, shortly after the decommissioning and mounding of the Seip-Pricer charnel house around A.D. 320 radiocarbon time, the tripartite alliance among local symbolic communities in the main Paint Creek valley, the North Fork of Paint Creek valley, and adjacent portions of the Scioto valley partially fell apart, leaving only two allied communities (Chapter 4, *Changes in the Number of Allied, Local Symbolic Communities*). This must have been a very meaningful schism, because it violated the spiritual pact that the three communities had formed by burying their dead together within the Seip-Pricer charnel house. After the decommissioning of the Seip-Pricer charnel structure, the three communities appear to have built the Seip-Conjoined charnel house with the intent of again burying their dead together, each community's deceased in its own burial chamber, as had been the layout in the Seip-Pricer charnel house. However, one chamber in the Seip-Conjoined charnel building went unused by one of the three local symbolic communities, and the building was mounded over after it had been used by only two of the communities. A few years to decades later, at the Ater site, only a two chambered charnel house was built, which was filled with burials from the two local symbolic communities that had remained spiritual-social allies. Ater appears to have been the last large charnel house built in the Scioto-Paint Creek area, and no earthen enclosure was built around it, in contrast to what had been the tradition throughout the Middle Woodland period, from its

very beginning. The two local symbolic communities that buried their dead together in the Ater charnel house may have ended their alliance, as well, a short time after the charnel house was decommissioned and covered under a mound.

It is unknown what specifically caused the partial break up of the spiritual-social alliance among the three local symbolic communities. However, evidential constraints do suggest some possibilities and not others. Difficulties for people in the Scioto-Point Creek area logically could have arisen from either social or spiritual-religious difficulties in their alliance, or from both. Social difficulties appear less likely because archaeological evidence, of several kinds, does not indicate an increase over time in either uncontrolled or controlled social competition. First, artifacts that potentially might indicate interpersonal violence in the Scioto Hopewell record do not show any increase over time (Table 5.1). Artistic images of human body parts and of bodies missing parts, which might indicate war trophies and captives, and effigies of artifacts that could be used to inflict wounds, have been recovered from only the Mound City and Hopewell sites, in the early and middle Middle Woodland period (Figures 4.1C, 4.9 D–H, 5.5A–C). “Trophy” skulls, if most were indeed war trophies (see Johnston 2002 to the contrary), do not increase in frequency in later Scioto Hopewell sites (Table 5.2). Further, all of these kinds of artifacts have interpretations other than warfare and violence (Table 5.1). Second, possible indicators of competitive displays among social groups, including fancy and large ceremonial artifacts for ritual display and the destroying and ritual depositing of these in large numbers, do not increase over the course of the Middle Woodland and peak at its end. Rather, these material remains are most frequent in the middle Middle Woodland, at the Hopewell site, and decline thereafter. Competitive and/or cooperative material displays appear to have been a stage through which local symbolic communities went as they developed increasingly stronger ways of creating alliances among one another: first through primarily economic and

social relations among individual commoners as dyads in nonmortuary contexts outside of earthworks, then through ritualized cooperative and/or competitive material displays nested in mortuary ceremonies within earthworks and orchestrated by leaders who represented their local symbolic communities, and finally through perfected spiritual means by which local symbolic communities buried their dead together on the same ceremonial floor within a single charnel building.

An empirically better supported possible cause of dissolution of the tripartite alliance is some kind of spiritual-religious event or problem of critical proportion that Scioto Hopewell people perceived. A perceived spiritual-religious event or problem would make sense of not only the break up of the tripartite alliance, but also the abandonment, simultaneously, of a very broad array of Scioto Hopewell cultural practices and social units that were spiritual-religious in their cultural foundation and interrelated. These abandoned practices and units include: construction of earthworks for ceremonies of many kinds that referenced the Above and Below realms; construction of charnel houses for rites that moved souls of the dead on to another world; long-distance power questing and pilgrimage to especially sacred places in nature for fancy, shiny raw materials with shaman-like cosmological meanings; a diversity of specialized shaman-like social roles that were involved in hunt divination or sending or pulling power intrusions, other divination, healing, guiding souls to the land of the dead, leading public ceremonies, and keeping cosmological knowledge; a ceremonial society of Bear clan members who served in corpse processing, psychopomp work, and/or doctoring; a sodality marked by smoking pipes and involved in trance communication with spirit helpers; a sodality marked by copper breastplates that were suitable for divination; a sodality marked by earspools that symbolically referenced the circular cosmos and its transformation in light and darkness; and two possible professional societies for shaman-like persons who divined with galena and mica mirrors. Most of the fabric

Table 5.1. Art Works, Other Artifacts, and Human Remains Possibly Indicating Interpersonal Violence in Scioto Hopewellian Societies, and Alternative Interpretations

Artifact	Site, Mound, and Burial	Reference	Possible Interpretations
Human Body Parts and Art Works Depicting Them			
Effigy finger, cannel coal	Hopewell, Md. 25, Sk 278 ^a	Moorehead (1922:111, 142, figure 38)	war trophy, disfigure and dishonor the antisocial (Bird 1971:101; Burkett 1997:274; Vizenor 1981:80); ceremonial
Human digit with two perforations ^b	Hopewell, Md. 25, cache	Shetrone (field notes, July 16, 1924)	war trophy, disfigure and dishonor the antisocial, personal memorial; ceremonial
Effigy hands of children, pair, copper	Mound City, Md. 13, B 4	Mills (1922:452, 552–553, figure 77)	war trophies, disfigure and dishonor the antisocial; ceremonial
Effigy hand, gracile, mica	Hopewell, Md. 25, B47, Sk. 2	Shetrone (1926a:95–97, figure 35)	war trophy, disfigure and dishonor the antisocial; healing hand of a healer
Effigy ear, copper	Hopewell, Md. 25, Altar 1	Moorehead (1922:113, 142–143, figure 39) Greber and Ruhl (1989:123–124, figure 4.45)	war trophy, disfigure and dishonor the antisocial; prestige (Burkett 1997:274) ^c
Effigy human torso, headless, legless, hands (tied?) behind back, copper	Mound City, Md. 13, B 11	Mills (1922:455, 552, figure 76)	war captive, executed; ceremonial sacrificial victim
Effigy human body, headless, used as a headplate, copper	Mound City, Md. 7, B 12	Mills (1922:494–496, 542, figure 67)	war captive, executed; ceremonial sacrificial victim
Effigy human body, headless, missing lower legs and hands, mica, smaller of two	Hopewell, Md. 25, B 34	Shetrone (1926a:87–89, 209, figure 146)	war captive, executed; ceremonial sacrificial victim
Effigy human body, headless, missing lower arms, mica, larger of two	Hopewell, Md. 25, B 34	Shetrone (1926a:87–89, 209, figure 146)	war captive, executed; ceremonial sacrificial victim
“Trophy” skulls and jaws	53+	Johnston (2002) and Seeman (1988:570–571) inventory them	ancestor worship; few if any were war trophies (Johnston 2002)
Effigy “trophy” jaw, copper	Mound City, unknown provenience		ancestor worship; less likely war trophy
Implements and Artistic Depictions of Implements Useful for Inflicting Wounds			
Mace, stone	Hopewell site	Ohio Historical Society 283/-	weapon
Effigy atlatl, mica	Hopewell, Md. 25, Altar 1	Moorehead (1922:113, 142–143, figure 39), Hall (1977:503, figure 1c)	war or hunt divination

(continued)

Table 5.1. (continued)

Artifact	Site, Mound, and Burial	Reference	Possible Interpretations
Effigy atlatl, mica	Hopewell, Md. 25, Altar 1	Moorehead (1922:113, 142–143, figure 39) Hall (1977:503, figure 1d)	war or hunt divination
Effigy atlatl, copper, three	Hopewell, Md. 25, deposit of copper designs	Moorehead (1922:plate 124) Hall (1977:503:b)	war or hunt divination
Projectile points, quartz and translucent	many hundreds	Case and Carr (n.d.) inventory them; Carr et al., Chapter 13: table 13.2	war or hunt divination, sending or pulling out power intrusions
Projectile points, obsidian	many hundreds	Case and Carr (n.d.) inventory them; Carr et al., Chapter 13: table 13.2	war or hunt divination, sending or pulling out power intrusions
Effigy projectile points, copper, mica	8+: at Hopewell, Liberty, Ater, and Turner sites	Case and Carr (n.d.) inventory them	war or hunt divination, sending or pulling out power intrusions

^a Md. mound; Sk. Skeleton; B burial.

^b This finger bone shows no polish that might indicate it was curated and worn as a pendant. Observation by Cheryl Johnston (Personal Communication 2005).

^c See also the analogous leather effigy ear from the Mt. Vernon site, Indiana (Burkett 1997).

of Scioto Hopewellian spiritual, ceremonial, and symbolic life was affected by the difficulty that Scioto Hopewell people encountered at the end of the Middle Woodland. For this reason, the end was likely caused by some critical, perceived spiritual event or problem – one concerned with a fundamental aspect of Scioto Hopewellian world view. Possibilities include a disease that spread quickly through Scioto Hopewell peoples, a prophesy that did not materialize, an unexpected astronomical event, or any of a wide range of other events that could have undermined spiritual-religious beliefs and leadership, sodalities, and alliance structures based on them.¹²

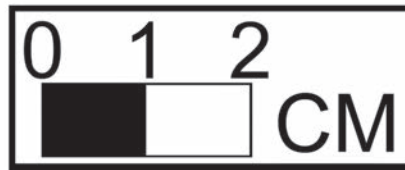
CONCLUSION

The origin, core nature, and ending of Hopewellian cultural lifeways has been understood during the past fifty years largely from the perspective of a very general, ecological model pertinent to the Eastern Woodlands as a whole. Hopewellian lifeways have been seen as one of a series of cultural responses to long-term

processes that involved post-Pleistocene climatic and biotic changes to the landscape, increasing sedentism from the Middle Archaic onward, consequent regional population growth and packing, and the intensification of horticulture (Ford 1974; see also Braun 1977, 1986; Fagan 1995:375–378, 387–390, 399–400, 408–409, 416; and some aspects of Caldwell 1958). Much of this interpretive framework derives from settlement and subsistence studies in the Illinois valley (Asch et al. 1972; Phillips and Brown 1983; Styles 1981), making the model's relevance to the Scioto-Point Creek area of Ohio open to question. In fact, natural environmental data and Woodland paleoethnobotanical and demographic data from the Scioto drainage, or more broadly the upper Ohio drainage, have been known for some time to correspond only partly in their patterns with those of comparable data from Illinois (Ruby et al. 2005:127–132; Seeman 1979a:402–407; Seeman and Branch 2006; Wymer 1987:260–262).

By focusing in this and previous chapters on the local scale of the Scioto-Point Creek area, and by integrating detailed reconstructions of the natural and symbolic environments,

(A)



(B)



(C)



Figure 5.5. Some Scioto Hopewell artistic representations of human body parts and of bodies missing parts, which might indicate war trophies and captives but also have other interpretations (Table 5.1). (A) Copper effigy “trophy” jaw. From the Mound City earthwork, internal provenience unknown. (B) Copper effigy human body, headless, made into a headplate. From the Mound City earthwork, Mound 7, Burial 12. (C) Two mica effigy human bodies, headless, one also missing its hands and lower legs (*right*), the other missing its lower arms (*left*). From Hopewell Mound 25, Burial 34. See credits.

Table 5.2. Frequencies and Percentages of Trophy Skulls in Large Ceremonial Centers Through Time

Ceremonial Center	Burial Population Size	Number of Trophy Skulls	Percentage of Trophy Skulls
<i>Later in Time</i>			
Ater	60	4	6.66%
Harness	183	7	3.82%
Seip	171	4	2.34%
Hopewell	218	19	8.71%
Mound City	105+	1	0.95%
<i>Earlier in Time</i>			

subsistence, settlement, social and ritual organization, and beliefs of the Hopewellian peoples who lived there, a new view of the nature and history of Scioto Hopewellian culture and lifeways emerges. Hopewellian culture and lifeways in the Scioto-Paint Creek area began there with changes in world view pertinent to both the social and spiritual order. These changes led to, rather than were a response to, population aggregation and horticultural intensification in the Scioto and Paint Creek valleys. Specifically, at the end of the Early Woodland period, in the last half of the last century B.C., peoples of the Scioto drainage augmented their Adena ideas about social-spiritual relationships between beings of the Above and Below realms of their cosmos with new concerns over the horizontal relationships of local social groups with spirits, the dead, and each other on the earth-disk – the surface of the Below realms and the Center of the Scioto Hopewell multidimensional cosmos. Changes in settlement location, intensification of horticulture, and population aggregation in the Scioto-Paint Creek area ensued.

The changes that occurred in world view are reflected in many of the material features by which Scioto Hopewell culture is defined archaeologically and distinguished from Adena culture: ceremonial centers situated on the middle terraces of the Scioto and Paint Creek valleys; loaf-shaped mounds; large charnel houses; mound burials laid out largely on a single floor rather than distributed vertically

over many mound strata; sometimes large burial populations; pearl, shell, mica, and water-worn stone ghost barriers around some burials and mounds; platform smoking pipes with effigies of personal power animals facing the smoker; breastplates, earspools, and drilled-and-cut bear canines that marked sodalities and a clan-based ceremonial society; and necklaces of animal teeth, claw, or talons that marked clans.

That Scioto Hopewell culture and lifeways began with changes in world view should not be surprising to Woodland archaeologists. Hopewell has long been envisioned as some kind of religion, religious cult, or religious-symbolic-social system (Caldwell 1955; Prufer 1964b; Seeman 1995:123, 125, 138). Moreover, the abrupt development of Scioto Hopewellian ceremonial and social practices from Adena ones over the course of a few generations is a telling indicator that the origins of these practices lay in changes in cultural concepts rather than slower processes such as demographic growth, increases in the productivity of plants undergoing domestication, or subsistence choice relative to levels of population packing or food resource productivity.

Pan-Eastern Woodlands explanations of the ending of Hopewellian ceremonial and social life, like its origins, do not accord well with archaeological data from the Scioto drainage. The invention of the bow and arrow was too late in time (Ford 1974:402; Hall 1980; Morse and Morse 1983; Muller 1986; Seeman 1992b) to be relevant to the end of Scioto Hopewellian lifeways. Moreover, signs of violence and death by bow and arrow are missing from the Scioto Hopewell record (Tables 5.1, 5.2). Social-ritual competition appears to have decreased rather than increased in the Scioto drainage as the end of the Middle Woodland period was approached (Chapter 4, Changes over Time in the Sizes and Social Compositions of Gatherings). Similarly, the timing and extended duration of climatic cooling in the broad northern Mississippi drainage and Great Lakes areas (Griffin 1960) do not correspond with the timing and abruptness of the end of Hopewellian ceremonial and social life in the Scioto valley. The abruptness with which Scioto Hopewellian

social and ceremonial practices came to an end hints strongly that its cause lay in the social realm and/or cultural concepts, rather than drawn out ecological processes involving subsistence, demography, and/or climate.

Focusing on the more local scale of specifically the Scioto-Paint Creek area and its sociocultural history, rather than the Eastern Woodlands at large, reveals instead that some form of perceived spiritual-religious event or problem of major importance to Hopewellian peoples, or less likely some kind of social issue, caused the breakup of an area-wide alliance among communities. Because the alliance among Scioto Hopewellian communities was founded on spiritual beliefs and expressed through forms of ritual, ceremonial paraphernalia, and art that gave Scioto Hopewellian life much of its particular character, the break up of the alliance led to the quick waning of much of that cultural form of life. The immediate rise, substance, and fall of Scioto Hopewellian life were, most essentially, spiritual-religious and social in nature.

POSTSCRIPT TO PART II

Developing a rapport with and coming to understand Scioto Hopewell people in their own, unique terms, like coming to know any human being authentically, requires situating oneself, to the extent possible, in their personal and social worlds. Necessarily, this process involves richly describing the roles, practices, beliefs, and social and natural contexts through which Scioto Hopewell people created and lived their lives – the archaeological approach called “thick prehistory” (Carr and Case, Chapter 1; 2005a:21). Both personalizing the past with people in active, on-the-ground sociocultural roles, and contextualizing their ideas and practices within their local social, cultural, natural, and historical milieu, are essential to this approach. Practically, this process of coming to know past people requires using and exploring the interrelated implications of multiple, cross-checking lines of data of diverse material kinds, of varying scales, and pertinent

to different domains of culture and nature. This approach and its practice I have tried to realize in Chapters 2–5. By immersing us in the details of the cultural lives, environment, and history of Scioto Hopewell people and the many facets of their material record, the range of alternative, possible understandings of them has been empirically and logically constrained to a few. A way of exploring the archaeological record of Scioto Hopewell people is offered that raises the hope that their material voices may now be speaking more loudly than ours, today, and can be heard above our own presuppositions, personalities, privileged theoretical paradigms, favored ethnographic analogies, and Western points of view. Developing an authentic awareness of another requires setting aside a considerable part of oneself and attentively listening.

This exercise in listening has revealed many previously unknown yet fundamental aspects of Scioto Hopewell life, and a number of unexpected ones. The lengths of swidden horticultural cycles and cycles of movement of residential communities, durations of residential site occupation, and the lengths of site reoccupation cycles, with their implications for social networks and human impact on the natural environment, have been estimated. Clans, sodalities, ceremonial societies, communities of several kinds and scales, alliances, leaders of a variety of kinds, and genders have come to be identified for the first time. Men have been found to have dominated public social life, but not to the exclusion of women, who did fill certain important leadership roles and were not depreciated. Scioto Hopewell social organization has been shown, in contrast to general professional impressions of it, to have been largely flat and decentralized – integrated and regulated by clans that often spanned locales, sodalities, and ceremonial societies with cross-cutting memberships, intercommunity alliances, and diverse and complementary kinds of leaders that each were recruited from multiple clans. Leadership spanning multiple local symbolic communities developed only at the end of the Middle Woodland period, and never supplanted other, complementary leadership

roles. Sodalities arose at the beginning of the Middle Woodland, not at the end of it. Scioto Hopewellian social and ritual life changed in fundamental ways over time; it was not static. It became more institutionalized and less shamanic in character. Local symbolic communities changed their strategies for building alliances among themselves several times over the Middle Woodland period. Finally, neither the initial crystallization nor the demise of Scioto Hopewellian ceremonialism, material symbolism, and social organization were tied immediately to changes in the natural environment, climate, regional population density, or the productivity of Eastern Agricultural Complex domesticates and cultivars. Social and ritual life that was characteristically Scioto Hopewellian began with fundamental changes in the spiritual-religious concepts and ceremonies that Late Archaic and Adena peoples in the area had developed over a millennium, and the creation of a new world view that emphasized horizontal relationships among spirits, the dead, and living human beings on the earth-disk, complemented by vertical relationships with beings of the Above and Below realms. The end of Scioto Hopewellian social and ritual life, which involved the break up of a spiritual-social alliance among three local symbolic communities, was likely precipitated by some critical, perceived spiritual event or problem that pertained to a fundamental aspect of Scioto Hopewellian world view. The nature and history of Scioto Hopewell life, and their immediate causes, were fundamentally spiritual-religious and social. By situating ourselves in the midst of the lives of Scioto Hopewell people, through richly describing the details of their lives in their local context, an understanding of them that is authentic to them is beginning to emerge.

NOTES

1. In fact, Wymer's most recent assessment (Wymer and Abrams 2003:189) of the timing of abrupt intensification in the growing of Eastern Agricultural Complex seeds in the upper Ohio valley, generally, would place

- it at approximately A.D. 100, *after* the initial development of Scioto Hopewellian ritual life.
2. For additional, ambiguous artifacts that may depict humans in soul flight or practicing simply soul merger with the soul of a bird, see Chapter 4, Depictions, Costumery, and Symbols of Position of Leaders; also Note 3 in the chapter.
 3. The Zimmerman tube also has, on both sides of the depicted trunk, long sinuous snakes with forked tongues. Crossculturally, the snake is a very common symbol of the axis mundi, its forked tongue possibly taking the place of the bifurcating branches of the World Tree. The metaphor of the snake as the axis mundi is a part of contemporary Creek religious symbology (Daniel Penton, personal communication 1996).
 4. A partial exception to this pattern is the Tremper charnel house. There, separate chambers may have indicated different residential communities, segments of local symbolic communities, or other social units, and separate cremation depositories appear to have indicated distinct clans.
 5. Symboling of the axis mundi and vertical journeying of the deceased with a conical mound appears to have been incorporated in an intermediary stage of building each of the Seip-Pricer, Seip-Conjoined, and perhaps the Edwin Harness and Old Town-Conjoined mounds. In the cases of the Seip-Pricer and Seip-Conjoined mounds, individual (conical?) submounds were built over each of the clusters of burials that each represented a local symbolic community. The Pricer submounds were then capped to create a single, loaf-shaped mound. The Conjoined submounds were not capped, apparently because the alliance among the local symbolic communities that began to build the charnel house and bury their dead together there appears to have dissolved (Chapter 4, Changes in the Number of Allied, Local Symbolic Communities). In the case of the Edwin Harness mound, a (conical?) submound was built over one of the burial clusters, and it is unclear whether the other two burial clusters were also covered by submounds (Greber 1979b:28). However, three stone circles were constructed at a higher level of the mound, apparently over the three burial clusters. The three (conical?) conjoined mounds at the Old Town earthwork likely covered three separate clusters of burials that represented three local symbolic communities, but only one of the mounds was excavated (Moorehead 1892:133–143).
 6. In Kentucky, West Virginia, and southwestern Ohio, a few much larger, irregularly shaped enclosures were probably built by peoples with Adena beliefs (Clay 1987:48, 51, figure 6; Webb and Snow 1974:29–30), but these are absent in the Scioto valley.
 7. Squier and Davis (1848:47–48) concluded from their observations that entrances to Adena circular earthworks most often faced east, although this was “by no means . . . a fixed rule.” No systematic study of variation in the orientations of entrances of Adena circular earthworks has yet been made.

8. Elsewhere, I have shown through the analysis of Scioto Hopewell art, and layouts of ceremonial deposits and burials, that Scioto Hopewell peoples did not differentiate the meanings of directions nearly as strongly as historic Woodlands and Plains Native Americans did, and that the very elaborate, historic-period directional systems developed sometime after the Middle Woodland period (Carr 1998, 2000a, b).
9. The specific colors of the soils selected and their interior or exterior placement in the walls varies among walls at Hopeton and between the walls at Hopeton and High Bank (Greber 2006:89–90). At Hopeton, three trenches across separate segments of the earthworks' walls showed that the walls were built of red soils on their exteriors and yellow soils on their interiors. A fourth trench through a different segment exposed that the wall was built of red soils on its interior (the reverse of the other three segments) and grey soils on its exterior (different from the other three segments). At High Bank, the west embankment was found to have been formed by red soils on its exterior and yellow soils on its interior. (At Newark, in a different river valley, dark brown soils were used to build the exterior of the Great Circle and yellow soils the interior). The different color symbolism used within and among sites suggests different work groups with different ideas in mind, the building of the different walls in the course of different ceremonies having different purposes and referents, different labor forces which made selecting distant or deep soils more or less feasible, differences in the availability of specifically colored soils in given locales, and/or other circumstantial factors. Nevertheless, in all these cases, earthwork walls were differentiated horizontally in their color symbolism, in line with the many ways in which Scioto Hopewell peoples materially emphasized their concern about horizontal relations on the earth-disk.
10. The new world view that emphasized horizontal relationships among spirits, the dead, and living persons and that ushered in Hopewellian social and ritual lifeways in the Scioto valley was well rooted in Adena culture of the area. However, Havana Hopewellian peoples in the central and lower Illinois valley may have added to its conceptual elaboration and ritual manifestations in the Scioto area. Of the eight conceptual, material, and social expressions of the new world view discussed in the text above, three are absent or almost completely so from the Illinois record, four occurred or probably occurred in both regions but their ages in the Illinois sequence are unknown, and one occurred earlier in Illinois than in the Scioto valley.

Specifically, the Illinois valley archaeological record lacks: Adena-like circular, ditch-and-embankment earthworks, which in the Scioto valley functioned as horizontal water barriers to ghosts; charnel houses where many people from multiple local symbolic communities were laid out horizontally on a floor (see also Brown [1979] for this contrast); and large ceremonial deposits of artifacts and/or raw

materials on mound floors in all but two cases. Peoples of both the Scioto valley and Illinois valley made animal effigy platform smoking pipes, loaf-shaped burial mounds, and geometric earthworks that by their orientation referenced key directions of the earth-disk. Illinois Hopewell peoples probably intermixed the cremations of many individuals from multiple local symbolic communities, as did Scioto Hopewell peoples. Comparisons of the first dates of occurrence of effigy smoking pipes, loaf-shaped mounds, geometric earthworks, and intermixed cremations in the two areas is not possible, however, because these forms are not well dated in Illinois. The Illinois record does have precedence over the Scioto valley record in the appearance of a flood plain cemetery.

In the following paragraphs, each of the eight conceptual, material, and social expressions of the new world view in the Scioto Hopewell area are considered for their precedence in the Scioto or Havana regions, following the order of ideas in the main text. The dates mentioned are on the uncalibrated radiocarbon time scale.

Shamanic Trance and Effigy Platform Pipes.

Whether the practice of merging horizontally with a personal power animal spirit was a local innovation of Scioto Hopewell peoples or was borrowed from others is not know. Crucial to reconstructing this history is whether effigy platform pipes, which indicate horizontal merging with power animals, were made first in the Scioto area or in the Illinois valley. At present, the earliest known effigy platform pipes in both Illinois and Ohio date somewhere between about 50 B.C. and A.D. 1, at the Hannah mound and Tremper mound, respectively. Hannah can be dated to this time range because Hannah lacks Hopewell series wares, which in the central Illinois valley first appeared about A.D. 1 (Griffin 1970; Munson 1986:293). Morse and Morse (1965:145) placed Hannah at about 50 B.C. Tremper can be placed within the 50 B.C.–A.D. 1 range by a combination of considerations: two radiocarbon dates from the site, 100 B.C. +/- 100 (Prufer 1968:153), and 40 B.C. +/- 70 (Emerson et al. 2005:195); the lack of Hopewell ware at Tremper; the close stylistic continuity of the pipes at Tremper with those in Mound 8 at Mound City, suggesting only one to a very few generations of separation between Tremper and the later Mound City site; and a suite of radiocarbon dates from Mound City and the integrated Hopeton earthwork (Maslowski et al. 1995:29–31; Ruby et al. 2005:161), which point to the beginning of the Mound City group at approximately A.D. 1.

Platform pipes (without effigies) probably developed first in the Scioto Hopewell area rather than Illinois. A smoke-stack style pipe with a strongly curved platform was found at the base of the Adena Toepfner mound in Franklin Co, Ohio (Norris 1985). A suite of radiocarbon assays date the beginning of the mound to no later than 250 B.C. The dates seem

sound, because they order correctly stratigraphically between the bottom and top halves of the mound, and because they were derived by three different labs, and by both traditional Beta-count and contemporary AMS methods (Carr and Haas 1996:24–25). The smoke-stack style bowl and other attributes of the Toepfner pipe are shared in common with the smoke-stack pipes in the small cache at Tremper (Seaman 1977b:53), and suggest a continuous tradition of platform pipe manufacture in the Scioto drainage – one with more time depth than the platform pipe tradition in Illinois.

Effigy tubular pipes that have animal figures facing the smoker and that formally could have been precursors to effigy platform pipes have been found in three late Adena, “Robbins” complex burial mounds in Ohio and West Virginia. A wolf effigy tubular pipe was unearthed from the Englewood Mound near Dayton, Ohio. A tubular pipe carved into a duck and another made into an unidentified aquatic bird were found in the Saylor Park mound near Cincinnati, Ohio. A shoveler duck effigy tubular pipe was excavated from the Welcome mound in Marshall county, West Virginia (Dragoo 1963:216–117, figure 17; Setzler 1960; see also Hays 1995:90). Whether these mounds predated, were contemporaneous with, or followed the earliest of Scioto Hopewell charnel houses at Tremper and Mound City and their effigy platform pipes is unknown.

The strikingly similar styles of Scioto and Illinois platform pipes, and instances of the same animals having been depicted in similar ways on pipes in the two areas (Penney 1989:183–187), need not be explained by people of one Hopewell tradition having learned to manufacture pipes or having gotten pipes from the other. Instead, it is possible that the tradition arose through both Scioto and Havana Hopewell peoples having made long-distance ritual journeys to the Sterling pipestone source in the Rock River, Illinois, and having manufactured pipes together there, either occasionally or regularly, reinforcing the coherence and direction of the tradition. Sterling pipestone is the source of all tested Illinois Hopewell pipes (Hughes et al. 1998) and the majority of pipes from the Tremper Large Cache. The lack of pipe manufacturing debris in Hopewell habitation and ceremonial sites in both the Illinois valley and Scioto valley (Farnsworth et al. 2004:189), and the occurrence of such debris in a small Middle Woodland habitation-workshop site in the vicinity of the Sterling source, neighboring Middle Woodland habitation sites, and a midden area on the periphery of the nearby Albany Mound Group (Farnsworth et al. 2004:186–187, 189) point to the possibility of the manufacture of the pipes by peoples from both regions in sites in the Sterling area.

It is likely that long distance journeys to the Sterling source were begun by peoples in one area and then joined in by peoples from the other upon hearing of the source and seeing the elegant and expressive pipes that could be made from Sterling pipestone. However, who made the first journey to the source

is perhaps less significant than the location(s) (e.g., near the Sterling source) and social-ritual context(s) (e.g., Havana and Scioto peoples together) within which manufacturing techniques and artistic styles were learned and developed and the concept of merging horizontally with a personal power animal spirit crystallized.

Water Barriers to Ghosts and Circular Ditch-Embankments. In the Scioto valley, circular, ditch-and-embankment earthworks that created water barriers to ghosts and concerned horizontal relationships extend back at least to the third century B.C. radiocarbon time, when an example is found in the Dominion Land Company site (Carr and Haas 1996; Hays 1995). The Illinois record entirely lacks such circular, ditch-and-embankment earthworks during the Early Woodland period (e.g., Webb and Snow 1974: 132–133, map 1). The only ditch-bounded Woodland period cemetery in the Illinois valley is the Hopewellian Ogden Fette earthwork and mound complex (Munson 1967; Shetrone 1936:323; Shields 1979:13, 87–94). The ditch is “square with bulging sides” or “pentagonal”, and apparently is not accompanied by an embankment (Munson 1967: 391–392). The ditch may have been man-made in its entirety or constructed in part by taking advantage of an old meander scar (A. Harn, personal communication 2007). In either case, it held standing water – even recently around one-third to one-half of its circumference after a heavy rain (Munson 1967:392). The ditch does not appear, on current evidence, to have been associated with an earthen embankment (Shields 1979:93), unlike Early and Middle Woodland ditch-embankment works in Ohio. Neither the ditch nor the mounds or middens within it have been dated radiometrically (A. Harn, personal communication 2007).

Directionally-oriented Geometric Earthworks. In the Scioto valley, geometric earthworks that were oriented to key directions (cardinal, semicardinal, solstice, equinox, or lunar) and that emphasize horizontal relationships date as far back as at least sometime in the first century A.D. The subsquare embankment of the Mound City site, which was oriented to the summer solstice sunset and winter solstice sunrise (Romain 2005), was likely built around mounds of the site about this time. The subdiamond-shaped Tremper embankment, which dates earlier, probably in the 50 B.C. – A.D. 1 range (Chapter 15, Chronology), was intentionally oriented, falling within a degree or two of the similarly shaped Dunlap embankment, but the specific celestial or other directional referents of these two sites have not been studied (Carr 2005b:87).

Only two geometric earthen enclosures were constructed by Hopewellian peoples in the Illinois valley: the Ogden-Fette subsquare or pentagon ditch with its approximately 37 mounds inside it, in the central Illinois valley (see above; Farnsworth 2004:24; Munson 1967), and the Golden Eagle oval embankment with its 2 to 6 mounds, at the mouth of the Illinois

valley (Farnsworth 2004:24; McAdams 1887). Neither enclosure has been studied for its orientation. Published aerial photographs of the Ogden-Fettie ditch (Munson 1967) suggest that one of its primary diagonals was oriented close to north-south, whereas as an unpublished topographic map (Shields 1979:92) does not. Neither enclosure has been dated. However, enclosure size and shape are time-sensitive in the Scioto valley, and the 5.2 hectares within the Ogden-Fettie ditch is the same area as within the Mound City embankment; if the ditch around Ogden-Fettie was approximately a subsquare, then the two sites are also similar in shape. These similarities may suggest that enclosure construction at the two sites was approximately co-eval. The mounds and occupational area within the enclosure of Ogden-Fettie, in distinction from the enclosure itself, date to sometime between 200 B.C. and 50 B.C. The date of earliest mound-building at Mound City is unknown.

Loaf-shaped Burial Mounds and Their Internal Structure. The first elongated or “loaf-shaped” burial mounds that were constructed in the Scioto valley were the Tremper mound, dating between 50 B.C. and A.D. 1., and the Carriage Factory mound, about this time or perhaps somewhat earlier. In the Illinois valley, Hopewellian mounds that have been described as “loaf shaped” occurred in a restricted set of flood plain ceremonial centers. From north to south, the centers are: Beardstown, Baehr, Hilderbrand, Naples-Abbott, Naples-Castle, Naples-Russell, Mound House, Kamp, and Merrigan (Farnsworth 2001, 2004; Struever and Houart 1972:61). Some of the mounds had a shape that was more multi-lobed than loaf-form, but all were relatively large and not circular and conical, in contrast to conical Adena mounds in the Scioto drainage and conical Hopewell mounds on the bluffs and in the flood plain of the Illinois valley. The dates of construction of most of the Illinois loaf-shaped mounds are unknown because the mounds and sites were destroyed prior to the rise of professional archaeology and radiocarbon dating. An early surface of Mound 1 at the Mound House site dated to A.D. 10 +/- 70, uncalibrated (Buikstra et al. 1998:91, Table 6.1). Dates for burials and the central burial crypt in Mound 9 at the Kamp site, which was not one of the loaf-shaped mounds at the site, fall between A.D. 10 and A.D. 140, uncalibrated (King et al. n.d.). Both Mound House and Kamp are located in the lower half of the lower Illinois valley and probably were begun later than other flood plain sites with loaf-shaped mounds further north (Charles 1992, 1995).

Although some large Hopewell mounds in the Illinois valley and the Scioto drainage share in their oblong shape, and in this regard emphasize horizontal relations over the vertical axis mundi expressed in a conical mound, the similarity ends there. The internal structures of Scioto Hopewell loaf-shaped mounds show much more commitment to the symboling of horizontal social and spiritual relationships, and more consistency in this symboling, than do the

internal structures of Havana loaf-shaped mounds. The Scioto Hopewell loaf-shaped mounds of Tremper, Hopewell Mound 25, Hopewell Mound 23, Seip-Pricer, Seip-Conjoined, Edwin Harness, Ater, probably Porter-Conjoined, and possibly the Carriage Factory mound, each covered a large charnel house or multiple charnel houses where the dead from multiple local symbolic communities were laid out on expansive floors, arranged by community in most instances and possibly by clan at Tremper. Horizontal group identity was symbolized by horizontal spatial distinctions. Each charnel building or suite of buildings contained a large number of deceased, totaling between 60 and about 375 persons and roughly balanced among the communities represented. The floor throughout each charnel house or suite of houses was horizontally unified with a uniform prepared floor of sand, clay, and/or muck, each charnel house or suite of them was burned down or deconstructed as a unit, and most of the buildings or sets of buildings were capped by one to several unifying layers of soil. Together, these design, construction, and deconstruction aspects of the mounds expressed horizontal relationships of social differentiation as well as alliance among communities or cooperation among clans.

In contrast, in the Illinois valley, to the extent known, loaf-shaped mounds as a lot were diverse in their internal structures and inconsistent in whether they emphasized vertical or horizontal social and spiritual relationships. None of the known mounds had large numbers of individuals laid out on an expansive ceremonial floor within a charnel house. I now summarize what has been reported about the internal structure of these mounds.

The Naples-Russell Mound 9, a large, elongated, bilobate mound (Farnsworth 2001; 2004:137; personal communication 2007; Henderson 1884:692), was vertically focused in its overall design. It consisted of two tall conical mounds with a central log tomb in the saddle between them, eventually capped by unifying strata. Burials in each of the conical mounds were distributed from the surface down to at least 12–15' below it, at which point investigation ceased (Farnsworth, personal communication 2007) – a vertical positioning of bodies that emphasized vertical social relations over horizontal ones, and temporal relations over geographic ones, as did some Ohio Adena mounds (see text). The composite layout of the two burial mounds and central tomb in between mimics the layout of smaller conical Havana Hopewell mounds, with their burial-filled ramps surrounding a central tomb (Buikstra 1976:41–45; Struever 1960) and with their design symbolizing and/or allowing the enactment of the vertical journey of the deceased along the axis mundi to an afterlife (Buikstra and Charles 1999:214, figure 9.6).

The loaf-shaped Baehr Mounds 1 and 2 also were organized largely vertically, although Mound 1 had nascent, extended ceremonial “floors” or “crematories” of a kind. Mound 1 (Farnsworth 2004:175,185–186,

540–543; Griffin 1941:172–175; Snyder 1895a:79; 1898:16–17) was begun by laying down a 20 × 30 feet oval-shaped bed of clay in a two-foot deep, saucer-shaped depression in the natural, sandy soil, creating a container. After intense firing and becoming filled with ashes and many fragments of charred human bones, the crematory was covered with 6,107 chert disks in lots of 6–20 (Farnsworth 2004:175; Snyder 1895a:79) with sand between lots (representing different persons or social units?) to a thickness of a foot or more. The disks were covered by a ten inch clay layer, which was used as a second crematory to reduce either a few or many bodies (reports are contradictory). The stratified pyre was then enclosed in a crypt of large logs, reminiscent of the log tombs in smaller, conical Havana mounds, and capped with clay. The first-episode cremations, chert disks, and second-episode cremations were not differentiated horizontally, unlike Scioto Hopewell ceremonial floors.

Baehr Mound 2 (Farnsworth 2004:177, 179–183,186–187, 543–545; Griffin 1941:175–177; Snyder 1895a:81, 1895b:109–113;1898:17–18) was organized largely vertically. The natural soil was burned and covered with yellow sand. On this ceremonial floor were laid 8 La Moine chert nodules in pairs on an east-west line. These were covered by four layers of additional La Moine chert disks, each separated by a layer of yellow sand. The disks and sand layers extended over a fairly small area of 8 × 14 feet. In all, 5,300 disks were deposited, with the flints at the edges placed upright, encircling the deposit. Around these many layers was built a log crypt, which in turn was covered with logs and flat stones, then sand, then several inches of clay. On top of layered platform were placed the skeletons of a middle-aged person and a person of unspecified age, who were accompanied by many goods and raw materials.

The only two known loaf-shaped mounds in the Illinois valley with layouts that emphasized horizontal relationships among individuals are the Beardstown and Naples-Castle mounds. The Beardstown mound (Farnsworth 2004:56, 108, 120–121,168–169; Snyder 1877:438; 1883:569–570; 1893:182–183) was the largest mound built by Hopewellian peoples in Illinois. At the base of the mound, horizontally distributed, was a linear suite of abutting stone box graves, 3 feet wide and 25 feet long in composite. On either side of the tombs were traces of fires with ashes, charcoal, calcined bones, small galena cubes, broken flints, and pottery.

The Naples Castle mound (Baker et al. 1941: 33–34; Farnsworth 2004:355–356) had at its base three burned clay basins with burned bones. The basins, separated a few feet from one another, were 16 × 5 feet, 8 × 5 feet, and 4 × 3 feet in size, within a floor area no more than 28 × 11 feet. Cremation may have occurred in situ in the second largest of the basins, while the other two may have held cremated remains processed in the second basin or brought in from elsewhere and deposited. The second largest basin had considerable

charcoal, while the other two had little or none. The mound recalls Scioto Hopewell mounds with crematories and depositories, but lacked an integrating, wide prepared floor and a charnel building, as far as is known from scanty reporting.

The ages of the horizontally laid out Beardstown and Naples-Castle mound floors relative to the early and horizontally much more strongly structured Tremper mound floor are not known.

Intermixing of Cremations. The new Hopewellian world view concerned with horizontal social and spiritual relationships was expressed very vividly at its beginning in the Scioto drainage at the Tremper site. There, some 375 individuals of multiple local symbolic communities were cremated in various rooms of the one charnel house. The cremated remains of most of these individuals were then amassed into one large depository, expressing the horizontal unification of their communities on equal standing. Also amassed into one large deposit, placed in an adjacent room of the charnel house by itself, were more than 500 ritual objects that had been used by members of the several communities.

In the Illinois valley, there are two recorded instances of cremations of many Hopewell people having been deposited together: at the Naples-Castle mound (Baker et al. 1941:33–34; Farnsworth 2004:355–356) and at Baehr Mound 1 (Farnsworth 2004:175,185–186, 540–543; Griffin 1941: 172–175; Snyder 1895a:79; 1898:16–17). Neither case approaches the scale of the cremation ceremonies at the Tremper site. However, it is more probable than not that the co-mingled individuals buried under the Naples-Castle mound came from multiple local symbolic communities and expressed the communities' horizontal integration, as at Tremper. At Naples-Castle, in each of two clay-basin depositories and one clay-basin apparent crematory, the cremated remains of unknown numbers of individuals were laid to rest together. The number of individuals placed in the largest, 16 × 5 foot depository may have been few, as it was apparently filled primarily with loose earth and ash, and secondarily with fragments of burned bone. The 8 × 5 foot crematory and 4 × 3 foot depository may have each held the remains of quite a few individuals, given that they were apparently filled with mainly burned bones, with much accompanying charcoal in the crematory and little in the depository. The unknown, total volume of cremation remains and number of individuals involved does not, in itself, clearly evidence the ceremonial gathering of multiple local symbolic communities to express their horizontal relationships. However, on the basis of the labor required to build the Naples-Castle mound, relative to other mounds likely built by multiple communities, it is more likely than not that Naples-Castle was constructed by multiple communities. In specific, the large Naples-Castle mound, 300 × 150 feet long and wide, and 4 feet high, is very similar in volume to the three conjoined

Porter mounds in the Old Town earthwork in the Scioto drainage, where three local symbolic communities very likely gathered to bury their dead. The Naples-Castle mound is about three times the volume of the Ater mound, and about two-thirds the size of the Seip-Conjoined mound, where in each case two local symbolic communities gathered for burial rites (Carr 2005a). It is conceivable, then, that the Naples-Castle mound was constructed by multiple local symbolic communities and that its cremations were of individuals from those communities. The three separate deposits of cremations that were placed in crematory or depository containers on the floor of the Naples-Castle mound could reflect the number of communities who gathered there for ceremony.

The second Illinois case of cremated remains of multiple individuals having been co-mingled is Baehr Mound 1. There, in a 20 feet wide, 30 feet long, and 2 feet deep prepared clay basin was found "a bed of ashes containing innumerable fragments of charred human remains" (Farnsworth 2004:185–186; Snyder 1898:16–17) or "many fragments of charred human bones" (Farnsworth 2004:168; Snyder 1893:182). After the remains were covered by thousands of chert disks and a layer of clay, "many human bodies or skeletons" (Farnsworth 2004:169; Snyder 1893:183) or "a few more human bodies (Farnsworth 2004:186; Snyder 1898:17) were cremated on top of the clay. As in the case of the Naples-Castle mound, the unknown number of cremated individuals cannot be used to infer that multiple local symbolic communities gathered together to lay their dead to rest. However, the volume of Baehr Mound 1, at 180 × 100 feet long and wide and 13 feet high, and the labor required to built it, suggest the hands of multiple communities. Baehr Mound 1 was a little bigger in volume than the Naples-Castle mound. It was slightly larger than the three conjoined Porter mounds in the Old Town earthwork, three-fourths the volume of the Seip-Conjoined mound, and three and a half times the size of the Ater mound, which were constructed by three, two, and two local symbolic communities, respectively (Carr 2005a).

Whether the multiple-community gathering at the Tremper site in the Scioto valley served as an inspiration for the possible multicommunity gathering at Naples-Castle and Baehr Mound 1, or whether the Illinois Hopewell ceremonies were earlier, is unknown. The dates of use of the Naples-Castle and Baehr ceremonial floors relative to that of the Tremper ceremonial floor are unknown.

Ceremonial Deposits of Artifacts. Large ceremonial deposits comprised of artifacts and/or raw materials were consistent and common elements of Scioto Hopewell charnel houses through time, from the charnel building at the early Tremper mound to that at the late Seip-Conjoined mound. Most of the deposits were produced by members of multiple local symbolic communities, given the numbers of persons implied by the artifact counts in each deposit. Most

of the deposits indicate horizontal relationships among communities, or members of a ceremonial society or clan that spanned multiple communities (Chapter 4, Sodalities and Ceremonial Societies; Ritual Gatherings and Alliances).

In Illinois, only two or possibly three large deposits of artifacts under Middle Woodland mounds are known. These are the 6,107 chert disks found under Baehr Mound 1, the 5,300 La Moine chert disks found below Baehr Mound 2, as described above, and about 1,000 chert disks found under a mound of unknown age near the Mississippi river in Union County, far southern Illinois (Farnsworth 2004:168; Snyder 1893:182). Two other large deposits of chert disks have been discovered in isolated cache pits dug about five feet into the Illinois flood plain and not marked by mounds: 1,530 Cobden/Dongola chert disks deposited up stream from the Beardstown mound by 300 yards, and 3,500 chert disks in the village of Frederick, Schuyler County (Farnsworth 2004:107, 167–168; Snyder 1877:437; 1893:181–182). The Beardstown deposit and that under Baehr Mound 2 were both layered. The Beardstown deposit had five courses, each separated by clay. The Baehr Mound 2 deposit had four courses each separated by yellow sand. The formal similarity of the two deposits suggests an equivalence or similarity between mounded and nonmound deposits of disks in their symbolic meaning and in the purpose of their ceremonial burial. The great number of disks deposited in each of the five instances probably indicates the workings of multiple local symbolic communities and their ceremonial expressions of cooperation and integration, as did the large deposits of various kinds in Ohio Hopewell mounds (Chapter 4, Ritual Gatherings and Alliances).

The deposits of chert disks in Illinois have an analog in the 8,185 "hornstone" disks recovered from the base of Mound 2 of the Hopewell site in Ohio (Moorehead 1922:96; Squier and Davis 1848:158). The Hopewell Mound 2 disks were placed in two courses, with sand in between courses (Dorsey 1891:Mound 2; *contra* Squier and Davis 1848:158), like the layered disks under Baehr Mound 2 and in the pit near the Beardstown mound. Within each course in Hopewell Mound 2, the disks were deposited in lots of 12–15 with sand between each lot (Dorsey 1891:Mound 2), like the lots of 6–20 disks with sand around each lot in Baehr Mound 1 (Farnsworth 2004:175; Snyder 1895a:79). Further, within lots, the Hopewell Mound 2 disks were placed on edge, nearly vertically, side against side (Dorsey 1891a:Mound 2; Squier and Davis 1848:158), like the arrangement of disks in the Frederick village deposit and somewhat like the disks under Baehr Mound 2. Disks in the Frederick village were laid on edge, side against side, in long rows, forming a single layer (Farnsworth 2004:107; Snyder 1877:437); those at the edge of the deposit in Baehr Mound 2 were placed with their edges upright, surrounding the deposit (Farnsworth 2004:179, 543; Griffin 1941:175;

Snyder 1895b:109). Disks in the Beardstown deposit were arranged in an orderly fashion, but horizontally, overlapping one another like slate tiles on a roof with their pointed ends facing up stream (Farnsworth 2004:108; Snyder 1877:438). The close formal arrangements and rarity of the deposits of chert disks in both Ohio and Illinois indicate the sharing of ceremonies among Hopewell peoples in these two areas within a restricted time window. However, the ages of the deposits, and whether the Illinois or Ohio ceremonies were earlier, are unknown.

(Note: The chert disks in the five large deposits in Illinois have more than one form and were made from more than one kind of chert (Morrow 1991). The Beardstown deposit was comprised of flat disks made of nonlocal, blue-grey Cobden/Dongola chert from far southern Illinois, Union county. The Baehr Mound 2 deposit contained crude bifaces made of local, dark, steel-grey La Moine chert. The Baehr Mound 1 deposit possibly consisted of disk cores of the "Cobden technique" kind (Montet-White 1968:27–28) made from a blue-grey chert lighter in color than the typical Cobden/Dongola specimen. The Union County mound cache and the Frederick village cache have not been studied for their specific forms and materials. In the older literature that originally report these five Illinois caches, the word "disk" is used to describe their form and the word "hornstone" to identify their material, which implies a southern Indiana source. However, this is not the source for at least the Baehr Mounds 1 and 2 disks and the Beardstown disks. There are a number of different blue-grey to grey chert sources in Illinois, Indiana, Kentucky, and Tennessee (Morrow 1991) from which the materials of unidentified type could have been derived.)

Location of Burial Mounds. In the Scioto valley, the shift in the location of burial mounds from upland, valley-edges to middle terraces, which expressed a new focus on horizontal social and spiritual relations in addition to the vertical axis mundi and vertical soul travel, occurred between approximately 50 B.C. and A.D. 1. Mound City was the first earthwork in the area to have been built on a lower terrace. In the lower Illinois valley, the first documented flood plain cemetery dates much earlier, to the Middle Archaic period, around 4000 B.C. (Hassen and Farnsworth 1987; see also Buikstra and Charles 1999:208–209; Charles 1995:84). How this selected cemetery setting was tied to the world view of Middle Archaic peoples, and whether that world view had continuity with later Havana Hopewell world view, is unknown. Also unknown is whether any Hopewellian flood plain mound centers in the Illinois valley predated Mound City in the Scioto valley (see above, Loaf-shaped Burial Mounds and Their Internal Structure)

The Mann Phase and Scioto Hopewell World View. It is very unlikely that aspects of the new world view in the Scioto valley derived from peoples in the Mann phase in Indiana. The Mann Phase has been

dated by radiocarbon and artifact stylistic and technological criteria to have begun late, around A.D. 100 (Ruby 1997:303–308, 604), well after Scioto Hopewell thought had crystallized in its new direction. Available dates from the Mann site, itself, are yet later, ranging between A.D. 270 and A.D. 510 (Ruby 1997:305). The Mann site has two elongated, loaf shaped burial mounds, at least one of which was comprised of two or more conjoined mounds (Kellar 1979:101), similar to the late Scioto valley loaf-shaped mounds of Seip-Pricer, Seip-Conjoined, Edwin Harness, and Ater, the charnel houses of which date between A.D. 300 and A.D. 350. The loaf-shaped, Mann phase GE mound is estimated by multiple artifact raw material and stylistic attributes to have been used for burial sometime between A.D. 100 and 300 (Seeman 1992c), although three radiocarbon assays of samples from uncontrolled proveniences, one from deer collagen, date to the 100 B.C.–A.D. 1 range (Beard 1997).

11. The particulars of the history of movement and concentration of people into the Scioto-Paint Creek area over the Middle Woodland period are not known like they are for the Illinois river valley (Buikstra and Charles 1999:213–214; Charles 1992; 1995: 87–89). Whatever the specifics, it is important to distinguish the demographic history of settlement of the Scioto-Paint Creek area from its history of use as a ritual landscape, i.e., what locales within the area were used or not, and when, to build and celebrate within large, enclosed ceremonial centers. See Chapter 15, Geographic Expansion of the Scioto Hopewell Cultural Tradition over Time, for a history of shifts in the locations of earthen enclosures in the Scioto drainage over time.
12. People in the Scioto valley aggregated during the early Late Woodland within villages surrounded on topographically unprotected sides by ditch-embankments that might have been built for military protection (Seeman and Dancy 2000:595–596) or as ghost barriers, and that reflect the unease of people about their social and/or spiritual landscape. The villages of Scioto Trails, Water Plant, Harness-28, and Ety follow this layout in the Scioto drainage, and the villages of Swinehart, Thomas, Krebs, Rix Mills, Childers, and Edwards in tributaries to the Ohio farther afield (Burks 2004:241–242; Carskadden and Morton 1996:324–326; Seeman and Dancy 2000:597). However, these developments are too late to bear specifically on the issue of the demise of Scioto Hopewellian social, ceremonial, symbolic, and spiritual life (see also Seeman in Seeman and Dancy 2000:595). In the Scioto valley, the villages of Waterplant and Scioto Trails are well radiocarbon dated to between AD 630 and 680 (calibrated), with Scioto Trails having remained occupied thereafter for some time (Carr and Haas 1996:51). The well dated early Late Woodland component of Childers in the Ohio valley similarly dates between A.D. 610 and 690 (calibrated) (Maslowski et al. 1995). In contrast, the ending of

the tripartite alliance in the Scioto-Paint Creek area dates to after the decommissioning and burial of the charnel house under the Seip-Pricer mound and before the decommissioning and burial of the charnel house under the Seip-Conjoined mound, probably in the A.D. 425–440 range (calibrated). Thus, the construction of villages surrounded by ditch-embankments in the Scioto valley began almost 200 years after the collapse of Scioto Hopewell social, ceremonial, symbolic, and spiritual ways.

The history of settlement change and cultural transition between the end of Hopewell ceremonial life and the construction of ditch-embankment protected villages in the Scioto valley is known only in sketch. The continuation of a dispersed hamlet settlement system, the addition of small burial mounds at the Liberty earthworks, and small scale ceremonial activity not associated with burial at Seip are documented and dated to after the fall of the tripartite alliance (Carr and Haas 1996:30–31; Seeman and Soday 1980). The transition in settlement

to aggregated village life is better known in the neighboring Muskingum valley. There, a sequence of change in settlement form that is directional and that ends in a ditch-embankment protected village has been recorded: (1) hamlets on the flood plain or low terraces and bearing “classic” Hopewell artifacts; (2) hamlets on the flood plain or low terraces and predominated by early Late Woodland artifacts; (3) unfortified nucleated villages on the flood plain or low terraces and having early Late Woodland ceramics and lithics; (4) nucleated villages fortified by a wooden stockade and built on the indefensible flood plain or low terraces; and (5) nucleated villages fortified with an earthen embankment and ditch and built on defensible terraces with high bluffs (Carskadden and Morton 1996: 319–326, 333). The long and progressive nature of change from dispersed hamlet to ditch-embankment protected villages, and the temporal irrelevance of the latter to causes of the end of Hopewellian spiritual, ceremonial, and symbolic life, are clear.

The Scioto Hopewell *and Their Neighbors*

Bioarchaeological Documentation and Cultural Understanding

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Cover Design Acknowledgment: Digital painting, "On the Way", by Christopher Carr, based on portraits of three ceremonial leaders rendered on three copper celts by anonymous Ohio Hopewell artists, compositions of processions of persons rendered on copper breastplates by anonymous Ohio Hopewell artists, and an early photograph of a virgin hardwood forest in the Allegheny Plateau province of Ohio. The three celts bearing the portraits of leaders, from left to right, are: Carr no. C023 Side A, from the Hopewell earthwork, possibly Mound 25, Skeletons 260–261, curated at the Ohio Historical Society, cat. no. 283/351B; Carr no. C301 Side A, from the Edwards Mound Group, 33HA7, curated at the Harvard Peabody Museum, cat. no. 84-6-10/32346; and Carr no. C011 Side A, from the Seip earthwork, curated at the Ohio Historical Society, cat. no. 957/-. Example depictions of processions of ceremonial leaders are found on breastplates Carr B061 Side B, from the Liberty earthwork, curated at the Ohio Historical Society, cat. nos. 7/1.007 and 13716; and Carr B025 Side A, from the Hopewell earthwork, Mound 25, Burial 6, curated at the Ohio Historical Society, cat. no. 283/83C. The portraits and processions were revealed by color and near-infrared digital photography, hybrid color-near-infrared image display, and image contrast enhancement. The full forest photograph is published by Gordon (1969:Frontispiece). Top and bottom border designs are, respectively, a snake-skin design incised on the top of a pottery vessel and a rocker-stamped bird feather design placed on the body of the same vessel, from the Hopewell earthwork, Mound 25, Altar 1 (Moorehead 1922:171, Figure 70). Cover layout by Christopher Carr and Deann Gates.

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Bioarchaeological Data Base

D. Troy Case, Christopher Carr, Ashley E. Evans, and Beau J. Goldstein

Data Base of Intrasite Layouts

Christopher Carr and Rebekah A. Zinser

Regional Geographic Data Base

Christopher Carr and Rebekah A. Zinser

Ethnohistorical Data Base

Christopher Carr, Rex Weeks, and Mark Bahti

Figures

Christopher Carr and Rebekah A. Zinser

Other Appendices

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