

CONSUMPTION AND COLONIALISM:
A ZOOARCHAEOLOGICAL ANALYSIS OF TWO EIGHTEENTH-CENTURY SITES
ON THE EASTERN PEQUOT RESERVATION

A Thesis Presented

by

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ABSTRACT

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By the late eighteenth century, the Eastern Pequot had occupied their reservation in North Stonington, Connecticut for a century. That hundred-year span saw many changes and modifications to native lifeways. This thesis examined one portion of those adaptations through the investigation of two mid- to late-eighteenth century Eastern Pequot faunal assemblages. The first goal of this research was to determine the animals eaten on those sites. With these data, it was then possible to evaluate how the faunal collections related to broader theoretical issues of identity, hybridity, and colonialism.

The two sites under investigation were occupied at slightly different times, with Site 102-124 dating to the mid-eighteenth century and Site 102-123 a few decades later. The faunal remains were quantified with standard zooarchaeological calculations: NISP,

MNI, and biomass. These statistics were coupled with soil pH analysis, documentary data, and other collections from the reservation and surrounding region to evaluate the significance of different components of each assemblage. The results provided data that were then used to draw conclusions about native lifeways in New England in the eighteenth century.

Domesticated mammal bones, particularly cattle and pig, made up the majority of both assemblages. Animals of this type had become prevalent throughout New England by the middle of the eighteenth century. Each assemblage also contained bones from several wild species, demonstrating that the Eastern Pequot continued to acquire and consume local, non-domesticated food sources. Documentary records indicated that Eastern Pequot people were active in the local marketplace, buying and selling meat. All of this information exemplified the economic and social complexities through which native people navigated.

The results of this study showed that Eastern Pequot diet had changed to include domesticates and wild foods. The large amount of calcined bone on each site and the shell midden on Site 102-123 likewise suggested the perpetuation of native practices that predated colonization. These data showed that despite the presence of European domesticates on the reservation did not equate to a Euro-American diet. In fact, the Eastern Pequot reconstitution of some domesticated food sources actually represents their hybridized identity in the colonial world.

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CHAPTER I

INTRODUCTION

Since the mid-twentieth century, zooarchaeological investigations have examined the interactions of Euro-American and native people in North America. Faunal analysis has contributed much to investigations of colonialism, identity, and consumption (Bowen 1990; Dietler 2007; McBride 1993a, 2005; Mrozowski et al 2005; Wake 1997). Not only have these types of projects provided insight into what people ate, but also how they mediated their place in the world. Numerous archaeological studies have demonstrated that studying foodways can lead to a better understanding of broader social issues such as resistance and identity in colonial contexts.

Examining food and its acquisition, consumption, and disposal makes it possible to deconstruct some of the complexity inherent in colonial studies. The choices made by the eighteenth-century Eastern Pequot involved the combination of old and new food sources as a method for dealing with Euro-American oppression. This thesis claims that the presence of both wild and domesticated food sources in the two assemblages under examination represents one aspect of the hybridization of native group and individual identity. Species represented on the two sites as well as the way in which they were disposed of show how the Eastern Pequot incorporated European and native practices into their daily lives. The ultimate goal of this research is to demonstrate how the faunal

remains examined in this thesis represent intentional efforts by the Eastern Pequot to display their own modified identity within the eighteenth-century colonial world.

Zooarchaeology and Colonialism

Faunal assemblages offer a useful way to investigate different aspects of colonialism. The “analysis of vertebrate remains can provide information regarding both persistence and change in the inhabitants’ diets that is simply unavailable in the historical record” (Wake 1997: 89). In a colonial context, zooarchaeological methods make it possible to determine not only what people ate, but how dietary choices can relate to broader social issues. The complexity of the struggles that occurred between native people and European colonizers cannot be reduced to a single summary. However, faunal material can aid in a better understanding of consumption practices, resource acquisition, the continuation of pre-colonial practices, and the adoption of newly introduced European ones (Lapham 2004; Pavao-Zuckerman 2007; Wagner 1997; Wake 1997).

One of the most commonly addressed issues in this line of research is how native people dealt with the introduction of domesticated animals. Animal husbandry is generally viewed as part of the spread of European influence, particularly in North America where the dog was the only domesticate prior to the onset of colonization. However, native groups did not instantaneously adopt domesticates and forego their previous lifeways. The response varied from group to group, representing the diversity of interactions that occurred between natives and colonists.

Some native groups continued using wild animals well after the introduction of domesticated animals. Two separate studies focused on native communities in the

southeastern United States recovered assemblages from the eighteenth and nineteenth century that consisted largely of wild animal remains (Pavao-Zuckerman 2007; Wagner 1997). A lack of domesticates in some cases has been interpreted as “a deliberate rejection of European animals” (Wagner 1997: 446). The exact nature and motivation behind this type of rejection varied. In some instances, animal husbandry proved incompatible with the mobile lifestyle of native communities (Pavao-Zuckerman 2007: 26). Clearly some groups succeeded in at least temporarily resisting changes to their dietary practices.

Zooarchaeological research in the mid-Atlantic and southeastern United States demonstrated how native people used wild animals to enhance their position for dealing with colonizers and the imposed capitalist economy. Studies have noted a marked increase in the amount of deer remains deposited in response to the growth of the trans-Atlantic fur trade (Lapham 2004; Pavao-Zuckerman 2007). Native groups exploited the European demand for furs by supplying extra deer in return for an increased amount of manufactured goods. Increased trade often led to over-hunting, which eventually destroyed deer populations (Lapham 2004: 3000). Other factors such as land encroachment and war also reduced the activity of native traders (Pavao-Zuckerman 2007: 29). In these instances, behavioral changes allowed native people to trade with colonizers, but also contributed to their gradual marginalization in the market.

Domesticated animals gradually became an integral part of native diet in New England. As some groups were forced onto reservations and others simply lost access to hunting grounds, food acquisition strategies changed. Individuals “made active decisions regarding cultural influences they would accept on the basis of utility, preference, and

availability as well as the cultural norms of their society” (Wagner 1997: 450). The shift from a diet relying heavily on wild animals to one consisting largely of domesticates represented a change in how native people identified themselves and defined their relationships with others (Wake 1997: 103). Different groups may have eaten the same types of food, but the meanings embedded in such activities could be quite disparate.

Zooarchaeological research has tried to investigate the notion that “you are what you eat, and you show people who you are by what you eat” (Wake 1997: 103). Examining the faunal assemblages from native sites shows the complexity surrounding the adoption of domesticated animals. Shifts in food choice often did not occur by similar means. Rather, people made dietary decisions based on their current status as determined by social, political, and other factors. Faunal remains can be used to evaluate some of these unseen aspects of European colonization.

Changing dietary patterns are but one critical avenue for examining the impact of colonialism. Native lifeways were challenged as colonial communities spread across the landscape. Evidence of this can be seen in New England where the gradual development of permanent dwellings has been viewed as a shift from seasonal migrations to a more sedentary lifestyle (McBride 1993b: 115). Native people had used domesticated animals prior to this later colonial period, but for some communities the occupation of a single location year-round meant that they could more readily raise livestock and participate in the colonial marketplace (Silverman 2003). European colonization did not just change what native people consumed, but how they acquired, used, and perceived those changes. Zooarchaeology can aid in efforts to distinguish exactly how native people went about negotiating the use of old and new resources.

Theoretical Background

The notion of consumption used in this research does not involve the ideas developed by Mullins (2004) in describing the consumer culture that evolved in the nineteenth century. It refers instead to the more basic purchase, eating, and disposal of faunal material. One summary of this type of consumption defines it as “a process of structured improvisation that continually materializes cultural order by also dealing with alien objects and practices through either transformative appropriation and assimilation or rejection” (Dietler 2007: 225). The material remains of this “transformative appropriation and assimilation or rejection” are telling of broader changes transpiring in colonial society. In this thesis, the choices made by the Eastern Pequot require evaluation within the context of eighteenth-century colonial life. The influences of reservation life and Euro-American encroachment played a significant part in shaping how the Eastern Pequot made food choices.

Some of the central questions posed in archaeological investigations of colonial diet are “why do people sometimes change their food habits in situations of colonial contact-in particular, why do they adopt alien foods and food practices? And when they do, what consequences does this entail?” (Dietler 2007: 223). Because this thesis focuses on animal remains, these concerns are particularly cogent. Faunal assemblages make it possible to investigate changes in foodways because of “the obvious need for people to eat and the archaeological capacity to track dietary practices” (Silliman 2004: 179). Such changes can be indicative of the type and frequency of interactions that occurred between natives and colonists.

European colonization of the Americas began with the notion that the land was a “*terra nullius*,” meaning that it was empty and unoccupied. This notion that all land was free for the taking meant that it was often “confiscated from the care of the indigenous inhabitants, removing the physical basis of peoples’ lives, the source of food, shelter and raw materials, but also the spiritual foundation of life” (Gosden 2004: 28). Colonists intended the separation of native people from their land base to serve as a destabilizing force. While native groups did undergo changes as a direct result of colonial expansion, they also persisted through the selective adoption of certain aspects of Euro-American material culture and behavior. Native people who faced the threat posed by Euro-American colonists struggled with how to preserve their identity and also change to meet the demands of their world.

Variation in the consumption of material goods in a colonial situation may reflect changes in individual and group identity. For native people, “the construction of identity, even a creolized one, in pluralistic settings is not simply a response or reaction to colonialism, but a more complex and varied process” (Rubertone 2000: 438). Examining identity involves the consideration of cultural background, personal choice, and the daily situation in which a person lived (Jones 1999: 226). Native communities had to choose how to combine new objects and ideas with those they had used in the past. These decisions allowed native people to change some of their behaviors but still identify as a member of their own community.

The ways in which native people combined their own practices with those of Euro-Americans have been termed hybridization/creolization (Bhabha 1985; Trouillot 2002). The concept behind these two terms indicates that people and the objects they

used existed in a manner that was neither completely native nor European. This confluence of ideas and practices “cannot be understood outside of the various contexts within which it occurred” (Trouillot 2002: 195). Incorporating notions of hybridity into analysis of colonial interactions recognizes that native people have the ability to play an active role in making decisions about their response to Euro-American influence. Hybridized colonial practices show that natives “did not accept Western culture entirely; they negotiated a path of their own” (Mrozowski 1996: 470). Understanding this negotiation is central to evaluating hybridized native identity.

When applying the notion of hybridization to native-colonial relations, it is important to distinguish it from the now outdated concept of acculturation. Proponents of the acculturation model viewed “North American intercultural contacts as brief, decisive, and one-sided confrontations rather than as protracted, cumulative, and reciprocal associations” (Wood 1994: 486). More current research has tried to evaluate the complexity and uniqueness of each interaction between colonists and native people. The notions of hybridization and creolization attempt to demonstrate that colonial interactions were not unidirectional, but provided native people with opportunities to make choices regarding their position in the relationship. Laurier Turgeon’s (1997) article “The Tale of the Kettle: Odyssey of an Intercultural Object” provides an apt archaeological example of this type of negotiation. His research recognized that native people in Canada used European copper kettles to maintain and strengthen dietary and religious practices that existed prior to colonization. Clearly native groups could not completely avoid the use of European material culture, but the ways in which they did so often allowed for the retention of longstanding pre-colonial practices.

Recent colonial studies have sought to demonstrate exactly how native people modified their material culture. Some studies have identified certain artifacts that were reconstituted for native purposes that predated colonization (Loren 2003; Turgeon 1997). Research of this type has also identified situations where native people combined their own goods with European ones. This type of behavior represents the discourse of resistance where “colonial officials wished to control the bodies of colonial subjects who in turn manipulated their bodies to create new identities at the intersection of discourse and lived experience” (Loren 2003: 236). Analyzing the modification and use of European-introduced goods along with pre-colonial behaviors is a critical component of this thesis. These articles do not discuss foodways, but do demonstrate the varied abilities of native people to redefine what is typically thought of as “European.”

Colonial efforts to make native people act more like Europeans often masked the complexity of this interaction. This stems from the “necessity of creating the other as the other-the different, the alien-and incorporating the other within a single social and cultural system of domination” (Sider 1987: 7). Native people did not passively accept European goods; rather they incorporated what could be used to improve their situation. In evaluating this material adoption, it has been suggested that

exchange with Europeans also opened a breach through which the latter penetrated the native group; thus it was necessary for this group to develop certain symbolic practices and, perhaps even more important, to affirm its identity by recourse to objects whose origins lay with the other (Turgeon 1997: 21).

This behavior indicates that material remains and the meaning behind them must be independent of one another. Artifacts can have multiple lives, a product of the multi-faceted situations created by colonization.

Reservation space served as a crucial component of identity formation through the demarcation of a piece of land that was at least initially defined as “native-owned.” To investigate this concept, archaeological research “must get away from essentialist notions of what indigenous material culture looks like and instead focus on how individuals materially and contextually constructed or expressed identities” (Silliman 2005a: 68). For native people, colonial-era choices were influenced by newly introduced Euro-American practices as well as “the power of indigenous knowledge, the locus of which was kin and community relations as well as ties to land” (Den Ouden 2005: 57). This “indigenous knowledge” could include food acquisition and disposal techniques.

The faunal remains examined in this thesis indicate that the eighteenth-century Eastern Pequot were able to preserve elements of their pre-colonial lifeways while adding Euro-American practices. While many of the bones were identified as European-introduced domesticates, the presence of shellfish, white-tailed deer, and other small mammals showed that the Eastern Pequot had modified their diet but still relied on wild resources. The persistence of wild foods in the diet of the occupants of the two sites studied in this project well into the eighteenth century showed that

the demands of reservation life and the locally renewed and, to some extent, transformed significance of indigenous knowledges and ways of life – as they were expressed even in the most routine of practices, such as subsistence

activities – hampered the colonial “civilizing” mission just as they proclaimed Natives’ enduring connection to their homelands (Den Ouden 2005: 64).

Knowledge of Eastern Pequot foodways could have been one avenue for older generations to connect with those younger and less familiar with past lifeways. Local knowledge and its reinforcement of native identity aided in the adoption or rejection of different aspects of Euro-American life.

Examining faunal remains from a native reservation helps “to integrate the exploration of consumption within an analysis of power” (Dietler 2007: 223). The discussion above demonstrates the complexity inherent in native-colonial interaction. Native people faced the difficult task of consuming a new range of goods and reinforcing their independent identity. This often involved the use of certain objects and rejection of others as an intentional method for resisting colonial domination (Scott 1985). Hybridization of new and old practices reshaped how people lived and behaved. The evaluation of this complex process helps express the dynamic relationship that existed in the eighteenth century between natives and colonizers.

The Eastern Pequot Case Study

The issues discussed in this introduction are complex and warrant detailed analysis. This type of research is possible on the Eastern Pequot reservation, which represents 325 years of native history in colonial times. In 1683, the colonial government of Connecticut allotted a plot of land in North Stonington, Connecticut (shown in Figure 1.1) for the Eastern Pequot that has been continuously occupied ever since (Figure 1.1). The Eastern Pequot of the eighteenth century were a people battling for survival. They had been on a reservation for several generations, making it impossible to retain all of the

lifeways of their ancestors. The adoption of certain colonial ideas should not be seen as acquiescence, but as an active choice that demonstrates “the ability of an individual to act in the face of alternatives and in ways congruent with past practices and future expectations” (Silliman 2005a: 281). Decisions made by the Eastern Pequot shaped how they represented themselves within the structures of Euro-American society.

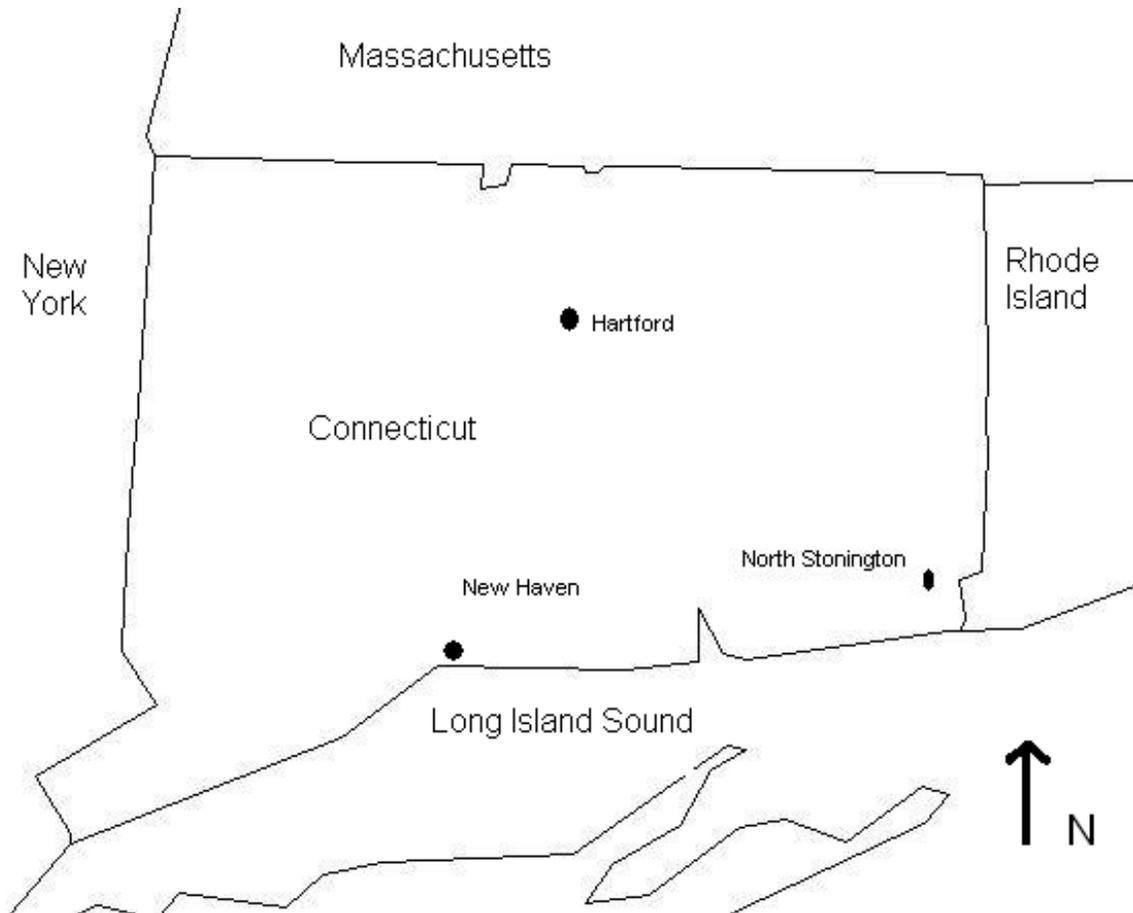


Figure 1.1: Map of Connecticut

Archaeological investigations on the reservation have been ongoing since the summer of 2003. From the outset, this project has emphasized the development of collaborative indigenous archaeology on the reservation. This type of work allows the Eastern Pequot and academically-trained archaeologists to work in conjunction in all

aspects of the project. In addition, “academic archaeologists can conduct research that is rigorous, empirically sound, theoretically engaging, and methodologically tight to meet scholarly community standards” (Silliman and Dring 2008: 19). The collaborative Eastern Pequot field school offers tribal members and field school students the opportunity to interact and discuss their ideas about findings. This ensures that many viewpoints are considered, and no one group’s voice is obscured.

This thesis focuses on two separate sites on the reservation. Investigating these sites allows for the assessment of the household identity of Eastern Pequot people living in different decades of the eighteenth century. The completion of this project makes it possible to track dietary practices on the reservation across more than 50 years. This aids in one of the overarching goals of this fieldwork, to “[e]xamine when and where households first began using framed houses on the reservation...and how their material culture and food remains compared to neighbors in framed houses and in wigwams” (Silliman 2006: 9). Each of these sites provides details about the behavior of a small portion of the Eastern Pequot population. Comparing these assemblages allows for the identification of small-scale changes that figure prominently in the overall interpretation of each site.

Faunal remains from these two sites are the main focus of this research. The variety of animal species, and the frequency and treatment of bones are indicators of how the Eastern Pequot acquired and consumed their food in the eighteenth century. All of this information connects dietary practice to broader issues of consumption and identity. With the resulting data, the two assemblages under consideration can be used to better understand the eighteenth-century Eastern Pequot.

An additional line of evidence exists in the form of the account books of Jonathan Wheeler from southeastern Connecticut. These store ledgers span most of the eighteenth century and document transactions with native people and colonists in the region. Wheeler lived three miles from the Eastern Pequot reservation, and research conducted by others showed that at least two Eastern Pequot people identified by name bought goods there (Witt 2007: 48). Correlating the activities of Eastern Pequot people to the ledgers is crucial for understanding eighteenth-century native foodways. The data presented in these documents further demonstrate the Eastern Pequots' adaptation of European goods into their own foodways.

While this thesis is centrally focused on the faunal remains from two eighteenth-century sites, it is clear that supplementary data enhances the findings. The inclusion of documentary and comparable archaeological research allows for the investigation of consumer practices on the Eastern Pequot reservation. At the most basic level, this project quantifies the faunal remains of two different native sites. This is significant because it helps develop an understanding of the dietary practices of Eastern Pequot people and their broader meanings. The adoption of domesticated animals by native people should be viewed as more than simply the foregone conclusion of colonial interaction. Rather, the use of Euro-American practices by natives serves to demonstrate that “amidst the alterations in the plant, animal, and disease environments are individuals living and dying, making choices, struggling for biological and cultural survival, and adapting to novel circumstances” (Silliman 2005b: 278).

CHAPTER II

EASTERN PEQUOT HISTORY

Pre-Colonial and Early Colonial Periods

Prior to the onset of European colonization, the Pequot occupied a large area that included Long Island Sound. Settlements were for the most part small, temporary encampments that emphasized the importance of mobility (Cronon 1996: 38). Regional archaeological work suggests that populations began to increase around 1200 B.P. This has been attributed to the domestication of corn and other plants, allowing for the establishment of larger sedentary villages (Dincauze 1974: 53-55). Native groups in New England appear to have lived in small independent communities with much spatial and temporal variability between sites (Bragdon 1996; McBride 1994).

The first mention of the Pequots by colonists was on Adrian Block's 1614 map of the coast of New England (Bragdon 1996: 21). Early colonial writings raved about the variety of plants, enormous schools of fish, and massive flocks of birds (Cronon 1983: 22-23). No large domesticates comparable to European livestock, although deer and elk were common. Writing in the latter part of the seventeenth century, Daniel Gookin recorded much about Pequot practices. He described their meals as "generally boiled maize, or Indian corn...they frequently boil in this pottage, fish and flesh of all sorts...These they cut in pieces, bones and all, and boil them in the aforesaid pottage"

(Gookin 1972: 10). These types of insights are significant because they provide important details about native ways of life.

The Pequot Massacre

The lives of Pequot people changed rapidly at the beginning of the seventeenth century. At that time, the Pequots controlled much of Long Island Sound where they regulated the wampum trade. In this coastal setting, the earliest historic era Pequot sites display a combination of maritime and horticultural subsistence (McBride 1993a: 65). Control of this valuable land and important resource trade quickly brought the Pequots into conflict with other native groups and Europeans who sought control of the region. It was not long before the Pequot had become singled out as a threat to European survival in New England.

By the 1630s, the Pequots occupied two heavily fortified villages, Weinsauks and Mystic, as well as several dozen smaller villages in Connecticut and Rhode Island and totaled about 16,000 people (Cave 1996: 43). Less than a decade after the settlement of the Plymouth and Massachusetts Bay colonies by Europeans, tensions between the English and Pequots escalated. Daniel Gookin described the Pequots as “a people feared in the most southerly bounds of New England...These Pequots, as old Indians relate, could in former times, raise four thousand men, fit for war” (Gookin 1972: 7). While the Pequot population may have rivaled those numbers, the “threat” posed to English settlers was dramatically exaggerated. Colonial leaders may have used the image of the Pequots as dangerous to unite their dissenting followers through fear (Cave 1996: 13).

The Pequots were primarily concerned with maintaining their status as an important trading partner and dominating other local tribes. A devastating terrible

smallpox epidemic struck the group in the mid-1630s, weakening their ability to trade with the Dutch and English (Anderson 2004; Bragdon 1996; Cave 1996). As tensions between the Pequots and English increased, the death of an English trader, John Oldham, who had previously murdered several Pequots, set off the first major native-European conflict in New England. This conflict occurred between 1636 and 1637 and saw the near destruction of the Pequot people at the hands of colonial soldiers and their native allies.

The Pequot War, as it was described by English authorities, entailed mostly small inconclusive battles with a few casualties on either side. This fighting was similar to native-style warfare, which had been praised by Roger Williams as “far less bloody, and devouring, then the cruell Warres of Europe” (Cave 1996: 39). This changed with the English assault on Fort Mystic. On May 26, 1637, English soldiers with their Narragansett allies attacked and destroyed the fort. The attack caused the death of an estimated “‘six or seven Hundred’ Pequots,” including many women and children (Cave 1996: 151). English colonizers intended for the violent and devastating attack on the Pequot to serve as “the crucial initiation of colonial authority in southern New England, a historical ‘first’ that set the cultural and legal precedents allowing for the flourishing of colonial society” (Den Ouden 2005: 13). By portraying the Pequot as the true antagonist, colonial authorities tried and failed to obscure the truly barbaric nature of their own actions.

English colonists sought to claim native lands either by converting or removing the inhabitants. Most firsthand accounts of European colonization of the Americas shared a common theme that “[t]he removal of Indian natural right not only implied the

abolition of Indian natural existence but also transformed the land itself” (Jennings 1971: 521). The Treaty of Hartford as it was written by the government of Connecticut in 1638 clearly followed this pattern. Colonists believed that this document “marked the establishment of ‘peace’ in the colony but also emblazoned in colonial law the ‘extinguishment’ of Pequots’ ‘national existence’” (Den Ouden 2005: 12). This could not have been further from the truth. In reality, native groups continued to resist colonial authority and the Pequot survived and persisted, although in a modified manner.

One of the most dramatic results of the Treaty of Hartford was the division of the Pequot tribe into two separate groups. Those Pequots, numbering around 2500, who survived the massacre at Fort Mystic were executed, sold into slavery, or given to other local native communities. The portion who lived with the Narragansett later became the Eastern Pequot, and those who went with the Mohegan became the Mashantucket Pequot (Bodge 1967; McBride 1993b). Efforts to deprive the Pequots of their land initially succeeded, but the colonial government underestimated the ability of the Pequots to survive. Within a few decades of the governmental declaration that they had been extinguished, Pequot people began to return to their former home.

Post-War Years

Despite the efforts of the government of Connecticut, the Pequot did not disappear from the landscape following the massacre. Reservations were established for both the Mashantucket and Eastern Pequot before the end of the seventeenth century. A reservation was created at Noank in 1651, followed by the Mashantucket reservation in 1666, and the Eastern Pequot reservation in North Stonington in 1683 (Den Ouden 2005: 15). The Mashantucket and Eastern Pequot reservations are only a few miles apart, but

served to separate the Pequot people into two distinct groups. A colonial law enacted in 1680 declared that reservation land “shall remain to them [native people] and their heirs for ever” which in theory ensured that the Pequot would always have a place within the colonial world to call their own (Den Ouden 2005: 4). Colonists quickly sought to circumvent this ruling, and tried many methods to control the land and its occupants.

One common technique implemented to control native people was religious conversion. The most famous figure in this movement was John Eliot, whose praying Indian towns were places where native converts could learn European lifeways. These towns were mostly in Massachusetts but are emblematic of the push to convert native people. The last of these towns was created in 1660, but they rapidly fell out of favor and were largely abandoned as a result of King Philip’s War in the 1670s (Mrozowski et al 2005: 15). Institutional efforts to teach native people how to act “European” were a large component of the colonization effort. This means that colonial authorities would use any method necessary to challenge native ways of life. These “[d]ispositions and institutions produce the world in particular ways through creating people as subjects who know themselves and others through prescribed sets of norms and whose actions can be divided into normal and deviant” (Gosden 2004: 158). Colonial strictures forced the Eastern Pequot to use new methods to reshape their identity.

The Eastern Pequot in the Eighteenth Century

At the dawning of the eighteenth century, many native people began to experiment with animal husbandry (Cronon 1983: 103). The environment was changing as more European settlers migrated to North America, leading to declines in the amount of forested area and number of native species. Domesticated animals were viewed by

colonists as emblematic of civility. Euro-Americans believed that forcing native people to rely on domesticated animals would serve “as a means of inculcating respect for animals as property and promoting steady habits, particularly among Indian men” (Anderson 2004: 199). This correlated with the standard colonial myth that native men only participated in “leisure activities” such as hunting and fishing, while women tended crops and maintained the home. Europeans were unwilling or unable to understand that native people practiced a different lifestyle which was as practical as their own.

The introduction of domesticated animals into New England brought a range of species into the native world. Colonists brought a multitude of animals and ideas about how they should be treated and maintained. They would not acknowledge that native people held equally complex views about the surrounding world. Natives acknowledged the presence of Manitou, spiritual power, in animals which they viewed as displaying unique gifts such as speed or elusiveness (Anderson 2004: 20). It is probable that native people could see similarities between animals such as cows, sheep, deer and elk. The relative physical likeness could have been one way that native groups could perceive of domesticates within their own cosmologies.

Methods and motives for adopting domesticated animals seem to have varied between native groups. It was even noted that shortly after colonization began “some Indians came to speak of the deer as their ‘sheep’” (Jennings 1976: 65). Obviously, once native groups were restricted to reservations, they would have had to exploit all possible food sources to survive. New England soils are generally rocky and poor quality, and natives on reservations would have had even worse land than usual. It seems that both colonists and natives allowed domesticated animals, especially cows and pigs, to roam

the land in search of food (Anderson 2004: 177). Native groups may have gradually begun using domesticated animals, but this was not the signal of submission to colonial culture.

Both the Mashantucket and Eastern Pequot had to readjust to life on reservations. Research on the Mashantucket Pequot suggests that “settlement and land use patterns associated with organization of domestic activities and communal life persisted long after relocation” (Rubertone 2000: 436). Natives may have been able to temporarily maintain daily practices, but stress on a small piece of land seems to have eventually changed the environment and altered their way of life. The increasing difficulty in maintaining native practices meant that the Pequots and other New England native groups had to incorporate additional colonial behaviors.

As it became more difficult to acquire the necessities of life from reservation land, native people quickly accrued debts by purchasing goods at local stores. Debts were often repaid or mitigated through indentured servitude. Pequot people worked as indentures throughout most of the colonial era. While native people “may have despised their indentures, the alternative was having their lines of credit permanently severed; natives dependent upon store-bought food and clothing could not afford that option” (Silverman 2001: 637). Certain elements of Euro-American material culture, such as ceramics, metal tools, and clothing, would have been more convenient in terms of the time and effort required for their acquisition without manufacture. Any member of a native family could serve an indenture, but children most often filled the role as their parents did other jobs.

These children were often the most indoctrinated by what they experienced in colonial homes. A mid-eighteenth century Rhode Island census reported that “at least one-third of native children were living with the English at any given time” (Silverman 2001: 653). They participated in all aspects of Euro-American life including “stirring pots, washing clothes, scrubbing floors, emptying chamber pots...feeding chickens, tending livestock, weeding crops, and mending tools” (Herndon and Sekatau 2003: 156). Exposure to livestock and the maintenance of those types of animals would have played an important role when those same children returned to their reservations. The decline in wild animal species beginning in the eighteenth century meant that young Pequots would likely not have consumed the same types of food as previous generations.

This generational gap made the issue of identity particularly important for the Eastern Pequot. Reservation space, once again, played a key role in connecting Pequots living in the rapidly changing eighteenth century colonial world with the past. Pequot people who worked off the reservation may have become familiar with colonist life, but their reservation land was an important constant. The reservation may have been bounded with stone walls, symbolically separating the Eastern Pequot from European colonial society, but it was within this bounded separation that the Eastern Pequot, and most other native groups, were able to forge a modified notion of identity (Harrison 2004: 133). With the reservation serving to reinforce a native presence in New England, it becomes apparent why native people were so fervent in its defense and why colonists wanted to take it away.

Tribes such as the Eastern Pequot should not be viewed as a product of colonial interactions with Europeans. Rather, their flexible and changing identity should be seen

“as evidence of survival skills that were part of long-standing repertoires of experiences (Rubertone 2000: 435). These skills have been underscored in the documentary and archaeological records. The Pequot filed numerous petitions with the colonial government, arguing for fair treatment and for the protection of their land. They were clearly not a group totally at the mercy of colonial administrators, but were actively negotiating for their survival.

Many of the native petitions filed with the colonial government dealt with land encroachment. Not only did colonists try to steal native lands, they also allowed their animals to graze on them, destroying crop fields. A 1713 Mashantucket petition stated that while “they were required to ‘bear the damage’ done to their crops by their Anglo neighbors’ roaming livestock... [the Mashantucket Pequot] did not consider their accommodation of such intrusions as a concession of their land rights” (Den Ouden 2005: 151). It is ironic that domesticated animals offered an important food source and threatened another at the same time. Cows and pigs ate the plants in native fields and dominated the environmental niches once occupied by deer and other wild species, but also represented a more readily available food source which could be purchased at market or raised at one’s home. This conflict over domesticated animals can even be seen in Robin Cassacinamon’s 1721 petition to the colonial government, in which he stated that the constant theft of native lands and forced move to poorer conditions had symbolically “used Mashantuckets as they would goats, to ‘clear rough land’” (Den Ouden 2005: 163). Native people in New England were clearly cognizant of the dehumanizing efforts of colonists and tried to use this mistreatment to demonstrate their own dire straits.

Poor conditions on the Eastern Pequot reservation led to the filing of a petition with the Connecticut General Assembly in 1735. This petition noted that “we see plainly that thare [English] chiefest desire is to deprive us of the privilege of our land, and drive us off to utter ruin...And there is some of our young men wold be glad to bild housen upon it, and live as the English do (CT State Archives 1647-1789: 221). While some natives were willing to “live as the English do,” the colonists were not as desirous to have that occur. Native people often wanted to use domesticated animals “to establish usufruct rights and supplement their traditional economy... [but] outsiders judged their campaign a failure” (Silverman 2003: 529). Colonists did not want the Eastern Pequot to have the option of adopting certain European practices and retaining other native ones.

Even when native people constructed fences and European-style stone foundation houses, colonists sought to challenge and negate their work. Aside from verbal threats of violence and death, there was at least one documented case where “Eastern Pequots had ‘attempted to fence in some of their land for pasture, but have been beaten off from it and their fence thrown down’” (Den Ouden 2005: 25). And yet, despite the best efforts of the colonial government, the Eastern Pequot persevered. The loss of land and resources was not the end, but the beginning for the colonial and modern day Eastern Pequot. Ways of life may have continued to change, but the reservation and peoples’ attachment to it remained.

Colonial, and eventually American, authorities continually tried to obscure the native presence in New England. Research on nineteenth-century documents showed that “public records often exclude or obscure the presence of Native Americans. Indian births, marriages, and deaths were only occasionally recorded by New England town

clerks” (Baron et al 1996: 565). Archaeological research on the Mashantucket and Eastern Pequot reservations has revealed that a mixture of wild and domesticated animals was eaten into the early twentieth century (Cipolla 2005; McBride 1993a: 73). Beyond foodways, many other studies have served to exemplify the strength of native identity after more than 200 years of reservation life (Patton 2007; Witt 2007). With the dawning of the twenty-first century, native groups have worked to preserve their unique group identity within a rapidly changing world.

Recent Pequot History

Federal recognition has been one of the most prominent issues within the last thirty years for native groups in New England. The Mashantucket Pequot received federal status in the 1980s, providing a financial boon for the group. The Eastern Pequot made a similar bid, but after the receipt of federal acknowledgement in 2002, the decision was appealed and “the Internal Board of Indian appeals vacated and remanded the Final Determination back to the Assistant Secretary-Indian Affairs in May 2005” (Silliman and Dring 2008: 6). Opposition to Eastern Pequot federal recognition claimed that the group could not demonstrate political leadership and a community presence for several decades in the early twentieth century. The two World Wars and the Great Depression probably played key roles in limiting native presence on the reservation or, more accurately, curtailing the number of written documents that might have been produced to record it at that time. This type of political and social wrangling shows that efforts to delegitimize native groups which began in the colonial era still continue today.

Project Background

While the revocation of federal acknowledgement was a huge blow to the Eastern Pequot, they have continued to seek ways to fight this ruling. Archaeological research that began on the reservation in 2003 offers an important tool for understanding the material elements of native life on the reservation. Archaeology does not provide a complete picture of life in the past, but it is one of the most comprehensive methods by which the daily lives of native people can be studied. Excavations have been conducted by Dr. Stephen Silliman from the University of Massachusetts Boston in collaboration with the Eastern Pequot Tribal Nation. The actual fieldwork has consisted of summer field schools attended by undergraduate students, graduate students at the University of Massachusetts Boston and elsewhere, and tribal community members.

The completion of five field seasons has yielded an enormous amount of information about reservation life and the ways in which the Eastern Pequot dealt with European colonization. During the summer of 2003, many cultural features were surveyed that “appeared to date primarily to the late 18th or 19th century given the obtrusive nature of collapsed chimney stacks, remnant cellars, and stone walls and fences” (Silliman 2006: 10). The high visibility of these features guided the focus of wider excavations between 2004 and 2006. Two early nineteenth-century house foundations were investigated in 2004, which served as the basis for another thesis focused on faunal analysis (Cipolla 2005).

This thesis examines the faunal remains recovered during the field schools conducted between 2005 and 2007. Fieldwork in 2005 and 2006 focused on a single multi-component site identified as Site 102-123. Excavations surrounding this site

examined an area about 300 m² in diameter. Identified features included two collapsed chimneys, a cellar, a large depression, several stone enclosures, and a shell midden. These features contained a range of artifacts including European ceramics, metal objects, glass, animal bone, shell, and some stone tools and flakes. It remains to be seen how many buildings stood on this site in the eighteenth century.

The wealth of material culture indicates a fairly intensive occupation. Ceramic dates of production provided the best estimate for when people may have lived at this location. A portion of the ceramics on Site 102-123 were produced as early as 1720, such as white salt-glazed stoneware (1720-1805). However, the majority were commonly manufactured between the mid-1700s and early 1800s including scratch blue white salt-glazed stoneware (1744-1775), Jackfield-type coarse earthenware (1740-1800), creamware (1762-1820) and pearlware (1779-1830) (Miller 2000: 10-13). These ceramics suggest that Eastern Pequots lived on this site at the end of the eighteenth century, if not even earlier in the 1760s (Silliman and Witt n.d.).

Through the 2006 field season, every excavated site was identified by the presence of stone features on the surface. This correlates with other regional archaeological investigations that recorded “significant changes in material culture, architecture, foodways and technologies by the middle of the eighteenth century” (McBride 1994: 18). Prior to that time, native peoples apparently occupied dwellings that rarely left identifiable remains. The ephemeral nature of earlier sites makes them difficult to locate and investigate. However, fieldwork in 2007 succeeded in uncovering one such site, labeled as Site 102-124, that had no stone features.

Unlike Site 102-123, which had many aboveground components, the remnants of Site 102-124 were all underground. Excavations identified three ovular pit features that contained varying amounts of animal bone. These features are discussed in greater detail in the following chapter. The only architectural material recovered included a few pieces of window glass and a scattering of nails. Work on this site focused on an area about 100 m² in diameter. The artifact assemblage contained most of the same types of objects found on Site 102-123.

Ceramics found on Site 102-124 suggest an occupation in the mid-eighteenth century. A lack of creamware on this site is the most conclusive evidence that Eastern Pequot people probably lived on this site prior to the 1760s. Creamware was first manufactured in the 1760s, and is fairly ubiquitous on archaeological sites dating after that time. The people on this site may simply not have procured creamware, but the other ceramics also support an earlier date. Astbury (1725-1750), Staffordshire slipware (1675-1750), white salt-glazed stoneware (1720-1805) and scratch blue white salt-glazed stoneware (1744-1775) made up most of the site's ceramic assemblage, which place the dates in appropriate context (Miller 2000: 10-13; Noël Hume 2001: 135). These earlier manufacture dates lend credence to the idea that Site-102-124 was occupied before Site 102-123 (Silliman and Witt n.d.).

Five years of excavations on the Eastern Pequot reservation have yielded a large amount of data spanning almost a full century. Comparing Sites 102-123 and 102-124 allows for the study of two disparate native households separated by several hundred meters of space and decades in time. A range of field and laboratory methods were used to ensure the most comprehensive examination of these sites' faunal assemblages. The

following chapter describes these methods and the assemblages in greater detail. This provides proper background for comparing these sites to each other and to others both on and off the reservation.

CHAPTER III

MATERIALS AND METHODS

Multiple field and laboratory techniques have been used to study life on the Eastern Pequot reservation. Careful excavation and analysis has fostered the development of a fuller picture of reservation life in the eighteenth century. Sites 102-123 and 102-124 differed substantially in appearance, date of occupation, and assemblage size, so the exact procedures for excavating each were slightly different. This procedural variation allowed for the most comprehensive data collection possible.

Field Methods

A range of field methods served to identify sites on the reservation, as well as properly recover artifacts and soil samples. In 2003, the field school conducted surface surveys, which identified many sites on the reservation. These surveys involved students recording stone piles and other landscape features that could have once been manmade structures. This procedure led to the identification of Site 102-123. The obtrusive nature of the features on this site made it easy to document as a place warranting further study.

Surface surveys could only identify a portion of the sites on the reservation. This led to the use of shovel test pits (STPs), which consist of 50-x-50 cm squares in systematic intervals excavated to identify soil variation and find artifact concentrations. STPs led to the discovery of Site 102-124 in an area with no stone features after the

recovery of several artifacts. These small pits screened with 1/4" screens helped to focus the area within which broader excavations took place. This ensured that when digging larger test units, there was a higher probability of encountering artifacts or features.

To expand the area open for investigation, larger 1-x-1 m and 1-x-.5 m holes were dug. Investigations on the sites in this thesis used STPs and larger units to determine site size. Excavations on Site 102-123 opened 77 units, while 26 were dug on Site 102-124. Average excavation units typically reached level seven or eight, which equated to a depth of about 40 cm. Artifact recovery was improved with the use of 1/8" screens for these larger units. Units that encountered features reached anywhere between levels ten and twenty, which corresponded to a depth of 50 cm to 1 m. Most artifacts occurred at a depth of less than 50 cm.

Test units not only aided in the recovery of artifacts, but also offered a way to collect soil samples. Soil samples are generally several liters in size, and are recovered from features and surrounding units as a comparison. Samples from Site 102-123 came from many areas, but those from Site 102-124 came only from features. These samples offered a way to recover miniscule artifacts, plant parts, or small animal remains that might have been missed with standard field methods. The samples analyzed in this thesis yielded a large amount of faunal material and pH data which contributed to the overall interpretation of both sites.

Soil Chemistry

More than one hundred soil samples were collected from Site 102-123 and nine from Site 102-124. The majority came from features mentioned briefly in the previous chapter and discussed in detail below. Once the soil samples returned from the field, a

large portion of each was processed using a Flote-Tech flotation machine at the University of Massachusetts Boston. This process collected small artifacts and removed extraneous sediment. A portion of each sample was not floated so that it could be chemically analyzed.

The floated samples from Site 102-123 contained little or no faunal material. Over 100 samples were taken on this site, ensuring good coverage of feature and non-feature areas. Many of the samples from Site 102-124 also produced few bones, but the three samples taken from the large feature on the site contained an enormous amount of material. The nine samples collected from this site all came from features, allowing good analysis of the actual features, but limiting the interpretation of the surrounding area. The high frequency of bones in the three samples in the largest feature meant that soil conditions and depositional practices contributed to form a well-preserved, high-yield area. Soil pH is an important component of any zooarchaeological study because bones in acidic or basic conditions can quickly deteriorate and become unrecoverable.

Soil acidity can differ drastically depending upon environmental conditions. Forested areas typically have fairly acidic soils, which are detrimental to bone preservation (White and Hannus 1983: 319). This is an important factor for assemblages recovered from the Eastern Pequot reservation. The reservation has been forested for most of its documented history, although some small patches were cleared and managed before and during the reservation period (Jacobucci 2006). Determining the pH of soil samples from Sites 102-123 and 102-124 helps determine how human activity relates to preservation conditions.

The pH values were measured with an ISFET pH meter model IQ120. Because of the number of features on each site, seventeen samples from Site 102-123 and four from Site 102-124 were tested. Readings were taken at the University of Massachusetts Boston, replicating a procedure detailed by Craig Cipolla in consultation with Dennis Piechota, a conservator in the Andrew Fiske Memorial Center for Archaeological Research. This procedure called for the mixing of 100 ml of each soil sample with 75 ml of distilled water. Each sample was tested twice, and then the values were averaged to produce a final reading (Cipolla 2005: 83). Distilled water served as a control for the pH measurements. It returned a value of 7.0, bolstering the accuracy of the meter. Two samples from Cipolla (2005) were also reexamined using the meter. A comparison of the results indicated a difference of .6 for one sample and .05 for the other. The exact cause of the discrepancy of .6 is not clear, but it seems safe to assume that the ISFET meter serves as a reliable and likely more accurate, pH tool.

The results of the pH study are summarized in Tables 3.1 and 3.2. Average pH values from both sites ranged from 4.35 to 7.5. A comprehensive survey of the relationship between soil acidity and bone preservation determined that while 7.0 is a neutral pH, bone is best preserved at a pH between 7.8 and 7.9 (Reitz and Wing 2007: 117). Overall, the majority of the samples from Sites 102-123 and 102-124 had an acidic pH between 4.35 and 5.5. Another soil chemistry study showed that “as pH decreases, the destruction of osseous [bony] materials increases” (Gordon and Buikstra 1981: 569). The low pH in so many of these samples means that the bones that survived were in extremely degrading conditions. These data are correlated in the feature summary section below.

Laboratory Methods

Before delving into the discussion of site composition, it is crucial to examine the quantitative methods used to evaluate the assemblages. These calculations helped to transition this research from simply looking at a collection of bones to assessing what people ate and why. The applied mathematical tools have been used in zooarchaeological projects for decades. They offer the best ways to summarize and interpret faunal material.

All artifacts recovered on the Eastern Pequot reservation are stored in Dr. Stephen Silliman's lab at the University of Massachusetts Boston. The first step in this analysis entailed separating and bagging all faunal material from the three field seasons. Actual analysis occurred in the University of Massachusetts Boston zooarchaeology lab overseen by Dr. David Landon. There, all bones were counted, weighed and recorded in Excel spreadsheets specific to each field season. At that stage, the bones considered acceptable for additional study were removed for more focused analysis.

Examination of the bones deemed more significant occurred under the direction and guidance of Dr. David Landon at the University of Massachusetts Boston. Those identifiable as mammal were separated by size into three categories: small (smaller than a rabbit), medium (sized between a rabbit and pig), and large (larger than a large pig). A portion of the collection consisting mostly of fish bones was also analyzed at the Harvard University zooarchaeology lab. After completing the identification process, several quantitative tools were then applied to the collections. These zooarchaeological measurements involved the calculation of the number of individual specimens (NISP),

minimum number of individuals (MNI), and biomass. Each of these calculations provided a standardized method to compare different aspects of the assemblages.

Calculating the number of individual specimens involves totaling all specimens from a particular taxonomic level. NISP is easy to calculate as it involves counting all bones, and offers the simplest way to compare bone frequencies. Beyond their simplicity, however, NISP values have some problems that limit their usefulness. NISP is very sensitive to bone fragmentation, and can over-represent bones broken into many pieces (Klein and Cruz-Urbe 1984: 25). The recovery of many bones from a single skeleton can also drastically increase the total number of specimens (O'Connor 2000: 56). Because of the fragmentary nature of the collections in this thesis, MNI and biomass calculations play an important role in the final analysis.

Determining the minimum number of individuals provides a base value for the number of animals on a site. The MNI is measured by comparing all bones that came from a single species or even higher taxa. Recording variation in bone symmetry, size, and wear makes it possible to determine which bones came from different animals. It is important to remember that “MNI estimates should not be interpreted as actual individuals; more actual individuals may have been used at the site, or only portions may have been used” (Reitz and Wing 2007: 195). One reason to use calculations beyond NISP and MNI is that they can over represent certain parts of an assemblage. Combining MNI and NISP values with the biomass makes it possible to assess the potential significance of different species in a collection.

Unlike NISP and MNI, biomass is calculated using a mathematical formula that includes several variables. Biomass values are measured with the formula “biomass (kg)

= $\log a + b * \log (\text{bone weight})$,” where variables “a” and “b” are constants based on the species being measured and bone weight comes from the collection itself (Reitz and Wing 2007: 224). The product of this equation is “an estimate of body weight based on an allometric relationship between bone weight and body weight. It is an interpretive unit, used as a proxy for relative dietary importance of different taxa” (Landon 2006: 9). Biomass can only be determined for the bones present in a collection, requiring some assumptions about the weight of meat on bones. Each of these three analytical methods has strengths and weaknesses, but when combined are a viable way to quantify the elements of a faunal collection.

Now that all of the field and laboratory methods have been discussed, Sites 102-123 and 102-124 can be examined in greater detail. This entails a more focused assessment of the features on each site. The majority of each assemblage came from features that differed drastically in purpose and size. A summary of each feature makes it possible to evaluate the quantity and diversity of recovered bones. This information combined with the pH data helps explain why particular features contained more bone than others.

Documentary Research

The previous sections describe all methods applied in the field and in the lab to recover and assess the faunal assemblages from each site. Documentary data provides another line of evidence for evaluating the faunal remains. Animal bones yield a tremendous amount of information, and the availability of documents helps strengthen the interpretation. Store ledgers generally help determine the value placed on material goods and the frequency of interactions in the marketplace.

The Wheeler account books detail dozens of transactions involving native and Euro-American people, and I use them here as a first step in comparing documents and food remains. Of the two men identified as Eastern Pequot one, George Toney, worked for Wheeler for ten years, so his name is present in transactions dating from the 1740s and 1750s. The other, James Nead, bought and sold goods at Wheeler's store over several years during that same general time period (Witt 2007: 50-58). It is unknown whether these men actually lived on the reservation or were tribal members who occupied the surrounding area. But, they were Eastern Pequot, meaning that they had at least some connection to the reservation land and people who occupied it, offering insights into dietary and market practices.

These documents provide at least some way to know what Eastern Pequot people were buying at that point in time. Even if Toney and Nead did not live on the sites excavated between 2005 and 2007, the simple fact that tribal members were interacting with Wheeler is significant. The account books shed some light on how native people on reservation land acquired goods. They also demonstrate how native people maintained an active presence within the colonial world. Wheeler's account books provide real data that strengthen the connection between the Eastern Pequot and the assemblages from Sites 102-123 and 102-124 assemblages.

Site 102-124 Feature Summary

Due to the dearth of rocks that may have signaled a collapsed chimney or foundation, the type of house that once occupied this site remains to be seen. Features on Site 102-124 could only be identified by noticeably different soil colors in comparison with the surrounding area or a high concentration of artifacts. Three separate locations

on this site met at least one of those criteria. Each of these features appeared to be circular or oval in shape and contained most of the recovered bones.

Smallest of these was a circular pit measuring approximately 1.0 m² in diameter. Its pH measured 5.0, which is about average for the features examined on both sites. The excavation of this feature produced 71 specimens, many of which were small, calcined fragments. A small portion of these bones were identified as cattle (*Bos taurus*), pig (*Sus scrofa*), and squirrel (*Squirrelus* sp.). This feature demonstrated that the Eastern Pequot consumed wild and domesticated species.

Excavation of another circular pit measuring 2.0 m² in diameter unearthed a higher density of bones. Only a small amount of cattle and pig remains could be identified of the 250 recovered. Most had been burned and crushing, offering very little useful information about the species from which they came. The pH of the soil sample taken from this feature returned a value of 4.95, consistent with the smaller feature. Neither of the small features contributed much in the way of identifiable bones, though they did help in the broader site evaluation.

The remaining feature represented the largest pit on the site and provided the most diverse faunal collection recovered. This feature contained the majority of the artifacts on the site, ranging from ceramics to straight pins, bones, and metal implements. This oval pit was enclosed within an area measuring 3.0 m² in diameter. The two pH samples tested in this feature measured 6.9 and 7.45. It is unclear why this area offered such good preservation. Very few rocks had to be removed from this site, perhaps relating to some human activity that cleared the land and neutralized the soil in this particular spot.

Species represented in this feature included several different types of fish, squirrel, dog/coyote (*Canis* sp.), possible passenger pigeon (cf. Columbidae), cattle and pig. The diversity of faunal and other material in this area may mean it was a trash midden. A total of 828 specimens came from this pit. In stark contrast to every other feature from both sites, fish bones accounted for more than half (544) of the total recovered. The size and condition of the bones offer a tremendous amount of information about the site as a whole. It stands out as unique for the diversity and quantity of identifiable material (Table 3.1).

The complexity of this site is masked by its lack of aboveground features. Artifacts on this site indicate that it once contained a house, but what kind has yet to be determined. The structure may have been a wigwam or wooden house built directly on the ground because of the absence of a foundation or other stone features. Excavations encountered almost no rocks, which raises the question of whether people removed them given their prevalence everywhere else or if this land was naturally rock-free. The faunal remains may not be able to fully explain these site formation processes, but they do offer insights about how the people who lived there subsisted.

Table 3.1: Site 102-124 Feature Summary

Feature	Total Specimens	% Unidentified	% Calcined	% Class*	% Genus*	% Species*	Avg. pH
1 m ²	71	49.3	50.7	33.8	9.9	7.0	5.00
2 m ²	250	86.4	81.6	10.0	0.0	3.6	4.95
3 m ²	828	22.0	16.1	73.3	0.7	3.9	7.20
Non-feature	416	95.7	97.4	3.1	0.0	1.2	N/A

* Columns indicate the percentage of bone identified to each taxonomic level.

Site 102-123 Feature Summary

Site 102-123 contained several features that served various purposes (Silliman 2008; Silliman and Witt n.d.). These features differed quite substantially in the amount

of faunal material they contained. Each feature consisted mostly of soil, stone, and artifacts except for the shell midden. The midden contained all three of those elements, but also a large amount of shellfish. This section summarizes the variation in size, pH, and bone count of each feature, and displays the results in Table 3.2. A detailed breakdown of each feature is included in the Site 102-123 assemblage chapter.

Table 3.2: Site 102-123 Feature Summary

Feature	Total Specimens	% Unidentified	% Calcined	% Class*	% Genus*	% Species*	Avg. pH
Depression	864	81.1	67.7	16.1	0.1	3.0	5.83
Cellar	114	56.1	43.9	36.8	3.5	3.5	5.25
Firebox/Chimney	24	79.2	79.2	16.7	0.0	4.2	7.50
Tall Enclosure	6	100	100	0.0	0.0	0.0	4.75
Hearth	142	85.9	73.9	12.7	0.0	1.4	4.9
Midden	205	25.9	6.8	55.6	1.0	16.6	6.43
Non-feature	1345	81.2	90.9	11.3	0.2	7.3	5.10

* Columns indicate the percentage of bone identified to each taxonomic level.

Two features on this site appear to have connection to food preparation. A 3 m² area identified as a hearth had evidence of cooking. Excavations in this area recovered 142 specimens, with a total of 3 identified as pig and fish. The rest were considered calcined and unidentifiable. The pH of the two soil samples from this area measured 4.35 and 5.45. The concentration of faunal material in this area definitely relates to cooking, but could also stem from site cleanup or other activities.

The hearth excavation also recovered two animal shoe pieces. No obvious reason explains why they would be in this area, with one less than 10 cm underground and the other less than 25 cm. A cow, horse, or ox may have lost a shoe, but it remains to be seen how it ended up in the house unless brought there as a proverbial good luck charm over a fireplace or simply incorporated into household debris (Silliman 2008). Whatever the

reason, the horseshoe hints at the presence of a shod work animal possibly even on the site.

A firebox was also identified, which is typically where fuel would be burned. The 2.0 m² area of this feature was similar to that of the hearth. Only 24 specimens came from this area, 1 of which came from a chipmunk. A single pH measurement taken in this feature returned a value of 7.5. Ash and other burned material may have contributed to the neutralization of the soil in this area. The low concentration of bone in this highly preservative area probably means that very little faunal material was actually deposited there.

Excavations between these two features uncovered a cellar, now filled with rock. The pH was tested at the top of the deposited rocks as well as below them. Despite the varied areas from which samples were collected, all four of the pH values measured between 4.9 and 5.4. Removal of several courses of rock and soil in this area uncovered bones from several wild and domestic mammal species out of a total of 115 recovered specimens. None of the features within the perceived structure appear to have contained a large amount of diagnostic faunal material.

Beyond the house area, a 1-m high, small diameter rock enclosure was examined to try and discern its function. A single pH measurement in the feature returned a value of 4.75. It also contained very few bones, totaling six burned, unidentifiable specimens. The limited data from this feature did little to determine its use. Its acidic pH and low bone count had limited value for the overall assessment of this site.

The complexity and quantity of bones in the depression and shell midden mean that they require the most consideration. The depression contained a large amount of

charcoal, calcined bone and tin-glazed earthenware, which dates earlier than the other ceramics on the site (Silliman and Witt n.d.). The presence of older ceramics, a considerable amount of charcoal, and calcined bone could mean that a fireplace or hearth may have been cleaned out, and the refuse dumped in this location. Work in this area of the site focused on an area 35 m² in size. The soil samples tested from this feature came from different sides and had pH values of 5.05, 5.4, 5.5 and 7.35. The proximity of three of these values to one another suggests that charcoal and ash deposited from another area of the site probably impacted these results.

Most of the bones collected in the depression could only be listed as unidentified vertebrates. The 864 specimens in this feature equated to more than double the number of bones in the other features combined. This feature provided one of the best samples of the range of animals eaten on the site. It contained pig, cattle, fish, and snapping turtle (*Chelydra serpentina*), which had to be acquired from multiple sources. The large quantity of material in this feature means that it was probably used for regular waste disposal. The bones in this area probably represent many different meals.

The final, and most unique, feature on the site was the shell midden. Of the 205 specimens recovered, less than 10% were burned. This differs in comparison to every other feature on the site where anywhere between 43% and 100% of the bones were calcined. It has been suggested that the presence of calcined bone in an area with no obvious sign of fire may be indicative of a tertiary depositional event (Landon 1992: 358). In contrast with all of the other features where the bones were processed, burned, and crushed in one location, then moved and deposited in another, the low quantity of burned bone in the shell midden hints that that was not the case with this feature.

Two excavation units focused on the midden and recovered a large amount of shell. This excavation exposed only a portion of the midden, so the exact amount in the ground is unclear. Non-faunal artifacts within those 2 m² were the most diverse on the site, including a range of ceramics, vessel glass, beads, and pipes. Faunal remains in this feature were also the most diverse. This area contained the most fish bones in addition to a range of wild and domestic species including cattle, pig, rat (*Rattus* sp.), and fish. The bones in this area may best represent exactly what was deposited because so little was burned and crushed.

The pH may not have been as neutral as expected because the midden contained a mixture of shell, rock, and soil. Soil on the reservation has already been shown to be relatively acidic. The pH values of the two samples taken from the midden measured 6.35 and 6.5, offering fairly good preservation conditions. This feature has additional significance because inland sites in eastern North America typically contain little shell (Claassen 1998:234). A great deal of time and effort had to be invested to acquire and transport so much shellfish.

Because of the large amount of shell recovered, sampling strategies had to be implemented to summarize its contents. This involved the selection of two separate levels of the midden, which were then sorted, counted, and weighed. Soft-shell clam (*Mya arenaria*) made up more than 90% of the identified specimens. Oyster (*Crassostrea virginica*), hard-shell clam (*Mercenaria mercenaria*), and mussel (Mytilidae) were also noted albeit in much smaller amounts. A basic count of the shells sampled in this thesis totaled approximately 1100 specimens. This midden represented a large amount of meat, but it is unclear how often the Eastern Pequot acquired and

consumed this type of food. The reservation sits several miles from the coast, so shellfish may have been a rare but significant part of the native diet.

The features on Site 102-123 reveal a great deal about Eastern Pequot food choices in the late eighteenth century. Much remains to be said about the complete makeup of this assemblage. The Eastern Pequot clearly relied upon both European-introduced animals and local wild species as food. Alone this data offers interesting information about a single Eastern Pequot household, but combined with information from Site 102-124 and others, it leads to a broader discussion of diet in the eighteenth century.

CHAPTER IV

SITE 102-124 ASSEMBLAGE SUMMARY

Comparing Sites 102-124 and 102-123 makes it possible to draw important conclusions about the theoretical implications of native dietary practice in the eighteenth century, as many factors influenced the choices made by the Eastern Pequot. On a more fundamental level, they needed food to survive. An assessment of exactly what people ate makes it possible to interrogate more complex questions. These two assemblages must be described in greater detail in order to move beyond the issue of what was eaten to *why* it was eaten.

The faunal assemblage recovered from Site 102-124 represented an array of wild and domesticated species. Most of the recovered specimens were crushed and fairly small, as demonstrated by the fact that the 1565 total specimens combined for a weight of 653.4 g. Within the collection, 828 specimens were so small that they could only be classified as unidentified vertebrates. The crushed bones combined with the large amount of fish bones means that this collection did not represent a large amount of meat.

More than 50%, 815 specimens, of the assemblage were calcined. This portion of the collection offered little species information, aside from a single bone identified as fish. Very few specimens could be identified beyond the level of class. However, identifiable bones indicated the presence of at least thirteen animals, five domesticated

and eight wild. The following sections detail the variety of species found on this site (Table 4.1).

Mammals

The Site 102-124 assemblage contained 174 specimens identified as mammal. Mammal bones accounted for 8.42 kg., or 95.1% of the total biomass. The small size of the collection and the large weight of most mammal bones meant that they also made up about 80% of the total assemblage weight. Most of the mammal specimens were unidentified beyond size, with six recorded as large mammal, twenty-four as medium mammal, and eight as small. An additional 86 were simply identified as mammal and nothing else. The delineation of these groups is detailed in the Methods and Materials chapter.

Table 4.1: Site 102-124 Species Representation

Taxon	Common Name	NISP	MNI	Biomass (kg)	% of Biomass
<i>Bos taurus</i>	Cow	16	1	2.85	41.6
<i>Canis</i> sp.	Dog/coyote	1	1	.11	1.6
<i>Squirrel</i> sp.	Squirrel	12	1	.03	.5
<i>Sus scrofa</i>	Pig	18	3	1.18	17.3
cf. Columbidae	Probable passenger pigeon	1	1	.01	.1
cf. <i>Mus musculus</i>	Probable house mouse	1	1	.01	.2
<i>Tautoga orvitis</i>	Tautog	6	2	.03	.4
Pleuronectidae	Righteye flounder family	1	1	.01	.2
Probable caprine	Goat/sheep	1	1	.16	2.4
SML carnivore	Small carnivore	1	1	<.01	.1
LRG	Large mammal	6	-	.60	8.9
MED	Medium mammal	24	-	.76	11.2
SML	Small mammal	8	-	.05	.7
NID bird	Unidentified bird	13	-	.03	.4
NID fish	Unidentified fish	542	-	.22	3.2
NID mammal	Unidentified mammal	86	-	.76	11.1
NID vertebrate	Unidentified vertebrate	806	-	-	-
Total		1565	13	6.81	100

Pig (*Sus scrofa*), cattle (*Bos taurus*), and a probable caprine made up the domesticated animal species on the site. The probable caprine, which could have been a sheep or goat, was identified by a femur shaft, but that was the only bone that could be related to that group. Cattle and pigs combined to represent four of the thirteen individuals on the site, 51% of the total bone weight, and almost 60% of the biomass. While the pigs were actually more common in the NISP and MNI (three versus one cow), the size of the cattle bones had more prominence in the assemblage weight and biomass. The use of multiple analytical tools showed that pig and cattle composed a significant portion of Eastern Pequot diet.

The cattle bones consisted primarily of teeth, along with a dentary fragment, a rib shaft, and part of a vertebra. The pig bones came from much more of the skeleton. Along with several teeth and a cranial fragment, 67% of the eighteen bones came from various parts of the limbs. Three discrete pigs were recorded based on the presence of three right distal tibias. Also found were a tibia shaft, proximal ulna, proximal radius, distal fibula, and five toe and foot bones. Most of these bones were from the right side of the body, and came from the large 3 m² feature. The presence of three pigs probably means that the bones represent separate meals.

One bone that may have come from a wild or domestic animal was the atlas vertebra from a dog or coyote (*Canis* sp.). This bone was found in the large feature with many of the pig and cow bones discussed above. This animal may also have been food. None of the other bones on the site displayed chew marks, a likely occurrence if a living dog had been present. An additional small carnivore tooth did not match anything in the

University of Massachusetts Boston or Harvard zooarchaeology collection. This was probably from an animal used as food, but what kind is impossible to determine.

Excavations also recovered the remains of two small mammal species. Cranial pieces from a probable house mouse (cf. *Mus musculus*) were most likely not deposited as food. This species is small, and could easily have lived among other faunal remains after the site was abandoned. Several squirrel leg and cranial bones were recovered; a squirrel was a much more likely food source. Squirrels often occupy forested environments containing undergrowth. This squirrel may have been killed nearby or on another part of the reservation since the area surrounding this site offered ideal living conditions. None of the identifiable wild mammal bones in this assemblage were burned.

The mammal bones on this site came mostly from domesticated species. Wild mammals identified in the assemblage indicate the utilization of food from a range of habitats. No wild remains larger than those of a dog or coyote were found. This may be due in part to preservation or the treatment of bone by the site occupants. Whatever the case, Eastern Pequot people clearly ate both wild and domesticated mammals in the mid-eighteenth century.

Birds

The site assemblage also contained fourteen bird bones. The only possible identification was of a passenger pigeon (cf. Columbidae) based on a humerus. Passenger pigeons were one of the earliest described animals in North America because of the sheer size of the flocks in which they traveled (Cronon 1996: 23). Such a huge number of birds would have provided an easy food source, and probably did so until they were driven to extinction in the early 20th century. The other bird bones were

unidentified ribs and vertebrae that cannot be ruled out as being part of the same passenger pigeon. These bones combined for a weight of 2 g and .35% of the biomass. Bird did not compose a large part of the assemblage, but the presence of passenger pigeon indicated another species that an Eastern Pequot person could directly acquire through hunting.

Aquatic Resources

The site produced both fish bones and shellfish, but only the fish were studied in great detail. A basic scan of the shellfish revealed that soft-shell clams were the most common, followed by hard-shell clams and oysters. This signified that the Eastern Pequot remained attached to the coast for acquiring and consuming shellfish in the second half of the eighteenth century. It is unclear how often people from the reservation would collect shellfish for food. The small amount of shell present on this site may mean that shellfish consumption rarely occurred.

The shellfish also offer a connection to the fish species found on the site. Most of the fish bones were unidentifiable vertebra, spines, rays, and ribs; however, it was possible to identify three individuals from two different species. Two of the individuals were tautogs (*Tautoga orvitis*) and the third was a right-eyed flounder (Pleuronectidae). These species live along much of the Atlantic seaboard, feeding on shellfish and other bottom-dwelling marine life (Robins et al. 1986). These fish may have been caught during the collection of shellfish.

Combined, the fish specimens weighed 21.8 grams, which equated to .26 kg and 3.82% of the total biomass. Fish comprised a prominent part of this assemblage, making up a large portion of the site NISP and biomass. Almost every fish specimen found on

this site came from the largest of the three features. The neutral soil conditions in that feature definitely helped preserve this fragile material. This collection offered the best view of the amount of fish eaten on the site.

Discussion

The faunal assemblage recovered from this site appears quite typical of a New England native reservation site. The high percentage of domesticated animal bones indicates a reliance on these types of animals in the Eastern Pequot diet by the middle of the eighteenth century. Fish bones, bird bones, other mammal bones, and shellfish also suggest that the Eastern Pequot continued to consume wild resources from on and off the reservation. Beyond the species present, the frequency of burned, calcined material is especially important. This range of factors combined to form a faunal collection that offers an interesting contrast to that of Site 102-123.

CHAPTER V

SITE 102-123 ASSEMBLAGE

Site 102-123 produced a faunal assemblage consisting of 2700 specimens. These bones were recovered during both the 2005 and 2006 field seasons. The entire assemblage combined for a weight of 1908.7 g. This indicates that many of the specimens were relatively small. Only 524 specimens (19.4% of the collection) could be identified to at least the taxonomic level of Class (Table 5.1). The rest were classified as unidentified vertebrate. Most of this assemblage was broken and burned, but it still offered a significant amount of information.

Within this assemblage, 80.6% (2176 specimens) was crushed and 73.4% (1981 specimens) calcined. The degradation of these bones seems to have been the product of a combination of environmental and human factors. While this portion of the collection was largely unidentifiable, it still played an important role in understanding site formation processes. The remainder of the specimens offered information about the site occupants' dietary choice.

Additional calculations rendered an MNI of twenty-one individuals for the site: eight domesticated and thirteen wild. The species and skeletal parts present equated to a biomass of 23.57 kg. This value, while based on mathematical assumptions does provide a means to conceptualize the composition of the diet of this particular Eastern Pequot

household. And though this biomass is not particularly large, it seems to indicate that the remains are from multiple meals.

Table 5.1: Site 102-123 Species Representation

Taxon	Common Name	NISP	MNI	Biomass (kg)	% of Biomass
<i>Bos taurus</i>	Cow	58	4	10.66	58.6
Caprine	Goat/sheep	1	1	.02	.1
Probable caprine	Probable Goat/sheep	1	-	.10	.5
<i>Sus scrofa</i>	Pig	24	3	1.73	9.5
<i>Odocoileus virginianus</i>	White-tailed deer	1	1	.02	.1
<i>Rattus</i> sp.	Old World rat	2	2	.01	<.1
<i>Microtus</i> sp.	Vole	2	2	.01	.1
<i>Sylvilagus</i> sp.	Rabbit	3	1	.03	.2
<i>Tamias striatus</i>	Eastern chipmunk	1	1	<.01	<.1
<i>Chelydra serpentina</i>	Snapping turtle	1	1	.01	<.1
cf. <i>Cynoscion</i> sp.	Seatrou/weakfish	1	1	<.01	<.1
Serranidae	Seabass family	1	1	<.01	<.1
Sparidae	Porgy family	1	1	<.01	<.1
<i>Micropterus dolomieu</i>	Smallmouth bass	1	1	<.01	<.1
LRG	Large mammal	10	-	1.85	10.2
MED	Medium mammal	138	-	1.81	9.9
NID bird	Unidentified bird	1	1	.01	.1
NID fish	Unidentified fish	40	-	.05	.3
NID mammal	Unidentified mammal	237	-	1.91	10.5
NID vertebrate	Unidentified vertebrate	2176	-	-	-
Total		2700	21	18.20	100

Mammals

Mammal remains made up 17.7 % of the collection (478 specimens). The total weight of these bones was 1653 g., or 86.6% of the total. The majority of the unidentified mammal bones came from medium-sized animals, both wild and domesticated. Medium mammal bones accounted for just below 10% of biomass, and large mammal bones just over 10%. While many of the mammal bones may have been crushed, none of the identifiable pieces were burned. This may relate to behavioral practices concerning the disposal of leftover food waste.

Calculating MNI values for the other mammal bones indicated the presence of at least eight domesticated and seven wild animals. The bones from domesticates weighed

1197.7 g., 62.75% of the total weight of the assemblage. They also equaled 16.2 kg, 68.7% of the total biomass. Domesticated mammals appear to have been the most prevalent of the recovered remains. Body size clearly contributed to the presumed importance of different species on the site.

Cattle were the most common species, totaling four individuals based solely on teeth. All of the cow bones in the collection combined for a weight of 1051.8 g, over 55% of the assemblage weight. These bones also equated to 13.8 kg, just below 60% of the site biomass. Cattle were presumably the largest animals which would have been present on the site, so their bones and meat would easily outsize and outweigh anything else. Horse was the only other large species potentially present, but was not identified on this site. It seems fairly clear that despite the limited nature of this collection, cattle played an important role in eighteenth-century Eastern Pequot diet.

Cattle teeth were the most easily identifiable bones on the site; a total of 45 were found. This is due in large part to the physical composition of teeth, which makes them sturdier than ordinary bone (Hillson 2005). Wear patterns on the teeth indicated that one cow was less than a month old, two were between 24 and 36 months, and one was older than four years (Hillson 2005: 233). Nine other cranial parts were also present, both connected to the teeth and from other parts of the skull. Two of these bones displayed cut marks as evidence of processing the skull for consumption.

The other identifiable bones included vertebrae, long bones, a rib, three tarsals/carpals, and a phalanx. A cut and fractured atlas vertebra was particularly recognizable, as it is the first vertebra and connected directly to the skull. Its condition was indicative of common butchering practices of the period, which entailed the

“division of the head from the vertebral column and longitudinal splitting of the vertebral column (Landon 1996: 71). Other butchered bones included the distal end of a humerus, a tibia shaft, the distal portion of a scapula, and a metatarsal. The diversity of butchered parts means that this Eastern Pequot household may have seen all parts of the cow as a food source, with the cut patterns following typical disarticulation methods (Landon 1996: 75-76).

Remains of the four identified cattle were found across this site and the bones recovered in each feature represented a different portion of the total. Three different teeth that may have been from a single animal came from the cellar. The shell midden contained thirty-two cattle bones representing two animals. These remains consisted mostly of teeth as well as a few cranial fragments, limb pieces, and foot bones. Teeth from three different cattle were recovered from the depression in addition to a pelvic fragment and a metatarsal. They varied in age from less than one month to more than three years of age. No single area contained a remarkably large amount of cattle bones; they seem to have been spread fairly evenly across the site.

It is difficult to tell whether cattle were raised on the site as a form of animal husbandry. The two livestock shoe pieces found in the hearth on the site cannot be definitively identified as coming from cattle since they could have been worn by any large mammal used for labor. Stone walls and enclosures around the site probably served to restrict animal movement. The best evidence in support of animals living on the site came in the form of a calf tooth from an animal less than a month old. It is highly unlikely that a store or butcher would sell an animal of that age. Analysis of meat selection in eighteenth-century Connecticut indicated that cattle between 18 and 36

months of age were generally seen as the highest quality, while animals younger or older were seen as poorly developed or too tough (Bellantoni et al 1982: 5). This evidence seems to support the conclusion that at least some number of cattle lived on this site.

Pig was the other most commonly identified domesticated animal on Site 102-123. This portion of the assemblage weighed 139.2 g., which accounted for 7% of the total weight, 2.24 kg, and 9.5% of the biomass. The comparison of teeth and other bones correlates to an MNI of at least three pigs. All of the recovered teeth indicate pigs between 16 and 22 months of age, with male lower canines serving to identify two separate animals (Hillson 2005: 234). Two tooth rows with teeth embedded were recovered, but neither had any visible cut marks; only one of the pig bones from this site did show evidence of butchery.

The remaining pig bones included a distal humerus, a proximal radius, and half of an atlas vertebra. The atlas was cut in half longitudinally, which coincides with the butchery method discussed above for the cow atlas. Much like the cattle, very few pig bones could be identified except for teeth. This suggests that behavioral practices resulted in the destruction of bones used for food. Such behavior limits assemblage interpretations, while aiding in broader assessments of the site.

Pig bones were even further distributed than the cattle bones mentioned above. The cellar and hearth each contained a few pig teeth that could only be identified as part of a single animal. The bones in the depression included teeth, a proximal radius and the butchered atlas from one pig. A few more teeth came from the shell midden. Different pigs were only identified by the presence of canine teeth. No clear pattern emerged in relation to the disposal of pig on the site.

A single caprine tooth in the collection came from the cellar. Caprine is a catch-all term that describes sheep and goats because they have very similar skeletons, making them extremely difficult to differentiate. Because only a single tooth was identified, this caprine's bones may have been treated in a similar manner to those of the pigs and cattle. Teeth played a significant role in the identification of these animals. The size, frequency, and large proportion of the biomass comprised of these three species indicate the importance of domesticated animals in the diet of this household.

Identifiable wild mammal remains were generally much smaller than domesticates and made up a lesser portion of the assemblage. An STP outside the main site contained a single tooth from a young white-tailed deer (*Odocoileus virginianus*), the only evidence of this species. The upper jaw and incisors from a rabbit (*Sylvilagus* sp.) were also identified. These were the only two wild mammals that can be presumed to have been present on the site as food. They represented .73% of the total biomass, which is probably a low estimate since at least the deer was probably quite large. Presumably, these animals came to the site in fairly large portions as food.

The other wild mammals were burrowing rodents that may have entered the site on their own post-occupation. Only dentary pieces were recovered, equating to five individual animals that amounted to .1% of the total biomass. An examination of the tooth patterns identified the presence of an Eastern chipmunk (*Tamias striatus*), two voles (*Microtus* sp.), and two Old World rats (*Rattus* sp.) (Gilbert 1990). Chipmunks and voles are very small and common in New England, so their presence on the site is not unusual. Old World rats came to the American coast as a product of European

colonization. Each of these species may have been drawn to the site after its abandonment, seeking food left by the human occupants.

One of the rat jaws and both vole jaws were found in the cellar. Because only skulls were found, it is difficult to interpret their recovery in that location. They may have lived in this cellar which was a relatively safe and protected area. The other rat skull came from the shell midden and was nearby gnawed cow bones. This animal may have chewed those bones and lived and died in that area. None of the bones were calcined, so it seems most likely that these animals died in the deposits.

All of the wild mammals in the collection were identified by small cranial fragments, amounting to a statistically insignificant portion of the assemblage. These bones weighed less than 3.0 g, also accounting for less than .1 kg, and less than .5% of the total biomass. Admittedly, these values are drastically reduced because of a lack of identified bones. It is crucial to try to determine if the values in this collection are indicative of changing behavioral and dietary practices as a result of the restrictions of reservation life. The difficulty lies in drawing these types of conclusions from a small collection in fairly poor condition.

Birds

One bird vertebra was identified in the assemblage. It weighed .5 g and represented .05% of the biomass. Bird vertebrae are generally difficult to identify, especially in the absence of any other bones. It could have been from the skeleton of any number of local wild species or introduced domestic ones. This vertebra was one of the few identified bones found outside of a feature. Despite the fact that this vertebra could

not be identified, its very presence adds another dimension to the discussion of native diet.

Reptiles

A single snapping turtle (*Chelydra serpentina*) vertebra came out of the depression. It can be assumed that this turtle was eaten because this site is not wet enough to have supported a living snapping turtle. An Eastern Pequot person is more likely to have captured it in a wetter location. This vertebra weighed only .1 g and represented less than .03% of the site biomass. While reptiles have a very limited presence in this assemblage, they could have been an important local resource.

Aquatic Resources

While most of the forty four recovered fish bones were unidentifiable ribs, spines, and vertebrae, diagnostic pieces aided in the identification of four species. This was accomplished using the comparative collections at the zooarchaeology labs at the University of Massachusetts Boston and Harvard University. The combined weight of the fish remains was just over 3.0 g and .29% of the total biomass. Fish bones generally do not preserve as well as mammal bones because they are much thinner. Fish have many more bones than any other type of animal, but the fact that fish bones outnumber reptile, bird, and wild mammal bones suggests good preservation and possible dietary selection practices.

Of the four identifiable species, three live in saltwater and one in freshwater. The only freshwater fish was a smallmouth bass (*Micropterus dolomieu*), which are common in rocky areas of lakes, rivers, and streams (Page and Burr 1991: 265). This specimen was found in the depression. The saltwater fish included two coastal bottom-feeders, a

seabass (Serranidae) and a porgy (Sparidae). The other individual was a weakfish or seatrout (cf. *Cynoscion* sp.), which is considered an important food and game fish today (Robins and Ray 1986). The presence of saltwater and freshwater species means they had to have been caught at separate times.

The saltwater species may connect to shellfish collection. The seatrout and seabass bones were recovered from the shell midden, and a porgy tooth was found in the depression. Seatrout is an especially intriguing find because they are commonly caught in areas near shellfish beds (Murphy et al 1997). It is not difficult to conjecture that people were harvesting shellfish and catching fish as they went about their work. These tasks could have been part of trips to the coast to harvest shellfish.

Shellfish

The 2006 field season uncovered a large shell midden containing thousands of shellfish. These are largely outside the main focus of this thesis, but a sample was analyzed to complement the faunal data from aquatic environments. Only a basic examination of the shells was completed, serving to identify and quantify the species present in two separate levels. This process involved counting the hinge parts of every identifiable individual, sorting them by species, and weighing the resulting sorted groups. The shell species in these levels were soft-shell clam (*Mya arenaria*), hard-shell clam (*Mercenaria mercenaria*), mussel (Mytilidae), and oyster (*Crassostrea virginica*) (Claassen 1998). These species all exist in a similar saltwater environment (Table 5.2).

Soft-shell clam accounted for 326 of the identified 348 individuals. None of the other species totaled more than ten individuals. Small unidentifiable shell bits comprised most of the midden weight. Soft-shell clam weight equaled just over 41% of the total

3074.4 g. Acquiring and depositing so much shell on the site would have had to have been the product of significant time and effort. The nearest saltwater is approximately ten miles away from the reservation, requiring at least several hours to collect the shellfish and return. This seems like a remarkable investment in acquiring these once common resources that signals a deeper meaning than simply wanting shellfish for food. Shellfish and their symbolic importance for the Eastern Pequot help show why people would be willing to make the trip to the coast.

Table 5.2: Shell Midden Summary

Taxon	Common Name	NISP	MNI	Weight (g)	% Total Weight (g)
<i>Mya arenaria</i>	Soft-shell clam	923	326	1273.8	22.9
<i>Crassostrea virginica</i>	Eastern oyster	26	9	33.3	0.6
Mytilidae	Mussel	110	7	16.1	0.3
<i>Mercenaria mercenaria</i>	Hard-shell clam	38	6	87.1	1.6
Unknown	-	-	-	4144.1	74.6

Discussion

The faunal remains present on Site 102-123 site reveal a great deal about Eastern Pequot food choices in the late eighteenth century. Burning and crushing appears to have impacted most of the collection. This limited the number of species that could be identified. Of those that were identifiable, domesticated animals were the most common. Wild species were mostly local, such as deer, rabbit, and squirrel, but the presence of saltwater fish and many shellfish indicated continued ties to the coast. This site summary makes it possible to examine dietary variation between the mid and late eighteenth century in two Eastern Pequot households.

CHAPTER VI

COMPARATIVE ANALYSIS

The two sites under investigation permit a diachronic analysis of Eastern Pequot foodways. Because this project focused on two sites, the data cannot be seen simply as a conclusive summary of native practices. Rather, it provides an analysis to which other datasets can be compared in an attempt to construct a more comprehensive view of Eastern Pequot life throughout the colonial period. It has been suggested that “[c]ultural traits, social institutions, national histories, and individual attitudes cannot be entirely understood without an understanding also of how these have meshed with our varied and peculiar modes of eating” (Farb and Armelagos 1980: 4). Understanding Eastern Pequot “modes of eating” helps evaluate native choice and consumption and their implications in the study of colonialism.

Each of the sites varied considerably based on its physical layout. Site 102-123 had many aboveground stone features with recognizable purposes. Everything on Site 102-124 was underground, and was only identifiable using STPs and test units. This is quite a disparity seeing as these two locations are separated by only a few decades for their perceived occupation dates and by a small amount of actual space. The faunal assemblages contained many similarities, but also some important differences that must be considered. Identifying the behaviorally-related parts of the assemblages requires

careful consideration of the bones. Comparing these types of sites shows how the Eastern Pequot adopted European resources and adapted them to their purposes.

When considering all of the artifacts recovered between 2005 and 2007, the vast majority appear to have been European in origin. A number of stone flakes were found on both sites, relating to possible stone tool manufacture. In addition, a single projectile point and a whetstone were found on Site 102-123. Several pieces of worked window glass found on Site 102-123 furthered the notion of hybridized native identity. Items of this material type were presumably manufactured in Europe, but were reconstituted for uses beyond their original purpose by native people. For the Eastern Pequot, “these objects were the complex material package that constituted indigenous resistance to and residence in colonial worlds” (Silliman 2005a: 68). This research shows that faunal material can serve a similar interpretive purpose.

Zooarchaeological investigations of identity and food choice have often proved difficult. It has been shown that “bones give a very incomplete view of the complex system of past foodways. Animal bone assemblages often tell more about *what* was eaten than how it was prepared or served, leaving ethnic variation in food preparation difficult to discern” (Landon 2006: 21). Faunal remains cannot tell us everything we want to know about the lives of past peoples, but by looking for patterns and variations, and comparing documentary and archaeological data, animal bones can offer a great deal of information about species availability, food quality, and dietary variation.

Comparing Eighteenth-Century Eastern Pequot Faunal Assemblages

The similarities between assemblages include the high amount of calcined, crushed bone and the fact that the mostly commonly identified species were domesticated

mammals. They differed in the high quantity of fish bones on the Site 102-124 and the presence of the shell midden on Site 102-123. Many factors aid in the interpretation of how people lived on these sites, and how food contributed to representing who they were. This may not have always been an entirely conscious decision by the Eastern Pequot, but the food they ate played an important role in defining their place in the colonial world.

Calcined Bone

More than half of the bones in each assemblage were classified as unidentifiable vertebrate. Almost all of these were also calcined, meaning that they were burned at a high temperature, causing them to become white in color and brittle (McBride 1993a; Reitz and Wing 2007: 133). A few burned fish vertebra were identified, but otherwise no calcined bones could be recognized. Calcined bone actually represented more than half of the total number of specimens in each assemblage (Figure 6.1). The large amount of calcined bone seems uncommon for assemblages of this time period, supporting the notion that its deposit was an intentional behavior (Landon 2008). Calcined bone actually survives better in acidic soil than non-burned bone, which may have influenced the overall composition of the assemblages.

The practice of burning animal bone was widespread among native groups in New England. This has been attributed to the belief that the mistreatment of bones “amounted to a sacrilege that angered prey animals’ spiritual protectors, who would retaliate by ensuring that offending hunters were thereafter ‘unlucky in the chase’” (Anderson 2004: 31). The introduction of domesticated animals altered their relationship with the animal world. Native people had to reassess their daily lives and rituals to incorporate new animals. This definitely seems to have occurred on Sites 102-123 and 102-124.

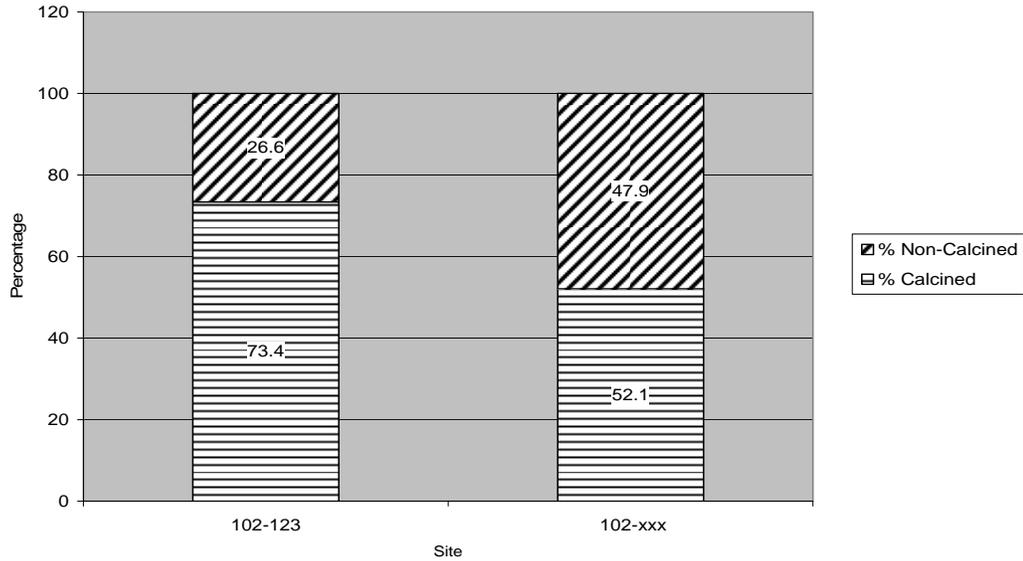


Figure 6.1: Calcined Material Percentage Per Site

Several other reasons have also been considered for why calcined bone is so commonly recovered on native New England sites. One notion is that “much of the burning might be expected to result from activities other than meat preparation, such as housekeeping chores when discarded bone was swept into the hearth” (Crader 1990: 710). The large depression on the Site 102-123 contained a great deal of charcoal and calcined bone and may be indicative of this very process. Calcined bone was spread across both sites and concentrated in several areas. It is unlikely that its presence can be solely attributed to site cleanup.

Another explanation for the presence of a large amount of crushed bone is that it “may be the result of cooking practices related either to reusing the bones for several meals or...bones would have been intentionally smashed and then cooked to acquire the highly nutritious bone grease (Andrews 2003: 28). The presence of calcined bone on

these sites may indicate that the native cooking practices discussed by Daniel Gookin in the seventeenth century were still in use in the mid- to late eighteenth century (Gookin 1972). The dramatically reduced amount of calcined bone in Cipolla's (2005) research on two nineteenth century assemblages may mean this practice had been altered by that time. All of these explanations seem feasible and may have worked in conjunction to form the largely calcined assemblages on these two sites.

The adoption of domesticated animals occurred throughout New England at the beginning of the eighteenth century. This notion is supported by the assemblages on the two sites in this study. However, the exact degree of adoption is difficult to discern due to differential treatment of native versus domesticated animals. Historical research in the region supposes that "Pequots...continued to honor keepers of the game by carefully burning wild animal remains. They gave the bones of livestock...no such treatment. Domestic livestock was not an agent of radical change but a supplement to the Indians' economy and culture" (Silverman 2003: 528). It cannot automatically be assumed that all of the unidentifiable bones in the collection were from wild animals; rather there is a good possibility that wild and domesticated animals had their bones burned and crushed for different reasons. The destruction of bone makes it impossible to fully comprehend native dietary practice.

However, the bones that are present still provide important insights about what Eastern Pequot people ate. Identifying wild animals on these sites ensures that they are recognized as a food source. Changing native practices regarding food choice in the eighteenth century mean that species presence is essentially as important as quantity. Aside from the large feature on Site 102-124, wild animals are very limited in these

assemblages. That feature may be the product of different factors unique to that area. A lack of crushed and calcined bone helped demonstrate the uniqueness of this feature.

Species Selection and Representation

Domesticated mammals were the most frequently identified animals on both sites. It is clear that by the mid to late eighteenth century European-introduced animals played a large role in Eastern Pequot diet. Cows and pigs were the most commonly identified, with one caprine also present on each site. These animals when alive offer a large amount of food, but it remains to be seen how much was actually present. Assemblage condition makes this a relatively difficult task.

Determining whether the Eastern Pequot on these two sites kept livestock aids in the assessment of possible portion size. Some studies have shown that “the amount of architecture associated with livestock provides a rough indication of the relative importance of animal husbandry...corrals are the most consistent indication of livestock production at rural sites” (Trigg 2005: 101). The stone walls and small enclosure on Site 102-123 probably contained live animals. Site 102-124 had nothing that could be connected to animal husbandry. The animal remains themselves offer the best evidence for the amount of meat present.

It has been claimed that “a high degree of skeletal completeness may indicate the animal was killed nearby...Animals with few elements represented indicate transport [or] extensive butchering activity” (Reitz and Wing 2007: 204). The presence of several limb and foot bones on Site 102-123 correspond to this notion and were probably part of live animals or large cuts of meat. The five different limb bones, along with toe and foot

bones on Site 102-124 provide the most complete remains of an animal's legs. This actually makes the strongest case for a live animal on either site.

Pigs would have been the easiest species for the Eastern Pequot to adopt into their daily lives. The value of pigs was credited to "the great virtues of reproducing themselves in large numbers...Moreover, in contrast to most other English animals, they were generally able to hold their own against wolves and bears, so that they could be turned out into the woods for months at a time" (Cronon 1996: 129). The Eastern Pequot would have had to change very little to benefit from the presence of pigs, which could largely take care of themselves and be used as food when necessary. Although the exact quantity of domesticated animals consumed on each site remains unclear, the Eastern Pequot probably acquired both live animals and large portions of meat as food.

All of the wild animals believed to have been eaten would have been brought to the site and, aside from the deer, were small enough to be transported whole after being killed. As discussed above, the small burrowing mammals, voles, mice, chipmunks, and rats were unlikely food sources. They could very easily have been present on the site as a result of "burrow death or predator scatological droppings" (Schmitt and Lupo 1995: 497). The canine atlas and small bird vertebrae may represent wild or domesticated animals. It is impossible to determine anything about these animals except that they were probably used as food. Wild food came to the site either as a whole animal or nearly complete portion, the limited number of bones associated with each species makes the transported amount difficult to determine.

A comparison of the biomass values on each site expressed an emphasis on mammals for food. Figure 6.2 displays the biomass composition for Site 102-124 and

Figure 6.3 represents the biomass of Site 102-123. More than 95% of both biomasses were represented by mammals, wild, domesticated, and unidentified. All other groups of animals accounted for less than 1% of the biomass except for the fish on Site 102-124 (4.4%). Preservation on that site played a significant role in showing the importance of animal species aside from fish in the regular native diet. Shellfish were not included in the biomass estimate since they fell outside the main focus of this research. These data show the similarity between sites regarding the ubiquitous presence of mammals as food.

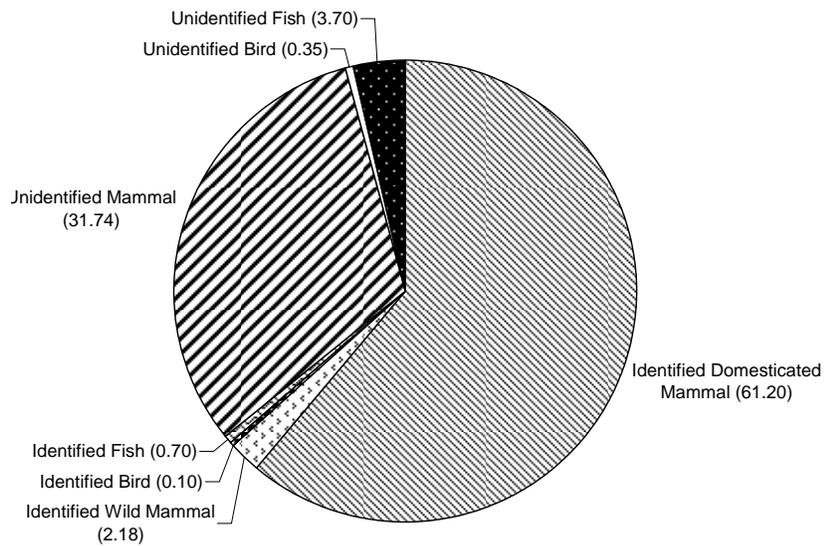


Figure 6.2: Site 102-124 Biomass Percentage

An interesting insight gleaned from the fish analysis dealt with processing methods. Of the approximately 600 fish specimens combined from both sites, almost none were identifiable cranial pieces. Fish crania are the easiest parts to identify, and should have been fairly common considering the amount of material. However, it

appears that the heads were removed during cleaning. This probably served both to reduce carried weight and keep the meat fresh if it had to be moved before being eaten.

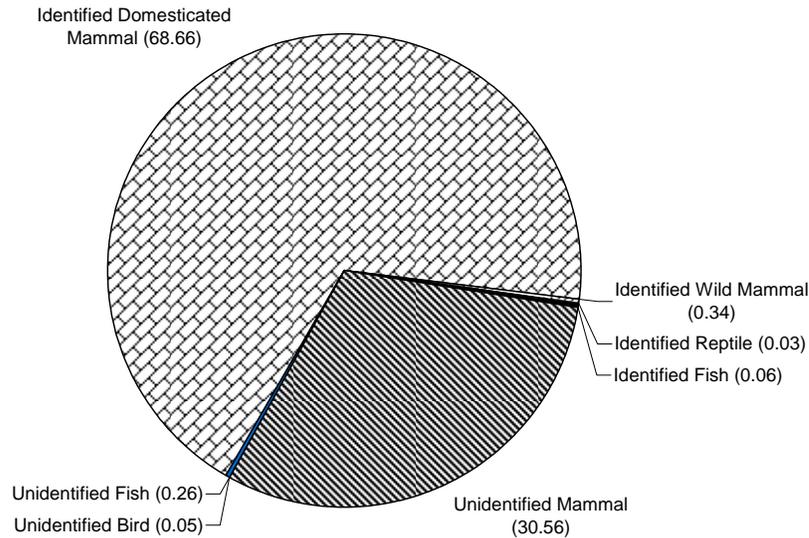


Figure 6.3: Site 102-123 Biomass Percentage

The notable importance of shell on Site 102-123 was previously discussed, but must be considered against the wider context of reservation life. Shell was only occasionally encountered on the Site 102-124, meaning that the shell midden on the later site served some significant purpose. The Pequot had once lived directly on the coast and had constant access to marine resources, where they were a prominent part of the wampum trade. Collecting and consuming a large amount of shellfish could have been a way, approximately a century after the creation of the reservation, to reaffirm ties to the past. Shellfish could “be gathered by men, women, adolescents, and children with little or no equipment. Such collecting is a sociable task, one regarded in many cultures as an opportunity for social converse” (Bragdon 1996: 111). This could have been a way for

Pequot elders, who were only a few generations from those who lived on the coast, to impart wisdom and reinforce group identity while acquiring important resources.

The amount of shell sampled in this study was only a small portion of the full midden, meaning that there was a tremendous amount of food consumed in this area. The mixture of rock, soil, and shell in the midden may represent the remains of several large meals. Considering that the rest of the faunal remains on both sites constitute a biomass of less than 33 kg combined, the quantity of shell is remarkable. If people did come together to eat this food, it could have allowed people to “create cooperative relationships within groups or conversely, exclude different groups... [or] create cooperative alliances between social groups” (Hayden 2001: 29). Available evidence does not fully support the notion that this was a feast, since feasts have particular social connotations which cannot be obviously seen in this feature, but it may represent several large meals at this location rather than the accumulation of numerous small ones. Eating shellfish that were once a common part of Pequot diet could have helped reinforce ties to the reservation and the past.

These two assemblages reveal information about a people trying to combine past ways of life with newly introduced Euro-American practices. Eastern Pequot people developed a hybridized set of foodways due to the restrictions placed on them by reservation life. By the mid-eighteenth century, it had become impossible to solely consume deer and other wild animals. Adopting cows, pigs, and other animals was one of the more effective ways by which native people were able to subsist on reservations. Aside from the archaeology, the documentary record offers the best way to understand changes in native diet.

Document-Aided Interpretation

The Wheeler account books provide the best way to put a monetary value on the food bought and sold by select Eastern Pequots. The ledgers provide important contextual information related to the sites examined in this thesis. They are considered comparative data because they do not directly connect to the sites being studied, but do coincide with the time period under investigation. George Toney and James Nead were involved in many transactions with Wheeler and other merchants spanning several years in the mid-eighteenth century. Toney and Nead each bought and sold items at Wheeler's store. The fact that Toney worked for Wheeler means that his activities were more carefully detailed. Aside from those two men, many other people bought and sold goods at Wheeler's store. These people were often described as "native," with no additional details provided (Wheeler I; Wheeler II).

Both Toney and Nead bought meat from Wheeler on various occasions. Toney bought ten pounds of beef in one deal, and also bought about ten pounds of pork spread across deals that spanned several years (Wheeler I: 38; Wheeler II: 11-41). This purchasing pattern seems consistent with eighteenth-century New England practices. Meat availability changed seasonally, where "the lamb, mutton, and veal categories peaked in the spring and summer...beef had two major peaks in fall and late winter with minimal representations in the summer [and] pork transactions had more variation" (Derven 1984: 56-57). Toney purchased his beef in April, well outside the late fall/early winter slaughtering season, and he bought pork in March, May, and June. Nead bought ten pounds of beef and twelve pounds of pork in one undated interaction, and he also bought pork and veal in June and May, respectively. Neither Toney nor Nead was

mentioned in relation to any live animals, supporting the idea that much of the meat consumed on these sites may have been previously butchered and purchased elsewhere.

Toney also purchased one fish in 1744 (Wheeler I: 38). With this being the only mention of him or Nead buying fish, this may have been a rare occurrence. In fact, Toney was credited for selling two dozen eels to Wheeler, and Nead sold 37 pounds of bass (Wheeler I: 50; Wheeler II: 77). The fact that both men were able to sell fish to the market suggests that this may have been surplus that they were using to supplement their income. These actions show that the Eastern Pequot were not simply passive recipients of market goods; they were also actively selling goods when the opportunity arose.

The ledgers also provided some clues about the lives Toney and Nead led. Both men may have been raising their own crops for sale and personal use. Toney was recorded as having missed work because he was tending corn. This corn was never sold to Wheeler, so it may have been sold to other people, or “it may represent farming for subsistence rather than trade” (Witt 2007: 55). James Nead was recorded as selling “wosted” on many occasions (Wheeler II: 42-85). This may be a mislabeling of a type of fabric known as worsted. It is uncertain whether these men lived on the reservation, but their ability to access farmland at least supports the idea that they raised animals.

One other day that Toney was reported to have missed work offered details about his food choices. He was described as having missed “1 day quoyhoging” (Wheeler II: 33). This provides another line of evidence showing that Eastern Pequots were going to the coast to get shellfish, and having it only listed once may mean that its rarity relates to its significance. Other mentions of shellfish in the ledgers cannot be tied to the Eastern Pequot, but are also interesting. A man named John Wogs sold several dozen bushels of

oyster shells to Wheeler in November of 1750 (Wheeler II: 34). This raises the issue of whether the Eastern Pequot may have been selling shellfish. The shell midden consisted mostly of soft-shell clams, so it is unlikely that Eastern Pequot bought the oysters. Acquiring and selling shellfish could have been another way that native people were able to use traditional resources in the colonial marketplace.

Wheeler's account books also recorded prices, which can help differentiate the value placed on different types of items. Over one four-month period in 1744/5, George Toney was paid twenty pounds, twelve shillings, and six pence, an average of just over five pounds per month (Wheeler I: 41). The ten pounds of beef and ten pounds of pork that he purchased cost one pound and thirteen shillings (Wheeler I; Wheeler II). In a single transaction, he bought one fish and a peck of potatoes for a shilling (Wheeler I: 38). James Nead bought ten pounds of beef, twenty pounds of pork, and eight pounds of veal for four pounds, eleven shillings, and ten pence (Wheeler II: 42-77). He also bought onions and a bushel of corn for one pound and eleven shillings. These numbers show that meat was the most common type of food purchased. It also accounted for the largest portion of food expenses.

Both men bought other items from Wheeler, providing another comparison to food costs. Many transactions combined the types of items purchased, making it more difficult to discern how much was spent on each object. Toney also bought a knife, a hoe, a hat, yards of cloth, cider, and rum. These items cost a total of nine pounds and thirteen shillings (Wheeler I; Wheeler II). Nead spent two pounds and twenty shillings on cloth. Toney was much more active in the Wheeler account books, buying a much

broader range of items. He spent quite a bit more on other types of material culture, while Nead spent the most on food.

If Toney's four month pay represents an average for native people at that time, then these men each spent a great deal of their money at Wheeler's store. Items that each sold would have provided some additional purchase power. Toney made four shillings selling eels, while Nead sold cloth and fish for ten pounds, thirteen shillings, and nine pence (Wheeler I; Wheeler II). Toney clearly made most of his money as Wheeler's laborer, while Nead more often sold goods to make money. This information demonstrates that native people did not always accept indentures to make money. The Eastern Pequot had multiple ways to make money in the colonial world, and clearly took advantage of the situation.

Other documents offer a way to evaluate the quality of meat on the reservation based on the bones from the two sites. Most studies that have tried to evaluate meat selection have drawn upon records that focused on Euro-American settlements. Those studies cannot be expected to take into account preferences which may have guided Eastern Pequot choice. One study of native dietary practices in California determined that "the relatively equal representation of skeletal elements suggests, in part, that Native individuals exhibited no preference for beef cuts, choosing low-meat parts such as feet and toes as often as meaty ribs" (Silliman 2004: 160). Research in New England has not yet identified similar patterns in the archaeological data. The Eastern Pequot may not have favored particular cuts of meat in the same way as colonists, but it is still an interesting comparison of food selection.

Several studies concluded that the limbs, lower vertebrae, and pelvis were the most desirable body parts. These portions contain a lot of meat which could be easily processed. The head, neck, scapula, ribs, and feet were all seen as less preferable (Bellantoni et al 1982: 4; Crader 1990: 699; Garcia and Rackham 2000: 100). This information stemmed from slave and Euro-American contexts in eastern North America and can be compared to the Eastern Pequot sites.

Pig remains were noticeably more common than cow bones on Site 102-124. Seven (54%) of the bones excluding teeth were from the limbs. This was the largest number and highest proportion of any remains that could be considered high quality. Very few cow bones were present on this site, two rib fragments and a thoracic vertebra may have been chosen as more preferable meat (Figure 6.4, 6.5). This may relate to the previously discussed practice of bone crushing. If animal bones were crushed during food preparation or for a ceremonial purpose, then the amount of recognizable material could be dramatically reduced. The frequency of high quality pig bones could be connected to preferential choice of meat cuts.

The body parts present in the Site 102-123 assemblage were also quite limited, making the determination of intentional part selection difficult to assess. Excluding teeth, only five other cow bones (25%) came from the preferred body parts (Figure 6.6, 6.7). A thoracic vertebra and a rib fragment could have fit the pattern, but it was not definite. Although only a few bones were actually identified, they seem to have come from all parts of the body.

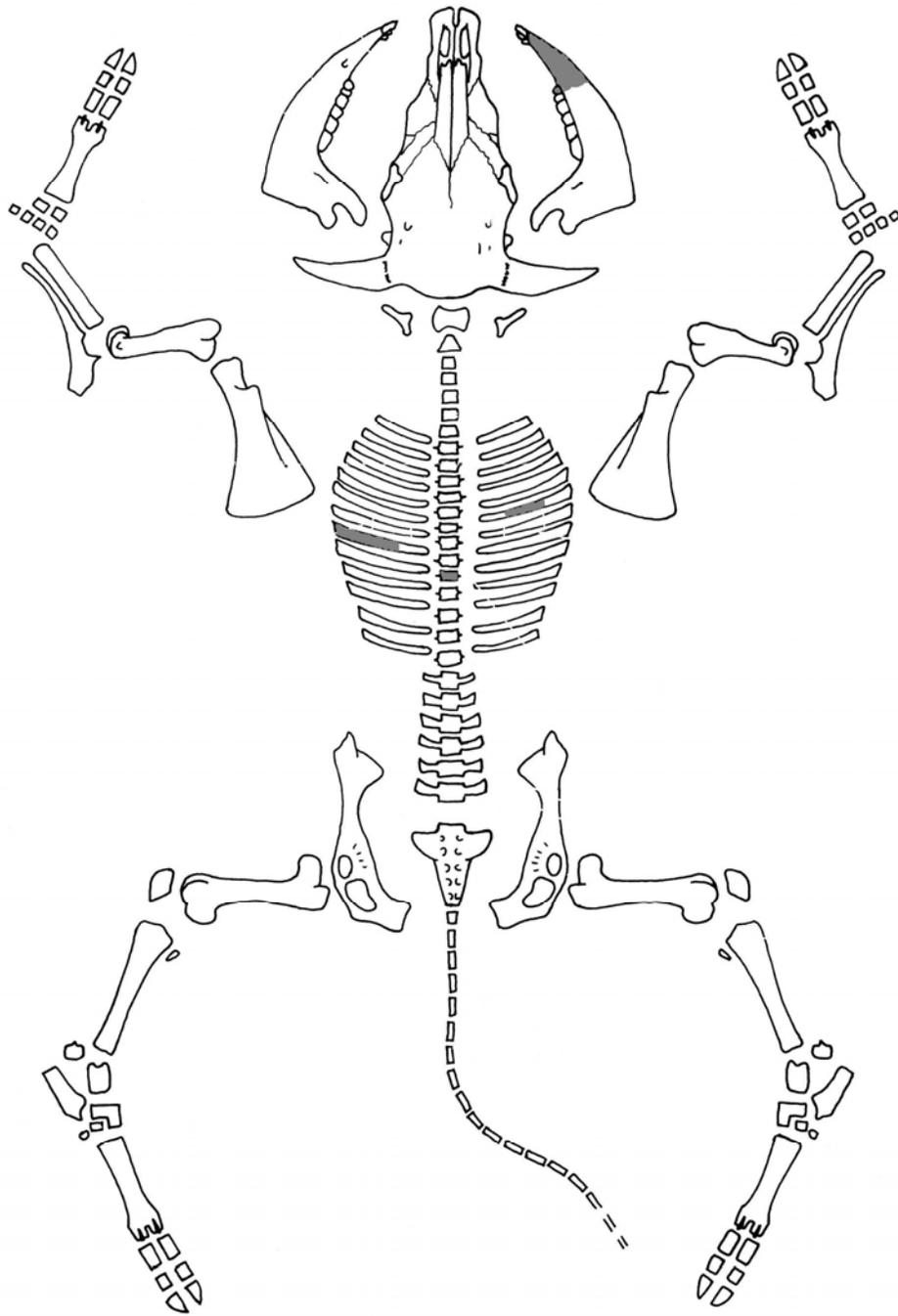


Figure 6.4: Site 102-124 Cow Skeletal Representation Adapted from Helmer 1987

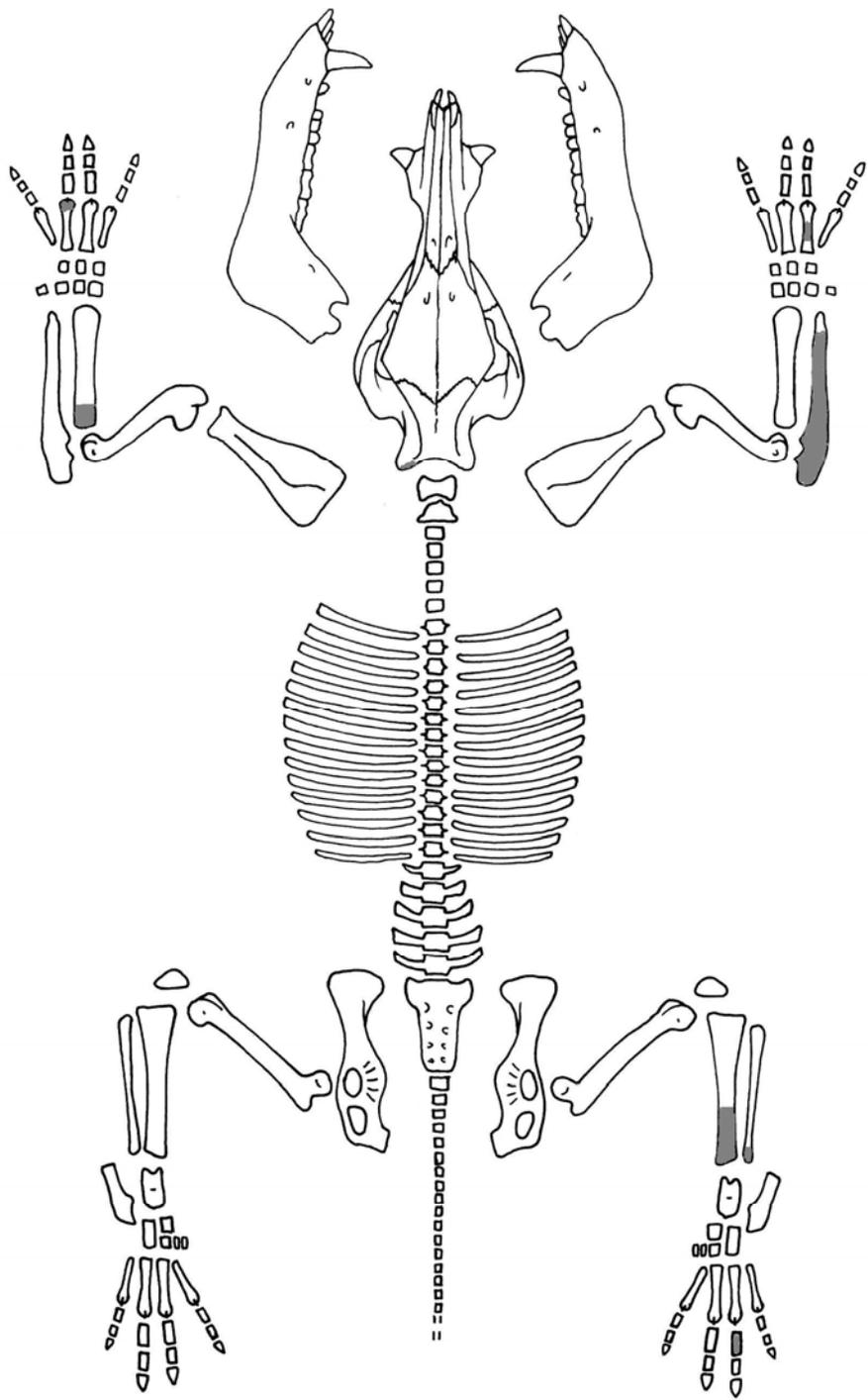


Figure 6.5: Site 102-124 Pig Skeletal Representation Adapted from Helmer 1987

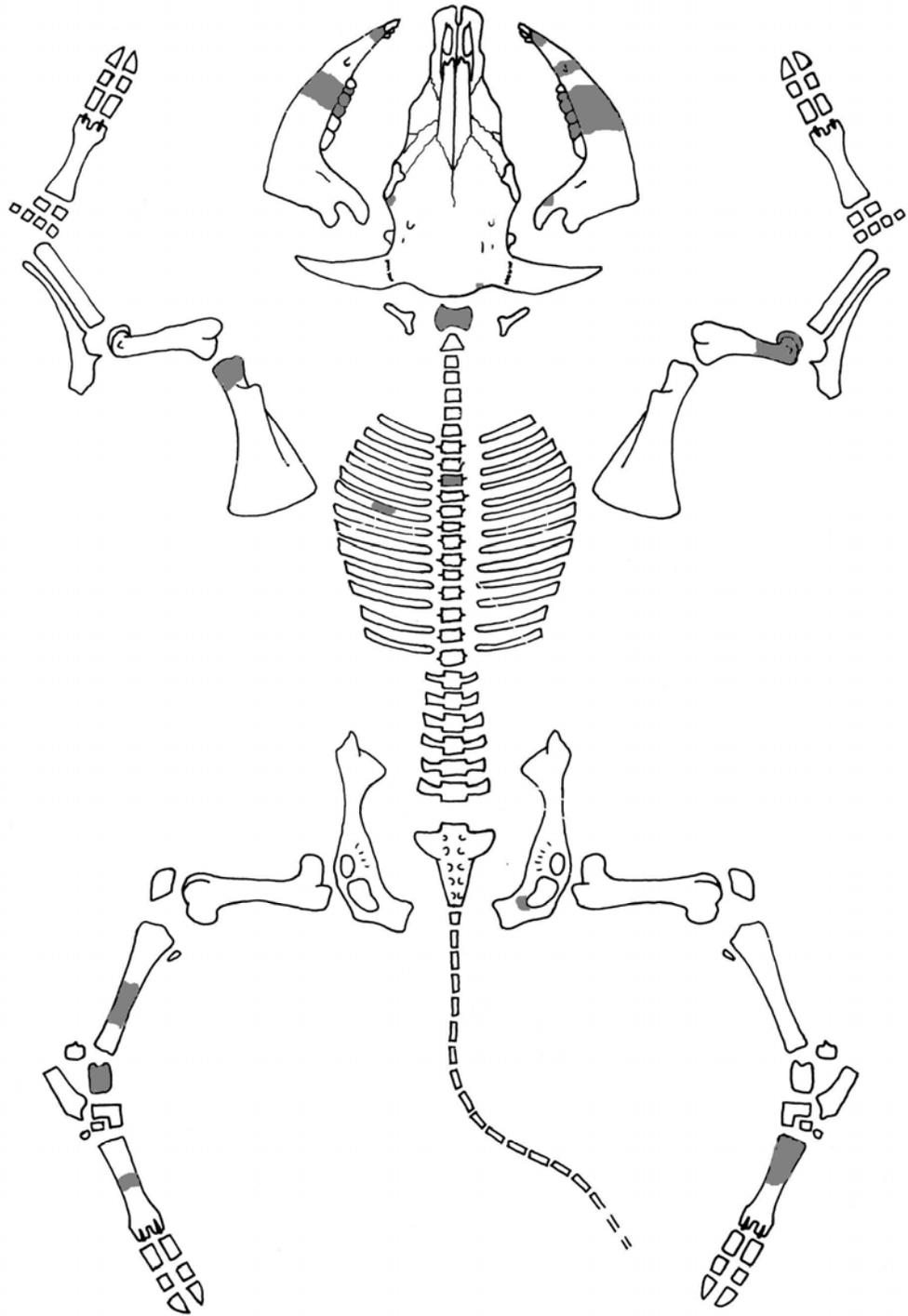


Figure 6.6: Site 102-123 Cow Skeletal Representation Adapted from Helmer 1987

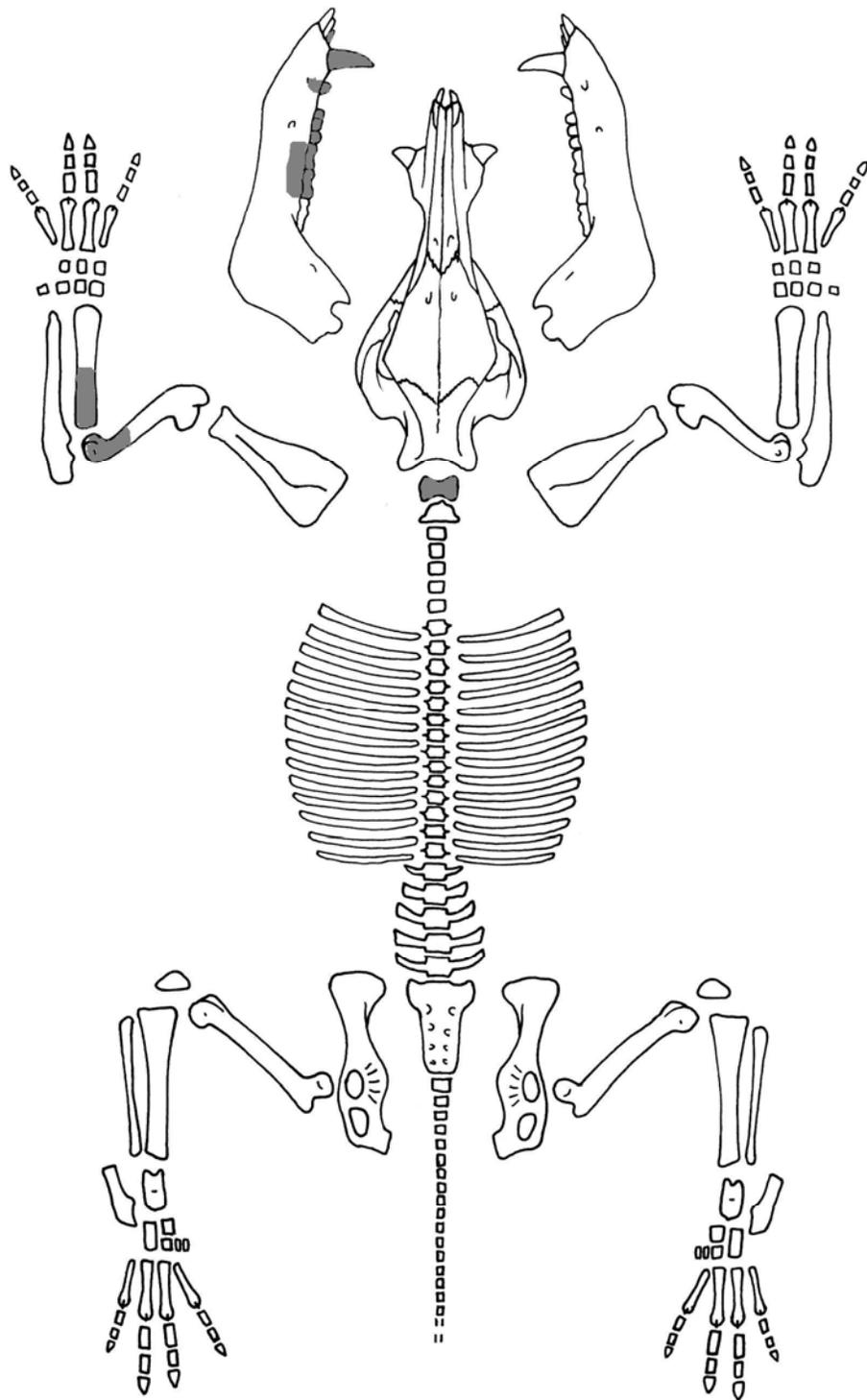


Figure 6.7: Site 102-123 Pig Skeletal Representation Adapted from Helmer 1987

The range of cow bones indicates that the Eastern Pequot on these sites did not exercise any demand for certain types of meat. In fact, the mixture of high quality and less desired bones supports the idea that the remains were simply deposited as “domestic debris derived from meat consumption” (Garcia and Rackham 2000: 100). The Eastern Pequot probably either slaughtered a cow, or more likely bought a large enough portion that they were able to process many different bones to collect meat. One other possibility for explaining the minute presence of pig was the consumption of salt pork. When an animal was salted, the bones were typically removed, meaning that pigs could be underrepresented in this assemblage (Huelsbeck 1991: 63). The ledgers show that George Toney and James Nead both bought more pork than beef. The way it was processed and sold could have a major impact on its condition in the assemblage.

Comparing the two assemblages under investigation yielded some important finds. The types of animals in each collection were indicative of a group who had the ability to use both domesticated and wild animals as food. Eastern Pequot people in the mid- to late eighteenth century had not become Europeanized as colonists wished, but they were also not living lives exactly like their ancestors a few generations before. They had successfully combined what they knew from the past with what had been introduced by Euro-Americans to shape a unique identity. The choices made by the Eastern Pequot must be compared with other time periods and locations to better understand the changing diet of native people.

Nineteenth-Century Eastern Pequot Foodways

Cipolla’s (2005) thesis focused on two early nineteenth-century Eastern Pequot houses. His project extends the amount of time available for archaeological study on the

reservation to almost a full century. Excavations in 2004 investigated these houses, which had been identified by aboveground stone features. The faunal remains should help to enhance any notable distinctions between the sites.

Excavation units were placed inside and outside of both houses, including trash pits associated with each. Ceramics and pipe stems found during that field season correlated to an occupation extending from the end of the eighteenth century into the nineteenth (Cipolla 2005: 35-36). Cipolla identified 74% of the 2004 assemblage to the level of Class (Cipolla et al n.d.). The assemblage in his study was in considerably better condition than the collections analyzed in this project. It is not entirely clear why this was the case, but bone was clearly less crushed and burned than on Sites 102-124 and 102-123. This may lend credence to the notion that the heavy processing of animal bones had subsided into the nineteenth century.

The 2004 collection contained 1949 specimens and weighed 1931 grams. This amounted to several hundred less specimens than the Site 102-123 collection and several hundred more than the total recovered from Site 102-124. Calcined bone accounted for 40% of the assemblage, which was quite a bit less than either of the other collections (Cipolla 2005: 59). These sites produced information on three separate Eastern Pequot households. Their comparison should help to answer broader questions about consumption in the colonial period.

The 2004 assemblage contained most of the same domesticated animals as the two earlier sites. They included the remains of four pigs, two cattle, and two caprines. A domestic cat was also identified, which while originally imported from Europe could have been in the Americas for several centuries (Cipolla 2005: 44). Like with Sites 102-

124 and 102-123, mammals made up the largest portion of the 2004 collection, totaling 80.8% of the total specimens and 97.3% of the biomass (Cipolla 2005: 41). The remainder of the total biomass was comprised of birds (1.9%), fish (.4%), and reptiles (.2%). Except for the high number of fish remains in the 2007 assemblage, all three sites followed the same pattern with mammals being the most common, then fish, birds, and reptiles. Biomass on the 2004 site totaled 16.8 kg, which is similar to Site 102-123's biomass (18.2 kg), and more than twice that from Site 102-124 (6.8 kg). None of the assemblage represents many meals, but each contains important species information.

Several wild mammals found on the earlier sites were also present on the 2004 site. A single deer bone was found, along with a few rabbit bones, and the remains of a vole and rat. The only other wild mammal specimen came from a woodchuck (Cipolla 2005: 44). The deer, rabbit, and woodchuck were most likely food, and their limited presence could once again be indicative of native practices of burning and crushing hunted animal bones. As on the other two sites, the rat and vole could easily have burrowed into the site post-occupation. This data shows that the Eastern Pequot continued to consume the same mammal species as they had in the previous century.

None of the bird species found in 2004 could be identified in the other assemblages. Goose, chicken, and wild turkey were all located on this site (Cipolla 2005: 44). Goose and wild turkey were common local species that could easily have been acquired as food. The presence of a chicken demonstrates the expansion of animal husbandry. Chickens could be egg producers and used for meat, so they would have many beneficial purposes if incorporated into Eastern Pequot lifeways. The only bird identified on the two earlier sites was a probable passenger pigeon, but several specimens

remained unidentified. It seems that through all three sites, birds continued to be at least a supplemental part of native diet, and may have grown in importance with the consumption of chickens.

A single snapping turtle was identified in the 2004 assemblage (Cipolla 2005: 44). This species was also encountered on Site 102-123, but not on Site 102-124. Its presence on two different sites suggests that Eastern Pequot people may have captured snapping turtles for food on a somewhat regular basis. Snapping turtles could have been caught in the fairly common marshy portions of the reservation. They represent a reliable and easy to collect food source that could have been an important to Eastern Pequot diet.

The aquatic animals found were common to at least two of the three sites. Cipolla analyzed every shell in the 2004 assemblage in an attempt to determine species. The general trend for shell frequency appeared similar to that found on the other two sites, where soft-shell clam was most common, followed by hard-shell clam, eastern oyster, and mussel (Cipolla 2005: 58). These shells show that the Eastern Pequot remained connected to the coast through the beginning of the nineteenth century. Shellfish consumption seems to have been a practice of common importance through these three sites.

Several species of fish were also present in the 2004 collection. One porgy, a marine species also identified in the 102-123 assemblage, was recorded. Two freshwater fish, a chain pickerel and yellow perch, were additionally recorded (Cipolla 2005: 44). Porgy as previously discussed frequent shallow areas near shellfish beds, so it is not surprising that the remains of this species would be found near shellfish in the archaeological deposits. Freshwater fish could have been caught from local waterways,

or bought as evidenced by the Wheeler ledgers. The shellfish and fish support the notion that Eastern Pequot acquired and consumed many of the same species at least over the period represented by these three sites.

Overall, the faunal assemblage recovered in 2004 was quite similar to those found in 2005, 2006, and 2007. There may have been a slightly larger dependence on domesticated animals with the presence of more mammals and a chicken. Most of the wild animals were the same species found on the earlier sites, meaning the Eastern Pequot of the nineteenth century relied on similar food sources. Little appears to have changed between the mid-eighteenth and early nineteenth century regarding Eastern Pequot food practices. Many bones were crushed and calcined, with the remainder being mostly the remains of domesticates. The Eastern Pequot appear to have been quite successful in developing and maintaining a diet that combined both European-introduced and wild resources.

Pre-Colonial and Early Colonial Period New England Foodways

A comprehensive survey of pre-colonial and early colonial period native sites in New England summarized faunal remains recovered near the Eastern Pequot (Salwen 1970). Two of the sites were on Long Island Sound, the former home of the unified Pequot tribe. Each site contained a large shell midden which produced the faunal material. Salwen postulated that “the scarcity of bird and mammal bone...does not indicate a dietary reliance on shellfish to the virtual exclusion of other sources of protein, but rather, a pattern of subsistence involving regular shifts among a group of special-purpose sites.” (Salwen 1970: 3). Each site, Croton Point and Muskeeta Cove 2, was apparently a short-term occupation camp used to exploit marine resources. These sites

dated to the Woodland Period, so they contained no domesticates aside from a few dog burials.

The third site, Fort Shantok, was located on the Thames River and occupied from the sixteenth to early seventeenth century. The modern-day Eastern Pequot reservation sits only a few miles away. Its faunal assemblage mirrored those found on the sites discussed in this thesis. Mammals accounted for more than 95% of the assemblage, with fish, bird, and turtle representing the rest. Salwen noted a shift from the use of wild to domesticated mammal at the beginning of the eighteenth century (Salwen 1970: 6). This seems in line with prior research.

This investigation covered a large area and examined sites tangentially connected to the Eastern Pequot. Salwen could not determine a cultural affiliation of the prehistoric sites, though they could have been Pequot predecessors. His work at Fort Shantok is notable for its general similarities in relation to the Eastern Pequot sites. This site's identification as a fort means that it was fairly large and may have been a meeting point for different groups of native people. The growing presence of domesticated animals in its assemblage shows the increased spread and negotiation of Euro-American behaviors.

Mashantucket Pequot Foodways

Two major studies were conducted that examined the faunal remains from over 100 native and Euro-American sites on the Mashantucket Pequot reservation, which sits almost next to the Eastern Pequot reservation and shares a similar colonial history. The summarized results of this work showed that of the more than 23,000 specimens evaluated, four percent were identifiable to at least the taxonomic level of Order (Andrews 2003: 1). The Mashantucket bones were actually crushed even more so than

those in the Eastern Pequot assemblages. Mean ceramic dates were used to estimate when each site was occupied. With this information, one native site was dated to between 1675 and 1680, and four others, two native and two Euro-American, were found to have dates from the mid-eighteenth to the early nineteenth century. All other sites either did not date to this time period or did not contain enough bones to make a reliable comparison. The faunal assemblages from these sites allows for the comparison of the two Pequot reservations.

Seventeenth-Century Mashantucket Pequot Foodways

Only one Mashantucket site definitively dated to the seventeenth century. This site has been identified as the “Monhantic Fort,” which was a palisaded village (Andrew 2003: 25). The assemblage for the seventeenth-century site contained 7273 bones, of which less than one percent was identifiable to species (Andrew 2003: 26). The analysis did not include the amount of calcined bone, although considering the assemblage’s condition it was probably quite burned. Within this assemblage, fish bones equated to 88% of the total, and mammal, bird, turtle, and vertebrate bones made up the other 12% (Andrews 2003: 26). These proportions are somewhat similar to those of the Eastern Pequot site 102-124. Being a late seventeenth-century site, this faunal collection provides one of the best ways to view native foodways prior to the sites discussed in the previous chapter.

The mammals represented in the collection indicate that the fort occupants still relied heavily on wild foods. Pig, caprine, and cow were present, but only in very limited amounts. Wild species on the site included “rabbit, squirrel, box turtle, bobcat...turkey and white-tailed deer,” and another assessment noted “snapping turtle,

stinkpot...slider...woodchuck, and beaver” (Andrews 2003: 26). Deer was the single most common species identified, mostly by teeth, small foot bones, or broken pieces. Without actually viewing this collection, it is difficult to tell its condition, but the fact that even identifiable bones were broken may mean that remains were being crushed in food preparation or before disposal.

The aquatic species encountered consisted of “herring, cod, tautog, eel, [and] crab or lobster” (Andrews 2003: 26). Of these, cod and tautog, crab, and lobster live in saltwater and furthered the connection of the Pequot to the coast. Herring and eel may have been caught locally since they can be found in saltwater and freshwater. The presence of eels can tangentially be connected to the Wheeler ledgers where George Toney received credit for selling the same species. The Monhantic Fort differed quite a bit from the later Eastern Pequot sites; it served to connect Salwen’s prehistoric sites with those discussed in this thesis and later.

To date, no seventeenth-century Eastern Pequot sites have been excavated. Their generally ephemeral nature makes them difficult to locate. This large, notable Mashantucket Pequot site, however, provides an important comparison for earlier foodways. While domesticated animals were present, they were clearly not as common as wild animals. Earlier sites are crucial to the development of a long and detailed chronology of changing native practices in New England. A better understood early colonial history will help future research to interpret when Euro-American behaviors were first absorbed into native life.

Eighteenth-Century Mashantucket Pequot Foodways

The two eighteenth century Mashantucket Pequot sites yielded mean ceramic dates of 1769 and 1764 (Brown 1998). Zooarchaeological data for these two sites have not been fully analyzed, so this thesis offers only a general summary of the previous findings. Most of the remains on both sites were crushed and calcined, mirroring the results from the Eastern Pequot reservation. There were a number of identifiable species on each site. Cows and pigs were the most common, mostly based on teeth. Besides the large number of cow and pig remains, there were also several wild species.

Deer was the most prevalent wild mammal species (Brown 1998). Several teeth and foot bones were found in this assemblage. A few small mammal bones were also recorded, one being part of a probable beaver. The mammal bones on these two sites are quite comparable to those of the Eastern Pequot. Assemblage condition seems fairly similar on both reservations.

Shellfish were only quantified for one of the two Mashantucket sites. There were a number of shellfish, with soft-shell clams and eastern oysters in fairly even proportions as the most common. A few hard clam and mussel specimens were also recorded. Fish bones were found on both sites, but none were identified. This indicates that the Mashantucket Pequot also continued to gather and consume aquatic resources.

The eighteenth-century Mashantucket assemblages suggest similar dietary and behavioral practices between the two reservations. The Mashantucket and Eastern Pequot ate most of the same domesticated species and also acquired similar wild fauna. This means that the Mashantucket Pequot were probably purchasing food from local stores, or raising their own animals. Calcined bone made up more than 95% of these

assemblages, but the exact cultural meanings of the assemblage condition are difficult to discern. This bone treatment could be derivative of the earlier discussed practices of honoring animal spirits, consuming interior bone material, or cleaning the site.

Eighteenth-Century Euro-American Foodways

Several Euro-American settlements, excavated in an area of the Mashantucket reservation known as the Lake of Isles, had mean ceramic dates of 1790, 1798, and 1815. These sites should provide an important contrast between native and colonial diets. Documentary data for contemporaneous Euro-American sites offers another line of evidence for investigating these issues. Identifying the species present and the ways in which they were disposed helps relate these sites to the Eastern Pequot reservation.

Two of the Lake of Isles sites had small faunal assemblages between 50 and 120 specimens. Unidentified mammal remains made up most of these collections. Analysis of these two assemblages led to the identification of a single pig through teeth and limb bones and a deer based on a mandible. A few fish bones and three pieces of a turtle shell were also recorded (Andrews 2003: 26). Almost all of the specimens in these collections were also calcined, further complicating the interpretation of why bones were burned.

One large assemblage of 2825 bones was recovered from a third Lake of Isles site dating to 1799. The amount and condition of the recovered specimens offered the best native-colonial comparison. All of the Lake of Isles assemblages existed in similar condition with “94% [of the largest collection] recorded as indeterminate mammal, fish, bird, and vertebrate bones” (Andrews 2003: 27). Domesticated animals were once again the main species recorded. There appear to have been 30 to 40 bones each from cows, pigs, and caprines. Along with several unknown fish and bird bones, a small number of

squirrel bones were also recorded. Calcined bone was not mentioned in regards to this site, making it difficult to determine whether it was not present or not counted. A lot of this assemblage could not be identified, but it still offered the largest and best-preserved collection on a Mashantucket site.

Documentary data from eighteenth-century Connecticut and broader New England can aid in understanding the development of Euro-American diet. One assessment of food choice in “rural New England” concluded that while colonists sometimes consumed deer, rabbits, fish, and other wild game, these types of meat “offered occasional variety rather than a frequent alternative to stored meat” (McMahon 1985: 35). This information helps to explain the frequency in which wild species were found in the Lake of Isles faunal assemblages. As long as it was affordable, Euro-Americans had no real motivation to eat anything but meat from domesticated animals.

Other studies support this claim, even supposing that “game seems to have been an important source of meat, although as elsewhere always a minor source in comparison to domesticated animals” (Coe and Coe 1984: 42). Joanne Bowen’s dissertation offers an important comparison of class and food choice. She examined Euro-American foodways in eighteenth-century Suffield, Connecticut. Suffield is located in northern Connecticut, but it offers a perfect temporal comparison. Her research looked at multiple documentary sources to evaluate the animal species people purchased and consumed.

Suffield was largely a farming community in that time period. Tax records from 1771 stated that the average self-sufficient farmer “owned 1.06 horses, 1.35 oxen, 2.28 cows over three years old, 8.46 sheep, and 1.5 swine over one year old” (Bowen 1990: 62). This is clearly quite a bit larger and more diverse selection than on any of the native

or Euro-American sites previously discussed. Bowen also noted that the lowest economic class for which she found data owned several cows, horses, oxen, and pigs (Bowen 1990: 68). Clearly, Suffield was a fairly developed area by the end of the eighteenth century. Wild species were barely discussed in Bowen's dissertation, suggesting that they may have declined in importance with the establishment of a constant supply of domesticated meat.

The range of documentary faunal data provides a scope for understanding Euro-American diet. Colonists appear to have regularly eaten the most common animals, which were generally domesticates. Wild game was seen as a rare supplement, but not important by any means. None of the sources discussed disposal patterns, meaning that bones were probably either deposited in middens, or burned and then discarded. A basic assessment of native and colonial faunal assemblages would suggest they were quite similar, but there were in fact many important distinctions.

Discussion

Native- and European-occupied colonial sites in Connecticut appear to have relied on many of the same species for food. A common trend seems to guide the types and quantities of food recovered on these sites. Mammals are always the most common and make up the largest portion of every assemblage. Birds, fish, and reptiles are all present in limited amounts, and they occur on almost every site.

Eastern Pequot foodways seem to have changed very little between the mid-eighteenth and early nineteenth centuries. In terms of species selection and disposal practices, there was almost no variation. Earlier sites in the region relied heavily upon wild mammals such as deer and rabbit, but this changed in the eighteenth century.

Domesticated animals quickly replaced wild ones as the most exploited food source.

Assemblages on Euro-American and native sites appeared similar, but were in fact quite different. Behavioral and dietary practices helped determine the types of food eaten and how the remains were disposed. This type of information leads beyond just what people ate to the consideration of theoretical issues.

CHAPTER VII

CONCLUSION

This project began as an investigation of the faunal remains from two eighteenth-century Eastern Pequot households. The people who occupied these sites clearly reacted to the influences of colonialism in different ways. Site architecture is the most palpable representation of the differences between these two sites. Site 102-123 consisted of numerous stone features, while Site-102-124 left no structural remains and contained only subterranean pit features. The stone walls and small enclosures on Site 102-123 probably served to prevent live animals from escaping the area. These sites were occupied a few decades apart, but stand in stark contrast to one another in terms of their physical appearance.

Shifting to an assessment of the faunal assemblages reveals similarities and differences between the two sites. Species selection and assemblage condition offer details about Eastern Pequot diet. This information leads to broader conclusions about consumption and hybridized identity. The zooarchaeological methods implemented made it possible quantify the foods chosen and consumed on these sites. Though Eastern Pequot lifeways changed drastically after their relocation to their reservation, they did not acquiesce fully to a colonial lifestyle.

Various aspects of these assemblages contribute to the study of hybridized native identity. More than 50% of the specimens recovered from each site were crushed and calcined. This may be a product of native practices related to food preparation, trash disposal, or ritual behavior. The identifiable portion of these assemblages consisted mostly of domesticated animal bones from pigs and cattle. Several wild species were also represented, but in much smaller amounts. This mixture of wild and domesticated foods “was a highly selective process based in part on the uses and ecological similarities with existing Pequot land use practices and subsistence patterns” (McBride 2005: 35)

The limited amount of wild animal remains in these assemblages is particularly noteworthy. It has been claimed that native people in New England actively differentiated between the species they killed and “burned the animals’ bones...lest they offend the boss spirits by violating the taboo against mixing dichotomous wild and domestic categories” (Silverman 2003: 515). The assemblage from Site 102-123 supports this conclusion through the presence of a single deer tooth but no other deer bones. Other wild animals are only represented by a few bones, except for the large amount of unburned fish bones recovered from Site 102-124. Large pieces of domesticated mammal bones in both collections lend credence to the notion that the Eastern Pequot distinguished between the origins of the foods they ate.

Finding Euro-American artifacts and foods on a native site does not necessarily imply that the people who occupied that site were becoming more Euro-American. Instead, “observations on material culture that might give the impression of assimilation or cultural syncretism could be reinterpreted in ways that capture a diversity of experiences” (Rubertone 2000: 439). This “diversity of experiences” was important to

the development of a colonial Eastern Pequot identity. People may have used different types of material culture, but their position as members of a marginalized native group fostered a stronger connection.

This thesis posits that the Eastern Pequot continued to procure shellfish as a means of connecting to past foodways. Since the Eastern Pequot of the eighteenth century no longer occupied the coast, shellfish would have had to have been collected through careful organization and planning. The distance separating the reservation from the coast means that people had to walk almost 20 miles roundtrip to return with this food. It seems likely that native people of all ages could have fostered communal ties through the harvesting and consumption of this once prominent resource. Large meals of this type could easily have been used as “communicative events meant for display and interaction” (Gumerman 1997: 122). Eating shellfish, pig, and cattle offered a way to recall the past and look to the future. The mixture of shellfish and domesticated animal bones in the midden is emblematic of the hybridization of native and Euro-American practices that occurred in the eighteenth century.

Combining old and new food sources could have been a way for Eastern Pequot people to conceptualize dietary and social changes. Despite colonial efforts, the “Pequots-impoverished and desperate as their circumstances were throughout the eighteenth century-had produced and sustained kin and community ties on their own terms” (Den Ouden 2005: 34). Through this rationale, eating an increasing amount of pigs and cattle in lieu of deer and other wild mammals did not represent acquiescence to colonial behavior but necessary changes to native diet. Native people did not become Euro-American just because they used colonial goods and ate colonial food; instead “the

fence and the animals it enclosed were no longer only symbols of English expansion, but now...commitment to the land, one another, and their communal traditions” (Silverman 2003: 526). Colonists may have perceived changes in native behavior as a conversion to a Euro-American lifestyle, but natives clearly viewed such changes in different ways.

The additional sites used for comparative analysis in this thesis offered supplemental data regarding consumption and identity. Obvious shifts in dietary practices are evident in the investigated faunal assemblages. Pre-colonial and early colonial assemblages from native sites contained a large amount of wild mammals with other wild species in smaller amounts (Andrews 2003; Salwen 1970). Sites dating from the early eighteenth century onward generally demonstrated the widespread adoption of domesticated animals as food. Also of note is the fact that many of the site summaries included in this comparison reported a high percentage of crushed and calcined bone. It seems that native people throughout this region used wild and domesticated foods and also burned a large portion of the remains, creating assemblages like those recovered from Sites 102-123 and 102-124.

Eighteenth-century Euro-American dietary practices were examined with the Lake of Isles sites. Interestingly, these collections seemed to be in the same overall condition as those on the native sites. Many of the species found on the Eastern Pequot sites were also present in the Lake of Isles assemblages. A comparison of just the species present and the condition of the bones suggests that Euro-American and native people consumed mostly the same foods.

Documentary data offers another way to make distinctions between colonial and native foodways. Euro-American records indicate that domesticated animals made up the

majority of their diet, while wild species were an occasional supplement, but nothing more. Colonists stressed the importance of domesticated animals as a food source, but did not bestow them with special ritual meanings (McMahon 1985). The Wheeler ledgers suggest that native people bought a variety of domesticated meats. Native people seem to have treated wild animals with more reverence than domesticates (Silverman 2003). These documents help distinguish between native and Euro-American diet.

The complexity inherent in interpreting faunal assemblages stems from a number of factors. Vagaries in any collection can combine with preservation issues and behavioral practices to further complicate any interpretation. This research showed that even within an assemblage with limited identifiable specimens, important observations can still be made. On a more basic level, “food is a focal point for how people control one another and how individuals struggle with identity tradition, and the day-to-day politics of social life” (Silliman 2004: 153). This sentiment is particularly true of the eighteenth-century Eastern Pequot, who selected particular foods, and incorporated certain Euro-American traits into their daily lives.

The consumption of European domesticated animals and other changes did not lead to the loss of a distinctive Eastern Pequot identity. Rather, “as the Pequots interacted in new ways with the wider society, they appropriated aspects of that experience into their own identities” (Simmons 1993: 173). The faunal remains in this thesis provided a wealth of information regarding native dietary practices within the broader scope of colonialism. Adopting new forms of material culture actually helped native peoples maintain an active and dynamic presence in the colonial world.

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