CHEROKEE HOUSEHOLDS AND COMMUNITIES IN THE ENGLISH CONTACT PERIOD, A.D. 1670-1740

Jon Bernard Marcoux

A dissertation submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Doctor of Philosophy in the Department of Anthropology.

Chapel Hill
2008

Approved by:

Chair: Vincas Steponaitis

Advisor: Brett Riggs

Reader: Brian Billman

Reader: C. Margaret Scarry

Reader: John Scarry

ABSTRACT

JON BERNARD MARCOUX: Cherokee Households and Communities
in the English Contact Period, A.D. 1670-1740
(Under the direction of Vincas P. Steponaitis and Brett Riggs)

This study focuses on issues of culture contact and the materialization of identity through an archaeological case study of a late seventeenth- and early eighteenth-century Cherokee community located in eastern Tennessee. The English Contact period (ca. A.D. 1670-1740) was an extremely turbulent time for southeastern Indian groups marked by disease, warfare, and population movements. I examine how this chaotic period played out in the daily lives of Cherokee households. I use primary and secondary sources to develop an historical context for the English Contact period in the southeastern United States. I introduce a reliable way to identify English Contact period Cherokee occupations using pottery and glass trade bead data. I also consult artifact data in order to identify patterns associated with change and stability in the activities of daily life within Cherokee households.

I find that daily life in Cherokee households changed dramatically as they coped with the shifting social, political, and economic currents of the English Contact period. Based on variability in household pottery assemblages, I argue that this particular Cherokee community included households that migrated from geographically disparate Cherokee settlements. This type of social coalescence is documented among other Indian groups as a strategy employed to ameliorate population loss resulting from European contact. I also find that the architecture and spatial organization of Cherokee

communities changed dramatically during the English Contact period. Specifically, the later communities lacked the highly structured spatial organization and long-lived residential areas that typified earlier Mississippian period communities. Ultimately, I argue that these changes too were strategic adaptations to the flexible and transient lifestyle required during the period.

To Christine

ACKNOWLEDGMENTS

While it is perhaps beyond cliché for a graduate student to say it, this dissertation truly is not what I planned it to be when I arrived at Chapel Hill. After spending five years researching twelfth- and thirteenth-century Mississippian communities in northern Alabama, I was presented with an incredible opportunity that came with one catch – I had to switch my dissertation topic to late seventeenth-century Cherokee communities. After some debate and sage advice from a mentor who said that the best dissertations were ones that were "finished" and "paid for," I decided to make the change. Indeed, the only word I can think of to describe my journey to this point would be "fortuitous" – and there is a host of folks to thank for it.

For starters, I want to thank Brett Riggs. Without Brett's recommendation, lobbying, and "sage advice," I never would have gotten involved with the Townsend project. Brett was instrumental in helping me get familiar with a whole different area of research and learn an entirely new set of material culture. I will forever be indebted to Brett for sharing with me his encyclopedic knowledge of Cherokee written and oral history and archaeology, his wit, and his encouragement.

The other members of my committee also contributed greatly to my education as an archaeologist and scholar. Vin Steponaitis impressed upon me the importance of using quantitative methods to approach archaeological research, and his instruction gave me the ability to do it. Brian Billman introduced me to the subfield of household archaeology, and by allowing me to participate in his field schools, he taught me how this

incredibly powerful analytical perspective should be employed. In their classes and in their research, Margie Scarry and John Scarry demonstrated to me the importance of grounding my study in a solid theoretical framework. I am fortunate to have access to such brilliant and genuine people.

The intellectual environment that surrounded me at Chapel Hill can never be duplicated. Whether by cosmic convergence or faculty design, I was part of a cadre of students pursuing similar research interests, and the cross-pollination of insights among these folks led to many of the ideas that appear in the following pages. These colleagues include Greg Wilson, Tony Boudreaux, Amber VanDerwarker, Chris Rodning, Jennifer Ringberg, Lance Green, Julio Rucabado-Yong, Mark Plane, Barker Fariss, Ben Shields, Erik Johannesson, Erin Grantham, and Drew Kenworthy. I thank Greg and Tony in particular for untold numbers of discussions about ways to link our lofty ideas to the *terra firma* of the archaeological record and for being incredibly steadfast friends. I am also lucky to have another set of equally talented colleagues and friends from my days at the University of Alabama – Tom Lewis, Virgil Beasley, Keith Little, and Scott Hammerstedt.

My dissertation work was supported through a position funded by the Archaeological Research Laboratories at the University of Tennessee. I am grateful to Boyce Driscoll for allowing me to participate in the Townsend Archaeological Project and for giving me the freedom to pursue my research interests. Boyce and his wife Susan also generously opened their home to me during research trips to Knoxville. While working at the ARL facilities in Knoxville, Cameron Howell and Rachel Black went out of their way to provide me with any information I needed. Cameron was also my only direct link to the fieldwork done at Townsend. Cameron possesses a classic "archaeologist's memory," which I envy greatly. I relied on him to fill in gaps where paper notes and records failed. I am also indebted to Kenneth Cornett for generously sharing his knowledge of the archaeology of the Little River valley. Without the results of Mr. Cornett's survey of the Little River valley, the Cherokee occupation at the Townsend site would be an anomaly lacking any context.

My project also benefited from the offer of data and assistance from a number of researchers and research institutions. I am indebted to Patricia Nietfeld and Tom Evans at the National Museum of the American Indian and James Krakker at the Smithsonian Institution for their time and help with glass trade bead collections. I thank Steve Davis for allowing me full access to the glass trade bead collections and database at the University of North Carolina's Research Laboratories of Archaeology (RLA). I am grateful to Jane Eastman for providing glass trade bead data from her dissertation as well as for conducting the analysis that resulted in the glass bead data in the RLA database. Christopher Rodning also generously offered unpublished data from his dissertation. I thank Gerald Schroedl for allowing me to incorporate data from his United States Forest Service-funded excavations at the site of Chattooga. Thanks also to Thomas Pluckhahn, who supplied data from his excavations at the Tarver sites.

As with most people who choose this vocation, I am most fortunate to have an incredibly supportive and understanding family. My mother Jean Marcoux has always had an intense love of education, and she has been a constant source of encouragement throughout my career. My debt to her can only be repaid with a pledge to be the same kind of parent to my children. If my journey thus far has been fortuitous, then Christine

Marie Campbell Marcoux is without a doubt the very personification of serendipity. Who would have thought that a Thanksgiving dinner invitation could result in my finding the very best thing that has ever happened to me? I thank her for taking this ride with me, and I cannot wait to see what's around the next corner.

TABLE OF CONTENTS

LIST OF TABLES

Tables

LIST OF FIGURES

Figures

CHAPTER 1

INTRODUCTION

Individuals have been attempting to construct a comprehensive understanding of political, economic, and social life in Cherokee communities for over three hundred years. This has proven to be a formidable challenge given that Cherokee community "life" encompasses the dynamic histories of thousands of folk reaching across centuries from prehistory to today. In recent years, students in the disciplines of anthropology, archaeology, and history have made significant gains in this endeavor; however, there remains a conspicuous gap in our knowledge of Cherokee community life (e.g., Hatley 1995; Keel 1976; Perdue 1998; Riggs 1989; Rodning 2004; Schroedl 1986a, 1986b, 2000). The gap corresponds to the English Contact period of Cherokee history (ca. A.D. 1670-1740), a period of marked change that begins with the establishment of the Charles Town colony in A.D. 1670 and ends in the aftermath of a major smallpox epidemic that devastated Cherokee communities in A.D. 1738. The intervening years of this period witnessed increased interaction with European colonial governments, the emergence of the deerskin trade, and the Yamasee War among other events (Schroedl 2000:212). It is difficult for historians to address this period because written accounts of Cherokee communities are sparse until after A.D. 1715. Archaeology has great potential to address this period; however, the discipline is constrained by the task of identifying and excavating sites that were occupied in the late seventeenth and early eighteenth centuries.

Presently, the number of such components is low in comparison to later eighteenth- and nineteenth-century occupations.

In this study, I address this gap by synthesizing extant data from surface collections and excavations of Cherokee settlements that were occupied during the English Contact period. Through the writings of historians, we have the general historic context of this period, but as historian John Phillip Reid (1976:117) admits, "We will never know the Cherokee until we hear from these lesser individuals: the nonheadman, the warriors, hunters, farmers, and traders [I would add women also] who did not negotiate or played secondary roles in negotiations with the Europeans." How would this period of history "read" in the words of these everyday folk living in Cherokee communities? How would these stories of life compare to the narratives written by historians?

I examine in greater detail a number of questions that address how this period was negotiated by the Cherokee through change and/or stability in the daily lives of community members. I will use the household as the basic unit of my analysis because it represents the most fundamental and pervasive unit of economic and social production in the archaeological record (e.g., Blanton 1994; Hatch 1995; Lightfoot et al. 1998; Muller 1997; Riggs 1989, 1999; Schroedl 1989; Wilk and Netting 1984; Wilk and Rathje 1982). How were late seventeenth- and early eighteenth-century Cherokee communities organized socially, economically, and politically? What was the demographic composition of English Contact period Cherokee households? What were the similarities and differences in material culture among households in the same community? How were these reflective of identities of solidarity or separateness in the community? How did life in households during this period compare to that of households pre-dating and post-dating the establishment of sustained European contact?

I will address these questions from the perspective of a particular Cherokee community located in the Little River valley of eastern Tennessee, known to archaeologists as the Townsend sites (40Bt89, 40Bt90, and 40Bt91). The community manifested at the Townsend sites was definitely not a major player in the colonial scene. In fact, its only appearance in the written record comes as an epitaph in Henry Timberlake's (2001[1762]:118-119) journal, where he laments why anyone would abandon such a lovely valley. The mystery of the community's abandonment poses a deceptively simple research problem whose answer can only be found in an historical analysis of the playing out of the various strategies that constituted daily life in Cherokee households amid the sweeping social, political, and economic changes of the late seventeenth and early eighteenth centuries. The community's place in the regional landscape, its community history, the distribution of its households, its architecture, and its pottery, were all crucial components of strategic actions taken by households within the community. In this way the members of the Townsend community were hardly passive recipients of history, but active participants in it (Wesson 2008).

My study is presented in seven chapters. Chapters 2, 3, and 4 focus on establishing the historical, theoretical, and chronological frameworks that support this study. Chapter 2 provides a detailed examination of the historical context encompassing the English Contact period. In this chapter, I combine information from published secondary sources as well as primary sources to describe the social, political, and economic landscape inhabited by the Cherokee in the late seventeenth and early eighteenth centuries. In Chapter 3, I present a brief summary of archaeological research concerning Cherokee communities. In this chapter I also introduce an alternative theoretical framework for my study that is grounded in the concepts of agency and daily practice. Chapter 4 includes my formulation of a chronological framework for English Contact period Cherokee pottery and glass bead assemblages. This framework tackles a long-standing obstacle by providing researchers with a reliable way to identify English Contact period Cherokee occupational components. In Chapter 5, I introduce the case study for my research within a broader discussion of Cherokee geography and settlement patterns.

The next two chapters contain the results of the data analyses. In Chapter 6, I provide a discussion of the household pottery assemblages from the Townsend sites. This discussion focuses on characterizing inter-household ceramic variability as a product of a collection of resident potters practicing distinct potting traditions. This hybridity in pottery assemblages leads me to argue that a significant number of individuals in the Townsend community were most likely immigrants from other Cherokee settlements. Chapter 7 focuses on assessing the changes that occurred in Cherokee conceptions of domestic space and time during the English Contact period. This chapter includes my description and analysis of architecture, community organization, and subsurface pit features at Townsend and other Cherokee sites. In Chapter 8, I summarize the results of my analyses and discuss the strategies enacted by Cherokee households in their attempts to adapt to the social, political, and economic turmoil of the late seventeenth- and early eighteenth- century Southeast.

CHAPTER 2

POX, EMPIRE, SHACKLES, AND HIDES: THE ENGLISH CONTACT PERIOD IN THE SOUTHEAST, A.D. 1670-1740

Differences in epistemology and methodology separate the many scholarly disciplines studying the past (e.g., literature, archaeology, history, paleontology); however, all are united by a shared concern with reconstructing the world in which their study objects once existed. Historians have done a great deal of this sort of contextual reconstruction in writing about the Cherokee in the late seventeenth and early eighteenth centuries (e.g., Hatley 1995; Corkran 1962, 1967; Crane 2004; Gallay 2002; Oatis 2004; Reid 1976). In this chapter, I outline the historical context for what I call the "English Contact period" in the Southeast beginning with the founding of Charles Town (i.e., Charleston) in A.D. 1670 and ending with a smallpox epidemic that ravaged Cherokee communities in A.D. 1740.[1]

My discussion focuses primarily on the period leading up to the Yamasee War in A.D. 1715, for I believe that the historical processes operating during this period were crucial in setting the stage for the rest of the century. I outline three historical forces that I believe were instrumental in forging a dynamic, even chaotic, landscape across the Southeast during the period from A.D. 1670 to A.D. 1715 (Figure 2.1). The interplay of these three forces, which included epidemic disease, European colonial competition, and trade in Indian slaves and deerskins, produced massive demographic and sociopolitical

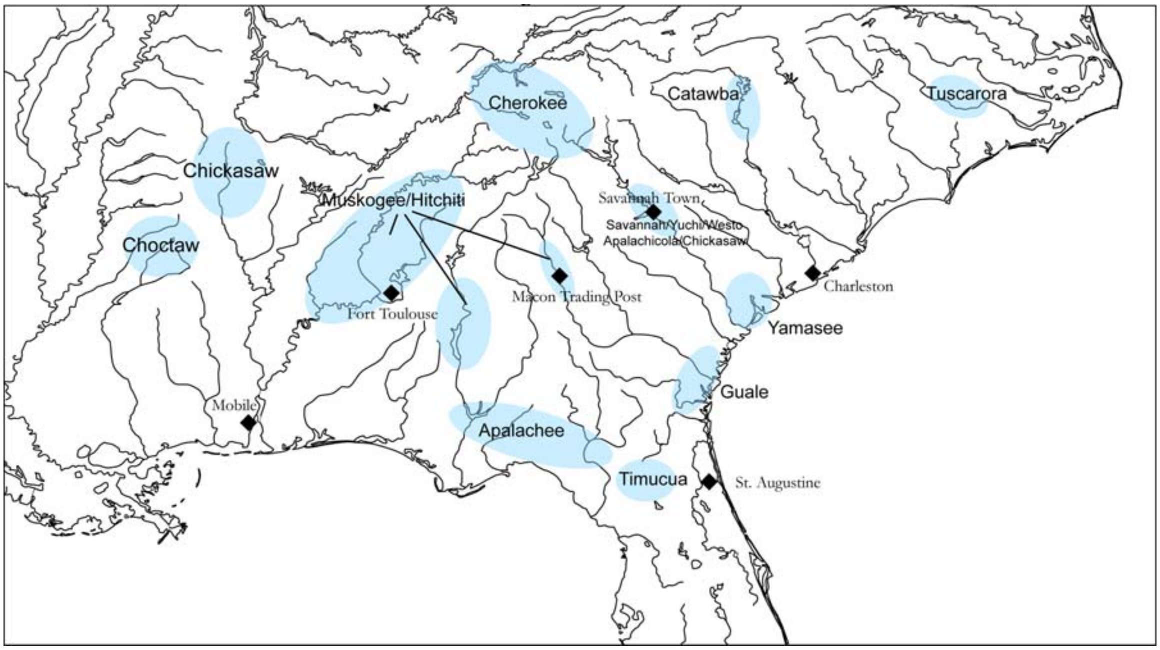

Figure 2.1. Map of Indian groups and European colonial settlements mentioned in the text.

disruptions whose effects forever altered the histories of Indian groups and colonists (Bowne 2005; Ethridge 2006; Gallay 2002; Riggs 2009; Wood 1989). The Yamasee War, in A.D. 1715 was in many ways the capstone of the English Contact period, marking the culmination of the chaos caused by the three historical forces. The war also was a catalyst for a number of dramatic changes that affected the social, political, and economic lives of both colonists and Indian groups across the Southeast (Crane 2004; Merrell 1989a; Oatis 2004; Ramsey 2003). I consider some of these postwar changes and their effects on Indian and colonial communities. Given that the English Contact period was not some monolithic regional phenomenon, I take the approach that each case should ultimately be viewed as representing a complex and highly contingent local history of Indian and European strategic interaction. Consequently, in the conclusion of the chapter, I rely on historical syntheses and primary documents to explore the particular strategies that Cherokee groups appear to have enacted while negotiating this turbulent period.

The "Shattered" Path to the Yamasee War, A.D. 1670 - 1715

Until very recently, the historiography of the period leading up to the Yamasee War has been presented as a singular narrative. Originally put forth in the 1920s by the venerable historian Verner W. Crane (2004) and the equally esteemed anthropologist John R. Swanton (1998), this narrative presents a relatively straightforward picture of the Yamasee War as a "far reaching revolt" of numerous southeastern tribes spurred on by indebtedness to and mistreatment at the hands of Carolinian traders (Crane 2004:162; Swanton 1998:97). This classic explanation has been challenged recently with a series of historical and ethnohistorical works. The authors of these works argue that the established explanation for the Yamasee War is overly simplistic (e.g., Gallay 2002; Martin 1994; Oatis 2004; Ramsey 2001).[2] In the place of a singular process (i.e., *The cause* of the war), these authors characterize the Yamasee War as the outcome of a complex mix of strategies and events that were enacted and experienced differently by the various participants. Instead of lumping all Indian groups into the singular role of reactionaries against the English traders, the authors of these works explore the varied strategies pursued by Indian groups as they interacted with other Indian groups, colonial traders, and colonial governments.

As part of this movement, Robbie Ethridge (2006) has employed the "shatter zone" concept to frame her ethnohistorical reconstruction of the southeastern colonial landscape during the late seventeenth and early eighteenth centuries. This theoretical concept is derived largely from Eric Wolf's (1982) arguments regarding the intense social, political, and economic instability that occurs with the introduction of a capitalistic trading system into "traditional" societies (see also Abler 1992; Ferguson and Whitehead 1992; and Law 1992 for research focusing on the effects of European colonialism on indigenous warfare). One interesting feature of this model is its massive geographical scale. Indeed, the disruptive effects are argued to radiate out from shatter zones like "shockwaves" covering hundreds of miles (see Esarey 2007 and Jeter 2002 for good examples of the geographic extent of this disruption). Ethridge (2006:208) argues that the whole of the Eastern Woodlands of the United States was a shatter zone where the raiding activities of a small number of "militaristic slaving societies," she cites the Iroquois, Occaneechee, Westo, Chisca, and Chickasaw as examples, set off massive population migrations, amalgamations, and extinctions. In contrast to the traditional view of this period, which has typically sought to find continuity across the protohistoric divide, this new research brings to light a new landscape – one Riggs (2009:8) rightfully describes as "chaotic."

Through the introduction of the shatter zone concept, Ethridge's (2006) work makes three important points that must be considered when developing an historical context of the English Contact period (ca. A.D. 1670-1740). First, following the recent critiques of historians mentioned above, any narrative related to this period needs to be regionally nuanced taking into account the highly variable outcomes of interaction between different colonial and Indian groups. Second, the Indian slave trade should be given a more significant role in our narratives along with the classic historical factors of European colonial competition, disease, and the deerskin trade. Third, Ethridge's use of the shatter zone concept compels us to locate historical process physically by mapping it onto the landscape.

In what follows, I take these points into account in outlining the major historical forces that contributed to the formation of shatter zone(s) across the Southeast during the years leading up to the Yamasee War: (1) the spread of epidemic disease (2) European colonial competition, and (3) trade in Indian slaves and deerskins. I admit that speaking in terms of individual historical forces runs the risk of risk of reifying concepts that are merely figments in the mind of the analyst, and I only do so for the purpose of analytical clarity. Consequently, one must keep in mind that epidemic disease, European colonial competition, and the systems of trade in Indians and deerskins were related manifestations that acted in concert to create the shatter zone.

Pox: Disease and the Shatter Zone

The dramatic effects of European diseases upon native groups across North America are well known (e.g., Dobyns 1983; Milner 1980; Smith 1987; Ward and Davis 1991, 2001). When Europeans came to the New World, they brought infectious diseases like smallpox, measles, yellow fever, typhus, whooping cough, influenza and plague to New World populations (Kelton 2002:22-23). Because native North American populations had never been exposed to these diseases, outbreaks of sickness grew to epidemics that spread quickly throughout villages and towns killing many. The period leading up to and including the English Contact period witnessed many of these so-called "virgin soil epidemics," the results of which were large-scale regional depopulation; social, economic, and political instability; and mass population movements.

Most researchers would agree that throughout the sixteenth, seventeenth, and eighteenth centuries, European diseases caused dramatic population losses among Indian communities across the Southeast; however, there is debate over the timing and the geographic extent of disease epidemics. Some researchers argue that by the mid-sixteenth century, region-wide "waves" of disease epidemics had already begun to severely affect New World populations (e.g., Dobyns 1983; Romenofsky 1987; Smith 1987). These researchers point to evidence for early regional epidemics across the New World in the sixteenth century accounts of Spanish explorers. The accounts, which detail travels in South, Central, and North America, described the effects of great regional pestilences that had preceded the European travelers (Crosby 1972). In the Southeast, researchers like Smith (1987:58) argue that infectious diseases (most likely smallpox) spread inland from coastal contact sites along the conduits of regional trade. While the ethnohistoric evidence Smith (1987:57-60) marshals for the frequency of disease outbreaks in late sixteenth-century Florida is convincing, the accounts mostly speak of localized outbreaks and, as Smith (1987:84) states, the archaeological evidence for region wide depopulation during this period is rather weak.

Other researchers argue that while disease epidemics did affect southeastern Indian groups during the sixteenth century, these outbreaks were not the massive region-wide epidemics envisioned by Dobyns (1983) and others. These researchers instead argue that epidemics were more likely geographically restricted and that southeastern Indian communities did not experience massive disease-related population losses until they had sustained contact with Europeans in the late seventeenth century (Kelton 2002; Milner 1980; Ward and Davis 1991). Examining the epidemiological nature of smallpox, which he considers the best candidate for a highly infectious and deadly disease, Kelton (2002:25) finds that while deadly and communicable, the disease requires certain conditions in order to spread on a regional scale – namely direct contact. He states that while indirect infection through European trade was possible early on, the relatively low volume of trade in the Southeast during the late sixteenth and early seventeenth centuries would have precluded a regional epidemic. Kelton (2002:31) believes that the conditions necessary for the rapid spread of smallpox emerged only at the end of the seventeenth century, when Charleston traders and Indian groups had established a commercial system of trade in Indian slaves and deerskins that stretched from the Atlantic coast to the Mississippi River. In this high-volume trading system, European traders, Indian hunters, and Indian slaves were all potential disease vectors that circulated widely throughout the Southeast. Kelton believes that this scenario resulted in the first major region-wide smallpox epidemic that wracked many Indian and colonial settlements between A.D. 1696 and A.D. 1700.

Ward and Davis (1991) recently tested these two models of disease with archaeological data from sixteenth- and seventeenth-century village sites located in the North Carolina Piedmont. Examining settlement pattern, community pattern, and mortuary data, Ward and Davis (1991:175) found no evidence for massive depopulation during the sixteenth or early seventeenth centuries. In examining site-level data they did, however, find significant increases in the crude mortality rate and mortuary evidence indicating epidemic episodes (i.e., multiple-individual burials and an overrepresentation of subadults in mortuary populations) in contexts with high frequencies of European trade goods dating to the last quarter of the seventeenth century (Ward and Davis 1991:176-180). In addition, they present period accounts suggesting that disease epidemics struck the Piedmont region in the late seventeenth century. Englishman John Lawson's account of a trip through the region in A.D. 1700, for example, describes areas of the North Carolina Piedmont that had suffered massive depopulation (presumable through disease). These areas, which had been occupied by groups intensively trading with Virginians, were contrasted with areas to the south (outside of the bounds of direct trade with Virginians) that were "thickly settled." From this evidence, Ward and Davis concluded that while disease epidemics were a major source of depopulation among North Carolina Piedmont groups, massive outbreaks did not likely occur until after sustained contact with Europeans in the 1670s.

It is a difficult task to quantify the losses endured by Indian groups during the years leading up to the Yamasee War. Fortunately, Peter Wood's (1989) comprehensive compilation of historical population estimates for southeastern Indian groups offers a reliable estimate. Wood examined numerous colonial censuses and historical accounts to arrive at demographic profiles for ten regions across the Southeast. These profiles included population estimates at fifteen-year intervals beginning in A.D. 1685 and ending in A.D. 1790. Wood determined that between the years A.D. 1685 and A.D. 1715, the Indian population in the Southeast declined from 199,400 to 90,100, a reduction of nearly 55%. These are, of course, rough estimates, but the pattern of drastic decline is telling. Slave raiding, warfare, and mass migration account for some of this precipitous decline, but epidemic disease, especially the 1696 smallpox epidemic, was by far the main factor (Wood 1989:90-91).

Empire: European Colonial Competition and the Shatter Zone

The founding of the South Carolina colony at Charles Town in A.D. 1670 was not the first attempt by Europe's imperial powers to gain a foothold in the Southeast. The Spanish and French both established colonies in the Southeast a little less than a century earlier (Crane 2004; DePratter and South 1990). By the middle of the seventeenth century, the Spanish were successfully managing an extensive network of missions throughout northern Florida and along the Georgia coast (Bushnell 1994; McEwan 1993; Worth 1995). Also, as part of the same colonial charter as South Carolina two other settlements had been founded along the present-day North Carolina coast during the 1660s, and by A.D. 1670 the Virginia colony had existed for almost three quarters of a century (Crane 2004:5). Although not the first colony in the region, South Carolina had by far the greatest lasting impact on the Cherokee and other southeastern Indian groups.

How did this colony that began as a settlement of 150 or so colonists come to play such a major role in the histories of tens of thousands of Indians and colonial settlers? In answering this question one must look at how South Carolina fit into the larger system of colonial competition involving the imperial ambitions of England, Spain, and France between A.D. 1670 and A.D. 1715 (Gallay 2002; Oatis 2004). In this section, I argue that the regional instability characteristic of a shatter zone emerged, in part, as a result of the fundamental economic structure of the South Carolina colony centered at Charleston as well as that colony's pursuit of aggressive colonial strategies vis-à-vis Spain and France.

In A.D. 1663, King Charles II of England granted eight "promoter-politicians" a patent for land between 36° and 31° from "sea to sea" (Crane 2004:4). According to the terms of the patent, the colony that was to be settled on this land, called *Carolina*, was to be a proprietary colony. A proprietary colony was different from royal colonies like Virginia in that the Crown granted the proprietors complete control over the laws, distribution of land, and colonial relations with Indians – along with complete financial responsibility for the colony's well-being (Clowse 1971:17-22; Duff 2001; Gallay 2002:43). Proprietary colonies were first and foremost commercial ventures that served to increase the fortunes of proprietors and colonists alike. In the case of the South Carolina colony, this pursuit was attained at first through a brisk Indian trade and, after the turn of the eighteenth century, through the additional development of a substantial plantation economy (Duff 2001).

Because they often lacked the funds to enforce laws and were not directly tied to the Crown, the proprietors and their appointed officials do not appear to have had the same degree of control over colonists as royal colonial officials. Instead, by virtue of its charter as a proprietary colony, South Carolina was dominated by the mandate of private wealth accumulation (Gallay 2002:63-64). This colonial avarice can be seen best in the promotional pamphlets written by colonists like Thomas Nairne (1989[1710]) and John Norris (1989[1712]). While their writings described the geography and environment of the region, the authors spilled much more ink enticing the reader with the profit potentials of a colonist's life spent planting and trading (Greene 1989:9-14). The personal histories of some of the wealthiest men in South Carolina during the period suggest that the most profitable strategy was to combine the Indian trade for slaves and deerskins with planting (Gallay 2002:208-209). This economic structure, in which the profits from trading were used to capitalize the growth of plantations with both funds and slave labor, was in large part responsible for the rise of the Carolina colony within the burgeoning trans-Atlantic economy (Gallay 2002:49; Nash 2001). The highly competitive economic structure also nourished the development of an aggressive risk-taking ethos among South Carolina colonists and officials. During the English Contact period, this ethos appears to have heavily influenced the strategies enacted by South Carolina officials in dealing with their Spanish and French rivals.

The economic and strategic ambitions associated with empire building naturally generated strife among the fragile colonial beachheads of England, Spain, and France (Gallay 2002:2). England and France pursued essentially the same colonial strategy in the Southeast – one founded on the expansionist principles of mercantilism (Gallay 2002:128-132). As is well known, the Spanish expressed relatively little interest in extracting economic resources from their southeastern colonies; instead, as early as A.D.

1565, King Phillip II of Spain declared that the dual missions of the Spanish colonies in the Southeast were to protect Caribbean shipping lanes and to propagate the Catholic faith among southeastern Indian groups (Oatis 2004:16-17). Regardless of similarities and differences in colonial strategy, it was a *fait accompli* that the colonies of the three kingdoms would eventually clash in armed encounters in the Southeast. Spain and France were, after all, eternal rivals of England, and violent conflicts among the three colonial superpowers (or more often among their Indian allies) punctuated this period.

Whether they desired the position or not, by virtue of geography South Carolina would be the English colonial vanguard against any southeastern invasion from Spanish or French forces. It did not take long before South Carolina would be called to fulfill this role, for immediately after the founding of Charles Town, the Spanish began plotting attacks (Crane 2004:9-10). In August and again in December A.D. 1686, the Spanish finally acted on their plans and mounted attacks that destroyed Stuart Town, a settlement located at Port Royal south of Charleston (Gallay 2002:82-84). This attack so close to their main settlement doubtless gave the South Carolina proprietors good reason to implement a proactive defensive strategy that featured the use of allied Indian groups to create a "buffer zone" that would protect the colony from the Spanish and French and their Indian allies (Gallay 2002:96-97; Oatis 2004:38).

The buffer zone that was to protect South Carolina needed to be strongest to the south in order to check raids by the Spanish and their Indian allies. The Savannah River was the most appropriate location for a border because it was a defensible obstacle as well as a major route of ingress into the interior Southeast (Gallay 2002:71). South Carolina did not have the manpower construct or man garrisons along the river, thus they had to rely on Indian allies to guard their frontiers. Beginning in the 1680s, colonial officials set about encouraging allied Indian groups to settle along the Savannah River with the construction of a trading post at Savannah Town. By the first decade of the eighteenth century, the trading post had accomplished its mission by attracting numerous allied groups including the Savannah, Yamasee, Apalachicola, Yuchi, and Chickasaw (Gallay 2002:73). The success of the strategy was visible to the colonists as well. In his 1710 promotional pamphlet, for example, Thomas Nairne (1989[1710]:53) boasted that "all of the Indians within 700 miles of Charlestown" had been made "their subjects...by drawing over to [the colony's] side or destroying" (see also Oatis 2004:83).[3]

It is clear that the South Carolina architects of this strategy never intended for the buffer zone of Indian allies to be a passive deterrent to their European rivals. From their earliest overtures to Indian groups, South Carolina officials intended to create an armed militia of Indians that could be persuaded to promote the colony's interests internally and abroad. Nairne (1989[1710]:53) wrote of this strategy saying, "adding to our [South Carolina's] Strength and Safety...[by]...training our Indian Subjects in the Use of Arms, and Knowledge of War, which would be of great Service to us, in case of any invasion from an Enemy." The creation of an allied-Indian buffer zone began in A.D. 1673 and 1674 through alliances with the Esaw and Westo, and by A.D. 1715 the list of South Carolina's allies grew to include Savannah, Yamasee, Yuchi, Cherokee, Catawba, and Muskogee- and Hitchiti-speaking groups that would later be known as the Creek (Bowne 2005, 2006; Gallay 2002:53-56).[4] The bonds of these alliances were forged through trade in arms, deerskins, and Indian slaves, and South Carolina was able to employ their allies effectively by exploiting both traditional and recently emerged animosities among Indian groups.

Allied Indian groups proved to be invaluable to South Carolina in neutralizing perceived and actual threats to the colony's local interests. The first implementation of this strategy was effected by the Savannah Indians in the 1680s when certain influential South Carolina traders, known as the "Goose Creek men" determined that the Westo and Winiah Indians were unstable allies who had become obstacles to their plans (Bowne 2005:100-105). Doubtless spurred on by the promise of income from taking slaves, the Savannah attacked these groups and "cut them off" selling those who were not killed into slavery. Later, between A.D. 1707 and A.D. 1711, when the Savannah inexplicably began raiding colonial settlements, South Carolina allied with Piedmont Indian groups, many of which later were known as Catawba, to run the Savannah out of the region (Merrell 1989a:52-57).

The Tuscarora War was a similar, but more substantial conflict fought in North Carolina in response to Tuscarora raids on European settlers. The war consisted of two military expeditions led by South Carolinians John Barnwell, in A.D. 1712, and James Moore Jr., in A.D. 1713, along with an assembled force of Yamasee, Apalachee, Cherokee, and Catawba numbering in the hundreds (Oatis 2004:84-91). Although the expeditions were far from exemplars of military planning or execution, they did manage to quell the raids as well as effectively end Tuscarora tenure as a viable Indian group in the Southeast (Crane 2004:158-161; Gallay 2002:259-287).

The use of Indian allies was also a potent tool in promoting South Carolina's interests against their European rivals. This strategy was effected on two scales. On one scale were small yet frequent slave raids consisting of parties of two to ten men that were carried out on enemy-allied Indians groups like the Timucua, Apalachee, Guale, Arkansas, and Tunica, along South Carolina's borders (Gallay 2002:186, 294-299). The first 15 years of the eighteenth century also witnessed the use of Indian allies on a much larger scale – in major colonist-led Indian military forays that cumulatively resulted in the deaths and enslavement of thousands Indians. These forays included Colonel James Moore's invasions of Spanish Florida as part of Queen Anne's War, first against St. Augustine in A.D. 1702, and later against the Apalachee missions in A.D.1704. These operations, which resulted in the destruction of the Spanish-allied Apalachee Indians, included 370 Yamasee Indians and 1,000 Muskogee-speaking Indians respectively (Crane 79-81; Gallay 2002:136, 145; Oatis 2004:47, 50-51). A third major assault against the Spanish settlement of Pensacola launched in A.D. 1707 involved a few hundred Muskogee-speaking warriors (Oatis 2002:70). Against French colonial interests, South Carolina traders and allied Indians conducted an attack on Tomeh and Mobile Indians around the colony of Mobile in A.D. 1709 and two attacks on French-allied Choctaw towns in A.D. 1705 and A.D. 1711 (Crane 2004:85-86; Gallay 2002:288-292). Period accounts reported that the attacks on the Choctaw involved English-allied Chickasaw and Muskogee-speaking forces numbering between 2,000 and 4,000.

A dynamic and unstable cultural landscape was thus created, in part, as an outcome of the economic and diplomatic strategies outlined above. As I will discuss in greater detail below, the economic structure of the South Carolina colony was the primary engine that drove the colonial side of colonial-Indian relations. Many colonists were engaged in a quest for personal riches, and trade with Indians provided a very high profit margin – especially when the commodities being exchanged were Indian slaves. The creation of South Carolina's buffer zone, which was aimed at protecting their valuable plantations, involved the resettlement of hundreds if not thousands of allied Indians. On the other side of the European imperial rivalry, the brunt of the Carolina-Indian invasions against Spanish and French colonial powers was absorbed by Indian groups. These groups, who suffered the deaths and enslavement of thousands were also acting as buffers for Spanish and French colonies.

Shackles and Hides: Trade in Indian Slaves and Deerskins and the Shatter Zone

During the English Contact period, the success or failure of any strategy enacted by the European colonial powers was ultimately tied to successful trade with Indian groups. In this section, I discuss the part played by the trade of Indian slaves and deerskins in forging the chaotic social, political, and economic landscape in the years leading up to the Yamasee War.

Sustained exchange relations between southeastern Indian groups and Europeans had existed for nearly a century when Charles Town was founded in A.D. 1670. Indeed, Smith (1987) and Waselkov (1989) have garnered ethnohistorical and archaeological evidence to demonstrate that small-scale yet substantial trade in deerskins existed between Spanish Florida and interior Indian groups during the late sixteenth and seventeenth centuries. The founding of English colonies in the Southeast in the 1600s, however, brought about major changes to the existing exchange system. Unlike Spanish colonies, the economic structures of South Carolina and Virginia were geared toward generating large profits by producing mass quantities of goods and resources for export.

Along with tobacco and rice plantations, Indian trade figured prominently in the economic structure of southeastern English colonies, much more so in South Carolina than Virginia (Martin 1994:307). It was the scale of Indian trade, needed to satisfy the labor and capital demands of both the local plantation economy and the Atlantic trade economy, that marked the departure of the English Contact period trading system from the previous Spanish system (Ramsey 2003). The sheer scale of slavery and deer hunting in this system produced profound sociopolitical disruptions that were variably felt by every Indian group across the Southeast.

Until relatively recently, research regarding the trade in Indian slaves has been relegated to isolated anecdotes in the history and archaeology of the seventeenth- and early eighteenth-century Southeast. In classic histories of the colonial Southeast (e.g., Crane 2004; Swanton 1998) one sees references to the taking of slaves in English-Indian raids on Spanish Florida, the Tuscarora War, and Choctaw raids, but the phenomenon of Indian slave raiding is treated from the European perspective as "a less respectable branch of business" that was of "small economic significance" (Crane 2004:109, 112). The attention of a number of scholars, however, has lately been drawn to the phenomenon of the Indian slave trade as a major factor in the histories of the colonies and Indian groups throughout the whole of eastern North America (e.g., Bowne 2005, 2006; Ethridge 2006; Gallay 2002; Ramsey 2001, 2003; Riggs 2009; Usner 1992; Worth 2006).

Historians William Ramsey (2001, 2003) and Alan Gallay (2002) have done much to quantify the scale of Indian slavery by consulting the colonial records of South Carolina. Ramsey (2001:168-169) sketched the historic demography of Indian slavery in South Carolina during the period. Surveying period wills and census records, he found that Indian slaves comprised only 6% of all slaves during the 1680s and 1690s, but that this number rose to 10% after Colonel James Moore's raids of A.D. 1702 and A.D. 1704. By the outbreak of the Yamasee War in A.D. 1715, approximately 25% of all slaves held by South Carolinians were Indians, a total population of 1,400 individuals. Although the proprietors themselves viewed Indian slavery as illegal, the only restrictions placed on Indian slave trade by colonial officials were put forth in A.D. 1680 and A.D. 1691 (Clowse 1971:66-68, 84). These orders, which were nearly impossible to enforce, placed an ambit of 200 miles (in A.D. 1680) and 400 miles (in A.D. 1692) around Charleston within which no "friendly" Indian could be sold into slavery (Gallay 2002:62: Oatis 2004:38). Ramsey (2003:60) pointed to strong market forces in influencing the scale of slave trade during the English Contact period arguing that the South Carolina economy depended on slave labor not only for working South Carolina's plantations, but also for trade to other plantation colonies.

Gallay's research (2002:294-308) furthered the argument that most slaves sold in Charleston markets were later traded to other colonies. He argued that the population estimated by Ramsey was but a small fraction of the total number of slaves taken during this period. Based on transport records following major military campaigns (described above) and trader accounts, Gallay (2002:299) estimated the total number of Indian slaves that were taken between A.D. 1670 and A.D. 1715 to be between 24,000 and 51,000 individuals. He also contended that most researchers grossly underestimate this figure because of a lack of official documentation in South Carolina records of Indian slave exports to Caribbean and northern mainland colonies (Gallay 299-300). Gallay (2002:301) believed that a large percentage of the trade in Indian slaves was purposefully left undocumented in order to keep secret "an important commodity that was regulated and taxed by the mother country when obtained from Africa." While not able to provide a quantitative analysis, Gallay (2002:301-308) did find ample evidence in early eighteenth-century colonial records and accounts for the presence of southeastern Indian slaves in Caribbean colonies, Massachusetts, Rhode Island, Pennsylvania, New York, and Virginia.

The demand for slave labor in colonial plantation economies was thus a major determinant of the English Contact period trading system, but the supply-side of the slavery system must also be considered. Most researchers agree that the taking of slaves by southeastern Indians was a tradition of significant geographic range and time-depth (Bowne 2006:128; Dye 2002; Gallay 2002:29; Martin 1994:308). They also agree that during the English Contact period the articulation of capitalistic European colonial economies and Indian slavery altered the nature of this tradition drastically. While the earlier southeastern slave-taking tradition was an occasional practice whose purpose was to augment the ranks of diminished local populations or to attain war captives, slave-taking during the English Contact period became what Ethridge (2006:208) calls a profit-driven "commercial" venture. Using the cost-benefit calculus of a typical commercial enterprise, a single slave might fetch as much as 200 skins for an Indian captor. Thus, taking even a few slaves in one raid could provide a hunter with more skins than he could usually procure in an entire hunting season (Ramsey 2001:168).

Historical accounts also indicate that English traders often incited Indian groups to conduct slave raids. Dr. Francis Le Jau, a missionary living near Charleston in the early eighteenth century, expressed a distaste for this practice in his journal writing, "It is reported that some of our Inhabitants...excite them [Indians] to make War amongst themselves to get Slaves which they give for our European goods" and "some white men living or trading among them do foment and increase that Bloody Inclination in order to get slaves" (Le Jau 1956[1708]:39, 41). Le Jau (1956[1713]:134) also provided a plausible explanation for Indian participation in slave raiding stating that in some cases it became the only viable option for paying off astronomical debts accumulated with English traders.

Whether to fulfill desire or necessity, the promise of wealth attained through capturing slaves led to the widespread participation of Indian groups in South Carolina's military campaigns in Queen Anne's War early during the eighteenth century. This new type of commercial slavery led to the meteoric rise (and fall) of so-called "militaristic slaving societies" whose sole focus (at least from the perspective of colonial records) was "making war" and controlling access to English trade (Bowne 2005, 2006; Ethridge 2006). These heavily armed groups, which included most infamously the Westo, but also the Yamasee, Yuchi, Chickasaw, and Savannah (Shawnee), were the major regional players in a European-backed interregional slave trading system that preyed upon Indian towns stretching from the Carolina and Georgia Piedmont, across the Appalachian Mountains, to the lower Mississippi valley. Ethridge (2006:211) points out that these groups not only contributed to the formation of the shatter zone in the Southeast, but also were themselves likely the product of a ripple effect emanating from the creation of the shatter zone in the Northeast. The ripple effect was manifested in the form of the immigrating Westos who were displaced by Iroquois slave raiding.

The other commodity that circulated within the flourishing colonial trading system was deerskins. Virginians began trading in deerskins with nearby tribes shortly after the colony's founding in A.D. 1607, but trade with Indian groups beyond the Carolina Piedmont was at this time insignificant, possibly because the routes to more distant groups were controlled by middlemen like the Occaneechis, Catawba, and Tuscarora (Martin 1994:307; Merrell 1989a:28-29). With the founding of the South Carolina colony, the dynamics of this fledgling trading system changed dramatically. First, the scale of the trade increased greatly with the influx of dozens of new traders all with aspirations of amassing great riches. Second, the geographic position of Charleston allowed these South Carolina traders to trade directly with interior groups using new routes that did not pass through the territory of the Piedmont middlemen. Lastly, the establishment of trade with South Carolina added an alternative source of trade for southeastern Indian groups. This led to competition for the Indian trade not only among the European colonial powers, but also (and more intensely) between South Carolina and Virginia (Gallay 2002:53; Martin 1994:309-310).

Scholars have often written of the primary role of the deerskin trade in the early history of the Southeast (e.g., Braund 1993; Crane 2004; Hatley 1995; Martin 1994; Oatis 2004; Waselkov 1998). Indeed, it is well known that the Indian trade dominated South Carolina's economy during the English Contact period (Crane 2004:110; Gallay 2002:44). For many colonists in Virginia and South Carolina, entry into the Indian trade during this period was barred by substantial financial barriers. Extensive inputs of money were required to pay for goods, labor, and transportation, as well as to extend lines of credit (Martin 1994:307). To those who could afford it, the payoffs were obviously worth the investment as the scale of this trade was fitting for an international commercial venture. The number of deerskins exported to England averaged 54,000 between A.D. 1699 and A.D. 1715, but fluctuated from year to year. Major events like the A.D. 1704 raids on Spanish Florida, the Tuscarora War in A.D. 1711, and the Yamasee War in A.D. 1715 had demonstrable effects on the trade (Crane 2004:111-112) (Figure 2.2).

The deerskin trade, while a substantial economic force, was never purely an economic venture. For Indian groups as well as colonial officials, trade was inherently linked to diplomacy and treated as "bonds of peace" (Martin 1994:308; Oatis 2004:53-55; Ramsey 2003:46). As a valuable diplomatic tool during this period of intense colonial competition, the deerskin trade became something to be guarded by colonial governments and used as leverage by Indian groups. From A.D. 1670 until A.D. 1707, there was little attempt by the South Carolina proprietors to control the deerskin trade. Growing reports of abuses by traders finally pressured officials to pass the A.D. 1707 *Act for Regulating Indian Trade and Making it Safe to the Publick.* This act sought to provide oversight to the trade, to enforce restrictions against selling free Indians as slaves and liquor, and to offer resolution to claims of Indian abuse (Oatis 2004:54). The passage of this act led to the mandatory licensing of all traders and the establishment of the Commissioners for the Indian Trade. A major boon to diplomacy with Indian allies (and colonial intelligence) was the appointment of an Indian Agent whose position required him to spend ten months of the year traveling among major Indian towns (Moore 1988:12). This act and the commission resolved a number of disputes and punished a number of recalcitrant traders, but ultimately these regulatory attempts failed to prevent the coming Yamasee War in A.D. 1715.

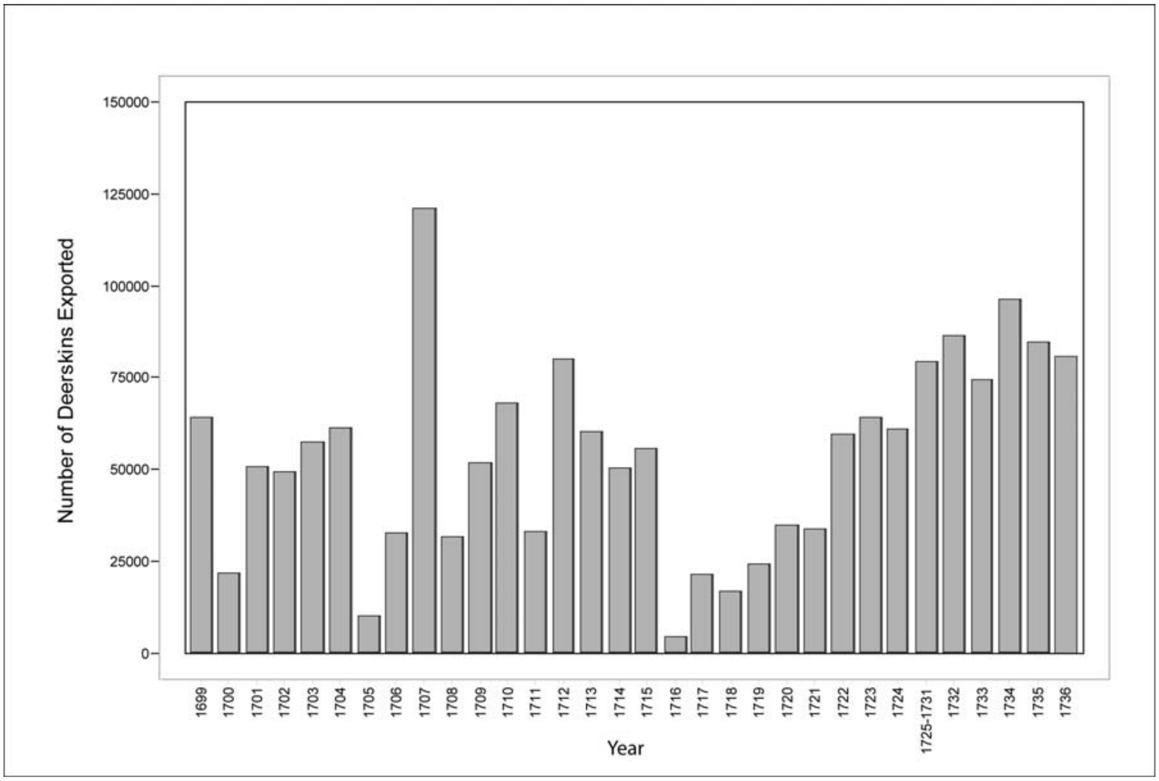

Figure 2.2 Annual deerskin exports from Charleston A.D. 1699-1736 (data taken from Crane [2004]: Appendix A).

Competition among colonial powers for trade with various Indian groups was a constant feature of the period, and it is perhaps surprising that the most intense competition occurred not between the three European powers, but between two English colonies – South Carolina and Virginia. The French Louisiana colony had sustained trading relations with lower Mississippi valley groups since the late seventeenth century, and a few *coureurs de bois* had been known to carry on trade with groups as far into the interior Southeast as the upper Tennessee River valley (Crane 1916, 2004:41-43). Lack of substantial colonial backing and the loss of frontier influence after Chickasaw-Muskogean raids during Queen Anne's War (A.D. 1709-1711), however, prevented the French from making serious advances into the southeastern deerskin trade until after the Yamasee War (Gallay 2002:132-135; Oatis 2004:70-71). The Spanish were even less of a regional competitor for trade during the period. While there was some trade carried on with Muskogean groups in the Lower Chattahoochee valley and with the Yamasee on the South Carolina border, Spanish colonial interests in the Southeast were not focused on expanding trade. Furthermore, the raids carried out by South Carolina and allied Indians effectively ended the expansion of Spanish colonial interests in the Southeast during the first decade of the eighteenth century (Bushnell 1994:161-189; Crane 2004:80-81; Oatis 2004:70-71).

The largest source of competition for the deerskin trade emerged between the English colonies of South Carolina and Virginia. Virginia had the earlier presence in the Southeast, and the accounts of some traders, most notably James Needham and Gabriel Arthur, suggest that by the 1670s Virginia traders had reached Indian groups as distant as the Savannah River and the Gulf of Mexico (Briceland 1987; Bushnell 1907, Franklin

1932; Rountree 2002; Williams 1928). The South Carolinians, however, had the benefit of a more strategic geographic position from which to conduct trade, what appears to be an advantage in numbers of traders, and a zealous (borderline fanatical) approach to competition. The rivalry between the two colonies began almost immediately with South Carolina wresting trade with the Westo from the Virginians in the 1670s (Gallay 2002:55; Oatis 2004:75). Throughout the first decade of the eighteenth century the South Carolina colonial legislature proposed or passed a number of measures aimed at barring Virginia traders from operating within South Carolina (Merrell 1989a:52-56; Oatis 2004:75-76). Because of its location, South Carolina appears to have easily bested the Virginians in the deerskin trade with Muskogee-speaking groups to the west and the Chickasaw in the lower Mississippi valley. The battle over the deerskin trade in the Piedmont and Appalachian Mountains, however, was much less clear-cut. In these regions, it appears that the Virginians were able to maintain a presence by taking advantage of their long-held ties to local communities and by selling their goods at cheaper prices (Merrell 1989a:55). For decades to come, this intense rivalry would be a source of tension to be dealt with by the colonies and an opportunity to be exploited by Indian groups.

Thus far, I have discussed the great European colonial demand for deerskins and Indian alliances during the English Contact period and the actions taken by colonial officials to satisfy it. What effects did the deerskin trade have on southeastern Indian communities? The effects were obviously variable from community to community, but a few general issues were likely widespread. First, as discussed above, the rather "inelastic" European demand for deerskins and resulting competition between colonies gave certain Indian communities bargaining leverage in dealing with the colonies (Merrell 1989b). Between A.D. 1670 and A.D. 1715, this opportunity was exploited by Piedmont Indians, and later with the re-emergence of French colonial trade after the Yamasee War, Creek and Cherokee towns did the same (Merrell 1989b; Oatis 2004:215; Waselkov 1993, 1994).

Another important effect of the deerskin trade was the presence of European traders in local Indian communities, many of which took up full-time residence. Through marriage or less formal arrangements, these traders often became vital members of the local community (Barker 1993, 2001; Hatley 1995:42-51). They acted as indispensable diplomatic envoys who channeled negotiations and intelligence between the Indian towns and colonial officials. The daily presence of the traders in the communities, as well as the offspring of their relationships with local women, also forced the negotiation of cultural differences between Europeans and Indians. As is evident in colonial records, unfortunately these "negotiations" sometimes erupted in violence (Perdue 1998; Ramsey 2003). As Indian groups became more involved in the trade, these resident traders also began to extend lines of credit. While this practice was often necessary given the seasonal nature of deer hunting, in more than a few cases the European traders employed predatory credit schemes that resulted in Indians amassing exorbitant debts. The most extreme example of this situation was the Yamasee, who by A.D. 1711 had accumulated a debt of 100,000 skins – roughly twice the annual average of all deerskin exports from South Carolina (Haan 1981:343).

There are also indications that participation in deerskin trade dramatically altered the histories of particular Indian communities. The historic documents numerous cases of communities choosing to move to be closer to European trading posts. These cases include, most notably, the move of Muskogee-speaking groups from the lower Chattahoochee River Valley to central Georgia in the 1680s, as well as smaller groups of Yamasee, Savannah, Yuchi, and Apalachee that settled along the Savannah River during the early eighteenth century (Gallay 2002:71-73; Waselkov 1994). Of course, there were likely other factors influencing the decision to move, such as harassment by the Spanish or raids by hostile Indian groups; nevertheless, the decision of where to move appears to have been a strategic one made by community members.

On the community level, archaeologist Gregory Waselkov (1990) found at the Muskogean town of Fusihatchee in central Alabama that the community ceased to construct domestic "winter" houses around the turn of the eighteenth century. He (Waselkov 1990:40-41) argued that that the "winter" house may have dropped out of use at this community as hunters and their families spent more time away from their town engaged in extended deer hunting expeditions for the colonial trade. This interpretation is supported by a concomitant and dramatic increase in the use of long-term subterranean storage in the community after A.D. 1700 (Waselkov 1990; Wesson 1999). Together, these patterns suggest that dramatic changes to domestic and community life were occurring as a result of the transformation from a local subsistence economy to one focused on hunting for commercial profits.

The related trade systems involving slaves and deerskins were crucial components in creating across the Southeast the unstable landscape typical of a shatter zone. Slave raiding had a particularly catastrophic effect resulting in the death or imprisonment of potentially tens of thousands of Indians. The practice also caused massive population movements of groups motivated by the pursuit of slaves or the threat of enslavement (Smith 1987, 2002a). The burgeoning trade in deerskins also resulted in significant changes to Indian communities on the regional and local levels. The dynamic nature of the landscape between A.D. 1670 and A.D. 1715 was fed by numerous Indian towns that left their traditional territories in order to be closer to European trading posts. Tension was also building within Indian communities as the growing participation in a commercial economy forced the reorganization of domestic life, as resident European traders clashed with local communities, and as families faced mounting debt.

The Yamasee War and its Aftermath: A.D. 1715 - 1740

On Good Friday, April 15, 1715, the chaos of the shatter zone finally ruptured through the protective buffer surrounding South Carolina and invaded the lives of European colonists. The Yamasee War began that day when a number of South Carolinian trade officials were murdered in the Yamasee town of Pocotaligo. The murders took South Carolinians completely by surprise, as the Yamasee were thought to be one of the colony's closest allies. Indeed, the murdered Englishmen had only been sent to Pocotaligo in order to arrange talks with another Indian group, the Ochese Muskogeans, who were rumored to be planning attacks against South Carolina traders and settlers (Crane 2004:168-169: Oatis 2004:126-127). These initial murders were quickly followed by major Yamasee attacks on plantations around Port Royal south of Charleston. In these attacks, the Yamasee managed to kill over 100 colonists and set the rest of the settlement's population to flight (Pennington 1931:253). In the following weeks, news began to filter into Charleston that most of the English traders in the towns of the Tallapoosa, Abiehka, Alabama, Ochese, Coweta, Choctaw, Chicksaw, Catawba, and Cherokee had either been killed or chased off (Oatis 2004:128-132). Adding to the fears of a pan-Indian assault, news emerged that the Catawba and a small group of Cherokee had made raids on plantations north of Charleston and even managed to capture a South Carolina militia garrison (Crane 2004:171-172). Facing this apparent "invasion," colonists across South Carolina fled to Charleston, where the effects of overcrowding, fear, and tension, exacerbated by the summer heat, took its toll on the physical and mental health of many residents (Oatis 2004:140).

South Carolina's military response to the Yamasee and Catawba raids was swift. Only a week after the murders at Pocotaligo, the governor of South Carolina personally led militia forces to decisive victories against the Yamasee towns forcing them to retreat southward across the Altamaha River (Oatis 2004:144). Also, days after the assaults north of Charleston, South Carolina militia Captain George Chicken managed to rout the invading Catawba force in an ambush that came to be known as the "Battle of the Ponds" (Crane 2004:172; Oatis 2004:145). These were the only major military engagements of the conflict, but the hostilities of the Yamasee War officially carried on for almost two years until a peace with the last of the hostile groups, the Lower Creeks, was brokered in A.D. 1717.

Traditionally, historians have written about the Yamasee War as a united Indian revolt against the abuses of English traders, but recent attention has turned to exploring the different motivations and strategies of the Indian groups who participated in the attacks (e.g., Gallay 2002; Merrell 1989a; Oatis 2004; Ramsey 2003). To various extents, these authors agree that while some of the Indian participants were in collusion, the Yamasee War was not a pan-Indian conspiracy carried out with the aid of a master plan (Oatis 2004:123). Instead, they hold that each group acted according to their own strategy and toward their own diplomatic goals. Abuse by traders, mounting debts, and the fear of enslavement were important factors in some groups' decisions to join the war against South Carolina, but these three causes were as far from universal. These causes apply most to the Yamasee, but even their decision to attack South Carolina settlements was also likely influenced by the encroachment of Europeans on their treaty-protected lands as well as a breakdown in diplomacy with colonial officials (Gallay 2002:330-331; Haan 1981; Ramsey 2003:46). For Muskogean, Cherokee, Chickasaw, and Choctaw groups, there was no possibility of English settler encroachment during this period, and these groups were far too strong to fear an immediate invasion by English forces. With this in mind, Gallay (2002:335) interprets the killing of English traders in these groups' towns as a diplomatic message sent to the Carolina officials – the gist of the message being, "English promises for reform were no longer acceptable. Alliance was no longer appropriate or possible...[The Indians were] announcing to the English the need to negotiate a new relationship (Gallay 2002:335).

Renegotiating Diplomacy in the Post Yamasee War Southeast

While major military operations ended within the first two months of the war, Yamasee and Muskogean raids on trading caravans and frontier skirmishes with South Carolina militia continued sporadically for the next two years.[5] As the confusion of the first violent weeks of the war settled down, it was obvious that the social, political, and economic landscape of the Southeast had changed dramatically and that Indian groups and colonial officials would have to renegotiate their diplomatic and trading relationships. For South Carolinians, in a matter of weeks the landscape had transformed from one of security, surrounded by a protective "buffer zone" of Indian allies, to one of utter vulnerability (Oatis 2004:142). As for the instigators of the war, only weeks after their first successful raids, the Yamasee had lost a quarter of their number to death or slavery, and they were forced to move their towns south to seek protection from the Spanish (Oatis 2004:178). While not creating as perilous a situation as that experienced by the Yamasee, the chaos of war caused a temporary but crucial breach in the fundamental diplomatic and trading relationships among all southeastern Indian groups and South Carolina. In doing so, the war created a moment when everything was "on the table" and negotiable. Consequently, the twenty-five year period following the war (ca. A.D. 1715-1740) included significant changes in diplomacy and trade that reflected the attempts of all groups to adjust to this new post-war landscape.

The Yamasee War exposed a major flaw in South Carolina's diplomatic strategy and forced a change in the way colonial officials handled diplomacy with southeastern Indian groups. The flaw was exposed when the main southern and northern components of South Carolina's protective buffer zone, the Yamasee and the Catawba, unexpectedly became the colony's main adversaries in the war. The surprise nature of the attacks by presumed allies suggests that South Carolinians must have suffered from a complete diplomatic breakdown with their Indian neighbors. According to historian William Ramsey (2003:67-68), that is exactly what had occurred when an internal dispute consumed the regulatory board of trade (Commissioners of the Indian Trade) to the point where it ignored all business with Indian groups between November 1714 and the outbreak of the war in April 1715. Because trade formed the diplomatic "bonds of peace" between South Carolina and Indians, this shut down essentially severed all official contact with southeastern Indian groups and created "an abrupt and utter diplomatic vacuum everywhere." Because tensions over existing disputes were already at a boiling point in Yamasee and Muskogean communities when the diplomatic blackout began, Ramsey believes that South Carolina's attempt to negotiate in April 1715 came far too late.

In rebuilding diplomatic relations with Indian groups after the Yamasee War, South Carolina officials sought to avoid another disaster by making diplomatic relations with Indian groups as streamlined as possible. In order to do this, the government attempted to reduce the number of Indian entities with whom the colony negotiated by lumping politically independent Indian towns into composite groups called "nations" and assigning a single individual to speak for the entire group (Oatis 2004:193, 195, 212). This nationalizing strategy was evident, for example, in the designs of George Chicken's A.D. 1725 diplomatic mission to crown a "King" among the Cherokee (Chicken 1916[1725]:126-130) and Tobias Fitch's A.D. 1725 mission to appoint a "Comander in Cheif" of the Creek nation (Fitch 1916[1725]:209). This overt attempt to create European-style national power structures among Indian groups was one-sided and quite ineffectual. South Carolina's lesser mission to group Indian towns into collectivities, however, was much more successful because it tapped into a historical process that was already well underway among Indian groups by A.D. 1715 (Oatis 2004:242-243). This process, which was actually a strategic response of Indian towns trying to mitigate the disruptions of the shatter zone, included demographic consolidation carried out through the merging of Indian towns and the adoption of various refugee groups by more stable towns. The term "coalescent societies" is used throughout this study to refer to the ethnically diverse Indian towns resulting from this process (*sensu* Kowalewski 2006). It was likely the convergence of South Carolina's nationalizing strategy with the Indians' strategic response to population loss that resulted in the emergence of geographically bounded ethnic collectivities with identities like "Creek," "Cherokee," and "Catawba" (Knight 1994, Galloway 1995; Hudson 2002; Kowalewski 2006; Merrell 1989a; Rodning 2002).

One prominent feature of the southeastern landscape that did not change dramatically after the Yamasee War involved the violent conflicts that frequently erupted among Indian groups. Indeed, South Carolina officials spent much of the period attempting to "put out fires" by mediating these conflicts. During the post-Yamasee War period, conflicts among various southeastern groups revolved around a central war that was carried on between the Creek and Cherokee. The Creek-Cherokee War began in the midst of the Yamasee War when a Creek diplomatic delegation was murdered by a number of Cherokee in the Lower Cherokee town of Tugaloo.[6] Violent clashes between certain Creek and Cherokee groups had sporadically broken out in the years before the Yamasee War, however, this event initiated a decade of violence that engulfed both groups, destroyed entire towns, caused significant disruption of trade, and eventually spread westward to the Choctaw and Chickasaw (Crane 2004:273-274; McDowell 1992:222; Oatis 2004:53, 235). In addition to the Creek-Cherokee War, the period also included frequent raiding against Catawba and Cherokee towns by the Iroquois, Lower Creek raids against Yamasee refugee groups in Spanish Florida, and a little reported, but apparently significant ongoing conflict between particular Upper Cherokee towns and French-allied Illinois Indian towns (Merrell 1989a:89, 97-98; Norton 1970[1816]:46, 82, 262-264; Oatis 2004:77, 132, 200, 210, 236, 246). South Carolinians were finally able to arrange a tenuous peace between the Creek and Cherokee in A.D. 1727; however, the colony never aspired to creating a lasting peace among all southeastern Indian groups, for they would always need belligerent Indian allies to fight against groups allied with the French or Spanish.

The complete breakdown of diplomacy and trade between South Carolina and Indian groups at the beginning of the Yamasee War provided an ideal opportunity for England's imperial rivals to reassert their colonial ambitions. By the first decade of the eighteenth century, Spanish colonial interests had suffered a string of defeats ending with South Carolina's raids on St. Augustine and their Apalachee missions. The Yamasee War briefly provided much needed succor to Spain's deflated imperial ambition in the form of Indian groups in search of alliance and trade. The resettlement of retreating Yamasee in Spanish Florida was taken as an optimistic sign, as were the diplomatic overtures of Creek headmen from the Tallapoosa and Coweta (Crane 2004:185). Having cut themselves off from English trade, these latter groups were in search of an alternative source for trade. By A.D. 1718, however, it was clear to the Spanish that they could not offer the Creek anywhere near the volume of trade that the English or even the French could provide, and that a long-term Creek alliance with Spain would probably never materialize (Oatis 2004:214-219).

During this period, France proved to be a more formidable colonial adversary for South Carolina. France's imperial ascendancy began in the Louisiana colony in A.D.

1717 with an influx of financial support from the mother country and a restructuring of the colonial economy that boosted plantation agriculture and Indian trading (Gallay 2002:339; Oatis 2004:213-214). That same year, the French were able to negotiate with Tallapoosa and Alabama Indian groups to build a fort and trading post, called Fort Toulouse, on territory at the confluence of the Coosa and Tallapoosa rivers (Crane 2004:256). From this foothold deep within territory formerly dominated by South Carolinian traders, the French not only offered competition to South Carolina traders, they also harried English colonial ambitions by continually attempting to sway Creek and Cherokee groups to their influence. Like the Spanish, the French were ultimately never able to outpace South Carolina in the pursuit of Indian trade and alliances; however, their persistent presence as an alternative source of trade offered crucial diplomatic bargaining leverage to Chickasaw, Creek, and Cherokee groups between A.D. 1715 and A.D. 1740 (Martin 1994:314; Waselkov 1993, 1994).

Postwar Changes to Trade

The Yamasee War brought about two significant alterations to the existing trading system – the cessation of the trade in Indian slaves and South Carolina's attempt to reform the deerskin trade. The precipitous decline in the Indian slave trade likely came about as a result of decreases in both supply and demand (Gallay 2002:353-354; Oatis 2004:122, 152; Ramsey 2003:45). If Wood's (1989) demographic estimates for the previous period (ca. A.D. 1685-1715) are to be believed, then the combination of slave raids and disease reduced the southeastern Indian population by half in A.D. 1715. When population losses at this scale combined with the accelerating rate of consolidation among surviving populations, the result was that the supply of potential slaves effectively dried up.

In regard to the demand for Indian slaves, the Yamasee War introduced South Carolinians to the real threat of Indian attacks on the colony. The war also brought to light the fact that when conflicts with Indians arose, there would be a large population of Indian slaves among the colonists that could easily turn on their masters. These fears likely influenced South Carolina planters to begin shifting their slave labor pool from Indians to Africans. The shift in preference to African slaves may also have been due to their long tenure as plantation labor in the Caribbean and the planter's belief that African slaves were more resistant to European disease (Martin 1994:313). Whatever the reason for this shift in demand, the result was a drastic and permanent decrease in the number Indian slaves owned by South Carolina households. In a survey of South Carolina will transcripts, for example, Ramsey (2001:173) found that household ownership of Indian slaves declined from 26% in A.D. 1714 to just 2% by A.D. 1730.

The Yamasee War also brought about significant government reform in the deerskin trade. The disruptions caused in the first weeks of the war forced South Carolinians to restart the deerskin trade virtually from scratch, for in one year the colonists saw practically all of the Indian groups involved in the trade become their enemies, they lost most of their experienced traders, and they witnessed their deerskin exports drop from 55,806 to just 4,702 (Crane 2004: Appendix A; Oatis 2004:150) (Figure 2.2). The colonial assembly began the recovery effort in June 1716 with the passage of *An Act for the Better Regulation of the Indian Trade* (McDowell 1992:325-329). The measures laid out in the act were drastic, and they reflected the urgency of the government's attempts to restore the deerskin trade while at the same time securing its frontiers.

At its core, the act established a complete governmental monopoly over the deerskin trade with three fundamental aims: (1) to restrict all deerskin trade to sanctioned factories staffed by governmental employees (called factors); (2) to curb the physical and credit abuses that occurred with private traders; and (3) to ensure the settlement of a peace between South Carolina and Indian groups like the Creek and Catawba who were, at the time, hostile toward the colony. The act initially authorized the construction of three factories – one located at Fort Moore along the Savannah River, one at a plantation garrison on the Black River, and one near the Congaree River. These original factories were purposefully placed outside of Indian towns for defense and in order to maintain a healthy personal distance between the factors and the Indians. The colonial assembly was also explicit in their desire to end the credit schemes and abuses of private traders and to increase the "morality" of the trade. To that end, the language of the act and the instructions given to factors forbade trading by any private individuals (including the factor himself), leveled substantial fines against any person who committed abuses against Indians, established specific price-lists for goods traded to the Indians, totally abolished the use of credit, and severely restricted the sale of Indian slaves (McDowell 1992:85-87). The third aim of the monopoly was based on the colony's long held axiom that trade formed the "bonds of peace" with Indian groups. Consequently, the trade act and official instructions to the factors stated that commerce was to be restricted to Indians "In Amity with this Government," and firearms were not to be sold to "any Indians that have not made Peace, or have not entered into Articles of mutual Friendship, with this

Government" (McDowell 1992:85-86). This restriction reflected the assembly's perception that the growing Indian need for European goods would bring about the eventual acquiescence of hostile groups (Hahn 2002).

The public monopoly did not last very long. Suffering from complaints by merchants and Indian groups and from competition by price-cutting Virginia traders, the Lords Proprietors began to allow private trading in A.D. 1719. By A.D. 1721, the trade reverted primarily to private interests (under government regulation) and the public factories were decommissioned (Crane 2004:197; Oatis 2004:154). The success of the monopoly has been debated by historians and in the end appears to have been mixed (e.g., Oatis 2004:152-153 *contra* Crane 2004:196-197). The principle of factories being unaffiliated vis-à-vis Indian towns was compromised rather quickly when a number of factories were established among various Cherokee towns following their refusal to continue carrying on trade at the distant Fort Moore factory (McDowell 1992:151-152, 188). This concession by South Carolina was a direct result of the significant bargaining leverage possessed by the Cherokee who held a preeminent position in the deerskin trade. The monopoly did succeed in significantly reducing the number of complaints of Indian abuse, and although the commissioners eventually allowed the extension of credit to Indians, the debts were never allowed to grow to the astronomical levels attained just prior to the Yamasee War (Oatis 2004:153; Ramey 2003:52-56). Also, during the tenure of the monopoly South Carolina's two major Indian foes, the Catawbas and the Creeks, signed treaties to reopen trade (Merrell 1989a:79; Crane 2004:259). Taking these goals into account, it must be concluded that the monopoly was a success as an emergency stopgap measure that began the recovery of the deerskin trade (Crane 2004:211) (Figure 2.2).

The monopoly ultimately failed, however, because of growing opposition by both colonists and Indians and because of competition from Virginia traders. The colonists objected in principle to government monopolies of any kind because they took profit away from private pockets. Also, as bureaucratic institutions, government monopolies were often hamstrung by inflexibility and long lag-times in reacting to market forces (Barker 1993:242-244). This exact problem was described in the memoir of a factor to the Cherokee who, writing to the sometime between A.D. 1716 and A.D. 1718, complained about his inability to compete with Virginia traders because he had to follow a government set price structure (Vassar 1961:411). Indian groups also increasingly mounted resistance to the commissions' insistence on using of Indians as burdeners for the trade, ultimately choosing to trade with the Virginians because they used packhorses (Merrell 1989a:84; Vassar 1961).

The two decades following the nullification of the trade monopoly included the growth of South Carolina's deerskin trade and the return of deerskin exports to pre-war levels (Figure 2.2). The largest source of growth doubtless came from the expansion of the trade to include for the first time substantial Cherokee participation (Crane 2004:194-197; Hatley 1995:23). The deerskin trade also grew in A.D. 1717, when a peace was reached and traders were once again sent west to Creek and Chickasaw towns (Crane 2004:259; McDowell 1992:238-241; Oatis 2004:211). The volume of trade increased after A.D. 1720 when Indian burdeners were gradually replaced by packhorses as the conveyors of the South Carolina deerskin trade. Human burdeners were less efficient and far more costly to the European traders because they could not carry as great a load, they were not as keen on doing the job and increasingly required greater financial incentives to make the trip, and they sometimes absconded with a portion of the load (Barker 1993:112-115, 2001:152-155; Hatley 1995:37-38). The increase in the volume of trade was also due to the ending of the monopoly and the fact that South Carolinian traders were freed from governmental price restrictions. Without having to request changes from the commissioners, traders could more easily adjust their prices to compete with Virginian traders while at the same time providing the amount of European goods demanded by Indian communities (Barker 1993:114; Hatley 1995:34-35; Merrell 1989a:84). The increased competition also benefited Indian communities who found much success in following their pre-war strategy of playing the colonial powers against one another.

Summary

All of the historical and ethnohistorical sources indicate that the English Contact period (ca. A.D. 1670-1740) was an extremely turbulent time for both Indian groups and colonists in the Southeast. The first part of the period (ca. A.D. 1670-1715) featured the formation of a "shatter zone" – a landscape rife with social, economic, and political disruptions caused by the increasing participation of Indian groups in the European capitalist economy. I argued that three historical forces largely influenced the development of the shatter zone in the Southeast: epidemic disease, European colonial competition, and the trade in Indian slaves and deerskins. In discussing these forces, I emphasized the importance of considering the two-sided nature of interaction;

particularly how the strategic decisions of Indian groups like the Westo or the Yamasee shaped the history of the Southeast. By A.D. 1715, the combination of epidemic disease, European colonial competition, and the trade in Indian slaves and deerskins had taken a devastating toll on most Indian groups. Indeed, there was no portion the southeastern landscape left untouched by the effects of extensive depopulation, mass population movements, the eruption of violent conflicts, growing debt, and fear of enslavement. The Yamasee War represented a sort "tipping point" for southeastern Indian groups, a *fait accompli* whose beginning was engineered through the various strategies pursued by both the colonists and Indians since the beginning of the period. The war devastated South Carolina's economic and diplomatic ambitions as trading partners and valued Indian allies quickly turned against the colony. The complete breakdown caused by the Yamasee War offered colonial officials and Indian groups a brief respite during which they could reconsider and adjust their diplomatic and economic strategies in order to avoid reaping another whirlwind.

The years of the English Contact period following the Yamasee War (ca. A.D. 1715-1740) were generally a much more settled time in which Indian groups and colonists were beginning to adjust to the disruptions and chaos of the previous 45 years. While Indian groups continued to suffer from epidemics during the period, increased resistance to diseases and the abatement of Indian slavery significantly reduced the rate of population loss affecting Indian towns. The post-war years also featured the gradual cessation of frenetic population movements across the landscape as Indian populations consolidated and settled into particular areas such as the Chattahoochee River valley, the Coosa and Tallapoosa River valleys, the Catawba and Wateree River valleys, and the

Hiwassee and Little Tennessee River valleys. As for the Europeans, South Carolina officials renewed diplomacy and trade with Indian groups amid a landscape inhabited by their reinvigorated European rivals. South Carolina's diplomatic strategies included numerous unsuccessful attempts to consolidate political power among Indian groups. Their strategies also included encouraging Indian conflicts that benefited England's imperial struggle against Spain and France (e.g., Creek vs. Spanish-allied Yamasee, Cherokee vs. French-allied Illinois) while discouraging conflicts that involved English-allied groups (e.g., Creek vs. Cherokee). Rather than settling down, the deerskin trade experienced a significant expansion during the post-war years of the English contact period.

Thus far, I have attempted to reconstruct the general historical context of the English Contact period in the Southeast. I did so by a describing a dynamic even chaotic landscape, a shatter zone, in terms of historical forces that acted broadly across time and space. This type of discussion at a regional level has offered many important insights; however, I agree with Ethridge (2006:217) that our understandings of English Contact period Indian groups, like the Cherokee, can achieve even greater insight when we take into account the variable effects of local interaction between colonial and particular Indian groups.

Cherokee Strategies for Navigating the Shatter Zone, A.D. 1670-1740

Recent historical and ethnohistorical works mark a significant departure from traditional southeastern histories of the late seventeenth and early eighteenth centuries in that they place a greater analytical emphasis on the roles Indian groups played in making the history of the region. The narratives produced in these works are indeed richer as a result of framing history as the product of strategic choice and necessity on the part of Indian groups rather than strictly the latter (e.g., Gallay 2002; Galloway 1995, 2002; Hatley 1995; Kowalewski 2006; Merrell 1989a, 1989b; Oatis 2004; Waselkov 1993; Wesson 2008). In addition to demonstrating that history was a product of interaction between Indian groups and colonists, these works show that between A.D. 1715 and A.D. 1740 there was a tremendous amount of variability in the nature of interaction at the regional and local levels. Ramsey (2003:73), for example, argues that the search for general explanations for Yamasee War is ultimately fruitless because each Indian group "faced a complex set of local considerations that defy generalization. Common elements shaped their decisions...But the nature and value of those elements differed from region to region, and among them stretched a 'thousand threads' that wove them into the local reality."

The dynamic nature of the landscape during the English Contact period reflected the highly varied strategies enacted by Indian groups trying to adapt to a rapidly evolving dialectic with the European colonial powers. Space does not permit an in depth enumeration or comparison of the various strategies and combinations of strategies that were enacted by all southeastern Indian groups during the English Contact period, but even a cursory examination of current literature reveals that strategies varied from group to group and that the strategies practiced by a particular group changed through time. Groups like the Westo and the Savannah, for instance, chose to move near English trading posts on the Savannah River and to engage heavily in the Indian slave trade (Bowne 2005, 2006; Ethridge 2006). Other groups, like the Kaskinampo and Yuchi, engaged in slavery, but largely remained aloof, moving about the periphery of the region in small groups and settling with other small groups for relatively brief periods (Bauxar 1957a, 1957b; Riggs 2009; Swanton 1930). The Creek, Choctaw, and Catawba of the early eighteenth century were large, sedentary, multiethnic confederacies that formed around the nuclei of established Indian towns through the adoption of refugee groups (e.g., Galloway 1995; Knight 1994; Kowalewski 2006; Merrell 1989a). This "strategy of coalescence," as Kowalewski (2006) calls it, appears to have been a very common response to the disruptions of the shatter zone across the seventeenth- and eighteenth-century Southeast (e.g., Davis 2002; Drooker 2002; Hudson 2002; Perttula 2002; Rodning 2002). These brief examples indicate that the period was likely experienced and negotiated differently by different Indian groups. Consequently, current research needs to address variability by conducting analyses at the highest magnification possible given the restrictions of the data. In what follows, I use historic syntheses and primary sources to focus on the various strategies enacted by Cherokee groups as they navigated the social, political, and economic landscape outlined in the first part of the chapter.

Late Seventeenth- and Early Eighteenth-Century Cherokee Communities at a Glance

The Cherokee first enter into European history in the late seventeenth and early eighteenth centuries through the writings of English traders, travelers, and diplomats. Beginning with these first encounters, the act of defining “Cherokee” became an ongoing process of identity creation for both groups. For purposes of introduction, this discussion must begin with a necessarily rough sketch of the Cherokee during the late seventeenth and early eighteenth centuries. It is clear that by the first decades of the eighteenth century, the Cherokee were settled in 60-65 politically independent communities each inhabited by 100-600 people (Schroedl 2000; Smith 1979). These communities were distributed on the southern Appalachian landscape in three main settlement clusters that corresponded with socially recognized divisions among the Cherokee. The three divisions included the Lower Settlements in northeastern Georgia and northwestern South Carolina, the Middle, Valley, and Out Town Settlements in western North Carolina, and the Overhill or Upper Settlements in eastern Tennessee. Differences in dialect and pottery manufacture have convinced scholars of linguistics and archaeology that these divisions had considerable time depth (Bates 1986; Egloff 1967; Gilbert 1943; Mooney 1900; Riggs and Rodning 2002; Schroedl 1986b). Within these clusters, settlement types consisted of large nucleated towns, small hamlets, and dispersed individual farmsteads.

Cherokee communities engaged in horticulture including the classic North American triumvirate of cultigens (corn, beans, and squash) supplemented by hunting and gathering wild foods. European-introduced plants (e.g., peaches and apples) and animals (e.g., pigs, cattle, chickens) comprised a much smaller portion of the diet and did not play a significant dietary role until the latter half of the eighteenth century (Bogan et al. 1986; Schroedl 2000; VanDerwarker and Detwiler 2000, 2002; Walker 1995). Eighteenth-century ethnohistoric descriptions and early twentieth-century ethnological research indicate that the Cherokee were divided into seven exogamous matrilineal clans. Status differences among members of Cherokee communities were much less pronounced than in communities of the preceding Mississippian period (ca. A.D. 1000-1600) (Rodning 2004). Historical evidence demonstrates that that the power of most Cherokee leaders was primarily based on charisma, persuasion, and achievement and was largely confined to the community level. Furthermore, political decision-making on both the community and supra-community level was a matter of consensus among councils rather than the edicts of a single ruler (Gearing 1962; Gilbert 1943).

English, French, and Spanish documents tell us very little about how late seventeenth- and early eighteenth-century Cherokee communities were affected by disease, slave raiding, and population movements; however, there can be little doubt that these communities felt the disruptive effects of the shatter zone. There is no written record of the effects of the 1696 smallpox epidemic among the Cherokee. Peter Wood (1989:63) estimates that they might have lost half of their population shrinking from 32,000 in A.D. 1685 to 16,000 by A.D. 1700. The A.D. 1708 and A.D. 1715 colonial censuses indicate that the Cherokee population continued to decline after the epidemic (although at a much lower rate) to 11,000. Gallay (2002:298-299, Table 2) laments the lack of any historic records quantifying the number of Cherokee slaves taken between A.D. 1670 and A.D. 1715, but his estimate places the number in the hundreds if not a thousand – a relatively low number compared to other groups. Scant archaeological evidence and oral tradition suggest that by the time the first South Carolina traders arrived in the mountains in A.D. 1690, the Upper Cherokee were in the process of adjusting to population losses by shifting their settlements – abandoning their settlements north of the Little Tennessee valley and consolidating their population into established towns along the Little Tennessee and Hiwassee rivers to the southeast (Hudson 2002:xxxiv; Rodning 2002; Ethridge 2006:211). This is only a thumbnail sketch of the beginning of the period. As will be seen below, historical evidence reveals a more varied set of responses that were enacted by different Cherokee groups later in the period.

Cherokee Isolationism, A.D. 1670-1715: "A people little conversant with white men."

When writing the history of the late seventeenth- and early eighteenth-century southeast, historians often emphasize the trajectory by which the Cherokee were transformed from “an ambiguous presence” in the mountains to a major focus of colonial trade and diplomacy (Hatley 1995:27). This interpretation is well justified given the relative paucity of extant historical evidence referring to Cherokee as opposed to other southeastern Indian groups. The few known European maps that date to this period suggest an extremely low level of familiarity with the Cherokee until after the Yamasee War. Furthermore, historic accounts suggest that Cherokee participation in the burgeoning deerskin and Indian slave trade was, for the most part, negligible until after the first decade of the eighteenth century (Crane 2004:41; Hatley 1995:32-33; Merrell 1989a). When compared to other large southeastern Indian groups (e.g., Creek, Chickasaw, Choctaw), all of which were well known to Europeans by the dawn of the eighteenth century, the relative invisibility of the Cherokee becomes intriguing. I suggest that it is possible, and perhaps even likely, that the relative lack of Cherokee involvement in colonial affairs was a measured strategy for surviving in the shatter zone. Furthermore, I argue that this strategy was followed by most Cherokee groups until it could no longer be maintained at the beginning of Yamasee War. In judging the plausibility of this argument, one must consider the fates of groups like the Westo, Savannah, and Yamasee, all of which suffered terrible consequences after developing relationships with South Carolina.

Late seventeenth- and early eighteenth-century maps of the interior Southeast were based on the descriptions of explorers and represented translations of the most current state of knowledge regarding physical and cultural geography (Cumming 1998:20-27; Galloway 1995:205-209). Maps can thus offer a general picture of the degree of knowledge Europeans had of the Cherokee during the first half of the English Contact period. The two earliest maps referencing the Cherokee were made in A.D. 1682 and A.D. 1701 by French cartographers (Swanton 1930). According to Swanton (1930:407-408), the earlier anonymously authored map was based on the descriptions of La Salle and depicts the Tennessee River along with three towns named Tehalaka (i.e., Tchalaka = Cherokee), Cattougai (i.e., Katowagi = Shawnee word for "Cherokee" or Kituwa), and Taligui (i.e., Tellico), all of which he believed were Cherokee towns. If these towns were in fact Cherokee settlements, they were likely located along the Little Tennessee or Hiwassee rivers. Given the inaccuracies of the map, however, the association of these place names with any historically documented towns cannot be accurately determined. The latter map, produced in 1701 by French cartographer Guillaume De l'Isle, was drawn using details provided by a group of *coureurs de bois* who managed to travel to Charleston from the Ohio River valley just prior to 1700 (Crane 1916; Swanton 1930). This map depicts a number of clusters of unnamed villages grouped under the heading "Nation de Tarachis." Like the earlier map, these settlements were also probably located along the Little Tennessee or Hiwassee rivers.

Three English maps of Cherokee settlements dating to this period are equally vague. Thomas Nairne drafted a map of the Southeast based on his A.D. 1708 diplomatic voyage from Charleston to the Mississippi River (Cumming 1998:Plate 45). The original map was lost, but a reproduction was used as an inset in the Edward Crisp map, drawn in A.D. 1711. The map depicts a single large cluster of "Cherecie" settlements among the Appalachian Mountains along with a population estimate of 3,000 men. Trader Pryce Hughes also produced a map of his voyage to the Mississippi River around A.D. 1713. The original map was lost; however, a copied version dated to A.D. 1720 survives (Cumming 1998:23). Like the Nairne map, this work depicts Cherokee settlements with a single caption "The Cherokees. A great Nation inhabiting within & both sides of the Mountains consisting of 65 Towns." The other English map is an anonymous, undated map that Riggs (2009:30*n*) argues was drafted two to three years before the Yamasee War (ca. A.D. 1712-1713). This map is similar to the De l'Isle map in that it features clusters of settlements simply titled "Charakeys," but it is a more accurate depiction of the distribution of the Upper, Middle, and Lower settlements in their respective river valleys (Cumming 1998:Plate 46A). Taken together, these maps portray the poor but growing state of knowledge of the Cherokee in the late seventeenth and early eighteenth centuries. Individual town names were not known, or at least were not printed, and the locations of settlements were poorly extrapolated from explorer and trader accounts. When viewed as a chronological series, however, the maps suggest that Europeans were coming to understand that the Cherokee represented a formidable population. As will be shown later, maps made just two decades later reflect an enormous leap forward in Europeans' knowledge of Cherokee settlements as they came to play a major role in southeastern history during the post-Yamasee War years.

When compared to other southeastern Indian groups like the Creek, Chickasaw, and Yamasee, Cherokee participation in the deerskin trade during the early English

Contact period (ca. A.D. 1670-1715) was on a much smaller scale. Cherokee communities were not strangers to European trade. On the contrary, the evidence suggests that by A.D. 1670 an unbroken, albeit weak, chain of trade with Europeans had existed for over almost a century. Links to the Spanish extend back to the late sixteenth and seventeenth centuries in the form of iron tools, brass ornaments, and glass beads that have been recovered from numerous archaeological sites in eastern Tennessee and western North Carolina (Skowronek 1991; Smith 1987; Waselkov 1989). Historical and archaeological evidence suggests that some Cherokee communities were trading with Virginians, at least indirectly, during the last half of the seventeenth century (Smith 1987; Franklin 1932; Briceland 1987). South Carolinians appear to have opened trade with the Cherokee by 1690 (Rothrock 1929). Finally, as indicated by the De l'Isle map, French *coureurs de bois* appear to have established contact with Cherokee communities by A.D. 1700 (Crane 1916; 2004:43-33).

Aside from the accounts detailing these initial contacts, an overall lack of written records suggests that Cherokee settlements were largely forsaken by European traders during this period. The most popular explanation offered by historians for the lack of involvement in the trade is that direct contact with the Cherokee was limited by so-called "broker tribes." In this "gateway" model, rather than moving directly to Cherokee towns, most goods were funneled through Piedmont middlemen groups like the Occaneechi, Catawaba, Westo, and Savannah who controlled access to the trading paths from Virginia and South Carolina (Crane 2004:40; Franklin 1932:17-18; Hatley 1995:32-33; Merrell 1989a). There are two reasons, however, why this explanation is not altogether satisfactory. First, it would only apply to the last decades of the seventeenth century, as the military power of many of the Piedmont groups was severely diminished in wars with Virginia and South Carolina in the 1670s and 1680s (Bowne 2005; Davis 2002; Gallay 2002). In fact, of all of the groups only the Catawba survived as a viable military force into the eighteenth century. Second, the gateway explanation does not account for the meteoric rise of South Carolina trade with the Creek, Chickasaw and Choctaw, groups with whom contact was established at the same time as Cherokee. Trade to these groups followed the same route as trade to the Cherokee and would have passed through the same Savannah River valley towns of the Piedmont broker tribes, yet there is ample evidence that English traders were engaged in brisk direct trade with these groups by the turn of the eighteenth century (Crane 1916:17, 2004:25-26; Gallay 2002:161).

The gateway explanation suffers from the assumption that all Indian groups were actively seeking trade with Europeans. Proponents of the model accept as a starting point a great Cherokee demand for European goods, and then look for outside factors that must have limited Cherokee participation. It would doubtless be fruitful to include questions of Cherokee demand in our explanations rather than limiting the search solely to external explanations. Indeed, the few surviving late seventeenth- and early eighteenth-century accounts of Cherokee traders seem to indicate that the Cherokee were not exactly clambering to get a hold of direct English trade.

Numerous accounts spanning from A.D. 1690 to A.D. 1713 agree that English traders were quite contemptuous of the general lack of interest in trade shown by the Cherokee. James Moore, eventual governor of South Carolina and leader of the raids on Spanish Florida during Queen Anne's War, is generally credited with opening trade with the Cherokee in a trip to the Appalachian Mountains in A.D. 1690. A brief passage from his account, quoted by Crane (2004:40-41), presages the frustrations that would be felt by traders for the next three decades. Crane wrote that Moore "was prevented from penetrating 'to the place which I had gon to see' by 'a difference about Trade...between those Indians and me." The "difference about Trade" included the killing and enslavement of several Cherokee by Moore's party (Oatis 2004:35-36). The unfortunate outcome of this encounter caused the colonial assembly to pass a ban on private trading west of the Savannah River Indian towns in A.D. 1691 (Crane 1916:8*n*, 2004:41).

In a contemporary account penned in A.D. 1690, trader John Stewart commented on Moore's trip as well as the prospects of trade with other southeastern Indian groups:

> C. Moor [James Moore] got not much by his Cherakee voyage, all charges and prime cost deducted he is accoasting our Governor to have a license from him as general to go a 2^{d} voyage to the Tireaglis [Yuchi?] a people west of the Cherokees he tels me he wes 4 dayes J^{uny} west of the Mountaines in pleasant Valeys until a branch of Canada stop't his further advance. George Smith has returned with 2800 skins and fur from the Cowetas and he wes within 3 or 4 days Jurnay of the bay of Apalatier and hes brought the Coweta and Cusheda K^{s} here with him, Who have now return'd loaded with presents: they have, being 2500 fighting men, deserted the Spanish protection and com'd and setl'd 10 days Jurnay nearer to us to Injoy the English frier protection (Stewart 1931[1690]:29-30).

This account provides a valuable snapshot of the major events affecting South Carolina's Indian trade at the end of the seventeenth century. Stewart's writings were replete with discussions of "get rich quick" schemes and investment-return calculus indicating that if he lived today he would likely be a venture capitalist. Indeed, Stewart appears to have had a short but successful career as a resident trader with the Kasita, Tallapoosa, and Chickasaw (Gallay 2002:156-164). His negative impression of the Cherokee trade was thus likely shared by other profit-driven traders. Further suggesting a quick dismissal of the Cherokee, Stewart noted that upon his return from the Cherokee voyage, James Moore petitioned the governor not for permission to return to the Cherokee, but instead for permission to trade with the "Tireagis," possibly a group of Yuchi who were settled in the Middle Tennessee River valley of northern Alabama (Bauxar 1957a, 1957b; Riggs 2009; Swanton 1930). Stewart's letter indicates that he was more interested in discussing the recent opening of direct trade with the towns of Coweta and Kasita and their removal from the lower Chattahoochee valley to the Macon Plateau (see also Corkran 1967:50-51). Two important implications can be drawn from Stewart's account: (1) early in South Carolina's trade, the Cherokee were dismissed by at least some English traders in favor of Muskogee-speaking groups to the west; and (2) the traders' attitudes toward different Indian groups were based on their perception of relative profitability. Hence, the proactive strategies of some groups, like the Coweta and Kasita towns who engaged the traders by moving closer to Charleston, doubtless made them much more attractive trading partners than groups like the Cherokee who did not actively pursue trade.

An A.D. 1708 census compiled by Nathaniel Johnson, Governor of South Carolina, and his council mimicked the English perception that the Cherokee were apathetic toward trade. The census offered population estimates and brief descriptions of "The Indians under the protection of this Government" including the Yamasee, Apalachee, Savannahs, Ochese, Tallapoosa, Chickasaw, Cherokee, and Northward Indians (Piedmont groups like the Catawba). The entry regarding the Cherokee stated:

> The Chereky Indians live about two hundred & fifty miles northwest from our settlement [Charleston] on a Ridge of Mountains they are a numerous people but very Lazy they are settled in sixty towns & are at least five thousand men the trade we have with them is Inconsiderable they being but ordinary Hunters & less Warriors (Johnson et al. 1708:209).

This brief description demonstrates that South Carolina's knowledge of the Cherokee was improving by the close of the first decade of the eighteenth century. It provided relatively accurate estimates of the Cherokee population and the total number of towns they had settled at the time, although there was no mention of any town names.[7] The passage also demonstrates that at the same time South Carolinians' knowledge of Cherokee demography was improving, their opinion of the Cherokee as traders was not. The Cherokee were described as "Lazy," and the trade with them "Inconsiderable" (capitalization in the original document). As will be discussed later, the next phrase "they being but ordinary Hunters & less Warriors" suggests that the Cherokee were also not heavily involved in the Indian slave trade at the time.

A letter from English trader Pryce Hughes written in A.D. 1713 highlighted the continued English ignorance of the Cherokee – even into the second decade of the eighteenth century. The letter also provided considerable detail regarding cultural practices warning that, "The many accounts we've had of the American Indians are for the most part fabulous & imperfect (Hughes 1713).

> When I was amongst the Cherekees (as a people little conversant with whitemen) they enquired very closely of the nature of our Affairs in England; to be sure I was not wanting to magnifye its Interest. amongst other things telling them how we were governd by a Woman and that greater successes for the most part attended that sex than the other. they desired me to send that good Woman (for they styld her) a present from them viz a large carpet made of mulberry bark for herself to sit on and twelve small ones for her Counsellours. The choicest of their women went forthwith to work: but at my return they were not all finisht; so that I must defer sending them till a further opportunity. The map [the original has been lost] shews your Grace where this nation is situated; Tis the only one that possesses the Apalachee mountains & is the most numerous & most submissive of all Indians belonging to her Majesty. They live a great way off from any white Settlement & so are but little known to us. Of the many nations I've seen these keep up their old customs in their greatest purity. They acknowledge several Deities inferior to that great one above: whom they sacrifice to looking up at the sun. They observe the feast of first fruits & have cities of refuge for the manslayer to fly to as the Orientals had. Their Priests are for the most part Diviners & Wizards, use fastings & purifications in their religious ceremonyes, & are consulted by the people upon all urgent emergencyes about the success therof, w[ch] they have often times most unaccountably predicted. The younger people are

> debaucht beyond all belief, which lessens their number daily & will in a little time I fear annihilate their nation. God knows the Infidelity they labour under is little known & were it I believe would be as little regarded. The People however appear very tractable & pliant in the many conferences I had w[th] their Senators about their conversion (Hughes 1713).

Numerous times in the letter, Hughes referred to the cultural isolation of the Cherokee from the English. He stated that they are "as a people little conversant with whitemen," and that "They live a great way off from any white Settlement & so are but little known to us." Doubtless referring to the fact that Cherokee culture had not yet been significantly altered by contact with Europeans, he stated, "Of the many nations I've seen [which included all of the major southeastern Indian groups] these keep up their old customs in their greatest purity." Rather than being contemptuous toward the Cherokee, the tone of Hughes's letter was much more complimentary, even bordering on romantic.

This group of English accounts thus points to a dearth of direct trade with the Cherokee well into the second decade of the eighteenth century. What is more, these accounts represent the best source of information regarding the nature of Cherokee trade between A.D. 1670 and A.D. 1715, for the trade is rarely discussed in other contemporary colonial records. Licensing records, for example, indicate that the first resident traders to the Cherokee were Eleazar Wiggan in A.D. 1711 and Robert Bunning in A.D. 1714 (Rothrock 1929:6). *The Journals of the Commissioners of the Indian Trade* (McDowell 1992), which records the meeting minutes and correspondence of South Carolina's trade commission from A.D. 1710 to A.D. 1718, mentioned the Cherokee only eight times between September 20, 1710 and April 12, 1715, and half of these were in reference to a single incident (see discussion of the Chestowee raid below). The first mention of the Cherokee appeared in the instructions given by the commission to Indian agent John Wright in A.D. 1712. Wright was told "to goe to the Cherikee Nations and settle all there Grievances and reconcile them and the Traders" (McDowell 1992:32). Given that the instructions used the plural forms "Nations" and "traders," it is reasonable to assume that trade at this time included of a number of towns and numerous individuals, but no specifics were indicated. The only other significant entry regarding the Cherokee trade before A.D. 1715 involved the commission's suspicion that some recently captured French traders "might have a design to tamper with the Charikee" (McDowell 1992:45).

Cherokee involvement in the Indian slave trade was minimal when compared to groups like the Westo, Savannah, Yamasee, Tallapoosa, and Chickasaw. In fact, it appears that before A.D. 1700 the Cherokee were typically the victims rather than the purveyors of slavery. Between A.D. 1700 and A.D. 1715 the cases linking Cherokee groups to the slave trade remained few; however, in these cases, including the infamous Chestowee raid of A.D. 1713, it was the Cherokee who were named as the perpetrators. The first time the Cherokee Indians appeared in historical records was in a letter recording trader Henry Woodward’s visit to a Westo town in A.D. 1674. In this letter, the “Chorakae” were simply mentioned as enemies of the Westo (Woodward 1911[1674]:133). Given the Westo's penchant for slave raiding, it is likely that many Cherokee "enemies" were being taken as slaves in the 1680s (Hatley 1995:33). By the end of the 1680s, South Carolina colonial documents began to record slave raids against the Cherokee by the Savannah (Crane 1916:10*n*, 2004:40; Gallay 2002:94). The toll taken by the Savannah raids cannot be known, but it must have been quite severe as the Cherokee petitioned the South Carolina government for an intercession in A.D. 1691 (Hatley 1995:33).

The Cherokee also had to fear slave raids by Iroquois groups who swept down among their northern towns. In an A.D. 1708 letter England's Earl of Spencer, Thomas Nairne (1988[1708]:76) briefly mentions the Cherokee as a potentially valuable ally to South Carolina against the French noting, "they are now our only defence on the Back parts [the northwestern border of South Carolina] But are themselves miserably harrassed by the Iroquois." Writing a century later, Major John Norton (1970[1816]:262) recalls that Nottowegui (Five Nations or Iroquois) warriors began frequently raiding Cherokee and Catawba settlements around 1710.[8]

Historic records contain very few instances of Cherokee slave raids during the English Contact period. For example, during Queen Anne's War there is no mention of any Cherokee taking part in the raids against Spanish-allied or French-allied Indians. In A.D. 1705, some Cherokee counseled South Carolina Governor Nathaniel Johnson to curtail the slave trade imploring him to "trade for skins and furs" rather than "trade of Indians or slave making" (Martin 1994:313). This warning may have influenced the Governor, who said of the Cherokee in the A.D. 1708 census, "Trade we have with them is Inconsiderable they being but ordinary Hunters & less Warriors (Johnson et al. 1708:209). Based on the disparaging judgment of the Cherokee as "Warriors," I believe that the "trade" the governor was referencing was slave trading. This argument is supported by the census's descriptions of the main players in the slave trade (e.g., the Yamasee, Tallapoosa, Alabama, Chickasaw, and Ochese) as "Great Warriors." Furthermore, speaking of the Chickasaw, the census said, "we have but few skins or furs...they living so distant...[instead]...Slaves w^{ch} we have in Exchange for our Goods with these people taken from severall nations of Indians that live beyond them" (Johnson et al. 1708:209).

If avoiding the slave trade was an intentional strategy, it was one that was not followed by all Cherokee groups, for after A.D. 1700 there is evidence that some Cherokee were involved in incidents of slave raiding. As many as 300 Cherokee joined the large Indian contingent that fought during the Tuscarora War in A.D. 1713 (Gallay 2002:283; Oatis 2004:89). There is no specific reference of any Cherokee taking slaves in the assaults, but the records are clear that hundreds of Tuscarora were taken as slaves. Three other instances of Cherokee slave raiding were mentioned in colonial documents related to this period. These raids were conducted by much smaller groups than those that participated in the Tuscarora War, and all were apparently instigated by South Carolina traders. In A.D. 1703 and A.D. 1706, trader James Child managed to "encourage" two Cherokee raids against Coosa and Tallapoosa towns that netted 160 slaves (Oatis 2004:53; Gallay 2002:220). Thomas Nairne brought charges against Child for this raid and accused many of South Carolina's traders of having "contracted a habit...[of] inciting one Tribe of our friends to destroy others, merely to purchase the prisoners taken for slaves" (Nairne 1708 quoted in Gallay 2002:219).

The other example is the well-known and oft-written about Chestowee raid of A.D. 1713, in which a group of Cherokee "cut off" (i.e., utterly routed) the Yuchi town of Chestowee killing or enslaving most of its inhabitants (Bauxar 1957a, 1957b; Lewis and Kneberg 1946; McDowell 1992:53-57; Riggs 2009). The official inquest held by the Commissioners of the Indian Trade found that the raid was inspired by South Carolina traders Alexander Long and Eleazar Wiggan (McDowell 1992:53-57). Fellow traders among the Yuchi and Cherokee stated that Alexander Long sought out the raid as revenge for an attack he suffered at the hands of some Yuchi. The traders conspired with the headmen of a few Overhill and Middle towns who agreed to attack Chestowee and sell the slaves captured in the raid to pay off the trading debts they owed to Long and Wiggan.[9]

The Chestowee raid highlights the importance of exploring the turmoil of the shatter zone on the local level, for it begs us to remember that the shatter zone was an emergent phenomenon that resulted from the interactions of numerous localized strategies (Riggs 2009). The Chestowee raid was not carried out by all Cherokee; instead, it was a plot that involved a group of men from particular Cherokee settlements and two South Carolina traders (McDowell 1992:56). Furthermore, the cooperation of the Cherokee warriors and the traders was not based on single motive; rather, each party had their own motivations for the raid. The chaos that resulted from the raid was also felt most intensely on the local level. The inhabitants of an entire community were "cut off," dozens of men, women, and children were murdered and enslaved, and some Yuchi may have even killed their own rather than letting them be captured (McDowell 1992:56). Also, the chaos of the event emanated outward in the immediate aftermath of the raid as the Cherokee town of Euphase (probably Little Hiwassee) was deserted in fear of a Yuchi reprisal (McDowell 1957:57; Riggs 2009:21-22). The ability of history to explore the shatter zone at this level of detail is limited to episodes for which there are detailed accounts. Unfortunately, until the Chestowee raid detailed historic accounts of any sort are sorely lacking for the Cherokee. In the years following the raid the Cherokee are featured much more prominently in the historic record. The increase in historic detail between A.D. 1715 and A.D. 1740 reveals that there was a good deal of variability in the ways different local Cherokee groups negotiated the events of the period.

Joining the Fray: The Yamasee and Creek-Cherokee Wars

Historians have often described the Yamasee War as a watershed event because it marked South Carolina's recognition of Cherokee trading and military potential (Crane 2004:39-41; Hatley 1995:19-22; Oatis 2004:184-186). I would add that the Yamasee War (and more importantly the related Creek-Cherokee War) forced an end to Cherokee isolationist strategies and necessitated sustained social, economic, and political relations between Cherokee groups and South Carolina. From the perspective of the besieged Charlestonians who suffered the enduring summer of A.D. 1715, the Cherokee began the war as a little known but feared population who were allied with the Yamasee. But after being drawn into the war on the side of South Carolina, the Cherokee were universally hailed as the beloved saviors of the colony. When the details of this Cherokee conversion are considered, however, it becomes apparent that their entrance into the Yamasee War had less to do with helping South Carolina and more to do with going to war with the Creek. Furthermore, historic accounts reveal that entering the war was not a single decision made by a united nation called "The Cherokee;" instead, the march to war was a bungled affair plagued by factionalism and the competing agendas of numerous autonomous Cherokee headmen (Crane 2003:181-183; Hatley 1995:24-27; Oatis 2004:185-190).

At the outset of the Yamasee war, it is understandable why South Carolina colonists thought the Cherokee were part of a united front against them, but historic accounts demonstrate that only a small minority of Cherokee actually participated in actions against the colonists. During the first weeks of the war, South Carolinians must have felt like the victims of a mass Indian conspiracy when news of the initial Yamasee attacks and the murders of many South Carolinian traders circulated through their settlements. In a letter written in Charleston just days after the war's outbreak, missionary Dr. Francis Le Jau stated:

> It appears this Misfortune has long since Designed by the General Conspiricy of the Indians that Surround us...[Le Jau provides a list of the Indian enemies] very numerous & Potent Towards the North are the Cherikees, the most Potent of all; we depended upon these last, but they are all against us...and they have kill'd in cold blood after this Barbarous Mannr such White Men of our own as they could find in their Towns (Le Jau 1956[1715]a:152).

Adding to South Carolinians suspicions was news that 70 Cherokee joined a party of Catawba in attacking plantations on the Santee River while South Carolinians were still reeling from the first round of attacks (Rodd 1928[1715]; Le Jau 1956[1715]a:152, 158). These actions, however, comprised the full extent of Cherokee hostility toward South Carolina during the war. Also, the fact that the Cherokee deserted the Catawaba war party shortly after they received word that the English sought a peace evinces far less of a commitment to a mass conspiracy than the actions of other hostile groups like the Lower Creek and Apalachee (Eveleigh 1715; Rodd 1928[1715]).[10]

Perhaps out of desperation, South Carolinians overcame their fear and conducted an ambitious diplomatic mission to make an alliance with the Cherokee. As stated above, by A.D. 1715 there was a growing awareness on the part of South Carolinians that the Cherokee were a very large and "most potent" Indian group (Le Jau 1956[1715]a:167). Upon the advice of various Cherokee traders, South Carolina colonial officials held out hope that all Cherokee were not allied with the Yamasee, and with the incentive of a

£500 reward for success, the colony sent traders Eleazar Wiggan and Robert Gilcrest to seek an alliance (Rodd 1928[1715]). The traders returned from their mission with eight Cherokee headmen and 120 warriors. With much ceremony, this group of Cherokee declared a peace with South Carolina and agreed to join South Carolina forces in an upcoming mission against the Creek (Le Jau 1956[1715]b:169, 171). South Carolinian jubilation at this alliance quickly turned to uncertainty, however, when the Cherokee failed to join the South Carolina militia at the designated place and time (Crane 2004:180). A diplomatic mission conducted to find out why the Cherokee had not joined the campaign taught two important diplomatic lessons to South Carolinians: (1) that the group of Cherokee who spoke in Charleston did not speak for all Cherokee towns and (2) that factionalism among Cherokee towns would present a constant and formidable obstacle to South Carolina's diplomatic plans for this Indian "nation."

Shortly after the peace ceremonies with the Cherokee were held, Dr. Le Jau (1956[1715]b:169, 171) wrote, "It has Pleasd God to put into the heart of the most Potent Nation that has Sided with our Indian Ennemyes to make a Solemn Peace with us, and Join our Army." For the South Carolinians involved in the diplomatic expedition to hold the Cherokee to their promise, this perception of a unified "nation" of Cherokee coming to the rescue was quickly and thoroughly shattered. The journal kept by Colonel George Chicken (1894[1715]:313-354), one of the leaders of the expedition, documents a much more tenuous and fluid political structure dominated by the autonomous and clashing dispositions of numerous Cherokee headmen.

Upon their arrival among the Cherokee at the Lower Settlements, the expedition was faced with two opposing Cherokee opinions regarding the proposed military alliance against the Yamasee, Creek, and Piedmont Indians. The headman of Tugaloo, known as Charitey Hagey "the conjuror," assured the South Carolinians that his people no longer held anti-English sentiments. He balked at joining South Carolina's military campaign, however, saying that he could not fight against the Yamasee because "they wer his anchent peapll;" he would not fight against the Creek because they had recently called a truce; and he would not fight the Catawba because he felt they were not to blame for the war (Chicken 1894[1715]:330). The Conjuror agreed only to fight "ye Sauonose [Savannah] and yutsees [Yuchi] and apolaches [Apalachees]" (Chicken 1894[1715]:331).

Three days later, Chicken traveled to a nearby town to attend a meeting of headmen who had traveled down from the Middle and Upper Settlements. At this meeting, Chicken observed a Cherokee headman named Caesar of Echota vigorously arguing a pro-war position to the assembled audience. Caesar was one of the headmen who made the original promise to aid the South Carolinians at the Charleston peace conference months earlier. His orations appeared to have persuaded many headmen from the Middle and Upper Settlements, setting them against the anti-war faction comprised of headmen from the Lower Settlements. Hawkish and dovish factions also emerged along generational lines. Chicken (1894[1715]:331) recorded that the young men, highly motivated by Caesar's speech, began their war ceremonies, but were interrupted by "seuerall of their ould men telling them seuerall reasons for them to desist att present." These councils ended with a compromise in which the assembled headmen agreed to "seand ye Ride Stacke [Red Stick] throw the nashon and geatt all Ridey one a day to goe and fitte with ye English" if the Creek did not travel to Tugaloo to settle their tenuous truce with the Cherokee and make peace with the English (Chicken 1894[1715]:331).

A few weeks later, the hawkish faction from the Middle and Upper Settlements threatened to violate the compromise and attack the Creek. Chicken was required to travel to the Upper Settlements in order to delay their attack until he received word of the outcome of the proposed Creek peace talks. The pro-war Cherokee, led by Caesar, would not hear Chicken's pleas and said that they were going to war against the Creek with or without English support. Chicken's (1894[1715]:342) journal stated, "It was not plunder they [Cherokee] wanted from them [Creek] but to go to war wth them and cut them of, for it was but as yesterday that they were at war together & It was by ye perswasions of ye English they were ever at peace wth them." Caesar thus made it clear that his Cherokee faction were not the minions of English diplomacy, and the pro-war headmen left Chicken and marched their assembled host of 2,370 warriors to another settlement in order to prepare for the upcoming raid.

Chicken tried to make his way back to the Lower Settlements in order to head off the approaching Cherokee force, but along the way he received news that the Creek peace delegation had been murdered at Tugaloo. The murders were apparently unlooked for and were not directly related to the events that had just transpired with Caesar and the pro-war faction. Indeed, after the incident, rumors abounded that the Cherokee had secretly planned on joining the Creek delegation and a force of 500 Creek warriors in attacking the South Carolina delegation, but they changed their minds at the last minute (Crane 2004:182; Oatis 2004:188). Whatever the motivation, the fallout of the murders was that the both pro- and anti-war factions of the Cherokee were drawn into a war with the Creek, and as an ancillary consequence they entered the Yamasee War on the side of South Carolina.

The opening of the Creek-Cherokee war has been the focus of much analysis by historians because it was a historical moment that marked a real turning point for South Carolina in the Yamasee War. Indeed, this moment has even been given various titles such as "The Incident at Tugaloo" (Reid 1976:61), "The Massacre at Tugaloo" (Crane 2004:183), and "Salvation at Tugaloo" (Hatley 1995:23). While the Cherokee entrance into a war with the Creek might have meant salvation to South Carolinians, it resulted in over a decade of retaliatory raiding for these Indian adversaries. The details of this war are largely missing in historical records, being confined to brief mentions and anecdotes. During the tenure of the war between A.D. 1716 and A.D. 1727, there were devastating Cherokee raids on the Creek towns of Abeihka, Okfuskee, and Tallapoosa and murders of a number of important Creek headmen including Ouletta, the son of the legendary Lower Creek headman Emperor Brims (Corkran 1967:73-77; Fitch 1916[1725]:181-190; McDowell 1992:140, 178; Piker 2004:22). These raids eventually forced Creek groups who had moved into central Georgia in the 1680s to move their settlements back to their original territory in the lower Chattahoochee valley (Corkran 1967:60).

Judging from historical records, the Cherokee appear to have been on the receiving end of more violence during the war. In the 1720s, reports indicated that Creek raiding parties were holding numerous Cherokee towns under siege. During a diplomatic mission through the Cherokee territory in A.D. 1725, it was reported that Creek war parties were hiding among the Upper and Middle Settlements, "Continually within a mile of the Town[s] lurking about the Skirts thereof and very often Cut of [cut off] their People and make their Escape (Chicken 1916[1725]:111-112). Period accounts also stated that Lower, Middle and Upper Settlements were erecting fortifications to withstand these Creek attacks (Chicken 1916[1725]:111-112, 133, 143, 149-150; Fitch 1916[1725]:198). A more perilous fate befell the residents of the Lower Cherokee town of Nacoochee and the Valley Town of Quanassee. These two towns were "cut off" by the Creek, and the residents likely suffered a similar doom as the Yuchi of Chestowee (Chicken 1916[1725]:117; Vassar 1961:413). The situation was equally as dire for other Cherokee settlements, for in addition to the threat of Creek raids, some towns were also being raided by the Iroquois and some were engaged in back-and-forth raiding with French-allied Indians (Bonnefoy 1916 [1741]; Chicken 1916[1725]:107, 121, 143; Fitch 1916[1725]:89; Herbert 1936[1727]:24).

South Carolinians found that bringing an end to the Creek-Cherokee war would require dealing with the same factionalism that plagued their efforts to begin the war. In A.D. 1717, South Carolina made a peace agreement with the Lower Creek that effectively ended the Yamasee War, but at that time they could not manage to extend the peace to include the Creek-Cherokee War (Corkran 1967:66-67; Crane 2004:259; McDowell 1992:238-241; Oatis 2004:210-211, 246). Almost a decade later, two South Carolina diplomatic expeditions entered Creek and Cherokee towns with an agenda that included bringing an end to the war. Colonel George Chicken's expedition to the Cherokee began on a high note when he found that peace with the Creeks was at least considered a possibility by some Cherokee in Upper Settlements. The Great Warrior of Great Tellico confided in Chicken reasoning that his people "were hemmed in all round with their Enemies and if they were in Unity with the Southward Indians [Creek] they should have no Enemy then to look after but the ffrench Indians" (Chicken 1916[1725]:114). In a meeting of most Cherokee headmen from across the region, however, the consensus reached was definitely not in favor of a peace. Rather, a spokesman for the Cherokee headmen argued, "That the Creeks not only Abuse them [Cherokee], but also the English (their brothers)...that the Creeks kill both their people [English] and Ours [Cherokee] (And what) must No Notice be taken of these abuses?" (Chicken 1916[1725]:127).

The attempt to bring the Creek to peace negotiations was no more successful. At the same time Chicken was among the Cherokee, Captain Tobias Fitch carried his message to both Upper and Lower Creek towns. In the Upper towns, the headmen of the Abeihkas and Tallapoosas told Fitch they could not engage in a peace with the Cherokee, as they had recently killed some of their townspeople. But the headmen did hold out the possibility of a future peace with the Cherokee once they avenged those deaths saying, "As soon as our Corn is hard We Designe to be with them [attack the Cherokee] and after our Return if your King Will undertake To make a peace for us We will Readylie Except of it" (Fitch 1916[1725]:181). Emperor Brims of the Lower Creek was not as gracious, he said that many of the men murdered at Tugaloo in A.D. 1715 were his kin and that the war "is not over wth Me as yet, nor shall be While there is a Cawwataid [Lower Creek] Liveing"(Fitch 1916[1725]:181). In the end, while South Carolinians hailed the end of their war with the Indians in A.D. 1717, the violent chaos of the shatter zone continued for the Creek and Cherokee for another decade. Finally in A.D. 1727 the Governor of South Carolina managed to convene peace talks in Charleston between Cherokee and Creek representatives. The representatives promised to cease their raids against one another and pledged their eternal "friendship" to the English (Oatis 2004:254). This tenuous peace held for the rest of the English Contact period, but another decade-long struggle erupted between the two ancient enemies in A.D. 1743.

The Yamasee War, or more specifically the Incident at Tugaloo, was in fact a major milestone in Cherokee history. From that moment onward, it is clear that the Cherokee could no longer maintain their identity as an "ambiguous presence" in the Appalachian Mountains. As South Carolinians reassessed their colonial strategies during and immediately after the Yamasee War, they recognized the profits they could reap from Cherokee alliance and trade. They subsequently enacted aggressive trading and diplomatic strategies that greatly increased interaction with the Cherokee. This change in colonial strategy was quite drastic considering that only a decade earlier they knew of nor cared little for the Cherokee. Whether or not the Cherokee actively sought out the attention of South Carolina, they quickly found themselves occupying a much more prominent position among the post-Yamasee War landscape, and they had to adjust their strategies accordingly.

A Most Potent Nation: Cherokee Trade and Diplomacy, A.D. 1715-1740

The Cherokee's protracted war with the Creek and their role as an English ally in the Yamasee War intensified trade and diplomatic relations with South Carolina to a level they had not known before. Whereas in A.D. 1713 trader Pryce Hughes lamented that the Cherokee were "but little known to us," by A.D. 1721 the colony had produced a substantial body of knowledge regarding the Cherokee including accurate and comprehensive maps depicting the locations of individual towns, town-based censuses, and numerous records related to the deerskin trade. Taken together, these documents outline the story of how, in less than a decade, Cherokee communities came to occupy a central position in the post-Yamasee War landscape of the Southeast during the latter half of the English Contact period (ca. A.D. 1715-1740). Two factors stand out as crucial to understanding how Cherokee communities were transformed from relatively isolated villages as late as A.D. 1713 to a primary focus of European trade and diplomacy by the 1720s: (1) the dramatic increase of Cherokee participation in the deerskin trade, and (2) the growing importance of the Cherokee to England's colonial ambitions.

Period censuses and maps demonstrate better than any other type of documentary evidence the dramatic growth in South Carolina's knowledge of Cherokee demography. The A.D. 1708 census mentioned above contained only a brief description of "The Cherokee," a single population estimate (5,000 men) and an estimate of the number of Cherokee towns (60) in their territory (Johnson et al. 1708:209). On the eve of the Yamasee War in A.D. 1715, a much more concerted effort was made by South Carolina to construct an accurate census of its Indian neighbors. John Barnwell synthesized the reports of a number of English traders and Indian agents, including Thomas Nairne, Pryce Hughes, and John Wright, and arrived at a much more accurate census than the one authored in A.D. 1708. This census, with the typically verbose eighteenth-century title *An Exact Account of ye number & Strength of all the Indian Nations that were Subject to the Government of South Carolina and Solely Traded with them in ye beginning of ye year 1715* enumerated the Cherokee population using the classic tripartite division of settlements (i.e., Upper, Middle, and Lower) – the first time these divisions were featured in a colonial census (Barnwell 1719). Barnwell tallied the number of towns in each settlement division (he did not list the names of the towns), and for each division he listed the total number of men, women, boys, and girls. Barnwell's report estimated that in A.D. 1715 there were 19 towns with 2,760 people in the Upper Settlements, 30 towns with 6,350 people in the Middle Settlements, and 11 towns with 2,100 people in the Lower Settlements. He also commented on recent Cherokee population losses saying that "by War Pestilence & Civll Warr Amongst themselves the Charokees may be computed reduced to ab^{t} 10,000 Souls." Barnwell's census and accompanying map (discussed below) marked a definite improvement over the earlier census, and for the first time information regarding the Cherokee appears to have been on par with that of the Creek, Chickasaw, and other Indian groups.

In A.D. 1721 Francis Varnod (1971[1721]:273), a missionary for the Society for the Propagation of the Gospel, completed another Cherokee census in preparation for his work in the mountains. The census was highly detailed, listing the number of men, women, and children in each of 53 towns. The name of each town was included, but he did not indicate which of the three settlement divisions each town belonged. The overall demography calculated in Varnod's census is very similar to Barnwell's. The total Cherokee population he counted, 10,379 in 53 towns, was very close to Barnwell's estimate of 11,530 in 60 towns. The increasing level of detail achieved in each of the three censuses denotes South Carolina's growing desire for information regarding the Cherokee as they assessed how this group would fit into their colonial plans following the Yamasee War.

Maps dating to the period A.D. 1715-1740 also illustrated the dramatic increases in information about the Cherokee that flowed into Charleston just after the Yamasee War. The map of southeastern North America produced by John Barnwell in A.D. 1721 can be considered a *magnum opus* of eighteenth-century cartography. This map and its contemporary copy, known as the Barnwell-Hammerton map, were richly illustrated and annotated and included the accurate locations of Cherokee, Creek, Yamasee, Chickasaw, Chotaw, and other Indian towns, colonial forts, trading paths, and the routes taken in major military expeditions during Queen Anne's War and the Tuscarora War (Cumming 1998:218-219, Plate 48). Barnwell's map accurately portrayed the locations of 53 named Cherokee towns and gave population estimates (in terms of "fighting men") for each of the three settlement divisions. This map resulted from a major effort to compile and synthesize essentially all of the extant knowledge of southeastern Indians at the time. With regard to the Cherokee, the Barnwell map represented a stellar improvement in detail and accuracy over maps drafted just a decade earlier. The level of detail achieved by the Barnwell map is attested to by the fact that it obviously served as the basis for maps of Cherokee territory made later in the period by Herbert in 1725 and Hunter in 1730 (Williams 1928:114). While maps and censuses stand as examples of the voracity with which South Carolina's colonial officials pursued relations with the Cherokee after A.D. 1715, documentary evidence from the deerskin trade suggests that at the same time many Cherokee communities began cultivating trading relationships with equal vigor.

The years immediately following the outbreak of the Yamasee War witnessed what can only be called an "explosion" of Cherokee participation in the southeastern deerskin economy. It was probably no coincidence that this explosion was concomitant with the outbreak of the Yamasee War and the Cherokee instigation of the war with the Creek. Furthermore, the rise of the Cherokee as a major player in the deerskin trade was greatly aided by the establishment of South Carolina's public trading monopoly in A.D.

1716. To South Carolina's profit-minded officials, the Yamasee War was devastating, for it brought the extirpation of the trade in Indian slaves and the loss of trade with the Creek and Yamasee, two of the colony's most prolific suppliers of deerskins. These losses created an economic vacuum that desperately needed to be filled in order to maintain deerskin exports to England. South Carolinians quickly tapped their new ally the Cherokee to fill this position, as they were the only friendly Indian group large enough to replace Creek and Yamasee trade (Hatley 1995:34-35). To the Cherokee, who participated little in the English deerskin trade in A.D. 1716, the material requirements of their burgeoning war with the Creek (i.e., firearms and ammunition) were considerably greater than could be satisfied with trade at existing levels. Recognizing the Cherokee's shortfall and as repayment for joining the Yamasee War on their side, South Carolina's government began to provide "presents" of hundreds of guns to both Upper and Lower Cherokee settlements in A.D. 1716 (McDowell 1992:75). These diplomatic gifts could not, however, fulfill the Cherokees' long-term martial needs. Like earlier Indian groups who faced hostile well-armed foes, Cherokee groups must have recognized that they could gain much by entering into the deerskin trade with South Carolina. Their entrance into the trade was made much easier with the support of South Carolina's new trading policies that heavily favored their new allies.

When South Carolina instituted the public monopoly over the deerskin trade in A.D. 1716, it was clear that officials planned on the Cherokee being major trading partners. As originally conceived, the monopoly legislation specifically restricted all Indian trading to three government-operated factories located far from any Indian town – the closest to the Cherokee being Fort Moore along the Savannah River. When actually implemented, however, the Cherokee alone were given their own factory in the Lower Settlements at the town of Tugaloo along with a factor and two assistants (McDowell 1992:83). The factory was built in the Lower Settlements for three reasons, all of which took advantage of geography: (1) the Lower Settlements were located closest to Charleston near established trading paths to the Creek and Chickasaw; (2) Tugaloo's situation formed a natural gateway where trade could be funneled to and from the Middle and Upper Cherokee settlements; and (3) the Lower Settlements were likely the earliest recipients of English trade and thus had the most stable and established trading relationships. A year later, the Cherokee's elevated position in the trade had earned them the bargaining leverage to demand and receive additional factories in the Lower Settlement of Keeowee, the Middle Settlements of Cowee and Quanassee, and the Upper Settlement of Great Tellico (McDowell 1992:157, 188). In addition to the locations of the factories, the Cherokee also negotiated the prices of trade goods and the payment Cherokee burdeners would receive for carrying goods and deerskins between Cherokee towns and the colonial entrepots (McDowell 1992:89; Reid 1976:74-87). The ability of Cherokee groups to garner these concessions from South Carolina in just two years shows that they could no longer be considered as "ordinary Hunters."

One of the benefits of South Carolina's public monopoly was that it produced prodigious records with which one can quantify Cherokee participation in the deerskin trade. The records kept by the governmental board overseeing the monopoly between July 4, 1716 and August 29, 1718 were recorded in the *Journals of the Commissioners of the Indian Trade* (McDowell 1992). The journals are replete with the kind of bureaucratic minutiae one would expect from such an endeavor – including reports of the number of deerskins periodically received from the various Indian trading factories, as well as invoices for the trade goods that were sent to the factories (Table 2.1 and Table 2.2). These records signal the rapidity with which the Cherokee were able to dominate the southeastern deerskin trade. Between A.D. 1716 and A.D. 1718, the total number of deerskins received from Cherokee trading factories was greater than all of the other trading factories combined (Figure 2.3). Also, invoices recording the value of trade goods sent to the factories showed that the Cherokee received over twice as many trade goods as other groups during the same period (Figure 2.4). Indeed, if one excludes the trade goods sent to the Creek at the re-opening of trade with that group in A.D. 1717, the total value of goods sent to the Cherokee factories would be more than all other trading factories combined. Certainly the re-opening of South Carolina's trade with the Creek greatly reduced Cherokee dominance, but the Cherokee were able to maintain their position as a major trading partner for the rest of the eighteenth century (Hatley 1995:163-165). Unfortunately, the effects of Creek competition in the deerskin trade cannot be quantified because of a lack of comparable records after the dissolution of the public monopoly. Trade records are also lacking for the period before the monopoly (ca. A.D. 1670-1715); however, based on the historic accounts detailed above, the seemingly intentional lack of Cherokee participation in the deerskin trade suggests that trade prior to A.D. 1715 was "inconsiderable" (Johnson et al. 1708:209). Given this evidence, it is hard not to be awed by the meteoric rise of Cherokee communities who within a year of formally allying with the English were the Southeast's foremost purveyors of deerskins.

The preeminent role of Cherokee hunters in the deerskin trade between A.D. 1715 and A.D. 1740 also afforded them significant opportunities to take advantage of the trade

Table 2.1. Deerskins sent to Charleston from trading factories between 1716 and 1718.

Month	**Year**	**Number of Deerskins**	**Factory**	**Page Reference (McDowell 1992)**
September	1716	252	Wineau	109
October	1716	2176	Cherokee	117
October	1716	29	Savano	117
November	1716	56	Wineau	132
December	1716	549	Wineau	142
January	1717	12	Wineau	149
January	1717	336	Cherokee	149
February	1717	640	Wineau	160
April	1717	672	Wineau	174
May	1717	50	Wineau	178
May	1717	1080	Catawba	178
May	1717	25	Wineau	184
June	1717	957	Cherokee	186
June	1717	65	Wineau	187
June	1717	730	Wineau	188
September	1717	54	Wineau	203
September	1717	378	Wineau	204
September	1717	90	Savano	204
September	1717	580	Catawba	211
October	1717	148	Cherokee	215
October	1717	150	Cherokee	219
October	1717	770	Cherokee	222
November	1717	55	Savano	228
November	1717	540	Wineau	232
November	1717	4800	Cherokee	232
January	1718	754	Savano	252
February	1718	708	Wineau	257
May	1718	500	Catawba	272
May	1718	282	Wineau	273
July	1718	704	Wineau	313

Table 2.2 Invoice value totals for trade goods sent to Indian factories.

Month	**Year**	**Amt (£.s.d)**	**Factory**	**Page Reference (McDowel 1992)**
July	1716	579.2.12	Cherokee	70
July	1716	239.28.6	Wineau	94
August	1716	1903.11.9	Savano	101
September	1716	86.15.3	Wineau	111
October	1716	35.7.9	Wineau	115
December	1716	62.11.1	Wineau	138
December	1716	119.15.6	Savano	143
January	1717	54.10.7	Wineau	144
January	1717	380.5.2	Catawba	156
January	1717	1437.14	Cherokee	157
February	1717	588.10.4	Savano	159
February	1717	913.8.1	Cherokee	159
February	1717	119.11	Wineau	163
April	1717	25.8.9	Savano	176
May	1717	307.2.11	Catawba	180
June	1717	398.18.12	Cherokee	190
June	1717	148.1.4	Wineau	191
September	1717	217.2.3	Wineau	210
September	1717	468.5.12	Catawba	212
October	1717	77.9.1	Cherokee	215
November	1717	191.1.5	Cherokee	223
November	1717	35.13.7	Catawba	230
December	1717	179.16.4	Wineau	236
December	1717	1849.8.8	Cherokee	239
January	1718	986.14.7	Creek	248
March	1718	202.12.3	Wineau	261
May	1718	129.8.5	Wineau	276
June	1718	241.15.4	Cherokee	290
June	1718	726.16.8	Catawba	292
July	1718	589.19.11	Cherokee	311
August	1718	72.16.11	Savano	318

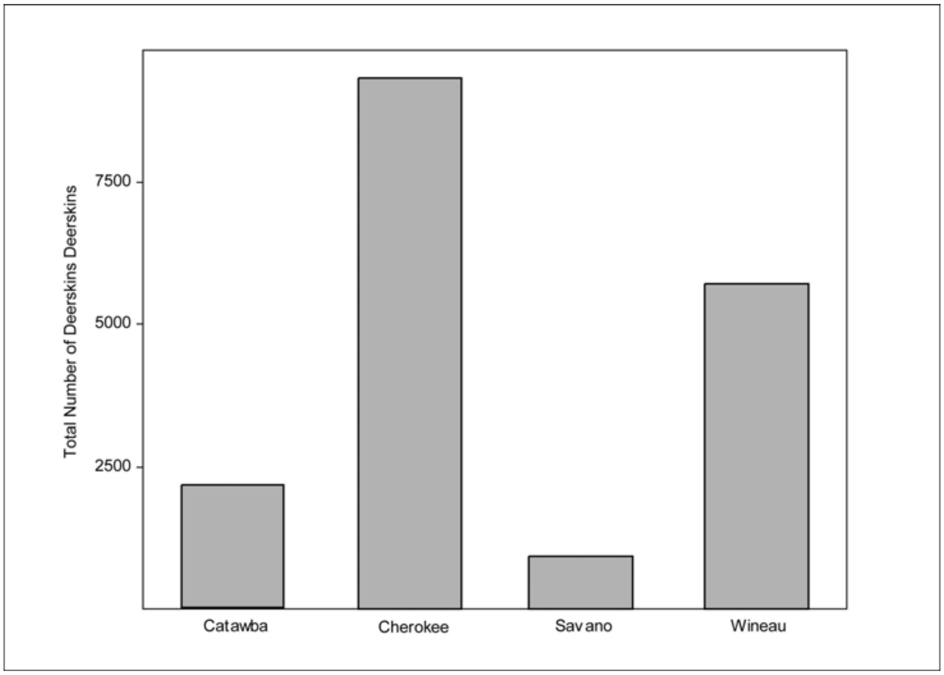

Figure 2.3. Total number of deerskins received from Indian factories between 1716 and 1718 (data taken from the *Journals of the Commissioners of the Indian Trade* [McDowell 1992]).

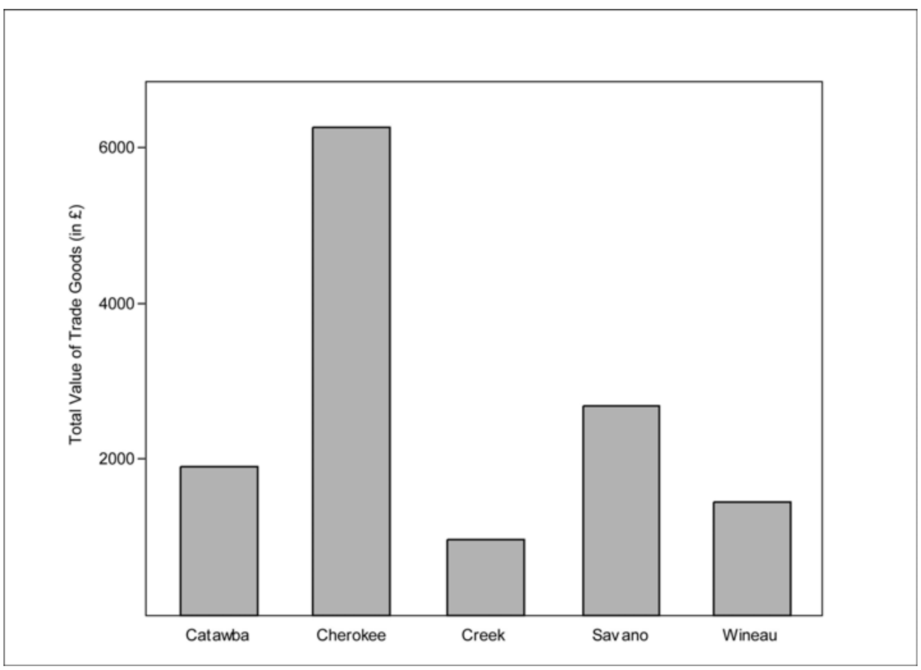

Figure 2.4. Total value of trade goods sent to Indian factories between 1716 and 1718 (data taken from the *Journals of the Commissioners of the Indian Trade* [McDowell 1992]).

war that was being contested between South Carolina and Virginia. As discussed above, Virginia traders had been proverbial gadflies in South Carolina's trade relations with the Cherokee and Piedmont groups since before the Yamasee War. Historic accounts of the trade from the years immediately following the Yamasee War detail the growing influence of Virginia traders among the Cherokee – an influence that threatened South Carolina's existing monopoly (McDowell 1992:221, 290-291). Telling exampled occurred in A.D. 1717 and A.D. 1718, when two large trading caravans, each consisting of some 200 packhorses laden with trade goods, made their way to Cherokee territory. These caravans were sponsored by the Virginian Indian Company, a publicly held entity that had been given monopoly power over Virginia's Indian trade and had as one of its major goals the establishment of sustained trade with the Cherokee (Franklin 1932:13).

The South Carolinian perspective on these trading expeditions was reported by William Hatton trade factor to the Cherokee between A.D. 1717 and A.D. 1720 (Vassar 1961, see also McDowell 1992:290-291). Hatton (Vassar 1961:406) expressed his alarm at the eager reception given to the Virginian traders who "would Sell [trade goods] to them [Cherokee] much Cheaper then those from Carolina." The Virginian traders also denounced South Carolina's burdener policy telling the Cherokee that the Carolina traders "made Horses [of] 'em to carrie Skins, but they [Virginians] had brought Horses abundance to eas them of that trouble" (Vassar 1961:406). Hatton's frustrations were multiplied by his inability to compete with the Virginians by lowering prices or renegotiating the burdener policy. As established in the monopoly legislation, these adjustments could only be made by the trade commissioners in Charleston. Hatton reported that South Carolina was in grave danger of losing trade with the Cherokee who were eagerly building houses for the Virginians and were suddenly refusing to act as burdeners, leaving South Carolina's deerskins to rot in their towns (Vassar 1961:408). Even more alarming was the news that anti-Carolinian factions had broken into the factories at Quanassee and Tanasee and were threatening to kill the Carolina traders if they did not leave those towns (Vassar 1961:409, 419).

Hatton's account of this episode underscored the calculated nature of Cherokee trading strategies during the post-Yamasee War period. The Cherokee's enthusiastically warm reception of the Virginia traders was doubtless motivated by the desire to have an alternative source of trade, for they "thought it was good to have another string to their Bow" for bargaining leverage (Vassar 1961:407). Hatton also pointed out the Cherokees' shrewd business sense recalling that they would often take the skins that had been refused by the Virginian traders to the South Carolina factor who was obliged to take them "as an article of Peace" (Vassar 1961:408). Judging by South Carolina's responses over the next three years, the Cherokee gambit appears to have worked – the commissioners agreed to lower the prices of trade goods, the burdener system was abolished and packhorses became the main mode of transportation, and by A.D. 1721 the public monopoly was nullified (Crane 2004:197; Hatley 1995:38-39; McDowell 1992:306; Oatis 2004:154; Reid 1976:123-129). With these reforms, South Carolina also managed to quell the initial onslaught by Virginia traders. Virginia trade was to remain a valuable bargaining chip for Cherokee groups for the rest of the English Contact period, but the colony's traders ceased to be a serious threat to South Carolina after A.D. 1720. At that time, the monopoly powers of the Virginia Indian Company were revoked by the colonial legislature and the volume of trade entering the Piedmont and Appalachian Mountains was cut in half (Franklin 1932:16; Merrell 1989a:84).

For better or worse, post-Yamasee War Cherokee diplomacy was inextricably linked to South Carolina's colonial strategies. This is not to say, however, that Cherokee strategies followed South Carolina policies lockstep. As will be shown, the autonomy of Cherokee towns, expressed in the contrary diplomatic dispositions of their headmen, caused much consternation to colonial officials. Rather, the link that bound these two parties was formed by the fact that Cherokee diplomacy constantly came up against South Carolina's post-war agenda concerning its colonial rival France and its Indian neighbors. Between A.D. 1715 and A.D. 1740, the diplomatic challenges South Carolina imposed on Cherokee groups centered around three interrelated issues: erratic relations with the Creek, South Carolina's attempts to "nationalize" the Cherokee, and continuing Cherokee hostilities toward the French and their allied Indians. Records from two South Carolina diplomatic missions sent to resolve these issues provide a good deal insight into the sovereignty of Cherokee communities and the factional political structure that loosely bound them together.

As discussed above, South Carolina's diplomatic missions to the Cherokee in A.D. 1715 and A.D. 1725 exposed a good deal of political factionalism among Cherokee communities –factionalism that ran along regional and generational lines (Chicken 1894[1715]; Chicken1916[1725]).[11] In both of these cases, South Carolina diplomat George Chicken was frustrated by the lack of consensus he found among the Cherokee at their regional townhouse meetings. The records of these meetings give a brief glimpse into the decision-making process that likely took place in many Cherokee communities when faced with important issues. These regional-level meetings were marathon affairs held among various factions representing different sides of an issue. During the A.D. 1715 expedition, Chicken recorded four major meetings involving pro-war and anti-war headmen from numerous Cherokee towns. These factions were led by two men, Caesar of Echota (pro-war) and Charitey Hagey (anti-war), whose frequent appearances in colonial records indicate that they were two of the most powerful Cherokee leaders at the time (Hatley 1995:67). The records of the townhouse meetings demonstrate that these men relied heavily upon their oratory prowess to incite support for their position. From the reactions of the audience, it is certain that these men had amassed large contingents of loyalists and exerted a tremendous amount of regional influence over Cherokee communities. Indeed, parity in the influence held by each headman caused a stalemate in reaching a consensus regarding the decision to go to war with the Creek. In the end, Chicken's expedition was not able to break the impasse between the two factions, but the "massacre at Tugaloo" certainly resulted in dire consequences for all Cherokee communities. Seeing the Cherokee political process in action and given the results of the meetings, South Carolina officials should have questioned whether ending factionalism among the Cherokee was an attainable goal (Gearing 1962:79-84). As a diplomatic expedition mounted by Chicken a decade later would show, however, South Carolina ultimately decided that they could indeed put an end to Cherokee factionalism by forcing them to nationalize under a single European-style government.

Chicken's diplomatic mission to the Cherokee in A.D. 1725 had a twofold agenda – to broker a peace between the Cherokee and the Creek and to ensure that the Cherokee were not being swayed by recent overtures from French envoys (Oatis 2004:238-252).

While not an ostensive goal of the mission, it is obvious that Chicken was also trying to ensure that a newly instituted "national" government was operating up to English expectations. The failure of the mission to end the Creek-Cherokee war has already been discussed, and ensuring the continued Cherokee hostility toward the French was practically guaranteed; therefore, the most provocative aspect of the mission concerned the Cherokee rejection of the new English-installed political structure.

The Cherokee political structure Chicken expected to deal with was very different than the one he encountered on his mission. The two most powerful Cherokee headmen, Caesar of Echota and Charity Hagey the conjuror of Tugaloo, had died, and new headmen were vying for their positions of power. Whereas the earlier headmen had gained their status during the period of Cherokee isolation, the new leading men were "sanctioned" by South Carolina officials through an official system of commissions. In theory, the Cherokee were supposed to have been "a [single] people" governed by a hierarchically-organized regional monarchy with elected regional "kings," representing each of the three settlement divisions, and an elected national "King," a headman named Crow, who ruled over all Cherokee towns (Chicken 1916[1725]:109, 130).

The accounts in Chicken's journal do not paint the picture of a unified and compliant Cherokee nation under a single monarch; instead, they reveal the persistence of the same regional and generational factionalism that dominated Cherokee politics a decade earlier. Chicken spent the early weeks of his mission traveling through the settlements trying to set up a meeting of all the headmen in the entire Cherokee "nation" at Ellejoy in the Middle Settlements. During his travels, Chicken repeatedly reminded the Cherokee headmen of their commitment to the new unified national government saying "Crow was their King...made by them and Approved of by the English" (Chicken 1916[1725]:109, 111). He also admonished the Cherokee headmen "to keep their Young Men under them and make them obey them in every thing" (Chicken 1916[1725]:109).

For Chicken, the question of whether or not Cherokee communities would recognize the authority of this new government was answered at the national council held at Ellejoy. First, the council almost did not happen at all when, despite continued pleas from Chicken to arrive on time, the delegation from the Lower Settlements kept the rest of the Cherokee headmen waiting a full week. The only explanation they offered for their tardiness was that they were told the wrong date by the king of the Lower Settlements (Chicken 1916[1725]:125). Upon hearing this half-hearted excuse, Chicken (1916[1725]:125) wrote "I plainly perceive by all the lower people that [they] have not any regard for their King." Second, after factionalism plagued the "national" council and the Cherokee headmen failed to reach a consensus regarding making peace with the Creek, Chicken (1916[1725]:136) repeated in a letter to the colonial government that the Cherokee "do not in the least harken to him [King Crow] and the reason of it is because he is a Man they can't rely on for truth." Third, shortly after the council, King Crow admitted to Chicken his monarchy essentially held no power saying "that the people would work when they pleased and go to Warr when they pleased, notwithstanding his saying all he could to them" (Chicken 1916[1725]:153). Chicken concluded that King Crow was simply the wrong man for the position being "more under the Comands of his Subjects than they [were] under him." As a solution, Chicken suggested backing another Cherokee headman as King.

Chicken's conclusion showed an obvious lack of understanding that factionalism and personal charisma formed the axis around which early eighteenth-century Cherokee politics revolved (Gearing 1962). It is clear from the anecdotes in his journal that the differing political agendas among Lower, Middle, and Upper Cherokee headmen were largely the result of substantive regional differences in the social, economic, and political situations of the towns they led – situations that had significant historical depth. If the Cherokee were ever to act as a single body, which had yet to happen, it would necessarily have to be a decision born out of consensus rather than edict. Given all of the experience Chicken had with Cherokee politics, the very notion that a European-style monarchy would be accepted by sovereign Cherokee communities was arrogant if not utterly laughable.[12]

In A.D. 1727, another diplomatic mission headed by colonel John Herbert (1936[1727]) found no vestige of the Cherokee "monarchy" or King Crow. Instead, like Chicken before him, Herbert had to deal with a regional political structure composed of different factions each vigorously pursuing their own strategies. Indeed, the only major change since A.D. 1715 was that the leading headmen Caesar and Charitey Hagey were gone, and the Cherokee political factions had new charismatic leaders with names like "Breakerface" and the "Long Warriour of Tanasee."

Summary and Implications

All told, the historic accounts tell a story of dramatic change in Cherokee communities during the English Contact period (ca. A.D. 1670-1740). Furthermore, these sources demonstrate that this story was unique to the Cherokee and had no correlate among other southeastern Indian groups. During the first half of the period, from A.D. 1670 until A.D. 1715, the Cherokee were but little known to history. From what little was written it appears that they, like most southeastern Indian groups, were weathering the effects of disease, colonial wars, slave raiding, and the deerskin trade. It also appears, however, that the relative isolation of the Cherokee might have offered them some additional measure of refuge from the shatter zone that was not enjoyed by other Indian groups. I would go so far as to argue that Cherokee isolationism was an intentionally enacted strategy used to avoid the turmoil and chaos that wracked other Indian communities – turmoil that was invariably associated with interaction with Europeans.

The murder of the Creek peace delegation in A.D. 1716 and the Cherokee's entrance into the Yamasee and Creek-Cherokee wars effectively ended any possibility of maintaining an isolationist strategy. These acts made remaining above the fray impossible for the Cherokee because they awakened both South Carolina's unyielding desire to bring the Cherokee under their aegis and Cherokee communities' need for trade goods to prosecute their war. The resulting sea change in Cherokee strategies can be seen in their meteoric rise to dominate the deerskin trade. In A.D. 1708 trade with the Cherokee was described as "inconsiderable," yet a decade later the Cherokee received more trade goods and sent more deerskins to Charleston than all other southeastern Indian groups combined. The journals kept by South Carolina diplomats who visited the Cherokee between A.D. 1715 and A.D. 1740 describe a very fluid and factional consensus-based political structure that was divided along generational and regional lines. The endurance of this political structure in the face of South Carolina's attempts to enact a change to a regional monarchy suggests that it was a long-lived and deep-set institution among Cherokee communities. To be sure, the factional and autonomous character of Cherokee "national" politics was fiercely adhered to because it provided a strategic benefit on the community level. This benefit appears to have been flexibility, for often times the situations created in the chaos of the shatter zone required different Cherokee communities to act in different ways. Ultimately, during this period one gets the sense that Cherokee headmen reckoned their obligations to particular communities to be much more important than obligations to a political organization on the level of a "nation."

The end of the English contact period was brought about by a lethal component of the shatter zone that had lain dormant for almost a half a century. In 1738, just when Cherokee communities appear to have been successfully adjusting to the shatter zone and their post-war political and economic roles, a smallpox epidemic ravaged their population. James Adair (1986[1775]:244), a trader among the Cherokee in the 1730s, wrote "About the year 1738, the Cheerake received a most depopulating shock, by the smallpox, which reduced them almost one half, in about a year's time."[13] For Cherokee communities, population losses at this level certainly dashed any semblance of order they had managed to achieve during the post-Yamasee War years. In the wake of this epidemic, the Cherokee had to formulate new social, political, and economic strategies in order to negotiate the next period of their history.

The implication of the historical research presented in this chapter is that historical narratives of the English Contact period need to recognize the contributions made by the strategic actions of Indian groups and the mix of strategies and external forces that made the period a unique phenomenon on the local level. Through the analysis of scores of documents, historians have constructed a detailed picture of the social, political, and economic landscape negotiated by members of Cherokee communities, but there are ways in which the picture can be improved. The perspective of the landscape created by historians is necessarily cast through the eyes of the European colonial powers who authored the documents. Even though historians have been able to filter through European ethnocentrism in period documents, their interpretations remain necessarily restricted by a "paper cage" (consider who *isn't* written about and what subjects *don't* appear in those texts). In order to move beyond these limitations, we must locate our research within the English Contact period Cherokee communities themselves, for these were the places where the shatter zone was forged and negotiated between A.D. 1670 and A.D. 1740. Archaeology can contribute a great deal to understanding the period at the community-level in ways that history simply cannot given the latter's reliance on documentary evidence. In the next chapter, I argue that an archaeological study of the English Contact period at the community level will benefit most from a nuanced approach using sensitive analytical concepts that can track changes in daily life of households.

[1] My use of the "English Contact period" (ca. A.D. 1670-1740) is different from the "Contact Period" (ca. A.D. 1710-1745) as defined for Overhill Cherokee ethnohistory by Schroedl (1986a, 2001). It is obviously a difficult endeavor to "cut up" the continuous flow of time into discrete "chunks" that are objectively meaningful. I propose a new time range because I believe it incorporates two events (the founding of Charles Town and a major smallpox epidemic) that marked significant disjunctures certainly affecting the Cherokee, if not most Indian groups across the southeast.

[2] Bringing an interesting new perspective to this issue, Ramsey (2001:46-47) argued that while abusive behavior by traders was present in accounts from the period leading up to the Yamasee War, the accounts spoke of multiple causes for tension including violence against women, credit problems, and trade in slaves. He further argued that these tensions were imbedded in the very nature of the trade itself, with the English traders, colonial officials, and Indian groups all struggling to satisfy the huge demand for labor (slaves) and deerskins in the colonial plantation and Atlantic economies.

[3]During his torture and eventual death at the outset of the Yamasee War, Nairne would quite painfully learn that his boasting was premature. South Carolina's Indian allies were, of course, not passive subjects who did the bidding of colonial officials; they were agents acting in their own interests and following their own calculated strategies for dealing with the events of the period.

[4] I concur with Knight (1994) who does not believe that there was a culturally or politically unified identity known as "Creek" until after the Yamasee War in A.D. 1715. As such, in this section I refer to these Indian groups by their town names (e.g., Tallapoosas, Abeihkas, Ochese) or simply as "Muskogee-speakers."

[5] As will be discussed later, an alliance forged between the Cherokee and South Carolina effectively ended the war in the Fall of A.D. 1715, at least in the minds of South Carolinians (Crane 2004:184; Hatley 1995:24; Le Jau 1956[1715]b:169).

[6] As will be discussed in greater detail later, this episode has been much analyzed by historians as an example of how factionalism among the Cherokee ultimately thwarted any attempt by South Carolinians at diplomatic control (Oatis 2004:186-190).

[7] My judgment of the accuracy of these estimates is based on the fact that they are very similar to later estimates given in the Barnwell (1719) and Varnod (1971[1721]) censuses.

[8] See Chapter 7 for Norton's description of the tactics the Iroquois used in these raids.

[9] Riggs (2009) has recently placed this event within the context of a shatter zone. In doing so, he presents a portrait of the Yuchi that is contrary to the one typical offered. Using ethnohistoric and cartographic evidence, Riggs argues that the Yuchi were more like the small-scale "militaristic slaving societies" described by Ethridge (2006) than an "embattled" refugee group. He concludes that the Yuchi, like other Indian groups, participated in slave raiding as a strategy to survive in the chaotic environment of the shatter zone. When put into this context, the Chestowee affair and the fate of the Yuchi appear very similar to the fates of the Westo and Savannah before them.

[10]Historian Steven Oatis (2004:132-136) argues that the desultory nature of Cherokee involvement in the war against South Carolina indicates a lack of consensus among Cherokee towns. He further argues that the Santee raid and the murders of South Carolinian traders were likely carried out by a relatively small anti-English faction from the Lower settlements. His association of an anti-English faction with the Lower Cherokee settlements is based on his somewhat tenuous reasoning that the Lower settlements hosted the majority of the trade with South Carolina, and thus likely suffered the greatest abuses at the hands of the traders. Also, he argues that while most of the traders residing in the Lower towns were killed at the outset

of the war, many traders living in Middle and Upper Cherokee towns appear to have been spared (Oatis 2004:136).

[11] The opposition of Lower Settlements *versus* the Middle and Upper Settlements appears to have had some time depth, for in the Chestowee raid the Lower towns appear to have been purposefully left out because the headmen from the Middle and Upper Settlements did not want to share in the spoils (McDowell 1992:56).

[12] Oddly enough, when eccentric traveler Alexander Cuming personally installed a Cherokee "emperor" just five years later in A.D. 1730, the act was portrayed in period accounts as an absurd escapade (Williams 1928).

[13] Peter Wood (1989:64) doubts that the mortality rate of this epidemic was as severe as 50%, arguing that Adair might have conflated this epidemic with the smallpox epidemic of 1697. Wood instead places Cherokee losses at around 10% or 1,000 people. The actual mortality rate was somewhere in between; however, given the corroborating testimony of other Cherokee traders who were present during the epidemic, I believe that the rate was more likely closer to Adair's estimate (Hatley 1995:81-82).

CHAPTER 3

ARCHAEOLOGICAL PERSPECTIVES ON CHEROKEE COMMUNITIES

As the last chapter demonstrated, the fields of history and ethnohistory have done much to reconstruct the cultural and political landscape experienced by Cherokee communities during the English Contact period (ca. A.D. 1670-1740). As greatly improved as this reconstruction is, however, it has necessarily been rendered in broad strokes by the physical and cultural constraints imposed by the historical (i.e., European written) record. In order to transcend the interpretive bonds of this "paper cage," we must search for alternative sources of knowledge. Among these sources, the archaeological record has shown much promise (e.g., Schroedl 1986a; 2000, Dickens 1976, Rodning 2002, 2004, Riggs 1999). Indeed, by virtue of its disciplinary focus on material culture rather than written records, archaeology has enabled Cherokee researchers to explore lines of inquiry that have complemented those followed by historians.

In this chapter I present a general summary of past archaeological studies of Cherokee communities, the history of which extends over a century (for more in-depth syntheses see Dickens 1979; Rodning 2004; and Schroedl 2000). This summary is organized around the two fundamental research questions that have long been at the center Cherokee archaeology: (1) What are the prehistoric and/or protohistoric “origins” of the Cherokee?; and (2) How have change and stability played out in Cherokee culture in the face of sustained European interaction? After summarizing the ways that these two questions have been pursued in past studies, I offer an alternative way to frame our inquiries into English Contact period Cherokee communities. The framework I employ uses the shatter zone concept as its starting point and treats the questions of Cherokee "origins" and Cherokee culture change as two parts of the same historical process of identity construction. My perspective further departs from past researchers in that I focus on how this process was driven by the strategic actions of Cherokee households and communities rather than viewing Cherokee identity writ large as an inevitable outcome dictated by interaction with Europeans. Along the way, I seek ways to operationalize the shatter zone concept by exploring how the strategies enacted to deal with and confront the disruptions and chaos of the shatter zone were materialized in the routines of daily life that constituted Cherokee households and communities. I argue that by employing this perspective, we can continue to build upon the existing body of research and achieve a more inclusive and nuanced understanding of how Cherokee identities were forged during this period.

Research into Cherokee "Origins"

Scholarly interest in the archaeology of the Cherokee began with a focus on ancestry. The earliest excavations were carried out by the privately funded Valentine Museum and the Smithsonian Institution's Division of Mound Exploration as part of the (in)famous mound builder debate of the last decade of the nineteenth century (Dickens 1979; Schroedl 2000; Thomas 1894). These excavations took place at sites within the documented eighteenth-century Cherokee homeland in western North Carolina with the goal of determining whether the earthen mounds that dotted this mountain landscape were the handiwork of Cherokee ancestors or were the constructs of folk with a more mythical pedigree (e.g., a lost tribe of Israel). After many trial excavations, continuity in various forms of material culture, most notably pottery, could not be ignored and the researchers concluded that the earthen mounds were indeed wholly indigenous phenomena.

The notion of a Cherokee origin for the earthen mounds and artifacts found throughout the southern Appalachian region was reinforced by the ethnographic and ethnohistoric reconstructions of James Mooney (1889, 1900). The historical portrait Mooney painted featured the Cherokee breaking away from linguistically related northern Iroquois groups and migrating southward just prior to European contact in the sixteenth century. This interpretation guided major museum-funded excavations undertaken in the early twentieth century. Motivated by an urgent desire to salvage a history for the "disappearing" Cherokee and armed with a zeal to amass a worthy collection of artifacts with which to trace out that history, members of the Heye Foundation's Museum of the American Indian undertook a number of mound explorations in North Carolina and Georgia during the early twentieth century (Heye 1919; Heye et al. 1918; Turbyfill 1927).

In western North Carolina, Heye Foundation excavations were conducted at the Garden Creek site in Haywood County (Heye 1919; Keel 1976) and at an unnamed mound site located along the Notley River in Cherokee County (Turbyfill 1927). Results of the excavations at the Garden Creek site were published in a small pamphlet (Heye 1919). The results of the excavations of the Notley River mound were never formally published. The only mention of the site exists in a two-page typewritten report on file at the National Museum of the American Indian (NMAI) archives (Turbyfill 1927). The Heye Foundation excavations in northeast Georgia were focused on the Nacoochee mound in White County. While by no means exemplary by modern standards, the reporting of these excavations was definitely more thorough (Heye et al. 1918). Indeed, the written descriptions of the excavations and the illustrations of material culture in the 1918 report rivaled works produced by the Smithsonian's Bureau of American Ethnology decades later. In all of these Heye Foundation projects, Cherokee affiliation was taken as a given, and pottery and earthworks were described as "typical Cherokee" (Heye 1919:46; Heye et al. 1918:103). Heye and his colleagues, however, had no sense of the temporal depth represented by the artifacts recovered from these sites, which we now know were occupied for centuries before European contact.[1]

Archaeological syntheses necessitated by the massive Depression-era projects of the 1930s provided later researchers with a greatly improved understanding of southeastern culture history and its time depth. One of the major contributions of this era was the establishment of broad regional and supra-regional cultural chronologies based on material culture trait lists (e.g., McKern 1939, 1943; Webb 1939; Webb and DeJarnette 1942). While now dismissed as arcane “essentialist” frameworks (Lyman et al. 1997), these lists were truly revolutionary in that they enabled researchers to make empirical intra- and inter-regional comparisons with archaeological data. In the South Appalachian region, the use of trait list comparisons led researchers to differing conclusions regarding Cherokee origins.

The 1933 Smithsonian Institution excavations at the Peachtree site in the upper Hiwassee River valley uncovered a platform mound surrounded by the remains of a village. In the report of excavations, Frank Setzler and Jesse Jennings (1941:6-13) specifically framed their research around testing the hypothesis that the site was "Cherokee in origin." They state that historical records did not locate a Cherokee village in the area, but the presence of glass trade beads and other diagnostic eighteenth-century European artifacts in burial contexts indicated that a Cherokee group occupied the site at some point during the historic period. The authors compared a variety of material culture traits from the Peachtree site to other sites in the region including attributes related to the earthen mound, burial forms, and a myriad of artifact types. They found a combination of material traits related to what were defined at the time as "Woodland" and "Mississippi" cultures, but they stopped short of concluding that the site represented a continuous occupation by the Cherokee and their ancestors saying, "...we would hesitate to label the component as pure Cherokee, or even to assign it unequivocally to any linguistic or ethnic group" (Setzler and Jennings 1941:57). Thus, while the authors speculated that a Cherokee group occupied the site in the eighteenth century, their admitted lack of understanding of occupational time depth resulted in a necessarily ambiguous conclusion regarding the earlier (and more substantial) occupations at the Peachtree site.[2] Nevertheless, Setzler and Jennings moved Cherokee archaeology forward by demonstrating the need for empirical comparison in constructing any (pre)history for the Cherokee.

Relying on similar trait list comparisons among sites in East Tennessee, Lewis and Kneberg (1946, 1995) offered a provocative interpretation of Overhill Cherokee origins in this region. In their published report of excavations at the Hiwassee Island site in the upper Tennessee River valley, Lewis and Kneberg (1946) highlighted the presence of a number of burial traits that did not appear to be typical for eighteenth-century Cherokee communities. Certain interments contained late seventeenth- and early eighteenth-century European artifacts, but historic accounts did not place any Cherokee towns in the vicinity of Hiwassee Island during this period. Also, most of the burials were secondary inhumations – a form not typically associated with historic Cherokee groups (Lewis and Kneberg 1946:132-135). Furthermore, two of the burials contained plain shell-tempered pottery vessels that were stylistically different from the paddle stamped pottery typically associated with Cherokee groups to the east. Combining these pieces of evidence with other data from their trait list, the authors argued that the burials at Hiwassee Island were definitely not Cherokee; instead, they believed that the burials represented the last vestiges of a local Muskogee-speaking Mississippian community (Lewis and Kneberg 1946:15). They further argued that the Iroquoian-speaking Cherokee were an intrusive group of immigrants that entered western North Carolina and eastern Tennessee in the seventeenth and eighteenth centuries replacing Mississippian communities such as the one located at Hiwassee Island (Lewis and Kneberg 1946:98-99).

In the 1960s, the University of North Carolina at Chapel Hill embarked on a long-term research program specifically aimed at constructing a detailed archaeological sequence for the Appalachian Summit region of western North Carolina. Through surveys, large-scale excavations at selected sites, and artifact analyses, researchers constructed a model of cultural development that countered the migration models proposed by earlier researchers. The UNC model favored the long-term *in situ* development of the eighteenth-century Cherokee Middle, Valley, and Out towns (represented archaeologically by the Late Qualla phase) from local South Appalachian antecedent cultures whose tenure in the region stretched back at least to the Middle Woodland period (ca. A.D. 200) (Coe 1961; Dickens 1976, 1979; Egloff 1967; Keel 1976).

UNC archaeologists Bennie Keel (1976) and Roy Dickens, Jr. (1979) in particular fleshed out a prehistoric trajectory in which the hallmarks of Cherokee culture (i.e., stamped pottery, mound building, and agriculture) first appeared during the Woodland period and continued (if only in vestigial form) until Cherokee removal in 1836. In their model, Woodland period South Appalachian communities evolved to a zenith of socio-political complexity during the prehistoric Pisgah phase (ca. A.D. 1000-1550) only to suffer a period of cultural decline and European acculturation during the succeeding Qualla phase (ca. A.D. 1550-1836). Later, Dickens (1986) retreated from a strict *in situ* model of Cherokee origins. In its place, he offered a multi-causal model for Cherokee historical development that combined the notion that Cherokee culture was a distinct adaptive response to the environmental constraints imposed by the South Appalachian region combined with cultural transformations brought about by large population movements during the sixteenth century (Dickens 1986:89-90).

In the 1970s, the University of Tennessee conducted a major research program involving Cherokee archaeology in eastern Tennessee. This program, known as the Tellico Archaeological Project, focused on portions of the lower Little Tennessee valley that would be inundated by the construction of the Tellico Dam. Data recovered by this project led Gerald Schroedl (1986b) to construct a different sort of *in situ* model of Cherokee origins in eastern Tennessee. Although Schroedl (1986b:132) viewed eighteenth-century Overhill Cherokee towns as the descendants of earlier sixteenth-century Mississippian chiefdoms, he envisioned a rather different developmental trajectory than the progressive one described by Dickens. Schroedl instead argued that the Overhill Cherokee represented a society that emerged out of the dramatic collapse and reorganization of hierarchically organized chiefdoms during the seventeenth century. This hypothesized regional process has been difficult to verify, however, given a lack of data associated with seventeenth-century Overhill Cherokee occupations (Schroedl 1986a:533, 1986b).

Research regarding the prehistoric ancestry of Cherokee Lower Towns was furthered by David Hally's (1986a) analysis of pottery from sixteenth- and eighteenth-century contexts in northern Georgia. Using collections recovered from University of Georgia excavations at historically documented eighteenth-century lower Cherokee towns in the upper Savannah River basin (Kelly and DeBaillou 1960; Kelly and Nietzel 1961), Hally (1986a) found a number of similarities in vessel form and surface treatment between sixteenth-century Tugaloo phase assemblages and early eighteenth-century Estatoe phase assembles. From these similarities, Hally concluded that the pottery associated with historic Cherokee Lower towns likely developed out of a local ceramic tradition practiced during the late sixteenth century.

Most recently, Christopher Rodning (2002) has offered a reconciliation of the different models of Cherokee ancestry. Rodning's (2004) research at Coweeta Creek in southwestern North Carolina is crucial to any discussion of Cherokee origins as it addresses the seventeenth century, a period for which little is known in eastern Tennessee and northern Georgia. Rodning (2002:157) argues that the emergence of Cherokee identity was a regional phenomenon that largely took place during the late seventeenth and early eighteenth centuries. He states that the manifestation of this shared identity was a complex historical process involving the consequences of long-term developmental trajectories and short-term strategies resulting from European contact. Rodning's model acknowledges that the Cherokee were, at least in part, the descendants of local prehistoric South Appalachian chiefdoms. At the same time, Rodning recognizes that European contact led to dramatic demographic changes and population movements that resulted in a diverse ethnic composition of Cherokee towns. Rodning (2002:159) likens the formation of a shared Cherokee identity to similar processes modeled for the historic Creek by Knight (1994) and for the Choctaw by Galloway (1995).

Research into Cherokee "Acculturation"

In addition to questions of origins, archaeologists have also tackled problems of change and stability in Cherokee lifeways stemming from European interaction. Presently, there are tantalizingly few securely dated English Contact period Cherokee contexts that appear in publications (e.g., Harmon 1986; Rodning 2004; Schroedl 1994; Shumate et al. 2005; Walker 1995), hence the picture of Cherokee culture change and stability during this period is much less clear than that for the mid-eighteenth century and later.

What we do know about Cherokee culture change during the late seventeenth and early eighteenth centuries is derived from minor occupations at three prominent Overhill

Cherokee towns and a Middle Cherokee town, a major occupation at a single Lower town, and an isolated brief household occupation in southwestern North Carolina. The Tellico Archaeology Project included excavations at historically documented Overhill Cherokee towns in the lower Little Tennessee valley including Citico, Chota-Tanassee, Mialoquo, Tomotley, Toqua, and Tuskegee (Baden 1983; Chapman and Newman 1979; Guthe and Bistline 1981; Polhemus 1987; Russ and Chapman 1983; Schroedl 1986a). While some English Contact period contexts were present at Chota-Tanassee, Citico, and Toqua, the vast majority of these data were related to middle and late eighteenth-century Cherokee occupations (Schroedl 2000:215). Another small late seventeenth- and early eighteenth-century occupation including two townhouses was present at the Coweeta Creek site (Rodning 2004). Excavations at the Lower Cherokee town of Chattooga revealed a substantial English Contact period occupation; however, much of that work remains to be published (Howard 1997; Schroedl 1994; Walker 1995). More recently, researchers have reported on a brief middle to late seventeenth-century Cherokee household occupation at the Alarka farmstead site in southwestern North Carolina (Shumate et al. 2005).

While the current body of data regarding late seventeenth- and early eighteenth-century Cherokee communities is less robust than desired, there are nevertheless a few interesting, if preliminary, points that have been made regarding change and stability through the period. First, the architectural forms in these settlements evince little change. Domestic structures consisted of paired winter and summer houses and associated outbuildings (Howard 1997; Schroedl 2000). Winter houses, or *asi*, were substantially built round or octagonal structures averaging 7 m in diameter with central hearths and bench-lined interior walls (Keel 1976:28-34; Schroedl 1986a:267, 2000; Shumate et al. 2005). Summer houses were more lightly built rectangular structures averaging 9-by-5.5 m that were erected adjacent to the winter house (Schroedl 1986a:268, 2000; Shumate et al. 2005). This type of paired-structure domestic architecture had clear sixteenth-century antecedents across southern Appalachia (Hally 2002). Major changes in domestic structures did not occur until the late eighteenth century, when interior storage cellars began to appear and single rectangular houses and cabins replaced paired structures as the dominant house form (Schroedl 2000:220-223).

The other major structure type in Cherokee communities was the townhouse. Overhill townhouses were large octagonal structures measuring 16 m in diameter with four large support posts, prepared clay hearths, and bench-lined interior walls (Schroedl 1986a:263-266, 2000). Adjoining summer townhouses or pavilions were rectangular structures that were similar to domestic summer houses, only larger. The superimposed townhouses at the Coweeta Creek site were not octagonal, but instead were square with rounded corners, and they had corner wall trench entrances (Rodning 2004:365-368). A similar design was identified at Chattooga where four superimposed square-with-rounded-corner townhouses were found (Howard 1997; Schroedl 1994). The Chattooga townhouses were different from the Coweeta Creek townhouses in that they lacked wall trench entrances.

While there was geographic variability in the design of these late seventeenth- and early eighteenth-century townhouses, the townhouse sequences at each of these sites demonstrated considerable consistency through time. Throughout the eighteenth century Overhill townhouses retained the same shape, size, and basic configuration, but the number of internal roof supports increased from four to eight after mid-century (Schroedl 1986a:540). Schroedl (2000:220) suggested that the later form of townhouse likely reflected changes in village demography and the increasingly important role of clans in village life. Particularly, he argues that the new townhouses contained seven partitioned benches perhaps reflecting the seven matrilineal clans in Cherokee villages. The same trend was evident in the townhouse sequence at Chattooga, although the increase in internal roof supports took place before A.D. 1740 (Howard 1997; Schroedl 1994, 2000:214). The early eighteenth-century townhouse at Coweeta Creek was the last of six superimposed structures that were built in the same style over a 200-year period (Rodning 2004:365-368).

The spatial organization of structures within late seventeenth- and early eighteenth-century Cherokee towns appears to have changed considerably from earlier seventeenth- and sixteenth-century towns in the region. Earthen mounds were not nearly as common in late seventeenth- and early eighteenth-century Cherokee towns as they were in earlier times, and rarely did these mounds serve as platforms for townhouses (Rodning 2004:68). Public architecture surrounded by open plazas remained a foundational spatial relationship of towns until the nineteenth century; however, the density of settlement amidst this combination changed drastically (See Chapter 7). Whereas sixteenth-century towns like the King site in Georgia and Ledford Island in eastern Tennessee were compact and densely settled, evidence from Chattooga, Chota-Tanassee, and Coweeta Creek suggests that domestic structures were widely spaced within English Contact period Cherokee towns (Rodning 2004:418-419; Schroedl 1986a:539). At the Coweeta Creek site, this switch from intensive to extensive community patterns took place sometime during the late seventeenth century. Rodning (2004:41, 419) suggests depletion of local resources and an increased sense of individualism associated with participation in European trade economies as possible causes for this shift in community patterning.

Existing data suggest that the foodways of seventeenth- and eighteenth-century Cherokee communities remained fairly unchanged from the pre-Contact period. Analyses of floral and faunal remains from Coweeta Creek (seventeenth century), Chattooga (early eighteenth century), and Chota-Tanassee (mid-eighteenth century) have demonstrated that pre-Contact food resources, including the corn-beans-squash triumvirate, wild plants, nuts, fish, deer and bear, dominated the Cherokee diet (Bogan et al. 1986; Schroedl 2000; VanDerwarker and Detwiler 2000, 2002; Walker 1995). European introduced plants (e.g., peaches and apples) and animals (e.g., pigs, cattle, chickens) comprised a much smaller portion of the diet and did not play a significant dietary role until the latter half of the eighteenth century. A recent study of ceramics from the Coweeta Creek site further demonstrated that the mix of vessel forms in the typical Cherokee domestic pottery assemblage remained consistent from the sixteenth to the eighteenth century; only in the nineteenth century do large amounts of European-made ceramics and metal cooking vessels appear (Riggs and Rodning 2002; Wilson and Rodning 2002).

Contrary to the opinion of Indian agent Thomas Nairne in 1708 (Nairne1988[1708]:76), archaeological evidence and ethnohistorical evidence (see Chapter 2) does not support the notion that the Cherokee were materially dependent on European trade goods during the late seventeenth and early eighteenth centuries. The assemblages of European-made artifacts recovered from the seventeenth- and early eighteenth-century Cherokee occupations at Coweeta Creek, Chattooga, and Chota-Tanassee were relatively small and included such items as drawn glass beads, kaolin pipe fragments, ornaments and fragments of cut brass, buttons, gun flints, gun parts, iron wedges, iron blades, and bottle glass fragments (Harmon 1986; Newman 1986; Rodning 2004). Only six glass beads and a single iron wedge were recovered from the seventeenth-century Cherokee household occupation at the Alarka Farmstead site in southwestern North Carolina (Shumate et al. 2005). But for the absence of perishable goods like cloth and blankets, these assemblages match what would be expected with the early deerskin trade – a time that preceded significant changes in Cherokee material culture associated with the adoption of European technologies (Crane 2004:116-117; Hatley 1995: 46-47; Oatis 2004:190-191).

Constructing an Alternative Perspective for English Contact Period Cherokee Communities

The various research projects outlined above share common historical and theoretical foundations. They locate Indian communities within a similar landscape – one constructed by early twentieth-century historians and ethnologists like Mooney (1900), Swanton (1998), and Crane (2004). This landscape is set in the perpetual ethnographic present and is inhabited by eternally discrete Indian groups (i.e., tribes or nations) such as "T"he Creek and "T"he Cherokee. In such a landscape, Indian communities become little more than placeholders – basic culture bearing units whose particular histories are completely interchangeable. In this section, I begin with the same argument I made at the close of the last chapter, that the serene and stable landscape constructed by twentieth-century ethnologists and historians must be replaced by the dynamic, chaotic, and inherently unstable landscape described by the shatter zone concept (See Chapter 2). I concur with Rodning (2002:157) that Cherokee ethnogenesis took place largely in response to European colonial pressure during the late seventeenth and early eighteenth centuries. Consequently, I argue that we need to treat the previously independent research problems of Cherokee "origins" and culture change as parts of the same historical process of identity construction during this tumultuous period. In doing so, I propose a new performative definition of community that takes advantage of archaeology's unique ability to link material culture to the routines of daily life, for these are the foundational behaviors that constituted Cherokee households and communities.

The new dynamic picture of the southeastern landscape during the seventeenth and early eighteenth centuries necessarily forces us to rethink existing constructs of Cherokee origins (e.g., Lewis and Kneberg 1946, Dickens 1979, Schroedl 1986b). Rodning (2002) has pointed out that the process that resulted in the forging of the Cherokee identity likely involved a combination of all three existing models. There was a preceding political collapse and reorganization in the region as argued by Schroedl (1986b). There likely was an influx of people from outside of the region after this collapse as postulated by Lewis and Kneberg (1946), and population movement within the region likely occurred as argued by Dickens (1979). With the exception of Lewis and Kneberg (1946), however, these models locate the origins of Cherokee within an extended period of cultural development on the order of centuries. Historic and archaeological evidence suggests that culture change proceeded on the order of decades (ca. A.D. 1670-1715) rather than centuries; therefore, we must place more emphasis on this particular period in our models of the origins of the Cherokee. We also need to localize our models to consider each region within Cherokee territory separately. Part of this includes considering the possibility that the processes that created Overhill Cherokee identity might have been drastically different than those that created, for example, Lower Cherokee identity.

The ethnic composition of native communities must also be reconsidered in light of this dynamic landscape. As mentioned above, there has been a long tradition in American archaeology and ethnology of tying historically documented Indian groups to the landscape through the construction of post-hoc *in situ* histories. Recently, anthropologists and historians have revisited the historic development of groups like the Creek, Choctaw, and Catawba, and found that these were not ethnically homogenous tribes or nations, but instead were multiethnic confederacies that formed in the seventeenth and early eighteenth centuries in response to the historical forces described in Chapter 2 (i.e., depopulation, slave trade, deerskin trade) (e.g., Galloway 1995; Knight 1994; Merrell 1989a). Rodning (2002) recently hinted at the possibility of comparing the formation of the Cherokee to these other groups. We know little, however, about the types of ethnic diversity that were present in Cherokee settlements during this period.

Addressing the concept of acculturation, the classic view taken by many researchers of historic Indian groups in the Southeast stressed the increasing rate of adoption of European material culture through time as a reflection of an increasing change to European lifeways (e.g., Brain 1979; Schroedl 1986a). These researchers used the presence and quantity of European artifacts at archaeological sites as proxies to gauge the types of behaviors that were changing. Examples of this include the substitution of items of native construction with European-made items, such as ceramic cooking jars with brass kettles and bows and arrows with guns. While material culture substitutions like these were doubtless an important part of Indian strategies to adapt to the challenges brought about by a growing European colonial presence, simply evoking the process of "acculturation" to explain why they occurred does not result in an appreciable understanding of the historical process(es) that actually took place. Worth (2006:204), for example, argues that the acculturation concept treats material culture itself as the primary cause of culture change among Indian and European groups, rather than looking to changes in social, economic, and political structure that may have influenced the change in material culture. He also argues that the concept of acculturation draws attention away from change within Indian groups that may have been completely internal. He asks how acculturation could predict the shift in many native societies from being hierarchical agriculturally based chiefdoms to more egalitarian political groups whose economy was based on trade in deerskins and slaves. Furthermore, Esarey (2007) has shown that the acculturation concept simply does not predict the nature and scale of culture change experienced by seventeenth-century Indian communities in the upper Midwest. In this region, massive social and political disruptions preceded sustained contact with Europeans by several decades. Such a situation is analogous to that experienced by English Contact period Cherokee communities who, unlike neighboring groups in the Southeast, did not experience sustained contact with European traders until the second decade of the eighteenth century.

These critiques challenge us to seek ways to identify changes in English Contact period Cherokee communities other than by counting European artifacts. In this study, I depart from previous historical and archaeological treatments in that I explore change in English Contact period Cherokee communities by emphasizing how the strategic actions of Cherokee households played into larger historical processes of identity construction associated with the tempestuous shatter zone of the late seventeenth- and early eighteenth-century Southeast. How can this approach be linked to the archaeological record? Answering this question requires two theoretical moves: (1) the replacement of "community" as a conceptual placeholder to "community" as the outcome of a myriad of performances by constituent members (I focus on households) and (2) the understanding that the shatter zone was continually being made and remade through the playing out of strategies which had material dimensions and thus had correlates in archaeological record (I focus on settlement patterns, pottery, architecture, and subterranean pit features).

Past research of southeastern Indian groups like the Cherokee has demonstrated that their communities were not bounded, static, locations on the landscape; instead, they were fluid socially constituted collectivities of individuals linked through shared identities (Rodning 2002, 2004:7; Smith 1979; Swanton 1928:242). These communities were created by the shared practices of people who interacted on a daily basis (*sensu* Joyce and Hendon 2000; Norval 1996; Watanabe 1992, Yaeger and Canuto 2000). Through daily interactions, community identities were created, and these community identities, in turn, acted to shape the practices of community members (Anderson 1991). This dialectical process is recognizable in the material traces of daily life at the household level, which represents the most fundamental and pervasive unit of economic and social production (e.g., Blanton 1994; Conkey 1999; Hatch 1995; Hodder and Cessford 2004; Lightfoot et al. 1998; Muller 1997; Pauketat 2000a, 2001; Riggs 1989; Schroedl 1989;

Wilk and Netting 1984; Wilk and Rathje 1982). Hence, the strategies enacted by households in Cherokee communities should be visible in the archaeological remains of daily domestic practice (See Wesson 2008 for a similar study involving Creek households).

The daily practices of English Contact period Cherokee households doubtless operated on discursive and non-discursive levels, both of which had material dimensions. Discursive practices make obvious statements regarding Cherokee identity. Examples of this type of practice might have included, in part, the choice of community or household location or the architectural design of a house. Non-discursive practices, on the other hand, involved habitual everyday acts like making a ceramic pot or cooking a meal that, although not necessarily unconscious, were often "taken for granted" (Bourdieu 1977:79; Giddens 1979:24). Recent studies have demonstrated that these tacit practices are indeed fruitful avenues of inquiry for showing how identities were created and passed on generationally (Dobres 1999, 2000; Sinclair 2000; Stark 1998).

In the following chapters, I apply these concepts to a study of the Townsend sites (40Bt89, 40Bt90, 40Bt91), a small English Contact period Cherokee community (ca. A.D. 1650-1720) located in eastern Tennessee. This particular case study provides a very good example of how the shatter zone impacted daily life in English Contact period Cherokee communities, and conversely, how the shatter zone was created and perpetuated in the daily practices of Cherokee households. My study focuses on how these dialectical historical processes played out in three aspects of daily life within this community:

- *Geography*. I argue that the particular location of the Cherokee community at the Townsend sites reflects a strategic settlement pattern response to the shatter zone.
- *Community Identity*. I explore household-level variability in ceramic assemblages to test the likelihood that the Townsend sites were a "coalescent community" (*sensu* Kowalewski 2006) comprised of ethnically distinct potters who practiced different regional potting traditions.
- *Domestic Space and Time*. These related dimensions of daily life are often overlooked in archaeological studies. I make a diachronic regional comparison of datasets associated with architecture and subterranean pit features in order to explore how the spacing and tempo of daily life changed dramatically in Cherokee communities during the English Contact period.

Before delving into these discussions, however, I must first set the stage by reporting on my attempt to construct a reliable method for identifying seventeenth- and eighteenth-century Cherokee occupations in the archaeological record. I must also introduce the focus of my study – the English Contact period Cherokee community at the Townsend sites in eastern Tennessee.

[1]The descriptions and artifact photos included in the Garden Creek site the report and later excavations by University of North Carolina archaeologists suggest that the site's major occupations were during the Middle Woodland period Connestee phase (ca. A.D. 200-600) and the Mississippian period Pisgah phase (ca. A.D. 1000-1450) (Heye 1919; Dickens 1976, 1979). Only a small amount of historic Cherokee material was recovered. During a recent research trip to the NMAI, I was able to inspect the pottery collections and glass bead assemblages from the Notley and Nacoochee mound sites. While the overwhelming majority of the pottery assemblage recovered from the Notley site was associated with the Mississippian period Early Qualla Phase (ca. A.D. 1300-1500) and the Middle Qualla Phase (ca. A.D. 1500-1650), a particular diagnostic ceramic attribute associated with the early Late Qualla Phase (ca. A.D. 1650-1715) (i.e., thick coronal stylus notched rimstrips) was present in small numbers. In regard to the Nacoochee mound, the illustrations of pottery in the report (Heye et al. 1918), my inspection of existing pottery and glass bead collections at the NMAI, and a recent post-hole testing project by Mark Williams (2004) all concur that the bulk of the occupation at the site occurred between the fourteenth and sixteenth centuries; however, the presence of certain glass bead types (Chapter 4) and that Late Qualla phase rim attribute suggest at least a minor occupation of the site into the early eighteenth century.

[2] My research also brought me to the Smithsonian Institution, where I inspected the artifacts from the Peachtree excavations. The majority of the pottery sample I saw was composed of diagnostic specimens dating to the sixteenth- and early seventeenth-century Middle Qualla phase. The remainder of the pottery sample included diagnostic surface treatments (check stamping and rectilinear complicated stamping) and rimstrip modes associated with the post-1720 Late Qualla phase. This later occupation was corroborated by the glass trade bead assemblage (Chapter 4).

CHAPTER 4

IDENTIFYING CHEROKEE MATERIAL CULTURE ASSEMBLAGES OF THE ENGLISH CONTACT PERIOD

As I argued in Chapter 2, although widespread, the demographic, economic, and social changes that wracked Indian communities across the Southeast during the English Contact period did not amount to a singular process that affected all communities equally (e.g., Bowne 2005, 2006; Ethridge 2006; Gallay 2002; Ramsey 2001, 2003; Smith 1987; Usner 1992; Worth 2006). Tracing out the local histories of Indian communities, however, has proven difficult when research has been extended beyond historically documented sites (e.g., Knight 1994; Smith 1987, 1989, 1994, 2002a). Indeed, for most of the English Contact period, historical documents pertaining to the interior Southeast contain at best brief sketches of a few Indian communities. Archaeology has great potential to address how this tumultuous period played out among the untold number of undocumented Indian communities across the Southeast, but in order to do this we must first create reliable ways of identifying seventeenth- and eighteenth-century occupations in the archaeological record (e.g. Smith 1983, 1987; Waselkov 1989). Fortunately, this challenge requires that archaeologists tackle a very familiar and foundational problem – that of chronology. In this chapter, I synthesize a chronology of diagnostic Cherokee pottery and glass trade bead assemblages that encompasses the English Contact period (ca. A.D. 1670-1740). For the pottery component of the assemblage, I outline previous research associated with the construction of the current ceramic chronology for Cherokee assemblages. To this, I add my seriation of glass trade bead assemblages from sites with occupations spanning a broader period ca. A.D. 1607-1783. The results of this research provide a reliable method for identifying undocumented seventeenth- and eighteenth-century Cherokee communities.

The Overhill and Qualla Ceramic Series

The Overhill and Qualla pottery series are taxonomic systems that were created in order to identify and classify geographic and temporal variability among historic (and prehistoric) Cherokee pottery assemblages (Baden 1983; Bates 1986; Egloff 1967; Hally 1986a; Keel 1976; Lewis and Kneberg 1946, 1995; Riggs and Rodning 2002; Rodning 2004; Ward and Davis 1999; Wilson and Rodning 2002). The most obvious differences between the two series involve the types of aplastic materials used as tempering agents in vessel construction and the types of surface treatments applied to vessel exteriors. These differences are often summarized by saying that Overhill-series vessels were tempered with crushed mussel shell and had smoothed or scraped exterior surfaces while Qualla-series vessels were tempered with grit and had carved paddle-stamped exterior surfaces. The repetition of this statement has resulted in the common belief that these series reflect clear differences in long-held traditions practiced by potters in Overhill Cherokee settlements, on the one hand, and those in the Middle, Valley, Out, and Lower settlements on the other (Dickens 1979; Egloff 1967; Schroedl 1986a).

As detailed below, however, the Overhill and Qualla ceramic series must also be seen as the products of two separate long-term Cherokee research projects at the University of Tennessee (Overhill) and University of North Carolina (Qualla) (Chapter

3). The research conducted by University of Tennessee archaeologists focused on historically documented mid-eighteenth-century Overhill Cherokee communities in the Lower Little Tennessee River valley and resulted in large datasets covering a very narrow time span. The research of archaeologists at the University of North Carolina, by contrast, was focused on large-scale regional surveys among the Middle, Valley, and Out Town settlements and excavations aimed at characterizing the long-term chronological development of Cherokee communities in western North Carolina. In contrast to the University of Tennessee, this work resulted in smaller datasets with relatively great geographic breadth and temporal depth (ca. A.D. 1300-1908 for the Qualla series *versus* ca. A.D. 1700-1838 for the Overhill series), but with little eighteenth century coverage (Figure 4.1). Consequently, one must be careful not to mistakenly attribute differences between these ceramic series to differences in potting traditions of equal time depth.

The Overhill Ceramic Series

The first formal description of Overhill Cherokee pottery was penned by Lewis and Kneberg in their classic works on the Hiwassee Island site excavations and the Chickamauga Basin survey (1946:98-99, 1995:117). These initial descriptions of Overhill Cherokee pottery were interesting for several reasons. First, Lewis and Kneberg's descriptions of Overhill pottery only covered shell- and grit-tempered sherds with check stamped and complicated stamped surfaces. It did not include shell-tempered sherds with smoothed surfaces (i.e., plain) – later known as a diagnostic hallmark of the Overhill-series. This omission was most likely due to the fact that plain shell-tempered Overhill series body sherds were (and still are) indistinguishable from those associated

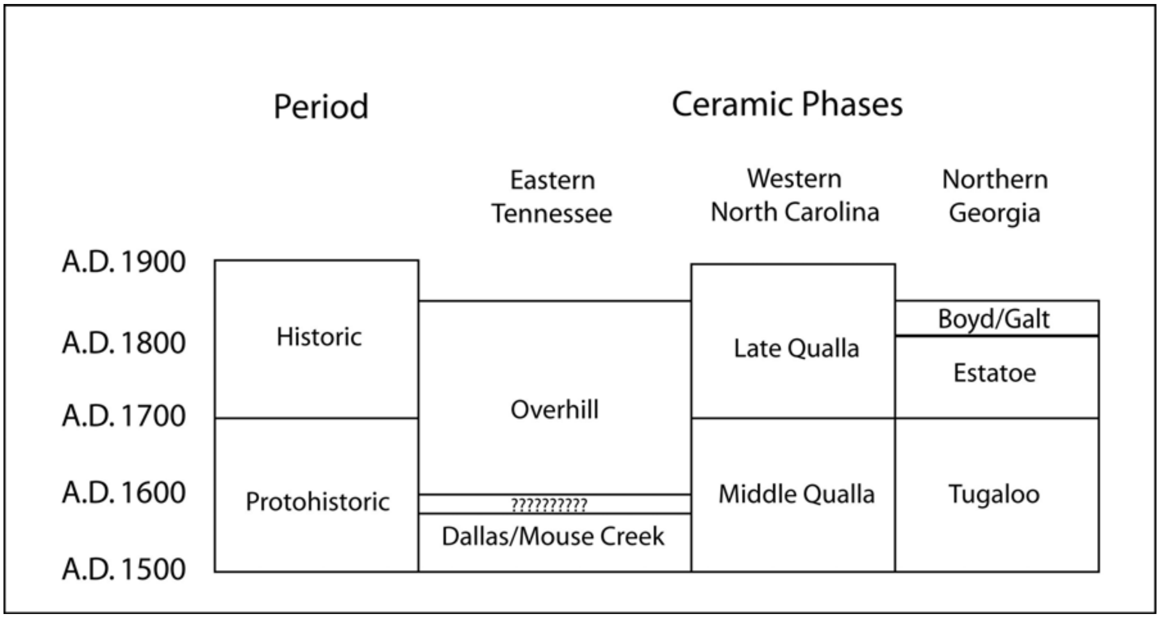

Figure 4.1 Ceramic Chronology for Cherokee pottery assemblages.

with the earlier Mississippian period. Also, even though Lewis and Kneberg's descriptions of Overhill pottery appeared in the reports for Hiwassee Island and the Ocoee site, they were not based on the pottery assemblages recovered from these sites. Hiwassee Island's assemblage contained three possible Overhill sherds and the Ocoee site assemblage included approximately 30 rims with notched rimstrips and 30 complicated stamped body sherds. Instead, Lewis and Kneberg formulated their descriptions of Overhill pottery from samples excavated at the sites of Chota and Fort Loudon, the latter being a mid-eighteenth-century English trading fort located in the lower Little Tennessee River valley.

It appears that the primary reason that the authors included these descriptions in the Hiwassee Island and Chickamauga Basin reports was to present their model for Cherokee origins. Drawing attention to the similarities between the paddle-stamped wares found at Fort Loudon and those at other historically known Cherokee settlements like the Peachtree site (Little Hiwassee), Nacoochee, Kituhwa, Nununyi, and Nequassee, Lewis and Kneberg (1946:98) put forth the argument that the Cherokee were an intrusive group of immigrants that entered western North Carolina and eastern Tennessee in historic times replacing local Muskogee-speaking Mississippian groups. The replacement, they argued, was supported archaeologically by the apparent replacement of plain, cord marked, and incised shell-tempered pottery with check stamped and complicated stamped pottery.

Brian Egloff's (1967) M.A. thesis research provided a large leap forward in understanding historic Cherokee pottery, particularly in linking the geographic distribution of plain shell-tempered pottery with the Overhill Cherokee. The goal of

Egloff's study was to examine the variability among pottery assemblages from a number of different Cherokee sites. Egloff's study included samples from sites in each of the five historically documented Cherokee settlement divisions (i.e., Overhill, Middle, Valley, Out, and Lower). Surface collections from the eastern Tennessee sites of Citico and Great Tellico composed the Overhill Cherokee portion in the study. While this study did not adequately consider time as a source of variability among pottery assemblages, it nevertheless succeeded in recognizing that the majority of Overhill Cherokee pottery was shell-tempered with plain surfaces, and that this pottery was largely restricted to sites located west of the Appalachian Summit occurring only in very small frequencies among the other Cherokee settlement divisions (Egloff 1967:43-44, 73).

By far the largest contribution to the development of the Overhill ceramic series came as part of the Tellico Archaeological Project. This project, carried out by archaeologists at the University of Tennessee, included a survey of the lower Little Tennessee River valley and excavations at numerous sites prior to the construction of the Tellico Dam. Between the late 1960s and late 1970s excavations were carried out at a number of Overhill Cherokee towns documented in Lieutenant Henry Timberlake's journal and map drafted in A.D. 1762. These towns included Citico, Chota-Tanassee, Mialoquo, Tomotley, Toqua, and Tuskegee (Baden 1983; Chapman and Newman 1979; Guthe and Bistline 1981; Polhemus 1987; Russ and Chapman 1983; Schroedl 1986a). The Tellico Archaeological excavations expanded the corpus of Overhill pottery from a few thousand sherds to well over 500,000 sherds (King 1977:154-155). This large sample allowed for analyses at an unprecedented scale including studies of Overhill vessel forms (King 1977) and more detailed descriptions of surface treatments and rimstrip morphology (Baden 1983; Bates 1986; Russ and Chapman 1983).

Since little research regarding the Overhill ceramic series has been conducted in recent years, in the following description I draw upon the primary sources of the Tellico Archaeological Project (Baden 1983:37-62; Bates 1986:289-305; King 1977; Russ and Chapman 1983:69-83). It is imperative to keep in mind that these sources report on Overhill pottery assemblages primarily associated with the English Colonial and Revolutionary War periods (ca. A.D. 1746-1794). As presented in these reports, the Overhill ceramic series was dominated by plain shell-tempered pottery with minority surface treatments including (in order of typical frequency), check stamping, simple stamping, complicated stamping, incising, cob marking or roughening, and cord marking. In samples from Chota-Tanasee, Tomotley, and Mialoquo, plain shell-tempered sherds comprised 89%, 65%, and 33.5% of the total pottery sample respectively. Check stamping occurred on between 0.5% and 11% of the Overhill sherds at these sites and exhibited considerable variation including square-, rectangular-, and diamond-shaped grids with individual checks ranging in size from two to six millimeters. Complicated stamped sherds comprised between 0.5% and 5% of the sample at these sites and included both curvilinear and rectilinear motifs, although the latter tended to be more common. Rectilinear motifs included concentric squares, triangles, and diamonds, and zig-zag or herringbone patterns, while curvilinear motifs included concentric circles and wavy lines (Figure 4.2). Incised motifs were predominately rectilinear and consist of line-filled triangles (Figure 4.3). Cord marking made up the smallest minority in these Overhill assemblages, occurring in less than 1% of each site's pottery sample.

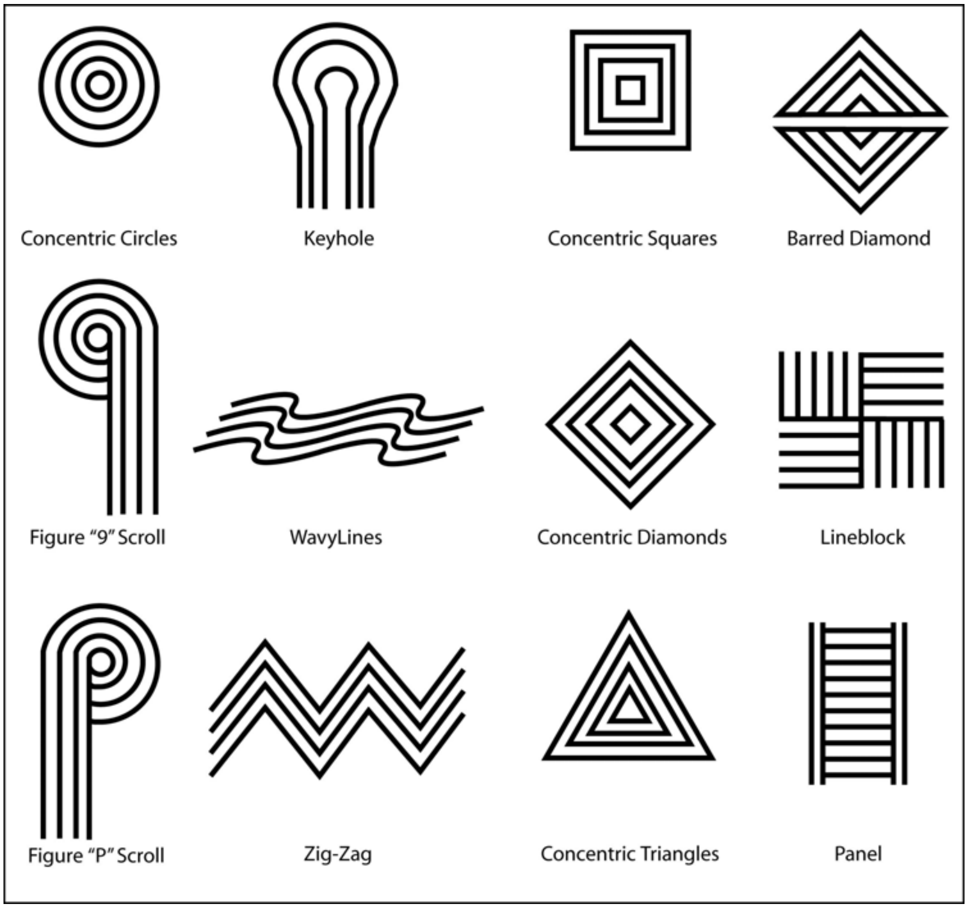

Figure 4.2. Stamped motifs applied to Overhill-series and Qualla-series vessels.

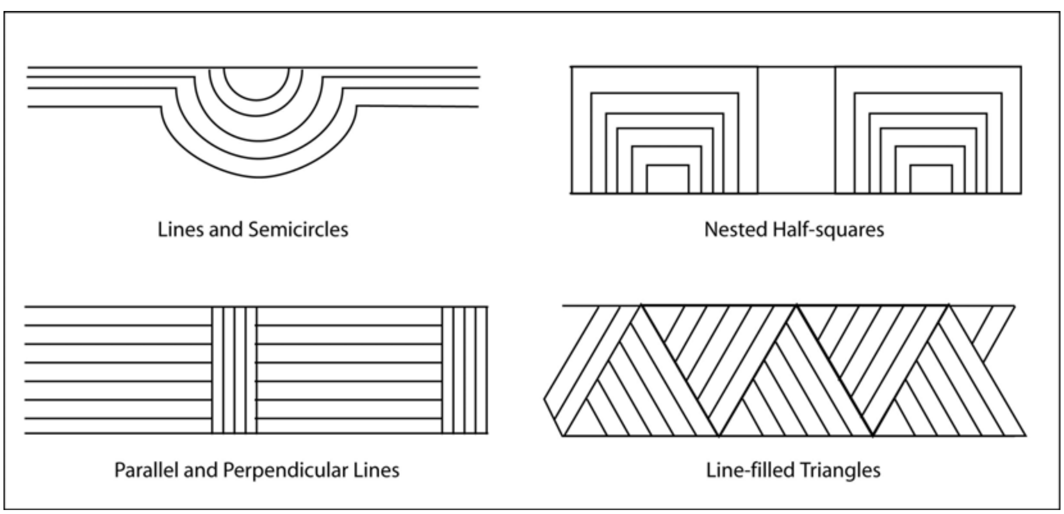

Figure 4.3. Incised motifs applied to Overhill-series and Qualla-series vessels.

Unfortunately, vessel forms were not reported consistently in the various Tellico project publications. Neither Bates (1986) nor Russ and Chapman (1983) provide detailed discussions of Overhill vessel form or tallies of different vessel forms in their reports on the Chota-Tanasee and Mialoquo excavations. King (1977) collaborated with a number of contemporary Cherokee speakers and noted potter Amanda Swimmer in an innovative attempt to define vessel classes for the Tellico Archaeological Project Overhill pottery assemblages. Combining data recorded from whole vessels with suggestions provided by his collaborators, King (1977) came up with ten vessel classes for the Overhill series including small bowls, medium bowls, wide shallow bowls with flaring rims, wide slightly deeper bowls with less flaring rims, large cazuelas and hemispherical bowls, small globular jars, medium globular jars, large globular jars, very shallow flat-bottomed pans or plates, and medium-sized flat-bottomed pans. At the site of Tomotley, Baden (1983:57) utilized a much less detailed vessel classification system reporting that jars were by far the most abundant vessel form (n = 671), followed by hemispherical bowls (n = 148), flat bottomed pans (n = 117), and cazuelas (n = 5).

Another diagnostic attribute of Overhill series vessels was a coil of clay that was added around the entire circumference of a vessel just below the lip or shoulder. These decorative additions, known collectively as "rimstrips," were typically either modeled from the final vessel coil, by folding, or applied as a separate coil, by a technique know as "filleting." Various decorative techniques were applied to rimstrips including finger pinching, punctating, and notching with a sharp stylus. Such variability suggests that differences in rimstrip decoration may be associated with different vessel forms or that these decorative techniques may be temporally sensitive. Like vessel form, there was little consistency in how rimstrip decoration was recorded in the various Tellico Archaeological project reports, making the identification of patterning in particular rimstrip treatments impossible with the current dataset. The impression one gets from the reports, however, is that stylus notching was much more frequent than either pinching or punctating in the mid- to late eighteenth-century assemblages.

The Qualla Ceramic Series

In contrast to the temporally and geographically restricted Overhill ceramic series, the Qualla ceramic series was constructed with data from regional surveys and excavations at a number of historic and prehistoric sites in western North Carolina. Consequently, it offers a much broader culture history framework. Indeed, in forty years of research in western North Carolina, archaeologists have been able to demonstrate that the Qualla ceramic series represents a 500-year long South Appalachian pottery tradition (Egloff 1967; Hally 1986a, 1994; Keel 1976; Riggs and Rodning 2002; Rodning 2004; Ward and Davis 1999; Wilson and Rodning 2002). Thorough histories of the development of this ceramic series can be found in other works (Riggs and Rodning 2002; Rodning 2004); therefore, here I offer a brief summary.

Egloff (1967) first defined the Qualla series in his M.A. thesis. In this work, Qualla-series pottery was distinguished by grit tempering, surface treatments including carved paddle stamping and bold incising, and folded and pinched rimstrips (Egloff 1967:34-35). Egloff found that Qualla-series pottery was distributed primarily in the Middle, Valley, and Out Town Cherokee settlement divisions and not in the Overhill and Lower settlement divisions. It would later be shown that the lack of Qualla-series pottery in the Lower Cherokee settlement division was a spurious finding that resulted from sample bias (Hally 1986a). The bias resulted from Egloff's selection of excavation contexts from sites in the Lower Cherokee settlement division that were much earlier than samples from the other settlement divisions (Hally 1986a:109-110). A decade later Keel's (1976) analysis of the pottery assemblage from the Tuckaseegee site (in the Out Town area of western North Carolina) confirmed Egloff's definition of the Qualla series and expanded it to include brushed surface treatments.

After this initial period of establishing the definition of Qualla-series pottery, research shifted focus to exploring how variability within this series might relate to the temporal dimension. Dickens (1979) took the first step in this endeavor by proposing a distinction between an early (ca. A.D. 1450-1650) and a late (ca. A.D. 1650-1838) subdivision of the Qualla archaeological phase. This separation reflected the distinction between pre- and post-Contact time periods, but unfortunately Dickens never explained how this temporal split was materialized in the Qualla ceramic series. Some twenty years later, Ward and Davis (1999:180-183) established three subdivisions for the Qualla phase. They extended the beginning of the Qualla phase backward in time by conjecturing an unidentified Early Qualla phase that predated A.D. 1450. They hypothesized that this subphase would include pottery styles similar to Early Lamar ceramic series like Wilbanks in northern Georgia and/or Dallas in eastern Tennessee. Later analyses by Riggs (et al. 1997) and Rodning (2004; Riggs and Rodning 2002) would confirm the existence of this provisional phase. The Middle Qualla phase (ca. A.D. 1450-1700) was characterized by carved paddle stamped jars with notched rimstrips and the appearance of incised cazuelas. The Late Qualla phase (ca. A.D. 1700-1838) ceramic assemblages were described as having very similar surface treatments to Middle Qualla phase assemblages; however, Ward and Davis (1999:181, 268) noted that curvilinear motifs gradually replaced rectilinear motifs through time. Late Qualla phase assemblages were also characterized by the absence of the cazuela vessel form and the introduction of the "rolled" rim. As will be discussed below, the recent work done by Riggs (Shumate et al. 2005) and Rodning (2004; Riggs and Rodning 2002) has done much to further refine the Qualla ceramic series by identifying more fine-grained diachronic patterns of change involving surface treatment, vessel form, and rimstrip morphology.

After considering the radiocarbon dates calculated for features at the Coweeta Creek site in western North Carolina, Rodning (2004:312) made slight alterations to the calendrical date ranges assigned to the three Qualla phases by Ward and Davis (1999). Rodning's (2004:312) new phase ranges include: Early Qualla Phase (ca. A.D. 1300-1500), Middle Qualla Phase (ca. A.D. 1500-1650), and Late Qualla Phase (ca. A.D. 1650-1838).[1] The portion of the ceramic series related to the Early Qualla phase was defined by assemblages recovered from the Cherokee Casino site and the Coweeta Creek site (Riggs et al. 1997; Rodning 2004). These assemblages contained both curvilinear and rectilinear complicated stamped surface treatments, with the latter tending to be more numerous. Less numerous but highly diagnostic Early Qualla phase surface treatments included diamond check stamping, red filming, and wiping that resulted in the extrusion of temper particles to the vessel surface (called "coarse plain"). Sherds having a compact sandy paste, rimstrips with "saw-tooth" notching, and unmodified rims (i.e., lacking rimstrips) were also highly diagnostic of this subphase (Riggs and Rodning 2002:39;

Rodning 2004:314). Early Qualla vessel assemblages contained everted-rim jars with and without rimstrips, tall-neck jars with unmodified rims (resembling late Savannah phase jars), and small red filmed bowls with simple incised motifs. Incised cazuelas were rare.

Middle Qualla phase ceramic assemblages were dominated by curvilinear and rectilinear complicated stamped surface treatments. During this subphase, however, curvilinear motifs including scrolls (so-called figure "9" and figure "P"), concentric circles, keyholes, and wavy lines were much more frequent (Figure 4.2). Minority surface treatments included cord marking, smoothing (i.e., plain), and cob roughening, and Middle Qualla phase assemblages lacked the distinctive diamond check stamping of the previous subphase (Rodning 2004: 314). Also, incising became a much more prevalent surface treatment during the Middle Qualla phase with both curvilinear and rectilinear motifs being present (Riggs and Rodning 2002:43-44). The increase in incising as a surface treatment was due to a dramatic increase in the frequency of the cazuela vessel form in Middle Qualla phase assemblages. This vessel form had a sharply carinated profile featuring complicated stamping beneath the shoulder and incising above. Middle Qualla phase vessel assemblages also included jars with highly everted rims and pinched and flattened rimstrips, as well as small restricted orifice hemispherical bowls with folded and punctated rims (Shumate et al. 2005:6.10-6.11).

Rectilinear complicated stamping, particularly featuring panel and line block motifs, and square check stamping became dominant surface treatments during the Late Qualla phase (Riggs and Rodning 2002:45). Incising was present in much diminished frequencies early in the subphase, and this surface treatment virtually disappeared from

Qualla assemblages along with the cazuela form after the mid-eighteenth century (Rodning 2004:312). Jars forms during the Late Qualla subphase had excurvate rather than highly everted rims, and they featured much more prominent coronal rimstrips. These rimstrips were more often stylus notched than pinched and flattened (Rodning 2004:312). By the late eighteenth century, Qualla vessel assemblages also included significant numbers of medium and large flat-bottomed pans (Riggs and Rodning 2002:45).

Riggs's (Shumate et al. 2005) study of a Qualla series pottery assemblage from the Alarka farmstead site provided a notable example how small pottery assemblages recovered from household sites with short occupation spans can contribute greatly to increasing the temporal resolution of ceramic chronologies. The Alarka site consisted of the structural remains of a winter and summer house pair and a small number of subterranean pits. Little evidence for architectural repair suggested a relatively short (less than 10 years) occupation of the site by a single household. The pottery assemblage recovered from the site numbered just less than 1,000 sherds and represented a minimum assemblage of 34 vessels. The assemblage exhibited diagnostic ceramic attributes dating primarily to the Middle Qualla phase, but the assemblage also included some attributes of the Late Qualla phase. The majority of complicated stamped sherds in the assemblage featured curvilinear motifs; jars with highly everted rims and pinched and flattened rimstrips (Middle Qualla) as well as jars with excurvate rims and prominent notched coronal rimstrips (Late Qualla) were present (with the former type predominating); a relatively large number of incised cazuelas were present in the vessel assemblage (Middle Qualla); restricted orifice hemispherical bowls with folded and punctated rims were also present (Middle Qualla). In regard to the Qualla ceramic series, Riggs concluded that this mixture of attributes represented what one would expect from a late Middle Qualla phase assemblages dating to the mid-seventeenth century.

Implications for the Present Study

From the review presented above, it is clear that the Qualla series chronology is much more robust than that of the Overhill series (Figure 4.1). Indeed, using this chronology we can identify diagnostic pottery attributes associated with late seventeenth- and early eighteenth-century Cherokee (late Middle Qualla phase) pottery assemblages (Shumate et al. 2005). Additional research is desperately needed to address the lacuna in the pre-eighteenth-century portion of the Overhill-series pottery chronology, a gap that has seriously hampered the construction of histories for Cherokee groups in eastern Tennessee.

With the exception of Egloff's (1967) research, the historical development of the Overhill and Qualla ceramic series has proceeded separately. These separate research histories have greatly impacted the way pottery has been related to the history and prehistory of Cherokee communities – especially Overhill communities. As a result of the isolated nature of Cherokee research, Middle, Valley, Out Town, and Lower Cherokee settlement divisions currently appear as a coherent group whose deep regional histories are evinced in the half-millennium long Qualla series (Riggs and Rodning 2002; Rodning 2004). Overhill communities, on the other hand, appear enigmatic because their style of potting is so different from Qualla (i.e., shell-tempered with plain surfaces) and because this style is not manifested in an unbroken regional ceramic sequence spanning multiple centuries. In terms of temper (i.e., shell), surface treatment (i.e., plain), and basic vessel form, Overhill assemblages are similar to the wares of the preceding Dallas and Mouse Creek phases in eastern Tennessee; however, the temporal distribution of these two prehistoric phases only extends into the late sixteenth century. This leaves an apparent gap in material culture assemblages spanning the entire seventeenth century – a gap that has fueled the debates over the origins of the Overhill Cherokee in eastern Tennessee (Dickens 1979; Schroedl 1986a:533, 1986b). My study directly addresses the gap.

What has not been considered is the possibility that components of the Overhill ceramic series spanning this gap exist, but that these components were stylistically different from earlier sixteenth-century assemblages *and* later eighteenth-century assemblages. This would logically include entertaining the possibility that earlier Overhill-series pottery assemblages were much more diverse than mid- to late eighteenth-century assemblages and that these earlier Overhill assemblages were in some ways similar to contemporaneous Qualla-series assemblages. As will be shown in Chapter 6, the Cherokee pottery assemblage recovered from the Townsend sites represents just such a scenario. Indeed, the analyses demonstrate that the potting traditions practiced in these late seventeenth- and early eighteenth-century households were not nearly as homogenous as they were in the mid-eighteenth century. The results also refute the implicit notion that the potting traditions represented by the Overhill and Qualla series remained geographically isolated until the large-scale refugee migrations associated with the American Revolutionary War (Baden 1983:148-149; Bates 1986:322; Russ and Chapman 1983:82-83).

Chronology from Glass Beads: The English Period in the Southeast, ca. A.D. 1607 - 1783

For Eastern Woodlands archaeologists, glass trade beads are among the small suite of artifacts that mark the watershed moment when Europeans first came into contact with Indian groups living in eastern North America. Indeed, it is widely known that glass beads accompanied Columbus on his first voyage to the New World and continued to be an integral part of Native American material culture assemblages well into the nineteenth century (Good 1983; Smith and Good 1982). For decades, research concerning glass beads has been pursued by archaeologists who see value in the ability of beads to aid in assigning precise occupation dates to historic sites. The alluring promise held by beads is understandable, for the combination of ubiquity in the archaeological record and celerity in style change is the stuff of robust artifact chronology. Research conducted over the last 50 years has gone a long way toward realizing the chronology-building potential of glass beads. This work can be summarized best geographically with regard to three regions of eastern North America – the Northeast, the Midwest, and the Southeast.

The Northeast

In the Northeast, archaeological literature concerning glass trade bead chronologies has been dominated by seriations of bead assemblages recovered from sixteenth- through eighteenth-century Dutch, English, Iroquois, and Huron contexts (e.g., Bennett 1983; Fenstermaker 1974; Huey 1983; Kent 1983; Kenyon and Kenyon 1983; Rumrill 1991; Wray 1983). The methods used in seriating the bead assemblages vary greatly among these researchers. On one end of the spectrum, there are quantitative seriations that emphasize changes in the relative percentages of different bead types through time (e.g., Huey 1983; Kent 1983). Kent (1983), for example, offered a frequency seriation of bead types (using the classification system developed by Kidd and Kidd [1970]) across numerous sites in the Susquehanna Valley whose occupation spans ranged from the 1570s to the 1760s. The results of his seriation evinced the classic "battleship-shaped" curves reflecting the monotonic increase and decrease in the popularity of particular bead styles through time. The seriation solution he offered highlighted a temporal trend from assemblages dominated by simple and compound tumbled beads in the late sixteenth and early seventeenth centuries, to those dominated by compound tubular beads in the early and mid-seventeenth century, to assemblages dominated by mandrel wound beads in the late seventeenth and eighteenth centuries.

On the other end of the spectrum of seriation techniques used in the Northeast are those that construct chronologies by marking the presence or absence of certain bead types at sites dating to different time periods (e.g., Bennett 1983; Fenstermaker 1974; Kenyon and Kenyon 1983; Rumrill 1991; Wray 1983). These chronologies, which compose the majority of the published seriations in the Northeast, are more qualitative than quantitative. Researchers speak of the "average" assemblage that one finds on sites dating to a particular time period, or of a particular type of bead that is unique to a certain period.

Wray's (1983) study of Seneca trade bead assemblages offers a great example of this method. Wray presented a chronology of bead types (using Kidd and Kidd 1970) based on his reconstruction of the migration sequence of certain Seneca villages between A.D. 1550 and A.D. 1820. He divided the sequence into 15 to 20-year periods that roughly corresponded to the typical occupation span of a Seneca village. For each period, he provided a list of the key types of beads recovered from sites dating to this period. His method of seriation was especially adroit at identifying the introduction and "dropping out" dates of certain bead types through time.

Despite the difference between quantitative and qualitative methodologies, the chronologies of the Northeast share two premises. First, in all of the chronologies the archaeological site is used as the basic analytical unit. Thus, each assemblage of beads represents the entire occupation span of that site. Furthermore, the arraying of these site-level bead assemblages proceeds from known occupation dates, determined either by reference to historical documentation or other temporally sensitive artifacts. Consequently, the chronological order of the assemblages is taken as a given, and the task of the researcher is to look for the differences in the bead types among the assemblages.

The Midwest

In the Midwest, attempts at glass trade bead chronology are best exemplified by Good's (1972) analysis of glass beads from the Guebert Site in Illinois and Stone's (1974) analysis of the assemblage from Fort Michilmackinac in Michigan. Respectively, these archaeological contexts represent a Kaskaskia Indian village occupied between A.D. 1719 and A.D. 1833 and a French-then-English occupied colonial fort dating to between A.D. 1715 and A.D. 1781. Because the main goal for each author was to produce an archaeological site report, their analyses were necessarily focused on issues of taxonomy for a single assemblage rather than the chronological ordering of a group of site-level assemblages. As a result, the authors used a very different methodology for building a chronology of glass trade beads. Most importantly, Good (1972:95-98) and Stone (1974:88-90) made bead *types* rather than bead *assemblages* the focus of their chronology. Although their typologies were somewhat different, the authors (and virtually all researchers since) relied upon attributes of shape, color, method of manufacture, and decoration in creating these types. Ultimately, the goals of this classification were to establish a range of dates for the circulation of each bead type and to identify its European trading source (i.e., French or English). In order to fulfill these goals, they conducted comparative research by examining bead assemblages from other sites with established occupation dates and European colonial affiliations. From these comparisons, they were able to estimate a range of circulation dates and establish the likely trading sources for many bead types.

The Southeast

Researchers constructing glass bead chronologies in the Southeast have utilized a combination of seriation methods and type-based comparative methods (e.g., Brain 1979; Brown 1976; Deagan 1987; Polhemus 1983; 1987; Smith 1983; 1987). For his report on the Toqua site, Polhemus (1983, 1987) performed what he called a "sequential seriation" on glass bead assemblages recovered from individual burials at various sites in east Tennessee. The method used by Polhemus was novel in that he made the individual burial assemblage the basic unit of analysis in his chronology rather than the site-level assemblage or bead type. He argued that burial assemblages were best for his seriation because burial contexts represented short-duration closed contexts where the co-occurrence of bead types almost certainly represented their contemporaneity. The exact seriation methods Polhemus used are not clear, but in the resulting chronology, he (1987:914) suggested that glass bead assemblages in eastern Tennessee dated either to the seventeenth or mid-eighteenth centuries.

Smith (1983) and Deagan (1987) each have offered glass bead chronologies that focus on the Spanish colonial period in the southeast (ca. A.D. 1500-1700). In a manner similar to Good (1972) and Stone (1974), both authors traced the presence or absence of particular bead types across a chronologically ordered series of sites whose occupation dates were to a large extent known. These seriations resulted in estimated date ranges for the circulation of various bead types that are commonly found on Indian and Spanish colonial sites occupied between the sixteenth and eighteenth centuries. As in the case of the Northeast, their identification of the introduction and "dropping out" dates of particular bead types has been a great aid in dating bead assemblages recovered from undocumented sites. The so-called "flush eye" bead, for example, which was found to have a relatively short circulation period ca. A.D. 1575-1630, has become a good "index fossil" (Smith 1982).

In the Lower Mississippi Valley, Brain's (1979) seminal typology and chronology of the large glass bead assemblage from the Trudeau site is very much in the same vein as the chronologies developed by Good (1972) and Stone (1974). Like these researchers, Brain was interested in establishing ranges of dates for the circulation of his bead types, as well as identifying possible markers for particular European trading sources. Also, many of the bead types he identified from the mid-eighteenth-century Tunica village were the same as those likely traded by the French at the Guebert site and at Fort Michilmackinac. Brain (1979:114) assigned mean dates and date ranges for many of his bead types based on the occupation spans of numerous sites with comparative assemblages (see also Brown 1976 for a similar "bracketing technique" of dating assemblages). He also produced a series of regional maps depicting the geographical distribution of key bead types though time (Brain 1979:117-131). Today this typology and series of maps remain very important contributions to our knowledge of eighteenth-century beads, especially those beads traded by the French.

The preceding discussion is not meant to be exhaustive. There are indeed many additional reports in the literature, but the varied forums for their publication, which include research manuscripts, regional journals, and cultural resource management reports, make them somewhat difficult to track down. In the Southeast, these reports often deal with assemblages from individual sites with relatively small sample sizes (e.g., Polhemus 1985; Smith 1991, 1992, 2001, 2002b). The methods used in these reports are similar to those followed by Good (1972), Stone (1974), and Brian (1979) and involve classification and comparison to other assemblages with the goal of placing the study assemblage within a chronological and cultural context. Many of these reports contain very important insights that contribute to our growing knowledge of glass bead chronology in the Southeast. A synthesis of these insights is desperately needed.

Our ability to use glass trade beads in dating historic occupations has progressed a great deal; however, there are some areas that require additional research. The particular area of my research interest involves glass trade bead assemblages associated with seventeenth- and eighteenth-century English-Indian trade in the Southeast. In the Southeast, the best chronological resolution established by current bead chronologies relates either to sixteenth- through mid-seventeenth-century Spanish traded bead assemblages or mid-eighteenth-century French traded bead assemblages (Deagan 1987; Brain 1979; Brown 1976; Smith 1983, 1987; Smith and Good 1982). While the Northeast contains English-traded bead assemblages dating to the seventeenth and eighteenth centuries, many of the related diagnostic bead types are simply absent in southeastern assemblages (Smith 1983:151).

Additionally, small sample sizes impose two major limitations that reduce the temporal resolution of existing bead chronologies in the Southeast (Smith 1983:147-148). First, in most cases bead assemblages from individual burials or features have had to be lumped together at the site level. In many cases, these sites were occupied for several decades or more. Second, because small samples preclude the possibility of seriating assemblages based on relative frequencies of bead types, researchers have been forced to rely solely on the presence or absence of particular diagnostic bead types at sites to assign occupation dates. The combination of using lumped site-level assemblages and presence/absence has resulted in chronologies with very large date ranges for many bead types (see mean dates and ranges for individual bead types in Brain [1979:114] for an example). I follow Smith (2002b:58) in arguing that we should strive to overcome these limitations and construct bead chronologies that take into account the total bead assemblage from a context or site rather than the presence of a single bead type. I further argue that this can be accomplished by performing a quantitative seriation of relatively large glass bead assemblages from individual contexts whose chronological associations are certain – specifically, bead assemblages found in mortuary contexts.

This chapter addresses my attempt to perform a quantitative seriation (using a technique known as *correspondence analysis*) of numerous glass bead assemblages recovered from mortuary contexts at various seventeenth- and eighteenth-century sites across the Southeast (Figure 4.4; Table 4.1). The seriation technique I am introducing orders mortuary assemblages by comparing the relative frequencies of various bead types found in each assemblage.

The Study Sample

This study focuses on a period that marks the English/British colonial presence in the Southeast book-ended by the founding of Jamestown colony and the end of the American Revolutionary War (ca. A.D. 1607-1783). I focus on this period for two principal reasons. First, I want to produce a bead chronology that complements, rather than duplicates, existing chronologies like Smith's (1983) important chronology of the preceding Spanish period or Brain's (1979) work with French-traded eighteenth-century Tunica bead assemblages. Second, as stated in the opening of this chapter, there is a significant gap in our knowledge of undocumented seventeenth- and early eighteenth-century Indian communities in the interior Southeast.

I limit my sample to mortuary assemblages because they represent virtually instantaneous deposition events (Steponaitis 1983). The contemporaneity of bead assemblages from pit features, surface collections, and middens is much less certain; more likely, these contexts are the result of accumulation over a longer period of time. Thus, while there may be some time lag associated with the heirlooming of beads in some mortuary contexts, using these assemblages in a seriation results in the best chronological clarity.

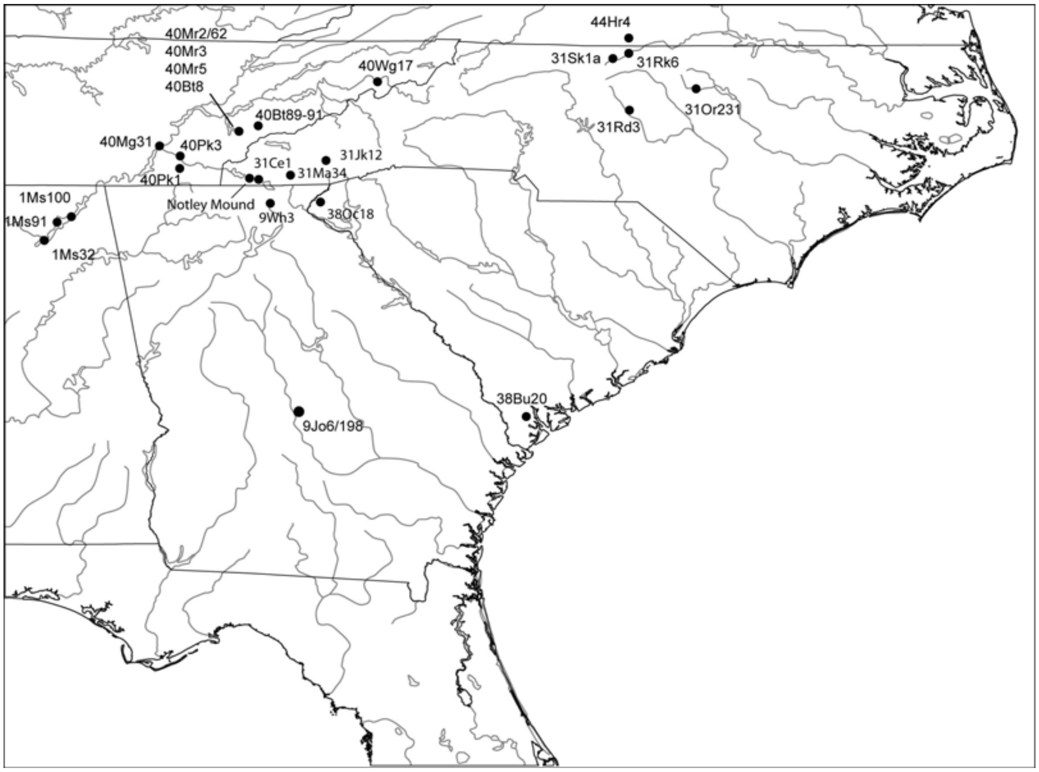

Figure 4.4. Locations of glass trade bead assemblages used in this study.

Table 4.1 Archaeological sites with glass bead assemblages used in the study.

Site	State	Occupation Range	References
Law's Site (1Ms100)	AL	1630-1690	Fleming 1976; Smith 1987
McKee Island (1Ms32)	AL	1630-1690	Fleming 1976; Smith 1987
Columbus City Landing (1Ms91)	AL	1630-1690	Fleming 1976; Smith 1987
Tarver and Little Tarver (9Jo6, 9Jo198)	GA	1695-1715	Pluckhahn 1996, 1997
Upper Saratown (31Sk1a)	NC	1650-1690	Eastman 1999; Ward and Davis 2001
Brickyard (31Rd3)	NC	Unknown	Eastman RLA[a]
Fredricks (31Or231)	NC	1680-1710	Eastman RLA; Ward and Davis 1993
Madison (31Rk6)	NC	1607-1690	Eastman 1999; Ward and Davis 1993
Philpott (44Hr4)	VA	1620-1670	Eastman RLA; Ward and Davis 2001
Altamaha Town (38Bu20)	SC	1700-1715	Poplin personal communication 2006
Plum Grove (40Wg17)	TN	1600-1700	Smith 1987, n.d.
Chota-Tanasee (40Mr2, 40Mr62)	TN	1700-1820	Newman 1986
Townsend (40Bt89-91)	TN	1650-1720	This report
Ocoee (40Pk1)	TN	1650-1700	Lewis and Kneberg 1995; Smith 1987
Hiwassee Island (40Mg31)	TN	1650-1700	Lewis and Kneberg 1946; Waselkov 1989
Tallassee (40Bt8)	TN	1600-1780	Cornette 1976; Waselkov 1989
Mialoquo (40Mr3)	TN	1760-1780	Russ and Chapman1984
Tomotley (40Mr5)	TN	1750-1776	Baden 1983
Hiwassee Old Town (40Pk3)	TN	1700-1760	Fenstermaker 1978
Notley Mound	NC	Unknown	Turbyfill 1927
PeachtreeMound (31Ce1)	NC	1550-1780	Setzler and Jennings 1941; Skowronek 1991
Tuckaseegee (31Jk12)	NC	1650-1700	Keel 1976
Nacoochee Mound (9Wh3)	GA	1600-1700	Heye et al. 1918; Waselkov 1989
Chattooga	SC	1650-1740	Schroedl 1994
Coweeta Creek	NC	1300-1715	Rodning 2004

[a] The unpublished bead data from these sites are taken from analyses performed by Jane Eastman for the Research Laboratories of Archaeology, University of North Carolina at Chapel Hill.

Currently, the database I have compiled contains 549,569 beads representing 242 individual mortuary assemblages recovered from 16 sites across the Southeast. These data are obtained from published sources, collections records, and my own analyses. Given that other researchers generated the majority of the data in this study and because seriation is a comparative technique, issues of taxonomy are of utmost importance. This study employs the glass bead classification system pioneered by Kidd and Kidd (1970) because it is the most widely used and easily understood.

Most of the data obtained for this study from published sources are recorded in the Kidd and Kidd (1970) format (Pluckhahn 1996, 1997; Newman 1986; Smith 1987, n.d.). Victor Fleming (1976) uses a slightly different classification system in his analysis of bead assemblages from the Guntersville basin, as does Jane Eastman (1999) in her analyses of assemblages from sites in North Carolina. In these analyses, data regarding method of manufacture, size, shape, diaphaneity, and decoration are identical to the Kidd and Kidd (1970) classification system. The biggest obstacle to converting these data into the Kidd and Kidd (1970) taxonomy is the difference in color descriptions. Fleming (1976) includes Munsell values for bead colors, so translating these into the color values used by Kidd and Kidd (1970) is a relatively straightforward process using Karklins's (1985) color equivalency tables. This is not the case for the collections analyzed by Jane Eastman. For those assemblages, one week was spent at the Research Laboratories of Archaeology at the University of North Carolina in order to develop a method for converting color descriptions. I developed a consistent color conversion method by comparing a large sample of beads representing all of the color descriptions used in Eastman's (1999) analysis to the color charts in Kidd and Kidd (1970). The resulting database structure used in this study includes provenience, color, shape, size diaphaneity, decoration, and the related Kidd and Kidd (1970) bead type and number (e.g., IIa40, IIbb12). Unique codes are given to those beads that do not have an established number in the Kidd and Kidd classification system. In order to identify these beads easily, they are assigned values ranging from 990 to 1008 (e.g., IIb990, IIb1004).

The dataset I use in this study is restricted in the interest of fulfilling the data requirements of the seriation technique and in order to provide the clearest seriation solution possible. The largest cut involves simple monochromatic seed beads. These are by far the most common beads in the sample. The beads are left out because they compose such a significant portion of every assemblage that they drown out the chronologically significant variability in the other bead types. Seed beads of compound construction, however, are left in the sample because their distribution across the assemblages is much more restricted and they are more likely to be temporally diagnostic (Deagan 1987; Smith 1983). After conducting numerous preliminary seriation trials, the sample is also limited to assemblages containing more than 20 beads. This threshold quantity is used because it alleviates most problems related to sample-size while maximizing the number of assemblages that can be included in the analysis. The data requirements for the seriation technique further require limiting the sample to those assemblages containing two or more types of beads. Finally, a few large assemblages are excluded as "outliers" because their size and composition are so radically different from the rest of the sample that they drastically skew the results of the seriation. Ultimately, this culling reduces the sample to 98 mortuary assemblages from 16 sites containing 37,381 beads representing 45 bead types (Appendix A1).

There are a couple of important issues associated with this study sample that doubtless affect the results of the seriation. First, there is the fact that the classifications of the beads in the sample are made by numerous researchers. While the Kidd and Kidd (1970) classification system greatly increases the objectivity of taxonomic procedures, a subjective element always remains. As such, the study sample may include misclassifications made by the original researcher as well as mistranslations on my part. Second, the study sample contains an overrepresentation of bead assemblages that were likely traded during the late seventeenth and early eighteenth centuries. As such, the seriation results will likely be less accurate for earlier and later time periods.

Seriation Method

The method used here to construct a glass bead chronology for the Southeast differs significantly from methods used in previous studies (e.g., Brain 1979; Deagan 1987; Polhemus 1983; Smith 1983). First, the large sample affords the opportunity to forgo combining assemblages at the site level and allows individual mortuary assemblages to become the unit of analysis. Second, the chronology developed in this study uses a quantitative multi-dimensional seriation method based on the relative frequencies of different bead types. Third, the seriation technique used in this study does not proceed from known occupation dates for sites. Instead, this study uses an exploratory and nonparametric seriation technique that attempts to identify patterns in a dataset without any previous assumptions.

In the Southeast, material culture seriations have historically been associated with "Fordian" frequency seriations of ceramic assemblages. This method results in classic figures portraying the "battleship-shaped" frequency distributions of chronologically ordered ceramic assemblages (Dunnell 1970; Phillips, Ford, and Griffin 1951). Recently, authors have critiqued this traditional method of seriation citing the largely intuitive nature of the procedure, inherent problems of closure when using percentages, and the inability of the method to portray variability in more than one dimension (e.g., Mainfort 2005; McNutt 2005). For these reasons, I use an alternative multidimensional method of seriating glass bead assemblages.

This seriation method is called correspondence analysis (CA) (see Baxter 1994; Shennan 1997). CA is a powerful multivariate statistical technique that has been used widely for seriating artifact assemblages in European archaeology (e.g., Bech 1988; Madsen 1988). One rarely sees CA, however, in the archaeological literature of North America (see Duff 1996 for a notable exception). The relative obscurity of CA is curious given that the technique is based on straight-forward and fundamental statistical logic – essentially the same logic that underlies the Chi-Square test; unlike other multivariate techniques, it requires no assumptions of the data and works directly on untransformed artifact frequencies (counts); and like the Chi-Square test, CA is resistant to differences in sample sizes.

One of the largest obstacles to constructing a comprehensive glass bead chronology for the Southeast has been finding techniques that can simultaneously account for variability along dozens of dimensions representing the different bead types. The dataset (data matrix) in this study, for example, consists of 98 mortuary assemblages (rows) and 45 separate bead types (columns) each representing a single dimension of variability (Appendix A1). It is impossible to ascertain any patterns simply by inspecting the data matrix alone. While one could easily plot the mortuary assemblages in terms of the frequencies of two or perhaps three bead types in the same figure, one cannot simultaneously visualize the 45 dimensions that represent all of the bead types. CA is an ordination technique that seeks to represent as accurately as possible the relationships between cases (i.e., individual mortuary assemblages) and between variables (i.e., glass bead types) using a small number of dimensions. Thus, CA solves the dilemma by providing the analyst with a way to visually explore and present multivariate data by reducing the dimensionality of a data matrix. This technique is particularly suited to seriation because one of the major dimensions of variability among artifact assemblages tends to be time.

How CA reduces the dimensionality of a data matrix is a bit involved, but a brief discussion should suffice to make it clearer (see Baxter 1994 and Shennan 1997 for in-depth discussions of CA). CA can be viewed as a more complex Chi-Square test that compares all of the row and column profiles of a data matrix and computes the departure of each case and variable from an average profile. In this study, the average case profile would be a hypothetical mortuary assemblage consisting of the average proportions of each bead type, and the average column profile would simply be the average frequency of each bead type as calculated across all mortuary assemblages. In the biplot produced by CA, the average profiles are represented by the intersection of the *x*- and *y-axes*. Using simple Chi-Square calculations, CA measures both the degree and the direction of departure of each bead assemblage and bead type from the average profiles. In seriation applications of CA, if the artifact types are temporally sensitive, the first dimension of variability (the *x-axis* in the biplot) should represent relative time.

In this study, the correspondence analysis is carried out using the "Correspondence Analysis" module of the Bonn Archaeological Software Package (BASP). This program takes input in the form of a frequency matrix and returns output in the form of distributional biplots and diagnostic statistics. One of the benefits of this program is that it depicts the distribution of individual mortuary assemblages and bead types together in a single biplot. In interpreting the combined biplots in the following discussion, one can infer that mortuary assemblages and bead types located near one another in the biplot are, in relative terms, temporally associated.

Results of the Seriation

The results of the CA seriation are presented in Figures 4.5, 4.6, and 4.7. The seriation solution accounts for approximately 20% of the variability in the entire data matrix using two components. While this figure may seem unimpressive, it represents a significant amount of variability given that there are 98 cases and the number of dimensions is reduced from 45 to only two. A biplot depicting the relationships among the individual glass bead mortuary assemblages reveals two important distributional patterns (Figure 4.5). First, the distribution of the glass bead assemblages has the classic parabola or "twisted one-dimensional object" shape that is the hallmark of chronological seriation using multidimensional techniques (Cowgill 1972; Kendal 1971; Steponaitis 1983). Second, the distribution of glass bead assemblages appears to form at least three and as many as six distinct clusters along the *x-axis* – the axis that likely represents time. The same pattern describes the distribution of bead types (Figure 4.6). When the distributions of individual assemblages and bead types are plotted together, the

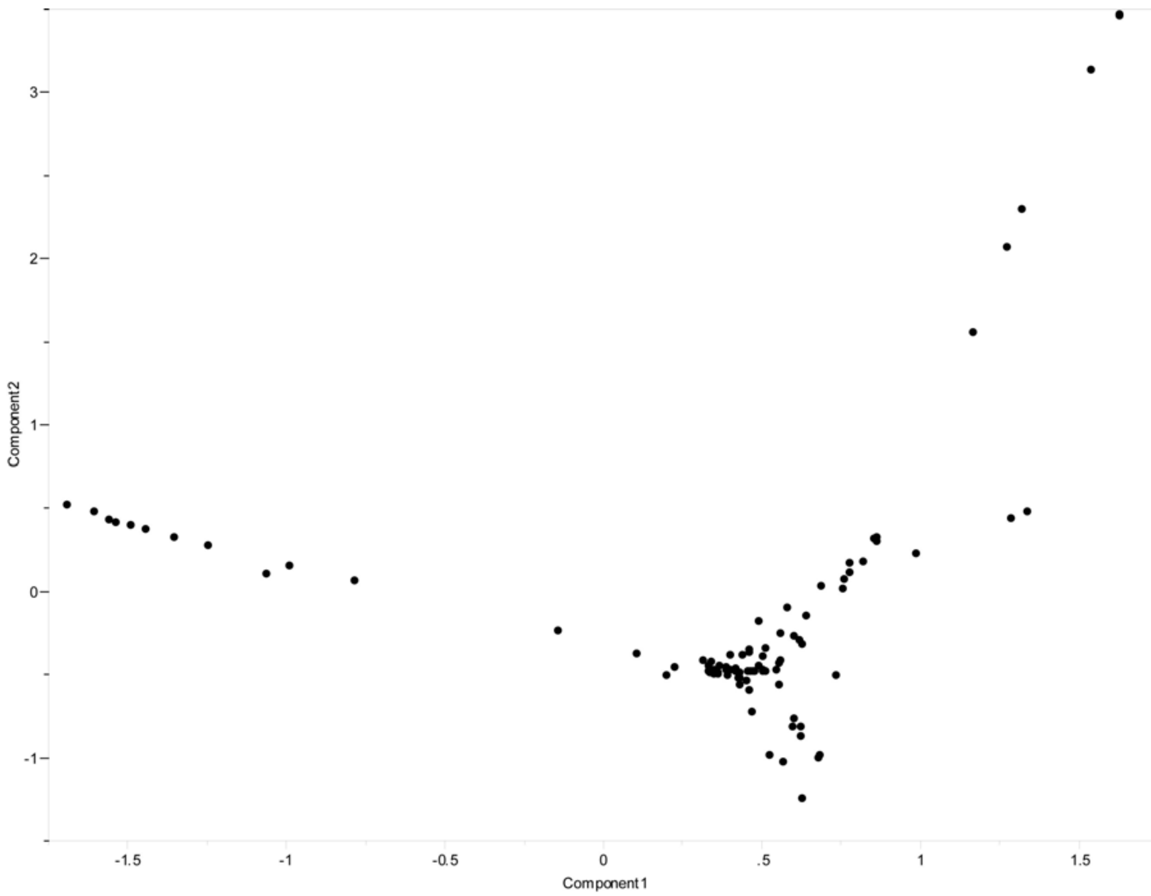

Figure 4.5. Biplot depicting the results of the correspondence analysis seriation of mortuary assemblages.

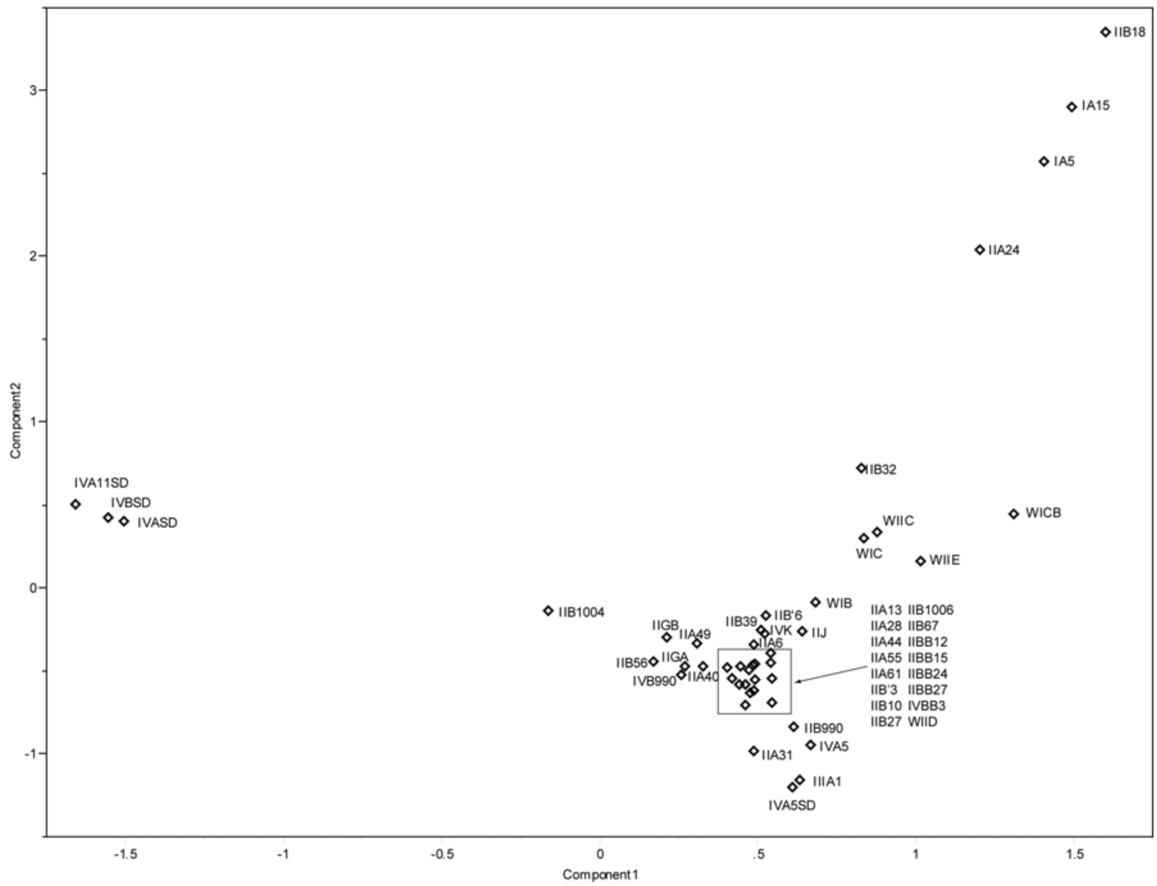

Figure 4.6. Biplot depicting the results of the correspondence analysis seriation of bead types.

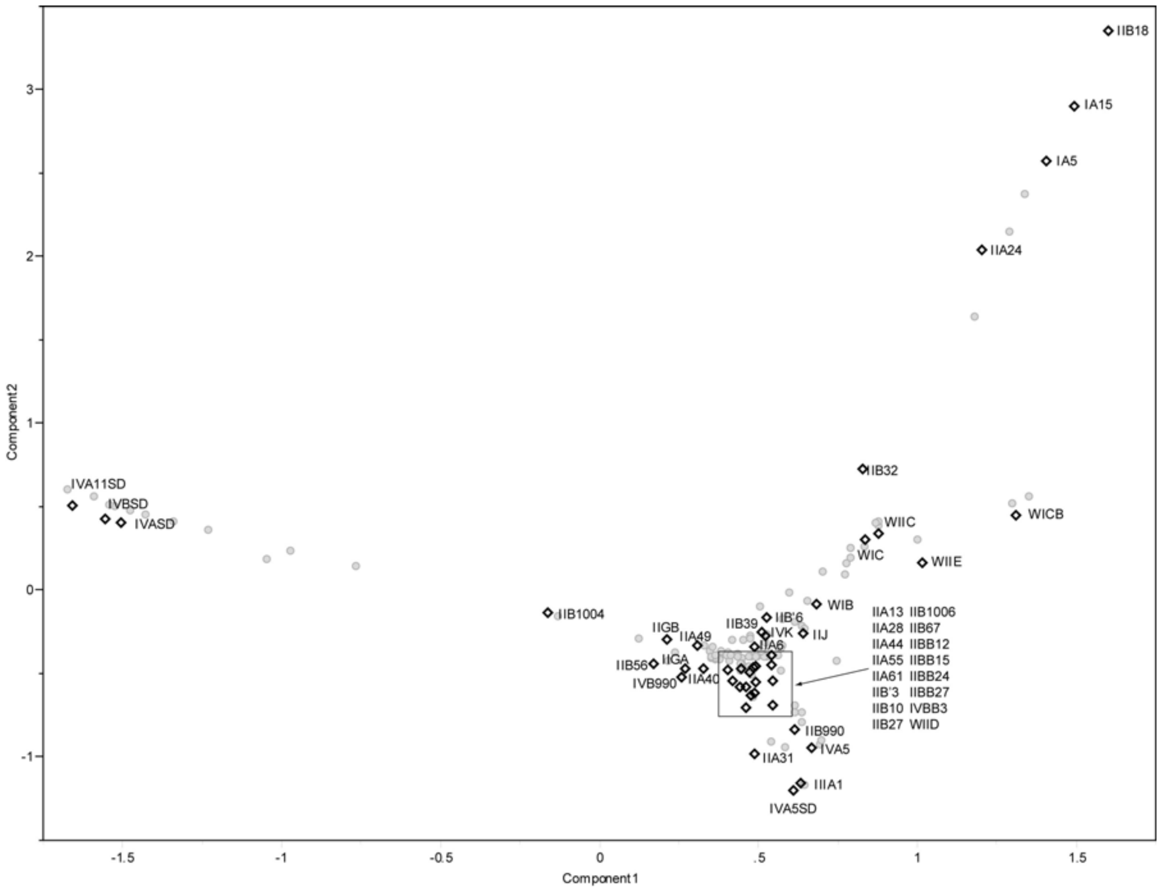

Figure 4.7. Combined biplot depicting the results of the correspondence analysis seriation of mortuary assemblages and bead types.

redundancy of the patterns suggest that there are "meta-assemblages" of glass beads marked by the consistent associations of particular bead types. These "meta-assemblages" are discretely distributed and are likely good chronological markers (Figure 4.7).

A K-means cluster analysis of the CA component scores (the coordinates of each point in the biplot) provides a more objective means to identify and test the feasibility of the glass bead "meta-assemblages." K-means cluster analysis is a nonhierarchical iterative clustering procedure that is particularly well-suited to finding patterns in spatial distributions (Duff 1996; Kintigh and Ammerman 1982; Shennan 1997). The method begins with the analyst defining the number of clusters desired. The procedure then undertakes an iterative process of calculating the cluster centers and boundaries with the goal of minimizing dispersion within the clusters and maximizing dispersion between clusters. After numerous trials, it appears that a six-cluster solution results in the best logical fit (Figure 4.8).

Turning to the composition of the clusters or "meta-assemblages," it is clear that the CA seriation identified some substantive associations among bead types. Furthermore, beyond the parabolic distribution of these "meta-assemblages," there is corroborating evidence indicating that the clusters are chronologically ordered. From this evidence, estimates of temporal ranges for these clusters can be suggested (Figure 4.9; Table 4.2; Appendix A2). The date ranges are based on the results of the current study, on published estimates of date ranges for the sites in the sample, on previous research regarding the chronology of various bead types, and on associations with other well-dated European artifact types (e.g., Deagan 1987; Smith 1982, 1983, 1987, 2002b). The date

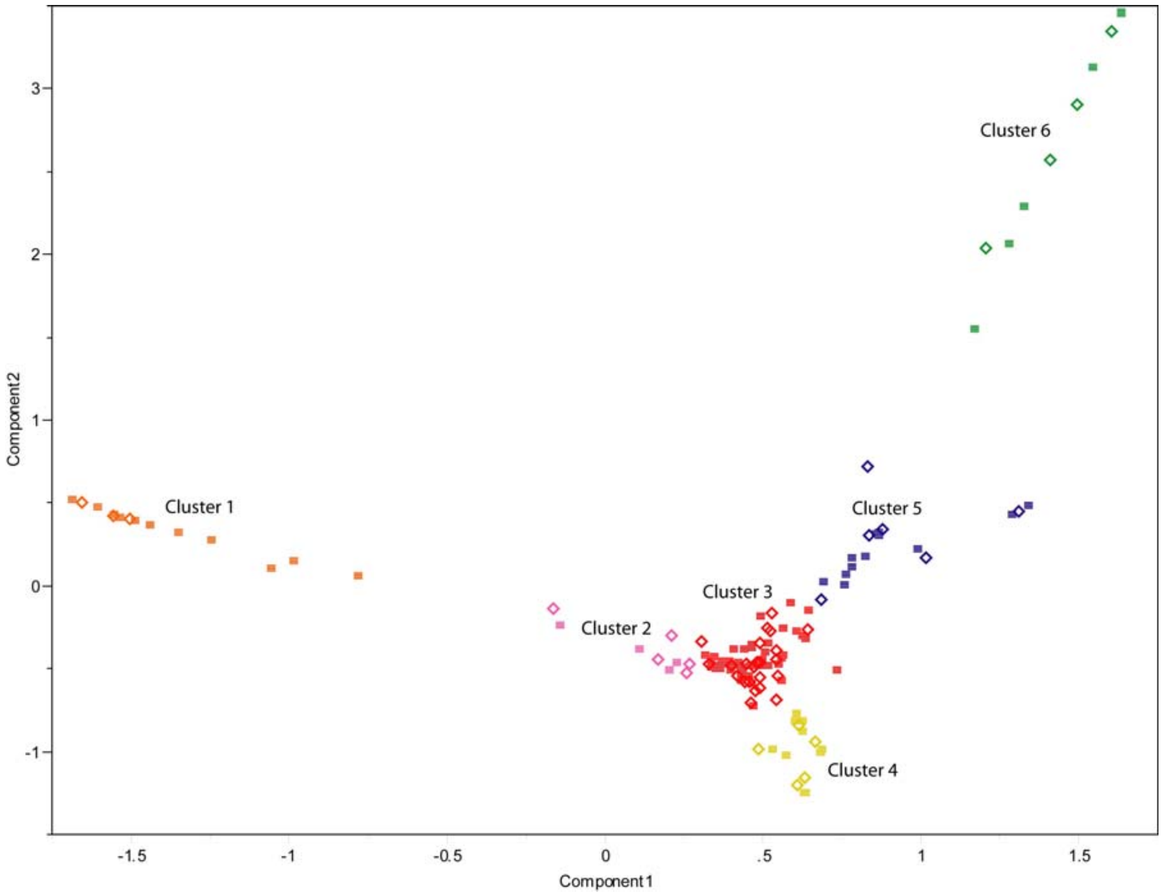

Figure 4.8. Biplot depicting the results of the K-mean cluster analysis.

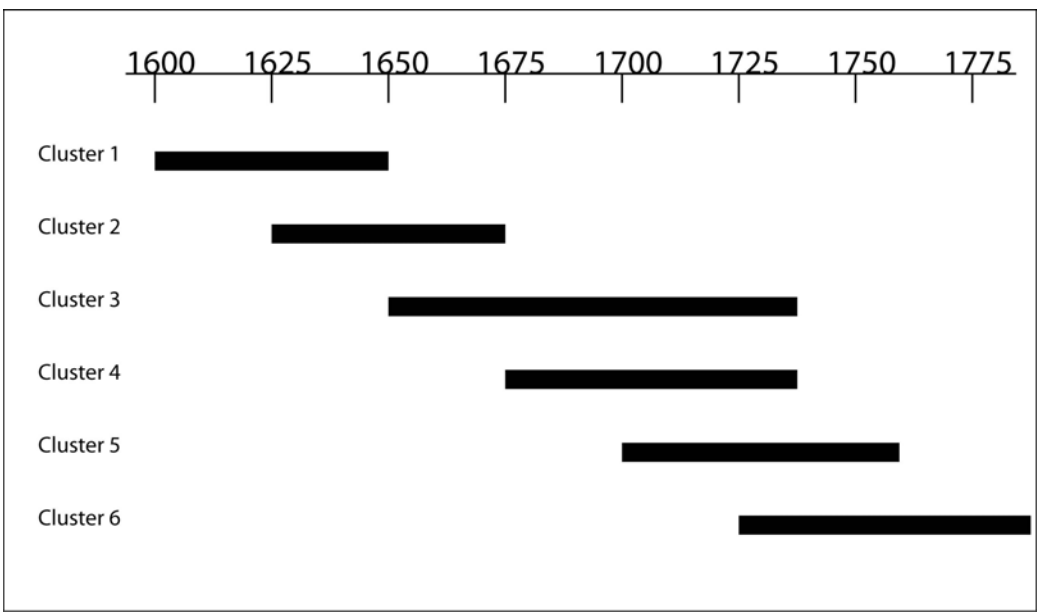

Figure 4.9.Estimated date ranges for glass bead “meta-assemblage” clusters.

Table 4.2. Bead types and mortuary assemblages included in seriation clusters.

Cluster	Bead Types		Mortuary Assemblages[a]		
6	IIa24	Ia15	Mr2-19	Mr2-42	Mr62-1
	IIb18	Ia5	Mr2-29	Mr2-43	Mr2-10
5	IIb32	WIb	Mr2-21	Mr62-10	Ms32-26
	WIIc	WIc	Mr2-46	Mr62-12	Ms91-45
	WIIe	WIcb	Mr2-52	Mr62-20	Pk1-7
			Mr2-76	Mr62-9	Pk1-11
			Mr2-80	Ms100-4	
4	IIIa1	IVa5	Jo6-47	Mr62-4	Or231-11
	IIa31	IVa5sd	Jo6-50	Mr62-6	Or231-2
	IIb990		Jo6-78g	Ms100-56	Or231-6
			Mg31-6	Or231-10	
3	IIa13	IIb1006	Jo6-31	Ms32-13	Sk1a-24
	IIa28	IIb27	Jo6-49	Ms32-16	Sk1a-38
	IIa40	IIb39	Jo6-53	Ms32-22	Sk1a-48
	IIa44	IIb67	Jo6-78c	Ms32-27	Sk1a-50
	IIa49	IIbb12	Jo6-78d	Ms32-31	Sk1a-55
	IIa55	IIbb15	Jo6-78f	Ms32-42	Sk1a-6
	IIa6	IIbb24	Mr2-2	Ms32-44	Sk1a-64
	IIa61	IIbb27	Mr2-32	Ms32-48	Sk1a-65
	IIb'3	IIj	Mr2-38	Ms32-49	Sk1a-68
	IIb'6	IVbb3	Mr2-6	Ms32-68	Sk1a-9
	IIb10	WIId	Mr2-65	Ms91-25	Sk1a-95
			Mr2-66	Ms91-44	Wg17-14
			Mr2-7	Ms91-5	Bt8-90
			Mr62-2	Or231-1	Mg31-3-12
			Mr62-7	Sk1a-1	Mg31-10
			Ms100-13	Sk1a-109	Pk1-1
			Ms100-9	Sk1a-22	Pk1-8
2	IIb1004	IIgb	Rd3-1	Sk1a-13	Sk1a-35
	IIb56	IVb990	Rk6-93		
	IIga				
1	IVa11sd	IVbsd	Rk6-33	Sk1a-36	Sk1a-76
	IVasd		Rk6-65	Sk1a-39	Sk1a-84
			Rk6-112	Sk1a-43	Vir199
			Sk1a-19	Sk1a-51	Wg17-33

[a] Mortuary assemblages are coded as a combination of site number and burial number. See Table 4.1 for site names.

ranges are estimates and should not be interpreted as absolute. Indeed, this seriation will only benefit from additional data, especially the rather loose ranges associated with early seventeenth and late eighteenth centuries.

Cluster 1 (ca. A.D. 1600-1650) contains mortuary assemblages recovered from sites whose occupations are limited to the seventeenth century (Madison, Upper Saratown, Philpott, Plum Grove [Eastman 1999; Smith n.d.; Ward and Davis 1993]). These assemblages are dominated by seed beads composed of two and three layers with clear or light blue translucent cores and opaque outer surfaces (IVasd). Smith (1983) has found that seed beads with transparent cores and opaque outer layers are largely an early to mid-seventeenth-century phenomenon.

Cluster 2 (ca. A.D. 1625-1675) contains glass bead assemblages with so-called "eye beads" (IIg) and translucent navy blue beads with 8-10 white stripes (IIb1004) (Figure 4.10). The cluster contains assemblages from North Carolina Piedmont sites (Madison, Upper Saratown, Madison) whose occupations have been placed in the second half of the seventeenth century (Eastman 1999; Ward and Davis 1993). Smith (1982, 1983), however, has argued that "eye beads" typically occur assemblage dating to the first half of the seventeenth century. The large distance between *Cluster 1* and *Cluster 2* on the CA biplot demonstrates an important caveat about the seriation results – distance in the CA biplot should not be interpreted on an absolute scale. Indeed, it is likely that the date ranges of these assemblages overlap quite a bit.

Cluster 3 (ca. A.D. 1650-1730) is by far the largest and most diverse "meta-assemblage." It is comprised primarily of monochrome and striped necklace beads of simple and complex construction (Figure 4.10). This cluster also contains mandrel-wound "raspberry" beads (WIId). The majority of the mortuary assemblages in *Cluster 3* were recovered from sites with occupations dating to between A.D. 1630 and A.D. 1710. These include Upper Saratown and Fredricks in the Carolina Piedmont (Eastman 1999; Ward and Davis 1991, 1993, 2001); Columbus Landing, McKee Landing and Law's site in the middle Tennessee River valley of northeast Alabama (Fleming 1976; Smith 1987); Tarver and Little Tarver in central Georgia (Pluckhahn 1996, 1997); and Plum Grove (Smith n.d.), Hiwassee Island (Lewis and Kneberg 1946), Ocoee (Lewis and Kneberg 1995), Tallasee (Cornette 1976), and Chota-Tanasee (Newman 1986) in eastern Tennessee. Moreover, a number of mortuary assemblages in Cluster 3 include diagnostic seventeenth-century European-made items such as brass arm bands and cut-out animal effigies (so-called *ex-votos*) (Waselkov 1989), cast bronze rumbler bells (crotals) (Butler 2000; Morris 1959), brass flushloop bells (Brown 1979), doglock muskets (Brown 1980; Fithian 1985; Puype 1985; Shumway 1985), iron hoes and axes (Egloff 1980; Kauffman 1994[1972]), and lateen spoons (Noël Hume 1969; Price 1908; Victoria & Albert Museum 1927; see also Gibson 1980; Rubertone 2001; Simmons 1970; and Turnbaugh 1984 for discussions of similar items among late seventeenth-century Narragansett burial assemblages in New England).

Cluster 4 (ca. A.D. 1670-1730) is primarily comprised of *Cornaline d'Allepo* seed, tubular, and spherical beads (IVa5sd, IIIa1, IVa5) (Figure 4.10). These compound beads with transparent green to almost black cores and opaque red outer layers are usually given a large date range spanning from the late sixteenth century to the mid-eighteenth century. In this study sample, however, the various varieties of the bead are consistently associated with each other and are limited to mortuary contexts at sites with

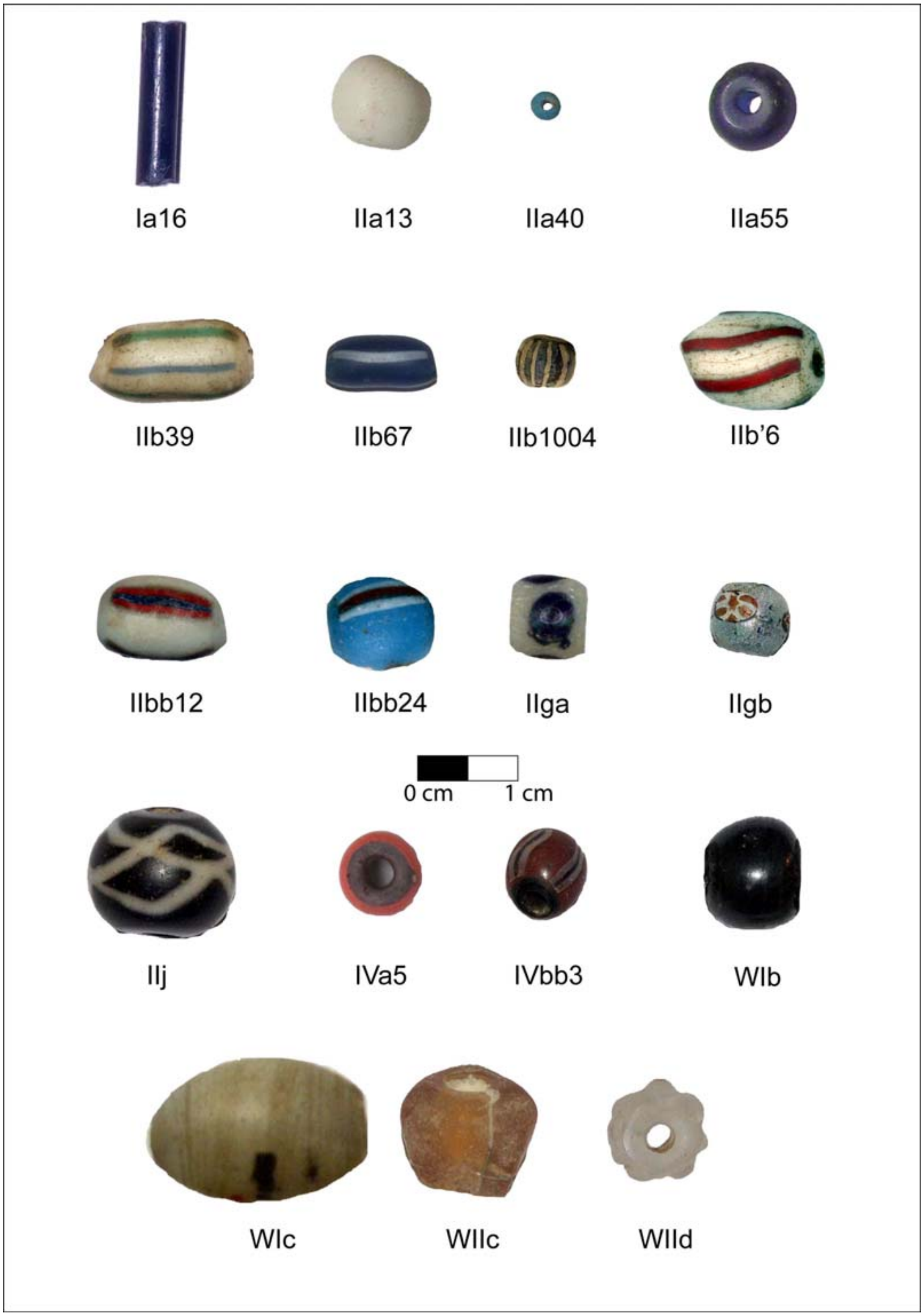

Figure 4.10. Bead types typically found in seventeenth- and eighteenth-century glass trade bead assemblages. (Bead types used in this study are based on the classification system pioneered by Kidd and Kidd [1970]).

occupations spanning from the last quarter of the seventeenth century to the first quarter of the eighteenth century. The sites in this cluster include Tarver and Little Tarver (Pluckhahn 1996, 1997), Law's site (Fleming 1976), Fredricks (Ward and Davis 1993), Hiwassee Island (Lewis and Kneberg 1946), and Chota-Tanasee (Newman 1986).

Cluster 5 (ca. A.D. 1690-1740), a cluster made up of nearly all mandrel-wound beads, contains assemblages that date to the first half of the eighteenth century (Figure 4.10). The earliest mortuary assemblages in this cluster, which are from Columbus Landing, McKee Landing, the Law's site in the Guntersville Basin, and the Ocoee site in eastern Tennessee may be a distinct phenomenon, however, in that all of the mandrel-wound beads in these assemblages are small (6-10 mm), round, and either black, transparent blue, or colorless. The other assemblages in this cluster contain mandrel-wound beads that are larger (10-16 mm) and are from mortuary contexts at the Chota-Tanasee site. These probably date to the second and third decades of the eighteenth century given the lack of silver trade goods in these contexts (Newman 1986:427). Trade silver has long been thought to arrive among the upper Cherokee and other Indian groups after A.D. 1750. Marvin Smith (2002b:59) gives a similar date range for large mandrel-wound beads in French colonial contexts. The inclusion of so-called "barleycorn" beads in *Cluster 5* (WIcb) is probably spurious. These more appropriately belong later in the chronology as part of *Cluster 6*, as they are often associated with trade silver among Chota-Tanasee mortuary assemblages and are specifically mentioned in English trade records from A.D. 1758 until A.D. 1784 (Waselkov 1998:210).

Cluster 6 (ca. A.D. 1725-1783) represents the most recent meta-assemblage in the seriation. The cluster includes the mortuary assemblage associated with the burial of

Chief Oconostota, whose funeral was recorded at Chota in A.D. 1783 (Schroedl and Breitburg 1986:136). While the dominance of small diameter monochromatic tubular beads in this cluster certainly appears to be a good chronological marker for the late eighteenth century, the same cannot be said of the so-called "gooseberry" beads (IIb18) (Figure 4.10). This bead type is known to have been in circulation much earlier in the period, with oval shaped varieties dating as early as the sixteenth century (Deagan 1987; Smith 1983). It appears that the small sample size in this cluster combined with rather large frequencies of gooseberry beads in two late eighteenth-century burials resulted in the misplacement of this type in *Cluster 6.*

Overall, the composition and chronological order of the "meta-assemblage" bead clusters are corroborated by published dates. There are some problems with the seriation order, such as placement of "gooseberry" beads, but these appear to be the result of sampling error – a problem that can be diminished by including additional data from more late sixteenth- and late eighteenth-century contexts. Indeed, the addition of new data from any period will only result in refining the composition of the clusters and improving chronological resolution.

Applying the Chronology

Returning to the goal outlined at the beginning of the chapter, I believe that the seriation method presented here can offer researchers a reasonably accurate method to aid in identifying undocumented seventeenth- and eighteenth-century Indian communities across the Southeast. Although this bead chronology needs improvement (and hopefully it will never be "finished"), I believe that the general framework is sufficiently sensitive at this point to demonstrate the potential of this dating technique. As a way to demonstrate the feasibility of this chronology, I perform another seriation with ten additional site-level bead assemblages from various southeastern sites (Appendix A3). [2]

In order to make the CA seriation technique easier for others to replicate and the results easier to interpret, I modify the mortuary dataset used above by lumping together the bead assemblages at the level of the cluster. Combining the assemblages at this level has no effect on the overall seriation results, and the resulting biplot is "cleaner" and much easier to interpret. The resulting seriation solution depicts how the ten site-level glass trade bead assemblages fall within the chronology presented above.

There are some important issues that should be considered when using this technique. First, there are major differences between bead assemblages recovered from mortuary contexts and those recovered from surface collections, feature contents, or general excavations. Consequently, one needs to be aware of the likelihood that assemblages from these contexts are chronologically mixed. This technique will place a bead assemblage in the seriation based on the relative frequencies of the bead types in the entire assemblage; therefore, the results may mask earlier or later occupations. One easy way of determining this is to see whether the assemblage contains bead types from different chronological clusters. For example, the presence of a few "eye" beads (*Cluster 2*) in a single site-level assemblage dominated by large mandrel-wound necklace beads (*Cluster 5*) indicates either a long-occupation span or two separate occupations at the site. Also, it is important to keep in mind in that the seriation biplot does not measure time on an absolute scale; instead, distance is a factor of the degree of relative similarity between the bead assemblages and the clusters. Finally, one must remember that taxonomy is the axis around which this entire procedure revolves. As such, great care must be taken in analyzing glass bead assemblages to ensure that the classifications are consistent.

The biplot resulting from the CA seriation depicts where these site-level assemblages fall among the combined clusters (Figure 4.11). The chronological distribution of the assemblages along the x-axis includes a single site and three groups of sites as one moves from left to right or from earliest to latest. First we first have the bead assemblage from the Nacoochee mound in northern Georgia (Heye et al. 1918). Its position between *Cluster 2* and *Cluster 3* is based on the significant presence of both "eye" beads (IIgb) and a diagnostic blue bead with 8-10 white stripes (IIb1004). This position suggests an occupation during the third quarter of the seventeenth century (ca. A.D. 1650-1675). This occupation span is corroborated by Waselkov's (1989:126) estimated range of occupation at Nacoochee based on the presence of diagnostic brass armbands (ca. 1600-1700).

The assemblages from the Notley mound, Altamaha Town, and the Townsend sites are very similar to *Cluster 3*. The Notley mound is a relatively unknown Cherokee mound site located in western North Carolina that was excavated in the 1930s by members of the Heye Foundation (Turbyfill 1927; see Chapter 3). Altamaha Town is an historically documented Yamasee Town that was recently excavated as part of a large-scale cultural resource management project. Historic documents indicate that this town was settled in the early eighteenth century (ca. A.D. 1700) and was destroyed during the Yamasee War in 1715 (Eric Poplin 2007, personal communication). The Townsend sites are the focus of this dissertation and will be discussed in detail in the following chapter. All of these sites contain a diverse array of simple and complex striped beads that are the

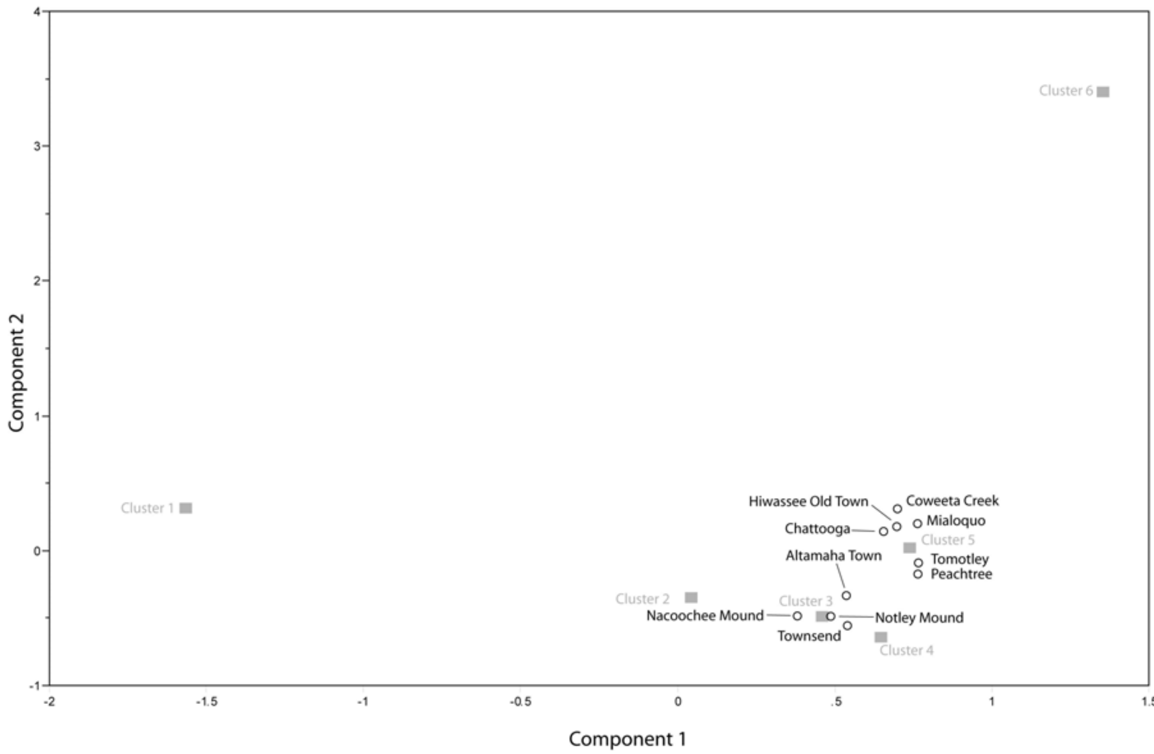

Figure 4.11. Bi-plot depicting the results of the correspondence analysis seriation of ten site-level glass bead assemblages.

hallmarks of *Cluster 3*. Furthermore mandrel-wound beads are absent in the case of Townsend and present in minor numbers in the Notley and Altamaha Town assemblages. These results indicate that the assemblages date as early as the mid-seventeenth century, but probably do not postdate the second decade of the eighteenth century (ca. A.D. 1650-1720).

Moving along the temporal dimension of the seriation (the *x-axis* in Figure 4.11) the next group of assemblages lies just before Cluster 5 and includes assemblages from the historic Cherokee sites of Chattooga (Schroedl 1994, Howard 1997), Hiwassee Old Town (Fenstermaker 1978), and Coweeta Creek (Rodning 2004). Chattooga is a Cherokee Lower town located in the foothills of the Appalachian Mountains in northwestern South Carolina, Coweeta Creek is a Cherokee Middle Town located in the upper Little Tennessee River valley of western North Carolina, and Hiwassee Old Town is an Overhill Cherokee settlement located in the lower Hiwassee River valley of eastern Tennessee. The combined bead assemblages from Chattooga and Coweeta Creek were recovered from excavations of Townhouses and domestic structures. The assemblage from Hiwassee Old Town is a private collection that was assembled from a number of individual burial contexts. These assemblages are closely associated in the seriation because they all include significant numbers of large mandrel-wound beads, small tubular beads, and lesser amounts of tumbled monochromatic beads. This position equates to a span from the second decade to the sixth decade of the eighteenth century (ca. A.D. 1720-1760), a range that is corroborated by the mean date (A.D. 1739.5) I obtained from kaolin pipe stems at Chattooga.

The latest group of trade bead assemblages were recovered from the Peachtree mound and village site located near Murphy, North Carolina (Setzler and Jennings 1941; see Chapter 3), and the Overhill Cherokee towns of Tomotley and Mialoquo in eastern Tennessee. These three assemblages consist of large numbers of simple monochrome tubular beads and mandrel-wound necklace and "barleycorn" beads. The main difference between the Peachtree and Tomotley assemblages on the one hand, and the Mialoquo assemblage on the other is the large number of *Cornaline d'Allepo* beads in the former. Based on archaeological data and historic accounts, researchers place the occupation of Tomotley between A.D. 1750 and A.D. 1776 and that of Mialoquo between A.D. 1760 and A.D. 1780 (Russ and Chapman 1983:19, 134). With regard to the Peachtree site, the majority of glass trade bead data and diagnostic pottery call for a similar occupation span; however, some diagnostic pottery from the Smithsonian excavations and a large number of European-made artifacts in private collections also suggest the presence of an earlier late sixteenth-century occupation (Skowronek 1991).

Conclusion

As stated in the title, the proximate goal of this chapter was to characterize the pottery and glass trade bead components of a "typical" English Contact period Cherokee material culture assemblage. This can now be accomplished by combining the current ceramic chronology with the results of my glass trade bead seriation (Figure 4.12). Interestingly, it appears that major changes in the composition of both pottery and glass bead assemblages accompanied the shift from the Pre- to Post- Yamasee War era. "Early" English Contact period (ca. A.D. 1670-1715) pottery assemblages include a

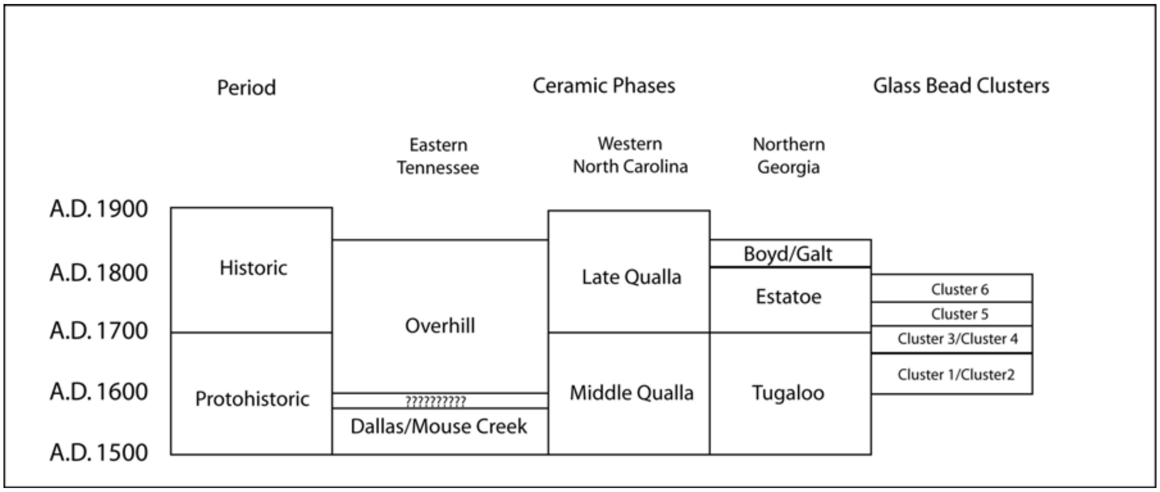

Figure 4.12. Combined chronology of Cherokee pottery and diagnostic glass trade bead clusters.

mixture of diagnostic attributes from the Middle and Late Qualla phases (see discussion of late Middle Qualla phase above). Glass trade bead assemblages from this period consist of a wide variety of monochromatic and striped drawn and tumbled beads. “Late” English Contact period (ca. A.D. 1715-1740) pottery assemblages, on the other hand, evince primarily Late Qualla phase attributes (e.g., check stamping, rectilinear complicated stamping, notched rimstrips). Also, glass trade bead assemblages from this Post-Yamasee War period include significant numbers of large mandrel-wound beads and small monochromatic tubular beads. These clear distinctions in material culture assemblages make the temporal assignment of “Early” and “Late” English Contact period Cherokee occupational components possible even with small artifact samples.

In a broader sense, this portion of my dissertation research was undertaken to aid researchers who are not experts in the study of glass beads. My goal in doing this was to establish a robust quantitative framework that could be consulted as a tool for estimating the occupation span of undocumented seventeenth- and eighteenth-century southeastern Indian sites from small glass bead assemblages. The results of the preliminary application of this method are promising, and I hope this synthesis will mark the beginning of a long-term cooperative effort among researchers to compile a regional glass trade bead database.

Thus far, I have been concerned with delineating the historical, theoretical, and temporal frameworks that circumscribe my study of English Contact period Cherokee communities. With these in place, I can now address the cardinal question of this dissertation– How did Cherokee communities negotiate the turmoil of the English Contact period? In the remainder of this work, I attempt to answer this question by way of an archaeological case study. My interpretations, which are founded upon detailed comparative analyses of pottery assemblages, architecture, and subterranean pit features, focus on characterizing how strategies to cope with the chaos of the shatter zone were inscribed into the material of daily life among households in a single Cherokee community in eastern Tennessee – a community manifested in the archaeological record of the Townsend sites (40Bt89, 40Bt90, 40Bt91). In doing so, I hope to supply researchers with a set of quantitative methods that can be employed to reconstruct the histories of English Contact period communities across eastern North America.

[1] Middle and Late Qualla phase pottery is essentially identical to pottery associated with the Tugaloo and Estatoe phases (seventeenth- and eighteenth-century occupations at sites in the Lower Cherokee settlement division) in northeast Georgia (Hally 1986a; Riggs and Rodning 2002:38).

[2] I analyzed the assemblages from five sites (Townsend, Altamaha Town, Peachtree, Notley Mound, and Nacoochee Mound); the data from Tomotley (Baden 1983) and Mialoquo (Russ and Chapman 1983) were obtained from a published excavation reports; the data from Chattooga were graciously supplied by Gerald Schroedl; the data from Coweeta Creek were obtained from Christopher Rodning's (2004) dissertation; and the data from Hiwassee Old Town were translated from descriptions and photographs in a published catalogue of a private collection from the site (Fenstermaker 1978).

CHAPTER 5

THE TOWNSEND SITES: THE ARCHAEOLOGICAL EMBODIMENT OF A SHATTER ZONE COMMUNITY

Returning from a diplomatic mission to the Overhill Cherokee towns in A.D. 1762, a regiment of Virginia colonial infantry marched through the western reaches of the Appalachian Mountains along what is known as the Great Indian Warpath. Upon reaching the Little River near present-day Maryville, Tennessee, the expedition leader Lieutenant Henry Timberlake commented

> At this place had formerly been an Indian Town, called Elajoy (Ellejoy); and I am surprised how the natives should ever abandon so beautiful and fertile a spot. Were it a more polished country, it would make the finest situation for a gentleman's seat I ever saw (Timberlake 2001[1762]:118-119).

This statement could apply to untold numbers of Indian "old towns" and "old fields" that were encountered by European travelers during the eighteenth century. What makes it intriguing is the fact that the town described by Timberlake is located outside of the region usually attributed to Cherokee settlements. In fact, with the exception of the town of Watauga (see below), this is the only existing contemporary account of a Cherokee town north of the Little Tennessee River valley. The statement thus provides a tantalizing clue that counters the common perception that few if any permanent Cherokee settlements were located outside of the Lower Little Tennessee and Hiwasee River valleys (Schroedl 1986b:131). Timberlake's description raises two questions. First, was there a significant Cherokee presence in the Little River valley during the late seventeenth and early eighteenth centuries or was the town described by Timberlake an anomaly? Second, if there was a significant Cherokee occupation of the Little River valley, why would the groups living in this region permanently abandon their communities?

My main goal in this chapter is answering the first of these two questions. In doing so, I will characterize the physical and cultural geography surrounding the Little River valley during the English Contact period. I will also assess the ethnohistoric and archaeological evidence regarding Cherokee occupations in the Little River valley. At the risk of presaging the answer to this first question, answering the second question reveals why this region presents a particularly apt case study for examining the strategies enacted by Cherokee households and communities in adapting to the social, economic, and political disruptions of southeastern shatter zone (see Chapter 2). The details of my answer to the second question occupy the remaining chapters of this dissertation. In this chapter, I begin by introducing the archaeological context from which the data for my analyses and discussions are drawn – the remains of the English Contact period Cherokee community at the Townsend sites (40Bt89, 40Bt90, 40Bt91).

Physical and Cultural Geography Surrounding the Little River Valley

Anyone who has ever traveled to the traditional Cherokee heartland would quickly acknowledge that a good narrative of Cherokee households and communities must necessarily be rooted in geography, both physical and cultural. Archaeological evidence and contemporary European accounts tell us that during the English Contact period Cherokee communities were spread across three different physiographic provinces: the Piedmont Province of northern South Carolina and Georgia, the Blue

Ridge Province of eastern Tennessee and western North Carolina, and the Ridge and Valley Province of eastern Tennessee. That these three provinces correspond to the three settlement divisions recognized by English traders, colonial diplomats, and the Cherokee themselves (the Lower, Middle, and Upper settlements respectively) is an indicator of the crucial role geography played in Cherokee history.

The majority of the Little River valley lies within the Blue Ridge Province, which encompasses portions of eastern Tennessee, western North Carolina, and extreme northern Georgia. It is a rugged and mountainous region with many peaks possessing maximum elevations of 1500 m above mean sea level (amsl) or more (Southworth et al. 2005). This province can be divided into highland and foothills sub-regions based on general topography. The highland sub-region, which forms the central core of the province, contains the tallest mountains in the southeastern United States (i.e., The Great Smokey Mountains), whose elevations reach over 2000 m amsl. These peaks form the Eastern Continental Divide, which separates watersheds flowing into the Gulf of Mexico from those flowing to the Atlantic Ocean. The foothills sub-region surrounds the highlands sub-region and is defined by less extreme slopes with peaks ranging in elevation 250-1300 m amsl (Southworth et al. 2005). The major river systems draining the Cherokee-occupied portions of the Blue Ridge Province include the Savannah, the French Broad, the Little Tennessee, and the Hiwassee. Once these rivers flow out of the Blue Ridge Province into the Piedmont and Ridge and Valley Provinces, they form broad alluvial valleys, but within the province they are narrow and fast moving, offering few areas suitable for large-scale (i.e., greater than household-level) agriculture (Dickens 1979, 1986).

There are isolated areas within the Blue Ridge Province that present exceptions to this geographic pattern. These areas, known as "coves" (i.e., Cades Cove, Miller Cove, Wear Cove, and Tuckaleechee Cove), are tectonic windows formed by the erosion of Blue Ridge rocks and the exposure of Ridge and Valley limestone geology (Southworth et al. 2005 49-51) (Figure 5.1). In essence, the coves are small pockets of Ridge and Valley landscape in the midst of the Appalachian Mountains. Topographically these coves feature long broad river valleys that are similar to those of the Ridge and Valley province. These valleys not only possess great potential for agriculture, but they also host a diverse array of plant and animal resources (Bass 1977:7; Braun 1950:201).

As I discussed earlier in Chapter 2, Cherokee communities were largely forsaken by European traders and diplomats until the Yamasee War in A.D. 1715. Consequently, there are very few extant records that map out the cultural geography of English Contact period Cherokee communities. Given such a paucity of documents, we are indeed fortunate that one of these records is an extremely detailed map drafted as part of the region-wide Indian census of 1715 (Cumming 1998:Plate 48A and 48D). We can reconstruct a sort of "snapshot" of the region's cultural geography from this map, the Barnwell map drafted in 1721 (Cumming 1998; Schroedl 2000; Smith 1979). From this map, it is clear that the major English Contact period Cherokee towns were distributed in clusters (Figure 5.2). Annotations on the Barnwell Map describe three settlement clusters: those on "this side of the mountains" (i.e., Lower Towns,) the "middle settlements," (i.e., the Middle, Valley, and Out Towns) and those "beyond the mountains" (i.e., Overhill Towns). These settlement clusters remained stable throughout the eighteenth and early nineteenth centuries (Smith 1979; Schroedl 2000). This apparent

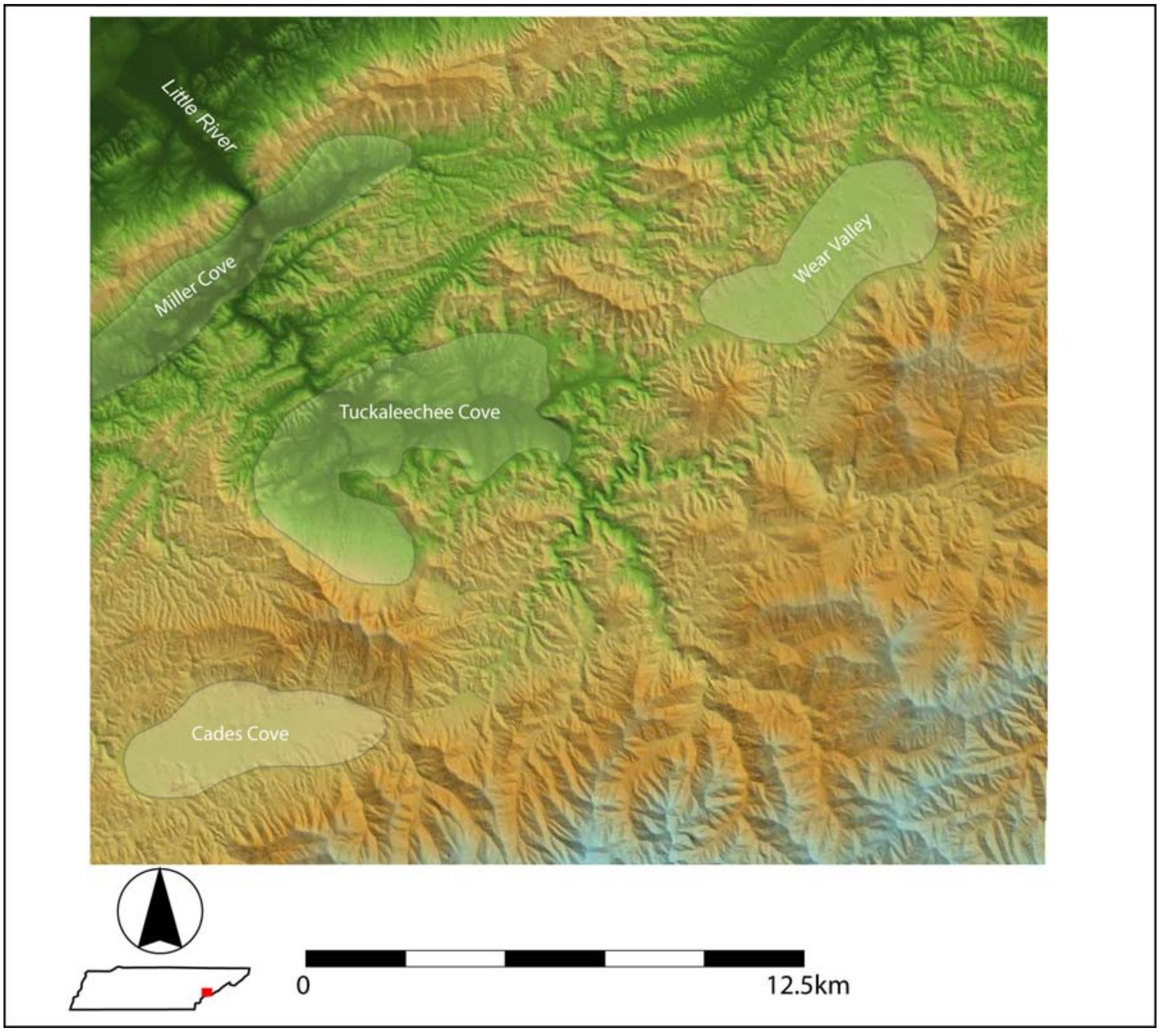

Figure 5.1. The physical geography of the western foothills sub-region of the Blue Ridge Physiographic Province.

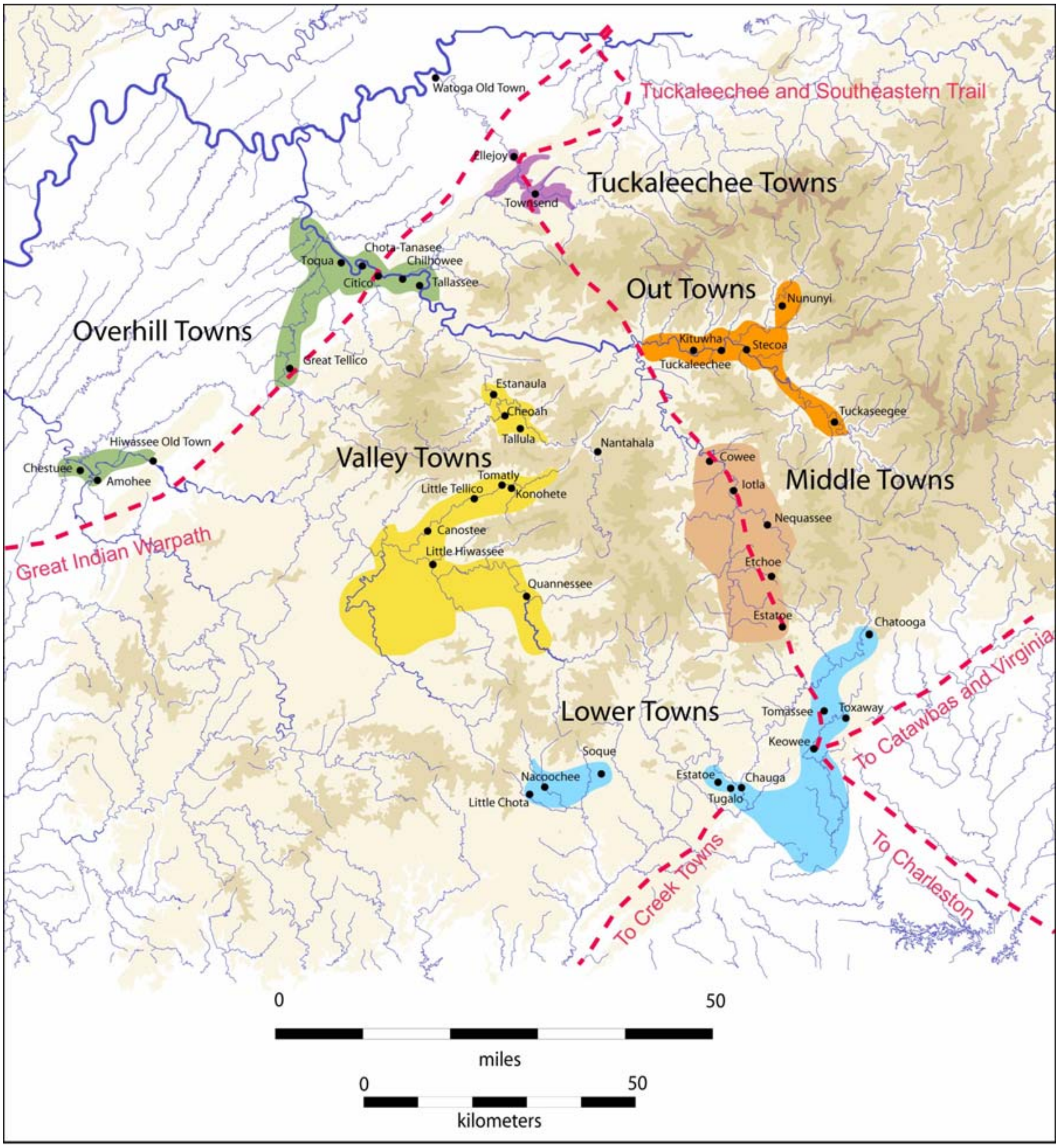

Figure 5.2. Cultural geography of Cherokee territory during the English Contact period (base map courtesy of Brett Riggs).

stability during the colonial period has led to the common portrayal of these clusters as timeless spatialities. If the historical framework I detailed in Chapter 2 applied to the Cherokee, then this stability would be quite anomalous amidst the dynamic backdrop of settlement shifts enacted by other Indian groups during the English Contact period. As I discuss below, the Tuckaleechee Towns, located north of the Cherokee settlements depicted in the Barnwell Map, present a very important exception to the monolithic portrait of Cherokee settlement patterns– an exception demonstrating that Cherokee communities were indeed fully engaged in the tumultuous emanations of the southeastern shatter zone (Figure 5.2).

The Cherokee towns and settlement divisions were tied together by a series of trails, but trails and rivers also linked Cherokee communities to the wider English Contact period landscape (Dickens 1979; Myer 1928; Ramsey 1999[1853]; Schroedl 2000). Figure 5.2 shows that all Cherokee settlements were not equally connected to the outside world; instead, trails and rivers offered very different connections for each Cherokee settlement division. The Lower Towns had the most direct access to English traders via trails to the Catawba and the Savannah River, but they also were closest to hostile Muskogee-speaking groups – a position that made these communities preferred targets during the Creek-Cherokee War following the Massacre at Tugaloo in A.D. 1715 (see Chapter 2). The central location of the Middle, Valley, and Out Towns insulated these communities from enemy raids, but this position also limited their contact with European traders *vis-à-vis* the other settlement divisions. Overhill Towns had greater connections to points west through the Tennessee River and Cumberland trails. These arteries linked Overhill communities to French traders and diplomats as well as enemy

Indian groups like the Shawnee and the Illinois. As I am defining them in this study, the so-called Tuckaleechee towns formed the northern extent of Cherokee settlement. While these communities were least well positioned for European trade, being the farthest communities from trails leading to colonial trading centers, they were by no means isolated. Far from being backwater satellite communities deserving of their "forgotten" historical status, the Tuckaleechee towns were located on a spur off of the Great Indian Warpath, a veritable pedestrian highway that connected Cherokee communities to points north, including the distant Cherokee nemeses the Iroquois. From this brief discussion, it is clear that the variable nature of connections to these various outside groups presented each Cherokee settlement division with a unique set of opportunities, constraints, and threats.

The Tuckaleechee Towns: "Rediscovering" Forsaken Cherokee Communities

The historical record is virtually mute when it comes to the "mystery" of the Cherokee community of Ellejoy described by Lieutenant Timberlake in A.D. 1762. Nineteenth-century historian James G.M. Ramsey (1999[1853]:88) offers a mention of the town and eponymous creek (Allejay) in his discussion of the Great Indian Warpath. Although very brief, this discussion does provide some very insightful clues about Cherokee occupation of the Little River valley. In his description of the route of the Great Indian Warpath, Ramsey (1999[1853]:88) speaks of a branching path that leads "to the Tuckaleechee towns, and so on to the Over-hill villages of the Cherokees." While we must be wary of putting too much emphasis on a single statement, I believe that there are two provocative notions contained herein. First is the identification of a group of

Cherokee settlements, the "Tuckaleechee towns," in the Little River valley. The second, and perhaps more tenuous, is that these towns are described as a separate settlement division from the Overhill towns. The question of whether or not the Tuckaleechee towns were an autonomous settlement division cannot be answered with the current data, and this will be a very important part of future research in this area. Also, determining when the Tuckaleechee towns were occupied is impossible because Ramsey is not very clear about his historical sources, and this description does not reference any particular time period. One is tempted to believe that Ramsey had access to the personal journal of a Virginia trader, a Mr. Vaughn, who proceeded down the Great Indian Warpath on a trading voyage around 1740 (Ramsey 1999[1853]:64). Whether Mr. Vaughn was the source of the description will likely never be known, for the majority of Ramsey's personal papers and collections were destroyed when his home was burned during the Civil War.

Cherokee oral history, as recorded during the nineteenth century, adds support to the notion that at some point in the distant past (as they reckoned it) Cherokee communities were found north of their eighteenth-century homeland. The journal of Major John Norton records this idea in the early nineteenth century. Norton was born to a Cherokee father (from the Lower Town of Keowee) and Scottish mother. Although Norton was most likely born in Great Britain, while a member of the British army he was assigned to a regiment in North America and eventually became an adopted member of an Iroquois town in upstate New York (Klinck 1970:xxv). Norton's journal records a voyage to his ancestral Cherokee homeland in 1813. One of the many conversations with Cherokee elders recorded in Norton's (1970 [1813]:46) journal relays their "earliest traditions" that place "original" Cherokee settlement at the head of the Little Tennessee River.

The personal papers of American actor, editor, and diplomat John Howard Payne relate a similar story of early Cherokee communities. Payne's papers include thousands of pages of Cherokee oral history recorded during a lengthy stay in Cherokee settlements and in letters from Cherokee chiefs Charles Hicks and John Ross. In an unpublished volume on Cherokee history Payne penned sometime in the mid-nineteenth century, he (n.d.:88) discusses the fact that in earlier times the Cherokee lived near present-day Holston, Tennessee. This purported homeland is indeed far to the north of eighteenth-century Cherokee territory being closer to Virginia than the Tuckaleechee towns. In a letter written to John Ross by Charles Hicks (1826), the Cherokee chief relays a more detailed migration story that places the earliest Cherokee settlements near the headwaters of the Clinch, Cumberland, and Holston rivers in extreme northeastern Tennessee and southwestern Virginia. According to this version of the story, the Cherokee next moved to "Noh-nah-cloock-ungh" (Na'na-tlu gun') "Nolichucky" or "Spruce-tree place." There is archaeological evidence confirming the existence of early seventeenth-century period Indian settlements located along the present day Nolichucky River, but excavations at these sites remain unpublished (Smith 1987, n.d.). Hicks (1826) goes on to say that the Middle, Valley, and Out towns were the first to be settled after the Cherokee left the Nolichucky valley, followed by the Lower and Overhill towns "many years after." Obviously, this piece of oral history must be assumed to contain the vagaries of time and space that exist in all migration myths. Taking this into account, it is still significant that multiple sources acknowledge an earlier phase of Cherokee settlement located to the north of their eighteenth-century territory.

The most solid piece of ethnohistoric evidence for Cherokee settlement in the vicinity of the Little River Valley is contained in the aforementioned Barnwell Map of 1721 (Cumming 1998:Plate 48). A product of the post-Yamasee War British Colonial Indian census of 1715, the map depicts the locations of every known Cherokee town along with towns of every major Indian group in the Southeast. At the northwestern limits of the map, just upriver from the confluence of the Little Tennessee River and Tennessee River, is the Watauga River. The Cherokee town of Watauga is depicted at the mouth the river, which is most likely the Little River. The cartographer also placed an annotation of "Deserted Settlem." north of the Watauga River (Figure 5.3). The annotation is unclear as to whether the cartographer was referring to a single settlement or a group of settlements. Regardless, the map depicts the location of the deserted settlement(s) between the "Canot" and "Agiqua" Rivers. These were the names given to the West Prong of the Little Pigeon River and the Little Pigeon River respectively.

Obviously, the static frame offered by the Barnwell Map can never capture the cultural currents and eddies of the southeastern shatter zone; however, that single annotation on the map does suggest that the Cherokee were in the process of shifting their settlement patterns during the early English Contact period. Interestingly, the last Cherokee town listed in the A.D. 1721 Varnod Census (1971[1721]) is called "Elojay." While there is another town in the list with the same name, it may be significant that this Elojay is listed among Overhill Towns and that no such town has been recorded in the Little Tennessee or Hiwasee river valleys. The Hunter Map of 1730 (Williams 1928:114)

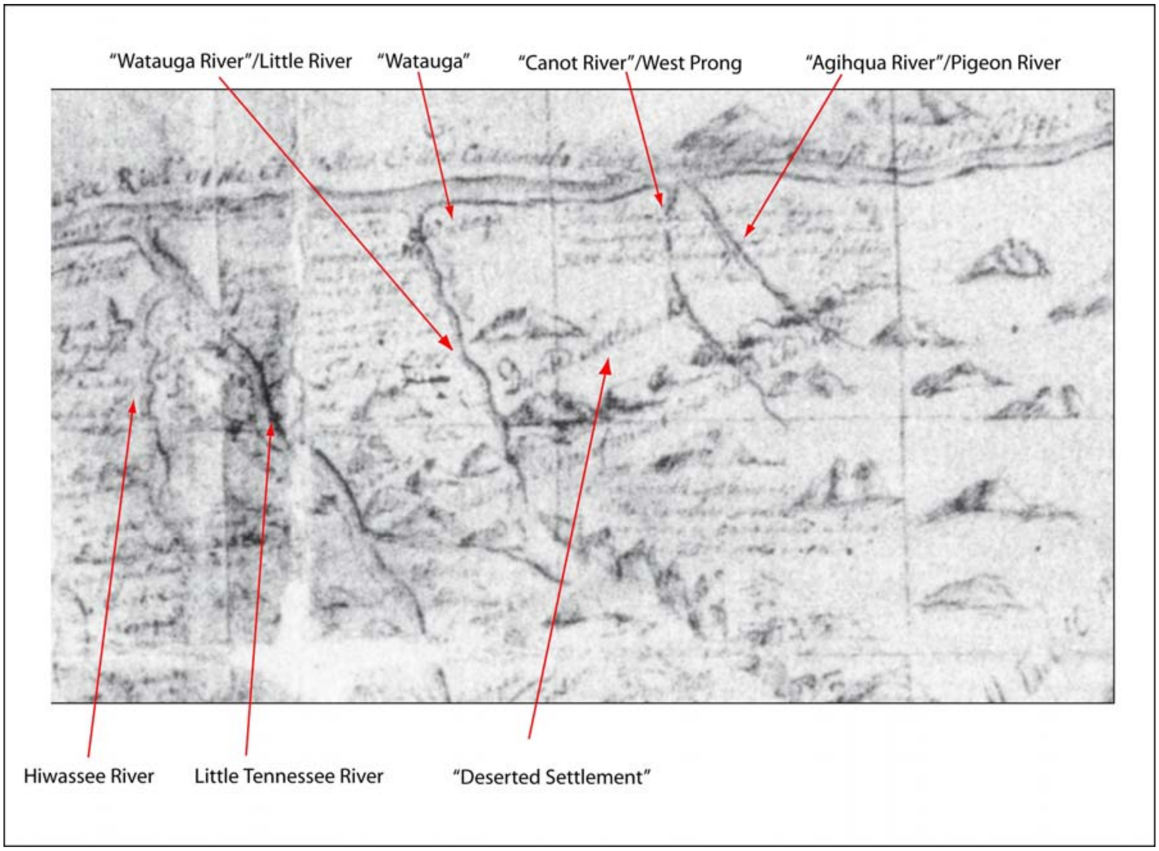

Figure 5.3. Magnified view of the 1721 Barnwell Map highlighting important landmarks for this study (from Cumming 1998:Plate 48).

confirms that the northern settlements ("Tuckaleechee Towns") were abandoned by this time. Considering this together with the Barnwell Map, we can be reasonably confident that by the time of the Yamasee War, the Cherokee had largely abandoned their northern settlements, including those in the Little River valley, and concentrated their communities southward to the vales of the Little Tennessee and Hiwassee rivers.

The Archaeology of the Tuckaleechee Towns and Excavations at the Townsend Sites

The Little River valley and the surrounding "coves" area have seen precious little professional archaeological attention; however, the few projects that have been conducted in this region point to a significant English Contact period Cherokee occupation within Tuckaleechee Cove. Quentin Bass's report (1977) of an archaeological survey of the Great Smokey Mountain National forest includes two archaeological sites containing Qualla-series pottery. One of these sites was located in Cade's Cove just south of Tuckaleechee Cove; the other site, which produced a whole simple stamped jar, was located near Cosby, Tennessee. Neither of these sites contained European artifacts, and it is difficult to assign the pottery to any archaeological phase based on what is published.

With these exceptions (and the Townsend Sites), all that is known about the Cherokee occupation of the Little River valley results from a survey conducted by Mr. B. Kenneth Cornett, an avocational archaeologist and lifelong resident of Walland, Tennessee (Cornett personal communication 2007). During the 1960s, Cornett surveyed plowed fields along the lower Little River from Maryville to the entrance of the Great Smokey Mountain National Forest at the eastern end of Tuckaleechee Cove. During the survey, Cornett identified and made surface collections from 14 sites containing gravel-tempered complicated stamped and simple stamped pottery, plain shell-tempered pottery, and glass trade beads (Figure 5.4; see Chapter 6 for a description of the pottery). The sites were typically found within 100 m of the river, in the rich alluvial soil of Tuckaleechee Cove. Based on its location at the confluence of Ellejoy Creek and the Little River, one of these sites is believed to be the Cherokee town of Ellejoy (40Bt11) described by Timberlake (2001 [1762]:118-119). In an interview I conducted with Mr. Cornett, he recalled giving the collections and records from the survey to the McClung Museum at the University of Tennessee. I was able to relocate the original USGS quadrangles that contained the site location information from Cornett's survey, but unfortunately I could not turn up any evidence of the artifact collections. In addition to the Townsend sites (described below), one other site identified by Cornett has been professionally excavated (40Bt47) (Bentz and Green 1991). Virtually all of the artifacts and features uncovered during the excavations were associated with an early Mississippian period settlement, but a single turquoise glass necklace bead was found.

The Townsend sites (40Bt89, 40Bt90, and 40Bt91) are actually a single archaeological locality located in the western portion of Tuckaleechee Cove on a terrace south of the Little River near present-day Townsend, Tennessee (Figure 5.5). The sites were formally recorded in 1999 as part of a cultural resources survey initiated by the widening of U.S. Highway 321 (Cornett's survey information was never incorporated into the Tennessee state site files). In addition to English Contact period Cherokee occupations, these sites contained evidence of occupations dating to the Late Archaic through Late Woodland periods (ca. 2500 B.C. – A.D. 900) and the Mississippian period (ca. A.D. 900 – 1540). Later that year, archaeologists with the Transportation Center at

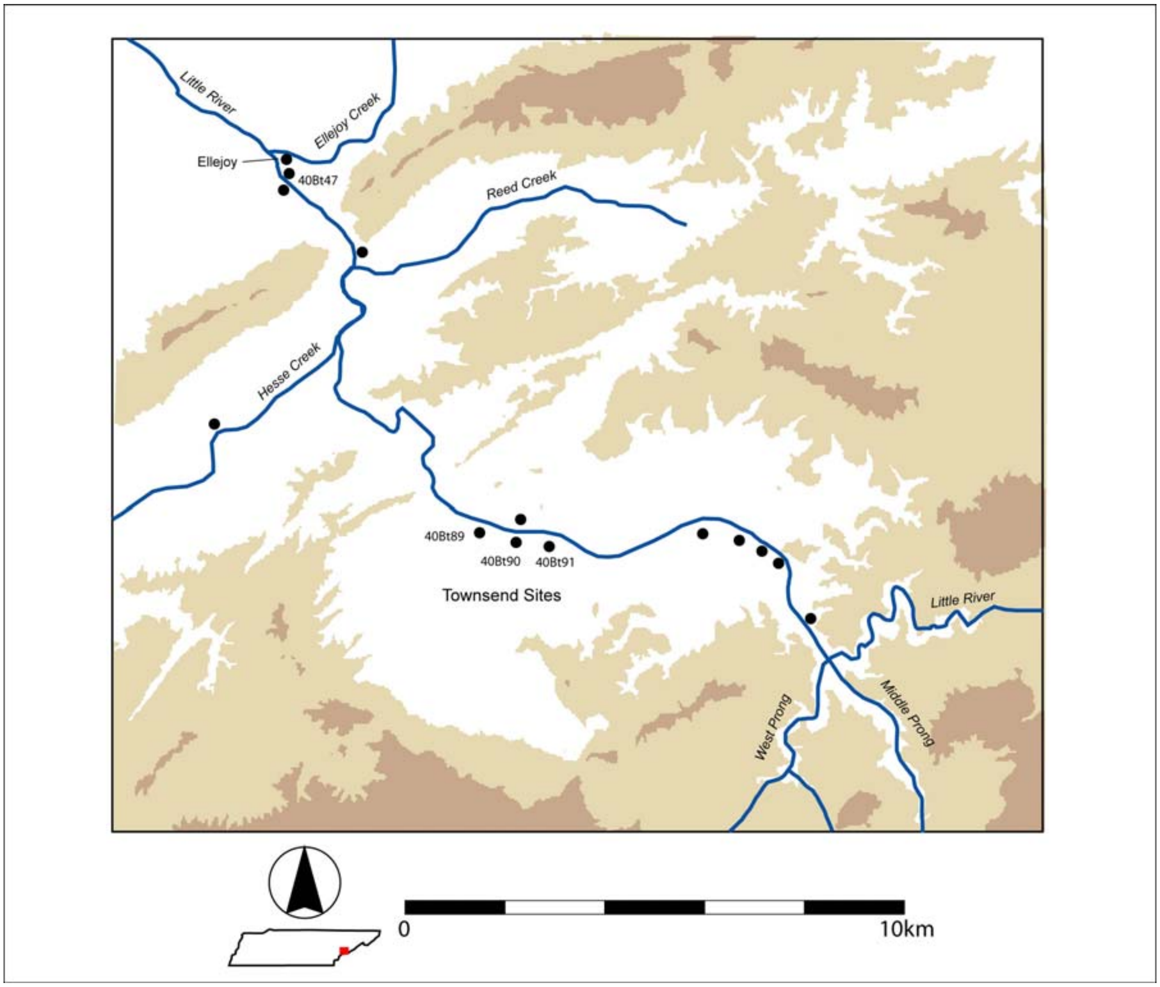

Figure 5.4. Map depicting the distribution of Cherokee sites in the Little River Valley (Kenneth Cornett personal communication 2007).

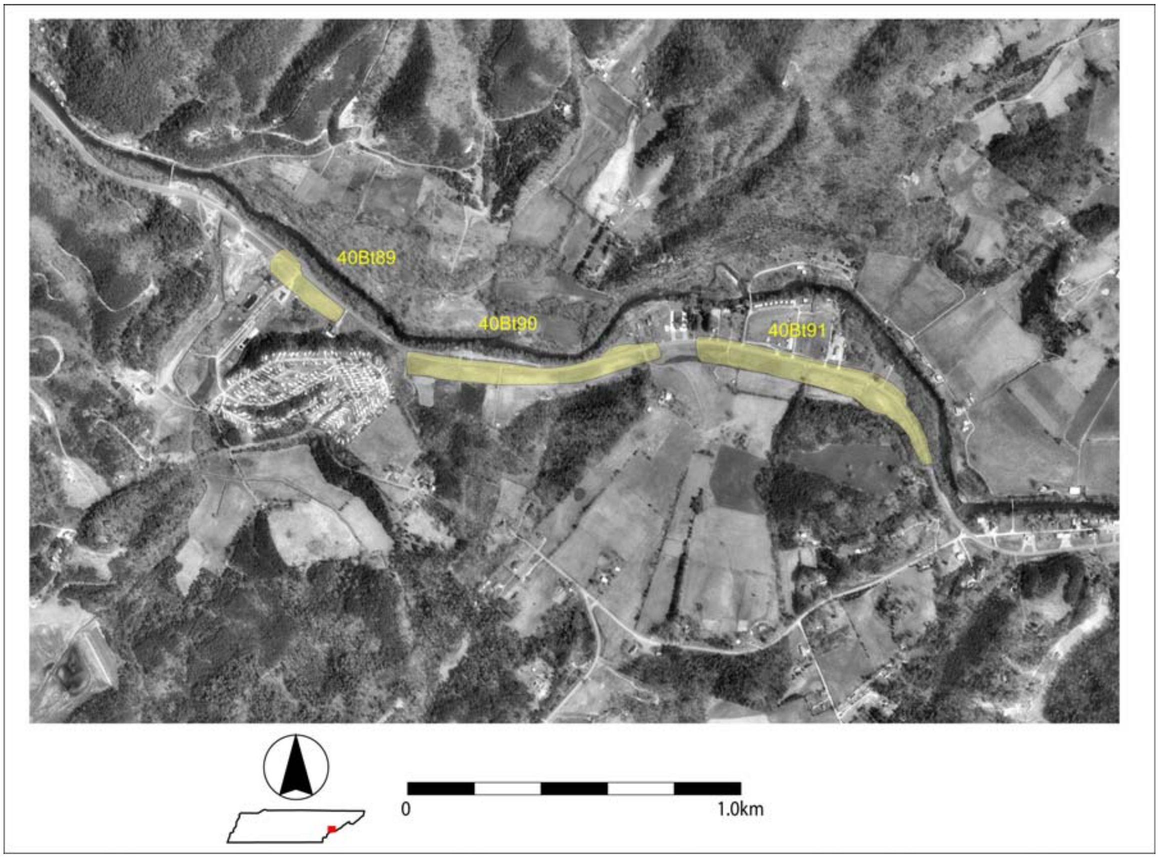

Figure 5.5. Aerial photograph of the Townsend sites taken in 1992 (Photograph courtesy of the United States Geologic Survey).

the University of Tennessee, Knoxville conducted data recovery excavations at the sites. These excavations were truly monumental – on a scale that is rarely scene in post-Depression-era archaeology. Mitigation of the sites entailed the use of heavy machinery to strip plow-disturbed soil from the entire site in order to expose subsurface cultural features (e.g., pits, basins, hearths, postholes, burials, etc.) Over the course of the two year field project, mechanical excavations uncovered over 100,000 m^2 of the sites, resulting in the identification of thousands of features and dozens of structures including portions of two palisaded Mississippian villages, portions of multiple Woodland villages, and the remains of six separate Cherokee households. The Cherokee occupational component at the Townsend sites is utterly dwarfed by the earlier occupations, especially those of the Woodland period. As the following chapters will demonstrate, however, this small number of archaeological contexts provides a wealth of data regarding the daily lives of English Contact period Cherokee households.

The six Cherokee households at the Townsend sites form the core of my research. These households are comprised of structures and pit features distributed widely over the length of the Townsend sites. Available evidence dating the household occupations indicates that they are generally contemporaneous (within approximately 50-70 years of each other). Radiocarbon dating of samples from features provided spurious results, but archaeomagnetic dating of samples from the hearths of three of these households returned the same date range of ca. A.D. 1600-1740 (Lengyel 2004:Table 5.2). My analysis of glass trade beads and pottery from the site places the occupation between ca. A.D. 1650 and A.D. 1720 (see Chapter 4).

Conclusion

In this chapter, I introduced the thesis that the "Tuckaleechee Towns" were Cherokee settlements that were settled in the Little River valley during the late seventeenth and early eighteenth centuries. I also provided ethnohistoric and archaeological evidence in support of this thesis. While much more work needs to be done identifying and synthesizing data from other sites in the Little River valley, at this point we can indulge in some informed speculation regarding English Contact period Cherokee settlement patterns in this region. First, the physical and cultural geography surrounding the Tuckaleechee Towns would have presented both advantages and disadvantages to households living in the cove. The unique geology of the coves must have been attractive to Cherokee communities because they offered the benefits of a broad alluvial landscape within a well-protected mountain refuge. Beginning in the early eighteenth century when Iroquois raiding parties began streaming southward, however, Tuckaleechee Cove would have become a dangerous location given its proximity to the Great Indian Warpath (Norton 1970[1813]:262). Indeed, these raids may have been a major contributing factor in the choice to abandon of the area by ca. A.D. 1720.

If only historical sources were consulted, one would assume that Cherokee communities went largely unaffected by the disruptions of the shatter zone until they joined the fray of the Yamasee War in A.D. 1715 (see Chapter 2). This conclusion would be even easier to arrive at for the communities located in Tuckaleechee Cove. Fortunately, archaeology allows us to push beyond the dearth of maps and personal accounts that confine our historical understandings of the period to ask: What was life like for Cherokee families who chose to settle in Tuckaleechee Cove during the late seventeenth century? Were folks in this area spared the disruptions of the shatter zone, or were they instead, through their strategic actions, the very embodiment of the shatter zone? The household contexts at the Townsend sites present the perfect case study for analyses that attempt to answer these questions. As units of analysis, data from these households will allow us to achieve an incredible level of detail by isolating the daily practices of individual families (e.g., Allison 1999; Lightfoot 2005; Lightfoot et al. 1998; Wesson 2008). My goal in the following chapters is to present a series of middle-range arguments linking household level pottery, architecture, and subsurface feature data to the strategies households were enacting in their daily lives as ways of adapting to the shatter zone.

CHAPTER 6

POTTING TRADITIONS AND HOUSEHOLD IDENTITIES

All current archaeological interpretations concerning Cherokee origins, historical development, and daily life are in one way or another founded upon ceramic analyses (e.g., Dickens 1979, Hally 1986a; Riggs and Rodning 2002; Rodning 2004; Schroedl 1986b). In this chapter, I apply a number of quantitative attribute analyses to ceramic data from the Townsend sites and other Cherokee sites in order to construct a culture history for the English Contact period (ca. A.D. 1670-1740). These analyses extend the traditional definition of culture history by presupposing that the production of pottery vessels was a socially meaningful practice that was essential for creating shared household identities. I begin the chapter with a detailed description of the Cherokee pottery sample recovered from the excavations at Townsend. In this description, I employ quantitative analyses of paste, surface treatment, rimstrip morphology, and vessel form to characterize variability in the pottery sample. I then place the Townsend pottery assemblage within a broader geographic and chronological context through comparisons to a number of other Cherokee pottery assemblages. Through these analyses, I identify three analytically distinct potting traditions among the Cherokee households at Townsend. I argue that this pattern supports the interpretation that the community at the Townsend sites was a "coalescent community" (*sensu* Kowalewski 2006) of household potters who were practicing historically (and likely geographically) distinct potting traditions.

Cherokee Pottery at Townsend

Excavations of feature contexts and test units at the Townsend sites resulted in the recovery of 4,711 potsherds (greater than 1/2-inch) associated with a late seventeenth-through early eighteenth-century Cherokee occupation. While not nearly as sizable as the Woodland period pottery sample recovered during the project, there are a number of reasons why the Townsend pottery sample is critically important to our understanding of English Contact period Cherokee communities. First, the sample of Cherokee pottery recovered from the Townsend excavations represents the only relatively large and well-studied pottery assemblage from a Cherokee community located north of the Little Tennessee River valley – a region where little research into Cherokee communities has been conducted (see Chapter 5). Second, the pottery sample from the Townsend sites, together with a small sample from the Ocoee site in the Hiwassee River valley, comprise the only Overhill Cherokee pottery assemblages thought to date to the late seventeenth and early eighteenth centuries. The overwhelming majority of what is currently known about Overhill Cherokee pottery has resulted from analyses of contexts dating to the later half of the eighteenth century (e.g., Baden 1983; Bates 1986; Egloff 1967; King 1977; Russ and Chapman 1983). Third, the Townsend pottery sample is important because it differs dramatically from these later Overhill Cherokee assemblages. Indeed, the results of the analyses presented below suggest that three distinct potting traditions were being practiced by Cherokee households at Townsend. Analytically, two of these traditions are related to previously defined ceramic series (Overhill and Qualla), but the third and most ubiquitous tradition expressed in the sample is a heretofore undefined phenomenon. This tradition, which I refer to as "Tuckaleechee," likely represents a late seventeenth- and early eighteenth-century manifestation of the Overhill-series that was localized in the Cherokee settlements of Tuckaleechee, Cades, and other coves situated north of the Overhill Cherokee heartland.

The Cherokee pottery sample recovered during the Townsend excavations consisted of 4,343 body sherds and 368 rim sherds. In order to place the Townsend assemblage within a broader temporal and regional context, I conducted analyses on an additional 1,733 body sherds and 341 rim sherds from other Cherokee sites in eastern Tennessee and western North Carolina. These additions brought the total pottery sample in this study to 7,153 sherds. This assemblage was obviously quite small when compared to the Overhill Cherokee pottery assemblage from Chota-Tanasee, which numbered over 500,000, and other Tellico Archaeological Project sites; however, the diminutive size of the Townsend assemblage made detailed attribute analyses possible at the individual sherd level. For every body sherd, I recorded data for eight variables including the maximum diameter of the sherd (measured in one-centimeter size classes), sherd thickness, sherd weight, temper material, exterior surface treatment, decorative motif (if applicable), interior surface treatment, and temper particle size. For every rim sherd, I recorded data for 26 attributes including the eight used for body sherds plus seven qualitative and eleven quantitative variables related to vessel form and rimstrip morphology (Appendix B1). The resulting database used in the study contained over 67,000 individual data points.

The main challenge I had to confront with my pottery analyses was how to operationalize the rather ethereal theoretical notion of identity. Within the last half-century researchers of culture have devised many ways to grapple with the notion of identity as it relates to community (e.g., Barth 1969, Boyd and Richerson 1987; Lincoln 1989; Roosens 1989). While "identity" has been problematized and theorized in many very different ways, a couple of points can be identified that are common to all: (1) identities in communities seem to be related to distinctions of sameness and difference, (i.e., "us" and "them"), and (2) identities are tied to performance – they are phenomena that people must enact in order to maintain (Callon 1986; Latour 1991, 1992, 1999, 2005; Law 1999; Roosens 1989; Salamone and Swanson 1979). Given these two points, it seems logical that scholars of the last decade have chosen to cast their studies of identity in the terms of theories that stress human action (or practice) and the discourses that result (Bourdieu 1977; Giddens 1979; Lincoln 1989).

In the field of archaeology, attention has recently been placed on identifying the processes of identity construction by relating theories of human action to the archaeological record through the notion of materiality (e.g., Dietler and Herbich 1998; Dobres 2000; Hodder and Cessford 2004; Sinclair 2000; Wesson 2008). Behind the concept of materiality is the idea that while an individual’s identity is extremely flexible and transient, it (or aspects of it) can be made an “historical fact” through material media such as in objects or use of space (Chilton 1999; Joyce and Hendon 2000:154; Yaeger and Canuto 2000:7). Because the notion of materiality allows researchers to consider material culture as both a reflection and an active instrument of identity construction, it brings empirical study into the oft too-ethereal discussions of practice in archaeology (Conkey 1999; Pauketat 2000b, 2001). Returning to the question of operationalization (or how to give substance to the gossamer wings of a “notion”), I argue that the key challenge in characterizing practices related to identity construction is determining how that action contributed to creating an “us” and “them” distinction either within a single community or among communities. In my research, I identify these distinctions by focusing on the various choices potters were confronted with while making a pot. This required me to undertake a technological study of pottery inspired by the analytical technique known as *chaînes opératoires*.

Archaeologists researching Paleolithic technologies have employed a methodology known as *chaînes opératoires* to aid in operationalizing how individuals might have constructed their identities through both non-discursive and discursive practices (although the former type of practice is almost always implicated) (e.g., Dietler and Herbich 1998; Dobres 2000; Sinclair 2000; Stark 1998; van der Leeuw 1993). This methodology is derived from the French *technologie* school of thought (Lemonnier 1993). This school established the idea that technologies are reflective of the fact that human behavior consists of deeply embedded operational sequences. The *chaînes opératoires* offers the analyst a way to "map" the manufacture of a technology as a sequence of stages, each of which presents a series of choices to the producer. Linking this method to theories of action involves identifying and understanding the factors that condition the choices made at each stage of production. Most researchers using this method evoke *habitus* (Bourdieu 1977) or Giddensian "structure" (Giddens 1979) when discussing the conditioning of choices. Indeed, these concepts provide very good ways of conceptualizing the "durable dispositions" that are created through recursive daily technological practices, dispositions that ultimately influence perceptions of the possibilities that exist to the producer. In this way, the analyst can understand technology as a meaningful act of social engagement with the material world through which knowledge as well as "things" were produced and reproduced.

I adapt the *chaînes opératoires* method to the pottery making technologies in late seventeenth- and early eighteenth-century Cherokee communities (see Dietler and Herbich 1998 for an ethnoarchaeological example). Breaking down the various decision-making stages of manufacture, I identify the attributes that result from these decisions. Based on the findings and critiques of recent scholars, these attributes reflect not just decoration, but a combination of technology (i.e., pottery ware), decoration (i.e., surface treatment), and form (i.e., vessel form) (e.g., Dietler and Herbich 1998; Dobres 2000; Hegmon 1998). Cherokee potters at Townsend chose the raw materials from which they made their pots. These choices include clay source, type of aplastic tempering agent, temper particle size, and the amount of tempering agent used. These choices are manifested in pottery ware attributes. Cherokee potters typically built up vessels from a series of coils using a wooden paddle. In doing so, the potters chose from a variety of treatments applied to the exterior of the vessel. The major choice in surface treatment faced by Townsend potters was between a plain surface or one of a number of stamped designs that were either carved into the paddle or made by wrapping cordage around the paddle. One of the most observable choices made by Townsend potters concerned vessel form. Townsend potters made a variety of vessels for daily use in households including globular jars, bowls, and cazuelas. In my analysis, I search for patterns in the combinations of these attribute-states that likely reflect similarities and differences in choices made by household potters. I also explore the spatial distributions of the attributes. The extent to which household or community-level identities are recursively produced though pottery manufacture should be evident in these spatial distributions.

Pottery Ware

The technological foundations of what I believe are the three potting traditions practiced by Townsend household potters are materialized as three distinct pottery wares found among Townsend household pottery assemblages.[1] Differences among these wares are evident in four attributes including: (1) the type of aplastic material used to temper the clay bodies of vessels, (2) the size of tempering agent particles, (3) the density of tempering agent used in the paste, and (4) the thickness of vessel walls.

The most readily observable difference among the three pottery wares involves the types of aplastic materials used as tempering agents in vessel construction. The most common tempering agent found in the Townsend pottery sample consists of a mixture of metaigneous and other rock types – primarily quartz, quartzite, feldspar, and muscovite-schist (n = 3,579, 82.41%) (Table 6.1). The round shape of the particles in this ware group is reminiscent of water worn gravel, suggesting that this tempering material was gathered from the nearby banks of the Little River (Figure 6.1). The presence of a small amount of angular and/or subangular quartzite in some sherds raises the possibility that Townsend potters were also adding more formally prepared (i.e., crushed) rock as tempering.

Crushed mussel shell comprises the second most common tempering agent used in Cherokee pottery at Townsend (n = 510, 11.74%). In all but a few instances, the shell particles had leached out of the sherd leaving a highly porous clay body (Figure 6.2).

Table 6.1. Cherokee body sherd assemblage recovered from the Townsend excavations.

Temper	Exterior Surface Treatment	n	%
Gravel	Plain	881	20.29
	Indeterminate Linear Stamped	714	16.44
	Indeterminate Stamped	502	11.56
	Coarse Plain	476	10.96
	Cord Marked	407	9.37
	Eroded	259	5.96
	Curvilinear Complicated Stamped	134	3.09
	Scraped	56	1.29
	Complicated Stamped	48	1.11
	Burnished	27	0.62
	Simple Stamped	26	0.60
	Cob Roughened	25	0.58
	Incised	11	0.25
	Brushed	10	0.23
	Fingernail Punctated	1	0.02
	Stylus Punctated	1	0.02
	Rectilinear Complicated Stamped	1	0.02
	total	3579	82.41
Shell	Plain	360	8.29
	Eroded	83	1.91
	Scraped	54	1.24
	Burnished	5	0.12
	Cob Roughened	3	0.07
	Indeterminate Linear Stamped	2	0.05
	Cord Marked	1	0.02
	Fingernail Punctated	1	0.02
	Red Filmed	1	0.02
	total	510	11.74
Grit	Indeterminate Linear Stamped	92	2.12
	Plain	55	1.27
	Indeterminate Stamped	28	0.64
	Curvilinear Complicated Stamped	25	0.58
	Complicated Stamped	9	0.21
	Eroded	9	0.21
	Burnished	8	0.18
	Coarse Plain	6	0.14
	Scraped	4	0.09
	Cord Marked	3	0.07
	Brushed	3	0.07
	Check Stamped	2	0.05
	Incised	1	0.02
	total	245	5.64
Shell and Gravel	Plain	3	0.07
	Indeterminate Stamped	2	0.05
	Coarse	1	0.02
	Cord Marked	1	0.02
	Linear Stamped Indeterminate	1	0.02
	Scraped	1	0.02
	total	9	0.21
	Total	**4343**	**100.00**

Without the presence of the actual tempering agent, classification in these cases relies on the lenticular arrangement of the voids throughout the paste – an unmistakable hallmark of shell-tempering.

A minority of sherds in the sample are tempered with various types of igneous and metaigneous rock particles – primarily quartz (n = 245, 5.64%) (Figure 6.3). This tempering agent, known as "grit," conforms to the typical definition of the Qualla series (see also Shumate et al. 2005:6.5). Grit differs from gravel primarily in particle shape (angular not round). The paste of this ware is also much more micaceous than the gravel-tempered or shell-tempered ware groups. The mica flecks contained in these sherds are probably natural inclusions and not intentional, suggesting that grit-tempered vessels were constructed using clay from source(s) other than those used in making gravel and shell-tempered wares. Given the similarity of this ware to that of Qualla-series sherds found among the Middle, Valley, and Out Town settlement divisions to the east, it also raises the possibility that the grit-tempered sherds at Townsend may represent vessels made elsewhere. That these three tempering agents were the focus of real choices made by Townsend potters in creating three different pottery wares is attested to by the fact that only nine sherds in the sample (0.21%) contain a mixture of tempers.

Townsend potters also appear to have made distinctions in the size of the temper particles they used in each of the three pottery wares. In order to quantify the size of temper particles, I used the same method employed by Steponaitis (1983:33-34) in his study of Moundville pottery. I measured the diameter of the third largest temper particle visible in each sherd in the sample – the third largest particle being more representative of overall paste composition. My method differed slightly from Steponaitis's in that I

Figure 6.1. Gravel tempering in Townsend pottery.

Figure 6.2. Shell tempering in Townsend pottery.

Figure 6.3. Grit tempering in Townsend pottery.

measured temper particles visible in the cross-section of the sherd rather than the sherd surface. I did so because vessel surfaces were typically altered in some way before firing (usually by smoothing, scraping, or wiping); therefore, I thought that the cross-section would offer an unaltered and more representative view of paste composition.

The distributions of temper particle diameters are portrayed using a visual display known as a notched boxplot (McGill et al. 1978; Velleman and Hoaglin 1981:65-81).[2] Boxplots graphically represent the spread of temper particle diameter values. The median is depicted as the center of the notch in each boxplot, and the length of the "box" represents the "H-spread" or the range within which the central 50% of the diameter values fall. The ends of this box are known as "hinges," whose values are essentially equivalent to the first and third quartiles of the distribution. The vertical lines extending from the box, known as "whiskers," mark diameter values that fall within 1.5 "H-spreads" of the hinges. Outliers in the distributions are marked as asterisks and far-outliers as circles. The notches within the boxes represent the 95% confidence intervals for each median value. In using boxplots to compare the median diameters of temper particles, if the notched intervals around any medians do not overlap, one can be confident that those temper types are different at a 0.05 level of statistical significance. A comparison of the temper particle diameters using notched boxplots reveals statistically significant differences among all three pottery wares (Figure 6.4). The shell-tempered ware has the largest temper particles (n = 510, median = 1.85 mm), followed by gravel-tempered ware (n = 3,579, median = 1.40 mm) and grit-tempered ware (n = 245, median = 0.92 mm). Indeed, the differences among the ware groups are so great that their H-spreads barely overlap.

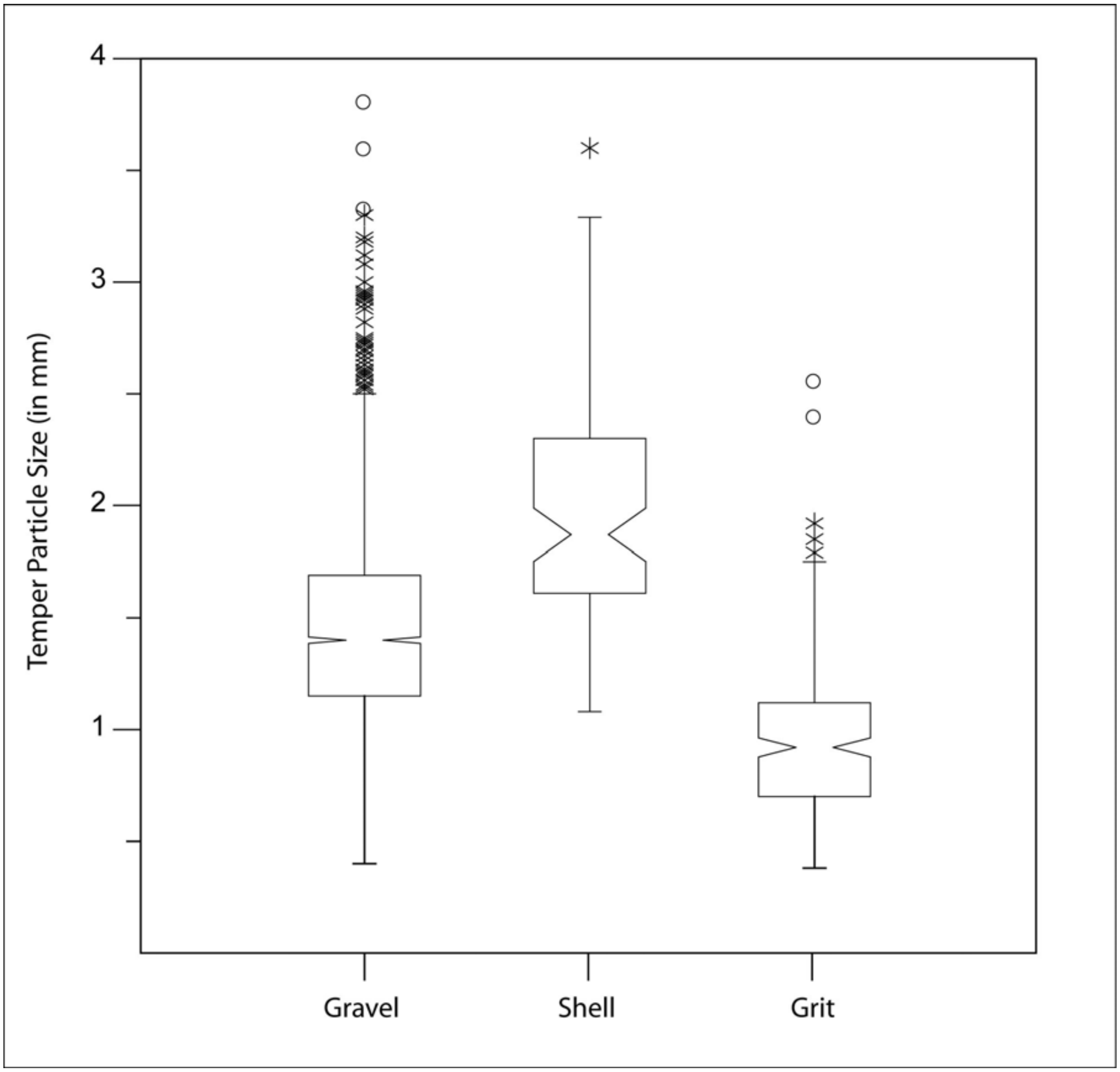

Figure 6.4. Boxplots comparing the distribution of temper particle size among the three Cherokee pottery ware groups.

There are also appreciable differences among the three wares with regard to the density of temper particles in the clay body. The most accurate quantitative method for this type of comparison would involve point counting temper particles in thin section slides under a low power microscope – a method that neither time nor money would allow. As an alternative basis for comparison along this dimension, I employ published visual estimation charts of temper particle density (Matthew et al. 1997:215-263; Orton et al. 1993:Figure A.4). While not as rigorous as petrologic analysis, I reason that visual estimation charts nevertheless provide a reasonably objective basis for comparison. The charts consist of a series of circles, each representing an equal area of a sherd cross-section containing various amounts of circular and angular temper particles. The charts are arranged according to different size ranges of temper particles (e.g., 0.5 mm to 1.0 mm, 1.0 mm to 3.0 mm, etc.) and measure the percentage of temper particles in 5% increments. In order to estimate the temper particle density of a sherd, one consults the chart with the proper temper particle size range and compares the actual sherd to the various depictions on the chart. When a match is found, one then reads the percentage value off the left hand margin of the chart. In the Townsend pottery sample, gravel-tempered and shell-tempered sherds have similar density values ranging between 20% and 35%. The density values of grit-tempered sherds are significantly lower – 10% to 20%. This last density value corresponds to that given by Shumate et al. (2005) for the Qualla-series ceramic assemblage recovered from the Alarka site.

Some degree of difference is also apparent among the ware groups in terms of the thickness of vessel walls. This measurement is taken along the midline of each body sherd in the sample. Sherds exhibiting spalling or significant erosion are not included in the analysis. The results of a comparison using notched boxplots indicate that the median sherd thickness of the gravel-tempered ware (n = 3330, median = 7.6 mm) is significantly greater than that of the shell-tempered ware (n = 475, median = 7.04 mm) and the grit-tempered ware (n = 237, median = 7.08 mm) (Figure 6.5). The median sherd thickness measures of the latter two groups are essentially identical.

Exterior and Interior Surface Treatment

The Townsend pottery sample exhibits a number of different exterior and interior surface treatments (Figure 6.6). The most common exterior surface treatment in the Townsend sample is plain (Table 6.1). Following the convention set by other researchers, in this study I make the distinction between three forms of plain surface treatment including plain, burnished, and coarse plain (Hally 1986a, 1994; Rodning 2004). Plain sherds have matte exterior surfaces and often feature very small striations resulting from the dragging of temper particles during the smoothing process (Figure 6.6a). These striations suggest that smoothing took place while the vessel was still fairly wet rather than at a leather hard stage. Burnished sherds exhibit polished surfaces that have been rubbed with a very smooth-surfaced tool (such as a bone or river pebble) and wiped with a piece of cloth or hide when the vessel was leather hard. In order to be categorized as burnished, sherds must actually reflect light. Coarse plain is a surface treatment category that includes sherds with bumpy exterior surfaces that are "dotted with protruding temper particles" (Figure 6.6b) (Hally 1986a:108). Like burnishing, it appears that Townsend potters achieved this effect by wiping the exterior surface of a vessel with a piece of cloth or hide. Unlike burnishing, where a potter wipes the exterior of a leather

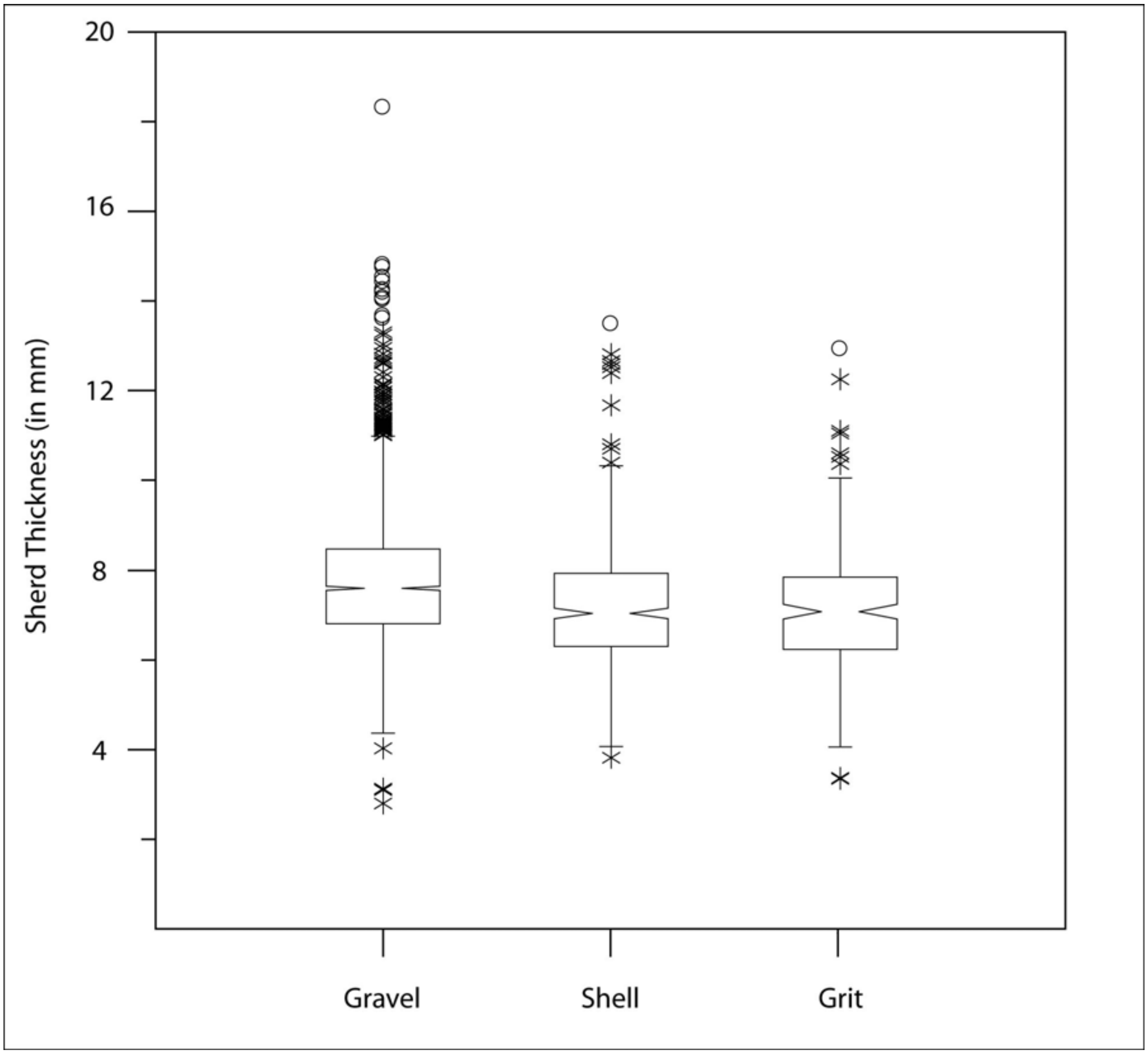

Figure 6.5. Boxplots comparing the distribution of sherd thickness among the three Cherokee pottery ware groups.

hard vessel drawing fine clay particles to the surface in order to achieve a polished appearance, in creating a coarse surface, a potter wipes a wet vessel in order to remove clay particles from the exterior leaving a rough surface studded with extruded temper particles. That this was an intentional practice is supported by the fact that the interior surfaces of many coarse plain sherds are smoothed or even burnished.

There has been little consistency in the way that carved paddle stamped pottery has been recorded and analyzed in Cherokee pottery assemblages. Because this surface treatment comprises such a large percentage of many Cherokee assemblages and because variability in this surface treatment appears to be temporally sensitive, these differences in classification method can potentially become serious impediments to constructing a robust Cherokee ceramic chronology.

The major differences among current classification methods result from the way each method deals with the fact that the entire design field of a carved paddle is often not present on a single sherd. For example, how does one classify a sherd that features a stamped impression consisting solely of parallel lines? In one classification system, this sherd would be classified as "simple stamped" (e.g., Baden 1983:53; Bates 1986:300; Russ and Chapman 1983:80), in another system, it would be called "rectilinear complicated stamped" (Smith et al. 1988:54), and in yet another classification system, it would be called "linear stamped" (Rodning 2004:271). Given that the relative percentages of sherds bearing curvilinear complicated stamped motifs and rectilinear complicated stamped motifs change through time, these three classificatory schemas will likely give different chronological estimates to the same assemblage. Recognizing the promise of carved paddle stamped pottery to be a powerful component in constructing

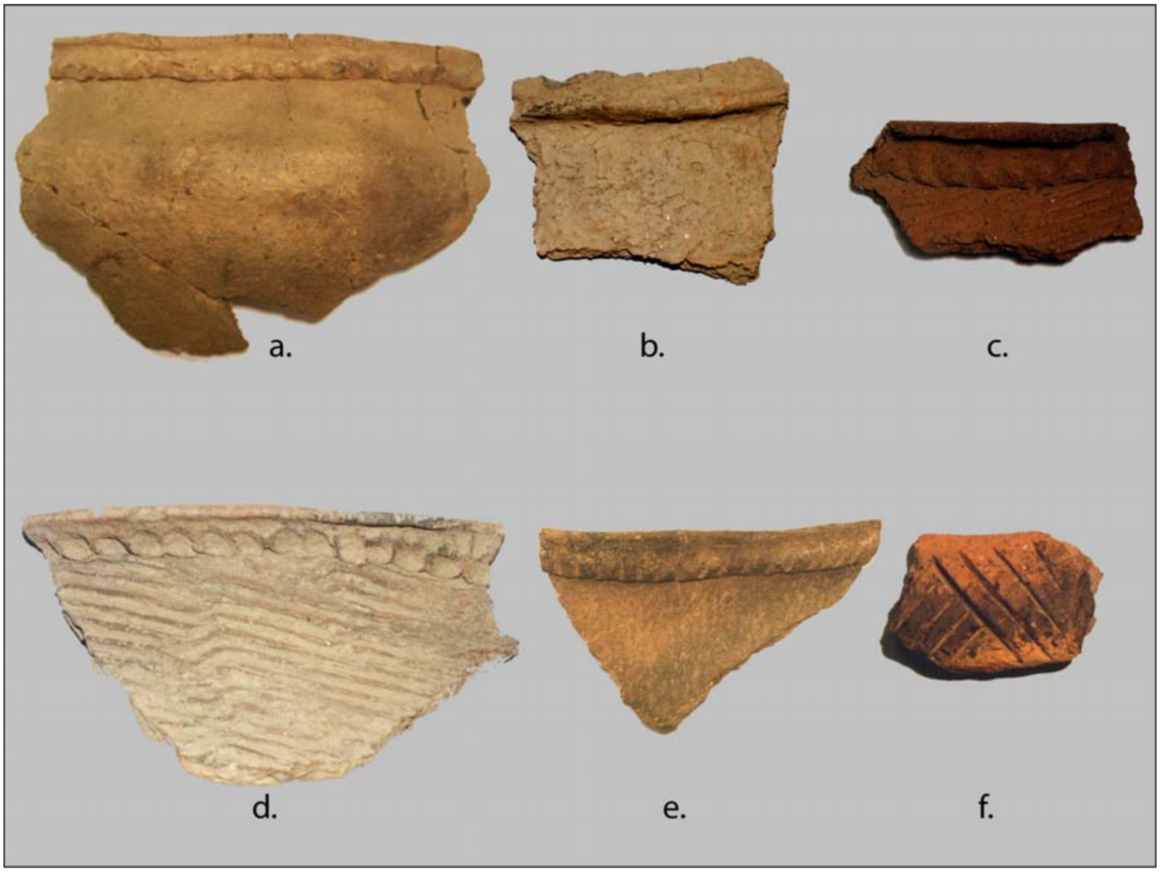

Figure 6.6. Exterior surface treatments and decorative rim modes in the Townsend pottery sample: a. plain globular jar with pinched rimstrip; b. coarse plain globular jar with smoothed rimstrip; c. linear stamped indeterminate globular jar with pinched and flattened rimstrip; d. curvilinear complicated stamped (wavy lines motif) globular jar with pinched and flattened rimstrip; e. cord marked globular jar with stylus notched rimstrip; f. incised (line-filled triangles motif) cazuela with unmodified rim.

ceramic chronologies, I argue for a classificatory system that strives for the greatest specificity while at the same time acknowledging the fragmentary nature of potsherd samples.

Fortunately, this system has already been developed and employed by Riggs (Shumate et al. 2005) and Rodning (2004). With relatively minor differences, theirs is a hierarchical classification system for carved paddle stamped pottery that can be thought of as progressing from least to most specific given the size and surface conditions of each sherd. The least specific group in the system is called "Indeterminate Stamped." This group consists of sherds exhibiting evidence of being stamped with carved wooden paddles but whose surfaces had been smoothed over or were otherwise modified precluding the identification of any decorative pattern (e.g., check stamped, simple stamped, complicated stamped).

Moving up the hierarchy, the next group is called "Indeterminate Linear Stamped." Sherds belonging to this group bear the impressions of a series of straight parallel lines (2-5 mm in width) formed by the lands and groves of a carved wooden paddle. These lines could have been part of paddle carved solely with a series of straight parallel lines (i.e., simple stamped), or they might represent a portion of a complex rectilinear or curvilinear motif (Figure 6.6c). Because the fragmentary nature of the sherds makes distinguishing among these motifs impossible, analytically these sherds are all considered to be part of the same group. Along with plain sherds, indeterminate linear stamped sherds make up the vast majority of the Townsend pottery assemblage (Table 6.1).

The next category, which is called "Complicated Stamped," includes sherds that bear impressions of multiple adjoining lines whose junctures form distinct angles. In this case, the analyst knows that the potter used a paddle bearing a complex motif; however, the sherds in this category are too small to determine whether the motif was curvilinear or rectilinear.

The most specific analytical groups are "Curvilinear Complicated Stamped" and "Rectilinear Complicated Stamped." These groups include sherds featuring multiple parallel or intersecting curved lines in the case of the former, and multiple intersecting straight lines in the latter case. In most cases, the small size of sherds makes identifying any particular motif very difficult. Motifs in the Townsend assemblage include concentric circles, concentric squares, figure "9" and "P" scrolls, and wavy lines (Figure 6.6d; Table 6.2). When a specific motif cannot be identified, I record the motif is as "indeterminate." Sometimes, it is apparent that the motif is either a figure "9" or a figure "P," and in these cases I record the motif as "indeterminate scroll."

A number of other exterior surface treatments are also present in the Townsend pottery assemblage. Simple stamping is a rather difficult surface treatment to identify with certainty in samples dominated by small sherds. In keeping with the conservative structure of the hierarchical paddle stamped classification method, I only identify sherds as simple stamped when two abutting edges of a single paddle are visible. Consequently, it is likely that the "indeterminate linear stamped" category contains some simple stamped sherds and that simple stamped sherds are underestimated in this analysis.

Cord marking, achieved by impressing the exterior surface of a wet vessel with a cord-wrapped paddle, is a rather common surface feature in the Townsend sample

Table 6.2. Relative frequencies of decorative motifs on Cherokee pottery at Townsend.

	n
Complicated Stamped	
Concentric circles	3
Concentric squares	1
Figure "9" scroll	5
Figure "P" scroll	1
Indeterminate scroll	23
Wavy lines	3
Indeterminate	125
Incised	
Line-filled triangles	5
Lines and semicircles	1
Nested half-squares	1
Indeterminate	21

(Figure 6.6e). The size of the cordage wrapped around the paddle ranges anywhere from 1 mm to 6 mm, suggesting different types of materials were used. In virtually all cases where the orientation of the sherd could be determined, the cord marking is arranged vertically. In one case, a cord-wrapped paddle was applied in such a way as to create a complex line block motif.

Scraped sherds feature prominent striations that are different from those present on sherds with plain surfaces. Rather than being caused by the dragging of temper particles across the surface of a vessel during smoothing, the striations present on scraped sherds were caused by a planar tool (probably made of shell or wood) that was used to thin the walls of a vessel. A small number of sherds exhibit surfaces that were battered or "roughened" with a corncob. This surface treatment is fairly easy to recognize even on small sherds given the distinct impressions left by the corn cupules.

Incised sherds feature straight or curved lines executed by dragging a pointed stylus across the exterior surface of a vessel. Most incised sherds in the Townsend sample are too small to identify a design motif; however, a few larger sherds bear recognizable motifs including line-filled triangles, nested half-squares, and parallel lines with semicircles (Figure 6.6f; Table 6.2).

Brushed surfaces evince a series of prominent striations that run in the same direction, usually perpendicular to the vessel lip. This surface treatment is distinguished from scraping by the depth of the striations and by the diagnostic ridges of clay that flank either side of each striation. These ridges represent the wake that results from dragging a bundle of twigs or some similar material across a wet vessel surface.

The remainder of the Townsend pottery sample is comprised of exterior surface treatments that occur in very minor amounts. A few instances of body sherds bearing fingernail and stylus punctations are present, but the overwhelming majority of sherds bearing these modifications are rimstrips. The Townsend sample also includes two examples of large check stamping (>3 mm) and a single example of exterior redfilming or slipping. Finally, the residual category "eroded" includes sherds with surfaces that have been severely worn to the point where any decorative surface treatment has been obliterated.

Interior surface treatments applied to the Townsend pottery assemblage evince much less variability than exterior surface treatments. Seven different interior surface treatments are present in the Townsend pottery sample – plain, plain and smudged, burnished, burnished and smudged, coarse plain, scraped, and redfilmed. The characteristics of the plain, burnished, coarse plain, and scraped interior surface treatments are identical to their exterior surface treatment counterparts. The blackened interior surfaces of smudged sherds result from a secondary firing procedure where already fired vessels are placed in a smoke rich, oxygen deprived (or reduced) atmosphere. This procedure allows carbon particles to permeate and fill voids in the vessel walls making the vessels watertight. Redfilming is a rare interior surface treatment that also is aimed at making vessels watertight. This surface treatment is obtained by applying a red-tinted colloidal suspension or slip to the interior of vessels. Redfilming appears to be unique to the Townsend assemblage as it does not appear in any other published descriptions of contemporary Overhill- or Qualla-series pottery assemblages.

Distinctions among the three potting traditions practiced by Townsend households are manifested in exterior surface treatments. These distinctions are readily apparent when the relative percentages of exterior surface treatments are compared across the three Cherokee pottery wares in the Townsend sample. The most striking distinction involves the predominance of plain surface treatments among the shell-tempered ware and the high frequencies of paddle stamped surface treatments (i.e., indeterminate linear stamped, complicated stamped, curvilinear complicated stamped, simple stamped, and cord marked) among the gravel- and grit-tempered wares (Table 6.3; Figure 6.7). Almost 99% of shell-tempered sherds evince plain, burnished, coarse plain, or scraped surfaces compared to 42.5% of the gravel-tempered ware and 31.2% of the grit-tempered ware. Conversely, only 0.7% of shell-tempered sherds bear paddle stamped surfaces, while these treatments comprise 38.5% of the gravel-tempered assemblage and 55.2% of the grit-tempered assemblage. Incising, while rare among gravel- and grit-tempered wares, is totally absent from the shell-tempered assemblage.

This major distinction involving plain and paddle stamped surface treatments sets the gravel-tempered and grit-tempered wares apart from the shell-tempered ware. A closer inspection of the relative frequencies of exterior surface treatments, however, reveals that the two rock-tempered wares also differ in a number of ways. First, while the collective proportion of plain, burnished, and coarse plain are roughly similar in gravel- and grit-tempered wares, coarse plain is a much more prevalent exterior surface treatment among gravel-tempered sherds (Table 6.3; Figure 6.7). Second, indeterminate linear stamped, complicated stamped, and curvilinear complicated stamped sherds are approximately twice as numerous in the grit-tempered assemblage than in the gravel

Table 6.3 Relative frequencies of exterior surface treatments among the three Cherokee temper groups at Townsend.

	Plain		Burnished		Coarse Plain		Indeterminate Stamped		Indeterminate Linear Stamped		Complicated Stamped	
	n	%[a]	n	%	n	%	n	%	n	%	n	%
Gravel	881	25.6	27	0.8	476	14.4	502	15.1	714	19.9	48	1.5
Shell	360	84.7	5	1.2	0	0.0	0	0.0	2	0.5	0	0.0
Grit	55	23.5	8	3.4	6	2.6	28	12.0	92	39.3	9	3.9

	Curvilinear Complicated Stamped		Simple Stamped		Cord Marked		Scraped		Cob Roughened		Incised		Brushed	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Gravel	134	4.0	26	0.8	407	12.3	56	1.7	25	0.8	11	0.3	10	0.3
Shell	0	0.0	0	0.0	1	0.2	54	12.7	3	0.7	0	0.0	0	0.0
Grit	25	10.7	0	0.0	3	1.3	4	1.7	0	0.0	1	0.4	3	1.3

note: This comparison only includes surface treatments comprising more than 0.1% of the total pottery sample recovered from Townsend.
[a] Percentages are given for the ware group, not the total pottery sample. Thus, plain surfaces comprise 25.6% of the gravel-tempered ware, 84.7% of the shell-tempered ware, and 23.5% of the grit-tempered ware found at Townsend.

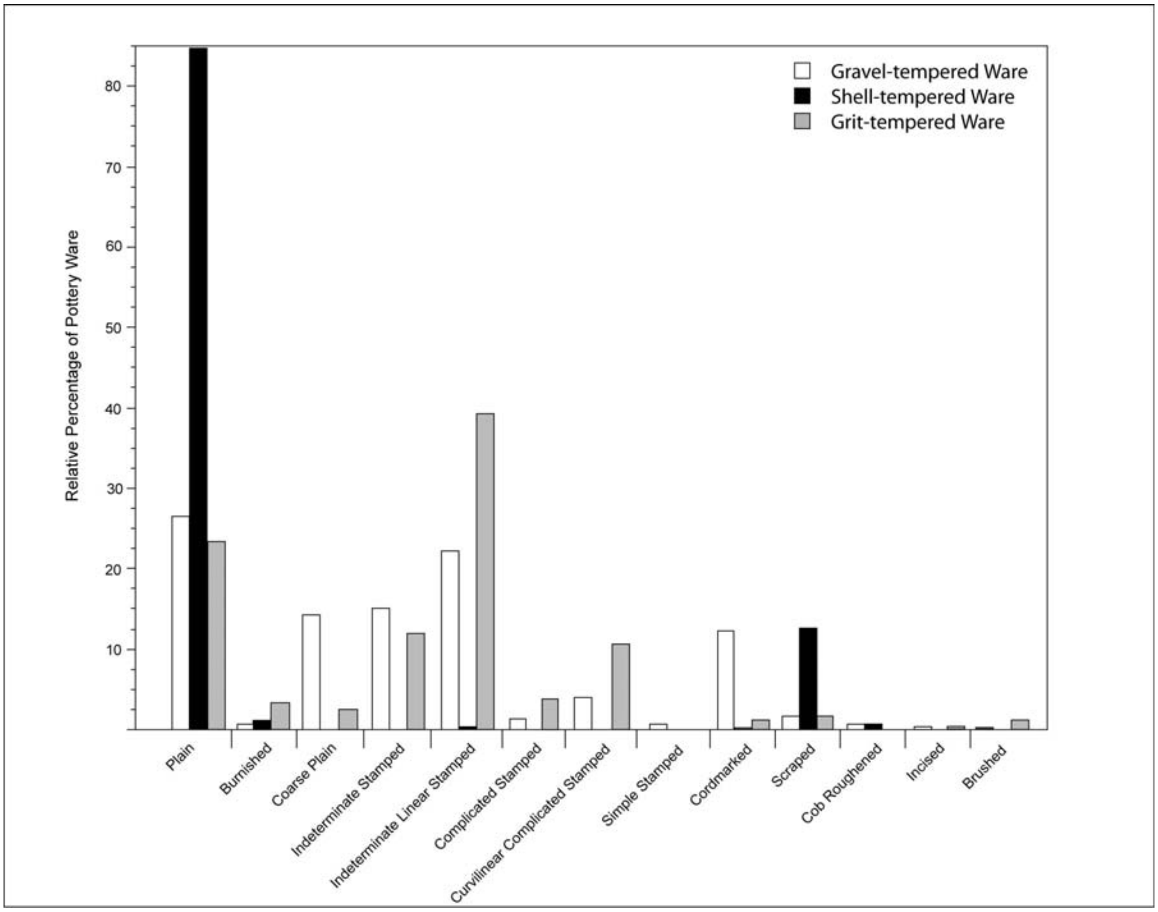

Figure 6.7. Relative percentages of exterior surface treatments among the three Cherokee temper groups at Townsend. This comparison only includes surface treatments comprising more than 0.1% of the total pottery sample recovered from Townsend.

tempered assemblage. Third, although comprising only a small minority of the total sample, simple stamping only occurs on the gravel-tempered ware. Lastly, the proportion of cord marking in the gravel-tempered assemblage (12.3%) is significantly greater than that in the grit-tempered assemblage (1.3%).

There is much less ware-based variability among interior surface treatments in the sample. In this case, the distinction is largely between the shell-tempered ware on one hand and the gravel- and grit-tempered wares on the other. Plain, plain and smudged, and scraped interior surfaces dominate the shell-tempered assemblage, followed by very small amounts of burnished and burnished and smudged (Table 6.4; Figure 6.8). The gravel-tempered and grit-tempered assemblages contain less plain interior surfaces than the shell-tempered ware. Conversely, sherds in these ware groups have relatively more burnished and burnished and smudged interiors than those in the shell-tempered assemblage. Redfilmed interiors comprise a small minority of the gravel-tempered and grit-tempered assemblages and are absent in the shell-tempered assemblage.

Vessel Form

Previous research has identified a number of different vessel forms associated with Overhill- and Qualla- series pottery assemblages (Bates 1986; Hally 1986b; King 1977; Riggs and Rodning 2002; Rodning 2004; Wilson and Rodning 2002). As discussed in Chapter 4, however, our understanding of variability in Qualla-series vessel forms (especially temporal variability) is much more detailed than that of the Overhill series. This is due to the fact that the Overhill ceramic series is based on samples drawn primarily from Colonial, Revolutionary, and Federal period contexts (post A.D. 1740).

Table 6.4 Relative frequencies of interior surface treatments among the three Cherokee temper groups at Townsend.

	Plain		Plain/Smudged		Burnished		Burnished/Smudged		Coarse Plain		Scraped		Redfilmed	
	n	%[a]	n	%	n	%	n	%	n	%	n	%	n	%
Gravel	2303	69.0	547	16.4	152	4.6	204	6.1	101	3.0	9	0.3	23	0.7
Shell	335	86.1	36	9.3	4	1.0	1	0.3	0	0.0	13	3.3	0	0.0
Grit	159	68.2	22	9.4	21	9.0	26	11.2	1	0.4	0	0.0	4	1.7

[a] Percentages are given for the ware group, not the total pottery sample. Thus, plain interior surfaces comprise 69.0% of the gravel-tempered ware, 86.1% of the shell-tempered ware, and 68.2% of the grit-tempered ware found at Townsend.

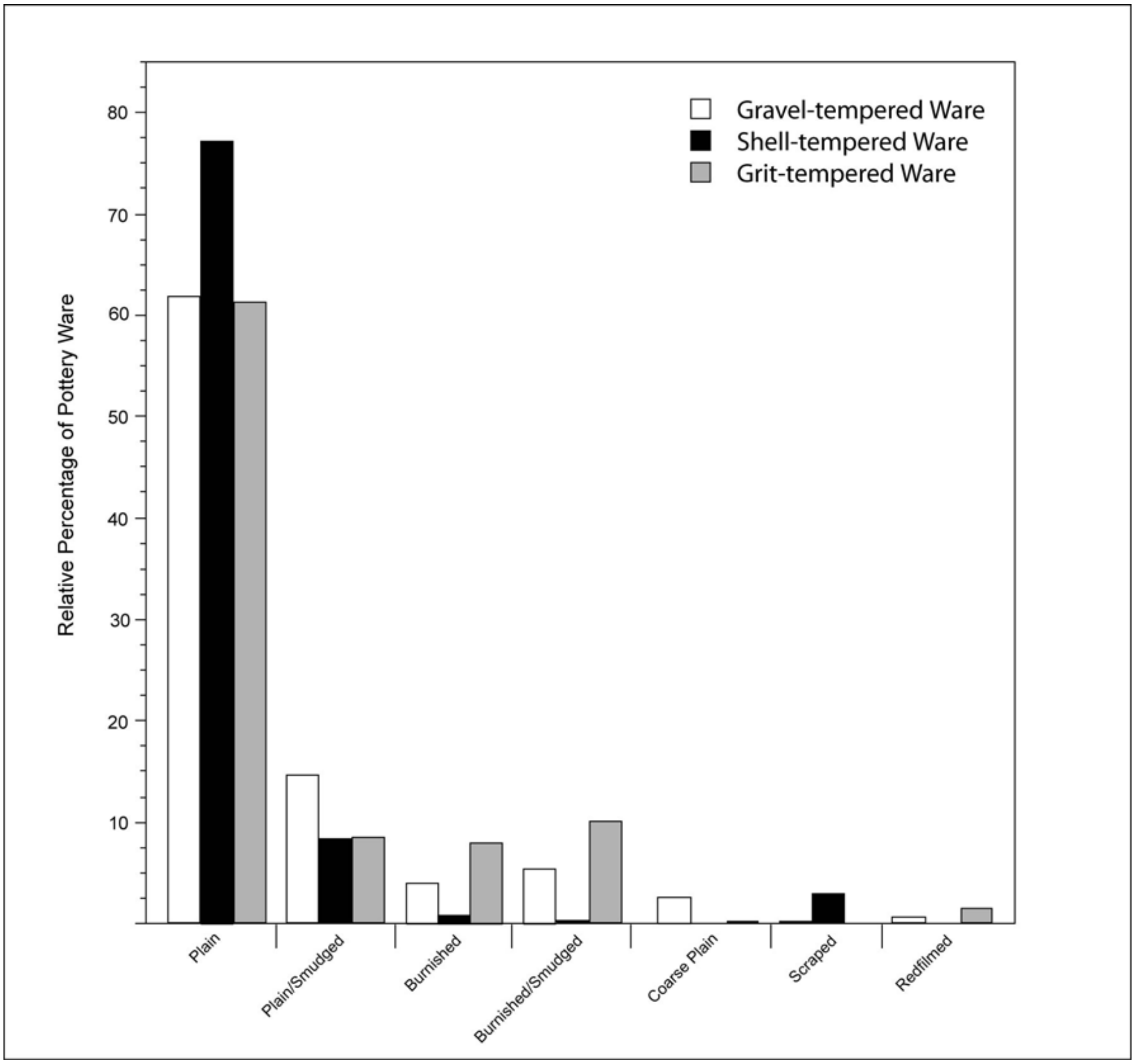

Figure 6.8. Relative percentages of interior surface treatments among the three Cherokee temper groups at Townsend.

Because the pottery sample recovered from the Townsend sites represents a vessel assemblage associated with the preceding early English Contact period (ca. A.D. 1670-1720), it provides crucial data needed to improve our understanding of temporal variability in Overhill Cherokee vessel forms. The Townsend sample is especially suited to extending the Overhill ceramic chronology because it is comprised of refuse from a number of short-term (probably less than a decade) single household occupations (see Chapter 7).

My definitions of vessel classes are informed by the functional analyses of historic and prehistoric Overhill-, Qualla-, and Lamar- series vessels conducted by King (1977), Hally (1986a, 1986b), Wilson, and Rodning (Wilson and Rodning 2002). Collectively, these studies provide a very robust set of functional vessel classes based on shape, use wear, ethnohistoric accounts, and interviews with contemporary potters. In order to provide a relatively unbiased basis for quantitative comparison, the analyses presented in this section are based on minimum number of vessel (MNV) estimates. MNV estimates have been derived using a number of methods, but I choose to base my MNV estimates solely on counts of unique rim sherds (Orton et al. 1993; Shapiro 1984; Wilson 2005). This method results in the most conservative vessel count estimates reflecting the composition of the vessel assemblages that were used and discarded by the Cherokee households at Townsend.

The Townsend pottery sample contains unique rim sherds representing a minimum of 329 vessels. These rim sherds can be sorted into four major vessel classes including globular jars (n = 129), simple bowls (n = 13), restricted orifice bowls (n = 34), and cazuelas (n = 17) (Table 6.5). The sample also includes a number of rimstrip

Table 6.5. Minimum number of vessel (MNV) counts in the Townsend study sample.

Basic Shape		n	%
Globular Jar			
Gravel-tempered		105	31.9
Shell-tempered		14	4.3
Grit-tempered		10	3.0
	total	129	39.2
Simple Bowl			
Gravel-tempered		11	3.3
Shell-tempered		2	0.6
Grit-tempered		0	0.0
	total	13	4.0
Restricted Orifice Bowl			
Gravel-tempered		30	9.1
Shell-tempered		2	0.6
Grit-tempered		2	0.6
	total	34	10.3
Cazuela			
Gravel-tempered		16	4.9
Shell-tempered		0	0.0
Grit-tempered		1	0.3
	total	17	5.2
Indeterminate			
Gravel-tempered		107	32.5
Shell-tempered		17	5.2
Grit-tempered		12	3.6
	total	136	41.3
	Total	**329**	**100.0**

fragments (n = 48) and rim sherds that were too small to confidently assign to a vessel class. With the exception of cazuelas, the relative frequencies of the three pottery wares among vessels are essentially the same as the body sherd sample.

Globular Jars (Figure 6.9, 6.10, 6.11, 6.12, 6.13). The globular jar is by far the most common identifiable vessel class in the Townsend sample. This class includes vessels with recurvate profiles featuring rounded bases, restricted necks, and excurvate to highly everted rims (Hally 1986b:277; King 1977:160; Shapiro 1984:702). The distribution of orifice diameter estimates suggests that jars were produced in two sizes – small jars with orifice diameters ranging from 11 cm to 22 cm and large jars with orifice diameters ranging from 26 cm to 42 cm (Figure 6.14). The existence of two size classes among Townsend households is supported by the identification of an identical distribution of orifice diameters among the jar assemblage from the Coweeta Creek site (Wilson and Rodning 2002:30). Small jars in the Townsend sample are further distinguished from large jars in that they possess unmodified rims (i.e., they lack rimstrips). Functional analyses and ethnohistoric accounts have demonstrated that large jars were most commonly used for preparing hominy, cooking, and storing large quantities of foodstuffs while small jars were used to cook or reheat small quantities of food (Hally 1986b:269, 285-286; Wilson and Rodning 2002:31-32). King (1977:162-163) adds that the largest Cherokee jars could have been used in the fermenting process for a form of corn beer or could have acted as serving pots for large communal meals.

As with most Cherokee vessel assemblages, virtually all of the large jars in the Townsend sample possess thickened rims achieved by the addition of a coil or strip of

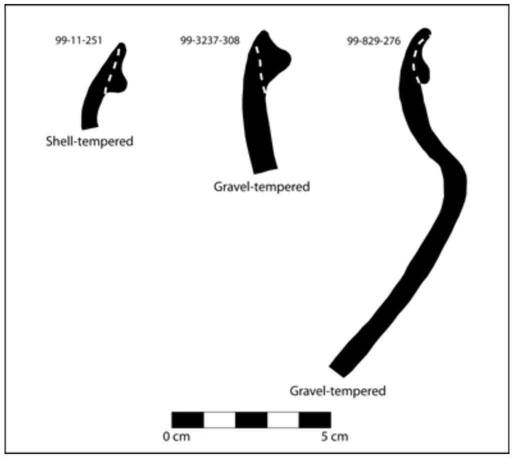

Figure 6.9. Large globular jars with pinched appliqué rimstrips.

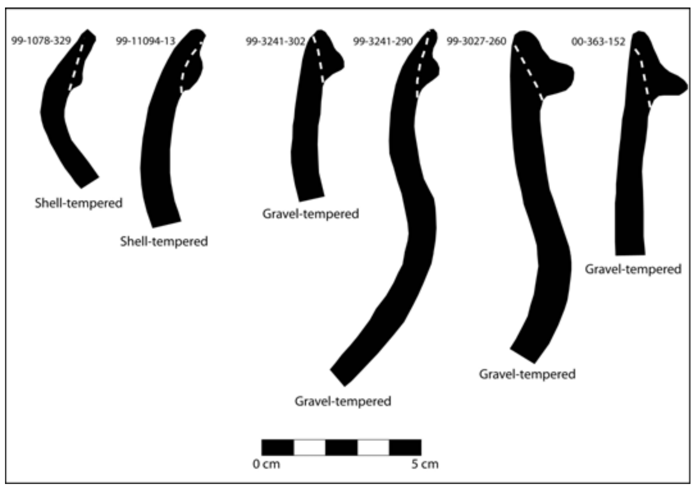

Figure 6.10. Large globular jars with stylus notched appliqué rimstrips.

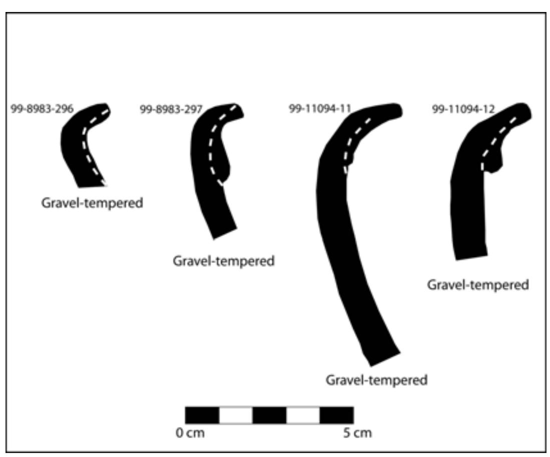

Figure 6.11. Large globular jars pinched and flattened rimstrips.

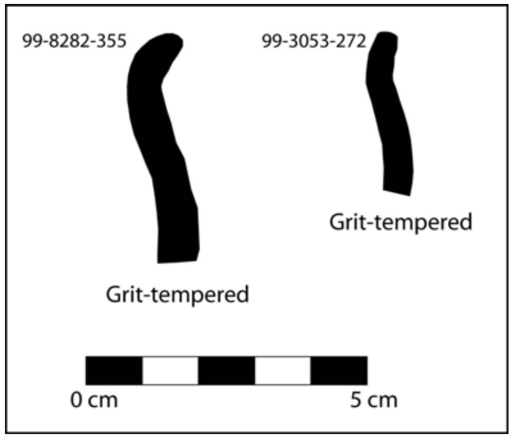

Figure 6.12. Small globular jars.

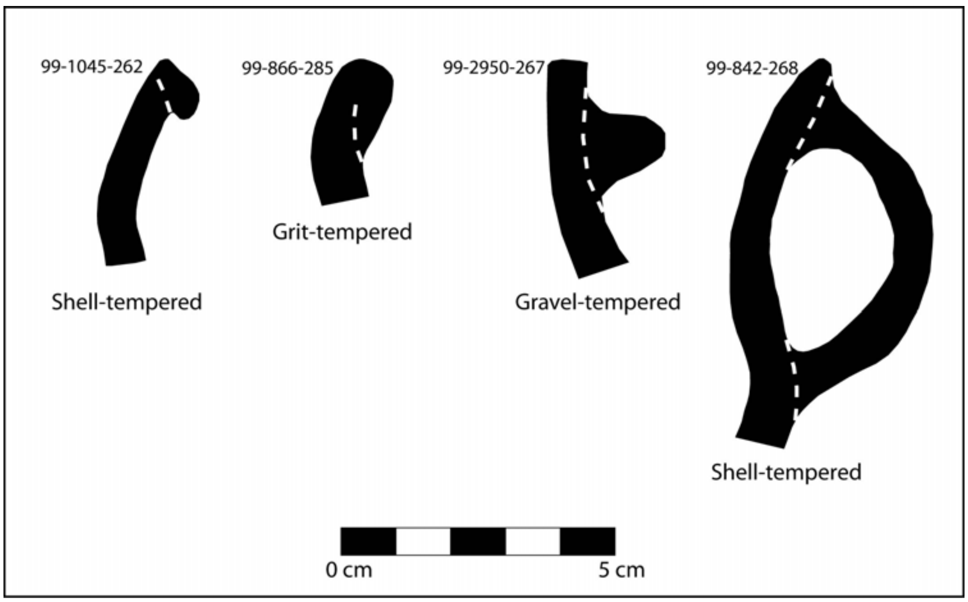

Figure 6.13. Large jars with an L-shaped rim (far right), a rolled rim (middle right), a lug handle (middle left), and a strap handle (far left).

clay at or near the lip of the vessel (i.e., rimstrips). In past work, the term "pinched rim jar" has been applied broadly to many large jars found in Cherokee assemblages (Hally 1986a; Wilson and Rodning 2002). This naming practice, however, is confusing given that large jars in Cherokee assemblages typically exhibit a variety of different rimstrip elaborations, many of which are temporally diagnostic (e.g., Riggs and Rodning 2002; Rodning 2004; Shumate et al. 2005). Indeed, large jars in the Townsend sample can be divided into six groups based on distinct modes of rim elaboration (or lack thereof) (Figure 6.6, Table 6.6).

The three most common jar rim modes include excurvate rims with pinched appliqué rimstrips (Figures 6.6a, 6.9), excurvate rims with stylus notched appliqué rimstrips (Figures 6.6e, 6.10), and highly everted rims with pinched and flattened rimstrips (Figures 6.6c, 6.6d, 6.11). Because of their pronounced thickness, the first rim two modes are commonly referred to as "filleted" rimstrips, while the latter is the rim mode for which the term "pinched rim" jar was originally coined (Hally 1986b; Smith et al. 1988). In order to empirically test this distinction between rim modes, I borrow a term coined by Riggs (Shumate et al. 2005:6.10) and employ a measure I call "coronal thickness." Coronal thickness is calculated by subtracting the thickness of the vessel just beneath the rimstrip corona from the maximum thickness of the rimstrip corona (Figure 6.15). Comparing coronal thickness across the three main rim modes, there is a statistically significant difference between jars with excurvate rims and pinched appliqué rimstrips (n = 31, median = 4.33 mm, mean = 4.81 mm, SD = 2.00) and stylus notched appliqué rimstrips (n = 24, median = 4.40 mm, mean = 4.98 mm, SD = 1.86) on the one hand, and jars with highly everted rims and pinched and flattened rimstrips (n = 55,

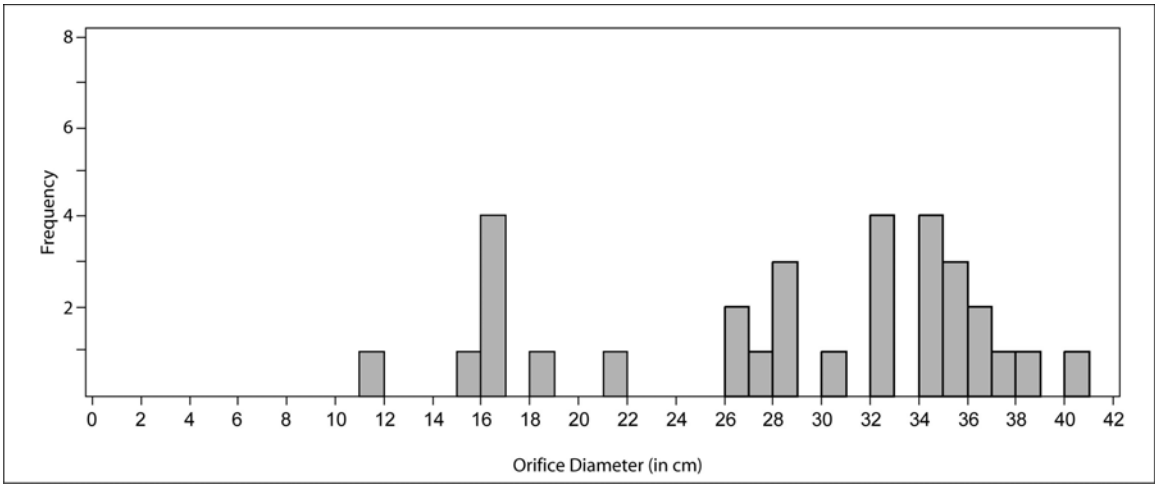

Figure 6.14. Histogram depicting the distribution of orifice diameter estimates among globular jars.

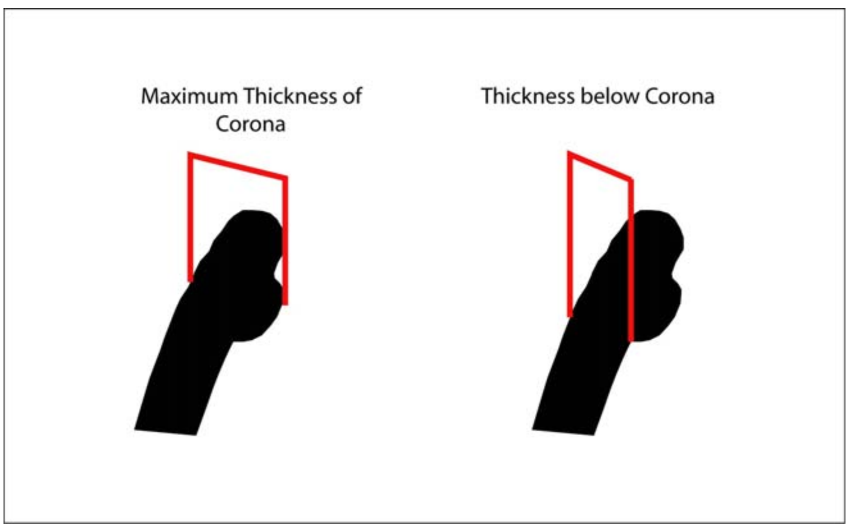

Figure 6.15. Measuring coronal thickness.

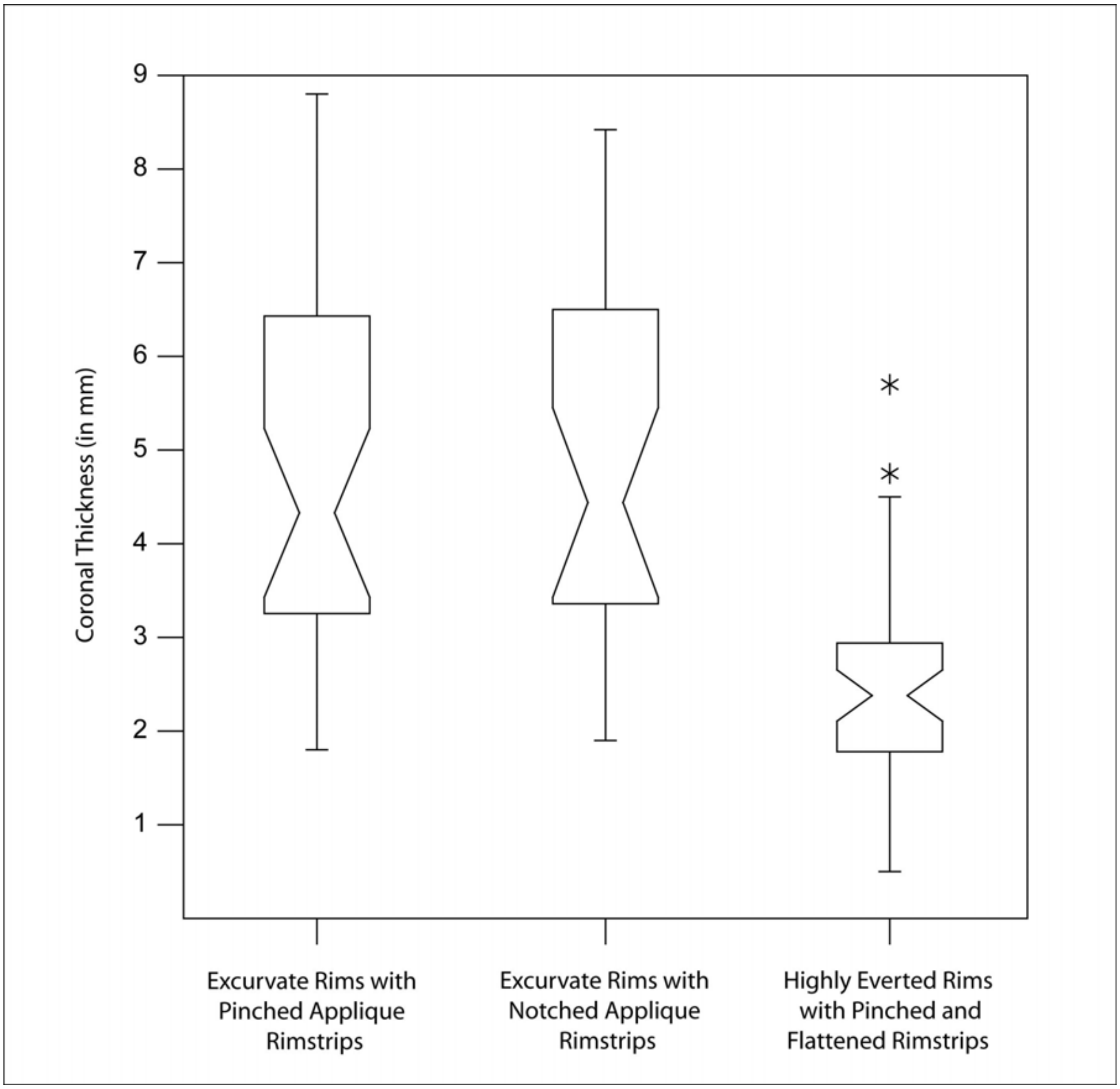

Figure 6.16. Boxplots comparing the distributions of coronal thickness among the three most common jar rim modes.

median = 2.19 mm, mean = 2.07 mm, SD = 1.40) on the other (Figure 6.16). This result suggests that potters were intentionally choosing between distinct styles of rim elaboration. Minority rim modes in the sample include ten unmodified rims, a single "L-shaped" rim, and three "rolled" rims. A jar rim sherd with single lug handle and another exhibiting a strap handle are also present in the sample (Figure 6.13).

Exterior surface treatments do not exhibit much variability across the sample of large jars; however, the distribution of rim modes across the three pottery wares reveals some significant differences (Table 6.6). The three varieties of plain ware dominate the surface treatments of large jars, comprising over 82% of the assemblage. Among the gravel-tempered and grit-tempered wares, jars with highly everted rims and pinched and flattened rimstrips by far outnumber jars with excurvate rims and pinched or notched appliqué rimstrips. Conversely, in the shell-tempered ware group jars with excurvate rims and pinched or notched appliqué rimstrips dominate, and jars with highly everted rims and pinched and flattened rimstrips are entirely absent.

Simple Bowls (Figure 6.17). This vessel class is characterized by a hemispherical profile featuring a rounded base. This class includes vessels whose orifice diameter is also the maximum diameter of the vessel. Only two rim sherds in the Townsend sample are large enough to obtain orifice diameter estimates, which are 22 cm and 24 cm. Both Hally (1986b:289) and King (1977:155) assign a serving function to simple bowls pointing to the stability of this vessel form, the lack of evidence that it was used for cooking (i.e., exterior sooting and pitting), evidence of heavy use-wear, and a large orifice diameter to depth ratio.

Table 6.6 Exterior surface treatments and rim modes applied to large globular jars in the Townsend sample.

	Plain	Burnished	Coarse Plain	Indeterminate Stamped	Indeterminate Linear Stamped	Curvilinear Complicated Stamped	Cord Marked	Scraped	Eroded	**Total**
Gravel-tempered jars										
-excurvate rims with pinched appliqué rimstrips	18	0	4	0	1	0	0	0	0	**23**
-excurvate rims with notched appliqué rimstrips	5	0	6	1	0	0	3	1	0	**16**
-highly everted rims with pinched and flattened rimstrips	35	1	5	3	5	1	1	0	0	**51**
-L-shaped rims	0	0	0	0	0	0	0	0	0	**0**
-Rolled rims	1	1	0	0	0	0	0	0	0	**2**
-unmodified rims	5	0	0	0	1	0	1	1	0	**8**
Shell-tempered jars										
-excurvate rims with pinched appliqué rimstrips	5	0	0	0	0	0	0	0	1	**6**
-excurvate rims with notched appliqué rimstrips	5	0	0	0	0	0	0	0	1	**6**
-highly everted rims with pinched and flattened rimstrips	0	0	0	0	0	0	0	0	0	**0**
-L-shaped rims	1	0	0	0	0	0	0	0	0	**1**
-Rolled rims	0	0	0	0	0	0	0	0	0	**0**
-unmodified rims	0	0	0	0	0	0	0	0	0	**0**
Grit-tempered jars										
-excurvate rims with pinched appliqué rimstrips	2	0	0	0	0	0	0	0	0	**2**
-excurvate rims with notched appliqué rimstrips	1	0	0	0	0	0	0	0	0	**1**
-highly everted rims with pinched and flattened rimstrips	4	0	0	0	0	0	0	0	0	**4**
-L-shaped rims	0	0	0	0	0	0	0	0	0	**0**
-Rolled rims	1	0	0	0	0	0	0	0	0	**1**
-unmodified rims	1	0	0	0	1	0	0	0	0	**2**
Total	**84**	**2**	**15**	**4**	**8**	**1**	**5**	**2**	**2**	**123**

Of the 13 simple bowls in the Townsend sample, 11 were gravel tempered and two were shell tempered (Table 6.7). Ten of the 13 specimens were a form of plain ware, while the surface treatments of the remaining three specimens included one indeterminate linear stamped, one complicated stamped, and one cord marked. Stamping on these specimens covers the entire vessel. Although unmodified rims dominated the sample, two gravel-tempered specimens evinced pinched appliqué rimstrips and a single shell-tempered bowl had a notched appliqué rimstrip (Figure 6.17).

*Restricted Orifice Bowls (*Figure 6.18). Specimens belonging to this vessel class feature a hemispherical profile, yet as the name implies, they have inverted rather than vertical rims. Thus, unlike simple bowls, the maximum diameter of restricted orifice bowls is located beneath the lip – it is a shouldered vessel. Restricted orifice bowls also differ in shape from cazuelas, another shouldered bowl form (see below), in that they lack sharply carinated shoulders. The range of orifice diameters among restricted orifice bowls in the Townsend sample (11 cm-32 cm) is similar to that found by Wilson and Rodning (2002:32) for the same vessel class in the Coweeta Creek sample. This suggests that restricted orifice bowls were made in a rather large range of sizes, but the sample size (n = 8) from Townsend is too small to distinguish any size modes (Figure 6.19). In their analysis of the Coweeta Creek assemblage, Wilson and Rodning (2002:32) assign a serving function to restricted orifice bowls based on their size, lack of sooting, and shape. In regard to shape, they argue that the restricted orifice would have allowed for easier movement of food contents with a lower risk of spillage than a simple bowl form.

Table 6.7. Exterior surface treatments applied to simple bowls in the Townsend sample.

	Plain	Burnished	Coarse Plain	Indeterminate Linear Stamped	Complicated Stamped	Cord Marked	**Total**
Gravel-tempered simple bowls	5	2	1	1	1	1	**11**
Shell-tempered simple bowls	2	0	0	0	0	0	**2**
Total	**7**	**2**	**1**	**1**	**1**	**1**	**13**

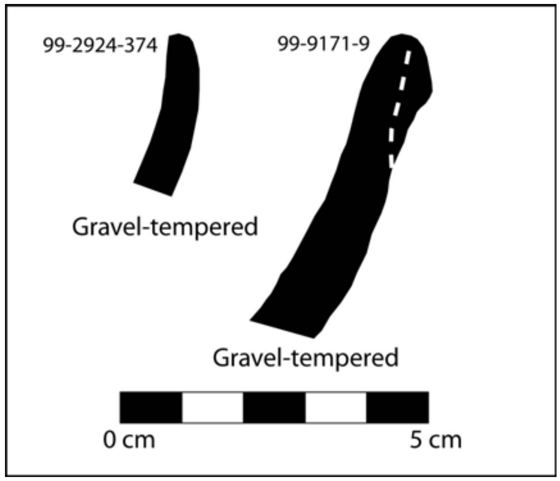

Figure 6.17. Simple bowls.

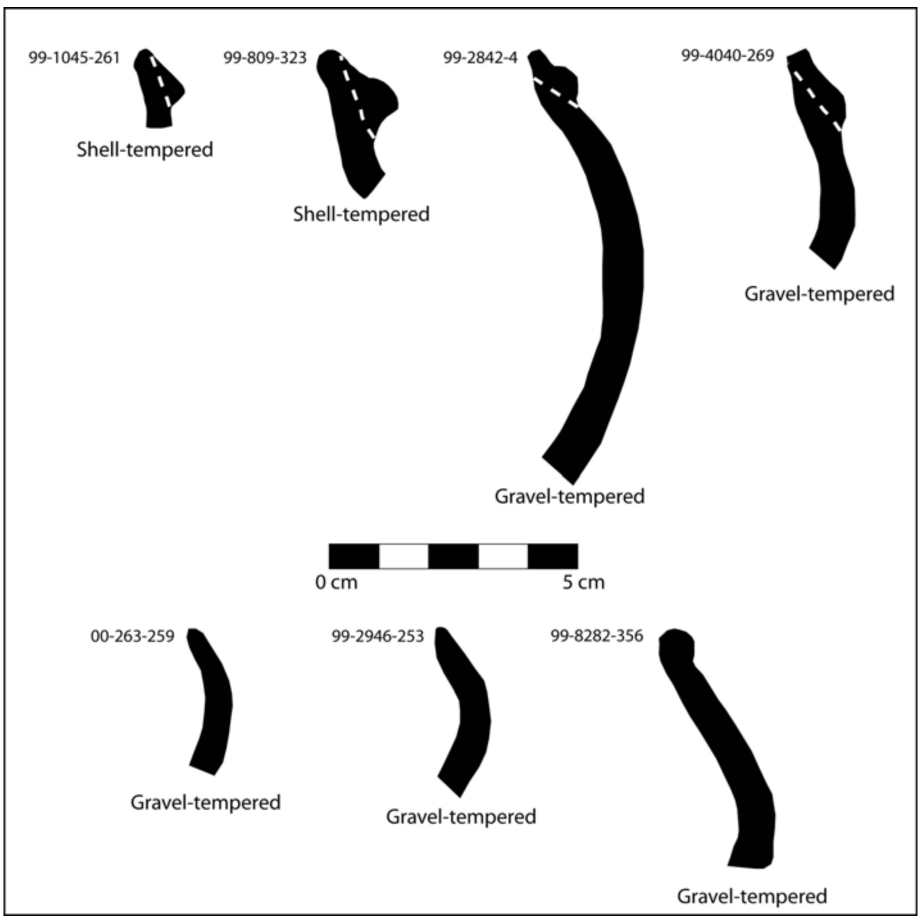

Figure 6.18. Restricted orifice bowls with folded rims (top row) and unmodified rims (bottom row).

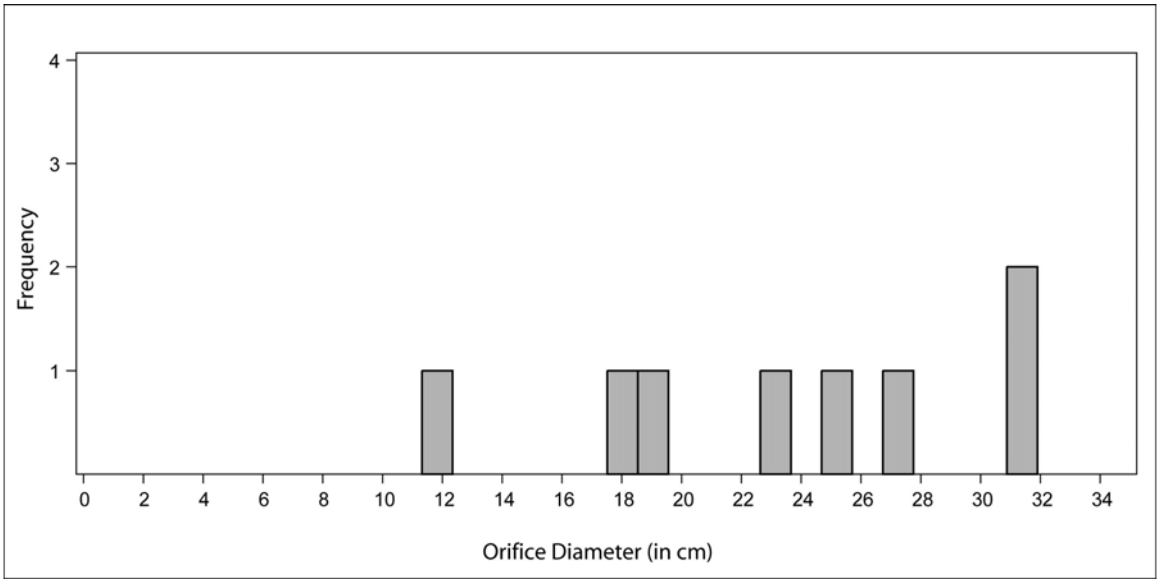

Figure 6.19. Histogram depicting the distribution of orifice diameter estimates among restricted orifice bowls.

Table 6.8 presents a tabulation of rim modes and exterior surface treatments arranged by pottery ware. There are two major forms of restricted orifice bowl – those with thickened rims and those with unmodified rims. The majority of restricted orifice bowls in the Townsend sample possess thickened rims. The method used to thicken the rims of these bowls differs from jars in that most of the rims appear to have been folded rather than applied as a single coil. Consequently, rimstrips on restricted orifice bowls tend to be narrower than those applied to globular jars as measured from the vessel lip to the bottom of the rimstrip (globular jars n = 104, median = 18.08 mm; restricted orifice bowls n = 19, median = 13.32 mm) (Figure 6.20). Furthermore, while pinching and stylus notching are present, stylus punctating and smoothing are the most common forms of rimstrip embellishment occurring on restricted orifice bowls. The exterior surface treatments associated with this vessel class include plain, burnished, indeterminate stamped, indeterminate linear stamped, and cord marked with the first two treatments comprising over two-thirds of the sample. As with simple bowls, stamping and cord marking are present across the entire surface of the vessel. Unfortunately, the small number of shell-tempered and grit-tempered specimens in the sample precludes the exploration of ware-based variability in rim mode or exterior surface treatment for this vessel class.

Cazuelas (Figure 6.21). Cazuelas, also known as carinated bowls, are vessels with inverted rims and sharply angled shoulders. Cazuelas possess either flat or round bases, although the latter form appears to be more common among historic period Cherokee assemblages. None of the rim sherds in the Townsend sample is large enough to provide

Table 6.8. Exterior surface treatments and rim modes applied to restricted orifice bowls in the Townsend sample

	Plain	Burnished	Indeterminate Stamped	Indeterminate Linear Stamped	Cord Marked	Eroded	**Total**
Gravel-tempered restricted orifice bowls							
-folded and punctated rims	9	0	1	0	0	0	**10**
-folded and smoothed rims	4	0	0	1	0	0	**5**
-folded and pinched rims	3	0	0	0	1	0	**4**
-folded and notched rims	2	0	0	0	0	0	**2**
-indeterminate rims	0	0	1	0	1	1	**3**
-unmodified rims	2	1	2	0	1	0	**6**
Shell-tempered restricted orifice bowls							
-folded and punctated rims	1	0	0	0	0	0	**1**
-folded and smoothed rims	0	0	0	0	0	0	**0**
-folded and pinched rims	0	0	0	0	0	0	**0**
-folded and notched rims	1	0	0	0	0	0	**1**
-indeterminate rims	0	0	0	0	0	0	**0**
-unmodified rims	0	0	0	0	0	0	**0**
Grit-tempered restricted orifice bowls							
-folded and punctated rims	0	0	0	1	0	0	**1**
-folded and smoothed rims	0	0	0	0	0	0	**0**
-folded and pinched rims	0	0	0	0	0	0	**0**
-folded and notched rims	0	0	0	0	0	0	**0**
-indeterminate rims	0	0	0	0	0	0	**0**
-unmodified rims	1	0	0	0	0	0	**1**
Total	**23**	**1**	**4**	**2**	**3**	**1**	**34**

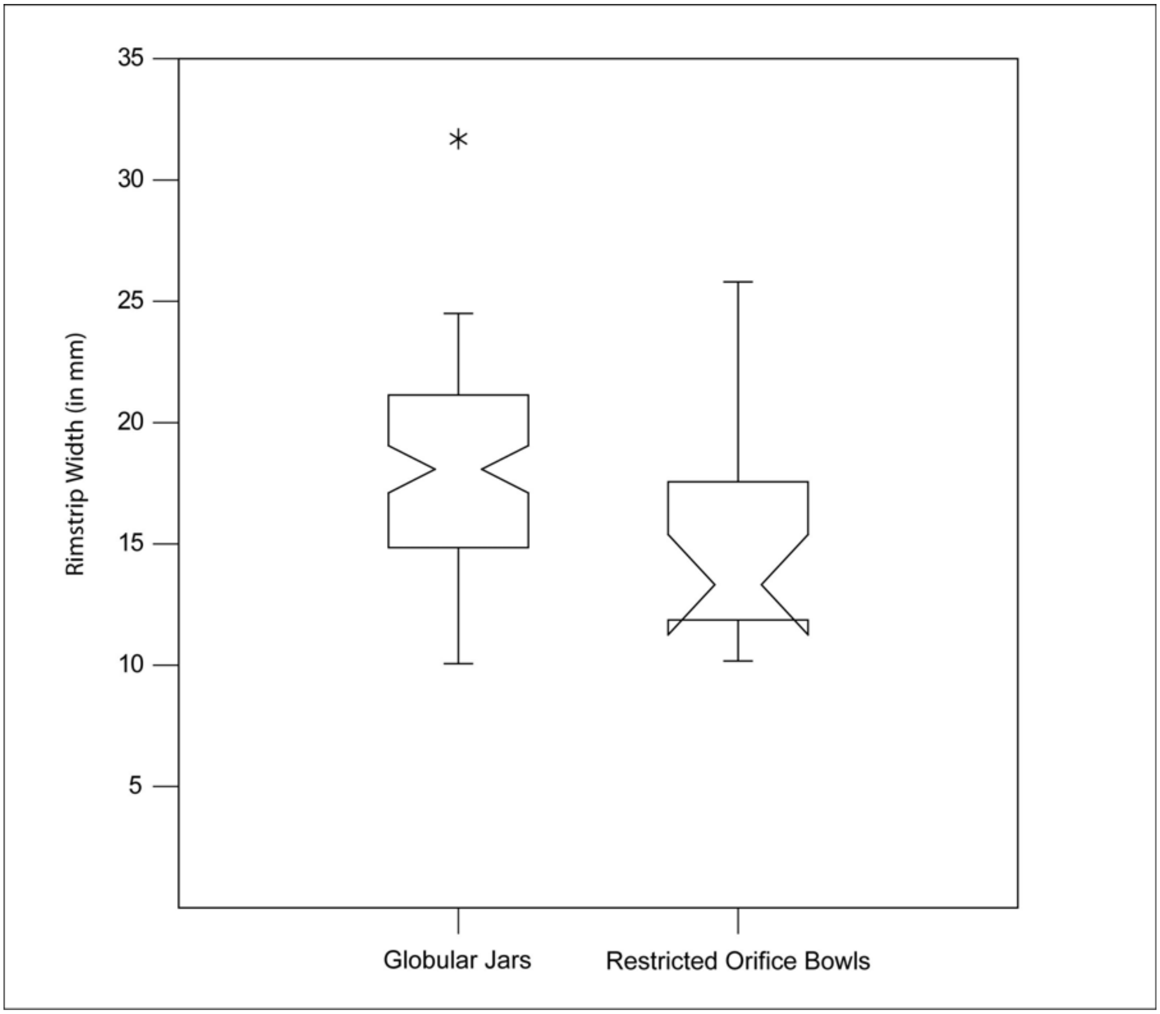

Figure 6.20. Boxplots comparing the distribution of rimstrip width between globular jars and restricted orifice bowls in the Townsend sample.

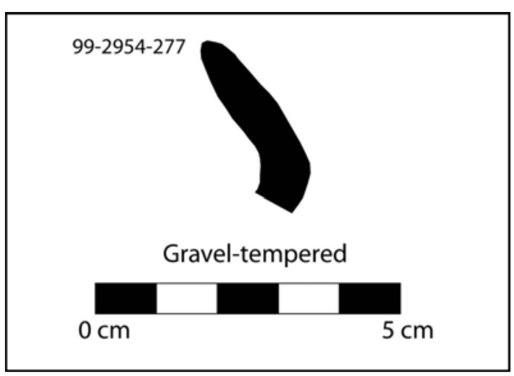

Figure 6.21. Cazuela.

a reliable estimate of orifice diameter. Wilson and Rodning (2002:33) report a size range of 9 cm to 30 cm for cazuelas in the Coweeta Creek sample, and it is likely that the Townsend cazuelas are similar in size to the other bowl forms. Shape, evidence of use wear, and the common presence of exterior sooting have led researchers to conclude that cazuelas were multi-purpose vessels used in food preparation, cooking, and serving (Hally 1986b:288-289; King 1977:159; Shapiro 1984:707; Wilson and Rodning 2002:33).

Aside from their distinctive shape, cazuelas typically lack rim modification and evince incised decoration above the vessel shoulder (Shumate et al. 2005:6.11; Wilson and Rodning 2002:33). Rimstrips are usually absent from Overhill- and Qualla-series cazuelas; however, there are some known cazuela specimens, including one from the Townsend sample, that possess notched strips at the vessel shoulder (e.g., Egloff 1967:47; King 1977:159). All but two of the cazuelas in the Townsend sample bear incised decorations between the vessel shoulder and lip (Table 6.9). Four of the specimens are decorated with line-filled triangle motifs, and single specimens bear nested half-square and lines and semicircles motifs. The remainder of the specimens bears one or two intersecting or parallel incised lines that are too incomplete to associate with a particular motif. In general, Qualla-series cazuelas are complicated stamped beneath the vessel shoulders while Overhill-series cazuelas are plain. Only one of the Townsend cazuela sherds includes the area beneath the vessel shoulder and it is plain. Sixteen of the cazuelas in the Townsend sample are gravel-tempered and one is grit-tempered. The cazuela form is not represented among the shell-tempered ware.

Table 6.9. Exterior surface treatments applied to cazuelas in the Townsend sample.

	Incised (line-filled triangles)	Incised (nested half- squares)	Incised (lines and semicircles)	Incised (indeterminate motif)	Plain	**Total**
Gravel-tempered cazuelas	4	1	0	9	2	**16**
Shell-tempered cazuelas	0	0	0	0	0	**0**
Grit-tempered cazuelas	0	0	1	0	0	**1**
Total	**4**	**1**	**1**	**9**	**2**	**17**

Table 6.10. Decorative modes applied to rimstrip fragments in the Townsend sample.

	Pinched	Notched	Pinched and Flattened	Smoothed	Indeterminate	**Total**
Gravel-tempered rimstrips	10	12	11	2	8	**43**
Shell-tempered rimstrips	1	1	0	0	2	**4**
Grit-tempered rimstrips	1	0	0	0	0	**1**
Total	**12**	**13**	**11**	**2**	**10**	**48**

Rimstrip Fragments. The pottery sample from Townsend contains 48 potsherds that represent fragments of rimstrips. These sherds cannot be identified as rims because they are missing the lip portion of the vessel. Table 6.10 presents a tabulation of these sherds arranged by pottery ware and rimstrip mode. Most of these fragments are gravel-tempered, with pinched appliqué rimstrips, notched appliqué rimstrips, and pinched and flattened rimstrips occurring in roughly equal frequencies.

Summary

Taken together, the analyses presented above suggest that Overhill Cherokee pottery assemblages dating to the early English Contact period (ca. A.D. 1670-1720) in the Little River valley were much more heterogeneous than those associated with later eighteenth-century contexts in the lower Little Tennessee River valley. Indeed, differences in pottery ware, exterior surface treatment, and vessel form strongly indicate that the community of potters living at Townsend practiced three distinct potting traditions – two of which are recognized by archaeologists as belonging to the Overhill and Qualla pottery series. The third and most prominent potting tradition in the community appears to have been a geographically localized phenomenon that has only now been formally described.

Differences in four paste attributes (temper material, temper particle size, density of temper particles, and vessel wall thickness) indicate that the Cherokee households at Townsend were making pottery vessels of three different wares, each of which was intentionally created through the manipulation of paste composition. The most ubiquitous ware, comprising approximately 85% of the sample, was tempered with water-worn gravel and was by far the thickest and coarsest. This was most definitely a locally made ware. Another thinner but equally coarse ware tempered with crushed mussel shell was used by Townsend households. While much less common, it was nevertheless present in sufficient proportions (10%) to suggest that it was a local product. The least common ware found at Townsend, comprising roughly 5% of the assemblage, was very similar in thickness and paste composition to Qualla-series pottery. While not conclusive, the number of grit-tempered sherds (n = 245) is not out of line with the argument that this ware was produced locally, especially considering the high proportion of plain grit-tempered sherds in the Townsend sample compared with Qualla-series samples from contemporaneous sites in North Carolina and South Carolina (see inter-site comparisons below).

Distinctions among the three potting traditions were also expressed as differences in surface treatment and vessel form. Virtually all of the shell-tempered ware was plain, while the majority of both gravel-tempered and grit-tempered wares were paddle stamped. These latter two wares could also be distinguished by the popularity of plain and cord marked sherds among the gravel-tempered ware and the relatively high proportions of linear stamped and complicated stamped sherds among the grit-tempered ware. Ware-based variability in vessel form followed a similar pattern. Whereas the various vessel forms composing the gravel-tempered and grit-tempered MNV assemblages were present in roughly similar proportions, jars with highly everted rims and pinched and flattened rimstrips and cazuelas were completely absent from the shell-tempered MNV assemblage.

Variability among Townsend Household Pottery Assemblages

Thus far, I believe I have demonstrated the existence of three distinct potting traditions based on differences in pottery ware, exterior surface treatment, and vessel form. The last piece of evidence I marshal in support of my argument involves the spatial distribution of these potting styles among Townsend households. Are the three potting styles present in each of the Townsend household pottery assemblages in equal proportions? If not, how do differences in the relative composition of household pottery assemblages spatially map onto the community? I answer these questions through quantitative comparisons of household pottery assemblages. First, I conduct a correspondence analysis in order to identify consistent associations of tempering agents and exterior surface treatments among household assemblages. Then, I compare the composition of household vessel assemblages using MNV.

The six Cherokee households identified during the Townsend excavations are widely spaced, making the association of archaeological contexts with particular households clear-cut (Figure 6.22). In the Townsend pottery sample, 4,187 out of 4,343 body sherds can be associated with a particular household. Appendix B2 presents the relative composition of each household pottery assemblage with regard to pottery ware and exterior surface treatment. A cursory glance at Appendix B2 reveals that the distribution the three pottery wares among the six Townsend households is not uniform. Quite to the contrary, Household 1 and Household 2 contain much higher percentages of the shell-tempered ware than the other Townsend households. Moreover, the pottery assemblages from Households 3, 4, and 5 are all similarly dominated by the gravel-

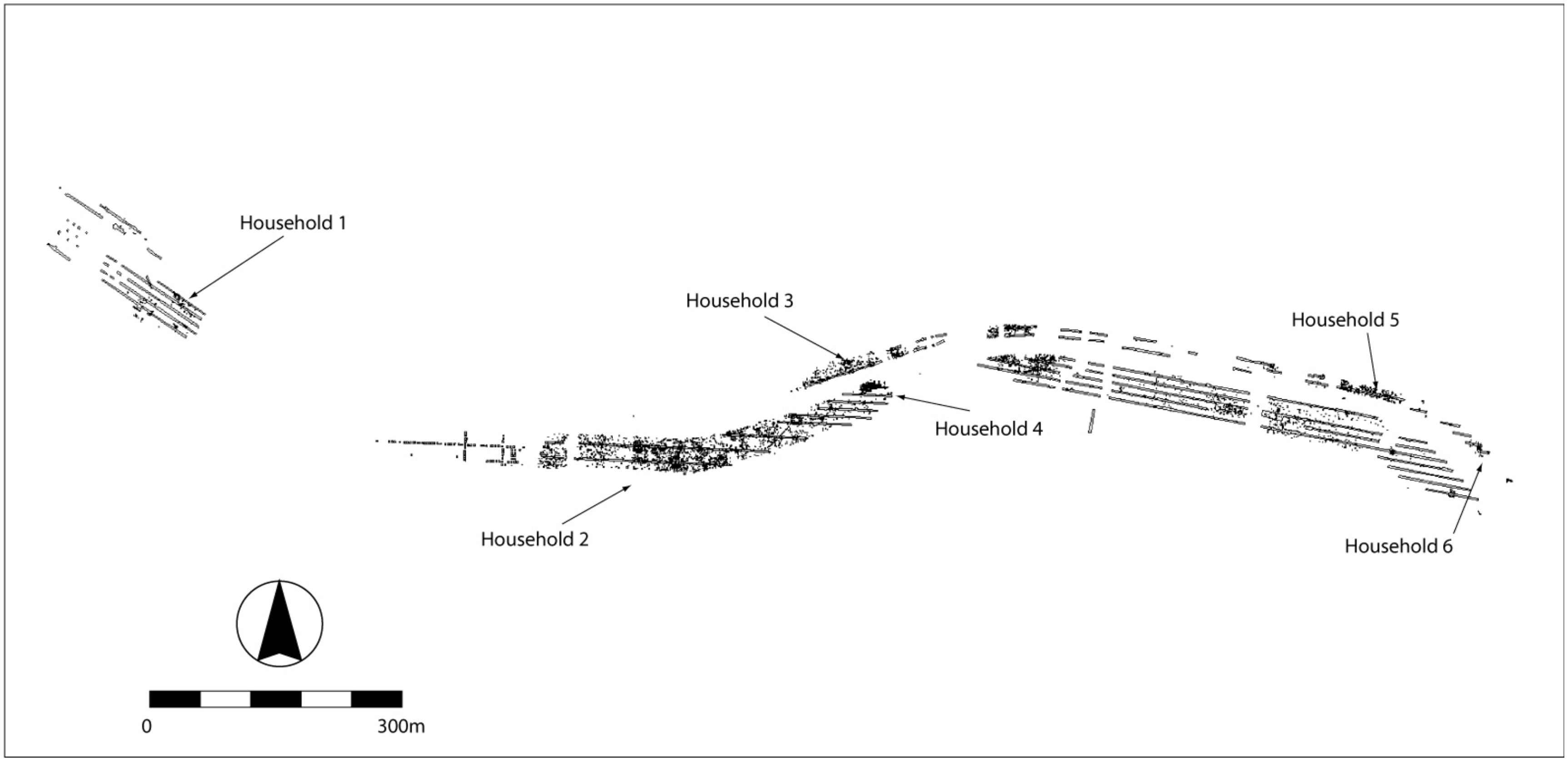

Figure 6.22. Map depicting the locations of the six Cherokee households identified during the Townsend project.

tempered ware, while the assemblage associated with Household 6 contains a greater relative amount of the grit-tempered ware.

Inspecting Appendix B2 it is difficult to discern any household-level patterning in the distribution of exterior surface treatments – there are simply too many variables. Fortunately, correspondence analysis (CA) excels at reducing the dimensionality of data matrices by measuring the associations among both cases (in this case household pottery assemblages) and variables (in this case exterior surface treatments and pottery ware) simultaneously (see Baxter 1994; Shennan 1997; and Chapter 4 for a more detailed discussion of this method). One of the most useful results of this technique is a biplot that depicts the relative degree of association of household pottery assemblages, as well as that of the different combinations of pottery ware and exterior surface treatments (Figure 6.23). In interpreting the biplot, one can infer (1) that the pottery types located near one another in the biplot typically occur together in the same contexts; (2) that household assemblages (e.g., Household 1, Household 2, etc.) located near one another have similar pottery assemblages; and (3) that the pottery types located near each household assemblage in the biplot represent the dominant types in each of those assemblages. The distribution presented in the biplot (Figure 6.23) accounts for 85.9% of the variability in data matrix, meaning that CA is able to accurately portray the majority of the variability in the original twelve dimension data matrix (Appendix B2) using just two dimensions (the *x* and *y axes* in Figure 6.23).

The biplot resulting from this CA not only reveals the previously identified pattern in the distribution of the three pottery wares, but it also identifies significant patterning in the household-level distributions of surface treatments (Figure 6.23).

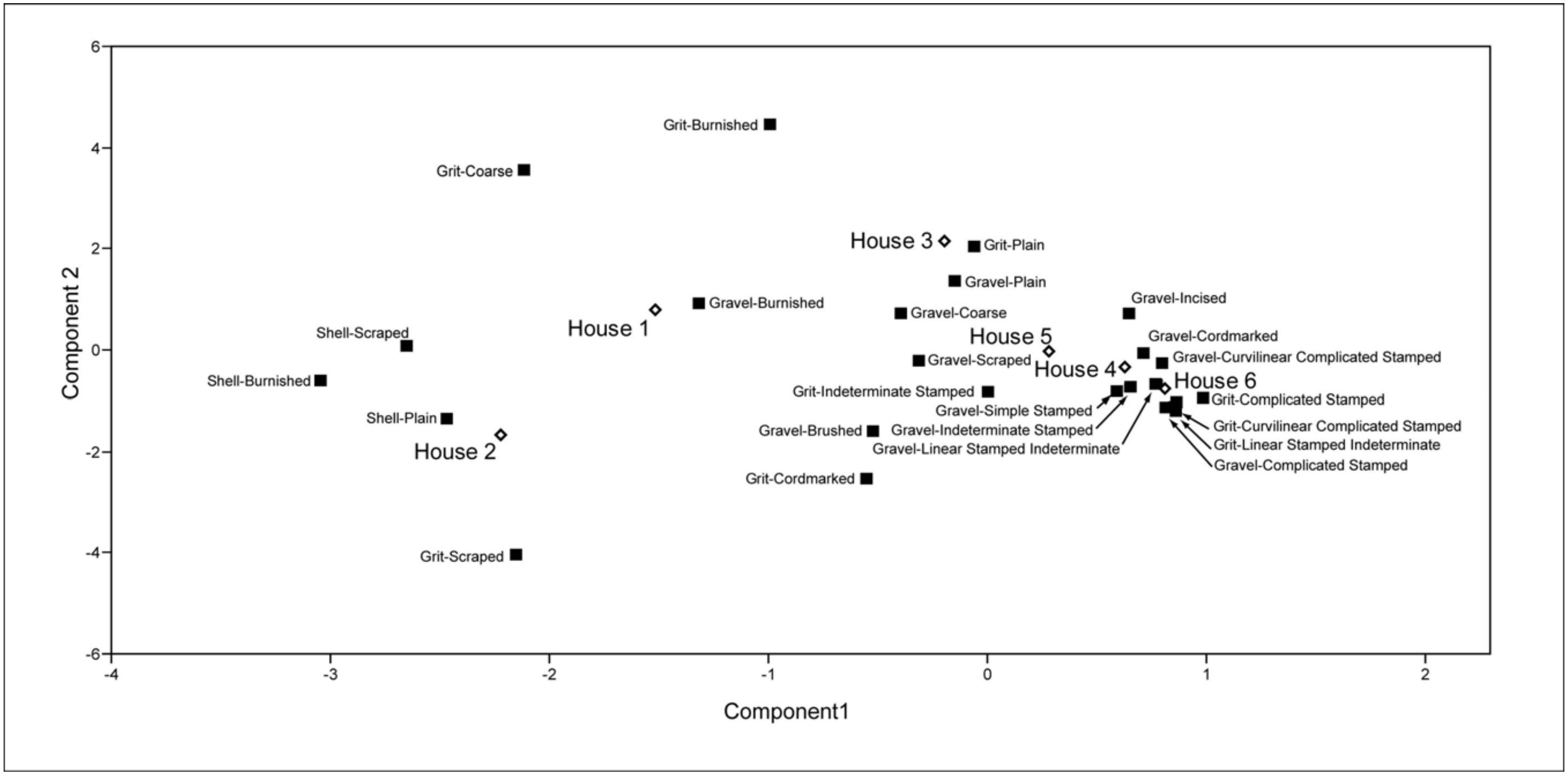

Figure 6.23. Biplot depicting the results of the correspondence analysis conducted on household pottery assemblages at Townsend.

Clustering of the locations of the household-level pottery assemblages in the biplot (symbolized by open diamond symbols) suggests that the assemblages associated with Household 1 and Household 2 are similar and those associated with Household 4, Household 5, and Household 6 are similar. Furthermore, the locations of these clusters at opposite ends of the *x-axis* indicate a large degree of difference between these pottery assemblages. The assemblage associated with Household 3 is different from both of these clusters. Considering the distributions of the pottery types, it is clear that the assemblages associated with Household 1 and Household 2 are dominated by shell tempering and plain, burnished, and scraped exterior surface treatments. The assemblages associated with Households 4, 5, and, 6 are significantly different, being comprised primarily of gravel-tempered and grit-tempered paddle stamped wares. The pottery assemblage associated with Household 3 differs from the other two clusters in its lack of shell-tempered ware and the predominance of plain, coarse plain, and burnished surface treatments. Also, the distribution these three different pottery assemblage clusters is replicated in the actual spatial distribution of the Townsend households. Shell-tempered plain wares are concentrated in the two western most households while the pottery assemblages associated with the eastern households are dominated by gravel-tempered and grit-tempered paddle stamped pottery.[3]

The relative proportions of different functional classes among household vessel assemblages are surprisingly similar considering the great variability in pottery ware and external surface treatments. Ignoring differences in rim modes among globular jars, the vessel assemblages (measured using MNV) associated with Households 1, 2, 3, and 4 contain very similar proportions of globular jars, restricted orifice bowls, and simple bowls (Figure 6.24). The vessel assemblages associated with Households 5 and 6 differ dramatically, but this difference likely reflects sample bias in that the former assemblage is dominated by sherds from a single pit feature and the latter assemblage only contains two unique vessel rims. When differences in rim modes among globular jars are considered, the vessel assemblage associated with Household 4 stands out because it includes a much higher proportion of jars with highly everted rims and pinched and flattened rimstrips (Table 6.11). In fact, this household includes 48 of the 52 instances of this rim mode in the Townsend sample. This difference is further emphasized by the significant presence of cazuelas in the Household 4 assemblage and their absence in unbiased assemblages associated with the other households (i.e., Households 1-3). It is possible that the differences in the Household 4 assemblage are associated with temporal differences in occupation given that the pinched and flattened jar rim mode and cazuelas are more typical of an earlier Middle Qualla phase assemblage (see Chapter 4); however, the differences could equally be due to the much larger sample size associated with Household 4.

To summarize, the comparisons of household pottery assemblages identified two important patterns: (1) there was considerable stylistic variability among the potting practices of Townsend households – expressed as differences in pottery ware and in exterior surface treatments applied to vessels and manifested spatially among households in the community; and (2) in spite of these clear stylistic differences, household vessel assemblages were comprised of similar proportions of functional vessel classes. Together, these patterns support the argument that household-level differences in pottery

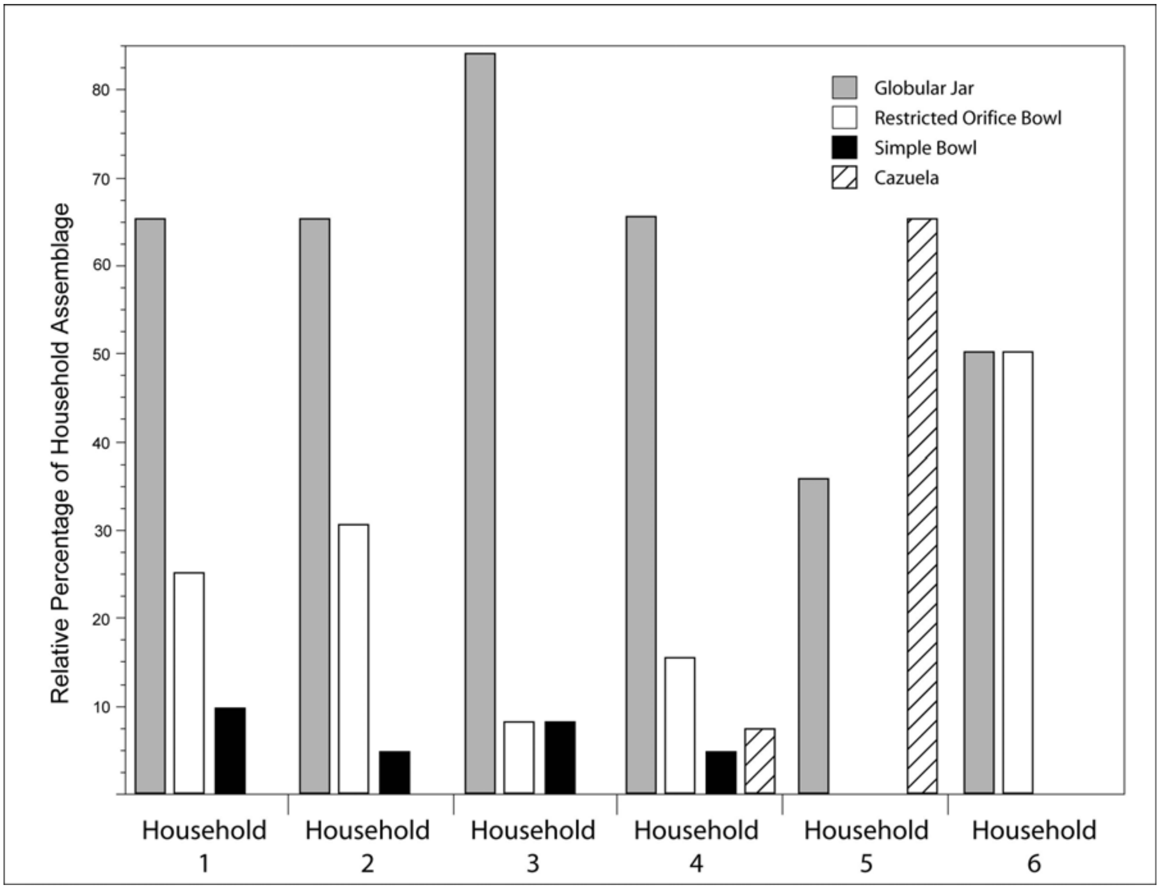

Figure 6.24. Comparison of vessel assemblages among Townsend households.

Table 6.11. Composition of household vessel assemblages (measured in MNV) at Townsend.

	Large Jars w/pinched appliqué rimstrips		Large Jars w/notched appliqué rimstrips		Large Jars w/pinched and flattened rimstrips		Other Large Jars		Restricted Orifice Bowls		Simple Bowls		Cazuelas		**Total**	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	**n**	**%**
Household 1	4	17	10	44	0	0	2	4	6	26	2	9	0	0	**24**	**100**
Household 2	4	20	8	40	1	5	0	0	6	30	1	5	0	0	**20**	**100**
Household 3	3	25	3	25	1	8	3	25	1	8	1	8	0	0	**12**	**100**
Household 4	19	17	1	<1	48	43	6	5	18	16	6	5	8	7	**106**	**95**[a]
Household 5	1	9	0	0	2	18	1	9	0	0	0	0	7	64	**11**	**100**
Household 6	0	0	0	0	0	0	1	50	1	50	0	0	0	0	**2**	**100**

[a]This total is less than 100% because the Household 4 vessel assemblage also includes six small jars – a vessel class that was not present in any other household context and thus was not included in this tally.

assemblages more than likely resulted from differences in the potting traditions that were being practiced by each household – traditions that were learned and passed on.

Contextualizing Townsend Pottery

In order to better characterize the variability in the Townsend pottery sample within the larger geographic and temporal context of the English Contact period (ca. A.D. 1670-1740), it would be very profitable to make comparisons to pottery samples from a number of Cherokee contexts at other sites. The ideal collection of pottery samples for this comparison would represent sites from all five Cherokee settlement divisions (i.e., Overhill, Middle, Valley, Out Town, and Lower) and would include occupations spanning the entire period. As part of my research, I endeavored to undertake such a comparison by searching out published data and by conducting analyses on extant pottery collections. This research included the inspection of a number of previously unanalyzed collections, including those from the Ocoee site, the Nacoochee mound, the Notla mound, and the Peachtree mound, as well as the reanalysis of selected portions of the collections from the Tuckaseegee site (Keel 1976) and the Coweeta Creek site (Rodning 2004). This study also benefited from data resulting from previous research with pottery collections from the Alarka farmstead (Shumate et al. 2005) and the Chattooga site. Unfortunately, I found that some of the collections had suffered extensively from the excavation and curation methods of the 1930s and 1940s. The collections from the Ocoee site, the Nacoochee mound, the Notla mound, and the Peachtree site in particular were severely "high-graded" (i.e., were heavily biased toward large and decorated body sherds and rim sherds) and lacked detailed provenience information. Consequently, these collections had very limited value in the ceramic comparison and were only used to identify the presence of diagnostic pottery traits associated with particular chronological phases (see Chapter 4).

Comparisons to other Overhill Cherokee samples

In this section, I compare the pottery data from Townsend with data from Overhill Cherokee sites. Unfortunately, I could not identify a comparable dataset derived from a reliably dated English Contact period Overhill context. The closest candidate is the Ocoee site, located at the juncture of Ocoee and Hiwassee rivers far to the south of the Townsend site. This location and diagnostic European artifacts recovered from the site, which was excavated in the 1938 and reported in the Chickamauga Basin report (Lewis and Kneberg 1995:562-588), suggest a correspondence with the late seventeenth-and early eighteenth-century Overhill Cherokee town of Amoyee. The site was excavated in two separate units located over 300 m apart. According to Lewis and Kneberg (1995:565-566), the unit closest to the river (2Pk1) contained the remains of a palisaded Cherokee village, which they mistakenly identified as the late eighteenth-century village of Ocoee. This unit included ten burials interred with late seventeenth-and early eighteenth-century trade goods, while the other excavation unit (1Pk1) contained occupations dated to the prehistoric Candy Creek and Mouse Creek phases. In their site report, Lewis and Kneberg (1995:Table 30.4) combined the frequencies of potsherds from both excavation units, which is unfortunate as the plain shell-tempered Mouse Creek phase body sherds are indistinguishable from later Overhill Cherokee body sherds.

Not knowing the relative frequency of shell-tempered plain potsherds associated with the Cherokee occupation of the site precludes a quantitative comparison to the Townsend sample. An admittedly rough impression of the Cherokee pottery assemblage at Ocoee, however, can still gleaned from published data and from my recent inspection of collections housed at the McClung Museum at the University of Tennessee. Based on the frequency data presented by Lewis and Kneberg (1995:Table 30.4), it appears that the Ocoee pottery sample was dominated shell-tempered plain ware. Only two shell-tempered complicated stamped sherds were noted along with 30 rock-tempered complicated stamped sherds. My inspection of the surviving pottery collection from the site corroborates these proportions, although I was only able to locate rim sherds and a small portion of the body sherd sample that resided in the museum's 1930s vintage type collection. I recorded 34 rim sherds from Unit 2Pk1 at the Ocoee site, 33 of which were shell-tempered and one of which was gravel-tempered like those from Townsend. I also identified four body sherds in the type collection that were grit-tempered and fit the description of Qualla series pottery. The shell-tempered sherds had surface treatments consisting of 32 plain sherds and two incised sherds (one with a lines and semicircles motif and one bearing parallel diagonal lines), the gravel-tempered sherd was plain, and the four grit-tempered sherds were curvilinear complicated stamped with indeterminate motifs. In regard to vessel forms, the Ocoee sample included 21 shell-tempered globular jars, three with pinched appliqué rimstrips and 18 with notched appliqué rimstrips; a single gravel-tempered globular jar with a notched appliqué rimstrip; two shell-tempered simple bowls both with notched appliqué rimstrips; and three shell-tempered restricted orifice bowls, one with a folded and punctated rim and one with a folded and notched rim (Table 6.12).

A thumbnail-sketch comparison of this sample with the Townsend sample reveals that (1) the Ocoee site sample contains a much higher proportion of shell-tempered sherds than the Townsend sample; (2) that the Ocoee sample has a much higher proportion of plain ware than the Townsend sample; (3) Ocoee vessel forms are by and large very similar to those found at Townsend (Figure 6.25); and (4) the absence of two vessel classes in the Ocoee sample (i.e., globular jars with highly everted rims and pinched and flattened rimstrips and cazuelas) is interesting in that these same vessel forms are missing in the shell-tempered ware found at Townsend. Although highly speculative, these patterns suggest that the potters of at least one Cherokee community were practicing a potting tradition centered around shell-tempered plain ware during the late seventeenth and early eighteenth centuries. Indulging the urge to push this tenuous interpretation further, this potting tradition appears to be related to the one practiced by some of the potters living at Townsend – especially Households 1 and 2.

With the exception of the Ocoee sample, all of the well-documented Overhill Cherokee pottery collections recovered from professional excavations are associated with contexts dating from the mid-eighteenth century to the early nineteenth century– at least 50 years later than the estimated Cherokee occupation at Townsend. While these collections do little to improve our understanding of Cherokee potting traditions during the English Contact period, they are nevertheless important because they provide a diachronic dimension to the study of Overhill Cherokee pottery. Comparing these collections to the Townsend sample, one can identify changes that occurred in Overhill

Table 6.12 Minimum number of vessel (MNV) counts in the Ocoee study sample.

Vessel Class	Exterior Surface Treatment	n
Shell-tempered Globular Jars		
-excurvate rims with pinched appliqué rimstrips	Plain	3
-excurvate rims with notched appliqué rimstrips	Plain	18
Gravel-tempered Globular Jar		
-excurvate rim with notched appliqué rimstrip	Plain	1
Shell-tempered Simple Bowls		
-notched appliqué rimstrips	Plain	2
Shell-tempered Restricted Orifice Bowls		
-folded and punctated rim	Plain	1
-folded and notched rim	Incised (Parallel diagonal lines)	1
-unmodified rim	Incised (Lines and Semicircles)	1
Indeterminate	Plain	7

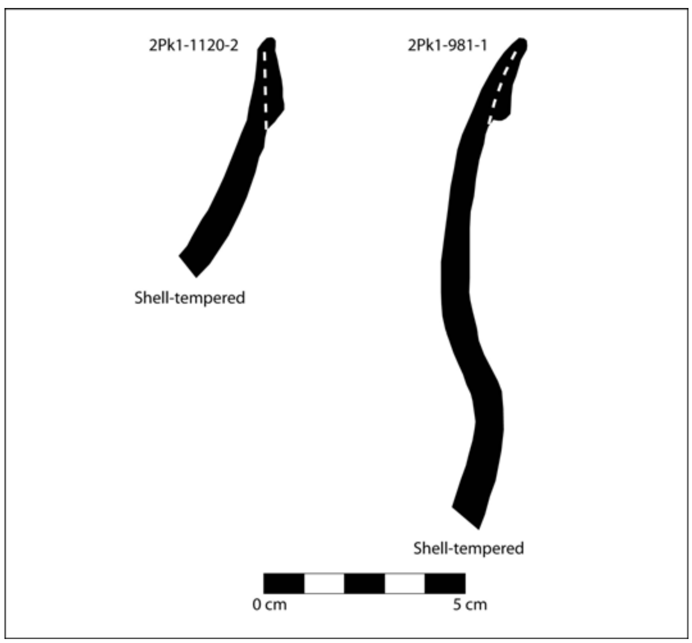

Figure 6.25. Simple bowl with a notched appliqué rimstrip (left) and globular jar with a notched appliqué rimstrip from the Ocoee site.

Cherokee potting practices between the time when Townsend was occupied (ca. A.D. 1650-1720) and later in the eighteenth century. In making this comparison, I consult published data associated with excavations at the Chota-Tanasee site (ca. A.D. 1700-1820) (Bates 1986:289-305), the Tomotley site (ca. A.D. 1750-1776) (Baden 1983:37-62), and the Mialoquo site (ca. A.D. 1760-1780) (Russ and Chapman 1983:69-83). I attempt to ameliorate as much as possible the differences in the classificatory schema used by myself and the other authors by limiting the comparison to the most ubiquitous exterior surface treatments found in the samples and by not including residual categories such as my "linear stamped indeterminate."

This gross comparison of site-wide samples shows that Townsend pottery differs significantly from later eighteenth-century Overhill samples in regard to pottery ware and exterior surface treatments (Table 6.13). In the later Overhill samples, shell-tempered ware is by far the most common ware, making up 99% of the Chota-Tanasee sample, 98% of the Tomotley sample, and 81% of the Mialoquo sample. Unlike these samples, shell-tempered ware is a minority in the Townsend sample, comprising only 19% of the site sample, while gravel- and grit-tempered wares (combined and designated in Table 6.13 as "rock-tempered" wares) make up the remaining 81% of the sample. All of the Overhill samples appear more similar when the relative frequencies of exterior surface treatments are considered. In all of the samples, the majority of sherds have plain surfaces; however, plain sherds respectively compose 97% and 86% of the Chota-Tanasee and Tomotley samples while totaling 68% and 72% of the samples from Townsend and Mialoquo. Popular minority surface treatments in the Tomotley and Mialoquo samples include check stamping and rectilinear complicated stamping, while

Table 6.13. Frequency comparison of temper groups and major surface treatments including Townsend and later eighteenth century Cherokee sites.

	Plain		Check Stamped		Simple Stamped		Curvilinear Complicated Stamped		Rectilinear Complicated Stamped		Incised		Cord Marked		**Total**	
	n	%[a]	n	%	n	%	n	%	n	%	n	%	n	%	**n**	**%**
Townsend																
Shell-tempered	360	19	0	0	0	0	0	0	0	0	0	0	1	<1	**361**	**19**
Rock-tempered	936	49	2	<1	26	1	159	8	1	<1	12	<1	410	21	**1546**	**81**
Total	**1296**	**68**	**2**	**<1**	**26**	**1**	**159**	**8**	**1**	**<1**	**12**	**<1**	**411**	**22**	**1907**	**100**
Chota-Tanasee																
Shell-tempered	135512	97	830	<1	129	<1	73	<1	242	<1	462	<1	254	<1	**137502**	**99**
Rock-tempered	1138	<1	177	<1	177	<1	10	<1	72	<1	107	<1	107	<1	**1685**	**1**
Total	**136650**	**97**	**1007**	**<1**	**306**	**<1**	**83**	**<1**	**314**	**<1**	**569**	**<1**	**361**	**<1**	**139187**	**100**
Tomotley																
Shell-tempered	9072	86	659	6	3	<1	26	<1	511	5	5	<1	14	<1	**10290**	**98**
Rock-tempered	50	<1	178	1	0	0	0	0	4	<1	0	0	9	<1	**241**	**2**
Total	**9122**	**86**	**837**	**7**	**3**	**<1**	**26**	**<1**	**515**	**5**	**5**	**<1**	**23**	**<1**	**10531**	**100**
Mialoquo																
Shell-tempered	2750	59	659	16	40	<1	166	4	89	2	0	0	3	<1	**3777**	**81**
Rock-tempered	618	13	162	3	8	<1	10	<1	106	2	0	0	0	0	**904**	**19**
Total	**3368**	**72**	**821**	**19**	**48**	**1**	**176**	**4**	**195**	**4**	**0**	**0**	**3**	**<1**	**4681**	**100**

cord marking and curvilinear complicated stamping are more common in the Townsend sample. Thus, while the abundance of plain surfaced pottery in the Townsend sample is similar to that found in later Overhill contexts, the predominance of rock-tempered wares and much higher frequencies of cord marking and paddle stamped surface treatments in the Townsend sample are strikingly different from the much more homogenous Overhill samples dating to the later half of the eighteenth century.

Comparisons to other Cherokee pottery samples

The differences that set the Townsend pottery sample apart from those associated with other sites producing Overhill Cherokee pottery beg for comparisons to pottery samples recovered from Cherokee sites located farther a field. In this study, I compare the Townsend sample to a number of commensurate Cherokee pottery samples using a single analytical schema (the hierarchical classification system described above). Pottery samples used in this comparison include those from each of the six Townsend households as well as samples recovered from the following contexts: (1) a trash deposit located between the floor and the collapsed walls of a catastrophically burned winter house at the Tuckaseegee site (Keel 1976); (2) a large refuse-filled pit (Feature 72) at the Coweeta Creek site (Rodning 2004); (3) all of the archaeological features and excavation units associated with the Alarka farmstead (Shumate et al. 2005); and (4) a trash deposit located around the central hearth of a winter house at the Chattooga site.[4] These contexts were chosen for quantitative comparison to the household pottery assemblages at Townsend because the samples drawn from them represent the pottery use and discard practices of single households over relatively brief periods of time (certainly less than a decade) during the English Contact period (ca. A.D. 1670-1740). This set of comparisons is in the same vein as those presented above and focuses primarily on pottery ware, surface treatment, and vessel form.

Comparing pottery ware among the various samples, one sees a similar pattern of contrast to that seen in the comparison of pottery samples from Townsend and Ocoee. There is a sharp contrast between the diversity of pottery wares found in Townsend household assemblages, on the one hand, and the single grit-tempered pottery ware present in the assemblages from the other sites. Indeed, with the exception of a single shell-tempered body sherd from the Alarka site (Shumate et al. 2005:6.4), the pottery ware of all potsherds in the comparative assemblages conforms to the definition of the Qualla series (Egloff 1967; Keel 1976; Riggs and Rodning 2002; Rodning 2004; Ward and Davis 1999; Wilson and Rodning 2002).

Clear patterning emerges when variability in relative frequencies of surface treatments is considered – patterning that reflects both regional and temporal differences among the samples. Like the household-level analysis of Townsend pottery samples, the comparison of frequency data is greatly aided by correspondence analysis. Table 6.14 provides the frequency data for various surface treatments included in the correspondence analysis.[5] The results of the CA, depicted graphically as a biplot (Figure 6.26), indicate that the pottery samples are distributed in four discrete clusters. One cluster, which includes the samples from Townsend Households 1, 2, and 3, is dominated by plain and coarse plain surface treatments. The second cluster, containing pottery samples from Townsend Households 4, 5, and 6, is defined by lesser amounts of plain and coarse plain

Table 6.14. Frequency comparison of major surface treatments including the Townsend household pottery assemblages and those of other selected Cherokee sites.

	Plain		Coarse Plain		Indeterminate Linear Stamped		Check Stamped		Curvilinear Complicated Stamped		Rectilinear Complicated Stamped		Cord Marked		Incised		**Total**	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	**n**	**%**
Townsend-1	262	64	79	19	45	11	2	<1	4	1	0	0	15	4	0	0	**407**	**100**
Townsend-2	209	68	51	17	40	13	0	0	2	<1	0	0	4	1	0	0	**306**	**100**
Townsend-3	248	54	93	20	63	14	0	0	15	3	0	0	39	9	2	<1	**460**	**100**
Townsend-4	468	22	209	10	1094	50	0	0	100	4	1	<1	300	13	7	<1	**2179**	**100**
Townsend-5	30	26	12	10	30	27	0	0	2	2	0	0	36	32	3	3	**113**	**100**
Townsend-6	28	21	10	8	62	46	0	0	26	19	0	0	8	6	0	0	**134**	**100**
Tuckaseegee	35	5	2	<1	318	49	18	3	223	35	32	5	19	3	0	0	**647**	**100**
Coweeta Creek	34	9	8	2	194	48	8	2	50	13	111	28	4	1	0	0	**401**	**100**
Alarka	58	7	1	<1	438	55	1	<1	274	35	8	1	6	<1	7	<1	**793**	**100**
Chattooga	0	0	0	0	32	36	0	0	26	29	30	33	2	2	0	0	**90**	**100**

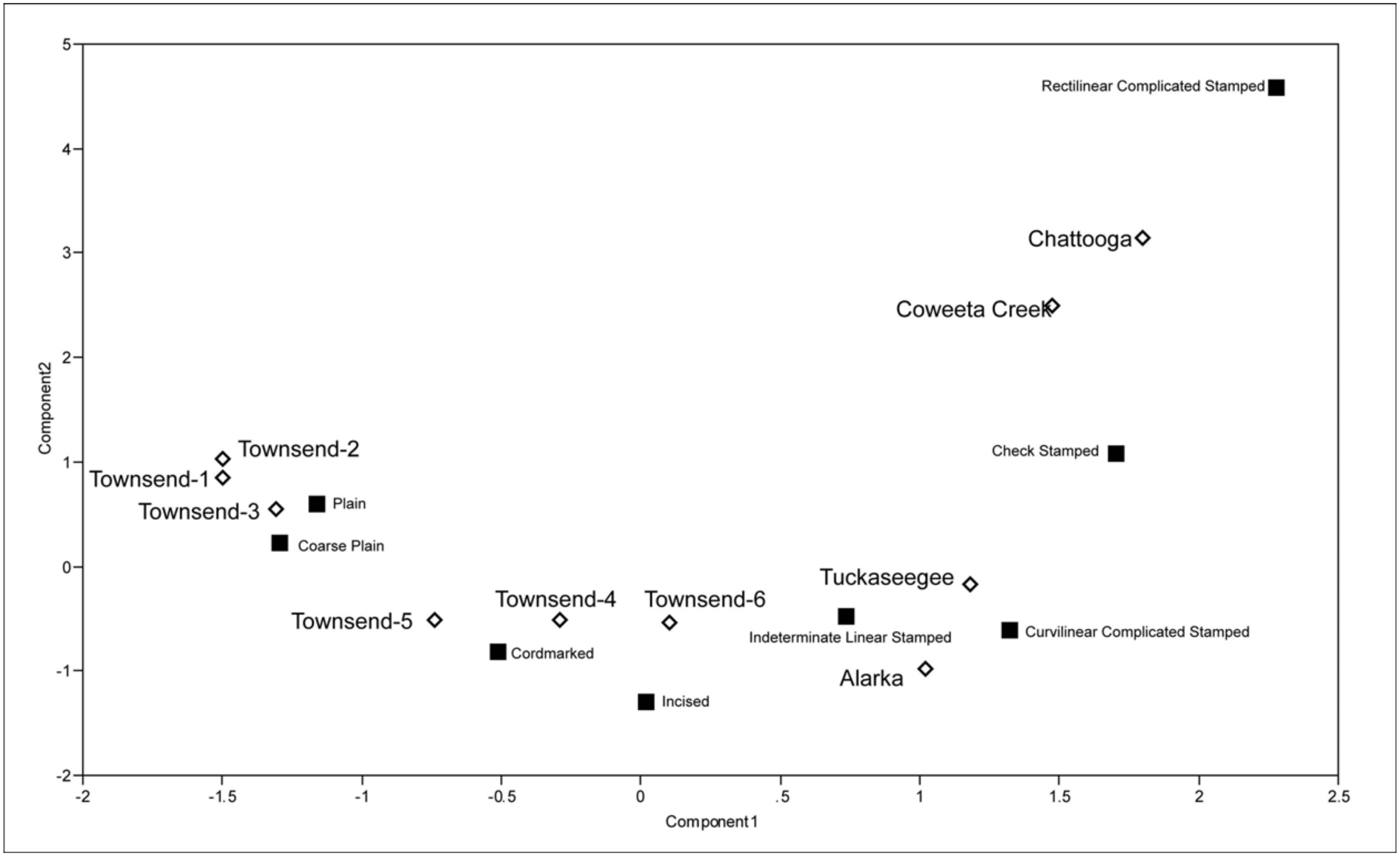

Figure 6.26. Biplot depicting the results of the correspondence analysis conducted pottery assemblages from the six Townsend households and other selected Cherokee sites.

sherds and greater numbers of cord marked and paddle stamped sherds. The third cluster includes the samples from the Tuckaseegee and Alarka sites. The samples in this cluster are dominated by curvilinear complicated stamped pottery and contain very little plain or coarse plain wares (less than ten percent). The fourth cluster includes pottery samples from the Coweeta Creek and Chattooga sites. These samples include plain, coarse plain, and indeterminate linear stamped sherds in similar proportions to the Tuckaseegee and Alarka samples; however, rectilinear complicated stamped sherds comprise a much higher percentage of the Coweeta Creek and Chattooga samples.

Given that distance in the CA biplot can be thought of as a measure of similarity among the samples two conclusions can be drawn. First, the pottery samples from Townsend demonstrate a significant amount of inter-household variability with regard to surface treatment; however, when compared to "classic" Qualla-series samples from Cherokee sites in other settlement divisions, the Townsend household assemblages form a geographically distinct potting tradition typified by plain, coarse plain, and cord marked surface treatments. Second, the samples that are most similar to the Townsend households are those recovered from the Tuckaseegee and Alarka sites. Conversely, the composition of the pottery samples from the Coweeta Creek and Chattooga sites differ dramatically from the Townsend household samples with regard to surface treatment. According to the current ceramic chronology for Qualla series pottery, the Tuckaseegee and Alarka assemblages clearly date to the late Middle Qualla phase (ca. A.D. 1650-1700) while those of the Coweeta Creek and Chattooga sites are associated with the early Late Qualla phase (ca. A.D. 1700-1750) (Riggs and Rodning 2002; Rodning 2004; Shumate et al. 2005). The correspondence analysis thus strongly suggests that the

Cherokee household occupations at Townsend all date to the period from roughly A.D. 1650 to 1720. The temporal placement of the Townsend household occupations in this period finds corroboration in the other dating measures considered in this study, particularly the glass bead chronology presented in Chapter 4.

The results of a comparison of vessel form using minimum number of vessel counts (MNV) are far less provocative. Nevertheless these findings are essential for placing the pottery assemblages of Townsend households within the larger context of English Contact period Cherokee potting practices. In the effort to reduce bias associated with sample size, only those sites with MNV counts of 20 or greater are included in the comparison (Table 6.15). In regard to broad functional classes, the vessel assemblages are similar across all of the sites in the study. The most common vessel form in the samples is the large jar, which comprises approximately 60% of the vessel assemblage at each site. Frequencies of restricted orifice bowls are second highest among the samples, ranging from 13% to 30% of the assemblages. Simple bowls are a minority vessel form among the samples, being entirely absent in the Alarka and Coweeta Creek assemblages, and comprising less than ten percent of the assemblages in the other sites. The relative abundance of cazuela forms varies among the sites. While they are completely absent from the vessel assemblages of Household 1 and Household 2 at the Townsend site, they constitute 7%, 14%, and 23% of the Townsend Household 4, Tuckaseegee, and Alarka assemblages respectively. These three assemblages are also differentiated by significantly higher frequencies of jars with highly everted rims and pinched and flattened appliqué rimstrips. As discussed in Chapter 4, pinched and flattened appliqué rimstrips are typically associated with the Middle Qualla phase while notched appliqué

Table 6.15. Composition of household vessel assemblages (measured in MNV) at Townsend and other selected Cherokee sites.

	Large Jars w/pinched appliqué rimstrips		Large Jars w/notched appliqué rimstrips		Large Jars w/pinched and flattened rimstrips		Large Jars w/rolled rims		Large Jars w/L-shaped rims		Restricted Orifice Bowls		Simple Bowls		Cazuelas		**Total**	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	**n**	**%**
Townsend-1	4	17	10	44	0	0	1	2	1	2	6	26	2	9	0	0	**24**	**100**
Townsend-2	4	20	8	40	1	5	0	0	0	0	6	30	1	5	0	0	**20**	**100**
Townsend-4	19	17	1	<1	48	43	0	0	0	0	18	16	6	5	8	7	**106**	**95**[a]
Tuckaseegee	12	18	7	11	16	25	2	3	1	2	16	25	2	3	9	14	**65**	**100**
Alarka	3	10	1	3	14	47	0	0	0	0	5	17	0	0	7	23	**30**	**100**
Coweeta Creek	6	19	12	39	4	13	2	6	2	6	4	13	0	0	1	3	**31**	**100**

[a]This total is less than 100% because the Household 4 vessel assemblage also includes six small jars – a vessel class that was not included in this tally.

rimstrips typically dominate Late Qualla phase jar assemblages. When considered along with the concomitant pattern involving cazuelas, these results suggest that the Cherokee occupations of Household 4 at Townsend, Tuckaseegee, and Alarka are earlier than those of Townsend Households 1 and 2 and the Coweeta Creek site. However, other temporally sensitive artifacts at these sites indicate that the extent of the difference did not likely exceed 50 years.

Conclusion

At the close of this chapter, I wish to emphasize five main conclusions drawn from my analyses and comparisons. First, quantitative analysis clearly suggests that there were three distinct potting traditions practiced by Townsend potters. These traditions were based on three different pottery wares and involved significant differences in surface treatment and to a lesser extent vessel form.

Second, while not mutually exclusive, the spatial distributions of pottery wares and surface treatments strongly suggest that particular potting traditions were associated with particular households. The pottery samples recovered from Households 1 and 2, for example, were overwhelmingly dominated by the shell-tempered plain pottery associated with the Overhill ceramic series. Samples from Households 3, 4, and 5, in contrast, contained large amounts of gravel-tempered plain surfaced and paddle-stamped pottery. I refer to this heretofore undefined local Cherokee potting tradition as "Tuckaleechee." While the sample from Household 6 was not very large, it did contain an unusual abundance of grit-tempered curvilinear complicated stamped pottery that is a hallmark of the Qualla ceramic series.

Third, the pottery assemblages recovered from Townsend households are very different from existing Overhill Cherokee pottery assemblages. Whereas Townsend pottery is defined by diversity in paste and surface treatment, assemblages from the late seventeenth-century Overhill site of Ocoee and later eighteenth-century Overhill sites are largely homogenous and consist of shell-tempered vessels with plain surfaces. Considering the predominance of rock tempering and paddle stamping at Townsend, one must conclude that these assemblages are more similar to contemporaneous Qualla-series assemblages even though the Townsend site is located within what is historically thought of as Overhill Cherokee territory.

Fourth, when exterior surface treatment and vessel form are compared to English Contact period Cherokee assemblages from other sites, Townsend households form a distinct cluster. Furthermore, Townsend pottery assemblages are more closely related to late seventeenth-century Qualla assemblages (i.e., Alarka and Tuckaseegee) than to early eighteenth-century Qualla assemblages (Coweeta Creek, Chattooga). This comparison also suggests that the occupation of Household 4 may be slightly earlier than the other households at Townsend.

Fifth, the ceramic diversity found in the Townsend pottery sample is not without precedent in Cherokee archaeology. Indeed, a similar degree of ceramic diversity is present in the pottery samples from the late eighteenth-century sites of Tomotley and Mialoquo – Cherokee settlements that were comprised of both local Overhill groups and refugee populations fleeing the Cherokee Lower towns during the Revolutionary War. Drawing an analogy to these sites, I offer this conclusion – that the distinct potting traditions practiced by the Townsend households represent a similar social situation to that which occurred at Tomotley and Mialoquo. In this case, however, the Townsend community was an amalgam of households from different Cherokee settlements who, like many other Indian groups across the Southeast, formed a "coalescent community" as a strategy to negotiate the population loss and violence associated with the shatter zone between A.D. 1650-1715 (*sensu* Kowalewski 2006). By the third decade of the eighteenth century, the Cherokee settlements in this region appear to have been largely abandoned, and Overhill populations became concentrated in settlements along the lower Little Tennessee River. As seen in the Chota-Tanasee pottery sample, this social process also seems to have included the formation of a unified Overhill Cherokee identity that was materialized, at least in part, through the homogenization of potting traditions to a single tradition dominated by a plain shell-tempered ware.

[1] I employ the concept of pottery ware following the tradition of researchers in the lower Southeast (e.g., Brain 1970; Jenkins 1981). Although not explicitly defined in these works, wares are defined primarily by paste characteristics.

[2] For this and other statistical analyses, I emphasize measures and techniques associated with Exploratory Data Analysis (EDA) rather than traditional significance testing statistical methods. I choose to use EDA methods and measures primarily because they are better suited to the constraints of archaeological datasets. Exploratory data analysis, as set forth by its founders John Tukey (1977), Paul Velleman and David Hoaglin (1981), is an inductive approach that aims to identify structure in datasets through relatively simple techniques and with minimal prior assumptions. The techniques are particularly well suited to archaeological datasets because they are nonparametric (i.e., they do not require assumptions of normally distributed data), they are resistant to the effects of outlier values, and they emphasize pattern recognition through simple visual display.

[3]The spatial patterning in the distribution of tempering agents was initially identified by Howell (2005) in his preliminary analysis of a sample of Townsend pottery.

[4] While published data exist for the pottery samples from the Tuckaseegee and Coweeta Creek sites, I (re)analyzed these pottery samples using a slightly different analytical schema (outlined earlier in this chapter). The pottery samples from the Alarka and Chattooga sites were previously analyzed by other researchers using an identical schema, and I was graciously provided the resulting data by Brett Riggs and Gerald Schroedl.

[5] In order to improve analytical clarity, surface treatments that comprise less than one percent of the total combined sample, such as scraping, burnishing, and brushing, are excluded from the analysis.

CHAPTER 7

DOMESTIC SPACE AND TIME
IN THE DAILY LIVES OF SHATTER ZONE HOUSEHOLDS

Landscapes like the one occupied by the Cherokee households in Tuckaleechee Cove are materializations of a diachronic relationship between people and space, particularly the ways in which spaces are made "social places" through daily practices and conversely the ways that these places influence practice (e.g., Allen et al. 1998; Appadurai 1997; Lefebvre 1991; Low and Zúñiga 2003). This dialectical relationship between space, time, and daily life plays out on various scales from the region down to the individual household. In Chapter 5, I suggest that the settlement and eventually abandonment of Tuckaleechee Cove were outcomes of strategic choices made by Cherokee households. In this chapter, I consult architectural and subsurface pit feature data in order to explore how domestic space and time both reflected and structured the daily practices of Cherokee households in the Townsend community. I begin with a review of seventeenth- through nineteenth-century Cherokee architecture based on ethnohistoric accounts and previous archaeological research. I then describe the architectural characteristics of the structures found at the Townsend sites focusing on method of manufacture, structure function, household size, and occupation duration. Comparing data from the Townsend structures to those from various protohistoric and historic Cherokee sites in eastern Tennessee and western North Carolina, I argue that English Contact period households enacted changes in their daily lives that resulted in significant alterations in community spatial organization and domestic structure occupation duration – namely, households became more dispersed within towns and the tenure of households within a given domestic space was shortened dramatically. Analyses of data associated with subsurface features supports these conclusions.

Ethnohistoric Descriptions of Eighteenth- and Early Nineteenth-Century Cherokee Architecture

Reconstructing the forms, functions, and use histories of structures from the dregs of archaeological data are some of the more difficult tasks facing archaeologists (e.g., Blanton 1994; Wilke and Rathje 1982). In undertaking this task, archaeologists studying eighteenth- and early nineteenth-century Cherokee architecture are extremely fortunate to be able to reference a rich body of period accounts (for a list of these see Schroedl 1986a; see also Adair 1986[1775]; Bartram 1996[1791]; Norton 1970 [1816]; and Timberlake 2001[1762]). In the interest of space and in order to avoid duplicating the diligent work of others, here I will limit my discussion to the major themes of these descriptions. For further study, the reader is encouraged to seek out the original accounts or consult the thorough synthesis provided by Schroedl (1986a:217-228).

Virtually all of the historic descriptions of Cherokee structures are couched in terms of a public/domestic architectural vernacular expressed as the opposition between large townhouse structures and smaller household dwellings. Descriptions of so-called "winter townhouses" or "rotundas" from the mid eighteenth and early nineteenth centuries, most notably those of Adair (1986[1775]:453), Bartram (1996[1791]:299-300), Norton (1970 [1816]:54), and Timberlake (2001[1762]:59), agree that these were very large round or polygonal wooden structures that could house several hundred people.

One of the main features of these substantially built structures were the central roof supports – massive wooden posts, 3-4 m in length, which formed a square or ring at the center of the townhouse. The outer walls of the townhouse were constructed of interwoven cane or bark mats secured to upright posts and covered in clay daub. The roof was covered in bark and a layer of soil. Entrance to the building was gained through a very small doorway, which opened into an expansive inner chamber lined with benches for sitting. At the center of the townhouse was a formal hearth where a fire was kept alight constantly. Period descriptions sometimes mentioned a companion structure, known as a "summer townhouse," "ramada," or "pavilion." These appear to have been much less formal structures with rectangular floor plans and open sides. These buildings were used for community rituals and meetings during warmer months.

Of greater import to the study of the structures at the Townsend sites are extant eighteenth- and nineteenth-century descriptions of Cherokee domestic dwellings. These descriptions highlight the fact that, like townhouse architecture, Cherokee domestic architecture was manifest in a seasonal dichotomy of paired winter and summer structures (Adair 1986[1775]:448-450; Bartram 1996[1791]:298-299; Norton 1970 [1816]:141; Timberlake 2001[1762]:84). Winter domestic structures, sometimes called "hot houses" or *asi*, were essentially smaller versions of winter townhouses built using the same architectural principles. The framework of these round or octagonal structures consisted of four large central roof support posts arranged in a square surrounded by an outer ring of upright posts, which formed the outer walls. Like townhouses, the walls of winter houses were described as being daubed and the roof was covered in a layer of soil. Also like the townhouses, these structures had a single small doorway, benches lining the walls, and a central hearth. Summer houses were described as smaller analogs to the townhouse ramada or pavilion. They were lightly built rectangular structures located within a few meters of the winter house. Summer houses contained a hearth and interior benches, they were sometimes divided into three compartments, and they sometimes featured one open side.

According to some historic accounts, the use of paired seasonal domestic structures was a widespread and long-lived practice among southeastern Indian communities. Adair (1986[1775]:448-450), for example, wrote that dual house forms were embraced by many southeastern Indian groups in the late eighteenth century, and Norton's journal (1970 [1816]:141) stated that some folk in Cherokee and Creek communities still used winter houses as late as A.D. 1810. At this time, however, Norton also observed that many Cherokee were abandoning the use of paired winter-summer houses in favor of European style log cabins.

Archaeological Descriptions of Cherokee Architecture

Over the past few decades, there have been a number of archaeological projects that have included the excavation and analysis of prehistoric and historic Cherokee structures (e.g., Baden 1983; Chapman and Newman 1979; Cable and Reed 2000; Coe 1961; Dickens 1976, 1979; Guthe and Bistline 1981; Keel 1976; Polhemus 1987; Rodning 2002, 2004; Riggs 1989; Russ and Chapman 1983; Schroedl 1986a, 1989). The temporal and geographic coverage of these projects is somewhat uneven; nevertheless, the results of this research have provided the foundations for developing a diachronic perspective on Cherokee architecture. The nascent architectural sequence emerging from this work not only lends additional insight to the ethnohistorical descriptions discussed above, but it also allows researchers to explore relationships among architectural forms that existed before and after contact with Europeans (*sensu* Hally 2002). Furthermore, by shedding light on the use histories of Cherokee structures, the results of this archaeological research allows interpretations to go beyond simply confirming or refuting the ethnohistoric descriptions.

Christopher Rodning's (2002, 2004) recent synthesis of University of North Carolina excavations at the Coweeta Creek site in western North Carolina has provided crucial descriptions of architecture in a Cherokee Middle Settlement community occupied primarily during the sixteenth and seventeenth centuries. Rodning, like most other researchers discussed below, found that the architecture at the site could easily be divided into public and domestic types based on the size, location, and method of manufacture of the structures. Excavations of a low mound at the site uncovered the archaeological remains of at least six versions of a townhouse built sequentially on the same building footprint (Rodning 2002:12). The results of Rodning's (2004:329) analyses of European trade goods, pottery, and radiocarbon dating led him to date the first four townhouse stages to the Middle Qualla phase (ca. A.D. 1500-1650) and the last two stages to the early Late Qualla phase (ca. A.D. 1650-1720). Over the course of its use life, perhaps some two centuries, each incarnation of the townhouse was built according to a very consistent plan – a square edifice with rounded corners roughly measuring 14 m by 14 m that contained four large central roof support posts, a large central hearth, numerous small interior posts that likely supported benches, and a single entry marked by parallel wall trenches. Uncovered just next to the townhouse were posthole patterns representing multiple building episodes of a large ramada or summer townhouse.

Rodning (2004:147-191) also identified fifteen domestic structures at the Coweeta Creek site. Along with the townhouse, these structures were tightly arranged around a central plaza. Like the townhouse, the remains of these domestic structures were materialized in the archaeological record as clustered palimpsests of postholes, hearths, and wall trench entries representing multiple rebuilding episodes on the same footprint. Rodning (2004:335-346, Tables 8.9 and 8.10) was able to assign fourteen structures to occupational phases based on diagnostic pottery and radiocarbon dating. Of these, five structures were associated with the Early Qualla phase (ca. A.D. 1300-1500), eight were associated with the Middle Qualla phase (ca. A.D. 1500-1650), and one was associated with the early Late Qualla phase (ca. A.D. 1650-1720).

Rodning (2004:187-189) found a distinction in the forms of domestic structures between the Early Qualla phase and Middle Qualla phase. Structures from both phases had four central roof support posts, central hearths, wall trench entryways, and were rebuilt multiple times. Early Qualla phase structures, however, were larger than Middle Qualla phase houses (approximately 60 m^2 *versus* 40 m^2 in floor area), were more round in shape, and when rebuilt, their hearths were relocated and the structure was shifted slightly. Middle Qualla phase houses were shaped more like the townhouse (i.e., square with round corners), and when they were rebuilt the hearths were remodeled in place and the new building was kept in the same location. Neither form of domestic structure at Coweeta Creek appears to have had an adjoining summer house.

Rodning (2004:150) also pointed out that the Middle Qualla phase domestic structures at Coweeta Creek were more similar in shape and construction technique to domestic structures at contemporaneous protohistoric Mississippian sites in northern Georgia, western North Carolina, and southeastern Tennessee than to the historic Cherokee domestic structures featured in eighteenth century descriptions (e.g., Blakely 1988; Hally 1988, 1994, 2002; Lewis and Kneberg 1995; Polhemus 1987, 1990; Sullivan 1989; see also Cable and Reed 2000 for descriptions of similar seventeenth-century Cherokee domestic structures in northern Georgia). Hally (2002) has highlighted the widespread distribution of this particular house form across the Southeast during the protohistoric period, adding that at some sites these winter house forms were joined by rectangular structures that probably served as an earlier form of summer house. Both Hally (2002) and Waselkov (1990) have argued that the protohistoric house form was eventually abandoned at the beginning of the eighteenth century as southeastern Indian communities adjusted to the growing demands of the commercial deerskin trade by changing their community organization and mobility patterns.

The structures encountered at Cherokee sites dating to the English Contact period (ca. A.D. 1670-1740) evinced a continuation of the same basic architectural dichotomy opposing public townhouses and domestic dwellings. There were also, however, some changes in the architectural form of both public and domestic structures. Three English Contact period townhouses were excavated by the Tellico Archaeological Project at the Overhill Cherokee settlements of Chota-Tanasee and Toqua (Polhemus 1987:342-345; Schroedl 1986a:263-266, 2000:214-215). The Chota-Tanasee townhouse differed somewhat from the Coweeta Creek townhouse in that it lacked wall trench entryways and was octagonal in shape rather than square with round corners. The Chota-Tanasee structure was similar in size to the Coweeta Creek townhouse, measuring 16 m in diameter, and it had four large central roof support posts, a large formal clay hearth, and bench-lined interior walls. The two townhouses excavated at the Toqua site were also octagonal (or more accurately square with truncated corners), lacked wall-trench entryways, and measured roughly 15 m a side. These structures also featured the other trademarks that defined the Cherokee town house vernacular (i.e., four large central roof support posts, a large formal clay hearth, and bench-lined interior walls). A very similar townhouse design was identified in excavations at the Lower Settlement Cherokee town of Chattooga. At this site, four superimposed townhouses were uncovered that matched all of the structural features of the Overhill townhouses except that they were square with round corners and had large ramadas like the townhouses associated with the Coweeta Creek site (Howard 1997; Schroedl 1994).

English Contact period Cherokee domestic structures, like those found at the Townsend sites, appear to have undergone some degree of change from the preceding Middle Qualla phase (the results of a detailed quantitative comparison of domestic structures are reported later in the chapter). Cherokee domestic structures dating to the English Contact period have been identified at the Alarka and Tuckaseegee sites in western North Carolina, the Chattooga site in northern South Carolina, and the Chota-Tanasee site in eastern Tennessee (Howard 1997; Keel 1976; Schroedl 1986a, 1994; Shumate et al. 2005). The style of domestic architecture found across these sites was very similar and consisted of paired winter and summer dwellings of the type described in European accounts. Winter houses, or *asi*, were no longer built in a square shape;

instead, they were round or octagonal. The English Contact period form of winter house also lacked wall trench entryways. These structures were roughly the same size (approximately 40 m^2) as structures from the preceding period and had similar architectural features including four central roof support posts, central hearths, and bench-lined interior walls (Keel 1976:28-34; Schroedl 1986a:267, 2000; Shumate et al. 2005). Summer houses were very frequently found adjacent to winter houses. These rectangular structures were more lightly built with widely-spaced posts and averaged 9 m by 5.5 m (Schroedl 1986a:268, 2000; Shumate et al. 2005). Like the Middle Qualla phase, this style of domestic architecture appears to have been widely distributed across the Southeast. Indeed, similar forms of paired structures have been identified in excavations at the contemporaneous Creek sites of Fusihatchee and Tukabatchee (Hally 2002; Knight 1985:73-78; Waselkov 1990; Wesson 2008).

Throughout the remainder of the eighteenth century, Cherokee communities continued to employ the public/domestic dichotomy in their architecture. As with earlier periods, however, the styles of these buildings again underwent some degree of change. Excavations at the Overhill towns of Chota-Tanasee, Tomotley, and Mialoquo demonstrated that the townhouses built in the later half of the eighteenth century retained the same shape, size, and basic configuration as townhouses of the English Contact period. In these later townhouses, however, the number of central roof supports was increased from four posts to eight (Schroedl 1986a:540). The same trend was evident in the townhouse sequence at the Lower Settlement town of Chattooga, although the increase in interior roof supports took place before A.D. 1740 (Howard 1997; Schroedl 1994, 2000:214).[1]

Excavations at the Overhill Settlements of Chota-Tanasee, Toqua, Mialoquo, and Tomotley, and the Lower Settlement of Toxaway evinced much more variability in house form following the English Contact period (post-A.D. 1740) (Baden 1983; Harmon 1986; Polhemus 1987; Russ and Chapman 1983; Schroedl 1986a, 1989). At Chota-Tanasee and Toqua, paired winter and summer houses were still *de rigueur* during the later half of the eighteenth century, while at Mialoquo, Tomotley, and Toxaway these forms were largely abandoned in favor of single or clustered rectangular buildings built of vertical posts – a building style that Timberlake (2001[1762]:84) described at Cherokee communities in the 1760s, and Bartram (1996[1791]:564-566) attributed to the Creek in the 1780s. Some archaeologists have argued that rectangular dwellings were initially popular in Lower Cherokee towns and that this form of architecture was brought to Overhill towns by refugees who fled the destruction of the Lower Settlements during the Revolutionary War (Baden 1983). Early nineteenth-century architecture from Chota-Tanasee and the Bell Rattle Cabin site demonstrate that domestic house forms across many Cherokee communities began to undergo a further shift from native forms to single European-style horizontal log cabins by the turn of century (Riggs 1989; Schroedl 2000:225).

Cherokee Architecture at the Townsend Sites

The excavations at 40Bt89, 40Bt90, and 40Bt91 identified posthole patterns associated with eight clearly defined Cherokee structures and two poorly defined structure remnants. All but one of these structures were identified during the process of excavation based on size, shape, and diagnostic artifact associations. The remaining ambiguous structural remnant (Structure 27) was tentatively identified following excavations.

The architectural and artifactual data from the entire project area were linked with plan view maps and incorporated within a Geographic Information System (GIS) database. This allowed me to perform a check for the existence of additional Cherokee structures by exploring the distributions of diagnostic Cherokee pottery and glass trade beads and by searching for patterns in the configurations of postholes. Two additional locations of Cherokee occupation were identified through the presence of diagnostic pottery, but these occurrences were confined to a few postholes and isolated pits. While Cherokee structures could have been located in these areas, I could find no additional evidence to support these identifications. The ten definitive Cherokee structures and associated Cherokee pit features were widely distributed across the Townsend sites in six discrete clusters, each representing a single household (Figure 7.1). Two of these households consisted of paired winter and summer dwellings, one household consisted of a winter dwelling, a summer dwelling, and a ramada, and two households consisted of single winter houses. The architectural form of the final household (Structure 27) could not be determined as confidently because the structures were not identified in the field and the postholes composing the structures were not excavated. Consequently, the lack of any diagnostic Cherokee artifacts precluded the confident association of any posts with a Cherokee occupation.

Assessing the method of manufacture of Cherokee structures at Townsend

As discussed above, ethnohistoric descriptions have provided archaeologists with detailed accounts describing the method of manufacture of Cherokee winter and summer

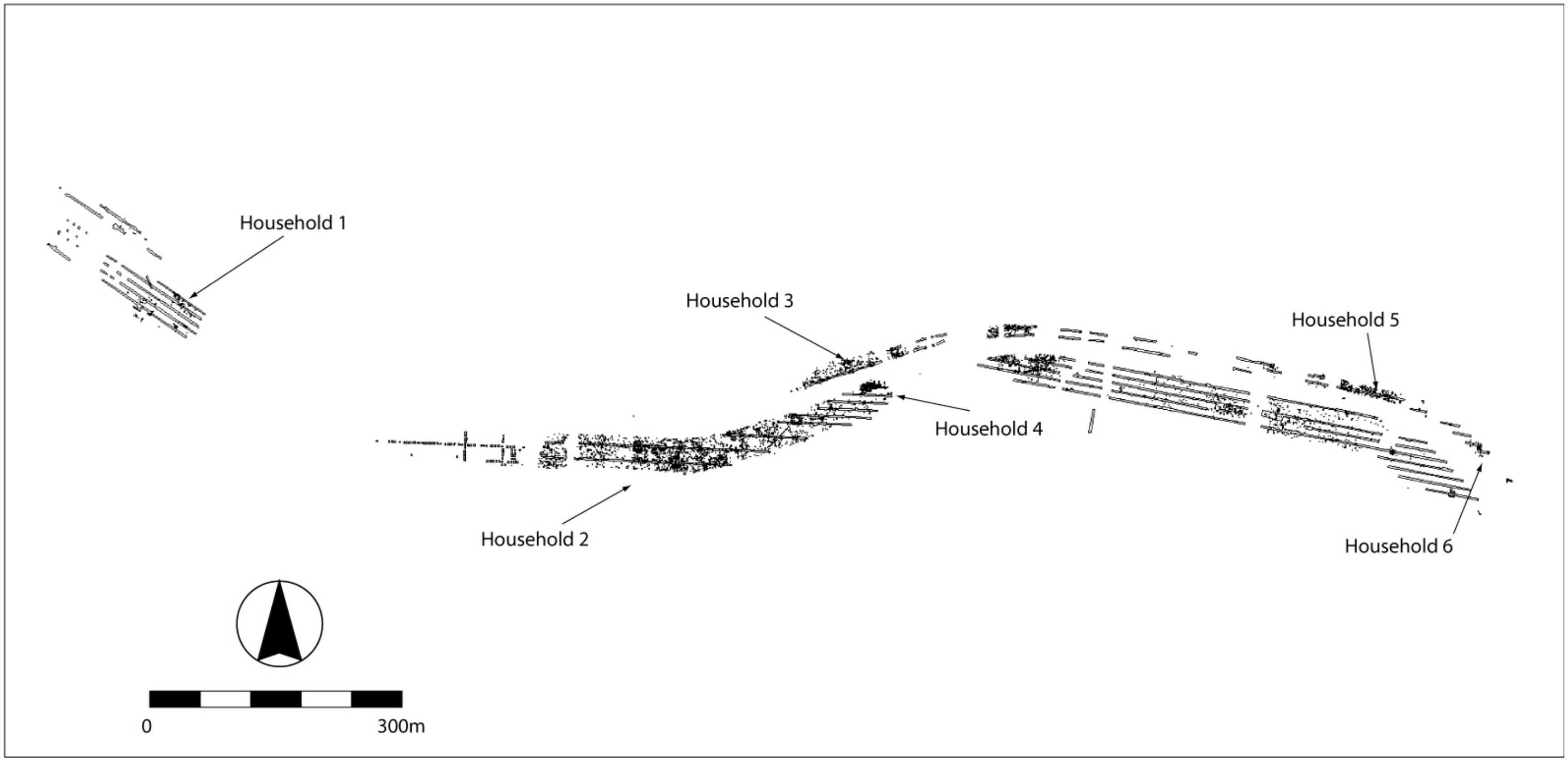

Figure 7.1. Map depicting the locations of the six Cherokee households identified during the Townsend project.

dwellings. The methods used to construct domestic structures were described most eloquently by James Adair in reference to generic summer and winter houses of southeastern Indians.

> For their summer houses, they generally fix strong posts of pitch-pine deep in the ground...The posts are of equal height; and the wall plates are placed on top of these, in notches. They sink a large post in the center of each gable end, and another in the middle of the house where the partition is to be, in order to support the roof-tree [ridge pole]; to these they tie the rafters...they cover the fabric with pine, or cypress clap-boards, which they can split readily; and crown the work with the bark of the same trees....To raise these[winter houses]`, they fix deep in the ground, a sufficient number of strong forked posts, at a proportional distance, in a circular form, all of an equal height, about five or six feet above the surface of the ground: above these they tie very securely large pieces of the heart of white oak, which are of a tough flexible nature, interweaving this orbit, from top to bottom, with pieces of the same, or the like timber. Then, in the middle of the fabric they fix very deep in the ground, four large pine posts, in a quadrangular form, notched a-top, on which they lay a number of heavy logs, let into each other, and rounding generally to the top. Above this huge pile, to the very top, they lay a number of long dry poles, all properly notched, to keep strong hold of the under posts and wall-plate. Then they weave them thick with their split saplings, and daub them all over about six or seven inches thick with tough clay, well mixt with withered grass: when this cement is half dried, they thatch the house with the longest sort of dry grass, that their land produces (Adair 1986[1775]:449-451).

Past archaeological research has confirmed these descriptions on a general level (e.g., Baden 1983; Polhemus 1987; Schroedl 1986a, 1989). However, these works lacked the kind of quantitative operationalization that allows for more objective intra- and inter-site comparisons of Cherokee house construction methods.

In this section I offer one way to operationalize Cherokee house building practices in the attempt to better link our interpretations of Cherokee architecture to archaeological data. Specifically, I believe that Adair's description provides three important expectations regarding the archaeological manifestation of Cherokee structures as posthole patterns: (1) there should be different types of postholes creating the posthole patterns of summer houses and winter houses – deep, large diameter postholes that were dug to accept central roof supports and smaller diameter perimeter postholes that were dug for posts that supported wall plates; (2) in winter houses, the large deeply dug postholes representing the central roof supports should form a quadrangle in the center of a round or octagonal pattern of postholes representing the structure walls; and (3) in a summer house, the large deeply dug postholes representing the central roof supports should be arranged in a line down the center of a rectangular arrangement of postholes representing the structure walls. The first expectation, that there will be multiple types of posts, should be evident as multiple modes in the distribution of posthole depths, as well as significant differences in the median depths and/or diameters among posthole types. The second and third expectations regarding the arrangement of different post types in winter and summer houses can be tested by exploring the spatial distribution of posthole types on plan view drawings of the structures. For the most part, the expectations are borne out by the architectural data recorded for the Cherokee structures at the Townsend sites (see also Shumate et al. 2005).[2]

Testing the first expectation, the sample for the analyses consists of all excavated postholes associated with Cherokee structures at the Townsend sites with the exception of Structure 27, whose postholes were not excavated (n = 368). The distribution of posthole depths does indeed suggest the existence of separate types of postholes (Figure 7.2). Inspection of Figure 7.2 reveals a tri-modal distribution of posthole depths with modes at 11 cm, 21 cm, and 38 cm. Three types are defined by these modes: one type includes postholes less than 15 cm deep, one type includes postholes 16-30 cm deep, and one type

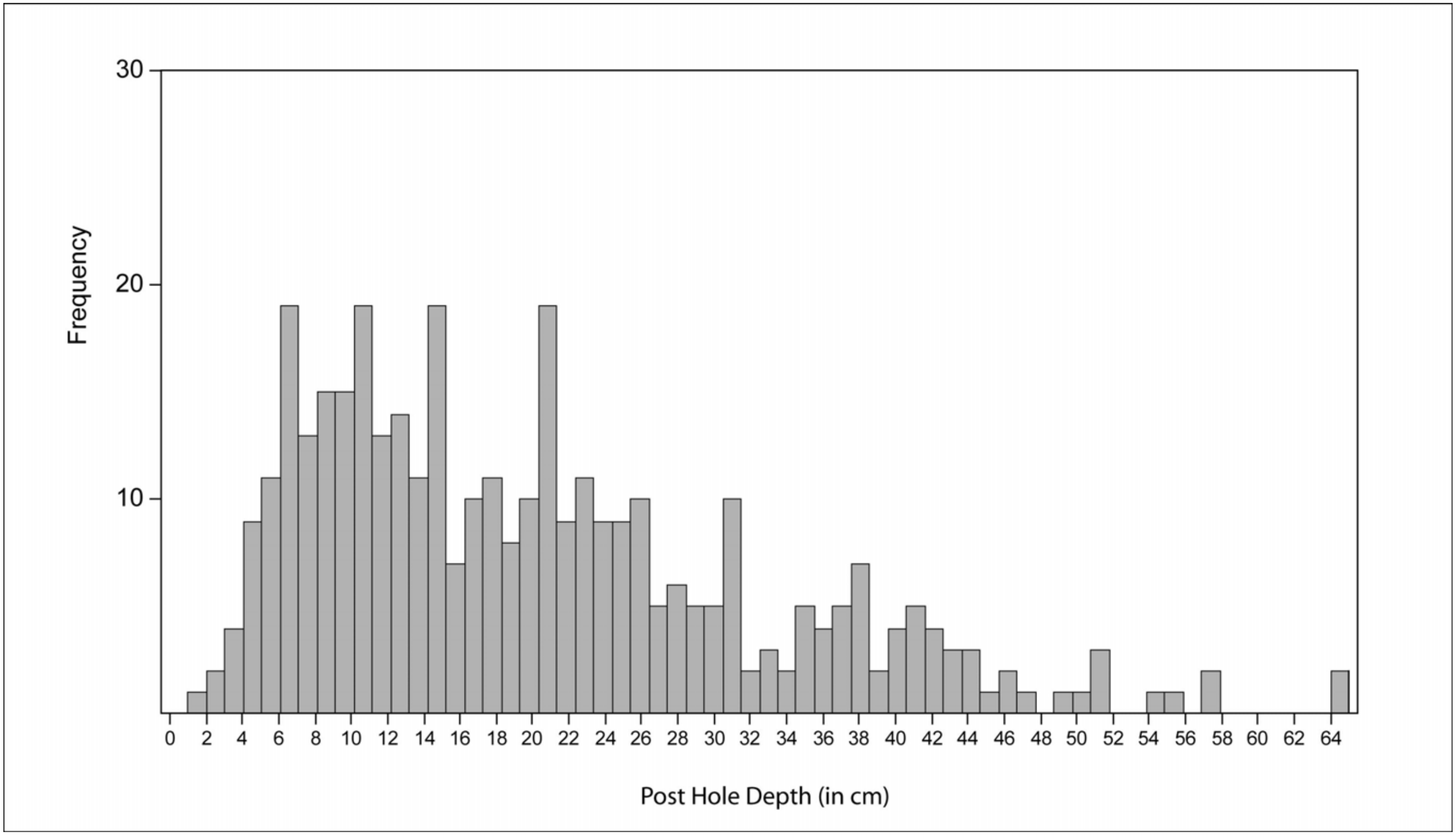

Figure 7.2.Histogram depicting the distribution of posthole depths for Cherokee structures.

includes posts greater than 30 cm deep. Further distinctions in posthole types can be made when the locations of the postholes are considered along with depth (Figure 7.3). Postholes greater than 30 cm deep located in the center of structures represent "central roof supports." Postholes less than 30 cm deep located more than 50 cm inside of the outer perimeter postholes are deemed "interior posts." Postholes greater than 15 cm deep comprising the outer perimeter of the structure are considered "exterior support posts," while those perimeter postholes less than 15 cm deep are simply called "exterior posts."

Comparisons of median posthole depths and diameters can be used to test the likelihood that these posthole types represent, in some sense, real differences related to the choices made during the construction of Cherokee structures (Table 7.1). Figure 7.4 depicts a comparison of the distributions of depths among the four posthole types. The results depicted in Figure 7.4 indicate that there are significant differences in posthole depths among three of the four post types. Central support posts have by far the largest depth values, followed by exterior support posts. Interior posts and exterior posts have median values that are significantly lower than the other two types but not significantly different from each other. A comparison of median posthole diameters indicates that central support posts are significantly larger than all other post types (Figure 7.5). Taken together, these analyses suggest that Cherokee dwellings were constructed of posts of two different diameters and that these posts were sunk to different depths depending on the role they played in the structural stability of the dwelling.

When the postholes are shaded to represent the three depth classes, their distribution in plan view structure drawings demonstrates patterning consistent with the

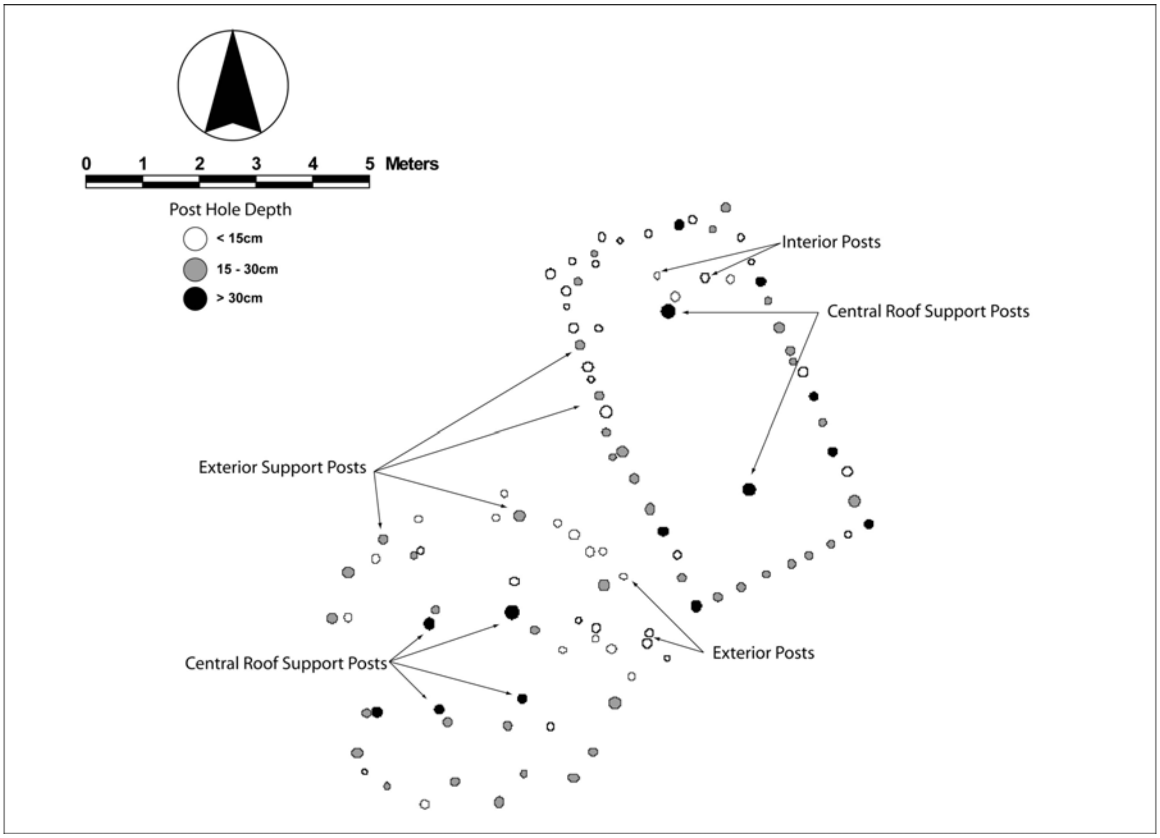

Figure 7.3. Hypothetical examples of post types based on posthole depth and location within structures.

Table 7.1 Basic statistics for depth and diameter of Cherokee structure postholes.

	n	Mean Depth (cm)	Standard Deviation	Median Depth (cm)	Mean Diameter (cm)	Standard Deviation	Median Diameter
Central Roof Support	33	41.60	1.42	37	23.36	0.82	22
Exterior Support	127	26.60	0.73	24	19.18	0.42	18
Interior	113	14.61	0.78	12	16.70	0.44	16
Exterior	95	9.40	0.86	10	17.02	0.48	17

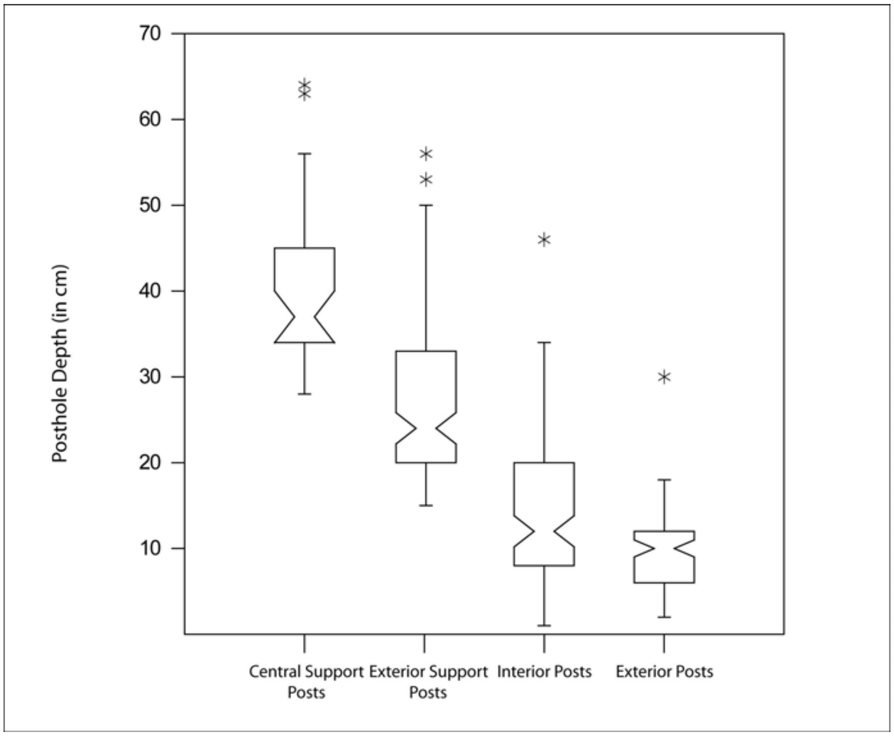

Figure 7.4. Boxplots comparing the distributions of posthole depth among post types.

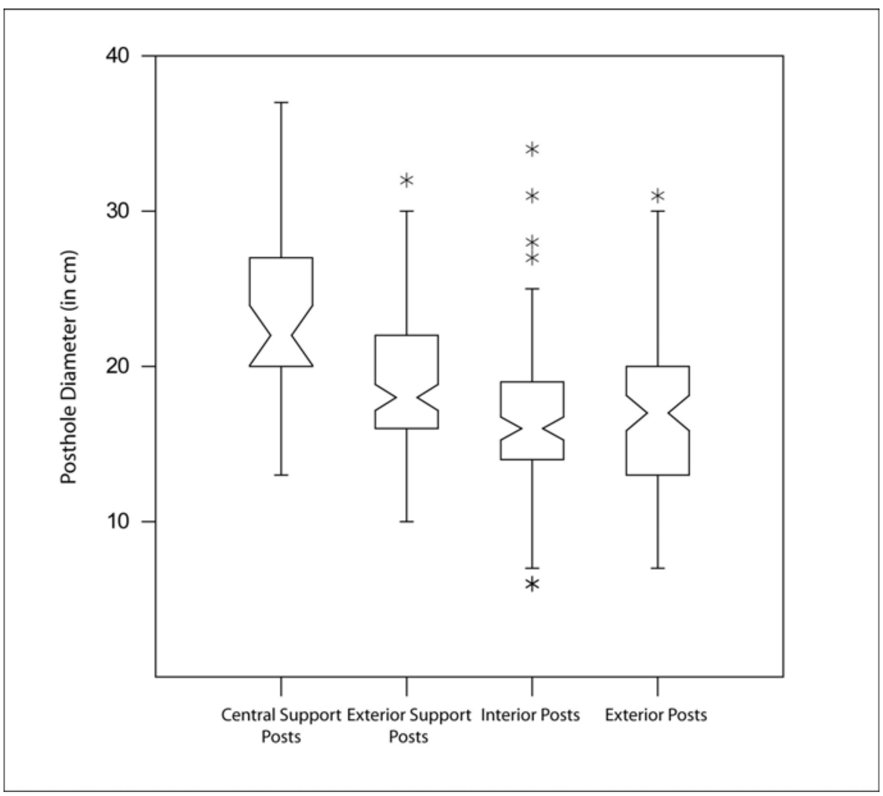

Figure 7.5. Boxplots comparing the distributions of posthole diameter among post types.

second and third expectations mentioned above. Figures 7.6-7.10 depict all of the confirmed Cherokee structures at the Townsend sites. Detailed descriptions of each structure will be given later, but for now these plan views will suffice for the purpose of testing the second and third expectations regarding the arrangement of central support posts and other posts in Cherokee structures. All of the round structures (i.e., Structures 1, 12, 22, 47, and 8), which presumably represent winter houses (see the discussion of structure function below), contain at least one set of four central postholes greater than 30 cm deep and arranged in a quadrangle. These structures are also defined by a circular, relatively evenly spaced pattern of postholes with a floor area of approximately 40 m^2 (Table 7.2). In two cases (Structure 22 and Structure 47), the posthole patterns of the perimeter walls feature widely spaced deep postholes interspersed with shallow postholes. In these structures, the deeper postholes may correspond to corner posts that linked the wall segments of the winter houses. This posthole pattern has been identified in the winter houses at the Chota-Tanasee site and at the Alarka site (Schroedl 1986a:267; Shumate et al. 2005:5.26-5.27). The exterior wall support posts of two other Townsend winter houses (Structure 12 and Structure 8) are more widely spaced and are clustered in sets of two and three. Interior posts, those less than 30 cm deep and located more than 50 cm inside the structure walls, appear to have filled two functions. Some of these posts cluster near the central roof support posts and likely acted as additional roof braces. The other interior posts either supported sleeping benches, as described in ethnohistoric accounts, or formed interior partitions within the structure.

Of the structures that may be considered summer houses (see the discussion of structure function below) (Structures 999, 22, 41, and 51), only Structure 41 has a

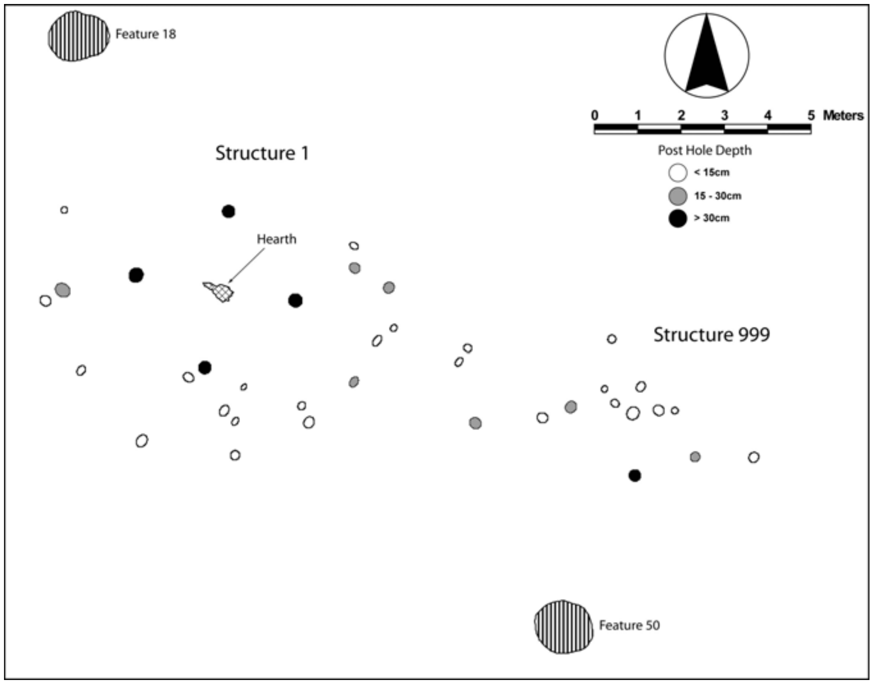

Figure 7.6. Posthole patterns of Household 1: Structure 1 and Structure 999. Posts are shaded to indicate posthole depth.

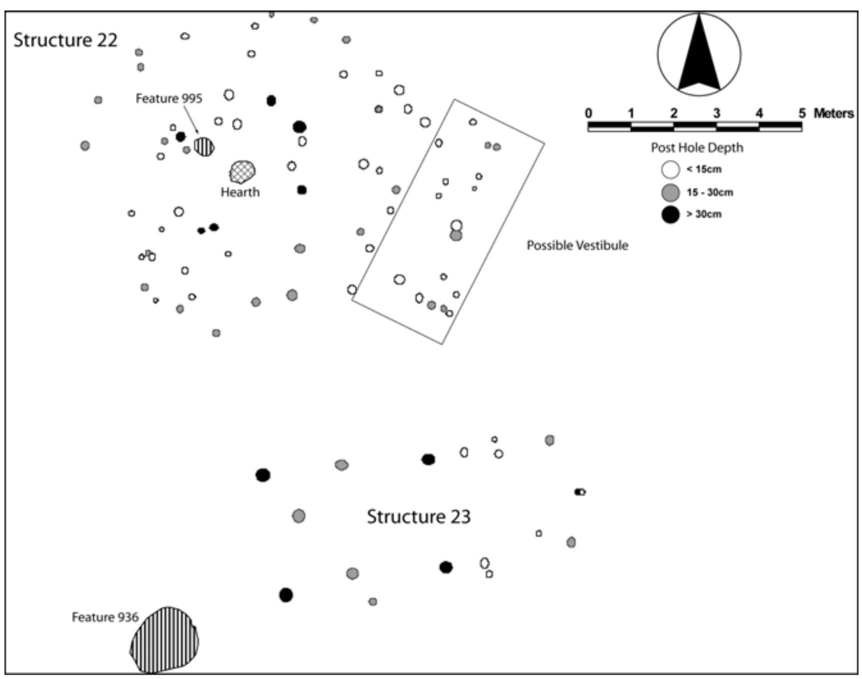

Figure 7.7. Posthole pattern of Household 2: Structure 22 and Structure 23. Posts are shaded to indicate posthole depth.

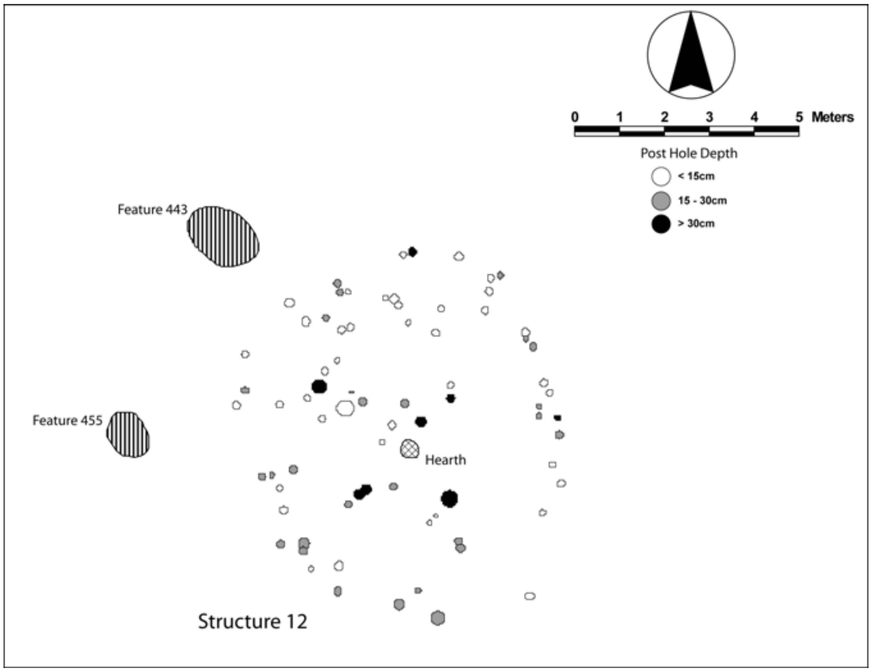

Figure 7.8. Posthole pattern of Household 3: Structure 12. Posts are shaded to indicate posthole depth.

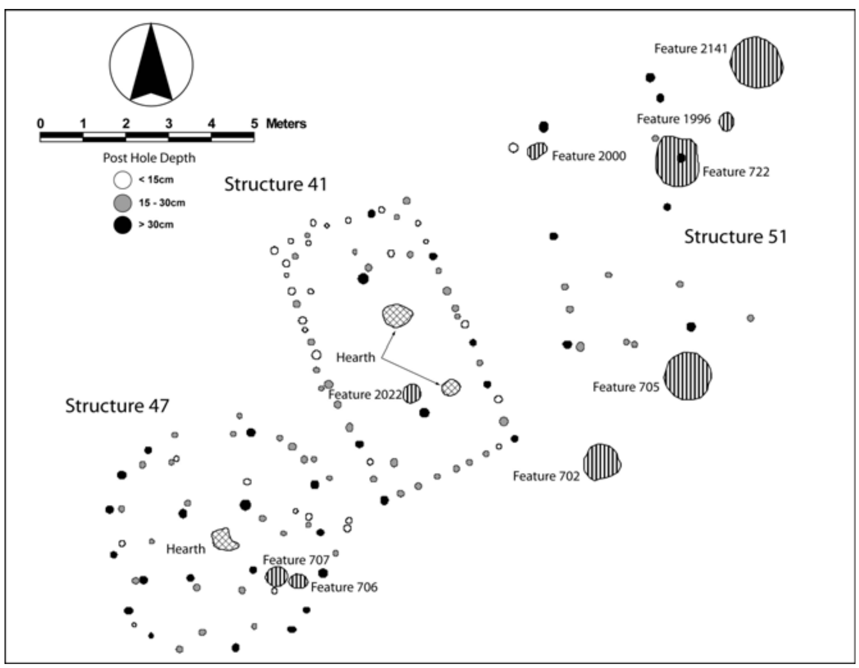

Figure 7.9. Posthole pattern of Household 4: Structure 41, Structure 47, and Structure 51. Posts are shaded to indicate posthole depth.

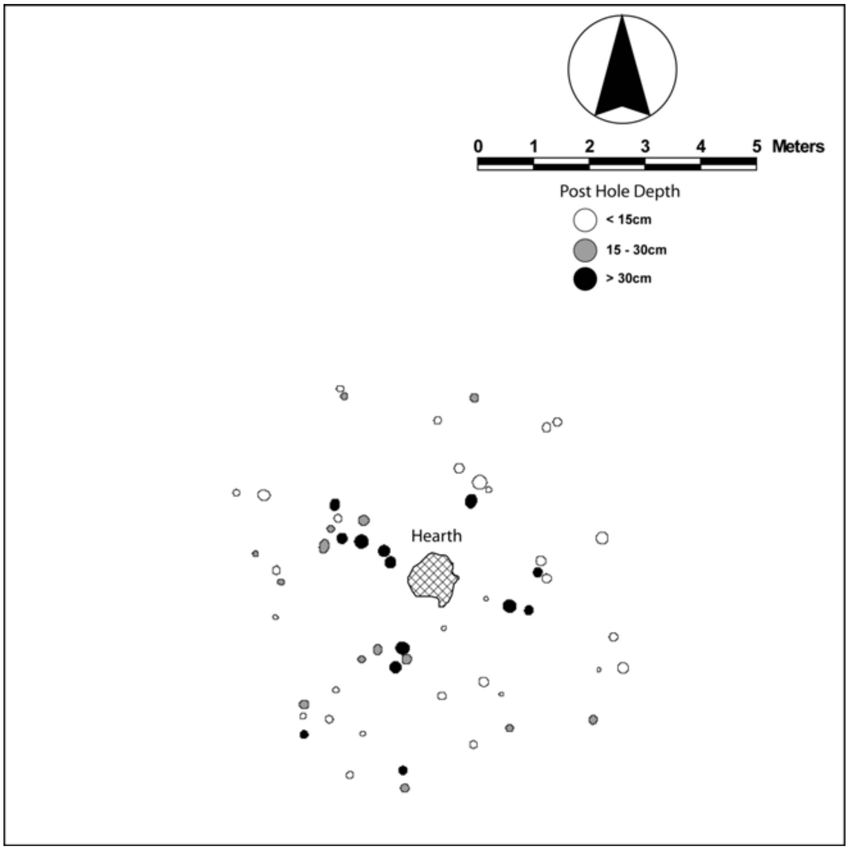

Figure 7.10. Posthole pattern of Household 6: Structure 8. Posts are shaded to indicate posthole depth.

Table 7.2. Architectural data for Cherokee structures

Structure	Shape	Structure Type	Orientation[a]	Major Axis (m)	Minor Axis (m)	Area (m2)	Total Posts	Post Spacing Circumference (m) /Posts	Estimated Household Size (in persons)
1	Circular	Winter House	Cardinal	8.05	7.50	44.31	22	1.85	7
8	Octagonal	Winter House	Intercardinal	7.50	6.70	38.08	56	0.97	6
12	Circular	Winter House	Intercardinal	8.10	7.00	44.29	75	0.68	7
22	Octagonal w/ vestibule	Winter House	Intercardinal	8.20	7.50	45.31	58	0.85	8
23	Rectangular	Summer House	E-W	7.40	3.25	22.64	18	1.20	
27	Undetermined	Winter House?	n/a	n/a	n/a	n/a	32	n/a	n/a
41	Rectangular	Summer House	NW-SE	7.85	4.28	30.75	58	0.50	
47	Octagonal	Winter House	Intercardinal	7.70	6.70	36.70	52	0.77	6
51	Rectangular	Summer House	NW-SE	7.60	4.50	28.81	18	1.37	
999	Rectangular?	Summer House?	E-W	7.00	4.00	22.90	15	n/a	

[a] Orientation was determined by the major axis of rectangular structures and by the locations of the four main roof supports for circular or octagonal structures.

posthole pattern consistent with the expectations generated by Adair's description. This house, which has two large diameter deep postholes located down the centerline of the structure, is similar in form to the summer house identified by Shumate (Shumate et al. 2005) at the Alarka site (Figure 7.9). The other structures in this group lack central roof support posts, and thus could not have supported ridgepoles or peaked gabled roofs. Lacking central support posts, these structures would have instead had single-faced slanted roofs supported by the exterior wall posts. The posthole patterns of Structure 51 and Structure 23, which are comprised almost entirely of postholes over 15 cm in depth, support this interpretation. These structures are similar in form to the summer houses identified by Schroedl (1986a) at Chota-Tanasee. Interior postholes are for the most part lacking in the Townsend summer houses with the exception of Structure 41, which has a series of posts (perhaps forming an entrance baffle) in its northeast corner.

The question of whether the Cherokee structures at Townsend had daubed walls cannot be adequately addressed because mechanical stripping removed the deposits that would have held the evidence. Only one structure (Structure 41) was hand excavated, and the deposits of this house contained only trace amounts of fired clay daub. This lack of fired clay does not mean, however that the walls were not daubed, for none of the structures at Townsend appear to have been burned. In the absence of conditions that would have vitrified the clay daub, one would not expect it to be preserved. It is worth noting that daub was found concentrated around the center of two burned winter houses at the Tuckaseegee and Alarka sites – a pattern consistent with the daubing of the smoke hole in the center of the structure roof rather than the structure walls (Keel 1976; Shumate et al. 2005).

Assessing the function of Cherokee structures at Townsend: Winter Houses and Summer Houses

The task of assessing the function of the Cherokee structures at the Townsend sites is relatively straightforward. As discussed above, the ethnohistoric descriptions are very clear that most eighteenth-century Cherokee households consisted of paired winter and summer dwellings, and these accounts give details regarding their form and construction. Archaeological excavations at eighteenth-century Cherokee sites have confirmed this distinction and have offered some important additional insights based on archaeological indicators. In his synthesis of excavations at various mid-eighteenth century-Overhill settlements, Schroedl (1986a:540-541, 1989:354) made a number of distinctions between winter houses and summer houses: (1) winter houses were round and summer houses were rectangular; (2) winter houses had clearly defined walls comprised of closely spaced posts while summer houses had poorly defined walls comprised of widely spaced posts (this led Schroedl to envision the latter as an open walled structure); (3) winter houses were very consistent in size, averaging 40 m^2, while summer structures displayed much more variability in size; (4) winter houses were marked by the presence of hearths, benches, and small pit features while summer houses generally lacked these features; (5) burials were usually absent in winter houses yet were frequently encountered in summer house excavations. Data from the excavations of the Cherokee houses at the Townsend sites can be used to test these distinctions as well as to provide additional information regarding the functions of winter houses and summer houses.

The first and second distinctions are based on differences in the methods used to construct the winter houses and summer houses. As detailed above, the Cherokee structures at the Townsend site can easily be divided into two groups based on structure shape, or more accurately, based on the spatial arrangement of different post types. The five winter houses are circular or octagonal in shape with at least one set of four large-diameter deeply set posts. There are three clearly defined rectangular Cherokee structures at the Townsend sites, all of which are located within a few meters of Cherokee winter houses (Structures 23, 41, and 51) (Table 7.2). The shape of a fourth structure (Structure 999) is not clear, but it is likely that it too was rectangular.

The spacing of wall posts in the Townsend structures is determined by dividing the perimeter of each structure (measured in meters) by the number of posts making up the exterior walls. A comparison of the median and mean wall post spacing of winter and summer houses at Townsend results in a pattern similar to Schroedl's model of mid-eighteenth-century Cherokee houses (Table 7.3). There is a difference of approximately 50 cm between the median wall post spacing of winter houses and that of summer houses. The difference would be even larger if Structure 41 were left out of the comparison. This was a substantially built Cherokee summer house that had the smallest wall post spacing value of all structures at Townsend. It is very similar to the summer house excavated at the late seventeenth-century Alarka site (Table 7.2) (Shumate et al. 2005). While it is certain that Structure 41 was a fully enclosed dwelling, it is not clear from the spacing of the wall posts in Structures 999, 23, and 51 whether these dwellings were open or enclosed.

The distribution of structure size, measured by the floor area of each structure, forms two mutually exclusive groups that represent winter houses and summer houses (Table 7.3). Winter houses at Townsend range in size from 36.5 m^2 to 45.31 m^2, while

Table 7.3. Comparison of Cherokee winter houses and summer houses.

	Structures	Median Post Spacing	Mean Post Spacing	Median Area (m^2)	Mean Area (m^2)	Hearths	Median Number of Interior Posts	Internal Pit Features	Burials
Winter Houses	1, 8, 12, 22, 47	0.85	1.03	44.29	41.74	5	23	3	0
Summer Houses	23, 41, 51, 999,	1.28	1.33	25.85	26.28	2	4	1	0

the substantially smaller summer houses range from 22.64 m^2 to 30.75 m^2. Not surprisingly, the largest summer house is Structure 41. This pattern is very different from that identified by Schroedl (1986a:540-541) for later mid-eighteenth-century Overhill Cherokee structures. While at Townsend there is consistency in floor area within structure types and a large difference in floor area between structure types, at later Overhill sites winter and summer houses are very similar in size (see comparisons below).

With the exception of Structure 41, the data from the Townsend structures confirms distinctions between winter houses and summer houses based on the presence of hearths, benches, and small pit features in the former and their absence in the latter (Table 7.3). All five winter houses possess simple hearths dug into subsoil; these are absent in all of the summer houses except Structure 41, which has two hearths. Based on the relative number of interior posts in the Townsend structures, benches are most likely present in all winter structures and absent in all summer structures including Structure 41. Also, small pit features are present in two of the five winter houses (Structures 22 and 47) and in a single summer house (Structure 41). The intrusion of a posthole from Structure 51 into a pit feature suggests that this structure postdates the pit features in the area. Addressing the final distinction, no burials were encountered in either type of structure at the Townsend sites.

In sum, the Cherokee structures at the Townsend sites generally fit the expectations generated by Schroedl's (1986a, 1989) model for mid-eighteenth-century Overhill Cherokee winter and summer houses – with two important differences. First, the large disparity between the diminutively sized summer structures and larger winter structures at the Townsend site is not duplicated among later Overhill Cherokee houses. Second, Structure 41 at Townsend represents a Cherokee architectural form that was not encountered in excavations at later eighteenth-century sites. This structure displays defining characteristics of both Cherokee house types. It is rectangular in shape like the other summer houses at the site, but like winter houses it was substantially built with large central support posts and closely set wall posts. It lacks evidence for benches, yet like winter houses it boasts two hearths and a small interior pit feature. It may be that there were effectively two types of summer house being built during the late seventeenth and early eighteenth centuries. One type, represented by Structure 41 and the summer house at the Alarka site (Shumate et al. 2005), was substantially built and had a peaked gabled roof. The other type, represented by Structures 999, 23, and 51, was built much more lightly with widely spaced wall posts and had a simple single-faced roof. Given its absence at later Overhill sites, perhaps the first type of summer house was no longer in use by the mid-eighteenth century. Other than these two exceptions, the general model of dual house types holds, as differences in shape, in method of manufacture, and in the presence of hearths, benches, and small pit features clearly separate the Cherokee structures at Townsend into two groups.

Assessing household size from Cherokee structures at Townsend

Working from historical data and interviews with Cherokee informants, twentieth-century ethnologists clearly identified the household as the fundamental social unit in Cherokee communities stretching back at least to the eighteenth century (Gearing

1962:18-20; Gilbert 1943:202-203). These households were largely based on co-residence and were formed around the nuclear family (i.e., husband, wife, and children), but they could also include members of the extended family. What was the demographic make up of the households who built and dwelt in the structures excavated at Townsend? Unfortunately, there is no way to reconstruct the specific demographic makeup of each household given the vagaries of the archaeological record. There is, however, one aspect of demography we can estimate using archaeological data – the number of individuals composing each household.

Recently Southeastern archaeologists have used a variety of methods for estimating household size based on the floor area of domestic structures (e.g., Scarry 1995; Smith 1995; Sullivan 1989, 1995). These methods are very similar and are based on the simple correlation of house size and the size of co-residential domestic groups identified by modern ethnographic studies (e.g., Casselberry 1974; Cook 1972; Hassan 1981). I calculate the household size for the Townsend structures using Casselberry's (1974) formula (Household size [in persons] = 1/6 Floor Area [in m^2]) in order to provide results that are comparable to the calculations provided by Sullivan (1989, 1995) for Cherokee and Mississippian households in eastern Tennessee. Also following Sullivan, I only include winter houses in the calculation of household size. Summer houses are not included in the calculations because they were ancillary domestic structures.

Given the distribution of structures across the project area, it can be safely assumed that there were six discrete households – three of these households consisted of paired winter and summer dwellings, one household consisted of a winter dwelling, a summer dwelling, and a ramada, and two households consisted of single winter houses.

Unfortunately, the lack of definition of Household 5 (the household containing Structure 27) precludes calculating the size of this household. The household size estimates calculated using the Townsend architectural data are similar across the five households, ranging from six to eight people per household (Table 7.2). These figures are consistent with Sullivan's (1995:Table 5-1) estimates of household size at Chota-Tanasee and with the argument that the Cherokee households at Townsend were likely comprised of nuclear families.

Assessing the occupation duration and abandonment of Cherokee structures at Townsend

The occupation duration of domestic structures and the processes associated with their abandonment are two critical issues that have received little attention in Southeastern archaeology (notable exceptions include Pauketat 1989, 2003; Smith 1995; Ward and Davis 1991; and Wilson 2005). Indeed, the amount of time that structures and domestic spaces were occupied and the practices that were enacted upon the termination of occupation doubtless had significant effects upon the archaeological record of households. On a procedural level, issues associated with occupation duration and abandonment must be taken into consideration when attempting to make comparisons among archaeological contexts representing households. On a processual level, occupation duration itself becomes an extremely important piece of evidence in interpreting the changes that occurred in the daily lives of Cherokee households during the English Contact period. Bourdieu (1977:8-9) criticizes scientists for ignoring time in their studies – a flaw that is evident in most reconstructions of Cherokee history and culture (Chapter 3). To Bourdieu (1977:9) time, as the tempo and rhythm of daily life, gives direction and structure to practices, and as such it constitutes their meaning.

Pauketat (2003:40) recently applied this notion to an archaeological case study in order to explore how the abrupt resettlement of rural farming populations played into the coalescence of Cahokia, the leviathan Mississippian polity in the American Bottom. By estimating the occupation spans of domestic structures, Pauketat (2003) was able to reintroduce timing into considerations of political economy. In doing so, he located culture change in the actions of human agents rather than relying on an outside force for explanation. Similarly, assessing the occupation duration of Cherokee houses adds the critical component of time to my interpretation of the strategies that Cherokee households enacted in negotiating the English Contact period.

Many of the current models used to estimate the occupation duration of houses are founded on structure longevity and the processes of architectural deterioration associated with the environment and insect infestation (e.g., McIntosh 1974; Moore and Gasco 1990; Warrick 1988).[3] These models offer baseline estimates for structure longevity based on the use lives of particular architectural materials in certain environments. Typically, the occupation duration of a structure is estimated by combining these estimates with archaeological evidence of remodeling and/or rebuilding. For example, using architectural data from a continuously occupied residential zone in the American Bottom region, Pauketat (2003) derived estimates for the occupation duration of Mississippian period houses by determining the maximum number of rebuilding episodes that were present during each of the site's 50-75 year-long occupational phases. By dividing the occupational phase length by the maximum number of rebuilding episodes, Pauketat (2003:46) estimated that Mississippian structures in this region would have needed major repair or replacement after approximately 12 years. For this style of Mississippian period house, counting rebuilding episodes is relatively easy, as rebuilding most often involved the *in situ* replacement of entire walls. Cherokee architecture, however, was based on a different architectural vernacular where repair involved individual post replacement rather than the replacement of entire wall sections (see Wilson 2005:126-133 for a discussion of these methods). Thus, an entirely different method for estimating structure longevity and occupation duration is called for.

A promising method for estimating the occupation duration of Cherokee structures is the wall post replacement estimation method developed by Gary Warrick (1988) for Iroquois longhouse structures. Warrick's (1988:34) method presents a very straightforward way to operationalize the relationship between wall post density and occupation duration in structures where repair proceeded through individual post replacement. Essentially, the model assumes that the total number of postholes encountered in the archaeological record equals the sum of the original number of wall posts comprising a structure and the number of posts used to replace rotten or deteriorated posts during the occupation of the structure. In order to calculate the occupation duration of a structure using Warrick's method, the analyst needs to know three pieces of information: (1) type of wood the wall posts are made of, (2) the deterioration rate of that type of wood, and (3) the number of original wall posts comprising the structure (Warrick 1988:35-37). Except in rare cases where the charred remains of wall posts are found, archaeologists must calculate estimates using a number of different types of wood. Baseline data for determining the deterioration rates of wall posts can be found in a number of related studies concerning the use life of untreated fence posts (e.g., Blew and Kulp 1964; Krzyzewski et al. 1980; Purslow 1976). When analyzing the posthole patterns of Cherokee structures, it is impossible to know for certain which postholes represent original wall posts and which represent repair or replacement posts. As a way to circumvent this problem, Warrick (1988:40) recommends using the structure with the lowest wall post density in the sample as a proxy for the original number of wall posts in a structure.

Estimating the occupation duration of a particular structure proceeds in three steps: (1) Determine the wall post density of the structure in terms of wall posts per linear meter. This is done by dividing the total number of exterior wall posts by the circumference of the structure. (2) Divide this value by the wall post density value representing the original number of posts (i.e., the structure with the lowest wall post density in the sample). The resulting ratio measures the proportion of wall posts that have been added to the structure (e.g., a value of 1.5 indicates that 50% of the wall posts have been replaced). (3) Apply this ratio value to use life curves calculated for different types of wood in order to attain an estimate of elapsed time (Warrick 1988:Figure 3).

A few changes are necessary in order to make this method more applicable to Cherokee structure data. First, estimates of occupation duration are limited to winter houses because wall post density values for summer houses evince a great deal of stochastic variation. Second, in the attempt to make the occupation duration estimates as robust as possible, the sample used in this study includes data from four of the Townsend structures as well as 18 clearly defined Cherokee winter houses uncovered at a number of other late seventeenth- and eighteenth-century Cherokee sites (Table 7.5). Lastly, new

Table 7.4. Average use-life of untreated fence posts made from southeastern trees.

Wood Type	Average Use-Life (yrs.)
Ash	10.43
White Oak	9.69
Hickory	3.55
Southern Yellow Pine	2.59

Table 7.5. Estimated occupation duration for Cherokee winter houses.

Site	Structure	Circumference (m)	Linear Wall Post Density (posts/m)	Observed Wall Post Density/ Original Wall Post Density	Estimated Occupation Duration (yrs.)			
					Ash	White Oak	Hickory	Yellow Pine
Townsend[a]	8	23.20	1.03	1.34	8-10	6-8	2-4	2-4
	12	25.29	1.46	1.90	10-12	10-12	4-6	2-4
	22	24.65	1.18	1.52	8-10	8-10	2-4	2-4
	47	22.54	1.29	1.67	10-12	8-10	2-4	2-4
Chattooga	1	23.56	1.06	1.37	8-10	8-10	2-4	2-4
	2	21.99	1.09	1.41	8-10	8-10	2-4	2-4
Alarka	1	23.20	1.25	1.62	10-12	8-10	2-4	2-4
Tuckaseegee	1	22.02	0.77[b]	1.00	2-4	2-4	0-2	0-2
Chota	6	20.10	1.94	2.51	>20	18-20	8-10	6-8
	10	22.98	0.87	1.13	6-8	6-8	2-4	0-2
	12	22.02	0.95	1.24	8-10	6-8	2-4	2-4
	14	18.19	0.88	1.14	6-8	6-8	2-4	0-2
	15	21.06	0.81	1.05	4-6	4-6	0-2	0-2
	16	21.06	1.14	1.48	8-10	8-10	2-4	2-4
	18	22.59	1.06	1.38	8-10	8-10	2-4	2-4
	25	22.02	0.95	1.24	8-10	6-8	2-4	2-4
	27	21.06	1.04	1.35	8-10	8-10	2-4	2-4
Tanasee	3	21.06	1.28	1.66	10-12	8-10	2-4	2-4
	5	21.06	1.14	1.48	8-10	8-10	2-4	2-4
Mialoquo	1	22.50	1.29	1.67	10-12	8-10	2-4	2-4
Toqua	59	19.62	1.88	2.44	>20	18-20	8-10	6-8
	104	19.15	2.19	2.64	>20	18-20	8-10	6-8

[a]Structure 1 was not included in the sample because the northeastern portion of its posthole pattern was heavily disturbed.
[b]This wall post density value was used as a proxy for the original wall post density of Cherokee winter houses in the calculations of occupation duration.

average use life estimates and use life curves are calculated. Warrick's (1988:Table 5, Figure 3) use life estimates are based on tree species commonly used in the Northeast, not the Southeast; furthermore, the use life estimates he employs are based on fence post tests conducted primarily in the Midwest and Northeast. In order to provide more accurate estimates in this study, the wood types are limited to species commonly used in prehistoric southeastern architecture, namely ash, white oak, hickory, and southern yellow pine, and the average use life estimates are calculated solely from fence post studies conducted in southeastern environmental settings (Table 7.4) (Blew and Kulp 1964). Use life curves for southeastern wood types are created using a formula derived from a use life study of over 50,000 railroad ties (MacLean 1926) (Figure 7.11 and Figure 7.12).

Occupation duration estimates for the 22 Cherokee winter houses in the sample were calculated following the procedure outlined above and are given in Table 7.5. Wall post density values for each structure are based on published data and/or are calculated from published scale drawings (Table 7.5) (Howard 1997; Keel 1976; Polhemus 1987; Russ and Chapman 1984; Schroedl 1986a; 1994). For each structure, occupation duration estimates are obtained by applying the ratio of observed wall post density-to-original wall post density to the use life curves of the wood types in Figure 7.12. Taking the wall post density ratio of Townsend Structure 22 as an example, the occupation duration estimates are found on the *y-axis* where the ratio value (1.52 on the *x-axis*) intercepts the use life curves of the different wood types. In this example, the occupation duration estimate is eight to ten years if the structure was made of ash or white oak and

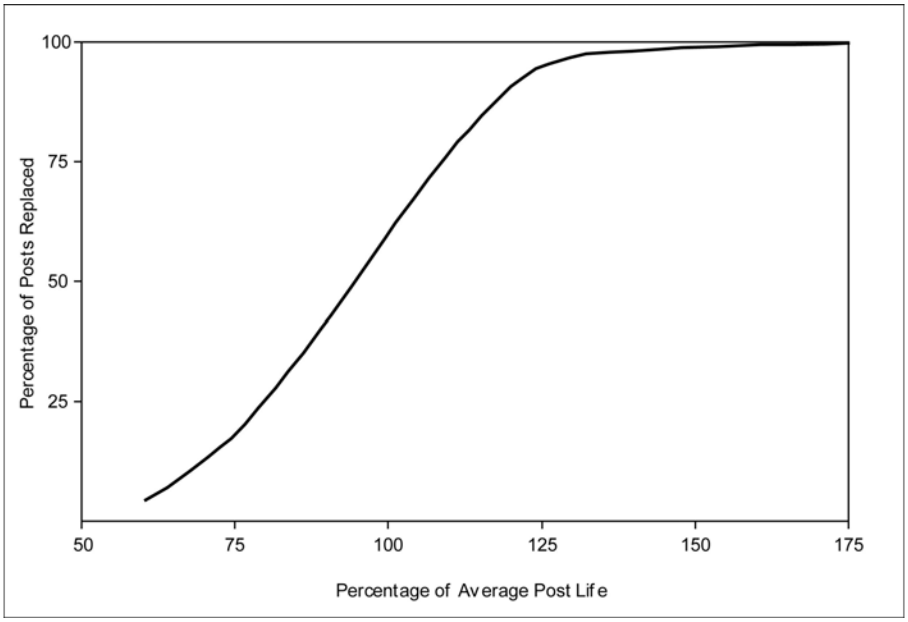

Figure 7.11. Curve describing the mathematical relationship between post replacement and average post life (adapted from MacLean 1926).

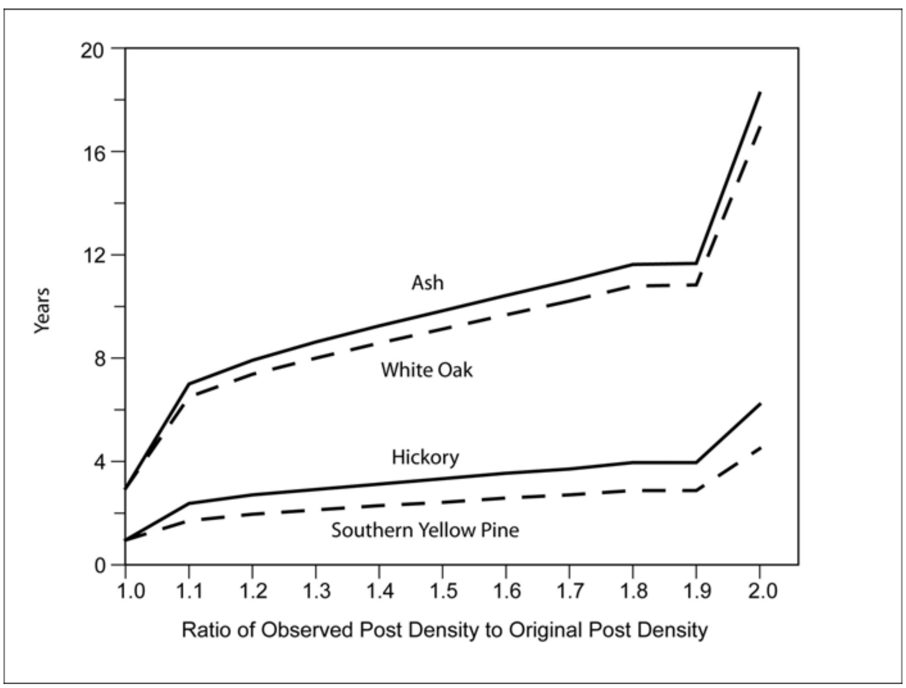

Figure 7.12. Use-life curves for untreated fence posts made from common southeastern trees (see also Warrick 1988 for use-life curves for fence posts made from northeastern trees). The x-axis measures the proportion of wall posts that have been replaced in any given house. The value of 1 represents a house with no replaced wall posts, while a value of 2 represents a house where all wall posts have been replaced (calculated using use-life curve in MacLean [1926]).

two to four years for hickory or pine. The Townsend houses all have similar duration estimates spanning two to twelve years depending on the building material. Indeed, with the exception of three houses, the results of this analysis strongly suggest that most Cherokee winter houses were occupied for less than a decade. While some degree of repair was evident in most structures, these results indicate that structures were rarely occupied for long enough to replace all of the wall posts. It is interesting that this pattern of short-term occupation applies broadly across different types of communities – from isolated farmsteads like the household at the Alarka site, to the small hamlet-sized community represented by the Townsend sites, to households at large towns like Chota-Tanasee. As will be discussed later, the short occupation duration of Cherokee houses is likely related to changes in community organization that occurred as part of the formation of the shatter zone during the English Contact period.

Any analysis of household data should also consider the circumstances and behaviors associated with the abandonment of domestic structures (e.g., Cameron 1991; Joyce and Johannessen 1993; Stevenson 1982; Stone 1993). Along with occupation duration, this issue is too often overlooked in Southeastern archaeology. Unfortunately, the deposits that would contain evidence attributed to abandonment processes (e.g., floors or living surfaces) were heavily disturbed by plowing or were entirely removed by mechanical stripping during excavations. Based primarily on a lack of evidence for catastrophic abandonment (i.e., burning) or intentional post removal, it appears that the Townsend structures were left standing when they were abandoned. The one structure (Structure 41) that was hand excavated contained small vestiges of a floor around the central hearth and an approximately 30 cm thick midden deposit. The deposit likely represents trash deposited after the structure was abandoned, or it might be related to the collapsed roof, as soil was often placed on the roof as part of the construction process. In any event, post-depositional disturbances resulting from abandonment, historic agricultural activities, and excavation have removed the temptation to treat any of the Townsend households as "Pompeii-like" contexts (Schiffer 1972, 1987).

Individual Structure Descriptions

I have thus far assessed the methods of manufacture, structure functions, occupation durations, and abandonment processes of Cherokee domestic structures by dealing with the Townsend data *en masse*. Now I will move on to a discussion of how this vernacular was manifest in individual domestic structures. The following section contains descriptions of each Cherokee structure identified during the Townsend project. The structure descriptions are organized by household proceeding from west to east across the project area (Figure 7.1). Table 7.2 presents the relevant architectural data for each structure including structure shape, structure function, orientation, dimensions, and floor area. Table 7.6 contains a breakdown of the various post types defining each of the structures.

Household 1: Structure 1 and Structure 999 (Figures 7.6, 7.13, 7.14). Structure 1 is a Cherokee winter house defined by a circular pattern of 22 postholes. The pattern consists of four central roof support posts, forming a quadrangle averaging 2.61 m a side, four exterior support posts (> 15 cm in depth), nine exterior posts (< 15 cm in depth), and five

Table 7.6. Post types constituting Cherokee structures.

Structure	Total Posts	Central Support Posts	Mean Central Support Post Spacing (m)	Exterior Support Posts	Exterior Posts	Interior Posts
1	22	4	2.61	4	9	5
8	56	11	2.23	10	14	21
12	75	6	2.04	19	18	32
22	58	6	2.21	15	14	19
23	18	0	n/a	10	8	0
27	32	n/a	n/a	n/a	n/a	n/a
41	58	2	4.1	29	19	8
47	52	4	1.82	21	7	20
51	18	0	n/a	16	1	1
999	15	0	n/a	3	5	7

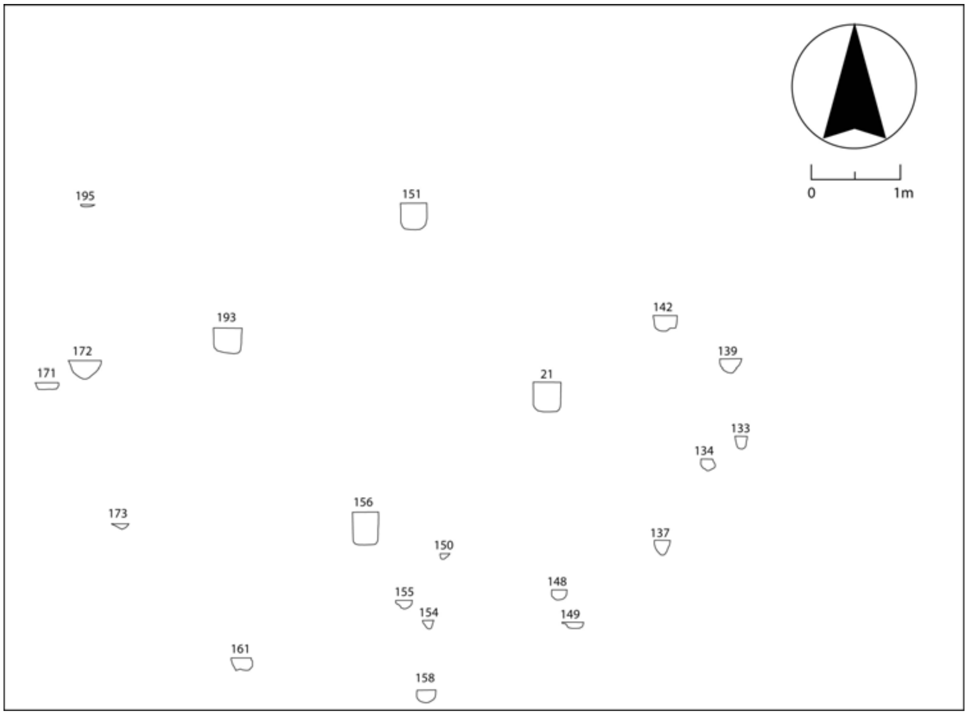

Figure 7.13. Schematic of posthole profiles for Structure 1. Note: Profiles were not available postholes. (Labels depict identification numbers assigned to individual postholes).

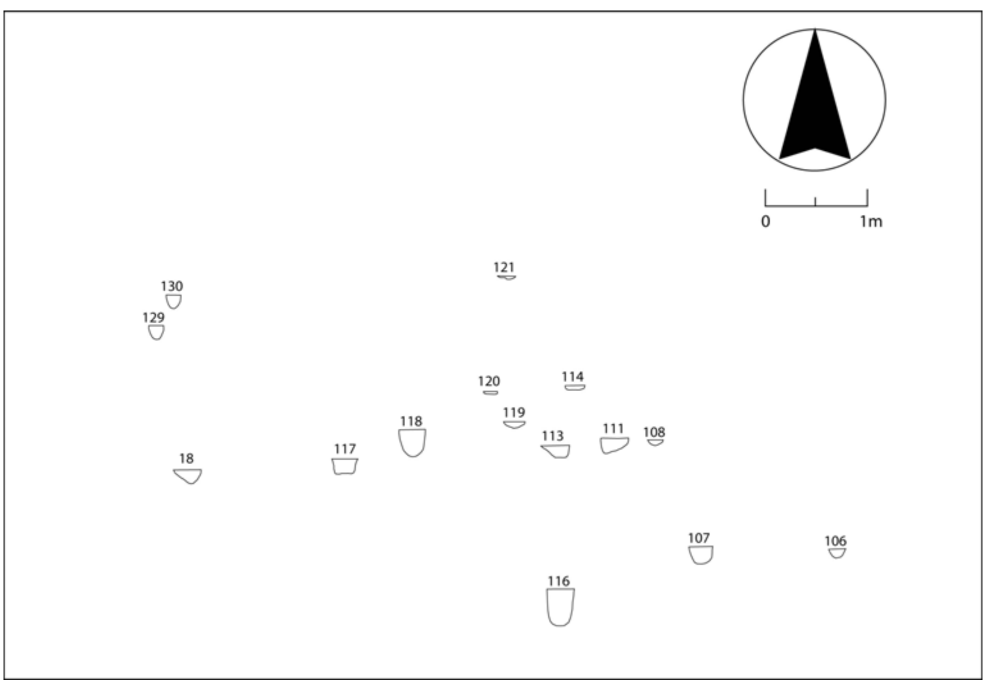

Figure 7.14. Schematic of posthole profiles for Structure 999. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

interior posts. One of the interior posts likely acted as a brace for a central roof support, and the rest may have formed an entrance baffle along the southern wall. The northeastern portion of the structure is poorly defined. Any evidence of wall posts in this area was eradicated by activities related to the original construction of U.S. Highway 321. The remains of a single hearth (Feature 56) were uncovered in the center of the structure. This feature has been disturbed by plowing, but from what remains it appears to have been a simple shallow basin dug into subsoil. No interior pit features were found.

Structure 999 is a poorly defined remnant of a summer house located 1.75 m southeast of Structure 1. Most of posthole pattern defining this structure was destroyed by the construction of U.S. Highway 321. A somewhat overly optimistic reconstruction of the structure suggests that it is rectangular in shape, lacks central roof support posts, has three exterior support posts, five exterior posts, and seven interior posts. If this classification of post types is correct, then this structure has many more interior posts than the other summer houses in the sample. No interior pits or hearths were found.

Household 2: Structure 22 and Structure 23 (Figures 7.7, 7.15, 7.16). Structure 22 is identified as the remains of an octagonal Cherokee winter house consisting of a posthole pattern containing 58 posts. The structure has six central roof support posts with an averaging spacing of 2.21 m. Four of these posts are arranged in the typical quadrangle form, an additional post is paired with the post in the southwestern corner of the quadrangle, and another support post is located between the posts at the northeast and southeast corners. The 15 external support posts are arranged in sets of three at the northeast, northwest, and southwest corners of the structure and are likely arranged this

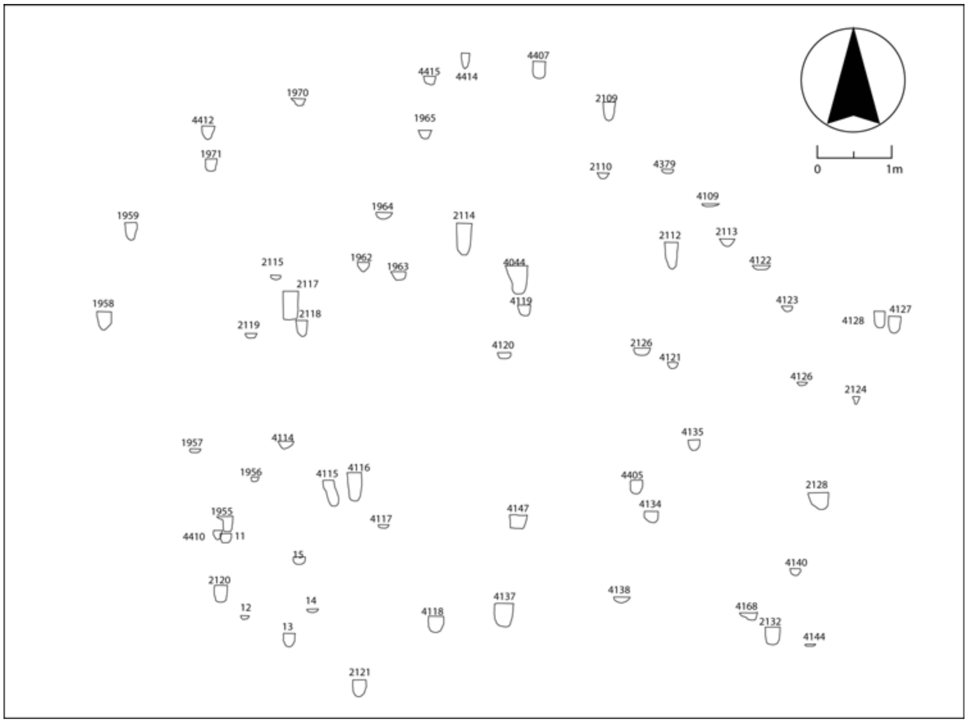

Figure 7.15. Schematic of posthole profiles for Structure 22. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

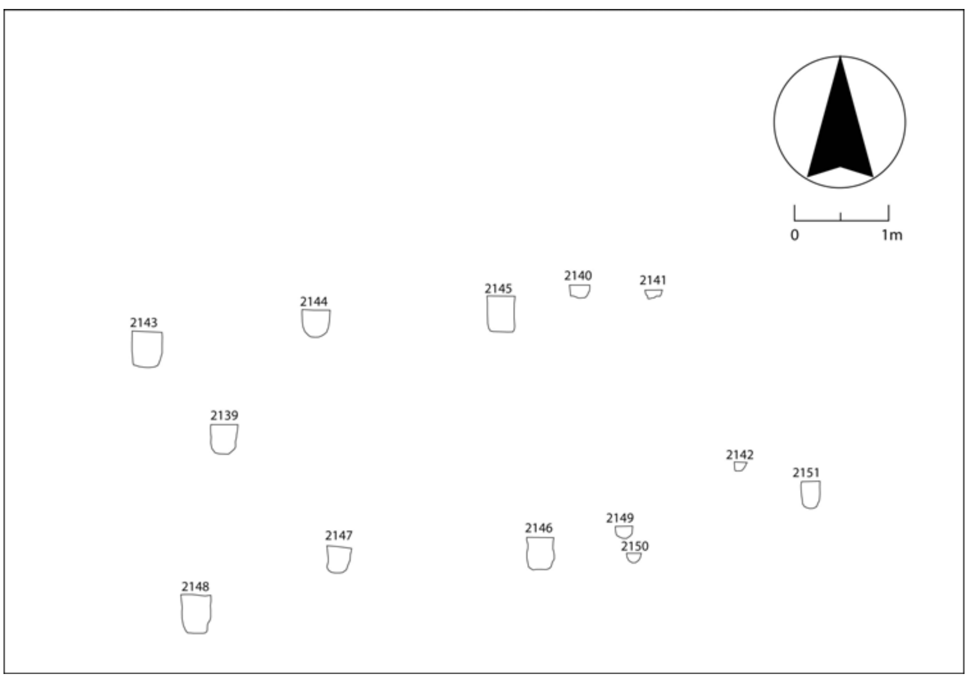

Figure 7.16. Schematic of posthole profiles for Structure 23. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

way to provide structural support for the house. The wall posts defining the southeast perimeter of the house do not fit the shape of the typical Cherokee winter house. Inspection of Figure 7.7 suggests that 17 of the outermost posts in the southeast corner of the structure represent the remains of a vestibule or attached ramada. If this interpretation is correct, then the large-diameter deeply set posts of the vestibule would have provided additional support along the southeastern wall of Structure 22. Based on their locations, the 14 exterior posts less than 15 cm in depth probably filled in the structure walls between the sets of exterior support posts, or they acted as post replacements. Of the 19 interior posts in the structure, the posts along the western and eastern walls likely supported benches, the posts clustered around the central roof supports probably acted as additional braces, and the posts in the southeast corner could have formed an entrance baffle coming in from the vestibule. Interior features include a hearth (Feature 996) and a small pit feature (Feature 995). The hearth is largely destroyed by plowing, but it appears to be of a simple form like that located in Structure 1.

Structure 23 is a Cherokee summer house located four meters south of Structure 22. The structure is defined by a rectangular pattern of postholes containing no central roof support or interior posts, ten exterior support posts, and eight exterior posts. The lack of interior posts, along with the large diameters and depths of the exterior posts, suggests that a ridgepole was not used and that the walls of this structure bore the entire weight of the roof. Furthermore, the lack of a ridgepole suggests that the roof was of the slanted single-faced variety rather than a peaked gabled affair. The interior of the structure lacks any evidence of benches, interior pits, or hearths.

Household 3: Structure 12 (Figures 7.8, 7.17). Structure12 is a circular Cherokee winter house defined by a posthole pattern containing 75 posts. The structure has six central roof support posts forming a square averaging 2.04 m per side. The fifth central roof support post is paired with the southwestern post of the quadrangle, and the six is located approximately 50 cm southwest of the northeastern support post. Based on the arrangement of the 19 exterior support posts and the 18 exterior posts, the walls of this house appear have been supported by a series of relatively equally spaced sets of paired posts. This arrangement is similar to that of Structure 8. Structure 12 contains a large number of interior posts. Fifteen of the 32 interior posts are located in and around the central area of the house defined by the central support posts. These could have either been used as additional braces for roof support or to create interior partitions. The rest of the interior posts are located just inside the exterior walls and cover all but the southeastern quadrant of the structure. This suggests that benches lined most of the structure. The gap in the southeastern quadrant of the structure could be an entryway, but this is speculative as no baffle was identified. The scant remains of a single simple hearth (Feature 1115) were recorded in the center of the structure. No interior pit features are associated.

Despite efforts both in the field and in the preparation of this study, no posthole pattern representing an associated summer house could be identified. My attempts to identify a structure based on shape were confounded by the fact that the area around Structure 12 contained many rectangular posthole patterns associated with the Mississippian occupation of the site. Furthermore, since only those postholes associated

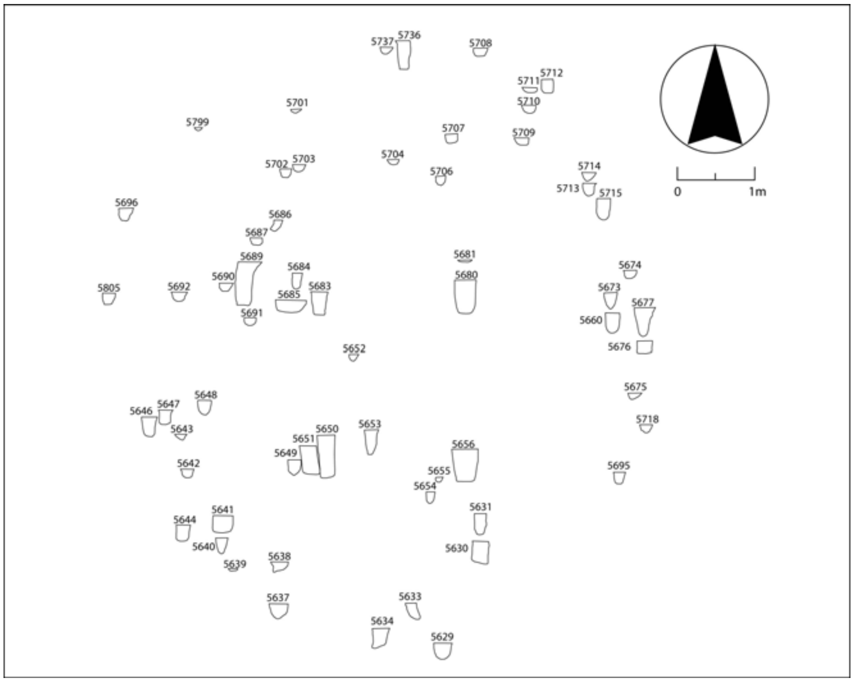

Figure 7.17. Schematic of posthole profiles for Structure 12. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

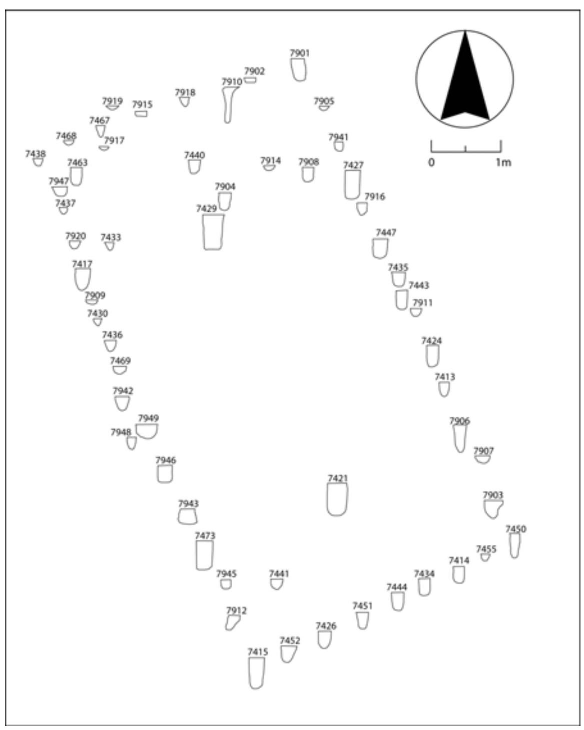

Figure 7.18. Schematic of posthole profiles for Structure 41. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

with structures identified in the field were excavated, the artifactual evidence needed to support a post hoc structural identification is missing. As excavations at Chota-Tanasee have demonstrated, Cherokee households consisting solely of winter dwellings are not unheard of (Schroedl 1986a).

Household 4: Structure 41, Structure 47, and Structure 51 (Figures 7.9, 7.18, 7.19, 7.20). Structure 41 represents the remains of a Cherokee summer house defined by a rectangular pattern of 58 postholes. This structure has two central support posts, spaced 4.10 m apart, located along the centerline of its northwest-southeast axis. The 29 exterior support posts and 19 exterior posts forming the walls of the structure are very closely spaced, approximately every 50 cm. Along with the presence of central support posts, this post spacing sets Structure 41 apart from other known Cherokee summer houses. The structure has eight interior posts. Four of the posts in the northeast corner of the structure form an L-shaped feature that may have been an entrance baffle or some other kind of partition. Other interior posts against the west wall may represent bench supports. Alternatively, given the possible entryway located along the eastern side of Structure 47, located just one meter to the west, the interior posts in the southwest corner of Structure 41 may represent an entryway that linked these two structures.

Unlike other Cherokee structures at Townsend, Structure 41 was excavated by hand. These excavations revealed that a sheet deposit of midden overlay the structure. Underneath this midden deposit and toward the center of the structure, these excavations encountered the possible remnants of a living surface and two hearths. One hearth located in the center of the structure (Feature 118) is heavily disturbed, and the other

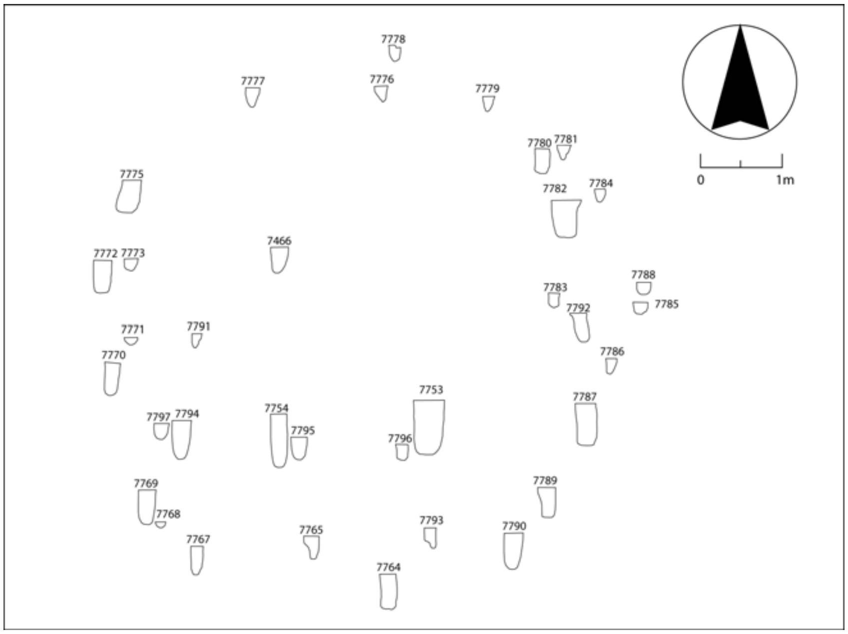

Figure 7.19. Schematic of posthole profiles for Structure 47. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

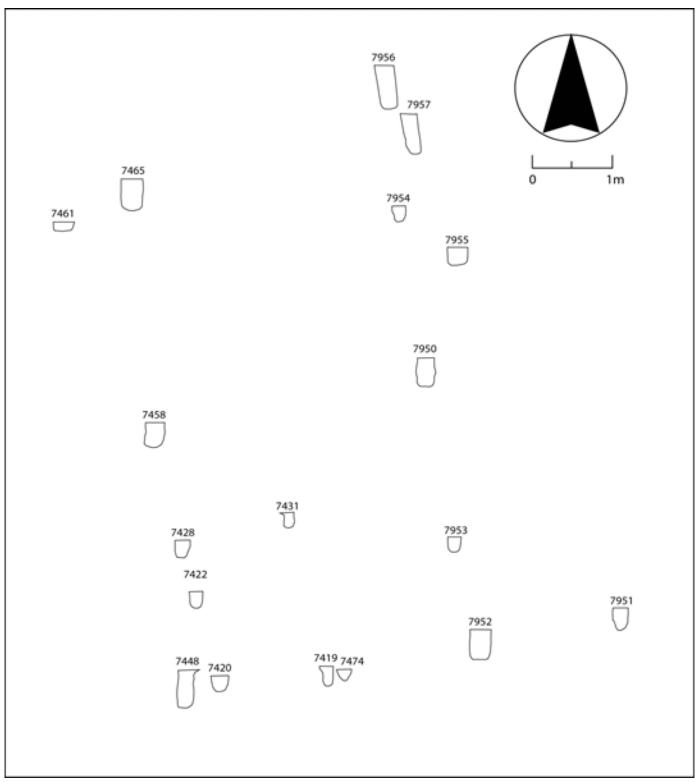

Figure 7.20. Schematic of posthole profiles for Structure 51. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

feature (Feature703), located approximately three meters to the south, appears to be the result of surface fires. A small interior storage pit (Feature 2022) is also associated with the structure. As discussed above, Structure 41 is very different than the other summer houses at Townsend, as well as those described by Schroedl (1986a) at later mid-eighteenth-century Overhill sites. The configuration of its support posts, which certainly supported a ridgepole and a peaked gabled roof, and its closely spaced wall posts set this structure apart from other Cherokee summer houses. It is interesting, and likely significant, that a larger yet extremely similar form of summer house was recorded at the contemporaneous late seventeenth-century Alarka site.

Structure 47 is a Cherokee winter house identified by an octagonal posthole pattern of 52 posts. The structure has four central roof support posts arranged in a quadrangle measuring approximately 1.8 m per side. Like Structure 22, the walls of Structure 47 were supported by widely spaced deeply set exterior support posts interspersed with posts dug to lesser depths. As with the other winter structures at Townsend, some interior posts were used to brace the central roof supports and others, located along the western and southern walls, probably supported interior benches. As mentioned above, a linear cluster of interior posts near the eastern wall of the structure may be a baffle that shielded an entryway leading to Structure 41. The structure contains the remains of a heavily disturbed hearth (Feature 711) and two small interior pits (Features 706 and 707).

But for the presence of Structure 41 in this household, Structure 51 would certainly be classified as a Cherokee summer house. It is a rectangular structure that is similar in size as Structure 23, another well-defined summer house at Townsend.

Structure 51 is also similar to Structure 23 in its lack of a hearth, interior pits, and central roof support posts, and in its deeply set widely spaced exterior posts. Unlike other households, this structure appears to be superimposed over some exterior pit features. This leads to the interpretation that the construction of Structure 51 followed the use of these pits – perhaps after Structure 41 and 47 had been in use for some period of time. Consequently, I argue that this structure was a more lightly built ramada that served a similar function as Structure 23.

Household 5: Structure 27 (Figure 7.21). Household 5 presents a vexingly ambiguous picture of Cherokee architecture. The source of frustration in this case results from the fact that this portion of the Townsend site received considerably less attention than other areas containing Cherokee structures. Structure 27, a vaguely circular pattern of posts surrounding a hearth, was first identified as a Cherokee structure based on its proximity to a pit containing Cherokee pottery (Feature 497) and the presence of a single glass bead recovered in test unit excavations in the area. In the last weeks of fieldwork, the posts comprising Structure 27 were probed rather than excavated. Consequently, it is impossible to confidently assign posts to the Cherokee occupation based on diagnostic material from the postholes. A number of months after fieldwork Cameron Howell, University of Tennessee Archaeological Research Laboratories researcher and crew member on the Townsend project, reconstructed Structure 27 as it appears in Figure 7.21. The only artifacts that can be associated with this structure come from the hearth (Feature 711). These included four Woodland period limestone-tempered sherds, and two shell-tempered plain sherds, which can be either Cherokee or Mississippian in origin.

In the massive palimpsest of postholes to the east of Structure 27, diagnostic Cherokee pottery was recovered from a few postholes that were excavated during the initial investigation of the area. These posts form a rectangular shape optimistically reminiscent of a Cherokee summer house. Considering all of this, I cautiously suspect that there was a Cherokee household in this area. If mine and Howell's extremely speculative and tentative reconstructions of Structure 27 and adjacent structure are correct, then this household consisted of a Cherokee winter and summer house.

Household 6: Structure 8 (Figures 7.10, 7.22). Structure 8 is a Cherokee winter house manifest as an octagonal posthole pattern containing 56 posts. This structure contains a total of 11 central roof support posts forming a quadrangle averaging 2.23 m per side. Five posts are located in the northwest corner of this quadrangle, two posts are located in the southwest corner, three posts are placed in the southeast corner, and a single post is located in the northeast corner. This high number of central support posts, almost twice that of other winter houses, suggests either that the house was occupied for a longer period of time, or that the roof required an inordinate amount of bracing. The 24 exterior support posts and exterior posts are arranged in widely spaced clusters of two and three – similar to the arrangement of wall posts in Structure 12. The shallow depths of many of these posts, if not due to post depositional processes like plowing, suggest that the walls of Structure 8 would not have been as sturdy as other winter houses. If true, this may explain why so much additional bracing was required for the central roof supports. Of the 21 interior posts, 14 are located around the central support posts, and the rest are clustered along the southern wall and probably supported benches. The remains of a

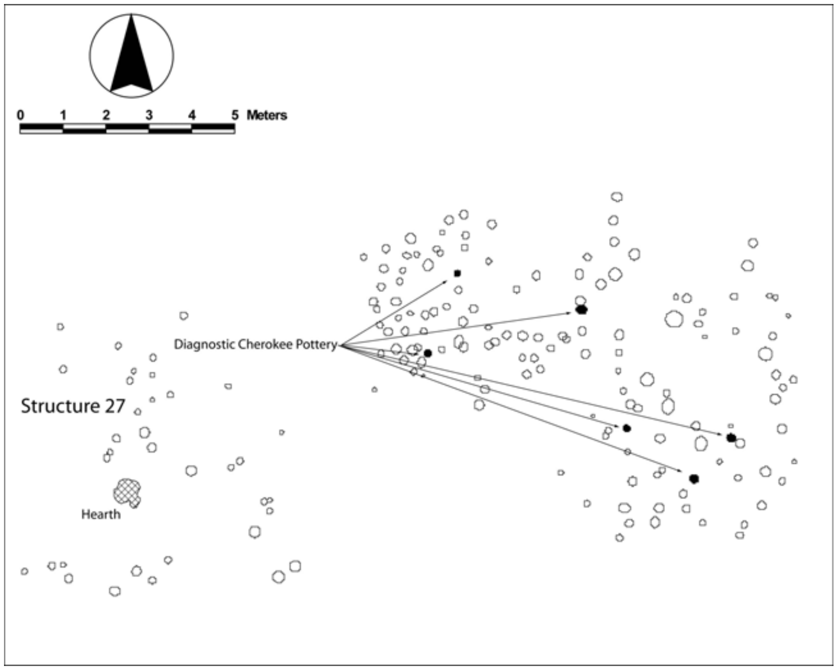

Figure 7.21. Plan view of the suspected location of Structure 27 and another possible Cherokee structure.

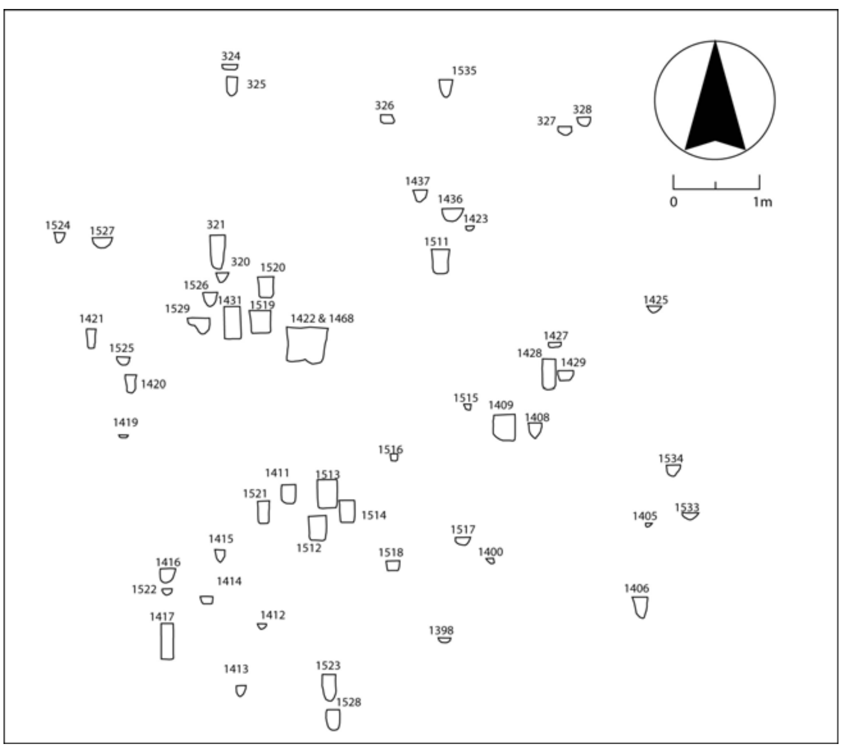

Figure 7.22. Schematic of posthole profiles for Structure 8. Note: Profiles were not available for all postholes. (Labels depict identification numbers assigned to individual postholes).

single hearth (Feature 394) were also found. As with the hearths in other Cherokee houses, this one is truncated by plowing and backhoe excavation, but appears to have been a simple pit excavated into subsoil. No interior pits were identified in the structure.

Architectural Comparisons to other Late Seventeenth- and Eighteenth-Century Cherokee Domestic Structures

The Cherokee houses identified at the Townsend sites are very similar to those excavated at Cherokee sites dating from the late seventeenth century to the late eighteenth century. Like at Townsend, architecture at known English Contact period Cherokee sites ca. A.D. 1670-1740 (i.e., Alarka, Tuckaseegee, and Chattooga) consists entirely of octagonal or circular winter houses and rectangular summer houses (Table 7.7). These house types also appear at Cherokee sites with occupations postdating A.D. 1740, but the architecture at these later sites also includes an additional house type – the single rectangular house. As discussed above, this house type is argued by some to have been an architectural form brought to the Overhill settlements by refugee Cherokee groups from the Lower Settlements (Baden 1983). The fact that the single rectangular house form was not found in excavations at the Lower Settlement site of Chattooga, however, raises the possibility that this house type marks a temporal as well as a geographic difference.

The Cherokee winter and summer houses at Townsend evince essentially the same construction methods as those at other Cherokee sites, but they differ in terms of size. Winter houses at all of the sites were anchored by large central roof support posts forming a quadrangle that measured approximately two meters per side, and their walls were formed of exterior posts arranged in an octagonal or circular shape. A comparison

Table 7.7. Architectural forms and house sizes among seventeenth and eighteenth century Cherokee sites.

Site	Occupation	Winter Houses	Summer Houses	Single Rectangular Houses	Mean Floor Area (m^2)	Median Floor Area (m^2)	Median Estimated Household Size (in persons)	Reference
Alarka	A.D. 1650-1700	1	1	0	42.5	42.5	7	Shumate et al. 2005
Tuckaseegee	A.D. 1650-1700	1	0	0	38.6	38.6	6	Keel 1976
Townsend	A.D. 1650-1720	5	4	0	34.87	36.7	7	
Chattooga	A.D. 1650-1740	2	1	0	45.13	45.13	7	Schroedl 1994
Chota-Tanasee	A.D. 1700-1820	14	9	2	40.62	38.55	6	Schroedl 1986
Toqua	A.D. 1700-1820	2	1	2	33.30	29.45	5	Polhemus 1987
Tomotley	A.D. 1750-1776	0	0	9	46.49	50.79	8	Baden 1983
Mialoquo	A.D. 1760-1780	1	0	5	32.23	32.52	5	Russ and Chapman 1984

of median floor area suggests that winter houses dating to the late seventeenth and early eighteenth centuries were slightly larger than those occupied after A.D. 1740, but sample sizes are too small to attach statistical significance to this difference (Figure 7.23). Furthermore, household size estimates, calculated using Casselberry's (1974) formula, are similar across the Cherokee sites. These estimates, which ranged from five to eight people per household, suggest that the nuclear family was the fundamental residential unit in Cherokee communities throughout the English Contact period and beyond (Table 7.7). The largest household size estimate, calculated for the late eighteenth-century Tomotley site, reflects the use of a larger single rectangular house form and may be related to an increase in the size domestic groups as a result of taking in refugees. Also, as discussed above, the occupation duration estimates of most Cherokee houses in the sample ranged from two to twelve years (Table 7.5). The three houses with substantially longer occupation duration estimates are located in Cherokee towns with occupations dating primarily to the later half of the eighteenth century.

The Cherokee summer houses at Townsend display a greater degree of difference than the winter houses. As discussed above, the presence of large central roof support posts and close wall post spacing demonstrate that Structure 41 at Townsend and the summer house at Alarka were built much more substantially than other known Cherokee summer houses. A sample size of two is hardly the foundation of a robust pattern, but given the contemporaneity of these sites, it is possible that this house form may be limited to the late seventeenth century. The other three summer houses identified at Townsend sites are similar to those at Chattooga, Chota-Tanasee, and Toqua in their lack

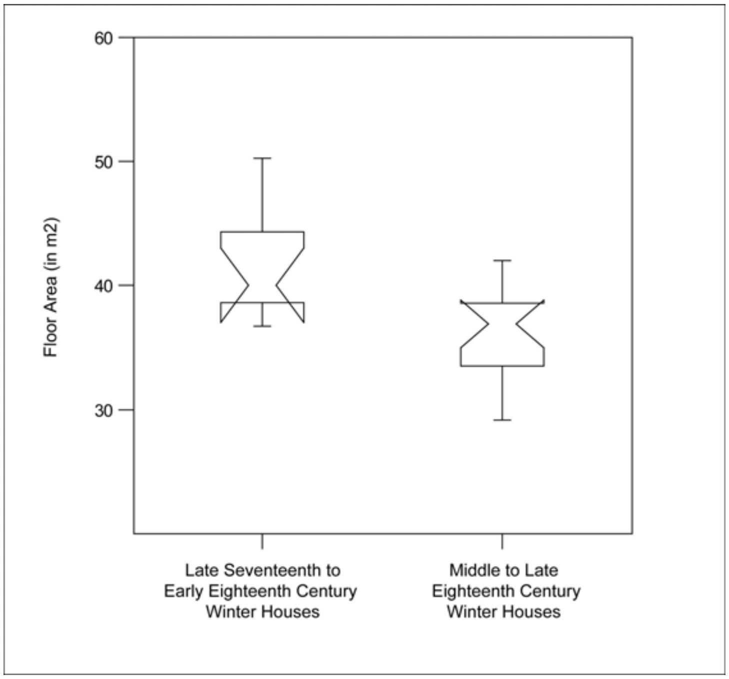

Figure 7.23. Boxplots comparing the distribution of floor area between English Contact period (ca. A.D.1670-1740) Cherokee winter houses and those occupied after A.D. 1740. Note: The "folded" appearance of the boxplot is due to small sample size and indicates that the 95% confidence interval of the median is greater than the H-spread.

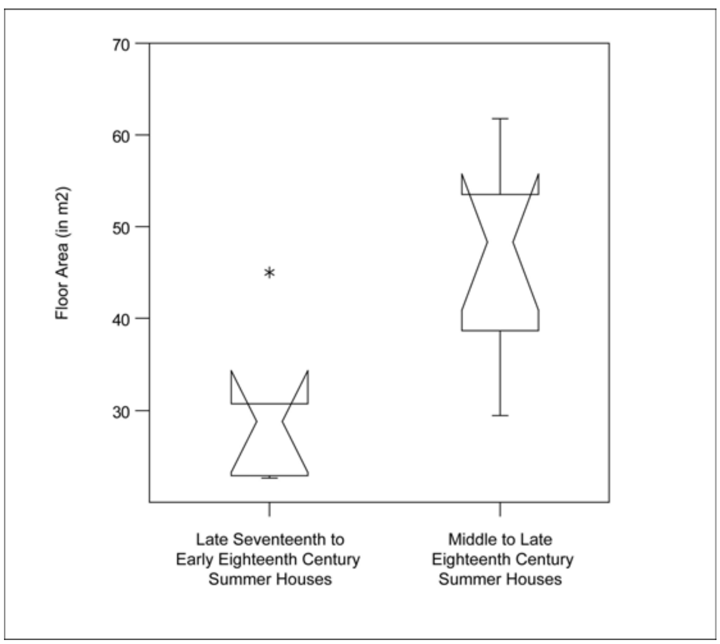

Figure 7.24. Boxplots comparing the distribution of floor area between English Contact period (ca.A.D.1670-1740) Cherokee summer houses and those occupied after A.D. 1740. Note: The "folded" appearance of the boxplot is due to small sample size and indicates that the 95% confidence interval of the median is greater than the H-spread.

of central roof support posts and wider wall post spacing. As with the comparison of winter houses, the small sample size in this study precludes any statistically significant conclusions; however, it is nevertheless interesting to note that summer houses dating to the late seventeenth and early eighteenth centuries (four out of six are located at Townsend) are much smaller than summer houses at Cherokee sites occupied during the later half of the eighteenth century (Figure 7.24).

Comparing Historic Cherokee Houses to Sixteenth- and Seventeenth-Century Southern Appalachian Mississippian Houses

As mentioned at the beginning of this chapter, researchers have recognized that domestic structures in the southern Appalachian region underwent a significant transformation during the seventeenth century (Hally 2002). The aim of this section is to use quantitative comparisons between southern Appalachian Mississippian and historic Cherokee structures in order to better characterize the dimensions along which this architectural change occurred. The comparisons focus on three variables including: (1) method of manufacture, (2) household size, and (3) occupation duration. These comparisons are conducted with published data from 26 late seventeenth- and eighteenth-century Cherokee winter houses as well as published data from 23 late sixteenth- and early seventeenth-century Mississippian structures at the King, Coweeta Creek, and Toqua sites (Appendix C1) (Hally 1988; Howard 1997; Keel 1976; Polhemus 1987; Rodning 2004; Russ and Chapman 1984; Schroedl 1986a; 1994).

The methods used to manufacture the domestic structures in the sample are assessed through the consideration of structure shape, the configuration of the structural posts, and the number of structural posts. The most obvious difference between

Mississippian structures and Cherokee structures is shape (Figure 7.25). While all but one of the Mississippian structures in the sample are square with rounded corners, all of the Cherokee winter houses are circular or octagonal. Mississippian houses and Cherokee houses also differ in the style of their entryways. Mississippian houses typically feature wall trench entryways while historic Cherokee winter houses employ a simple opening and wind baffle. The basic arrangement of posts in both Mississippian and Cherokee structures include large diameter, deeply set central roof support posts, exterior wall posts, and interior posts that presumably supported benches or formed interior partitions. The similar arrangement of posts suggests that both types of structures are based on the so-called "rigid-post" architectural vernacular. Structurally, this architectural style entails separate roof and wall components that are tied together at the wall plates. This style can be contrasted with the "flexed-pole" architectural style, which includes domed houses constructed from long bent poles whose walls and roof form a single load bearing structure. This style was popular during the twelfth- and thirteenth-centuries as is evident in Mississippian structures in Alabama and Tennessee (Lacquement 2004; Rodning 2004; Wilson 2005).

Another dimension of variability in construction methods is structural robustness, which can be measured as a post density ratio of the total number of posts composing a structure to that structure's floor area. At first glance, there are vast differences between Mississippian and Cherokee houses in terms of this value (Appendix C1); however much of this difference is due to the fact that Mississippian houses were much more frequently rebuilt in the same location (see below). In order to control for the difference in *in situ* rebuilding, the comparison of post density ratios is limited to structures with a single

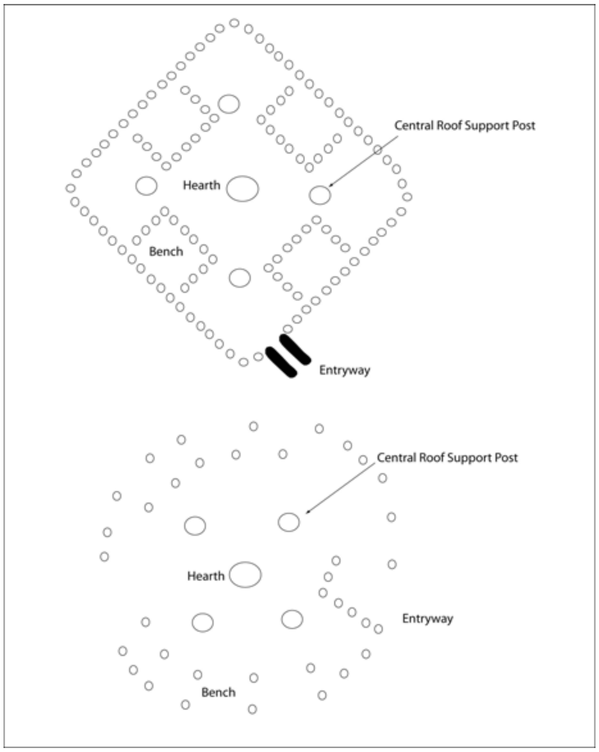

Figure 7.25. Schematic comparison of Mississippian house (top) and Cherokee winter house (bottom). (Drawing of Mississippian house adapted from Rodning 2004:Figure 5.2).

Figure 7.26. Boxplots comparing post densities between non-rebuilt Mississippian houses and non-rebuilt historic Cherokee winter houses. Note: The "folded" appearance of the boxplot is due to small sample size and indicates that the 95% confidence interval of the median is greater than the H-spread.

hearth. For Mississippian structures in North Carolina and Alabama, Rodning (2004) and Wilson (2005) have recognized a correspondence between the number of times a hearth was remodeled and the number of times a structure was rebuilt. Consequently, structures with one hearth are believed to represent houses with relatively short occupation spans. While the reduced sample is somewhat smaller than is desired (n = 24), a comparison reveals that non-rebuilt Mississippian houses contain a significantly greater number of posts per square meter than non-rebuilt Cherokee winter houses (Figure 7.26). Indeed, the median post density ratio for Mississippian houses (median = 4.31 posts/m^2) was 2.78 posts/m^2 greater than that of Cherokee winter houses (median = 1.53 posts/m^2). Given that the structures from the two periods were built using the same basic architectural principles, this difference suggests that a good deal more material and energy were involved in constructing Mississippian houses.

Although the methods of manufacture of domestic structures changed from the late sixteenth to the late seventeenth century, structure size, and consequently household size, appear to have remained stable. The mean floor area of Mississippian houses in the study sample is 41.03 m^2 while that of Cherokee winter houses is 38.12 m^2. Similar floor area estimates for historic and prehistoric domestic structures have been reported by Sullivan (1995:115) and Hally (2002:107). These figures suggest an average household size of seven individuals for the Mississippian period and six individuals for the historic period. Such a small difference in floor area is more likely related to the architectural differences between Mississippian and Cherokee houses rather than to actual differences in household size.

The most significant difference between Mississippian and Cherokee houses lies along the dimension of occupation duration. Quantifying this difference in a meaningful way, however, requires a different approach than Warrick's (1988) wall post replacement method. Even a cursory glance at the plan view drawings of houses at Mississippian towns like Coweeta Creek and Cherokee towns like Chota reveals major differences in the density of posthole patterns (e.g., Rodning 2002:Figure 2; Schroedl 1986a:Figure1.31). The differences doubtless result from differences in occupation duration, but they are also due in part to the use of two different rebuilding techniques. These techniques have been identified by Wilson (2005:124-125) in his study of Mississippian architecture at the Moundville site in Alabama. The first technique involves the complete rebuilding of the entire structure *in situ*, while the second technique involves the repair of particular architectural elements. The palimpsests of postholes at Mississippian sites across the southern Appalachian region suggest that most of these houses were entirely rebuilt *in situ* (Hally 1988, 2002; Polhemus 1987; Rodning 2004:152; Sullivan 1989, 1995). By contrast, the posthole patterns of Cherokee houses suggest that rebuilding occurred gradually through the repair of individual posts rather than complete rebuilding.

These differences in rebuilding technique call for a different way to compare occupation duration between Mississippian and Cherokee houses. One solution is to use a more general measure of post density as an alternative proxy for repair and rebuilding (see also Cook 2007). Among the Cherokee winter houses listed in Table 7.5, this proxy, which is a simple ratio of total posts to the floor area of each structure (posts/m^2), has a relatively strong positive correlation with the linear wall post density measure used in

Warrick's (1988) method (r = 0.67) (Figure 7.27). The correlation suggests that the posts/m^2 post density variable can also be used to measure occupation duration, at least relatively. In addition to using a different post density proxy, comparisons of occupation duration between Mississippian and Cherokee houses must also take into account large differences in the initial number of posts used to construct each type of house. I accomplish this through standardization by dividing the post density value of each house by the appropriate median post density value calculated for single building episodes of Mississippian (4.31 posts/m^2) and Cherokee (1.53 posts/m^2) houses. These median values were calculated above in the comparison of structural robustness.

The comparison of the standardized post density values indicates that the occupation duration of Mississippian houses is significantly greater than that of Cherokee winter houses (Figure 7.28). Indeed, the median value for Mississippian houses is nearly twice that of Cherokee houses. Unfortunately, unlike Warrick's (1988) method this method does not result in occupation duration estimates expressed in actual years; however, the results still speak to large relative differences in occupation spans – the median values hinting that the occupation duration of Mississippian houses was twice that of Cherokee houses. Much longer occupation durations for Mississippian houses are further supported by evidence for multiple remodeling episodes of central hearths and entryways in Mississippian houses (Rodning 2007) and the absence of this type of repair in the Cherokee houses included in this sample.

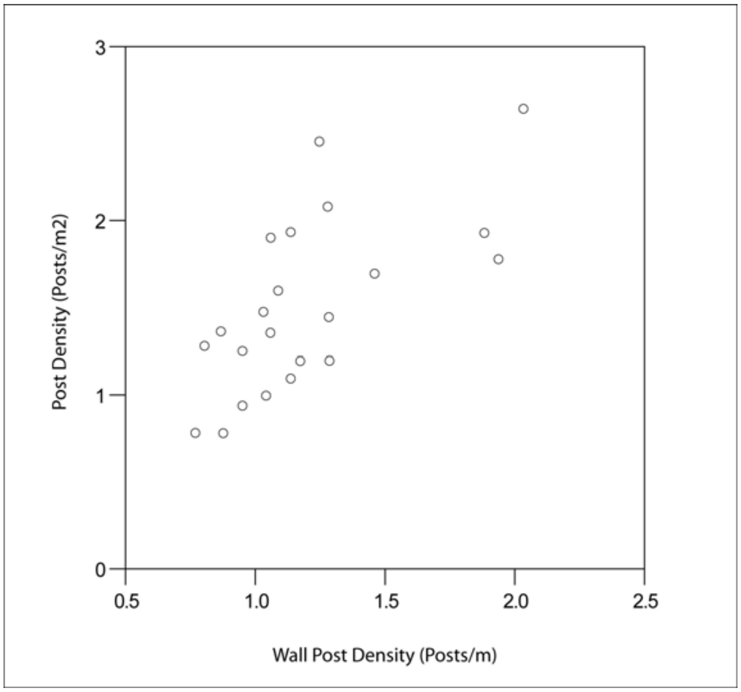

Figure 7.27. Scatter plot depicting the relationship between two post density measures (r=0.67) for historic Cherokee winter houses. The x-axis is a linear measure of post density using wall posts only, while the y-axis measures post density using all structure posts and is expressed in terms of structure area.

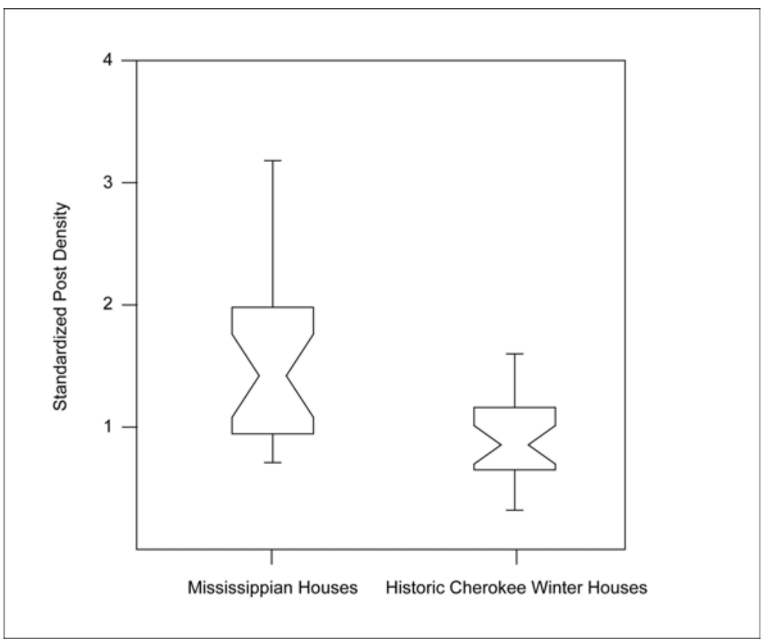

Figure 7.28. Boxplots comparing standardized post density measures between Mississippian houses and historic Cherokee winter houses. Standardization involved dividing the post density values of each Mississippian and Cherokee house by the median post density measures of non-rebuilt houses for each group.

Diachronic Comparisons of Community Organization

The historical and archaeological records both indicate that the English Contact period brought major changes in southeastern Indian community organization. Indeed, past studies of historic Creek and Cherokee community organization have noted a shift from highly structured, densely settled fortified villages during the sixteenth and early seventeenth centuries, to sprawling and sparsely settled unfortified villages and scattered "plantations" during the late seventeenth and eighteenth centuries (Ashley 1988; Chicken 1916 [1725:101]; Longe 1969[1725]:34-36; Rodning 2004; Schroedl 1986a; 2000; Waselkov 1990; Wesson 1999; 2008). Houses in these later villages were spaced from 25-50 m apart, much farther apart than in earlier South Appalachian Mississippian period villages where houses were often less than 15 m apart. The comparisons reported above further demonstrate that domestic spaces within Mississippian period villages were highly structured *and* long-lived, on the order of multiple generations (Hally and Kelly 1998; Rodning 2004, 2007). For Rodning (2007:477), the redundancy of *in situ* household rebuilding episodes and continuity in the town plan of the Coweeta Creek site bespeak of the importance each of these "places" held as anchors of household and community identities. In stark contrast to these patterns, my analyses show that the domestic footprint of households in later historic Cherokee towns were rarely occupied for more than a decade suggesting that the English Contact period heralded the disintegration of these social "anchors."

What forces could be behind such a radical shift in settlement strategies? Rodning (2004:418-419) suggests that resource depletion might have caused the eventual shift in settlement patterns among the Cherokee. Recent GIS modeling of resources and

Cherokee town location, however, has found that Cherokee population would never have risen to levels that would have endangered natural resources (Bolstad and Gragson 2008). Ashley (1988), Waselkov (1990), and Wesson (2008) propose that Creek communities shifted to a dispersed settlement pattern as a response to the burgeoning trade in deerskins. These researchers argue that as Creek households became increasingly engaged in the trade, they moved to areas that were better positioned to exploit trading opportunities as well as to escape the building hegemony of elites within villages.

Given the violent historical context of the period (Chapter 2), it is interesting that the raids associated with the Indian slave trade (ca. A.D. 1650-1715) and the Creek-Cherokee War (ca. A.D. 1715-1740) are rarely discussed as an influencing factor for this shift in community organization. In the Northeast, the shift to a dispersed community pattern has been argued to be a part of this type of "skulking" warfare (Ferguson and Whitehead 1992; Lee 2004; Malone 1991). Indeed, the journal of George Chicken records a Cherokee headman stating that their strategy to deal with Creek raids would be "to lett them come to their Towns, but not undiscovered, for they design to give them a Smash in their Towns First and then to gather all their Strength and follow them when they are upon retreat with their Wounded men" (Chicken 1916[1725:156]). We get another description of this type of attack/counter attack skirmishing from Major John Norton's journal:

> From this period [ca. 1710] we seldom hear of the Five Nations being engaged with the French or Northern Tribes...The Warriors sought fame to the South of the Ohio, in desultory excursions against the Cherokee and Catawbas...The Nottowegui Warriors left home in parties from two hundred to ten...[they traveled until they] came upon the Head Waters of Holston, along the Banks of which the Cherokee Hunters were frequently scattered; – these they often surprised, killing and taking them prisoners. At other times, they proceeded to the Villages, but only in small parties to prevent discovery, – the Main Body generally remaining

> on the Big Sandy, Holston or in some other part of the country which they then called the Middle Grounds, – and which is now fallen in the State of Kentucky...When the party detached, had gained Scalps or Prisoners, they fled to where their comrades awaited for their return, to support them in case they might be surprised by superior force" (Norton 1970[1816]:262).

From these accounts, it is clear the Cherokee strategy to combat enemy raids was to trap their enemy within their town and then counterattack. A dispersed community organization would allow for setting this trap while at the same time not exposing as many people to the raid as would a densely settled town.

Analysis of Subsurface Pit Feature Data

Excavations at the Townsend sites identified 47 archaeological features associated with the late seventeenth- and early eighteenth-century Cherokee occupation. The features can be grouped into five basic types based on morphology and content. These feature types include hearths, fired surfaces, refuse-filled depressions, refuse-filled basins, and refuse-filled pits (Figure 7.29; Appendix C2). Following the convention set by previous studies of Cherokee features by Schroedl (1986a:46), basins are defined by smooth unbroken profiles while pits have sharp junctures between side walls and bottoms. Also following Schroedl (1986a:46), I admit that in many cases this distinction is largely an arbitrary one drawn by the analyst. In this section, I discuss the results of a number of quantitative analyses aimed at assessing the possible uses of the features, identifying patterns in pottery refuse data associated with Cherokee discard behaviors and the abandonment of pit features, characterizing household storage strategies through quantitative comparisons of pit volume among the six Townsend households, and

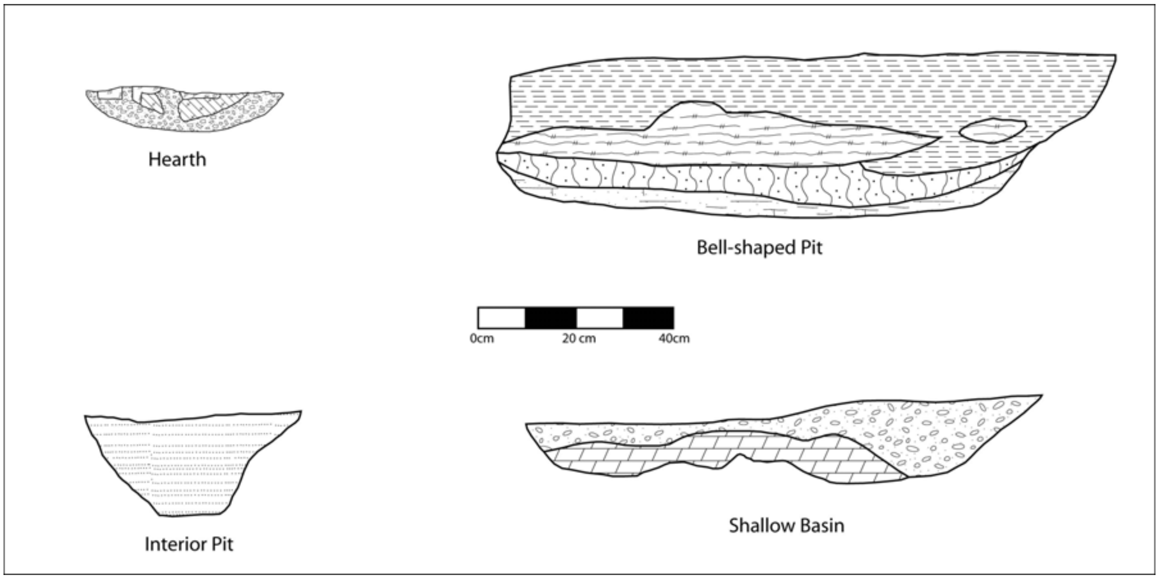

Figure 7.29. Examples of four feature types found in household contexts at Townsend.

examining diachronic changes in Cherokee storage strategies that might have occurred during the eighteenth century.

Assessing Cherokee Basin and Pit Use and Abandonment at Townsend

Southeastern archaeologists working with data from sites spanning all periods of prehistory and history have demonstrated that the detailed study of pit features is an extremely difficult yet rewarding endeavor for gaining an understanding of past lifeways (DeBoer 1988; Dickens 1985; Koldehoff and Galloy 2006; Ward 1985; Wesson 1999). Indeed, in many regions and time periods pit features are by far the most common archaeological contexts encountered during excavations. As is the case with most archaeological contexts, however, frequency begets variability in form and artifact content, and with increased variability comes increased difficulty in assessing function. This situation has led to problems in characterizing the various uses of subterranean basins and pits among Cherokee contexts (Schroedl 1986a:85). The task is much more difficult than when dealing with features like hearths and burned surfaces that lack such variability and whose composition of heavily oxidized soils and location inside structures render function self-evident. Logic dictates that the artifacts found in a given context should be the best indicators of behaviors that took place in that context; however, experience demonstrates time and again that the refuse found in Cherokee pits was associated with the abandonment and final filling of the pit rather than with its use life. Making the situation even less clear is the possibility that a Cherokee pit could have gone through a number of different use stages between its initial excavation and its final filling and abandonment (Schroedl 1986a:85-97). It is imperative, therefore, that the basin and pit features encountered in the archaeological record be viewed as the outcomes of drawn out historical processes rather than as single instantaneous events – an admonishment we often hear but less often heed.

In order to work within this conceptual constraint while attempting to gain an understanding of Cherokee basins and pits, I analytically separate use life from abandonment. Consequently, in the following analyses I consider morphology and artifact content separately as reflecting use and abandonment respectively. I first examine morphological data from all of the Cherokee basin and pit features at Townsend (n = 33) in order to identify patterns in size and shape that might reflect use. I then address pottery refuse data in order to characterize the relationship between Cherokee discard behaviors and the abandonment of these features.

The distributions of measures describing the shape and volume of Cherokee features at Townsend display patterning suggesting that most features were roughly circular in shape and belonged to relatively well-defined size classes. The distribution of ratios measuring feature length to feature width (measured as the maximum diameter of a feature and its orthogonal complement) indicates that most Cherokee features at Townsend are circular in shape (rather than oblong or square) (Figure 7.30). As will be discussed below, during the later half of the eighteenth century Cherokee households continued to use circular basins and pits, but they also began to employ basins and pits that were oblong and rectangular.

The distribution of feature volume reveals the existence of three separate size classes.[4] Figure 7.31 is a histogram depicting the volume estimates for all of the basins and pits associated with the Cherokee occupation at Townsend. The distribution of these

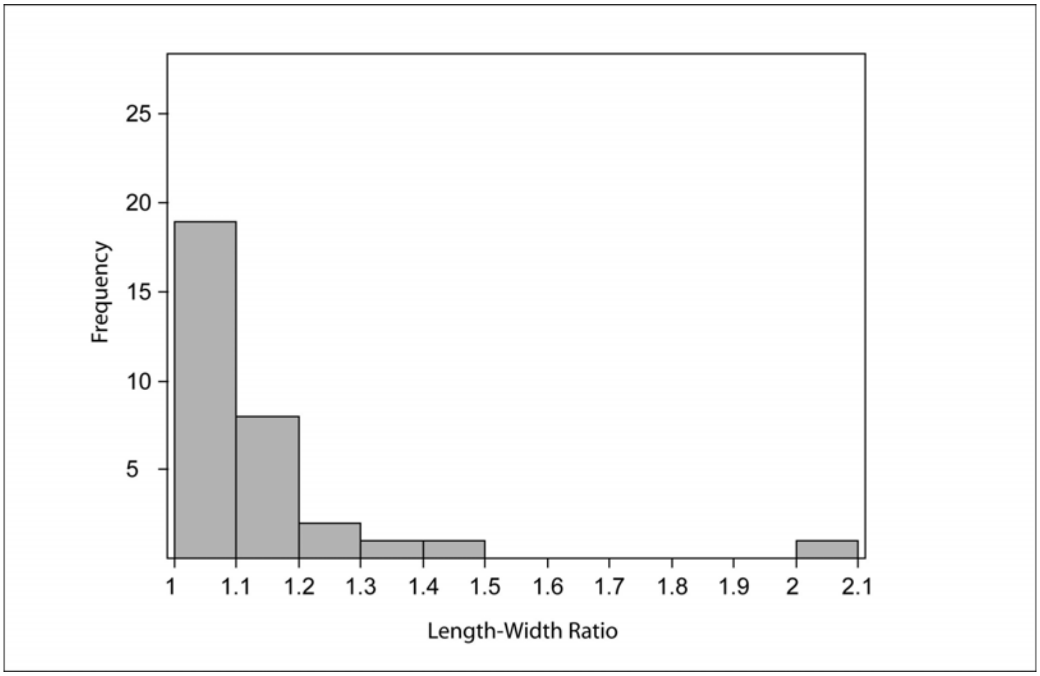

Figure 7.30. Histogram depicting the distribution of feature length to width ratios.

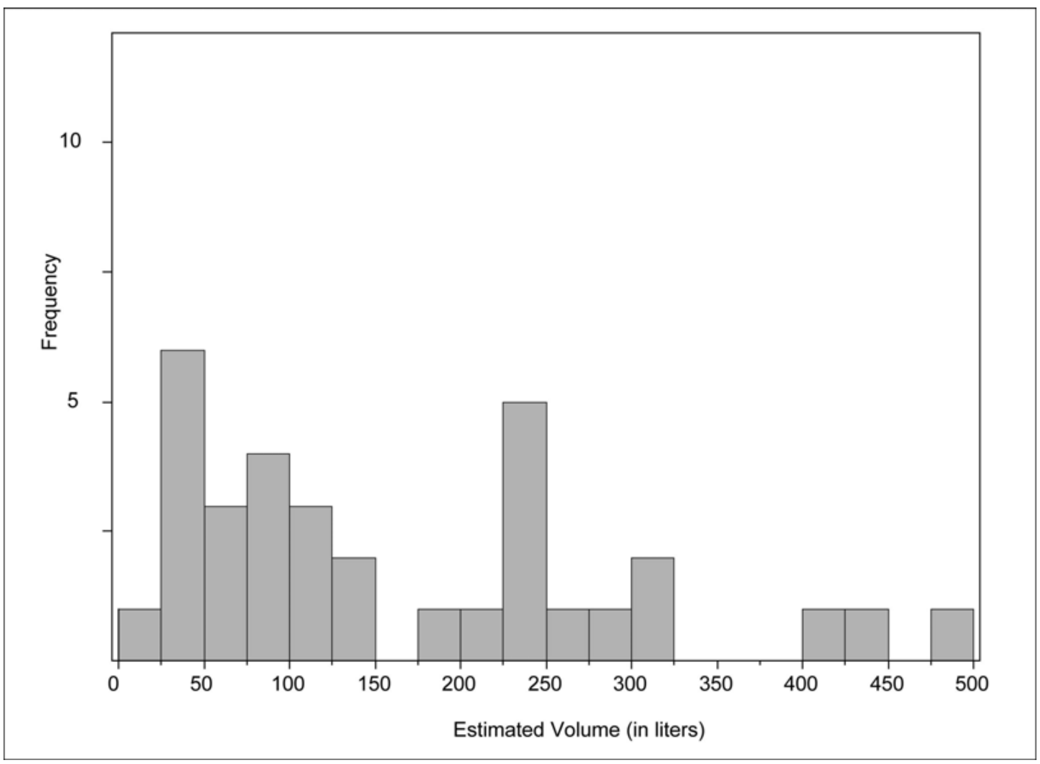

Figure 7.31. Histogram depicting the distribution of volume among feature associated with Townsend households.

measures is clearly tri-modal with classes composed of basins and pits with volumes of less than 150 liters (l), basins and pits with volumes between 175 and 325 l, and pits with volumes between 400 and 500 l. A more detailed picture emerges when feature morphology is considered along with volume. A scatter plot diagram depicting maximum diameter and volume shows four clusters of values (Figure 7.32). The cluster containing features with the smallest diameter and volume values (i.e., those closest to the scatter plot origin) is overwhelmingly composed of pits located inside of Cherokee structures. Moving to the right, one encounters a group of small basins and pits that are similar in volume but different in terms of shape. The five features forming the upper branch of the group are narrower and deeper than those in the lower branch, which are broad and shallow. The lower branch may be the remnants of larger features that were truncated by historic plowing. Medium basins and pits form a relatively coherent cluster, and the location of large pits in the scatter plot clearly identifies them as a separate size class.

Patterning in the spatial distribution of Cherokee basins and pits is largely absent, with the exception of one feature class. A histogram depicting the distance of each feature from the closest Cherokee structure demonstrates that most features are located either inside of structures or within 10 m of a structure (Figure 7.33). What I call "interior pits" form a very cohesive spatial class that is also expressed in terms of morphology and size. The other size classes, however, do not share the same kind of cohesive patterning. Instead, the correlation between the estimated volume of features and their distance from structures is negligible (r = 0.152) (Figure 7.34). Consequently,

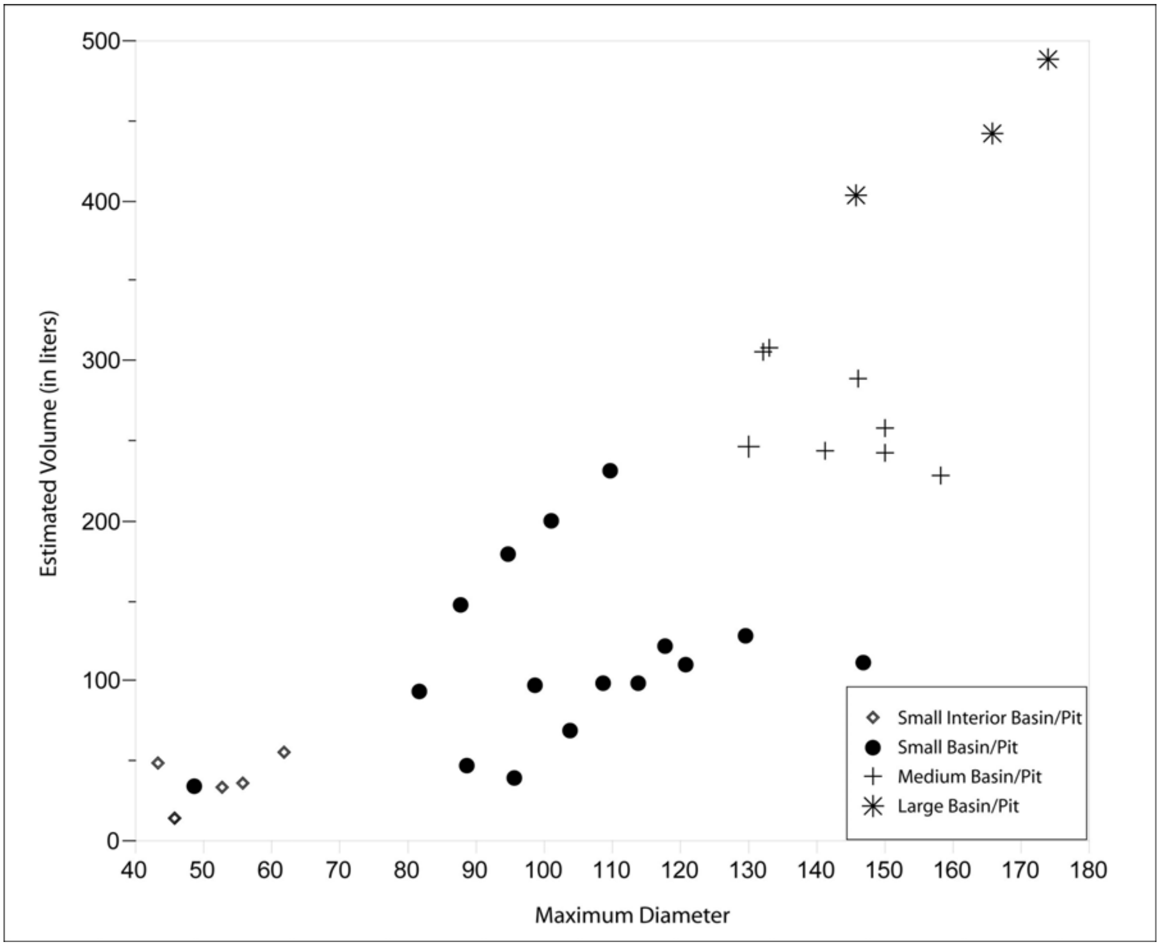

Figure 7.32. Scatter plot depicting the relationship between maximum feature diameter and estimated volume.

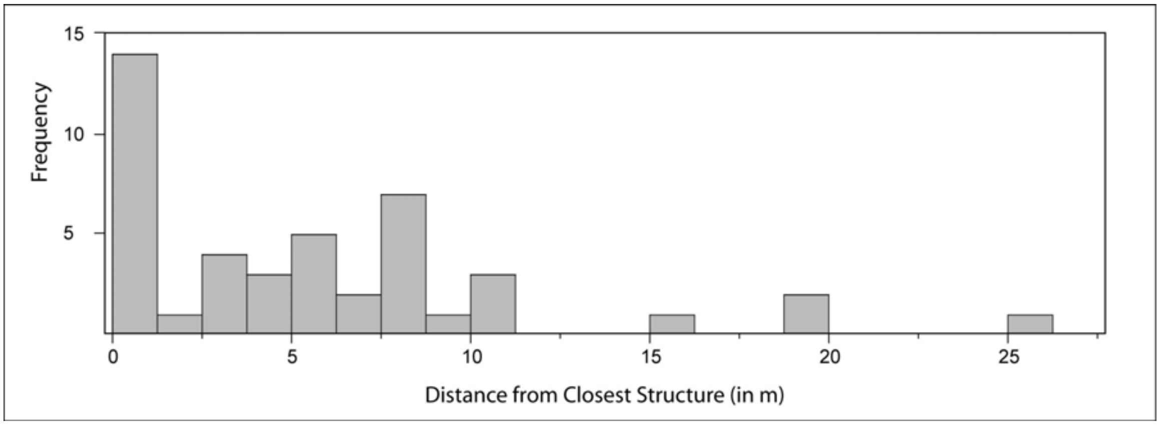

Figure 7.33. Histogram depicting the distribution of distance of features from the closest structure.

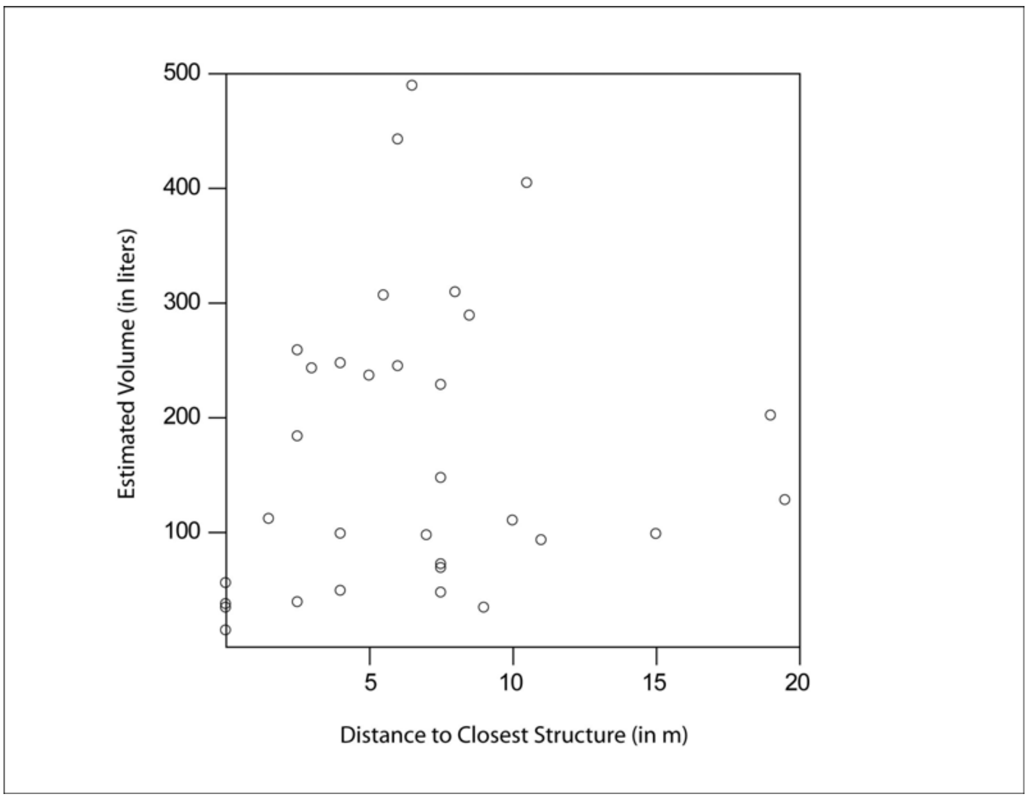

Figure 7.34. Scatter plot depicting the relationship between distance to closest structure and estimated volume (r = 0.152).

the only conclusion that can be reached with regard to spatial distribution is that while Cherokee households employed a specific type of feature within their houses, they dug basins and pits of various sizes within an area two to ten meters surrounding their houses.[5] This area likely represents a household yard where most domestic activities took place.

A very rough relative estimate for the use life of Cherokee basins and pits at Townsend can be arrived at using qualitative data. Researchers documenting the importance of subterranean storage to prehistoric and historic southeastern Indian communities have identified markers that can be used to assess the relative use life of features based on their stratigraphy (DeBoer 1988:4; Koldehoff and Galloy 2006:285-286; Wesson 1999:151). Specifically, these researchers equate a long use life with a feature being open (i.e., unfilled) for a relatively long period of time or a feature evincing multiple uses over a long period of time. The correlate of the first part of the definition is seen archaeologically in a very distinct type of stratigraphy known as "slumping." This is caused by the erosion to the basin or pit wall resulting from sediments being carried into an open feature by wind, water, or human activity. The second part of the definition for long use life is indicated by the presence of multiple stratigraphic zones indicating several filling episodes (artifact bearing soils) separated by periods of abandonment and inactivity (culturally sterile soils). Neither of these indicators of long use life is particularly common at Townsend. Out of the 33 features in the Townsend sample, five show evidence of slumping or slope wash. These include one small interior pit and four medium-sized features. Moreover, 28 of the 33 features contain only one or two stratigraphic zones, and no feature profile evinces the distinctive alternating pattern of filling and inactivity that is associated with a long use life. Taken together, these patterns point to relatively short use lives for most Cherokee basins and pits and support the interpretation that basins and pits were probably not used for any sort of long-term storage of food or other material. Indeed, only two bell-shaped pits, a morphological form closely associated with food storage in ethnohistoric accounts and archaeological contexts (DeBoer 1988), are associated with the Cherokee occupation at Townsend. Both of these pits were smaller (i.e., >250 l) than the average Woodland period bell-shaped pits cited by DeBoer (1988) (300-500 l).

Turning to the artifact contents of the features, we must shift our focus from feature use to Cherokee discard behavior and abandonment. There are some cases when the contents of a basin or pit speak directly to its use – such is the case with burials, roasting pits, and storage pits whose contents were never retrieved. At Townsend, there were two Cherokee burials; however, none of the Cherokee basins or pits displayed evidence of burning (i.e., oxidized walls) or contained large quantities of fire-cracked rock. The perishable nature of non-carbonized food remains makes the identification of an undisturbed storage pit very difficult. What can be assessed using the contents of pit features at Townsend are Cherokee discard behaviors and the question of how households filled pits after disuse. In doing so, my analyses focus on distinctions between the different types of refuse discussed at the beginning of the chapter.

Schiffer (1972) makes important distinctions between three types of refuse that one encounters in archaeological contexts. The first type of refuse is *de facto* refuse, which Schiffer defines as "elements which reach archaeological context *without* the performance of discard activities" (Schiffer 1972:160 emphasis added). *De facto* refuse would include artifacts that were left *in situ*, such as a whole pot found on the floor of a catastrophically burned house or the contents of a storage pit whose location had been forgotten. Schiffer (1972:161-163) divides refuse that had been intentionally discarded into two types – primary refuse and secondary refuse. Primary refuse consists of material that was "discarded at its location of use." Obvious examples of primary refuse would include lithic debitage concentrations found near stone outcroppings or charcoal found in a hearth. This type of refuse is rare in Southeastern contexts where the degree of disturbance created by post-depositional processes is high. Schiffer defines secondary refuse as material that was discarded in a *different* location from where it was originally used. Given that the original function of refuse-filled basins and pits at Townsend was almost certainly not to act as trash receptacles, it is logical to assume that the material found in these features was not primary refuse. In addition to Schiffer's refuse typology, I consider a fourth type of refuse – tertiary refuse. I define tertiary refuse as material whose final location of discard was neither its location of use *nor* its location of initial discard. Instead, this is material that had been lying in a midden or on the ground surface for some period of time (an activity known as provisional discard) before it was deposited into a feature either incidentally through natural infilling or intentionally.

I employ three proxy measures to characterize the refuse deposits as secondary or tertiary (primary refuse was not present in the Townsend sample) – median sherd size, the range of sherd sizes, and the density of sherds in the feature fill. In regard to the first measure, the overwhelming modal value for median sherd size in Cherokee features is 2 cm (Appendix C2). The highly fragmented nature of potsherds suggests that the fill of most Cherokee features consisted of secondary, and in most cases tertiary, refuse deposits. This interpretation is supported by the fact the median sherd size for feature contexts is equal to that calculated for potsherds recovered from test unit excavations – proveniences that include sherds from sheet midden deposits and plowzone contexts (n = 1889, median = 2 cm). Together with median sherd size, the range of sherd sizes forms a reliable proxy measure for refuse type. Typically, those features that posses median sherd size values greater than two centimeters also contain numerous large sherds (>5 cm). These values indicate a less fragmented refuse deposit.

Overall, potsherd density values are quite low across all basins and pits in the sample (Figure 7.35). The majority of the features contain less than 0.5 sherds per liter of fill and the highest recorded value is only 1.5 sherds per liter. Comparisons of potsherd density among the three feature size classes show no patterning in discard behavior (Figure 7.36). While small features exhibit a lower median density ratio than medium and large features, the differences are not statistically significant. Instead, the density ratios suggest that features of all size classes contain similar amounts pottery refuse.

Furthermore, no relationship exists between pottery density and distance from structures. A relationship between these two variables would be expected if Cherokee households intentionally discarded broken pots either in nearby basins and pits, for convenience's sake or for later recycling, or in distant basins or pits in order to avoid the hazards of sharp potsherds (e.g., Hayden and Cannon 1983; LeeDecker 1994). The correlation between pottery density and distance from structures is negative, but very weak (r = -0.193), indicating no particular patterning in pottery refuse disposal (Figure 7.37). The lack of correlation between pottery density and either feature size or distance from structures runs counter to the pattern found by Baden (1983:134) for the late

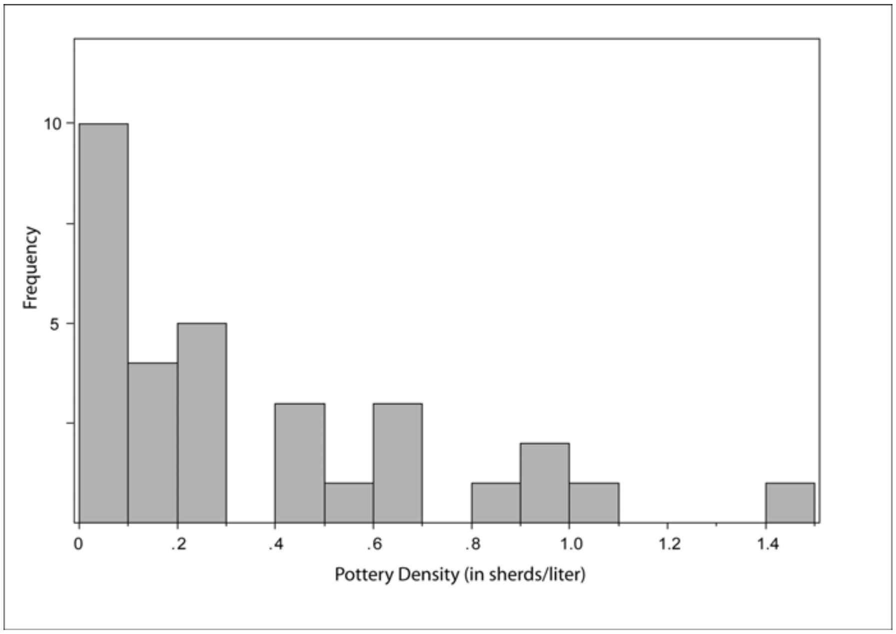

Figure 7.35. Histogram depicting the distribution of pottery density ratios.

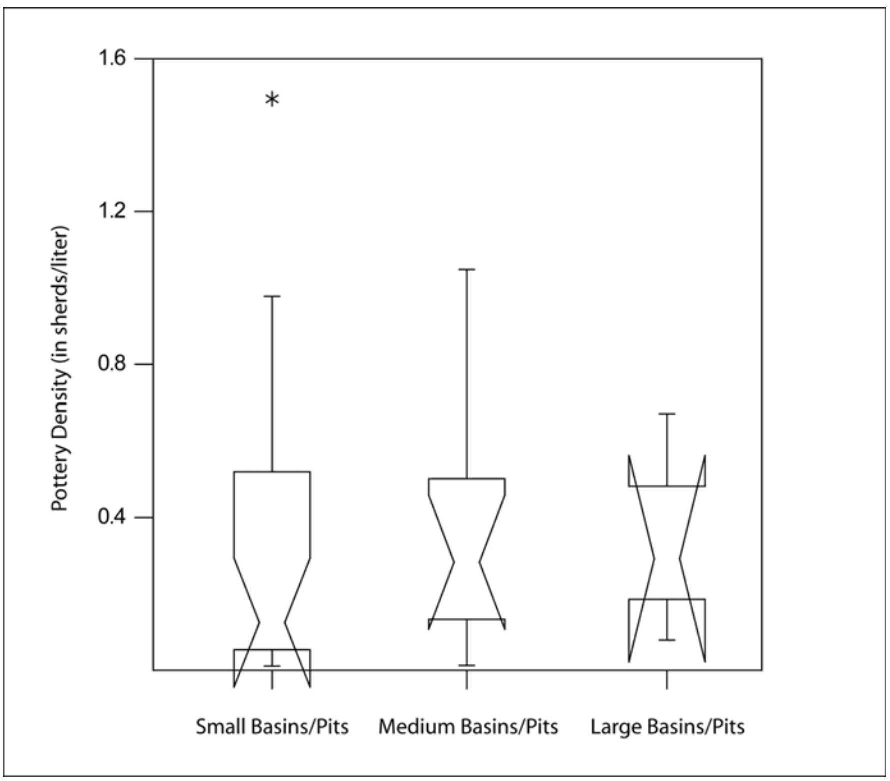

Figure 7.36. Boxplots depicting the distribution of pottery density ratios among feature size classes. Note: The "folded" appearance of the boxplots is due to the effect of small sample size where the confidence interval is greater than the h-spread.

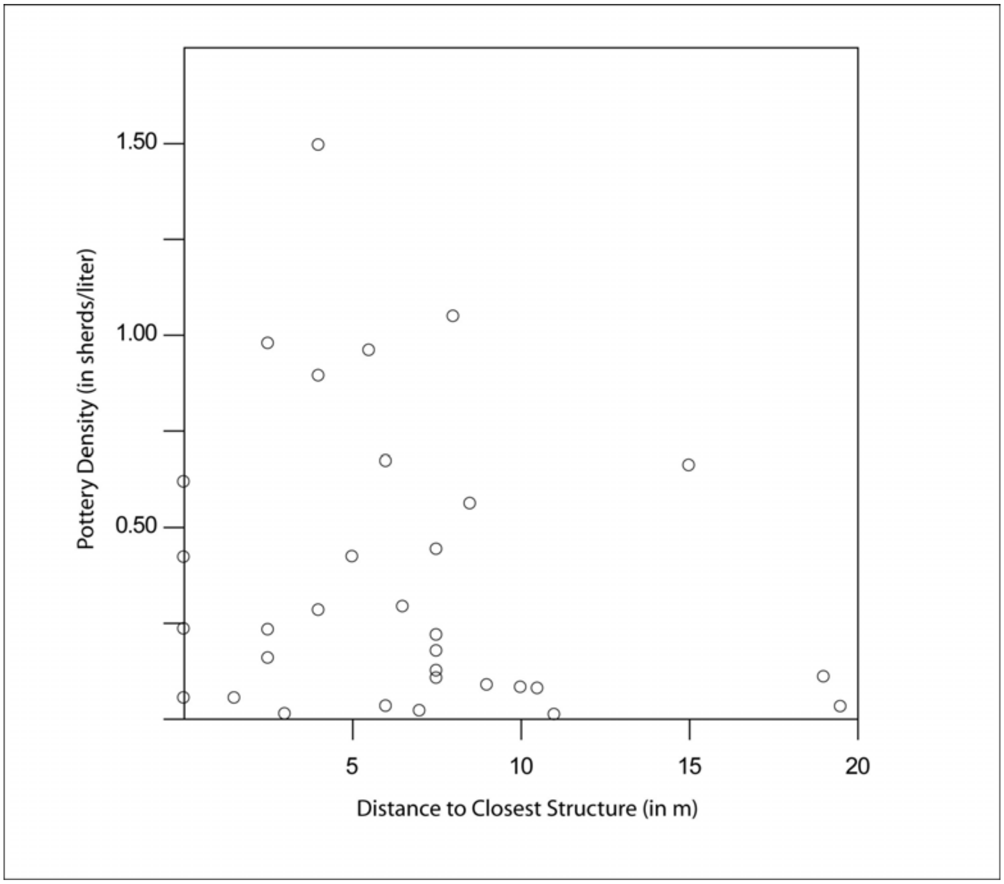

Figure 7.37. Scatter plot depicting the relationship between distance to closest structure and pottery density (r = -0.193).

eighteenth-century Cherokee site of Tomotley. There, artifact density measures indicated that larger features and features close to structures contained the densest pottery refuse deposits.

These analyses point to a number of general conclusions regarding household use and abandonment of basins and pits at Townsend: (1) subsurface features fell into four distinct size classes including small interior pits, small exterior basins and pits, medium basins and pits, and large pits; (2) the spatial distribution of these features ranged from two to ten meters around houses defining the space in which domestic activities took place; (3) no definitive function could be assigned to any Cherokee basin or pit in the sample, but it is likely that interior pits and bell-shaped pits served as storage spaces, and for lack of better explanations, that the other features were used for storage or were created while extracting soil for winter house construction; (4) basins and pits were not used for long periods of time and were filled relatively quickly after being excavated; (5) rather than being receptacles for newly generated refuse, the basins and pits were most often filled with secondary and tertiary refuse that had been provisionally discarded elsewhere; and (6) the fill contained within pits was not particularly rich in pottery refuse suggesting that house sites were not occupied for sufficient time for surface middens to accumulate, that pots were highly curated and/or heavily recycled, or that pots were subjected to provisional discard in distant locations (see Shumate et al. 2005 for a similar situation). A low incidence of graves associated with these households (n = 2) also supports a short occupation span for the Townsend households.

Comparisons of Cherokee Subterranean Food Storage Practices among Townsend Households and Beyond

A number of recent studies have addressed subterranean food storage practices in prehistoric and historic communities across the Eastern Woodlands of North America (DeBoer 1988; Dickens 1985; Koldehoff and Galloy 2006; Ward 1985; Wesson 1999). Many of these studies are derived from DeBoer's (1988) landmark synthesis of ethnohistoric and archaeological evidence related to subterranean food storage among eastern North American Indian communities. In this study, DeBoer (1988:14) concluded that subterranean food storage was most often associated with either seasonal abandonment of settlements or resistance to the rise of inequality and hierarchical power relations. Despite the importance of the first conclusion in forming fundamental site-level interpretations, one rarely encounters it in southeastern archaeological literature (a notable exception being Koldehoff and Galloy 2006); instead, the latter conclusion has more often been seized upon and incorporated into political economy models of Mississippian and historic Indian communities (e.g., Emerson 1997; Wesson 1999, 2008). This section addresses DeBoer's (1988) conclusions through two quantitative comparisons related to Cherokee subterranean storage practices. First, the sizes of basins and pits are compared among the six Cherokee households at Townsend. This comparison is aimed at characterizing similarities and/or differences in storage practices at the household level. The second comparison includes data from subterranean features at other Cherokee sites and is intended to identify and characterize changes in Cherokee subterranean storage practices that occurred after the English Contact Period (ca. A.D.1670-1740).[6]

A comparison of basins and pits among the six Townsend households is presented in Table 7.8. The distribution of feature size classes among the households varies greatly. Medium and small features were common in all households, and three of the six households had large pits. Only two households had interior pits – all but one of these were associated with Household 4. Also, a great deal of variability is present in the number of features associated with each household and their combined volume. The most likely reasons for such variability include differences in household occupation duration and/or sample size differences due to historic disturbances and boundary issues associated with the limits of excavation. Interestingly, the median and mean measures for feature volume evince much less variability across households. This suggests that while the composition of household storage facilities varied greatly in terms of size and number of individual basins and pits, the underlying storage capacity of each household was similar – and it was not particularly large (see comparison to later Cherokee storage pits below). Considering that all of the Townsend houses were likely occupied between eight and ten years, even the highest total household storage capacity (2000 l for Household 1) would break down to 200-250 l of subterranean storage capacity per year. If food storage capacity is an indicator of hierarchical status (i.e., a fund of wealth used by individual households to achieve a social and political advantage), then the mean and median household storage capacity figures suggest that there were not pronounced differences in status among Townsend households. This conclusion is in accord with other archaeological and ethnohistoric studies that highlight the underlying egalitarian structure of Cherokee communities during the English Contact period (Gearing 1962; Rodning 2004; Schroedl 2000).

Table 7.8 Comparison of feature size classes and feature volume among Cherokee households at Townsend.

Household	Large Basins/Pits	Medium Basins/Pits	Small Basins/Pits	Small Interior Basins/ Pits	Combined Volume (liters)	Median Volume (liters)	Mean Volume (liters)
1	1	4	5	0	2017	187.81	201.75
2	0	2	1	1	692	184.30	173.00
3	1	1	2	0	882	200.15	220.39
4	1	1	2	4	1176	52.20	138.04
5	0	0	2	0	438	219.11	219.11
6	0	0	3	0	213	97.22	71.05

Table 7.9. Comparison of feature types and feature volume among late seventeenth and eighteenth century Cherokee communities.

Site	Occupation	Round and Oval Basins/Pits		Rectangular Basins/Pits		Pits with Posts		Median Estimated Volume (liters)	Mean Estimated Volume (liters)
		n	%	n	%	n	%		
Alarka	A.D. 1650-1700	5	100	0	0	0	0	60.00	75.83
Townsend	A.D. 1650-1715	33	100	0	0	0	0	124.65	170.88
Chota-Tanasee	A.D. 1700-1820	718	95	18	2	24	3	142.00	281.36
Toqua	A.D. 1700-1820	45	82	1	2	9	16	n/a	n/a
Tomotley	A.D. 1750-1776	59	94	0	0	4	6	345.70	526.95
Mialoquo	A.D. 1760-1780	32	80	2	5	6	15	213.80	362.48

As is the case with domestic architecture, a better understanding of Cherokee subterranean food storage practices during the English Contact period can be produced by placing the Townsend data within a broader context through diachronic comparison. This can be achieved by comparing data from Townsend features with that from the contemporaneously occupied Alarka farmstead as well as four Overhill Cherokee communities occupied during the later half of the eighteenth century.[7] The results of the comparison, which are illustrated in Table 7.9, Figure 7.38, and Figure 7.39, indicate that subterranean storage became increasingly important in Cherokee communities after the mid-eighteenth century.

One of the most important legacies of the Tellico Archaeological Project has been the massive corpus of published data regarding eighteenth-century Cherokee communities (Baden 1983; Polhemus 1987; Russ and Chapman 1983; Schroedl 1986a). Unfortunately, equivalent data from late seventeenth- and early eighteenth-century Cherokee contexts is sorely lacking. When extant morphological and size data are assembled and compared, some interesting diachronic patterns emerge. First, there is an increase in feature variability through time. Early feature assemblages consist entirely of simple round or oval basins and pits, while the feature assemblages at later sites also include rectangular pits and a significant number of what appear to be specialized storage features known as "pits with posts" (Table 7.9). As the name suggests, this form of feature consists of a circular, oblong, or rectangular pit containing two postholes at the pit margins along the centerline of the major axis. These represent the remains of posts used to support some sort of cover. While these curious features have been interpreted as "hot

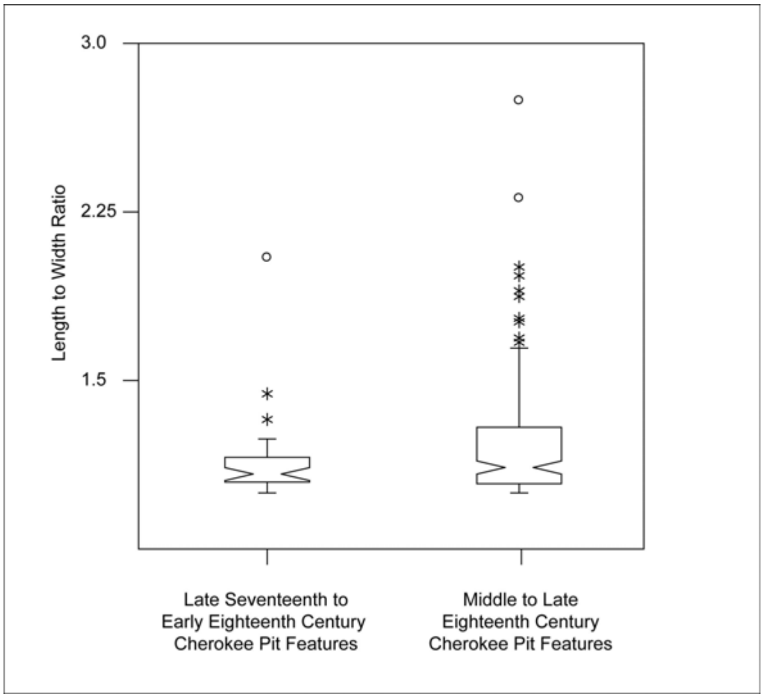

Figure 7.38. Boxplots depicting the distributions of feature length to width ratios at sites occupied during the English Contact period (ca. A.D. 1670-1715) and after.

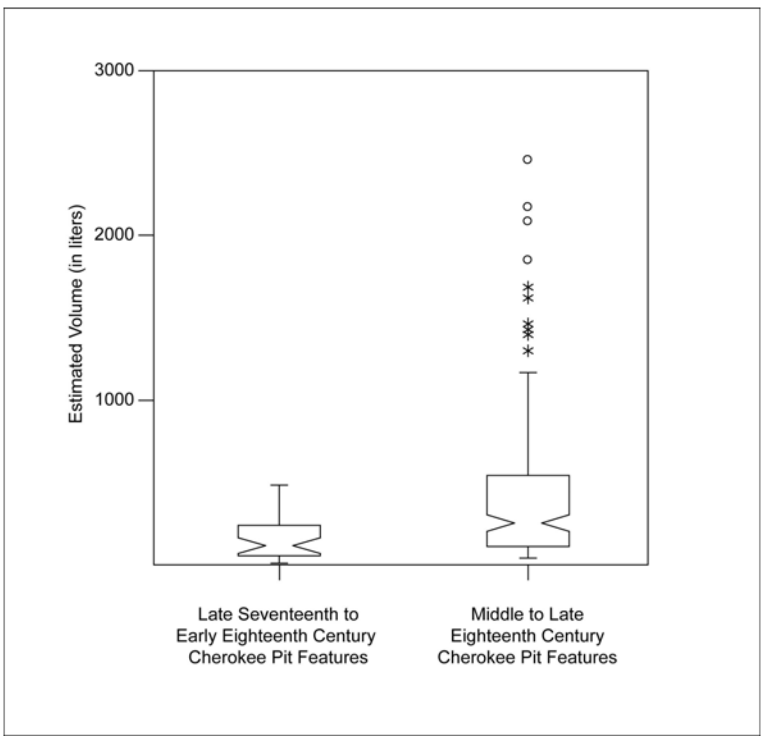

Figure 7.39. Boxplots depicting the distributions of feature volume estimates at sites occupied during the English Contact period (ca. A.D. 1670-1715) and after.

houses" or "sweat lodges," Schroedl (1986a:68-69) makes the convincing argument that their size, morphology, and location in relation to domestic structures make them most suitable for the household storage of foodstuffs like root crops. These facilities became increasingly common through time, comprising 15-16% of all features in the late eighteenth-century communities in the sample. More generally, a comparison of length to width ratios between English Contact period features and later Cherokee features indicates a shift in feature shape from circular to more oblong and rectangular during the later half of the eighteenth century (Figure 7.38).

Along with the advent of new forms of subterranean storage and general changes in feature shape, large increases in feature volume are telling of a significant transformation that occurred in Cherokee storage practices following the English Contact period. Both median and mean measures of feature volume show an increasing trend during the eighteenth century (Table 7.9). Indeed, the mean volume of features at Chota-Tanasee, Tomotley, and Mialoquo is two to three times greater than that of features at the Alarka site and Townsend. When the volumes of these two groups are compared, the medians are significantly different (Figure 7.39). These results may be partly due to the fact that the three later sites were nucleated towns while Alarka and Townsend represent outlying settlements. Given the findings that households at all of these Cherokee sites were generally the same size and that virtually all of the Cherokee houses in the sample were occupied for the approximately the same amount of time, however, we are left with the likelihood that Cherokee households enacted important changes to their food storage practices sometime during the later part of or after the English Contact period.

Conclusion: Interpreting Domestic Space and Time in English Contact Period Households

In this chapter I have sought to better characterize the dimensions of space and time within the daily lives of English Contact period Cherokee households and communities. In undertaking this task, I have referenced ethnohistoric descriptions and past archaeological research and have employed a number of different quantitative comparative methods. This study results in the identification of a number of patterns associated with strategic changes that were enacted by Cherokee households. Taken together, the architectural and feature data strongly suggest that sometime during the early to middle seventeenth century Cherokee groups began to construct houses that required much lower investments in materials and energy than the preceding Mississippian period, and furthermore, that the tenure of Cherokee domestic space was shortened dramatically.

This study finds a good correspondence between the archaeological remains of houses at Townsend and ethnohistoric descriptions of Cherokee houses. Posthole data suggests that the Cherokee at Townsend built their houses according to a relatively prescribed architectural vernacular that resulted in consistent patterns of posthole location and depth. The data also point to differences in shape, location, and wall post spacing that correspond to the two types of domestic structures described in ethnohistoric accounts as "winter houses" and "summer houses." Floor area measurements across all Cherokee structures at Townsend are consistent with the interpretation that Cherokee household size approximated the nuclear family. Also, estimates of occupation duration indicate that the Townsend structures, and indeed most late seventeenth- and eighteenth-century Cherokee houses, were occupied for a decade or less.

Comparisons to houses at contemporaneous and later eighteenth-century Cherokee sites reveal a great deal of consistency. Winter house and summer house architectural forms are present on sites dating from the mid-seventeenth century to the late eighteenth century, although they are outnumbered by single rectangular dwellings at sites dating to the end of the period. Winter houses remain relatively the same size throughout the period, but earlier summer houses, particularly those found at Townsend, are much smaller than their later eighteenth-century counterparts. This may indicate that, with the exception of Structure 41, summer houses at Townsend largely served as auxiliary structures rather than true domiciles. Overall, the comparisons attest to relative stability in Cherokee architectural practices at least between A.D. 1650 and 1776.

Extending the diachronic perspective back in time, on the other hand, reveals that householders significantly changed the way they built and lived in houses between the late sixteenth century and the mid seventeenth century. Cherokee houses and households are roughly the same size as those of the preceding Mississippian period, and they continued to be built using the rigid post architectural vernacular. There are, however, large differences in structure shape, in the form of entryways, and in the overall robustness of structures dating to the two periods. Also, comparisons of post density measures attest to rather striking differences in rebuilding techniques and occupation duration between Mississippian and Cherokee houses. The architectural evidence suggests that Cherokee houses were gradually repaired during their occupation, which usually did not last long enough for all posts to be replaced. Mississippian houses, in contrast, were more often than not entirely rebuilt *in situ* and appear to have occupied the same structure footprint for at least twice the tenure of Cherokee houses. These architectural changes track concomitant changes in community organization that include the dispersal of households within the community and the cessation of building fortifications.

With respect to the notion of domestic time, the results of my analysis of subterranean feature data at Townsend and the Alarka site concur with the results of my architectural analysis – when compared to earlier and later periods, the daily practices of English Contact period Cherokee households were very much structured by short-term rather than long-term strategies. English Contact period Cherokee households did not employ subterranean storage facilities to any great extent; instead, these householders, like their Mississippian period counterparts, probably stored foodstuffs in above-ground facilities like corn cribs or in their houses. Unfortunately, the ephemeral remains of corn cribs are difficult to identify in the archaeological record.[8] The feature data also corroborate the household occupation duration estimates presented above. While some households have more features than others, overall short household tenures are suggested by the lack of burials, by the absence of overlapping features at any household, and by the short use lives inferred for most features.

If English Contact period Cherokee households did not employ subterranean food storage strategies, then what do the changes in feature morphology and increases in feature size in later Cherokee communities represent? The obvious answer is that subterranean storage becomes much more important to Cherokee households after the English Contact period. Similar increases in feature volume have been found among historic Upper Creek sites at roughly the same time. Wesson (1999:151, 155) reports that features at the Upper Creek site of Fusihatchee shifted from shallow basins with an average volume of 170 l to bell-shaped pits with an average volume of 590 l after A.D. 1715. Wesson (1999, 2008) attributes the dramatic increase in subterranean household food storage to attempts by Upper Creek households to resist the increasing hegemony of Creek elites who were amassing power in a new landscape altered by European colonial interaction.

In consideration of the Townsend case, I wish to eschew a discussion of subterranean storage used as resistance to Cherokee elite hegemony. The ethnohistoric and archaeological evidence in the Cherokee case simply does not support the notion that social competition was at the forefront of Cherokee household strategies. Instead, I offer a more parsimonious interpretation of the patterns identified above based on DeBoer's (1988) first conclusion regarding subterranean storage– that increased subterranean food storage is indicative of the seasonal abandonment of settlements. As discussed in Chapter 2, the period following A.D. 1715 saw a dramatic increase in the participation of Cherokee (and Creek) groups in the deerskin trade. Involvement in the trade would have required large numbers of residents to leave Cherokee settlements during the winter months. Subterranean storage offered Cherokee households a means for keeping foodstuffs safe from both animals and covetous neighbors. Indeed, prior to Wesson's work, Waselkov (1990:41) offered this same interpretation for the patterns identified at the Fusihatchee site.

A related explanation for the changes in storage facilities pertains to changes in the foods that were being stored. During the English Contact period, Cherokee households followed essentially the same foodways as their Mississippian predecessors, which featured storable foodstuffs like corn, beans, squash, and nuts. Given the wet environment of the southern Appalachian Mountain region, with the exception of nuts, none of these foodstuffs are particularly suited to subterranean storage. The dramatic increase in the size and form of subterranean storage facilities sometime during the mid-eighteenth century indicates that there was a shift to foods that were more suited to subterranean storage – most likely root crops like sweet potatoes (Riggs personal communication 2007).

[1] Schroedl (2000:220) has suggested that this form of townhouse likely reflected changes in village demography and the increasingly important role of clans in village life. The new townhouses would have contained seven partitioned benches perhaps reflecting the seven matrilineal clans in Cherokee villages.

[2] Recently, Shumate (Shumate et al. 2005:5.38-5.39, 5.56-5.60) offered a very detailed discussion of the architecture at the Alarka site in western North Carolina. In his analysis, Shumate made distinctions among a number of different post classes based partly on posthole depth and diameter and partly on his interpretation of Cherokee architectural vernacular.

[3] There have been some innovative attempts to calculate the occupation duration of households based on the accumulation rates of pottery (e.g., Pauketat 1989; Varien and Mills 1997; Varien and Potter 1997). Unfortunately, these methods only work well when one can be sure that the entire household ceramic assemblage has been collected, such as in the relatively undisturbed contexts in the southwestern United States.

[4] Rather than using complicated mathematical equations (e.g., Baden 1983; Russ and Chapman 1983; Schroedl 1986a), I arrive at volume estimates by creating three-dimensional computer models of each feature using drafting design software (AutoCad2000). These models begin with individual profile drawings, which are bisected in order to provide what is essentially a quadrant profile. I use the design software to "revolve" the quadrant profile 360 degrees about an imaginary vertical axis resulting in a geometric solid. The computer program then uses a rather advanced algorithm to calculate the volume of that solid. While this estimation method is restricted to circular features and essentially assumes (incorrectly in most cases) that pits are perfectly symmetrical, I believe it is still an improvement over older methods in terms of time and accuracy.

[5] While not particularly riveting, this information is nevertheless valuable to future survey and excavation because it speaks to the likely spatial extent of occupation associated with individual Cherokee households (see also Shumate et al. 2005).

[6] There are some important issues to consider when assessing the findings of this study. First, for the purposes of the study, I assume that all of the basins and pits in the sample served storage functions. This probably was not the case, as some features doubtless served other functions. Second, six households is a rather small sample size. Consequently, it is impossible to determine with statistical certainty whether any similarities or differences among Townsend households are significant. Third, the shape of the excavated area at Townsend leads to significant boundary issues where the excavation limits do not incorporate all of the archaeological contexts associated with all of the households. Thus, it is likely that the study sample is missing basins and pits associated with households located near the limits of excavation. I conduct this comparison with the hope that future studies will incorporate this data and arrive at more robust conclusions.

[7] Comparable subterranean feature data was not available for the preceding Mississippian period. In fact, the overall paucity of subterranean features at Mississippian period sites in the region has led some to argue that food storage was overwhelmingly practiced using above ground granaries (Polhemus 1987, Scarry 1995).

[8] Excavations at the Alarka farmstead did identify a small cluster of posts that might have been a corn crib, but no further evidence of its function was recovered (Shumate et al. 2005:5.65). At Townsend, a number of small (1-2m diameter) circular posthole patterns were identified, some near Cherokee structures; however, no artifact evidence was found to link these structures to the Cherokee occupation. Similar posthole patterns found to be associated with a number of seventeenth-century Cherokee households in the Brasstown Valley of northern Georgia (Cable and Reed 2000). The presence of large pottery jars in houses also suggests that some of these vessels may have been used for storage as well as cooking (Hally 1986b; Wilson and Rodning 2002).

CHAPTER 8

CONCLUSION

At its core, this study is about the impact of culture contact on southeastern Indian communities; however, from the outset I have attempted to approach the topic from a number of novel perspectives. Instead of using the traditional history of the Southeast during English Contact period (ca. A.D. 1670-1740) (e.g., Crane 2004; Corkran 1967) as a backdrop for my research, I explored recent alternative historical narratives that introduced new theoretical concepts and critical analyses (e.g., Etheridge 2006; Gallay 2002; Oatis 2004). While traditional historians write in teleological language about passive Indian technological reliance and the inevitability of European dominance, these researchers stress the importance of local interactions, contingencies, and the active role of Indian groups in forging their histories (encapsulated in the "shatter zone" concept). I also chose to depart from past archaeological studies of Cherokee communities by avoiding the big topics of "O"rigins and "A"cculturation, choosing rather to frame my research with theories that stress the agency of small groups (i.e., Cherokee households and communities) and their ability to effect change (i.e., create their history) through the actions of daily life. In order to avoid the temptation of relying on acculturation as an explanatory frame, I chose as a case study a Cherokee community that had very little interaction with Europeans. My goal was to demonstrate, nevertheless, that significant changes could be identified in the daily lives of households in this community – *sui generis* changes that had little if no direct link to European trade.

I also took an alternative approach to data analysis in this study, one aimed at operationalizing the practices of daily life in Cherokee households. First, I employed a relatively novel multivariate statistical technique known as correspondence analysis to seriate a large sample of glass trade bead assemblages. I also employed the household as my basic unit of analysis. The well-defined archaeological household contexts at Townsend provided a solid basis for detailed comparisons of pottery, architecture, and subsurface pit features. In making these comparisons, I introduced new quantitative techniques including attribute analysis of pottery, empirical assessments of the construction methods, function, and occupation duration of Cherokee domestic structures, and function and use-life estimates of pit features.

The results of these alternative approaches, I believe, offer new insights into the ways that Cherokee households and communities dealt with the changes wrought by the southeastern shatter zone in the years leading up to the Yamasee War in A.D. 1715. To begin with, the location of the Townsend community likely resulted from a strategic choice by made Cherokee groups (Chapter 5). The physical environment of Tuckaleechee Cove offered Cherokee communities a broad alluvial valley suitable for agriculture surrounded by an almost continuous wall of mountains. This protected location appears to have turned into liability in the early eighteenth century, however, when Iroquois raiding parties made their way south along the nearby Great Indian Warpath.

The high degree of variability I recognized in my analysis of the pottery assemblages from households at Townsend strongly suggests that resident potters practiced distinct potting traditions (Chapter 6). The technologically and stylistically heterogeneous assemblages found at Townsend are very different from the homogenous assemblages found within contemporaneous Overhill, Middle, Out, and Lower Town sites. This intra-site variability results from the choices made by individual potters at various stages of a pot's construction. The choices that Townsend potters made with respect to tempering material, external surface treatment, and vessel form were all informed by different "constellations of knowledge" or notions about the proper way that things are done (Sinclair 2000). These constellations of knowledge were passed on generationally through the repetitious act of making pots and teaching others to make pots. My analyses identified three separate potting traditions: one that resembled the Overhill-series found at later eighteenth-century sites in the lower Little Tennessee and lower Hiwassee River valleys; one that fit the definition of Qualla-series pottery typically found at contemporaneous sites in the upper Little Tennessee and upper Hiwassee River valleys; and a third tradition that represents a style that has not, until this study, been formally recognized. This tradition, which composed the majority of the pottery sample from Townsend, was defined by a unique tempering material (gravel) and a combination of plain (Overhill) and paddle-stamped (Qualla) surface treatments. The spatial distribution of these three traditions among the Townsend households was not uniform indicating that certain traditions were practiced by certain potters.

Based on these patterns, I argue that Townsend is an apt example of what Hudson (2002) and Kowalewski (2006) call a "coalescent society." As defined in these and other works, coalescent societies were formed by remnant or refugee groups as a strategic response to demographic collapse and other pressures associated with the southeastern shatter zone. Examples of coalescent societies abound during the English Contact period and include the Creek (Knight 1994), the Choctaw (Galloway 1995), the Catawba (Merrell 1989), and Piedmont North Carolina groups (Davis 2002). Kowalewski (2006) extends the range of this concept to include colonial encounters across North America, Africa, and the Pacific Islands. He argues that coalescence is not a societal type, but a strategy that plays out in very different ways depending upon local historical contingencies (Kowalewski 2006:120-121).

In the case of Townsend, I believe that the households were pursuing a strategy of coalescence. These folks came together from different Cherokee communities to settle in a previously unoccupied area amidst the turmoil of the shatter zone. At the risk of partaking in the arcane cultural arithmetic of "pottery equals people," I believe that the results of the pottery analyses suggest some possibilities for where the Townsend potters could have originated. The potting traditions associated with the Overhill series and Qualla series do have defined geographical distributions. Overhill-series pottery has a local (i.e., eastern Tennessee) antecedent in the pottery of the Dallas phase, although a direct temporal link between these phases has yet to be established (Schroedl 1986b). Qualla pottery has a much better defined geographic distribution centered in the Cherokee Lower, Middle, and Out towns. The third, and most common potting tradition represented in Townsend household assemblages has no known antecedent and combines aspects of both Overhill and Qualla series. More research is desperately needed, but at this point I will speculate that this traditions was either rooted in a potting tradition that existed formerly elsewhere, or it was a novel tradition that developed locally out of the negotiation of daily life by potters who lived together and shared their distinct constellations of knowledge.

The architecture and spatial organization of the Cherokee community at Townsend was very different from that of communities inhabiting eastern Tennessee and western North Carolina during the preceding Mississippian period. My analysis of architecture illustrated a number of changes including (1) houses in English Contact period Cherokee communities were constructed with a much lower investment in energy and materials than Mississippian houses; (2) English Contact period Cherokee houses were occupied for a much shorter duration than Mississippian houses, often less than a decade; (3) houses in English Contact period Cherokee communities were much more dispersed; and (4) space within English Contact period Cherokee communities was much less structured than Mississippian communities, lacking fortifications and prescribed areas with deep residential histories (Chapter 7). My analysis of subsurface pit features confirmed the short tenure of most English Contact period Cherokee households.

These changes in domestic space and time, which continued on into the Colonial period, reflect a major shift in the daily lives of Cherokee households and communities. Like the formation of a coalescent society, I believe that this sea change represents the strategic response of Cherokee communities to the many social, political, and economic changes that together constituted the southeastern shatter zone. The rapidly changing conditions of the shatter zone simply did not allow for the creation of strong sedimented community and household identities rooted in the *longue durée* of daily repetition, history, and memory (e.g., Rodning 2004, 2007; Wilson 2005). Quite the opposite, this environment favored strategies that were the very antitheses of those that constituted Mississippian identity – short-term strategies that emphasized flexibility and improvisation. In this sense, the Townsend community was the archetypal archaeological manifestation of *habitus* in a shatter zone community (Bourdieu 1977:78).

Directions for Future Research

This study represents a single effort within a long tradition of archaeological research addressing Cherokee communities. Indeed, this study rests firmly on past work whose contributions (in addition to data) include: the identification of the English Contact period as a crucial phase in Cherokee history (Schroedl 1986a, 1986b, 2000); a robust ceramic chronology (Egloff 1967; Keel 1976; Riggs and Rodning 2002; Rodning 2004), and an emphasis on the empirical analysis of data related to households and communities (Riggs 1989; Rodning 2007; Schroedl 1989). Now, I wish to provide a few directions that I believe will be important to future research into English Contact period Cherokee communities

- We need additional research addressing how the Tuckaleechee Towns and northern Cherokee settlements fit into Cherokee history. Specifically, we should ask whether these settlements represent what were essentially frontier Overhill towns, an autonomous settlement division, or the progenitors of what eventually became known as the Overhill towns.
- We need to conduct archaeological surveys in the Little River valley that are focused on relocating, formally recording, and assessing the sites (including Ellejoy) Kenneth Cornett identified during his 1960s survey. This effort should also include extending the survey area to nearby coves (Miller Cove, Wear Cove,

Cades Cove, Pitman Center) in order to identify and characterize the Cherokee occupation of these areas.

- Future work can employ the glass trade bead and ceramic chronology constructed in this study in order to identify more English Contact period components and isolate these components at sites with long occupational histories like Citico, Chota-Tanassee, Tallasee, and Chilhowee.
- Future research should be directed at Contact period sites located far to the north of Cherokee territory on the French Broad and Nolichucky rivers, particularly the Plum Grove site. This site has been excavated, but the excavations and artifact analyses have never been published. European artifacts found in burials at the site date part of its occupation to ca. A.D. 1600-1670 (Smith 1987, n.d.). If we are to believe Cherokee oral history (Chapter 5), this site may indeed hold important evidence related to the origin of the Tuckaleechee potting tradition and perhaps the Tuckaleechee Towns themselves.

APPENDIX A1: GLASS TRADE BEAD DATABASE

Burial	IIIa1	IIa13	IIa24	IIa28	IIa31	IIa40	IIa44	IIa49	IIa55	IIa6	IIa61	IIb'3	IIb'6	IIb10
Jo6-31	0	161	0	0	0	2	0	0	3	53	0	0	0	0
Jo6-47	32	36	0	0	2	11	18	12	28	1	0	0	0	0
Jo6-49	0	375	0	0	0	0	0	0	0	1	0	0	0	0
Jo6-50	75	0	0	0	0	1	0	0	20	1	0	0	0	0
Jo6-53	0	51	0	0	0	0	137	0	22	2	0	0	0	0
Jo6-78c	0	2	0	0	0	220	0	0	5	0	0	0	0	0
Jo6-78d	0	467	0	0	1	2031	0	259	12	583	0	0	0	0
Jo6-78f	0	41	0	0	0	14	0	0	1	1	0	0	0	0
Jo6-78g	0	1	0	0	0	1	0	0	0	0	0	0	0	0
Mr2-19	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Mr2-2	0	17	0	0	0	7	0	0	0	0	0	0	0	0
Mr2-21	0	5	0	0	0	0	4	0	0	11	0	0	0	0
Mr2-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-32	0	54	0	31	0	190	17	0	0	4	0	0	1	0
Mr2-38	0	43	0	0	0	104	3	0	0	4	0	0	0	0
Mr2-42	0	42	17	0	0	4	6	18	0	13	0	0	0	0
Mr2-43	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-46	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-52	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-6	2	143	0	0	0	264	17	3	0	0	0	1	4	0
Mr2-65	0	34	0	0	0	888	0	0	0	0	0	0	4	0
Mr2-66	0	201	0	0	0	101	0	0	0	1	0	0	2	0
Mr2-7	0	78	0	0	0	0	0	8	0	0	0	0	0	0
Mr2-76	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-80	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-1	0	1	0	0	0	0	1	0	0	0	0	0	1	0
Mr62-10	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-12	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-2	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Mr62-20	0	0	0	0	0	0	0	0	0	8	0	0	0	0
Mr62-4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-6	0	51	0	0	205	190	2	1	0	0	0	0	0	0
Mr62-7	0	0	0	0	0	0	0	0	8	19	0	3	0	0
Mr62-9	0	1	0	0	0	1	0	0	0	6	0	0	0	0
Ms100-13	0	2	0	0	0	3	0	0	334	0	0	0	0	0
Ms100-4	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-56	0	89	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-9	0	89	0	0	0	74	0	0	0	0	0	0	0	1
Ms32-13	0	0	0	0	0	216	0	0	4	0	0	0	0	0
Ms32-16	0	0	0	0	0	1283	0	0	0	3	0	0	0	0
Ms32-22	0	0	0	0	0	30	0	0	10	1	0	0	0	0
Ms32-26	0	0	0	0	0	28	0	0	0	87	0	0	0	0
Ms32-27	0	0	0	0	0	309	0	0	2	0	0	0	0	0
Ms32-31	0	0	0	5	0	0	0	0	135	6	0	0	0	0
Ms32-42	0	0	0	1	0	31	0	0	0	3	0	0	0	0
Ms32-44	0	0	0	3	0	43	0	0	0	3	0	0	0	0
Ms32-48	0	0	0	0	0	245	0	0	0	0	0	0	0	0
Ms32-49	0	0	0	0	0	28	0	0	21	0	0	0	0	0

Burial	IIIa1	IIa13	IIa24	IIa28	IIa31	IIa40	IIa44	IIa49	IIa55	IIa6	IIa61	IIb'3	IIb'6	IIb10
Ms32-68	0	0	0	2	0	109	0	0	0	3	0	0	0	0
Ms91-25	0	0	0	1	0	371	0	0	52	0	0	0	0	2
Ms91-44	0	0	0	0	0	199	0	0	0	0	0	0	0	0
Ms91-45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-5	0	0	0	1	0	839	0	0	0	1	0	0	0	0
Or231-1	0	0	0	0	0	1	0	0	2	0	16	0	0	0
Or231-10	0	45	0	0	0	5	0	0	1	0	1	0	0	0
Or231-11	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Or231-2	0	25	0	0	2	16	0	0	0	0	0	0	0	0
Or231-6	0	0	0	0	0	3	0	0	1	0	1	0	0	0
Rd3-1	0	1	0	0	0	36	0	0	3	0	0	0	0	0
Rk6-112	0	0	0	0	0	92	0	0	0	0	0	0	0	0
Rk6-33	0	0	0	0	0	17	0	0	0	0	0	0	0	0
Rk6-65	0	0	0	0	5	81	0	1	0	0	0	0	0	0
Rk6-93	0	11	0	0	0	16	0	0	0	0	0	0	0	0
Sk1a-1	0	38	2	0	0	4	0	5	0	0	18	0	0	0
Sk1a-109	0	3	0	0	0	1	0	165	0	0	11	0	0	1
Sk1a-13	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-22	0	0	0	1	3	12	8	0	4	0	0	0	0	0
Sk1a-24	0	84	0	0	0	11	0	0	0	0	0	0	0	0
Sk1a-35	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-36	0	0	0	0	0	2	0	0	0	0	0	0	0	0
Sk1a-38	0	205	0	0	0	173	0	18	6	0	15	0	0	0
Sk1a-39	0	1	0	0	0	0	1	0	0	0	0	0	0	0
Sk1a-43	0	0	0	0	0	30	1	42	0	0	0	0	0	0
Sk1a-48	0	133	1	0	0	179	0	0	0	0	43	0	0	2
Sk1a-50	0	0	5	0	0	15	0	7	0	0	18	0	0	0
Sk1a-51	0	0	0	0	0	1	0	0	2	0	0	0	0	0
Sk1a-55	0	29	0	0	0	8	0	0	0	0	0	0	0	0
Sk1a-6	0	1	0	0	0	142	0	69	3	0	0	0	0	0
Sk1a-64	0	52	1	0	0	135	0	0	0	0	0	0	0	0
Sk1a-65	0	13	0	0	2	165	0	8	0	0	0	0	0	0
Sk1a-68	0	51	0	0	0	0	0	0	0	0	4	0	0	0
Sk1a-76	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-84	0	1	0	0	1	40	0	0	0	0	0	0	0	0
Sk1a-9	0	1	0	0	0	194	0	12	0	0	0	0	0	0
Sk1a-95	0	65	0	0	0	0	0	0	0	0	4	0	0	0
Hr4-1	0	0	0	0	0	54	0	0	0	0	0	0	0	0
Wg17-14	0	0	0	2	0	15	36	0	2	0	0	0	0	0
Wg17-33	0	0	0	0	0	67	0	0	2	0	0	0	0	0
Mr2-10	0	8	0	0	0	1	0	0	0	0	0	0	0	0
Mg31-3-12	0	1	0	0	0	9	0	0	0	0	0	0	0	0
Mg31-6	0	0	0	0	0	0	0	0	0	42	0	0	0	0
Mg31-10	0	10	0	0	0	30	0	0	0	1	0	0	0	0
Bt8-90	0	0	0	0	0	2	11	0	10	0	0	0	0	0
Pk1-1	0	0	0	0	0	26	0	220	0	1	0	0	0	0
Pk1-7	0	1	0	0	0	9	0	0	0	0	0	0	0	0
Pk1-8	0	165	0	0	0	237	0	0	37	25	0	0	0	0
Pk1-11	0	0	0	0	0	1	0	0	0	0	0	0	0	0

Burial	IIb1004	IIb1006	IIb18	IIb27	IIb32	IIb39	IIb56	IIb67	IIb990	IIbb12	IIbb15	IIbb24
Jo6-31	0	0	0	0	0	0	0	0	0	0	0	0
Jo6-47	0	0	0	0	0	0	0	2	113	0	0	3
Jo6-49	0	0	0	0	0	0	0	0	0	0	0	0
Jo6-50	0	0	0	0	0	0	0	0	0	0	0	0
Jo6-53	0	0	0	0	0	0	0	0	4	1	0	4
Jo6-78c	0	0	0	0	0	0	0	0	0	0	0	2
Jo6-78d	0	0	0	0	0	0	0	1	0	0	0	0
Jo6-78f	0	0	0	0	0	0	0	0	0	0	0	0
Jo6-78g	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-19	0	0	100	0	0	0	0	0	0	0	0	0
Mr2-2	0	0	0	0	0	3	0	0	0	0	0	0
Mr2-21	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-29	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-32	0	0	0	1	0	1	0	0	0	7	4	1
Mr2-38	0	0	0	0	1	1	0	0	0	6	0	0
Mr2-42	0	0	1428	0	1	1	0	0	0	0	0	0
Mr2-43	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-46	0	0	1	0	0	0	0	0	0	0	0	0
Mr2-52	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-6	0	0	0	0	1	0	0	0	0	3	0	0
Mr2-65	0	0	0	0	0	10	0	0	0	4	1	0
Mr2-66	0	0	0	1	0	1	0	0	0	7	0	2
Mr2-7	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-76	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-80	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-1	0	0	465	0	0	0	0	0	0	0	0	0
Mr62-10	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-12	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-2	0	0	1	0	0	0	0	0	0	0	0	0
Mr62-20	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-4	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-6	0	0	0	0	0	0	0	0	0	0	0	4
Mr62-7	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-9	0	0	1	0	0	0	0	0	0	0	0	1
Ms100-13	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-4	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-56	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-9	0	0	0	0	0	0	0	0	0	1	0	0
Ms32-13	0	0	0	0	0	0	0	1	0	0	0	0
Ms32-16	0	0	0	0	0	0	0	1	0	0	0	0
Ms32-22	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-26	0	0	0	0	0	0	0	4	0	0	0	0
Ms32-27	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-31	0	0	0	0	0	0	0	1	0	0	0	0
Ms32-42	0	0	0	0	0	0	0	3	0	0	0	0
Ms32-44	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-48	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-49	0	0	0	0	0	0	0	0	0	0	0	0

Burial	IIb1004	IIb1006	IIb18	IIb27	IIb32	IIb39	IIb56	IIb67	IIb990	IIbb12	IIbb15	IIbb24
Ms32-68	0	0	0	0	0	0	0	1	0	0	0	0
Ms91-25	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-44	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-45	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-5	0	0	0	0	0	0	0	1	0	0	0	0
Or231-1	0	0	0	0	0	0	0	0	0	0	0	0
Or231-10	0	0	0	0	0	0	0	0	0	0	0	0
Or231-11	0	0	0	0	0	0	0	0	0	0	0	0
Or231-2	0	0	0	0	0	0	0	0	0	0	0	1
Or231-6	0	0	0	0	0	0	0	0	0	0	0	0
Rd3-1	0	0	0	0	0	0	0	0	0	0	0	0
Rk6-112	0	0	0	0	0	0	0	0	0	0	0	0
Rk6-33	1	0	0	0	0	0	0	0	0	0	0	0
Rk6-65	1	0	0	0	0	0	1	0	0	0	0	0
Rk6-93	0	0	0	0	0	0	2	0	0	0	0	0
Sk1a-1	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-109	0	0	0	0	0	0	8	933	0	0	0	0
Sk1a-13	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-19	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-22	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-24	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-35	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-36	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-38	0	0	0	0	0	0	0	3	0	0	0	0
Sk1a-39	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-43	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-48	0	0	0	0	0	0	0	205	0	0	0	0
Sk1a-50	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-51	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-55	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-6	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-64	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-65	0	0	0	0	0	0	0	0	1	0	0	0
Sk1a-68	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-76	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-84	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-9	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-95	0	0	0	0	0	0	0	1	0	0	0	0
Vir199	0	0	0	0	0	0	0	0	0	0	0	0
Wg17-14	0	1	0	0	0	0	0	0	0	0	0	0
Wg17-33	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-10	0	0	0	0	0	0	0	0	0	0	0	0
Mg31-3-12	0	0	0	0	0	0	0	0	0	30	0	0
Mg31-6	0	0	0	0	0	0	0	0	0	0	0	0
Mg31-10	0	0	0	0	0	0	0	0	0	6	0	0
Bt8-90	0	0	0	0	0	0	0	1	0	0	0	0
Pk1-1	0	0	0	0	0	0	0	0	0	0	0	0
Pk1-7	0	0	0	0	0	0	0	0	0	0	0	0
Pk1-8	0	0	0	0	4	2	0	0	9	11	0	1
Pk1-11	0	0	0	0	0	0	0	0	0	0	0	0

Burial	IIbb27	IIga	IIgb	IIj	IVa11sd	IVa5	IVAa5sd	IVasd	IVb990	IVbsd	IVbb3	Ia15	Ia5
Jo6-31	0	0	0	0	0	13	0	0	0	0	0	0	0
Jo6-47	1	0	0	0	0	95	3	0	0	0	3	0	0
Jo6-49	0	0	0	0	0	0	0	0	0	0	0	0	0
Jo6-50	0	0	0	0	0	0	1610	0	0	0	0	0	0
Jo6-53	0	0	0	0	0	0	4	0	0	0	1	0	0
Jo6-78c	1	0	0	0	0	3	0	0	0	0	0	0	0
Jo6-78d	0	0	0	1	0	2	3	0	0	0	0	0	0
Jo6-78f	0	0	0	0	0	0	0	0	0	0	0	0	0
Jo6-78g	0	0	0	0	0	587	45	0	0	0	0	0	0
Mr2-19	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-2	0	0	0	1	0	7	0	0	0	0	0	0	0
Mr2-21	0	0	0	1	0	0	0	0	0	0	0	0	0
Mr2-29	0	0	0	0	0	1	0	0	0	0	0	20	0
Mr2-32	0	0	0	0	0	0	129	0	0	0	0	0	0
Mr2-38	0	0	0	0	0	47	0	0	0	0	0	0	0
Mr2-42	0	0	0	0	0	0	0	0	0	0	0	77	64
Mr2-43	0	0	0	0	0	0	0	0	0	0	0	0	75
Mr2-46	0	0	0	0	0	0	1	0	0	0	0	0	0
Mr2-52	0	0	0	11	0	0	0	0	0	0	0	0	0
Mr2-6	0	0	0	0	0	2	0	0	0	0	2	0	0
Mr2-65	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-66	0	0	0	0	0	5	0	0	0	0	0	1	0
Mr2-7	0	0	0	31	0	0	0	0	0	0	0	0	0
Mr2-76	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr2-80	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-1	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-10	0	0	0	1	0	0	0	0	0	0	0	0	0
Mr62-12	0	0	0	0	0	0	0	0	0	0	0	0	0
Mr62-2	0	0	0	0	0	34	2	0	0	0	0	0	0
Mr62-20	0	0	0	0	0	0	1	0	0	0	0	0	0
Mr62-4	0	0	0	0	0	4	77	0	0	0	0	0	0
Mr62-6	0	0	0	0	0	0	424	0	0	0	0	0	0
Mr62-7	1	0	0	6	0	0	2	0	0	0	2	0	0
Mr62-9	0	0	0	0	0	1	0	0	0	0	0	0	0
Ms100-13	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-4	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms100-56	0	0	0	0	0	172	0	0	0	0	0	0	0
Ms100-9	0	0	0	0	0	0	0	0	0	0	11	0	0
Ms32-13	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-16	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-22	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-26	0	0	0	0	0	0	0	1	0	0	0	0	0
Ms32-27	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-31	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-42	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-44	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-48	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms32-49	0	0	0	0	0	0	0	0	0	0	0	0	0

Burial	IIbb27	IIga	IIgb	IIj	IVa11sd	IVa5	IVAa5sd	IVasd	IVb990	IVbsd	IVbb3	Ia15	Ia5
Ms32-68	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-25	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-44	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-45	0	0	0	0	0	0	0	0	0	0	0	0	0
Ms91-5	0	0	0	0	0	0	0	0	0	0	0	0	0
Or231-1	0	0	0	10	0	1	0	0	0	0	0	0	0
Or231-10	0	0	0	0	0	70	0	0	0	0	0	0	0
Or231-11	0	0	0	0	0	232	0	0	0	0	0	0	0
Or231-2	0	0	0	0	0	0	96	0	0	0	0	0	0
Or231-6	0	0	0	0	0	17	0	0	0	0	0	0	0
Rd3-1	0	0	0	0	0	0	0	6	0	0	0	0	0
Rk6-112	0	0	0	0	0	0	0	1580	0	3	0	0	0
Rk6-33	0	0	0	0	0	1	2	2190	0	440	0	0	0
Rk6-65	0	0	1	0	0	0	0	783	0	12	0	0	0
Rk6-93	0	0	0	0	0	0	0	11	0	0	0	0	0
Sk1a-1	0	0	0	0	0	0	0	0	0	0	0	0	1
Sk1a-109	0	0	0	0	1	0	0	0	0	0	0	0	0
Sk1a-13	0	29	0	0	0	0	0	1	0	0	0	0	0
Sk1a-19	0	0	0	0	86	0	0	1069	0	0	0	0	0
Sk1a-22	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-24	0	0	0	0	0	0	0	0	2	0	0	0	0
Sk1a-35	0	0	0	0	0	0	0	1	23	0	0	0	0
Sk1a-36	0	0	0	0	1011	0	0	48	0	0	0	0	0
Sk1a-38	0	2	0	0	0	0	0	0	4	1	0	0	0
Sk1a-39	0	0	0	0	14	0	4	2	0	0	0	0	0
Sk1a-43	0	0	0	0	1646	0	0	246	0	11	0	0	0
Sk1a-48	0	0	0	0	0	0	0	1	0	0	0	0	0
Sk1a-50	0	1	0	0	0	0	0	0	0	0	0	0	0
Sk1a-51	0	0	0	0	0	0	0	0	0	38	0	0	0
Sk1a-55	0	0	0	0	0	0	0	3	0	0	0	0	0
Sk1a-6	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-64	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-65	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-68	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-76	0	0	0	0	0	0	0	75	0	0	0	0	0
Sk1a-84	0	0	0	0	0	0	0	224	0	0	0	0	0
Sk1a-9	0	0	0	0	0	0	0	0	0	0	0	0	0
Sk1a-95	0	2	0	0	0	0	1	6	0	0	0	0	0
Vir199	0	0	0	0	0	0	0	119	0	9	0	0	0
Wg17-14	0	0	0	0	0	0	0	0	0	0	0	0	0
Wg17-33	0	0	0	0	58	0	0	32	0	0	0	0	0
Mr2-10	0	0	0	0	0	0	0	0	0	0	0	0	62
Mg31-3-12	0	0	0	0	0	1	0	0	0	0	0	0	0
Mg31-6	0	0	0	0	0	0	298	0	0	0	0	0	0
Mg31-10	0	0	0	0	0	0	25	0	0	0	0	0	0
Bt8-90	0	1	0	0	0	0	0	0	0	0	0	0	0
Pk1-1	0	0	0	28	0	0	0	0	0	0	0	0	0
Pk1-7	0	0	0	0	0	0	0	0	0	0	0	0	0
Pk1-8	0	0	0	0	0	109	0	0	0	0	1	0	0
Pk1-11	0	0	0	2	0	0	445	0	0	0	0	0	0

Burial	WIIc	WIId	WIIe	WIb	WIc	WIcb	IVk
Jo6-31	0	0	0	0	0	0	0
Jo6-47	0	0	0	0	0	0	0
Jo6-49	1	0	0	0	0	0	0
Jo6-50	0	0	0	0	0	0	0
Jo6-53	0	0	0	0	0	0	0
Jo6-78c	0	0	0	0	0	0	0
Jo6-78d	3	87	1	0	0	0	0
Jo6-78f	0	0	0	0	0	0	0
Jo6-78g	0	0	0	0	0	0	0
Mr2-19	0	0	0	0	0	0	0
Mr2-2	14	1	0	1	0	0	0
Mr2-21	34	0	1	2	0	37	0
Mr2-29	0	0	0	0	22	0	0
Mr2-32	0	0	0	0	0	0	0
Mr2-38	0	0	0	0	0	0	0
Mr2-42	14	0	0	21	25	0	0
Mr2-43	0	0	0	22	0	0	0
Mr2-46	0	0	0	0	0	101	0
Mr2-52	12	0	0	11	0	0	0
Mr2-6	5	1	0	10	0	0	0
Mr2-65	0	0	0	0	43	0	0
Mr2-66	0	0	0	0	0	0	0
Mr2-7	23	0	0	12	0	0	0
Mr2-76	0	0	0	25	24	0	0
Mr2-80	28	0	0	19	0	0	0
Mr62-1	2	0	0	1	0	0	0
Mr62-10	44	0	0	0	32	0	0
Mr62-12	4	0	0	0	29	0	0
Mr62-2	2	0	0	6	11	0	0
Mr62-20	0	0	2	0	27	337	0
Mr62-4	0	0	0	0	0	0	0
Mr62-6	0	0	0	0	0	0	0
Mr62-7	2	0	0	0	0	0	0
Mr62-9	3	0	0	0	18	0	0
Ms100-13	0	0	0	0	0	0	0
Ms100-4	0	0	0	0	174	0	0
Ms100-56	0	0	0	0	0	0	0
Ms100-9	0	0	0	0	0	0	0
Ms32-13	0	0	0	2	0	0	0
Ms32-16	0	0	0	0	0	0	0
Ms32-22	0	0	0	0	0	0	0
Ms32-26	0	0	0	4	175	0	0
Ms32-27	0	0	0	0	0	0	0
Ms32-31	0	0	0	144	4	0	0
Ms32-42	0	0	0	0	0	0	0
Ms32-44	0	0	0	13	5	0	0
Ms32-48	0	0	0	1	0	0	0
Ms32-49	0	0	0	0	0	0	0

Burial	WIIc	WIId	WIIe	WIb	WIc	WIcb	IVk
Ms32-68	0	0	0	42	0	0	0
Ms91-25	0	0	0	0	0	0	0
Ms91-44	0	0	0	1039	0	0	0
Ms91-45	0	0	0	42	27	0	0
Ms91-5	0	0	0	0	4	0	0
Or231-1	0	0	0	0	0	0	0
Or231-10	0	0	0	0	0	0	0
Or231-11	0	0	0	0	0	0	0
Or231-2	0	0	0	0	0	0	0
Or231-6	0	0	0	0	0	0	0
Rd3-1	0	0	0	0	0	0	0
Rk6-112	0	0	0	0	0	0	0
Rk6-33	0	0	0	0	0	0	0
Rk6-65	0	0	0	0	0	0	0
Rk6-93	0	0	0	0	0	0	0
Sk1a-1	0	0	0	0	0	0	0
Sk1a-109	0	0	0	0	0	0	0
Sk1a-13	0	0	0	0	0	0	0
Sk1a-19	0	0	0	0	0	0	0
Sk1a-22	0	0	0	0	0	0	0
Sk1a-24	0	0	0	0	0	0	0
Sk1a-35	0	0	0	0	0	0	0
Sk1a-36	0	0	0	0	0	0	0
Sk1a-38	0	0	0	0	0	0	0
Sk1a-39	0	0	0	0	0	0	0
Sk1a-43	0	0	0	0	0	0	0
Sk1a-48	0	0	0	0	0	0	0
Sk1a-50	0	0	0	0	0	0	0
Sk1a-51	0	0	0	0	0	0	0
Sk1a-55	0	0	0	0	0	0	0
Sk1a-6	0	0	0	0	0	0	0
Sk1a-64	0	0	0	0	0	0	0
Sk1a-65	0	0	0	0	0	0	0
Sk1a-68	0	0	0	0	0	0	0
Sk1a-76	0	0	0	0	0	0	0
Sk1a-84	0	0	0	0	0	0	0
Sk1a-9	0	0	0	0	0	0	0
Sk1a-95	0	0	0	0	0	0	0
Vir199	0	0	0	0	0	0	0
Wg17-14	0	0	0	0	0	0	0
Wg17-33	0	0	0	0	0	0	0
Mr2-10	0	0	0	0	0	0	0
Mg31-3-12	0	0	0	0	0	0	0
Mg31-6	0	0	0	0	0	0	0
Mg31-10	0	0	0	0	0	0	0
Bt8-90	0	0	0	0	0	0	0
Pk1-1	6	0	0	13	0	0	0
Pk1-7	26	0	0	0	0	0	0
Pk1-8	0	0	0	1	0	0	0
Pk1-11	52	0	0	380	12	0	0

APPENDIX A2: BEAD TYPE DESCRIPTIONS

Bead Types	Type Description
Ia5	Untumbled opaque white tubular necklace bead (4-10mm) of simple construction.
Ia15	Untumbled translucent brite blue tubular necklace bead (4-10mm) of simple construction.
IIa13	Tumbled opaque white spherical or oval necklace bead (4-12mm) of simple construction.
IIa24	Tumbled opaque apple green spherical necklace bead (4-12mm) of simple construction.
IIa28	Tumbled transparent emerald spherical necklace bead (4-12mm) of simple construction.
IIa31	Tumbled transparent turquoise spherical necklace bead (4-12mm) of simple construction.
IIa40	Tumbled opaque turquoise spherical or oval necklace bead (4-12mm) of simple construction.
IIa44	Tumbled transparent cerulean blue spherical necklace bead (4-12mm) of simple construction.
IIa49	Tumbled opaque dark shadow blue spherical necklace bead (4-12mm) of simple construction.
IIa55	Tumbled transparent brite navy spherical necklace bead (4-12mm) of simple construction.
IIa6	Tumbled opaque black round or barrel-shaped necklace bead (4-12mm) of simple construction.
IIa61	Tumbled translucent burgundy spherical necklace bead (4-12mm) of simple construction.
IIb10	Tumbled opaque black spherical or oval necklace bead (4-12mm) of simple construction with 3 or 4 white stripes.
IIb1004	Tumbled translucent brite navy spherical necklace bead (4-12mm) of simple construction with 8-10 thin white stripes.
IIb1006	Tumbled translucent medium blue spherical necklace bead (4-12mm) of simple construction with alternating red and white stripes.
IIb18	Tumbled transparent light gray spherical necklace bead (4-12mm) of simple construction with 12-15 white stripes.
IIb27	Tumbled opaque white spherical or oval necklace bead (4-12mm) of simple construction with 3 sets of 3 blue stripes.
IIb'3	Tumbled opaque black spherical or oval necklace bead (4-12mm) of simple construction with white spiraled stripes.
IIb32	Tumbled opaque white oval necklace bead (4-12mm) of simple construction with alternating red and blue stripes.
IIb39	Tumbled opaque white spherical or oval necklace bead (4-12mm) of simple construction with alternating red, green, and blue stripes.
IIb56	Tumbled opaque turquoise spherical or oval necklace bead (4-12mm) of simple construction with 3 or 4 white stripes.
IIb'6	Tumbled opaque white oval necklace bead (4-12mm) of simple construction with red spiraled stripes.
IIb67	Tumbled translucent to opaque brite navy spherical or oval necklace bead (4-12mm) of simple construction with 3 or 4 white stripes.
IIb990	Tumbled translucent brite navy spherical necklace bead (4-12mm) of simple construction with 2 white stripes.

Bead Types	Type Description
IIbb12	Tumbled opaque white spherical or oval necklace bead (4-12mm) of complex construction with 3 blue on red stripes
IIbb15	Tumbled opaque white oval necklace bead (4-12mm) of complex construction with 3 yellow on blue stripes
IIbb24	Tumbled opaque turquoise spherical or oval necklace bead (4-12mm) of complex construction with 3 red on white stripes.
IIbb27	Tumbled translucent brite navy spherical or oval necklace bead (4-12mm) of complex construction with 3 red on white stripes.
IIga	Tumbled opaque white spherical or oval necklace bead (4-12mm) of complex construction with dark blue inlaid "eyes"
IIgb	Tumbled opaque turquoise spherical or oval necklace bead (4-12mm) of complex construction with inlaid red stars on white "eyes".
IIIa1	Untumbled tubular necklace bead (4-10mm) of compound construction consisting of a transparent apple green inner layer and opaque red outer layer.
IIj	Tumbled opaque black spherical necklace bead (8-12mm) of simple construction with white or yellow wavy stripes.
IVa11sd	Tumbled seed bead (1-4mm) of compound construction consisting of a transparent light gray inner layer, an opaque white middle layer, and a transparent light gray outer layer .
IVa5	Tumbled spherical or oval necklace bead (4-10mm) of compound construction consisting of a transparent apple green inner layer and opaque red outer layer.
IVa5sd	Tumbled seed bead (1-4mm) of compound construction consisting of a transparent apple green inner layer and opaque red outer layer.
IVasd	Tumbled seed bead (1-4mm) of compound construction consisting of a transparent light gray or aqua blue inner layer and an opaque white outer layer.
IVb990	Tumbled spherical or oval necklace bead (4-10mm) of compound construction consisting of a transparent light gray inner layer and an opaque white outer layer with blue stripes
IVbb3	Tumbled spherical necklace bead (4-10mm) of compound and complex construction consisting of a transparent apple green inner layer and opaque red outer layer with black on white stripes.
IVbsd	Compound seed bead (1-4mm) consisting of a transparent light gray inner layer, an opaque white middle layer, and a transparent light gray outer layer with six redwood stripes.
WIb	Large spherical mandrel-wound necklace bead (8-16mm) of various colors.
WIc	Large oval mandrel-wound necklace bead (8-16mm) of various colors.
WIcb	Small oval mandrel-wound necklace bead (2-6mm) of various colors. Also known as "barleycorn" or "rat turd" beads.
WIIc	Large mandrel-wound marvered necklace beads (8-16mm) of various colors with 8-10 pressed facets.
WIId	Large mandrel-wound "raspberry" necklace beads (8-16mm) of various colors.
WIIe	Large mandrel-wound "melon-shaped" marvered necklace beads (8-16mm) of various colors .

APPENDIX A3: SITE-LEVEL GLASS TRADE BEAD ASSEMBLAGES

	IIIa1	IIa13	IIa24	IIa28	IIa31	IIa40	IIa44	IIa49
Bead Cluster1	0	4	0	0	6	384	2	43
Bead Cluster2	0	14	0	0	0	52	0	0
Bead Cluster3	2	2440	9	53	6	8870	400	554
Bead Cluster4	107	247	0	0	209	227	20	13
Bead Cluster5	0	10	0	0	0	29	4	0
Bead Cluster6	0	51	17	0	0	6	7	18
Townsend (40Bt89-91)	0	7	0	0	0	14	1	0
Altamaha Town (38Bu20)	0	13	1	0	0	2	0	0
Peachtree (31Ce1)	0	1	0	0	0	7	0	0
Mialoquo (40Mr3)	0	0	0	0	0	4	0	0
Notley Mound	0	152	0	3	0	241	0	0
Nacoochee Mound (9Wh3)	0	4	0	0	0	77	0	0
Hiwassee Old Town (40Pk3)	1	13	0	0	6	5	7	0
Tomotley (40Mr5)	0	6	0	0	0	12	1	0
Chatooga (38Oc18)	1	84	0	1	41	74	14	4
Coweta Creek (31Ma34)	0	53	0	0	0	61	0	0

	IIa55	IIa6	IIa61	IIb'3	IIb'6	IIb10	IIb1004	IIb1006
Bead Cluster1	4	0	0	0	0	0	2	0
Bead Cluster2	3	0	0	0	0	0	0	0
Bead Cluster3	653	689	136	4	11	6	4	8
Bead Cluster4	50	2	3	0	0	0	0	0
Bead Cluster5	0	112	0	0	0	0	0	0
Bead Cluster6	0	13	0	0	1	0	0	0
Townsend (40Bt89-91)	1	1	0	0	1	0	0	0
Altamaha Town (38Bu20)	7	0	1	0	0	0	0	0
Peachtree (31Ce1)	0	0	0	0	0	0	0	0
Mialoquo (40Mr3)	0	2	1	0	0	0	0	0
Notley Mound	14	19	0	0	0	0	0	0
Nacoochee Mound (9Wh3)	0	1	0	0	0	0	3	0
Hiwassee Old Town (40Pk3)	7	5	0	0	2	0	0	0
Tomotley (40Mr5)	0	23	10	0	0	0	0	0
Chatooga (38Oc18)	8	39	0	2	0	0	0	0
Coweta Creek (31Ma34)	25	12	0	0	0	0	0	0

	IIb18	IIb27	IIb32	IIb39	IIb56	IIb67	IIb990	IIbb12
Bead Cluster1	0	0	0	0	1	0	0	0
Bead Cluster2	0	0	0	0	2	0	0	0
Bead Cluster3	12	2	2	16	8	1152	5	29
Bead Cluster4	0	0	0	0	0	2	113	0
Bead Cluster5	2	0	0	0	0	4	0	0
Bead Cluster6	1993	0	1	1	0	0	0	0
Townsend (40Bt89-91)	0	0	0	0	0	0	0	1
Altamaha Town (38Bu20)	0	0	0	0	0	1	0	0
Peachtree (31Ce1)	0	0	0	1	0	0	0	0
Mialoquo (40Mr3)	0	0	0	0	0	0	0	0
Notley Mound	1	0	0	0	0	2	0	5
Nacoochee Mound (9Wh3)	0	0	0	0	0	0	0	2
Hiwassee Old Town (40Pk3)	8	0	2	1	0	0	0	0
Tomotley (40Mr5)	0	0	0	0	0	0	0	0
Chatooga (38Oc18)	14	0	0	0	0	0	0	3
Coweta Creek (31Ma34)	18	0	1	0	0	0	0	0

	IIbb15	IIbb24	IIbb27	IIga	IIgb	IIj	IVa11sd	IVa5
Bead Cluster1	0	0	0	0	1	0	2815	1
Bead Cluster2	0	0	0	29	0	0	0	0
Bead Cluster3	5	9	8	8	7	49	1	114
Bead Cluster4	0	8	1	0	0	0	0	1177
Bead Cluster5	0	1	0	0	0	13	0	1
Bead Cluster6	0	0	0	0	0	0	0	1
Townsend (40Bt89-91)	0	1	0	0	0	1	0	4
Altamaha Town (38Bu20)	0	0	1	0	0	0	0	0
Peachtree (31Ce1)	0	0	0	0	0	1	0	0
Mialoquo (40Mr3)	0	0	0	0	0	0	0	0
Notley Mound	0	5	0	0	0	5	0	10
Nacoochee Mound (9Wh3)	0	0	0	0	3	1	0	1
Hiwassee Old Town (40Pk3)	0	3	0	0	0	5	0	4
Tomotley (40Mr5)	0	0	0	0	0	0	0	7
Chatooga (38Oc18)	0	1	0	0	0	5	0	29
Coweta Creek (31Ma34)	0	0	0	0	0	1	0	6

	IVa5sd	IVasd	IVb990	IVbsd	IVbb3	IaSd	WIIc	WIId
Bead Cluster1	6	6368	0	513	0	0	0	0
Bead Cluster2	0	19	23	0	0	0	0	0
Bead Cluster3	141	10	6	1	16	2	50	89
Bead Cluster4	2255	0	0	0	3	0	0	0
Bead Cluster5	2	1	0	0	0	0	125	0
Bead Cluster6	0	0	0	0	0	293	16	0
Townsend (40Bt89-91)	6	0	0	0	0	0	0	0
Altamaha Town (38Bu20)	2	0	0	0	0	0	2	0
Peachtree (31Ce1)	172	0	0	0	0	12	1	0
Mialoquo (40Mr3)	9	0	0	0	0	8	0	0
Notley Mound	2	0	0	0	1	0	5	0
Nacoochee Mound (9Wh3)	0	0	0	0	0	0	0	0
Hiwassee Old Town (40Pk3)	3	0	0	0	0	7	17	18
Tomotley (40Mr5)	427	0	0	0	0	58	3	0
Chatooga (38Oc18)	0	0	0	0	1	34	17	1
Coweta Creek (31Ma34)	127	0	0	0	0	56	1	0

	WIIe	WIb	WIc	WIcb
Bead Cluster1	0	0	0	0
Bead Cluster2	0	0	0	0
Bead Cluster3	1	1270	67	0
Bead Cluster4	0	0	0	0
Bead Cluster5	3	103	506	475
Bead Cluster6	0	44	47	0
Townsend (40Bt89-91)	0	0	0	0
Altamaha Town (38Bu20)	0	0	0	0
Peachtree (31Ce1)	0	8	4	193
Mialoquo (40Mr3)	0	4	49	66
Notley Mound	0	0	1	0
Nacoochee Mound (9Wh3)	0	0	1	1
Hiwassee Old Town (40Pk3)	1	15	4	3
Tomotley (40Mr5)	0	43	2	1632
Chatooga (38Oc18)	0	1	2	0
Coweta Creek (31Ma34)	0	5	0	0

APPENDIX B1: RIM SHERD DATA FROM TOWNSEND SITES

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-829	276	Townsend-1	Globular Jar	Crushed Rock	Coarse	Burnished
99-1062	279	Townsend-1	Globular Jar	Crushed Rock	Coarse	Smoothed
99-829	273	Townsend-1	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-1078	333	Townsend-1	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-1078	334	Townsend-1	Indeterminate	Shell	Smoothed	Smoothed
99-1064	252	Townsend-1	Indeterminate	Grit	Smoothed	Smoothed/Smudged
99-809	324	Townsend-1	Indeterminate	Shell	Smoothed	Smoothed
99-1044	307	Townsend-1	Indeterminate	Shell	Smoothed	Smoothed
99-1073	283	Townsend-1	Indeterminate	Shell	Smoothed	Smoothed
99-1078	330	Townsend-1	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
99-1078	336	Townsend-1	Indeterminate	Crushed Rock	Eroded	Burnished/Smudged
99-839	284	Townsend-1	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-842	268	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1045	262	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1078	329	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1091	260	Townsend-1	Globular Jar	Crushed Rock	Cord Marked	Burnished
99-1657	14	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1657	12	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1039	272	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1044	312	Townsend-1	Globular Jar	Crushed Rock	Coarse	Smoothed
99-1062	284	Townsend-1	Globular Jar	Shell	Smoothed	Smoothed
99-1078	335	Townsend-1	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-1295	254	Townsend-1	Globular Jar	Crushed Rock	Coarse	Burnished
99-10	322	Townsend-1	Globular Jar	Crushed Rock	Coarse	Coarse
99-1062	281	Townsend-1	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-1062	282	Townsend-1	Restricted Orifice Bowl	Crushed Rock	Cord Marked	Smoothed
99-1045	261	Townsend-1	Restricted Orifice Bowl	Shell	Smoothed	Smoothed
99-809	322	Townsend-1	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished
99-809	323	Townsend-1	Restricted Orifice Bowl	Shell	Smoothed	Smoothed
99-829	275	Townsend-1	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished
99-10	321	Townsend-1	Globular Jar	Crushed Rock	Burnished	Smoothed

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-1078	332	Townsend-1	Globular Jar	Crushed Rock	Smoothed	Eroded
99-1657	13	Townsend-1	Simple Bowl	Shell	Smoothed	Smoothed
99-1044	313	Townsend-1	Simple Bowl	Crushed Rock	Burnished	Burnished
99-3237	308	Townsend-2	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3245	354	Townsend-2	Globular Jar	Shell	Smoothed	Smoothed
99-3245	360	Townsend-2	Globular Jar	Crushed Rock	Coarse	Smoothed
99-5605	5	Townsend-2	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-11629	163	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-11629	164	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-11629	165	Townsend-2	Indeterminate	Shell	Smoothed/Smudged	Smoothed
99-3245	347	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-3245	349	Townsend-2	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3245	351	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-3254	362	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-3254	363	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-3256	264	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-11388	251	Townsend-2	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-11629	168	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-3245	348	Townsend-2	Indeterminate	Shell	Smoothed	Smoothed
99-5048	255	Townsend-2	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-6369	3	Townsend-2	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
99-3237	306	Townsend-2	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-3241	290	Townsend-2	Globular Jar	Crushed Rock	Indeterminate Stamped	Burnished/Smudged
99-3241	301	Townsend-2	Globular Jar	Grit	Smoothed	Burnished/Smudged
99-3241	302	Townsend-2	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3245	355	Townsend-2	Globular Jar	Shell	Smoothed	Smoothed
99-3245	361	Townsend-2	Globular Jar	Shell	Eroded	Smoothed
99-3255	256	Townsend-2	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-6391	4	Townsend-2	Globular Jar	Crushed Rock	Coarse	Burnished/Smudged
99-3237	309	Townsend-2	Globular Jar	Crushed Rock	Coarse	Burnished/Smudged
99-11629	169	Townsend-2	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished/Smudged
99-3245	353	Townsend-2	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished/Smudged

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-3245	356	Townsend-2	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished/Smudged
99-845	275	Townsend-2	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-935	278	Townsend-2	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-3245	358	Townsend-2	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished/Smudged
99-3237	307	Townsend-2	Simple Bowl	Shell	Smoothed	Smoothed
00-248	251	Townsend-3	Globular Jar	Crushed Rock	Coarse	Smoothed
00-381	323	Townsend-3	Globular Jar	Crushed Rock	Smoothed	Smoothed
00-381	332	Townsend-3	Globular Jar	Crushed Rock	Smoothed	Smoothed/Smudged
00-334	406	Townsend-3	Globular Jar	Crushed Rock	Smoothed	Smoothed
00-357	267	Townsend-3	Globular Jar	Crushed Rock	Smoothed	Smoothed
00-363	152	Townsend-3	Globular Jar	Crushed Rock	Smoothed	Smoothed
00-381	326	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-381	327	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-255	281	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-236	252	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Burnished/Smudged
00-265	263	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-334	405	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
00-334	408	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Burnished/Smudged
00-363	141	Townsend-3	Indeterminate	Grit	Linear Stamped Indeterminate	Burnished
00-363	142	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
00-363	143	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-363	144	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-363	145	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-363	149	Townsend-3	Indeterminate	Crushed Rock	Eroded	Smoothed
00-381	324	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-381	331	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-401	337	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-401	338	Townsend-3	Indeterminate	Shell	Smoothed	Smoothed
00-381	329	Townsend-3	Indeterminate	Crushed Rock	Smoothed	Smoothed
00-236	253	Townsend-3	Globular Jar	Crushed Rock	Coarse	Smoothed
00-363	153	Townsend-3	Globular Jar	Crushed Rock	Cord Marked	Smoothed
00-401	336	Townsend-3	Globular Jar	Crushed Rock	Cord Marked	Smoothed

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-11461	1	Townsend-3	Globular Jar	Crushed Rock	Smoothed	Smoothed
00-263	259	Townsend-3	Restricted Orifice Bowl	Crushed Rock	Burnished	Burnished
00-334	411	Townsend-3	Simple Bowl	Crushed Rock	Smoothed	Smoothed
99-10039	265	Townsend-4	Globular Jar	Shell	Eroded	Eroded
99-9220	262	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-10676	262	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-2924	375	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished
99-2924	377	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Bunished
99-3053	271	Townsend-4	Globular Jar	Shell	Smoothed	Smoothed
99-9159	6	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-9220	263	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-11094	13	Townsend-4	Globular Jar	Shell	Smoothed	Smoothed
99-2899	271	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed/Smudged
99-2924	363	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed/Smudged
99-2924	3740	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished
99-2948	261	Townsend-4	Globular Jar	Grit	Smoothed	Smoothed
99-3005	255	Townsend-4	Globular Jar	Grit	Smoothed	Smoothed
99-3021	328	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3021	329	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3052	257	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3892	320	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8707	2	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-11418	261	Townsend-4	Cazuela	Crushed Rock	Incised	Smoothed
99-2923	349	Townsend-4	Cazuela	Crushed Rock	Incised	Burnished
99-2924	361	Townsend-4	Cazuela	Crushed Rock	Smoothed	Smoothed
99-2924	372	Townsend-4	Cazuela	Crushed Rock	Incised	Smoothed
99-2954	277	Townsend-4	Cazuela	Crushed Rock	Incised	Smoothed
99-3764	270	Townsend-4	Cazuela	Crushed Rock	Incised	Smoothed
99-3834	371	Townsend-4	Cazuela	Crushed Rock	Incised	Eroded
99-8598	263	Townsend-4	Cazuela	Crushed Rock	Incised	Burnished/Smudged
99-3027	260	Townsend-4	Globular Jar	Crushed Rock	Scraped	Smoothed
99-3834	367	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed/Smudged

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-8282	347	Townsend-4	Globular Jar	Crushed Rock	Burnished/Smudged	Burnished/Smudged
99-8598	264	Townsend-4	Globular Jar	Grit	Linear Stamped Indeterminate	Smoothed/Smudged
99-8642	258	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed/Smudged
99-2883	254	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2923	353	Townsend-4	Indeterminate	Crushed Rock	Coarse	Smoothed
99-2924	379	Townsend-4	Indeterminate	Grit	Smoothed	Burnished/Smudged
99-3852	342	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-4248	1	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
99-10056	255	Townsend-4	Indeterminate	Crushed Rock	Eroded	Smoothed
99-11418	262	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2924	360	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2924	364	Townsend-4	Indeterminate	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-2924	365	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2924	366	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2950	268	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2956	257	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Burnished
99-3021	323	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3021	324	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3052	258	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
99-3074	277	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3113	285	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3834	360	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Burnished/Smudged
99-3852	341	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-4245	11	Townsend-4	Indeterminate	Crushed Rock	Eroded	Burnished
99-8599	265	Townsend-4	Indeterminate	Crushed Rock	Linear Stamped Indeterminate	Smoothed/Smudged
99-8607	254	Townsend-4	Indeterminate	Grit	Smoothed	Redfilmed
99-8712	15	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8825	16	Townsend-4	Indeterminate	Crushed Rock	Coarse	Smoothed
99-8827	277	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8855	273	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8855	274	Townsend-4	Indeterminate	Crushed Rock	Coarse	Smoothed
99-8855	275	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-8873	258	Townsend-4	Indeterminate	Grit	Smoothed	Smoothed
99-8890	260	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8890	261	Townsend-4	Indeterminate	Crushed Rock	Eroded	Smoothed
99-8983	293	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-9057	262	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-9058	261	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-9157	265	Townsend-4	Indeterminate	Crushed Rock	Indeterminate Stamped	Burnished/Smudged
99-9170	289	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-9204	255	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Burnished/Smudged
99-11087	23	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2890	256	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2895	33	Townsend-4	Indeterminate	Grit	Smoothed	Smoothed
99-2923	348	Townsend-4	Indeterminate	Crushed Rock	Eroded	Coarse
99-2954	278	Townsend-4	Indeterminate	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-3021	327	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3051	8	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Burnished
99-3113	284	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3764	222	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Burnished
99-3835	266	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3852	337	Townsend-4	Indeterminate	Crushed Rock	Eroded	Smoothed
99-3888	274	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8282	349	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8282	351	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8596	258	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8599	266	Townsend-4	Indeterminate	Grit	Linear Stamped Indeterminate	Smoothed/Smudged
99-8658	298	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8669	262	Townsend-4	Indeterminate	Crushed Rock	Indeterminate Stamped	Smoothed
99-8681	25	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8852	255	Townsend-4	Indeterminate	Crushed Rock	Coarse	Burnished
99-8862	265	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-8895	287	Townsend-4	Indeterminate	Grit	Smoothed	Burnished/Smudged
99-9170	288	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-3115	257	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3834	364	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3852	310	Townsend-4	Indeterminate	Crushed Rock	Coarse	Coarse
99-8282	352	Townsend-4	Indeterminate	Crushed Rock	Coarse	Smoothed
99-8596	259	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
99-8600	257	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Burnished
99-8833	7	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-9170	290	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-3021	326	Townsend-4	Indeterminate	Grit	Smoothed	Smoothed
99-3834	361	Townsend-4	Indeterminate	Crushed Rock	Brushed	Smoothed/Smudged
99-8598	262	Townsend-4	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-9089	288	Townsend-4	Indeterminate	Crushed Rock	Indeterminate Stamped	Smoothed
99-2950	267	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished
99-2924	369	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished
99-11094	11	Townsend-4	Globular Jar	Crushed Rock	Curvilinear Complicated Stamped	Smoothed
99-2950	269	Townsend-4	Globular Jar	Crushed Rock	Coarse	Smoothed
99-9151	261	Townsend-4	Globular Jar	Crushed Rock	Indeterminate Stamped	Smoothed
99-9156	263	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Burnished
99-8282	348	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8282	350	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8949	11	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-10083	2	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished
99-10093	15	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-11094	12	Townsend-4	Globular Jar	Crushed Rock	Coarse	Burnished
99-2885	262	Townsend-4	Globular Jar	Grit	Smoothed	Smoothed
99-2923	351	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-2924	359	Townsend-4	Globular Jar	Grit	Smoothed	Smoothed
99-2924	362	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-2924	376	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed/Smudged
99-2924	378	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-2939	269	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-3021	325	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-3053	270	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3053	273	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3053	274	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3764	27	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-3801	270	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-3852	338	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-3888	275	Townsend-4	Globular Jar	Crushed Rock	Indeterminate Stamped	Smoothed
99-3888	276	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8282	331	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Eroded
99-8614	9	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8658	297	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8658	303	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8707	261	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8828	38	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8855	278	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8862	266	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed/Smudged
99-8876	271	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8877	257	Townsend-4	Globular Jar	Grit	Smoothed	Smoothed
99-8893	258	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8894	277	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-8983	294	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed/Smudged
99-8983	296	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-8983	297	Townsend-4	Globular Jar	Crushed Rock	Indeterminate Stamped	Burnished
99-9058	260	Townsend-4	Globular Jar	Crushed Rock	Cord Marked	Smoothed
99-9089	287	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-9156	256	Townsend-4	Globular Jar	Crushed Rock	Coarse	Smoothed
99-9156	260	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Burnished/Smudged
99-9156	261	Townsend-4	Globular Jar	Crushed Rock	Coarse	Burnished/Smudged
99-9161	1	Townsend-4	Globular Jar	Crushed Rock	Burnished	Burnished/Smudged
99-9192	14	Townsend-4	Globular Jar	Grit	Smoothed	Smoothed
99-2924	380	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Burnished
99-2934	267	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Linear Stamped Indeterminate	Smoothed

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-3016	266	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-8894	278	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Indeterminate Stamped	Smoothed
99-3068	275	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Indeterminate Stamped	Smoothed
99-3834	359	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Eroded	Smoothed
99-9171	8	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-10037	255	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed/Smudged
99-2895	32	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-3852	339	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-3852	340	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-9149	4	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed/Smudged
99-2946	253	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-8282	354	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Cord Marked	Smoothed
99-8282	356	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Indeterminate Stamped	Smoothed
99-8625	3	Townsend-4	Restricted Orifice Bowl	Grit	Linear Stamped Indeterminate	Burnished/Smudged
99-9148	252	Townsend-4	Restricted Orifice Bowl	Grit	Smoothed	Smoothed
99-9159	7	Townsend-4	Restricted Orifice Bowl	Crushed Rock	Indeterminate Stamped	Smoothed/Smudged
99-9171	9	Townsend-4	Simple Bowl	Crushed Rock	Complicated Stamped	Burnished/Smudged
99-2923	347	Townsend-4	Simple Bowl	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-2924	374	Townsend-4	Simple Bowl	Crushed Rock	Cord Marked	Smoothed
99-3019	258	Townsend-4	Simple Bowl	Crushed Rock	Smoothed	Smoothed
99-3074	276	Townsend-4	Simple Bowl	Crushed Rock	Smoothed	Smoothed
99-3892	284	Townsend-4	Simple Bowl	Crushed Rock	Coarse	Smoothed
99-3009	286	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-10061	1	Townsend-4	Globular Jar	Crushed Rock	Indeterminate Stamped	Smoothed
99-2924	368	Townsend-4	Globular Jar	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-3053	272	Townsend-4	Globular Jar	Grit	Cord Marked	Burnished/Smudged
99-8282	355	Townsend-4	Globular Jar	Grit	Punctated (Reed)	Smoothed
99-9023	6	Townsend-4	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-11	251	Townsend-5	Globular Jar	Shell	Smoothed	Smoothed
99-2180	253	Townsend-5	Cazuela	Crushed Rock	Incised	Burnished/Smudged
99-2180	254	Townsend-5	Cazuela	Crushed Rock	Incised	Smoothed
99-2180	255	Townsend-5	Cazuela	Crushed Rock	Incised	Burnished

Provenience Code	Specimen Number	Household	Vessel Form	Temper Material	Exterior Surface Treatment	Interior Surface Treatment
99-2184	259	Townsend-5	Cazuela	Crushed Rock	Incised	Burnished/Smudged
99-2188	253	Townsend-5	Cazuela	Crushed Rock	Incised	Burnished
99-2202	253	Townsend-5	Cazuela	Crushed Rock	Incised	Burnished
99-2202	262	Townsend-5	Cazuela	Crushed Rock	Incised	Smoothed/Smudged
99-2171	290	Townsend-5	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-11	254	Townsend-5	Indeterminate	Shell	Smoothed	Smoothed
99-2171	291	Townsend-5	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2202	255	Townsend-5	Indeterminate	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-11	252	Townsend-5	Indeterminate	Shell	Smoothed	Smoothed
99-13	256	Townsend-5	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-2171	294	Townsend-5	Indeterminate	Crushed Rock	Incised	Smoothed
99-2184	258	Townsend-5	Indeterminate	Crushed Rock	Incised	Smoothed
99-2171	292	Townsend-5	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-2202	254	Townsend-5	Globular Jar	Crushed Rock	Smoothed	Smoothed
99-4581	351	Townsend-6	Indeterminate	Crushed Rock	Linear Stamped Indeterminate	Smoothed
99-2973	252	Townsend-6	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-890	10	Townsend-6	Indeterminate	Grit	Linear Stamped Indeterminate	Smoothed
99-36	264	Townsend-6	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-906	259	Townsend-6	Indeterminate	Crushed Rock	Smoothed	Smoothed/Smudged
99-4581	354	Townsend-6	Indeterminate	Crushed Rock	Smoothed	Smoothed
99-50	258	Townsend-6	Restricted Orifice Bowl	Crushed Rock	Smoothed	Smoothed
99-866	285	Townsend-6	Globular Jar	Grit	Smoothed	Smoothed

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-829	276	Folded	Yes	Folded	Pinched	15.94	28
99-1062	279	Thickened/Flattened	Yes	Applied	Pinched	18.11	0
99-829	273	Thickened/Flattened	Yes	Applied	Pinched	14.8	27
99-1078	333	Folded	Yes	Folded	Stylus Notched	12.8	0
99-1078	334	Folded	Yes	Folded	Stylus Notched	23.8	0
99-1064	252	Indeterminate	Indeterminate	Indeterminate	Punctated	0	0
99-809	324	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-1044	307	Thickened	Yes	Applied	Stylus Notched	17.22	0
99-1073	283	Thickened	Yes	Applied	Stylus Notched	21.91	0
99-1078	330	Thickened	Yes	Applied	Stylus Notched	0	0
99-1078	336	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-839	284	Thickened	Yes	Indeterminate	Stylus Notched	15.12	0
99-842	268	Unmodified	No			0	21
99-1045	262	L-Shaped	Yes	Applied	Pinched	11.94	16
99-1078	329	Folded	Yes	Folded	Stylus Notched	12.8	40
99-1091	260	Folded	Yes	Folded	Stylus Notched	17.05	32
99-1657	14	Folded	Yes	Folded	Stylus Notched	21.24	0
99-1657	12	Folded/Flattened	Yes	Folded	Stylus Notched	20.89	0
99-1039	272	Thickened	Yes	Indeterminate	Stylus Notched	20	0
99-1044	312	Thickened	Yes	Applied	Stylus Notched	19.91	0
99-1062	284	Thickened	Yes	Applied	Stylus Notched	19.65	0
99-1078	335	Thickened	Yes	Applied	Stylus Notched	16.89	0
99-1295	254	Thickened	Yes	Indeterminate	Stylus Notched	14.6	0
99-10	322	Thickened/Flattened	Yes	Applied	Stylus Notched	31.7	35
99-1062	281	Folded	Yes	Folded	Smoothed	13.32	11
99-1062	282	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-1045	261	Thickened	Yes	Applied	Punctated	11.27	0
99-809	322	Thickened	Yes	Applied	Stylus Notched	14.97	26
99-809	323	Thickened	Yes	Applied	Stylus Notched	18	24
99-829	275	Thickened	Yes	Indeterminate	Punctated	10.17	0
99-10	321	Rolled	Indeterminate	Indeterminate	Indeterminate	0	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-1078	332	Rolled	No			0	0
99-1657	13	Thickened/Flattened	Yes	Applied (Fillet)	Stylus Notched	33	0
99-1044	313	Unmodified	No			0	22
99-3237	308	Thickened	Yes	Applied	Pinched	13.38	34
99-3245	354	Thickened	Yes	Indeterminate	Pinched	18	0
99-3245	360	Thickened	Yes	Indeterminate	Pinched	21.24	32
99-5605	5	Thickened	Yes	Indeterminate	Pinched	10.96	0
99-11629	163	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-11629	164	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-11629	165	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3245	347	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3245	349	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3245	351	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3254	362	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3254	363	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3256	264	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-11388	251	Thickened	Yes	Indeterminate	Stylus Notched	14.62	0
99-11629	168	Thickened	Yes	Indeterminate	Pinched	19.12	0
99-3245	348	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-5048	255	Thickened	Yes	Indeterminate	Stylus Notched	10.63	0
99-6369	3	Thickened	Yes	Indeterminate	Stylus Notched	13.44	0
99-3237	306	Thickened	Yes	Indeterminate	Stylus Notched	11.3	0
99-3241	290	Thickened	Yes	Applied	Stylus Notched	11.48	16
99-3241	301	Thickened	Yes	Indeterminate	Stylus Notched	11.75	0
99-3241	302	Thickened	Yes	Applied	Stylus Notched	13	38
99-3245	355	Thickened	Yes	Applied	Stylus Notched	12.52	0
99-3245	361	Thickened	Yes	Applied	Stylus Notched	10.37	36
99-3255	256	Thickened	Yes	Indeterminate	Stylus Notched	10.83	26
99-6391	4	Thickened	Yes	Indeterminate	Stylus Notched	12.78	0
99-3237	309	Folded/Flattened	Yes	Folded	Pinched	12.62	34
99-11629	169	Thickened	Yes	Indeterminate	Stylus Notched	15.14	0
99-3245	353	Thickened	Yes	Folded	Punctated	11.9	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-3245	356	Thickened	Yes	Folded	Punctated	13.1	22
99-845	275	Thickened	Yes	Indeterminate	Punctated	15.94	0
99-935	278	Thickened	Yes	Indeterminate	Punctated	17.12	0
99-3245	358	Thickened/Flattened	Yes	Indeterminate	Smoothed	0	0
99-3237	307	Unmodified	No			0	0
00-248	251	Folded	Yes	Folded	Pinched	19.6	0
00-381	323	Thickened	Yes	Applied	Pinched	15.04	0
00-381	332	Thickened	Yes	Applied	Pinched	20.5	0
00-334	406	Thickened	Yes	Applied	Smoothed	20.7	0
00-357	267	Thickened	Yes	Applied	Smoothed	14.66	36
00-363	152	Thickened	Yes	Applied	Smoothed	20.6	28
00-381	326	Folded/Flattened	Yes	Folded	Pinched	14.6	0
00-381	327	Folded/Flattened	Yes	Folded	Pinched	0	0
00-255	281	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
00-236	252	Thickened	Yes	Applied	Pinched	15.6	0
00-265	263	Thickened	Yes	Applied	Stylus Notched	17.56	0
00-334	405	Thickened	Yes	Applied	Stylus Notched	15.5	0
00-334	408	Thickened	Yes	Applied	Smoothed	13.62	0
00-363	141	Thickened	Yes	Applied	Smoothed	19.6	0
00-363	142	Thickened	Yes	Indeterminate	Smoothed	14.7	0
00-363	143	Thickened	Yes	Indeterminate	Pinched	24.3	0
00-363	144	Thickened	Yes	Indeterminate	Stylus Notched	15.92	0
00-363	145	Thickened	Yes	Applied	Smoothed	16.65	0
00-363	149	Thickened	Yes	Applied	Stylus Notched	17.81	0
00-381	324	Thickened	Yes	Indeterminate	Stylus Notched	11.72	0
00-381	331	Thickened	Yes	Indeterminate	Stylus Notched	12.16	0
00-401	337	Thickened	Yes	Indeterminate	Indeterminate	0	0
00-401	338	Thickened	Yes	Applied (Fillet)	Punctated	0	0
00-381	329	Unmodified	No			0	0
00-236	253	Thickened	Yes	Applied	Stylus Notched	18.49	0
00-363	153	Thickened	Yes	Applied	Stylus Notched	19.16	0
00-401	336	Thickened	Yes	Applied	Stylus Notched	10.59	26

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-11461	1	Thickened/Flattened	Yes	Indeterminate	Pinched	12.6	0
00-263	259	Unmodified	No			0	0
00-334	411	Thickened	Yes	Indeterminate	Smoothed	20.38	0
99-10039	265	Folded	Yes	Folded	Pinched	17.06	0
99-9220	262	Folded	Yes	Folded	Pinched	0	0
99-10676	262	Thickened	Yes	Applied	Pinched	20.67	0
99-2924	375	Thickened	Yes	Applied	Pinched	22	0
99-2924	377	Thickened	Yes	Applied	Pinched	21.6	0
99-3053	271	Thickened	Yes	Applied (Fillet)	Pinched	11.4	0
99-9159	6	Thickened	Yes	Applied	Pinched	16.18	0
99-9220	263	Thickened	Yes	Indeterminate	Pinched	22.14	32
99-11094	13	Thickened/Flattened	Yes	Applied (Fillet)	Pinched	17	37
99-2899	271	Thickened/Flattened	Yes	Indeterminate	Pinched	19.5	0
99-2924	363	Thickened/Flattened	Yes	Indeterminate	Pinched	24.2	0
99-2924	3740	Thickened/Flattened	Yes	Indeterminate	Pinched	23.4	0
99-2948	261	Thickened/Flattened	Yes	Applied	Pinched	23.75	28
99-3005	255	Thickened/Flattened	Yes	Applied	Pinched	22.42	0
99-3021	328	Thickened/Flattened	Yes	Indeterminate	Pinched	18.85	0
99-3021	329	Thickened/Flattened	Yes	Indeterminate	Pinched	17.8	0
99-3052	257	Thickened/Flattened	Yes	Indeterminate	Pinched	17.3	0
99-3892	320	Thickened/Flattened	Yes	Applied	Pinched	13.2	0
99-8707	2	Thickened/Flattened	Yes	Applied	Pinched	21.9	0
99-11418	261	Unmodified	No			0	0
99-2923	349	Unmodified	No			0	0
99-2924	361	Unmodified	No			0	0
99-2924	372	Unmodified	No			0	0
99-2954	277	Unmodified	No			0	0
99-3764	270	Unmodified	No			0	0
99-3834	371	Unmodified	No			0	0
99-8598	263	Unmodified	No			0	0
99-3027	260	Thickened	Yes	Applied	Smoothed	22.7	32
99-3834	367	Thickened	Yes	Applied	Indeterminate	21.1	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-8282	347	Unmodified	No			0	0
99-8598	264	Unmodified	No			0	15
99-8642	258	Unmodified	No			0	0
99-2883	254	Folded/Flattened	Yes	Folded	Pinched	14.9	0
99-2923	353	Folded/Flattened	Yes	Folded	Smoothed	0	0
99-2924	379	Folded/Flattened	Yes	Folded	Pinched	0	0
99-3852	342	Folded/Flattened	Yes	Folded	Smoothed	11.4	0
99-4248	1	Folded/Flattened	Yes	Folded	Smoothed	22.01	0
99-10056	255	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-11418	262	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-2924	360	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-2924	364	Indeterminate	Yes	Indeterminate	Indeterminate	0	0
99-2924	365	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-2924	366	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-2950	268	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-2956	257	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3021	323	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3021	324	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3052	258	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3074	277	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3113	285	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3834	360	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-3852	341	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-4245	11	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8599	265	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8607	254	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8712	15	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8825	16	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	22
99-8827	277	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8855	273	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8855	274	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8855	275	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-8873	258	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8890	260	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8890	261	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-8983	293	Indeterminate	Yes	Indeterminate	Pinched	0	0
99-9057	262	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-9058	261	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-9157	265	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-9170	289	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-9204	255	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-11087	23	Thickened	Yes	Indeterminate	Smoothed	21	0
99-2890	256	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-2895	33	Thickened	Yes	Indeterminate	Pinched	18.1	0
99-2923	348	Thickened	Yes	Applied	Indeterminate	0	0
99-2954	278	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-3021	327	Thickened	Yes	Folded	Smoothed	15.8	0
99-3051	8	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-3113	284	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-3764	222	Thickened	Yes	Indeterminate	Pinched	0	0
99-3835	266	Thickened	Yes	Applied	Stylus Notched	0	0
99-3852	337	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-3888	274	Thickened	Yes	Indeterminate	Pinched	0	0
99-8282	349	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-8282	351	Thickened	Yes	Indeterminate	Indeterminate	22.3	0
99-8596	258	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-8599	266	Thickened	Indeterminate	Indeterminate	Indeterminate	0	0
99-8658	298	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-8669	262	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-8681	25	Thickened	Yes	Applied	Stylus Notched	12.06	0
99-8852	255	Thickened	Yes	Indeterminate	Stylus Notched	20.52	0
99-8862	265	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-8895	287	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-9170	288	Thickened	Yes	Indeterminate	Pinched	0	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-3115	257	Thickened/Flattened	Yes	Indeterminate	Pinched	17.92	0
99-3834	364	Thickened/Flattened	Yes	Indeterminate	Pinched	15.38	0
99-3852	310	Thickened/Flattened	Yes	Indeterminate	Smoothed	16.74	0
99-8282	352	Thickened/Flattened	Yes	Indeterminate	Smoothed	20.28	0
99-8596	259	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-8600	257	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-8833	7	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-9170	290	Thickened/Flattened	Yes	Indeterminate	Indeterminate	0	0
99-3021	326	Unmodified	No			0	0
99-3834	361	Unmodified	No			0	0
99-8598	262	Unmodified	No			0	0
99-9089	288	Unmodified	No			0	0
99-2950	267	Unmodified	No			0	0
99-2924	369	Thickened	Yes	Applied	Stylus Notched	19.62	0
99-11094	11	Folded/Flattened	Yes	Folded	Pinched	15.5	35
99-2950	269	Folded/Flattened	Yes	Folded	Pinched	19	0
99-9151	261	Folded/Flattened	Yes	Folded	Pinched	16.76	0
99-9156	263	Folded/Flattened	Yes	Folded	Pinched	18.82	0
99-8282	348	Thickened	Yes	Indeterminate	Pinched	0	0
99-8282	350	Thickened	Yes	Applied	Pinched	24.12	0
99-8949	11	Thickened	Yes	Indeterminate	Pinched	0	0
99-10083	2	Thickened/Flattened	Yes	Indeterminate	Pinched	22.47	0
99-10093	15	Thickened/Flattened	Yes	Indeterminate	Pinched	10.44	0
99-11094	12	Thickened/Flattened	Yes	Applied	Pinched	21.5	0
99-2885	262	Thickened/Flattened	Yes	Indeterminate	Pinched	20.78	0
99-2923	351	Thickened/Flattened	Yes	Indeterminate	Pinched	12.06	0
99-2924	359	Thickened/Flattened	Yes	Indeterminate	Pinched	22.02	0
99-2924	362	Thickened/Flattened	Yes	Applied	Pinched	21	0
99-2924	376	Thickened/Flattened	Yes	Indeterminate	Pinched	21	0
99-2924	378	Thickened/Flattened	Yes	Indeterminate	Pinched	24	0
99-2939	269	Thickened/Flattened	Yes	Applied	Pinched	17.44	0
99-3021	325	Thickened/Flattened	Yes	Applied	Pinched	23.25	34

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-3053	270	Thickened/Flattened	Yes	Indeterminate	Pinched	12.8	0
99-3053	273	Thickened/Flattened	Yes	Indeterminate	Pinched	17.5	0
99-3053	274	Thickened/Flattened	Yes	Applied	Pinched	18.9	0
99-3764	27	Thickened/Flattened	Yes	Applied	Pinched	0	0
99-3801	270	Thickened/Flattened	Yes	Indeterminate	Pinched	20.92	0
99-3852	338	Thickened/Flattened	Yes	Applied	Pinched	14.72	0
99-3888	275	Thickened/Flattened	Yes	Indeterminate	Pinched	21.15	0
99-3888	276	Thickened/Flattened	Yes	Indeterminate	Pinched	20.2	0
99-8282	331	Thickened/Flattened	Yes	Indeterminate	Pinched	15.88	0
99-8614	9	Thickened/Flattened	Yes	Applied	Pinched	21.12	0
99-8658	297	Thickened/Flattened	Yes	Applied	Pinched	15	0
99-8658	303	Thickened/Flattened	Yes	Indeterminate	Pinched	23.58	0
99-8707	261	Thickened/Flattened	Yes	Applied	Pinched	14.89	0
99-8828	38	Thickened/Flattened	Yes	Applied	Pinched	10.06	0
99-8855	278	Thickened/Flattened	Yes	Applied	Pinched	21.9	18
99-8862	266	Thickened/Flattened	Yes	Applied	Pinched	14.75	34
99-8876	271	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-8877	257	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-8893	258	Thickened/Flattened	Yes	Applied	Smoothed	24.5	0
99-8894	277	Thickened/Flattened	Yes	Applied	Pinched	14.9	0
99-8983	294	Thickened/Flattened	Yes	Indeterminate	Pinched	15.5	0
99-8983	296	Thickened/Flattened	Yes	Applied	Pinched	24	0
99-8983	297	Thickened/Flattened	Yes	Applied	Pinched	21.08	0
99-9058	260	Thickened/Flattened	Yes	Applied	Pinched	15.22	0
99-9089	287	Thickened/Flattened	Yes	Indeterminate	Pinched	23.2	0
99-9156	256	Thickened/Flattened	Yes	Indeterminate	Pinched	0	30
99-9156	260	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-9156	261	Thickened/Flattened	Yes	Indeterminate	Pinched	0	0
99-9161	1	Thickened/Flattened	Yes	Indeterminate	Pinched	0	16
99-9192	14	Thickened/Flattened	Yes	Indeterminate	Pinched	22.05	0
99-2924	380	Folded	Yes	Folded	Punctated	13.28	0
99-2934	267	Folded/Flattened	Yes	Folded	Smoothed	0	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-3016	266	Folded/Flattened	Yes	Folded	Punctated	11.7	0
99-8894	278	Folded/Flattened	Yes	Folded	Indeterminate	0	0
99-3068	275	Indeterminate	Indeterminate	Indeterminate	Punctated	0	0
99-3834	359	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-9171	8	Thickened	Yes	Applied	Smoothed	19.46	0
99-10037	255	Thickened/Flattened	Yes	Indeterminate	Punctated	0	0
99-2895	32	Thickened/Flattened	Yes	Indeterminate	Smoothed	11.82	0
99-3852	339	Thickened/Flattened	Yes	Indeterminate	Pinched	25.8	34
99-3852	340	Thickened/Flattened	Yes	Indeterminate	Pinched	20.8	0
99-9149	4	Thickened/Flattened	Yes	Indeterminate	Pinched	11.23	0
99-2946	253	Unmodified	No			0	18
99-8282	354	Unmodified	No			0	0
99-8282	356	Unmodified	No			0	0
99-8625	3	Unmodified	No		Punctated	0	0
99-9148	252	Unmodified	No			0	0
99-9159	7	Unmodified	No			0	17
99-9171	9	Thickened/Flattened	Yes	Applied	Pinched	12.18	24
99-2923	347	Unmodified	No			0	0
99-2924	374	Unmodified	No			0	0
99-3019	258	Unmodified	No		Pinched	0	0
99-3074	276	Unmodified	No			0	0
99-3892	284	Unmodified	No			0	0
99-3009	286	Thickened	Yes	Indeterminate	Stylus Notched	12.29	0
99-10061	1	Unmodified	No			0	0
99-2924	368	Unmodified	No			0	0
99-3053	272	Unmodified	No			0	16
99-8282	355	Unmodified	No			0	11
99-9023	6	Unmodified	No			0	0
99-11	251	Thickened	Yes	Applied	Pinched	16.3	35
99-2180	253	Unmodified	No			0	0
99-2180	254	Unmodified	No			0	0
99-2180	255	Unmodified	No			0	0

Provenience Code	Specimen Number	Rim Form	Rimstrip Present	Method of Attachment	Basic Rimstrip Embellishment	Rimstrip Width	Estimated Orifice Diameter
99-2184	259	Unmodified	No			0	0
99-2188	253	Unmodified	No			0	0
99-2202	253	Unmodified	No			0	0
99-2202	262	Unmodified	No			0	0
99-2171	290	Unmodified	No			0	0
99-11	254	Folded	Yes	Folded	Pinched	11.03	0
99-2171	291	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-2202	255	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-11	252	Thickened	Yes	Indeterminate	Indeterminate	16.28	0
99-13	256	Thickened	Yes	Indeterminate	Indeterminate	19.21	0
99-2171	294	Unmodified	No			0	0
99-2184	258	Unmodified	No			0	0
99-2171	292	Thickened/Flattened	Yes	Applied	Pinched	17.03	0
99-2202	254	Thickened/Flattened	Yes	Indeterminate	Pinched	21.93	0
99-4581	351	Folded/Flattened	Yes	Folded	Smoothed	7.68	0
99-2973	252	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-890	10	Indeterminate	Indeterminate	Indeterminate	Indeterminate	0	0
99-36	264	Thickened	Yes	Indeterminate	Stylus Notched	13	0
99-906	259	Thickened	Yes	Indeterminate	Indeterminate	0	0
99-4581	354	Thickened/Flattened	Yes	Indeterminate	Pinched	21.84	0
99-50	258	Unmodified	No			0	0
99-866	285	Rolled	No			0	0

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-829	276	20	3.76
99-1062	279	0	2.81
99-829	273	6	3.95
99-1078	333	0	4.12
99-1078	334	0	1.64
99-1064	252	0	0
99-809	324	0	0
99-1044	307	0	7.73
99-1073	283	0	7.01
99-1078	330	0	0
99-1078	336	0	0
99-839	284	0	5.3
99-842	268	12	0
99-1045	262	7	3.42
99-1078	329	7	4.16
99-1091	260	11	2.87
99-1657	14	0	2.8
99-1657	12	0	1.9
99-1039	272	0	3.42
99-1044	312	0	6.02
99-1062	284	0	6.98
99-1078	335	0	5.62
99-1295	254	0	4.44
99-10	322	5	4.4
99-1062	281	5	4
99-1062	282	0	0
99-1045	261	0	3.33
99-809	322	5	4.87
99-809	323	5	5.88
99-829	275	0	2.94
99-10	321	0	0

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-1078	332	0	0
99-1657	13	0	2.34
99-1044	313	6	0
99-3237	308	9	8.6
99-3245	354	0	7.94
99-3245	360	7	4.33
99-5605	5	0	4.6
99-11629	163	0	0
99-11629	164	0	0
99-11629	165	0	0
99-3245	347	0	0
99-3245	349	0	0
99-3245	351	0	0
99-3254	362	0	0
99-3254	363	0	0
99-3256	264	0	0
99-11388	251	0	5.63
99-11629	168	0	6.08
99-3245	348	0	0
99-5048	255	0	3
99-6369	3	0	4.6
99-3237	306	0	3.26
99-3241	290	12	3.3
99-3241	301	0	2.95
99-3241	302	6	4.06
99-3245	355	0	7.4
99-3245	361	9	5.82
99-3255	256	17	4.17
99-6391	4	0	8.37
99-3237	309	12	0.5
99-11629	169	0	4.38
99-3245	353	0	5.5

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-3245	356	5	6.03
99-845	275	0	0
99-935	278	0	0
99-3245	358	0	0
99-3237	307	0	0
00-248	251	0	8.8
00-381	323	0	6.38
00-381	332	0	7
00-334	406	0	7.59
00-357	267	6	6.03
00-363	152	9	7.65
00-381	326	0	1.66
00-381	327	0	0
00-255	281	0	0
00-236	252	0	4.2
00-265	263	0	7.36
00-334	405	0	7.34
00-334	408	0	6.98
00-363	141	0	7.18
00-363	142	0	6.57
00-363	143	0	7.7
00-363	144	0	6.23
00-363	145	0	8.16
00-363	149	0	6.82
00-381	324	0	4.5
00-381	331	0	3.35
00-401	337	0	0
00-401	338	0	0
00-381	329	0	0
00-236	253	0	7.2
00-363	153	0	8.42
00-401	336	9	4.68

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-11461	1	0	0.78
00-263	259	0	0
00-334	411	0	5.15
99-10039	265	0	5.11
99-9220	262	0	5.53
99-10676	262	0	6.77
99-2924	375	0	7.02
99-2924	377	0	4.97
99-3053	271	0	3.78
99-9159	6	0	7.08
99-9220	263	6	6.08
99-11094	13	10	2.08
99-2899	271	0	2.74
99-2924	363	0	6.48
99-2924	3740	0	2.08
99-2948	261	7	4.29
99-3005	255	0	4.2
99-3021	328	0	3.14
99-3021	329	0	2.08
99-3052	257	0	3.18
99-3892	320	0	3.33
99-8707	2	0	1.8
99-11418	261	0	0
99-2923	349	0	0
99-2924	361	0	0
99-2924	372	0	0
99-2954	277	0	0
99-3764	270	0	0
99-3834	371	0	0
99-8598	263	0	0
99-3027	260	10	9
99-3834	367	0	5.48

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-8282	347	0	0
99-8598	264	5	0
99-8642	258	0	0
99-2883	254	0	2.8
99-2923	353	0	0
99-2924	379	0	0
99-3852	342	0	2.92
99-4248	1	0	1.05
99-10056	255	0	0
99-11418	262	0	0
99-2924	360	0	0
99-2924	364	0	0
99-2924	365	0	0
99-2924	366	0	0
99-2950	268	0	0
99-2956	257	0	0
99-3021	323	0	0
99-3021	324	0	0
99-3052	258	0	0
99-3074	277	0	0
99-3113	285	0	0
99-3834	360	0	0
99-3852	341	0	0
99-4245	11	0	0
99-8599	265	0	0
99-8607	254	0	0
99-8712	15	0	0
99-8825	16	6	0
99-8827	277	0	0
99-8855	273	0	0
99-8855	274	0	0
99-8855	275	0	0

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-8873	258	0	0
99-8890	260	0	0
99-8890	261	0	0
99-8983	293	0	0
99-9057	262	0	0
99-9058	261	0	0
99-9157	265	0	0
99-9170	289	0	0
99-9204	255	0	0
99-11087	23	0	4.07
99-2890	256	0	0
99-2895	33	0	6.24
99-2923	348	0	0
99-2954	278	0	0
99-3021	327	0	0
99-3051	8	0	0
99-3113	284	0	0
99-3764	222	0	0
99-3835	266	0	0
99-3852	337	0	0
99-3888	274	0	0
99-8282	349	0	0
99-8282	351	0	0
99-8596	258	0	0
99-8599	266	0	0
99-8658	298	0	0
99-8669	262	0	0
99-8681	25	0	6.34
99-8852	255	0	7.06
99-8862	265	0	0
99-8895	287	0	0
99-9170	288	0	0

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-3115	257	0	3.55
99-3834	364	0	5.04
99-3852	310	0	2.74
99-8282	352	0	2.18
99-8596	259	0	0
99-8600	257	0	0
99-8833	7	0	0
99-9170	290	0	0
99-3021	326	0	0
99-3834	361	0	0
99-8598	262	0	0
99-9089	288	0	0
99-2950	267	0	0
99-2924	369	0	5.4
99-11094	11	12	2.19
99-2950	269	0	2.3
99-9151	261	0	2.58
99-9156	263	0	2.76
99-8282	348	0	4.39
99-8282	350	0	0
99-8949	11	0	0
99-10083	2	0	2.92
99-10093	15	0	1.42
99-11094	12	0	3.33
99-2885	262	0	4.5
99-2923	351	0	2.25
99-2924	359	0	2.04
99-2924	362	0	5.7
99-2924	376	0	2.47
99-2924	378	0	2.3
99-2939	269	0	3
99-3021	325	6	4.2

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-3053	270	0	1.47
99-3053	273	0	2.04
99-3053	274	0	1.5
99-3764	27	0	0
99-3801	270	0	2.52
99-3852	338	0	1.5
99-3888	275	0	3.66
99-3888	276	0	2.08
99-8282	331	0	1.16
99-8614	9	0	2.37
99-8658	297	0	2.54
99-8658	303	0	2.58
99-8707	261	0	2.38
99-8828	38	0	2.9
99-8855	278	7	4.75
99-8862	266	6	2.76
99-8876	271	0	0
99-8877	257	0	1.21
99-8893	258	0	1.78
99-8894	277	0	2.94
99-8983	294	0	0
99-8983	296	0	1.11
99-8983	297	0	4.04
99-9058	260	0	2.45
99-9089	287	0	1.58
99-9156	256	7	0
99-9156	260	0	0
99-9156	261	0	0
99-9161	1	5	0
99-9192	14	0	4.02
99-2924	380	0	3.1
99-2934	267	0	0

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-3016	266	0	1.3
99-8894	278	0	0
99-3068	275	0	0
99-3834	359	0	0
99-9171	8	0	3.92
99-10037	255	0	1.4
99-2895	32	0	0
99-3852	339	5	2.17
99-3852	340	0	2.97
99-9149	4	0	1.74
99-2946	253	12	0
99-8282	354	0	0
99-8282	356	0	0
99-8625	3	0	0
99-9148	252	0	0
99-9159	7	5	0
99-9171	9	12	2.68
99-2923	347	0	0
99-2924	374	0	0
99-3019	258	0	0
99-3074	276	0	0
99-3892	284	0	0
99-3009	286	0	7.04
99-10061	1	0	0
99-2924	368	0	0
99-3053	272	7	0
99-8282	355	8	0
99-9023	6	0	0
99-11	251	5	5.85
99-2180	253	0	0
99-2180	254	0	0
99-2180	255	0	0

Provenience Code	Specimen Number	Percent of Rim	Coronal Thickness
99-2184	259	0	0
99-2188	253	0	0
99-2202	253	0	0
99-2202	262	0	0
99-2171	290	0	0
99-11	254	0	2.75
99-2171	291	0	0
99-2202	255	0	0
99-11	252	0	3.08
99-13	256	0	0
99-2171	294	0	0
99-2184	258	0	0
99-2171	292	0	1.45
99-2202	254	0	2.19
99-4581	351	0	1
99-2973	252	0	0
99-890	10	0	0
99-36	264	0	3.11
99-906	259	0	0
99-4581	354	0	1.51
99-50	258	0	0
99-866	285	0	0

APPENDIX B2: HOUSEHOLD CERAMIC DISTRIBUTION

	Plain		Burnished		Coarse Plain		Indeterminate Stamped		Indeterminate Linear Stamped	
	n	%	n	%	n	%	n	%	n	%
House 1										
Gravel	139	31	14	3	74	16	21	5	15	3
Shell	113	25	3	<1	0	0	0	0	0	0
Grit	5	1	3	<1	4	<1	4	<1	5	1
Total	**257**	**56**	**20**	**4**	**78**	**17**	**25**	**5**	**20**	**4**
House 2										
Gravel	46	13	2	<1	52	15	20	6	18	5
Shell	166	47	2	<1	0	0	0	0	0	0
Grit	1	<1	0	0	0	0	3	<1	1	<1
Total	**257**	**61**	**4**	**1**	**52**	**15**	**23**	**7**	**19**	**5**
House 3										
Gravel	206	43	1	<1	92	19	22	4	39	8
Shell	25	5	0	0	0	0	0	0	0	0
Grit	17	4	4	<1	1	<1	1	<1	0	0
Total	**248**	**52**	**5**	**1**	**93**	**20**	**23**	**5**	**39**	**8**
House 4										
Gravel	402	18	9	<1	209	9	397	18	556	25
Shell	39	0	0	0	0	0	0	0	0	0
Grit	26	1	1	<1	0	0	18	<1	70	3
Total	**467**	**21**	**10**	**<1**	**209**	**9**	**415**	**19**	**626**	**28**
House 5										
Gravel	20	18	0	0	12	11	9	8	20	18
Shell	10	0	0	0	0	0	0	0	0	0
Grit	0	0	0	0	0	0	0	0	0	0
Total	**30**	**26**	**0**	**0**	**12**	**11**	**9**	**8**	**20**	**18**
House 6										
Gravel	25	17	0	0	1	1	21	14	44	30
Shell	1	<1	0	0	0	0	0	0	0	0
Grit	1	<1	0	0	0	0	2	1	13	9
Total	**27**	**18**	**0**	**0**	**1**	**<1**	**23**	**15**	**57**	**39**

	Complicated Stamped		Curvilinear Complicated Stamped		Simple Stamped		CordM arked		Scraped	
	n	%	n	%	n	%	n	%	n	%
House 1										
Gravel	0	0	4	<1	0	0	14	3	5	1
Shell	0	0	0	0	0	0	0	0	32	7
Grit	0	0	0	0	0	0	0	0	0	0
Total	**0**	**0**	**4**	**<1**	**0**	**0**	**14**	**3**	**37**	**8**
House 2										
Gravel	2	<1	1	<1	2	<1	3	<1	9	3
Shell	0	0	0	0	0	0	0	0	15	4
Grit	0	0	1	<1	0	0	1	<1	2	<1
Total	**2**	**<1**	**2**	**<1**	**2**	**<1**	**4**	**1**	**26**	**7**
House 3										
Gravel	1	<1	14	3	2	<1	39	8	8	2
Shell	0	0	0	0	0	0	0	0	1	<1
Grit	0	0	1	<1	0	0	0	0	0	0
Total	**1**	**<1**	**15**	**3**	**2**	**<1**	**39**	**8**	**9**	**2**
House 4										
Gravel	41	2	84	4	21	<1	297	13	29	1
Shell	0	0	0	0	0	0	0	0	2	<1
Grit	7	<1	16	<1	0	0	2	<1	1	<1
Total	**48**	**2**	**100**	**4**	**21**	**<1**	**299**	**13**	**32**	**1**
House 5										
Gravel	0	0	2	2	0	0	36	32	1	<1
Shell	0	0	0	0	0	0	0	0	0	0
Grit	1	<1	0	0	0	0	0	0	0	0
Total	**1**	**<1**	**2**	**2**	**0**	**0**	**36**	**32**	**1**	**<1**
House 6										
Gravel	2	1	21	14	1	<1	8	5	1	<1
Shell	0	0	0	0	0	0	0	0	1	<1
Grit	0	0	5	3	0	0	0	0	0	0
Total	**2**	**1**	**26**	**18**	**1**	**<1**	**8**	**5**	**2**	**1**

	Incised		Brushed		**Total**	
	n	%	n	%	**n**	**%**
House 1						
Gravel	0	0	0	0	**286**	**63**
Shell	0	0	0	0	**148**	**32**
Grit	0	0	0	0	**21**	**5**
Total	**0**	**0**	**0**	**0**	**455**	**100**
House 2						
Gravel	0	0	3	<1	**158**	**45**
Shell	0	0	0	0	**183**	**52**
Grit	0	0	0	0	**9**	**3**
Total	**0**	**0**	**3**	**<1**	**350**	**100**
House 3						
Gravel	2	<1	1	<1	**427**	**90**
Shell	0	0	0	0	**26**	**5**
Grit	0	0	0	0	**24**	**5**
Total	**2**	**<1**	**1**	**<1**	**477**	**100**
House 4						
Gravel	6	<1	6	<1	**2057**	**92**
Shell	0	0	0	0	**41**	**2**
Grit	0	0	0	0	**141**	**6**
Total	**6**	**<1**	**6**	**<1**	**2239**	**100**
House 5						
Gravel	3	3	0	0	**103**	**91**
Shell	0	0	0	0	**10**	**9**
Grit	0	0	0	0	**1**	**<1**
Total	**3**	**3**	**0**	**0**	**114**	**100**
House 6						
Gravel	0	0	0	0	**124**	**85**
Shell	0	0	0	0	**2**	**1**
Grit	0	0	0	0	**21**	**14**
Total	**0**	**0**	**0**	**0**	**147**	**100**

APPENDIX C1: ARCHITECTURAL DATA FOR CHEROKEE MISSISSIPPIAN DOMESTIC STRUCTURES.

Site	Structure	Period	Structure Shape	Number of Hearths[a]	Total Posts	Floor Area (m^2)	Post Density ($posts/m^2$)	Standardized Post Density[c]
Alarka	Sw273-1	Historic	Octagonal	1	98	40.00	2.45	1.60
Chattooga	Oc18-1	Historic	Circular	1	54[b]	40.00	1.35	0.88
Chattooga	Oc18-2	Historic	Circular	1	80[b]	50.25	1.59	1.04
Chota	Mr2-1	Historic	Circular	1	40	36.88	1.08	0.71
Chota	Mr2-5	Historic	Octagonal	1	33	38.55	0.86	0.56
Chota	Mr2-6	Historic	Octagonal	1	57	32.14	1.77	1.16
Chota	Mr2-10	Historic	Octagonal	0	57	41.99	1.36	0.89
Chota	Mr2-12	Historic	Circular	0	48	38.55	1.24	0.81
Chota	Mr2-14	Historic	Circular	0	26	33.54	0.78	0.51
Chota	Mr2-15	Historic	Octagonal	0	45	35.30	1.27	0.83
Chota	Mr2-16	Historic	Circular	1	69	35.77	1.93	1.26
Chota	Mr2-18	Historic	Octagonal	0	77	40.60	1.90	1.24
Chota	Mr2-20	Historic	Circular	0	22	29.17	0.75	0.49
Chota	Mr2-25	Historic	Circular	0	36	38.55	0.93	0.61
Chota	Mr2-27	Historic	Circular	0	35	35.30	0.99	0.65
Coweeta Creek	Ma34-3	Mississippian	Square	3	441[b]	40.97	10.76	2.50
Coweeta Creek	Ma34-4	Mississippian	Square	2	339[b]	30.10	11.26	2.61
Coweeta Creek	Ma34-5	Mississippian	Square	5	343[b]	49.15	6.98	1.62
Coweeta Creek	Ma34-6	Mississippian	Square	2	462[b]	37.16	12.43	2.88
Coweeta Creek	Ma34-7	Mississippian	Circular	4	601[b]	61.32	9.80	2.27
Coweeta Creek	Ma34-8	Mississippian	Square	3	266[b]	37.07	7.18	1.66
King	King-4	Mississippian	Square	1	187[b]	29.73	6.29	1.46
Mialoquo	Mr3-1	Historic	Circular	2	48	40.30	1.19	0.78
Tanasee	Mr62-3	Historic	Circular	1	80	38.55	2.07	1.36
Tanasee	Mr62-5	Historic	Circular	2	42	38.55	1.09	0.71
Toqua	Mr6-13	Mississippian	Square	3	131	41.71	3.14	0.73
Toqua	Mr6-15	Mississippian	Square	0	244	33.45	7.30	1.69
Toqua	Mr6-2	Mississippian	Square	4	596	85.56	6.97	1.62
Toqua	Mr6-4	Mississippian	Square	4	179	35.30	5.07	1.18
Toqua	Mr6-9	Mississippian	Square	1	116	27.13	4.28	0.99
Toqua	Mr6-18	Mississippian	Square	5	499	36.42	13.70	3.18
Toqua	Mr6-19	Mississippian	Square	1	194	31.77	6.11	1.42

Site	Structure	Period	Structure Shape	Number of Hearths[a]	Total Posts	Floor Area (m^2)	Post Density (posts/m^2)	Standardized Post Density[c]
Toqua	Mr6-22	Mississippian	Square	1	176	40.41	4.36	1.01
Toqua	Mr6-23	Mississippian	Square	2	157	39.02	4.02	0.93
Toqua	Mr6-24	Mississippian	Square	2	193	47.01	4.11	0.95
Toqua	Mr6-30	Mississippian	Square	1	157	49.42	3.18	0.74
Toqua	Mr6-33	Mississippian	Square	1	273	53.88	5.07	1.18
Toqua	Mr6-39	Mississippian	Square	6	389	37.16	10.47	2.43
Toqua	Mr6-104	Historic	Circular	1	69	29.17	2.37	1.55
Toqua	Mr6-118	Mississippian	Square	2	193	62.80	3.07	0.71
Toqua	Mr6-57	Mississippian	Square	1	73	18.58	3.93	0.91
Toqua	Mr6-58	Mississippian	Square	1	75	18.58	4.04	0.94
Toqua	Mr6-59	Historic	Circular	1	59	30.66	1.92	1.26
Townsend	Bt89-1	Historic	Circular	1	22	44.31	0.50	0.32
Townsend	Bt91-8	Historic	Octagonal	1	56	38.08	1.47	0.96
Townsend	Bt90-12	Historic	Circular	1	75	44.29	1.69	1.18
Townsend	Bt90-22	Historic	Octagonal	1	54	45.31	1.19	0.78
Townsend	Bt90-47	Historic	Octagonal	1	53	36.70	1.44	0.94
Tuckaseegee	Jk12-1	Historic	Octagonal	1	30 [b]	38.60	0.78	0.51

[a]The lack of hearths in many structures is due to plow disturbance.
[b]These values were determined by the author by counting the posts in published scale drawings.
[c]Standardization involved dividing the post density values by the median post density of non-rebuilt houses (the median values are 4.1 for Mississippian houses and 1.53 for Cherokee houses).

APPENDIX C2: SUMMARY DATA RELATED TO CHEROKEE ARCHAEOLOGICAL FEATURES

Site	Associated Household	Feature	Feature Type	Major Axis (cm)	Minor Axis (cm)	Depth (cm)	Estimated Pit Volume (liters)	Distance to Structure (m)	Number of Zones	Median Sherd Size (cm)	Sherd Size Range (cm)	Pottery Density (sherds/liter)
40Bt89	1	16	Small Basin	130	123	19	127.89	19.5	1	2	1-6	0.03
		18	Medium Basin	150	130	25	242.86	3.0	2	3	2-3	0.01
		21	Large Pit	174	170	38	489.22	6.5	1	2	<1-6	0.29
		23	Medium Pit	158	148	37	228.38	7.5	2	3	1-11	0.44
		38	Small Basin	88	86	32	147.23	7.5	1	2	1-6	0.18
		44	Small Basin	114	112	18	98.38	15.0	2	2	1-8	0.66
		45	Small Pit	82	68	28	92.99	11.0	2	2	2	0.01
		48	Medium Bell-shaped Pit	141	98	34	244.70	6.0	2	2.5	<1-10	0.03
		50	Medium Pit	130	120	29	247.26	4.0	2	2	1-4	0.28
		55	Small Basin	109	100	25	98.53	4.0	1	2.5	1-15	0.89
		56	Hearth	71	40	9	n/a	0.0	n/a	n/a	n/a	n/a
		59	Fired Surface	n/a	n/a	n/a	n/a	0.0	n/a	n/a	n/a	n/a
		143	Burial	156	144	n/a	n/a	26.0	n/a	n/a	n/a	n/a
	None	24	Small Basin	118	107	22	121.40	n/a	1	3	3-7	0.02
40Bt90	2	936	Medium Basin	150	150	26	258.47	2.5	1	3	1-15	0.23
		995	Small Pit (Interior)	46	43	26	14.23	0.0	1	2	1-4	0.42
		996	Hearth	58	53	6	n/a	0.0	1	n/a	n/a	n/a

Site	Associated Household	Feature	Feature Type	Major Axis (cm)	Minor Axis (cm)	Depth (cm)	Estimated Pit Volume (liters)	Distance to Structure (m)	Number of Zones	Median Sherd Size (cm)	Sherd Size Range (cm)	Pottery Density (sherds/liter)
		1019	Medium Pit	133	133	40	309.15	8.0	1	2.5	1-14	1.05
		1020	Small Basin	121	114	17	110.11	10.0	1	3	2-5	0.08
	3	130	Large Pit	166	134	31	442.38	6.0	2	2	1-22	0.67
		135	Medium Pit	146	142	46	288.73	8.5	2	2	1-6	0.56
		438	Depressed Area	162	158	n/a	n/a	0.0	3	2	1-6	n/a
		443	Small Pit	147	127	25	111.57	1.5	1	2.5	2-4	0.05
		453	Burial	80	60	n/a	n/a	5.0	n/a	n/a	n/a	n/a
		455	Small Pit	96	96	12	38.87	2.5	1	2	1-5	0.98
		1115	Hearth	41	41	16	n/a	0.0	n/a	n/a	n/a	n/a
	4	118	Hearth	192	102	43	n/a	0.0	n/a	n/a	n/a	n/a
		702	Medium Bell-shaped Pit	96	90	46	183.48	2.5	4	2	1-6	0.16
		703	Fired Surface	n/a	n/a	n/a	n/a	0.0	n/a	n/a	n/a	n/a
		705	Medium Pit	132	124	40	306.43	5.5	3	3	1-11	0.96
		706	Small Pit (Interior)	53	40	37	34.17	0.0	1	2	1-3	0.23
		707	Small Pit (Interior)	62	58	27	55.57	0.0	3	4	1-5	0.05
		711	Hearth	60	50	13	n/a	0.0	n/a	n/a	n/a	n/a
		722	Depressed Area	144	124	11	72.02	7.5	1	2	1-3	0.12
		1996	Small Pit	49	24	23	34.16	9.0	1	4	3-7	0.09
		2000	Small Pit (Interior)	44	40	40	48.83	4.0	1	3	1-9	1.49
		2022	Small Pit (Interior)	56	48	28	37.22	0.0	1	2	1-12	0.62

Site	Associated Household	Feature	Feature Type	Major Axis (cm)	Minor Axis (cm)	Depth (cm)	Estimated Pit Volume (liters)	Distance to Structure (m)	Number of Zones	Median Sherd Size (cm)	Sherd Size Range (cm)	Pottery Density (sherds/liter)
		2141	Large Pit	146	140	42	404.41	10.5	1	3	2-14	0.08
40Bt91	5	94	Hearth	59	24	3	n/a	0.0	n/a	n/a	n/a	n/a
		497	Small Pit	110	105	21	236.53	5.0	3	2	1-11	0.42
		509	Small Pit	100	85	28	201.69	19.0	2	2	1-3	0.11
	6	390	Small Pit	104	96	20	68.69	7.5	1	2	1-4	0.22
		391	Small Pit	89	78	18	47.22	7.5	1	2	1-3	0.11
		392	Small Pit	99	87	22	97.22	7.0	1	1.5	1-2	0.02
		394	Hearth	79	46	6	n/a	0.0	n/a	n/a	n/a	n/a
	None	438	Large Historic Feature	438	142	42	n/a	n/a	2	2	1-6	n/a

REFERENCES CITED

Abler, Thomas S.
1992 Beavers and Muskets: Iroquois Military Fortunes in the Face of European Colonization. In *War in the Tribal Zone: Expanding States and Indigenous Warfare*, edited by R.B. Ferguson and N.L. Whitehead, pp.151-174. School of American Research Press, Santa Fe.

Adair, James
1986[1775] *A History of the North American Indians*. Promontory Press, New York.

Allen, John, Doreen Massey, and Allen Cochrane
1998 *Rethinking the Region.* Routledge, New York.

Allison, Penelope M.
1999 Introduction. In *The Archaeology of Household Activities*, edited by P.M. Allison, pp. 1-18. Routledge, London.

Anderson, Benedict
1991 *Imagined Communities: Reflections on the Origins and Spread on Nationalism*. Verso, London.

Appadurai, Arjun
1997 The Production of Locality. In *Modernity at Large*, by A. Appadurai, pp. 178-200. University of Minnesota Press, Minneapolis.

Ashley, Keith H.
1988 Effects of European and American Colonization of the Southeast on Upper Creek Settlement Patterns: 1700-1800. Unpublished Master's thesis, Department of Anthropology, Florida State University.

Baden, William W.
1983 *Tomotley: An Eighteenth Century Cherokee Village*. Report of Investigations 36. Department of Anthropology, University of Tennessee, Knoxville.

Barker, Eirlys M.
1993 "Much Blood and Treasure": South Carolina's Indian Traders, 1670-1755. Unpublished Ph.D. dissertation, Department of History, The College of William and Mary, Virginia.
2001 Indian Traders, Charles Town, and London's Vital Links to the Interior of North America, 1717-1755. In *Money, Trade, and Power: The Evolution of Colonial South Carolina's Plantation Society*, edited by J.P. Greene, R. Brana-Shute, and R.J. Sparks, pp.141-165. University of South Carolina Press, Columbia.

Barnwell, John
1719 Census of Indians of South Carolina and Nearby, 1715. Records in the British Public Record Office Relating to South Carolina, 1663-1717, Vol.7, pp. 233-239. Microfilm, Charleston County Public Library, Charleston.

Barth, Fredrik
1969 Introduction. In *Ethnic Groups and Boundaries: The Social Organization of Culture Difference*, edited by F. Barth, pp. 9-38. Little and Brown, Boston.

Bartram, William
1996[1791] Travels Through North and South Carolina, Georgia, East and West Florida, the Cherokee Country, the Extensive Territories of the Muscogulges or Creek Confederacy, and the Country of the Chactaws. In *Bartram: Travels and Other Writings*, edited by T.P. Slaughter, pp.3-426. Literary Classics, New York.

Bass, Quentin R.
1977 Prehistoric Settlement and Subsistence Patterns in the Great Smoky Mountains. Unpublished Master's thesis, Department of Anthropology, University of Tennessee, Knoxville.

Bates, James F.
1986 Aboriginal Ceramic Artifacts. In *Overhill Cherokee Archaeology at Chota-Tanasee*, edited by G. F. Schroedl, pp. 289-331. Report of Investigations 38. Department of Anthropology, University of Tennessee, Knoxville.

Bauxar, Joseph J.
1957a Yuchi Ethnoarchaeology, Part I: Some Yuchi Identifications Reconsidered. *Ethnohistory* 4(3):279-301.
1957b Yuchi Ethnoarchaeology: Parts II-V. *Ethnohistory* 4(4):369-464.

Baxter, Michael J.
1994 *Exploratory Multivariate Analysis in Archaeology.* Edinburgh University Press, Edinburgh.

Bech, Jens-Henrik
1988 Correspondence Analysis and Pottery Chronology. In *Multivariate Archaeology: Numerical Approaches in Scandinavian Archaeology*, edited by Torsten Madsen, pp. 29-35. Aarhus University Press, Aarhus.

Bennett, Monte
1983 Glass Trade Beads from Central New York. In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by C.F. Hayes III, pp. 51-58. Research Records 16, Rochester Museum and Science Center, Rochester.

Bentz, Charles Jr., and Lance Greene
1991 A*rchaeological Investigations at the Site 40BT47: A Multicomponent Site in the Eastern Ridge and Valley of East Tennessee.* Draft report submitted to the Tennessee Department of Transportation, Nashville

Blakely, Robert L., editor
1988 *The King Site: Continuity and Contact in Sixteenth-Century Georgia.* University of Georgia Press, Athens.

Blanton, Richard E.
1994 *Houses and Households: A Comparative Study*. Plenum Press, New York.

Blew, Joseph O., and John W. Kulp
1964 *Service records on treated and untreated fence posts*. U.S. Forest Services Research Note FPL-068. Forest Products Laboratory, Forest Service, USDA, Madison, Wisconsin.

Bogan, Arthur E., Lori LaValley, and Gerald F. Schroedl
1986 Faunal Remains. In *Overhill Cherokee Archaeology at Chota-Tanasee,* edited by G. F. Schroedl, pp. 469-514. Report of Investigations 38. Department of Anthropology, University of Tennessee, Knoxville.

Bolstad, Paul V., and Ted L. Gragson
2008 Resource Abundance Constraints on the Early Post-contact Cherokee Population. *Journal of Archaeological Science* 35:563-576.

Bonnefoy, Antoine
1916[1741] Journal. In *Travels in the American Colonies*, edited by N.D. Mereness, pp. 239-258. MacMillan Company, New York.

Bourdieu, Pierre
1977 *Outline of a Theory of Practice*. Cambridge University Press. New York.

Bowne, Eric E.
2005 *The Westo Indians: Slave Traders of the Early Colonial South*. University of Alabama Press, Tuscaloosa.
2006 "A Bold and Warlike People": The Basis of Westo Power. In *Light on the Path: The Anthropology and History of the Southeastern Indians,* edited by T.J. Pluckhahn and R. Ethridge, pp. 123-132. University of Alabama Press, Tuscaloosa.

Boyd, Robert, and Peter J. Richerson
1987 The Evolution of Ethnic Markers. *Cultural Anthropology* 2:65-79.

Brain, Jeffrey P.
1970 *Archaeological Survey of the Lower Yazoo Basin, Mississippi, 1949-1955*. Research Paper 25, Peabody Museum of American Archaeology and Ethnology, Cambridge.
1979 *Tunica Treasure*. Papers of the Peabody Museum of Archaeology and Ethnology No. 71. Harvard University, Cambridge.

Braun, E. Lucy
1950 *Deciduous Forests of Eastern North America*. The Blakiston Company, Garden City, New Jersey.

Braund, Kathryn, E.
1993 *Deerskins and Duffels: The Creek Indian Trade with Anglo-America, 1686-1815*. University of Nebraska Press, Lincoln.

Briceland, Alan V.
1987 *Westward from Virginia: The Exploration of the Virginia-Carolina Frontier, 1650-1710.* University Press of Virginia, Charlottesville.

Brown, Ian W.
1976 Glass Beads from the Early 18th-Century Portland Site, Mississippi. Manuscript on file, Gulf Coast Survey, Alabama Museum of Natural History, Tuscaloosa.
1979 Bells. In *Tunica Treasure*, edited by J.P. Brain, pp. 197-205. Papers of the Peabody Museum of Archaeology and Ethnology No. 71. Harvard University, Cambridge.

Brown, M. Lee
1980 *Firearms in Colonial America*. Smithsonian Institution Press, Washington D.C.

Bushnell, Amy T.
1994 *Situado and Sabana: Spain's Support System for the Presidio and Mission Provinces of Florida*. Anthropological Papers No.74. American Museum of Natural History, New York.

Bushnell, David I., Jr.
1907 Discoveries Beyond the Appalachian Mountains in September, 1671. *American Anthropologist* 9(1):45-56.

Butler, William
2000 *Musical Handbells: A Comprehensive History of the Bells and their Founders*. Phillimore & Co., Chichester, West Sussex.

Cable, John S., and Mary B. Reed
2000 Archaeological Excavations in Brasstown Valley: Qualla/Lamar Occupations. *Early Georgia* 28(2):112-143.

Callon, Michele
1986 Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of Saint Brieuc Bay. In *Power, Action and Belief: A New Sociology of Knowledge?,* edited by J. Law pp. 196-233. Routledge and Kegan Paul, London.

Cameron, Catherine M.
1991 Structure Abandonment in Villages. *Archaeological Method and Theory* 3:115–194.

Casselberry, Samuel E.
1974 Further Refinement of Formulae for Determining Population from Floor Area. *World Archaeology* 6:117-122.

Chapman, Jefferson, and Robert Newman
1979 Archaeological Investigations at the Citico Site. In *The 1978 Archaeological Investigations at the Citico Site (40Mr7)*, edited by J. Chapman. Report submitted to the Tennessee Valley Authority, Knoxville.

Chicken, George
1894[1715] Journal of the March of the Carolinians into the Cherokee Mountains, in the Yemassee Indian War, 1715-1716. In *Year Book. City of Charleston, South Carolina, 1984*, edited by L. Cheves, pp. 324-354.
1916[1725] Journal of the Commissioner for Indian Affairs on his Journey to the Cherokees and his Proceedings There. In *Travels in the American Colonies*, edited by N.D. Mereness, pp. 95-174. MacMillan Company, New York.

Chilton, Elizabeth S.
1999 Meaningful Materials and Material Meanings: An Introduction. In *Material Meanings: Critical Approaches to the Interpretation of Material Culture*, edited by E.S. Chilton, pp. 1-6. University of Utah Press, Salt Lake City.

Clowse, Converse D.
1971 *Economic Beginnings in Colonial South Carolina, 1670-1730*. University of South Carolina Press, Columbia.

Coe, Joffrey L.
1961 Cherokee Archaeology. In *The Symposium on Cherokee and Iroquois Culture*, edited by W. N. Fenton and J. Gulick, pp. 51-61. Smithsonian Institution Press, Bureau of American Ethnology Bulletin 180, Washington, D. C.

Conkey, Margaret W.
1999 An End Note: Reframing Materiality for Archaeology. In *Material Meanings: Critical Approaches to the Interpretation of Material Culture*, edited by E.S. Chilton, pp. 133-141. University of Utah Press, Salt Lake City.

Cook, Robert A.
2007 Single Component Sites with Long Sequences of Radiocarbon Dates: The Sunwatch Site and Middle Fort Ancient Village Growth. *American Antiquity* 72:439-460.

Cook, Sherburne F.
1972 *Prehistoric Demography*. McCaleb Module in Anthropology 16. Addison-Wesley, Reading, Massachusetts.

Corkran, David H.
1962 *The Cherokee Frontier, 1740-1762*. University of Oklahoma Press, Norman.
1967 *The Creek Frontier, 1540-1783*. University of Oklahoma Press, Norman.

Cornett, B. Kenneth
1976 Excavations at Tallassee (40Bt8): An Historic Cherokee Village Site in East Tennessee. *Tennessee Archaeologist* 31:11-19).

Cowgill, George L.
1972 Models, Methods, and Techniques for Seriation. In *Models in Archaeology*, edited by D.L. Clarke, pp. 381-424. Methuen, London.

Crane, Verner W.
1916 The Tennessee River as the Road to Carolina: The Beginnings of Exploration and Trade. *The Mississippi Valley Historical Review* 3(1):3-18.
2004 *The Southern Frontier, 1670-1732*.University of Alabama Press, Tuscaloosa.

Crosby, Alfred W., Jr.
1972 *The Columbian Exchange*. Greenwood Press, Westport, Connecticut.

Cumming, William P.
1998 *The Southeast in Early Maps*. Third Edition revised and enlarged by L. DeVorsey, Jr. University of North Carolina Press, Chapel Hill.

Davis, R.P. Stephen, Jr.
2002 The Cultural Landscape of the North Carolina Piedmont at Contact. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp.135-154. University Press of Mississippi, Jackson.

Deagan, Kathleen
1987 A*rtifacts of the Spanish Colonies of Florida and the Caribbean, 1500-1800. Volume 1: Ceramics, Glassware, and Beads.* Smithsonian Institution Press, Washington, D.C.

DeBoer, Warren R.
1988 Subterranean Storage and the Organization of Surplus: The View from Eastern North America. *Southeastern Archaeology* 7:1-20.

DePratter, Chester B., and Stanley A. South
1990 *Charlesfort: The 1989 Search Project*. South Carolina Institute of Archaeology and Anthropology, Research Manuscript Series 210, Columbia.

Dickens, Roy S., Jr.
1976 *Cherokee Prehistory: The Pisgah Phase in the Appalachian Summit*. University of Tennessee Press, Knoxville.
1979 The Origins and Development of Cherokee Culture. In *The Cherokee Indian Nation: A Troubled History*, edited by D. H. King, pp. 3-32. University of Tennessee Press, Knoxville.
1985 The Form, Function, and Formation of Garbage-filled Pits on Southeastern Aboriginal Sites: An Archaeobotanical Analysis. In *Structure and Process in Southeastern Archaeology*, edited by R.S. Dickens, Jr. and H.T. Ward, pp.34-59. University of Alabama Press, Tuscaloosa.
1986 An Evolutionary-Ecological Interpretation of Cherokee Cultural Development. In *The Conference on Cherokee Prehistory*, compiled by D. G. Moore, pp. 81-94. Warren Wilson College, Swannanoa, North Carolina.

Dietler, Michael, and Ingrid Herbich
1998 Habitus, Techniques, Style: An Integrated Approach to the Social Understanding of Material Culture and Boundaries. In *The Archaeology of Social Boundaries*, edited by M.T. Stark, pp. 232-263. Smithsonian Institution Press, Washington, D.C.

Dobres, Marcia-Anne A.
1999 Technology's Links and Chaines: The Processual Unfolding of Technique and Technician. In *The Social Dynamics of Technology: Practice, Politics, and World Views*, edited by M.A. Dobres and C. Hoffman, pp. 124-146. Smithsonian Institution Press, Washington, D.C.
2000 *Technology and Social Agency*. Blackwell, Oxford.

Dobyns, Henry F.
1983 *Their Number Become Thinned: Native American Population Dynamics in Eastern North America*. University of Tennessee Press, Knoxville.

Drooker, Penelope B.
2002 The Ohio Valley, 1550-1750: Patterns of Sociopolitical Coalescence and Dispersal. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp.115-134. University Press of Mississippi, Jackson.

Duff, Andrew I.
1996 Ceramic Micro-Seriation: Types or Attributes? *American Antiquity* 61:89-101.

Duff, Meaghan N.
2001 Creating a Plantation Province: Proprietary Land Policies and Early Settlement Patterns. In *Money, Trade, and Power: The Evolution of Colonial South Carolina's Plantation Society*, edited by J.P. Greene, R. Brana-Shute, and R.J. Sparks, pp.1-25. University of South Carolina Press, Columbia.

Dunnel, Robert C.
1970 Seriation Method and Its Evaluation. *American Antiquity* 35:305-319.

Dye, David H.
2002 Warfare in the Protohistoric Southeast: 1500-1700. In *Between Contacts and Colonies: Archaeological Perspectives on the Protohistoric Southeast*, edited by C.B. Wesson and M.A. Rees, pp. 126-141. University of Alabama Press, Tuscaloosa.

Eastman, Jane,
1999 The Sara and Dan River Peoples: Siouan Communities in North Carolina's Interior Piedmont from A.D. 1000 to A.D. 1700. Unpublished Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Egloff, Brian J.
1967 An Analysis of Ceramics from Historic Cherokee Towns. Unpublished Master's thesis, Department of Anthropology, University of North Carolina, Chapel Hill.

Egloff, Keith
1980 *Colonial Plantation Hoes of Tidewater Virginia*. Research Report Series, No. 1, Virginia Department of Historic Resources, Richmond.

Emerson, Thomas E.
1997 *Cahokia and the Archaeology of Power*. University of Alabama Press, Tuscaloosa.

Esarey, Duane
2007 The 17th-century Midwestern Slave Trade in Colonial Context. Paper presented at the 2007 Midwest Archaeological Conference, South Bend, Indiana.

Ethridge, Robbie
2006 Creating the Shatterzone: Indian Slave Traders and the Collapse of the Southeastern Chiefdoms. In *Light on the Path: The Anthropology and History of the Southeastern Indians*, edited by T.J. Pluckhahn and R. Ethridge, pp. 207-218. University of Alabama Press, Tuscaloosa.

Eveleigh, Samuel
1715 Letter to John Boone and Richard Berresford, July 19, 1715. Records in the British Public Record Office Relating to South Carolina, 1663-1717, Vol.6, pp. 103-104. Microfilm, Charleston County Public Library, Charleston.

Fenstermaker, Gerald B.
1974 *Susquehanna Iroquois Colored Trade Bead Chart, 1575 - 1763*. Archaeological Research Booklet 1. Lancaster.
1978 *Tennessee Colored Bead Charts*. Archaeological Research Booklet 8. Lancaster.

Ferguson, R. Brian, and Neil L. Whitehead
1992 The Violent Edge of Empire. In *War in the Tribal Zone: Expanding States and Indigenous Warfare*, edited by R.B. Ferguson and N.L. Whitehead, pp.1-30. School of American Research Press, Santa Fe.

Fitch, Tobias
1916[1725] Journey to the Creeks. In *Travels in the American Colonies*, edited by N.D. Mereness, pp. 175-214. MacMillan Company, New York.

Fithian, Charles
1985 Firearms and Their Accoutrements in the 17th Century Chesapeake (Abstract). In *Proceedings of the 1984 Trade Gun Conference,* edited by C.F. Hayes III and J.P. Puype, pp. 105. Research Records 18, Part II, Rochester Museum and Science Center, Rochester.

Fleming, Victor K.
1976 Historic Aboriginal Occupation of the Guntersville Basin, Alabama. Unpublished Master's thesis, Department of Anthropology, University of Alabama, Tuscaloosa.

Franklin, W. Neil
1932 Virginia and the Cherokee Indian Trade, 1673-1752. *The East Tennessee Historical Society's Publications* No. 4, Knoxville.

Gallay, Alan
2002 *The Indian Slave Trade: The Rise of the English Empire in the American South, 1670 - 1717*. Yale University Press, New Haven.

Galloway, Patricia K.
1995 *Choctaw Genesis, 1500-1700*. University of Nebraska Press, Lincoln.
2002 Colonial Period Transformations in the Mississippi Valley: Disintegration, Alliance, Confederation, Playoff. In *The Transformation of the Southeastern Indians, 1540-1760,* edited by R. Ethridge and C. Hudson, pp.225-248. University Press of Mississippi, Jackson.

Gearing, Fred
1962 *Priests and Warriors: Structures for Cherokee Politics in the Eighteenth Century*. American Anthropological Association Memoir 93, Washington, D. C.

Gibson, Susan G., editor
1980 *Burr's Hill: A 17th Century Wampanoag Burial Ground in Warren, Rhode Island*. Studies in Anthropology and Material Culture Vol. 2, Haffenreffer Museum of Anthropology, Brown University, Providence, Rhode Island.

Giddens, Anthony
1979 *Central Problems in Social Theory*. MacMillan, London.

Gilbert, William H., Jr.
1943 *The Eastern Cherokee.* Smithsonian Institution, Bureau of American Ethnology Bulletin 133, Washington, D. C.

Good, Mary E.
1972 *Guebert Site: An Eighteenth Century Historic Kaskaskia Indian Village.* Memoirs No. 2. Central States Archaeological Societies, Inc., Wood River.
1983 A Comparison of Glass Beads from Upper Creek Indian Towns in the Southeast and Oklahoma. In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by C.F. Hayes III, pp. 159-166. Research Records 16, Rochester Museum and Science Center, Rochester.

Greene, Jack P.
1989 Early South Carolina and the Psychology of British Colonization. . In *Selling a New World: Two Colonial South Carolina Promotional Pamphlets*, edited by J.P. Greene, pp. 1-32. University of South Carolina Press, Columbia.

Guthe, Alfred K., and Marian Bistline
1981 *Excavations at Tomotley, 1973-74, and the Tuskegee Area: Two Reports*. Report of Investigations 24. Department of Anthropology, University of Tennessee, Knoxville.

Haan, Richard L.
1981 The "Trade Do's Not Flourish as Formerly": The Ecological Origins of the Yamassee War of 1715. *Ethnohistory* 28:341-358.

Hahn, Steven C.
2002 The Mother of Necessity: Carolina, the Creek Indians, and the Making of a New Order in the American Southeast, 1670-1763. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp. 79-114. University Press of Mississippi, Jackson.

Hally, David J.
1986a The Cherokee Archaeology of Georgia. In *The Conference on Cherokee Prehistory*, compiled by D. G. Moore, pp. 95-121. Warren Wilson College, Swannanoa, North Carolina.
1986b The Identification of Vessel Function: A Case Study from Northwest Georgia. *American Antiquity* 51:267-295.

1988 Archaeology and Settlement Plan of the King Site. In *The King Site: Continuity and Contact in Sixteenth-Century Georgia*, edited by R. L. Blakely, pp. 3-16. University of Georgia Press, Athens.

1994 An Overview of Lamar Archaeology. In *Ocmulgee Archaeology, 1936-1986*, edited by D. J. Hally, pp. 144-174. University of Georgia Press, Athens.

2002 As Caves Beneath the Ground: Making Sense of Aboriginal House Form in the Protohistoric and Historic Southeast. In *Between Contact and Colonies: Archaeological Perspectives on the Protohistoric Southeast*, edited by C. B. Wesson and M. A. Rees, pp. 90-109. University of Alabama Press, Tuscaloosa.

Hally, David J., and Hypatia Kelly

1998 The Nature of Mississippian Towns in Georgia: The King Site Example. In *Mississippian Towns and Sacred Spaces: Searching for an Architectural Grammar*, edited by R.B Lewis and C. Stout, pp. 49-63. University of Alabama Press, Tuscaloosa.

Harmon, Michael A.

1986 *Eighteenth-Century Lower Cherokee Adaptation and Use of European Material Culture*. South Carolina Institute of Archaeology and Anthropology, Volumes in Historical Archaeology 2, Columbia.

Hassan, Fekri A.

1981 *Demographic Archaeology.* Academic Press, New York.

Hatch, James W.

1995 Lamar Period Upland Farmsteads of the Oconee River Valley, Georgia. In *Mississippian Communities and Households*, edited by J. D. Rogers and B. D. Smith, pp. 135-155. University of Alabama Press, Tuscaloosa.

Hatley, M. Thomas

1995 *The Dividing Paths: Cherokees and South Carolinians Through the Era of Revolution*. Oxford University Press, Oxford.

Hayden, Brian, and Aubrey Cannon

1983 Where the Garbage Goes: Refuse Disposal in the Maya Highlands. *Journal of Anthropological Archaeology* 2:117–163.

Hegmon, Michelle

1998 Technology, Style, and Social Practices: Archaeological Approaches. In *The Archaeology of Social Boundaries*, edited by M.T. Stark, pp. 264-280. Smithsonian Institution Press, Washington, D.C.

Herbert, John
1936[1727] Journal. In *Journal of Colonel John Herbert Commissioner of Indian Affairs for the Province of South Carolina, October 17, 1727, to March 19, 1727/8*, edited by A.S. Salley, pp. 4-29. Historical Commission of South Carolina, Columbia.

Heye, George G.
1919 *Certain Mounds in Haywood County, North Carolina*. Contributions from the Museum of the American Indian 5(3):35-43, Heye Foundation, New York.

Heye, George G., Frederick W. Hodge, and George H. Pepper
1918 *The Nacoochee Mound in Georgia*. Contributions from the Museum of the American Indian 4(3):1-103, Heye Foundation, New York.

Hicks, Charles
1826 Letter to John Ross, February 1, 1826. In *Traditions and History of the Cherokee Indians to 1776*, Vol. VII., by J.H. Payne, pp. 1-4. Unpublished Microfilm on file at the Davis Library, University of North Carolina, Chapel Hill.

Hodder, Ian, and Craig Cessford
2004 Daily Practice and Social Memory at Catalhoyuk. *American Antiquity* 69:17-41.

Howard, A. Eric
1997 *An Intrasite Spatial Analysis of Surface Collections at Chattooga: A Lower Town Cherokee Village*. Report submitted to the United States Forest Service, Francis Marion and Sumter National Forests, South Carolina.

Howell, Cameron
2005 Overhill Pottery from the Townsend Site. Paper presented at the Cherokee Ceramics Workshop, Research Laboratories of Archaeology, University of North Carolina, Chapel Hill.

Hudson, Charles
2002 Introduction. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp. xi-xxxix. University Press of Mississippi, Jackson.

Huey, Paul R.
1983 Glass Trade Beads from Fort Orange, Albany, New York c. A.D. 1624-1676. In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by C.F. Hayes III, pp. 83-110. Research Records 16, Rochester Museum and Science Center, Rochester.

Hughes, Pryce
1713 Letter to the Dutchess of Ormond, October 15, 1713. In *Five Pryce Hughes Autograph Letters, Proposing a Welsh Colony*. South Caroliniana Library, University of South Carolina, Columbia.

Jenkins, Ned J.
1981 *Gainesville Lake Ceramic Description and Chronology. Archaeological Investigations in the Gainesville Lake Area of the Tennessee-Tombigbee Waterway*, Volume 2. Report of Investigations 12. Office of Archaeological Research, University of Alabama, Moundville.

Jeter, Marvin D.
2002 From Prehistory through Protohistory to Ethnohistory in and near the Northern Lower Mississippi Valley. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp. 177-223. University Press of Mississippi, Jackson.

Johnson, Nathaniel, Thomas Broughton, Robert Gibbs, George Smith, and Richard Beresford
1708 Census. Records in the British Public Record Office Relating to South Carolina, 1663-1717, Vol.2, pp. 203-209. Microfilm, Charleston County Public Library, Charleston.

Joyce, Arthur, and Sissel Johannessen
1993 Abandonment and the Production of Archaeological Variability at Domestic Sites. In *Abandonment of Settlements and Regions: Ethnoarchaeological and Archaeological Approaches,* edited by C. M. Cameron and S. A. Tomka, pp. 138–156. Cambridge University Press, Cambridge.

Joyce, Rosemary A., and Hendon, Julia A.
2000 Heterarchy, History, and Material Reality: “Communities” in Late Classic Honduras. In *The Archaeology of Communities: A New World Perspective*, edited by M.A. Canuto and J. Yaeger, pp. 143-160, Routledge, New York.

Karklins, Karlis
1985 Guide to the Description and Classification of Glass Beads. In *Glass Beads*, second edition, pp. 85-118. Studies in Archaeology, Architecture, and History, Parks Canada, Ottawa.

Kauffman, Henry J.
1994[1972] *American Axes: A Survey of their Development and their Makers*. Olde Springfield Shoppe, Elverson, Pennsylvania.

Keel, Bennie C.
1976 *Cherokee Archaeology: A Study of the Appalachian Summit*. University of Tennessee Press, Knoxville.

Kelly, Arthur R., and Clemens de Baillou
1960 Excavations of the Presumptive Site of Estatoe. *Southern Indian Studies* 12:3-30.

Kelly, Arthur R., Robert S. Neitzel
1961 *The Chauga Site in Oconee County, South Carolina*. University of Georgia, Laboratory of Archaeology Report 3, Athens.

Kelton, Paul
2002 The Great Southeastern Smallpox Epidemic, 1696-1700: The Region's First Major Epidemic. In *The Transformation of the Southeastern Indians*, edited by R. Ethridge and C. Hudson, pp. 21-37. University Press of Mississippi, Jackson.

Kendall, David G.
1971 Seriation from Abundance Matrices. In *Mathematics in the Archaeological and Historical Sciences*, edited by F.R. Hodson, David G. Kendall, and P. Tautu, pp. 215-252. Edinburgh University Press, Edinburgh.

Kent, Barry C.
1983 The Susquehanna Bead Sequence. In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by Charles F. Hayes III, pp. 75-82. Research Records 16, Rochester Museum and Science Center, Rochester.

Kenyon, Ian T., and Thomas Kenyon
1983 Comments on Seventeenth Century Glass Trade Beads from Ontario. In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by C.F. Hayes III, pp. 59-74. Research Records 16, Rochester Museum and Science Center, Rochester.

Kidd, Kenneth E., and Martha A. Kidd
1970 *A Classification for Glass Beads for the Use of Field Archaeologists.* Canadian Historic Sites: Occasional Papers in Archaeology and History 1:45-89. Ottowa.

King, Duane H.
1977 Vessel Morphology and Eighteenth-Century Overhill Ceramics. *Journal of Cherokee Studies* 2:154-169.

Kintigh, Keith W., and Albert Ammerman
1982 Heuristic Approaches to Spatial Analysis in Archaeology. *American Antiquity* 47:41-63.

Klinck, Carl F.
1970 Biographical Introduction. In *The Journal of Major John Norton, 1816*, edited by C.F. Klinck and J.J. Talman, pp. xiii-xcviii. The Champlain Society, Toronto.

Knight, Vernon James, Jr.
1985 *Tukabatchee: Archaeological Investigations at an Historic Creek Town, Elmore County, Alabama, 1984*. Report of Investigations 45. Office of Archaeological Research, Alabama State Museum of Natural History, University of Alabama, Tuscaloosa.
1994 The Formation of the Creeks. In *The Forgotten Centuries: Indians and European in the American South, 1521-1704*, edited by C. Hudson and C.C. Tesser, pp. 373-392. University of Georgia Press, Athens.

Koldehoff, Brad, and Joseph M. Galloy
2006 Late Woodland Frontiers in the American Bottom Region. *Southeastern Archaeology* 25:275-300.

Kowalewski, Stephen A.
2006 Coalescent Societies. In *Light on the Path: The Anthropology and History of the Southeastern Indians*, edited by T.J. Pluckhahn and R. Ethridge, pp. 94-122. University of Alabama Press, Tuscaloosa.

Krzyzewski, J.C., C. Ralph, and B. Spicer
1980 *Performance of Preservative-treated Fence Posts After 43 Years of Tests*. Eastern Forest Products Laboratory, Environment Canada. Report submitted to Forintek Canada Corp., Ottowa.

Lacquement, Cameron H.
2004 How to Build a Mississippian House: A Study of Domestic Architecture in West-Central Alabama. Unpublished Master's thesis. Department of Anthropology, University of Alabama, Tuscaloosa.

Latour, Bruno
1991 Technology is Society Made Durable. In *A Sociology of Monsters: Essays on Power, Technology and Domination,* edited by J. Law, pp. 103-131. Routledge, London.
1992 Where are the Missing Masses? Sociology of a Few Mundane Artefacts. In *Shaping Technology, Building Society: Studies in Sociotechnical Change*, edited by W. Bijker and J. Law, pp. 225-258. MIT Press, Cambridge.
1999 On Recalling ANT. In *Actor Network and After*, edited by J. Law and J. Hassard, pp. 15-25. Blackwell and the Sociological Review, Oxford.
2005 *Reassembling the Social: An Introduction to Actor-Network-Theory.* Oxford University Press, Oxford.

Law, John
1999 After ANT: Topology, Naming and Complexity. In *Actor Network Theory and After*, edited by J. Law and J. Hassard, pp. 1-14. Blackwell and the Sociological Review, Oxford and Keele.

Law, Robin
1992 Warfare on the West African Slave Coast, 1650-1850. In *War in the Tribal Zone: Expanding States and Indigenous Warfare*, edited by R.B. Ferguson and N.L. Whitehead, pp.103-126. School of American Research Press, Santa Fe.

Lee, Wayne E.
2004 Fortify, Fight, or Flee: Tuscarora and Cherokee Defensive Warfare and Military Culture Adaptation. *The Journal of Military History* 68:713-770.

LeeDecker, Charles H.
1994 Discard Behavior on Domestic Historic Sites: Evaluation of Contexts for the Interpretation of Household Consumptions Patterns. *Journal of Archaeological Method and Theory* 1:345–375.

Lefebvre, Henri
1991 *The Production of Space*. Basil Blackwell, Oxford.

Le Jau, Francis
1956[1708] Letter to the Secretary, April 22, 1708. In *The Carolina Chronicle of Dr. Francis Le Jau, 1706-1717*, University of California Publications in History Vol. 53, edited by F.J. Klingberg, pp. 37-41, University of California Press, Berkley.
1956[1713] Letter to the Secretary, August 10, 1713. In *The Carolina Chronicle of Dr. Francis Le Jau, 1706-1717*, University of California Publications in History Vol. 53, edited by F.J. Klingberg, pp. 132-135, University of California Press, Berkley.
1956[1715]a Letter to the Secretary, October 3, 1715. In *The Carolina Chronicle of Dr. Francis Le Jau, 1706-1717*, University of California Publications in History Vol. 53, edited by F.J. Klingberg, pp. 165-168, University of California Press, Berkley.
1956[1715]b Letter to the Secretary, November 28, 1715. In *The Carolina Chronicle of Dr. Francis Le Jau, 1706-1717*, University of California Publications in History Vol. 53, edited by F.J. Klingberg, pp. 169-171, University of California Press, Berkley.

Lemonnier, Pierre
1993 Introduction. In *Technical Choices: Transformation in Material Cultures Since the Neolithic*, edited by P. Lemonnier, pp.1-35. Routledge Press, London.

Lengyel, Stacey N.
2004 Archaeomagnetic Research in the U.S. Midcontinent. Unpublished Ph.D. dissertation, Department of Anthropology, University of Arizona, Tucson.

Lewis, Thomas M. N., and Madeline D. Kneberg
1946 *Hiwassee Island: An Archaeological Account of Four Tennessee Indian Peoples*. University of Tennessee Press, Knoxville.
1995 *The Prehistory of the Chickamauga Basin*. University of Tennessee Press, Knoxville.

Lightfoot, Kent G.
2005 *Indians, Missionaries, and Merchants: The Legacy of Colonial Encounters on the California Frontiers.* University of California Press, Berkley.

Lightfoot, Kent G., Antoinette Martinez, and Ann M. Schiff
1998 Daily Practice and Material Culture in Pluralistic Social Settings: An Archaeological Study of Culture Change and Persistence from Fort Ross, California. *American Antiquity* 63:199-222.

Lincoln, Bruce
1989 *Discourse and the Construction of Society: Comparative Studies of Myth, Ritual, and Classification*. Oxford University Press, New York.

Long, Alexander
1969[1725] "A Small Postscript on the ways and maners of the Indians called Cherikees." Southeastern Indian Studies 21:5-49.

Low, Setha M., and Denise Lawrence Zúñiga
2003 Locating Culture. In *The Anthropology of Space and Place: Locating Culture*, edited by S.M. Low and D. Zúñiga, pp. 1-48. Blackwell, Oxford.

Lyman, R. Lee, Michael J. O'Brien, and Robert C. Dunnell
1997 *The Rise and Fall of Culture History*. Plenum Press, New York.

McDowell, William L., Jr., editor
1992 *Journals of the Commissioners of the Indian Trade, September 20-1710-August 29, 1718*. South Carolina Department of Archives and History, Columbia.

McEwan, Bonnie G. (editor)
1993 *The Spanish Missions of La Florida*. University Press of Florida, Gainesville.

McGill, Robert, John W. Tukey, and Wayne A. Larsen
1978 Variations of Box plots. *The American Statistician* 32:12–16.

McIntosh, Roderick J.
1974 Archaeology and Mud Wall Decay in a West African Village. *World Archaeology* 6:154–171.

McKern, William C.
1939 The Midwestern Taxonomic Method as an Aid to Archaeological Culture Study. *American Antiquity* 4:301-313.
1943 Regarding Midwestern Archaeological Taxonomy. *American Anthropologist* 45:313-315.

MacLean, J. D.
1926 Service Tests on Treated and Untreated Fence Posts. Proceedings of the American Wood-Preservers' Association , pp. 401-423.

McNutt, Charles H.
2005 Seriation: Classic Problems and Multivariate Applications. *Southeastern Archaeology* 24:209-222.

Madsen, Torsten
1988 Multivariate Statistics and Archaeology. In *Multivariate Archaeology: Numerical Approaches in Scandinavian Archaeology*, edited by T. Madsen, pp. 7-27. Aarhus University Press, Aarhus.

Mainfort, Robert C., Jr.
2005 A K-Means Analysis of Late Period Ceramic Variation in the Central Mississippi Valley. *Southeastern Archaeology* 24:59-69.

Malone, Patrick M.
1991 *The Skulking Way of War: Technology and Tactics among the New England Indians.* Madison Press, Toronto.

Martin, Joel W.
1994 Southeastern Indians and the English Trade in Skins and Slaves. In *The Forgotten Centuries: Indians and Europeans in the American South, 1521-1704*, edited by C. Hudson and C. C. Tesser, pp. 304-324. University of Georgia Press, Athens.

Mathew, A.J., A.J. Woods, and C. Oliver
1997 Spots Before the Eyes: New Comparison Charts for Visual Percentage Estimation in Archaeological Material. In *Recent Developments in Ceramic Petrology,* Occasional Paper No.81, edited by A. Middleton and I. Freestone, pp. 211-263. British Museum, London.

Merrell, John H.
1989a The Indians' New World: Catawbas and Their Neighbors From European Contact Through the Era of Removal. University of North Carolina Press, Chapel Hill.
1989b "Our Bond of Peace": Patterns of Intercultural Exchange in the Carolina Piedmont, 1650-1750. In *Powhatan's Mantle: Indians in the Colonial Southeast,* edited by P.H. Wood, G.A. Waselkov, and M.T. Hatley, pp.196-222. University of Nebraska Press, Lincoln.

Milner, George R.
1980 Epidemic Disease in the Postcontact Southeast: A Reappraisal. *Midcontinental Journal of Archaeology* 5:39-56.

Mooney, James
1889 Cherokee Mound Building. *American Anthropologist* 2:167-171
1900 *Myths of the Cherokee*. Smithsonian Institution, Bureau of American Ethnology Annual Report 19:1-576, Washington, D. C.

Moore, Alexander
1988 Introduction. In *Nairne's Muskhogean Journals: The 1708 Expedition to the Mississippi River*, edited by A. Moore, pp. 1-31. University Press of Mississippi, Jackson.

Morris, Ernest
1959 *Tintinnabula: Small Bells*. Robert Hale, London.

Moore, Jerry D., and Janine Gasco
1990 Perishable Structures and Serial Dwellings from Coastal Chiapas. *Ancient Mesoamerica* 1:205–212.

Muller, John
1997 *Mississippian Political Economy*. Plenum Press, New York.

Myer, William E.
1928 *Indian Trails of the Southeast*. Smithsonian Institution, Bureau of American Ethnology Annual Report 42, Washington, D. C.

Nairne, Thomas
1988[1708] Thomas Nairne's Memorial to Charles Spencer, Earl of Sunderland. In *Nairne's Muskhogean Journals: The 1708 Expedition to the Mississippi River*, edited by A. Moore, pp. 73-79. University Press of Mississippi, Jackson.

1989[1710] A Letter from South Carolina. In *Selling a New World: Two Colonial South Carolina Promotional Pamphlets*, edited by J.P. Greene, pp.33-76. University of South Carolina Press, Columbia.

Nash, R.C.
2001 The Organization of Trade and Finance in the Atlantic Economy: Britain and South Carolina, 1670-1775. In *Money, Trade, and Power: The Evolution of Colonial South Carolina's Plantation Society,* edited by J.P. Greene, R. Brana-Shute, and R.J. Sparks, pp.74-107. University of South Carolina Press, Columbia.

Newman, Robert D.
1986 Euro-American Artifacts. In *Overhill Cherokee Archaeology at Chota-Tanasee*. Report of Investigations 38, by Gerald F. Schroedl, pp. 415-468. Department of Anthropology, University of Tennessee, Knoxville.

Noël Hume, Ivor
1969 *A Guide to Artifacts of Colonial America*. Vintage Books, New York.

Norris, John
1989[1712] Profitable Advice for Rich and Poor. In *Selling a New World: Two Colonial South Carolina Promotional Pamphlets*, edited by J.P. Greene, pp.77-147. University of South Carolina Press, Columbia.

Norton, John
1970[1816] Journal. In *The Journal of Major John Norton, 1816*, edited by C.F. Klinck and J.J. Talman, pp. 1-370. The Champlain Society, Toronto.

Norval, Aletta J.
1996 Thinking Identities: Against a Theory of Ethnicity. In *The Politics of Difference: Ethnic Premises in a World of Power*, edited by E.N. Wilmsen and P. McAllister, pp. 59-70. University of Chicago Press, Chicago.

Oatis, Steven J.
2004 *A Colonial Complex: South Carolina's Frontiers in the Era of the Yamasee War, 1680-1730*. University of Nebraska Press, Lincoln.

Orton, Clive, Paul Tyers, and Alan Vince
1993 *Pottery in Archaeology*. Cambridge University Press, Cambridge.

Pauketat, Timothy R.
1989 Monitoring Mississippian Homestead Occupation Span and Economy Using Ceramic Refuse. *American Antiquity* 54:288-310.
2000a Politicization and Community in the Pre-Columbian Mississippi Valley. In *The Archaeology of Communities: A New World Perspective*, edited by M.A. Canuto and J. Yaeger, pp. 16-43, Routledge, New York.
2000b The Tragedy of the Commoners. In *Agency in Archaeology*, edited by M. Dobres and J.E. Robb, pp.113-129. Routledge, London.
2001 A New Tradition in Archaeology. In *The Archaeology of Traditions: Agency and History Before and After Columbus*, edited by T.R. Pauketat, pp.1-16, University Press of Florida, Gainesville.
2003 Resettled Farmers and the Making of a Mississippian Polity. *American Antiquity* 68(1):39-66.

Payne, John H.
n.d. *Traditions and History of the Cherokee Indians to 1776*, Vol. III. Unpublished Microfilm on file at the Davis Library, University of North Carolina, Chapel Hill.

Pennington, Edgar L.
1931 The South Carolina Indian War of 1715, as Seen by the Clergymen. *South Carolina Historical and Genealogical Magazine* 32(4):251-269.

Perdue, Theda
1998 *Cherokee Women: Gender and Culture Change, 1700-1835*. University of Nebraska Press, Lincoln.

Perttula, Timothy K.
2002 Social Changes among the Caddo Indians in the Sixteenth and Seventeenth Centuries. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp. 249-270. University Press of Mississippi, Jackson.

Phillips, Phillip, James A. Ford, and James B. Griffin
1951 *Archaeological Survey in the Lower Mississippi Alluvial Valley, 1940-1947*. Peabody Museum Papers Vol. 25. Harvard University, Cambridge.

Piker, Joshua
2004 *Okfuskee: A Creek Indian Town in Colonial America*. Harvard University Press, Cambridge.

Pluckhahn, Thomas J.
1996 Beads, Pendants, and Buttons from Early Historic Creek Contexts at the Tarver Sites, Georgia. *Beads* 8-9:45-66.
1997 *Archaeological Investigation of the Tarver (9Jo6) and Little Tarver (9Jo198) Sites, Jones County, Georgia*. Southeastern Archaeological Service, Inc., Report submitted to Federal Emergency Management Agency.

Polhemus, Richard, editor
1987 *The Toqua Site: A Late Mississippian Dallas Phase Town*. Report of Investigations No. 41. Department of Anthropology, University of Tennessee, Knoxville.

Polhemus, Richard
1983 Tennessee Bead Seriation (Abstract). In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by C.F. Hayes III, pp.145. Research Records 16, Rochester Museum and Science Center, Rochester, New York.
1985 Beads from Santa Elena (1984 season). In *Excavation of the Casa Fuerte and Wells of Ft. San Felipe, 1984*, Research Manuscript Series No. 196, by S.A. South, pp.145-155. South Carolina Institute of Archaeology and Anthropology, Columbia.
1990 Dallas Phase Architecture and Sociopolitical Structure. In *Lamar Archaeology: Mississippian Chiefdoms of the Deep South*, edited by M. Williams and G. Shapiro, pp. 125-138. University of Alabama Press, Tuscaloosa.

Price, F.G. Hilton
1908 *Old Base Metal Spoons with Illustrations and Marks*. Society of Antiquaries, London.

Purslow, D.F.
1976 *Results of Field Tests on the Natural Durability of Timber (1932-1975)*. Building Research Establishment Current Paper 6/76. Department of the Environment, London.

Puype, Jan P.
1985 Dutch and other Flintlocks from Seventeenth Century Iroquois Sites. In *Proceedings of the 1984 Trade Gun Conference*, edited by C.F. Hayes III and J.P. Puype, pp. 1-119. Research Records 18, Part I, Rochester Museum and Science Center, Rochester.

Ramsey, James G.M.
1999[1853] *The Annals of Tennessee to the End of the Eighteenth Century*. Overmountain Press, Johnson City, Tennessee.

Ramsey, William L.
2001 "All & Singular the Slaves": A Demographic Profile of Slavery in Colonial South Carolina. In *Money, Trade, and Power: The Evolution of Colonial South Carolina's Plantation Society*, edited by J.P. Greene, R. Brana-Shute, and R.J. Sparks, pp.166-186. University of South Carolina Press, Columbia.
2003 "Something Cloudy in Their Looks": The Origins of the Yamasee War Reconsidered. *The Journal of American History* 90:44-75.

Reid, John P.
1976 *A Better Kind of Hatchet: Law, Trade, and Diplomacy in the Cherokee Nation during the Early Years of European Contact*. Pennsylvania State University Press, University Park.

Riggs, Brett H.
1989 Ethnohistorical and Archaeological Dimensions of Early Nineteenth-Century Cherokee Intrahousehold Variation. In *Households and Communities*, edited by S. MacEachern, D. Archer, and R. Garvin, pp. 328-338. Archaeological Association of the University of Calgary, Proceedings of the Chacmool Conference 21, Calgary.
1999 Removal Period Cherokee Households in Southwestern North Carolina: Material Perspectives on Ethnicity and Cultural Differentiation. Unpublished Ph.D. dissertation, Department of Anthropology, University of Tennessee, Knoxville.
2009 Chestowee Reconsidered. In "*One of the Other Nations": Yuchi Indian Histories Before the Removal Era*, edited by J.B. Jackson. University of Nebraska Press, Lincoln, in press.

Riggs, Brett H., and Christopher B. Rodning
2002 Cherokee Ceramic Traditions of Southwestern North Carolina. *North Carolina Archaeology* 51:34-54.

Riggs, Brett H., M. Scott Shumate, and Patti Evans-Shumate
1997 *Archaeological Data Recovery at Site 31JK291, Jackson County, North Carolina*. Report submitted to the Eastern Band of Cherokee Indians, Office of Cultural Resources, Cherokee, North Carolina.

Rodd, Charles

1928[1715] Letter to a Gentleman, May 8, 1715. In *Calendar of State Papers, Colonial Series, America and West Indies, August 1714-December 1715*, Vol. 28, edited by C. Headlam, pp. 166-169. Public Record Office, London.

Rodning, Christopher B.

2002 Reconstructing the Coalescence of Cherokee Communities in Southern Appalachia. In *The Transformation of the Southeastern Indians, 1540-1760,* edited by R. Ethridge and C. Hudson, pp. 155-176. University Press of Mississippi, Jackson.

2004 The Cherokee Town at Coweeta Creek. Unpublished Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

2007 Building and Rebuilding Cherokee Houses and Townhouses in Southwestern North Carolina. In *The Durable House: Architecture, Ancestors, and Origins*, edited by R.A. Beck, Jr., pp. 464-484. Southern Illinois University, Center for Archaeological Investigations Occasional Paper 35, Carbondale.

Romenofsky, Ann F.

1987 *Vectors of Death*. University of New Mexico Press, Albuquerque.

Roosens, Eugene E.

1989 *Creating Ethnicity: The Process of Ethnogenesis*. Sage, London.

Rothrock, Mary U.

1929 Carolina Traders Among the Overhill Cherokees, 1690-1760. *The East Tennessee Historical Society's Publications* No.1, Knoxville.

Rountree, Helen C.

2002 Trouble Coming Southward: Emanations through and from Virginia, 1607-1675. In *The Transformation of the Southeastern Indians, 1540-1760,* edited by R. Ethridge and C. Hudson, pp. 65-78. University Press of Mississippi, Jackson.

Rubertone, Patricia E.

2001 *Grave Undertakings: An Archaeology of Roger Williams and the Narragansett Indians*. Smithsonian Institution Press, Washington D.C.

Rumrill, Donald A

1991 The Mohawk Glass Trade Bead Chronology: ca. 1560 - 1785. *Beads* 3:5-46.

Russ, Kurt C., and Jefferson Chapman

1983 *Archaeological Investigations at the Eighteenth Century Overhill Cherokee Town of Mialoquo*. Report of Investigations 37. University of Tennessee, Department of Anthropology, Knoxville.

Salamone, Frank A., and Charles H. Swanson
1979 Identity and Ethnicity: Ethnic Groups and Interactions in a Multi-ethnic Society. *Ethnic Groups* 2:167-183.

Scarry, John, F.
1995 Apalachee Homesteads: The Basal Social and Economic Units of a Mississippian Chiefdom. In *Mississippian Communities and Households*, edited by J. D. Rogers and B. D. Smith, pp. 201-223. University of Alabama Press, Tuscaloosa.

Schiffer, Michael B.
1972 Archaeological Context and Systemic Context. *American Antiquity* 37:156-165.
1987 *Formation Processes of the Archaeological Record.* University of New Mexico Press, Albuquerque.

Schroedl, Gerald F. (editor)
1986a *Overhill Cherokee Archaeology at Chota-Tanasee*. University of Tennessee, Department of Anthropology Report of Investigations 38, Knoxville.

Schroedl, Gerald F.
1986b Toward an Explanation of Cherokee Origins in East Tennessee. In *The Conference on Cherokee Prehistory*, compiled by D.G. Moore, pp. 122-138. Warren Wilson College, Swannanoa, North Carolina.
1989 Overhill Cherokee Household and Village Patterns in the Eighteenth Century. In *Households and Communities*, edited by S. MacEachern, D. Archer, and R. Garvin, pp. 350-360. Archaeological Association of the University of Calgary, Proceedings of the Chacmool Conference 21, Calgary.
1994 *A Summary of Archaeological Studies Conducted at the Chattooga Site*, *Oconee County, South Carolina*. Report submitted to the United States Forest Service, Francis Marion and Sumter National Forests, South Carolina.
2000 Cherokee Ethnohistory and Archaeology from 1540 to 1838. In *Indians of the Greater Southeast: Historical Archaeology and Ethnohistory*, edited by B. G. McEwan, pp. 204-241. University Press of Florida, Gainesville.

Schroedl, Gerald F., and Emmanuel Breitburg
1986 Burials. In *Overhill Cherokee Archaeology at Chota-Tanasee*. Report of Investigations 38, edited by G.F. Schroedl, pp. 125-215. Department of Anthropology, University of Tennessee, Knoxville.

Setzler, Frank M., and Jessie D. Jennings
1941 *Peachtree Mound and Village Site, Cherokee County, North Carolina*. Smithsonian Institution, Bureau of American Ethnology Bulletin 131, Washington, D. C.

Shapiro, Gary
1984 Ceramic Vessels, Site Permanence, and Group Size: A Mississippian Example. *American Antiquity* 49:696-712.

Shennan, Stephen
1997 *Quantifying Archaeology*. Second Edition. University of Iowa Press, Iowa City.

Shumate, M. Scott, Brett H. Riggs, and Larry R. Kimball
2005 *The Alarka Farmstead Site: The Archaeology of a Mid-Seventeenth-Century Cherokee Winter House/Summer House Complex, Swain County, North Carolina*. Report submitted to National Forests in North Carolina, Appalachian State University Laboratories of Archaeological Science, Boone.

Shumway, George
1985 English Pattern Trade Rifles. In *Proceedings of the 1984 Trade Gun Conference,* edited by C.F. Hayes III and J.P. Puype, pp. 11-50. Research Records 18, Part II, Rochester Museum and Science Center, Rochester.

Simmons, William S.
1970 *Cautantowwit's House: An Indian Burial Ground on the Island of Conanicut in Narragansett Bay*. Brown University Press, Providence, Rhode Island.

Sinclair, Anthony
2000 Constellations of Knowledge: Human Agency and Material Affordance in Lithic Technology. In *Agency in Archaeology*, edited by M. Dobres and J.E. Robb, pp.196-212. Routledge, London.

Skowronek, Russell K.
1991 *Return to Peachtree: A Catalogue of Amateur Surface Collections from Cherokee and Clay Counties, North Carolina.* Report submitted to the North Carolina Department of Cultural Resources, Raleigh.

Smith, Betty A.
1979 Distribution of Eighteenth-Century Cherokee Settlements. In *The Cherokee Indian Nation: A Troubled History*, edited by D. H. King, pp. 46-60. University of Tennessee Press, Knoxville.

Smith, Bruce, D.
1995 The Analysis of Single-Household Mississippian Settlements. In *Mississippian Communities and Households*, edited by J. D. Rogers and B. D. Smith, pp. 224-249. University of Alabama Press, Tuscaloosa.

Smith, Marvin T.
1982 "Eye" Beads in the Southeast. *The Conference on Historic Site Archaeology Papers 1979* 14:116-127.
1983 Chronology from Glass Beads: The Spanish Period in the Southeast, c.A.D. 1513-1670. In *Proceedings of the 1982 Glass Trade Bead Conference,* edited by C.F. Hayes III, pp. 147-158. Research Records 16, Rochester Museum and Science Center, Rochester.

1987 *The Archaeology of Aboriginal Culture Change: Depopulation During the Early Historic Period*. University Press of Florida, Gainesville.

1989 Aboriginal Population Movements in the Early Historic Period Interior Southeast. In *Powhatan's Mantle: Indians in the Colonial Southeast*, edited by P.H. Wood, G.A. Waselkov, and M.T. Hatley, pp. 20-34, University of Nebraska Press, Lincoln.

1991 Glass Beads From Mount Pleasant. In *Ye Pleasant Mount: 1989 & 1990 Excavations*. Publication 11, edited by D.T. Elliot, pp. 120-126. LAMAR Institute, Watkinsville.

1992 Glass Beads from the Council House at San Luis. *Florida Archaeology* 6:107-118.

1994 Aboriginal Depopulation in the Postcontact Southeast. In *The Forgotten Centuries: Indians and European in the American South, 1521-1704*, edited by C. Hudson and C.C. Tesser, pp. 257-275. University of Georgia Press, Athens.

2001 *Glass Beads from Charles Towne Landing (31Ch1a).* In *Exploring 1670 Charles Towne (38Ch1a): Final Archaeology Report.* Research Manuscript Series No. 230, by M.J. Stoner and S.A. South, pp. 104-115. South Carolina Institute of Archaeology and Anthropology, Columbia

2002a Aboriginal Population Movements in the Postcontact Southeast. In *The Transformation of the Southeastern Indians, 1540-1760*, edited by R. Ethridge and C. Hudson, pp. 155-176. University Press of Mississippi, Jackson.

2002b Eighteenth-Century Glass Beads in the French Colonial Trade. *Historical Archaeology* 36:55-61.

n.d. European Artifacts from the Plum Grove Site, 40Wg17. Manuscript on file Department of Anthropology, Valdosta State University, Valdosta, Georgia.

Smith, Marvin T., and Mary E. Good

1982 *Early Sixteenth Century Glass Beads in the Spanish Colonial Trade.* Cottonlandia Museum Publications, Greenwood.

Smith, Marvin A., Mark Williams, Chester B. DePratter, Marshall Williams, and Mike Harmon

1988 *Archaeological Investigations at Tomassee (38OC186) a Lower Cherokee Town*, Research Manuscript Series 206, Institute of Archeology and Anthropology, University of South Carolina, Columbia.

Southworth, Scott, Art Schultz, and Danielle Denenny

2005 *Geologic Map of the Great Smoky Mountains National Park Region, Tennessee and North Carolina*. Open file report submitted to the National Park Service. Electronic document, http://pubs.usgs.gov/of/2005/1225/OF05_1225_report.pdf, accessed July 12, 2008.

Stark, Miriam T.

1998 Technical Choices and Social Boundaries in Material Culture Patterning: An Introduction. In *The Archaeology of Social Boundaries*, edited by M.T. Stark, pp. 1-11. Smithsonian Institution Press, Washington, D.C.

Steponaitis, Vincas P.
1983 *Ceramics, Chronology, and Community Patterns: An Archaeological Study at Moundville*. Academic Press, New York.

Stevenson, Marc G.
1982 Toward an Understanding of Site Abandonment Behavior: Evidence from Historic Mining Camps in the Southwest Yukon. *Journal of Anthropological Archaeology* 1:237–265.

Stewart, John
1931[1690] Letter to William Dunlop, April 27, 1690. *South Carolina Historical and Genealogical Magazine* 32(1):1-33.

Stone, Glenn Davis
1993 Agricultural Abandonment: A Comparative Study of Historical Ecology. In *Abandonment of Settlements and Regions: Ethnoarchaeological and Archaeological Approaches*, edited by C. M. Cameron and S. A. Tomka, pp. 74–81. Cambridge University Press, Cambridge.

Stone, Lyle M.
1974 *Fort Michilmackinac: 1715 - 1781, An Archaeological Perspective on the Revolutionary Frontier*. Publications of the Museum Anthropological Series No. 2. Michigan State University, East Lansing.

Sullivan, Lynne P.
1989 Household, Community, and Society: An Analysis of Mouse Creek Settlements. In *Households and Communities*, edited by S. MacEachern, D. Archer, and R. Garvin, pp. 317-327. Archaeological Association of the University of Calgary, Proceedings of the Chacmool Conference 21, Calgary.
1995 Mississippian Community and Household Organization in Eastern Tennessee. In *Mississippian Communities and Households*, edited by J. D. Rogers and B. D. Smith, pp. 99-123. University of Alabama Press, Tuscaloosa.

Swanton, John R.
1928 *Social Organization and Social Usages of the Indians of the Creek Confederacy*. Smithsonian Institution, Bureau of American Ethnology Annual Report 42, Washington, D. C.
1930 The Kaskinampo Indians and Their Neighbors. *American Anthropologist* 32(3):405-418.
1998 *Early History of the Creek Indians and Their Neighbors*. University Press of Florida, Gainesville.

Thomas, Cyrus
1894 *Report on the Mound Explorations of the Bureau of Ethnology*. Smithsonian Institution, Bureau of Ethnology Annual Report 12:3-730, Washington, D. C.

Timberlake, Henry
2001[1762] Memoirs. In *The Memoirs of Lieutenant Henry Timberlake*. edited by S.C. Williams pp.22-175. Mountain Press, Signal Mountain, Tennessee.

Tukey, John W.
1977 *Exploratory Data Analysis.* Addison-Wesley, Reading, Massachusetts.

Turbyfill, Charles O.
1927 Work Done in Western North Carolina during the Summer of 1926. Manuscript on file, Archives of the National Museum of the American Indian, Washington, D.C.

Turnbaugh, William A.
1984 *The Material Culture of RI 1000, a Mid-17th Century Burial Site in North Kingstown, Rhode Island*. University of Rhode Island Press, Kingston.

Usner, Daniel, Jr.
1992 *Indians, Settlers, and Slaves in a Frontier Exchange Economy*. University of North Carolina Press, Chapel Hill.

van der Leeuw, Sander
1993 Giving the Potter a Choice. In *Choices: Transformation in Material Cultures Since the Neolithic*, edited by P. Lemonnier, pp.238-288. Routledge Press, London.

VanDerwarker, Amber M., and Kandace R. Detwiler
2000 Plant and Animal Subsistence at the Coweeta Creek Site, Macon County, North Carolina. *North Carolina Archaeology* 49:59-77.
2002 Gendered Practice in Cherokee Foodways: A Spatial Analysis of Plant Remains from the Coweeta Creek Site. *Southeastern Archaeology* 21:21-28.

Varien, Mark D., and Barbara J. Mills
1997 Accumulation Research: Problems and Prospects. *Journal of Archaeological Method and Theory* 4:141–191.

Varien, Mark D., and James M. Potter
1997 Unpacking the Discard Equation: Simulating the Accumulation of Artifacts in the Archaeological Record. *American Antiquity* 62 (2):194–213.

Varnod, Francis
1971[1721] A True and Exact Account of the Number of Names of All the Towns Belonging to the Cherrikee Nation. In *The Ohio Valley in Colonial Days,* edited by B. Fernow, pp. 273-275. Burt Franklin, New York.

Vassar, Rena
1961 Some Short Remarkes on the Indian Trade in the Charikees and in Management thereof since the Year 1717. *Ethnohistory* 8(4):401-423.

Velleman, Paul F., and David C. Hoaglin
1981 *Applications, Basics, and Computing of Exploratory Data Analysis.* Duxbury Press, Boston.

Victoria & Albert Museum
1927 *A Picture Book of English Silver Spoons*. Victoria & Albert Museum, London.

Walker, Renee B.
1995 Faunal Remains from the Chattooga Site (38Oc18), Oconee County, South Carolina. Ms. on file, Department of Anthropology, University of Tennessee, Knoxville.

Ward, H. Trawick
1985 Social Implications of Storage and Disposal Patterns. In *Structure and Process in Southeastern Archaeology*, edited by R.S. Dickens, Jr. and H.T. Ward, pp.82-101. University of Alabama Press, Tuscaloosa.

Ward, H. Trawick, and R. P. Stephen Davis, Jr.
1991 The Impact of Old World Diseases on the Native Inhabitants of the North Carolina Piedmont. *Archaeology of Eastern North America* 19:171-181.
1993 *Indian Communities on the North Carolina Piedmont, A.D. 1000 to 1700*. Monograph No. 2, Research Laboratories of Anthropology, University of North Carolina, Chapel Hill.
1999 *Time Before History: The Archaeology of North Carolina*. University of North Carolina Press, Chapel Hill.
2001 Tribes and Traders: Contact and Change on the North Carolina Piedmont. In *Societies in Eclipse: Eastern North America at the Dawn of Civilization*, edited by D. Brose and R. Mainfort, pp. 125-142. Smithsonian Institution Press, Washington, D.C.

Warrick, Gary A.
1988 Estimating Ontario Iroquoian Village Duration. *Man in the Northeast* 36:21-60.

Waselkov, Gregory A.
1989 Seventeenth-Century Trade in the Colonial Southeast. *Southeastern Archaeology* 8:117-133.
1990 Historic Creek Architectural Adaptations to the Deerskin Trade. In *Archaeological Excavations at the Early Historic Creek Indian Town of Fusihatchee (Phase 1, 1988-1989)*, by G.A. Waselkov, J.W. Cottier, and C.T. Sheldon, Jr., pp. 39-44. Report submitted to the National Science Foundation, Washington, D.C.

1993	Historic Creek Indian Responses to European Trade and the Rise of Political Factions. In *Ethnohistory and Archaeology: Approaches to Postcontact Change in the Americas*, edited by J. D. Rogers and S. M. Wilson, pp. 123-131. Plenum Press, New York.
1994	The Macon Trading House and Early European-Indian Contact in the Colonial Southeast. In *Ocmulgee Archaeology, 1936-1986*, edited by D.J. Hally, pp. 190-196. University of Georgia Press, Athens.
1998	The Eighteenth-Century Anglo-Indian Trade in Southeastern North America. In *New Faces of the Fur Trade: Selected Papers from the Seventh North American Fur Trade Conference, Halifax, Nova Scotia, 1995*, edited by J. Fiske, S. Sleeper Smith, W. Wicken, pp. 193-222. Michigan State University Press, East Lansing.

Watanbe, John M.
1992	*Maya Saints and Souls in a Changing World*. University of Texas Press, Austin.

Webb, William S.
1939	*An Archaeological Survey of the Wheeler Basin on the Tennessee River in Northern Alabama*. Bureau of American Ethnology Bulletin 122. Washington D.C.: Smithsonian Institution.

Webb, William S., and David L. DeJarnette
1942	*An Archaeological Survey of Pickwick Basin in Adjacent Portions of the States Alabama, Mississippi, and Tennessee*, Bureau of American Ethnology Bulletin 129. Washington D.C.: Smithsonian Institution.

Wesson, Cameron B.
1999	Chiefly Power and Food Storage in Southeastern North America. *World Archaeology* 31:145-164.
2008	*Households and Hegemony: Early Creek Prestige Goods, Symbolic Capital, and Social Power*. University of Nebraska Press, Lincoln.

Wilk, Richard R., and Robert M. Netting
1984	Households Changing Form and Function. In *Households: Comparative and Historical Studies of the Domestic Group,* edited by R. McC. Netting, R. R. Wilk, and E. J. Arnould, pp. 1–28. University of California Press, Berkeley.

Wilk, Richard R., and William L. Rathje
1982	Household Archaeology. *American Behavioral Scientist* 6:617–639.

Williams, Mark
2004	*Nacoochee Revisited*. LAMAR Institute Publication 72, Department of Anthropology, University of Georgia, Athens.

Williams, Samuel C., editor
1928	*Early Travels in the Tennessee Country, 1540-1800*. Watauga Press, Johnson City, Tennessee.

Wilson, Gregory D.
2005 Between Plaza and Palisade: Household and Community Organization at Early Moundville. Unpublished Ph.D. dissertation, Department of Anthropology, University of North Carolina, Chapel Hill.

Wilson, Gregory D., and Christopher B. Rodning
2002 Boiling, Baking, and Pottery Breaking: A Functional Analysis of Ceramic Vessels from Coweeta Creek. *Southeastern Archaeology* 21:29-35.

Wolf, Eric R.
1982 *Europe and the People without History*. University of California Press, Berkley.

Wood, Peter H.
1989 The Changing Population of the Colonial South: An Overview by Race and Region, 1685-1790. In *Powhatan's Mantle: Indians in the Colonial Southeast.* edited by P.H. Wood, G.A. Waselkov, and M.T. Hatley, pp.35-103. University of Nebraska Press, Lincoln.

Woodward, Henry
1911[1674] A Faithful Relation of my Westoe Voyage. In *Narratives of Early Carolina, 1650-1708*, edited by A.S. Salley, Jr., pp. 125-134. Charles Scribner's Sons, New York.

Worth, John E.
1995 *The Struggle for the Georgia Coast: An Eighteenth-Century Spanish Retrospective on Guale and Mocama.* Anthropological Papers No.75. American Museum of Natural History, New York.
2006 Bridging Prehistory and History in the Southeast: Evaluating the Utility of the Acculturation Concept. In *Light on the Path: The Anthropology and History of the Southeastern Indians*, edited by T.J. Pluckhahn and R. Ethridge, pp. 196-206. University of Alabama Press, Tuscaloosa.

Wray, Charles F.
1983 Seneca Glass Trade Beads, c.A.D. 1550 - 1820. In *Proceedings of the 1982 Glass Trade Bead Conference*, edited by C.F. Hayes III, pp. 41-50. Research Records 16, Rochester Museum and Science Center, Rochester.

Yaeger, Jason, and Canuto, Marcello A.
2000 Introducing an Archaeology of Communities. In *The Archaeology of Communities: A New World Perspective*, edited by M.A. Canuto and J. Yaeger, pp. 1-15, Routledge, New York.