Native Dog Burials and Associated Ritual in Coastal Virginia and Beyond

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Native Dog Burials and Associated Ritual in Coastal Virginia and Beyond

A thesis submitted in partial fulfillment of the requirement for the degree of Bachelors of Arts in Anthropology from The College of William and Mary

by

Jennifer Fitzgerald

Accepted for ________________________
(Honors, High Honors, Highest Honors)

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Abstract

The only domesticated animals on the continent, dogs held a special place among the fauna of North America. Their symbolic and ritual significance is especially evident within Late Woodland sites along the Chickahominy River where several modal patterns of dog burial are present at four sites. Ethnographic and ethnohistorical accounts from related tribes and archaeological evidence from sites across Virginia provide a means of investigating and understanding the multiplicity of meanings that dogs could embody for Native societies in the Eastern Woodlands, particularly as protectors, companions, and messengers. A synthesis of this evidence provides a basis for a richer, contextual understanding of dog burials identified by the Chickahominy River Survey.
Introduction

In 1764, an English trader among the Chippewa witnessed the rituals surrounding the death and burial of a little girl. She had fallen into an open kettle of boiling syrup, and though immediately pulled out, she died a few days later. While she was still alive her family held a continual feast dedicated to the Great Spirit\(^1\), asking for the child to be healed. They also offered sacrifices to the Great Spirit, including dogs that were killed and hung from poles (Bushnell 1920). The dog sacrifice formed an essential part of this ritual, since dogs often acted as messengers to the Great Spirit. After being sacrificed, dogs were frequently buried instead of being thrown into trash pits (Schwartz 1997). It was through similar practices that dog remains entered the archaeological record across the Eastern Woodlands and by examining dog remains in the archaeological record we can learn something about their ritual significance.

Though dog burials appear within Native American sites across the Eastern Woodlands, this study focuses on those occurring along the Chickahominy River in Coastal Virginia and places these in a regional context stretching from Maryland to North Carolina. Researchers have not paid particularly close attention to dog burials in this region. In fact, the Chesapeake is the one region conspicuously left out of Marion Schwartz’s (1997) otherwise comprehensive book *A History of Dogs in the Early Americas*. While their presence has been noted at many Chesapeake sites, there have been no studies looking into the broader social implications and associated meanings of dog burials, unlike in other regions (Zimmer 2007; Schwartz 1997). For those interested in a regional approach to archaeology that emphasizes long-term patterns of culture change, dog burials from the Chesapeake

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\(^1\) ‘Great Spirit’ is Bushnell’s term, one reflective of the anthropology of the time and of the imposition of European cosmology onto Native cosmology. I use it here to reflect the ethnohistory, while acknowledging the fact that it is not an accurate term and does not correctly reflect Native beliefs about the gods and the supernatural.
region are particularly important. Dog burials were a widespread practice that crossed cultural and linguistic boundaries, appearing during the colonial era among Algonquian, Iroquoian and Siouan speakers. The range of dates for dog burials in this region and the history of related practices is not well understood (Schwartz 1997). Even archaeologists who specialize in the region are unsure of the purpose of these burials and those who have worked in the region for decades hardly make note of them in their reports (Gallivan, personal communication, 2008). The aim of this paper is to correct those omissions and to bring together what is known about Chesapeake-area dog burials in one place while offering an interpretation of them in the context of local communities of practice.

The vast majority of the dog burials in this region are Late Woodland (900-1500 CE) in date, though there is evidence of a far earlier origin of the practice in North America and its continuation into the historic period. The earliest dog burials in the Eastern Woodlands date from the Archaic period (10,000-1,000 BCE) at sites that include Koster (Schwartz 1997), however the cultural traditions that led to the sudden florescence of this practice probably date to the Early Woodland (1000-500 BCE) at sites including Toliferro in southern Virginia (Moore 2006). Examples from that period up through the Late Woodland I (900-1200 CE) were sparse, but starting with the Late Woodland II (1200-1500 CE) through the Contact period (1500-1607 CE) dog burials appeared across the Chesapeake Bay region. From sites in Piedmont North Carolina and along the Roanoke River on the border between North Carolina and Virginia, dog burials are found down the Coastal Plain to the furthest southern extent of Algonquian speaking groups near Wilmington in North Carolina and north through Maryland (Ward and Davis 1999; Curry 1999). At its western reaches in Virginia, dog burials occurred among a palisaded community at the Crab Orchard site on the

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2 A community of practice is a group of people sharing a set of similar practices that sets them apart from other communities. These practices can relate to language, subsistence, ceramic production, etc.
border with Tennessee (MacCord and Buchanan 1980).

The first section of this paper summarizes the necessary background information for this study, beginning with a description of regional prehistory that summarizes the Archaic and Woodland periods and focuses on the Late Woodland (900-1500 CE). Then it reviews the ethnohistorical and ethnographic literature on dogs in Native American life. These sources and related mythological accounts make it apparent that dogs filled important roles in Native American communities across the northeast. Dogs were a major component of important sacrifices, such as the Iroquois’ Midwinter Ceremony’s White Dog Sacrifice, the central Algonquians’ mitewiwin festival, and rituals to prepare for war in several societies (Blau 1964; Feest 1986; Schwartz 1997; Butler and Hadlock 1949). Dogs were also ritually eaten, as parts of the rites for preparing for war, in feasts for the dying and in feasts in honor of important guests (Schwartz 1997; Wallis 1955; Butler and Hadlock 1949). Mythologically, dogs were given a place of importance above that of other animals and often factored into the mythology surrounding death (Schwartz 1997). The roles dogs fulfilled and the sacrifices they were associated with differ by community and language group, so the ethnohistories are organized by language group and divided by the roles dogs fulfilled, with the trends exhibited by each group summarized at the end of the section.

Next, the Methods section discusses data collection methods and the specific attributes recorded for the dog burials, including the condition of the canine remains, associated features or artifacts, and the distances to other features on the site. Using these attributes I created a database of dog burials and other instances of dog remains in the archaeological record. Then, to look for trends in the data, I divided up the sites, alternately by river drainage, language group, site type, and finally time period and used these groupings to compare the variables. Using these data I traced the temporal and geographic distribution
of these burials. These data, combined with ethnohistorical accounts and syntheses, became
the basis for my argument about the significance of dog burials. I suggest that there were, in
fact, multiple practices or at least multiple meanings related to the burial of dogs, some of
which we can infer through careful, contextual analyses of the archaeological record.

Not all dog burials are the same. Some are found with grave goods; some also
contain human remains. Others are otherwise undistinguished features and some mark
important places on a site. One of the main trends in dog burials across language groups was
to place dog remains at boundaries: palisade lines that marked the boundaries of a village, or
the edges of houses at sites including Crab Orchard, Belmont, Brown Johnson, Buck Farm
and Winslow (Barka 1968-1973; Davis et al. 1997; MacCord 1973; MacCord and Buchanan
1980; Slattery and Woodward 1992). These placements have dogs marking liminal areas and
transitions between outside and inside.

By studying the archaeological record we can attempt to understand what the
practice of dog burial meant to the people participating in these rituals, but a theoretical
frame is necessary to contextualize the features so that our analysis is not arbitrary. The
Theory section of this paper describes current theories dealing with ritual and religion in
archaeological contexts. The two main schools of thought regarding religion and ritual are
usually represented by structuralism and practice theory (Fogelin 2007). Structuralism sees
religion as being of primary importance and ritual as a tool used to enact the deeper, static
meanings of religion. Because it views rituals and meanings as stable, the structuralist
perspective is able to claim strong support from ethnohistorical accounts as long as it
assumes that the meanings have not changed (Fogelin 2007).

On the other hand, practice theory assumes the primacy of ritual acts and views
them as the means by which religion is constructed and modified (Fogelin 2007). Fitting into
this framework, Pauketat defines symbols as “the media of people’s experiences and interpretations,” seeing them as action-oriented and not as reflections of deeper cultural meaning (Pauketat 2001:77). Tradition is defined as creative social process whereby people carry out habitual practices that express and instill important cultural principles. Pauketat writes that people “enact, embody or represent traditions in ways that continuously alter those traditions” (2001:79). In the practice view, ritual changes religion and the focus falls on ‘what ritual does’ and not what it means (Fogelin 2007).

Both theoretical perspectives face problems when differentiating between religious rituals and secular ‘ritual-like’ activities (Fogelin 2007:58). Researchers working under both approaches typically create a stark separation where either meaning or practice is the more important and the other largely neglected. However, it is impossible to ignore either the meanings of rituals, or the ways in which their enactment can change over time and affect their meaning, and hope to get a well-rounded view of the importance of a ritual to the participants.

Referring to ethnohistorical accounts also reflects the Direct Historical Approach. As defined by Marcus and Flannery, the Direct Historical Approach works backwards “from the known to the unknown, using ethnographic and ethnohistorical data to interpret prehistoric remains” (1994:56). I used accounts not only from the colonists at Jamestown, but positing enough similarities between the societies of the Chesapeake and their northern relatives, I included information from groups across the northeast, while relying most heavily on accounts from their nearest neighbors.

Also involved is identification of the symbols used in the rituals. For that I turned to Victor Turner, who defines a symbol as a “product of interaction between human actors and roles” (Turner 2008:495). This definition closely reflects the strategy I use to understand
these dog burials. The dogs are fulfilling roles laid out by human actors and that is how they serve as symbols to the community. When dog remains also occur in mortuary contexts, I referred to the stages of rites of passage to show how the dogs interacted with the human actors to incorporate the deceased into a new stage after death. The stages: separation, the liminal period and reincorporation, mark the transition from one status to another, from one stage of life to another. Furthermore, dogs often appear at liminal places in native communities and seem to possess a quality of liminality that makes them flexible symbols (Turner 2008).

Using an approach similar to Renfrew’s (1985) study of the Phylakopi Sanctuary, this thesis examines the context of dog burials and associated objects and features to determine the significance of the burial. Renfrew made a list of materials that typically characterized ritual and survived in the archaeological record. He then looked for these criteria in his assemblage to determine that he was investigating a cult sanctuary (Fogelin 2007; Renfrew 1985). However, Renfrew’s models for identifying sacred places by specific types of artifacts are not as readily applicable in the Eastern Woodland as they were in the Mediterranean. By and large wooden objects do not survive, so there are no iconographic images of deities or amulets to look for and ritual areas are less distinct on the landscape (Whitehouse 1996). While I did not use Renfrew’s model, by referring to ethnohistorical accounts I determined several distinguishing characteristics of different types of dog burials to create my own model, which I applied to the collected data. I largely avoid the question of what is religious in this paper because ritual can be secular or non-secular, or, as Richard Bradley (2005) says the distinction can be unclear as religion influences every aspect of life.

The Interpretation section contains my analysis based on the model set forth in the Theory section. The first part covers general trends in dog burials in my study area and their
significance. The second part discusses the dog burials from the Chickahominy River Survey, giving my analysis of each site. The third part considers the Hatch Site, reviews what has already been written, how this fits with my model, and offers an explanation of the majority of the dog burials excavated there.

A dog burial in and of itself is not enough of a basis to claim a symbolic or ritual expression. Without the necessary historical information and in relative isolation, Griffin’s statement that often “dogs were buried as though they were someone’s best friend” (1967:178), which projects our own cultural views into the distant past of a distinct culture, is just as viable (or not) as any other statement. It is only when the wider context and ethnohistorical information is taken into account that an idea of the actual meaning can be approached.

**Background**

I. Regional Background

The main focus of this study originally lay along the Chickahominy and James Rivers on the Coastal Plain of Virginia. It was there that I first found evidence for the widespread burial of dogs. The Chickahominy, a group independent of Powhatan’s Chiefdom during the Contact Period (1500-1607), were engaged in a practice not as common among their northern neighbors. The Chickahominies’ resistance to Powhatan’s influence and the possibility that they had retained an earlier form of political organization while surrounded by chiefdoms made them an interesting subject for further study, especially in light of the dog burials that occurred at four of their sites (Tooker 1895). In order to frame the Chickahominy in a broader historical and cultural context, it was necessary to expanded my research focus until the project took on a regional scope, which necessitates a review of the
prehistory of the Chesapeake region and the groups living there up to the Contact Period.

The earliest dog burials in North America date to the Archaic Period, which occurred at generally the same time, though with regional variations (Steponaitis 1986). In Virginia the Archaic began around 8000 BCE with the end of the ice ages and the beginning of the modern climate in the state (Egloff and Woodward 1992; Custer 1990). The Archaic is marked by a distinct set of lifeways and technologies, including several types of seasonal camps, highly mobile bands of foragers and hunters and the absence of agriculture and ceramics (Custer 1990). Hunters during the Archaic used a variety of projectile points, still frequently found scattered across later village sites, and the atlatl, which was in use before the invention of the bow and arrow (Egloff and Woodward 1992). Near the end of the Archaic, long distance trade was evident in the presence of steatite bowls in the Coastal Plain, which also indicated a slightly less mobile society was developing as the period transitioned into the Early Woodland (Klein 1997).

The population of the Early Woodland (1200-500 BCE) grew more sedentary and also began to cultivate plants like sunflower and goosefoot, though they were still hunting and gathering for subsistence (Steponaitis 1986). Across the Southeast, the Early Woodland saw the development of semi-permanent camps for special purposes or seasonal habitation. But despite the development of year-round hamlets, little archaeological evidence is left because these sites were not occupied for long. The presence of steatite vessels at these sites and the development of ceramics are the best evidence we have of the increased sedentism of this period, as their weight means they required more effort to transport and were not practical for highly mobile groups. Once the local resources were used up a hamlet was most likely abandoned and the population relocated (Steponaitis 1986:381). These groups were mobile enough that no large changes to the landscape are apparent in the archaeological
record for this time.

The Middle Woodland (500 BCE-900 CE) was a period of even greater sedentism, increasing agriculture and far more influence on the surrounding environment (Egloff and Woodward 1992:24-25). People of this period began living in small hamlets and seasonal villages and began leaving more of a trace in the archaeological record, including an increasing number of ceramics (Egloff and Woodward 1992; Stewart 1992). However there is evidence from the large shell middens and smaller, interior sites, that seasonal fusion and fission was still occurring as people moved across the landscape to follow resources, turning to the shore lines at key times for harvesting shellfish and catching fish (Turner 1992). The presence of smaller triangular points indicates the probable presence of bow and arrow by this point (Stewart 1992). There were also the beginnings of more diversified and specialized labor with an increase in use of domesticates, though wild animal and plant sources remained the main subsistence resources (Egloff and Woodward 1992; Stewart 1992).

Regional interactions and population shifts during the Middle Woodland led to technological shifts and other changes in material culture visible in the archaeological record. The transition in temper was one of the main technological changes of the Middle Woodland. Circa 200 CE there was the introduction of shell temper while crushed lithic temper fades from the record (Stewart 1992). Hayden (2009) writes that this change in ceramic temper probably indicates the in-migration of Algonquian speakers. Older styles continued after the introduction of shell tempering, perhaps indicating continuity of the original group (Hayden 2009). In western Virginia the appearance of stone burial mounds indicates a connection with the Southeastern Ceremonial Complex, a tendency that continued into the Late Woodland (Stewart 1992). In eastern Virginia the presence of Abbott zoned-incised pottery at several sites shows a regional connectedness and interaction
not yet well understood (Stewart 1992).

The Late Woodland period as defined by Turner (1992) (900-1600 CE) was a time of subsistence, social and technological changes. It was during the Late Woodland that corn became a major part of the local diet along with beans and squash. Initially in Late Woodland I (900-1200 CE) there was a shift to more dispersed villages than there were in the terminal Middle Woodland; Turner (1992) believes this was due to the shift to agriculture and resultant need for farmable land for slash and burn agriculture. By the time of the Late Woodland, settlement patterns had changed permanently across the Chesapeake to longer lasting settlements composed of “substantial houses and storage facilities” (Steponaitis 1986:384). Across the region there was an increase in population and in village size with people living in permanent settlements (Turner 1992).

Across Virginia there is evidence of increasing social complexity during the Late Woodland, what Turner (1992) calls increasing “socio-cultural integration.” Starting with the Late Woodland II (1200-1500 CE) large palisaded communities appeared across the entire state including the Belmont, Potomac Creek and Great Neck sites (Egloff 1992; Hantman 1992; Turner 1992). There is evidence of at least ranked societies in southwestern Virginia with variations in house and settlement size, and mound building practices (Egloff 1992). Turner (1992) also writes of ranked societies in the Coastal Plain, though by the Contact Period (1500-1607) these had developed into fully fledged chiefdoms which he links with the evidence for increasing warfare and territoriality of the period. Political power was kin based with local chiefs, or werowances, inheriting their positions matrilineally (Potter 1993).

There was a great deal of connectedness across the Coastal Plain of Virginia and North Carolina during the Late Woodland II as several native groups interacted across language and cultural boundaries. This is seen in the similar artifacts found at sites belonging
to these different groups. Given the continuity of material culture over large areas from prehistoric to historic times, it seems safe to assume that these traits represent the continuity of distinct groups whose members spoke the same language into the Contact period. In the Central Coastal Plain there was the development of chiefdoms, with Powhatan forming the largest example during the end of the period (Potter 1993). To the south were independent Algonquian groups of southern Virginia and North Carolina and the Iroquoian speaking groups, the Nottoways, Meherrins and Tuscaroras while Siouan speaking Monacans inhabited the Piedmont, all of whom are represented by a mix of ceramic styles (Gallivan et al. 2008). Several types of material culture make appearances among these groups, including ossuaries, simple-stamping on ceramics, rare trade goods including copper, and as I will argue later, dog burials (Gallivan et al. 2008). Gallivan et al. (2008) believe that the separation between what was to become the southern edge of Powhatan’s chiefdom and the groups to the south and west represents a frontier along which communities were converging, resulting in a mixing of formerly distinct traits as at the Hollowell Site (31CO5). At this time sites emerge that “appear as powerful, even sacred, centers of community construction and social reproduction” (Gallivan et al. 2008). It is during this period of ferment and interaction that dog burials appear across Virginia, and in North Carolina and Maryland.

II. Ethnohistorical Background

Algonquian, Siouan and Iroquoian communities from Maryland to North Carolina and from the Atlantic Coast to the Appalachian Mountains were involved in a process of creating various identities for the only domesticated animal sharing their range in North America, the dog. A close identification between humans and dogs seems to be a pan-American trait, a regional variation of which was taking place in the Middle Atlantic. Dogs served multiple purposes in Native American life, and as such took on multiple roles when it
came to native spiritual and ritual life.

When the Jamestown colonists arrived in the Chesapeake region of North America, dogs were the only domesticated animals in the world of the native peoples they encountered, the Powhatans. In their descriptions of these animals, the English colonists hardly considered them dogs, writing that they “are like their woulves [sic] and cannot barke,” (Strachey [2001]: 124). Strachey (2001) also compared them to jackals and claimed that the native dogs kept “about the graves of the dead…or place of sepulture.” Colonist Peter Winne wrote that the Powhatans’ dogs were used “to hunt their land fowls,…for they keep nothing tame about them,” (Haile 1998: 204). These brief references were all the mention the English saw fit to make, though the indications from the archaeological record of Virginia are that dogs had a far more significant role in Native American communities than the English realized at the time. In order to develop a better picture of the place of dogs in Native American life in the pre-Contact Chesapeake, it is necessary to look further afield, at accounts from colonial and historic times from related tribes to the north and at the ethnohistories describing their practices. Potter (1993:4) describes ethnohistory as representing “a union of history and anthropology, combining historical and ethnological methods to sift through historical documents for the purpose of constructing the human past based upon credible evidence” and throughout this thesis it is my hope to use this evidence to reconstruct the practices associated with dog burial in the Chesapeake.

Across North America dogs have frequently held a liminal position in human societies. They exist in a strange state between that of human and animal, existing as not quite one while not fully the other (Schwartz 1997). The Iroquois believed that dogs had once lived as humans, but had lost their status through misbehavior. However, they believed that dogs could still understand human speech though they were not allowed to respond
(Schwartz 1997). A Penobscot myth of the hero Deceiving Man relates how he called all the animals together to ask how they would react to humans. All of the animals except the dog were hostile, while dogs offered to join humans. As a result the other animals were punished while dogs joined men in hunting them (Schwartz 1997). Dogs, as domesticated animals were also seen as being without the spiritual protectors wild animals possessed (Anderson 2008).

Dogs are linked with women and men, crossing the gender differences normally strongly defined in traditional societies (Turner 1973). Dogs were associated with men in hunting, but with women in several myths of women taking dog husbands, a theme traced back to Asia; these myths are present among the Ojibwa, Chipewyan, Tlingit, and Arapaho (Schwartz 1997). Among the Micmac, an Algonquian speaking group native to northern New England and eastern Canada, women of the early colonial period would also suckle dogs and Schwartz (1997) writes that women were probably the impetus for domestication as women often cared for and fed puppies (Flannery 1939).

Dog burials appear early in the archaeological record, frequently in close proximity to human burials. The earliest identified burials come from the site of Koster in Illinois where three burials date to 6500 BCE (Morey 2005). Indian Knoll (3500-2500 BCE), in Kentucky, is another Archaic site that contained dog burials, and thirteen of the site’s twenty one dog burials are associated with human remains. The original excavator, William Webb wrote “one must conclude that dogs were often killed at the time of burial of their owner, and buried with them perhaps as a symbol of continued association in the spirit world” (Morey 2005:164). In a section dealing with the spiritual status of dogs, Morey (2005) writes that by burying dogs people were giving them a status akin to that of deceased humans and extending their roles in life into the world of the dead. Dogs possessed a special status. Their
remains were often treated differently than those of other animals and they were frequently interred with humans. Perhaps this is best summed up in James Serpell’s statement that dogs are “neither person nor beast” (Morey 2005:165).

As well as appearing as liminal creatures throughout the ethnohistorical record, dogs also appear in specific guises or roles in communities of practice whose languages tie them back to the primary study area and the historic period tribes encountered there. Siouan speakers, much like Algonquian and Iroquoian speakers, used dogs as messengers to communicate with the spirit world. The Winnebago lovingly raised special dogs, treating them almost like their own children before strangling the dogs as a sacrifice to Thunderbird or Disease-Giver. These dogs and a pouch of tobacco were buried in front of the war bundle and were used as messengers to ask the god for war powers (Schwartz 1997). The Oglala Sioux ate dogs as part of curing ceremonies and here the dogs were also intermediaries between the human and spirit worlds. A medicine man would invoke the Thunder People to partake in dog meat stew and tobacco and thereby make the dog stew a medicine that could prevent sickness (Schwartz 1997). The Sioux would also give feasts of dog meat to honored guests and friends. Accompanied by speeches and tobacco smoking, the dog meat here did not serve to act as a messenger to the spirit world, but as a symbol of respect in the human one (Schwartz 1997).

For historical Siouan speakers, the ethnohistories mainly deal with Midwestern and Plains peoples. There are similarities with eastern groups, but also prominent differences. There is a dearth of sources relating dogs and death among eastern Siouan speakers and dogs are not recorded as acting as guides or guards in relation to the afterlife. However, dogs are recorded as acting as messengers to the gods, a theme that also appears among Iroquoian and Algonquian speakers (Schwartz 1997). Finally, dogs were also used to symbolize great
respect, as in the feast offered to George Catlin and his friends in 1833 in which six kettles of dog stew were provided for the slightly horrified painter (Schwartz 1997).

When it comes to the relation between dogs and death among Iroquoian speakers, there are more references from the Huron than other groups. Schwartz (1997) writes that the Huron believed dogs’ spirits went to the same afterlife as humans, though by a different path. They also believed that dogs acted as guardians of the entrance to the next life, a belief similar to that of the several Algonquian tribes (Schwartz 1997). Finally, Bushnell (1920) records that among the Iroquois, dogs were frequently one of the animals painted along the tops of the entrances to chiefs’ graves. These references show that the Iroquois also associated dogs with death, and thought of them as guardians and companions, though their practices sometimes differed from those of their Algonquian neighbors.

The concepts of warfare and death would seem to be related, and yet when it comes to dogs’ roles in relation to war ceremonies among Iroquoian speakers, dogs act as symbols and messengers, not companions and guards. One captive among the Iroquois, William Fenton, witnessed a feast that comprised part of the ritual preparations for commencing war against another group (Trigger 1978). Dogs were sacrificed to the war god Agreskoue and then incorporated into the ritual feast as a representation of the flesh of enemies whom the Iroquois said they would eat after they defeated their opponents. “Seeing the kettle and the steaming platters of dog meat,…transported the beholders into fits of rage and fury as they mentioned their enemies in songs and compared them to dogs,” (Trigger 1978:316). Schwartz (1997) also records feasting on dog meat before war and comparing enemies to dogs. Flannery (1939) writes of another occurrence of the ritual feast, this time among the Huron, in which dog sacrifices were beheaded and the head put on a pole. This was given to the war chief to symbolize the head of the enemy chief. In all of these instances the dogs
acted as proxies for enemies and future victims. In these instances their enemies are considered to be less than human as in the songs comparing them to dogs. By viewing dogs and their opponents as interchangeable the Iroquoian speakers were simultaneously elevating the status of dogs to almost human and lowering the status of their enemies to less than human.

Tooker (1965) believes that the White Dog Ceremony developed out of earlier war related ceremonies, but as it is recorded historically it is far different from war ceremonies in form and meaning. In the older versions of the White Dog Sacrifice, a pair of white dogs was selected for sacrifice during the Midwinter Ceremony. These dogs were decorated with ribbons and red paint and hung with wampum before being carefully strangled (Tooker 1965). These dogs were then hung from poles which is reminiscent of the way captives were tortured in the early part of the 18th century (Tooker 1965). After a few days the sacrifices were taken down, one was added to a kettle and incorporated into the final feast of the Midwinter Ceremony while the other was ritually burned with a large offering of tobacco (Tooker 1965). As the dog was being consumed by flames the officiating priest would recite a prayer to the Creator, asking for good harvests, success in hunting and warfare and continued health for the village. The dogs here are acting in their roles as messengers to the gods, though one was eaten and shared by the community while the other was given to the god completely.

The Huron were the only northeastern group recorded routinely eating dog meat without ritual significance (Schwartz 1997). However, that is not to say that they did not also ritually consume dog meat for several important rites. Warfare was discussed in the preceding paragraphs, but they also sacrificed and consumed a white dog to seek information from the gods, similar to the White Dog Sacrifice (Flannery 1939). The Huron
also used dogs in curing rituals, a custom across the northeast. One account tells of a man who was cured by the sacrifice of two of his favorite dogs (Flannery 1939). In both of these instances the dogs acted as messengers to the spirit world, asking for information in the first example and healing in the second.

From these accounts we see that the Iroquois viewed dogs as mediators and messengers between the spirit and human worlds, companions and guardians, and finally as symbols for other (lesser) humans. There are fewer accounts of dogs in their roles as companions or guardians than among Algonquian speaking communities. Instead, the majority of ethnohistories deal with dogs’ roles as messengers and proxies for enemies.

Across the Northeast, Algonquian speaking groups made up a large portion of the Native Americans present at the time of Contact and into the historic period (Trigger 1978). Algonquian languages were also spoken on the Coastal Plains of Maryland, Virginia and North Carolina. Language does not necessarily correlate to culture, but given the close relations between coastal groups and the evidence that several practices appear in similar forms across communities, Algonquian ethnohistories are the strongest starting point for an attempt to extrapolate practices back into prehistory (Egloff 1992).

Among Algonquian groups, dogs were strongly associated with death and the journey to the afterlife, whether as fellow travelers or as guardians in the spirit world. The Algonquian groups of New England believed a giant dog guarded the entrance to the afterlife, denying a peaceful afterlife to the unworthy, and as a result people were often buried with their bows and arrows in order to frighten the dog away (Schwartz 1997). The Delaware believed that the dead traveled to the Spirit World via the Milky Way and that the way was guarded by dogs that had died. Those who had been cruel to dogs in their lifetime would be cast down, while those who had treated dogs well would be allowed to pass.
There is an account in Bushnell (1920) which is repeated by Schwartz (1997) of a Micmac ceremony in which a feast was prepared for a dying man. Several of the man’s dogs were sacrificed and consumed as part of the funeral feast, and then after his death his remaining dogs were sacrificed and added to his grave along with his other possessions to accompany him. Bushnell (1920:13) also writes that the Micmac would present dogs as gifts to the dying and these would also be sacrificed “in order to send them on before him into the other world.” Flannery (1939) records that the Penobscot and Mohegan also sacrificed dogs to accompany the dead. Along the same lines as northern Iroquoian groups, dogs acted as companions and guards in the afterlife of Algonquian speakers. However, dogs could also be the cause of death, as in the Delaware myth of the stubborn girl. One night a dog attempted to approach a village fire to warm himself but a girl stopped him, demanding that the dog tell her a story. She repeated this until the dog sat down and said that in three days she would be lying under the dirt. Three days later the girl disappeared and the myth ends with an admonition against abusing dogs or attempting to make them speak (Hitakonanu’laxk 1994).

The Ojibwa also saw dogs as acting as messengers to the gods. As related in the opening anecdote of this paper, upon the accidental burning of a little girl, a feast was held in which dogs were sacrificed and hung from poles. These dogs were meant to go to the Great Spirit and ask that their medicine work on the girl (Bushnell 1920). The Ojibwa, also known as the Chippewa, believed that all animals and objects had spirits that went to the spirit world and that people would be haunted by what they had injured in life, including dogs (Bushnell 1920).

The *mitewiwin*, or Medicine Dance, was held by Algonquian communities living
around the Great Lakes including the Ojibwa and the Menominee, and also by the Iroquoian Winnebago. *Mitewiwin* was the name of the medicine society and the annual festival dedicated to esoteric knowledge of healing spells and rituals. The society was also dedicated to preventing illness and “the renewal of life, by symbolic death and rebirth” (Feest 1986:21). Though many of the rituals were secret, it is known that dogs were sacrificed for the ceremonial feasts surrounding the ritual and creation of medicine bags (Feest 1986; Trigger 1978). Ceremonial dog feasts also formed a component of other Algonquian-speaking communities’ bundle rituals (Feest 1986).

Dog feasts were also related to the community building aspect of sacrifice, with dog meat forming a prominent component of feasts for guests and respected people. Among the Micmac dogs were considered the greatest present a commoner could give a chief and also composed a main part of the feasts for visitors (Flannery 1939). Among the Delaware, dogs were not eaten as parts of regular meals and in fact they claimed that they did not eat them at all, but, in fact dogs were included in feasts for important guests (Schwartz 1997). In these instances dogs were used as gifts to those with an ‘other’ status, either guests or chiefs, similar to Siouan practices.

In a line similar to Iroquoian rituals, dogs were also used as symbols during the process of preparing for war. Among the Abnaki, Penobscot and Norridgewock ceremonial dog feasts were held in preparation for war (Flannery 1939). The Micmac also had a ceremonial feast of dog meat before going to war, and their ethnohistorical accounts state that they, like the Iroquois, viewed the dog meat as representing the flesh of their enemies (Wallis 1955). The fact that this practice is documented among northern Algonquian-speakers raises the possibility that it was adopted from neighboring Iroquoian-speaking communities and not a trait shared by the majority of Algonquian-speaking groups.
Dogs were also widely used in hunting by Algonquian-speaking groups. The Waxsaw, Wyandot, Mohegan and Delaware hunted bears with dogs (Flannery 1939). There are also Delaware myths relating that certain dogs could bring hunting powers to good owners, and could kill monsters that threatened their owners (Bierhorst 1995). The Micmac are known to have used dogs for hunting, though no specific animals were identified as the targets of hunting with dogs (Wallis 1955). Finally, early colonists noted that the Virginia Algonquians used their dogs to hunt land fowl, thought to be wild turkey (Haile 1998).

These are all ways in which dogs were treated by Algonquian-speaking groups and incorporated into their daily and ritual lives. Dogs were parts of important rituals, including the preparations for war and the burial of the dead, as well as mundane village life and activities like hunting. Among Algonquian speakers, dogs appear most frequently in the ethnohistorical record as messengers between the human and spirit worlds and as companions to the dead. They also appear as symbols for enemies, though less frequently than in Iroquoian groups, and as the main ingredient in feasts in honor of guests, though less often than among Siouan speakers.

Along with the ways dogs were used by different Native groups, there are several practices documented from the colonial period which developed in response to European colonization which will be important later in this thesis. The first is the adoption of European domesticates, especially the pig. The Spanish first introduced pigs to the Americas in the sixteenth century, and often let the animals roam loose, leading to feral pigs spreading throughout the Eastern Woodlands (Anderson 2008; Coonan, personal communication, 2008). The English later brought their own livestock which they also left to roam the woods (Anderson 2008). Native groups took their first livestock from the woods, hunting or capturing feral animals and bringing them back to villages (Stern 1952). By the 1650’s tribes
on the Coastal Plain are known to have adopted livestock into their native lifeways, eschewing the European husbandry practices that the English colonists encouraged them to adopt (Anderson 2008).

The second practice developed during the colonial period was replacement of the materials used in rituals by European goods. This happened frequently with trade goods like glass, copper and beads replacing flint and shell ornaments (Anderson 2008). A similar process occurred with domesticated animals. The clearest example is perhaps the ending of the Iroquois White Dog Sacrifice and the use of ribbons in place of the dog to avoid upsetting government officials in the late nineteenth century (Blau 1964). Feest (1986) writes that while the Iroquois had formerly held the White Dog Sacrifice, contemporary Kickappo and Delaware had switched to deer for similar rituals, but more and more native groups had replaced their original sacrifices with pork. Schwartz (1997) makes a similar point, writing that while the Delaware and some related groups used pig meat in ceremonies and rituals, neighboring groups continued to use dog meat for parallel rites during the colonial period.

Finally, the last practice I wish to discuss is that of returning to sacred sites. Two ethnohistorical examples, from groups geographically close to coastal Virginia, give the clearest evidence for this practice. In the 1730s, the Nanticokes, an Algonquian speaking tribe from the Eastern Shore, left their ancestral lands to avoid colonial encroachment. They migrated slowly, taking a generation to reach New York, where they settled under Iroquois protection. Then, having settled in their new village, they traveled back to the Eastern Shore to excavate and remove their ancestors’ remains to their new village (Bushnell 1920). The Reverend Heckewelder, a missionary and early ethnographer of the Lenape, records witnessing the Nanticokes traveling through a Pennsylvania town in the 1750s with the cleaned bones of their ancestors on their way back to New York (Bushnell 1920). A different
occurrence, but with striking parallels, occurred in Piedmont Virginia in the mid-1700s. Thomas Jefferson observed a group of Monacans return to a ceremonial site on their ancestral land. They walked to a mound on Jefferson’s property without any directions, stayed for a time and performed some rites before leaving. They had retained the memory of their sacred site, decades after having left it (Bushnell 1930). These Monacans were commemorating their ancestors and reestablishing their connection with a sacred place, a practice which also seems to have occurred among the historic period Chickahominy.

### Methods

For this survey of dog burials, I carried out an extensive review of the literature on dogs in Native American life and of site reports from Virginia. Most of these reports came from the Archeological Society of Virginia’s *Quarterly Bulletin*. A less extensive survey of reports on North Carolina and Maryland sites was undertaken as well, though I limited myself to more widely circulated reports on sites in Maryland, including Dennis Curry’s (1999) *Feast of the Dead* and Slattery and Woodward’s (1992) *The Montgomery Focus*. For the North Carolina sites, I looked for mentions of dog burials in H. Trawick Ward and R. P. Stephen Davis’ *Time Before History* (1999) and in the University of North Carolina’s Research Laboratories of Archaeology’s monographs and journal *North Carolina Archaeology*. I also looked at the site reports listed on the Office of State Archaeology’s website.

I compiled the information I discovered, creating a database of dog burials and other instances of dog remains in the archaeological record. This resulted in data from forty-five sites across the three states. I then simplified this list, creating a more streamlined data set with the attributes and information I found to be most helpful and relevant to my research goals. The probable size of the dog and the orientation of the burial were two of the
variables I excluded from the new list. I also left out those dog remains that seemed to have been food remains, those that were disarticulated and found in trash pits with other faunal material, as these were not the focus of my study. When I considered the dog remains that seem to have been intentionally buried, I was left with thirty sites and at least seventy-eight dogs, excluding data from the Hatch Site. These data, combined with ethnohistorical accounts and syntheses, became the basis for my interpretation of the significance of these burials. From these data I was able to graph the various trends that became obvious as I compared attributes, and these trends suggested that there were in fact multiple practices or at least multiple meanings tied up in the burial of these animals.

For this study I recorded, where available, the site and feature number for each dog burial, the site type (dispersed village, palisaded village, ceremonial, shell midden, rock shelter), whether the remains were articulated, how complete they were (what elements were missing), whether they were associated with a human burial, or grave goods, how far they were from the nearest human burial, what the nearest feature was and how far away it was, what the dog burial was designated by the excavators, the date of the feature (and where not possible, the date of the site), and any other pertinent information. Using the completeness and articulation of the dog remains I determined the probable condition the dog was in when it entered the ground and this factored into how I separated dog burials from remains that were probably the result of consumption. It also allowed me to tell if parts of the animals had been intentionally removed, as with the decapitated dogs from the Winslow site (Slattery and Woodward 1992). Where dogs were associated with human remains, I also recorded the sex and age of the human, along with the condition of the remains, burial position, presence or absence of grave goods, position relative to the dog remains, and any other information I thought might be helpful. For many sites it was not possible to
determine all of these factors; however, there was enough information to determine general trends across space and time.

To find patterns in dog burials, I compared the percentage of dog remains associated with human remains by site type, river drainage, and language family. I also examined the distance to the nearest human remains from each dog burial and found overall a tri-modal distribution. Further, I looked at the nearest feature to each dog by site type, river drainage, and language family. I also looked at dog burial distribution among drainages, language families, site types by time period. Lastly, I determined the percentage of dog burials associated with human remains, the distance to the nearest human remains and the nearest feature by time period. Where these results seemed most illuminating I have included charts. Pig burials from 44CC37 were grouped in with dog burials for this study as my analysis considers them a comparable phenomenon.

Each of the variables is useful in its own way for defining and illuminating the practice of dog burial. By comparing information among river drainages and time periods I was able to control the data spatially and temporally and understand the distribution of dog burials. Language family is important because language boundaries normally mark the boundaries between communities, though not necessarily cultures (Egloff 1992; Potter 1993). I compared dog burials by site type to look for signs of specialized use or possible differences in association. Following the ethnohistories, I looked for dog burials associated with human remains, knowing this was a practice that had existed in the historic period, and compared these to other types of dog burials to get an idea of the range of burial practices in prehistory. This was also the reasoning behind recording the distance to the nearest human burial. Finally, by comparing nearest features I found patterns in dog burials from which I built my model to interpret them. Spatial distances are important because they are how
people structure their world and delineate separate areas (Hall 1966).

There were sixteen individual human remains and an ossuary containing a minimum of twenty-six individuals associated with dog burials in this study. I compared the number of adults and children, and males and females associated with dog burials to determine that dogs accompanied all ages and both sexes. Dogs also accompanied extended, flexed, ossuary, and bundle burial types. The type of burial sometimes distinguishes specialized mortuary practices, perhaps marking different communities of practice or statuses, but multiple types of burials were associated with dog burials for each language family. Sex and age are important attributes as they can show divisions of labor reflected in grave goods. A man’s arrows were buried with him, along with his hunting dogs (Bushnell 1920), but dogs were also buried with women and so cannot only be associated with males and hunting practices.

For the dog burials from Chickahominy River Survey sites it was possible to determine these attributes with more certainty and regularity than those from any of the other sites. I was in possession of the field notes, maps, and artifacts from these sites and was able to cross check them against each other, unlike with the Quarterly Bulletin articles where I was dependent upon the scanty notes and maps provided by the authors. As a result, more detailed knowledge of context, and my original focus on the Chickahominy, I performed the most in-depth analysis of the Chickahominy remains, looking at each site individually and within the broader context of the Chickahominy sites as a whole. It was for these sites that I provided my analysis of individual burials and how they fit into the model set forth in the Theory section.

With a theoretical backing to the patterns observed in the data and in the ethnohistorical material, I created a model to define and explain instances of dog burial in the archaeological record. I used this model to outline the general trends across the region,
and then applied it specifically to the dog burials from the Chickahominy River survey. I also used it when discussing the dogs from the Hatch site, though I had additional recourse to reference another article and their model for understanding the practice of dog burial at the site of Ashkleon (Wapnish and Hesse 1993).

Theory

In areas with evidence for continuity between the peoples recorded in historic times and those in prehistory it can be possible to trace practices and beliefs into the past. Areas shown to be conservative are the best candidates for tracing ritual and religious elements via a Direct Historical Approach (DHA) (Flannery and Marcus 1994). Named by Waldo Wedel, this method was used by early North American archaeologists, who interviewed informants and used their ethnographic data to interpret archaeological sites. These archaeologists felt that their reconstructions were most accurate when there was evidence for continuity from prehistory into their ethnographic era, though they also used their ethnographies to study changes in the past (Flannery and Marcus 1994). I use the model of the Direct Historical Approach as a starting point for my own reconstruction and interpretation of the archaeological record. By tracing historic period practices into the past and observing how they changed over time, we can build a history of prehistory (Pauketat 2001).

The Chickahominy in particular were known to be a conservative group, and overall the archaeological record of the Middle Atlantic shows gradual change, even in the transition to agriculture (Turner 1992). We have accounts of the Coastal Algonquians at the time of Contact and a thorough archaeological record before that point. The problem, and point of departure, arises with the paucity and biases of the historical record when it comes to the Native peoples of the Middle Atlantic region. There is insufficient information from these
sources for a fully contextualized interpretation and so by analogy with similar and related
groups I argue that the sacrifices, rituals and beliefs practiced by northeastern communities
had parallels among historic and prehistoric inhabitants of the current states of Maryland,
Virginia and North Carolina.

Next, the issue becomes to define the terminology used in this analysis of practices
relating to dogs. ‘Practice’ itself needs addressing. Pauketat (2001) explains practice as ‘what
people do’ and talks about it in terms of ‘what ritual does,’ essentially its results for the group.
Here I use it to mean the actions of a person or group and associated ideology, usually
reflecting the agent’s *habitus*. *Habitus*, as Bordieu (2001) defines it, is the set of principles
which “generate and organize practices and representations” that can adapt to their
outcomes without being teleologically responsible for those ends. Here the focus lies on
practices that are also rituals, their purpose and their meaning within the community that
carried out these practices.

I do not necessarily define dog burials as religious, though some ethnographic
elements, such as the White Dog Sacrifice, would fit many researchers’ definitions of
religious activity (Bradley 2005). Even ritual is a problematic term, with each author
proposing their own definition and several arguing that the category is not useful or accurate
(Alexander 1991; Bell 1997; Bradley 2005; Goody 1977; Moore and Mayerhoff 1977; Turner
1977). Bradley writes:

Once it is accepted that ritual is a kind of practice—a performance which is
defined by its own conventions—it becomes easier to understand how it can
occur in so many settings and why it may be attached to so many different
concerns. Once we reject the idea that the only function of ritual is to
communicate religious beliefs, it becomes unnecessary to separate this kind
of activity from the patterns of daily life [Bradley 2005:33].

So, following Bradley (2005), I will not be considering the place of dog burials in
Native religions or looking at the archaeological record for a record of religious events. It
becomes too difficult to distinguish between religious and secular when many of the places and material culture used in daily life also make appearances in religious life (Bradely 2005). Furthermore, this idea of separation presents a false dichotomy which attempts to pull apart interwoven aspects of people’s lives (Renfrew 1994). In fact there is evidence that Virginia Algonquians did not distinguish between what we would term religious and practical ideas or actions as evidenced by the way they made religious and economic comparisons (Williamson 2008).

With ritual separated from religion it becomes easier to fit to the span of the ethnohistorical record, though possibly more unwieldy as a category. Turner (1977:183) defines ritual as “a stereotyped sequence of activities involving gestures, words, and objects, performed in a sequestered place, and designed to influence preternatural entities or forces on behalf of the actors’ goals and interests.” ‘Stereotyped sequences of activities’ might be an acceptable requirement for this study, but not the requirement for a sequestered place, and though supernatural forces may frequently play a role in the accounts of dog sacrifice, they are also not required if we are to separate ritual from religion. Alexander (1991) attempts to expand Turner’s definition to make it more broadly applicable and able to handle secular rituals. He redefines ritual as “a symbolic, self-reflective, performance that makes a transition to a time and space out of the ordinary in order to reflect on an ideal of community and to create, sometimes through routine and sometimes experimentation, the experience of community,” (Alexander 1991: 24). While his attempt to include the secular is admirable, Turner (1992) himself wrote that not all rituals’ end purpose is to create a sense of community; though in this point Alexander strongly echoes earlier writers like Durkheim, who believed the purpose of ritual was to strengthen social cohesion (Moore and Myerhoff 1977).
Bradley (2005) citing Rappaport, writes that one of the threads in anthropology is to view ritual as expressing fundamental beliefs about the world, but disagrees with this point, writing that the purpose of ritual is to be effective. He defines ritual as a form of action, not communication (Bradley 2005). Bell (1997) has the most fitting definition of ritual for the context of this study, though it is not a term or a category of which she is particularly fond. In order to be as precise as possible, her definition is also the longest.

[Ritual is] a complex sociocultural medium variously constructed of tradition, exigency, and self-expression; it is understood to play a wide variety of roles and to communicate a rich density of overdetermined messages and attitudes…. ritual is the medium chosen to invoke those ordered relationships that are thought to obtain between human beings in the here-and-now and non-immediate sources of power, authority and value. Definitions of these relationships in terms of ritual’s vocabulary of gesture and word, in contrast to theological speculation or doctrinal formulation, suggest that the fundamental efficacy of ritual activity lies in its ability to have people embody assumptions about their place in a larger order of things [Bell 1997:xi].

It is from this definition that I will analyze dog burials and discuss the types of ritual that led to these dog remains entering the archaeological record.

Sacrifice also needs to be defined in the context of this study. Turner (1992) sees sacrifice not as a single act, but as a process which is part of the larger process of ritual. He wrote that a sacrifice involves a human agent, an offering from them, and a recipient that is an invisible power capable of helping or hindering the agent (Turner 1992). A compact is made between the two by means of the sacrifice which must be specially reserved for the recipient in a process Turner (1992) terms immolation. The adjustment I would make to Turner’s definition of sacrifice is to say the recipient of the sacrifice is not necessarily an invisible or supernatural power, but is considered more powerful than the agent in whatever relationship the agent is trying to negotiate. For example, when dogs were killed for Henry Hudson as part of his reception by the Delaware, Hudson had the power to accept the
Delaware’s act of inclusion and welcome and act accordingly, or he could have rejected their hospitality.

There are two main types of sacrifice, apotropaic and communitas building (Turner 1992). Apotropaic sacrifices’ purpose is to ward off evil and avert misfortune. Turner (1992) believes these sacrifices are a way of gathering the negative and polluting aspects of social action into a victim and casting it off. These sacrifices tend to be devoted to chthonic divinities, and people do not partake of the offerings but burn them or give them to the spirits completely. In effect the spirits are viewed as causing the negative effects and are bribed to go away (Turner 1992). Apotropaic sacrifices are linked to Turner’s (1977) description of rituals of affliction in which the ritual is performed in order to placate or exorcise an afflicting spirit. This stands in contrast to sacrifices which are linked with the idea of gifts, communion and communitas. In these sacrifices the victim represents the sacrificer giving up what is negative in themself; the offering is often shared by the community, and the whole ritual serves to build community ties (Turner 1992).

Importantly, Turner (1992) makes several points in this article on sacrifice that are crucial to the later analysis of dog burials in the Chesapeake region. First, sacrifice is a way of dealing with relations with living people, ancestors, the recently dead, and spirits. I propose that the sacrifice of dogs reveals how Native communities dealt with the spirit world, the spirits of the dead, and other living people. Second, the “visible domain can communicate with invisible domain only through a liminary object whose destruction or immolation opens a channel between them” (Turner 1992:100). Given the liminal status of dogs in the ethnohistorical literature in general, their constant liminal status made them an ideal sacrificial victim as shown by the frequency with which dogs were used as messengers to the spirit world. Sacrifices can also be used to mark spatial and temporal boundaries, though for
these Turner (1992) focuses on literate societies like the ancient Romans. In these cases, sacrifice can act as a boundary maintaining or changing process, repeated regularly especially in connection with seasonal changes (Turner 1992).

Turner’s work on rites of passage is also one of the driving influences on this study of dog burials, especially the concepts of liminality and death as a rite of passage. Turner (1977:77) describes most rites of passage as “life-crisis ceremonies, which are performed at birth, puberty, marriage, death and so on, to demarcate the passage from one phase to another in the individual’s life-cycle.” The most prominent rites of passage mark major life cycle transitions. The rite of passage is a process with three distinct stages: separation, liminal, and incorporation (Turner 1973). In the separation stage, the person or group is detached from their previous position or state by means of symbolic action. Next, the subject of the ritual enters an ambiguous state that has little in common with their previous or future status and is structurally invisible. Finally, the passage to the new state ends, and the subject enters a well defined and stable state and is once again subject to cultural norms (Turner 1973). In death, the act of dying separates the deceased from the living human world; they then enter a liminal period and their souls linger in the human world, which in some societies can last for a period of days or years. The soul of the dead is believed to finally move on when their bones are put in a final resting place, which is their reincorporation into a new state, that of completely dead (Winzeler 2008). In some cases the liminal period takes place between primary and secondary interment rituals, or as Winzeler (2008) calls them, two-stage mortuary practices.

The liminal period is one of the focuses of Turner’s work (1992) and is the basis for this paper’s claim that dogs are liminal creatures, fitting much of the symbolization of the liminal period. Symbols of the liminal period are often drawn from death, decomposition
and other negative physical processes (Turner 1973). Dogs are linked with death in much Algonquian and Iroquian mythology, either as guards in the afterlife or fellow travelers to the next world. They were used as intermediaries between the human and spirit worlds due to the fact that they already possessed certain liminal qualities. Dogs are both part of the human world and part of the animal world, thus fitting the observation that things in a liminal state are ambiguous and paradoxical (Turner 1973). Following Margaret Holmes Williamson’s (1979) binary divisions of certain aspects of Powhatan cosmology, dogs fit characteristics of both sides of the division, reinforcing their ambiguity. West includes maleness, wilderness, hunting, death/destruction, quiyoucosough, black, Oke, warfare, and enemies. East is linked with: femaleness, the village, gardening, life/creation, werowances and commoners, red/white, the Giant Hare (the creator deity), peace, relations and friends (Williamson 1979). From cultural analogy and the ethnographies we can say that dogs were associated with hunting, death, warfare and enemies, but also with the village, white, relations and friends, men and women. The archaeological record also links dogs with both genders as they are buried in association with members with both sexes.

However Turner’s rites of passage and liminality are not enough to explain what was happening when dogs were killed and fed to visitors by Native groups that did not normally consume dog meat (Schwartz 1997). Earlier I adjusted Turner’s (1992) definition of sacrifice to mean an offering from an agent to a being considered more powerful than the agent and capable of helping or hindering the agent in whatever relationship the agent is trying to negotiate, with the understanding that the being addressed may be another human. It is this negotiation that took place when dogs were killed and offered to guests, and this is as much an act of sacrifice as the strangling of the white dogs during the Midwinter Ceremony. Dogs were valuable and not normally considered a food animal so it is clearly an unusual act to
offer them to guests (Schwartz 1997). This type of sacrifice is centered on communitas, building a sense of connection and community as a way of overcoming the stress created by dealing with a new individual who has the power to be friendly or hostile in their relations with the community (Turner 1992). A symbol can be the “product of interaction between human actors and roles” (Turner 2008:495) and in this case dogs take on the role of the sacrifice victim, normally constructed as a substitute for the sacrificer (Turner 1992). As a result of this interaction the dog comes to symbolize the agent’s own death in order to feed the recipient thereby giving up themself to show hospitality. It is the means by which the sacrificer moves to strengthen community bonds and incorporate the guest into that community. It is Siouan speaking communities that were most often recorded performing this type of sacrifice in the historic period.

The presence of Early and Middle Woodland dog burials among Siouan communities in the Piedmont of North Carolina and along the Roanoke River contrasts to the few appearances of dog burials further north and east in these early periods. It is only in the Late Woodland II that the burials appear frequently across Virginia and Maryland. It is at this time that ossuaries, palisades and simple-stamped ceramics also appear across these two Chesapeake states (Gallivan et al. 2008). In this case it seems that the practice has transferred from one community to another, that dog burials have diffused across the region. Unpopular though diffusion has been since the introduction of New or Processural archaeology, it is impossible to completely discount it as a method by which material appears in a new area and there is now a movement to reincorporate diffusion into archaeological thought (Renfrew and Bahn 2005).

Diffusion normally occurs when new economic and social technologies are developed in one community (Renfrew and Bahn 2005). These practices or technologies
tend to diffuse in ‘packets’ of knowledge and material culture. By tracing the evidence of these packets by identifying the related material culture and their variations across the landscape we can trace the diffusion of the ideologies and knowledge behind these material practices as well (Renfrew and Bahn 2005). When only some of the material attributes of the ‘packet’ are present, it indicates some of the associated knowledge was also absent. By studying the local context where the attributes appear, we can gain an idea of the meaning of the material culture and begin to look at how it was transferred between groups (Renfrew and Bahn 2005). Power and prestige are linked to obscure knowledge and travels abroad, which motivates elites to bring in the new practices, however there are many other ways for ideas to move from community to community (Renfrew and Bahn 2005). Overall diffusion is yet another tool archaeologists have for understanding the complexity of the archaeological record, and one that proves useful in the contexts of the sudden florescence of dog burials across the Chesapeake region. By tracing the movement of a practice across a landscape, we can further build the culture history of the groups living there, and it provides researchers with another tool for mapping culture change through time (Pauketat 2001).

Based on the ethnohistories and the theories relating to ritual, it is possible to make several statements about the meaning and purpose of dog burials. First, dogs were already liminal in Native thought, and this made them ideal sacrifice victims and intermediaries for the spirit world or animal world and the human world. Second, dogs’ liminal status also made them good companions and guards in the afterlife. Third, dogs were eaten when someone was ill for healing purposes, or sacrificed before going to war; this is not an aversion ritual, but a ritual of communion in which spirits or gods are asked to give assistance to human agents. Fourth, dogs were sacrificed as part of welcoming feasts for guests and as part of the preparations for war; this was also a ritual of communion in which
group ties were strengthened. Fifth, dogs were occasionally sacrificed apotropaically in rituals to avert misfortune. Finally, dogs were only eaten ceremonially or when people were starving.

Based on these statements, it is possible to set out certain conditions that one may find in the archaeological record to indicate what type of dog burial practice took place. In the archaeological record: dog remains interred with humans are evidence for dogs acting as companions in the afterlife. Dog remains found disarticulated in trash pits are evidence of ritual feasts either to ask for healing powers, war powers or community integration, or were signs of desperation. Dog remains at feasting sites are evidence of rituals of communion and community building sacrifices. Dog remains at liminal places: palisade lines, boundary areas, and sacred sites, represent rituals of demarcation in which boundaries were marked and maintained. Dog remains that are articulated can be evidence of apotropaic sacrifice, where the dog was sacrificed to gods or spirits in order to prevent or end misfortune like illness. These conditions offer a starting point for further analysis.

**Interpretation**

I. Widespread Trends

The diffusion of dog burials can perhaps be most clearly understood when compared with ossuaries, which are more well-known and also thought to have diffused across the Chesapeake region (Gallivan et al. 2008). Curry (1999), following Ubelaker defines ossuaries as “collective, secondary deposit” of skeletal remains previously stored elsewhere. Ossuaries are found archaeologically in Massachusetts and New York, as well as across the Southeast. Examples in Central Coastal North Carolina date from 600 to 1300 CE and seem to combine Algonquian and Siouan traits while in the Northern Coastal Plain, ossuaries are the normal type of burial in the Late Woodland (Curry 1999). Gallivan et al (2008) write that
ossuaries served to transform the newly deceased into ancestors and possibly also acted in the creation of communities, with disparate groups coming together for ossuary rituals during the Late Woodland II.

Curry believes Maryland ossuaries date ca. 1450-1700 CE, while Gallivan et al. (2008) date Virginia ossuaries to the Late Woodland II, ca 1200-1500 CE. Factored together with the North Carolina dates, there is an overlap in ossuary use in adjoining regions, and a seeming shift of the trend northwards, a gradual diffusion. Dog burials are found in ossuaries in Virginia and Maryland and their dates broadly follow a similar pattern (Barka 1968-73; Curry 1999). The same can be said with the presence of a relatively even number of dog burials from Siouan-speaking groups from the Early Woodland through the Contact Period, whereas there is a sudden increase among Algonquian and Iroquoian speakers during the Late Woodland II, continuing to a lesser extent into the Contact Period. The same pattern occurs when looking at the drainages on which dog burials occur with burials present at the earliest and latest periods in the Roanoke River drainage and the North Carolina Piedmont and appearing in large numbers starting in the Late Woodland II in the James and Potomac drainages. This is clear evidence of the diffusion of dog burials from southern, Siouan-speaking areas into northern Algonquian and Iroquoian communities.
Dog burials are found with ossuaries from time to time in Maryland and Virginia, they are found with several other burial types, including extended, bundle, and flexed. Among Siouan speakers, dog burials occurred with all but ossuaries and among Algonquian speakers they appeared with bundles and ossuaries. Of the burials where sex could be determined, excluding the ossuary, four of the associated humans were female and three were male, while nine were adults and four were children or infants. Though a small sample, it is sufficient to indicate that dogs were interred with all sections of the population and not sex or age segregated. In the Middle Atlantic dogs could accompany anyone into the afterlife. Their accompaniment had the additional impact of symbolizing the deceased’s transition to ancestor status. Dogs are given the role of companion in a sacrifice that reincorporates the dead into ancestors and thus the dog ends up symbolizing that new role.

Another interesting feature of the data was the distance from dog burials to human remains. When put into a histogram the distances form a tri-modal distribution, clustered at less than five feet, twenty feet and over fifty feet. The first mode is due to the close association of dog burials and human burials, but the other two modes are less clear. The second mode could reflect the average distance between similar features on typical Native sites while the third seems to represent intentional distancing.
Dog Burials Distance to Nearest Human Remains

Dogs Associated with Humans, % by Site Type

Dogs Associated with Humans, % by Language Family

Dogs Associated with Humans, % by Drainage
Palisaded sites have higher numbers of dog burials, and the three sites with the most dog burials in the Chesapeake region were all palisaded. Palisades, along with ossuaries, are part of the ‘packet’ of material culture traits that appear north of the Roanoke drainage starting in the Late Woodland II. So it is no surprise to find dog burials associated with these sites, though the comparison to village sites without identified palisades is surprising. Out of the final database of dog burials, twenty dog burials were from village sites without an identified palisade, while forty one dog and pig burials were from palisaded sites, the remaining ten were from ceremonial and other sites. At palisaded sites, the nearest feature to dog burials is the palisade 25.6% of the time, while houses are the nearest feature another 5% of the time, compared to pits which are closest 30% of the time. This differs from village sites where pits are the nearest feature 40% of the time.

**Dog Burials by Woodland Period and Site Type**

II. Chickahominy River Survey Sites

Four sites from the Chickahominy River Survey contained dog burials, these range from one at 44NK117 to possibly seven at 44CC37, though that site includes the additional presence of at least three pig burials. Starting with the earliest site and working forward, it is possible to track how dog burials changed over time in the Chickahominy and this method also neatly divides the types of sites at which these burials occurred.

44CC43 (Clark’s Old Neck) is the oldest site in the assemblage to contain animal
burials. It is an unusual site, not a village but a ceremonial site, with enormous pits over ten feet wide and four feet deep, and one large post structure to the south of these pits. The site seems to have been a place for feasting with rich deposits of faunal remains and decorated pottery in the pits. Altogether these large features contain over three thousand sherds of pottery, more than that recovered from all the feature contexts of 44CC29, a moderate village. In four of the pits 60R2, 18C2, 67A2, and F1, a dog burial occurred in the upper layers of the pit, while 60R2 contained a second dog burial on the opposite side of the pit. These features were radiocarbon dated to the thirteenth century AD. These dog remains were articulated and largely complete, with no large elements obviously removed. In pit 60R2, two human burials radiocarbon dated to 1520 +/- 90 CE intrude into one of the large pits, but apart from these, the dog burials are not possibly associated with human remains. The dog burials are associated with a feasting site, indicating a community centered sacrifice took place at the end of the feasting ceremonies.

The time around 1200 CE, to which most of the features date, marks a transitional period in Native lifeways in the area surrounding the Chickahominy. Across Virginia people were inhabiting larger, more sedentary villages as farming corn became an ingrained part of life, and there was a shift in political organization to chiefdoms, which the Chickahominy resisted (Tooker 1895; Turner 1992). During a period of change, especially with the groups surrounding them shifting their political organization, traditional social gatherings and feasting reinforced group identity and strengthened ties. The sacrifice of dogs, coming at the end of the feasting, served as a final means by which to strengthen the community as members gave up valuable possessions for the sake of the group.

Next in our chronology is 44CC29, a village site on the west bank of the Chickahominy River. It has radiocarbon dates from the twelfth and fifteenth centuries AD,
placing the main occupation in the Late Woodland II. The site contains two dog burials in two quite different contexts. The first occurred on the edge of ossuary five. Here the dog was placed just outside the circle of human remains, and unlike the human remains, was articulated, indicating that it was not processed prior to interment. In its position adjacent to the human remains, it is unlikely that the dog was an accidental inclusion in the ossuary, as has been claimed at other sites (Curry 1999). Instead this burial fits the model for a sacrifice that was meant to accompany the spirits of the ancestors to the afterlife. The dog helped incorporate the remains as ancestors during their interment, which was part of a two-step mortuary practice (Winzeler 2008). Before this ritual, the spirits of the deceased has not yet moved on to the afterlife, but with the sacrifice of the dog they could journey together to the afterlife.

The other dog at 44CC29 was buried individually in the southwestern portion of the site. The test units around it were not excavated and the nearest feature was a trash pit fifteen feet away. With this lack of identifying artifacts or features, it was difficult to understand why this dog was placed where it was. It was buried along the edge of the site which makes it a contender for a boundary marking sacrifice. The fact that the dog was articulated and nearly complete is evidence of apotropaic sacrifice, as opposed to rituals of communion. The dog in this case was an offering to propitiate the gods, to prevent misfortune and protect the boundaries of the site. There is evidence of ceremonial burning on top of the dog burial, a practice sometimes associated with human burials, as at the Gaston Site or the sacrifice of tobacco (South 2005; Tooker 1965). Burning is a way of sending offerings to the gods in the ethnohistorical literature and here is another sign that the dog was a sacrifice and not an ordinary dog buried simply for disposal purposes.

A similar burial occurs at 44NK117, a small village site on a marshy peninsula in the
Chickahominy River. This burial is the only one in the assemblage with grave goods. The dog at 44NK117 was buried with a small, shattered Roanoke simple-stamped pot. Simple-stamped pottery is rare in the Chickahominy assemblage. Introduced to the area north of the James River around 1400 CE, it caught on in surrounding areas, but is conspicuously absent from Chickahominy sites. In the face of the cultural conservatism of the Chickahominy, this pot could be an import from surrounding groups or it could be evidence of one of the few instances of intermarriage with groups to the south among a largely endogamous community (Stern 1952). The broken pieces of the pot were found covering the dog’s remains and it is unlikely that the sherds were an accidental inclusion in this feature, especially as most could be cross-mended and they were in excellent condition. Charcoal from the feature was radiocarbon dated to AD 1430 +/- 60.

The dog burial at the center of the site means that it is not likely to be a boundary marker or indicating a transitional area, but is evidence of apotropaic sacrifice. The inclusion of the simple-stamped pot acts as an additional sacrifice, and the fact that in spite of its intentional placement the entire pot was not recovered and was broken into so many pieces (over eighty) indicates that the pot was ritually ‘killed’ to accompany the dog. Other objects, including ribbons and tobacco were included with the dog sacrifices during the White Dog Sacrifice, and were also seen as offering to the gods, so it is not impossible that this pot followed a similar model (Tooker 1965). The model is unclear on what ritual this sacrifice could be a part of and it is possible that this burial is the result of a ritual that had no parallels among other communities, or one that died out before the Contact period.

The final site from the Chickahominy River Survey to contain dog burials was 44CC37A, also known as Buck’s Farm. The site, comprised of two concentric palisade ditches and a series of pits and post holes, was too small to have contained a village as the
first excavators thought, since it is approximately 100 ft long and less than 60 ft wide. Its unusual size and the presence of so many animal burials (eleven according to field notes) make it a likely candidate for a Quiyoughcosan, a temple similar to that described by the Jamestown colonists, with a resident priest but few other people present (Shephard 2008). The site is also marked by large burned areas radiocarbon dated to the late sixteenth century that indicate its destruction in the pre-contact period.

The animal burials are a distinctive feature of the site, with an unusual concentration on the northern half, near the palisade lines. The original excavators noted a total of eleven burials, one of which they believed to be a bird and ten which they believed to be dogs (Barka 1968-1973). Of these burials only three remain in curation with the rest of the collection and when these three were analyzed by a faunal specialist they were found to be juvenile pigs, not dogs (Coonan, personal communication, 2008). The presence of pigs at this site seems puzzling since they were introduced by Europeans and are typically associated with historic Euro-American sites. However, even prior to 1607, feral pigs left by the Spanish entradas were already spreading throughout the Eastern Woodlands (Anderson 2008). The English only added to their numbers, letting their livestock roam free in the woods where it was occasionally hunted or claimed by Native people (Stern 1952).

Site 44CC37 lacks an historic component, and no historic artifacts were recovered from feature contexts beyond the pig remains and a few kaolin pipe fragments. There does not appear to have been a colonial farmstead near the site and the standing structure dated to the 19th century. When radio-carbon dated one of the pig burials, Burial 3, had a calibrated one sigma range of 1680-1740 CE and 1810-present. The earliest its two sigma range reached was 1670 CE. These patterns indicate that these pigs were not placed on the site by Euro-Americans, but were buried by historic period Chickahominies. Even during the mid-
eighteenth century, Monacans and Nanticokes are known to have returned to their ancestral lands, either to perform rites or to retrieve their ancestors’ remains (Bushnell 1920, 1930). Buck’s Farm was obviously an important site to the pre-Contact Chickahominy and probably a sacred one (Shephard 2008). It retained its importance after colonization, demonstrated by the continued depositions at the site. The pigs (Br 2, Br 3, Br 4) were buried in a north-south line perpendicular to the double palisade at this ceremonial site. These pigs were filling roles previously filled by dogs, acting in boundary delineating sacrifices. These sacrifices reestablished connection with the site and marked its continued importance by renewing its boundaries.
It may be important that both sites from the Chickahominy River Survey that have several dog burials mark important transitions. Site 44CC43 represents the shift from Late Woodland I to Late Woodland II and the attendant change toward a horticultural society with increasing hierarchy. Site 44CC37 likewise marks a shift, but the more dramatic one of colonization and forced migration. Dog burials increased during these periods of change especially at places that marked the boundaries between groups, and the dog burials at these sites represent rituals of integration and community building.

III. Hatch

To the south of the Chickahominy sites, on the southern bank of the James River, lies the Hatch site, one of the most fascinating native villages in Coastal Virginia. Hatch stands on the former boundary of the Powhatan chiefdom and near enough to the Fall Line to have had interaction with the Monacans. The site also appears to have continued into the Early Fort Period (1607-1622 CE) with a large amount of European trade goods identified among the artifacts and several prominent early Colonial features (Gregory 1980; Blick 2000). The majority of information from the site has not been published and only a preliminary report on the first part of the excavation is available, so it is not possible to trace the temporal affiliations of the features or even the ceramic sequence, which was not reported according to the standard regional typology of wares (Gregory 1980).

In spite of the difficulties brought about by the lack of reporting, it is possible to make some preliminary conclusions about the nature of the dog burials at Hatch. The sheer number of dog burials at the site demonstrate its uniqueness, regardless of its historic component or placement at a transitional area between native groups, both of which separately are enough to make it an interesting site. One hundred and twelve dogs have been excavated from feature contexts at Hatch, including contexts that contained human
remains and pits containing other dog burials (Blick 2000). In the case of the two dogs buried in association with an elderly female’s skeleton, I agree with Blick’s (2000) assessment that these dogs most likely belonged to the woman during her lifetime and that they were meant to accompany the woman to the afterlife. There are also two dogs buried directly on top of severed human forearms. Blick (2000) believes these to be linked to trophy taking, with the arms removed from the corpses of enemies, and the dogs acting to restrain the spirit of the enemy in the afterlife. He also offers that it is possible the dogs are symbolic of defeat or serve some other purpose. Given the close association between dogs and warfare, his line of reasoning is sound and the dogs appear to be guarding the arms and symbolizing what was done to the enemies in defeat.

However, perhaps the most important aspect of the Hatch site is the presence of 108 other dog burials, none of which were associated with human remains. Hatch was not an extraordinarily large village, and yet it has an extraordinary number of dog burials. Blick does not offer an explanation of this practice and so another study of an unusual number of dog burials presents a point of departure for the discussion of the Hatch site’s dogs. Wapnish and Hesse (1993) define a syncretism, in the context of their study of the Ashkleon dog burials, as “a local amalgam of attitudes towards dogs and burial ritual that cannot be attributed to a particular culture” (1993:56) In their case they were discussing the multiple cultures that had inhabited the ancient city of Ashkleon and those cultures’ attitudes towards and practices involving dogs. Wapnish and Hesse (1993) concluded had eventually built upon each other until the people of Ashkleon buried every dog that died within the city limits, not as part of a ritual, but as a tradition that had developed locally.

The Hatch site was inhabited by the Weyanokes, an Algonquian-speaking group incorporated into Powhatan’s chiefdom during the end of the sixteenth century (Blick 2000).
Their land was bordered to the west by Siouan-speaking Monacans, to the south by Iroquoian groups along the Nottoway and Meherrin Rivers and to the southeast by independent Algonquian groups (Gallivan et al 2008). There was a great deal of interaction among these groups and the Weyanokes were known as traders when the English arrived (Gregory 1980). All of the language groups bordering the Weyanokes are associated with different traditions related to dogs and with the Weyanokes carrying on relations with these groups it is not surprising that a unique practice related to dogs should develop at the village at the Hatch site. Many of the dogs are buried in disused storage pits, the percentage of immature dog remains represents the expected rate of infant mortality, and there is also a significant incidence of pathology in the Hatch dog remains, with nearly forty percent exhibiting some type of pathology (Blick 1988; Gregory 1980). Given the sheer number of dogs recovered from the site, and these patterns, the most reasonable explanation for the burials is that the people of Hatch developed a tradition of burying dogs that died of natural causes. It is probable that some of the dogs from Hatch are also the results of sacrifice, but until a detailed study of the dogs and their positions within the site is published, it is not possible to separate these from the main body of dog burials.

**Conclusion**

This research set out to understand the practice of dog burial among Native groups from Maryland to North Carolina. The combined archaeological evidence and ethnographic examples suggested a model whereby one could determine the type of ritual sacrifice that produced a dog burial. Dog burials associated with human burials are evidence of dogs accompanying the spirits of deceased humans into the afterlife. Dog burials at feasting sites are the results of sacrifices that built and strengthen community bonds, while dog burials in
liminal areas are evidence of boundary marking sacrifices. Additionally, other dog burials represent sacrifices in which the dog acted as a messenger to the spirit world to intervene with the spirits to end or prevent misfortunes. Disarticulated dog remains are evidence for ritual consumption of dogs, normally in sacrifices that brought together members of the community.

Across the study area dogs are found in contexts that match up with the points from the interpretive model. About one third of dog burials are associated with human remains, indicating dogs’ role as a companion in the afterlife. A quarter of dog burials at palisaded sites are buried in close proximity to the palisade lines, indicating their use in boundary related sacrifices. Dog remains also occur in contexts linked to the other propositions of the model. Specifically, dogs from the Chickahominy River Survey fit the roles of companions, intermediaries and proxy victims in sacrifice, and are present in communitas focused sacrifices. The Hatch site stands in contrast to this, with the majority of the site’s dogs the product of a local practice that required the burial of dogs that died of natural causes.

While these conclusions go a long way towards expanding our interpretations of dog burials and allow us to analyze specific burials, as with the Chickahominy River Survey dog burials, there is much room for further study. More comprehensive reporting of dog burials would greatly improve the assessment of regional patterns and eventually allow for statistical analysis along with an expansion of the model. It is not difficult or time consuming to briefly explain the condition of a dog burial in a site report and include the feature on the site map, but this would vastly increase our knowledge of dog burials in the Middle Atlantic. A more comprehensive survey of North Carolina and Maryland dog burials would also expand the range of this study, which is still largely focused on Virginia dog burials. The inclusion of more Maryland and North Carolina dog burials would increase the ability to compare
regional differences and the geographic and temporal range of dog burials. It would also give us a better picture of the diffusion of these practices, especially in relation to the other forms of material culture that diffused across the same region. A full report on the Hatch site or its dog burials would be able to prove or to disprove my assertion that the burials represent interment after natural death.

This study is as comprehensive as was possible given my resources, but there are several limitations. For many sites, the site reports were not detailed enough to determine all of the attributes I was studying. These represent unfortunate gaps in my data. There was enough information to determine general trends in dog burial across the region but complete reports would have provided much greater certainty about these trends and perhaps provided nuances absent from this study. The unclear dating of several sites and features in sites with a long occupation also proved troublesome when attempting to control for time. When looking at distances between features on sites I assumed contemporaneous deposition or some knowledge of the position of previous features, which obviously is not necessarily the case at sites like Gaston where there are a series of occupations stretching over several hundred years. Better control of time would allow for greater accuracy of interpretation. Also, I could not limit my use of ethnohistorical accounts to those from the Native Americans of North Carolina, Virginia and Maryland because of their paucity. Instead, I included extensive information from related groups across northeastern North America, perhaps diluting the interpretative power of model by the inclusion of too many possible interpretations.

In spite of the limitations of this study, I believe the methodology and interpretations are still sound examples of archaeological research. With a grounding in theory and the archaeological record, expanded upon and fleshed out by extensive ethnohistorical resources,
the conclusions of this study are a reasonable starting point for further work on and interpretation of dog burials from the Chesapeake region.
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1. For further information see Gallivan et al. 2009  
2. Davis et al. 1997  
3. MacCord 1971  
4. Muraca 1989  
5. Holland 1983  
6. Gregory 1987  
7. Carroll 1955  
8. MacCord and Buchanan 1980  
10. Woodward and Slattery 1992  
14. Wells 1971  
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