CERAMICS AND GLASS BEADS AS SYMBOLIC MIXED MEDIA IN COLONIAL NATIVE NORTH AMERICA

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During the 17th and 18th centuries, Native Americans rarely adorned ceramic objects with glass beads, despite the millions of beads introduced by Europeans through trade. Bead-decorated ceramics have been reported from only nine sites in North America, perhaps due to a tendency for archaeologists to overlook or misclassify bead-inlaid pottery. The 40 artifacts represent widely divergent ethnic groups separated from each other culturally, as well as by great distances in space and time. Yet they display a remarkable consistency in the pattern of bead arrangement and use of color. Colored glass beads stand in for human eyes in effigy smoking pipes and white beads encircle the mouths of pottery vessels. Rather than examples of idiosyncratic coincidence, crafters of these objects communicated broadly shared ideological metaphors. These rare artifacts speak to the interconnectedness of ancient Native Americans and to related worldviews developed over centuries of intercommunication involving mutually intelligible symbolic metaphors.

INTRODUCTION

Glass beads figured prominently in exchanges between colonizing Europeans and the Native peoples of North America for hundreds of years. Readers of this journal are well aware of the great diversity of forms, colors, and styles of manufacture that characterize the millions upon millions of drawn, wound, blown, and mold-pressed beads produced in glasshouses large and small across Europe and carried to North America from the late 15th to 21st centuries. Thanks to innovative scholarship by ethnohistorians and archaeologists, we now understand to some extent how Native American beliefs and preferences shaped this trade (e.g., see Hamell 1983; Loren 2010:55-87; Miller and Hamell 1986; Turgeon 2004; Waselkov 1992:44). Early demands for metaphorical counterparts of rare sacred materials like marine shell and natural crystals transformed with time to large-scale requests for beads of particular sizes, shapes, and colors for ornamentation of bodies and clothing. In all cases, American Indian worldviews determined selection, acquisition, and use of glass beads. While many beads were worn in long strands as necklaces, they also figured prominently in embroidery and clothing fringe, adorned bracelets, anklets, and headbands, dangled from noses and ears, and were interwoven with human and other types of hair. Occasionally glass beads were combined with other media, most commonly inlaid into wood, usually in patterns that conformed to traditional Native design motifs, at least at first (Bradley and Karklins 2012; Hamell 1998:280; for an exception, *see* Willoughby 1908:429).

In recent years, a bare handful of ceramic artifacts, no more than several dozen specimens, inlaid with glass beads have come to our attention from archaeological sites in North America. While the extreme rarity of this artifact class might argue for its historical and anthropological inconsequence, we have resisted the temptation to dismiss these odd items as idiosyncrasies, mere whimsies of bored potters, and now believe they carry important information about the people who made and used them. Indeed, the fact that the glass bead components of one object went unnoticed for close to a century as it lay in a prominent research collection and that the beads of others were initially misidentified as pearls leads us to wonder if more, perhaps many more, bead-inlaid ceramics have been found but simply not yet recognized. Thus, this article has two modest goals: 1) to raise awareness of the potential for historic ceramics with glass bead inlays and thereby encourage others to reexamine curated collections for examples of the genre, and 2) to consider the meanings such artifacts held in their original historical and cultural contexts of manufacture and use.

HUMAN EFFIGY PIPES

Some three decades ago, George Hamell wrote about two remarkable smoking pipes from the Dann site (Monroe County, New York), generally thought to be the Seneca village of Gandachioragou, occupied ca. 1655-1675 (Grumet 1995:412; Hamell 1983:24, 27; Jones 2008:361-

364; Miller and Hamell 1986:319). Both pipe fragments are effigy forms with eyes represented by glass beads. One is a zoomorphic blue-eyed owl made of lead (Figure 1), perhaps made by Dutch craftsmen for trade to the Indians (Bradley 2006:170; Veit and Bello 2004:192). The other is an anthropomorphic red-eyed human head in ceramic, certainly Native-made (Figures 2-3). Hamell (1983) interpreted these striking combinations of Native and European motifs and materials as evidence for the ready incorporation of novelty into traditional Native categories of the sacred - glass and lead considered as newfound symbolic counterparts of the translucent quartz crystals and mica, reflective copper, and lustrous white marine shell traditionally considered sacred across Native North America. Far from replacing traditional sacra, these newly adopted sacred media were creatively deployed in a fluorescence of original forms that metaphorically evoked long-held beliefs in otherworldly powers. "[I]n the initial phases of intercultural trade



Figure 1. An owl-effigy smoking pipe made of lead or pewter inlaid with blue glass beads for eyes (RF 21078) from the Seneca Dann site in western New York; 5.4 cm high (on loan to the Rochester Museum and Science Center, courtesy of the Rock Foundation).

relations, the Indians of the Woodland region were trading in metaphors and... the value of trade goods was predominantly ceremonial and ideological" (Miller and Hamell 1986:326).

Since publication, Hamell's argument has generally been considered persuasive and the two Seneca pipe effigies with glass bead eyes have been mentioned or illustrated many times as examples of symbolic transference (Bradley 2006:172-173; Engelbrecht 2005:53; Karklins 1992:68-69; Trubowitz 2004:149; Turgeon 2004:36; Veit and Bello 2004:191-198), a common process noted elsewhere (Panich 2014). Without necessarily comprehending every symbolic nuance underlying late-17th-century Seneca representations of eyes by glass beads, we can all grasp, at least at a superficial level, how contemporaneous Huron Iroquoian people could expand the meaning of their word for eye (acoinna) to French-traded glass beads (Sagard 1632:91; Thwaites 1896-1901, 17:170; Tooker 1964:112-113). Indeed, Hamell thought this conceptual link "far more extensive, across both time and space" and pointed to pre-Columbian examples, such as the famous Hopewell zoomorphic pipes, "in which beads of various materials have been used as eye-inlays" (Hamell 1983:12). Laurier Turgeon (2004:36-37) suggests the Iroquoian metaphor extends beyond the light-reflecting and translucent properties shared by eyes and glass to their physical resemblance, with the colored bead representing an iris and the bead's hole a pupil. In fact, so reasonable has this pairing of eye to glass bead seemed to modern archaeologists that some have apparently assumed many effigy pipes were so decorated (Trubowitz 2004:149). Yet the two Seneca examples from the Dann site stand alone among thousands of zoomorphic and anthropomorphic pipes attributed to Iroquoians from the 16th through 18th centuries (Chapdelaine 1992; Kearsley 1996; Mathews 1980; Sempowski 2004).

Therefore, the discovery in 2012 of another human effigy smoking pipe, native-made in ceramic, with inset glass beads for eyes from a colonial-era site in eastern North America was quite unexpected. One of us (B. Coleman) came across this pipe while cataloging artifacts excavated in 1935 at Ocmulgee National Monument in central Georgia. Ocmulgee is primarily known as a major Mississippian mound center dating circa A.D. 1000-1150, but one or more Lower Creek Indian towns reoccupied the abandoned mound center from 1690 to 1716. Between December 1933 and March 1941, the U.S. National Park Service (NPS) oversaw extensive excavations at Ocmulgee, routinely employing hundreds of laborers paid by a variety of federal relief programs during the Great Depression (Hally 1994:1). Most of the enormous artifact collection generated all those years ago remains unstudied and unreported, but the current staff of the NPS Southeast Archeological Center in Tallahassee,



Figure 2. A Seneca effigy ceramic smoking pipe from the Dann site, New York, with inlaid red glass beads for eyes (RF 900-28); 21.5 cm long (on loan to the Rochester Museum and Science Center, courtesy of the Rock Foundation).



Figure 3. Detail of the face of the effigy smoking pipe from the Dann site (on loan to the Rochester Museum and Science Center, courtesy of the Rock Foundation).

Florida, is actively cataloging the Ocmulgee backlog. In the course of that retrospective processing, Coleman noticed the presence of glass beads pressed into the eye sockets of a crudely modeled human-face pipe (Figures 4-5). Unlike the Seneca examples, this Creek pipe bowl fragment has two glass seed beads in each eye recess, attributes evidently overlooked or unrecorded at the time of excavation. The artifact's original catalog card describes object "39-7751/1B1 3" simply as an "Effigy of Human Face, Painted Red" from Mound D. Archived field and laboratory notes do not yield any more specific provenience for the find.

Mound D at Ocmulgee is famous in the history of southeastern North American archaeology for the discovery of a prehistoric cornfield. Archaeologists revealed agricultural ridges and furrows carefully and intentionally preserved by burial beneath initial mound deposits (Kelly 1938; Riley 1994). The beaded effigy pipe was found somewhere in the vicinity of Mound D early in the Ocmulgee excavations, when the prehistoric Mississippian occupation dominated fieldwork goals. Only in 1939-1940 did attention shift to the historic Creek occupation, when Charles Fairbanks directed the excavation of a palisaded English trading house and associated Native houses and burials (Kelly 1939; Waselkov 1994). That fieldwork, and subsequent dissertation research by Carol Mason (2005), defined the extent of the historic Creek occupation at Ocmulgee between Mound C to the west and the trading house to the east. Recent remote sensing has expanded those limits considerably to the north,



Figure 4. The human-effigy pipe from Ocmulgee, Georgia, with inlaid glass bead eyes (courtesy of the National Park Service, Southeast Archaeology Center, Tallahassee).

reaching to the area of Mound D (Bigman 2010; Bigman and Cornelison 2013).

With no further information available on this pipe's context of discovery, we must rely entirely on analysis of its shape and composition for further interpretation. In fact, if not for the presence of the inlaid glass beads, this effigy pipe surely would be considered Mississippian, based on its find near Mound D at Ocmulgee. But the integral presence of those distinctive, European-made trade items dates the pipe

securely to the early colonial-era Creek Indian occupation of 1690-1716. The shape of the human face on the Ocmulgee specimen, and its presence on the bowl of a smoking pipe, is not entirely dissimilar to the Seneca pipe from the Dann site. Two prominent shared characteristics – eyes represented by glass beads and the unusual upturned "smiling" mouths – distinguish them from all other human effigy faces on contemporary pipes in the Northeast and the Southeast. That fact alone suggests some shared symbolic value. Yet there are also many differences between the two pipes.

The Ocmulgee Creek pipe appears to combine northern bead-eye and smiling-mouth motifs with design elements seen on effigy-head pots dating into the 17th century from the central Mississippi valley (found most often in southeastern Missouri and northeastern Arkansas). These ceramic effigyhead vessels are partially or completely painted with a red clay slip, the lips are often incised to represent teeth, and some are incised from lip to chin, possibly to represent decoration by paint or tattoo, all features also seen on the Ocmulgee effigy pipe. On many of the sculpted effigy pots, the lips are pulled back in a "death grin," and other design elements contribute to the appearance of lifeless heads (Cherry 2009; Walker 2004:223-228). Perhaps that rictus pose is the intent conveyed, as well, by "smiles" on the two pipes. While the symbolism of head pots remains ambiguous, the weight of evidence points to their interpretation as representations of ancestors or, more likely, mythical figures (Cherry 2009:173; Walker 2004:225).

One difference between the Seneca and Creek pipes concerns their use of glass beads, with one bead per eye on the Dann specimen and two per eye on the pipe from Ocmulgee. The beads inlaid in the Creek pipe are badly deteriorated, presumably due to damage from firing the ceramic pipe. The exposed surfaces of three of the four glass beads have cracked and fallen away to reveal blocky remnants embedded in the pipe's clay matrix. The pattern of longitudinal fractures suggests these are drawn beads (Kidd and Kidd 1970: Type IIa). All four appear to be a blue-green



Figure 5. Close-up of glass seed beads inlaid in the Ocmulgee pipe (courtesy of the National Park Service, Southeast Archaeology Center, Tallahassee).

color, although the opacity of the intact specimen makes identification tentative. Regardless of the precise color of the Creek pipe's bead eyes, a color other than white was selected – a significant attribute to which we return later. On the Ocmulgee specimen, despite their broken and heataltered condition, there are definitely two beads per eye, set side-by-side and on slightly different planes, with the angles of the innermost beads corresponding to the rising slopes of the nose (now largely missing). We suspect these multiple eyes and their different orientations, as well as perhaps their color, signify supernatural vision not shared by normal humans.

The presence of both bead-eye effigies on smoking pipes certainly implies they functioned within the common Native American tradition of conveying respect and supplication to Above World spirits, whether ancestral or otherwise, in the smoke emanating from pipe bowls (Rafferty and Mann 2004). While we do not understand all of the symbolism and beliefs that contributed to the creation of these human-head effigies, we recognize the use of red pigment as a sacred color (Hamell 1992; Hudson 1976:120-132; Lankford 2008:73-97). The blood-red stone of calumet pipes famously played an essential role in the creation of fictive kin relations between potential enemies in the midcontinent during the late 17th and early 18th centuries. The red glass eyes of the Seneca pipe and the red face of the Creek pipe move these artifacts out of the world of the mundane and into the sacred realm, reinforcing the message conveyed by their use of light-reflecting glass in a novel way.

POTTERY INLAID WITH GLASS BEADS

In contrast to the extreme rarity of Native-made, colonial-era, ceramic smoking pipes inlaid with glass beads, potsherds with inlaid glass beads seem positively commonplace, although in terms of actual numbers, they, too, are quite scarce. The largest assemblage, totaling fewer than a dozen sherds, was excavated in the 1930s at the Biesterfeldt site, a late-18th-century village in eastern North Dakota possibly affiliated with the Cheyenne (Wood 1971:47-49). Wood analyzed the collection years later and his published report documents 23 vessels decorated with glass-bead impressions, as well as seven sherds with glassbead inlay. He thought the bead impressions were produced by pressing a strand of glass beads into moist clay, much as the Biesterfeldt potters made fiber-cord impressions (Wood 1971:27, 29-30, Plates 8b-c, 10d-e).

Wood described the bead-inlaid specimens thusly: "Seven sherds have inset glass trade beads, or retain their impressions. The beads, pressed individually into the moist paste, were partly fused when the vessels were fired. They are 4 mm in diameter; the few beads remaining (many have fallen out) are of an opaque, white, glassy substance" (Wood 1971:27). Five vessels have beads inset in the lip or shoulder, one of them with two beads near a lug or handle (Wood 1971:30-31). A single blue glass seed bead was recovered among other European trade goods, although lack of screening during the 1938 excavation at Biesterfeldt undoubtedly accounts for minimal bead recovery.

William Green and colleagues recently reexamined the Biesterfeldt collection studied by Wood and located other examples of pottery inlaid with glass beads in curated collections from that site and two others further west: the Chevenne River site in central South Dakota and Fort Clark Historic Site in central North Dakota, both apparently associated with Arikara (Sáhniš) villages dating to the mid-18th and early 19th centuries, respectively (Green et al. 2015). Excavations at the Cheyenne River site in 1931 recovered one cord-impressed rim with a strap handle in which two tubular, drawn, white glass beads (Kidd and Kidd type IIIa7), both heat crazed from vessel firing, were inlaid perpendicular to the rim (Green et al. 2015). A lone simplestamped sherd found recently on the surface of the Arikara site at Fort Clark has white glass seed beads (Kidd and Kidd type IIa13) impressed along the top of the flat rim lip. Green and colleagues point out that this sherd closely resembles a rim impressed with a cord-wrapped rod from Biesterfeldt with the same sort of seed beads inlaid in the lip (Green et al. 2015; Wood 1971: Plate 7b). They also note additional beadimpressed and bead-inlaid sherds from recent excavations at Biesterfeldt, as well as a sherd thought to have come from that site with multiple parallel-line incising and inlaid white glass seed beads (again Kidd and Kidd type IIa13) (Green et al. 2015).

Among several conclusions developed by Green and his colleagues, perhaps most important is their recognition that Native peoples of the northern Great Plains were innovating with a new material, but they incorporated it into traditional vessel forms and decorative motifs, further reinforcing Hamell's (1983) thesis about trading in metaphors. They also point out that the Arikaras (and other groups) famously experimented by the late 17th century with a far more radical reworking of European glass involving the heating and fusing of ground glass beads into pendants (Green et al. 2015; Howard 1972). By the time they began incorporating glass beads into pottery rim designs, they were very familiar with the physical properties of bead glass.

In that light, it is interesting to note that the same sorts of damage evident on the glass beads in the Ocmulgee effigy pipe are described by Green and colleagues (2015) on many of the northern Great Plains specimens - surface crazing, cracking, partial melting and distortion, closing or partial closing of the bead holes – effects we all attribute to the heat of firing a ceramic artifact. Perhaps even the dislodgment of inlaid beads, some of which are missing from nearly every specimen, may be partially attributable to heat stress. Damage to and loss of inlaid glass beads during ceramic firing is a likely (and probably the principal) reason why so few ceramics anywhere were ever produced with that mode of decoration. We wonder, though, if this survey of Native American ceramics inlaid with glass beads is not, in fact, revealing the story of a failed technological innovation, but is instead showing us the traces of a motif elaboration with a fairly narrow goal, to express a particular symbolic meaning. To explore that idea, we need to introduce our remaining examples.

During the course of analyzing a large artifact assemblage excavated in 2010 from the ethnic French La Pointe-Krebs plantation site in Pascagoula on Mississippi's Gulf coast, staff at the University of South Alabama's Center for Archaeological Studies found two small native-made pottery vessel fragments that had been inlaid with glass beads, apparently the first such specimens to be reported from the Southeast (Figure 6) (Gums and Waselkov 2015:60-61, 154). Neither one was correctly identified at first. Initially, the bowl rim sherd with beads still in place was thought to have small pearls embedded in the pottery surface. Examination with a binocular microscope quickly revealed the "pearls" to be white glass seed beads, Kidd and Kidd type IVa13. The sherd also has two and a half impressions left by glass beads that have fallen out. The little depressions or molds exhibit telltale central spires of clay that once filled the bead holes. A search of fine-screened material from that artifact's excavation context turned up a partially melted white glass seed bead that evidently became dislodged from the sherd during deposition.

Once the bead impressions were recognized as signatures of missing inlaid glass beads, the ceramic assemblage from the La Pointe-Krebs plantation was reexamined and a second sherd was found in a curated collection from excavations in 1995. Also from a mid-18th-century context, it has four bead impressions in a line on the rim below the bowl lip, but the glass beads are no longer present. Both sherds are tempered with finely crushed shell and are - apart from the bead inlays – typical of bowl rims in the site's early to mid-18th-century Native American pottery assemblage. These pots are thought to have been produced by the local Pascagoula Indians (by then coalesced with Capinans and Biloxis), who occupied villages a few miles north of the La Pointe-Krebs plantation between its establishment in 1717 until the Pascagoulas' withdrawal from the region in 1763 (Brain et al. 2004:593; Goddard et al. 2004:185; Waselkov and Gums 2000:25-26).

Both vessels have glass beads placed in a circumferential line just below the rim. The bowl sherd with beads still in place also has four beads arranged in a diamond pattern below the line. That combination of design elements (diamonds below a circumferential line near the rim) is similar, though not identical, to the pattern of in-filled triangles suspended from a circumferential line seen on Doctor Lake Incised pottery, the predominant type made by the Pascagoulas in the early 18th century (Gums and Waselkov 2015:59-64). Our interpretation of this motif delineated in glass beads on one small ceramic fragment was strengthened by the discovery of a description and sketch of an almost identical potsherd found in 1931 at the Martin's Bluff site, one of the Pascagoula village sites north of the La Pointe-Krebs plantation (Figure 7). According to handwritten notes jotted down a few years after the find by Schuyler Poitevent, Sr., a prolific avocational archaeologist:

"It was here on this second trip [to Martin's Bluff on the Pascagoula River], August 25, 1931, that Junior found in the mud at the water's edge the pearl-studded piece of pottery no. 3145.... Piece of pottery studded around the rim with five white pearls, and with three more in the form of a diamond, the top or fourth pearl having fallen out.... I am going to use it for the title of my book 'Pearls in Pottery'" (Poitevent 1924-1940).

The elder Poitevent never published "Pearls in Pottery," nor evidently did he realize he had found a rare piece of Native American pottery studded with glass beads.

These independent discoveries of nearly identical potsherds inlaid with glass beads at the Martin's Bluff and La Pointe-Krebs plantation sites help us confirm the Nativemade origin of the ceramics, something that was already strongly indicated by the sherds' other attributes (temper, vessel form, construction method, and decorative motif). We considered the possibility that these unusual pottery artifacts were made by enslaved Africans living on the plantation (Gums and Waselkov 2015:60-61, 154), but our literature review has failed to locate any references to pottery inlaid with glass beads made in colonial-era Africa, only beadimpressed examples (Pikirayi and Lindahl 2013:461-462). We, therefore, feel confident in identifying the potters as Pascagoula Indians, or one of the other Native peoples who had coalesced with the Pascagoulas by the early 18th century.

Yet another cluster of potsherds inlaid with glass beads has come to our attention. Excavations in 1993 by Louis Allaire (1994) at the Argyle site on the Caribbean island of St. Vincent in the southern Lesser Antilles uncovered "a unique Cayo potsherd with a series of glass beads inlaid

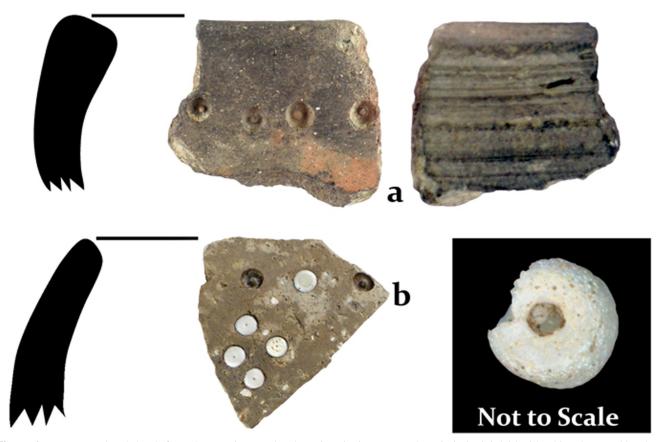


Figure 6. Two pottery bowl sherds from the LaPointe-Krebs plantation site in Pascagoula, Mississippi, inlaid with white glass seed beads: a) two images of exterior (left) and interior bowl rim sherd (2.3 cm wide) with impressions where inlaid beads have fallen out; b) sherd (2.0 cm wide) with some beads still in place on bowl exterior. The inset shows a seed bead that was inlaid in pottery but has since fallen out, showing the hole closed by heat, presumably during pottery firing (courtesy of the Historic Preservation Division, Mississippi Department of Archives and History, Jackson).

on the rim" (Boomert 2011:293). A second, very similar beveled rim of a Cayo "Form 2" open bowl with inlaid glass beads was recovered during further excavations at the Argyle site in 2010, although a report on that follow-up work has not yet been published (Boomert 2011:300). Both groups of excavators consider Cayo wares to be pottery made locally by the Island Carib inhabitants of St. Vincent during the 17th century.

One final ceramic artifact inlaid with glass beads deserves mention. Karlis Karklins (1992:69, 73) illustrates a vase-shaped ceramic smoking pipe from the Huntoon site in western New York state, a Seneca village occupied from 1710 to about 1745 (Figure 8). This pipe, like the pottery bowls described above, has a row of white glass seed beads imbedded in the upper rim. Considering the vase shape of the pipe bowl (a container homologous in some ways with a pottery vessel), we think it was treated symbolically as if it was a pot. Or, rather, its orifice was treated (literally or metaphorically) as the mouth of a pot.

This survey of colonial-era Native North American ceramic vessels inlaid with glass beads has revealed a handful of specimens from three sites in the northern Great Plains attributed to the Arikaras and Cheyenne, two sites near the Gulf coast in Mississippi with pottery attributed to the Pascagoulas (or associated groups), one site on the island of St. Vincent occupied by Island Caribs, and one Seneca site in western New York state, all datable to the 17th or 18th century. Given the huge geographical distances separating these four artifact clusters and their apparent lack of precise contemporaneity, we have no reason to suppose these artifacts belong to a single cultural tradition or style horizon. Yet there are a number of remarkable similarities between these ceramics inlaid with glass beads: 1) all of the beads consist of opaque white glass (Green et al. 2015); 2) all of the beads are of drawn manufacture and nearly all (except for two tubular beads on the handle from the Cheyenne River site) are small round forms, mostly falling in the "seed bead" size category; 3) nearly all of the beads (again except for the two tubular specimens) are inlaid flat,



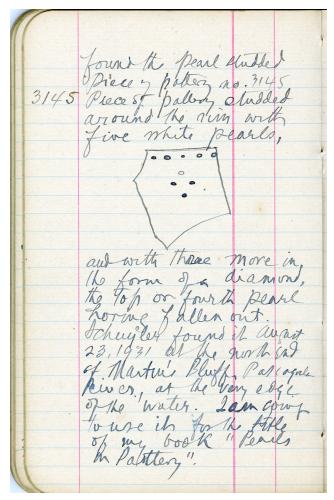


Figure 7. Sketch of a "pearl studded piece of pottery" found in 1931 at the Martin's Bluff site near Pascagoula, Mississippi, by Schuyler Poitevent (1924-1940) (courtesy of the Mississippi Department of Archives and History, Jackson).

with holes revealed, with some space between beads, not aligned side-by-side; and 4) most of the specimens have their white seed beads arrayed in a single row running circumferentially around the vessel opening, either on the lip or on the upper rim, just below the lip (Table 1).

Granted the very small sample sizes we have at hand, these similarities across a huge geographical area are all the more remarkable. What could account for this near homogeneity in bead color, size selection, and placement on pots (and one pot-shaped smoking pipe) from a wide range of Native American contexts? We suspect several processes are at play. First of all, Schuyler Poitevent may not have been far off when he identified the heat-altered beads on his sherd from Martin's Bluff as pearls. The native predecessors to glass beads all over North America and the Caribbean were made from marine shell, which opaque white glass



Figure 8. Vasiform ceramic smoking pipe of Seneca origin with inlaid glass beads from the Huntoon site (RF 6240/159) (on loan to the Rochester Museum & Science Center, courtesy of the Rock Foundation).

closely resembles. As discussed earlier in regard to glass used in effigy pipes to represent eyes, the introduction of a new material permitted creative new expressions of ancient symbolic values. Although the specific meanings expressed by the use of glass beads on ceramics certainly must have varied among the diverse ethnic groups represented in our sample, those meanings almost certainly derived from earlier meanings associated with shell beads.

Native North American folklore includes a myth that helps us understand how a fairly homogeneous category of shell artifacts came to share a similar social meaning across a diverse range of societies. The Bead Spitter myth, as detailed by John Swanton (1929:2-7) and George Lankford (2007a:107-113, 2011a:190-208), spanned most of North America, with versions known from more than two dozen different peoples during the 18th and 19th centuries. As the opening episode of many other more elaborate myths, it relates the story of a competition between two figures, one of whom had the ability to spit up supernaturally powerful shell beads. According to Lankford (2007a:110, 112), "while it seems a whimsical motif today, shell-spitting

Site (Ethnic Attribution)	Date Range	Location
	Pottery Sherds	
Biesterfeldt (Cheyenne)	1720-1780	North Dakota
Fort Clark (Arikara/Sáhniš)	1837-1861	North Dakota
Cheyenne River (Arikara/Sáhniš)	1735-1775	South Dakota
La Pointe-Krebs (Pascagoula)	1717-1763	Mississippi
Martin's Bluff (Pascagoula)	1700-1763	Mississippi
Argyle (Island Carib)	1600s	St. Vincent and the Grenadines
	Smoking Pipes	
Huntoon (Seneca Iroquois)	1710-1745	New York
Ocmulgee (Creek)	1690-1716	Georgia
Dann (Seneca Iroquois)	ca. 1655-1675	New York

Table 1. Archaeological Contexts of Ceramic Artifacts Inlaid with Glass Beads.

was a well-known ritual practice." Around A.D. 1300, Central Algonquin- and Siouan-speaking shamans in the upper Mississippi/Great Lakes area formed the Midewiwin medicine society which incorporated a lodge structure, medicine bags, shell beads that were ritually shot... and the tale of the Bead Spitter (Lankford 2016). Over time the medicine society, its material correlates, and the myth spread as far south as the Muskogean-speaking Mississippian peoples of modern-day Alabama and Georgia, all the while crossing major cultural, linguistic, and geographical boundaries. The appearance of a consistent symbolic grammar revealed to us by pottery vessels and smoking pipes inlaid with glass beads may have developed in a similar fashion across time, culture, and space.

Green et al. (2015) astutely note the resemblance of a row of white glass beads arrayed on the rim of a pot to the strands of beads - first shell, then glass - that adorned Native peoples of the Americas in the pre-contact and colonial eras. Pots and pot-shaped pipes may well have been personified and ornamented as persons should be, by their makers. Despite the proverbial warning, "pots are not people" (Kramer 1977), aimed at archaeologists who may be tempted to read ethnic identity from styles of pots, in this case they may well have been viewed as such!

There may be another reason why certain pots and smoking pipes were decorated with symbolic strands of glass beads. Recent research on the Mississippian iconography of eastern North America has revealed the tendency for pottery to be decorated with designs indicating the various realms of the cosmos. We now know that a great many pots made in the Mississippian Southeast carry symbols of the Above World, Middle World, and Beneath World (Lankford 2004, 2007b, 2011b; Pauketat and Emerson 1991). So widespread was this decorative tradition that one prominent iconologist, George Lankford, has concluded that most pottery functioned as microcosms, earthen representations of the worldview of the potters (Lankford 2004:209). The repetitive geometrical patterns found on pots made in northeastern North America, in the Great Plains, and in the eastern Caribbean very likely represent similar cosmological beliefs. Encircling a ceramic depiction of the Above World with a row of luminous white glass beads might have seemed perfectly appropriate from that cultural perspective.

CONCLUSIONS

Our intentions with this article were to 1) raise awareness of the potential for historic native-made ceramics with glass bead inlays, and thereby encourage others to reexamine curated collections for examples of the genre, and 2) consider the meanings such artifacts held in their original historical and cultural contexts of manufacture and use. In terms of our first objective, we believe it is entirely possible that bead-decorated pottery has been overlooked in many artifact collections. It would be easy to do so because of the rarity of this class of material culture and lab personnel's consequent unfamiliarity in identifying it. In the cases outlined here, on three different occasions ceramics inlaid with glass beads were initially misidentified while processing potsherds from the La Pointe-Krebs site; when an avocational archaeologist mistook glass beads for pearls; and when glass beads inlaid in a pipe were either overlooked or unremarked upon when processing artifacts from Ocmulgee. The possibility is exponentially higher for overlooking or misidentifying pottery where only bead impressions remain, and not the beads themselves. We suspect that beads impressed end-on into the clay, with the hole showing, may be especially underrepresented as their impressions resemble punctations made using cane, bone, or other hollow materials with the same cross-section shape. Only the discovery of sherds still bearing glass bead inlay in a collection will likely spark recognition by the average archaeologist of empty impressions once occupied by beads.

It is worth our effort to remain watchful for these relatively rare specimens, for they bear much information and are not simply rare because they reflect a potter's whimsy. The consistent pattern of inlaid bead arrangement and color in ceramic media, particularly vessels and pipe bowls, suggests that their rarity is at least partly a reflection of the restrictions of the "grammar" in which symbols were used to communicate a particular ideological metaphor. We recognize significance in material patterns that may help us more fully comprehend the metaphor they represent; e.g., that white beads like those described above were appropriate for encircling, perhaps personifying, the openings of vessels. The singular pipe from the Huntoon Seneca site may be the exception that proves the rule, for while it is not a pot, it appears to follow the rules of the symbolic grammar in the resemblance of the pipe bowl form to that of a pottery vessel. To the people who made and used the pipe, this visual "pun" may have made it suitable for adornment by inlaying white beads around its circumference. The other pipes from Dann and Ocmulgee, by contrast, have beads inlaid only as eyes. While the colors of these beads vary, none are white, and thus may represent another rule of the symbolic grammar, one perhaps connoting supernatural sight whose realm of meaning is different from, or in opposition to, the meanings conveyed by the use of the color white.

So how is it that these two pipes, and the several bowls, came to share the same symbolic grammar, despite their use by individuals of different cultures, speaking different languages, and separated by great distance? We too often think of colonial America as a place where long-distance travel and communication were slow and difficult. Certainly the pace of life then was far slower than today, but that is hardly a fair comparison, considering how much technology has changed over the last three centuries. Given available modes of conveyance, whether on foot or horseback or by canoe or sailing ship, people and information could manage with time to traverse great distances. Historians, however, seem more willing to accept that notion when discussing European colonial travel and communication, for which

there is written evidence in the form of letters, diaries, and newspaper accounts, than when considering the movement of American Indians across the landscape. In the absence of a colonial observer who happened to jot down mention of a visiting delegation of distant native peoples or record news credited to native sources, the tendency has always been to assume that such events were rare occurrences. While admittedly we still have much to learn about the interconnectedness of Native North America during the colonial period, artifacts like the ceramics inlaid with glass beads from the nine discussed sites help us see beyond the limited gaze of colonial writers.

Consider the smoking pipes with inlaid eyes, for example. We need not presume that a face-to-face meeting occurred between the smokers of these two pipes, from two societies widely separated geographically but roughly contemporary, to see that they nevertheless shared related worldviews developed over centuries of intercommunication involving mutually intelligible symbolic metaphors. The stylistic similarities of a Seneca pipe from the eastern Great Lakes, a Creek pipe from the Deep South, and head pots from the central Mississippi valley help us see a few of the links in a communications network that spanned the continent, with no perceptible assistance from literate colonists apart from providing supplies of glass beads. Because we know that smoking pipes, in particular, played key roles in ceremonies that encouraged dialog and negotiations between societies, they are particularly suited for revealing the interconnectedness of ancient Native Americans (Sempowski 2004; Wonderly 2005). Our two pipes with inlaid glass beads for eyes from far-flung parts of eastern North America stand as witnesses that American Indians of the colonial era spoke to each other and communicated routinely across great distances, a fact too often discounted as implausible. Their unusual symbolism further reminds us that the worldviews of colonists differed radically from those of Native Americans.

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