

Chapter 5

The Nature of Leadership in Ohio Hopewellian Societies

Role Segregation and the Transformation from Shamanism

CHRISTOPHER CARR AND D. TROY CASE

Within the Interpretive Center at Hopewell Culture National Historical Park, Chillicothe, Ohio, is a realistic style, oil painting mural by Louis S. Glanzman, entitled *A Hopewell Indian Burial Ceremony* (Figure 5.1). The mural depicts a shaman dancing with an effigy human face rattle in one raised hand and a dagger in the other, with gaze fixed on the Above. The shaman wears a robe adorned with large, shell-beaded geometric designs like ones known archaeologically from cutouts of copper (Moorehead 1922), and a leather headdress and mask with copper spangles like that reconstructed by Baby (1956). Surrounding the shaman are twelve men, most ornamented only with a single- or double-stranded necklace of copper or shell, with one kind or another of pendant. Four of the men, however, are more elaborately costumed. One is topped with a copper deer antler headdress and has a necklace of animal claws. A second has a fur headdress with erect animal ears and a necklace of animal teeth. A third man has a breast covering of strung shells, and a fourth has a copper bead necklace of many strands over his chest.

The mural is remarkable in two ways. First, it gives serious attention to the leaders of a Hopewellian society, whereas contemporary archaeological literature has offered few lines to this topic. Second, the mural depicts leaders of several different kinds—some shaman-like in their costumery, others not obviously so—suggesting a differentiated and decentralized political system, probably with several bases for gaining power. This image, which we will show empirically to be essentially correct, stands in contrast to contemporary, homogenized views of Hopewellian leadership as either singularly Big Man-like (e.g., Braun 1986; Ford 1974; Smith 1986), shamanic (J. A. Brown n.d.; Buikstra and Charles 1999), or the now seldom cited chiefly (Seeman 1979b). Nevertheless, Glanzman's picture in some way speaks with a manner of credibility to contemporary archaeologists, for it is repeatedly shown nowadays at professional conference talks, at that point when something of Ohio Hopewell society and ritual needs to be said, though an exact statement on social organization and religion is wanting.



Figure 5.1. Oil painting by Louis S. Glanzman, entitled *A Hopewell Indian Burial Ceremony*. Black and white rendition of color original. Reproduction by permission of Louis S. Glanzman.

This chapter attempts to define the nature and organization of leadership in Ohio Hopewell societies by placing its study on a firm, substantial, and diversified empirical foundation. Ohio Hopewell leadership is explored here with artistic representations of Hopewell elite; forms of ceremonial costumery and paraphernalia from mortuary contexts; patterns of association and dissociation among these items across many hundreds of burials within and across multiple ceremonial centers; and, more generally, from the nature of the style of Hopewell material culture and the qualities of the raw materials used to manufacture elite items. Aspects of leadership that are defined here include the range of roles played by leaders, the sacred or secular nature of their power bases, the degree to which leadership roles were centralized in one or a few persons or segregated among many, changes in role segregation over time, the degree to which such roles were institutionalized, and whether any leadership roles had domains of power beyond the local community.

The chapter begins with a broad-based, explicit definition of leadership and five of its dimensions that are central to this study. Next,

basic ethnographic information on the nature of shaman as leaders and the many social roles they fill is reviewed, because these topics are not well covered in contemporary archaeological literature,¹ yet they are necessary to understand certain anthropological theories of leadership development and they turn out to be essential to interpreting the Ohio Hopewell material record. Following this, anthropological theories on the nature of leadership within societies of middle-range complexity and the development of leadership roles with supralocal power in such societies are summarized. The theories span material-secular and socioreligious viewpoints, such as Sahlins's (1968, 1972) characterization of Big Men and Netting's (1972) ideas about divine leadership. Winkelman's (1989, 1990, 1992) model of the segregation and specialization of shamanic roles as a society grows in size and complexity is also introduced, and later shown to have strong applicability to the Ohio Hopewell case. The chapter proceeds with a brief, historical review of the interpretations of leadership that archaeologists have offered for Early and Middle Woodland societies of the Eastern Woodlands, as

a prelude to the remainder of the chapter, which focuses on the Ohio Hopewell empirical record of leadership and its analysis and interpretation.

Detailed evidence of Ohio Hopewell leadership is considered and analyzed next. The images of leaders that have been uncovered in Ohio Hopewell mortuary sites, and the generally (but not completely) shaman-like nature of Ohio Hopewellian material culture, are presented. Also, artifact classes that indicate various shamanic or other leadership roles are specified. Finally, a very large database of 767 burials from 60 Hopewellian burial mounds at 15 ceremonial centers around Ohio is analyzed for patterns suggesting the nature and structure of leadership and temporal shifts in these within Ohio Hopewell societies. The previously summarized anthropological understandings of the diverse kinds of leadership structures possible in middle-range societies are applied at this point to help interpret the archaeological patterns found.

By analyzing diverse aspects of the Ohio Hopewell material record, a clear picture of Ohio Hopewell leadership is rendered. Although depictions of shaman as classically defined—in trance and soul flight and using the powers of nature—are known from Ohio Hopewell and earlier Adena contexts, and although shaman-like qualities are pervasive in the styles and raw materials of Ohio Hopewell ceremonial artifacts, classic shaman constituted a small proportion of the leaders in Ohio Hopewell societies. Much more prevalent were “shaman-like” leaders, who were considerably more specialized in the shaman-like tasks that each performed and the paraphernalia that each used, and who may not have employed the method of soul flight. Other kinds of leaders drew on religious symbology but lacked obvious shaman-like referents, and a small proportion was involved in the more secular domain of warfare, but in combination with shaman-like or other sacred duties. This variety in kinds of leaders, and their segregation rather than centralization, are evidenced to some extent by artistic representations of elite, but especially by twenty-one different sets of elite paraphernalia and/or elements of costumery that can be defined from their patterns of association and dissociation

across the 767 burials and 15 ceremonial centers studied. The artifact sets mark distinct roles of leadership and importance or bundles of such roles: shaman-like and apparently non-shaman-like leaders of public ceremony, war or hunt diviners, other kinds of diviners, body processors/psychopomps, healers, high achievers in warfare, high achievers in sodality organizations, and several unknown kinds of roles. Ninety-one percent of the burials with markers of these roles had only one or two roles, indicating strong role segregation. Eighteen of the twenty-one defined roles were shaman-like or otherwise sacred in nature, and no role was fully secular. The average strength of association found among artifact classes in the same set, considering all sets, suggests that most of the roles were institutionalized to only a moderate degree. The shaman-like nature of most of the roles, their segregation, and the moderate degree to which they were institutionalized accord well with Winkelman’s (1989, 1990, 1992) cross-culturally derived model of the development of leadership in middle-range societies. Winkelman found that as small-scale hunting–gathering and horticultural societies develop into larger-scale horticultural and agricultural ones, classic shaman as generalized leaders with multiple functions are commonly replaced by a diversified and specialized set of shaman-like practitioners. Leadership diversification accommodates societal growth. In addition, when burial artifact sets and the leadership roles that they indicate are tracked through time in Ohio Hopewellian cemeteries of different age, the sets and roles are found to have partitioned increasingly, following Winkelman’s model. Also, the percentage of burials with markers of only one or two elite roles steadily increased through time, from 73% to 100%. The end point of Winkelman’s model, where a powerful, public chief–priest and a suite of individual client-oriented religious practitioners of lesser power have crystallized and segregated, was not reached by the end of the Middle Woodland period. However, certain roles of public ceremonial leadership lacking shaman-like symbolism had become fully segregated from other shaman-like roles, and apparently had attained supralocal,

multicommunity influence as well. Finally, the commonly sacred and seldomly secular nature of the power bases of Ohio Hopewell leaders indicates the applicability of primarily certain socio-religious models of supralocal leadership development (Netting 1972; Peebles and Kus 1977) to the Ohio Hopewell case, but not to the full exclusion of material and secular-focused ones (Sahlins 1968, 1972; Flannery 1972). A single culture–historical tradition can combine, to some degree, elements of these multiple, anthropological models.

Ohio Hopewell societies are found to not have been run by leaders of one kind—shaman, Big Men, or clan heads. Rather, each society was run by multiple kinds of leaders, who complemented each other in function, domains of power, and the kinds of shaman-like techniques, paraphernalia, and symbols that they used, if any. Moreover, the particular structuring of leadership roles in Ohio Hopewell societies shifted and became more complex over time.

The approach taken in this chapter to explore the nature of Ohio Hopewellian leadership diverges from most contemporary archaeological treatments of leadership in middle-range societies. Instead of focusing analysis on static “social positions” or “social identities” or generalized “elite” with “status symbols” of undifferentiated nature (e.g., Binford 1962:219; 1971:17; Braun 1979:67; Brown 1981:29; Hohmann 2001; Loendorf 2001; Peebles and Kus 1977:431; Struever 1964:88; Struever and Houart 1972:49), we explore the dynamic roles involved in differentiated social positions of importance—the rights and duties of positions relative to others that define their domains and forms of action in given social contexts (Goodenough 1965:312; Nadel 1957:28, 29; see Carr, Chapter 1, for details; for similar critiques see Bayman 2002:70, 74; Pearson 1999:84). This we do for both the artistic and mortuary records of Ohio Hopewellian societies. The approach has the advantage of personalizing Hopewellian archaeological records—one goal of this book (Carr, Chapter 1). It also provides the framework necessary to address certain dynamic characteristics of Ohio Hopewellian leadership, including the power bases of leaders, their means of recruitment, the degree of centralization and

institutionalizing of their roles, and the formation of leaders with supralocal domains of power.

LEADERSHIP WRIT LARGE

In order to understand the nature of Ohio Hopewellian leadership and its development over time, we take a broad view of the term. By a leader in a society, we mean a person of importance who influences joint social action. A leader may be a person in an institutionalized, socially recognized position of power and authority, be that position social, political, and/or religious in its basis. War chiefs, peace chiefs, priests, and classic shaman are examples. Leaders may also be prestigious, influential persons who hold no socially formalized or institutionalized position and have no authority in the strict sense, but have sway because they command social, political, religious, and/or economic resources through their character, personal capabilities, family of birth, residence of birth, or other ascribed or achieved qualities. Self-recruited Big Men, self-made war heroes, and spiritually called visionaries, diviners, and other spiritual specialists are examples. Recognizing the diverse kinds of leadership that may occur in a society is essential to an unconstrained exploration of the social personae from which leadership roles can originate, and the processes by which they can originate and develop over time.

Throughout the subsequent theoretical and empirical sections of this chapter, five dimensions of leadership are considered. These are (1) the range of roles played by leaders, including duties, tasks, and domains of action such as military or subsistence operations; (2) the nature of the power bases of leaders, including relationships with the sacred and with more secular arenas such as military achievement and kinship ties; (3) the degree to which leadership roles are centralized in one or a few persons or segregated among a wider cast of individuals; (4) changes in role segregation with increases in societal size over time; and (5) the degree to which leadership roles are institutionalized, that is, standardized in their bundles of duties, tasks, domains of action, and symbology. An exploration of these

five dimensions requires the robust definition of leadership that we take.

As preparation for reviewing some socioreligious theories on the nature and development of leadership within societies of middle-range complexity, we now provide some basic information on the nature of shaman and the many social roles they filled. This information is especially important to understanding Winkelman's (1989, 1990, 1992) model of segregation and specialization of shamanic roles with societal growth, which in turn has a key part to play in interpreting leadership in Ohio Hopewell societies.

THE NATURE OF SHAMAN AND THEIR SOCIAL ROLES

Who Is a Shaman?

The term *shaman* has been applied narrowly to certain magicoreligious practitioners in Siberia (Kehoe 2000:102; see also Price 2001:4, 6); somewhat more broadly to practitioners in the historically related cultures of far northern Eurasia, Greenland, and America (Kehoe 2000:8; Price 2001:6); yet more generally to those in hunting-gathering, fishing, pastoral, and simple horticultural societies (Harner 1980; Winkelman 1989, 1990:325, 1992:53; but see Townsend 1997:429); and, by some, very broadly to certain religious personnel in complex archaic societies (Gershom 1987; King 1987) and contemporary urban ones (Dossey 1988; Hammerschlag and Silverman 1997; Harner 1988a; Lawlis 1988; Mehl 1988; Swan 1987; Wallace 1966:86). Most broadly, it has been applied to all magicoreligious practitioners that use trance states (Peters and Price-Williams 1980). In its etymology, the modern anthropological word shaman is rooted in *s^vam, kam, gam, xam*, and related words of northern and central Asian tribal languages (Eliade 1972:4; Grim 1983:15-16; Townsend 1997:430),² although the professional meaning of a term need not equate with the native term from which it is borrowed. Price (2001:4) clarifies that the word, *shamanism*, denoting a collective pattern of religious beliefs and practices, has no correlate in native Asian languages, and derives instead from Christian missionaries who be-

gan identifying pagan "religions" in Siberia and attempting to convert their followers (see also Townsend 1997:431).

In this chapter, we use the words "shaman" or "classic shaman" for one kind only of a wide spectrum of "magicoreligious practitioners" that also includes medicine men, healers, curers, witch doctors, witches, sorcerers, wizards, mediums, magicians, and priests. Shaman are uniquely characterized by the intersection of three fundamental attributes. (1) Shaman take what are perceived to be soul journeys, or less commonly mind journeys, out of the body to alternative realities while in an altered state of consciousness. (2) Shaman use powers and information in nature rather than their own faculties to accomplish their tasks, such as healing and divining. These resources are found and harnessed through journeying. (3) Shaman are defined by their community, and the tasks they do to serve it, rather than by self-declaration. They are more or less altruistic, in the sense that they make journeys on behalf of their community members in need, or to gain power or information for themselves that can be used to help others. In this regard, they are also social leaders. The first characteristic was emphasized by Eliade (1972:4-5) and Wallace (1966:86, 126, 145) in distinguishing shaman, the third again by Wallace (1966:86, 126), while all three are seen as critical by Harner (1988b). All three researchers arrived at their definitions through extensive, crosscultural comparison.

To the extent that shaman are defined in part as those who use soul journeys to accomplish their tasks, shaman may also be said to be found primarily in hunting-gathering and fishing based societies, and occasionally in pastoral and simple horticultural societies. In an extensive, cross-cultural survey by Winkelman (1989, 1990, 1992), the method of soul journeying was found to be used by magicoreligious practitioners only in simple societies relying on these means of subsistence.

As societies increased in complexity, some kinds of magicoreligious practitioners that initially evolved from shaman continued to harness power and information from nature to achieve their ends, used trance states, and retained

elements of the basic cosmology of classic shaman defined by Eliade (1972:259–287). However, such individuals often did not make soul flights as a routine part of their practice and typically fulfilled more specialized ranges of social roles than the classic shaman. A recent, well-documented example would be the Siouan holy man, Frank Fools Crow (Mails 1979, 1991). Winkelman (1989, 1990, 1992) has documented this transformation in magicoreligious practitioner types with increased social complexity in great detail through crosscultural analysis. To distinguish these emergent personae from the classic shaman, we use the term *shaman-like practitioner*. The adjective *shamanic* we retain here for referencing the classic shaman. Wallace (1966:86) drew a similar distinction between “shaman proper” and other, more specialized, shaman-like practitioners. We hesitate to use here Winkelman’s term “shaman-healer”, for magicoreligious practitioners that became differentiated from the classical shaman because the term implies a whole suite of characteristics bound together typologically, only some of which we can track archaeologically in Hopewellian records. We would not want to attribute characteristics that we cannot observe archaeologically to Hopewellian magicoreligious practitioners by labeling them shaman-healers.

Eliade (1972:7–8, 12–13) discusses two additional aspects of shamanism that are important to this chapter but not to defining shamanism uniquely. First, shamanism, as the set of practices and beliefs of a shaman, is seldom the religion of a community. The shaman is privileged in the range of his or her capabilities to access and manipulate other realities to the betterment of this one. Community members may experience nonordinary realities through dreaming, spontaneous visions, vision quests, near-death experiences, and the like, and in this way may have beliefs that are shared with a shaman and make his or her practice more understandable to them. However, trips to other worlds with great frequency and depth, and the abilities to systematically induce, control, utilize, and interpret them, rest with the shaman. The private religious experiences of the shaman are usually “far from exhausting [of] the religious life of the rest of

the community” (Eliade, p. 13).³ The archaeology of such communities can therefore be expected to produce religious symbols and remains of ceremonies pertinent to both shamanic practices and other community religious affairs. This we will see in the case of the Ohio Hopewell.

A second important aspect of shamanism is that, although the position of community shaman may be institutionalized in its traditional presence and means of recruitment in a society, this need not be so for many of the practices, beliefs, and symbols, as well as the extent of power, of persons holding that position. A shaman is “separated from the rest of the community by the intensity of [his] own religious experience” (Eliade 1972:8). The ultimate teachers of a shaman in his practices and beliefs, and the final authority of what is to be done and how in a particular circumstance, rest with what the spirits of nature and the nonordinary cosmos say (e.g., Halifax 1979; Harner 1980; Mails 1991). The experiential and personal dimensions of the shaman thus bring to the position ways that always are novel and idiosyncratic and, in this sense, not institutionalized. The degree of consistency in shamanic ways over the generations depends on the specific means of recruitment of shaman, and the extent to which direct tutelage is involved and moderates the experiential basis of their practices and beliefs. If the material remains of a society show its religious symbols and practices to have had a shaman-like bent, but they are highly standardized within the society and over time, then one can infer that classic shamanism as defined by Eliade and Harner and as discussed here was not operative. Again, the Ohio Hopewell case is illustrative.

Roles of Shaman

Knowing the range of tasks that a shaman typically is responsible for performing for his community is essential to interpreting any archaeological remains of shamanic practices. Here, we briefly classify and inventory the broad range of roles commonly played by shaman. This discussion is harnessed later to help define the probable ritual functions of certain Ohio Hopewellian

artifact classes with a ceremonial bent—the ritual tasks for which they were used, individually or in sets.

Although shaman are most commonly envisioned in the roles of the healer and the diviner, their functions are much broader. Shaman work on behalf of their community at four levels: the individual community member, the community as a whole, the ecosystem of which the community is a part, and the material–spiritual universe in which the community exists (Table 5.1). At each level, the shaman performs multiple tasks,

all of which commonly involve the shaman making journeys to nonordinary realities. For example, at the level of the individual, to heal a person, a shaman may journey within the body of the patient, in order to “see” a manifestation of the illness and determine what remedy is required, or may journey to a spirit power animal or teacher to be told what is wrong and what to do. At the level of society, a shaman may act as a keeper of mythology and serve as the community’s vital link to the mythic realm through his or her journeys to The Beginning and its mythological

Table 5.1. Roles of the Classic Shaman

Level of the individual

As healer

- Journey to diagnose an illness
- Journey to recover a patient’s lost power animal
- Journey to recover a patient’s lost soul or part of it

As diviner

- Journey for information to help a client make a decision
- Journey to find a lost object

Level of society

As diviner, political leader, and war leader

- Journey for information to resolve intrasocietal disputes through compromise
- Journey to find out who is the guilty party
- Journey to another shaman of an enemy group to work out a compromise through spiritual communication before meeting in person physically

As philosopher

- Journey to obtain knowledge about the “perennial wisdoms”
 - (a) The connectedness of everything
 - (b) What happens at death
 - (c) The nature of alternate realities
 - (d) The nature of time and space

As keeper of cultural mythology

- Journey to mythological realms, such as the Beginning, and their mythological characters

Level of the ecosystem

As a regulator and healer of ecological relations

- Journey to find out proper times to plant and harvest
- Journey to find out the locations of game and ripe plant foods
- Journey to find out what species should not be harvested so that they can rejuvenate

Level of the material–spiritual universe

As spiritual ecologist, dealing with the circulation of spirit and matter, i.e., as psychopomp

- Journey to help a dying person release the soul from the body
- Journey to guide a stuck soul (i.e., ghost) to a Land of the Dead
- Journey to bring in souls to be born to This World

As a communication link between This World and Other Worlds

- Journey to the dead or spirits to allow communication between them and the living
 - Journey with clients to help them meet their power animal, become it, and dance it
-

characters (e.g., the Australian Aborigine's Dreamtime). At the ecosystem level, a shaman helps a community to have healthy relations with its natural environment by journeying to determine appropriate times, places, and species for harvesting, or to determine what taboos on human-animal relations have been violated and must be righted to restore productive hunting or fishing. At the broadest level, that of relations with the whole material-spiritual universe, a shaman may journey to help the soul of a dying person leave the body, a ghost to pass over to the other world, or a child spirit to be born. Shaman typically play a vital role in communication between the living and the dead by journeying back and forth between them with messages, in order to keep relations in this larger "society" in balance.

The classic shaman as defined is a generalist—responsible for helping individuals and a community meet their needs in all of these arenas. In other words, the various roles of the shaman are "centralized" in his or her person. In more complex societies with greater numbers of individuals needing attention, these multiple roles tend to become distributed or "segregated" among different kinds of magicoreligious practitioners, who specialize in the tasks they perform (Winkelman 1989, 1990, 1992; see below). This evolutionary trajectory we now consider in the context of broader anthropological theory on leadership.

ANTHROPOLOGICAL THEORIES ON THE NATURE AND DEVELOPMENT OF LEADERSHIP ROLES IN SOCIETIES OF MIDDLE-RANGE COMPLEXITY

The nature of leadership in Ohio Hopewellian societies can be reconstructed in part empirically with archaeological and ethnographic information. A detailed examination of the material symbols and paraphernalia that were richly placed with the dead—including their forms, materials, distributions among persons of different ages and sexes, associations with each other, and other contextual information—can be joined

with ethnographic records of the Woodlands and elsewhere to infer, in many cases, the kinds of activities and roles that Hopewellian leaders performed. A synchronic view of the functions and structure of leadership positions, and the activities, rights, and duties of the roles associated with them, can be assembled, and we do this below. At the same time, a broader, diachronic, processual understanding of the transgenerational changes that were occurring in the structure of Ohio Hopewellian leadership over the Middle Woodland period can also be developed. This view can be brought into focus by placing chronological information on shifts in Ohio Hopewell leadership roles within a larger, cross-cultural perspective, as summarized by contemporary anthropological theory on the rise of institutionalized, supralocal leadership positions. To this body of theory, we now turn.

Over the past 40 years, American archaeology and ethnology have had a continued interest in the evolution and institutionalizing of supralocal leadership roles, ranking, social stratification, and social complexity (e.g., J. A. Brown 1981; Earle 1990; Flannery 1972; Fried 1967; Johnson and Earle 1987; Kottak 1974; Leach 1954; Renfrew and Shennan 1982; Sahlins 1968, 1972; Service 1962; Steward 1955). Archaeological and anthropological theory is quite clear about the many kinds of *stressful conditions* that can encourage the evolution of institutionalized supralocal leadership. These conditions include: social and ecological circumscription; regional population packing; competition for natural resources, mates, and labor; internal and external conflict; and information overload in egalitarian decision making (see references just cited). However, there is less certainty about the actual *processes* by which supralocal leadership develops, especially the role played by philosophical-religious beliefs and socioreligious processes compared to material-secular ones.

Sahlins (1968, 1972), Flannery (1972), and Chagnon (1979), for example, have each emphasized the development of leadership positions through processes that are largely material, secularly focused, and/or biological. For Sahlins, leadership and social hierarchy arise

from a Big Man manipulating the labor and resources of his kinsmen through a calculated generosity, by which he places them in debt to him. Flannery proposed that supralocal leadership and social hierarchy can be traced to the expansion of the domains of power of temporary war leaders or other managers during periods of repetitive stress, followed by retention of that power when normalcy returns, even though the broadened domain of power is no longer required. Flannery called this process "promotion." Chagnon, in response to Sahlins, proposed that supralocal leadership and social hierarchy stem from the power differentials that develop among lineages and leaders having greater and lesser reproductive success and, thus, larger and smaller pools of labor, women for marriage exchange, and material resources upon which to draw. Finally, Earle (1990:81), following these older arguments, has seen beliefs as only legitimizing supralocal leadership already based on economic differentials among social groups and individuals.

An alternative, or perhaps complementary, socioreligious view has been offered by Netting (1972) and Peebles and Kus (1977:424–427). They describe numerous ethnographic cases of how philosophical–religious beliefs are used by a local leader to gain acceptance by social groups beyond those in which he or she has membership, and then to gain leverage and power over them. Ties to the spiritual world are effective in this regard. In particular, a spiritual leader such as a shaman or priest may convince extralocal groups that he or she can assure their well-being by employing the supernatural in healing, obtaining food, settling internal disputes, keeping peace regionally and in public gathering places, facilitating trade, bringing success to war parties, and/or regulating relations with the recently deceased, more remote spirit ancestors, and non-human spirits (Netting 1972; Wiessner and Tumu 1998, 1999).

This socioreligious process of supralocal leadership development is commonly evidenced in societies of middle-range complexity where a religious head comes to symbolize a society as a whole and its well-being. The process may involute to the point where the leader becomes

equated with the society as a unit, and his or her own physical well-being reflects and affects the good or ill health of the society at large (e.g., Frazer 1935(4):14, 21, 27; 1959:125–126, see also 224–237; Metcalf and Huntington 1979:123–124, 153–183). The essential role that philosophical–religious beliefs and personae may have in supralocal leadership development is also empirically evidenced for the Eastern Woodlands, in particular, in Feinman and Neitzel's (1984) cross-cultural survey of 18 early-contact tribes in the eastern United States. They found that heading-up religious ceremonies was among the three most common functions of social leaders there.

For Netting, one essential aspect of the process of an individual gaining leadership at a supralocal level is distancing himself from his local identities, such as an affiliate of a particular kin group and certain residence group, and developing an independent identity that is supralocal in scope and also linked to power. In our view, Boehm's (1993) research reveals the reason why such a re-identification is required. His cross-cultural survey of 48 societies found that in simple band-level through incipient chiefdom-level societies, ascension to leadership and expansion of leadership powers and domains of power are very commonly and effectively curbed by followers. In societies of these kinds, "one person's attempt to dominate another is perceived as a common problem" (Boehm, p. 239) and is reversed by followers together using one or more of a variety of leveling mechanisms. These were found to include public opinion, direct criticism, ridicule, outright disobedience and ignoring, desertion, and sometimes the execution or exile of the leader. Bridging Boehm's findings to Netting's theory, we would argue that these leveling devices are easy to call into play when the leader has the identity of being a member of one's kin and/or residence group—when the leader is still seen as "one of us". In contrast, when a leader creates for himself, and demonstrates through service, a supralocal identity linked to spiritual powers that have no particular kin or residence group referent, the leader has at the same time distanced himself to some degree from kin and neighbors and the criticisms and other leveling

devices that they might employ to moderate or remove his domination.

A good example of the process of leaders forming independent identities and distancing themselves from kin and neighbors—albeit an incipient one—is the transformation of an ordinary person within communities into a shaman. This occurs first at an experiential level within the shaman-to-be, when he may have visions of being fundamentally altered by an animal guardian or other spirit teacher: for example, being dismembered to a skeleton and reassembled with a body with new powers or having his eyes removed and being given new eyes with special capability to see the spirit world (Eliade 1972:34–66; Halifax 1979; Walsh 1990:59–69).⁴ The initiate may also have quartz crystals or other magical objects implanted in his skin, head, or belly, or be requested to drink quartz crystals by his initiating spirits or shaman-teachers of this world in order to bring special powers to the shaman-to-be (Eliade 1972:45–57; Harner 1980:140). Significant to the socioreligious theory of leadership development, some of these alterations to the initiate's identity may then be expressed vividly to his community in the symbols placed permanently on his costumery. A common example is a Siberian shaman's tunic, decorated with ribs, arm bones, liver, heart, and other internal organs, which recall that he has been dismembered and reassembled, making him distinct from others (Eliade 1972:149, 159; Walsh 1990:69). An Inuit shaman may also use a specialized language to speak of bodily parts and other technical aspects of his trade (Eliade 1972:62), which further separates him from his community and its opinions.

A final nuance of the socioreligious perspective on supralocal leadership development is that spiritual/religious leaders are not only commonly respected for the services they render through their spiritual powers, but also feared for the antisocial behaviors of which they are thought capable, using those same powers (Winkelman 1990, 1992). An element of fear can provide a spiritual/religious leader with augmented social respect, power, and authority and, in some cases, successfully offset community leveling mechanisms against long-term, systematic domination

(see cases cited in Boehm 1993:235). The particular balance between the altruistic and the antisocial aspects of power that a leader carries in the eyes of a society depends considerably on the traditional tone of that society's worldview—whether or not the cosmos, interpersonal relations, and the individual are seen as basically neutral or friendly, as sources of competition and danger, or as some combination of these poles.⁵ The balance also depends on the personality of the particular practitioner, as in the contrast between, for example, the historic shaman-like leaders, Fools Crow (Mails 1979, 1991) and Geronimo (Haley 1997:66, 368), respectively. Cross-culturally, warrior-style shamanic traditions, where shaman consistently face spiritual dangers and can cause them, are the more common (e.g., Basso 1969; Harner 1980).

The idea that philosophical–religious beliefs can provide a pathway to institutionalized, supralocal leadership is supported by a systematic cross-cultural Human Relations Area Files survey made by Winkelman (1989, 1990, 1992). Winkelman found statistically, for a stratified, 47-culture subsample of the Standard Cross-Cultural Sample, that magicoreligious practitioners naturally fall into several types—most importantly, shaman, shaman/healers, mediums, and priests. Shaman were found to play a great diversity of roles. Some were publically oriented, such as leading public ceremonies, resolving internal social disputes, divining information for raiding parties, and controlling weather and species reproduction. Other roles were individual/family client-oriented with community support, and included healing the sick, divining for personal lost objects, and guiding souls of the deceased to a land of the dead. All of these public and individual-focused tasks were performed primarily for single communities. In contrast, shaman/healers, mediums, and priests were found to have more limited sets of roles, and priests commonly served multiple communities, sometimes in the form of the priest-chief.

Significantly, Winkelman found that the four types of magicoreligious practitioners correlate strongly with social–evolutionary stages. The implication is that as a society increases in

size and complexity (“over time”), the many roles played by generalized shaman tend to become increasingly *segregated* among more *specialized* kinds of magicoreligious practitioners, including healers of various kinds, diviners, mediums, and priests. Most important, priest–chiefs who serve multiple communities as publically oriented, religious–political leaders become differentiated from local healers, diviners, and others who serve individual clients. Thus, in some cases, the rise of institutionalized supralocal leadership is closely intertwined with socioreligious development. In turn, these developments may involve the use of widely shared beliefs to gain social acceptance and/or advantage supralocally, as documented ethnographically by Netting and others.

It seems likely that the material–secular theories posed by Sahlins, Flannery, and Chagnon and the socioreligious theory of Netting, Peebles and Kus, and Winkelman are complementary. They appear to describe alternative pathways to institutionalized, supralocal leadership, which occur in different cultural–ecological settings. The varied ethnographic case studies provided by these authors suggest this complementarity. It is also logically possible that a single cultural–historical tradition might combine elements from both the material–secular and the socioreligious theories. The Ohio Hopewell case presented below sheds light on this possibility.

A HISTORY OF VIEWS ON OHIO HOPEWELL LEADERSHIP

As a prelude to analyzing and interpreting the Ohio Hopewell empirical record of leadership, we begin with a brief, historical review of interpretations of leadership that archaeologists have offered for Ohio Hopewell societies and closely related Early and Middle Woodland societies of the eastern United States. Leadership in these societies has been characterized in diverse ways, spanning both secular and sacred-focused personae. The leaders have been called kings, chiefs, priests, Big Men, shaman, and magicians. Equally significant, each previous description of leadership in Ohio Hopewell and related societies has considered only one form of leader to

have existed, rather than entertained the possibility that multiple kinds of leadership roles existed side by side, in complementarity. In contrast, the data and analyses we present below show that neither the forms of leadership nor the singularity of leadership that have been offered in previous interpretations has much direct empirical support.

Our divergence from previous interpretations derives in part from their having been based, for the most part, on indirect, qualitative arguments that infer sociopolitical organization from only rough measures of it: the scale of Ohio Hopewell earthworks and mounds, the refinement of Hopewell ceremonial artifacts, the long distances from which raw materials were obtained, gross differences in the richness of burials, the assumed agrarian economy of Ohio Hopewell peoples, and other contextual information. Systematic studies of the material remains of Ohio Hopewell leaders themselves, including their costumery and paraphernalia in mortuary contexts, associations among these items across large burial populations, and artistic renderings of elite persons—all of which provide direct, essential data on the social tasks and roles performed by leaders and role organization—have not been pursued.

The great size and regular geometry of the earthworks built by Ohio Hopewell peoples easily evoke mental images of well-organized societies run by influential elite who could initiate and coordinate the labors of substantial numbers of people. These pictures of Hopewell leadership are enhanced by the shiny, exquisitely designed artifacts that were found in graves and ceremonial deposits within the earthworks and that have been taken as markers of sociopolitical position and power. This “awe effect” (J. A. Brown 1997a) led Shetrone (1936:197) to call Burial 248 in Mound 25 at the Hopewell site a “king.” The person had a tall copper effigy elk antler headdress with four tines—more tines than most other effigy antler headdresses known from Ohio Hopewell mounds⁶ and a mark of maturity. The person wore, from head to knees, a garment sewn with several thousand beads, some extremely large, and with copper buttons. Many cut and split bear canines may have comprised a necklace

or decorations on the garment. Accompanying the person were three copper breastplates, which normally occur one per grave, several copper earspools, an agate spearhead, and a platform pipe, which more typically would have been decommissioned in a ceremonial deposit than buried with the deceased. In a more sophisticated way, Webb (1941:231–235, 241–242) associated a rare form of Adena burial found at the Morgan Stone Mound, in neighboring Kentucky, with the manner in which late 16th Century Timucan chiefs and priests were buried. The deceased had been laid out in textiles, bark, and logs in a building interpreted to have been his/her house⁷ and partially cremated when the house was then buried to the ground.

Environmental, subsistence, and settlement data on Ohio Hopewell communities have been used by three archaeologists to indirectly support the interpretation that Ohio Hopewell societies were organized as chiefdoms. Seeman (1979b) documented the kinds and quantities of faunal and floral remains found in 15 Ohio Hopewell ceremonial centers and inferred that their charnel houses were the foci of feasts administered by chief–priests who redistributed food, especially meat, much as had been the case historically in the Natchez, Taensa, and Choctaw chiefdoms.⁸ Seeman (1979b:45–46) held that meat was a critical, scarce resource in the Woodlands historically and prehistorically, and became a more problematic resource, requiring ritual regulation through chiefly redistribution, as agriculture intensified and facilitated population increases during the Middle Woodland in Ohio. Seeman (1979a:406–407) also saw a chiefly organization of Ohio Hopewell societies to have been the outcome of population growth in an environment that inhibited the easy budding-off and geographic expansion of Hopewellian communities, and that thereby fostered increasing local population densities and, concomitantly, greater sociopolitical complexity. Circumscribed arable land, limited to major valleys, and high secondary stream gradients that did not afford good communication between inland locations and the major valleys, are two aspects of the natural environment that Seeman saw as discouraging spatial expansion of populations. Seeman pointed to the clustered

distribution of Ohio ceremonial centers as evidence for the ecological constraints. He contrasted all of these situations to ones in Illinois that Hall (1973:62–63) had seen as allowing community budding and making developments in sociopolitical complexity unnecessary.

Prufer (1964a:70–71, 1964b:94) likened the dispersed farmstead–vacant ceremonial center setup of Ohio Hopewell communities to ones in classic Mesoamerica, which we know today were led by kings and chiefs of kinds. He, like his predecessors, noted that

the construction of most of the burial mounds and of the elaborate earthworks—the largest of which, Newark, covers four square miles—must have involved large numbers of people. Moreover, they must have been well organized and well disciplined; and the society as a whole must have had a sufficient—no doubt agricultural—surplus to permit liberation of enough manpower for the construction of mounds and earthworks as well as for the manufacture of the quantitatively and qualitatively impressive burial furniture. (Prufer 1964a:71).

Prufer went on to conclude that those buried in the large Ohio Hopewell mounds were all “special” and “privileged” people (Prufer, p. 74) and mentions their “retainers” (Prufer, p. 73)—a word implying chiefly or kingly authority over the life and death of others (Service 1962: 141,163). However, Prufer did not make explicit his interpretation of the exact nature of Ohio Hopewell leaders.⁹

Struever (1965:212–213) has given the most detailed arguments for why Ohio Hopewell societies had leaders of a given kind—in his view, chiefs. These arguments include (1) the hundreds of people that were given preferential mortuary treatment in each of several, big charnel houses and that he equated to a rank group in a chiefdom; (2) the sharp variation in the qualities and numbers of grave goods that were placed with the deceased and that he interpreted as a pyramidal distribution of statuses within a chiefdom; (3) the great diversity of status-communicating artifact types, which is necessary in a chiefdom; (4) the large ceremonial deposits of raw materials and artifact blanks that were found on charnel

house floors and that he interpreted as evidence of chiefly redistribution; (5) the scale and networking of earthworks, which indicated to him an authority to deploy labor beyond that of a local kin group; (6) the spatial clustering of ceremonial centers, which suggested to him the political integration of people over a broad area; and (7) finely crafted artifacts and elaborate styles, which he attributed to craft specialization associated with the rise of chiefdoms. In each of these cases, Struever contrasted the Ohio situation with that in Illinois, where he concluded that only a tribal sociopolitical organization had emerged. As in Seeman's and Prufer's interpretations, Struever's did not rely on detailed studies of the mortuary remains of leaders themselves or depictions of them in artworks.

Shryock (1987) used a characteristic of chiefdoms complementary to those evoked by Struever and concluded that an Adena community represented by the Wright Mound in Kentucky was a simple chiefdom. Shryock estimated the labor required to construct tombs in the mound, the values of shell, copper, and mica artifacts buried with the dead, and variations in labor and value over the history of the mound's use. He concluded that these variations indicated the characteristic expansion and contraction of a chiefdom as its dominance over surrounding populations cycled over time. The implication of this conclusion would be that certainly more materially complex Ohio Hopewell ceremonial centers represented more complex chiefdoms.

In contrast and reacting to these chiefly views of Ohio Hopewell are the interpretations made by Braun (1986), Ford (1974), and Smith (1986), who followed the ideas of Sahlins (1968, 1972) on Big Man societies. Ford's (1974:394, 402) interpretive framework for the Middle Woodland, which is drawn for the Midwest at large, rests on his view of ecological developments during the Archaic. As post-Pleistocene landscapes of the Midwest became stable and fertile, hunter-gatherers became less mobile. Increases in population ensued, with the packing of bands into smaller territories, a reduction in the number of alternative patches of food resources available to a band, and a concomitant increase in local food supply variability. This subsistence

risk, according to Ford, was ameliorated by inter-band exchanges of food, which were made reliable through the regular exchange of copper and marine shell. In the Late Archaic, headmen administered these exchanges, while in the Middle Woodland, exchanges of more varied materials and their manipulation for influence (presumably Ford meant through competitive displays) fell into the hands of Big Men. Ford saw variability in tomb construction, demography, and settlement patterns during the Middle Woodland as all supporting a Big Man model, with societies organized along lineage lines, for both the Illinois and the Ohio areas. Braun (1986:121) continued Ford's idea that exchange during the Middle Woodland in the Midwest was a form of social banking against uncertainty in local food production. He elaborated Ford's view of the role of the local leader to include management of increasingly complex subsistence schedules in addition to the negotiating of supralocal exchange of valuables. Although Braun spoke of possible increased demands for production beyond subsistence needs in order to fuel competitive displays during the Middle Woodland, in line with Sahlins's (1972) discussion of Big Man political economies, Braun never used the term Big Man. Braun (1986:118, 119) did characterize Midwestern Hopewell leaders as having had dominance without authority and having operated in a social milieu lacking institutionalized grades of social hierarchy (i.e., ranking). Finally, Braun did not distinguish Hopewell sociopolitical organization in Ohio in any way from that of Illinois, like Ford and unlike Struever. Braun essentially homogenized the midwestern sociopolitical landscape, using the situation in Illinois, where he had done his research, as the overarching model, without any empirical discussion of the Ohio archaeological record.

Bruce Smith's (1986:43–50) view of Middle Woodland leadership, though focused on the Southeast United States and only indirectly relevant to the Ohio area, offers interesting variations of the interpretations of Ford and Braun. Smith started with the notion that Southeastern Middle Woodland societies were segmentary tribes based on their settlement patterns. The small sizes of riverine villages, with houses

arranged in either discrete clusters or linear patterns, suggested to him villages comprised of respectively lineage segments or a single descent group—the weak lineage organization and lineage organizational diversity expectable among segmentary tribes. Smith found similar diversity in the mortuary programs of Southeastern societies, which supports his point. Some societies had small mounds for a few households with little burial differentiation (e.g., McLeod, McQuorquodale), others had mounds that served larger lineage-village units but still showed little burial differentiation (e.g., Pharr, Bynum), others had mounds for a lineage-village and distinguished burial tracks (e.g., Crooks), and yet others separated out limited numbers of individuals for specialized treatment through preinterment processing, location, or grave goods (e.g., Kolomoki D crypt burials, Copena canoe burials) or through mound burial itself (e.g., Mandeville, Tunacunnhee, Helena Crossing, Pinson). Only in the last situation, social partitioning through mound burial, did Smith infer the presence of a Big Man and his cluster of followers. In this way, his interpretation is more discriminating than Ford's and Braun's, and correctly separates notions of gross societal organization (i.e., the segmentary tribe) from a specific form of sociopolitical leadership (i.e., the Big Man). Smith noted, after Sahlins (1963), that Big Men have the opportunity to develop where lineage integration and corporateness are weak, as was the case throughout the Southeast, but weak lineage organization does not ensure that Big Men will arise. Smith went on to follow Ford and Braun's view that Hopewell Big Men in the Southeast served as managers of balanced reciprocity among communities, but emphasized the exchange of valuables and services over food. Smith did not evoke Ford's long-term ecological chain of sedentism, population increases, societal packing, subsistence risk, and the necessity for supralocal exchange to offset that risk in his interpretations of either the Archaic or the Woodland sequences in the Southeast.¹⁰

The view that Ohio and other Northeastern Hopewell leaders were Big Men has indirectly met with three criticisms made by Clay (1992:79–80). These Clay proposed to explain

why Adena fancy log-tomb burials were not Big Men, but his points arguably might be extended to the Ohio Hopewell case. First, the Melanesian Big Man's power is founded on his ability to amass a surplus of food and distribute it. Most of the Ohio Middle Woodland domestic sites known through excavation have no storage pits (e.g., Campus, Jennison Guard, Nu-way, Wade [Church and Ericksen 1997; Kozarek 1997; P. Pacheco and D.A. Wymer, personal communication, 2002]) and two habitations have one possible storage pit each (Murphy, DECCO I [Dancey 1991:43; Phagan 1979]). The evidence as a whole suggests, at most, storage for family consumption, alone.¹¹ Second, Melanesian Big Men networks of reciprocal exchange of valuables and reciprocal feasting are based on productive local agricultural economies where all locales have abundant food supplies on average and are thus capable of reciprocating food regularly over time. The combined productivity of agriculture, hunting, fishing, and gathering for Ohio Hopewellian communities has yet to be estimated, but many would place it at considerably less than that for Illinois Hopewellian communities (Ruby et al., Chapter 4; Seeman 1979a, 1979b:46). Third, the exchanges of valuables, mortuary events, and feasts administered by a Melanesian Big Man are staged in his own village near his own house, creating an essential identification among a Big Man, place, and power. Such a process of identification would not have been possible in the dispersed settlement system of the Ohio Hopewell, where places of personal residence (scattered homesteads) and places of ceremony (earthworks) did not coincide.

Clay (1992:80) offered instead that Adena fancy burials and their variability—and here one might substitute Ohio Hopewell fancy burials and their variability—represent the negotiation of mortuary rituals attended and run by multiple local groups who sought and maintained alliances with each other, and the gifts reciprocally exchanged among groups and deposited with the deceased in order to preserve symmetry. Fancy burials were the by-product of alliance-making efforts rather than direct statements of a person's social importance, such as having been a Big Man. Buikstra and Charles (1999) make a similar

argument for the origin of fancy tombs in Illinois Hopewell flood plain cemeteries. For Ohio Hopewell burial mounds, the argument finds support in some single burials and many ceremonial deposits having large and redundant numbers of fancy artifacts of a single kind, but would not hold for the great majority of burials that have singular occurrences or functional sets of fancy items, as if they were owned by the deceased (see Carr et al., Chapter 13). Although Ohio Hopewell leaders may not have been Big Men, according to Clay's triple logic, we would not agree with a strictly alliance and gift-giving interpretation of Ohio Hopewell fancy burial assemblages.

The idea that Ohio Hopewell societies included classic shaman was proposed by Baby (1956), and the same interpretation was made of earlier Adena societies by Webb and Baby (1957) and Otto (1975). Their conclusions are different in nature from most of those above in that they are based on the paraphernalia and artistic renderings of social leaders, rather than rough measures of sociopolitical organization. Baby (1956) reconstructed a mask-headdress made of human bones and spangles found at Mound City and later (Webb and Baby 1957:71) interpreted it as the costumery of a shaman, used much like the earlier Adena wolf and cougar/puma skull masks to impersonate. Webb and Baby (1957) examined 12 engraved clay and stone tablets from Adena sites in Ohio, Kentucky, and West Virginia and concluded that the iconography on two of them represented dancing shaman who were impersonating birds. Webb and Baby went on to say that the tablets "were the personal property of the most important men in the Adena community, those who controlled the ceremonial-religious life as well as their social and governmental activities"—shaman, priests, or chiefs (Webb and Baby, p. 96). From two of the tablets that had red stains in their grooves, they conjectured that the tablets had been used to stamp their designs on clothing or the body, that the designs showed affiliation to a cult of the dead, and that stamping was done by the shaman, priest, or chief. Later, Otto (1975) described a 13th Adena tablet that also mixes bird and human elements in its carved designs. She interpreted the designs as a shaman—possibly

a bone picker—impersonating a raptorial bird or as a mythological half-human/half-raptor being. Carr's more recent identifications of classic shamanic animal impersonators in the Adena tablets are summarized below (see *The Classic Shaman in Ohio Hopewellian Society*). J. A. Brown (n.d.) has taken the occurrence of smoking pipes, trophy skulls, quartz crystals, concretions, deer and horn headdresses, and snake imagery in Ohio Hopewell material culture as evidence of the operation of classic shaman in Ohio Hopewell societies, as well as the insemination of classical shamanic beliefs into wider cultural and ritual settings.

In sum, archaeologists have interpreted the material records of Ohio Hopewell and related societies of the Eastern Woodlands to indicate the operation of leaders of a broad range of kinds. Relatively complex chiefs with authority to redistribute, Big Men, classic shaman, and less powerful individuals whose grave accompaniments reflect reciprocal gift-giving among social groups expressing alliances, rather than the roles of the deceased, have each been claimed. In addition, leaders of only one kind have been proposed in each of the above interpretations. However, because the data used to make these interpretations have been largely indirect measures of sociopolitical organization generally and not precise reflections of leadership form itself, further and pointed study of Ohio Hopewell leadership is required. The remainder of this chapter assembles and analyzes such directly relevant data and provides different conclusions about the nature of Ohio Hopewell leadership.

MATERIAL REMAINS OF SHAMANIC, SHAMAN-LIKE, AND NON-SHAMAN-LIKE LEADERSHIP IN OHIO HOPEWELL SOCIETIES AND RELATED GROUPS

Although Eastern Woodland archaeologists have differed in their characterizations of Ohio Hopewellian leaders, drawing upon different anthropological theories, ethnographic analogs, and pieces of evidence, the directly relevant material record when assembled is actually fairly

clear on the topic. Ohio Hopewellian leaders included multiple, complementary kinds of leaders, including a small proportion of shaman in the classic sense described above, many other personae with some shaman-like or other religious qualities, and a small proportion without any clear shamanic or shaman-like features.

This section has three purposes. First, we illustrate that shaman as classically defined did operate in at least some contexts and times in Ohio Hopewellian societies. This has not been recognized by the material-secular reconstructions of Ohio Hopewell leadership that have dominated archaeological thought. Second, we demonstrate the shaman-like tone that pervades much of Ohio Hopewellian public and elite ceremonial material culture, with the implication that much of Ohio Hopewellian leadership had some shaman-like attributes. Finally, we show that in spite of this shaman-like orientation, leaders of other religious and religious-secular kinds also operated in Ohio Hopewellian societies. Leadership roles were diversified in nature and segregated structurally. These conclusions are reached by examining four forms of evidence: representational art, costumery, the nature of the raw materials used to manufacture public and elite artifacts, and the forms and probable functions of such artifacts. Making these three points shows the relevance of primarily socioreligious anthropological theories of leadership development, and secondarily material-secular ones, to the Ohio Hopewell case.

The Classic Shaman in Ohio Hopewellian Society

In the opening of this chapter, we defined the shaman, following Eliade, Wallace, and Harner, as one who performs a variety of services for his community and its members by taking soul or mind journeys out of his body, and by using animals, plants, and spirits of nature. In the Ohio Hopewellian material record, there are two pieces of representational art that illustrate the shaman in this classic sense. One is a pipe excavated by Squire and Davis (1848:247; Fowke 1902:592) from the Mound City earthworks (Figure 5.2A), which depicts a bird-man: a man's



Figure 5.2. (A) Bird-man in flight. Smoking pipe from the Mound City site, Ohio (Squire and Davis 1848:247). (B) A bear shaman. The “Wray” figurine, limonite and schist, from the Newark Site, Ohio (Dragoo and Wray 1964). Photo by permission of the Ohio Historical Society, Columbus, OH.

head with the body of a bird. The bird-man appears to be in flight, because when the pipe is held for smoking, the bird's body is oriented fully horizontally rather than in perched position and the head of the man faces forward as would the head of a bird in flight rather than perched. When one considers that, cross-culturally in shamanic practice, soul flight is most commonly experienced as transformation into a bird that flies or as being carried by a flying bird (e.g., Eliade 1972:474–482; Halifax 1979:16–18), then this pipe quite directly depicts soul flight. Significantly, the representation is made on a smoking

pipe—an implement for inducing trance states in which shamanic soul-flight is experienced. The eyes of the man are closed and his mouth is drooped, as in trance.¹²

The pipe form may have a double significance in that rising smoke has commonly been conceived of as a means of communication and travel between this world and realms Above, Below, and in the Four Directions by historic and contemporary Eastern Woodlands and Plains Native Americans (Hudson 1976:318; Mails 1978:101; 1979:92). Among Siouan tribes, smoke from a pipe specifically represents everything that flies and lives above (Mails 1978:101), symbolically tying together pipe smoke, bird, and soul flight. In sum, the Mound City pipe clearly evidences the classic shaman, in the midst of soul flight, and using one or more aspects of nature (a bird, smoke) to achieve it.

The second instance of Ohio Hopewellian art that illustrates a classic shaman is the stone “Wray figurine” (Dragoo and Wray 1964), found in the Newark earthworks (Figure 5.2B). The figurine illustrates a human largely enveloped by the image of a bear. The hands and arms of the man are fully transformed and one with the paws and forelegs of the bear, and the man’s feet have a clawlike appearance (Dragoo and Wray, p. 197). The bear’s image may represent a bear costume that the man is wearing, or the coming of a bear spirit from behind to merge with the body of the man. Merging with a power animal and “becoming” it is an essential practice in the shamanic arts of many traditions around the world (e.g., Harner 1980:73–88; Halifax 1979).¹³ The man is in trance, indicated by his closed eyes and drooped mouth, as one would expect of an outfitted shaman doing work or a shaman in the process of transforming into an animal helper spirit. The awkward, asymmetrical positioning of the bear-man’s arms, behind the head and on the chest, is in general reminiscent of certain traditional hard-to-hold postures meant to help induce trance and known from around the globe (Goodman 1990). On the lap of the bear-man is a human head, with hair extending straight from the scalp. Like the bear-man, the head wears earspools. This head, and what is being shown about the bear-man’s identity, can be interpreted in two ways, depend-

ing on how the figurine is oriented. If stood upright, in a seated position, the head could represent a severed head—perhaps a war victim, or a community member whose skull is being prepared for curation or for crushing for burial, cremation, or intact burial¹⁴ and perhaps whose soul is being guided to another world. In this case, the bear-man would be a shaman in the role of a war leader and/or a body processor and psychopomp (see also Dragoo and Wray 1964:198). As a psychopomp, the bear-man would be in the state of soul flight. If the figurine is placed on its back, with legs up, then the head on the lap of the man could indicate his soul in the process of leaving his abdomen at the initiation of soul flight (R. Zurel, personal communication, 2000). The abdomen is one of several common locations of soul departure from a body cross-culturally. In this regard, it is significant that the head has earspools that echo the earspools and identity of the man in trance. Also, the eyes of the head are open, which would be true of a soul disembodying, and less likely of the skull of a beloved community member, whose eyes would be put to rest. In either specific interpretation of the identity of the bear-man depicted in the Wray figurine, his trance state, the possibility of soul flight, and his working with the powers of nature all suggest a classic shaman.

The representations found in the Mound City pipe and the Wray figurine echo other images of classic shaman from related Adena cultural contexts, perhaps somewhat earlier or close in time. Adena mounds in southern Ohio and adjacent portions of West Virginia and Kentucky have yielded 13 carved tablets of stone or clay, primarily bas-relief in form (Otto 1975; Penney 1980; Webb and Baby 1975). The majority of these artifacts depict birds, bird impersonators, bird impersonators in magical flight, or mammal impersonators (Carr 1997, 1998, 1999a, 1999b, 2000a, 2000b). Four of the tablets (Berlin, Lakin A, Meigs, Wilmington), and possibly a fifth (Lakin B), have human faces with long, hanging hair and looking forward, which, when rotated 90 degrees, become the stylized heads of raptors in profile (Figure 5.3A). Rotation seems to have served as an artistic metaphor for transformation, here from human to bird and back again. A fifth tablet (Cincinnati) has two stylized human

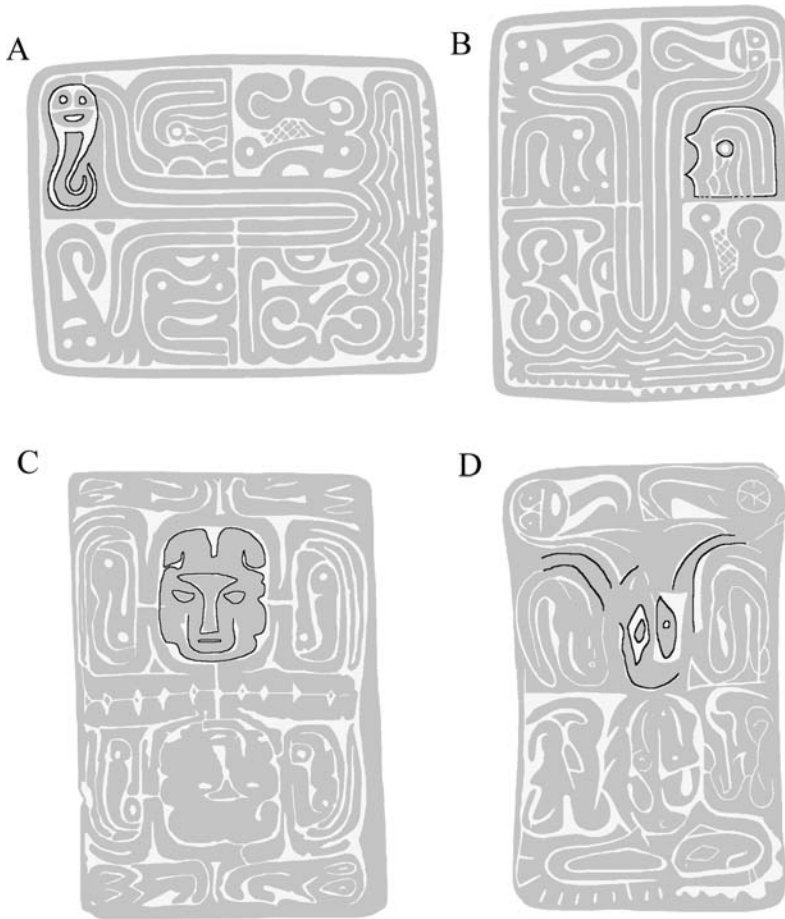


Figure 5.3. Portions of representations in some of the Adena tablets (Otto 1975; Webb and Baby 1975). (A) An example of a human face with long hair that becomes a stylized head and beak of a raptor when rotated 90 degrees clockwise. The Wilmington tablet. (B) A short-beaked bird (mask?) with a human head inside. The Wilmington tablet. (C) A human face with mammal ears. The Low tablet. (D) A human face with mammal horns. The Meigs tablet. (E–H) The World Tree with bird impersonators and/or birds on top. Respectively, the Wilmington, Meigs, Lakin A, and Cincinnati tablets. (I–K) The World Tree with birds making their way up it. Respectively, the Lakin A, Lakin A, and Gaitskill tablets.

faces in profile with eye-surrounds in the form of raptor heads in profile. One tablet (Wilmington) has a short-beaked bird with a human head inside, apparently rendering a person in bird mask (Figure 5.3B). Two tablets (Low, Meigs) depict human faces with mammal ears or horns of a kind (Figures 5.3C and D). Five tablets (Cincinnati, Gaitskill, Lakin A, Meigs, Wilmington) show the World Tree with its trunk, bifurcating roots below, and bifurcating branches above. The World Tree is one form of expression of the *axis mundi*—a vertical structure by which a shaman

can take magical flights to nonordinary worlds above and below this one, and which is recognized in nearly all shamanic traditions around the globe (Eliade 1972:259–274, 487–494). Four of the five specimens (Cincinnati, Lakin A, Meigs, Wilmington) show bird impersonators and/or birds that have flown to the top of the World Tree, while two (Gaitskill, Lakin A) depict birds making their way up the World Tree (Figures 5.3E–K). All of these images, in rendering humans transformed or transforming into birds and mammals, and bird-men that are in the

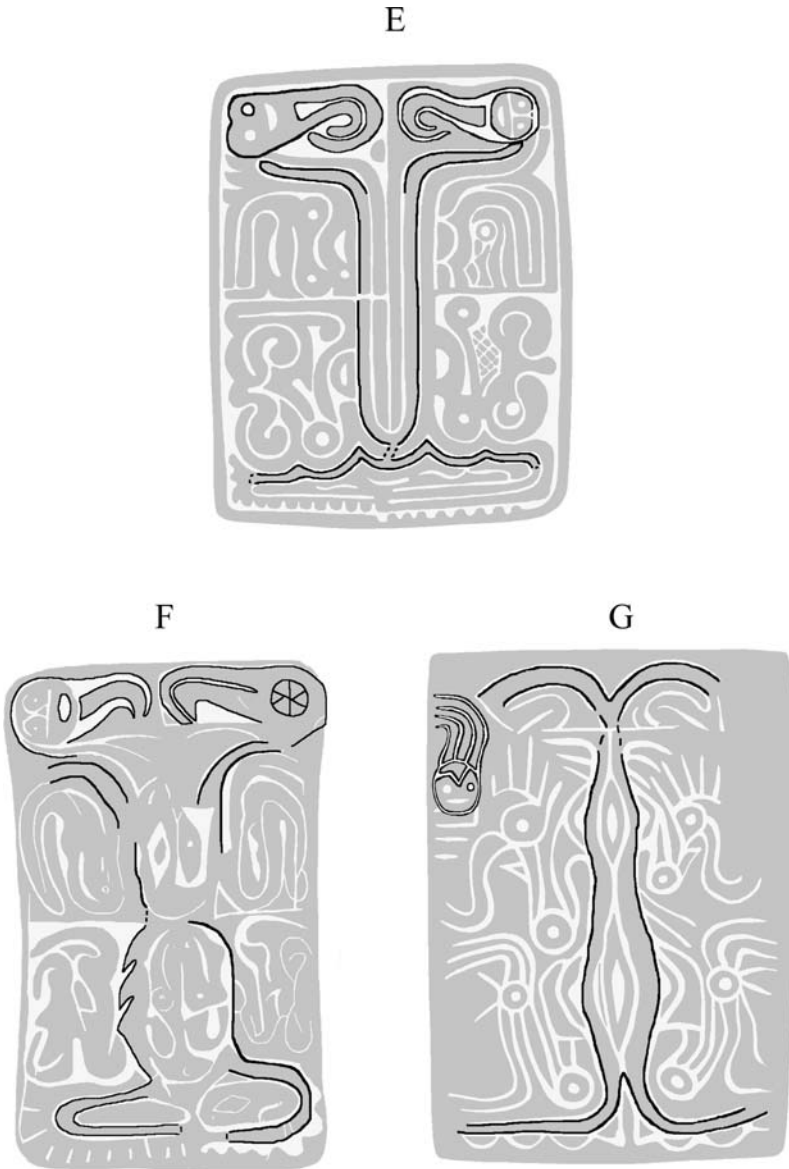


Figure 5.3. (continued)

process of taking magical flights, fit the definition of a classic shaman who takes extraordinary journeys and uses the powers of nature to do his or her work.

The broad distribution of the Adena tablets, across and beyond the area of Ohio Hopewell societies, indicates the firm foundation of classical shamanism from which Hopewellian beliefs, art, and leadership continued and evolved. This continuity is tellingly found in two of the earliest ex-

amples of Ohio Hopewellian copper breastplates, found in Mound City, Mound 7, Central Grave (Mills 1922:534–535). Each plate has four raptorial birds of the same design as those found on five of the Adena tablets, positioned at the plate’s corners as in the Adena cases. A vertical axis up the center of the plate mimics in simplified form the World Trees found on the Adena tablets.

A final, key image of a classic shaman in an Adena context comes from the core Scioto

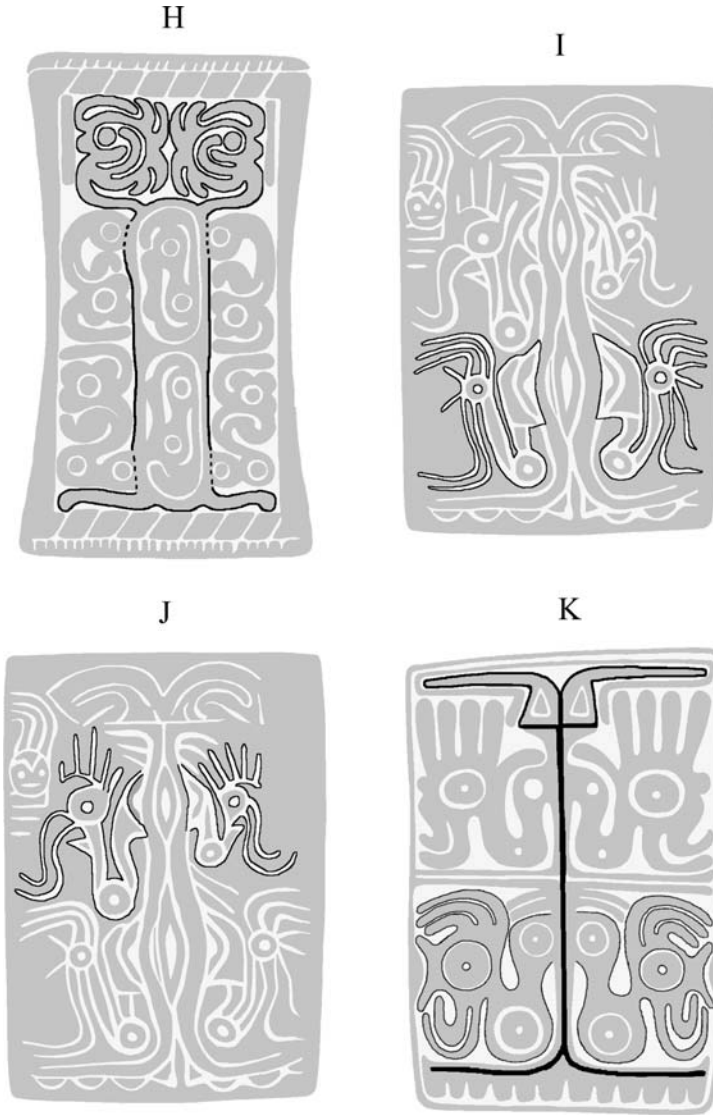


Figure 5.3. (continued)

Hopewell region itself. This is the “Adena pipe” figurine, recovered from the Adena site, Skeleton 21 (Mills 1902:474–479) (Figure 5.4). The figurine depicts a male, achondroplastic dwarf (Snow 1957:55)—significant because, cross-culturally, shaman not infrequently have a physical defect of one kind or another that helps to separate them from their society in looks or capabilities (Hollimon 2001:129). Several aspects of the figurine suggest that the man is in trance. His eyes are hollow and without pupil. Also, the man is poised in an awkward posture, with

knees partially bent and hands pressed against his thighs, where they would not be useful for his balancing and compensating for his bent knees. The awkwardness of the posture again recalls the traditional, hard-to-hold postures for inducing trance, which are found around the globe and documented by Goodman (1990). In this case, the posture closely resembles one found to induce an experience involving the World Tree or Tree of Life (Goodman, p. 146–148). The posture requires one to stand with partially bent knees, hands on the thighs, and mouth open—all



Figure 5.4. Probable shaman in a trance posture. The “Adena pipe,” from the Adena site (Mills 1902:474479). Photo by permission of the Ohio Historical Society, Columbus, OH.

true for the Adena figurine. Consistent with the World Tree theme, and recalling the Adena tablets’ depiction of bird-men climbing or on top of the World Tree, the dwarf wears a breach cloth bearing a design of a raptor’s head on the front (upside down) and fanned bird feathers on the back. On the man’s abdomen is a trident bird’s foot form, common in Eastern Woodlands art. The trance state depicted by the pipe is consistent with the function of the pipe for smoking—one manner of inducing trance, communicating with other realms, and soul-traveling to them, in historic and contemporary Eastern Woodlands and Plains Native American practices and beliefs

(Hudson 1976:318; Mails 1978:101; 1979:92). All of these features of the figurine indicate a classic shaman in the act of making a soul journey with the help of the powers of nature—in this case, a bird.

Classic Shaman or Shaman-like Practitioners

Beyond the two Ohio Hopewellian artworks and several Adena ones that undeniably illustrate classic shaman, there are other representations that may depict either classic shaman or more specialized, “shaman-like” practitioners (Table 5.2). A deer skull and horn headdress from an Ohio Archaic-period site (Converse 1979:35), three wolf and two bear skull masks from Ohio Glacial Kame sites (Converse 1979:31–35), three wolf and one cougar/puma mandible or maxilla mouth inserts from Ohio and Kentucky Adena sites (Webb and Baby 1957:61–71), two cougar masks and one bear mask from Ohio, Kentucky, and Indiana Adena sites (Webb and Baby 1957:66; Mills 1917:255), and one human skull with three deer tooth replacements for human teeth from the Ohio Hopewell Edwin Harness mound, each indicate animal impersonation and calling upon the powers of nature. This is also the case for Ohio Hopewell who wore copper headdresses with animal parts, in order to impersonate deer, elk, bear, cat, and bird, and for the mica cutout and bone carvings that depict bird impersonators and a deer–“rabbit” impersonator (Table 5.2).¹⁵ In each of these instances, part of the impersonation process could have involved the shaman-like practice of the impersonator dancing his or her power animal while in trance (Harner 1980:73–88). However, the classic shamanic art of soul flight is not directly evident in these elements of costume, and the precise nature of the magicoreligious practitioners is unclear.

A final relevant depiction is a terra cotta figurine from the Turner site, Mound 4, Altar 1 (Brose et al. 1958:61; Willoughby and Hooton 1922:plate 20e). The figurine shows an adult male with a forward hair bun, indicating his status (Keller and Carr, Chapter 11). The man is seated, in trance, which is indicated by his closed eyes, drawn lips, and uncomfortable placement of his hands below his knees, similar

Table 5.2. Artistic Images and Costumery of Important Persons in Ohio Hopewell Societies and Related Groups**Early Woodland images of humans with clear characteristics of a classic shaman**

Raptor impersonators on top of the World Tree	Wilmington, Cincinnati, Lakin A, and Meigs Adena tablets (Carr 1999a, 1999b)
Birds climbing the World Tree	Lakin A and Gaitskill Adena tablets (Carr 1999a, 1999b)
Nonraptorial bird impersonator	Wilmington and Meigs Adena tablets (Carr 1999b)
Achondroplastic dwarf bird impersonator in trance posture	The "Adena pipe" (Mills 1902)

Archaic and Early Woodland images of humans with shaman-like characteristics

Eared mammal impersonator	Low and Meigs Adena tablets (Carr 1999b)
Deer skull headdress for impersonation	Unionville Center site, Archaic period (Converse 1981:35)
Wolf and bear skull masks for impersonation	Clifford Williams site, Logan County & Williams site, Wood County, Ohio; Glacial Kame (Converse 1981:31–35)
Wolf and cougar/puma mandible and maxillary mouth inserts for impersonation	Ayers mound, Wright Mound 6, Wolford Mound Group, Dover mound, Chilton Mound 77, Buckam Stone Mound 1, Westenhaver mound; Adena in Ohio, Kentucky, Indiana (Webb and Baby 1956:61–71; Mills 1917:255)

Early Woodland images of humans without obvious shaman-like features

Human face in masks	Meigs Adena tablet (Carr 1999b)
Human face with forward-flowing headdress	Meigs Adena tablet (Carr 1999b)

Ohio Hopewell images of humans with clear characteristics of a classic shaman

Bear impersonator, stone figurine	The "Wray figurine," Newark site (Dragoo and Wray 1964)
Bird's body with human head, in flight; pipe	Mound City (Fowke 1902:592)

Ohio Hopewell images of humans with shaman-like characteristics

Bird impersonator with multilayered headdress, mica cutout	Turner site, Mound 3 (Willoughby 1922:plate 15)
Bird impersonator carved on a human femur	Turner site, Great Enclosure (Willoughby 1922: plate 2c)
Deer—"rabbit" impersonator carved on a human femur	Hopewell site, Mound 25, Burial 278 (Moorehead 1922: 128)
Cat impersonator, stone figurine	Mound City (Shetrone 1936: 122)
Copper effigy deer antler or deer ear headdresses	Mound City, Mound 13, Burials 3, 4; Hopewell site, Mound 25, 243, 260–261 (Mills 1922: 545; Moorehead 1922:109; Shetrone 1926:177)
Copper effigy elk antler headdress	Hopewell, Mound 25, Burial 248 (Moorehead 1922: plate XLIX)
Copper effigy "bear" or mythological creature headdress	Mound City, Mound 13, Burial 3 (Mills 1922:543)
Copper headdress, cat paw cutout design	Hopewell site, Mound 25, Burial 4 (Shetrone 1926: 176)
Copper headdress, feather outline	Hopewell site, Mound 7 (Shetrone 1926:37, 176)
Skull with three deer teeth replacements for human teeth in the lower jaw	Edwin Harness Mound (Ohio Historical Society accession no. 7/51)
Human skull mask (dismemberment theme?)	Mound City, Mound 7, Baby 1956)

Ohio Hopewell images of humans without obvious, shaman-like features

Human heads with curvilinear face painting, tattooing, or scarification	Edwin Harness Mound (Greber 1983:33); Hopewell site, Mound 25, 1 or 2 (Moorehead 1922:169)
Human face with a tall headdress, copper cut out	Hopewell site, Mound 25, Burial 35 (Shetrone 1926:214)

to a cross-culturally identified trance posture for evoking metamorphosis into an animal (Goodman 1990:131–140). This image may represent a classic shaman or shaman-like leader in the act of trance or transformation, or simply a person of prestige following a wider, community religious practice complementary to shamanism, to follow Eliade's (1972:7–8, 12–13) dichotomy. At least one other terra cotta figurine found in Altar 1 (Willoughby and Hooton 1922:plate 20g) also appears to be in a cross-culturally identified trance posture, possibly for travel to a land of the dead (Goodman 1990:155–160).

The Pervasiveness of Shamanic and Shaman-like Features in Ohio Hopewellian Leadership

The few, clear images of Adena and Hopewell classic shaman described above for the greater Ohio area, and the handful of additional shaman or shaman-like practitioners, indicate the presence of these kinds of leaders in Ohio Hopewellian society. The representations do not, however, suggest how common classic shaman or shaman-like practitioners may have been. To approach this issue, the nature of Ohio Hopewellian public and elite artifacts and artworks can be examined.

The following paragraphs describe how most Ohio Hopewell public and elite artifacts and artworks were made of raw materials that are transformative in nature, come from distant places, which implies a logic of transformation, and/or have an artistic style that implies transformation (see also Turff and Carr, Chapter 18). A related quality of many of the raw materials from which Ohio Hopewell public and elite artifacts were made pertains to seeing. The pervasiveness of material culture having these qualities, we will argue, suggests the common work and leadership of classic shaman or shaman-like practitioners within Ohio Hopewell society. We also explore the functions of public and elite artifact classes and the social roles they suggest, which are predominated by shaman-like ones. Finally, we point out a number of very large, ceremonial deposits of artifacts with shamanic or shaman-like functions, which imply the com-

monness and significance of such practices in Ohio Hopewellian life.

Transformation. A primary theme of shamanism cross-culturally is transformation. It is intrinsic to shamanic tasks: the sick person is cured and made well; the lost object, power animal, or soul is divined, found, and returned; the living soul is guided to the souls of the dead; the unborn soul is brought into flesh; the disgruntled spirit(s) of an animal species are appeased and hunting or fishing is made good again; and the paradoxical dualities of this world are at least integrated and balanced, if not made one. Cross-culturally, the shaman's initiation almost always emphasizes transformation: his death and rebirth into a new identity psychologically, physically, and socially (Wallace 1966:152). This is commonly accomplished through envisioned bodily dismemberment and reassembly (see Theory, above, and Note 4), and more locally, in Siberian and Ngadja Dyak societies, through undergoing a change in gender in several stages. The male shaman initiate becomes a "soft man" or "one similar to a woman"¹⁶ (Eliade 1972:257–258; Halifax 1979:22–28)—a third gender that is neither male nor female (Hollimon 2001:124).

The central theme of transformation in the shaman's tasks and initiation relates to the role of the shaman as mediator (Hollimon 2001:127–128) for society and individuals—an intermediary between cosmological realms, spirits, the spiritual and material, species, sexes, social groups, and individuals in a universe that is partitioned rather than a whole. To communicate among categories of the universe, to work with them, and/or to go back and forth among them, requires the shaman to transform and attune himself to them.

Transformation Implicit in Raw Materials. The raw materials from which Ohio Hopewell public and elite artifacts were manufactured almost always have the quality of being transformative (Table 5.3), suggesting a common shaman-like social presence (Carr and Case 1995, 1996). The particular transformation evident in the materials selected by Ohio Hopewellian peoples is between the poles of light

Table 5.3. Transformative Materials Used by Ohio Hopewell Peoples

Substance	Light or shiny state, aspect, or variety	Dark or dull state, aspect, or variety
Materials that transform between light and dark		
Mica	Milky white to silver naturally	Black–brown when heated
Copper	Shiny when polished	Dull, dark brown–red when first corroded
Silver	Shiny when polished	Dull, dark when tarnished
Meteoritic iron	Shiny when polished	Dull, dark brown–red when rusted
Steatite	Shiny when polished, with shiny fleck inclusions	Dark, dull body naturally
Chlorite	Shiny when polished, with shiny fleck inclusions	Black–green body naturally
Ocher	Yellow in oxidized state	Dark red to red–brown in reduced state
Clay for pottery	Light orange in oxidized state, shiny when burnished	Brown to black in reduced state, dull when roughened
Human bone	White naturally	Black when cremated in reduced atmosphere
Materials that are simultaneously “light” and “dark”		
Obsidian	Shiny, glassy surface; also, translucent when a thin piece is held to light	Dark color; Dark color in the form of thick pieces
Knife River flint	Translucent when a thin piece is held to light	Dark color in the form of thick pieces
Local mollusks	White internal shell before exterior coating removed	Dark exterior coating
Pearls	White, shiny exterior	Dull, tan interior
Human body	Naturally light bones on interior	Dark flesh on exterior
Hummingbird feathers	Iridescent surface	Dark color
Mallard duck feathers	Iridescent surface	Dark color
Materials paired archaeologically		
Special stones made into projectiles	Light quartz	Dark obsidian
Cherts at the Mount Vernon Site, IN	Light cherts	Dark cherts
Soils in earthworks	Yellow	Red, brown, or black
Sands for mound construction at the Mann Site, IN	Light sands	Dark sands
Versus		
Cedar	Defies transformation	

and dark, or the poles of shiny and dull. For example, shiny and light copper corrodes to dull and dark (red–brown) cuprite. Shiny and light silver tarnishes to dull and black silver oxide. Shiny and light meteoric iron rusts to dull and dark iron oxide. Significantly and “magically”, these transformations and those of some other Ohio Hopewellian materials are fully reversible. Corroded copper, tarnished silver, and rusted iron can each be polished, renewing their previous brilliance.

The materials selected by Hopewellian peoples to make their public and elite artifacts are transformative in three different senses (Table

5.3). Some, like copper, silver, and iron, can change or be changed from light and shiny to dark and dull and back again. Others, like obsidian, translucent chalcedonies, and some feathers and snake skins, simultaneously display both poles. If, in Ohio Hopewell worldview and language, shiny was interchangeable semantically with light in hue, and dull with dark in hue, as it is in some Native American languages (Reichel-Dolmatoff 1978; Roe 1995:67), then obsidian is magically both shiny and dark, some translucent chalcedonies may transmit light yet be dark in hue, and some feathers and snake skins can be dark yet iridescent at the same time. Such color

ambiguity appears to be associated with shamanism (Reichel-Dolmatoff 1978; Roe 1995:67). The final manner in which Hopewellian favored materials were transformative is in the complementary way in which light/shiny and dark/dull materials were placed in graves, ceremonial deposits, mounds, and earthworks relative to each other. Thus, for example, large numbers of light- and dark-colored flint ovate bifaces were manufactured and deposited together on the floor of the Mount Vernon mound, Indiana (Seeman 1995:128-129). Light yellow and darker red, brown, or black soils were commonly used to form complementary, adjacent layers of mounds in Ohio and Illinois, and the inside versus outside positions of earthwork embankments in Ohio (e.g., Buikstra et al. 1998:84-88; Greber 1998; Hall 1979; Lynott and Weymouth 2002:3, 5; Ruby 1997b).¹⁷

Seeing. A theme of shamanism that is related to transformation, particularly the transformation of darkness into light, is seeing within, through, or beyond (e.g., Halifax 1979; Harner 1980:27-31). A shaman has the ability through journeying to see and "bring to light" other, nonordinary realities that remain unknown, that is, "in darkness", to others. These realities include layers of the cosmos above and below this world and spatially remote parts of this world, as well as the past, the future, and the timeless era of Creation. The shaman also has the power to see in trance, with his/her "strong eye," the nonordinary aspects of this world, including spiritual representations of diseases within ill physical bodies, ghosts, other spirits, and lies in a dishonest person. With these special powers to see, the shaman accomplishes the tasks of healing, divining, determining guilty parties for dispute resolution, and shuttling needed information, souls, and spirits back and forth between this world and others.

A shaman's special power to see typically results from the reworking (transformation) of his physical body over the course of his initiation by his spirit helpers and/or shaman-teachers of this world. A shaman's eyes may be replaced by special ones during dismemberment, quartz crystals may be implanted within him, or he may be required to drink quartz crystals (Eliade

1972:34-66; Halifax 1979; Harner 1980:140; Noll 1987:50; Walsh 1990:59-69; see also Note 4). A particularly relevant example of shaman attaining special sight is described by Knud Rasmussen for *angakok* (shaman) of the Iglulik Inuit, around Hudson Bay, Canada. In this culture, acquiring the ability to see the nonordinary is likened to experiencing an inner light:

It consists of a mysterious light which the shaman suddenly feels in his body inside his head, within the brain, an inexplicable search-light, a luminous fire, which enables him to see in the dark, both literally and metaphorically speaking, for he can now, even with closed eyes, see through darkness and perceive things and coming events which are hidden from others: thus they look into the future and into the secrets of others.

The first time a young shaman experiences this light . . . he sees far ahead of him through mountains, exactly as if the earth were one great plain, and his eyes could reach to the end of the earth. Nothing is hidden from him any longer; not only can he see things far, far away, but he can also discover souls, stolen souls, which are either kept concealed in far, strange lands or have been taken up or down to the Land of the Dead (Rasmussen 1929:112-113; cited in Noll 1987:50-51).

Seeing Implicit in Raw Materials. Many of the raw materials from which Ohio Hopewell public and elite artifacts were made mimic the shaman's power to see within, through, and beyond. These materials include shiny ones that reflect an image and can be gazed into, translucent ones that let light through their darkness, and transparent ones, which represent solidified light or water in some worldviews (Harner 1980:29 and references therein) and may also be gazed into. Shiny, reflective raw materials that were used or worked by Ohio Hopewell peoples include thick sheet mica, galena, silver, and meteoric iron, all of which have the additional spiritual referent of a water's reflective, shiny surface (Hall 1976), as well as copper, polished chlorite, steatite, and pipestone. A translucent material that was used is chalcedony, one form of which was Knife River flint. The transparent materials known to Ohio Hopewellian peoples include quartz, thin sheets of mica, thinned

obsidian, amethyst, and fluorite. These diverse and abundant materials in the Ohio Hopewell archaeological record again suggest a common shaman-like presence in Ohio Hopewell society.

The Distant Sources of Raw Materials and Their Relation to Transformation. The uniformly distant origins of the copper, mica, silver, meteoric iron, obsidian, and other materials used by Ohio Hopewellian elite to make their ceremonial artifacts and costumes is also consistent with the proposed prevalence of a shaman-like worldview and shaman-like leaders there. Specifically, Helms (1976:133, 136, 176) concluded from cross-cultural research that in prestate societies with modest means of transportation, traveling a long distance, beyond the lands of known peoples, is commonly equated with approaching the sacred or supernatural. The near-far axis and the ordinary-supernatural axis may be confounded philosophically. Consequently, those who seek to gain supernatural powers and knowledge may do so by making travels to far-away places. The shamanic vision quest and power quest to distant places in nature (e.g., Halifax 1979:87–91; Mails 1979:49–54, 181–185; Park 1938:27–28), from which powerful raw materials are extracted, is one variant of this practice. It turns out, in several empirical ways, to be an effective means for explaining the transport of many kinds of exotic raw materials to Hopewellian societies in Ohio (Carr, Chapter 3; Bernardini and Carr, Chapter 17; Turff and Carr, Chapter 18). Thus, the large quantity of fancy, exotic raw materials found in Ohio Hopewell sites conforms with the interpretation of a common shaman-like ideology and social presence there.

Significantly, far journeys such as shamanic quests, and the spiritual powers and knowledge obtained from them, transform the quester internally through the experiences had, and in social prestige (Gill 1982:101–105). The fancy raw materials brought back from such journeys evidence this transformation. Thus, the distant origins of the raw materials from which Ohio Hopewellian elite artifacts were manufactured translate as transformation, and dovetail with their physically transformative qualities. Both qualities point to shaman-like practices and leadership.

Transformation in Artistic Style. Another quality of Ohio Hopewell material culture that recalls transformation and shamanism is the “positive–negative play” or “perceptual–mental ambiguity” of the curvilinear art style of this culture. Roe (1995:64) defines these terms as the capacity in an artistic rendering to shift visual attention back and forth between two aspects of the work, seeing one part as figure and the other as background, but also the latter as figure and the former as background. The result of this visual uncertainty is a sense of change of one thing into another, or transformation. In Ohio Hopewell art, three forms of perceptual–mental ambiguity are found. One is true figure–ground reversal, which is rare. It is seen, for example, on the femur baton carving from the Hopewell site, Mound 25 (Moorehead 1922:126) (Figures 5.5A–D). The work depicts a costumed person whose drooping animal ears with spots in the positive view become a masked figure with upright ears in the negative. The second, more common form of perceptual–mental ambiguity that occurs in Ohio Hopewell art is complex, curvilinear designs, where multiple images are internested in the positive and can be seen only by tracing out and concentrating on one at a time. The femur baton design is also constructed with this trick (Moorehead 1922:126) (Figures 5.6A–C), as is a decorated human parietal rattle from the Turner site, Mound 3, Central Altar (Willoughby and Hooton 1922:58) (Figures 5.6D and E), for example. The third form of perceptual–mental ambiguity in Ohio Hopewellian art, also rare, is where the same thing is rendered in both positive and negative space on the same object. The positive pair and negative pair of raptor heads in mirror reflection within the copper cutout breastplate from Mound City, Mound 7, Central Grave, are an example (Mills 1922:535) (Figure 5.7). The relevance of transformative-style art, such as these three kinds, is that it is associated cross-culturally with animistic shamanism and trancing (Cordy-Collins 1980; Roe 1995:68; see also Lewis-Williams and Dowson 1988; Reichel-Dolmatoff 1987). In its broad spread through Ohio Hopewellian elite art, it suggests the pervasiveness of shaman or shaman-like leaders in Ohio Hopewellian society.¹⁸

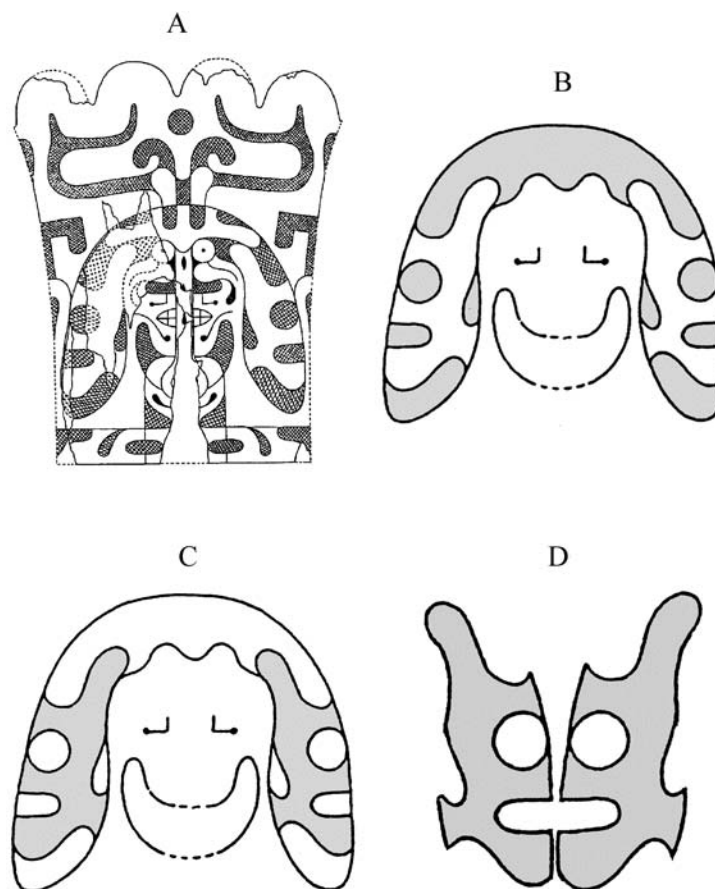
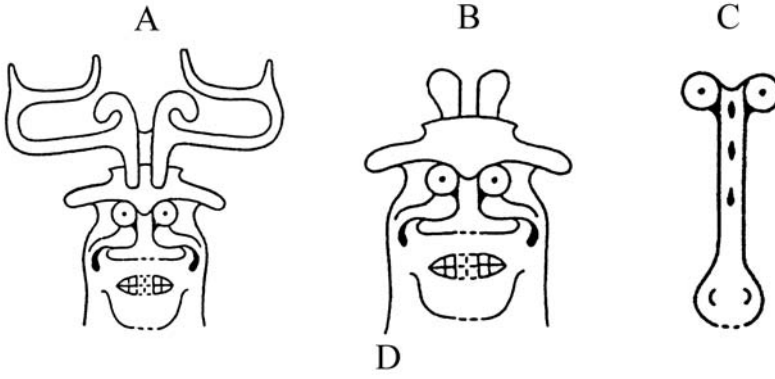


Figure 5.5. A femur baton carving from the Hopewell site, Mound 25, Burial 278 (Moorehead 1922:128). (A) The full carving. (B) Drooping, spotted animal ears depicted in the positive. (C, D) A masked figure with upright ears depicted in the negative.

Shaman-like Paraphernalia and Costumery. Table 5.4 lists most of the “fancy” kinds of artifacts that were buried in Ohio Hopewellian mounds and were likely used by leaders of a kind, rather than for utilitarian or decorative purposes by ordinary persons or to mark ordinary clan membership. The artifact classes are grouped by the social roles in which they were probably used, as determined by Carr (n.d.). Form, analogy to ethnohistoric artifact classes in the Eastern Woodlands and elsewhere, the opinions of contemporary Native American medicine persons and shamanic practitioners, archaeological context, and detailed analyses combining these lines of evidence were all used in making the probable role assignments.¹⁹ Artifact classes

used in additional, prestigious personal and ordinary clan roles are listed by Carr et al. in Chapter 13 (Appendix 13.2).

The list of artifact classes in Table 5.4 clearly shows the working of shamanic or shaman-like practitioners in Ohio Hopewellian societies. Many of the common roles of the classic shaman (Table 5.1) are easily identified among the range of artifact classes—performing war or hunt divination and other divination tasks, healing, keeping cosmological knowledge, tending to corpses, and leading public ceremonies. In addition, trancing equipment or effigies referring to trance states, including rattlers, tinklers, mushroom effigies, musical instruments, and possibly copper nostril inserts suggestive of



E



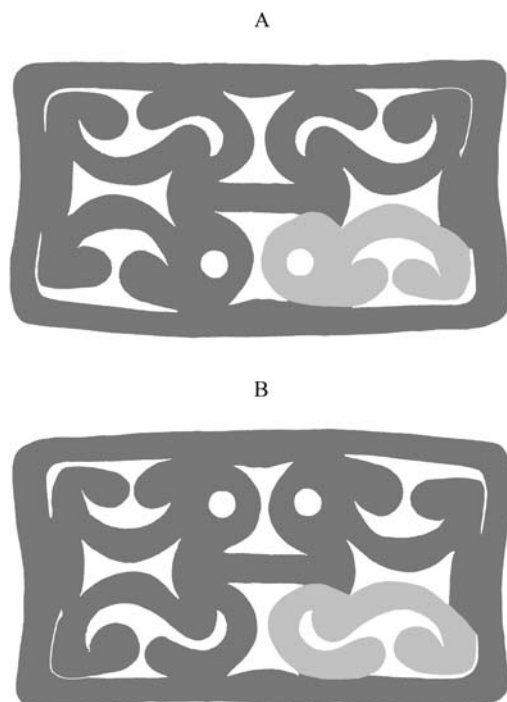


Figure 5.7. A copper cutout breastplate from Mound City, Mound 7, Central Grave (Mills 1922:357). (A) Raptor head in the positive. (B) Raptor head partially in the negative; plate has been flipped over.

breath, may indicate the taking of soul journeys. However, other forms of trance used by magico-religious practitioners of other than the classic kind of shaman may also be indicated. Moreover, the list of artifact classes alone does not tell the degree to which the shaman-like roles in which the artifacts were used were centralized in one persona—the classic shaman—or segregated into more specialized shaman-like practitioners.

The pervasiveness of shamanic or shaman-like ideas and practices in Ohio Hopewellian societies is, however, evident in Table 5.4. A high number and proportion of those fancy artifact classes that we have identified as possibly or probably having been used by leaders of a kind at Ohio Hopewell sites, and that are listed in the

table, are shamanic or shaman-like in nature. This finding concords with the heavy thrust toward shamanism implied by the nature and sources of raw materials and the art styles used in Ohio Hopewell societies.

Large Ceremonial Deposits of Shamanic or Shaman-like Artifacts. A final form of evidence that points to the predominance of shamanic or shaman-like practitioners in the leadership of Ohio Hopewellian societies is the very large, ceremonial deposits of artifact classes useful in shamanic work that were buried in some Ohio Hopewellian sites. Nearly all such deposits were found at the sites of Hopewell and Mound City (Carr et al., Chapter 13, Table 13.2). This is significant because both of these sites have been argued, through multiple lines of evidence, to have been locations for the burial of a disproportionately high number of leaders compared to commoners (Carr, Chapter 7; Carr et al., Chapter 13). The locations of the deposits in these two particular sites thus link them to the social arena of leadership. Additionally, the large sample of leaders buried at these two sites presumably provides a good view of the spectrum of leaders in Ohio Hopewellian societies.

Tables 13.2 and 13.3 in Chapter 13, by Carr et al., list all the large ceremonial deposits found in Hopewell and Mound City. Large deposits of artifact classes used predominantly by shaman or shaman-like practitioners outnumber those with artifact classes that mainly marked other kinds of leaders or persons of import, on the order of 13 to 4. Also, the classes of deposited artifacts themselves used by shaman or shaman-like practitioners outnumber the classes that marked other kinds of leaders, approximately 11 to 4, depending on one's typology. Finally, the sheer numbers of shamanic or shaman-like equipment found in some of the deposits suggest the heavy influence of shaman and shaman-like practitioners in Ohio Hopewell

Figure 5.6. (A–C) The femur baton carving shown in Figure 5.5. Three nested images within the carving: a deer impersonator with a full rack of antlers, a deer impersonator with newly emerging antlers, and a spoonbill duck impersonator. (D, E) A carved, complex, curvilinear design on human parietal rattle, from the Turner site, Mound 3, Central Altar (Willoughby and Hooton 1922:58), combines a turtle in profile (D) with an imaginary creature looking straight ahead (E).

Table 5.4. Paraphernalia Probably Used in Shaman-like and Non-Shaman-like Leadership Roles and Found in Ohio Hopewell Burial Contexts

Shamanic paraphernalia

War^a and/or hunt divination, or sending or pulling power intrusions

- Points made of quartz, other translucent gems, obsidian, cannel coal, aventurine (“goldstone”)
- Effigy point forms of copper, mica

Other divination

- Quartz crystals, raw or worked
- Mica mirrors, sheets
- Cones and hemispheres, quartz or other stones
- Boatstones (with or without pebbles), quartz or other stones
- Disks, quartz
- Cups, quartz
- Pebbles, quartz, or brightly colored stones
- Marbles
- Copper balls
- Fossils and concretions
- Plummets
- Owl or owl-eye effigies, including pipes, boatstones

Philosopher

- Geometrics of copper, mica, tortoise shell, bone, in forms symbolic of the cosmos and directions—rings, annuli, circles, pinwheel designs, star shapes, four-armed shapes, swastika, grid or bosses on a circle, flying human

Healer

- Small, triangular wands of dark or light color with snake crosshatching on the shaft, topped with a pearl
- Possibly small points made of quartz, other translucent gems, obsidian, cannel coal, micaceous schist (“goldstone”), copper, and mica

Body processor and/or psychopomp

- Awls of bone (not antler)

Public ceremonial leader

- Headplates with animal parts—antler stubs, antler rack, feline paw cutout, feather form, deer ears, or hummingbird wings
- Copper effigy antlers without preserved headplate
- Barracuda jaw scratchers
- Shark teeth possible scratchers
- Ocean shell containers, with or without shell spoons
- Large batons of human or bear femur, antler, horn, or copper rods
- Large baton in shape of a hallucinogenic mushroom (*Amanita muscaria*)
- Big, community (Copena) smoking pipes

Manufacture with “transformative” materials (see Table 5.3)

- Raw copper, mica, galena, meteoric iron, silver, gold, pyrite, graphite, cannel coal, obsidian, micaceous schist, hematite, red ocher, malachite, tortoise shell, pearl
- Flake knives and blades of translucent stones (quartz chalcedony) for working materials

Items used in trancing and ceremony, including musical instruments and painting equipment

- Rattles and tinklers of tortoise shell and copper
 - Small mushroom effigy
 - Effigies of a flying human & pipe and copper geometric
 - Copper nostrils (suggesting breath)
 - Fan effigies (suggesting smudging)
 - Dish of mica schist
 - Cup and pestle
 - Pallet and tablets of stone and tortoise shell
 - Spoon with paint
 - Spatula of tortoise shell
 - Panpipes
-

(Continued)

Table 5.4. (continued)

Flutes
Whistle made of a human radius
Tubes of unknown function (music or sucking)
[Smoking pipes are excluded because they appear to have belonged to a wide range of persons rather than primarily to shaman-like practitioners; see Thomas et al., Chapter 8]
Possible shamanic equipment used for unknown tasks
Tortoise shell pendants, scrolls
Alligator teeth, real; some drilled, some copper effigy
Frog effigy copper cutout
Animal and human effigies of copper and mica—hand, raptor claws, birds, bear
Tortoise shell swan
Human bone carved with animals, creatures, designs
Animal bone carved with designs
Effigy composite creatures and supernaturals
Paraphernalia not clearly shamanic
<i>War^a leadership</i>
Trophy skulls and jaws and effigy fingers, ears, and hands of cannel coal, leather, copper, and mica
Weapons—a mace, effigy atlatls of copper, mica
<i>Positions of leadership or high prestige marked by symbols</i>
Headplates without animal parts
Celts, adzes, and axes of copper, meteoric iron, and cannel coal
Reel-shaped gorgets of copper, shell, calcite
Crescents of mica, copper
Teardrop and other forms of pendants and gorgets of copper and mica
Teaspoon-shaped pendants of shell, cannel coal, and calcite
Geometrics of copper, mica, and shell having forms other than of the cosmos or directions—pear-shaped eyes, G-clefs, keyholes, strips, and flowers
<i>Prestigious clan roles marked largely by metal/mica effigy power parts (see Thomas et al., Chapter 8)</i>
Effigy power parts (jaws, teeth, claws, talons) of raptors, deer, fox, bear, feline, canine, raccoon, elk, beaver, and opossum, made of copper or mica
<i>Sodality membership and/or achievement rather than leadership (see Carr, Chapter 7)</i>
Breastplates of copper, copper and silver, and iron
Earspools of copper, copper and silver, and meteoric iron

^aWhether projectile points and weapons made of fancy materials and supposed trophy jaws, skulls, and effigy human parts indicate warfare is unclear. The forms, themselves, of these artifacts suggest the possibility of persons marked for their leadership or achievement in warfare. However, two facts suggest otherwise. First, the fancy points and weapons, as potential implements of warfare, do not associate in burials or ceremonial deposits with the takings of war—supposed trophy human parts (Table 5.5, below). Second, osteological and forensic study of supposed trophy jaws and skulls (Johnston 2002:105–113) indicates that few, if any, were trophies of war, and instead, indicate the revering of ancestors and probably other cultural practices. The alternative possible functions listed for fancy projectile points and weapons—hunt divination, sending of power intrusions and spiritual-level fighting among individual shaman-like practitioners, or the removing of power intrusions—seem more likely at this time.

society. These numbers, by individual deposit, include, approximately, several hundred obsidian bifaces, more than a bushel of quartz bifaces, 50–100 limpid quartz bifaces, hundreds of mica mirrors, 3,000 mica sheets/mirrors, a 20-foot crescent of mica sheets/mirrors, a 7 × 6.5-foot-area of mica sheets/mirrors, about 200 mica geometric cutouts, 109+ copper geometric cutouts, 80 cones and hemispheres of chlorite and pyrite, 30 to 40 chlorite disks, 30 pounds of galena

in 2-ounce to 3-pound pieces, 25 pounds of galena crystals, 12 galena cubes of 12 to 15 pounds each, 300 pounds of obsidian debitage, 8,000 ovate point preforms of Indiana hornstone, and dozens of quartz crystals. The synchronous burial of the many specimens in any one of these ceremonial deposits implies a large number of shaman or shaman-like practitioners, almost certainly from multiple communities (Carr et al., Chapter 13).

In sum, a great variety of evidence indicates the pervasiveness of shaman and/or shaman-like leadership in Ohio Hopewell societies. The transformative nature and distant sources of the raw materials found in Ohio Hopewellian cemeteries, the metaphorical relationship of these materials to seeing, the perceptual–mental ambiguity of Ohio Hopewellian art, and the wide range and commonness of shamanic and shaman-like artifact classes among the “fancy,” public, elite kinds of artifacts and raw materials interred in Ohio Hopewell mounds each point to the commonness and significance of shamanism and/or shaman-like practices and ideas in Ohio Hopewellian life.²⁰

But Not All Ohio Hopewell Leaders Had Shamanic or Shaman-like Features

The evidence reviewed thus far for shaman and shaman-like practitioners in Ohio Hopewell societies would lead one to conclude the relevance of simply the socioreligious theory of leadership development to them. However, the situation is more complex. Several images of persons of import who have no obvious attributes of a shamanic or shaman-like practitioner, as well as some elite and public artifact classes without shamanic or shaman-like ties, indicate additional religious and/or secular forms of leadership in Ohio Hopewell societies.

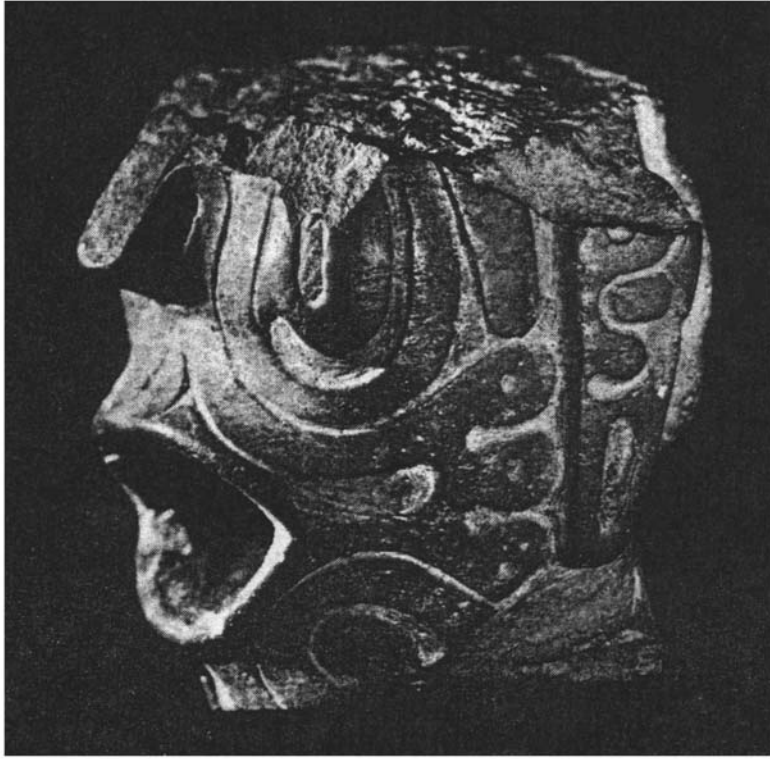
Artistic Images of Leaders without Shamanic or Shaman-like Attributes. Among the depictions of leaders that Ohio Hopewell artists produced are two or three that lack characteristics of shaman or shaman-like practitioners (Table 5.2). Two human heads, one

depicted on an effigy pipe fragment from the Edwin Harness mound (Greber 1983:33) and the second carved on the end of an ivory or shell baton from Hopewell Mound 25 (Moorehead 1922:169), show individuals with curvilinear face decorations—either tattooing, scarification, or face painting (Figures 5.8A and B). The individual from the Hopewell site wears a headdress without animal parts. The broken top of the head of the individual from Edwin Harness makes it impossible to say what kind of headgear he or she may or may not have worn. A complementary terra cotta figurine from the Mann site, Indiana (Carr and Case, Chapter 1, Figure 1.4c; Keller and Carr, Chapter 11, Appendix, Figure 11.1B), has linear, horizontal decorations on his cheeks and forehead and wears no headgear. Interpreting the precise social role(s) of these depicted persons is not possible. However, it is probably relevant that in the Southeast United States at the time of contact, tattooing was a common means, especially among men, for displaying leadership positions of several kinds, earned titles, and exploits of war (Hudson 1976:30, 230, 328–333, 380). Shamanic and shaman-like practitioners are not mentioned as the bearers of tattoos.

A final artwork that perhaps depicts other than a shamanic or shaman-like Ohio Hopewellian elite person is a copper cutout of a human face, possibly with a very tall and forward-flowing headdress (Figure 5.8c; A. Trevelyan, personal communication), which was found at the Hopewell site. Unfortunately, the reconstruction of the pieces into which the cutout had been broken, and whether a headdress is really represented, are unclear.²¹

Figure 5.8. (A) A human head with curvilinear facial decoration, depicted on a pipe fragment, from the Edwin Harness mound (Greber 1983:33). Photo by permission of the Peabody Museum of Archaeology and Ethnology, object catalog no. 84-6-10/35002. (B) A human head with curvilinear facial decoration, carved on the end of an ivory or shell baton, from the Hopewell site, Mound 25 (Moorehead 1922:169). (C) A copper cutout of a human head, possibly with a tall, flowing headdress, approximately as reconstructed by Amelia Trevelyan (personal communication, 1995). Shetrone (1926:214) reconstructed the pieces as a human head on an insect body, which would make the piece an example of shamanic transformation and soul flight. Photographed object by permission of the Ohio Historical Society, Columbus, OH. (D) A human face in profile wearing a forward-flowing headdress, carved in the Meigs Adena tablet (Webb and Baby 1975:86). (E) A human face wearing a mask without animal parts, carved in the Meigs Adena tablet (Webb and Baby 1975:86).

A



B

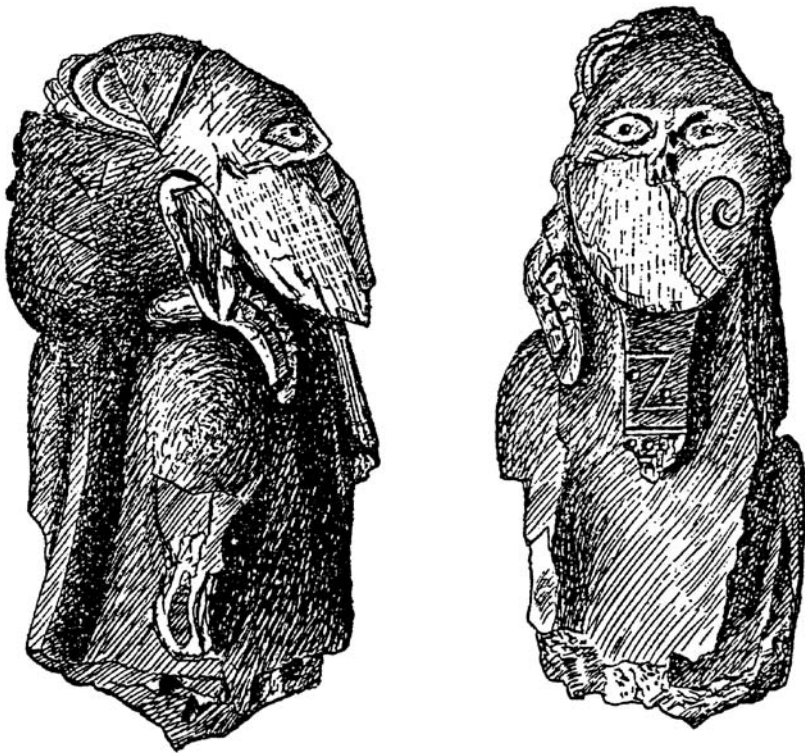




Figure 5.8. (continued)

These Ohio and Mann phase Hopewellian images of important persons lacking shamanic and shaman-like features were preceded by two complementary images carved on the Meigs Adena Tablet. One human face in profile wears a headdress that flows forward (Figure 5.8D), analogous to Trevelyan's reconstruction of the copper cutout, just described. The second human face wears a mask without animal parts (Figure 5.8E).²²

Paraphernalia Lacking Shamanic or Shaman-like Attributes. Important positions in Ohio Hopewell society that were not shamanic or shaman-like in nature are indicated by a variety of fancy, elite, public artifact classes without shamanic features (Table 5.4). Achievement or leadership in war was possibly marked by some trophy skulls (Johnston 2002; Seeman 1988), effigy human trophy bodyparts, a large stone mace, and effigy atlatls.²³ Community-wide leadership without shamanic or shaman-like overtones would have been symbolized naturally by headplates lacking animal parts. The low frequency and almost completely adult male distribution of these items also support this role identification (see Carr, Chapter 7). Clan leadership or prestige may have been marked by copper and mica effigy power parts of clan totems, which are relatively rare, in distinction from ordinary power parts, which are fairly frequent (Thomas et al., Chapter 8). Other leadership roles were probably symbolized by several other infrequent, fancy artifacts, including reel-shaped gorgets, crescents, teardrop and teaspoon-shaped pendants, and geometrics without cosmological referents.

In total, the above-listed roles include at least one that was fundamentally material—secular in its activities and power base—war achievement or leadership. However, later we show that this role commonly was bundled with others that were shaman-like or religious within the same social persons. The other roles listed above may also have been primarily material—secular in nature, but more likely involved a mixture of secular and religious duties, and were founded on a mixture of secular and religious sources of power. A religious vein in these other

roles is suggested by the materials from which their insignia were made. Headplates, some effigy animal power parts, crescents, pendants, noncosmological geometrics, and reel-shaped gorgets were made of copper, mica, and/or calcite. These materials all have intrinsic transformative properties and were obtained from afar, implying a religious worldview inspired by shamanism and the religious practices of making quests or pilgrimages, although not necessarily classic shamanic or shaman-like ideas and quests, themselves. Here, recall from the beginning of this chapter that the religious knowledge, beliefs, and practices of a community having a shaman usually are not synonymous with the shaman's knowledge, beliefs, and practices.

Three other well-known Ohio Hopewellian artifact classes are less clearly or certainly not markers of shamanic or shaman-like leadership. Copper celts were usually buried with few enough persons per large ceremonial center (3%–5%) that they could have represented a community-wide leadership position (Carr, Chapter 7; Case and Carr n.d.).²⁴ However, their form has been related to several possible shamanic meanings (see Bernardini and Carr, Chapter 17). Metallic breastplates and earspools were too widespread among persons to have indicated leadership positions. Their age and sex distributions and other characteristics suggest the marking of sodality membership and/or achievement instead (cf. Carr, Chapter 7). All three of these artifact classes, having been manufactured from copper, have religious overtones.

Large Ceremonial Deposits of Non-Shaman-like, Fancy Artifacts. Compared to shamanic or shaman-like artifact classes, those that do not clearly reference such behavior but imply leadership or social importance occur in many fewer, large ceremonial deposits (4 versus 13). Also, of the artifact classes that occur in large ceremonial deposits and that potentially mark leaders or persons of import, many fewer are non-shaman-like than shamanic or shaman-like (4 versus 11). Finally, the numbers of markers of non-shaman-like social positions of leadership or importance found in most large deposits are meager compared to the numbers of

shamanic or shaman-like artifact classes (Carr et al., Chapter 13, Tables 13.2 and 13.3). The numbers of such non-shaman-like artifacts of a class found in individual ceremonial deposits include 25 calcite reel-shaped gorgets, 17 copper pendants, 8 mica crescents, and, perhaps to be included as non-shaman-like, 66 copper celts (see statistics above for shaman-like artifact classes).

This picture of ceremonial decommissioning and depositing of markers of important social positions and activities, like the evidence from art works and leadership paraphernalia, indicates the clear presence of other than shamanic and shaman-like leaders in Ohio Hopewellian societies, but their more minor frequency than shamanic or shaman-like practitioners. All of the deposited artifact classes have a religious quality, however, referenced by their copper, mica, or calcite materials.

The Question of Priests. Winkelman (1989, 1990:344–347; 1992:69–74) found good evidence crossculturally that the role of the priest arose from that of the classic shaman early on, as societies increased in size and complexity. By a priest, Winkelman means a magico-religious specialist who is a centralized political, legislative, judicial, military, and/or economic authority, serves an entire community primarily through public ritual rather than individual clients in private, and does so without using altered states of consciousness. A priest's power comes from his or her communion with spirits and deities rather than the spiritual essences of animals of nature. Priestly practices are typically well institutionalized and standardized compared to those of shaman because priestly training and practice is normally through formally organized groups of them rather than individually based.

It is possible that some of the above-mentioned artistic images and paraphernalia of elite lacking indications of altered states of consciousness or animal transformation represent priests in Winkelman's terms. However, two crosscultural characteristics of priests that contrast with pervasive characteristics of the Ohio Hopewellian archaeological record would suggest otherwise. First, where priests occur in

the same society as shaman-like practitioners—specifically shaman-healers in Winkelman's terms—the social prestige and social power of the latter are depreciated (Winkelman 1990:334, 338; 1992:56). In contrast, in Ohio Hopewell societies, specialized shaman-like practitioners commonly had ceremonial paraphernalia that were materially flamboyant and difficult to obtain and that attest to their social power. Second, across cultures, priests are almost exclusively the kinds of magicoreligious practitioners who lead ancestor worship rites (Winkelman 1992:70; see also Service 1962:162). Contrary, Ohio Hopewell charnel houses and mound construction show little evidence for ancestor worship in the form of transgenerational, frequently repeated tomb visitation or mound capping (Carr, Chapter 12; Greber 1979a:41; 1979b:28, 32; 1983:89–90; 1997:215; Konigsberg 1985:131). Thus, doubt is cast on the interpretation that classic priests are represented in the Ohio Hopewellian material record by artistically rendered elite and by paraphernalia that lack shaman-like attributes. The endpoint of Winkelman's developmental model, where a strong, public priest or chief-priest and a suite of individual, client-oriented religious practitioners of diminished power have formalized and segregated, seems not to have been reached in Ohio Hopewellian societies. At the same time, detailed, diachronic analysis of patterns of bundling and segregation of Ohio Hopewell leadership roles to be presented below (see Results: Changes in Role Organization over Time) does suggest that, by the end of the Middle Woodland period, practitioners who resembled incipient priests or priest-chiefs in apparently not having employed animal powers, and in having served as public ceremonial leaders for multiple local communities, had formally segregated in their roles from shamanic and shaman-like practitioners.

THE NATURE AND ORGANIZATION OF OHIO HOPEWELL LEADERSHIP AND ITS CHANGE THROUGH TIME

The review of elite Ohio Hopewell material culture presented above has revealed a variety

of kinds of social leaders, including shaman, shaman-like practitioners, secular leaders, and important personae of likely mixed sacred and secular character. Many specific kinds of leadership roles have also been uncovered in the material record (Table 5.4). This section proceeds to explore these and other details of Ohio Hopewell leadership: whether sacred or secular leadership roles predominated, whether leadership roles were centralized in one or a few persons or dispersed more widely among persons, whether sacred or secular roles were combined or segregated, changes in the degree of role segregation over time, the extent to which roles and their bundling were institutionalized, and whether any leadership roles were supralocal (i.e., multicomunity) in their domains of power. These topics collectively address the relevance of Winkelman's (1989, 1990, 1992) model of development of magicoreligious practitioners to the Ohio Hopewell case and, more broadly, the applicability of the material-secular and/or socioreligious theories of leadership development. We will examine these topics first with qualitative data on large-scale patterns in the Adena and Hopewellian material records, and then with a detailed, quantitative analysis.

A Qualitative, Diachronic View of Adena-Hopewell Leadership Development

Winkelman (1989, 1990, 1992) proposed in essence that the multiple, magicoreligious, community leadership-service roles of the classic shaman became segregated over time among different personnel as the size and overall complexity of societies increased from hunter-gatherers through simple horticulturalists. This differentiation and specialization process eventually led to the development of publicly oriented, religious-political leaders who serve multiple communities as priest-chiefs, i.e., the development of supralocal leadership, in contrast to individual client-oriented religious practitioners responsible for local healing, divination, and other specialized spiritual tasks. The model dovetails with Netting's (1972) and Peebles and Kus's (1977) more general socioreligious theory of the ori-

gins of supralocal leadership, which posits that philosophical-religious beliefs can be used by a local leader to gain acceptance by and power over social groups beyond those in which he or she has membership (see *Anthropological Theories on the Nature and Development of Leadership*, above).

Two strong patterns in the Adena and Hopewell material records indicate the applicability of Winkelman's model of role segregation to the Woodland Period Ohio sequence. First, very telling is the increasing variety of distinct shaman-like practitioners that developed over time, from Ohio-area Glacial Kame and Adena societies of the terminal Archaic and Early Woodland periods through Hopewellian societies of the Middle Woodland period. Known kinds of Glacial Kame and Adena animal impersonators are limited to raptorial and nonraptorial birds, canines, and felines (Table 5.2) (Converse 1979; Webb and Baby 1957). In contrast, documented Ohio Hopewellian animal impersonators spanned these species and more—additionally, bear, deer, elk, and composite creatures (Table 5.2; see also Carr 2000c). This diversification through time in the symbolized identities of shaman-like practitioners is what Winkelman's theory would predict, although we do not know specifically what roles the various animal impersonators played or did not play, and how roles were partitioned among them.

The second strong piece of evidence that supports the applicability of Winkelman's model to the Ohio Hopewell case is the large-scale decommissioning of different artifact classes, which were used in different shamanic, shaman-like, or non-shaman-like roles, separate from one another. This pattern is indicated by the contrasting artifact contents of burials and ceremonial caches having many items, and is documented in detail in Chapter 13 by Carr et al. (especially Tables 13.2 and 13.3). Specifically, one finds that the following shamanic, shaman-like, and other religious-to-secular artifact classes were deposited largely or fully separately from each other in different ceremonial deposits and burials: obsidian bifaces, quartz bifaces, mica mirrors, cones and hemispheres, chlorite disks, copper cutouts, mica cutouts, community (Copena)

pipes, galena cubes, quartz crystals, Indiana hornstone disks, obsidian debitage from biface manufacture, copper celts, stone celts, calcite reel-shaped gorgets, mica crescents, and certain copper pendants.

Homogeneous deposits of these segregated artifact classes indicate a social recognition of the distinctness of the roles in which these artifact classes were used and, probably by extension, the separation of these roles among different, socially recognized, institutionalized kinds of leaders and persons of importance. In Chapter 13, the material evidence is interpreted further as indicating ceremonial gatherings of different purposes, social compositions, and participants who gave gifts or decommissioned items for interment.

The support found here for the applicability of Winkelman's model of magicoreligious role segregation to the terminal Archaic through Middle Woodland periods in the Ohio area, in conjunction with the pervasiveness of shamanic or shaman-like elements found in Ohio Hopewellian leadership generally, has a clear implication. They suggest that if institutionalized, supralocal leadership positions were developing in Ohio Hopewell societies, the origins of those positions were primarily shamanic and their bases for power were primarily in the socioreligious realm, following Winkelman's and, more broadly, Netting's and Peebles and Kus's ideas. In addition, the qualitative archaeological evidence explored thus far suggests that the process of leadership development in Ohio Hopewell societies was yet incipient. Many kinds of leaders with materially spectacular paraphernalia and displays filled Ohio Hopewell ceremonial life, rather than one or a few centralized leaders. This stage of development can be documented in finer grain through quantitative analysis of the degrees and patterns of association among artifact classes that marked various leadership roles. To this study we now turn.

A Quantitative Study of the Nature and Organization of Ohio Hopewellian Leadership and Its Development

In order to model how specifically leadership roles were organized in Ohio Hopewellian so-

cieties, a quantitative study was made of the patterns of association and dissociation among 55 artifact classes that marked leadership and other important roles. The units studied for their artifact associations were 767 burials from 60 mounds in 15 large and small Hopewell cemetery-ceremonial centers across Ohio (Figure 5.9; see also Table 5.5, footnote *a*). The data were taken from Case and Carr's (n.d.) computer inventory of burials across Ohio, excluding sites that had only one or no burials with 1 or none of the 55 artifact classes. The analytical approach taken was similar to that of intrasite spatial analysis, where one of the goals is to define "activity sets" and other "depositional sets"—tool and debris classes that typically were deposited together and that represent the remains of past activities or other formation processes (Carr 1984). In our application, the goal was to find kinds of artifact role markers that repeatedly occurred together in burials, indicating a given role or bundle of roles, and those artifact role markers that seldom or never occurred together, indicating role segregation. The patterns found were then used to address whether leadership roles and role bundles in Ohio Hopewell societies were predominately sacred or secular, centralized in one or a few persons or dispersed more widely among persons, whether sacred or secular roles were combined or segregated, the extent to which roles and their bundling were institutionalized, and changes in the degree of role segregation over time.

Two kinds of analyses were performed. The first provided a view of the most fundamental patterns of leadership role organization in Ohio Hopewellian societies by considering all 767 burials from all 15 cemetery-ceremonial centers at once. The large sample helped to ensure statistically significant and stable results. The second analysis focused on leadership role patterning within each of four cemeteries that form a temporal sequence, so that changes in role segregation and centralization could be tracked over time. The four sites are Mound City, Hopewell Mound 25, Seip-Pricer Mound, and Ater Mound. (These same sites are also used in Chapter 13 to explore variations in the size and social composition of mortuary gatherings over time.)

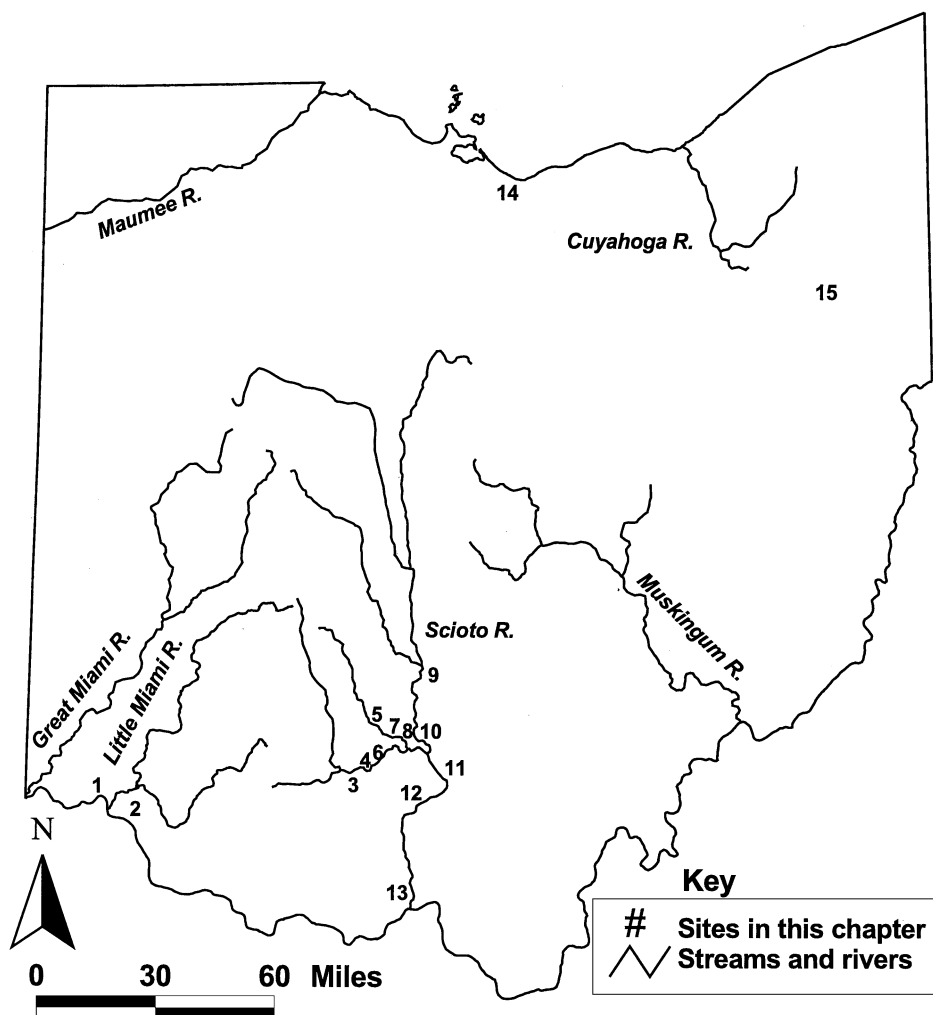


Figure 5.9. Fifteen archaeological sites having burials used in this study: (1) West Mound, (2) Turner, (3) Rockhold, (4) Seip, (5) Ater, (6) Bourneville, (7) Hopewell, (8) Mound City, (9) Circleville, (10) Shilder, (11) Liberty, (12) McKenzie, (13) Tremper, (14) Esch, and (15) North Benton.

Methods

Sets of associated and dissociated artifact classes that marked leadership or other important roles were defined using quantitative grouping procedures that formed sets with socially reasonable, role-organizational properties. These properties include sets that overlapped in the artifact classes (i.e., roles) they contained, sets that were polythetic in organization (see Carr 1984) and occasionally somewhat stringy when the data were structured in this manner, and sets with only one artifact class (i.e., role). The Jaccard similarity coefficient, ordinal-scale multidimensional scal-

ing based on this coefficient, and subsequent refinement of sets by hand sorting the coefficients in order to permit the above properties were used. These methods were employed for both the one, pan-Ohio analysis and the four, site-specific analyses. Details of the analytical procedures are noted below.²⁵

Results: The Pan-Ohio Study

Thirteen roles of leadership or importance, or bundles of such roles, were revealed by the methods described above, using data from all 15 sites. Each role or role bundle is marked by a set of

Table 5.5. Global Organization of Roles at 15 Ohio Hopewell Ceremonial Centers^a

Abbreviation for artifact class ^b	Artifact class
Role 1: Shaman-like public ceremonial leadership	
(median Jaccard = .181; median pairwise co-occurrence = 1 in 2–3 burials)	
Headsham	Headplate, copper with shaman-like-animal referents
Copcutsham	Cutout, copper with shaman-like-cosmos symbolism (shared)
Cutother	Cutout, copper and mica with unknown symbolism
Baton	Baton of bone, antler, or copper (shared)
Ironraw	Iron, raw (shared)
Silverraw	Silver, raw (shared)
Copraw	Copper, raw (shared)
Role Bundle 2: Non-shaman-like (?) and shaman-like public ceremonial leadership	
(median Jaccard = .182; median pairwise co-occurrence = 1 in 2–3 burials)	
Headlead	Headplate, copper, without shaman-like-animal referents
Baton	Baton of bone, antler, or copper (shared)
Celtstone	Celt, stone
Copcutsham	Cutout, copper with shaman-like-cosmos symbolism (shared)
Ironraw	Iron, raw (shared)
Silverraw	Silver, raw (shared)
Copraw	Copper, raw (shared)
Role 3: Public ceremonial leadership	
(median Jaccard = 0.95; median pairwise co-occurrence = 1 in 4–5 burials)	
Conch	Conch shell (shared)
Spoon	Spoon, shell
Role Bundle 4: Sodality achievement and non-shaman-like leadership recruitment	
(median Jaccard = .102; median pairwise co-occurrence = 1 in 4–5 burials)	
Breastpl	Breastplate, copper (shared)
Earspother	Earspool, copper, placed elsewhere than in hand (shared?)
Celtmetal	Celt of copper or iron
Conch	Conch shell (shared)
Role Bundle 5: Sodality and war (?) achievement	
(median Jaccard = .078; median pairwise co-occurrence = 1 in 6 burials)	
Breastpl	Breastplate, copper (shared)
Earsphand	Earspool, copper, placed in the hands (shared?)
Trophyjwsk	Trophy jaw or skull, human
Gemprism	Prismatic blade, gem (shared)
Role Bundle 6: War or hunt divination or sending or pulling power intrusions, other divination, and non-shaman-like(?) public ceremonial leadership	
(median Jaccard = .170; median pair-wise co-occurrence = 1 in 2–3 burials)	
Obsidbiface	Biface, obsidian
Qzgembiface	Biface, quartz or gem
Galena	Galena, raw
Micasheet	Mica sheet
Sharktooth	Shark tooth
Headlead	Headplate, copper, without shaman-like animal referents
Copraw	Copper, raw (shared)
Pyriteraw	Pyrite, raw (from analysis of caches)
Owleffigy	Owl effigy (from analysis of caches) (shared)
Marble	Marble (from analysis of caches) (shared)

(Continued)

Table 5.5. (continued)

Abbreviation for artifact class ^b	Artifact class
Role 7: Divination	
(median Jaccard = .091; median pair-wise co-occurrence = 1 in 5 burials)	
Boatstone	Boatstones, any material
Conehemi	Cones and hemispheres, any material
Barracuda	Barracuda jaw
Crescent	Crescent, copper (shared)
Nosecopper	Nose insert, copper
Tortshorn	Ornament, tortoise shell
Button	Buttons, copper
Qzcup	Cup, quartz (from analysis of caches)
Owleffigy	Owl effigy (from analysis of caches) (shared)
Marble	Marble (from analysis of caches) (shared)
Role 8: Body processor and possibly psychopomp	
(median Jaccard = .113; median pair-wise co-occurrence = 1 in 4 burials)	
Awl	Awl
Pipesmall	Pipe, small
Role 9: Healing, sucking energies, and possibly sending energies	
(median Jaccard = .200; median pair-wise co-occurrence = 1 in 2 burials)	
Tubefuncunkn	Tube, function unknown
Alligtooth	Alligator tooth
Role 10: Healing and sending and/or removing power intrusions	
(median Jaccard = .060; median pairwise co-occurrence = 1 in 7–8 burials)	
Fancypoint	Fancy points, copper, mica, or schist
Panpipe	Panpipe
Crescent	Crescent (shared)
Tortraw	Tortoise shell, raw
Plummet	Plummet (from analysis of caches)
Role Bundle 11: Shaman-like leadership: Philosophy, divination, and war achievement(?)	
(median Jaccard = .100; median pairwise co-occurrence = 1 in 4–5 burials)	
Copcutsham	Cutout, copper with shaman-like-cosmos symbolism (shared)
Micacutsham	Cutout, mica with shaman-like-cosmos symbolism
Conehemi	Cones and hemispheres, any materials (shared)
Trophy	Trophy body parts, effigy human finger or hand, of mica, copper, or stone
Role 12: Unknown kind	
(median Jaccard = .125; median pairwise co-occurrence = 1 in 3–4 burials)	
Painttab	Painting equipment (cup, pestle, ocher, grinder) and/or tablet of stone
Fancypot	Pottery, fancy surface treatment and decoration
Role 13: Divination(?)	
(median Jaccard = .167; median pairwise co-occurrence = 1 in 2–3 burials)	
Copball	Balls, copper.
Gemprism	Prismatic blade, gem (shared)
Roles 14–21: Independently distributed artifact classes	
Reelgorget	Reel-shaped gorgets
Flute	Flute.

(Continued)

Table 5.5. (continued)

Abbreviation for artifact class ^b	Artifact class
Qzcolpebbles	Pebbles, quartz and colored
Fossconcret	Fossils and concretions
Othertranslpt	Points, translucent but not quartz or gem
Obsidprism	Prismatic blade, obsidian
Obsidraw	Obsidian, raw
Fan	Fan of feathers, effigy of copper or stone

^aThe 15 ceremonial centers and 60 of their mounds upon which the analysis is based are as follows: Ater; Bourneville; Circleville; Esch Mounds 1 and 2; Hopewell Mounds 2, 3, 4, 7, 8, 11, 16, 18, 19, 20, 23, 24, 25, 26, 27, 29, 30; Liberty's Edwin Harness mound and Russell Brown Mounds 1, 2, and 3; McKenzie Mounds A, B, and C; Mound City Mounds 1, 2, 3, 7, 8, 9, 10, 12, 13, 15, 18, 20, 23, 24; North Benton; Rockhold Mounds 1, 2, 3; Seip-Pricer; Schilder; Tremper; Turner Mounds 1, 2, 3, 11, 12, Enclosure, Turner-Marriot; and West.

^bItems in this column are the abbreviated names of the artifact classes listed here. The abbreviations are used in Table 5.7.

artifact classes that were associated with each other in burials and were segregated from artifact classes in other sets. In addition, eight roles each marked by one artifact class that was fully independent of any others were found (Table 5.5). The artifact classes that co-occur and form sets often pertain functionally to one arena of social leadership, such as divination or healing, giving credibility to the derived role sets—they make cultural sense.²⁶ From Table 5.5, as well as from the Jaccard coefficients calculated between artifact classes and more detailed studies of the burials themselves, five questions about the organization of leadership roles in Ohio Hopewell societies are addressed. The answers to the questions determine the relevance of Winkelman's, Netting's, and Peeble and Kus's theories of leadership development to Ohio Hopewell societies.

(1) *Were Individual Leadership Roles and Role Bundles in Ohio Hopewell Societies Predominantly Sacred or Secular in Nature?* The fancy artifact classes that indicate roles of leadership or importance and that are found in burials in the 15 cemetery-ceremonial sites examined (Table 5.4) are clearly weighted in number toward sacred over secular social positions. Of the 62 artifact classes listed, 42 are assessed to definitely have been shamanic or shaman-like paraphernalia. An additional 8 classes may have had shamanic or shaman-like functions, and only 12 do not have ethnographic, shamanic or shaman-like analogs. Of these 12 artifact classes, it is unknown how many were nevertheless sacred

in nature and how many were fundamentally secular.

These quantitative data suggest the prevalence of shamanic and/or shaman-like practitioners in Ohio Hopewell societies and the predominance of sacred bases to power and leadership, in line with social-religious theories of supralocal leadership development. However, the statistics could be misleading, because they count artifact classes rather than social roles, and social roles may vary widely in the number of artifact classes they involve, giving more weight to some roles of a sacred or secular kind than to others. This potential source of bias is overcome in Table 5.5, where artifact classes have been grouped into roles of leadership or importance and counts of roles of different kinds can be made.

The 21 roles and role bundles in Table 5.5 can be divided into three general kinds, according to the artifact classes that define them. Shaman-like roles indicated by their paraphernalia and symbols can be distinguished as a unit from other sacred roles indicated by artifact classes that are not obviously shaman-like in nature and that may have referenced the religious beliefs and lives of a community, following Eliade's (1972:7–8, 12–13) distinction between shaman-specific and community-wide religious practices. Further, these shaman-like and sacred roles can be separated from secular ones, which are indicated by artifact classes that have no apparent religious overtones in their functions or in the materials from which they are made. Using this

tripartite classification, the 21 roles in Table 5.5 break down more specifically into 11 that are fully or largely shaman-like, 2 that are fully or largely of another sacred nature, 4 that are either shaman-like or otherwise sacred, 1 that is equally both, and only 3 that are secular combined with shaman-like or other sacred roles.²⁷ Thus, on a role basis as well as an artifact class basis, it strongly appears that positions of leadership and importance in Ohio Hopewell societies were primarily shaman-like, or more generally sacred, in their foundations, largely following social-religious theories of the rise of leadership positions.

(2) *Were Leadership Roles in Ohio Hopewell Societies Centralized, Falling Together in the Hands of One or a Few Persons, or Segregated from Each Other and Filled by Many Different Persons?* Artifact classes marking roles of leadership or other importance divide into 21 different, dissociated sets of single or multiple classes, rather than one or a few sets (Table 5.5). This pattern clearly shows that the roles of leadership and importance were largely segregated, having been filled by many different persons. Roles concerned with leading public ceremonies, war or hunt divination, other divination, body processing, healing, war achievement, sodality achievement, and a number of unknown kinds of roles marked by fancy artifact classes of uncertain function were largely distinguished from each other in Ohio Hopewell social-ceremonial life. Because the segregated roles include a large number of shaman-like ones, the segregated pattern suggests the applicability of Winkelman's model of development of magicoreligious practitioners to Ohio Hopewell societies.

At the same time, some roles that are discernible by the nature of the artifacts used in them nonetheless were found to associate. These instances of role bundling include Role Bundles 2, 4, 5, 6, and 11 (Table 5.5). The role bundles join shaman-like public ceremonial leadership with possibly non-shaman-like public ceremonial leadership; sodality achievement with a non-shaman-like form of leadership and with possible war achievement; and generalized divination, war or hunt divination, non-shaman-like public

leadership, and/or the shaman-like philosopher in various combinations. These associations can best be characterized as minor arenas of fluid organization and combination of some important roles within a broader milieu of role segregation.

The highly segregated nature of roles of leadership and importance in Ohio Hopewell societies is also indicated by the low percentage of burials that contained artifact classes marking several distinguishable roles compared to the percentage that contained artifact classes indicating only one or two roles. Of 272 Ohio Hopewell individuals that had at least some artifacts marking leadership or importance, and for which the artifacts were clearly associated with one individual rather than shared ambiguously among jointly buried individuals, 64% had only one role as defined in Table 5.5, and 91% had only one or two roles. No individual had more than four roles (Appendix 5.1).

(3) *Were Leadership Roles with Shaman-like, Other Sacred, and Secular Bases of Power Combined Together or Segregated from Each Other in Ohio Hopewell Societies?* Although the roles of leadership and importance in Ohio Hopewell societies were strongly segregated (see Question 2, above), shaman-like and other sacred roles were not separated systematically from the secular ones known. Artifact classes having a secular character, such as war trophies, occur together with shamanic/shaman-like artifact classes and other sacred artifact classes, such as copper and mica cosmological cutouts, cones and hemispheres for divining, and gem prismatic blades, in Role Bundles 5 and 11. In Role 2, headplates lacking shamanic/shaman-like animal referents and stone celts, at least the latter of which was secular in nature, are found together with shamanic/shaman-like and sacred copper cosmological cutouts and raw shiny metals. In Role Bundle 6, again headplates that lack shamanic/shaman-like animal referents and that perhaps were secular in nature co-occur with a variety of shamanic/shaman-like divining paraphernalia. None of the roles or role bundles having multiple artifact classes are comprised solely of secular ones (Table 5.5). In the roles and

role bundles having secular artifact classes, these classes are always in the minority.

Together, these patterns suggest that the core basis of power behind most positions of leadership and importance in Ohio Hopewell societies was religious rather than political-economic in nature, in line with Netting's model of leadership development. Additionally, the artifact associations in Role Bundles 2 and 6 indicate that the process of decentralization of shamanic magicoreligious practitioner roles and reorganization of public leadership roles, as modeled by Winkelman, had proceeded to the point where certain kinds of segregated public leadership positions perhaps had both secular and shaman-like elements, moving in the direction of but not yet fulfilling the chief-priest role bundle, which arose later in the Woodlands. Both Role Bundles 2 and 6 recall Winkelman's (1989:325–333; 1992:39–42) characterization of the Creek Chief Priest and Keeper of the Fire as a transitional mix between the classic shaman and chief-priests. The Creek leader propitiated gods and was selected politically like a chief-priest, but also had to be a shaman and was trained extensively in altered states of consciousness and shamanic activities, including healing and divination. Finally, the association found between war trophies and the trappings of shaman-like leadership in Role Bundle 11, and the association found between possible war trophies and markers of sodality achievement in Role 5, suggests that success in warfare by itself was not a primary route to the development of supralocal leadership in Ohio Hopewell societies, in contrast to Flannery's (1972) model of leadership development.

(4) Were the Social Tasks Comprising Roles and Role Bundles in Ohio Hopewell Societies Institutionalized, Defining Formal Offices, or Were Tasks and Roles Combined More Fluidly, Depending on Individual Talents and/or Historical Circumstances? Whether a role has been institutionalized can be measured archaeologically in two ways. First is by examining whether the multiple kinds of paraphernalia, that is, artifact classes, that were used to accomplish various social tasks involved in the role form a consistent

set across multiple examples of practitioners who held the role at one point in time. For example, did all policemen in a society have a badge, a gun, a uniform of one kind, and a radio dispatcher? The second way to evaluate whether a role has been institutionalized is to determine whether the multiple kinds of paraphernalia used in the role are consistent across multiple example practitioners over time. An institutionalized role, myth, dance, art form, or other cultural element has continuity over generations, by definition. For example, did a line of kings of a society all have a crown, a scepter, and a purple robe?

In this study, we combine these two measures of whether a role is institutionalized by calculating, for each role, the average degree of association among artifact classes used in it, within and across multiple Ohio Hopewell communities that spanned multiple generations. We use multiple communities in order to secure a large enough sample of burials indicating each role to estimate role consistency, although this does involve the assumption that roles, where institutionalized, were defined similarly across communities. The roles examined are numbers 1 through 13 in Table 5.5, which each involved multiple artifact classes. The average degree of association among artifact classes a role was estimated with the median of all Jaccard coefficients among all pairs of artifact classes of the role. The median Jaccard coefficient was then transformed algebraically into a more interpretable "median pairwise co-occurrence" among artifact classes of the role—that is, out of a stated number of burials having one of the artifact classes of the role, how many had a second artifact class of the role, averaged over all pairs of artifact classes of the role. These statistics are reported in Table 5.5. For example, for Role 1, with a median Jaccard coefficient of 0.181, one burial of every two or three that had one of the artifact classes of the role had another of the role, averaged over all pairs of artifact classes of Role 1.

The measures of median pairwise co-occurrence of artifact classes for the 13 roles with multiple artifact classes indicate on face value that the roles vary in the degrees to which they were institutionalized from apparently moderately strong (e.g., Roles 1, 2, 6, 9) to apparently

weak (e.g., Roles 3, 4, 5, 7, and 10). In the strongest case (Role 9), only half the burials with one artifact class of the role had a given second artifact class of the role, considering and averaging all class pairs. In the weakest case (Role 10), only one in seven or eight burials with one artifact class of the role had a given second artifact class of the role, considering all class pairs. The median situation for the 13 roles or role bundles was for one in four burials with a given artifact class of a role to have a second given artifact class of the role, considering all class pairs.

In actuality, the degree to which the roles were institutionalized is probably higher than suggested by the face value of these statistics, for two reasons. First, the analysis spans multiple societies that were located in different valleys and drainage basins and that may have symbolized a given role with somewhat different kinds of paraphernalia, creating a polythetic set of artifact classes for that role. These differences in role content from site to site would have the effect of decreasing the Jaccard measure of association among artifact classes of that role. Indeed, the Jaccard coefficients calculated within sites for artifact classes of a role are generally higher than—approximately double—the coefficients calculated across all 15 sites in the study. Second, the cemeteries that the analysis considers differ in age and the degree of segregation of roles (see Table 5.7). Again, these differences in the organization of roles and their artifact classes would decrease the Jaccard measures. Third, the analysis does not correct for instances where only part of a role practitioner's paraphernalia might have been buried with him or her, for any number of cultural reasons, but especially because the paraphernalia was passed on from one practitioner to the next rather than buried.

The moderate degree to which roles of leadership and importance appear to have been institutionalized in Ohio Hopewell societies accords well with the view that these societies were in transition sociopolitically, along the lines suggested by Winkelman's model of development of religious leaders. From the terminal Archaic through the Middle Woodland, the multiple roles of the classic shaman were increasingly segregated among multiple, distinct kinds of leaders

and practitioners with shaman-like sacred and sacred-secular qualities, the nature of each of which was still, in the Middle Woodland, being actively redefined and not fully institutionalized. The end point of Winkelman's developmental model—the strong, public chief-priest and a suite of individual client-oriented religious practitioners of lesser power, each well defined in its niche—had not yet been reached. The specifics of the viewpoint that Ohio Hopewell societies were in transition sociopolitically we fill out in the diachronic study that follows.

(5) *Were Any Leadership Roles in Ohio Hopewell Societies Supralocal, That Is, Multi-community, in Their Expanse of Power?* To answer this question requires an identification of the communities to which individuals buried in a region once belonged and an evaluation of the distribution of leadership roles among communities. Leadership roles that had only a local domain of power should be found among the burials of every community, if the roles were essential to community life. In contrast, supralocal leadership roles should occur in the burials of only one or a small proportion of neighboring communities, again, if the roles were essential.

A study of this level of detail is made possible by Carr's (Chapter 7) cultural-historical reconstruction of communities for the central Scioto drainage during the Middle Woodland period. Carr argued that the central Scioto was occupied by three Hopewell communities in the later Middle Woodland. One community was centered in the North Fork of Paint Creek valley, one in the main valley of Paint Creek, and one in the adjacent section the main Scioto valley. These communities buried some of their dead together under each of three large mounds, one in each community, as one means for building and maintaining an alliance among them. The three mounds in the three drainages are, respectively, Mound 25 in the Hopewell earthwork, the Pricer mound in the Seip Earthwork, and the Edwin Harness mound in the Liberty earthwork. Under each of these mounds, the different communities buried their dead in different spatial clusters of burials, which corresponded to three distinct rooms of a single charnel house (Pricer, Harness)

Table 5.6. Spatial Distribution of Roles of Leadership and Importance Among Burial Clusters Under Three Scioto Hopewell Mounds, for Those Roles Isolated in a Single Cluster within a Site

Burial cluster	Role number	Description of role
Hopewell Mound 25		
E	15	Unknown: flute
E	16	Divination
C	10	Healing, and sending and/or removing power intrusions
C	13	Divination(?)
C	18	Healing, and sending and/or removing energies?
Seip-Pricer mound		
Middle	1	Shaman-like public ceremonial leadership
West	2	Nonshamanic-like and shaman-like public ceremonial leadership
West	9	Healing, sucking energies, and possibly sending energies
East	10	Healing, and sending and/or removing energies
Ater mound		
North	1	Shaman-like public ceremonial leadership
North	2	Nonshamanic-like and shaman-like public ceremonial leadership
North	3	Public ceremonial leadership
North	7	Divination
North	16	Divination
North	18	Healing, and sending and/or removing energies(?)
South	6	War or hunt divination or sending or pulling power intrusions, other divination, and non-shaman-like public ceremonial leadership

or to different charnel structures (Hopewell). Later in time, a two-community remnant of this tripartite alliance was represented at the Ater mound in the North Fork of Paint Creek valley by two spatial clusters of burials indicating a two-room charnel house.

If an essential role of leadership or importance in the communities of this region had power only locally, within communities, then markers of that role should occur in each separate cluster of burials at these sites. If an essential role had power supralocally, across several communities, then its markers should occur in the burials of only one cluster, or at least in only some of them. Supralocal power would be further supported in such cases if the role is found to be spatially restricted within each of two or more sites of differing ages, indicating time depth to its supralocal quality and, thus, the institutionalizing of its supralocal quality.

Table 5.6 lists those social roles having markers that were isolated in a single cluster of burials under the Hopewell 25, Pricer, or Ater

mound. A full enumeration of the spatial distributions of markers of all roles among the burial clusters under these mounds is given in Appendix 5.2. Of the various roles found in only one community's cluster of burials, two are likely to have been essential in having involved public ceremonial leadership, and would be reasonable candidates for roles with supralocal domains of power. These are: (1) Role 2, identified as a combination of nonshaman-like and shaman-like public ceremonial leadership, and marked in part by headplates without animal referents and stone celts; and (2) Role 3, a kind of ceremonial leadership apparently responsible for serving important drink with conch shell dippers and shell spoons. Role 2 occurs isolated within the west burial cluster in the Seip-Pricer mound, late in the Middle Woodland period, and isolated within the north burial cluster in the Ater mound, yet later. Role 3 occurs isolated within the north burial cluster at Ater.

Two additional roles of leadership or importance, Roles 16 and 18, each are represented by

artifacts found in one burial cluster in Hopewell Mound 25 and one in Ater mound. These roles involved divination and healing and would have filled critical community needs. They also appear to have been institutionalized roles, having had continuity over the several centuries of time represented by the two mounds. However, whether the roles were supralocal in their domains of power is unclear. The artifacts marking these roles—quartz and colored pebbles and translucent projectile points—are small and would not have commanded the attention of a multicompany audience, as would have headgear and conch dippers. It is possible that Roles 16 and 18 occurred in single burial clusters at Hopewell and Ater simply because they were relatively rare and were one of a series of alternative, functionally equivalent forms of divination (Roles 6, 7, 11, 13?, 17) and healing (Roles 9, 10), which were marked by different kinds of artifacts and, taken together, were present in each local community. Winkelman's cross-cultural model of the segregation of shamanic roles would predict that the individual, client-oriented roles of diviner and healer would not have been those that grew to supralocal influence in the Hopewellian case, while those involving public ceremonial leadership would have.

Roles 1, 6, 7, 9, 10, 13, and 15, although they are each represented by artifacts found in only one burial cluster in a mound (Table 5.6), are not strong candidates for roles with supralocal power. These roles are represented by artifact classes that are small and could not have served as a focus of attention in a large, multi-community gathering, and/or the roles occur at only one site and thus do seem to have been strongly institutionalized over time. Also, Roles 7, 9, 10, and perhaps 13 pertain to healing or divination for other than warfare or the hunt, which would more likely have evolved into individual client-oriented roles than supralocal leadership roles, according to Winkelman's model.²⁸

Summary. The socioreligious theory of the rise of supralocal leadership, as put forth by Netting, and Peebles and Kus, and the more specific rendition of it offered by Winkelman, appear to describe well much of the nature and

organization of roles of leadership and importance in Ohio Hopewell societies. Such roles were numerous, with 21 identifiable archaeologically, specialized in their tasks, and, for the most part, well segregated. The great majority of these roles—18—were shaman-like and/or of another sacred nature. Only three roles combined apparently secular with shaman-like or other sacred tasks, and the secular tasks comprised the minority of each of the three roles. No role of leadership or importance was fully secular. The predominance of shaman-like and other sacred roles over ones with a secular component points to the religious, rather than political-economic, core basis of power behind most positions of leadership and importance in Ohio Hopewell societies, in line with primarily Netting's model of supralocal leadership development. The great diversity of these religious roles of leadership and importance, their largely strong segregation from one another, and the moderate degree to which they probably were institutionalized all indicate the process of decentralization of shamanic magicoreligious practitioner roles modeled by Winkelman, and suggest that this process was still in progress during the Middle Woodland. Ohio Hopewell societies were in transition sociopolitically, leadership roles were actively being redefined, and a dichotomy between a strong public chief-priest and a suite of individual client-oriented religious practitioners of lesser power had not yet firmed up, although the societies were moving in that direction. A couple roles concerned with public ceremonial leadership appear to have attained supralocal, multicompany influence. There is very little evidence that leadership and the development of leadership roles in Ohio Hopewell societies hinged on success in warfare, in contrast to Flannery's theory of promotion of war leaders or other critical managers to chiefly positions. However, achievement in warfare was an element to success in a few leadership roles. This case study illustrates that a single cultural-historical tradition may combine, to some degree, both socioreligious and material-secular processes of leadership development.

The sociological interpretations resulting from this analysis are lent credibility not only

by the good agreement between the above, broad patterns in the empirical Hopewellian record and theories of leadership development, but also by the specific artifact classes that were found to associate and that complement each other in their ethnographically known functions.

Results: Change in Role Organization over Time in the Scioto Drainage

The second quantitative analysis of Ohio Hopewellian leadership that we performed focused on changes through time in one restricted area—the central Scioto drainage, around Chillicothe, Ohio. The methods applied above to 15 Ohio sites together, in order to reveal repeatedly co-occurring artifact classes that indicated roles of leadership and importance, were repeated for each of four individual cemeteries that form a sequence through time: Mound City, Hopewell Mound 25, Seip–Pricer mound, and Ater mound (Table 5.7). This sequence is known through radiocarbon dates and seriations of artifact classes, mortuary architecture, mortuary practices, and earthwork forms and sizes (DeBoer's 1997; Prufer 1961a:702–714, 1964:44–52; Ruhl Chapter 19, 1996; Ruhl and Seeman 1998; see Carr, Chapter 7, for a summary of these). The first two cemeteries are comparable in function, having been places where a high proportion of leaders and other important persons were buried. The second two cemeteries included a wider social spectrum, but still show some bias toward elite persons (Carr, Chapter 7). Comparisons of the nature and organization of key social roles over time are thus strictly proper only between Mound City and Hopewell Mound 25, and between Seip–Pricer mound and Ater mound.

Tables 5.7 and 5.8 compare the roles and role bundles defined for Mound City, Hopewell Mound 25, Seip–Pricer mound, and Ater mound to one another. The data available for defining roles at each site appear to be adequate for this purpose, because the specific roles defined at the four sites are similar in composition to those defined globally and with stability for all 15 sites,

and because the site-specific roles are similar enough to each other to be equated to each other (Table 5.7). For example, Roles 1 and 2, as defined globally, can be found with some or all of their artifact classes in each of the four sites. The site-specific Roles 1 and 2 share enough artifact classes in common to be equated, although in some cases these roles are embedded in larger constellations of roles that bundled together.

(1) Were the Social Tasks Comprising Roles and Role Bundles in Ohio Hopewell Societies Institutionalized, Defining Formal Offices with Longevity, or Were Tasks and Roles Combined in Varying Ways over the Generations?. The temporal sequence of roles and role bundles defined in Table 5.7 allows us to revisit the question of whether roles were institutionalized, this time by examining specifically whether the multiple kinds of paraphernalia used in a role were consistent across many generations. In very few cases do roles show compositional consistency across multiple sites spanning two or three centuries, and then, never more than three sites. Headplates without animal referents and stone celts associate to form Role 2 at both Hopewell Mound 25 and Seip–Pricer. Mica sheets and galena associate and define Role 6 in Mound City, Hopewell Mound 25, and Seip–Pricer mound. Boatstones and cones/hemispheres associate, and copper noses and buttons associate, to form Role 7 in Hopewell Mound 25 and Seip–Pricer. Awls and sharks teeth occur together and form Role 8 in Mound City and Hopewell Mound 25, while awls and platform pipes do the same at Seip–Pricer and Ater. Thus, for most roles, the moderate consistency that was found in their artifact class compositions globally, above, over 15 sites, derives from within-site and within-mound patterns of relatively short duration—several decades to up to a century or so. This finding suggests, like the global study above, that Ohio Hopewell societies were actively in transition in their sociopolitical organization and in defining roles of leadership and importance. Such roles were only mildly institutionalized.

Table 5.7. Presence and Organization of Roles through Time at Four Ohio Hopewell Ceremonial Centers^a

Mound City	Hopewell Mound 25	Seip–Pricer mound	Ater mound
Role 1: Shamanic public ceremonial leader	Role 1 and 3 combined: Shaman-like and undefined public ceremonial leader	Role 1 and 12 combined: Shaman-like public ceremonial leader and unknown role	Role 1: Shaman-like public ceremonial leader
Headsham Cutother	Headsham Copcusham Baton Celtstone Celtmetal Conch Ironraw Silverraw Coprav	Cutother Painttab	Cutother
Role 2, 4, 6, 8, 9, 11: Combined: non-shaman-like (?) public ceremonial leader, sodality and war (?) achievement, war or hunt divination or sending or pulling power intrusions, body processor/psychopomp, healer	Role 2: Non-shaman-like (?) public ceremonial leader	Role 2: Non-shaman-like (?) public ceremonial leader	Role 2: Non-shaman-like (?) ceremonial leader
Headlead Breastplate Earspool Obsidiface Qzgembiface Sharktooth Micashheet Galena Coprav Button Awl Smallpipe Alligator Copcusham Trophy Celtstone	Headlead Baton Celtstone Celtmetal Copcusham Ironraw Silverraw Coprav	Headlead Celtstone Tortshorn	Headlead

(Continued)

Table 5.7. (continued)

Mound City	Hopewell Mound 25	Seip–Pricer mound	Ater mound
<p>Roles 3, 4, 17: Ceremonial leadership, non-shaman-like leadership, divination</p> <p>Conch Celtmetal Fossconcret</p>	<p>Role 3: Ceremonial leadership</p> <p>Combined with Role 1, above</p>	<p>Role 3: Ceremonial leadership</p> <p>Not present</p>	<p>Role 3: Ceremonial leadership</p> <p>Conch Spoon</p>
<p>Role 4: Sodality achievement and ceremonial leadership</p> <p>Combined with Roles 3 and 17, above</p>	<p>Role 4: Sodality achievement and ceremonial leadership</p> <p>Earother Conch</p>	<p>Role 4: Sodality achievement and non-shaman-like leadership</p> <p>Breastplate Earother Celtmetal Conch</p>	<p>Role 4 and 10: Sodality achievement, non-shaman-like leadership, and healing</p> <p>Breastplate Earother Earhand Celtmetal Fancypoint Panpipe Crescent Torraw</p>
<p>Role 5: Sodality and war (?) achievement</p> <p>Not present</p>	<p>Role 5: war (?) achievement</p> <p>Trophyjwsk Cutother</p>	<p>Role 5: Sodality and war (?) achievement</p> <p>Not present</p>	<p>Role 5: Sodality and war (?) achievement</p> <p>Breastplate Earhand Earother Trophyjwsk</p>
<p>Role 6: War or hunt divination or sending or pulling power intrusions, other divination, and non-shaman-like (?) public ceremonial leadership</p> <p>Combined with Roles 2, 4, 8, 9, 11, above</p>	<p>Role 6: War or hunt divination or sending or pulling power intrusions, other divination, and non-shaman-like (?) public ceremonial leadership</p> <p>Galena Micasheet Pipesmall Qzgembiface Cutother Pipesmall</p>	<p>Role 6: War or hunt divination or sending or pulling power intrusions, other divination, and non-shaman-like (?) public ceremonial leadership</p> <p>Obsidian biface Button Galena Micasheet Celtmetal Sharktooth</p>	<p>Role 6: War or hunt divination or sending or pulling power intrusions, other divination, and non-shaman-like (?) public ceremonial leadership</p> <p>Not present</p>
<p>Role 7: Divination</p> <p>Not present</p>	<p>Roles 7, 10: Divination, healing</p> <p>Boatstone Conehemi Barracuda Tortishorn Noscopper Button Panpipe Fancypoint</p>	<p>Role 7: Divination</p> <p>Boatstone Conehemi Crescent Baton Boatstone Noscopper Button Tortishorn</p>	<p>Role 7: Divination</p> <p>Not present</p>

Table 5.7. (continued)

Mound City	Hopewell Mound 25	Seip–Pricer mound	Ater mound
Role 8: Body processor/ psychopomp Combined with Roles 2, 4, 6, 9, 11 above	Role 8: Body processor/ psychopomp Awl Sharktooth	Role 8: Body processor/ psychopomp Awl Pipesmall Painttab	Role 8: Body processor/ psychopomp Awl Pipesmall
Role 9: Healing Tubefuncunkn Segregated from alligtooth, above	Role 9: Healing Not present	Role 9: Healing Tubefuncunkn Alligtooth	Role 9: Healing Not present
Role 10: Healing Not present	Role 10: Healing Combined with Role 7, above	Role 10: Healing Not present	Role 10: Healing Combined with Role 4, above
Role 11: Shaman-like leadership, philosophy, and divination, and war achievement (?) Combined with Roles 2, 4, 6, 8, 9, above	Role 11: Shaman-like leadership, philosophy, and divination, and war achievement (?) Micacutsham Trophy	Role 11: Shaman-like leadership, philosophy, and divination, and war achievement (?) Micacutsham Copcutsham	Role 11: Shaman-like leadership, philosophy, and divination, and war achievement (?) Not present
Role 12: Unknown Fancypot	Role 12: Unknown Not present	Role 12: Unknown Fancypot Micasheet	Role 12: Unknown Not present
Role 13: Divination (?) Not present	Role 13: Divination (?) Copball	Role 13: Divination (?) Not present	Role 13: Divination (?) Not present
Roles 14–21: Independently distributed artifact classes Fossconcret	Roles 14–21: Independently distributed artifact classes Flute Qzcolpebbles Othertranslpt Tortshorn	Roles 14–21: Independently distributed artifact classes Not present	Roles 14–21: Independently distributed artifact classes Qzcolpebbles Othertranslpt

^a See text for a discussion of the integrity of this chronological sequence of sites, their functional comparability, and relevant citations.

Table 5.8. Segregation of Roles of Leadership and Importance over Time

Globally defined role in Table 5.5	Time 1: Mound City	Time 2: Hopewell Mound 25	Time 3: Seip–Pricer mound	Time 4: Ater mound
1	+	With Role 3 as one bundle	With Role 12 as one bundle	+
2	With Roles 4, 6, 8, 9, 11, in two parts	+	+	+
3	With Roles 4 & 17 as one bundle	With Role 1 as one bundle	–	+
4	With Roles 3 & 17 as one bundle	+	+	With Role 10 as one bundle
5	–	+	–	+
6	With Roles 2, 4, 8, 9, 11, in two parts	In two parts	In three parts	–
7	–	With Role 10 in four parts	In two parts	–
8	With Roles 2, 4, 6, 9, 11, in two parts	+	+	In two parts
9	With Roles 2, 4, 6, 8, 11, in two parts	–	+	–
10	–	With Role 7 in four parts	–	With Role 4 as one bundle
11	With Roles 2, 4, 6, 8, 9, in two parts	+	In two parts	–
12	+	–	+	–
13	–	+	–	–
14	–	–	–	–
15	–	+	–	–
16	–	+	–	+
17	+	–	–	–
18	–	+	–	+
19	–	–	–	–
20	–	–	–	–
21	–	–	–	–
Compared to globally defined sets	9 roles merged, 1 role in 2 parts	4 roles merged, 3 roles in 6 parts	2 roles merged, 3 roles in 7 parts	2 roles merged, 1 role in 2 parts

More detailed information on role diversity among sites and over time is given in Appendices 5.2 and 5.3. There, the percentages of burials with markers of each of the 21 roles defined here, for each of the 15 analyzed sites, are tabulated.

(2) *Over the Middle Woodland Period, Did Shaman-like Leadership Roles Become More Segregated, in Line with Winkelman's (1989, 1990, 1992) Model of Development of Magico Religious Practitioners?* The temporal patterning in role organization shown in Tables 5.6 and 5.7 conforms to the expectation of Winkelman's model, in which shamanic roles initially bundled together and played out by singular per-

sons become segregated over time. The expectation is expressed in two ways. First, in the earliest of the four sites, Mound City, roles that were defined as separate globally across Ohio are instead often combined into larger bundles. Examples are Roles 2, 4, 6, 8, 9, and 11, which form two bundles, and Roles 3, 4, and 17, which form one bundle. In later sites, these roles become segregated, having been performed by different individuals. Second, in the later cemeteries of Hopewell Mound 25, Seip–Pricer, and Ater, roles that were defined globally across Ohio become partitioned into multiple, yet smaller roles with fewer artifacts. For example, globally defined Role 6, concerned primarily with war or

hunt divination and other divination, is found fully integrated at Mound City, but is partitioned into two quantitatively distinct roles at Hopewell Mound 25 and three quantitatively distinct roles at Seip–Pricer. These two kinds of trends over time are summarized at the bottom of Table 5.8. Through time, the number of globally defined roles that are combined into larger bundles drops from nine to four to two. Also, through time, the number of globally defined roles that become divided into multiple, smaller roles increases from no partitioned roles to three roles divided into six parts, and then to three roles divided into seven parts. At the tail end of the sequence, role partitioning decreases because of the smaller number of roles in total represented in the mortuary remains at Ater mound.

This trend toward greater role segregation over time is evident quantitatively. From Mound City to Hopewell to Seip–Pricer to Ater, the percentages of individuals buried with artifacts marking only one or two roles increases from 73.1% to 88.9% to 97.4% to 100%, respectively. These percentages refer to individuals buried with artifacts clearly associated with them alone, rather than shared ambiguously among jointly buried individuals, and are based directly on the data in Appendix 5.1.

Summary. There is strong evidence that, over the course of the Middle Woodland period in the central Scioto valley, shamanic and other roles of leadership and importance broke apart and became segregated, in the manner modeled by Winkelman cross-culturally. Ohio Hopewell societies were clearly societies in transition, organizationally. This finding, in combination with the elaborateness of Ohio Hopewell funerary rites, accords well with the broad crosscultural trend for spectacular funerary rites to occur in politically formative settings as means for stabilizing and legitimizing sociopolitical positions (Childe 1945; Pearson 1999:87).

There is also some evidence that Ohio Hopewell societies were moving toward the social situation modeled by Winkelman as an end point, in which a priest-like or chief–priest-like personage was well segregated from a series of individual, client-oriented religious practition-

ers. Specifically, plain copper headplates found in Ohio Hopewellian sites referenced sacred concepts through their copper (Turff and Carr, Chapter 18), yet not the power of animals of nature that an animal impersonator’s headdress would. The leadership role marked by plain copper headplates and involved in Role 2 (“headlead”, Table 5.7) was initially integrated with a variety of shaman-like roles at Mound City, and became increasingly more divorced from these at Hopewell Mound 25 and the Pricer mound. At the latest site of Ater, the leadership role marked by plain headplates was fully segregated from other shaman-like and non-shaman-like roles. Significantly, this role also was found to have had a supralocal domain of power, over multiple communities, during the periods of use of the Pricer mound and Ater mound.

We would not say that the role marked alone by plain copper headplates at the Ater site can be called a classic chief-priest, as defined for example by Service (1962), Peebles and Kus (1977), or Earle (1997), or a classic priest, as defined by Winkelman (1992), because the role’s specific duties and means of recruitment are unknown. Moreover, the Ohio Hopewell archaeological record lacks artistic and artifactual evidence for powerful priests or priest-chiefs, does not indicate the depreciation of segregated, shaman-like practitioners that would be predicted with the presence of powerful priests or priest-chiefs, and shows little signs of transgenerational ancestor worship, which is often officiated by priests, crossculturally (see above, The Question of Priests). However, the role marked by plain headplates might be called an incipient priest or chief-priest.

In a similar way, the leadership role marked by conch shells and shell spoons (Role 3, Table 5.7), which had sacred connotations but did not reference the power of animals of kinds normally sought by shaman, was integrated with other, shaman-like roles at Mound City and Hopewell Mound 25, and became fully segregated from these at the latest site of Ater. At Ater, the role also was found to have had a multi-community domain of power. There, the role might be called an incipient priest or chief-priest. Again, its specific duties and means of recruitment are

unknown, and the broader Ohio Hopewellian archaeological record speaks against a strong priest or chief-priest position. The specific artifact forms involved—conch shell dipper and shell spoon—also are less convincingly symbolic of priestly or chiefly power than a crown-like, metal headplate (see Carr, Chapter 7, for a fuller argument on the role indicated by headplates).

Crosscultural Comparison

In his description of crosscultural diversity in magicoreligious practitioners and their changing nature with increases in the size and complexity of societies, Winkelman (1989, 1990, 1992) defined four social settings that differ in their sociopolitical characteristics and the typical nature and array of magicoreligious practitioners present in them. These settings, in developmental order, include: (1) hunting-and-gathering societies and occasional pastoral societies having shaman, or classic shaman as called here; (2) sedentary societies with a major reliance on agriculture but lacking political integration beyond the community, and having shaman/healers roughly analogous to shaman-like practitioners as called here, and occasionally priests; (3) sedentary societies with a major reliance on agriculture and integration beyond the community, and having healers, priests, and mediums; and (4) class societies having healers, priests, and mediums.

We do not wish to categorize Ohio Hopewellian societies in one or another of these four social settings because the settings are typological, crosscultural generalizations that would obscure the particulars of Hopewellian societies. Also, it is not possible in the Ohio archaeological record to recognize all or even most the characteristics of each setting and to firmly assess the validity of a given categorization of Ohio Hopewellian societies. However, with these qualifications in mind, we note that the bulk of what is known about Ohio Hopewell societies and their leaders is consistent with Winkelman's sedentary, agricultural, politically unintegrated communities having shaman/healers, in transition from hunter-gatherer societies with classic shaman. The particular characteristics of Winkelman's societies with shaman/healers that largely

accord with the nature of Ohio Hopewellian societies and leaders include the following: (1) sedentism, to a substantial degree; (2) major reliance on agriculture; (3) local communities that were not politically unified, but allied to varying degrees, as delineated by Carr (Chapter 7); (4) extensive specialization of magicoreligious practitioners by their roles compared to the centralization of roles within a shaman—although a few classic shaman can be identified in Ohio Hopewellian societies; (5) divination and healing as the most common, specialized magicoreligious practitioner roles, which is evident for the Ohio case in Table 5.5, where 5 of 21 role bundles pertain to these activities; (6) possibly the organization of specialized magicoreligious practitioners into their own formal, professional groups with their own collective ceremonies, and the training and initiation of novices by such groups, rather than by individual experience (Winkelman 1990:58), which is indicated by the moderate degree to which Ohio Hopewell leadership positions were institutionalized in their roles and role combinations, and by ceremonial deposits of artifacts comprised primarily of the paraphernalia of single roles, as documented extensively by Carr et al. (Chapter 13); (7) recruitment into a magicoreligious speciality on the basis of other than inheritance within a clan when formal priests are lacking, and commonly through clans in more complex societies with formal priests (Winkelman 1992:69, 71)—a spectrum within which Ohio Hopewellian societies stood in the transition, in that each identified specialty role was recruited from several clans, not one or all (Thomas et al., Chapter 8, Table 8.14); (8) practitioners' use of altered states of consciousness to perform their tasks, but not soul flight, as suggested by the bulk of artistic representations of Ohio Hopewellian leaders (Table 5.2); and (9) derivation of practitioners' power from animal spirits and the ability of the practitioner to transform themselves into animals, again as seen in artistic representations of Ohio Hopewell leaders (Table 5.2) and in the pervasiveness of the theme of transformation in Ohio Hopewell art, generally.

At the same time, leadership in Ohio Hopewell societies had some characteristics of Winkelman's developmentally earlier social

setting involving the classic shaman, and perhaps illustrates the initial formation of his later social setting involving priests or priest-chiefs. Two Hopewellian sculptures—the Mound City pipe and the Wray figurine—show or possibly show classic shamanic animal impersonators in the act of soul flight. Plain copper headplates were the paraphernalia of community-wide, if not multi-community leaders who resembled to a degree priests or chief-priests, in that headplates symbolized sacred concepts with copper but not the power of animals of nature. These leadership characteristics, of social settings earlier and later than Winkelman's shaman/healer setting, reinforce the view that Ohio Hopewellian societies were actively in sociopolitical transition,²⁹ as also concluded above from the increasing segregation of Ohio Hopewellian leadership roles over time and the moderate degree with which they were institutionalized. It would be to miss the point to simply classify Ohio Hopewellian societies within Winkelman's social setting typology as an example of sedentary, agricultural, politically unintegrated communities having shaman/healers.³⁰

CONCLUSIONS

This chapter, like Louis Glanzman's oil painting of a Hopewell burial ceremony, has attempted to create a personalized picture of Ohio Hopewellian leadership, with realism and detail, but by empirical analysis rather than by brush. We have done so by inferring the roles, and the organization of roles, of Ohio Hopewell leaders and important persons directly from their burials and the kinds of artifacts with which they were inhumed, from artistic representations of the elite themselves, and from closely related contextual information. We conclude that Ohio Hopewell leadership was (1) highly diversified; (2) a mix of classic shamanic, shaman-like, other sacred, and, much more rarely, mixed sacred-secular or secular positions; (3) decentralized; and (4) institutionalized to only a moderate degree. Ohio Hopewell societies were run by many kinds of leaders who complemented each other in function but similarly formed their power bases primarily in the religious and spiritual realm.

Shaman-like features run pervasively through Ohio Hopewellian and earlier material culture in the Ohio area, and might suggest, at a glance, that classic shaman led Ohio Hopewell societies. Two artistic representations of classic shaman in trance, using the powers of nature, and, in at least one of the cases, in soul flight, are known from Ohio Hopewell contexts; five more artworks with these three shamanic qualities come from slightly earlier to contemporary Adena mounds in Ohio and adjacent states. Animal masks and headdresses that indicate animal impersonation and probably the classic shamanic practice of "becoming" one's power animal in trance are known widely from the Glacial Kame, Adena, and Hopewell sites within and around Ohio. The shamanic themes of transformation and the ability to see within or through are implied by the many Ohio Hopewell raw materials that have light-and-dark or shiny-and-dull surface qualities, by transparent or translucent ones, by the great distances from which such raw materials were brought to Ohio, and by a characteristic Hopewellian artistic style that involved positive-negative play.

However, the wide distribution of shaman-like elements in Ohio Hopewell material culture does not automatically imply the central importance of classic shaman, as defined by Eliade, Harner, and Wallace, in Ohio Hopewell leadership. It is necessary to distinguish classic shaman, who are generalized magicoreligious practitioners, and who play many important social, political, and religious roles, from shaman-like practitioners who perform various, specialized subsets of the roles of the classic shaman, with various subsets of their paraphernalia, and who are derived social-historically from the classic shaman (Winkelman 1989, 1990, 1992). Additionally, it is necessary to distinguish the orthodox, esoteric practices and beliefs of a classic shaman from the more widely spread religious practices and beliefs of the community within which a shaman works (Eliade 1972) and its various other leaders, religious or otherwise. Classic shaman, shaman-like practitioners, other religious leaders and followers, and secular leaders without obvious religious overtones must each be considered for their possible presence in the

analysis of leadership in societies of middle-range complexity.

Particularly relevant to these distinctions in Ohio Hopewell material culture are artistic representations and the costumery of animal impersonators for whom evidence of the soul flights of classic shaman is missing; depictions of important persons with facial tattooing, scarification, or painting but without shaman-like features; artworks of persons in headgear lacking animal referents; such headgear itself; effigy animal power parts that may have symbolized clan leaders or important members; and the equipment and trophies of war and effigies of them, which marked sociopolitical achievement. Ohio Hopewell leaders were clearly not all—or in fact, commonly—classic shaman.

Ethnological analyses made by Winkelman (1989, 1990, 1992) indicate a strong cross-cultural pattern in the development of leadership forms as societal size and complexity increases. Specifically, as small-scale hunting-and-gathering and horticultural societies develop into larger-scale horticultural and agricultural societies, classic shaman as generalized leaders with multiple functions are commonly replaced by a diversified and specialized set of shaman-like practitioners, which Winkelman calls shaman-healers. Leadership diversification is necessary to accommodate societal growth. Eventually, the process may give rise to a social distinction between publicly oriented, political-religious leaders (chief-priests) who serve multiple communities, and individual/family client-oriented religious practitioners who are responsible for healing, divination, and other specialized shaman-like tasks at the local level.

The progression from terminal Archaic, Glacial Kame societies through Early Woodland Adena societies to Middle Woodland Hopewellian societies in the Ohio area, as well as social change within Ohio Hopewellian societies themselves, over the Middle Woodland, appear to have followed the first part of this well-established, cross-cultural pattern that led away from classic shamanic leadership. Six kinds of data indicate this. First, leadership diversification is seen in a doubling of the species of animal impersonators from the terminal Archaic

through the Middle Woodland. Second, in the Middle Woodland, leadership diversity is evidenced by large ceremonial deposits that individually have artifacts of only or predominantly one class and that vary in content from each other. Deposits differ in whether they have shamanic or shaman-like paraphernalia of a kind, an artifact class of a sacred but not specifically shaman-like nature, or some secular form of artifact. Seventeen artifact classes are so distinguished in their depositional contexts. These deposits presumably indicate a societal recognition of the distinctiveness of the many social roles of leadership and importance in which the various artifact classes were used. The depositing together of shamanic or shaman-like artifacts of primarily one class, for each of several such classes, further suggests the distinct ceremonies of different formal professional groups of shaman-like practitioners, each of which would likely have been responsible for training and initiating their members. Third, leadership variety during the Middle Woodland is also evidenced by patterns of association and dissociation among artifact classes of social importance across 767 burials in 15 Ohio Hopewell ceremonial centers. The patterns indicate 21 different sets of artifacts classes, which correspond to various social roles of leadership and importance, or bundles of such roles: shaman-like and apparently non-shaman-like leaders of public ceremony, war or hunt diviners, other kinds of diviners, body processors/psychopomps, healers, high achievers in warfare, high achievers in sodality organizations, and several unknown kinds of roles. Fourth, 91% of the burials with markers of these roles had only one or two roles, indicating strong role segregation. Fifth, the variety of leadership roles defined by artifact assemblage patterning in burials and large ceremonial deposits recalls the distinct shamanic, shaman-like, sacred, and secular social personae represented by artistic depictions and costumery from Ohio Hopewell ceremonial centers. Sixth, a trend toward greater leadership diversification over the Middle Woodland is found in the partitioning of burial artifact sets and the roles that they indicate over time at the sequenced cemeteries of Mound City, Hopewell Mound 25, Seip-Pricer mound, and Ater mound.

Seventh, over this sequence of cemeteries, the percentage of burials with only one or two roles of leadership or importance increased steadily, from 73.1% to 100%.

All of these seven indicators of role diversity or increasing role segregation through time, in involving roles that are primarily shamanic or shaman-like in nature, imply the applicability of Winkelman's model of leadership development to the Ohio Hopewell case. Also in accord with the model is the only moderate degree to which leadership roles were found to be institutionalized, as measured by the degree to which artifact classes within singular roles repeatedly co-occurred in burials. The only moderately institutionalized nature of the roles suggests that Ohio Hopewell societies were in transition sociopolitically and leadership roles were being actively redefined, as proposed in the midstages of Winkelman's developmental model. This transitional nature of Ohio Hopewellian leadership and sociopolitics is what one would expect from the elaborateness of Ohio Hopewellian funerary practices: crossculturally, there is a broad trend for flamboyant funerary rites to occur in politically formative social settings, as ways of stabilizing and legitimizing sociopolitical positions (Pearson 1999:87 after Childe 1945).

Most of what has been revealed here about the nature of Ohio Hopewellian leadership is consistent with Winkelman's crossculturally defined social setting characterized by sedentary, agricultural, politically unintegrated communities having shaman/healers, in transition from hunting-gathering societies with classic shaman. The characteristics of such social settings that are evident in the Ohio Hopewellian case include substantial sedentism; reliance on agriculture; politically unintegrated, though sometimes allied, local communities; specialized, decentralized, magicoreligious practitioners; diviners and healers of various kinds as the most common practitioners; possible formal groups of practitioners who trained novices and held their own collective ceremonies; recruitment into a magicoreligious speciality partly but not exclusively on the basis of clan; practitioners' use of altered states of consciousness other than soul flight to accomplish their tasks; and practitioners gaining power from

animal spirits and transforming themselves into animals. Although specialized shaman/healers predominated the Ohio Hopewell leadership landscape, some classic shaman who made soul flights and from whom the specialists had developed persisted at least through the beginning of the Middle Woodland period, and practitioners who resembled incipient priest-chiefs in apparently not evoking animal powers and in serving as public ceremonial leaders for multiple local communities had emerged by the end of the period. The latter were marked by plain copper headplates without animal referents, and by conch shells with dippers for serving drink. The endpoint of Winkelman's diachronic model, where a powerful, public priest or chief-priest and a suite of individual, client-oriented religious practitioners of diminished power have crystallized and segregated, had not yet been reached by the end of the Middle Woodland period. This conclusion is supported in the Ohio Hopewellian archaeological record by the lack of artistic or artifactual evidence for powerful priests or priest-chiefs, the high prestige that shaman-like practitioners retained, and the meager evidence for transgenerational ancestor worship, which is commonly led by priests, crossculturally.

In a more general light, the Ohio Hopewell case falls easily within the scope of social-religious models of leadership development offered by Netting (1972) and Peebles and Kus (1977), with only minor evidence of the material and secular-focused processes defined by Sahlin (1968, 1972) and Flannery (1972). Most of the roles and bundled roles of leadership or importance that were definable for Ohio Hopewell societies (18 of 21) are shaman-like or otherwise sacred, and no role or role bundle was fully secular. Positions marked by achievement in war also involved shaman-like divination and philosophic tasks, as well as achievement in sodalities of uncertain but possibly religious character. These findings indicate the primarily religious basis of power behind most positions of leadership or importance in Ohio Hopewell societies, although not to the full exclusion of material and secular sources. The Ohio Hopewell case illustrates that leadership development in a single cultural-historical tradition may, to some

degree, involve multiple kinds of processes and leaders and that multiple, explanatory anthropological models may apply. In this regard, previous, singular characterizations of Ohio Hopewell leadership (e.g., Braun 1986; Ford 1974) have been too narrow.

If the nature of leadership in Ohio Hopewell societies is to be understood for what it truly was, rather than imaged as an analog to leadership in other, ethnographically known societies of roughly similar complexity and adaptation, the material remains of Ohio Hopewell leaders, their paraphernalia, and artistic renderings of them must be studied directly for the evidence they bring to bear on the topic. Indirect, qualitative arguments based on the scale of Ohio Hopewell earthworks and mounds, the refinement of Hopewell ceremonial artifacts, the long distances from which raw materials were obtained, gross differences in the richness of burials, the productivity of an agrarian economy, and other contextual information provide important supplementary information, but are inexact in themselves for defining the nature and organization of leadership roles in Ohio Hopewell societies. Such arguments also do not personalize the Ohio Hopewell record.

In this book, further efforts to provide detail on Ohio Hopewell leadership on its own terms and to personalize our understanding of it are made in Chapter 8, by Thomas et al. There, the authors identify the particular Ohio Hopewell clans that were more or less successful in filling the various leadership roles defined here, and the tendency for mild differences in clan wealth and prestige, but not clan size, to encourage such success. Other sociological aspects of Ohio Hopewell leadership that remain to be explored, and that we encourage researchers to investigate, include the recruitment criteria (age, sex, community) for the various leadership roles found here, the amount of hierarchy among leadership roles, and variation in the process of leadership development and in the degree of role segregation among communities in environments with different food potentials, demographic potentials, and kinship systems in southwestern Ohio, the central Scioto valley, and societies farther east and north

in Ohio (Field et al., Chapter 9). Studies such as these would certainly help to define the structural and dynamic aspects of Ohio Hopewell societies with greater resolution, and would provide a better understanding of how these societies worked. The additional studies might also shed light on the particulars of the social processes and causes of supralocal leadership development that have been modeled in general terms by Winkelman, Netting, and others for middle-range societies, and help to fill out these models.

ACKNOWLEDGMENTS: We are grateful to the Ohio Historical Society, the Chicago Field Museum of Natural History, the Peabody Museum of Archaeology and Ethnology, Harvard University, and Hopewell Culture National Historical Park, National Park Service, for providing us access to study their artifact collections, field notes, and museum records. Our data on the artifact contents of graves and ceremonial deposits were derived from this work. Our personal thanks go to Martha Otto, Melanie Pratt, William Pickard, Cheryl Johnston, Jonathan Haas, Elisa Aguilar-Kutza, Will Grewe-Mullins, Jon Eric Rogers, Gloria Greis, Penelope Drooker, Bret Ruby, John Neal, and Deborah Wood of these museums for facilitating our research there. Beau Goldstein and Ed Ritchie played key roles in helping D. Troy Case to code the data base analyzed here. Our work would have been much harder without the data base management and statistical computer programming support of Ian Robertson and Melanie Schwandt, and the GIS drafting of Figure 5.9 by Kitty Rainey, all of whom we greatly appreciate. We thank Louis Glanzman for his kindness in sharing his painting, "A Hopewell Indian Burial Ceremony", which is reproduced here.

Chris Carr extends his warmest thanks to his teachers of shamanic concepts, practices, paraphernalia, and experiences—Michael Harner, Sandra Ingerman, Tom Mails, Barbara Crowe, and Gary Bibb—and to Michael Winkelman for sixteen years of colleagueship and discussion about shamanism around the world. Without their teachings, this chapter would not have come to light.

NOTES

1. A partial exception is the now-growing literature on rock art and shamanism (e.g., Bostwick 2001:419, 2002; Conway 1992:12, 1993; Jones 1981; Whitley 1998:3–5, 2001). However, even this literature does not systematically detail the multiple social roles that shaman typically fill, save the thesis of White (1994), which was written under C. Carr.
2. Shamanic practitioners in all documented Siberian tribal societies are called by terms having one or two roots in more ancient, paleo-Siberian languages. These roots are *kam* and *xam*. They mean knowing, healing oneself, and one who drums, sings, or calls spirits—all characteristics of shaman (M. Winkelmann 2000: 107–110).
3. Malinowski (1922a:149–171, 215–220, 237–254) makes the same distinction but in greater detail, distinguishing four kinds of beliefs: (1) the orthodox and often rarely distributed views of specialized religious practitioners; (2) widespread, institutionalized, social dogmas embodied in myths, customary rituals, magical formulas, art, dance, and other customs; (3) widespread, popular, public opinions of the time; and (4) the speculations of common individuals.
4. Variations on the theme of dismemberment include the initiate shaman being cut into small pieces by spirits or spirit-animals, and the pieces being given to the evil spirits of diseases that the initiate will come to heal, and the initiate then being reassembled; being totally devoured by an animal spirit that will later help the shaman in spiritual work and then being restored with a body; having one's head, hands, and/or legs chopped off and put back on; having one's eyes, tongue, heart, and/or bowels torn out and replaced with new ones; having one's brain removed, washed, and restored; having one's head forged; and being pierced in the naval with arrows or in the tongue with a lance (Eliade 1972:34–64).
5. King (1987) epitomized these two life paths for shaman in different cultures as the "way of the warrior" versus the "way of the adventurer." Warrior shamanic traditions are said to assume an objective reality in which danger is "out there." This outlook leads to a viewpoint of conquer or be conquered, the goal of protecting oneself and one's society as a means of helping, and training in survivor skills, acting without error, and being hyper-alert for reaction. Adventurer shamanic traditions, in contrast, are said to assume an interactive reality that varies situationally in its quality. This belief about the world leads to an explore-with-appropriate-caution-and-respect way of life, the goal of directly helping oneself and others, and training in exploratory as well as survivor skills, taking appropriate action, and being hyper-aware for exploration. Examples of cultures with worldviews that have encouraged the development of the warrior path for shaman are the Jivaro (Harner 1972, 1980) and the Western Apache (Basso 1969:29–54, 1990:93–94; Locust 1986:30). The Hawaiian worldview (King 1987:192–193), on the other hand, led to the adventurer shamanic path.
6. A copper effigy deer antler headdress with four tines was found in Graves 3 and 4 of Mound 13 at Mound City (Mills 1922:544–545).
7. Webb was writing before the time when it became understood that the double-post buildings below Adena mounds functioned as charnel structures rather than domiciles (Seeman 1986).
8. Seeman (1979b) did not distinguish food remains in the archaeological record that might have related to chiefly redistribution and food remains that might have resulted from the horizontal distribution of food along lines of kinship and alliance among those who gathered for ceremonies at Ohio Hopewell sites. Thus, his inferences of redistribution of food and, in turn, the organization of Ohio Hopewell societies as chiefdoms, are not certain.
9. Prufer (1964a:74) did speculate that those individuals who built and used an earthwork were members of "strong lineages arising out of sharply defined territorial clans."
10. The generally greater richness of Southeastern environments over Northeastern ones in food resources, and the lack of clear evidence for substantial, Southeast-wide population growth and increasing territoriality from the Middle Archaic through the Middle Woodland periods according to Smith (1986:25–27, 30–31, 42), makes his skeptical position on an ecological basis for Archaic and Woodland exchange reasonable at this time.
11. The DECCO-I site, Delaware County, Ohio, had a small (10 × 14 inches in diameter and 8 inches deep) pit (PT01) that held a ceramic vessel with hickory nuts in it (Phagan 1979).
12. Another characteristic of the pipe that may represent its depiction of shamanic trance is the material of which it is made—a dark-colored porphyry interspersed with black and white granules (Squire and Davis 1848:248). The material may refer to darkness, light, and transformation between them, which are fundamental dimensions of the Ohio Hopewellian worldview, and of which shamanic trance, as the process of going from darkness to light/seeing the nonordinary (Harner 1980), is one expression.
13. A very similar carving of a bear spirit enveloping a trance practitioner from behind, to perform some task such as healing the practitioner or healing another with the practitioner, rather than to merge with him, is shown by Goodman (1990:19). The carving was made by a Northwest Coast artist in the late 19th Century.
14. A fine example of one Ohio Hopewellian practice of breaking up skulls and placing them on an altar to be buried with other deceased is found at the North Benton site (e.g., Magrath 1945).
15. Animal impersonators are also known from artworks made by patinating and painting copper breastplates, headplates, and celts—a recently discovered art form being verified by materials analysis (Carr 2000d). The

- kinds of animals impersonated on these pieces include raptors, nonraptorial birds of many kinds, felines, canines, deer, elk, moose, bear, possibly rabbit, and an insect. Snakes and reptiles are lacking.
16. The neophyte shaman may first wear his hair like a woman and don men's clothing for a woman's, then give up men's work and take on women's chores, and, finally (and more rarely), with the help of his spirit allies, attract eligible men, choose one for a husband, and play the appropriate sexual role. The androgynous state accomplished through this transformation is to give the shaman the experience of sexual totality (Eliade 1972:257–258; Halifax 1979:22–28).
 17. The complementary distributions of copper and mica noted by Greber (Greber and Ruhl 1989:75–84; 275–276) to occur between the northern and the southern deposits of Mound 17 at the Hopewell site do not fit the pattern of light-dark complementarity discussed here. Both dark-colored copper and light-colored silver are found together in the southern deposit, and both light-colored mica and dark-colored obsidian and pipestone are found in the northern deposit. The “separation” between copper and mica that Greber (Greber and Ruhl 1989:75–84, 275–276) attributes to Altars 1 and 2 of Mound 25 at Hopewell does not occur.
 18. Perceptual–mental ambiguity is also found in the art of other Hopewellian traditions across the Eastern Woodlands.
 19. Some of the role assignments are fairly obvious and sometimes relevant today. Examples include the use of quartz crystals, mirrors, and pebbles, marbles, and balls to throw from “boatstone”-like containers in divination; the use of translucent or shiny points in war and/or hunt divination or to pull or send power intrusions; the use of scratchers in public ceremonies; and the use of feathered fans in smudging prior to and during ceremony. Others are known only through ethnohistoric research, such as the use of cones in fours, with one of hidden uniqueness on its underside, in divination and games of the “find the hidden, unique cone” kind (e.g. Holmes 1907). Some role assignments derive completely from archaeological contextual patterning. For example, the use of awls of bone in body processing and/or psychopomp work is suggested by their repeated placement at the four corners of tombs in Illinois and Ohio to hold down a fabric covering over the corpse (Brown 1979:217; Hall 1979:260; references therein). Finally, some artifact classes were assigned roles only through complex, contextual, formal, and/or ethnohistorical analyses, combined. Examples include the representation of sodalities by breastplates and earspools (Carr, Chapter 7), the marking of clans by the power parts of animals and effigy power parts (Thomas et al., Chapter 8), and the philosopher role implied by the reconstructed cosmological meanings of certain geometric and representational cutouts of copper, mica, and other materials. All of these means of determining the functions of artifact classes and the social roles in which they would have been used will be presented in Carr (n.d.).
 20. The deep embedding of shaman-like personnel, practices, and ideas in Ohio and other northern Hopewellian societies and culture is complemented by their strong emphasis on farming over previous intensive harvest collecting methods. Farming, like shamanic ways, is actively involved in transformation—in this case, the transformation of the earth and biological communities, or what Johannessen (2003) and Wymer (2003; Johannessen and Wymer 2002) call “culturing” or “growing” the world. Although farming is not a characteristic of cultures that engage in shamanism or shaman-like practices, and cannot be used as another indicator of these practices in past Ohio Hopewellian societies, the rapid development of farming systems in Ohio (and elsewhere in the midwestern United States [Johannessen 2003; Wymer 2003]) may well have been nurtured by the shaman-like cultural milieu in which they arose.
 21. Very tall headdresses are commonly depicted on copper artwork made by patination, and currently being documented by Carr (2000d), giving some credibility to Trevelyan's reconstruction.
 22. Other artistic images of leaders without shaman-like attributes include persons with various forms of headgear rendered on copper breastplates, headplates, and celts through patination—a recently discovered art corpus being verified by materials analysis (Carr 2000d). The headgear tentatively identified thus far include top hat-like and turban-like headdresses of one, two, three, or five layers; cone-shaped headdresses; masks over the top half of the head, and masks covering only the nose and eyes backward.
 23. See Carr, Chapter 7, Table 7.2, for an inventory of sites and locations within them with these artifacts.
 24. In Ohio Hopewell cemeteries with large burial populations allowing the estimation of the commonness of a role, metallic celts were found in 1 burial of 60 at Ater mound, 1 burial of 48 at Esch, 11 burials of 212 at Hopewell, 3 burials of 60 with provenience information at Liberty, 3 burials of 106 at Mound City, and 4 burials of 90 at Turner. These proportions all fall in the 3% to 5% range. The exception to this pattern is Seip, with celts present in 15 of 124 burials, or 12.1%.
 25. Sets of associated and dissociated role-marking artifact classes were defined in five steps. These steps were used in both the pan-Ohio and the site-specific analyses. (1) The list of artifact classes selected for study was limited to those that have been identified as markers of leadership or other important roles, in contrast to utilitarian tools, personal ornaments, and simple markers of clan membership (Carr, Chapter 7, n.d.). Additionally, only those artifact classes present in at least two burials were considered, so that idiosyncratic patterns of association were de-emphasized and broad social patterns were emphasized. (2) The strength of association among all pairs of role-marking artifact classes was calculated with a

- Jaccard similarity coefficient. This coefficient eliminates negative matches from consideration and focuses on positive ones. Thus, a pair of artifact classes was not considered strongly associated when both were absent from the same burials; the classes were considered strongly associated only when both were present in a goodly proportion of the burials where one or both were present. (3) An ordinal-scale, multidimensional scaling of the selected artifact classes (i.e., roles), based on a matrix of Jaccard similarity coefficients, was made, plotting closely and distantly related artifact classes in two dimensions. In all analyses, R^2 levels remained very acceptable—close to one. The multidimensional scaling analysis gave a first approximation of those role-marking artifact classes that were associated and formed sets, and those that were dissociated from one another. (4) Finer-grained sets of associated artifact classes (i.e., roles) were defined by hand-inspecting the Jaccard matrix and listing for each artifact class those to which it was most closely related. Definition of sets at this stage considered the specific Jaccard levels of similarity among pairs of artifact classes, permitted sets that overlapped in the artifact classes (i.e., roles) they contained, permitted sets that were polythetic in organization (see Carr 1984) and occasionally somewhat stringy when the data were structured in this manner, and allowed for sets with only one artifact class (i.e., role). All these features of set definition and role organization are socially reasonable. (5) Role-marking artifact classes that were present in only one burial were introduced into the stable sets of artifact classes defined to this point when the associations made socially interpretable sense or followed some broader material pattern, whether interpretable or not. (6) A final list of sets of role-marking artifacts that were associated through the above five steps was assembled by hand.
26. A search for artifact classes that repeatedly occurred together and that defined a role or bundle of roles was made not only among burials, but also among ceremonial deposits of decommissioned artifacts. It was known from other analyses (Weets et al., Chapter 13) that some ceremonial deposits had artifacts of a restricted range of types and was thought that they might have been gifts from persons of one or a few kinds of social roles. However, when all ceremonial deposits were assessed for associations and dissociations among artifact classes, the classes were found to lump together considerably and, in general, did not form sets that made as much sense sociologically as the sets found using artifacts within burials. A few strong and interpretable associations are, however, reported in Table 5.5.
 27. The roles that are fully or largely shaman-like in nature are numbers 1, 6, 7, 9, 10, 15, 16, 17, 18, 20, and 21. The roles that are fully or largely of another sacred nature are numbers 3 and 4. The one role that equally combined a shaman-like artifact class with another kind of sacred artifact class is number 8. The roles that may have been either shaman-like or of another sacred kind are numbers 12, 13, 14, and 19. The roles that combine secular with shaman-like or other sacred roles are numbers 2, 5, and 11.
 28. The artifact class, panpipe, which is one of the kinds of artifacts involved in Role 10 in terms of multi-site patterning, occurs in Hopewell Mound 25, burial cluster C, but not in the Seip-Pricer Mound, East burial cluster; only certain other artifact classes that define this role are found in the East burial cluster. Similarly, the artifact class, headplate without shaman-like animal referent, which helps to define Role 6, is not found in Ater Mound, South burial cluster; other artifact classes that define this role are found there. Likewise, the artifact class, headplate with shaman-like animal referent, which helps to define Role 1, does not occur in either Seip-Pricer, Middle burial cluster, or Ater Mound, North burial cluster. In these two burial clusters, only mica cutouts of unusual, nonstandardized forms are found. We are unclear whether flutes, which are small items and comprise Role 15, would have been audibly effective instruments in a large, multi-community gathering and would have marked a supralocal leader.
 29. In light of this developmental view, it is significant that classic shamanic soul flight was illustrated more commonly by earlier Adena artists than later Ohio Hopewellian artists (Table 5.2), and that the Mound City pipe example of soul flight dates to early in the Ohio Middle Woodland sequence rather than later. The date of the Wray figurine bear impersonator possibly in the act of soul flight is unknown. It is also significant that plain copper headplates, with their sacred connotations but no reference to animal transformation, first appeared closely bundled with shamanic paraphernalia, early in the Ohio Middle Woodland at Mound City, and became increasingly segregated from shamanic paraphernalia over the Ohio Middle Woodland period (Table 5.7).
 30. Winkelman's model emphasizes the transition of one magicoreligious practitioner form into another (Winkelman 1989:325–333; 1992:39–42) as much as it does the definition of practitioner types and kinds of social settings. Particularly relevant is Winkelman's (1989:346; 1992:73–74) discussion of the ethnohistoric Creek Chief Priest and Keeper of the Fire, who had a mix of characteristics of both chief-priests (Service 1962; Peebles and Kus 1977) and classic shaman, including propitiating gods and political recruitment, yet also using trance states in divination and healing. Winkelman concluded that the Creek Chief Priest position was in the process of evolving from its classic shamanic roots into a chief-priest, as Creek society became larger and more complex over time, and eventually would not have involved altered states of consciousness and most classic shamanic tasks.

Gathering Hopewell

Society, Ritual, and Ritual Interaction

Edited by

CHRISTOPHER CARR

*Arizona State University
Tempe, Arizona*

and

D. TROY CASE

*North Carolina State University
Raleigh, North Carolina*

Kluwer Academic / Plenum Publishers

New York Boston London Dordrecht Moscow

Library of Congress Cataloging-in-Publication Data

Gathering Hopewell : society, ritual, and ritual interaction / edited by Christopher Carr and D. Troy Case.

p. cm.—(Interdisciplinary contributions to archaeology)

Includes bibliographical references and index.

ISBN 0-306-48478-1—ISBN 0-306-48479-X (pbk.)

1. Hopewell culture—Ohio. 2. Indians of North America—Ohio—Rites and ceremonies. 3. Indians of North America—Material culture—Ohio. 4. Indians of North America—Funeral customs and rites—Ohio. 5. Scioto River Valley (Ohio)—Antiquities. 6. Miami River Valley (Ohio)—Antiquities. I. Carr, Christopher, 1952-II. Case, D. Troy. III. Series.

E99.H69G38 2004
977.1'01

2003062064

The cover illustration is part of the painting *A Hopewell Indian Burial Ceremony* ©; reproduced by courtesy of the artist, Louis Glanzman, with our warm thanks. Borders are adapted from Gregory Perino (1968). Cover design by Christopher Carr; technical rendering by Deann Gates and Susanne van Dyne.

ISBN HB: 0-306-48478-1
PB: 0-306-48479-X

© 2005 by Kluwer Academic/Plenum Publishers, New York
233 Spring Street, New York, New York 10013

<http://www.kluweronline.com>

10 9 8 7 6 5 4 3 2 1

A C.I.P record for this book is available from the Library of Congress.

All rights reserved

No part of this work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording, or otherwise, without written permission from the Publisher, with the exception of any material supplied specifically for the purpose of being entered and executed on a computer system, for exclusive use by the purchaser of the work.

Permissions for books published in Europe: permissions@wkap.nl

Permissions for books published in the United States of America: permissions@wkap.com

Printed in the United States of America

Contents

Dedication to Stuart Struever	1
<i>Christopher Carr</i>	

I. GENERAL INTRODUCTION

1. The Gathering of Hopewell.....	19
<i>Christopher Carr and D. Troy Case</i>	
2. Historical Insight into the Directions and Limitations of Recent Research on Hopewell.....	51
<i>Christopher Carr</i>	

II. SOCIAL AND POLITICAL ORGANIZATIONS OF NORTHERN HOPEWELLIAN PEOPLES

3. Salient Issues in the Social and Political Organizations of Northern Hopewellian Peoples: Contextualizing, Personalizing, and Generating Hopewell.....	73
<i>Christopher Carr</i>	
4. Community Organizations in the Scioto, Mann, and Havana Hopewellian Regions: A Comparative Perspective.....	119
<i>Bret J. Ruby, Christopher Carr, and Douglas K. Charles</i>	
5. The Nature of Leadership in Ohio Hopewellian Societies: Role Segregation and the Transformation from Shamanism	177
<i>Christopher Carr and D. Troy Case</i>	

6. The Question of Ranking in Havana Hopewellian Societies: A Retrospective in Light of Multi-cemetery Ceremonial Organization	238
<i>Christopher Carr</i>	
7. The Tripartite Ceremonial Alliance among Scioto Hopewellian Communities and the Question of Social Ranking	258
<i>Christopher Carr</i>	
8. Animal-Totemic Clans of Ohio Hopewellian Peoples	339
<i>Chad R. Thomas, Christopher Carr, and Cynthia Keller</i>	
9. Gender, Status, and Ethnicity in the Scioto, Miami, and Northeastern Ohio Hopewellian Regions, as Evidenced by Mortuary Practices	386
<i>Stephanie Field, Anne Goldberg, and Tina Lee</i>	
10. Gender and Social Differentiation within the Turner Population, Ohio, as Evidenced by Activity-Induced Musculoskeletal Stress Markers	405
<i>Teresa Rodrigues</i>	
11. Gender, Role, Prestige, and Ritual Interaction across the Ohio, Mann, and Havana Hopewellian Regions, as Evidenced by Ceramic Figurines	428
<i>Cynthia Keller and Christopher Carr</i>	
 III. RITUAL GATHERINGS OF NORTHERN HOPEWELLIAN PEOPLES	
12. Scioto Hopewell Ritual Gatherings: A Review and Discussion of Previous Interpretations and Data	463
<i>Christopher Carr</i>	
13. Estimating the Sizes and Social Compositions of Mortuary-Related Gatherings at Scioto Hopewell Earthwork–Mound Sites	480
<i>Christopher Carr, Beau J. Goldstein, and Jaimin Weets</i>	
14. Smoking Pipe Compositions and Styles as Evidence of the Social Affiliations of Mortuary Ritual Participants at the Tremper Site, Ohio	533
<i>Jaimin Weets, Christopher Carr, David Penney, and Gary Carriveau</i>	
15. Ceramic Vessel Compositions and Styles as Evidence of the Local and Nonlocal Social Affiliations of Ritual Participants at the Mann Site, Indiana	553
<i>Bret J. Ruby and Christine M. Shriner</i>	

IV. HOPEWELLIAN RITUAL CONNECTIONS ACROSS EASTERN NORTH AMERICA

16. Rethinking Interregional Hopewellian “Interaction”	575
<i>Christopher Carr</i>	
17. Hopewellian Copper Celts from Eastern North America: Their Social and Symbolic Significance	624
<i>Wesley Bernadini and Christopher Carr</i>	
18. Hopewellian Panpipes from Eastern North America: Their Social, Ritual, and Symbolic Significance	648
<i>Gina Turff and Christopher Carr</i>	
19. Hopewellian Copper Earspools from Eastern North America: The Social, Ritual, and Symbolic Significance of Their Contexts and Distribution	696
<i>Katharine C. Ruhl</i>	
20. Hopewellian Silver and Silver Artifacts from Eastern North America: Their Sources, Procurement, Distribution, and Meanings	714
<i>Michael W. Spence and Brian J. Fryer</i>	
References	735
List of Tables	779
List of Figures	783
List of Appendices on Compact Disk	787
Index	791
Compact Disk of Appendices	Inside Cover

References

- Abler, Thomas S., and Elisabeth Tooker
1978 Seneca. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 505–517. Smithsonian Institution, Washington, DC.
- Abbott, David R.
1994 The Changing Face of the Community in the Mesa Verde Region A.D. 1000–1300. In *Proceedings of the Anasazi Symposium 1991*. Art Hutchinson and Jack E. Smith, eds. Pp. 83–98. Mesa Verde Museum Association, Mesa Verde National Park, Mesa Verde, CO.
2000 *Ceramics and Community Organization Among the Hohokam*. University of Arizona Press, Tucson.
- Adams, William R.
1949 *Archaeological Notes on Posey County Indiana*. Indiana Historical Bureau, Indianapolis.
- Ahler, Steven R.
1988 *Excavations at the Hansen Site in Northeastern Kentucky*. *Archaeological Research Report*, 173. University of Kentucky, Program for Cultural Resource Assessment.
1992 The Hansen Site (15Gp14): A Middle/Late Woodland Site Near the Confluence of the Ohio and Scioto Rivers. In *Cultural Variability in Context: Woodland Settlements of the Mid-Ohio Valley*. M. F. Seeman, ed. Pp. 30–40. Kent State University Press, Kent, OH.
- Akins, Nancy J.
2001 Chaco Canyon Mortuary Practices: Archaeological Correlates of Complexity. In *Ancient Burial Practices in the American Southwest: Archaeology, Physical Anthropology, and Native American Perspectives*. D. R. Mitchell and J. L. Brunson-Hadley, eds. Pp. 167–190. University of New Mexico Press, Albuquerque.
- Anderson, David G.
1998 Swift Creek in a Regional Perspective. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 274–300. University of Alabama Press, Tuscaloosa.
- Anderson, James E.
1968 *The Serpent Mounds Site Physical Anthropology*. Royal Ontario Museum Art and Archaeology Occasional Paper 11.
- Angel, J. Lawrence
1966a Porotic Hyperostosis, Anemias, Malaras, and the Marshes in the Prehistoric Eastern Mediterranean. *Science* 153:760–762.
1966b Early Skeletons from Tranquillity, California. *Smithsonian Contributions to Anthropology* 2(1):1–19.
- Angel, J. Lawrence, J. O. Kelley, M. Parrington, and S. Pinter
1987 Life Stresses of the Free Black Community as Represented by the First African Baptist Church, Philadelphia, 1823–1841. *American Journal of Physical Anthropology* 74:213–229.
- Angus, Charlie, and Brit Griffin
1996 *We Lived a Life and Then Some: The Life, Death, and Life of a Mining Town*. Between the Lines, Toronto.
- Appadurai, A.
1986 Introduction: Commodities and the Politics of Value. In *The Social Life of Things: Commodities in Cultural Perspective*. A. Appadurai, ed. Pp. 3–63. Cambridge University Press, Cambridge.
- Ariès, Philippe
1974 *Western Attitudes toward Death from the Middle Ages to the Present*. John Hopkins University Press, Baltimore.
1981 *The Hour of Our Death*. Alfred A. Knopf, New York.
- Asch, David L.
1976 *The Middle Woodland Population of the Lower Illinois Valley: A Study in Paleodemographic Methods*. Scientific Papers, vol. 1. Northwestern Archeological Program, Evanston, IL.
- Asch, David L., and Nancy B. Asch
1978 The Economic Potential of *Iva annua* and Its Prehistoric Importance in the Lower Illinois Valley. In *The Nature and Status of Ethnobotany*. Richard I. Ford, ed. Pp. 300–341. Anthropological Papers 67. Museum of Anthropology, University of Michigan, Ann Arbor.

- 1985a Archeobotany. In *Smiling Dan: Structure and Function at a Middle Woodland Settlement in the Illinois Valley*. B. D. Stafford and M. B. Sant, eds. Pp. 327–401. Research Series, vol. 2. Center for American Archeology, Kampsville, IL.
- 1985b Prehistoric Plant Cultivation in West–Central Illinois. In *Prehistoric Food Production in North America*. Richard I. Ford, ed. Pp. 149–203. Anthropological Papers, vol. 75. Museum of Anthropology, University of Michigan, Ann Arbor.
- Asch, David L., Kenneth B. Farnsworth, and Nancy B. Asch
1979 Woodland Subsistence and Settlement in West-Central Illinois. In *Hopewell Archaeology: The Chillicothe Conference*. David S. Brose and N'omi Greber, eds. Pp. 80–85. Kent State University Press, Kent.
- Atwater, Caleb
1820 Description of the Antiquities Discovered in the State of Ohio. *Transactions and Collections of the American Antiquarian Society* 1:109–251.
- Aument, Bruce
1990 *Mortuary Variability in the Middle Big Darby Drainage of Central Ohio between 300 B.C. and A.D. 300*. Unpublished doctoral dissertation, Ohio State University.
- Aument, B. W., K. Gibbs, A. Ericksen, and M. J. Giesen
1991 *Phase III and IV Data Recovery Survey of 33 Fr 895 and 33 Fr 901 on the Wal-Mart Property in Grove City, Franklin County, Ohio*. Archaeological Services Consultants, Columbus, OH.
- Baby, Raymond S.
1954 Hopewell Cremation Practices. *Papers in Archaeology*, 1. Ohio Historical Society, Columbus, OH.
1956 A Unique Hopewellian Mask-Headdress. *American Antiquity* 21(3):303–304.
- Baby, Raymond S., and James A. Brown
1966 Mound City Revisited. Ohio Historical Center, Columbus, unpublished MS.
- Baby, Raymond S., and Suzanne M. Langlois
1977 *Archaeological Investigations at Seip Mound State Memorial 1971–1974, 1975, 1976*. Ohio Historical Center. Unpublished Archaeological Completion Report.
1979 Seip Mound State Memorial: Nonmortuary Aspects of Hopewell. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 16–18. Kent State University Press, Kent, Chillicothe, OH.
- Bacon, Willard S.
1993 Factors in Siting a Middle Woodland Enclosure in Middle Tennessee. *Midcontinental Journal of Archaeology* 18(2):245–281.
- Barbeau, C. Marius
1914 Supernatural Beings of the Huron and Wyandot. *American Anthropologist* 16(2):288–313.
1952 The Old World Dragon in America. In *Indian Tribes of Aboriginal America, Selected Papers of the 29th Congress of Americanists*. Sol Tax, ed. Cooper Square, New York.
- Barnouw, Victor
1977 *Wisconsin Chippewa Myths and Tales and Their Relation to Chippewa Life*. University of Wisconsin Press, Madison.
- Barth, Fredrik, ed.
1969 *Ethnic Groups and Boundaries: The Social Organization of Culture Difference*. Little, Brown, Boston.
- Basilov, N. M.
1978 Vestiges of Transvestitism in Central-Asian Shamanism. In *Shamanism in Siberia*. V. Dioszegi and M. Hoppal, eds. S. Simon, trans. Pp. 281–289. Akademiai, Budapest.
- Basmajian, J. V., and C. J. De Luca
1985 *Muscles Alive: Their Functions Revealed by Electromyography*, 5th ed. Williams and Wilkins, Baltimore, MD.
- Basso, Keith H.
1969 Western Apache Witchcraft. Anthropological Papers, 15. University of Arizona, Tucson.
1990 *Western Apache Language and Culture*. University of Arizona Press, Tucson.
1996 *Wisdom Sits in Places*. University of New Mexico Press, Albuquerque.
- Bastian, Tyler
1961 Trace Element and Metallographic Studies of Prehistoric Copper Artifacts in North America: A Review. In *Lake Superior Copper and the Indians: Miscellaneous Studies of Great Lakes Prehistory*. James B. Griffin, ed. Pp. 151–175. *Anthropological Papers*, 17, University of Michigan, Museum of Anthropology, Ann Arbor.
- Beck, Lane A.
1990 Redefining Copena: A Regional Analysis of Mortuary Patterns in “Southern Hopewell.” Unpublished doctoral dissertation, Northwestern University.
1995a *Regional Approaches to Mortuary Analysis*. Plenum Press, New York.
1995b Regional Cults and Ethnic Boundaries in “Southern Hopewell.” In *Regional Approaches to Mortuary Analysis*. L. Beck, ed. Pp. 167–187. Plenum Press, New York.
- Befu, Harumi, and Leonard Plotnicov
1962 Types of Corporate Unilineal Descent Groups. *American Anthropologist* 64(2):313–327.
- Belmont, John S., and Stephen Williams
1981 Painted Pottery Horizons in the Southern Mississippi Valley. *Geoscience and Man* 22:19–42.
- Bellrose, Frank Chapman
1976 *Ducks, Geese and Swans of North America*. 2nd edition. Stackpole Books, Harrisburg, PA.
- Bendann, E.
1930 *Death Customs: An Analytical Study of Burial Rites*. Knopf, New York.

- Bender, Barbara
 1978 Gatherer-Hunter to Farmer: A Social Perspective. *World Archaeology* 10(2):204–222.
 1985 Emergent Tribal Formations in the American Midcontinent. *American Antiquity* 50(1):52–62.
- Bender, M. M., D. A. Baerreis, and R. L. Steventon
 1981 Further Light on Carbon Isotopes and Hopewell Agriculture. *American Antiquity* 46:346–353.
- Bennett, John
 1944 Hopewellian in Minnesota. *American Antiquity* 9(3):336.
- Benson, S. L.
 1986 *Activity-Induced Pathology in a Puebloan Population: Grasshopper, Arizona*. Unpublished Master's thesis, Arizona State University.
- Bentham, Jeremy
 1789 *In Introduction to the Principles of Morals and Legislation*. 1907 edition. Clarendon Press, Oxford.
- Bentley, G. Carter
 1987 Ethnicity and Practice. *Comparative Studies in Society and History* 29:24–55.
 1991 Response to Yelvington. *Comparative Studies in Society and History* 33(1):169–175.
- Bernardini, Wesley
 1999 Labor Mobilization and Community Organization: Ohio Hopewell Geometric Earthworks. Paper presented at the Annual Meeting of the Society for American Archaeology, Chicago, IL.
 2004 Hopewell Geometric Earthworks: A Case Study in the Referential and Experiential Meaning of Monuments. *Journal of Anthropological Archaeology* 23:331–356.
- Binford, Lewis R.
 1964a A Consideration of Archaeological Research Design. *American Antiquity* 29:425–441.
 1964b Archaeological Investigations on Wassam Ridge. Archaeological Salvage Report 17. Southern Illinois University Museum, Carbondale.
 1971 Mortuary Practices: Their Study and Their Potential. In *Approaches to the Social Dimensions of Mortuary Practices*. J. A. Brown, ed. Pp. 6–29. *Memoirs of the Society for American Archaeology*, vol. 25. SAA, Washington, DC.
 1972 Model Building—Paradigms, and the Current State of Paleolithic Research. In *An Archaeological Perspective*. L. Binford, ed. Pp. 244–294. Seminar Press, New York.
 1980 Willow Smoke and Dogs' Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation. *American Antiquity* 45(1):4–20.
- Bird, Traveller
 1971 *Tell Them They Lie: The Sequoyah Myth*. Westernlore Publishers, Los Angeles.
- Birdsell, J.
 1968 Some Predictions for the Pleistocene Based on Equilibrium Systems for Recent Hunter-Gatherers. In *Man the Hunter*. R. B. Lee and I. DeVore, eds. Pp. 229–240. Aldine, Chicago.
- Black, Deborah B.
 1979 Adena and Hopewell Relations in the Lower Hocking Valley. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 19–26. Kent State University Press, Kent, OH.
- Black, Glenn A.
 1941 Cultural Complexities of Southwestern Indiana. *Proceedings of the Indiana Academy of Science* 50:33–35.
 n.d. Hopewellian in Indiana. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington, unpublished MS.
- Black, Glenn A., and William R. Adams
 1947 Archaeology of Posey County, Indiana. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington, unpublished MS.
- Blakely, Robert L.
 1977 Sociocultural Implications of Demographic Data from Etowah, Georgia. In *Sociocultural Adaptation in Prehistoric America*. R. L. Blakely, ed. Pp. 45–66. *Proceedings of the Southern Anthropological Society*, vol. 11. University of Georgia Press, Athens.
- Blanton, Richard E., Gary M. Feinman, Stephen A. Kowalewski, and Peter N.
 Peregrine
 1996 A Dual-Processual Theory for the Evolution of Mesoamerican Civilization. *Current Anthropology* 37:1–14.
- Blau, Peter M.
 1970 A Formal Theory of Differentiation in Organizations. *American Sociological Review* 35(2):201–218.
- Blitz, John H.
 1986 The McRae Mound: A Middle Woodland Site in Southeastern Mississippi. *Mississippi Archaeology* 21(2):11–39.
- Bloch, Maurice
 1971 *Placing the Dead*. Seminar Press, New York.
 1978 The Disconnection between Power and Rank as a Process: An Outline of the Development of Kingdoms in Central Madagascar. In *The Evolution of Social Systems*. J. Friedman and M. J. Rowlands, eds. Pp. 303–340. University of Pittsburgh Press, Pittsburgh.
- Boehm, Christopher
 1993 Egalitarian Behavior and Reverse Dominance Hierarchy. *Current Anthropology* 34(3):227–254.
- Bohannon, Paul
 1955 Some Principles of Exchange and Investment among the Tiv. *American Anthropologist* 57:60–70.
- Bohannon, Charles
 1972 *Excavation of the Pharr Mounds, Prentiss and Itawamba Counties, Mississippi*. U.S. Department of the Interior, National Parks Service, Office of Archaeology and Historic Preservation, Division of Archaeology and Anthropology.
- Bostwick, Todd W.
 2001 North American Indian Agriculturalists. In *Handbook of Rock Art Research*. D. S. Whitley, ed. Pp. 414–458. AltaMira Press, Walnut Creek, CA.

- 2002 *Landscapes of the Spirits: Hohokam Rock Art at South Mountain Park*. University of Arizona Press, Tucson.
- Bourdieu, Pierre
 1977 *Outline of a Theory of Practice*. R. Nice, trans. Cambridge University Press, Cambridge, UK.
 1984 *Distinction: A Social Critique of the Judgement of Taste*. Harvard University Press, Cambridge, MA.
 1990 *The Logic of Practice*. R. Nice, trans. Polity Press, Cambridge, UK.
- Bourdieu, Pierre, and Jean-Claude Passeron
 1977 *Reproduction in Education, Society, and Culture*. Sage, London. (orig. 1970)
 1979 *The Inheritors: French Students and Their Relations to Culture*. University of Chicago Press, Chicago.
 1983 The Field of Cultural Production, or: The Economic World Reversed. *Poetics* 12:311–356.
- Bourne, E. G., ed.
 1904 *Narratives of the Career of Hernando DeSoto*. 2 vol. A. S. Barnes, New York.
- Brandt, Elizabeth
 1979 Sandia Pueblo. In *Handbook of North American Indians*. vol. 9. Southwest. A. Ortiz, ed. Pp. 343–350. Southwest. Smithsonian Institution, Washington, DC.
- Braun, David P.
 1977 *Middle Woodland–Early Woodland Social Change in the Prehistoric Central Midwestern U.S.* Unpublished doctoral dissertation, University of Michigan.
 1979 Illinois Hopewell Burial Practices and Social Organization: A Re-examination of the Klunk–Gibson Mound Group. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 66–79. Kent State University Press, Kent, OH.
 1981 A Critique of Some Recent North American Mortuary Studies. *American Anthropologist* 46:398–416.
 1985 Ceramic Decorative Diversity and Illinois Woodland Regional Integration. In *Decoding Prehistoric Ceramics*, B. A. Nelson, ed. Pp. 128–153. Southern Illinois University Press, Carbondale.
 1986 Midwestern Hopewellian Exchange and Supralocal Interaction. In *Peer Polity Interaction and Socio-Political Change*. C. Renfrew and J. F. Cherry, eds. Pp. 117–126. Cambridge University Press, Cambridge.
 1991 Why Decorate a Pot? Midwestern Household Pottery, 200 B.C.–A.D. 600. *Journal of Anthropological Archaeology* 10:360–397.
 1995 Style, Selection, and Historicity. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. E. Neitzel, eds. Pp. 124–141. Plenum Press, New York.
- Braun, David P., and Stephen Plog
 1982 Evolution of ‘Tribal’ Social Networks: Theory and Prehistoric North American Evidence. *American Antiquity* 47:504–525.
- Braun, David P., James B. Griffin, and Paul F. Titterton
 1982 *The Snyder Mounds and Five Other Mound Groups in Calhoun County, Illinois*. Museum of Anthropology, Technical Report 13. University of Michigan, Ann Arbor.
- Brettel, Caroline B., and Carolyn Sargent, eds.
 2001 *Gender in Cross-Cultural Perspective*. 3rd edition. Prentice Hall, Upper Saddle River, NJ.
- Brockman, C. Scott
 1998 Physiographic Regions of Ohio. Map. Ohio Department of Natural Resources, Division of Geological Survey, Columbus. Electronic document. <http://www.dnr.state.oh.us/geosurvey/gen/map/physio.htm>. Retrieved January 28, 2002.
- Brose, David S.
 1976 An Historical and Archaeological Evaluation of the Hopeton Works, Ross County, Ohio. Report submitted to the National Park Service in fulfillment of Contract PX-6115-6-0141. On file, Hopewell Culture National Historical Park.
 1979a A Speculative Model of the Role of Exchange in the Prehistory of the Eastern Woodlands. In *Hopewell Archaeology: The Chillicothe Conference*. David S. Brose and N’omi Greber, eds. Pp. 3–8. Kent State University Press, Kent, OH.
 1979b An Interpretation of the Hopewellian Traits in Florida. In *Hopewellian Archaeology: The Chillicothe Conference*. D. Brose and N. Greber, eds. Pp. 141–149. Kent State University Press, Kent, OH.
 1985 The Woodland Period. In *Ancient Art of the American Woodland Indians*. D. S. Brose, J. A. Brown, and D. Penney, eds. Pp. 43–92. Harry Abrams, New York.
 1990 Toward a Model of Exchange Values for the Eastern Woodlands. *Mid-Continental Journal of Archaeology* 15(1):100–136.
- Brose, David, James A. Brown, and David W. Penney
 1985 *Ancient Art of the American Woodland Indians*. Harry Abrams, New York.
- Brown, Charles E.
 1939 Myths, Legends and Superstitions about Copper. *The Wisconsin Archaeologist (New Series)* 20(2):35–40.
- Brown, Ian
 1989 The Calumet Ceremony in the Southeast and Its Archaeological Manifestations. *American Antiquity* 54(2):311–331.
- Brown, James A.
 n.d. The Shamanic Element in Hopewellian Period Ritual. In *Recreating Hopewell: New Perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
 1971 The Dimensions of Status in the Burials at Spiro. In *Approaches to the Social Dimensions of Mortuary Practices*. J. A. Brown, ed. Pp. 92–112. *Society for American Archaeology Memoirs*, vol. 25. SAA, Washington, DC.

- 1975 Spiro Art and Its Mortuary Contexts. In *Death and the Afterlife in Pre-Columbian America*. E. P. Benson, ed. Dunbarton Oaks Research Library and Collections, Washington, DC.
- 1976 The Southern Cult Reconsidered. *Midcontinental Journal of Archaeology* 1(2):115–135.
- 1979 Charnel Houses and Mortuary Crypts: Disposal of the Dead in the Middle Woodland Period. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 211–219. Kent State University Press, Kent, OH.
- 1981 The Search for Rank in Prehistoric Burials. In *The Archaeology of Death*. R. Chapman, I. Kinnes, and K. Randsborg, eds. Pp. 25–37. Cambridge University Press, Cambridge.
- 1982 Mound City and the Vacant Ceremonial Center. Paper presented at the Annual Meetings of the Society for American Archaeology, Minneapolis, MN.
- 1994 Inventory and Integrative Analysis: Excavations of Mound City, Ross County, Ohio: Overview of Archaeological Investigations of the Mound City Group National Monument. Report to the National Park Service. On file at the Hopewell Culture National Historical Park.
- 1997a Lecture on Mound City and Hopewell Archaeology. Hopewell Culture National Historical Park, Chillicothe, OH.
- 1997b Comment on “Ceremonial Centres from the Cayapas (Esmeraldas, Equador) to Chillicothe (Ohio, USA)” by Warren R. DeBoer. *Cambridge Archaeological Journal* 7(2):225–253.
- Brown, James A., R.A. Kerber, and Howard D. Winters
1990 Trade and the Evolution of Exchange Relations at the Beginning of the Mississippian Period. In *The Mississippian Emergence*. B.D. Smith, ed. Pp. 251–280. Smithsonian Institution Press, Washington, D.C.
- Brown, James A., and James B. Stoltman
1992 Hopewellian Ceramic Sourcing with Thin-Section Analysis at Mound City, Ohio. Paper presented at the 37th Midwest Archaeological Conference, Grand Rapids, MI.
- Brown, Judith K.
1970 Economic Organization and the Position of Women among the Iroquois. *Ethnohistory* 17:151–167.
- Brumfiel, Elizabeth M.
1991 Weaving and Cooking: Women’s Production in Aztec Mexico. In *Engendering Archaeology: Women and Prehistory*. J. M. Gero and M. W. Conkey, eds. Pp. 224–251. Oxford University Press, Oxford.
- 1994 Ethnic Groups and Political Development in Ancient Mexico. In *Factional Competition and Political Development in the New World*. E. M. Brumfiel and J. W. Fox, eds. Pp. 89–102. Cambridge University Press, Cambridge.
- Buikstra, Jane E.
1972 Hopewell in the Lower Illinois River Valley: A Regional Approach to the Study of Biological Variability and Mortuary Activity. Unpublished doctoral dissertation, University of Chicago.
- 1974 Cultural Dimensions of Archeological Study: A Regional Perspective. Paper presented at the Annual Meetings of the Society for American Archaeology, Washington, DC.
- 1976 Hopewell in the Lower Illinois valley: A Regional Study of Human Biological Variability and Prehistoric Mortuary Behavior. *Northwestern University Archeological Program Scientific Papers*, 2. Northwestern Archeological Program, Evanston, IL.
- 1977 Biocultural Dimensions of Archeological Study: A Regional Perspective. In *Sociocultural Adaptation in Prehistoric America*. R. Blakely, ed. Pp. 67–83. *Proceedings of the Southern Anthropological Society*, vol. 11. University of Georgia, Athens.
- 1979 Contributions of Physical Anthropologists to the Concept of Hopewell: A Historical Perspective. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 220–233. Kent State University Press, Kent, OH.
- Buikstra, Jane E., and Douglas K. Charles
1999 Centering the Ancestors: Cemeteries, Mounds, and Sacred Landscapes of the Ancient North American Midcontinent. In *Archaeologies of Landscape: Contemporary Perspectives*. W. Ashmore and A. B. Knapp, eds. Pp. 201–228. Blackwell, Malden, MA.
- n.d. Middle Woodland Monuments in the Lower Illinois Valley: Time, Traditions, and Transformations. In *Recreating Hopewell: New Perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J. E. Buikstra, eds. Book in progress.
- Buikstra, Jane E., and Douglas H. Ubelaker
1994 Standards for Data Collection from Human Skeletal Remains. *Arkansas Archaeological Survey Research Series*, 44. Arkansas Archeological Survey, Fayetteville.
- Buikstra, Jane E., Douglas K. Charles, and Gordon F. M. Rakita
1998 Staging Ritual: Hopewell Ceremonialism at the Mound House Site, Greene County, Illinois. *Studies in Archeology and History*, 1. Center for American Archaeology, Kampsville, IL.
- Bullard, W. R.
1962 Settlement and social structure in the southern Mayan lowlands during the Classic period. In *Ancient Mesoamerica*, J. Graham, ed. Pp. 137–145.
- Bullen, Ripley
1951 The Terra Ceia Site, Manatee County, Florida. Florida Anthropological Society Publication No. 3. Graves Museum of Archaeology and Natural History, Dania Beach, FL.
- 1953 The Famous Crystal River Site. *Florida Anthropologist* 6:9–37.
- Bullington, Jill
1988 Middle Woodland Mound Structure: Social Implications and Regional Context. In *The Archaic*

- and Woodland Cemeteries at the Elizabeth Site in the Lower Illinois Valley. D. K. Charles, S. R. Leigh and J. E. Buikstra, eds. Pp. 218–241. *Kampsville Archeological Center Research Series*, 7. Kampsville, IL.
- Bumstead, M. P., J. E. Booker, R. M. Barnes, T. W. Boutton, G. J. Armelagos, J. C. Lerman, and K. Brendel
1990 Recognizing Women in the Archaeological Record. In *Powers of Observation: Alternative Views in Archaeology*. S. M. Nelson and A. B. Kehoe, eds. Pp. 89–101. *Archaeological Papers of the American Anthropological Association*. AAA, Washington, DC.
- Burkett, Frank N.
1997 Kings, Clouds, Birds, and Ears: Reflections on the Decorated Leather Objects from the Mt. Vernon Site. In *Hopewell in Mt. Vernon: A Study of the Mt. Vernon Site (12-PO-885)*. Pp. 265–275. General Electric, Mt. Vernon, IN.
- Burks, Jarrod, and William S. Dancey
1999 The Strait Site: A Middle to Late Woodland Settlement in Central Ohio. Electronic document. http://www.ohioarchaeology.org/burks_1999.html. Retrieved July 6, 2003.
- Burks, Jarrod, and Jennifer Pederson
1999 From Secular to Sacred: A Comparison of Occupation Debris from Middle Woodland Habitation and Earthwork Sites in Central Ohio. Paper presented at the Annual meeting of the Midwest Archaeological Conference, East Lansing, MI.
2000 An Update on Non-Mound Debris Studies at Hopewell Mound Group (33Ro27), Ross County, Ohio. Paper presented at the Joint Midwest Archaeological and Plains Conference, St. Paul, MN.
- Burks, Jarrod, Jennifer Pederson, and Dawn Walter
2002 Hopewell Land Use Patterns at Hopeton Earthworks. Paper presented at the Annual Meeting of the Society for American Archaeology, Denver, CO.
- Burton, M. L., L. A. Brudner, and D. R. White
1977 A Model of the Division of Labor by Sex. *American Ethnologist* 4:227–251.
- Bush, David R., Frank J. Cantelas, and Jare Cardinal
1989 The Phase II Cultural Resource Report for the Proposed PIK-SR 32-13.55 Project in Pike County, Ohio—Final, Revised June 11, 1989. Archaeology Laboratory, Case Western Reserve University, Department of Anthropology, Cleveland, unpublished MS.
- Bush, David R., Judith E. Thomas, Mark A. Kollecker, and Michael Simons
1992 The Phase III Investigations for the Proposed PIK-SR 32-13.55 Project in Pike County, Ohio—Final Draft. Archaeology Laboratory, Case Western Reserve University, Department of Anthropology, Cleveland, unpublished MS.
- Butler, Brian M.
1968 Copena: A Re-evaluation. University of Tennessee, Knoxville, unpublished MS.
- 1979 Hopewellian Contacts in Southern Middle Tennessee. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 150–156. Kent State University Press, Kent, OH.
- Byers, Martin
1996 Social Structure and the Pragmatic Meaning of Material Culture: Ohio Hopewell as Ecclesiastic-Communal Cult. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*, P. J. Pacheco, ed. Pp. 174–192. Kent State University Press, Kent, OH.
- Cadiente, Teresa L.
1998 Musculoskeletal Stress Markers (MSM) and Social Differentiation: A Comparison of Hopewellian and Fort Ancient Peoples of Ohio. Unpublished master's thesis, Arizona State University.
- Cadiente, Teresa L., and Bethel L. Nagy
1998 Activity-Related Sexual Dimorphism and Prehistoric Subsistence Strategies in the American Midwest. Paper presented at the Annual Meeting of the American Association of Physical Anthropologists.
- Calais-Germain, B.
1993 *Anatomy of Movement*. Eastland Press, Seattle.
- Caldwell, Joseph R.
1955 Interaction Spheres in Prehistory. *Illinois State Museum Scientific Papers* XII(6): 133–156.
1958 Trend and Tradition in the Prehistory of the Eastern United States. *American Anthropological Association Memoirs*, 88. AAA Springfield, IL.
1964 Interaction Spheres in Prehistory In *Hopewellian Studies*. J. Caldwell and R. Hall, eds. Pp. 133–143. *Scientific Papers*, 12(2). Illinois State Museum, Springfield.
n.d. Unpublished field notes on excavation at the Twenhofel site. Illinois State Museum, Springfield.
- Callender, Charles
1962 Social Organization of the Central Algonkian Indians. *Publications in Anthropology*, 7. Milwaukee Public Museum, Milwaukee, WI.
1978a Great Lakes–Riverine Sociopolitical Organization. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 610–621. Smithsonian Institution Press, Washington, DC.
1978b The Fox. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 636–647. Smithsonian Institution Press, Washington, DC.
1978c The Shawnee. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 622–635. Smithsonian Institution Press, Washington, DC.
1978d The Sauk. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 648–655. Smithsonian Institution Press, Washington, DC.
1979 Hopewell Archaeology and American Ethnology. In *Hopewell Archaeology: The Chillicothe Conference*.

- D. S. Brose and N. Greber, eds. Pp. 254–257. Kent State University Press, Kent, OH.
- 1994 Central Algonkian Moieties. In *North American Indian Anthropology: Essays on Society and Culture*. R. J. DeMallie and A. Ortiz, eds. Pp. 108–124. University of Oklahoma Press, Norman.
- Callender, Charles, Richard K. Pope, and Susan M. Pope
1978 Kickapoo. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 656–667. Smithsonian Institution Press, Washington, DC.
- Cannon, Aubrey
1989 The Historical Dimension in Mortuary Expressions of Status and Sentiment. *Current Anthropology* 30(4):437–447.
- Canuto, Marcello A., and Jason Yaeger, eds.
2000 *The Archaeology of Communities: A New World Perspective*. Routledge, London/New York.
- Capasso, Luigi, K. A. R. Kennedy, and C. A. Wilczek
1999 Atlas of Occupational Markers in Human Remains. *Journal of Paleontology, Monograph Publication 3*. Edigrafital S.p.A., Taramo, Italy.
- Carithers, Michael, Steven Collins, and Steven Lukes, eds.
1985 *The Category of the Person*. Cambridge University Press, Cambridge, UK.
- Carpenter, Edmund
1956 Irvine, Cornplanter and Corydon Mounds, Warren County, Pennsylvania. *Pennsylvania Archaeologist* 26:89–115.
- Carr, Christopher
1982a A Functional and Distributional Study of Surface Artifacts from the Crane Site. In *Soil Resistivity Surveying*. Pp. 183–351. Center for American Archaeology, Evanston, IL.
1982b *Soil Resistivity Surveying*. Center for American Archaeology, Evanston, IL.
1984 The Nature of Organization of Intrasite Archaeological Records and Spatial Analytic Approaches to Their Investigation. In *Advances in Archaeological Method and Theory*. Pp. 103–222. Academic Press, New York.
1985 Getting into Data: Philosophy and Tactics for the Analysis of Complex Data Structures. In *For Concordance in Archaeological Analysis: Bridging Data Structure, Quantitative Technique, and Theory*. C. Carr, ed. Pp. 18–44. Westport Publishers, Kansas City, MO.
1991 Left in the Dust: Contextual Information in Model-Focused Archaeology. In *The Interpretation of Spatial Patterns within Stone Age Archaeological Sites*. T.D. Price and E.M. Kroll, eds. Pp. 221–256. Plenum Publishers, New York.
1992a Modeling the Evolution of Alliance Strategies as Systems Regulators in Egalitarian Societies. In *Reports for 1990 and 1991: Fifteenth Anniversary Issues*. P. 147. Wenner–Gren Foundation for Anthropological Research, New York.
1992b Ohio Hopewell Household Integration and Ceramic Exchange. Paper presented at the 37th Midwest Archaeological Conference, Grand Rapids, MI.
1995a A Unified Middle-Range Theory of Artifact Design. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. Neitzel, eds. Pp. 171–258. Plenum Press, New York.
1995b Mortuary Practices: Their Social, Philosophical-Religious, Circumstantial, and Physical Determinants. *Journal of Archaeological Method and Theory* 2(2):105–200.
1997 Adena Tablets and Reel-Shaped Gorgets Revisited: Continuity and Change in Ohio and Eastern Woodlands Indian Cosmology. Paper presented at the Ohio Archaeological Council, Chillicothe, OH.
1998 An Overview of Some Essential World View Themes and Specific Beliefs Expressed in Ohio Hopewell Art and Burial Practices. Paper presented at the Annual Midwest Archaeological Conference, Muncie, IN.
1998/1999 *Reconstructing the Cosmology of Prehistoric Ohio Hopewell Peoples, and Its Role in the Development of Supralocal Leadership (50 B.C.–A.D. 350)*. Wenner–Gren Foundation for Anthropological Research, Biennial Report for 1998–1999. Wenner-Gren, New York.
1999a Continuity and Change in the Representation, Use, and Meaning of the World Axis in Pre-Contact, Eastern Woodlands Material Culture. Paper presented at the Biennial Meeting of the Native American Art Studies Association, Victoria, B.C., Canada.
1999b The Adena Tablets of Ohio, Kentucky, and West Virginia: Continuity and Change in the Cosmology of Woodland Native Americans. Paper presented at the Annual Meeting of the Society for American Archaeology, Chicago, IL.
2000a Ohio Hopewellian Cosmology and Art. Paper presented at the Tenth Annual Woodland Conference, sponsored by the Museums at Prophetstown and Hopewell Culture National Historical Park, National Park Service, Chillicothe, OH.
2000b Ohio Hopewellian Cosmology and Its Material, Symbolic Representations. Paper presented at Perspectives on Middle Woodland at the Millennium, Center for American Archaeology, Pere Marquette Park, IL.
2000c Development of High-Resolution, Digital, Color and Infrared Photographic Methods for Preserving Imagery on Hopewellian Copper Artifacts. Funded grant proposal to the National Park Service, National Center for Preservation Technology and Training, Natchitoches, LA.
2000d Artworks on Ohio Hopewellian Copper Artifacts. Paper presented at the Annual Meeting of the Society for American Archaeology, Philadelphia, PA.
n.d. Possible Social Roles in Which Ohio Hopewellian Artifact Classes Were Used. In *The Ohio*

- Hopewell Mortuary Record: An Archaeological and Bioarchaeological Inventory. D. T. Case and C. Carr, eds. Manuscript in progress.
- Carr, Christopher, and D. Troy Case
1995 Ohio Hopewell Cosmology, Beliefs, and Their Symbols. Paper presented at the Annual Meeting of the Southeastern Ceremonial Complex Study Group, Maya Meetings, University of Texas, Austin.
- 1996 Souls in Flight: World View and Images of the Ohio Hopewell, 150 B.C.–A.D. 350. Paper presented at the Annual Meeting of the Society for American Archaeology, New Orleans, LA.
- Carr, Christopher, and Beau J. Goldstein
n.d. Functional Assignments of Ohio Hopewellian Artifacts. In *The Ohio Hopewell Mortuary Record: An Archaeological and Bioarchaeological Inventory*. D. T. Case and C. Carr, eds. Manuscript in progress.
- Carr, Christopher, and Herbert Haas
1996 Beta-Count and AMS Radiocarbon Dates of Woodland and Fort Ancient Period Occupations in Ohio, 1350 B.C.–A.D. 1650. *West Virginia Archaeologist* 48(1, 2):19–36.
- Carr, Christopher, and Kathryn King
n.d. Morphological data on Hopewellian copper ear spoons from the Southeastern United States. On file with C. Carr, Department of Anthropology, Arizona State University, Tempe.
- Carr, Christopher, and Jean-Christophe Komorowski
1995 Identifying the Mineralogy of Rock Temper in Ceramics Using X-Radiography. *American Antiquity* 60(4):723–749.
- Carr, Christopher, and Andrew D. W. Lydecker
1998 Exploring the Possibility of Artwork on Ohio Hopewell Copper Artifacts (ca. 50 B.C.–A.D. 350) with High-Resolution Digital Photography, Image Enhancement, and Electron Microprobe Chemical Analysis. Unpublished final report to Eastern National Parks and Monuments Association. On file at Hopewell Culture National Historical Park, Chillicothe, and Ohio Historical Center, Columbus.
- Carr, Christopher, Andrew D. W. Lydecker, Douglas Pride, Steven Hoffman, Jeffery A. Colwell, and John Mitchell
2000 Artworks on Ohio Hopewell Copper Artifacts. Paper presented at the annual meeting of the Society for American Archaeology, Philadelphia, PA, April.
- Carr, Christopher, and Robert F. Maslowski
1995 Cordage and Fabrics: Relating Form, Technology, and Social Processes. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. Pp. 297–343. Plenum Press, New York.
- Carr, Christopher, and Jill E. Neitzel
1995a Integrating Approaches to Material Style in Theory and Philosophy. In *Style, Society, and Person*. C. Carr and J. E. Neitzel, eds. Pp. 3–29. Plenum, New York.
- 1995b Future Directions for Material Style Studies. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. E. Neitzel, eds. Pp. 437–459. Plenum Press, New York.
- 1995c Style in Complex Societies. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. Neitzel, eds. Pp. 389–392. Plenum Press, New York.
- Carr, Christopher, and Derek Sears
1985 Toward an Analysis of the Exchange of Meteoritic Iron in the Middle Woodland. *Southeastern Archaeology* 4(2):79–92.
- Carr, Christopher, A. D. W. Lydecker, E. Kopala, J. S. Nicoll, J. A. Colwell, S. M. Hoffman, J. Mitchell, A. Yates, D. Pimentell, D. Simpson, and J. Barron
2002 Technical Studies of Artworks on Ohio Hopewell Copper Artifacts. Paper presented at the Midwestern Archaeological Conference, Columbus, OH.
- Carskadden, Jeff, and James Morton
1996 The Middle Woodland–Late Woodland Transition in the Central Muskingum Valley of Eastern Ohio: A View from the Philo Archaeological District. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 316–338. Ohio Archaeological Council, Columbus.
- Case, D. Troy, and Christopher Carr, eds.
n.d. The Ohio Hopewell Mortuary Record: An Archaeological and Bioarchaeological Inventory. Manuscript in progress.
- Chaffin, D. B., and G. B. J. Anderson
1991 *Occupational Biomechanics*. John Wiley & Sons, New York.
- Chagnon, Napoleon A.
1979 Is Reproductive Success Equal in Egalitarian Societies? In *Evolutionary Biology and Human Social Behavior: An Anthropological Perspective*. N. A. Chagnon and W. Irons, eds. Pp. 374–401. Duxbury Press, North Scituate, MA.
- 1983 *The Yanomamo: The Fierce People*. Holt, Rinehart and Winston, New York.
- Chamay, A., and P. Tschantz
1971 Mechanical Influences in Bone Remodeling: Experimental Research on Wolff's Law. *Journal of Biomechanics* 5:173–180.
- Chapman, Jefferson
1973 The Icehouse Bottom Site, 40MR23. *Report of Investigations*, 13. Department of Anthropology, University of Tennessee, Knoxville.
- Chapman, Jefferson, and Bennie C. Keel
1979 Candy Creek–Connestee Components in Eastern Tennessee and Western North Carolina and Their Relationship with Adena–Hopewell. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 157–161. Kent State University Press, Kent, OH.

- Chapman, R. C., and K. Randsborg
1981 Approaches to the Archaeology of Death. In *The Archaeology of Death*. R. C. Chapman, I. Kinnes, and K. Randsborg, eds. Pp. 1–24. Cambridge University Press, Cambridge.
- Charles, Douglas K.
1985 Corporate Symbols: An Interpretive Prehistory of Indian Burial Mounds in Westcentral Illinois. Unpublished doctoral dissertation, Northwestern University.
1992 Woodland Demographic and Social Dynamics in the American Midwest: Analysis of a Burial Mound Survey. *World Archaeology* 24:175–197.
1995 Diachronic Regional Social Dynamics: Mortuary Sites in the Illinois Valley/American Bottom Region. In *Regional Approaches to Mortuary Analysis*. L. A. Beck, ed. Pp. 77–99. Plenum, New York.
- Charles, Douglas K., and Jane E. Buikstra
1983 Archaic Mortuary Sites in the Central Mississippi drainage. In *Archaic Hunters and Gatherers in the American Midwest*. J. Phillips and J. A. Brown, eds. Pp. 117–122. Academic Press, New York.
2002 Siting, Sighting, and Citing the Dead. In *The Space and Place of Death*. H. Silverman and D. Small, eds. Pp. 1–21. *Archaeological Papers*, 11. American Anthropological Association, Arlington, VA.
- Charles, Douglas, Leigh Steven, and Jane E. Buikstra, eds.
1988 The Archaic and Woodland Cemeteries at the Elizabeth Site in the Lower Illinois Valley. *Kampsville Archaeological Center Research Series* 7, Kampsville, IL.
- Charles, Douglas K., and Jane E. Buikstra
n.d. *Recreating Hopewell: New Perspectives on Middle Woodland in Eastern North America*. Book in progress.
- Charles, Douglas K., and Juliana L. Shortell
2002 Pots as Tools: Using Sherd and Vessel Distributions to Examine Site Structure. Poster presented at the Annual Meeting of the Society for American Archaeology, Denver, CO.
- Chase, David W.
1998 Swift Creek: Lineage and Diffusion. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 48–60. University of Alabama Press, Tuscaloosa.
- Chaudhuri, Jean, and Joyotpaul Chaudhuri
2001 *A Sacred Path: The Way of the Muscogee Creeks*. UCLA American Indian Studies Center, Los Angeles, CA.
- Childe, V. Gordon
1945 Directional Changes in Funerary Practices during 50,000 years. *Man* 4:13–19.
- Chisholm, Michael
1962 *Rural Settlement and Land Use: An Essay in Location*. Hutchinson University Library, London.
- Church, Flora, and Annette Ericksen
1995 *The Results of Data Recovery at Site 33 Pk 153 for the PIK-SR.32-13.5 Project, Seal Township, Pike County, Ohio*. Archaeological Services Consultants, Columbus, OH.
1997 Beyond the Scioto Valley: Middle Woodland Occupations in the Salt Creek Drainage. In *Ohio Hopewell Community Organization*. W. S. Dancy and P. J. Pacheco, eds. Pp. 331–360. Kent State University Press, Kent, OH.
- Claassen, C., and R. A. Joyce
1997 *Women in Prehistory: North America and Mesoamerica*. University of Pennsylvania Press, Philadelphia.
- Clark, David E., and Barbara A. Purdy
1982 Early Metallurgy in North America. In *Early Pyrotechnology: The Evolution of the First Fire-Using Industries*. Theodore A. Wertime and Steven F. Wertime, eds. Pp. 45–58. Smithsonian Institution Press, Washington, DC.
- Clark, Geoffrey A.
1982 Quantifying Archaeological Research. *Advances in Archaeological Method and Theory* 5:217–273.
- Clark, John E.
2000 Towards a Better Explanation of Hereditary Inequity: A Critical Assessment of natural and Historic Human Agents. In *Agency in Archaeology*, M.-A. Dobres and J. E. Robb, eds. Pp. 92–112. Routledge, London.
- Clarke, David L.
1968 *Analytical Archaeology*. Methuen, London.
- Clark, John E., and Michael Blake
1994 The Power of Prestige: Competitive Generosity and the Emergence of Rank Societies in Lowland Mesoamerica. In *Factional Competition and Political Development in the New World*. E.M. Brumfiel and J.W. Fox, eds. Pp. 17–30. Cambridge University Press, Cambridge, U.K.
- Clay, R. Berle
1986 Adena Ritual Spaces. In *Early Woodland Archaeology*. B. K. B. Farnsworth and T. E. Emerson, eds. Pp. 581–595. Center for American Archaeology, Kampsville, IL.
1987 Circles and Ovals: Two Types of Adena Space. *Southeastern Archaeology* 6(1):46–56.
1991 Essential Features of Adena Ritual. Glenn A. Black Labortary of Archaeology Research Reports No. 13, Bloomington, IN.
1992 Chiefs, Big Men, or What? Economy, Settlement Patterns, and Their Bearing on Adena Political Models. In *Cultural Variability in Context*. M. F. Seaman, eds. Pp. 77–80. *Mid-Continental Journal of Archaeology*, Special Paper 7. Kent State University Press, Kent, OH.
- Clifton, James A.
1978 Potawatomi. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 725–742. Smithsonian Institution Press, Washington, DC.

- Cohen, Anthony P.
1985 *The Symbolic Construction of Community*. Ellis Horwood/Tavistock, Chichester/London/New York.
- Cohen, Ronald
1978 Ethnicity: Problem and Focus in Anthropology. *Annual Review of Anthropology* 7:379–403.
- Cooper-Cole, Faye, and Thorne Deuel
1937 *Rediscovering Illinois: Archaeological Explorations in and around Fulton County*. University of Chicago Press, Chicago.
- Cole, Gloria G.
1981 The Murphy Hills Site (1Ms300): The Structural Study of a Copena Mound and Comparative Review of the Copena Mortuary Complex. *Publications in Anthropology*, 31. Tennessee Valley Authority.
- Collaer, Paul
1973 *Music of the Americas: An Illustrated Music Ethnology of Eskimo and American Indian Peoples*. Praeger Press, New York.
- Collier, Jane F. and Michelle Z. Rosaldo
1981 Politics and Gender in Simple Societies. In *Sexual Meanings: The Cultural Construction of Gender and Sexuality*. S. B. Ortner and H. Whitehead, eds. Pp. 276–329. Cambridge University Press, Cambridge.
- Collins, Henry
1926 Archaeological and Anthropological and Anthropometric Work in Mississippi. 1st edition. *Smithsonian Miscellaneous Collections*, 78. Smithsonian Institution Press, Washington, DC.
- Collins, Patricia Hill
1990 *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. Routledge, New York.
- Conard, N. D., D. Asch, N. Asch, D. Elmore, H. Grove, M. Rubin, J. Brown, M. Wiant, K. B. Farnsworth, and T. Cook
1984 Accelerator Radiocarbon Dating of Evidence for Prehistoric Horticulture in Illinois. *Nature* 308:443–446.
- Conkey, M. W., and J. M. Gero
1991 Tensions, pluralities, and engendering archaeology: An introduction to women and prehistory. In *Engendering Archaeology: Women and Prehistory*. M. W. Conkey and J. M. Gero, eds. Pp. 3–30. Basil Blackwood, Oxford.
- Conkey, Margaret, and Janet D. Spector
1984 Archaeology and the Study of Gender. In *Advances in Archaeological Method and Theory*, vol. 7. Pp. 1–38. Academic Press, Orlando, FL.
- Connolly, Robert P.
1996 Prehistoric Land Modification at the Fort Ancient Hilltop Enclosure: A Model of Formal and Accretive Development. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. Pacheco, ed. Pp. 258–273. Ohio Archaeological Council, Columbus.
- 1997 The Evidence for Habitation at the Fort Ancient Earthworks, Warren County, Ohio. In *Ohio Hopewell Community Organization*. W. Dancey and P. Pacheco, eds. Pp. 251–281. Kent State University Press, Kent, OH.
- Converse, Robert
1979 *The Glacial Kame Indians*. Special Publication. Archaeological Society of Ohio, Columbus.
- 1993 The Troyer Site: A Hopewell Habitation Site, and a Secular View of Hopewell Villages. *Ohio Archaeologist* 43(3):4–12.
- Conway, T.
1992 Ojibway Oral History Relating to 19th Century Rock Art. *American Indian Rock Art* 15:1–26.
- 1993 *Painted Dreams: Native American Rock Art*. North Word Press, Minoqua.
- Cook, Thomas Genn
1976 Koster: An Artifact Analysis of Two Archaic Phases in Westcentral Illinois. *Prehistoric Records*, 1. Northwestern University Archeological Program, Evanston, IL.
- Coon, Matthew S.
2002 Variations in Ohio Hopewell Political Economy. Paper presented at the Midwestern Archaeological Conference, Columbus, OH.
- Cordy-Collins, Alana
1980 An Artistic Record of the Chavin Hallucinatory Experience. *The Masterkey* 54(3):84–93.
- Cotkin, Spencer J., Christopher Carr, Mary Louise Cotkin, Alfred E. Dittert, and Daniel T. Kremser
1999 Analysis of Slips and Other Inorganic Surface Materials on Woodland and Early Fort Ancient Ceramics, South–Central Ohio. *American Antiquity* 64(2):316–342.
- Cotter, John L., and John M. Corbett
1951 Archaeology of the Bynum Mounds, Mississippi. *Archaeological Research Series*, 1. National Park Service, U.S. Department of the Interior, Washington, DC.
- Cotton, M. Aylwin
1955 British Camps with Timber-laced Ramparts. *Archaeological Journal* 111:26–105.
- Coughlin, Sean, and Mark F. Seeman
1997 Hopewell Settlements at the Liberty Earthworks, Ross County, Ohio. In *Ohio Hopewell Community Organization*. W. S. Dancey and P. J. Pacheco, eds. Pp. 231–250. Kent State University Press, Kent, OH.
- Counts, David R.
1979 The Good Death in Kaliai: Preparation for Death in Western New Britain. In *Death and Dying: Views from Many Cultures*. R. A. Kalish, ed. Pp. 39–44. Baywood, Farmingdale, NY.
- Cowan, Frank L.
n.d. A Mobile Hopewell?: Questioning Assumptions of Ohio Hopewell Sedentism. In *Recreating Hopewell: New Perspectives on Middle Woodlands in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
- Cowan, Frank, Ted Sunderhaus, and Robert Genheimer
1998 Notes from the Field: An Update from the Stubbs

- Earthworks Site. *The Ohio Archaeological Council Newsletter* 10(2):6–13.
- 1999a In the Shadow of the Earthworks: Architecture and Activities Outside Ohio Hopewell Earthworks. Paper presented at the Annual Meeting of the Eastern States Archaeological Federation, Lebanon, OH.
- 1999b Notes from the Field, 1999: More Hopewell “Houses” at the Stubbs Earthworks Site. *The Ohio Archaeological Council Newsletter* 11(2):11–16.
- 2001 Wooden Architecture in Ohio Hopewell Sites: Structural and Spatial Patterns at the Stubbs Earthworks Site. Paper presented at the Annual Meeting of the Society for American Archaeology, Philadelphia, PA.
- 2002 Earthwork Peripheries: Probing the Margins of the Fort Ancient Site. Paper presented at the Fort Ancient Symposium, Ohio Historical Society, Columbus, OH.
- Cree, Beth
- 1992 Hopewell Panpipes: A Recent Discovery in Indiana. *Midcontinental Journal of Archaeology* 17(1):3–15.
- Crown, Patricia L.
- 2000 *Women and Men in the Prehispanic Southwest: Labor, Power, and Prestige*. School of American Research Press, Santa Fe, NM.
- Crown, Patricia L., and S. K. Fish
- 1996 Gender and Status in the Hohokam Pre-Classic Tradition. *American Anthropologist* 98(4):803–812.
- Custer, Jay F.
- 1987 New Perspectives on the Delmarva Adena Complex. *Midcontinental Journal of Archaeology* 12:223–258.
- Dablon, Father Claude
- 1666–1667, 1669–1670 In *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610–1791; The Original French, Latin, and Italian Texts, with English Translations and Notes*. 73 vols. Reuben Gold Thwaites, ed. Burrows Brothers, Cleveland, OH.
- Dahlberg, F., ed.
- 1981 *Woman the Gatherer*. Yale University Press, New Haven, CT.
- d’Alloué’s, Father Claude Jean
- 1666–1667 In *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit Missionaries in New France, 1610–1791; The Original French, Latin, and Italian Texts, with English Translations and Notes*. 73 vols. Reuben Gold Thwaites, ed. Burrows Brothers, Cleveland, OH.
- Dalton, G.
- 1968 Economic Theory and Primitive Society. In *Economic Anthropology: Readings in Theory and Analysis*. E. E. LeClair and H. K. Schneider, eds. Pp. 143–167. Holt, Rinehart and Winston, New York. (orig. 1961)
- 1977 Aboriginal Economies in Stateless Societies. In *Exchange Systems in Prehistory*. T. K. Earle and J. E. Ericson, eds. Pp. 191–229. Cambridge University Press, Cambridge.
- Dancey, William S.
- 1988 The Community Plan of an Early Late Woodland Village in the Middle Scioto River Valley. *Midcontinental Journal of Archaeology* 13(2):223–258.
- 1991 A Middle Woodland Settlement in Central Ohio: A Preliminary Report on the Murphy Site (33Li212). *Pennsylvania Archaeologist* 61:7–72.
- 1992 Village Origins in Central Ohio: The Results and Implications of Recent Middle and Late Woodland Research. In *Cultural Variability in Context: Woodland Settlements of the Mid-Ohio Valley*. M. Seaman, ed. Pp. 24–29. *Midcontinental Journal of Archaeology*, Special Publication 7. Kent State University Press, Kent, OH.
- 1995 Hopeton Settlement Archaeology, 1995. In *Hopewell Archaeology: The Newsletter of Hopewell Archaeology in the Ohio River Valley*, vol. 1(2). Mark J. Lynott and Bret J. Ruby, eds. National Park Service Midwest Archaeological Center and Hopewell Culture National Historical Park, Lincoln, NE, and Chillicothe, OH. Electronic version: <http://www.cr.nps.gov/mwac/hopewell/v1n2/>.
- 1996a Putting an End to Ohio Hopewell. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 394–405. Ohio Archaeological Council, Columbus.
- 1996b *Hopewell Earthwork Catchment Survey: Interim Report*. Report submitted to the National Park Service, Hopewell Culture National Historical Park, Chillicothe, OH.
- 1997 Interim Report on Archaeological Investigations Undertaken on the Overly Tract, Ross County, Ohio, March, 1995, to November, 1996. Report submitted to the National Park Service, Midwest Archeological Center and Hopewell Culture National Historical Park, Chillicothe, OH.
- Dancey, William S., and Paul J. Pacheco
- 1997a A Community Model of Ohio Hopewell Settlement. In *Ohio Hopewell Community Organization*. W. S. Dancey and P. J. Pacheco, eds. Pp. 3–40. Kent State University Press, Kent, OH.
- 1997b *Ohio Hopewell Community Organization*. Kent State University Press, Kent, OH.
- Darwin, Charles
- 1859 *The Origin of Species by Means of Natural Selection or the Preservation of Favoured Races in the Struggle for Life*. J. Murray, London.
- 1871 *The Descent of Man and Selection in Relation to Sex*. J. Murray, London.
- DeBoer, Warren R.
- 1997 Ceremonial Centers from the Cayapas (Esmeraldas, Ecuador) to Chillicothe (Ohio). *Cambridge Archaeological Journal* 7(2):225–253.
- 2001 Little Bighorn on the Scioto. Paper presented at A Pre-Columbian World: Searching for a Unitary Vision of Ancient America, Washington, DC.

- DeBoer, Warren R., and John Blitz
1991 Ceremonial Centers of the Chachi. *Expedition* 33(1):53–62.
- Deetz, James
1965 *The Dynamics of Stylistic Change in Arikara Ceramics*. University of Illinois Press, Urbana.
- de Rios, Marlene Dobkin
1977 Plant Hallucinogens, Out-of-Body Experiences, and New World Monumental Earthworks. In *Drugs, Rituals, and Altered States of Consciousness*. B. M. D. Toit, ed. Pp. 237–249. A. A. Balkema, Rotterdam.
- Despelder, Lynne Ann, and Albert Lee Strickland
1999 *The Last Dance: Encountering Death and Dying*. Mayfield, Mountain View, CA.
- Deuel, Thorne
1935 Basic Cultures of the Mississippi Valley. *American Anthropologist* 37(3):429–445.
1952 The Hopewellian Community. In *Hopewellian Communities in Illinois*. T. Deuel, ed. Pp. 249–265. *Scientific Papers*, 5. Illinois State Museum, Springfield.
- Dewdney, Selwyn
1970 Ecological Notes on the Ojibway Shaman-Artist. *ArtsCanada* 27(4):17–24.
1975 *The Sacred Scrolls of the Southern Ojibway*. University of Toronto Press, Toronto.
- Dillehay, T. D.
1990 Mapuche Ceremonial Landscape, Social Recruitment and Resource Rights. *World Archaeology* 22(2):223–241.
1992 Keeping Outsiders Out: Public Ceremony, Resource Rights, and Hierarchy in Historic and Contemporary Mapuche Society. In *Wealth and Hierarchy in the Intermediate Area*. F. Lange, ed. Pp. 379–422. *Dumbarton Oaks Research Library*, Washington, DC.
- Dixon, Milfred J., and Frank J. Massey
1969 *Introduction to Statistical Analysis*. New York, McGraw–Hill.
- Dixon, R. B.
1923 *The Racial History of Man*. Scribner's, New York.
- Dobres, Marcia-Anne, and John E. Robb
2000a Agency in Archaeology: Paradigm or Platitude. In *Agency in Archaeology*. M.-A. Dobres and J. E. Robb, eds. Pp. 3–17. Routledge, London.
- Dobres, Marcia-Anne, and John E. Robb, eds.
2000b *Agency in Archaeology*. Routledge, London.
- Dorman, Jennifer, L.
2002 Agency and Archaeology: Past, Present, and Future Directions. *Journal of Archaeological Method and Theory* 9(4):303–329.
- Dorsey, George A.
1905 *Traditions of the Caddo*. Carnegie Institution of Washington, Washington, DC.
- Dossey, Larry
1988 The Inner Life of the Healer: The Importance of Shamanism for Modern Medicine. In *Shaman's Path: Healing, Personal Growth, and Empowerment*. G. Doore, ed. Pp. 89–99. Shambhala, Boston.
- Douglas, Mary
1970 *National Symbols: Explorations in Cosmology*. Pantheon Books, New York.
- Douglass, A., and D. M. Schaller
1993 Sourcing Little Colorado White Ware: A Regional Approach to the Compositional Analysis of Prehistoric Ceramics. *Geoarchaeology* 8(3):177–201.
- Dragoo, Don W.
1963 Mounds for the Dead. *Annals of Carnegie Museum*, 37. Carnegie Museum, Pittsburg, PA.
- Dragoo, Don W., and Charles F. Wray
1964 Hopewell Figurine Rediscovered. *American Antiquity* 30(2):195–199.
- Driver, Harold
1969 *Indians of North America*. University of Chicago Press, Chicago.
- Drooker, P. B.
1997 The View from Madisonville: Prehistoric Western Fort Ancient Interaction Patterns. *Memoirs of the Museum of Anthropology*, 31. University of Michigan, Ann Arbor.
- Dunnell, Robert C.
1980 Evolutionary Theory and Archaeology. In *Advances in Archaeological Method and Theory*, vol. 3. Pp. 35–99. Academic Press, New York.
1989 Aspects of the Application of Evolutionary Theory in Archaeology. In *Archaeological Thought in America*. C. C. Lamberg-Karlovsky, ed. Pp. 35–49. Cambridge University Press, New York.
- Durkheim, Emile
1947a *The Elementary Forms of Religious Life*. Free Press, New York.
1947b *The Division of Labor*. Free Press, New York.
- Dutour, O.
1986 Enthesopathies (Lesions of Muscular Insertions) as Indicators of the Activities of Neolithic Saharan Populations. *American Journal of Physical Anthropology* 71:221–224.
- Earle, Timothy
1982 The Ecology and Politics of Primitive Values. In *Culture and Ecology: Eclectic Perspectives*. J. Kennedy and R. Edgerton, eds. Pp. 65–83. American Anthropological Association, Special Publication, 15.
- 1990 Style and Iconography as Legitimization in Complex Chiefdoms. In *The Uses of Style*. M. Conkey and C. Hastorf, ed. Pp. 73–81. Cambridge University Press, Cambridge.
- 1997 *How Chiefs Come to Power*. Stanford University Press, Stanford, CA.
- Eggan, Fred
1950 *Social Organization of the Western Pueblos*. University of Chicago Press, Chicago.
1955 *Social Organization of North American Tribes*. University of Chicago Press, Chicago.
1983 Comparative Social Organization. In *Handbook of North American Indians*, vol. 10. Southwest A.

- Ortiz, ed. Pp. 723–742. Smithsonian Institution, Washington, DC.
- Ehrenberg, M.
1989 *Women in Prehistory*. British Museum Publications, London.
- Eliade, Mircea
1964 *Shamanism: Archaic Techniques of Ecstasy*. Princeton University Press, Princeton, NJ.
1972 *Shamanism: Archaic Techniques of Ecstasy*. 2nd edition. Princeton University Press, Princeton, NJ.
- Elliott, Daniel T.
1998 The Northern and Eastern Expression of Swift Creek Culture: Settlement in the Tennessee and Savannah River Valleys. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 19–35. University of Alabama Press, Tuscaloosa.
- El-Najjar, M. Y., B. Lozoff, and D. J. Ryan
1975 The Paleoepidemiology of Porotic Hyperostosis in the American Southwest: Radiological and Ecological Considerations. *American Journal of Roentgenology and Radium Therapy* 125:918–924.
- El-Najjar, M. Y., D. J. Ryan, C. G. Turner II, and B. Lozoff
1976 The Etiology of Porotic Hyperostosis among the Prehistoric and Historic Anasazi Indians of the Southwestern United States. *American Journal of Physical Anthropology* 44:447–488.
- Emerson, Thomas E.
1989 Water, Serpents, and the Underworld: An Exploration into Cahokia Symbolism. In *Southern Ceremonial Complex: Artifacts and Analysis. The Cottonlandia Conference*. P. Galloway, ed. Pp. 45–92. University of Nebraska Press, Lincoln.
- Emerson, Thomas E., Randall E. Hughes, Mary R. Hynes, Kenneth B. Farnsworth, and Sarah U. Wissemann
2002 Hopewell Catlinite, Tremper Mound, and PIMA Technology. Paper presented at the Annual Midwestern Archaeological Conference, Columbus, OH.
- Erzigian, Anthony J., Patricia A. Tench, and Donna J. Braun
1984 Prehistoric Health in the Ohio River Valley. In *Paleopathology at the Origins of Agriculture*. M. N. Cohen and G. J. Armelagos, eds. Pp. 347–366. Academic Press, New York.
- Espiritu, Yen Le
2001 “We Don’t Sleep Around Like White Girls Do”: Family, Culture, and Gender in Filipina American Lives. *Signs* 26(2):415–440.
- Evans-Pritchard, E. E.
1940 *The Nuer*. Oxford University Press, Oxford.
- Fagan, Brian M.
1995a Middle Woodland and the Hopewellian. In *Ancient North America: The Archaeology of a Continent*. 2nd edition. Pp. 411–426. Thames and Hudson, London.
1995b *Ancient North America: The Archaeology of a Continent*. Thames and Hudson, New York.
- Farnsworth, Kenneth B.
1973 An Archaeological Survey of the Macoupin Valley. *Reports of Investigation*, 26. Illinois State Museum, Springfield.
- 1990 The Evidence for Specialized Middle Woodland Camps in Western Illinois. In *The Archaeology of Short-Term Middle Woodland Sites in West-Central Illinois*. vol. 2(1, 2). Illinois Archaeology. James R. Yingst, ed. Pp. 109–132. Illinois Archaeology. Illinois Archaeological Survey, Urbana–Champaign.
- 1997 Illinois Platform Pipes, Copper Bangles, and Painted Pottery: A Consideration of Hopewell Ritual and Exchange. Paper presented at the Society for American Archaeology Annual Meeting, Nashville, TN.
- Farnsworth, Kenneth B., and David L. Asch
1986 Early Woodland Chronology, Artifact Styles, and Settlement Distribution in the Lower Illinois Valley Region. In *Early Woodland Archeology*, vol. 2. Kampsville Seminars in Archeology. Kenneth B. Farnsworth and Thomas E. Emerson, eds. Pp. 326–457. Center for American Archeology, Kampsville Archeological Center, Kampsville, IL.
- Farnsworth, Kenneth B., and Karen A. Atwell
2001 Documentation of Human Burials and Mortuary Remains Recovered from Test Excavations at Naples–Russell Mound #8, Ray Norbut Conservation Area, Pike County, Illinois. Illinois Historic Preservation Agency and Illinois Department of Transportation.
- Farnsworth, Kenneth B., and Ann L. Koski
1985 Massey and Archie: A Study of Two Hopewellian Farmsteads in the Western Illinois Uplands. *Kampsville Archaeological Research Series*, 3. Center for American Archeology, Kampsville, IL.
- Farnsworth, Kenneth B., and Thomas E. Emerson, eds.
1986 *Early Woodland Archeology*. Kampsville Seminars in Archeology, 2. Center for American Archeology, Kampsville, IL.
- Farquarson, R.
1876 Recent Archaeological Discoveries at Davenport, Iowa. *Proceedings of the Davenport Academy of Natural Sciences* V(1):117–143.
- Feather, Eagle
1978 The Sweatlodge and the Sacred Rite of Purification. In *Sundancing at Rosebud and Pine Ridge*, T. E. Mails, ed. Pp. 87–96. Center for Western Studies, Augustana College, Sioux Falls, SD.
- Fecht, William G.
1985 New Thoughts on the Piasa Bird Legend. *Central States Archaeological Journal* October:174–179.
- Fedigan, L. M.
1986 The Changing Role of Women in Models of Human Evolution. *Annual Review of Anthropology* 15:25–66.
- Feest, Christian F.
1978 Virginia Algonquians. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 253–270. Smithsonian Institution Press, Washington, DC.

- Feinman, Gary
 1995 The Emergence of Inequity: A Focus on Strategies and Processes. In *Foundations of Social Inequity*. T.D. Price and G.M. Feinman, eds. Pp. 255–279. Plenum Publishers, New York.
 2000 Dual-processual Theory and Social Formations in the Southwest. In *Alternative Leadership Strategies in the Prehispanic Southwest*. B.J. Mills, ed. Pp. 207–224. University of Arizona Press, Tucson, AZ.
- Feinman, Gary, and Jill Neitzel
 1984 Too Many Types: An Overview of Sedentary Prestate Societies in the Americas. *Advances in Archaeological Method and Theory* 7:39–102.
- Fenneman, Nevin Melancthon
 1938 *Physiography of Eastern United States*. McGraw–Hill, New York.
- Fenton, William N.
 1978 Northern Iroquoian Culture Patterns. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 296–321. Smithsonian Institution Press, Washington, DC.
- Fidlar, Marion M.
 1948 Physiography of the Lower Wabash Valley. Bulletin 2. Indiana Geological Survey, Bloomington.
- Fie, Shannon M.
 n.d. Visiting in the Interaction Sphere: Ceramic Exchange in the Lower Illinois Valley. In *Recreating Hopewell: New Perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
 2000 An Integrative Study of Ceramic Exchange during the Illinois Valley Middle Woodland Period. Unpublished doctoral dissertation, State University of New York, Buffalo.
- Firth, Raymond
 1936 *We, the Tikopia: Kinship in Primitive Polynesia*. American Book, New York.
 1940 The Analysis of Mana: An Empirical Approach. *Journal of the Polynesian Society* 49:483–510.
 1951 *Elements of Social Organization*. Beacon Press, Boston.
 1955 The Fate of the Soul: An Interpretation of Some Primitive Concepts. In *Frazier Lecture 1955*. Pp. 3–45. Cambridge University Press, Cambridge.
- Fischer, Fred William
 1974 Early and Middle Woodland Settlement, Subsistence, and Population in the Central Ohio Valley. Unpublished doctoral dissertation, Washington University.
- Fitting, James
 1971 Rediscovering Michigan Archaeology: Notes on the 1885 Converse Mound Collection. *Michigan Archaeologist* 17(1):33–39.
- Fitting, James E., and David S. Brose
 1970 The Northern Periphery of Adena. In *Adena: The Seeking of an Identity*. J. B. K. Swartz, ed. Pp. 29–55. Ball State University, Muncie, IN.
- Flannery, Kent V.
 1967 The Olmec and the Valley of Oaxaca: A Model for Inter-regional Interaction in Formative Times. In *Dumbarton Oaks Conference on the Olmec*. E. P. Benson, ed. Pp. 79–110. Dumbarton Oaks Research Library and Collection, Washington, DC.
 1972 The Cultural Evolution of Civilizations. *Annual Review of Ecology and Systematics* 3:399–426.
- Flannery, Regina
 1946 The Culture of the Northeastern Indian Hunters: A Descriptive Survey. In *Man in Northeastern North America*. F. Johnson, ed. Papers of the Robert J. Peabody Foundation for Archaeology, 3:236–271.
- Fletcher, Alice C., and Francis La Flesche
 1911 The Omaha Tribe. Twenty-Seventh Annual Report. Bureau of American Ethnology, Washington, DC.
- Ford, James A.
 1963 Hopewell Culture Burial Mounds Near Helena, Arkansas. *Anthropological Papers of the American Museum of Natural History* 50(1):5–55.
- Ford, Richard I.
 1974 Northeastern Archaeology: Past and Future Directions. *Annual Review of Anthropology* 3:385–414.
 1979 Gathering and Gardening: Trends and Consequences of Hopewell Subsistence Strategies. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 234–238. Kent State University Press, Kent, OH.
 1987 Dating Early Maize in the Eastern United States. Paper presented at the annual meeting of the American Association for the Advancement of Science, Chicago, IL.
- Fornaciari, G. and M. Torino
 1995 Exploration of the Tomb of Pandolfo III of Malatesta (1370–1427), Prince of Fano (Central Italy). *Paleopathology Newsletter* 92:7–9.
- Fortes, Meyer
 1945 *The Dynamics of Clanship among the Tallensi*. Oxford University Press, Oxford.
- Fowke, Gerard
 1902 *Archaeological History of Ohio*. Ohio Archaeological and Historical Society, Columbus.
- Fowler, Melvin K.
 1952 The Clear Lake Site: Hopewellian Occupation. In *Hopewellian Communities in Illinois*. Thorne Deuel, ed. Pp. 131–174. *Scientific Papers*, 5(4). Illinois State Museum, Springfield.
 1957 Rutherford Mound, Hardin County, Illinois. *Scientific Papers*, 7. Illinois State Museum, Springfield, Illinois.
- Frankenstein, A. and M.J. Rowlands
 1978 The Internal Structure and Regional Context of Early Iron Age Society in South-Western Germany. *Bulletin of the Institute of Archaeology* 15:73–112.

- Frazer, James George
 1935 *The Golden Bough: A Study in Magic and Religion*, 3rd edition, 12 vol. MacMillan and Company, London.
 1959 *The New Golden Bough: A New Abridgement of the Classic Work by Sir James George Frazer*, edited by T.H. Gaster. Criterion Books, New York.
- Freeman, Joan F.
 n.d. Museum, State Historical Society of Wisconsin, Madison, MS on file.
- Freestone, I. C.
 1991 Extending Ceramic Petrology. In *Recent Developments in Ceramic Petrology*. A. P. Middleton and I. C. Freestone, eds. Pp. 399–410. *British Museum Occasional Papers*, 81. British Museum, London.
 1995 Ceramic Petrography. *American Journal of Archaeology* 99:111–115.
- Fried, Morton
 1957 The Classification of Corporate Unilineal Descent Groups. *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 87(1):1–29.
 1960 On the Evolution of Social Stratification and the State. In *Culture in History*. S. Diamond, ed. Pp. 713–731. Columbia University Press, New York.
 1967 *The Evolution of Political Society*. Random House, New York.
 1968 On the Concept of “Tribe” and “Tribal Society.” In *Essays on the Problem of Tribe*. J. Helm, ed. Pp. 3–20. Proceedings of the American Ethnological Association, Seattle, WA.
- Friedman, Jonathon, and M.J. Rowlands
 1977 Notes Toward an Epigenetic Model of the Evolution of a “Civilization.” In *The Evolution of Social Systems*. J. Friedman and M.J. Rowlands, eds. Pp. 210–276. Duckworth, London.
- Friedl, Erika
 1989 *Women of Deh Koh: Lives in an Iranian Village*. Smithsonian Institution Press, Washington, DC.
- Friedl, Ernestine
 1975 *Women and Men: An Anthropologist's View*. Holt, Rinehart and Winston, New York.
- Friedman, Jonathan
 1975 Tribes, States, and Transformations. In *Marxist Analyses and Social Anthropology*. M. Block, ed. Pp. 161–165. Malaby Press, London.
- Friedman, Jonathan, and M. J. Rowlands
 1978 Notes towards an Epigenetic Model of the Evolution of “Civilization”. In *The Evolution of Social Systems*. J. Friedman and M. J. Rowlands, eds. Pp. 201–276. Duckwork, London.
- Friedrich, Margaret Hardin
 1970 Design Structure and Social Interaction: Archaeological Implications of an Ethnographic Analysis. *American Antiquity* 35:332–343.
- Fulton, R., and S.W. Anderson
 1992 The Amerindian “Man-Woman”: Gender, Liminality, and Cultural Continuity. *Current Anthropology* 33(5):603–610.
- Garniewicz, Rexford
 1993 A Preliminary Report on Middle Woodland Animal Utilization at the Mann Site. In *Current Research in Indiana Archaeology and Prehistory: 1991–1992*. Brian G. Redmond, ed. Pp. 72–73. *Research Reports*, 14. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington.
- Gearing, Fred
 1958 The Structural Poses of 18th Century Cherokee Villages. *American Anthropologist* 60:1148–1157.
- Geertz, Clifford
 1973 *The Interpretation of Cultures*. Basic Books, New York.
 1975 On the Nature of Anthropological Understanding. *American Scientist* 63(1):47–53.
- Gehlbach, Donald L.
 1993 The Strait Site Revisited. *Ohio Archaeologist* 43(4):30–31.
- General Electric Company
 1997 *Hopewell in Mt. Vernon: A Study of the Mt. Vernon Site (12-po-885)*. General Electric Company, Mt. Vernon, IN.
- Gero, Joan M., and Margaret W. Conkey
 1991 *Engendering Archaeology: Women and Prehistory*. Oxford University Press, Oxford.
- Gershom, Rabbi Yonassan
 1987 Shamanism in the Jewish Tradition. In *Shamanism*. S. Nicholson, ed. Pp. 181–188. Theosophical Publishing House, Wheaton, IL.
- Giddens, Anthony
 1984 *The Constitution of Society*. University of California Press, Berkeley.
- Gilbert, William H.
 1943 The Eastern Cherokees. Anthropological Paper No. 23. *Bureau of American Ethnology Bulletin* 133. Smithsonian Institution Press, Washington, DC.
- Gill, Sam D.
 1982 *Native American Religions: An Introduction*. Wadsworth, Belmont, CA.
 1983 *Native American Traditions: Sources and Interpretations*. Wadsworth, Belmont, CA.
- Gill, Sam D., and Irene F. Sullivan
 1992 *Dictionary of Native American Mythology*. Oxford University Press, Oxford.
- Gillespie, Susan D.
 2001 Personhood, Agency, and Mortuary Ritual: A Case Study from the Ancient Maya. *Journal of Anthropological Archaeology* 20:73–112.
- Gladney, Dru C., ed.
 1998 *Making Majorities: Constituting the Nation in Japan, Korea, China, Malaysia, Fiji, Turkey, and the United States*. Stanford University Press, Stanford, CA.
- Gluckman, Maxwell
 1937 Mortuary Customs and the Belief in Survival After Death among the South-Eastern Bantu. *Bantu Studies* 11:117–136.

- Goad, Sharon I.
 1978 Exchange Networks in the Prehistoric Southeastern United States. Unpublished doctoral dissertation, University of Georgia.
 1979 Middle Woodland Exchange in the Prehistoric Southeastern United States. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 239–246. Kent State University Press, Kent, OH.
 1980 Copena Burial Practices and Social Organization. *Journal of Alabama Archaeology* 26:67–86.
- Goddard, Ives
 1978 Delaware. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 213–239. Smithsonian Institution Press, Washington, DC.
- Goffman, Erving
 1959 *The Presentation of the Self in Everyday Life*. Doubleday, Garden City, NY.
 1969 *Strategic Interaction*. University of Pennsylvania Press, Philadelphia.
- Goldman, Irving
 1970 *Ancient Polynesian Society*. University of Chicago Press, Chicago.
- Goldstein, Lynn
 1980 Mississippian Mortuary Practices: A Case Study of Two Cemeteries in the Lower Illinois Valley. *Scientific Papers*, 4. Northwestern University Archeological Program, Evanston, IL.
 1981 One Dimensional Archaeology and Multi-Dimensional People: Spatial Organisation and Mortuary Analysis. In *The Archaeology of Death*. R. Chapman, I. Kinnes, and K. Randsborg, eds. Pp. 53–69. Cambridge University Press, Cambridge.
- Goodenough, Ward H.
 1965 Rethinking 'Status' and 'Role': Toward a General Model of the Cultural Organization of Social Relationships. In *The Relevance of Models for Social Anthropology*. M. Gluckman and F. Eggan, eds. Pp. 311–330. Tavistock, London.
- Goodman, Felicitas D.
 1990 *Where the Spirits Ride the Wind: Trance Journeys and Other Ecstatic Experiences*. Indiana University Press, Bloomington.
- Gordon, Robert B.
 1969 The Natural Vegetation of Ohio in Pioneer Days. *Bulletin of the Ohio Biological Survey; New Series*, 3:No. 2. Ohio State University, Columbus.
- Gordus, A. A., J. B. Griffin, and G. A. Wright
 1971 Activation Analysis Identification of the Geologic Origins of Prehistoric Obsidian Artifacts. In *Science and Archaeology*. R. H. Brill, ed. Pp. 222–234. MIT Press, Cambridge, MA.
- Gosden, Chris
 1989 Debt, Production, and Prehistory. *Journal of Anthropological Archaeology* 8:355–387.
- Gray, H.
 1977 *Gray's Anatomy*. Gramercy Books, Avenel, NJ.
- Gray, Henry H., William J. Wayne, and Charles E. Wier
 1970 Geologic Map of the 1deg × 2deg Vincennes Quadrangle and Parts of Adjoining Quadrangles, Indiana and Illinois, Showing Bedrock and Unconsolidated Deposits. Indiana Department of Natural Resources, Geological Survey, Bloomington, in cooperation with Illinois State Geological Survey.
- Greber, N'omi
 1976 Within Ohio Hopewell: Analysis of Burial Patterns from Several Classic Sites. Unpublished doctoral dissertation, Case Western Reserve University.
 1979a Variations in the Social Structure of Ohio Hopewell Peoples. *Mid-Continental Journal of Archaeology* 4(1):35–78.
 1979b A Comparative Study of Site Morphology and Burial Patterns at Edwin Harness Mound and Seip Mounds 1 and 2. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 27–38. Kent State University Press, Kent, OH.
 1983 Recent Excavations at the Edwin Harness Mound, Liberty Works, Ross County, Ohio. *Mid-Continental Journal of Archaeology*, Special Publication 5. Kent State University Press, Kent, OH.
 1991 A Study of Continuity and Contrast Between Central Scioto Adena and Hopewell Adena Sites. *West Virginia Archeologist* 43:1–26.
 1995 Some Archaeological Localities Recorded in the Seip Earthworks and Dill Mounds Historical District. Unpublished report. Hopewell Culture National Historical Park, Chillicothe, OH.
 1996 A Commentary on the Contexts and Contents of Large to Small Ohio Hopewell Deposits. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 150–172. Kent State University Press, Kent, OH.
 1997 Two Geometric Enclosures in the Paint Creek Valley: An Estimate of Possible Changes in Community Patterns through Time. In *Ohio Hopewell Community Organization*. W. S. Dancy and P. J. Pacheco, eds. Pp. 207–229. Kent State University Press, Kent, OH.
 1998 From Simple to Complex: The Architectural Design of Strata Found in Ohio Hopewell Enclosure Walls. Paper presented at the Midwestern Archaeological Conference, Muncie, IN.
 2000 Radiocarbon Dates. Listing of Twenty New Radiocarbon Dates from the Turner, Hopewell, Marietta, and Seip Earthworks. Distributed at Perspectives on the Middle Woodland at the Millennium, Pere Marquette State Park, IL, July.
 2003 Chronological Relationships among Ohio Hopewell Sites: Few Dates and Much Complexity. In *Theory, Method, and Practice in Modern Archaeology*. R. Jeske and D. Charles, eds. Pp. 88–113. Praeger, Westport CT.

- Greber, N'omi and Katharine Ruhl
1989 *The Hopewell Site: A Contemporary Analysis Based on the Works of Charles C. Willoughby*. Westview Press, Boulder, CO.
- Greber, N'omi, Richard S. Davis, and Ann S. DuFresne
1981 The Micro Component of the Ohio Hopewell Lithic Technology: Bladelets. *Annals of the New York Academy of Sciences* 376:489–528.
- Greber, N'omi B., Martha Potter Otto, and Anne B. Lee
2002 Revisiting the Structures Recorded Within the Seip Earthworks, Ross County, Ohio. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Columbus, OH.
- Green, Thomas J.
1984 The Presettlement Vegetation of Posey and Gibson Counties, Southwestern Indiana. In *Experiments and Observations on Aboriginal Wild Plant Food Utilization in Eastern North America*. Patrick J. Munson, ed. Pp. 427–458. *Prehistory Research Series*, vol. 6. Indiana Historical Society, Indianapolis.
- Green, Thomas J., and Cheryl A. Munson
1978 Mississippian Settlement Patterns in Southwestern Indiana. In *Mississippian Settlement Patterns*. Bruce D. Smith, ed. Pp. 293–325. Academic Press, New York.
- Greenman, Emerson F.
1938 Hopewellian Traits in Florida. *American Antiquity* 3(4):327–332.
n.d. Fieldnotes of Excavation at the Esch Site. Ohio Historical Center, Columbus, unpublished MS.
- Gregory, C.
1982 *Gifts and Commodities*. Academic Press, London.
- Griffin, James B.
1946 Cultural Change and Continuity in Eastern United States Archaeology. In *Man in Northeastern North America*. F. Johnson, ed. Pp. 37–95. *Papers of the Peabody Foundation for Archaeology*, 3. Andover, MA.
1952a Some Early and Middle Woodland Pottery Types in Illinois. In *Hopewellian Communities in Illinois*. T. Deuel, ed. Pp. 93–129. *Scientific Papers*, 5. Illinois State Museum, Springfield.
1952b Culture Periods in Eastern United States Archeology. In *Archeology of Eastern United States*. J. B. Griffin, ed. Pp. 352–364. University of Chicago Press, Chicago.
1955 Observations on the Grooved Axe in North America. *Pennsylvania Archaeologist* 25:32–44.
1958 The Chronologic Position of the Hopewell Culture in the Eastern United States. *Anthropological Papers*, 12. University of Michigan, Museum of Anthropology, Ann Arbor.
1959 The Pursuit of Archeology in the United States. *American Anthropologist* 61(3):379–389.
1960 Climatic Change: A Contributory Cause of the Growth and Decline of Northern Hopewellian Culture. *The Wisconsin Archeologist* 41(2):21–33.
1961a Lake Superior Copper and the Indians: Miscellaneous Studies of Great Lakes Prehistory. *Anthropological Papers*, 17. University of Michigan, Museum of Anthropology, Ann Arbor.
1961b Early American Mining in the Upper Peninsula of Michigan and the First Recognition of Prehistoric Mining Activities. In *Lake Superior Copper and the Indians: Miscellaneous Studies of Great Lakes Prehistory*. J. B. Griffin, ed. Pp. 47–76. *Anthropological Papers*, 17. Museum of Anthropology, University of Michigan, Ann Arbor.
1961c Comments on Current and Recent “Folklore” and Misconceptions about the Lake Superior Prehistoric Copper and the Area in General. In *Lake Superior Copper and the Indians: Miscellaneous Studies of Great Lakes Prehistory*. J. B. Griffin, ed. Pp. 130–133. *Anthropological Papers*, 17. Museum of Anthropology, University of Michigan, Ann Arbor.
1965 Hopewell and the Dark Black Glass. *Michigan Archaeologist* 11(3–4):115–155.
1967 Eastern North American Archaeology: A Summary. *Science* 156:175–191.
1971 The Northeast Woodlands Area. In *Prehistoric Man in the New World*. J. D. Jennings and E. Norbeck, eds. Pp. 223–258. University of Chicago Press, Chicago.
1973 Hopewell Non-exchange of Obsidian. Paper presented at the Northwestern University Archaeological Research Program Lecture Series, Archaeology and the Natural Sciences, Kampsville, IL.
1978 The Midlands and Northeastern United States. In *Ancient Native Americans*. J. Jennings, ed. Pp. 221–279. W. H. Freeman, San Francisco.
1979 An Overview of the Chillicothe Hopewell Conference. In *Hopewell Archaeology*. D. Brose and N. Greber, eds. Pp. 266–279. Kent State University Press, Kent, OH.
1983 The Ceramic Complex. In *Recent Excavations at the Edwin Harness Mound, Liberty Works, Ross County, Ohio*. N. Greber, ed. Pp. 39–53. Cleveland Museum of Natural History, Cleveland, OH.
1984 A Short Talk about a Small Hopewell Site in Ohio. Paper presented at the Midwestern Archaeological Conference, Chicago, IL.
1996 The Hopewell housing shortage in Ohio, A.D. 1–350. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 6–15. Ohio Archaeological Council, Columbus.
1997 Interpretations of Ohio Hopewell 1845–1984 and the Recent Emphasis on the Study of Dispersed Hamlets. In *Ohio Hopewell Community Organization*. W. Dancey and P. Pacheco, eds. Pp. 405–426. Kent State University Press, Kent, OH.
- Griffin, James B., and George I. Quimby
1961 Prehistoric Copper Pits on the Eastern Side of Lake Superior. In *Lake Superior Copper and the Indians: Miscellaneous Studies of Great Lakes*

- Prehistory. J. B. Griffin, ed. Pp. 77–82. *Anthropological Papers*, 17. Museum of Anthropology, University of Michigan, Ann Arbor.
- Griffin, James B., A. A. Gourdas, and G. A. Wright
1969 Identification of the Sources of Hopewellian Obsidian in the Middle West. *American Antiquity* 34(1):1–14.
- Griffin, James B., Richard E. Flanders, and Paul F. Titterton
1970 The Burial Complex of the Knight and Norton Mounds in Illinois and Michigan. *Memoirs*, 2. University of Michigan, Museum of Anthropology, Ann Arbor.
- Grim, John A.
1983 *The Shaman: Patterns of Siberian and Ojibway Healing*. University of Oklahoma Press, Norman.
- Grove, David L.
1997 Olmec Archaeology: A Half Century of Research and Its Accomplishments. *Journal of World Prehistory* 11(1):51–101.
- Gruenbaum, Ellen
2001 *The Female Circumcision Controversy: An Anthropological Perspective*. University of Pennsylvania Press, Philadelphia.
- Gundersen, James, and James A. Brown
2002 The Ceramics of Hopewellian Shamanic Display. Paper presented at the Annual Meetings of the Society for American Archaeology, Denver, CO.
- Haberstein, Robert W., and William M. Lamers, eds.
1960 *Funeral Customs the World Over*. National Funeral Directors Association of the United States, Milwaukee, WI.
- Haley, James L.
1997 *Apaches: A History and Culture Portrait*. University of Oklahoma Press, Norman.
- Halifax, Joan
1979 *Shamanic Voices: A Survey of Visionary Narratives*. E. P. Dutton, New York.
- Hall, Robert L.
1973 An Interpretation of the Two Climax Model of Illinois Prehistory. Paper presented at the 9th International Congress of Anthropological and Ethnological Sciences, Chicago, IL.
1976 Ghosts, Water Barriers, Corn, and Sacred Enclosures in the Eastern Woodlands. *American Antiquity* 41(3):360–364.
1977 An Anthropocentric Perspective for Eastern United States Prehistory. *American Antiquity* 42(4):499–518.
1979 In Search of the Ideology of the Adena-Hopewell Climax. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 258–265. Kent State University Press, Kent, OH.
1980 An Interpretation of the Two-Climax Model of Illinois Prehistory. In *Early Native Americans: Prehistoric Demography, Economy, and Technology*. D. Broman, ed. Pp. 401–462. Mouton, The Hague.
- 1983 The Evolution of the Calumet-Pipe. In *Prairie Archaeology: Papers in Honor of David A. Baerreis*. G. E. Gibbon, ed. Pp. 37–52. *University of Minnesota Publications in Anthropology*, 3. Minneapolis.
- 1987 Calumet Ceremonialism, Mourning Ritual, and Mechanisms of Inter-tribal Trade. In *Mirror and Metaphor: Material and Social Constructions of Reality*. D. W. Ingersoll and G. Bronitski, eds. Pp. 29–43. University Press of America, Lanham.
- 1989 The Cultural Background of Mississippian Symbolism. In *The Southeastern Ceremonial Complex: Artifacts and Analyses*. P. Galloway, ed. Pp. 239–278. University of Nebraska Press, Lincoln, NE.
- 1997 *An Archaeology of the Soul: North American Indian Beliefs and Ritual*. University of Illinois Press, Urbana.
- 1998 A Comparison of Some North American and Mesoamerican Cosmologies and Their Ritual Expressions. In *Explorations in American Archaeology: Essays in Honor of Wesley R. Hurt*. M.G. Plew, ed. Pp. 56–58. University Press of America, Lanham, MD.
- Hallowell, A. Irving
1926 Bear Ceremonialism in the Northern Hemisphere. *American Anthropologist* 28:1–175.
1960 Ojibwa Ontology, Behavior, and World View. In *Culture in History: Essays in Honor of Paul Radin*. S. Diamond, ed. Pp. 19–52. Columbia University Press, New York.
- Hamill, J., and K. M. Knutzen
1995 *Biomechanical Basis of Human Motion*. Williams & Wilkins, Baltimore.
- Hammel, George R.
1986/1987 Strawberries, Floating Islands and Rabbit Captains: Mythical Realities and European Contact in the Northeast during the Sixteenth and Seventeenth Centuries. *Journal of Canadian Studies* 21(4):72–94.
1987 Mythical Realities and European Contact in the Northeast during the Sixteenth and Seventeenth Centuries. *Man in the Northeast* 33:63–87.
- Hammerschlag, Carl A., and Howard D. Silverman
1997 *Healing Ceremonies: Creating Personal Rituals for Spiritual, Emotional, Physical, and Mental Health*. Berkeley Publishing Group, Berkeley, CA.
- Hanson, N. R.
1972 *Patterns of Discovery*. Cambridge University Press, Cambridge.
- Haray, Frank
1959 Status and Contrastatus. *Sociometry* 22:23–43.
- Harms, Richard H., and John R. Halsey
1988 Wright L. Coffinberry: A Renaissance Man in Western Michigan. *Michigan History* 72(5):24–32.
- Harner, Michael
1980 *The Way of the Shaman: A Guide to Power and Healing*. Harper & Row, San Francisco.
1988a Shamanic Counseling. In *Shaman's Path: Healing, Personal Growth, and Empowerment*. G. Doore, ed. Pp. 179–187. Shambhala, Boston.

- 1988b What Is a Shaman? In *Shaman's Path: Healing, Personal Growth, and Empowerment*. G. Doore, ed. Pp. 7–15. Shambhala, Boston.
- Harris, Marvin
1968 *The Rise of Anthropological Theory*. Thomas Y. Crowell, New York.
- Harrison, Jack L., and Haydn H. Murray
1964 Clays and Shales of Indiana. *Geological Survey Bulletin* 31. Indiana Department of Conservation, Bloomington.
- Hartwig, Frederick, and Brian E. Dearing
1979 *Exploratory Data Analysis*. Sage, Beverly Hills, CA.
- Hassan, Fekri
1977 The Dynamics of Agricultural Origins in Palestine. In *Origins of Agriculture*. C. A. Reed, ed. Pp. 589–609. Mouton Publishers, The Hague.
- Hatch, James W., Joseph W. Michels, Christopher M. Stevenson, Barry E. Scheetz, and Richard A. Geidel
1990 Hopewell Obsidian Studies: Behavioral Implications of Recent Sourcing and Dating Research. *American Antiquity* 55(3):461–479.
- Hauser, Raymond
2000 The Berdache and the Illinois Indian Tribe during the Last Half of the 17th Century. In *American Encounters: Natives and Newcomers from European Contact to Indian Removal, 1500–1850*. P. C. Mancall and J. H. Merrell, eds. Pp. 119–136. Rutledge, New York.
- Hawkes, Jacqueline
1968 The Proper Study of Mankind. *Antiquity* 42:255–262.
- Hawkey, Diane E.
1988 Use of Upper Extremity Enthesopathies to Indicate Habitual Activity Patterns. Unpublished Master's thesis, Arizona State University.
- Hawkey, Diane E., and Charles F. Merbs
1995 Activity-Induced Musculoskeletal Stress Markers (MSM) and Subsistence Strategy Changes among Ancient Hudson Bay Eskimo. *International Journal of Osteoarchaeology* 5:324–338.
- Hay, J. G., and J. G. Reid
1982 *The Anatomical and Mechanical Basis of Human Motion*. Prentice–Hall, Englewood Cliffs, NJ.
- Hayden, Brian
1995 Pathways to Power: Principles for Creating Socioeconomic Inequities. In *Foundations of Social Inequity*. J.D. Price and G.M. Feinman, eds. Pp. 15–86. Plenum Publishing, New York.
- Hays-Gilpin, Kelley, and David S. Whitley
1998 *Reader in Gender Archaeology*. Routledge, London.
- Hegmon, Michelle
2003 Setting Theoretical Egos Aside: Issues and Theory in North American Archaeology. *American Antiquity* 68(2):213–243.
- Heidenreich, Conrad E.
1978 Huron. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 368–388. Smithsonian Institution, Washington, DC.
- Helms, Mary
1976 *Ancient Panama: Chiefs in Search of Power*. University of Texas Press, Austin.
- 1988 *Ulysses' Sail: An Ethnographic Odyssey of Power, Knowledge, and Geographic Distance*. Princeton University Press, Princeton, NJ.
- 1993 *Craft and the Kingly Ideal*. University of Texas Press, Austin.
- Henderson, A.G., ed.
1992 Fort Ancient Cultural Dynamics in the Middle Ohio Valley. *Monographs in World Archaeology*, 8. Prehistory Press, Madison, WI.
- Hengen, O. P.
1971 Cribra Orbitalia: Pathogenesis and Probable Etiology. *Homo* 22:57–75.
- Henry, Michelle M.
1994 An Inventory of Hopewell Imagery, Their Spatial Relationships, and Possible Explanations from Native American Mythologies. Unpublished master's thesis. Arizona State University.
- Henry, Michelle, Christopher Carr, and D. Troy Case
1994 Unity and Diversity in Ohio Hopewell Symbolism and Cosmology. Paper presented at the Annual Meetings of the American Anthropological Association.
- Herold, Elaine B.
1971 The Indian Mounds at Albany, Illinois. *Davenport Museum Anthropological Papers*, 1. Davenport Public Museum.
- Hertz, Robert
1907 Contribution a une étude sur la representation collective de la mort. *Année Sociologique* 10:48–137.
- 1960a A Contribution to the Study of the Collective Representation of Death. In *Death and the Right Hand*. R. Needham and C. Needham, trans. Free Press, New York.
- 1960b *Death and the Right Hand*. R. Needham and C. Needham, trans. Free Press, Glencoe, IL. (orig. 1915)
- Hewitt, J. N. B.
1894 The Iroquois Concept of the Soul. *Journal of American Folk-Lore* 7:107–116.
- Hiatt, Joel W.
n.d. Account of Exploration of Mounds in Posey County. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington, unpublished MS.
- Hickerson, Harold
1960 The Feast of the Dead among the Seventeenth Century Algonkians of the Upper Great Lakes. *American Anthropologist* 60:81–107.
- Higgenbotham, C. Dean
1983 An Archaeological Survey of the Lower Wabash Valley in Gibson and Posey Counties in Indiana. Unpublished doctoral dissertation. Purdue University.

- Hill, James N.
1968 Broken K. Pueblo: Patterns of Form and Function. In *New Perspectives in Archeology*. S. R. Binford and L. R. Binford, eds. Pp. 103–142. Aldine, Chicago.
- Hinkle, Kathleen
1984 Ohio Hopewell Textiles: A Medium for the Exchange of Social and Stylistic Information. Unpublished master's thesis, University of Arkansas.
- Hobsbawm, Eric
1983 Introduction: Inventing Traditions. In *The Invention of Tradition*. E. Hobsbawm and T. Ranger, eds. Cambridge University Press, New York.
- Hobsbawm, Eric, and Terence Ranger, ed.
1983 *The Invention of Tradition*. Cambridge University Press, New York.
- Hodder, Ian
1982a *Symbols in Action*. Cambridge University Press, Cambridge, England.
1982b Theoretical Archaeology: A Reactionary View. In *Symbolic and Structural Archaeology*. I. Hodder, ed. Pp. 1–16. Cambridge University Press, Cambridge.
2000 Agency and Individuals in Long-term Processes. In *Agency in Archaeology*. M.-A. Dobres and J. E. Robb, eds. Pp. 21–33. Routledge, London.
- Hodder, Ian, ed.
1982c *Symbolic and Structural Archaeology*. Cambridge University Press, Cambridge.
1987 *Archaeology as Long-Term History*. Cambridge University Press, Cambridge, U.K.
- Hoebel, E. Adamson
1966 *Anthropology: The Study of Man*. McGraw-Hill, New York.
- Hoffman, Walter James
1888 Pictography and Shamanic Rites of the Ojibwa. *American Anthropologist* 1:209–229.
1891 The Mide'wiwin or "Grand Medicine Society" of the Ojibwa. In *7th Annual Report of the Bureau of American Ethnology for the Years 1885–1886*. Pp. 143–300. BAE, Washington, DC.
1896 The Menomini Indians. In *Fourteenth Annual Report of the Bureau of American Ethnology for the Years 1885–1886*. Pp. 3–328. Government Printing Office, Washington, DC.
- Hofman, Jack L.
1980 Twenhafel Archaeology: The Southeastern Connection. *Tennessee Anthropologist* 5(2):185–201.
- Hofstede, G.
1980 *Culture's Consequences*. Sage, Beverly Hills, CA.
- Hogarth, A. C.
1972 Common Sense in Archaeology. *Antiquity* 46:301–304.
- Hohmann, John W.
2001 A Study of Sinagua Mortuary Practices and Their Implications. In *Ancient Burial Practices in the American Southwest: Archaeology, Physical Anthropology, and Native American Perspectives*. D. R. Mitchell and J. L. Brunson-Hadley, eds. Pp. 97–122. University of New Mexico Press, Albuquerque.
- Hollimon, Sandra E.
2001 The Gendered Peopling of North America: Addressing the Antiquity of Systems of Multiple Genders. In *The Archaeology of Shamanism*. N. Price, ed. Pp. 123–134. Routledge, London.
- Holmes, William H.
1903 Aboriginal Pottery of the Eastern United States. *Annual Report 20*. Smithsonian Institution, Bureau of American Ethnology, Washington, DC.
1907 Games of the North American Indians. *Annual Report 24*. Smithsonian Institution, Bureau of American Ethnology, Washington, DC.
- Hooton, Earnest
1922 The Skeletal Remains. In *The Turner Group of Earthworks, Hamilton County, Ohio*, by C. C. Willoughby. Pp. 99–132 *Papers of the Peabody Museum*, 8(3). Harvard University, Cambridge, MA.
- Hooton, Earnest A. and Charles C. Willoughby
1920 Indian Village and Cemetery Near Madisonville Ohio. *Papers of the Peabody Museum of American Archaeology and Ethnology* 8(1).
- Hopewell Culture National Historical Park
2003 Hopewell Mound Group. Electronic document. <http://www.nps.gov/hocu/html/hopewell.htm>. Retrieved January 5, 2003.
- Howard, James H.
1960 When They Worship the Underwater Panther: A Prairie Potawatomi Bundle Ceremony. *Southwest Journal of Anthropology* 16:217–224.
1981 *Shawnee!: The Ceremonialism of a Native Indian Tribe and Its Cultural Background*. Ohio University Press, Athens.
- Howell, T.
1995 Tracking Zuni Gender and Leadership Roles across the Contact Period. *Journal of Anthropological Research* 51:125–147.
- Hudson, Charles
1976 *The Southeastern Indians*. University of Tennessee Press, Knoxville.
- Hughes, Randall D., Thomas E. Berres, Dwain M. Moore, and Kenneth B. Farnsworth
1998 Revision of Hopewellian Trading Patterns in Midwestern North America Based on Mineralogical Sourcing. *Geoarchaeology: An International Journal* 13(7):709–729.
- Hughes, Richard E.
1992 Another Look at Hopewell Obsidian Studies. *American Antiquity* 57(3):515–523.
1995 Source Identification of Obsidian from the Trowbridge Site (14WY1), a Hopewellian Site in Kansas. *Midcontinental Journal of Archaeology* 20(1):105–113.
2000 The Dark Black Glass, Thirty Years Later: Current Geochemical Research on Hopewellian Obsidian. Paper presented at the Perspectives on the Middle Woodland at the Millennium Conference, Pere Marquette State Park, IL.
n.d. The Sources of Hopewell Obsidian: Thirty Years After Griffin. In *Recreating Hopewell: New*

- Perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
- Hughes, Richard E., and Andrew C. Fortier
1997 Identification of Geologic Sources of Obsidian Artifacts from Three Middle Woodland Sites in the American Bottom, Illinois. *Illinois Archaeology* 9(1, 2):79–92.
- Hultkrantz, Aoke
1953 Conceptions of the Soul among North American Indians: A Study in Religious Ethnology. *Monograph Series*, 1. Ethnographical Museum of Sweden (Statens Etnografiska Museum), Stockholm.
- Hume, David
1752 *Political Discourses*. R. Fleming for A. Kincaid and A. Donaldson, Edinburgh, Scotland.
- Hunter, William A.
1978 History of the Ohio Valley. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 588–593. Smithsonian Institution Press, Washington, DC.
- Huntington, Richard, and Peter Metcalf
1979 *Celebrations of Death*. Cambridge University Press, Cambridge.
- Ingerman, Sandra
1991 *Soul Retrieval: Mending the Fragmented Self*. HarperCollins Publishers, New York.
- Isaac, Glynn I.
1978 Food Sharing Behavior of Protohuman Hominids. *Scientific American* 238(4):90–108.
- Iscan, M. E., and K. A. R. Kennedy
1989 *Reconstruction of Life from the Skeleton*. Wiley-Liss, New York.
- Ivanov, S. V.
1978 Some Aspects of the Study of Siberian Shamanism. In *Shamanism in Siberia*. V. Diosoze and M. Hoppal, eds. S. Simon, trans. Pp. 19–58. Akademiai, Budapest.
- Izikowitz, Karl G.
1935 Musical and Other Sound Instruments of the South American Indians. Gotesberg Kugl. Vetenskapsoch Vitterkets-Samhallets Handlinger. Femtje Foldjen Ser. A, Ban 5, No.1.
- Jamison, P. L.
1971 A Demographic and Comparative Analysis of the Albany Mounds (Illinois) Hopewell Skeletons. In *The Indian Mounds of Albany, Illinois*. E. B. Herold, ed. *Anthropological Papers*, 1. Davenport Museum.
- Jeffries, Richard W.
1976 The Tunacunnhee Site: Evidence of Hopewell Interaction in Northwest Georgia. *Anthropological Papers*, 1. University of Georgia, Athens.
1979 The Tunacunnhee Site: Hopewell in Northwest Georgia. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 162–170. Kent State University Press, Kent, OH.
- Jenkins, Ned J.
1979 Miller Hopewell of the Tombigbee Drainage. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 171–180. State University Press, Kent, OH.
- Johannessen, Sissel
2003 Culturing the Landscape: Hopewell Farmers of Illinois. Paper presented at the Annual Meeting of the Society for American Archaeology, Milwaukee, WI.
- Johnson, Alfred E.
1979 Kansas City Hopewell. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 86–93. State University Press, Kent, OH.
- Johnson, A. and T. Earle
1987 *The Evolution of Human Societies*. Stanford University Press, Stanford, CA.
- Johnson, Matthew
2000 Self-Made Men and the Staging of Agency. In *Agency in Archaeology*. M.-A. Dobres and J. E. Robb, eds. Pp. 213–231. Routledge, London.
- Johnston, Basil
1991 The story of Gujek and Wabana. In *The Path of Life, Legends of the Indians Series*. Films for the Humanities and Sciences, Princeton, NJ.
- Johnston, Cheryl A.
2002 *Culturally Modified Human Remains from the Hopewell Mound Group*. Unpublished doctoral dissertation, The Ohio State University.
- Johnston, Richard B.
1968a Archaeology of Rice Lake, Ontario. *Anthropological Papers*, 19. National Museum of Canada, Ottawa.
1968b The Archaeology of the Serpent Mounds Site. *Occasional Paper*, 10. Royal Ontario Museum of Art and Archaeology.
- Jones, T. E. H.
1981 The Aboriginal Rock Paintings of the Churchill River. *Anthropological Series* 4. Saskatchewan Museum of Natural History, Regina.
- Joyce, Arthur A.
2000 The Founding of Monte Albán: Sacred Propositions and Social Practices. In *Agency in Archaeology*. M.-A. Dobres and J. E. Robb, eds. Pp. 71–91. Routledge, London.
- Joyce, Arthur A., and M. Winter
1996 Ideology, Power, and Urban Society in Prehispanic Oaxaca. *Current Anthropology* 37:33–47.
- Kantner, John, and Nancy M. Mahoney (editors)
2000 *Great House Communities across the Chacoan Landscape*. University of Arizona Press, Tucson.
- Keel, Bennie C.
1976 *Cherokee Archaeology: A Study of the Appalachian Summit*. University of Tennessee Press, Knoxville.
n.d. Hopewell Influence in the Southern Appalachians. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington, unpublished MS.
- Keene, Arthur S.
1981 *Prehistoric Foraging in a Temperate Forest*. Academic Press, New York.

- Kehoe, Alice B.
2000 *Shamanism and Religion: An Anthropological Exploration in Critical Thinking*. Waveland Press, Prospect Heights, IL.
- Kellar, James H.
1979 The Mann Site and "Hopewell" in the Lower Wabash–Ohio Valley. In *Hopewell Archaeology*. D. Brose and N. Greber, eds. Pp. 100–107. Kent State University Press, Kent, OH.
- Kellar, James H., A. R. Kelly, and Edward V. McMichael
1962 The Mandeville Site in Southwest Georgia. *American Antiquity* 27(3):336–355.
- Kelley, J. C., and J. L. Angel
1987 Life Stresses of Slavery. *American Journal of Physical Anthropology* 74:199–211.
- Kennedy, Kenneth A. R.
1983 Morphological Variations in Ulnar Supinator Crests and Fossae, as Identifying Markers of Occupational Stress. *Journal of Forensic Science* 28(4):871–876.
1985 Importance of Markers of Occupational Stress on Bones and Teeth in Personal Identification Case Studies. Paper presented at the Annual Meeting of the American Academy of Forensic Sciences, Las Vegas, NV.
1989 Skeletal Markers of Occupational Stress. In *Reconstruction of Life from the Skeleton*. M. Y. Iscan and K. A. R. Kennedy, eds. Pp. 129–160. Wiley–Liss, New York.
- Kennedy, Kenneth A. R., T. Plummer, and J. Chiment
1986 Identification of the Eminent Dead: Penpi, a Scribe of Ancient Egypt. In *Forensic Osteology: Advances in the Identification of Human Skeletal Remains*. K. J. Reichs, ed. Pp. 290–301. Charles C Thomas, Springfield, IL.
- Kent, S.
1992 Anemia through the Ages: Changing Perspectives and Their Implications. In *Diet, Demography, and Disease: Changing Perspectives on Anemia*. P. Stuart-Macadam and S. Kent, eds. Pp. 1–33. Aldine de Gruyter, New York.
- Kenyon, Walter
1986 Mounds of Sacred Earth. *Monograph 9*. Royal Ontario Museum of Archaeology.
- Kimberlin, Jerome and John T. Wasson
1976 Comparison of Iron Meteoritic Material from Ohio and Illinois Hopewellian Burial Mounds. *American Antiquity* 41(4):489–493.
- King, Serge
1987 The Way of the Adventurer. In *Shamanism*. S. Nicholson, ed. Pp. 189–203. Theosophical Publishing House, Wheaton, IL.
- Kinietz, W. Vernon
1947 *Chippewa Village: The Story of Katikitegon*. Cranbrook Press, Bloomfield Hills, MI.
- Kirsch, Paul V.
1980 Burial Structures and Social Ranking in Vava'u, Tonga. *Journal of the Polynesian Society* 89(3):291–308.
- Knapp, A. Bernard, and Wendy Ashmore
1999 Archaeological Landscapes: Constructed, Conceptualized, Ideational. In *Archaeologies of Landscape: Contemporary Perspectives*. W. Ashmore and A. B. Knapp, eds. Pp. 1–30. Basil Blackwell, Oxford.
- Knight, Vernon J., Jr.
1989 Symbolism of Mississippian Mounds. In *Powhatan's Mantle*. P. Wood, G. Waselkov, and M. T. Hatley, eds. Pp. 279–291. University of Nebraska Press, Lincoln, NE.
1990a Social Organization and the Evolution of Hierarchy in Southeastern Chiefdoms. *Journal of Anthropological Research* 46:1–23.
1990b Excavations of the Truncated Mound at the Walling Site. *Report of Investigations*, 56. University of Alabama, Alabama State Museum of Natural History, Division of Archaeology, Birmingham.
- Kohl, J. G.
1860 *Kitchi-Gami*. Chapman and Hall, London.
- Kolb, Michael J. and James E. Snead
1997 It's a Small World After All: Comparative Analyses of Community Organization in Archaeology. *American Antiquity* 62(4):609–628.
- Konigsberg, L. M.
1985 Demography and Mortuary Practice at Seip Mound One. *Midcontinental Journal of Archaeology* 10(1):123–148.
- Konigsberg, Lyle W., and Jane E. Buikstra
1995 Regional Approaches to the Investigation of Past Human Biocultural Structure. In *Regional Approaches to Mortuary Analysis*. L. A. Beck, ed. Pp. 191–219. Plenum Press, New York.
- Kottak, Conrad
1974 *Anthropology*. Random House, New York.
- Kozarek, Susan E.
1987 A Hopewellian Homestead in the Ohio River Valley. Unpublished Master's thesis, University of Cincinnati.
1997 Determining Sedentism in the Archaeological Record. In *Ohio Hopewell Community Organization*. W. S. Dancey and P. J. Pacheco, eds. Pp. 131–152. Kent State University Press, Kent, OH.
- Kroeber, Alfred
1931 The Culture–Area and Age–Area Concepts of Clark Wissler. In *Methods in Social Science*. S. Rice, ed. Pp. 248–265. University of Chicago Press, Chicago.
1939 Cultural and Natural Areas of Native North America. *Publications in Archaeology and Ethnology*, 38. University of California Press, Berkeley.
- Krogman, W. M., and M. Y. Iscan
1986 *The Human Skeleton in Forensic Medicine*. Charles C Thomas, Springfield, IL.
- Kullback, S., M. Kupperman, and H. H. Ku
1962 An Application of Information Theory to the Analysis of Contingency Tables, with a Table of 2n In

- n, n = 1(1)10,000. *Journal of Research* 66B(4):217–233.
- Kumar, S.
1995 Electromyography of Spinal and Abdominal Muscles during Garden Raking with Two Rakes and Rake Handles. *Ergonomics* 38(9):1793–1804.
- Kuorinka, I., and L. Forcier
1995 *Work-Related Musculoskeletal Disorders (WMSDs): A Reference Book for Prevention*. Taylor and Francis, Bristol, PA.
- Kuper, Hilda
1950 Kinship among the Swazi. In *African Systems of Kinship and Marriage*. D. Forde and A. R. Radcliffe-Brown, eds. Pp. 86–110. Oxford University Press, London.
- Kut, Steven. T., and Jane. E. Buikstra
1998 Calibration of C-14 Dates in the Lower Illinois River Valley. Paper presented at the Annual Meeting of the Society for American Archaeology, Seattle, WA.
- Kwais, Mary L., and Robert C. Mainfort, Jr.
1986 The Johnston Site: Precursor To Pinson Mounds? *Tennessee Anthropologist* 11(1):29–41.
- Lacer, Charles, Jr.
n.d. *The Mann Site*. Glenn A. Black Laboratory of Archaeology, Indiana University, Bloomington, unpublished MS.
- Ladd, Edmund J.
1979 Zuni Social and Political Organization. In *Handbook of North American Indians*, vol. 9. Southwest. A. Ortiz, ed. Pp. 482–491. Smithsonian Institution, Washington, DC.
- Lahontan, Louis Armand
1905 *New Voyages to North America*. 2 vols. A. C. McClurg, Chicago. (orig. 1703)
- Lamphere, Louise
1974 Strategies, Cooperation, and Conflict among Women in Domestic Groups. In *Woman, Culture, and Society*. M. Z. Rosaldo and L. Lamphere, eds. Pp. 97–112. Stanford University Press, Stanford, CA.
- Landy, David.
1978 Tuscarora among the Iroquois. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 518–524. Smithsonian Institution Press, Washington, DC.
- Lang, Sabine
1998 *Men as Women, Women as Men: Changing Gender in North American Cultures*. J. L. Vantine, trans. University of Texas Press, Austin.
- Lankford, George E., III
1984 Saying Hello to the Timucua. *Mid-America Folklore* 12:7–23.
1987 *Native American Legends: Southeastern Legends: Tales from the Natchez, Caddo, Biloxi, Chickasaw, and Other Nations*. August House, Little Rock, AR.
1992 Red and White: Some Reflections on Southeastern Symbolism. *Southern Folklore* 50(1):53–80.
- Lanyon, L. E., A. E. Goodship, C. J. Pye, and J. H. MacFie
1982 Mechanically Adaptive Bone Remodeling. *Journal of Biomechanics* 15(3):141–154.
- Lawlis, Frank
1988 Shamanic Approaches in a Hospital Pain Clinic. In *Shaman's Path: Healing, Personal Growth, and Empowerment*. G. Doore, ed. Pp. 139–149. Shambhala, Boston.
- Layton, Robert
2001 Ethnographic Study and Symbolic Analysis. In *Handbook of Rock Art Research*. D. S. Whitley, ed. Pp. 311–331. AltaMira Press, Walnut Creek, CA.
- Lazazzera, Adrienne
2002 Middle Woodland Household Variation at the Fort Ancient Site. Paper presented at the Fort Ancient Symposium, Ohio Historical Society, Columbus, OH.
- Leach, E. R.
1954 *Political Systems of Highland Burma*. Beacon Press, Boston.
- Leader, Jonathon M.
1988 Technological Continuities and Specialization in Prehistoric Metalwork in the Eastern United States. Unpublished doctoral dissertation, University of Florida.
- Leonard, Kathryn
2000 Directionality and Exclusivity of Plains-Pueblo Exchange in the Protohistoric Period (A.D. 1450–1700). Unpublished Master's thesis, Department of Anthropology, Arizona State University, Tempe, AZ.
- Leone, Mark P.
1986 Symbolic, Structural, and Critical Archaeology. In *American Archaeology Past and Future: A Celebration of the Society for American Archaeology 1935–1985*, D. J. Meltzer, D. D. Fowler, and J. A. Sabloff, eds. Pp. 415–438. Society for American Archaeology, Washington, DC.
- Lepper, Bradley, Dee Anne Wymer, and William Pickard
1992 Unpublished MS on file with B. Lepper. Ohio Historical Center, Columbus.
- Levine, Mary Ann
1999 Native Copper in the Northeast: An Overview of Potential Sources Available to Indigenous Peoples. In *The Archaeological Northeast*. M. A. Levine, K. Sassaman, and M. Nassaney, eds. Pp. 183–199. Bergin and Garvey, London.
- Levi-Strauss, Claude
1953 Social Structure. In *Anthropology Today: An Encyclopedic Inventory*. A. L. Kroeber, ed. Pp. 524–573. University of Chicago Press, Chicago.
1969a *The Elementary Structures of Kinship*. Beacon Press, Boston. (orig. 1949)
1969b *Mythologiques*, vol. 1. Harper and Row, New York.
1973 *Mythologiques*, vol. 2. Harper and Row, New York.
1978 *Mythologiques*, vol. 3. Harper and Row, New York.
1981 *Mythologiques*, vol. 4. Harper and Row, New York.
- Levy, A. M., and M. L. Fuerst
1993 *Sports Injury Handbook*. John Wiley & Sons, New York.

- Lewis, I. M.
1971 *Ecstatic Religion: An Anthropological Study of Spirit Possession and Shamanism*. Penguin Books, Middlesex, UK.
- Lewis-Williams, J. D., and T. A. Dowson
1988 The Sign of All Times. *Current Anthropology* 29(2):201–213.
- Limón, Jose E.
1994 *Dancing with the Devil: Society and Cultural Poetics in Mexican-American South Texas*. University of Wisconsin Press, Madison.
- Linton, Ralph
1936 *The Study of Man*. Appleton–Century, New York.
- Little, Barbra J., K. M. Lanphear, and D. W. Owsley
1992 Mortuary Display and Status in a Nineteenth Century Anglo-American Cemetery in Manassas, Virginia. *American Antiquity* 57:397–418.
- Little, Elizabeth A.
1987 Inland Waterways in the Northeast. *Midcontinental Journal of Archaeology* 12(1): 55–76.
- Locke, John
1690 *Two Treatises of Government*. Awnsnam Churhill, London.
- Locust, Carol
1986 *Apache Beliefs about Unwellness and Handicaps*. Native American Research and Training Center, University of Arizona, Tucson.
- Loendorf, Chris
2001 Salado Burial Practices. In *Ancient Burial Practices in the American Southwest: Archaeology, Physical Anthropology, and Native American Perspectives*. D. R. Mitchell and J. L. Brunson-Hadley, eds. Pp. 123–148. University of New Mexico Press, Albuquerque.
- Logan, G. A., and W. C. McKinney
1982 *Anatomic Kinesiology*. Wm. C. Brown, Dubuque, IA.
- Longacre, William A.
1968 Some Aspects of Prehistoric Society in East-Central Arizona. In *New Perspectives in Archeology*. S. R. Binford and L. R. Binford, eds. Pp. 89–102. Aldine, Chicago.
- Longerich, H., B. J. Fryer, and D. Strong
1987 Trace Analysis of Natural Alloys by Inductively Coupled Plasma-Mass Spectrometry (ICP-MS): Application to Archeological Native Silver Artifacts. *Spectrochimica Acta* 42B:101–109.
- Lorde, Audre
1984 Age, Race, Class, and Sex: Women Redefining Difference. In *Sister Outsider: Essays and Speeches by Audre Lorde*. Pp. 114–123. Crossing Press, Freedom, CA.
- Loth, Susan R., and M. Henneberg
1996 Mandibular Ramus Flexure: A New Morphologic Indicator of Sexual Dimorphism in the Human Skeletal. *American Journal of Physical Anthropology* 99:473–485.
- Lovis, William A.
1999 Clay Effigy Representations of the Bear and *Mishipishu*(?) from the Late Woodland Johnston Site, Cheboygan County, Michigan. Paper presented at the Midwest Archaeological Conference, Muncie, IN.
- Loy, James D.
1968 A Comparative Style Analysis of Havana Series Pottery from Two Illinois Valley Sites. In *Hopewell and Woodland Site Archaeology in Illinois*. J. A. Brown, ed. Pp. 129–200. *Bulletin 6*. Illinois Archaeological Survey, Urbana.
- Lurie, Nancy Oestreich
1978 Winnebago. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 690–707. Smithsonian Institution Press, Washington, DC.
- Lynott, Mark J.
1998a Geophysical Surveys in the Mid-Continent: John Weymouth and the Midwest Archeological Center. In *Hopewell Archaeology: The Newsletter of Hopewell Archaeology in the Ohio River Valley*, vol. 31(2). Mark J. Lynott and Bret J. Ruby, eds. National Park Service Midwest Archaeological Center and Hopewell Culture National Historical Park, Lincoln, NE, and Chillicothe, OH. Electronic version: <http://www.cr.nps.gov/mwac/hopewell/v3n1/>.
- 1998b 1998 Research at Hopeton Earthworks. In *Hopewell Archaeology: The Newsletter of Hopewell Archaeology in the Ohio River Valley*, vol. 3(1). Mark J. Lynott and Bret J. Ruby, eds. National Park Service Midwest Archaeological Center and Hopewell Culture National Historical Park, Lincoln, NE, and Chillicothe, OH. Electronic version: <http://www.cr.nps.gov/mwac/hopewell/v3n1/>.
- 2001 Hopeton Earthworks: An Interim Report. In *Hopewell Archaeology: The Newsletter of Hopewell Archaeology in the Ohio River Valley*, vol. 4(2). Mark J. Lynott, ed. National Park Service Midwest Archaeological Center, Lincoln, NE. Electronic version: <http://www.cr.nps.gov/mwac/hopewell/v4n2/index.html>.
- 2002a Archaeological Research at the Hopeton Earthworks, Ross County, Ohio. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Columbus, OH.
- 2002b 2001 Investigations at the Hopeton Earthworks, Ross County, Ohio. Paper presented at the Annual Meeting of the Society for American Archaeology, Denver, CO.
- Lynott, Mark J., and John W. Weymouth
2001a *Investigations at the Hopeton Earthwork, Ross County, Ohio, in the 2001 Season*. Unpublished MS.
- 2001b Preliminary Report, 2001 Investigations, Hopeton Earthworks. *Hopewell Archaeology* 5(1): 1–7.

- Mack, Alexandra
2000 Collective Journeys and Segregated Sites: Pilgrimage to the Temples of Vijayanagara. Unpublished doctoral dissertation, Arizona State University.
- MacKie, Euan W.
1976 The Vitrified Forts of Scotland. In *Hillforts. Later Prehistoric Earthworks in Britain and Ireland*. Derek William Harding, ed. Pp. 205–235. Academic Press, London.
- MacNeish, Richard S.
1944 Middle Woodland Cultures. *Transactions of the Illinois State Academy of Science* 37:41–44.
- Maggi, Wynne
2001 *Our Women Are Free: Gender and Ethnicity in the Hindukush*. University of Michigan Press, Ann Arbor.
- Magrath, William H.
1945 The North Benton Mound: A Hopewell Site in Ohio. *American Antiquity* 11(1):40–47.
- Mahar, Cheleen, Richard Harker, and Chris Wilkes
1990 The Basic Theoretical Position. In *An Introduction to the Work of Pierre Bourdieu*. R. Harker, C. Mahar, and C. Wilkes, eds. Pp. 1–25. Macmillan Press, Houndsmill, UK.
- Mahoney, Nancy M.
2000 Redefining the Scale of Chacoan Communities. In *Great House Communities Across the Chacoan Landscape*. J. Kantner and N. M. Mahoney, eds. Pp. 19–27. *Anthropological Papers of the University of Arizona*, 64. University of Arizona Press, Tucson.
- Mails, Thomas E.
1972 *The Mystic Warriors of the Plains*. Council Oak Books, Tulsa, OK.
1978 *Sundancing at Rosebud and Pine Ridge*. Center for Western Studies, Augustana College, Sioux Falls, SD.
1979 *Fools Crow*. University of Nebraska Press, Lincoln.
1991 *Fools Crow: Wisdom and Power*. Council Oak Books, Tulsa, OK.
- Mainfort, Robert C., Jr.
1982 Recent Radiocarbon Determinations for the Pinson Mounds Site. *Tennessee Anthropologist* 7(1):14–19.
1986 Pinson Mound: A Middle Woodland Ceremonial Center. *Research Series 7*. Tennessee Department of Conservation, Division of Archaeology, Nashville.
1988a Middle Woodland Mortuary Patterning at Helena Crossing, Arkansas. *Tennessee Anthropologist* 13(1):35–50.
1988b Middle Woodland Ceremonialism at Pinson Mounds, Tennessee. *American Antiquity* 53(1):158–173.
1996 Pinson Mounds and the Middle Woodland Period in the Midsouth and Lower Mississippi Valley. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 370–391. Ohio Archaeological Council, Columbus.
- Mainfort, Robert C., Jr., John B. Broster, and Karen M. Johnson
1992 1989 Excavations at Pinson Mounds: Ozier Mound. *Midcontinental Journal of Archaeology* 17(1):112–135.
- Mainfort, Robert C., Jr., James W. Cogswell, Michael J. O'Brien, Hector Neff, and Michael D. Glascock
1997 Neutron Activation Analysis of Pottery from Pinson Mounds and Nearby Sites in Western Tennessee: Local Production vs. Long-Distance Importation. *Midcontinental Journal of Archaeology* 22(1):43–68.
- Malinowski, Bronislaw
1922a *Magic, Science, and Religion and Other Essays*. Doubleday, Garden City, NY.
1922b *Argonauts of the Western Pacific*. E. P. Dutton, New York.
1954 *Magic, Science, and Religion and Other Essays by Bronislaw Malinowski*. Doubleday Anchor Books, Garden City, NY.
- Malthus, Thomas Robert
1798 *Essay on the Principle of Population as It Affects the Future Improvement of Society*. J. Johnson, London.
- Marcus, Joyce, and Kent V. Flannery
1996 *Zapotec Civilization: How Urban Society Evolved in Mexico's Oaxaca Valley*. Thames and Hudson, London.
- Marquette, Jacques
1966 *Voyages of Marquette in the Jesuit Relations*, 59. University Microfilms, Ann Arbor, MI.
- Marsella, A.J., G. DeVos, and F.L.K. Hsu
1985 *Culture and the Self*. Tavistock, New York.
- Martin, Frances P.
1954 A Vanderburgh County Site with Southern Affinities. *Proceedings of the Indiana Academy of Science for 1953* 63:57–58.
1958 Southern Affinities of the Ellerbusch Site, Warrick County, Indiana. *Proceedings of the Indiana Academy of Science* 67:90.
- Martin, Susan R.
1999 *Wonderous Power: The Story of Ancient Copper Working in the Lake Superior Basin*. Wayne State University Press, Detroit.
- Marx, Karl
1954 *Capital: A Critique of Political Economy* 1. Lawrence and Wishart, London.
- Marzke, Mary W., J. M. Longhill, and S. A. Rasmussen
1988 Gluteus Maximus Muscle Function and the Origin of Hominid Bipedality. *American Journal of Physical Anthropology* 77:519–528.
- Marzke, Mary W., N. Toth, K. Schick, S. Reece, B. Steinberg, K. Hunt, R. L. Linscheid, and K.-N. An
1997 Hard Hammer Percussion Manufacture of Tools and Early Hominid Hand Morphology. *Journal of Human Evolution* 32(4):A11–A12.

- Maslowski, Robert F., and Mark F. Seeman
1992 Woodland Archaeology in the Mid-Ohio Valley: Setting Parameters for Ohio Main Stem/Tributary Comparisons. In *Cultural Variability in Context: Woodland Settlements of the Mid-Ohio Valley*. M. F. Seeman, ed. Pp. 10–14. *Midcontinental Journal of Archaeology*, Special Paper No. 7. Kent State University Press, Kent, OH.
- Mauer, Christopher, Dennis O'Boyle, and Thomas J. Riley
1976 A Trace Element Analysis of Several Middle Woodland Silver Artifacts and Native Silver Ores. Unpublished Ms. on file with Thomas J. Riley, Department of Anthropology, North Dakota State University, Fargo, ND.
- Mauss, Marcel
1954 *The Gift: Forms and Functions of Exchange in Archaic Societies*. Free Press, New York. (orig. 1925)
1967 *The Gift: Forms and Functions of Exchange in Archaic Societies*. 2nd edition. W. W. Norton, New York. (orig. 1925)
1985 A Category of the Human Mind: The Notion of Person, the Notion of Self. In *The Category of the Person: Anthropology, Philosophy, History*. M. Carrithers, S. Collins, and S. Lukes, eds. W. D. Halls, trans. Pp. 1–25. Cambridge University Press, Cambridge.
- Maxwell, Moreau S.
1947 A Summary of Illinois Archaeology. *The Wisconsin Archaeologist (New Series)* 28(2): 18–33.
- McClain, Ernest G.
1979 Chinese Cyclic Tunings in Late Antiquity. *Ethnomusicology* 23(2):205–224.
- McClintock, Walter
1935 The Blackfoot Beaver Bundle. Southwestern Museum Leaflets 2, 3. Reprinted from *The Masterkey* 2(1935):76–84, 108–117.
- McCoid, Catherine Hodge, and LeRoy D. McDermott
1996 Toward Decolonizing Gender: Female Vision in the Upper Paleolithic. *American Anthropologist* 98(2):319–326.
- McFarland, R. W.
1887 Ancient Work Near Oxford, Ohio. *Ohio State Archaeological and Historical Quarterly* 1:265–276.
- McGimsey, Charles R., and Michael D. Wiant
1986 Woodland Period Culture History in the Lower Illinois River Valley. In *Woodland Period Occupations of the Napoleon Hollow Site in the Lower Illinois Valley*. M. D. Wiant and C. R. McGimsey, eds. Pp. 25–33. *Research Series*, 6. Kampsville Archaeological Center, Kampsville, IL.
- McGregor, John C.
1952 The Havana Site. In *Hopewellian Communities in Illinois*. Thorne Duell, ed. Pp. 43–91. *Scientific Papers*, 5. Illinois State Museum, Springfield.
1958 *The Pool and Irving Villages*. University of Illinois Press, Urbana.
- McGuire, Randall
1988 Death, Society, and Ideology in a Hohokam Community. Office of Cultural Resources Management Report No. 68, Arizona State University, Tempe.
- McKern, William C.
1931 A Wisconsin Variant of the Hopewell Culture. *Public Museum of the City of Milwaukee Bulletin* 10(2).
1934 Certain Culture Classification Problems in Middle Western Archaeology. Paper presented at the Annual Meeting of the American Anthropological Association, Central Section, Indianapolis, IN.
1939 The Midwestern Taxonomic Method as an Aid to Archaeological Culture Study. *American Antiquity* 4(4):301–313.
1945 Trait List of the Prehistoric Wisconsin Cultures: The Woodland Peoples. *The Wisconsin Archaeologist (New Series)* 26(4):66–79.
1946 A Cultural Perspective of Northeastern Area Archaeology. In *Man in Northeastern North America*. F. Johnson, ed. Pp. 33–36. *Robert S. Peabody Foundation for Archaeology Papers*, 3, Andover, MA.
- McKern, William C., P. F. Titterton, and James B. Griffin
1945 Painted Pottery Figurines from Illinois. *American Antiquity* 3:295–302.
- Mead, George H.
1934 *Mind, Self, and Society*. University of Chicago Press, Chicago.
- Mehl, Lewis E.
1988 Modern Shamanism: Integration of Biomedicine with Traditional World Views. In *Shaman's Path: Healing, Personal Growth, and Empowerment*. G. Doore, ed. Pp. 127–138. Shambhala, Boston.
- Meillassoux, C.
1978 The "Economy" in Agricultural Self-Sustaining Societies: A Preliminary Analysis. In *Relations of Production: Marxist Approaches to Economic Anthropology*. D. Seddon, ed. Pp. 127–157. Frank Cass Publications, London.
- Menon, Shanti
1996 Male Authority and Female Autonomy: A Study of the Matrilineal Nayars of Kerala, South India. In *Gender, Kinship, and Power: A Comparative and Interdisciplinary History*. M. J. Maynes, ed. Pp. 131–146. Routledge, New York.
- Mensforth, R. P.
2001 Warfare and Trophy Taking in the Archaic Period. In *Archaic Transition in Ohio and Kentucky Prehistory*. O. H. Prufer, S. E. Pedde, and R. S. Meindl, eds. Pp. 110–138. Kent State University Press, Kent, OH.
- Merbs, Charles F.
1980 The Pathology of a La Jolla Skeleton from Punta Minitas, Baja, California. *Pacific Coast Archaeological Society Quarterly* 16:37–43.
1983 Patterns of Activity-Induced Pathology in a Canadian Inuit Population. Archaeological Survey of Canada Paper 19. National Museums of Canada, Ottawa.

- 1989 Orientation of Canadian Thule and Early Historic Burials: Seasonality and Choice of Heaven. Paper presented at the Annual Meetings of the Society for Historical Archaeology, Baltimore, MD.
- Metcalf, Peter and Richard Huntington
1979 *Celebrations of Death*. Cambridge University Press, Cambridge.
- 1991 *Celebrations of Death: The Anthropology of Mortuary Ritual*. 2nd edition. Cambridge University Press, Cambridge.
- Metz, C. L. and F. W. Putnam
1886 Explorations in Ohio. Eighteenth and Nineteenth Annual Report. *Peabody Museum Reports* 3:449–466.
- Middleton, A. P., I. C. Freestone, and M. N. Leese
1985 Textural Analysis of Ceramic Thin Sections: Evaluation of Grain Sampling Procedures. *Archaeometry* 27(1):64–74.
- Middleton, John
1982 Lugbara Death. In *Death and the Regeneration of Life*. M. Bloch and J. Parry, eds. Pp. 134–154. Cambridge University Press, Cambridge.
- Midwestern Regional Climate Center
2000 Historical Climate Summaries for the Midwest. Electronic source:
<http://mcc.sws.uiuc.edu/summary/index.html>. Accessed 5/25/2002.
- Mill, John Stuart
1863 *Utilitarianism*. 15th (1907) edition. Longmans, Green, London.
- Miller, Daniel, and Christopher Tilley, eds.
1984 *Ideology, Power, and Prehistory*. Cambridge University Press, Cambridge.
- Mills, William C.
1902 Excavations of the Adena Mound. *Ohio Archaeological and Historical Society Publications* 10:452–485.
- 1904 Explorations of the Gartner Mound and Village Site. *Ohio Archaeological and Historical Quarterly* 13:129–189.
- 1906 Baum Prehistoric Village. *Ohio Archaeological and Historical Quarterly* 15:45–136.
- 1907a *Certain Mounds & Village Sites in Ohio*. F. J. Heer Press, Columbus, OH.
- 1907b Explorations of the Edwin Harness Mound. *Ohio Archaeological and Historical Quarterly* 16:113–193.
- 1909 Exploration of the Seip Mound. *Ohio Archaeological and Historical Quarterly* 18:269–321.
- 1914 *Archaeological Atlas of Ohio*. Ohio State Archaeological and Historical Society, Columbus.
- 1916 Exploration of the Tremper Mound. *Ohio Archaeological and Historical Quarterly* 25:262–398.
- 1917 Exploration of the Westenhaver Mound. *Certain Mounds and Village Sites in Ohio* 2(4):242–284.
- 1922 Exploration of the Mound City Group. *Ohio Archaeological and Historical Quarterly* 31:423–584.
- Milner, George R.
1995 An Osteological Perspective on Prehistoric Warfare. In *Regional Approaches to Mortuary Analysis*. L. A. Beck, ed. Pp. 221–244. Plenum Press, New York.
- 1999 Warfare in Prehistoric and Early Historic Eastern North America. *Journal of Archaeological Research* 7:105–151.
- Mitchell, Douglas R.
1992 Burial, Ritual, World View, and Shamanism: Toward an Understanding of the Hohokam World. In *The Pueblo Grand Project: An Analysis of Classic Hohokam Mortuary Practices at Pueblo Grande*. D. R. Michell, ed. Soil Systems, Phoenix.
- Mitchell, Douglas R., and Judy L. Brunson-Hadley
2001 *Ancient Burial Practices in the American Southwest*. University of New Mexico Press, Albuquerque.
- Moerman, Michael
1965 Ethnic Identification in a Complex Civilization: Who Are the Lue? *American Anthropologist* 67:1215–1230.
- Molleson, Theya
1994 The Eloquent Bones of Abu Hureyra. *Scientific American* 271(2):70–75.
- Montet-White, Anta
1963 Analytic Description of the Chipped-Stone Industry from Snyders site, Calhoun County, Illinois. In *Miscellaneous Studies in Typology and Classification*. Anta M. White et al., eds. Pp. 1–70. *Anthropological Papers*, 19. University of Michigan, Museum of Anthropology, Ann Arbor.
- 1968 The Lithic Industries of the Illinois Valley in the Early and Middle Woodland Period. *Anthropological Papers*, 35. Museum of Anthropology, University of Michigan, Ann Arbor.
- Montgomery, Henry
1913 Recent Archaeological Investigations in Ontario. *Transactions of the Canadian Institute* 9:2–22.
- Mooney, James
1975 *Historical Sketch of the Cherokee*. Aldine, Chicago.
- Moore, Clarence B.
1896 Certain River Mounds of Duval County, Florida. *Journal of the Academy of Natural Sciences of Philadelphia* (Second Series) 10:449–516.
- 1902 Certain Aboriginal Remains of the Northwest Florida Coast, Part 2. *Journal of the Academy of Natural Sciences of Philadelphia* 12(2): 127–358.
- 1903 Certain Aboriginal Remains of the Florida Central West Coast. *Journal of the Academy of Natural Sciences of Philadelphia* 12(3):361–439.
- 1905 Certain Aboriginal Mounds on Mobile Bay and on Mississippi Sound. *Journal of the Academy of Natural Sciences of Philadelphia* (Second Series) 13:245–297.
- Moore, D. M., and R. C. Reynolds Jr.
1989 *X-Ray Diffraction and the Identification and Analysis of Clay Minerals*. Oxford University Press, Oxford.

- Moore, Henrietta
1988 *Feminism and Anthropology*. University of Minnesota Press, Minneapolis.
- Moore, John H., and Michael E. Moseley
2001 How Many Frogs Does It Take to Leap Around the Americas? Comments on Anderson and Gillam. *American Antiquity* 66(3):526–529.
- Moorehead, Warren K.
1890 *Fort Ancient, the Great Prehistoric Earthwork of Warren County, Ohio*. R. Clarke and Co., Cincinnati.
1892 *Primitive Man in Ohio*. G. P. Putnam's Sons, New York.
1895 The Metzger Mound. *Proceedings of the Academy of Natural Sciences* 47:314–321.
1899 Report of Field Work in Various Portions of Ohio. *Ohio Archaeological and Historical Quarterly* 7:110–203.
1922 The Hopewell Mound Group of Ohio. *Field Museum of Natural History, Publication 211. Anthropological Series* 6(5):73–184, plates 51–83.
- Morgan, Lewis H.
1881 *Houses and House-Life of the American Aborigines. North American Ethnology IV*. U.S. Geographical and Geological Survey of the Rocky Mountains, Department of the Interior, Washington, DC.
1965 *Houses and House-Life of the American Aborigines*. University of Chicago Press, Chicago.
- Morgan, Richard G.
1946 *Fort Ancient*. Ohio State Archaeological and Historical Society, Columbus.
1952 Outline of Cultures in the Ohio Region. In *Archeology of Eastern United States*. J. B. Griffin, ed. Pp. 83–98. University of Chicago Press, Chicago.
- Morris, I.
1991 The Archaeology of Ancestors: The Saxe/Goldstein Hypothesis Revisited. *Cambridge Archaeological Journal* 1:147–169.
- Morrison, Kenneth M.
1999 The Cosmos as Intersubjective: Native American Other-Than Human Persons. Department of Religious Studies, Arizona State University, unpublished MS.
- Morse, Craig
1995 Symbols to Power: Styles and Media in the Inka State. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. E. Neitzel, eds. Pp. 419–433. Plenum Press, New York.
- Morton, James, and Jeff Carskadden
1987 Test Excavations at an Early Hopewellian Site Near Dresden, Ohio. *Ohio Archaeologist* 37:8–12.
- Moseley, J. E.
1965 The Paleopathologic Riddle of “Symmetrical Osteoporosis.” *American Journal of Roentgenology and Radium Therapy and Nuclear Medicine* 95(1):135–142.
- Muller, Jon
1984 The Southern Cult. In *The Southeastern Ceremonial Complex: Artifacts and Analysis—The Connonlandia Conference*. P. Galloway, ed. Pp. 11–26. University of Nebraska Press, Lincoln.
- Munson, Patrick J.
1988 Late Woodland Settlement and Subsistence in Temporal Perspective. In *Interpretations of Culture Change in the Eastern Woodlands during the Late Woodland Period*. R. W. Yerkes, ed. Pp. 7–16. *Occasional Papers in Anthropology*, 3. Ohio State University, Columbus.
- Murdock, George P.
1949a *Social Structure*. Macmillan, Toronto.
1949b Comparative Data on the Division of Labor by Sex. *Social Forces* 15(4):551–553.
- Murdock, George P., and Caterina Provost
1973 Factors in the Division of Labor by Sex: A Cross-Cultural Analysis. *Ethnology* 12:203–225.
- Nabakov, Peter, and Robert Easton
1989 *Native American Architecture*. Oxford University Press, New York.
- Nadel, S. F.
1957 *Theory of Social Structure*. Free Press, Glencoe, IL.
- Nagy, Bethel L.
2000 The Life Left in Bones: Evidence of Habitual Activity Patterns in Two Prehistoric Kentucky Populations. Unpublished doctoral dissertation, Arizona State University.
- Nanda, Serena
2000 *Gender Diversity: Crosscultural Variations*. Waveland Press, Prospect Heights, IL.
- National Geographic Society
1983 *Field Guide to the Birds of North America*. National Geographic Society, Washington, DC.
- Neihardt, John G.
1932 *Black Elk Speaks*. University of Nebraska Press, Lincoln.
- Nerburn, Kent
1994 The Wisdom of the Great Chiefs: The Classic Speeches of Chief Red Jacket, Chief Joseph, and Chief Seattle. New World Library, San Rafael, CA.
- Netting, Robert McC.
1972 Sacred Power and Centralization: Aspects of Political Adaptation in Africa. In *Population Growth: Anthropological Implications*. B. Spooner, ed. Pp. 219–244. MIT Press, Cambridge, MA.
1993 *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture*. Stanford University Press, Stanford, CA.
- Neumann, George K.
1950 Racial Differentiation in the American Indian. Unpublished doctoral dissertation, University of Chicago.
1952 Archaeology and Race in the American Indian. In *Archeology of Eastern United States*. J. B. Griffin, ed. Pp. 13–34. University of Chicago Press, Chicago.
1970 A Re-examination of the Question of the Middle Western Origin of the Delaware Indians. *Proceedings of the Indiana Academy of Sciences for 1969* 79:60–61.

- Neumann, George K., and Melvin L. Fowler
1952 Hopewell Sites in the Lower Wabash Valley in Hopewellian Communities in Illinois. *Illinois State Museum Scientific Papers* 5:43–92.
- Niquette, Charles M., R. Berle Clay, and Matthew M. Walters
1988 *Phase III Excavations of the Kirk (46Ms112) and Newman Mounds (46Ms110), Gallipolis Locks and Dam Replacement Project, Mason County, West Virginia*. Cultural Resource Analysts, Lexington, KY.
- Noll, Richard
1987 The Presence of Spirits in Magic and Madness. In *Shamanism*. S. Nicholson, ed. Pp. 47–61. Theosophical Publishing House, Wheaton, IL.
- Norris, Rae
1985 Excavation of the Toepfner Mound. *Archaeology of Eastern North America* 13:128–137.
- Nowaczyk, Ronald
1988 *Introductory Statistics for Behavioral Research*. Holt, Rinehart and Winston, New York.
n.d. Accession List for the Tremper Mound. On file at Ohio Historical Center, Columbus.
- Ohio Department of Transportation
1993 Phase III Re-Examination of Selected Prehistoric Resources and Phase II Testing of Flood Prone Areas Impacted By the Proposed PIK-32-13.55 Project in Seal Township, Pike County, Ohio (PID. 7563)—Addendum Report. Cultural Resources Unit, Bureau of Environmental Services, Ohio Department of Transportation.
- Ortner, Sherry B.
1984 Theory in Anthropology Since the Sixties. *Comparative Studies in Society and History* 26:126–166.
1990 Gender Hegemonies. *Cultural Critique* 14:35–80.
1995 The Problem of “Women” as an Analytic Category. In *Making Gender: The Politics and Erotics of Culture*. S. B. Ortner, ed. Pp. 116–138. Beacon Press, Boston.
- Ortner, Sherry B. and Harriet Whitehead
1981 Introduction: Accounting for Sexual Meanings. In *Sexual Meanings: The Cultural Construction of Gender and Sexuality*. S. B. Ortner and H. Whitehead, eds. Pp. 1–27. Cambridge University Press, Cambridge.
- Osburn, Mary Hubbell
1946 Prehistoric Musical Instruments in Ohio. *Ohio State Archaeological and Historical Quarterly* 55(1):12–20.
- O’Shea, John M.
1981 Social Configurations and the Archaeological Study of Mortuary Practices: A Case Study. In *The Archaeology of Death*. R. Chapman, I. Kinnes, and K. Randsborg, eds. Pp. 39–52. Cambridge University Press, Cambridge.
1984 *Mortuary Variability: An Archaeological Investigation*. Academic Press, Orlando, FL.
- Otto, Martha Potter
1975 A New Engraved Adena Tablet. *Ohio Archaeologist* 25(2):31–36.
1979 Hopewell Antecedents in the Adena Heartland. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. D. Greber, eds. Pp. 9–14. Kent State University Press, Kent, OH.
1980 *Ohio’s Prehistoric Peoples*. Ohio Historical Society, Columbus.
1984 Masterworks in Pipestone: Treasure from Tremper Mound. *Timeline* 1:18–33.
1992 A Prehistoric Menagerie: Ohio Hopewell Effigy Pipes. In *Proceedings of the 1989 Smoking Pipe Conference: Selected Papers*. C. F. Hayes III, C. C. Bodner, and M. L. Sempowski, eds. Pp. 1–11. *Rochester Museum & Science Center Research Records*, 22. Rochester, NY.
- Owsley, Douglas W., C. E. Orser Jr., R. W. Mann, P. H. Moore-Jansen, and R. L. Montgomery
1987 Demography and Pathology of an Urban Slave Population from New Orleans. *American Journal of Physical Anthropology* 74:185–197.
- Pacheco, Paul J.
1988 Ohio Middle Woodland Settlement Variability in the Upper Licking River Drainage. *Journal of the Steward Anthropological Society* 18(1/2): 87–117.
1989 The Spatial Distribution of Mounds along the Muskingum River: An Application of Linear Nearest Neighbor Analysis. In *Anthropology: Unity in Diversity*. M. Sidky, J. Foradas, and P. Pacheco, eds. Pp. 20–33. *Occasional Papers in Anthropology*, 4. Department of Anthropology, Ohio State University, Columbus.
1993 Ohio Hopewell Settlement Patterns: An Application of the Vacant Center Model to Middle Woodland Period Intracommunity Settlement Variability in the Upper Licking River Valley. Unpublished doctoral dissertation, Ohio State University.
1996 Ohio Hopewell Regional Settlement Patterns. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 16–35. Ohio Archaeological Council, Columbus.
1997 Ohio Middle Woodland Intracommunity Settlement Variability: A Case Study from the Licking Valley. In *Ohio Hopewell Community Organization*. W. S. Dancy and P. J. Pacheco, eds. Pp. 41–84. Kent State University Press, Kent, OH.
- Pacheco, Paul J., and William S. Dancy
n.d. Integrating Mortuary and Settlement Data on Ohio Hopewell Society. In *Recreating Hopewell: New perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
- Park, W. Z.
1938 Shamanism in Western North America. *Northwestern University Studies in the Social Sciences*, 2. Northwestern University, Evanston, IL.

- Parker, Arthur C.
1923 *Seneca Myths and Folk Tales*. Buffalo Historical Society, Buffalo, NY.
- Parmalee, Paul W.
1965 The Vertebrate Fauna. In *The McGraw Site: A Study in Hopewellian Dynamics*. O. Prufer, D. H. McKenzie, O. Pi-Sunyer, H. C. Cutler, R. A. Yarness, P. W. Parmalee, and D. H. Stansbery, eds. Pp. 115–118. *Scientific Publications, New Series*, 4(1). Cleveland Museum of Natural History.
- Parmalee, Paul W., Andreas A. Paloumpis, and Nancy Wilson
2000 Animals Utilized by Woodland Peoples Occupying the Apple Creek Site, Illinois. *Reports of Investigation 23*. Illinois State Museum, Springfield.
- Parsons, Talcott
1949 *The Structure of Social Action*. Free Press, New York.
- Paterek, Josephine
1994 *Encyclopedia of American Indian Costume*. W.W. Norton and Company, New York.
- Patterson, Clair C.
1971 Native Copper, Silver and Gold Accessible to Early Metallurgists. *American Antiquity* 36(3):286–321.
- Pauketat, Timothy R.
2000 The Tragedy of the Commoners. In *Agency in Archaeology*. M.-A. Dobres and J. E. Robb, eds. Pp. 113–129. Routledge, London.
2001a Practice and History in Archaeology. *Anthropological Theory* 1(1):73–98.
2001b A New Tradition in Archaeology. In *The Archaeology of Traditions: Agency and History Before and After Columbus*. T. Pauketat, ed. Pp. 1–16. University of Florida Press, Gainesville, FL.
2001c Concluding Thoughts on Tradition, History, and Archaeology. In *The Archaeology of Traditions: Agency and History Before and After Columbus*. Pp. 253–256. University of Florida Press, Gainesville.
- Pauketat, Timothy R., ed.
2001d *The Archaeology of Traditions*. University of Florida Press, Gainesville.
- Pauketat, Timothy R., and Thomas E. Emerson
1990 The Ideology of Authority and the Power of the Pot. *American Anthropologist* 93:919–935.
- Pearson, Michael Parker
1982 Mortuary Practices, Society, and Ideology: An Ethnoarchaeological Study. In *Symbolic and Structural Archaeology*. I. Hodder, ed. Pp. 99–113. Cambridge University Press, Cambridge.
1999 *The Archaeology of Death and Burial*. Texas A&M University, College Station.
- Pearson, Mike, and Colin Richards
1994 Ordering the World: Perceptions of Architecture, Space, and Time. In *Architecture and Order: Approaches to Social Space*. M. Pearson and C. Richards, eds. Pp. 1–37. Routledge, New York.
- Pederson, Jennifer and Jarrod Burks
2000 Recent Land Acquisition and Archaeological Field Work at Hopewell Culture National Historical Park, Ross County, Ohio. Paper presented at the Summary Presentations Made at the Fall Meeting of the Ohio Archaeological Council, Ohio Historical Center, Columbus, OH.
- Pederson, Jennifer, Jarrod Burks, and William Dancy
2002a Hopewell Mound Group: Data Collection in 2001. *Ohio Archaeological Council Newsletter* 14(1):17–19.
2002b Hopewell Mound Group: Data Collection at the Hopewell Type Site, 2001. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, La Crosse, WI.
- Peebles, Christopher S.
1971 Moundville and Surrounding Sites: Some Structural Considerations of Mortuary Practices II. In *Approaches to the Social Dimensions of Mortuary Practices*. J. A. Brown, ed. Pp. 68–91. *Memoirs of the Society for American Archaeology*, 25. SAA, Washington, DC.
1974 *Moundville: The Organization of a Prehistoric Community and Culture*. Unpublished doctoral dissertation, University of California.
1977 Biocultural Adaptation in Prehistoric America: An Archaeologist's Perspective. In *Sociocultural Adaptations in Prehistoric America*. R. L. Blakely, ed. Pp. 115–130. *Southern Anthropological Society Proceedings*, 11. University of Georgia Press, Athens.
- Peebles, Christopher S., and Susan Kus
1977 Some Archaeological Correlates of Ranked Societies. *American Antiquity* 42(3):421–448.
- Pen-li, Chuang
1963 Panpipes of Ancient China. *Monographs, 4*. Institute of Ethnology, Academia Sinica, Nankang, Taipei, Taiwan, ROC.
- Penney, David W.
1980 The Adena Engraved Tablets: A Study of Art Prehistory. *Mid-Continental Journal of Archaeology* 5(1):3–38.
1982 Middle Woodland Period: The Birth of a North American Iconographic Tradition. Paper presented at the Douglas Fraser Memorial Symposium on Primitive and Pre-Columbian Art, Columbia University, New York, NY.
1983 Imagery of the Middle Woodland Period: The Birth of a North American Iconographic Tradition. Paper presented at the Douglas Fraser Memorial Symposium on Primitive and Precolumbian Art, Columbia University, New York, NY.
1985 Continuities of Imagery and Symbolism in the Art of the Woodlands. In *Ancient Art of the American Woodland Indians*. D. S. Brose, J. A. Brown, and D. W. Penney, eds. Pp. 147–198. Harry Abrams, New York.
1989 *Hopewell Art*. Unpublished doctoral dissertation, Columbia University.

- Penney, David W., and Gary Cariveau
 1983 Source Analysis of Ohio Pipestone. Archaeological Collections, Ohio Historical Society, Columbus, unpublished MS and neutron activation analysis data.
 1985 Trace Element Analysis of Prehistoric Pipestone for Provenience Information. Paper presented at the Annual Meeting of the American Association of Museums, Detroit, MI.
- Perino, Gregory H.
 1955 The Bedford Mounds. Thomas Gilcrease Institute of American History and Art, Tulsa, OK, unpublished MS.
 1968 The Pete Klunk Mound Group, Calhoun County, Illinois: The Archaic and Hopewell Occupations (with an Appendix on the Gibson Mound Group). In *Hopewell and Woodland Site Archaeology in Illinois*. J. A. Brown, ed. Pp. 9–124. *Illinois Archaeological Survey Bulletin*, University of Illinois, Urbana.
 1970 Certain Hopewell and Late Woodland Sites in West Central Illinois. Museum of Red River, Idabel, OK, unpublished MS.
 n.d. Hopewellian Sites in Western Illinois. Library of James B. Griffin, University of Michigan, Museum of Anthropology, and The Thomas Gilcrease Institute of American History and Art, Tulsa, OK.
- Peters, L., and D. Price-Williams
 1980 Toward an Experiential Analysis of Shamanism. *American Ethnologist* 7:397–418.
- Peterson, Drexel A.
 1979 An Archaeological Survey and Assessment of the Wolf River Watershed. Unpublished report submitted to the U.S. Department of Agriculture, Soil Conservation Service, Nashville, TN.
- Peterson, Jane
 1994 *Changes in the Sexual Division of Labor in the Prehistory of the Southern Levant*. Unpublished doctoral dissertation, Arizona State University.
- Peterson, Jane and Diane E. Hawkey
 1998 Preface: Special Issue on Activity Patterns and Musculoskeletal Stress Markers. *International Journal of Osteoarchaeology* 8(5):303–304.
- Peterson, L., and P. Renstrom
 1986 *Sports Injuries: Their Prevention and Treatment*. Martin Dunitz, London.
- Phagan, Carl J.
 n.d.a Preliminary Summary of an Intensive Archaeological Survey. Delaware County Sewerage Improvement Project, Contract S73-1, Treatment Facility Location.
 n.d.b *DECCO-1 Field Notes and Laboratory Records*.
 1977 Intensive Archaeological Survey of the S.R. 315 Wastewater Treatment Facility Location, Known as the DECCO-1 Site (33-DI-28). Progress Report to the Board of County Commissioners, Delaware County, OH.
 1979 Field and laboratory notes on the DECCO site, 33-DI-28. Ohio Historical Center, Columbus.
- Phillips, Philip
 1970 Archaeological Survey in the Lower Yazoo Basin, Mississippi, 1949–1955. *Papers of the Peabody Museum of Archaeology and Ethnology*, 60. Peabody Museum, Cambridge, MA.
- Phillips, Phillip, and James A. Brown
 1978 *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma, Part I*. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA.
 1984 *Pre-Columbian Shell Engravings from the Craig Mound at Spiro, Oklahoma, Part II*. Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, MA.
- Pickard, William H.
 1996 1990 Excavations at Capitulum Mound (33Wn13) Marietta, Washington County, Ohio: A Working Evaluation. In *A View from the Core*. Paul J. Pacheco, ed. Pp. 274–285. Ohio Archaeological Council, Columbus.
- Piddocke, Stuart
 1969 The Potlatch System of the Southern Kwakiutl: A New Perspective. In *Environment and Cultural Behavior*. A. P. Vayda, ed. Pp. 130–156. Natural History Press, Garden City, NY.
- Pilling, Arnold R.
 1997 Cross-Dressing and Shamanism among Selected Western North American Tribes. In *Two-Spirit People: Native American Gender Identity, Sexuality and Spirituality*. S.-E. Jacobs, W. Thomas, and S. Lang, eds. Pp. 69–99. University of Illinois Press, Chicago.
- Powell, Bruce B.
 1957 Hopewellian Pottery of the Lower Illinois Valley: The Snyders Site Ceramics. *Papers of the Michigan Academy of Science, Arts and Letters* 42:219–224.
- Powell, P.
 1991 Skeletal Evidence of Changes in Subsistence Activities Between the Archaic and Mississippian Time Periods in Northwestern Alabama. In *What Mean these Bones?* M. Powell, P. Bridges, and A. Minis, eds. Pp. 89–101. University of Alabama Press, Tuscaloosa.
- Praemer, A., S. Furner, and D. P. Rice
 1992 *Musculoskeletal Conditions in the United States*. American Academy of Orthopedic Surgeons, IL.
- Preucel, Robert W.
 2000 Making Pueblo Communities: Architectural Discourse at Kotyiti, New Mexico. In *The Archaeology of Communities: A New World Perspective*, M. A. Canuto and J. Yaeger, eds. Pp. 58–77. Routledge, London, New York.
- Price, Neil S.
 2001 An Archaeology of Altered States: Shamanism and Material Culture Studies. In *The Archaeology of Shamanism*. N. Price, ed. Pp. 3–16. Routledge, London.

- Price, T. Douglas, and Gary M. Feinman, eds.
1995 *Foundations of Social Inequity*. Plenum Press, New York.
- Prufer, Olaf H.
1961a The Hopewell Complex of Ohio. Unpublished doctoral dissertation, Harvard University.
1961b Prehistoric Hopewell Meteorite Collecting: Context and Implications. *Ohio Journal of Science* 61:341–352.
1962 Prehistoric Hopewell Meteorite Collecting: Further Evidence. *Ohio Journal of Science* 62:314–316.
1964a The Hopewell Complex of Ohio. In *Hopewellian Studies*. J. Caldwell and R. Hall, eds. Pp. 35–83. *Scientific Papers*, 12. Illinois State Museum, Springfield.
1964b The Hopewell Cult. *Scientific American* 211(6):90–102.
1967 The Scioto Valley Archaeological Survey. In *Studies in Ohio Archaeology*. O. H. Pruffer and D. K. McKenzie, eds. Pp. 267–328. Western Reserve University Press, Cleveland.
1968 Ohio Hopewell Ceramics: An Analysis of the Extant Collections. *Anthropological Papers*, 63. Museum of Anthropology, University of Michigan, Ann Arbor.
1997a Fort Hill 1964: New Data and Reflections on Hopewell Hilltop Enclosures in Southern Ohio. In *Ohio Hopewell Community Organization*. William S. Dancy and Paul J. Pacheco, eds. Pp. 311–327. Kent State University Press, Kent, OH.
1997b The Ilif Riddle Sites. In *Ohio Hopewell Community Organization*. W. S. Dancy and P. J. Pacheco, eds. Pp. 361–363. Kent State University Press, Kent, OH.
1997c How to Construct a Model: A Personal Memoir. In *Ohio Hopewell Community Organization*. William S. Dancy and Paul J. Pacheco, eds. Pp. 105–128. Kent State University Press, Kent, OH.
- Prufer, Olaf H., and Douglas H. McKenzie
1965 Ceramics. In *The McGraw Site: A Study in Hopewellian Dynamics*. O. H. Pruffer, ed. Pp. 16–57. *Scientific Publications*, 4(1). Cleveland Museum of Natural History, Cleveland.
1975 *Studies in Ohio Archaeology, Appendix of Radiocarbon Dates*. Kent State University Press, Kent, OH.
- Pruffer, Olaf H., Douglas H. McKenzie, Oriol Pi-Sunyer, Hugh C. Cutler, Richard A. Yarness, Paul W. Parmalee, and Ldavid H. Stansbery
1965 The McGraw Site: A Study in Hopewellian Dynamics. *Cleveland Museum of Natural History, Scientific Publications* n.s. 4(1).
- Pryor, John, and Christopher Carr
1995 Basketry of Northern California Indians: Interpreting Style Hierarchies. In *Style, Society, and Person*. Christopher Carr and J. Neitzel, eds. Pp. 259–296. Plenum Press, New York.
- Putnam, Frederick W.
1882 Notes on Copper Objects from North and South America, Contained in the Collections of the Peabody Museum. *Collections of the Peabody Museum, 15th Annual Report* 3:83–148.
1883 Iron from the Ohio Mounds. *Proceedings of the American Antiquarian Society* (n.s.) 2:349–363.
- Quimby, George I.
1941 The Goodall Focus: An Analysis of Ten Hopewellian Components in Michigan and Indiana. *Prehistory Research Series*, 2(2). Indiana Historical Society, Indianapolis.
1944 Some New Data on the Goodall Focus. *Papers of the Michigan Academy of Science, Arts and Letters* 29:419–443.
1960 *Indian Life in the Upper Great Lakes: 11,000 B.C. to A.D. 1800*. University of Chicago Press, Chicago.
- Rackerby, Frank
1969 Preliminary Report on the Macoupin Site: A Lower Illinois Valley Middle Woodland Settlement. Paper presented at the Annual Meeting of the Society for American Archaeology, Milwaukee, WI.
1982 Macoupin: A Havana-Hopewell Site in the Lower Illinois Valley. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Cleveland, OH.
- Radcliffe-Brown, A. R.
1952a *Structure and Function in Primitive Society*. Free Press, New York.
1952b On Social Structure. In *Structure and Function in Primitive Society*. Pp. 188–204. Free Press, New York.
- Radcliffe-Brown, A. R., and Daryll Forde
1950 *African Systems of Kinship and Marriage*. Oxford University Press, London.
- Radin, Paul
1945 *The Road of Life and Death: A Ritual Drama of the American Indians*. Pantheon Books, New York.
1948 Winnebago Hero Cycles: A Study in Aboriginal Literature. *Memoirs of the International Journal of American Linguistics* 14(3).
1970 *The Winnebago Tribe*. University of Nebraska Press, Lincoln. (Originally, in *Thirty-seventh Annual Report of the Bureau of American Ethnology*, Government Printing Office, Washington, DC, 1923.)
1972 *The Trickster: A Study in American Indian Mythology*. Schocken Books, New York. (Reprint of the 1956 edition.)
- Rafferty, Janet
1983 A New Map of the Ingomar Mounds Site. *Mississippi Archaeology* 18(2):18–27.
1987 The Ingomar Mounds Site: Internal Structure and Chronology. *Midcontinental Journal of Archaeology* 12(2):147–173.
- Rainey, Katharine
2003 Using Ecology and Ethnography of Historic Eastern U.S. Swidden Practices to Interpret Ohio Hopewell Farming. Paper presented at the Annual

- Meeting of the Society for American Archaeology, Milwaukee, WI.
- Ranney, D., R. Wells, and A. Moore
1995 The Anatomical Location of Work-Related Chronic Musculoskeletal Disorders in Selected Industries Characterized by Repetitive Upper-Limb Activity. *Ergonomics* 38(7):1408–1423.
- Rapp, George, Jr., Eiler Henrickson, and James Allert
1990 Native Copper Sources of Artifact Copper in Pre-Columbian North America. *Geological Society of American Centennial Special Volume 4*:479–498.
- Rappaport, Roy A.
1968 *Pigs for the Ancestors*. Yale University Press, New Haven, CT.
1971 Nature, Culture, and Ecological Anthropology. In *Man, Culture, and Society*. H. L. Shapiro, ed. Pp. 237–266. Oxford University Press, Oxford.
1979 *Ecology, Meaning, and Ritual*. North Atlantic Books, Richmond, CA.
- Rasmussen, Knud
1929 Intellectual Culture of the Iglulik Eskimos. *Report of the Fifth Thule Expedition, 1921–1924*, 7(1). Gyldendalske Boghandel, Copenhagen.
- Rathbun, T. A.
1987 Health and Disease from a South Carolina Population. *American Journal Physical Anthropology* 74:239–253.
- Redman, Charles L.
1977 Man, Domestication, and Culture in Southwestern Asia. In *Origins of Agriculture*. C. A. Reed, ed. Pp. 523–567. Mouton, The Hague.
- Redmond, Brian G.
1990 The Yankeetown Phase: Emergent Mississippian Cultural Adaptation in the Lower Ohio River Valley. Unpublished doctoral dissertation. Indiana University.
- Reece, Sandra, B. Steinberg, M. W. Marzke, N. Toth, K. Schick, K. Hunt, R. L. Linscheid, and K.-N. An
1997 Sidescraping, Endscraping, and the Hominid Hand. Paper presented at the Annual Meeting of the Paleoanthropological Society, St. Louis, MO.
- Reichel-Dolmatoff, Gerardo
1971 *Amazonian Cosmos: The Sexual and Religious Symbolism of the Tukano Indians*. University of Chicago Press, Chicago.
1978 Desana Animal Categories, Food Restrictions, and the Concept of Color Energies. *Journal of Latin American Lore* 4:243–291.
1987 *Shamanism and the Art of the Eastern Tukanoan Indians*. Brill, Leiden.
- Reichs, Kathleen J.
1974 Biological Variability and the Hopewell Phenomenon. Unpublished doctoral dissertation, Northwestern University.
1984 Pearls or People: A Biometric Analysis of Interregional Exchange during Hopewell Times. *Central Issues in Anthropology* 5(2):47–65.
- Rein, Judith S.
1974 *The Complicated Stamped Pottery of the Mann Site, Posey County, Indiana*. Unpublished master's thesis, Indiana University.
- Renfrew, Colin
1986 Introduction: Peer Polity Interaction and Socio-Political Change. In *Peer Polity Interaction and Socio-Political Change*. C. Renfrew and J. Cherry, eds. Pp. 1–18. Cambridge University Press, Cambridge.
- Renfrew, Colin and Paul Bahn
1991a What Contact Did They Have? Trade and Exchange. In *Archaeology: Theories, Methods, and Practice*. Thames and Hudson, New York.
1991b *Archaeology: Theories, Methods, and Practice*. Thames and Hudson, New York.
- Renfrew, Colin, and Stephen Shennan
1982 *Ranking, Resource, and Exchange*. Cambridge University Press, Cambridge.
- Ricardo, David
1817 *On the Principles of Political Economy and Taxation*. 1819 edition. Joseph Milligan, Georgetown, DC.
- Rice, Glen E.
1998 War and Water: An Ecological Perspective on Hohokam Irrigation. *Kiva* 63(3):263–301.
2000 The Segmentary Organization of the Salado and Hohokam. In *Salado*. J. Dean, ed. Pp. 143–166. University of New Mexico Press, Albuquerque.
- Richmond, Michael D.
2001 A National Register Evaluation of Sites 15Mm137, 15Mm139 and 15Mm140 and Deep Testing along Sycamore Creek in Montgomery County, Kentucky. Submitted to Contract Publication Series 01-106. Cultural Resource Analysts.
- Richmond, Michael D. and Jonathan P. Kerr
2002 Archaeological Investigations at 15Mm137: Evidence for Middle Woodland Ritualism in the Bluegrass Region of Kentucky. Paper presented at the Annual Midwest Archaeological Conference, Columbus, OH.
- Riordan, Robert V.
1995 A Construction Sequence for a Middle Woodland Hilltop Enclosure. *Midcontinental Journal of Archaeology* 20(1):62–104.
1996 The Enclosed Hilltops of Southern Ohio. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. Paul J. Pacheco, ed. Pp. 242–256. Ohio Archaeological Council, Columbus.
1998 Boundaries, Resistance, and Control: Enclosing the Hilltops in Middle Woodland Ohio. In *Ancient Earthwork Enclosures of the Eastern Woodlands*. J. R. C. Mainfort and L. P. Sullivan, eds. Pp. 68–84. University of Florida Press, Gainesville.
2002 Fire, Smoke and Stone at the Pollock Works. *Ohio Archaeological Council Newsletter* 14(1):23.
- Ritchie, William A.
1937 Culture Influences from Ohio in New York Archaeology. *American Antiquity* 2(3):182–194.
1938 Certain Recently Explored New York Mounds and their Probable Relation to the Hopewell Culture.

- Research Records*, 4. Rochester Museum of Arts and Sciences, Rochester, NY.
- 1969 *The Archaeology of New York State*. Revised edition. Natural History Press, Garden City, NY.
- Ritzenthaler, Robert E.
1978 Southeastern Chippewa. In *Handbook of North American Indians*, vol. 15. Northeast. B. Trigger, ed. Pp. 743–759. Smithsonian Institution Press, Washington, DC.
- Ritzer, George and P. Gindoff
1994 Agency-Structure, Micro-Macro, Individualism-Holism-Relationism: A Metatheoretical Explanation of Theoretical Convergence between the United States and Europe. In *Agency and Structure: Reorienting Social Theory*. Piotr Sztompka, ed. Pp. 3–23. Gordon and Breach, Yverdon, Switzerland.
- Robb, John E.
1999 Secret Agents: Culture, Economy, and Social Reproduction. In *Material Symbols: Culture and Economy in Prehistory*. J. E. Robb, ed. Pp. 3–15. Center for Archaeological Investigations, Southern Illinois University, Carbondale.
- Roe, Peter
1979 Marginal Men: Male Artists among the Shipibo Indians of Peru. *Anthropologica* 2(2):187–221.
1995 Style, Society, Myth, and Structure. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. Neitzel, eds. Pp. 27–76. Plenum Press, New York.
- Rogers, J. D., and B. D. Smith, eds.
1995 *Mississippian Communities and Households*. University of Alabama Press, Tuscaloosa.
- Romain, William F.
2000 *Mysteries of the Hopewell: Astronomers, Geometers, and Magicians of the Eastern Woodlands*. University of Akron Press, Akron, OH.
2001 Lost Worlds of the Hopewell. Compact disk produced by the author, Olmstead Township, OH.
2004 Hopewell Geometric Enclosures: Gatherings of the Fourfold. Unpublished doctoral dissertation. Department of Anthropology, University of Leicester, England.
- Roper, Donna C.
1979 The Method and Theory of Site Catchment Analysis: A Review. *Advances in Archaeological Method and Theory* 2:119–140.
- Rosaldo, M. Z., and L. Lamphere, eds.
1974 *Woman, Culture, and Society*. Stanford University Press, Stanford, CA.
- Roscoe, Will
1998 *Changing Ones: Third and Fourth Genders in Native North America*. St. Martin's Press, New York.
1999 *Changing Ones: Third and Fourth Graders in Native North America*. St. Martin's Press, New York.
- Roseman, Marina
1995 *Dream Songs and Healing Sounds in the Rainforests of Malaysia*. Smithsonian Folkways Recordings, Smithsonian Institution, Washington, DC.
- Rosenthal, Beryl
1995 Iroquois False face Masks: The Multiple Causes of Style. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J.E. Neitzel, eds. Pp. 345–367. Plenum Press, New York.
- Rosman, Abraham, and Paula Rubel
1971 *Feasting with Mine Enemy: Rank and Exchange among Northwest Coast Societies*. Columbia University Press, New York.
- Rothschild, N.
1979 Mortuary Behavior and Social Organization at Indian Knoll and Dickson Mounds. *American Antiquity* 44(4):658–675.
- Rouse, Irving
1967 Seriation in Archaeology. In *American Historical Anthropology: Essays in Honor of Leslie Spier*. C. Riley and W. Taylor, eds. Pp. 153–195. Southern Illinois University Press, Carbondale.
- Rozario, Santi
1991 Ethno-religious Communities and Gender Divisions in Bangladesh: Women as Boundary Markers. In *Intersexions: Gender/Class/Culture/Ethnicity*. G. Bottomley, M. de Lepervanche, and J. Martin, eds. Pp. 14–32. Allen and Unwin, North Sydney.
- Ruby, Bret J.
1993 An Archaeological Investigation of Mann Phase Settlement Patterns in Southwestern Indiana. *Glenn A. Black Laboratory of Archaeology Reports of Investigations*, 93-18, Indiana University, Bloomington.
1996 Hopewellian Centers in Context: Intensive Survey in the Vicinity of the Hopeton Works, Hopewell Culture National Historical Park, Ross County, Ohio. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Beloit, WI.
1997a The Mann Phase: Hopewellian Subsistence and Settlement Adaptations in the Wabash Lowlands of Southwestern Indiana. Unpublished doctoral dissertation, Indiana University.
1997b Current Research at Hopewell Culture National Historical Park. *Hopewell Archeology: The Newsletter of Hopewell Archaeology in the Ohio River Valley* 2(2):1–6.
1997c Beyond the Walls: Recent Research at the Hopeton Works, Hopewell Culture National Historical Park. Paper presented at the Annual Meeting of the Ohio Archaeological Council, Columbus, OH.
1997d Field School Excavations at the Hopeton Earthworks. *The Falcon, Newsletter of Hopewell Culture National Historical Park*. Fall issue.
1997e The Mann Phase: Hopewellian Community Organization in the Wabash Lowlands. Paper presented at the Annual Meetings of the Society for American Archaeology, Nashville, TN.
1998 An Archeological and Historical Evaluation of the Nature, Integrity and Significance of the Spruce Hill Works, Ross County, Ohio. *Reports of*

- Investigations*, 98–1. Hopewell Culture National Historical Park, Chillicothe, IL.
- Ruby, Bret J., and Scott J. Troy
1997 An Archeological Reconnaissance and Assessment of Effect Regarding the Installation of Boundary Fence at the Hopeton Works (33–Ro-28), Ross County, Ohio. Hopewell Culture National Historical Park, Chillicothe, IL.
- Ruby, Bret J., Janis K. Kearney, and William R. Adams
1993 Faunal Remains from the Grabert Site (12 Po 248): A Middle Woodland Occupation in Posey County, Indiana. In *Current Research in Indiana Archaeology and Prehistory: 1991–1992*. Brian G. Redmond, ed. 14: Pp. 46–48. *Research Reports, Glenn A. Black Laboratory of Archaeology*, 14. Indiana University, Bloomington.
- Rudolph, Teresa P.
1981 The Distribution of Late Woodland Sites in the Black Bottom Area, Pope and Massac Counties, Illinois. Unpublished Master's thesis. Southern Illinois University.
- Ruhl, Katharine C.
1992 Copper Earspools From Ohio Hopewell Sites. *Midcontinental Journal of Archaeology* 17:46–79.
1996 Copper Earspools in the Hopewell Interaction Sphere: The Temporal and Social Implications. Unpublished master's thesis, Kent State University.
- Ruhl, Katharine C., and Mark F. Seeman
1998 The Temporal and Social Implications of Ohio Hopewell Copper Ear Spool Design. *American Antiquity* 63:651–662.
- Russell, Israel
1907 The Surface Geology of Portions of Menominee, Dickinson and Iron Counties, Michigan. In *Report of the State Board of Geological Survey of Michigan for the Year 1906*. Pp. 1–91.
- Sahlins, Marshal
1958 *Social Stratification in Polynesia*. University of Washington Press, Seattle.
1968 Poor Man, Rich Man, Big Man, Chief: Political Types in Melanesia and Polynesia. In *Peoples and Culture of the Pacific*. A. P. Vayda, ed. Pp. 157–176. Natural History Press, Garden City, NY.
1972 *Stone Age Economics*. Aldine–Atherton, Chicago.
- Saitta, Dean J.
1994 Agency, Class, and Archaeological Interpretation. *Journal of Anthropological Archaeology* 13:201–227.
- Sallade, Jane K., and David P. Braun
1982 Spatial Organization of Peasant Agricultural Subsistence Territories: Distance Factors and Crop Location. In *Ethnology by Archaeologists*. Elisabeth Tooker, ed. Pp. 19–41. American Ethnological Society, Washington, DC.
- Sanday, P.
1973 Toward a Theory of the Status of Women. *American Anthropologist* 75:1682–1700.
- Sanders, William T.
1956 The Central Mexican Symbiotic Region: A Study of Prehistoric Settlement Patterns. In *Prehistoric Settlement Patterns in the New World*. G. R. Willey, ed. Pp. 15–127. *Viking Fund Publications in Anthropology*, 23. Viking, New York.
- Sanders, William T., and Barbara J. Price
1968 *Mesoamerica: The Evolution of a Civilization*. Random House, New York.
- Sassaman, Kenneth E.
2000 Agents of Change in Hunter-Gatherer Technology. In *Agency in Archaeology*. M.-A. Dobres and J. E. Robb, eds. Pp. 148–168. Routledge, London.
- Saxe, Arthur A.
1970 Social Dimensions of Mortuary Practices in a Mesolithic Population from Wadi Halfa, Sudan. Unpublished doctoral dissertation, University of Michigan.
- Schneider, H. J., A. Y. King, J. L. Bronson, and E. H. Miller
1974 Stress Injuries and Developmental Changes of Lower Extremities of Ballet Dancers. *Radiology* 113:627.
- Schoolcraft, Henry Rowe
1853–1857 *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*, vol. 1. Bureau of Indian Affairs, Washington, DC.
- Schroder, David L., and Katherine C. Ruhl
1968 Metallurgical Characteristics of North American Prehistoric Copper Work. *American Antiquity* 33(2):162–169.
- Scuilli, Paul W., and Michael C. Mahaney
1986 Evidence for Local Biological Continuity for an Ohio Hopewell Complex Population. *Mid-Continental Journal of Archaeology* 11(2):181–199.
- Scuilli, Paul F., Bruce W. Aument, and Leonard R. Piotrowski
1982 The Williams (33WO7a) Red Ochre Cemetery: Preliminary Descriptive and Comparative Analysis of Acquired Dental Pathologies. *Pennsylvania Archaeologist* 53(2):17–24.
- Scuilli, Paul W., Cheryl A. Johnston, D. Troy Case, Teresa Cadiente, and Robert Pickering
n.d. Methods Used to Age and Sex Ohio Hopewell Skeletal Remains and an Evaluation of the Assignments. In *The Ohio Hopewell Mortuary Record: An Archaeological and Bioarchaeological Inventory*. D. T. Case and C. Carr, eds. Department of Anthropology, Arizona State University, unpublished MS and databank.
- Seeman, Mark F.
1977a The Hopewell Interaction Sphere: The Evidence for Interregional Trade and Structural Complexity. Unpublished doctoral dissertation, Indiana University.
1977b Stylistic Variation in Middle Woodland Pipe Styles: The Chronological Implications. *Mid-Continental Journal of Archaeology* 2:47–66.

- 1979a The Hopewell Interaction Sphere: The Evidence for Inter-Regional Trade and Structural Complexity. *Indiana Historical Society, Prehistoric Research Series* 5(2):237–438.
- 1979b Feasting with the Dead: Ohio Hopewell Charnel House Ritual as a Context for Redistribution. In *Hopewell Archaeology: The Chillicothe Conference*, D. S. Brose and N. Greber, eds. Pp. 39–46. Kent State University Press, Kent, OH.
- 1981a An Archaeological Survey of the Hopewell Site (33Ro27) and Vicinity, Ross County, Ohio. Department of Sociology and Anthropology, Kent State University, Kent, OH.
- 1981b The Questions of “Villages” at the Hopewell Site: An Archaeological Survey of the Hopewell Site (33Ro27) and Vicinity, Ross County, Ohio. Paper presented at the Midwestern Archaeological Conference.
- 1986 Adena “Houses” and the Implications for Early Woodland Settlement Models in the Ohio Valley. In *Early Woodland Archeology*. K. B. Farnsworth and T. E. Emerson, eds. Pp. 564–580. Center for American Archaeology Press, Kampsville, IL.
- 1988 Ohio Hopewell Trophy Skull Artifacts as Evidence for Competition in Middle Woodland Societies Circa 50 B.C.–A.D. 350. *American Antiquity* 53(3):565–577.
- 1992 Report on the Age, Affiliation and Significance of the GE Site (12 Po 885). Submitted to the United States Attorney’s Office.
- 1995 When Words Are Not Enough: Hopewell Interregionalism and the Use of Material Symbols at the GE Mound. In *Native American Interactions: Multiscalar Analyses and Interpretation in the Eastern Woodlands*. M. S. Nassenay and K. E. Sassaman, eds. Pp. 122–143. University of Tennessee Press, Knoxville.
- 1996 The Ohio Hopewell Core and Its Many Margins: Deconstructing Upland and Hinterland Relations. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 304–315. Ohio Archaeological Council, Columbus.
- Seeman, Mark F., and James L. Branch
n.d. The Mounded Landscapes of Ohio: Hopewell Patterns and Placements. In *Recreating Hopewell: New Perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
- Seeman, Mark F., and William S. Dancy
2000 The Late Woodland Period in Southern Ohio: Basic Issues and Prospects. In *Late Woodland Societies: Tradition and Transformation across the Midcontinent*. T. E. Emerson, D. L. McElrath, and A. C. Fortier, eds. Pp. 583–611. University of Nebraska Press, Lincoln.
- Seeman, Mark F., and Frank Soday
1980 The Russell Brown Mounds: Three Hopewell Mounds in Ross County, OH. *Mid-Continental Journal of Archaeology* 5(1):73–116.
- Seltzer, Frank M.
1933 Pottery of the Hopewell Type from Louisiana. *Proceedings of the United States National Museum* 82(22):1–21.
- Senior, Louise M.
1994 Babes in the Hood: Concepts of “Personhood” and the Spatial Segregation of Infants from Adults in Archaeological Burial Practices. Paper presented at the Annual Meetings of the Society for American Archaeology, Anaheim, CA.
- Sered, Susan Starr
1994 *Priestess, Mother, Sacred Sister: Religions Dominated by Women*. Oxford University Press, New York.
- Service, Elman
1962 *Primitive Social Organization: An Evolutionary Perspective*. Random House, New York.
1971 *Primitive Social Organization*. Random House, New York.
- Shackley, M. Steven
1997 Source Provenance of Obsidian Artifacts from the Mount Vernon Hopewell Period Site (12-PO-885), Posey County, Indiana: An Energy Dispersive X-Ray Fluorescence (EDXRF) Study. In *Hopewell in Mt. Vernon: A Study of the Mt. Vernon Site (12-PO-885)*. G. E. Company, ed. Pp. 175–183. General Electric, Mt. Vernon, IN.
- Shetrone, Henry C.
1925 Exploration of the Ginther Mound: The Miesse Mound. *Ohio Archaeological and Historical Quarterly* 40:343–509.
1926 Exploration of the Hopewell Group of Prehistoric Earthworks. *Ohio Archaeological and Historical Quarterly* 35:1–227.
1930 *The Mound Builders*. Appleton, New York.
1936 *The Mound Builders*. Appleton–Century, New York.
- Shetrone, Henry C., and Emerson F. Greenman
1931 Explorations of the Seip Group of Prehistoric Earthworks. *Ohio Archaeological and Historical Quarterly* 40:343–509.
- Shriner, Christine
1999 Ceramic Technology at Lerna, Greece in the Third Millennium B.C.: Social and Economic Implications. Unpublished doctoral dissertation, Indiana University.
- Shriner, Christine, and M. J. Dorais
1999 A Comparative Electron Microprobe Study of Lerna III and IV Ceramics and Local Clay-Rich Sediments. *Archaeometry* 41(1):25–49.
- Shryock, Andrew J.
1987 Wright Mound Reexamined: Generative Structures and the Political Economy of a Simple Chiefdom. *Mid-Continental Journal of Archaeology* 12(2):243–268.
- Shweder, R.A., and R.A. LeVine
1984 *Culture Theory: Essays on Mind, Self, and Emotion*. Cambridge University Press, New York.
- Siegel, Peter
1996 Ideology and Culture Change in Prehistoric

- Puerto Rico: A View from the Community. *Journal of Field Archaeology* 23(3):313–333.
- Sigstad, J. S.
1972 The Age and Distribution of Catlinite and Red Pipestone. Unpublished doctoral dissertation, University of Missouri.
- Skinner, Alanson B.
1915 Associations and Ceremonies of the Menomini Indians. *Anthropological Papers* 13(2):167–215.
1920 Medicine Ceremonies of the Menomini, Iowa, and Wahpeton Dakota. *Indian Notes and Monographs* 4:15–188. Museum of the American Indian, Heye Foundation, New York, NY.
1921 Material Culture of the Menominee. *Indian Notes and Monographs, Miscellaneous Series*, 20(1). Museum of the American Indian, Heye Foundation, New York.
1923 Societies of the Iowa, Kansa, and Ponca Indians. *American Museum of Natural History Anthropological Papers*, 9.
- Slobodkin, Lawrence B., and Anatol Rapoport
1974 An Optimal Strategy of Evolution. *Quarterly Review of Biology* 49(3):181–200.
- Smith, Adam
1776 *An Inquiry into the Nature and Causes of the Wealth of Nations*. 1789 edition. Thomas Dobson, Philadelphia.
- Smith, Betty A.
1979 The Hopewell Connection in Southwest Georgia. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 181–187. Kent State University Press, Kent, OH.
1998 Neutron Activation Analysis of Ceramics from Mandeville and Swift Creek. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 112–129. University of Alabama Press, Tuscaloosa.
- Smith, Bruce D.
1975 Middle Mississippian Exploitation of Animal Populations. *Anthropological Papers*, 57. Museum of Anthropology, University of Michigan, Ann Arbor.
1986 The Archaeology of the Southeastern United States: From Dalton to de Soto, 10,500–500 B.P. *Advances in World Archaeology* 5:1–92.
1992 Hopewellian Farmers of Eastern North America. In *Rivers of Change: Essays on Early Agriculture in Eastern North America*. B.D. Smith, M.P. Hoffman, and C.W. Cowan, eds. Pp. 201–248. Smithsonian Institution Press, Washington, DC.
- Smith, John M., and Haydn H. Murray
1957 The Clay Minerals in Some Glacial Lacustrine Sediments of Indiana. *Proceedings of the Indiana Academy of Science* 66:179–187.
- Smith, Sandra
1984 Panpipes for Power, Panpipes for Play: The Social Management of Cultural Expression in Kuna Society. University Microfilms, Ann Arbor, MI.
- Snow, Charles E.
1957 Adena Portraiture. In *The Adena People*, vol. 2. W. S. Webb and R. S. Baby. Pp. 47–60. Ohio Historical Society, Columbus.
- Snow, Frankie
1998 Swift Creek Design Investigations: The Hartford Case. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 61–98. University of Alabama Press, Tuscaloosa.
- Snow, Frankie, and Keith Stephenson
1998 Swift Creek Designs: A Tool for Monitoring Interaction. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 99–111. University of Alabama Press, Tuscaloosa.
- Snyder, J. F.
1998 A Group of Illinois Mounds. *The Archaeologist* 3(4):109–113.
- Speck, Frank G.
1909 Ethnology of the Yuchi Indians. *Anthropological Publications of the University of Pennsylvania* 5(2):83–95.
- Spence, Michael W., and Brian Fryer
1990 The Exchange of Silver in the Middle Woodland Period. Paper presented at the Annual Meeting of the Ontario Archaeological Society, Toronto, Canada.
1996 *Hopewell Silver Analysis: A Report on Wenner–Gren Foundation for Anthropological Research Grant-in-Aid No. 3201*. On file at the Department of Anthropology, University of Western Ontario, and with the Wenner–Gren Foundation, New York.
- Spence, Michael W., and J. Russell Harper
1968 The Cameron's Point Site. *Occasional Paper* 12. Royal Ontario Museum Art and Archaeology.
- Spence, Michael W., Robert Pihl, and J. E. Molto
1984 Hunter-Gatherer Social Group Identification: A Case Study from Middle Woodland Southern Ontario. In *Exploring the Limits: Frontiers and Boundaries in Prehistory*. S. D. Atley and F. Findlow, eds. Pp. 117–142. British Archaeological Reports International Series, 223. BAR, Oxford.
- Spielmann, Katharine A.
2002 Feasting, Craft Specialization, and the Ritual Model of Production in Small-Scale Societies. *American Anthropologist* 104(1):195–207.
- Spindler, Louise S.
1978 Menominee. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 708–724. Smithsonian Institution Press, Washington, DC.
- Spriggs, Matthew, ed.
1984 *Marxist Perspectives in Archaeology*. Cambridge University Press, Cambridge.
- Squier, Ephraim G., and Edwin H. Davis
1848 Ancient Monuments of the Mississippi Valley Comprising the Results of Extensive Original Surveys and Explorations. *Smithsonian Contributions to Knowledge*, 1. Smithsonian Institution, Washington, DC.

- Squire, Ephraim G., and Edwin H. Davis.
1998 *Ancient Monuments of the Mississippi Valley*. D. J. Meltzer, ed. Smithsonian Institution Press, Washington, DC. (orig. 1848)
- Stafford, Barbara D., and Mark B. Sant
1985 Smiling Dan: Structure and Function at a Middle Woodland Settlement in the Illinois Valley. *Research Series 2*. Kampsville Archaeological Center, Kampsville, IL.
- Stanislowski, Michael B.
1979 Hopi-Tewa. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Smithsonian Institution, Washington, DC.
- Steward, Julian
1955 *Theory of Culture Change*. University of Illinois Press, Urbana.
- Stirland, Ann
1988 Diagnosis of Occupationally Related Paleopathology: Can it Be Done? In *Human Paleopathology: Current Synthesis and Future Options*. D. J. Ortner and A. Aufderheide, eds. Pp. 40–51. Smithsonian Institution Press, Washington, DC.
- Stoltman, James B.
1979 Middle Woodland Stage Communities of Southwestern Wisconsin. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 122–139. Kent State University Press, Kent, OH.
2000 A Petrographic Evaluation of Ceramic Variability within Ohio Hopewell Culture. Paper presented at the Annual Meeting of the Society for American Archaeology, Philadelphia, PA.
- Stoltman, James B., and Robert C. Mainfort Jr.
1999 Elements and Minerals: Reconciling the Differential Findings of Neutron Activation and Petrography on the Compositional Analysis of Ceramics from Pinson Mounds. Paper presented at the Annual Meetings of the Society for American Archaeology, Chicago, IL.
2002 Minerals and Elements: Using Petrography to Reconsider the Findings of Neutron Activation in the Compositional Analysis of Ceramics from Pinson Mounds, Tennessee. *Mid-Continental Journal of Archaeology* 27(1):1–33.
- Stoltman, James B., and Frankie Snow
1998 Cultural Interaction within Swift Creek Society: People, Pots and Paddles. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 130–153. University of Alabama Press, Tuscaloosa.
- Stone, Glenn Davis
1991 Agricultural Territories in a Dispersed Settlement System. *Current Anthropology* 32:343–353.
- Stone, R. J., and J. Stone
1990 *Atlas of Skeletal Muscles*. C. Brown, Dubuque, IA.
- Strathern, Marilyn
1981 Self-Interest and the Social Good: Some Implications of Hagen Gender Imagery. In *Sexual Meanings: The Cultural Construction of Gender and Sexuality*. S. B. Ortner and H. Whitehead, eds. Pp. 166–191. Cambridge University Press, Cambridge
- Straw, W. T., Henry H. Gray, and Richard L. Powell
1977 Environmental Geology of the Evansville Area, Southwestern Indiana. Environmental Study 12. State of Indiana, Department of Natural Resources, Geological Survey, Bloomington.
- Strong, W. D.
1935 An Introduction to Nebraska Archeology. *Smithsonian Miscellaneous Collections*, 93(10). Smithsonian Institution, Washington, DC.
- Struever, Stuart
1960 The Kamp Mound Group and a Hopewell Mortuary Complex in the Lower Illinois Valley. Unpublished master's thesis, Northwestern University.
1961 Further Excavations at the Snyders Site: An Analysis of Snyders Ceramics. *Central States Archaeological Journal* 8(3):94–100.
1964 The Hopewell Interaction Sphere in Riverine–Western Great Lakes Culture History. In *Hopewellian Studies*. J. Calwell and R. L. Hall, eds. Pp. 86–106. *Scientific Papers*, 12. Illinois State Museum, Springfield.
1965 Middle Woodland Culture History in the Great Lakes Riverine Area. *American Antiquity* 31(2):211–223.
1968a Woodland Subsistence-Settlement Systems in the Lower Illinois Valley. In *New Perspectives in Archaeology*. S. R. Binford and L. R. Binford, eds. Pp. 285–312. Aldine, Chicago.
1968b A Re-examination of Hopewell in Eastern North America. Unpublished doctoral dissertation, University of Chicago.
- Struever, Stuart, and Gail L. Houart
1972 An Analysis of the Hopewell Interaction Sphere. In *Social Exchange and Interaction*. E. N. Wilmsen, ed. Pp. 47–147. *Anthropological Papers*, 46. University of Michigan Museum of Anthropology, Ann Arbor.
- Stuart-Macadam, P.
1989 Porotic Hyperostosis: Relationship between Orbital and Vault Lesions. *American Journal of Physical Anthropology* 80:187–193.
- Stuiver, Minze, and Paula J. Reimer
1993 Extended 14C Data Base and Revised CALIB 3.0 14C Age Calibration Program. *Radiocarbon* 35(1):215–230.
- Stuiver, M., P. J. Reimer, E. Bard, J. W. Beck, G. S. Burr, K. A. Hughen, B. Kromer, F. G. McCormac, J. v. d. Plicht, and M. Spurk
1998 1998 INTCAL98 Radiocarbon Age Calibration, 24000-0 Cal BP. *Radiocarbon* 40:1041–1083.
- Styles, Bonnie Whatley
1981 Faunal Exploitation and Resource Selection: Early Late Woodland Subsistence in the Lower Illinois Valley. *Scientific Papers*, 3. Northwestern University Archaeological Program, Evanston, IL.

- Styles, Bonnie W., and James R. Purdue
1986 Middle Woodland Faunal Exploitation. In Woodland Period Occupations of the Napoleon Hollow Site in the Lower Illinois Valley. Michael D. Wiant and Charles R. McGimsey, eds. Pp. 513–526. *Research Series*, 6. Center for American Archeology, Kampsville Archeological Center, Kampsville, IL.
- 1991 Ritual and Secular Use of Fauna by Middle Woodland Peoples in Western Illinois. In *Beamers, Bobwhites and Blue-Points: Tributes to the Career of Paul W. Parmalee*. James R. Purdue et al., eds. Pp. 421–436. *Scientific Papers*, 23. Illinois State Museum, Springfield.
- Sutherland, L. D., and J. M. Suchey
1991 Use of the Ventral Arc in Pubic Sex Determination. *Journal of Forensic Sciences* 36(2):501–511.
- Suttles, Wayne
1960 Affinal Ties, Subsistence, and Prestige among the Coast Salish. *American Anthropologist* 62:296–305.
- Swan, Jim
1987 Rolling Thunder at Work. In *Shamanism*. S. Nicholson, ed. Pp. 145–157. Theosophical Publishing House, Wheaton, IL.
- 1988 Sacred Places in Nature: One Tool in the Shaman's Medicine Bag. In *Shaman's Path*. G. Doore, ed. Pp. 151–159. Shambhala, Boston.
- Swanton, John R.
1911 Indian Tribes of the Lower Mississippi Valley and Adjacent Coast of the Gulf of Mexico. *Bureau of American Ethnology Bulletin* 43, Washington, DC.
- 1928 Social Organization and Social Usages of the Indians of the Creek Confederacy. In *Annual Report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution, 1924–25*. Pp. 23–472, vol. 42. Smithsonian Institution, Washington, D.C.
- 1931 Source Material for the Social and Ceremonial Life of the Choctaw Indians. *Bureau of American Ethnology Bulletin* 103. Smithsonian Institution, Washington, D.C.
- 1942 Source Material on the History and Ethnology of the Caddo Indians. *Bureau of American Ethnology Bulletin* 132. Smithsonian Institution, Washington, DC.
- 1946 Indians of the Southeastern United States. *Bureau of American Ethnology Bulletin* 137. Smithsonian Institution, Washington, DC.
- Swartz, B. K., Jr.
1971 Archaeological Report No. 8. Department of Sociology–Anthropology, Ball State University, mimeograph.
- n.d.a Hopewell Anthropomorphic Portraiture. Ball State University, unpublished MS.
- n.d.b A Survey of Adena B (Scioto) Hopewell Anthropomorphic Portraiture. Ball State University, unpublished MS.
- Tainter, Joseph A.
1975a The Archaeological Study of Social Change: Woodland Systems in West-Central Illinois. Unpublished doctoral dissertation, Northwestern University.
- 1975b Social Inference and Mortuary Practices: An Experiment in Numerical Classification. *World Archaeology* 7(1):1–15.
- 1977 Woodland Social Change in West–Central Illinois. *Mid-Continental Journal of Archaeology* 2(1):67–98.
- 1978 Mortuary Practices and the Study of Prehistoric Social Systems. *Advances in Archaeological Method and Theory* 4:105–141.
- 1980 Behavior and Status in a Middle Woodland Mortuary Population from the Illinois Valley. *American Antiquity* 45(2):308–313.
- Tatarek, Nancy B., and Paul W. Sciulli
2000 Comparison of Population Structure in Ohio's Late Archaic and Late Prehistoric Periods. *American Journal of Physical Anthropology* 112:363–376.
- Taylor, Walter W.
1948 A Study of Archaeology. *Memoirs of the American Anthropological Association*, 69.
- Tax, Sol
1937 The Social Organization of the Fox Indians. In *Social Anthropology of North American Tribes*. F. Eggan, ed. Pp. 243–282. University of Chicago Press, Chicago.
- Tedlock, Dennis
1979 Zuni Religion and World View. In *Handbook of North American Indians*, vol. 9. Southwest. A. Ortiz, ed. Pp. 499–508. Smithsonian Institution, Washington, DC.
- Thew, Heather
n.d. The Analysis of the “Great Cache” of Modified Mandibles of the Tremper Mound. Unpublished report. Ohio Historical Center.
- Thomas, Cyrus
1885 Silver from a Pennsylvania Mound. *Science* 120:419–420.
- 1894 Report on the Mound Exploration of the Bureau of Ethnology. 12th Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1890–91.
- Thomas, David Hurst
1972 A Computer Simulation Model of Great Basin Shoshonean Subsistence and Settlement Patterns. In *Models in Archaeology*. D. L. Clarke, ed. Pp. 671–704. Methuen, London.
- Tilley, Christopher
1982 Social Formation, Social Structures, and Social Change. In *Symbolic and Structural Archaeology*. I. Hodder, ed. Pp. 26–38. Cambridge University Press, Cambridge.
- Titiev, Mischa
1944 Old Oraibi: A Study of the Hopi Indians of Third Mesa. *Peabody Museum of American Archaeology and Ethnology Papers*, 22(1). Harvard University, Cambridge, MA.
- Tomak, Curtis H.
1990 The Mount Vernon Site: A Hopewell Ceremonial/Burial Site in Posey County, Indiana.

- Report submitted to the Indiana Department of Transportation, Indianapolis.
- 1994 The Mount Vernon Site: A Remarkable Hopewell Mound in Posey County, Indiana. *Archaeology of Eastern North America* 22:1–46.
- Tooker, Elisabeth
1978 Iroquois Since 1820. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 449–465. Smithsonian Institution, Washington, DC.
- Toth, Alan
1974 Archaeology and Ceramics at the Marksville Site. *Anthropological Papers*, 56. Museum of Anthropology, University of Michigan, Ann Arbor.
1979 The Marksville Connection. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 200–208. Kent State University Press, Kent, OH.
1988 Early Marksville Phases in the Lower Mississippi Valley: A Study of Culture Contact Dynamics. Archaeological Report 21. Mississippi Department of Archives and History, Jackson.
- Townsend, Joan
1997 Shamanism. In *Anthropology of Religion: A Handbook*. S.D. Glazier, ed. Pp. 429–469. Greenwood Press, Westport, CN.
- Trevelyan, Amelia Margaret
1987 Prehistoric Native American Copperwork from the Eastern United States. Unpublished doctoral dissertation, University of California.
- Triandis, Harry C.
1989 The Self and Social Behavior in Differing Cultural Contexts. *Psychological Review* 96(3):506–520.
- Trigger, Bruce G.
1969 The Huron Farmers of the North. Holt, Rinehart and Winston, New York.
1978 *Handbook of North American Indians*, vol. 15. Northeast. Smithsonian Institution, Washington, DC.
- Tringham, Ruth E.
1972 Introduction: Settlement Patterns and Urbanization. In *Man, Settlement and Urbanism*. Peter J. Ucko et al., eds. Pp. xix–xxviii. Duckworth, London.
1991 Households with Faces: The Challenge of Gender in Prehistoric Architectural Remains. In *Engendering Archaeology: Women and Prehistory*. J. M. Gero and M. W. Conkey, eds. Pp. 93–131. Blackwell, Oxford.
- Trinkaus, Erik
1975 Squatting Facets among Neandertals: A Problem in the Behavioral Interpretation of Skeletal Morphology. *Journal of Archaeological Sciences* 2:327–351.
- Trowbridge, C. C.
1938 Mearns Traditions. *Occasional Contributions from the Museum of Anthropology of the University of Michigan*, 7. University of Michigan Press, Ann Arbor.
- 1939 Shawnee Traditions. *Occasional Contributions from the Museum of Anthropology of the University of Michigan*, 9. University of Michigan Press, Ann Arbor.
- Troy, Scott J.
2002 Hopewell Lithics from the Gartner Village and Mound (33ro19), Ross County, Ohio: The Gerald Parker Collection. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Columbus, OH.
- Troy, Scott J., and Peter J. Ucko
1969 Ethnography and Archaeological Interpretation of Funerary Remains. *World Archaeology* 1(2): 262–280.
- Tuan, Mia
1998 *Forever Foreigners or Honorary Whites? The Asian Ethnic Experience Today*. Rutgers University Press, New Brunswick.
- Tukey, John. W.
1977 *Exploratory Data Analysis*. Addison–Wesley, Reading, MA.
1980 We Need Both Exploratory and Confirmatory. *American Statistician* 34(1):23–25.
- Tukey, John W., and M. B. Wilk
1970 Data Analysis and Statistics: Techniques and Approaches. In *The Quantitative Analysis of Social Problems*. E. R. Tuft, ed. Pp. 370–390. Addison–Wesley, Reading, MA.
- Turff, Gina M.
1997 A Synthesis of Middle Woodland Panpipes in Eastern North America. Unpublished master's thesis, Trent University.
- Turner, Christopher S.
1983 An Astronomical Interpretation of the Hopeton Earthworks. Hopewell Culture National Historical Park, Chillicothe, IL, unpublished MS.
1999 Calendrical Sightlines at the Hopeton Earthworks. Paper presented at the Annual Meeting of the Eastern States Archaeological Federation. King's Island, OH.
2000 Hopewell Subsistence Scheduling: The Ohio Geometric Earthworks As Calendrical Devices. Poster presented at the Perspectives on the Middle Woodland at the Millennium Conference, Center for American Archaeology, Grafton, IL.
- Turner, Jonathan H.
1991 *The Structure of Sociological Theory*. Wadsworth, Belmont, CA.
- Turner, Ralph H.
1962 Role-Taking: Processes versus Conformity. In *Human Behavior and Social Processes*. A. Rose, ed. Pp. 20–40. Houghton Mifflin, Boston, MA.
- Turner, Victor
1969 *The Ritual Process*. Cornell University Press, Ithaca, NY.
- Ubelaker, Douglas H.
1989 Human Skeletal Remains: Excavation, Analyses, and Interpretation. *Manuals on Archeology*, 2. Taraxacum, Washington, DC.

- 1992 Porotic Hyperostosis in Prehistoric Ecuador. In *Diet, Demography, and Disease: Changing Perspectives on Anemia*. P. Stuart-Macadam and S. Kent, eds. Pp. 201–217. Aldine de Gruyter, New York.
- U.S. Department of Agriculture
1978 General Soil Map, Posey County, Indiana. United States Department of Agriculture, Soil Conservation Service, Purdue University Agricultural Experiment Station.
- U.S. Geological Survey
1957 Caborn Quadrangle, Indiana–Kentucky. 7.5 Minute Series (Topographic). United States Department of Interior, Geological Survey.
1970 *The National Atlas of the United States of America*. United States Department of the Interior, Washington, DC.
- van Gennep, Arnold
1909 *Les Rites de Passage*. Emile Nourry, Paris.
1960 *The Rites of Passage*. M. B. Vizedom and B. L. Caffee, trans. University of Chicago Press, Chicago. (orig. 1909)
- Varien, Mark D.
1999 *Sedentism and Mobility in a Social Landscape*. University of Arizona Press, Tucson.
2000 Communities and the Chacoan Regional System. In *Great House Communities across the Chacoan Landscape*. John Kantner and Nancy M. Mahoney, eds. Pp. 149–156. *Anthropological Papers of the University of Arizona*, 64. University of Arizona Press, Tucson.
- Vayda, Andrew P.
1968 Economic Systems in Ecological Perspective: The Case of the Northwest Coast. In *Readings in Anthropology*, vol. 2. M. H. Fried, ed. Pp. 172–178. Crowell, New York.
- Venum, Thomas Jr.
1982 The Ojibway Dance Drum: Its History and Construction. *Smithsonian Folklife Studies*, 2. Smithsonian Institution, Washington, DC.
- Vizenor, Gerald
1981 *Summer in the Spring: Ojibwe Lyric Poems and Tribal Stories*. Nodin Press, Minneapolis.
- Voegelin, Erminie Wheeler
1944 Mortuary Customs of the Shawnee and Other Eastern Tribes. *Prehistoric Research Series* 2(4):227–444. Indiana Historical Society, Indianapolis.
- von Gernet, Alexander, and Peter Timmins
1987 Pipes and Parakeets: Constructing Meaning in an Early Iroquoian Context. In *Archaeology as Long-Term History*. I. Hodder, ed. Pp. 31–42. Cambridge University Press, Cambridge.
- Voss, Jerome A.
1980 Tribal Emergence during the Neolithic of Northwestern Europe. Unpublished doctoral dissertation, University of Michigan.
1982 A Study of Western TRB Social Organization. *Berichten van de Rijksdienst voor het Oudheidkundige Bodemonderzoek* 32:9–102.
- Voss, Jerome A., and Robert L. Young
1995 Style and the Self. In *Style, Society, and Person: Archaeological and Ethnological Perspectives*. C. Carr and J. Neitzel, eds. Pp. 77–99. Plenum, New York.
- Wallace, Anthony
1966 *Religion: An Anthropological View*. Random House, New York.
- Walsh, Roger N.
1990 *The Spirit of Shamanism*. Jeremy P. Tarcher, Los Angeles.
- Walthall, John A.
1973 Copena: A Tennessee Valley Middle Woodland Culture. Unpublished doctoral dissertation, University of North Carolina.
1979 Hopewell and the Southern Heartland. In *Hopewell Archaeology: The Chillicothe Conference*. D. Brose and N. Greber, eds. Pp. 200–208. Kent State University Press, Kent.
1980 Prehistoric Indians of the Southeast. University of Alabama Press, University.
1981 Galena and Aboriginal Trade in Eastern North America. *Scientific Papers*, 17. Illinois State Museum, Springfield.
- Walthall, John A., Stephen H. Stow, and Marvin J. Karson
1979 Ohio Hopewell Trade: Galena Procurement and Exchange. In *Hopewell Archaeology: The Chillicothe Conference*. D. S. Brose and N. Greber, eds. Pp. 247–253. Kent State University Press, Kent.
- Walthall, John A., S. H. Stow, and M. J. Karson
1980 Copena Galena: Source Identification and Analysis. *American Antiquity* 45(1):21–42.
- Waring, Antonio J., Jr.
1949 “Hopewellian” Elements in Northern Georgia. *American Antiquity* 11:119–120.
- Waring, Antonio J., and Preston Holder
1945 A Prehistoric Ceremonial Complex in the Southeastern United States. *American Anthropologist* 47(1):1–34.
- Wasson, J. T., and S. P. Sedwick
1969 Possible Sources of Meteoric Material from Hopewell Indian Burial Mounds. *Nature* 222: 22–24.
- Watson, P. J., and M. C. Kennedy
1991 The Development of Horticulture in the Eastern Woodlands: Women’s Role. In *Engendering Archaeology*. J. M. Gero and M. W. Conkey, eds. Pp. 255–275. Basil Blackwell, Oxford.
- Wayne, William J.
1966 Ice and Land: A Review of the Tertiary and Pleistocene History of Indiana. In *Natural Features of Indiana*. A. A. Lindsey, ed. Pp. 21–39. Indiana Academy of Science, Indianapolis.
- Weaver, Sally M.
1978 Six Nations of the Grand River, Ontario. In *Handbook of North American Indians*, vol. 15. Northeast. B. G. Trigger, ed. Pp. 525–536. Smithsonian Institution, Washington, DC.

- Webb, William S.
1941 The Morgan Stone Mound, Site 15, Bath County, Kentucky. *Reports in Anthropology and Archaeology*, 4(3). University of Kentucky, Lexington.
- Webb, William S., and Raymond S. Baby
1957 *The Adena People*. Ohio State University Press and Ohio Historical Society, Columbus.
- Webb, William S., and Charles E. Snow
1945 The Adena People. *Reports in Anthropology and Archaeology*, 6. University of Kentucky, Lexington.
1974 *The Adena People*. University of Tennessee Press, Knoxville.
- Wedel, W. R.
1943 Archaeological Investigations in Platte and Clay Counties, Missouri. *United States National Museum Bulletin*, 183, U.S. National Museum, Washington, DC.
- Weineck, J.
1990 *Functional Anatomy in Sports*. Mosby Year Book, St. Louis, MO.
- Weiss, Kenneth M.
1973 Demographic Models for Anthropology. *Memoirs of the Society for American Archaeology*, 27. SAA, Washington, DC.
- Weist, Katherine M.
1973 Giving Away: The Ceremonial Distribution of Goods among the Northern Cheyenne of Southeastern Montana. *Plains Anthropologist* 18:97–103.
- Weymouth, John W.
1996 Geophysical Surveys on the Overly Tract, Ross County, Ohio and Correlation with Test Excavations. Report submitted to the Midwest Archeological Center, National Park Service, Lincoln, NE. in fulfillment of Purchase Order No. 1443PX611595063.
1998a Three Geophysical Surveys of the Hopeton Earthworks: The Second Season. National Park Service, Midwest Archeological Center, Lincoln, NE.
1998b Magnetic Anomalies of Interest at the Hopeton Site, 1997. Hopewell Culture National Historical Park, Chillicothe, IL.
2002 Geophysical Exploration of Hopeton Earthworks, Ross County, Ohio. Paper presented at the Annual Meeting of the Midwest Archaeological Conference, Columbus, OH.
- Whallon, Robert L., and James A. Brown
1982 *Essays on Archaeological Typology*. Kampsville Seminars in Archeology, 1. Center for American Archeology, Kampsville, IL.
- Whallon, Robert, Jr.
1968 Investigations of Late Prehistoric Social Organization in New York State. In *New Perspectives in Archeology*. S. R. Binford and L. R. Binford, eds. Pp. 223–244. Aldine, Chicago.
- Wheatley, David
1996 The Use of GIS to Understand Regional Variation in Neolithic Wessex. In *New Methods, Old Problems: Geographic Information Systems in Modern Archaeological Research*. D. G. Maschner, ed. Pp. 75–103 Southern Illinois University Press, Carbondale.
- Wheeler, R. E. Mortimer
1950 What Matters in Archaeology. *Antiquity* 24:122–130.
- Whitaker, John O., Jr.
1980 *National Audubon Society Field Guide to North American Mammals*. Alfred A. Knopf, New York.
- White, Anta M.
1963 Analytic Description of the Chipped Stone Industry from Snyders Site, Calhoun County, Illinois. In *Miscellaneous Studies in Typology and Classification*, Anta M. White et al., eds. Pp. 1–70. *Anthropological Papers*, 19. Museum of Anthropology, University of Michigan, Ann Arbor.
- White, Karen J.
1994 Shamanic Roles and Mythical Themes in Northern San Rafael Fremont Rock Art. Unpublished master's thesis, Arizona State University.
- Whitehead, Harriet
1981 The Bow and the Burdenstrap: A New Look at Institutionalized Homosexuality in Native North America. In *Sexual Meanings: The Cultural Construction of Gender and Sexuality*. S. B. Ortner and H. Whitehead, eds. Pp. 80–115. Cambridge University Press, Cambridge.
- Whitley, David S.
1998 Following the Shaman's Path: A Walking Guide to Little Petroglyph Canyon Coso Range, California. Publication 13. Maturango Museum, Indian Wells Valley, Ridgecrest, CA.
2001 Handbook of Rock Art Research. AltaMira Press, Walnut Creek, CA.
- Wiant, Michael D.
n.d. Hopewell and the Dark Black Glass Revisited. In *Recreating Hopewell: New Perspectives on Middle Woodland in Eastern North America*. D.K. Charles and J.E. Buikstra, eds. Book in progress.
2000 Hopewell and the Dark Black Glass Revisited. Paper presented at the Perspectives on the Middle Woodland at the Millenium Conference, Pere Marquette State Park, IL.
- Wiant, Michael, and Charles R. McGimsey
1986 Woodland Period Occupations of the Napoleon Hollow Site in the Lower Illinois Valley. *Research Series*, 6. Kampsville Archaeological Center, Kampsville, IL.
- Wiessner, Polly, and Aki Tumu
1998 *Historical Vines: Enga Networks of Exchange, Ritual, and Warfare in Papua New Guinea*. Smithsonian Institution Press, Washington, DC.
1999 A Collage of Cults. Unpublished MS.
2002 The Vines of Complexity. *Current Anthropology* 43(2):233–269.

- Wilber, Ken
 1979 *No Boundary*. Shambhala, Boston, MA.
 1993 *The Spectrum of Consciousness*. Quest Books, Theosophical Publishing House, Wheaton, IL.
- Wilkinson, J. B.
 1840 *Annals of Binghamton and of the County Connected with It from the Earliest Settlement*. Cooke and Davis, Binghamton, NY.
- Wiley, Gordon R.
 1949 Archaeology of the Florida Gulf Coast. *Smithsonian Miscellaneous Collections*, 113. Smithsonian Institution, Washington, DC.
 1956 Problems concerning prehistoric settlement patterns in the Maya lowlands. In *Prehistoric Settlement Patterns in the New World*. G. R. Willey, ed. Pp. 107–114. *Viking Fund Publications in Anthropology*, vol. 23. Viking, New York.
 1962 The Early Great Styles and the Rise of the Pre-Columbian Civilizations. *American Anthropologist* 64(1):1–14.
 1971 *Introduction to American Archaeology I: North and Middle America*. Prentice–Hall, Englewood Cliffs, NJ.
- Wiley, Gordon R., and Jeremy A. Sabloff
 1980 *A History of American Archaeology*. W. H. Freeman, San Francisco.
- Williams, Brackette F.
 1989 A Class Act: Anthropology and the Race to Nation Across Ethnic Terrain. *Annual Review of Anthropology* 18:401–444.
- Williams, Mark, and Daniel T. Elliott
 1998 Swift Creek Research: History and Observations. In *A World Engraved: Archaeology of the Swift Creek Culture*. M. Williams and D. T. Elliott, eds. Pp. 1–11. University of Alabama Press, Tuscaloosa.
- Williams, Stephen
 1989 Forward. In *The Hopewell Site: A Contemporary Analysis Based on the Works of Charles Willoughby*. By N. Greber and K. Ruhl. Pp. xxiii–xxv. Westview Press, Boulder, CO.
- Willoughby, Charles C.
 1903 Primitive Metal Working. *American Anthropologist* (n.s.) 5:55–57.
 1916 The Art of the Great Earthwork Builders of Ohio. In *Annual Report*. Pp. 489–500. Smithsonian Institution, Washington, DC.
- Willoughby, Charles C., and Ernest A. Hooton
 1922 The Turner Group of Earthworks, Hamilton County, Ohio. *Papers of the Peabody Museum*, 8(3). Harvard University, Boston.
- Wilson, K.
 1979 *A History of Textiles*. Westview Press, Boulder, CO.
- Winkelman, Michael J.
 1989 A Cross-Cultural Study of Shamanic Healers. *Journal of Psychoactive Drugs* 2(1):17–24.
 1990 Shamans and Other “Magico-Religious” Healers: A Cross-Cultural Study of Their Origins, Nature, and Social Transformations. *Ethos* 18(3):308–352.
- 1992 Shamans, Priests, and Witches: A Crosscultural Study of Magico-Religious Practitioners. *Anthropological Research Papers*, 44. Arizona State University, Tempe.
- 2000 *Shamanism: The Neural Ecology of Consciousness and Healing*. Bergin and Garvey, Westport, CN.
- Winn, Thomas, Barbara Crowe, and Joseph J. Moreno
 1989 Shamanism and Music Therapy. *Music Therapy Perspectives* Fall:67–71.
- Winship, G. P., ed.
 1905 *Sailors Narratives of Voyages along the New England Coast, 1524–1624*. Houghton–Mifflin, Boston
- Winters, Howard D.
 1968 Value Systems and Trade Cycles of the Late Archaic in the Midwest. In *New Perspectives in Archaeology*. S. R. Binford and L. R. Binford, eds. Pp. 175–221. Aldine, Chicago.
- 1969 The Riverton Culture: A Second Millennium Occupation in the Central Wabash Valley. *Reports of Investigations*, 13. Illinois State Museum and Illinois Archaeological Survey, Springfield.
- 1981 Excavating in Museums: Notes on Mississippian Hoes and Middle Woodland Copper Gouges and Celts. In *The Research Potential of Anthropological Collections*. Special issue. *Annals of the New York Academy of Sciences* 376:17–34.
- Wissemann, Sarah U., Duane M. Moore, Randall E. Hughes, Mary R. Hynes, and Thomas E. Emerson
 2002 Mineralogical Approaches to Sourcing Pipes and Figurines from the Eastern Woodlands, U.S.A. *Geoarchaeology: An International Journal* 17(7):689–715.
- Wissler, Clark
 1926 *The Relations of Nature to Man in Aboriginal America*. Oxford University Press, New York.
- Witfoft, John, and James Miller
 1952 Grooved Axes of Eastern Pennsylvania. *Pennsylvania Archaeologist* 12:81–94.
- Wobst, Martin
 1974 Boundary Conditions for Paleolithic Social Systems: A Simulation Approach. *American Antiquity* 39:147–178.
- Wolf, Eric R.
 1990 Distinguished Lecture: Facing Power—Old Insights, New Questions. *American Anthropologist* 92:586–596.
 1999 *Envisioning Power: Ideologies of Dominance and Crisis*. University of California Press, Berkeley.
- Wolf, Margery
 1972 *Women and the Family in Rural Taiwan*. Stanford University Press, Stanford, CA.
- Wray, Donald, and Richard S. MacNeish
 1961 The Hopewell and Weaver Occupations of the Weaver Site, Fulton County, Illinois. *Scientific Papers*, 7. Illinois State Museum, Springfield.

- Wylie, A.
1992 The Interplay of Evidential Constraints and Political Interests: Recent Archaeological Research on Gender. *American Antiquity* 57(1):15–35.
- Wymer, DeeAnne
1987a The Paleoethnobotanical Record of Central Ohio—100 B.C. to A.D. 800: Subsistence Continuity and Cultural Change. Unpublished doctoral dissertation, Ohio State University.
1987b The Middle Woodland–Late Woodland Interface in Central Ohio. In *Emergent Horticultural Economies of the Eastern Woodlands*. W. F. Keegan, ed. Pp. 201–216. Southern Illinois University Center for Archaeological Investigations, Carbondale.
1996 The Ohio Hopewell Ecomiche: Human–Land Interaction in the Core Area. In *A View from the Core: A Synthesis of Ohio Hopewell Archaeology*. P. J. Pacheco, ed. Pp. 36–52. Ohio Archaeological Council, Columbus.
1997 Paleoethnobotany in the Licking River Valley, Ohio: Implications for Understanding Ohio Hopewell. In *Ohio Hopewell Community Organization*. W. S. Dancey and P. J. Pacheco, eds. Pp. 153–171. Kent State University Press, Kent, OH.
2003 Growing the World in Their Image: The Evolutionary Trajectory of Hopewell Plant Utilization. Paper presented at the Annual Meeting of the Society for American Archaeology, Milwaukee, WI.
- Wymer, DeeAnne, and Sissel Johannessen
2002 Growing the World in Their Image: The Evolutionary Trajectories of Hopewell Farming, East and West. Paper presented at the Midwestern Archaeological Conference, Columbus, OH.
- Yeatts, Michael L.
1990 A Chemical Characterization of the Ceramics from the McGraw Site in Ohio with the Electron Microprobe. Unpublished master's thesis, Arizona State University.
- Yerkes, Richard W.
1988 The Woodland and Mississippian Traditions in the Prehistory of Midwestern North America. *Journal of World Prehistory* 2:307–358.
1990 Using Microwear Analysis to Investigate Domestic Activities and Craft Specialization at the Murphy Site, a Small Hopewell Settlement in Licking County, OH. In *The Interpretive Possibilities of Microwear Studies*. K. Knutsson and J. Taffinder, eds. Pp. 167–176. Societas Archaeologica Upsaliensi, Aun 14, Uppsala, Sweden.
- Young, Gloria A.
1970 Reconstruction of an Arkansas Hopewellian Panpipe. *Arkansas Academy of Science Proceedings* 29:28–32.
1976 A Structural Analysis of Panpipe Burials. *Tennessee Archaeologist* 31:1–10.
- Young, Gregory
1991 2000 Yr. Old Panpipe: Wood Identification. Canadian Conservation Institute. Analytical Research Report ARS 2979.
- Zawacki, April Allison, and Glenn Hausfater
1969 Early Vegetation of the Lower Illinois Valley. *Reports of Investigation*, 17. Illinois State Museum, Springfield.
- Zemp, Hugo
1981 Melanesian Solo Polyphonic Panpipe Music. *Ethnomusicology* 25(3):383–418.