

Chapter 2

Smoking Pipes of Eastern North America

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2.1 Smoking Pipes and Tobacco

The earliest archaeobotanical evidence of the use of tobacco in eastern North America comes from the central Mississippi Valley between AD 100 and 200 (uncalibrated RCYBP) (Asch 1991, 1994; Haberman 1984; Wagner 2000; Winter 2000), with dates for the rest of eastern North America falling several centuries later (Haberman 1984; Wagner 2000). These dates indicate that tobacco was a major intoxicant from the Early Woodland onward. However, ethnohistoric accounts indicate that a variety of plants were smoked in addition to tobacco, including *Cornus* sp. (Dogwood), *Juniperus* species (Juniper), *Rhus glabra* (Sumac), and *Arctostaphylos uva-ursi* (Bearberry) (Brown 1989; Hall 1977; Springer 1981; Yarnell 1964). Although there remains much to be learned about the evolution of smoke plant use, what can be said is that smoking pipes were the primary means of intoxicant ingestion in prehistoric eastern North America.

In this chapter, I attempt to characterize changes in smoking pipes styles in eastern North America from the earliest known examples to recent ethnographically documented specimens. I also try to illustrate two recurring themes regarding the Native American use of smoking pipes over time: their context of use and their archaeological deposition.

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2.2 The Early Woodland Period and Adena (ca. 1000 BC–AD 200)

Tubular smoking pipes' are widely known as characteristic Early Woodland period artifacts (Rafferty 2002, 2006, 2008; Rafferty et al. 2012; Salkin 1986). The typical morphology is that of a 1–2 cm wide cylinder with a wide hole at one end and a narrower opening at the other. The narrow opening could be blocked with a pebble to prevent inhalation of tobacco (Gehlbach 1982; Meuser 1952; Stephens 1957) (Fig. 2.1). Earlier shapes of pipes are more conical in form. Alongside “plain” tubes, we also see during this early period tubes with beveled ends, compound forms with right angle bore extensions, as well as the early forms of platform and elbow pipes, though these are minority types. Pipes at this period are made from several different materials, including clay or soft stone, but iconic specimens are made of a soft limestone from the central Ohio River Valley (Stewart 1989; Thomas 1971, p. 77). These earliest pipes tend to be interred in burials, and often show signs of intentional destruction.

Webb and Snow (1974, p. 86) suggested that not all “pipes” were used for smoking, and that some may have been sucking or pigment tubes for shamanic rituals (Frison and Van Norman 1993; Howes 1942). At least one researcher has even proposed that pipes may have served as primitive telescopes (Schoolcraft 1845), though this seems unlikely. I do not dispute the fact that some Early Woodland tubes may have had other uses besides smoking, but specimens in museum collections have sooting and sometimes carbonized residues, indicating a smoking function (Jordan 1959). As discussed in other published papers, there is chemical evidence that further supports a smoking function for early tube pipes (Rafferty 2002, 2006; Rafferty et al. 2012). Residues from five tubular pipes dating to between 500 and 300 BC have been analyzed by the author; three showed clear mass spectra for nicotine or related metabolites.

Fig. 2.1 Adena tubular pipes, Early Woodland period (ca. 1000 BC–AD 200). Photo by author



The earliest research that dealt with tubular smoking pipes viewed them as diagnostic of the Adena culture of the Ohio Valley (Webb and Baby 1957; Webb and Snow 1974) as well as within the Northeast (Ritchie and Dragoo 1960). Dragoo (1963) speculated on the social implications of smoking pipes in Adena mortuary sites, arguing that the pipes must have had social or ritual significance (Dragoo 1963, p. 211). Dragoo also noted that smoking pipes played roles in several Late Archaic and Early Woodland cultures in the eastern United States and hypothesized that smoking had taken on a primary role in a regional “Cult of the Dead” (Dragoo 1963, p. 245).

While early pipes have often been associated with Adena mound builder sites of the Ohio Valley and their local contemporaries (Bense 1994, p. 129), smoking pipes predate the Early Woodland (pre-ca. 1000 BC) and were more widely distributed geographically. Pipes have been recovered from Late Archaic Period (ca. 4000–1000 BC) burials as well, indicating that smoking’s connection with burial rituals had an earlier origin than has been hypothesized for the entirety of Early Woodland mortuary practices (Concannon 1993, p. 74; Custer 1987, p. 42; Dragoo 1963, p. 241, 1976; Walthall 1980, p. 77). One of the earliest pipes documented in eastern North America was recovered from the Eva Site in Tennessee and dates to ca. 2000 BC (Lewis and Kneberg Lewis 1961, p. 66). Webb and Baby (1957, p. 22) reference tubular pipes from Late Archaic shell mounds in Alabama and Kentucky, which were also, at least in part, functioning as burial contexts (Claassen 1991, 1996). These early examples suggest that the ritualistic function of pipes has a long history in eastern North America.

During the Early Woodland Period, the distribution of tubular pipes extends beyond the central Ohio Valley. Similar pipes have been recovered from northern New York, New England, and southeastern Canada (Fitting and Brose 1971, p. 33; Haviland and Power 1994; Heckenberger, Peterson, and Basa 1990; Loring 1985; Ritchie and Dragoo 1960; Spence and Fox 1986, p. 32). The Boucher site in Vermont contained a sizable assemblage of blocked-end tubular pipes (Concannon 1993; Heckenberger, Peterson and Basa 1990; Heckenberger et al. 1990; Loring 1985), while the Rosenkrans Site in New Jersey contained a mass of cremated pipes that had been burned separate from human remains and then interred in a burial (Carpenter 1950; Kraft 1976).

Smoking pipes that are similar to those from the Ohio Valley and the Northeast have been recovered from burial sites from the Chesapeake Bay area (Dent 1995, p. 231–235; Thomas 1971), most notably in sites classified as belonging to the “Delmarva Adena” complex, found primarily in Delaware, Maryland, southeastern Pennsylvania, and southern New Jersey. Regrettably, many of the Delmarva Adena sites were disturbed, looted, or nonprofessionally excavated (e.g., Cubbage 1941), so contextual information regarding these pipes is largely lacking.

Other examples of pipes in the Late Archaic/Early Woodland Northeast abound. Smoking pipes have been found at New York Point Peninsula sites (Ritchie 1980), in Pennsylvania (Smith 1978), Connecticut (Thomas 1971, p. 63), New Jersey (Kraft 1976), as well as the Chesapeake Bay Delmarva sites already mentioned. The presence of Ohio Valley artifacts in areas so geographically removed from central

Ohio can best be explained through interregional exchange of prestige artifacts (or raw materials) (Stewart 1989). The burial contexts in which early pipes typically are found—communal mounds and individual burials with a large number of associated grave goods—are strong evidence that smoking was associated with mortuary ritual across a wide swath of eastern North America from their earliest use.

While the majority of my research has focused on the northern half of the Eastern Woodlands, smoking pipes have been identified for this early period as far south as the Gulf Coast. Tubular pipes also occur in Tennessee Early Woodland period sites (Faulkner 1971, p. 102). Stone and clay smoking pipes have been found in small numbers on Poverty Point sites in the southern Mississippi Valley that date to 2000–850 BC, some quite early in the Poverty Point sequence (Neuman 1984, p. 99; Webb 1982, p. 44). Tchefuncte sites, which follow Poverty Point components in the southern Mississippi Valley, include clay tubular pipes (Ford and Quimby 1945, p. 29–32). Tchefuncte is roughly coeval with Adena, with most radiocarbon dates falling between 500 BC and AD 200 (Ford and Quimby 1945). While these pipes from the Deep South are formally distinct from the Adena tubular pipe, and are made of different materials (generally clay), they provide additional evidence of the vast distribution of smoking pipes during the Early Woodland period.

The point behind this general survey is that smoking pipes, far from being specific to Adena, or indicative of Adena-related complexes engaged in regional trade, can also be viewed as a form of material culture that was minimally variable in form and function and present over a wide area and long time period. While there are numerous differences between these archaeological complexes, they were all engaging in at least one common practice. The interesting question at this point is not what makes these complexes distinct, but what did they share? Viewed in this way, the importance of Adena “culture” is not so much in terms of its distinctive characteristics, but rather in its relation to the numerous other Early Woodland period mortuary complexes, and its role as the most elaborate of them (Dragoo 1976, p. 1).

2.3 The Middle Woodland Period (ca. AD 200–1000)

The Middle Woodland Period featured stylistic additions to the range of smoking pipes in the region. Just as tubular pipes are most closely associated with Early Woodland contexts, platform pipes exemplify Middle Woodland smoking technology (Gehlbach 1982). These most commonly consisted of pipes with a flat or curved base that included the stem, with a centrally- or distally- located bowl (Figs. 2.2 and 2.3). Scholarly and popular attention has been more focused on rarer effigy forms that typically featured an animal figure, birds being common.

Platform pipes are generally associated with Hopewellian cultures (King 1977, p. 11), and the largest quantities are associated with Ohio Valley Hopewell sites. The Tremper Mound site in the Scioto River Valley, and Mound City in Chillicothe (Brose 1985, p. 62–63; Otto 1992; Weets et al. 2005, p. 537–539) contain enormous caches of destroyed and cremated platform pipes, including many effigies, though

Fig. 2.2 Hopewell platform pipe (Broken), Middle Woodland period (ca. AD 200–1000). Photo by Author



Fig. 2.3 Hopewell platform pipe, Middle Woodland period (ca. AD 200–1000). Image courtesy of Metropolitan Museum of Art, Open Access collection (<http://www.metmuseum.org/collection/the-collection-online/search/319178?rpp=90&pg=3&ft=pipe&pos=188>)



most platform pipes have been recovered in small numbers from individual burials. Such sacrifices of large numbers of pipes have been attributed to the disposal of profaned sacred artifacts or some form of Potlatch-like ritual (Otto 1992, p. 11). Additionally, the fact that some of the pipes from the Tremper Mound cache were made from Minnesota catlinite despite the fact that the mound was located near a source of Ohio pipestone (Emerson et al. 2005), is evidence that pipes, or at least pipe-making materials, were part of the Hopewell long distance exchange network.

Opinions differ on the implications of effigy forms found on platform pipes. The range of fauna depicted mostly includes non-subsistence taxa. The most widely circulated interpretation is that the effigies were totemic animals or spirits prominent in Native cosmology (Otto 1992, p. 7). This interpretation would explain occasional human effigies. These interpretations assume widely shared symbolism throughout the geographically dispersed Hopewellian cultures. This is plausible since individual effigy forms are generally similar across the region, though these symbolic forms were likely already extant prior to the Hopewellian phenomenon's development (Brose 1985, p. 67).

While platform pipes are generally seen as typical Hopewell artifacts, they are not limited to the Ohio Valley. The Squawkie Hill complex of western New York and Ontario features platform pipes as well as other typical "Hopewell" artifacts

(Funk 1983, p. 340; Ritchie 1980). Crab Orchard sites in Illinois contain platform pipes, including effigies (Brose 1985, p. 62–67). Havana Phase sites in Illinois, Missouri, Kansas, and Oklahoma contain platform pipes as well (Griffin 1983, p. 268; O'Connor 1995, p. 17). Such pipes are occasionally made of Ohio Valley stone and thus represent exchange connections with the Ohio Hopewell, though the use of local materials and some local stylistic idiosyncrasies do occur as well (Penney 1985). Platform pipes are also found in burial contexts on Middle Atlantic sites in Maryland, Virginia, and North Carolina (Bollwerk 2012, p. 201–203; Dunham 1994, p. Table 15; Irwin et al. 1999). Their association with Hopewell is unclear as none of these pipes are effigy forms and to date no studies have demonstrated that they are made from Ohio Valley stone.

Middle Woodland communities in the southeast also used platform pipes. Such forms have been uncovered on Marksville sites in Arkansas and along the Gulf Coast (Toth 1979). Marksville pipes are not examples of direct trade as they are locally made, and likely indicate symbolic and intellectual rather than material exchange (Brose 1985, p. 62). The Copena site in Alabama also features pipes that differ from Hopewell examples. Copena burials include early elbow pipes, as well as large effigy tubes and platform effigies (O'Connor 1995, p. 17). These were exchanged throughout the Midwest (Walthall 1979, 1980). While Copena effigy pipes include a similar range of forms, Copena effigies differ from Hopewell examples. Copena effigies typically face away from the smoker, while Hopewell effigies face the smoker. As has been noted for Late Woodland and Historic period effigies, self-facing effigies are believed to be personally oriented symbols, while audience-facing pipes imply a less personal, more corporate function (Brasser 1980).

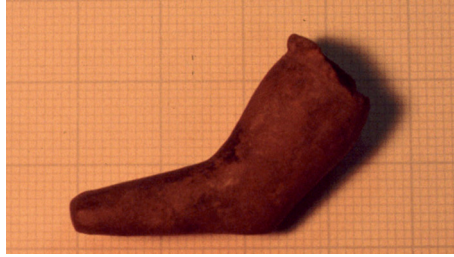
To summarize, the first millennium AD saw an elaboration in pipe forms, as well as an increased use of effigy pipes. The association of smoking pipes with mortuary sites and other ritual contexts continues during this time. The next periods in Native American history saw the development of complex societies and highly elaborate regional ideologies; smoking pipes were again central to these cultural developments.

2.4 The Late Woodland and Mississippian Periods (ca. AD 1000–1550)¹

Late prehistory in the Eastern Woodlands saw the widespread adoption of maize agriculture, sedentism, and social complexity. While contemporaneous Northeastern populations were “tribal” cultures, the Mississippi Valley and Southeast included a series of ranked “chiefdoms.” With regard to smoking pipes, these late cultures are

¹ The Mississippian period is only attributed to Native American groups in what are now the mid-western and southeastern areas of the United States. These groups are distinguished from Native groups farther north based on a confluence of traits including mound centers with centralized plazas, artifacts that exhibit imagery associated with the Southern Cult, and the adoption of Maize agriculture.

Fig. 2.4 Late Woodland elbow pipe (ca. AD 1000–1550). Photo by Author



most strongly associated with elbow pipes. The increasing importance of the elbow pipe form can be seen in potentially transitional styles such as the distal bowl platform pipes discussed above (e.g., Brose 1985, p. 84).

The Northeast during the Late Woodland period is dominated by relatively simple elbow-style pipes. Stone and clay elbow pipes with obliquely angled bowls characterize the beginning of the Late Woodland (Fig. 2.4). Prime examples include pipes created by Native peoples associated with the Owasco culture in western New York (Bradley 1987, p. 17–19). Pipes became increasingly angled in the Northeast through time, and by the beginning of the Iroquoian period, around AD 1300–1400, most smoking pipes had bowls that sat at a right angle to the stem (Bradley 1987, p. 30; Noble 1992, p. 42–43). This is not to say that elbow pipes in the Northeast lacked variability. Plain, decorated, and effigy forms existed.

A variety of effigy forms that incorporated zoomorphic and anthropomorphic imagery were used by Native groups of the Northeast (Kuhn and Robert 1986; Mathews 1980; Noble 1992; Wonderley 2005). Effigy pipes took the form of both inward- and outward-oriented faces on the bowl area of a pipe. As previously noted, Brassler (1980) argued that Iroquoian pipes exhibiting effigies that faced towards the smoker were possibly part of communications between the smoker and their guardian spirit. In contrast, outward, audience-facing pipes imply a less personal, more communal function.

Non-effigy-related designs found on pipes in the Northeast and Middle Atlantic included numerous abstract motifs, such as incised zig-zags, circles, bands of triangles, squares, rectangles, and horizontal and vertical lines (Bollwerk 2012, Fig. 8.1). Miniature forms also were manufactured, not as juvenile artifacts, but probably as exchange items to cement personal relations (Kapches 1992). Pipe bowl morphology varied over time, including barrel, square, flaring, and “trumpet” styles among others; these changes have been found to be chronologically more sensitive than decoration in the Northeast (Noble 1992, p. 41). In the Middle Atlantic, Late Woodland pipes also exhibit a variety of bowl forms, especially pipes associated with later Late Woodland period sites (Bollwerk 2012, Table 7.2).

Effigy pipes continued to play a prominent role among Mississippian communities. One is left with the impression that human effigies increase in frequency from the preceding eras (Fig. 2.5). Probably the most famous human effigy pipe of the late period is the “Big Boy” pipe from the Spiro Site in Oklahoma (Brown 1985, p. 102). This bauxite pipe consists of a kneeling male figure wearing elite raiment

Fig. 2.5 Mississippian figurine pipe (ca. AD 800–1550). Wikimedia Open Access collection (http://upload.wikimedia.org/wikipedia/commons/b/bf/%28Man_smoking_from_frog_pipe%29_effigy_pipe_HRoe-2010.jpg)



(Hall 1983, p. 240), likely representing a priest or chief. The pipe was originally a figurine and was later fashioned into a pipe (Emerson 1982).

Mississippian effigy pipes often include stylistic elements that relate to the constellation of motifs known as the Southeastern Ceremonial Complex, commonly referred to as the “Southern Cult.” The Long-Nosed God earrings of the Big Boy Figurine are among these design motifs. Other Southern Cult motifs include effigy pipes in the form of horned serpents (Brown 1985, p. 127), or other snake symbols. Snakes—associated with the underworld, lightning, thunder, rain, water, and power over plants and animals—are powerful and prevalent symbols in Late Prehistoric and historic Indian cultures in the Southeast. Examples of these symbols in effigy pipe form include the Piasa Creek pipe from the American Bottom, which depicts a kneeling shaman with a snake/snake skin over his back, as well as the Schild Pipe from Green County Illinois, which shows a female kneeling on a coiled serpent (Emerson 1989, p. 56).

Other possible Southern Cult motifs include effigy pipes of kneeling figures, possibly prisoners, presumably related to Mississippian warfare-related ideology. An example from the Piasa Creek Mound portrays a kneeling figure incorporated into an outward-facing effigy bowl which would have had a detachable stem, probably of wood, inserted in the figure’s rectal area (Penney 1985, p. 156–157; O’Connor 1995, p. 41). Other notable examples are found in Lamar sites as well as Natchez sites dating between AD 1400 and 1500. Significantly, these impressive effigy pipes tend to be found at mound sites, associated with burials, or other ceremonial contexts. As an example, effigy pipes from the early Stirling Phase (AD 1050–1100) BBB Motor Site (just 3.5 miles north of the site of Cahokia in Illinois), were associated with numerous burials, as well as some form of ceremonial structure containing fire pits, pottery, effigy vessels, mica, galena, and carbonized *Datura* seeds (Emerson 1989, p. 48–49). The associated material culture and ecofacts are presumably evidence of funerary rituals.

Other Mississippian effigy pipe motifs, while not specifically Southern Cult related, also provide some insight into the spiritual associations of smoking. These

include numerous frog effigies, generally of bauxite, sandstone, or limestone that are found in the vicinity of Cahokia (O'Connor 1995, p. 40). At least one of these pipe effigies appears to be holding rattles in one hand, leading to the term "Rattler Frog." Similar Frog effigies have been found in areas well removed from the Cahokia sphere of influence, with examples from the Nodena Mound in Arkansas and other examples from Louisiana (O'Connor 1995, p. 40). The frog is a symbolically charged figure in the mythos of the Southeast, and like the snake is a symbol of the underworld, associated with water and fertility, rebirth, and life. The association of such a symbol with a smoking pipe further points to the clear spiritual associations that had come to pervade smoking by the Late Prehistoric Period. Mississippian effigy pipes are among the artifacts suggested to illustrate stylistic commonalities between the Mississippi Valley and Mesoamerica, though the direction of influence is unclear (Webb 1989, p. 283).

While Mississippian effigy pipes are impressive artifacts, most other late prehistoric pipes from southeastern and Midwestern sites were far less elaborate (Shriver 1983). There are numerous pipes with simpler decorations dating to this time. Regrettably, these have attracted less research attention. Cyrus Thomas's nineteenth-century mound survey illustrated several examples (Thomas 1985), most of which are simple elbow pipes (Thomas 1985, p. 233–234), including examples noted from the Hollywood Mound Group in Georgia (De Baillou 1965). One burial from these sites contained a clay pipe in the burial fill; one large fire bed feature contained six elbow pipes, four undecorated, and two with outward-facing face effigies on the bowl (Thomas 1985, p. 236).

At least five stone elbow pipes with simple geometric figures were recovered from the Nelson Triangle Site from Caldwell County, North Carolina, one of which was associated with a mass grave of at least ten individuals (Thomas 1985, p. 339–341). Other examples come from Tennessee; one very obliquely angled elbow was found at the Big Toco Mound "bearing evidence of long-usage" (Thomas 1985, p. 383), while the Lenoir Mound Group contained several elbow pipes in burials, generally near the head or hands of the deceased (Thomas 1985, p. 402–403). I personally noted dozens of pipes in the artifact catalogues of both of these sites at the Smithsonian Institution.

The widespread application of ceramic technology and the potential for mass production of smoking pipes during the Late Woodland could have allowed for a "democratization" of smoking, as the required material culture became more widely available. Alternatively, since tobacco is easily smoked without a pipe in cigar form, perhaps it was the symbolic associations of the pipe itself that became more generally distributed in society during this period.

2.5 The Contact Period (AD 1550–1700)

There is evidence of change in pipe use in the Northeast during the Contact Period, with some areas around the Great Lakes preferentially using Native pipes rather than the increasingly available Euroamerican clay or pewter trade pipes (Trubowitz

1992); other areas, such as the Onondaga territory, show a hiatus in Native pipes followed by a resurgence (especially in effigy forms) during the 1600s, possibly some form of nativistic response (Bradley 1987, p. 122). This trend in the maintenance or reinforcement of Native tobacco technology, even while most other Native technologies were lost, is a testament to the significant role smoking pipes played in Native culture. Smoking pipes and their use were tied up in Native religion, and religion tends to be among the more conservative aspects of any culture, and the most resistant to change.

It has been argued that the Contact period saw a decrease in the use of durable materials, with perishable wooden pipes replacing clay or stone pipes, as observed for the protohistoric Seneca (Bradley 1987, p. 61). It should be noted that the use of perishable materials for smoking is a possibility for all of prehistory, though the evidence for such practices would be unlikely to be preserved. It is thus possible that the presence of pipes of perishable materials during the Contact period may be more a matter of preservation bias than a real change in smoking practices.

2.6 Conclusions

I have attempted to briefly summarize the history of smoking pipes in the eastern half of North America from their earliest evidence to the eve of European contact. This is the merest scratch on a vast surface. Even so, several trends are clear. Smoking pipes were used quite early in the East, though not so early as in western regions of North America. As early as they were adopted, they became important artifacts for a range of significant social practices, including burial rituals and intersocietal trade and exchange. The earliest pipes were made of stone, and tended towards tubular or platform types, while late prehistory was dominated by numerous plain clay pipes with occasionally more elaborate, often effigy, specimens as well. Tobacco smoking likely began as a specialized practice associated with ritual practices, but over time became more ubiquitous and widespread. Smoking pipes remain socially significant artifacts to Native American traditional cultures to the present day. As always, more research is necessary into the earliest origins, chronological development, and cultural significance of smoking pipes from across the region.

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